

**Catalogue of the Cerambycidae (Coleoptera) of Canada and United States of  
America. Part III. Subfamily Cerambycinae**

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**Catalogue of the Cerambycidae (Coleoptera) of Canada and United States of America. Part I. Subfamily Cerambycinae.**

This catalogue is an attempt to offer the names, the geographical distribution and bibliographic references for extant taxa of Cerambycidae from Canada and United States of America.

All informations of the present catalogue were previously published, there is not unpublished data. The geographical distribution of the extant families and subfamilies is based on previously published records.

In each subfamily, tribes are listed in alphabetical order, and in each tribe genera and species follow the same order. Each species-group name is followed by author (s), publication year, page, and figure (if any), acronym of the institution depository of the type, host plants and host flowers (when available) and when not strictly taxonomical, an abbreviated indication of the matter is given as:

ab. - aberration  
 biol. - biological data  
 cat. - catalogue  
 distr. - geographical distribution  
 ecol. - ecological data  
 emend. - emendation  
*et al.*, - more than four authors  
 lect. - lectotype (designation)  
 m. - morpho  
 mim. - mimetism  
 paras. - parasites  
 pherom. - pheromones  
 pred. - predators  
 refs - bibliographic references  
 rev. - revision  
 reval. - revalidation  
 syn. - synonymy  
 var. - variety

Acronyms of the institutions or private collections mentioned in the Part I of the catalogue:

AMNH - American Museum of Natural History, New York City, New York, United States.

ANSP - Academy of Natural Sciences, Philadelphia, Pennsylvania, United States.

BMNH - The Natural History Museum, London, United Kingdom.

CASC - California Academy of Sciences, San Francisco, California, United States.

CMNH - Carnegie Museum of Nature, Pittsburgh, Pennsylvania, United States.

CNCI - Canadian National Collection of Insects, Ottawa, Ontario, Canada.

EMEC - Essig Museum of Entomology, University of California, Berkeley, California, United States.

EMHU - Entomological Museum Hokkaido University, Sapporo, Japan.

FMNH - Field Museum of Natural History, Chicago, Illinois, United States.

FSCA - Florida State Collection of Arthropods, Gainesville, Florida, United States.

HMUG - Hunterian Museum, Glasgow University, Glasgow, United Kingdom.

- HNHM - Hungarian Natural History Museum, Budapest, Hungary.  
 IESC - Instituto de Ecología y Sistemática, Academia de Ciencias, La Habana, Cuba.  
 INRA - Institut National de la Recherche Agronomique, Duclos, Petit-Bourg, Guadeloupe.  
 ISNB - Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium.  
 LACM - Natural History Museum of Los Angeles County, Los Angeles, California, United States.  
 LSUK - Linnaean Society, London, United Kingdom.  
 MACN - Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”, Buenos Aires, Buenos Aires, Argentina.  
 MAGD - Museum and Art Gallery, Doncaster, United Kingdom.  
 MCZN - Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts, United States.  
 MNRJ - Museu Nacional, Universidade Federal do Rio de Janeiro, Rio de Janeiro, Rio de Janeiro, Brazil.  
 MVMA - Museum of Victoria, Abbotsford, Victoria, Australia.  
 MZHF - Finish Museum of Natural History, University of Helsinki, Helsinki, Finland.  
 NHMB - Naturhistorisches Museum, Basel, Switzerland.  
 NHMI – Naturhistorika Museum Innsbruck, Austria.  
 NHMW - Naturhistorisches Museum, Vienna, Austria.  
 NHRS - Naturhistoriska Riksmuseet, Stockholm, Sweden.  
 NSMJ – National Science Museum of Tokyo, Japan.  
 OXUM - Hope Entomological Collections, University Museum, Oxford, United Kingdom.  
 SDEI -Senckenberg Deutches Entomologisches Institut, Müncheberg, Germany.  
 UNAM - Universidad Nacional Autónoma de Mexico, Mexico, D. F., Mexico.  
 USNM - National Museum of Natural History, Smithsonian Institution, Washington, D. C., United States.  
 UZIU - Uppsala University, Uppsala, Sweden.  
 ZISP - Russian Academy of Sciences, Zoological Institut, St. Petersburg, Russia  
 ZMHB - Museum für Naturkunde der Humboldt-Universität, Berlin, Germany.  
 ZMUC - Zoological Museum, University of Copenhagen, Copenhagen, Denmark.  
 ZMUK - Zoologisches Museum, Universität Kiel, Kiel, Germany.  
 ZMUM - Zoological Museum, Moscow State University, Moscow, Russia.

## **CERAMBYCINAE Latreille, 1802**

### **ACHRYSONINI Lacordaire, 1868**

Achrysonides Lacordaire, 1868: 203, 231.

Achrysoninae; Bates, 1870: 247.

Achrysones; LeConte, 1873b: 300; LeConte & Horn, 1883: 285.

Achrysonini; Aurivillius, 1912: 39 (cat.); Saalas, 1936: 59; Linsley, 1962a: 46; Villiers, 1980b: 270; Napp & Martins, 1982a: 349 (rev.); Monné, M.A., 1993a: 35 (cat.); Martins, 2002: 38 (rev.); Monné, M.A., 2005: 9 (cat.); Bousquet *et al.*, 2009: 41; Bouchard *et al.*, 2011: 466.

**Type-genus:** *Achryson* Audinet-Serville, 1834a.

**Type-species:** *Stenocorus circumflexus* Fabricius, 1787 (monotypy).

### ***Achryson* Audinet-Serville, 1834**

*Achryson* Audinet-Serville, 1834a: 572; Laporte, 1840: 453; Blanchard, 1845: 153; Strauch, 1861: 130; Thomson, 1861: 231; 1864: 244; 1865: 451; Lacordaire, 1868: 232; Bates, 1870: 247; Chenu, 1870: 313; LeConte, 1873b: 300; Bates, 1879: 16; LeConte & Horn, 1883: 285; Leng, 1884: 115; Bradley, 1930: 229; Linsley, 1962a: 46; Arnett, 1962: 862, 879; Monné, M. A., 1972: 103 (key spp.); Zayas, 1975: 55; Martins, 1976b: 76 (key spp.); Villiers, 1980b: 270; Napp & Martins, 1982a: 362; Joly, 2000: 149; Martins, 2002: 83 (rev., syn.); Monné, M.A., 2005: 9 (cat.); Monné, M.A., 2012: 6.

**Type-species** - *Stenocorus circumflexus* Fabricius, 1787 (monotypy) [= *Cerambyx surinamum* Linnaeus, 1767].

*Phrygion* Gistel, 1848b: 131 (unjustified new name not in prevailing usage).

*Trichomallus* Lacordaire, 1868: 338.

**Type-species** - *Trichomallus maculipennis* Lacordaire, 1868 (monotypy).

### 1. *Achryson surinamum* (Linnaeus, 1767)

**Syntypes locality** – Syntypes: Surinam. (Depository unknown). **Distribution** - United States, Mexico, Central America, West Indies, South America (largely distributed to south Brazil and southern Argentina, Neuquén). **Host plants** - *Astronium fraxinifolium* Schott, *Mangifera indica* Linné, *Myracrodruon balansae* (Engler) Santin, *Schinopsis balansae* Engler, *S. quebracho-colorado* (Schlechtendal) F.A. Barkley & T. Meyer, *Schinus molle* Linné, *S. polygamus* (Cavanilles) Cabrera, *S. terebenthifolius* Raddi (Anacardiaceae), *Aspidosperma* sp. (Apocynaceae), *Bauhinia candicans* Benth, *B. forficata* Hassler, *Caesalpinia paraguariensis* (Parodi) Burkart, *Cassia alata* Linné, *Cercidium praecox* (Ruíz & Pavón) Harms, *Delonix* sp., *Hymenaea courbaril* Linné, *Parkinsonia aculeata* Linné, *Stahlia monosperma* (Tulasne) Urban, *Tamarindus indica* Linné (Caesalpinaceae), *Celtis australis* Linné, *C. iguanaea* Jacquin, *C. laevigata* Willdenow, *C. pallida* Torrey, *C. pubescens* Kunth, *C. tala* Gillies ex Planchon (Cannabaceae), *Casuarina equisetifolia* Linné (Casuarinaceae), *Alchornea sidaefolia* Baillon, *Sebastiania brasiliensis* Sprengel (Euphorbiaceae), *Brya ebenus* de Candolle, *Clathrotropis brachypetala* (Tulasne) Kleinhoonte, *Gliciridia sepium* (Jacquin) Walpers, *Lonchocarpus violaceus* Kunth, *Robinia hispida* Linné, *R. pseudoacacia* Linné (Fabaceae), *Carya illinoensis* (Wagenheim) K. Koch (Juglandaceae), *Cinnamomum camphora* (Linné) J.Presl, *Nectandra falcifolia* (Nees) Castiglioni, *N. megapotamica* Mez, *Ocotea acutifolia* Mez (Lauraceae), *Gossypium* sp., *Luehea divaricata* C. Martius, *Theobroma* sp. (Malvaceae), *Melia azedarach* Linné, *Swietenia* sp. (Meliaceae), *Acacia bonariensis* Gillies, *A. caven* (Molina) Molina, *A. decurrens* Willdenow, *A. farnesiana* (Linné) Willdenow, *A. mangium* Willdenow, *A. mearnsi* De Wildeman, *A. melanoxylon* R. Brown, *A. polyphylla* de Candolle, *A. praecox* Grisebach, *A. tortuosa* (Linné) Willdenow, *Albizia julibrissin* Durazzini, *A. lebbeck* (Linné) Benth, *Cathormion polyanthum* (A. Sprengel) Burkill, *Enterolobium contortisiliquum* (Velloso) Morong, *Inga affinis* de Candolle, *I. edulis* Martius, *Leucaena leucocephala* (Lamarck) De Wit, *L. pulverulenta* (Schlechtendal) Benth, *Mimosa pigra* Linné, *Parapiptadenia rigida* (Benth) Brenan, *Pithecellobium flexicaule* (Benth) Coulter, *Prosopis alba* Grisebach, *P. alpataco* Philippi, *P. juliflora* (Swartz) de Candolle, *P. nigra* (Grisebach) Hieronymus (Mimosaceae), *Artocarpus altilis* (Parkinson) Fosberg, *Broussonetia papyrifera* (Linné) Ventenat, *Chlorophora tinctoria* (Linné) Benth, *Ficus carica* Linné, *Morus alba* Linné, *M. nigra* Linné (Moraceae), *Eucalyptus saligna* Smith, *Myrceugenia euosma* (Berg) D. Legrand, *Psidium guajava* Linné (Myrtaceae),

*Triplaris weigeltiana* (Reichenbach) O. Kuntze (Polygonaceae), *Colletia paradoxa* (Sprengel) Escalante (Rhamnaceae), *Salix matsudana* Koidzumi (Salicaceae), *Iodina rhombifolia* Hooker & Arnott ex Reissek (Santalaceae), *Solanum melongena* Linné (Solanaceae), *Tamarix galica* Linné (Tamaricaceae), *Ulmus crassifolia* Nuttall, *U. pumila* Linné (Ulmaceae).

*Cerambyx surinamus* Linnaeus, 1767: 632; Gmelin, 1790: 1837; Olivier, 1790: 308.

*Cerambyx surinamensis*; Olivier, 1795: (67) 42, pl. 13, fig. 9 (error).

*Achryson surinamum*; White, 1855: 298; Thomson, 1864: 244; Burmeister, 1865: 175; Bates, 1870: 247; LeConte, 1873b: 300; Kirsch, 1875: 284 (distr.); Waterhouse, 1878: 303 (distr.); Bates, 1879: 16 (distr.); LeConte & Horn, 1883: 285; Lameere, 1884a: 85 (distr.); 1884b: 100 (distr.); Fleutiaux & Sallé, 1889: 461; Lameere, 1893: 273 (distr.); Horn, 1894: 337 (distr.); Gahan, 1895: 92; Pittier & Biolley, 1895: 27 (distr.); Wickham, 1898b: 41 (distr.); Aurivillius, 1900: 409 (distr.); Griffith, 1900: 569 (distr.); Townsend, 1903: 75 (distr.); Schaeffer, 1908: 327 (distr.); Gounelle, 1909: 599 (distr.); Blatchley, 1910: 1021 (distr.); Bruch, 1912: 185 (cat.); Dash, 1917: 56 (biol.); Garnett, 1918: 177 (distr.); Bodkin, 1919: 268 (distr.); Craighead, 1923: 138 (larva); Gowdey, 1926: 21 (distr.); Andrade, 1928: 4 (hosts); Lima, A.M., 1930: 31 (hosts); Williams, 1931: 224 (distr.); Linsley & Martin, 1933: 180 (distr.); Lima, A.M., 1936: 295 (hosts); Silva, A.G., 1936: 21 (hosts); Saalas, 1936: 59, pl. 50, fig. 50 (morphol.); Gunther, 1940: 465 (distr.); Linsley, 1942: 33 (distr.); Costa, R.G., 1943: 57, fig. 117 (hosts); Rosillo, 1944: 23 (distr., hosts); Fisher, 1944: 4 (distr.); Bosq, 1945: 46 (distr.); Ballou, 1945: 44, 116 (hosts); Bosq, 1947a: 12 (distr.); Prosen, 1947: 319 (distr.); Travassos & Freitas, 1948: 616 (distr.); Zischka, 1948: 7 (distr.); Vogt, 1949: 140 (distr., hosts); Bosq & Ruffinelli, 1951: 5 (distr.); Duffy, 1953: 161, fig. 125 (larva); Ruffinelli & Carbonell, 1953: 60 (hosts); Franz, 1954: 216 (distr.); Freude, 1954: 30 (distr.); Lima, A.M., 1955: 92, fig. 62 (biol.); Baucke, 1955: 51 (biol., distr.); Biezanko & Bosq, 1956: 5 (distr., hosts); Buck, 1957: 5, 6 (hosts); Berry, 1957: 15 (distr.); Zajciw, 1958a: 10 (distr.); Costa, R.G., 1958: 202, fig. 151 (hosts); Buck, 1959: 581 (distr.); Duffy, 1960: 88, fig. 48 (larva); Hayward, 1960: 7 (hosts); Zajciw & Ruffinelli, 1962: 24 (distr.); Baucke, 1962: 25 (hosts); Linsley, 1962a: 46; Gilmour, 1963: 77 (distr.); Zajciw, 1965: 5 (distr.); 1966: 3 (distr.); Santoro, 1966: 58 (distr.); Bertels & Baucke, 1966: 44 (hosts); Chemsak, 1966a: 211 (distr.); Silva, A. Gomes, 1967: 34 (distr.); Zajciw, 1967a: 4 (distr.); Ruffinelli, 1967: 41 (hosts); Piza, 1968: 23 (distr.); Gilmour, 1968: 104, pl. 15, fig. 1; Silva, A. G. *et al.*, 1968: 383 (hosts); Marinoni, 1969: 470 (hosts); Zajciw, 1972: 49 (distr.); Viana, 1972: 237 (distr.); Zajciw, 1974: 44 (distr.); Zayas, 1975: 55; Martins, 1976b: 77; Chemsak, Linsley & Mankins, 1980: 29 (distr.); Villiers, 1980a: 130 (distr.); 1980b: 271, figs 29-35; Penteado-Dias, 1984b: 425, 28 figs (larva, pupa); Hovore, Penrose & Neck, 1987: 295 (distr., hosts); Maes & Tellez Robleto, 1988: 36 (hosts); Chemsak, Linsley & Noguera, 1992: 29 (cat.), Costa, E. C. *et al.*, 1992b: 905, 906, 907 (hosts); Di Iorio, 1993: 69 (hosts); 1994a: 655 (hosts); 1994b: 17, 19, 20 (hosts); Maes *et al.*, 1994: 7 (distr., hosts); Noguera & Chemsak, 1996: 397 (cat.); Di Iorio, 1997a: 152, 153, 154 (hosts); 1997b: 161, 162, 163 (hosts); González & Di Iorio, 1997: 170, 171 (hosts); Tavakilian *et al.*, 1997: 332, 333 (hosts); Linsley & Chemsak, 1997: 337 (hosts); Di Iorio & Zelich, 1997: 276 (hosts); Dall'Oglio & Peres Filho, 1997: 51 (biol.); Berti Filho, 1997: 52 (hosts); Maes, 1998: 887 (distr.); Fiorentino *et al.*, 2000: 16 (hosts); Braet, Cerdá & Fretey, 2000: 7 (distr.); Joly, 2000: 153, figs 9-10, 16 (hosts); Canettieri & Garcia, 2000: 47; Martínez, 2000: 85 (distr.); Dorval & Peres Filho, 2001: 175 (distr.); Monné, M.A., 2001a: 9 (cat. hosts); Martins, 2002: 104, figs 95-154; Maia *et al.*, 2003: 406 (distr.);

- Di Iorio, Riquelme & Esteban-Durán, 2003: 18 (distr.); Vitali & Rezbanyai-Reser, 2003: 7, fig. 7 a-b; Turnbow, Cave & Thomas, 2003: 6 (distr.); Lingafelter & Micheli, 2004: 50 (distr.); Di Iorio, 2004b: 19 (distr.); Monné, M.A., 2005: 12 (cat.); Chalumeau & Tourout, 2005: 74, fig. 24; Peck, 2005: 167 (distr.); 2006a: 191 (distr.); Ray, Lacey & Hanks, 2006: 545, fig. 2e (pheromones); Hovore, 2006: 371 (distr.); Di Iorio, 2006b: 162 (distr., hosts); Wappes *et al.*, 2006: 6 (distr.); Peres Filho, Dorval & Noquelli, 2007: 47 (hosts); Dorval *et al.*, 2007: 258 (hosts); Dalens & Tourout, 2007: 291 (distr.); Tourout, 2007: 6 (distr., hosts); Lingafelter, 2007: 89, 143, 2 figs, pl. 21, fig. k (hosts); Perez-Gelabert, 2008: 117 (distr.); Paz *et al.*, 2008: 352 (distr.); Ivie *et al.*, 2008: 257 (distr.); Peck, 2009: 20 (distr.); Martins, Galileo & Limeira-de-Oliveira, 2009a: 233 (distr.); Monné, M.L., Monné, M.A. & Mermudes, 2009: 2 (distr.); Noguera *et al.*, 2009: 87 (distr.); Di Iorio & Farina, 2009: 80 (hosts); Monné, M.L. *et al.*, 2010: 238 (distr.); Cordeiro, Anjos & Carvalho, 2010: 22, fig. C (hosts); Swift *et al.*, 2010: 10 (distr.); Maes *et al.*, 2010: 20, 8 figs (distr.); Martins & Galileo, 2010: 437 (distr.); Micheli, 2010: 78, pl. 9; Audureau, 2010: 8 (distr.); Bernardi *et al.*, 2010: 583 (distr.); Peck, 2010: 51 (distr.); 2011a: 35 (distr., hosts); 2011b: 33 (distr., hosts); Morvan & Morati, 2011: 14 (distr.); Galileo, Martins & Moyses, 2011: 9, 38 (distr., hosts); Pacini, 2011: 16 (distr.); Monné, M.A. *et al.*, 2012: 8 (distr.); Menezes *et al.*, 2012: 50 (distr.). Machado *et al.*, 2012: 187 (hosts); Giuglaris, 2012: 61 (distr.); Barreto, Machiner & Smiderle, 2013: 332 (distr.); Wappes *et al.*, 2013: 4 (distr.); Peck, Thomas & Turnbow, 2014: 91 (distr.); Nascimento & Bravo, 2014: 131 (distr.); Lemes *et al.*, 2015: 61 (hosts); Gutiérrez & Noguera, 2015: 139 (distr.); García Morales *et al.*, 2015: 99 (distr.); Monné, M.A. & Chaboo, 2015: 42 (distr., hosts); Ferreira & Rocha, 2015 : 365 (distr.); Di Iorio & Turienzo, 2015 : 31 (distr.); Peck, 2016: 173 (distr., hosts); Nascimento, Bravo & Monné, M.A., 2016: 402, fig. 8 (distr.); Monné, M.A. *et al.*, 2016 : 7 (distr.); Noguera & Gutiérrez, 2016: 657 (distr.); Audureau & Roguet, 2018: 58 (distr.)
- Achryson surinamense*; Chevrolat, 1862a: 264; Leng, 1885b: pl. 2, fig. 24; Prudhomme, 1906: 33 (distr.) (error).
- Achryson surinam*; Leng, 1885a: 117 (error).
- Cerambyx longicollis* Degeer, 1775: 117, pl. 14, fig. 11.
- Type locality** – Holotype male: Surinam. (NHRS).
- Leptura simplex* Voet, 1778: 22, pl. 20, fig. 99. (*nomen nudum*).
- Type locality** - America. (Depository unknown).
- Stenocorus circumflexus* Fabricius, 1787: 144; Gmelin, 1790: 1860; Fabricius, 1793: 300; 1801: 310.
- Cerambyx circumflexus*; Olivier, 1795: (67) 173, pl. 23, fig. 183.
- Achryson circumflexum*; Audinet-Serville, 1834a: 573; Laporte, 1840: 453; Erichson, 1847: 142 (distr.); Erichson *in* Schomburgk, 1848: 573 (distr.); Guérin-Méneville, 1855: 599 (distr.); Redtenbacher, 1868: 200 (distr.); Chenu, 1870: 307; Gowdey, 1926: 21 (distr.).
- Syntypes locality** – Syntypes male and female: Cayenne. (ZMUC).
- Stenocorus pallens* Fabricius, 1793: 297; 1801: 309; Schoenherr, 1817: 406.
- Type locality** - Holotype male: Americae meridionalis Insulae. (ZMUC).
- Achryson surinamum* var. *chontalense* Bates, 1872: 171.
- Syntypes locality** – Syntypes male and female: Nicaragua, Chontales. (MNHN).

### ***Geropa* Casey, 1912**

*Geropa* Casey, 1912: 305; Linsley, 1962a: 47; Arnett, 1962: 862, 879; Napp & Martins, 1982a: 361; Monné, M.A., 2005: 15 (cat.); Monné, M.A., 2012: 7.

**Type-species** - *Geropa aequicollis* Casey, 1912 (original designation).

### 1. *Geropa concolor* (LeConte, 1873)

**Type locality** - Holotype female: United States, Texas. (MCZN). **Distribution** - United States, southern Texas to southern Mexico (Chiapas, Tamaulipas, Veracruz, Oaxaca). **Host plants** - *Parkinsonia aculeata* Linné (Caesalpiniaceae), *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Benth, *Mimosa lindheimeri* Gray, *Pithecellobium flexicaule* (Benth) Coulter, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Ulmus crassifolia* Nuttall (Ulmaceae).

*Achryson concolor* LeConte, 1873a: 176; 1873b: 300; LeConte & Horn, 1883: 285; Lameere, 1883: 14 (cat.); Leng, 1885a: 117; Schaeffer, 1908: 237 (distr.); Craighead, 1920: 8 (pred.); 1923: 139 (larva); Linsley & Martin, 1933: 180 (distr.); Vogt, 1949: 140 (distr., hosts).

*Geropa concolor*; Casey, 1918: 415 (syn.); Linsley, 1962a: 48, fig. 18; Napp & Martins, 1982a: 361, figs 3, 4, 22-27; Hovore, Penrose & Neck, 1987: 295; Chemsak, Linsley & Noguera, 1992: 30 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Monné, M.A., 2001a: 10 (cat. hosts); Monné, M.A., 2005: 15 (cat.); MacRae & Rice, 2007: 235 (hosts); Noguera *et al.*, 2012: 620 (distr.); Gutiérrez & Noguera, 2015: 139 (distr.); García Morales *et al.*, 2015: 99 (distr.); Noguera *et al.*, 2018: 460

*Geropa aequicollis* Casey, 1912: 306; Lingafelter *et al.*, 2014: 11, figs 9u, v (holotype).

**Type locality** - Holotype female: United States, Texas: Brownsville. (USNM).

### AGALLISSINI LeConte, 1873

Agallissini LeConte, 1873b: 292, 321; LeConte & Horn, 1883: 306; Leng, 1884: 114; Aurivillius, 1912: 445 (cat.); Bradley, 1930: 229, 240; Arnett, 1962: 860, 888; Linsley, 1964: 193; Monné, M.A., 1994a: 41 (cat.); Monné, M.A., 2005: 17 (cat.); Bousquet *et al.*, 2009: 41; Bouchard *et al.*, 2011; Austin *et al.*, 2018: 444

**Type-genus**: *Agallissus* Dalman, 1823.

**Type-species**: *Agallissus melaniodes* Dalman, 1823 (monotypy).

### *Agallissus* Dalman, 1823

*Agallissus* Dalman, 1823: 66; Thomson, 1861: 209; Lacordaire, 1869: 133; LeConte, 1873a: 204; 1873b: 321; Bates, 1880: 67; LeConte & Horn, 1883: 307; Bradley, 1930: 240; Arnett, 1962: 869, 888; Linsley, 1964: 195; Monné, M.A., 2005: 17 (cat.); Monné, M.A., 2012: 7.

*Agallissus*; Thomson, 1864: 205; 1865: 432 (error).

**Type-species** - *Agallissus melaniodes* Dalman, 1823 (monotypy).

*Aplectrus* Duponchel & Chevrolat in D'Orbigny, 1841: 12.

**Type-species** - *Aplectrus lepturoides* Duponchel & Chevrolat, 1841 (original designation).

*Cryptopleura* LeConte, 1850b: 6 (no species); Haldeman, 1853: 363.

**Type-species** - *Cryptopleura grata* Haldeman, 1853 (by subsequent monotypy Haldeman, 1853: 363).

### 1. *Agallissus lepturoides* (Duponchel & Chevrolat, 1841)

**Type locality** – Holotype: Mexico. (BMNH). **Distribution** - United States (Texas), Mexico (Oaxaca, Yucatán, Quintana Roo), Guatemala, Honduras. **Host plants** – *Sabal mexicana* Martius (Arecaceae).

*Aplectrus lepturoides* Duponchel & Chevrolat in D'Orbigny, 1841: 12.

*Agallissus lepturoides*; Aurivillius, 1912: 445 (cat.); Linsley, 1964: 195; Chemsak, Linsley & Mankins, 1980: 32 (distr.); Hovore, Penrose & Neck, 1987: 308 (distr.); Chemsak, Linsley & Noguera, 1992: 77 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Turnbow, Cave & Thomas, 2003: 17 (distr.); Monné, M.A., 2005: 18 (cat.); Hovore, 2006: 374 (distr.); Lingafelter, 2007: 76, 143, 2 figs, pl. 18, fig. b (hosts); Gutiérrez & Noguera, 2015: 140 (distr.); Austin *et al.*, 2018: 444, figs 1-2.

*Agallissus clytoides* Lacordaire, 1869: 134; Lameere, 1883: 39; Bates, 1885: 314 (syn., distr.).

**Syntypes locality** – Syntypes: Amérique Centrale (?).

*Cryptopleura grata* Haldeman, 1853: 363.

*Agallissus gratus*; LeConte, 1873a: 204; 1873b: 321; Bates, 1880: 68; LeConte & Horn, 1883: 306; Leng, 1890: 9; Hamilton in Leng & Hamilton, 1896: 173.

**Type locality** – Holotype: Mexico, Tamaulipas: Tampico. (MCZN).

### ***Osmopleura* Linsley, 1964**

*Osmopleura* Linsley, 1964: 194; Monné, M.A., 1994a: 41 (cat.).

**Type-species** - *Agallissus chamaeropsis* Horn, 1893 (original designation).

#### **1. *Osmopleura chamaeropsis* (Horn, 1893)**

**Syntypes locality** – Syntypes male and female: United States, Florida: Biscayne. (ANSP). **Distribution** - United States (Florida, Georgia, Alabama). **Host plants** - *Chamaerops* sp., *Sabal palmetto* (Walter) Schultes & Schultes (Arecaceae).

*Agallissus chamaeropsis* Horn, 1893: 138 (host); Hamilton, 1896: 173; Blatchley, 1928: 70 (distr.); Fattig, 1947: 28 (distr.); Lepesme, 1947: 522 (host).

*Osmopleura chamaeropsis*; Linsley, 1964: 194; Turnbow & Hovore, 1979: 223 (host); Turnbow & Franklin, 1980: 343 (distr.); Chemsak, Linsley & Noguera, 1992: 77; Monné, M.A., 1994a: 41 (cat.); Browne & Peck, 1996: 2159 (distr.); Linsley & Chemsak, 1997: 414 (host); Peck & Thomas, 1998: 120 (distr.); Lingafelter, 2007: 75, 148, 2 figs, pl. 18a (hosts); Austin *et al.*, 2018: 444, figs 3, 4.

### ***Zagymnus* LeConte, 1873**

*Zagymnus* LeConte, 1873a: 204; LeConte & Horn, 1883: 306; Horn, 1893: 138; Bradley, 1930: 240; Arnett, 1962: 869, 888; Linsley, 1964: 193; Chemsak & Linsley, 1968: 37; Zayas, 1975: 163; Monné, M.A., 2005: 18 (cat.); Monné, M.A., 2012: 7.

**Type-species** - *Agallissus clerinus* LeConte, 1873 (monotypy).

#### **1. *Zagymnus clerinus* (LeConte, 1873)**

**Type locality** - Holotype: United States, Florida. (MCZN). **Distribution** - United States (Georgia, Florida), Cuba. **Host plants** - *Chamaerops* sp, *Sabal mexicana* Martius, *S. palmetto* (Walter) Schultes & Schultes (Arecaceae).

*Agallissus clerinus* LeConte, 1873b: 321.

*Zagymnus clerinus*; LeConte, 1873a: 203; Riley, 1880: 239 (hosts); Lameere, 1883: 43 (cat.); LeConte & Horn, 1883: 306; Leng, 1890: 9; Beutenmuller, 1896: 77 (hosts); Blatchley, 1917: 272 (distr.); 1928: 70 (distr.); Fattig, 1947: 28 (distr.); Lepesme, 1947: 522 (hosts); Linsley, 1964: 194; Chemsak & Linsley, 1968: 39; Zayas, 1975:



164, pl. 22, fig. c; Turnbow & Hovore, 1979: 223 (biol.); Turnbow & Franklin, 1980: 343 (distr.); Chemsak, Linsley & Noguera, 1992: 77 (cat.); Browne & Peck, 1996: 2159; Linsley & Chemsak, 1997: 454 (hosts); Peck & Thomas, 1998: 120 (distr.); Monné, M.A., 2001a: 11 (cat. hosts); Monné, M.A., 2005: 18 (cat.); Peck, 2005: 174 (distr.); Lingafelter, 2007: 108, 158, 2 figs, pl. 18c (hosts); Devesa, Fonseca & Barro, 2015: 33, 334, figs 1-5; Haack, 2017: 111; Austin *et al.*, 2018: 446, figs 5-9, 11; Cleger & Hemmill, 2018: 3 (distr., hosts)

*Agallissus floridanus* Casey, 1912: 376; Lingafelter *et al.*, 2014: 64, figs 69i, j (holotype).

**Type locality** - United States, Florida: Palm Beach. (USNM).

### **ANAGLYPTINI Lacordaire, 1868**

Anaglyptides Lacordaire, 1868: 404. [*nomen protectum*].

Anaglypti; LeConte, 1873b: 319; LeConte & Horn, 1883: 305; Leng, 1887: 194; Craighead, 1923: 60; Hopping, 1932: 531.

Anaglyptini; Knull, 1946: 187; Arnett, 1962: 861, 887; Linsley, 1964: 173; Monné, M. A., 1993i: 61 (cat.); Monné, M.A., 2005: 19 (cat.); Bousquet *et al.*, 2009: 41 (*nomen protectum*); Bouchard *et al.*, 2011: 466.

Anaglyptisidae Gistel, 1848b: 391 [Coleoptera, Buprestidae, *nomen oblitum*].

**Type-genus:** *Anaglyptus* Mulsant, 1839.

**Type-species:** *Leptura mystica* Linnaeus, 1758 designated by Desmarest (1860: 318).

### ***Cyrtophorus* LeConte, 1850**

*Cyrtophorus* LeConte, 1850b: 29; Thomson, 1864: 194, 427; Lacordaire, 1869: 86; LeConte, 1873b: 320; Provancher, 1877: 579; LeConte & Horn, 1883: 305; Leng, 1887: 195; Wickham, 1897a: 87; Schaeffer, 1904: 223; Blatchley, 1910: 1040; Bradley, 1930: 239; Linsley, 1935a: 87; Chagnon, 1938: 256; Knull, 1946: 225; Dillon & Dillon, 1961: 604; Arnett, 1962: 868; Chagnon & Robert, 1962: 256; Linsley, 1964: 175; Monné, M.A., 1993i: 64 (cat.).

**Type-species** - *Callidium verrucosum* Olivier, 1795 (Thomson designation 1864: 194).

#### **1. *Cyrtophorus verrucosus* (Olivier, 1795)**

**Type locality** - Holotype: United States, environs de New York. (MNHN).

**Distribution** - Southern Canada and eastern United States to Florida and Kansas.

**Host plants** - *Acer* sp. (Aceraceae), *Betula lenta* Linné, *Ostrya virginiana* (Miller) K. Koch (Betulaceae), *Cercis canadensis* Linné (Caesalpiniaceae), *Cornus florida* Linné (Cornaceae), *Carpinus caroliniana* Walter (Corylaceae), *Diospyros virginiana* Linné (Ebenaceae); *Robinia* sp. (Fabaceae), *Castanea* sp., *Fagus ferruginea* Aiton, *F. sylvatica* Linné, *Quercus alba* Linné, *Q. imbricaria* Michaux, *Q. palustris* Du Roi, *Q. velutina* Lamarck (Fagaceae), *Carya alba* Koch, *C. glabra* (Miller) Sweet, *Juglans nigra* Linné (Juglandaceae), *Lindera benzoin* (Linné) Blume (Lauraceae), *Liriodendron tulipifera* Linné (Magnoliaceae), *Tilia europaea* Linné (Malvaceae), *Pinus contorta* Douglas ex Loudon (Pinaceae), *Crataegus* sp., *Cydonia* sp., *Prunus americana* Marshall, *P. pensylvanica* Linné fils, *P. virginiana* Linné, *Pyrus malus* Linné (Rosaceae), *Styrax benzoin* Dryander (Styracaceae), *Vitis* sp. (Vitaceae).

*Callidium verrucosum* Olivier, 1795: 67, pl. 8, fig. 98.

*Clytus verrucosus*; Schoenherr, 1817: 467; Audinet-Serville, 1834b: 88; Laporte & Gory, 1836: 106, pl. 20, fig. 126; Haldeman, 1847a: 41.

*Cyrtophorus verrucosus*; LeConte, 1850b: 29; White, 1855: 287; Bland, 1861: 96 (host); Thomson, 1864: 194; Pettit, 1871: 106 (distr.); LeConte, 1873b: 320; Provancher, 1877: 603; Riley, 1880: 239 (host); LeConte & Horn, 1883: 305; Lugger, 1884: 204 (hosts); Jack, 1886: 23 (hosts); Horn, 1886a: 139; Leng, 1887: 23; Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 77 (hosts); Harrington, 1897: 73 (hosts); Wickham, 1897a: 157 (hosts); Klages, 1898: 176 (hosts); Smith, 1900: 290 (distr.); Knaus, 1901: 112 (distr.); Dury, 1902: 160 (distr.); Ulke, 1903: 26, 50 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 329; Leng, 1910: 77 (distr.); Blatchley, 1910: 1040 (distr.); Fisher & Kirk, 1912: 312 (distr.); Lovell, 1915: 114 (biol.); Johnson, 1916: 119 (distr.); Chagnon, 1917: 233 (distr.); Leng, 1920: 278; Britton, 1920: 270 (distr.); Nicolay, 1919: 78 (distr.); Craighead, 1923: 60, pl. 9, fig. 2 ; pl. 10, fig. 4 ; pl. 19, fig. 6 (larva); Blackman & Stage, 1924: 262 (biol.); Hatch, 1925: 580 (distr.); Champlain, Kirk & Knull, 1925: 139 (hosts); Kirk & Knull, 1926: 41 (distr.); Knull, 1928b: 316 (hosts); Leonard, 1928: 448 (distr.); Ware, 1929: 368 (hosts); Frost & Dietrich, 1929: 436 (distr.); Beaulne, 1932: 202 (hosts); Barrett, 1932: 289 (hosts); Loding, 1933: 148 (distr.); Knull, 1934b: 210 (hosts); Brimley, 1938: 216 (distr.); Loding, 1945: 120 (distr.); Knull, 1946: 225, pl. 17, fig. 68; Duffy, 1953: 237 (hosts); Alexander, 1958: 45 (distr.); Dillon & Dillon, 1961: 604, pl. 40, No. 3; Chagnon & Robert, 1962: 266; Chemsak, Linsley & Noguera, 1992: 74 (cat.); Monné, M.A., 1993i: 64 (cat.); Linsley, 1964: 176, fig. 55; Gosling, 1973: 83; Kirk & Balsbaugh, 1975: 99 (distr.); Stein & Tagestad, 1976: 10 (distr.); Miliczky & Osgood, 1979: 133 (biol.); Turnbow & Franklin, 1980: 343 (distr.); Cote & Allen, 1980: 412 (biol.); Haack, Benjamin & Haack, 1983: 49 (hosts); Gosling, 1984: 71 (hosts); 1984: 80 (biol.); Waters & Hyche, 1984: 286 (distr.); Arnett, 1985: 366; Gosling, 1986: 155 (hosts); Chemsak, Linsley & Noguera, 1992: 74 (cat.); MacRae, 1993: 236 (distr., hosts); Lingafelter & Horner, 1993: 176 (distr.); Yanega, 1996: 124, pl. 17, fig. 204; Krinsky & Godwin, 1996: 238 (hosts); Linsley & Chemsak, 1997: 362 (hosts); Peck & Thomas, 1998: 120 (distr.); Schiefer, 1998: 119 (distr.); Landry, 2001: 26 (distr.); Vlasak & Vlasakova, 2002: 212 (distr., hosts); MacRae & Rice, 2007: 231 (distr., hosts); Lingafelter, 2007: 44, 145, 2 figs, pl. 2, fig. D (hosts); Guarnieri, 2009: 16 (distr.); Webster, McCorquodale & Majka, 2009: 298 (biol.); McCorquodale, 2010: 469 (distr.); Holt, 2013: 246 (distr., biol.); Steury & MacRae, 2014: 10 (distr.); Klingeman *et al.*, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 73, pl. 12

*Cystophorus verrucosus*; Packard, 1890: 521 (biol., error).

*Cryptophorus verucosus*; Perry, 1975: 59 (hosts, error).

### ***Microclytus* LeConte, 1873**

*Microclytus* LeConte, 1873b: 320; LeConte & Horn, 1883: 305; Leng, 1887: 195; Wickham, 1897a: 87; Schaeffer, 1904: 223; Casey, 1912: 375; Leng, 1918a: 8; Bradley, 1930: 239; Knull, 1946: 224; Arnett, 1962: 868, 887; Linsley, 1964: 177; Monné, M.A., 1993i: 64 (cat.); Bousquet, Laplante, Hammond & Langor, 2017: 73 (key spp.)

**Type-species** - *Clytus gazellula* Haldeman, 1847 (original designation).

#### **1. *Microclytus gazellula* (Haldeman, 1847)**

**Syntypes locality** - Syntypes: United States, Pennsylvania. (MCZN). **Distribution** - Southern Canada and eastern United States to region of Great Lakes. **Host plants** - *Quercus* sp. (Fagaceae), *Carya glabra* (Miller) Sweet (Juglandaceae).

*Clytus gazellula* Haldeman, 1847c: 372; LeConte, 1850b: 29.

*Euderces gazellula*; Lacordaire, 1869: 89.

*Tillomorpha gazellula*; Gemminger & Harold, 1872: 2942 (cat.).

*Microclytus gazellula*; LeConte, 1873b: 320; Reinecke, 1883: 36 (biol.); LeConte & Horn, 1883: 305; ; Harrington, 1884: 73 (distr.); Leng, 1887: 23; Kilman, 1889: 136 (distr.); Packard, 1890: 81; Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 77 (hosts); Wickham, 1897a: 153; Slosson, 1898: 253 (distr.); Knaus, 1898: 20 (distr.); Smith, 1900: 290; Ulke, 1909: 26 (distr.); Felt, 1906: 702 (biol.); Morris, 1909: 412 (biol.); Wickham, 1909a: 28 (distr.); Smith, 1910: 329; Blatchley, 1910: 1040; Lovell, 1915: 114 (biol.); Chagnon, 1917: 232 (distr.); Leng, 1918a: 9; 1920: 278 (cat.); Craighead, 1923: 60, pl. 19, fig. 4 (larva); Kirk & Knoll, 1926: 40 (distr.); Leonard, 1928: 448 (distr., hosts); Knoll, 1934b: 210 (hosts); 1946: 224, pl. 16, fig. 63; Procter, 1946: 182 (distr.); Linsley, 1964: 177, fig. 56; Gosling, 1973: 83 (biol., (distr.); Chemsak, Linsley & Noguera, 1992: 74 (cat.); Monné, M.A., 1993i: 65 (cat.); Yanega, 1996: 124, pl. 17, fig. 205; Linsley & Chemsak, 1997: 397; Lingafelter, 2007: 88, 147, pl. 21, fig. g.; Haack, 2017: 115; Bousquet, Laplante, Hammond & Langor, 2017: 74

### ***Oligoenoplus* Chevrolat, 1863**

*Oligoenoplus* Chevrolat, 1863: 337; Thomson, 1864: 195; Gahan, 1906: 301; Hayashi, 1979: 79.

**Type-species** - *Oligoenoplus ventralis* Chevrolat, 1863 (monotypy).

*Borneoclytus* Dauber, 2006: 443.

**Type-species** - *Borneoclytus borneanus* Dauber, 2006 (original designation).

### **1. *Oligoenoplus compressicollis* (Laporte & Gory, 1836)**

**Type locality** - Holotype: Amérique septentrionale. (MVMA). **Distribution** - Eastern Canada and northeastern United States. **Host plants** - *Quercus alba* Linné (Fagaceae).

*Clytus compressicollis* Laporte & Gory, 1836: 106, pl. 20, fig. 125; White, 1855: 287; LeConte, 1873b: 336.

*Anaglyptus compressicollis*; Aurivillius, 1912: 415 (cat.).

*Microclytus compressicollis*; Leng, 1918a: 9; Linsley, 1964: 179; Gosling, 1973: 83, fig. 59 (distr.); 1986: 156 (biol.); Chemsak, Linsley & Noguera, 1992: 74 (cat.); Monné, M.A., 1993i: 64 (cat.); Yanega, 1996: 124, pl. 17, fig. 206; Webster, McCorquodale & Majka, 2009: 299 (distr.); McCorquodale, 2010: 469 (distr.); Klingeman *et al.*, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 74, pl.12

*Anaglyptus compressicornis*; Leng, 1918b: 207 (error).

*Oligoenoplus compressicollis*; Ikeda, 1987: 13, fig. 2.

*Clytus gibbulus* LeConte, 1850a: 234.

*Cyrtophorus gibbulus*; Lacordaire, 1869: 87; Lügger, 1884: 204 (hosts); Klages, 1901: 273, 290 (distr.).

*Microclytus gibbulus*; Leng, 1918a: 9; Leonard, 1928: 448 (distr.).

**Type locality** - Holotype: United States, Lake Superior, Eagle Harbor. (MCZN).

*Cyrtophorus niger* LeConte, 1850b: 9; Lacordaire, 1869: 87.

*Clytus niger*; White, 1855: 29.

**Type locality** - Holotype: United States, Lake Superior, Eagle Harbor. (MCZN).

*Microclytus gazellula*; Horn, 1884: 148; Leng, 1887: 23; Hamilton, 1891b: 61 (biol.); 1896: 172; Beaulne, 1932: 202 (hosts) (not Haldeman, 1847).

*Cyrtophorus insinuans* Casey, 1893: 591; Wickham, 1897a: 153; Lingafelter *et al.*, 2014: 80, figs 87u, v (holotype).

*Microclytus insinuans*; Casey, 1912: 375; Leng, 1918a: 9.

**Type locality** - Holotype: Canada, Ontario. (USNM).

*Microclytus frosti* Casey, 1912: 375; Lovell, 1915: 114 (biol.); Lingafelter *et al.*, 2014: 66, figs 71g, h (holotype).

*Microclytus gibbulus* var. *frosti*; Leng, 1918a: 10.

*Microclytus gibbulus frosti*; Leng, 1920: 278.

**Type locality** - Holotype male: United States, Maine: Monmouth. (USNM).

### **BOTHRIOSPIILINI Lane, 1950**

Bothriospilinae Lane, 1950: 370.

Bothriospilina; Fragoso, Monné, M.A. & Seabra, 1987: 198; Monné, M.A., 2005: 565 (cat.).

Bothriospilini; Monné, M.L. & Napp, 2005b: 51 (cladistics); Monné, M.A., 2006: 159 (cat.); Bousquet *et al.*, 2009: 42; Bouchard *et al.*, 2011: 467.

**Type-genus:** *Bothriospila* Aurivillius, 1923.

**Type-species:** *Bothriospila elegans* Aurivillius, 1923 (monotypy).

### **Chlorida Audinet-Serville, 1834**

*Chlorida* Audinet-Serville, 1834b: 31; Laporte, 1840: 422; Blanchard, 1845: 168; Strauch, 1861: 127; Thomson, 1861: 232; 1864: 243; 1865: 451; Lacordaire, 1868: 289; Chenu, 1870: 312; Bates, 1870: 262; 1880: 18; Linsley, 1962a: 81; Arnett, 1962: 863, 880; Chemsak & Linsley, 1963a: 214; 1974a: 181; Villiers, 1980b: 274; Fragoso, Monné, M.A. & Seabra, 1987: 198; Monné, M.A., 2005: 565 (cat.); Monné, M.L. & Napp, 2005b: 51; Monné, M.A., 2012: 8.

**Type-species** - *Chlorida costata* Audinet-Serville, 1834 (by subsequent designation Duponchel *in d'Orbigny*, 1843: 606).

*Tetracanthus* Hope, 1834: 107.

**Type-species** - *Cerambyx festivus* Linnaeus, 1758 (original designation).

*Musimon* Gistel 1848b: xi (unjustified new name not in prevailing usage).

### **1. Chlorida festiva (Linnaeus, 1758)**

**Type locality** - Holotype: America (Surinam). (NHRS). **Distribution** - United States (Florida) to South Brazil and Argentina, West Indies (Antigua, Barbados, Dominica, Grenada, Guadeloupe, Hispaniola, Marie Galante, Martinique, Montserrat, St. Croix, St. Lucia, St. Vincent, Cayman Islands, St. Kitts), Cuba. **Host plants** - *Astronium* sp., *Mangifera indica* Linnaeus, *Myracrodruon balansae* (Engle) Santin, *Schinopsis balansae* Engler (Anacardiaceae), *Haematoxylum campechianum* Linnaeus, *Heterostemon* sp., *Hymenaea courbaril* Linnaeus, *Stahlia monosperma* (Tulasne) Urban (Caesalpiniaceae), *Casuarina equisetifolia* Linnaeus (Casuarinaceae), *Alchornea* sp., *Hevea guianensis* Aublet (Euphorbiaceae), *Andira* sp., *Brya* sp., *Clathrotropis* sp., *Diplostropis purpurea* (Richards) Amshoff, *Hymenolobium excelsum* Benthams, *Ormosia nobilis* Tulasne (Fabaceae), *Theobroma* sp. (Malvaceae), *Swietenia* sp. (Meliaceae), *Acacia decurrens* Willdenow, *Acacia mangium* Willdenow, *Albizia lebeck* (Linnaeus) Benthams, *Enterolobium contortisiliquum* (Velloso) Morong, *E. mongollo* Martius, *Inga ingoides* Willdenow (Mimosaceae), *Artocarpus integrifolia* Linnaeus, *Ficus insipida* Willdenow (Moraceae), *Psidium guajava* Linnaeus (Myrtaceae), *Triplaris* sp.

- (Polygonaceae), *Coffea arabica* Linnaeus (Rubiaceae), *Citrus sinensis* (Linnaeus) Osbeck (Rutaceae), *Solanum* sp. (Solanaceae).
- Cerambyx festivus* Linnaeus, 1758: 389; 1767: 623; Drury, 1773: 84, pl. 37, fig. 5; Gmelin, 1790: 1859.
- Stenocorus festivus*; Fabricius, 1775: 179; 1781: 226; 1787: 143; 1793: 293; 1801: 305.
- Stenochorus festivus*; Schoenherr, 1817: 402.
- Chlorida festiva*; Audinet-Serville, 1834b: 32; Laporte, 1840: 422; Blanchard, 1845: 168; Erichson, 1847: 140; Erichson *in* Schomburgk, 1849: 572 (distr.); Gosse, 1848: 351 (distr.); White, 1853: 87; Guérin-Méneville, 1855: 599 (distr.); Jacquelin DuVal *in* Sagra, 1857: 261; Chevrolat, 1862b: 267; Rojas, 1866: 240; Redtenbacher, 1868: 200 (distr.); Desmarest *in* Chenu, 1870: 312; Bates, 1870: 262; 1872: 174 (distr.); Waterhouse, 1878: 303 (distr.); Bates, 1880: 18 (distr.); Lameere, 1884a: 85 (distr.); 1884b: 100 (distr.); Jacoby, 1887: 490 (distr.); Kirsch, 1889: 50 (distr.); Pelseneer, 1890: clxxvi (distr.); Gundlach, 1894: 329 (distr.); Gahan, 1895: 92; Pittier & Biolley, 1895: 27 (distr.); Schulz, 1901: 333 (distr.); Aurivillius, 1904: 207 (distr.); 1908: 2 (distr.); Gounelle, 1909: 617 (distr.); Bruch, 1912: 188 (cat.); Leng & Mutchler, 1914: 445 (distr.); Dash, 1917: 56 (biol.); Schwarz *in* Holland, 1917: 342 (distr.); Bruch, 1918a: 5 (distr.); Aurivillius, 1919: 3 (distr.); Bodkin, 1919: 267 (distr.); Wolcott, 1924: 109; Aurivillius, 1926: 2 (distr.); Andrade, 1928: 450 (biol.); Lima, A.M., 1930: 31 (hosts); Russo, 1930: 142 (distr.); Williams, 1931: 224; Travassos, 1932: 2, fig. 11 (biol.); Wolcott, 1936: 259 (distr.); Lima, A.M., 1936: 297 (hosts); Silva, A.G., 1936: 21 (hosts); Saalas, 1936: 64 (morph.); Caldeira & Vieira, 1938: 11 (hosts); Edwards, 1938: 55 (biol.); Carvalho, M.B. & Carvalho, R.F., 1939: 50 (distr.); Martorell & Salas, 1939: 243 (distr.); Gunther, 1940: 465 (distr.); Wolcott, 1941: 98 (hosts); Soukup, 1942: 42 (distr.); Beatty, 1944: 141 (distr.); Bruner, Scaramuzza & Otero, 1945: 48 (hosts); Bosq, 1945: 46 (distr.); Martorell, 1945: 87, 127, 242, 312, 437, pl. 5 (hosts); Bosq, 1947a: 15 (distr.); Wolcott, 1948: 334, 1 fig (hosts); Travassos & Freitas, 1948: 616 (distr.); Zischka, 1948: 6 (distr.); Biezanko, Bertholdi & Baucke, 1949: 189 (hosts); Bosq & Ruffinelli, 1951: 7 (distr.); Tucker, 1952: 345 (distr.); Freude, 1954: 31 (distr.); Baucke, 1955: 54, pl. 1, fig. B; Lima, A.M., 1955: 102, fig. 70 (biol.); Biezanko & Bosq, 1956: 6 (distr., hosts); Gregoire, 1957: 21 (physiol.); Zajciw, 1958: 11 (distr.); Berry, 1959: 18 (distr.); Buck, 1959: 583 (distr.); Duffy, 1960: 113, fig. 64 (larva, pupa); Zajciw, 1961: 528 (distr.); Linsley, 1962a: 82; Zajciw & Ruffinelli, 1962: 29 (distr.); Gilmour, 1963: 77 (distr.); Sefer, 1962: 25 (hosts); Zajciw, 1965: 6 (distr.); 1966: 4 (distr.); 1967c: 5 (distr.); Ruffinelli, 1967: 42 (hosts); Piza, 1968: 22 (distr.); Silva, A. G. *et al.*, 1968: 385 (hosts); Leck, 1970: 190, 1 fig. (biol.); Arruda & Arruda, 1971: 22 (hosts); Viana, 1972: 247; Zajciw, 1972: 50 (distr.); 1974a: 46 (distr.); Marinoni, 1979: 215 (hosts); Villiers, 1980a: 130 (distr.); 1980b: 274, fig. 38; Chemsak, Linsley & Mankins, 1980: 33 (distr.); Penteado Dias, 1984a: 227, fig. 21 (morphol.); Chemsak, Linsley & Noguera, 1992: 31 (cat.); Maes *et al.*, 1994: 9 (distr.); Iturre, Darchuck & Diodato, 1995: 59 (hosts); Tavakilian *in* Hequet, 1996: pl. 11, fig. 1; González & Di Iorio, 1997: 169 (hosts); Tavakilian *et al.*, 1997: 331, 332, 334, 335, 338, 341 (hosts); Dall'Oglio & Peres Filho, 1997: 51 (biol.); Peck & Thomas, 1998: 117 (distr.); Maes, 1998: 887, 888 (distr.); Braet, Cerdá & Fretey, 2000: 7 (distr.); Martínez, 2000: 91 (distr.); Canettieri & Garcia, 2000: 47; Dorval & Peres Filho, 2001: 175 (distr.); Monné, M.A., 2001b: 55 (cat. hosts); Turnbow, Cave & Thomas, 2003: 17 (distr.); Lozada Piña, Fernández García & Trujillo Anaya, 2004: 105 (distr.); Lingafelter & Micheli, 2004: 50 (distr.); Di Iorio, 2004b: 41 (distr.); Monné, M.A., 2005: 566 (cat.); Chalumeau & Touroult, 2005: 130, fig. 63;

Peck, 2005: 174 (distr.); 2006: 193 (distr.); Morvan & Morati, 2006: 8 (distr.); Hovore, 2006: 374 (distr.); Wappes *et al.*, 2006: 21 (distr.); Ray, Lacey & Hanks, 2006: 546, fig. 3 (pheromones); Aragón, 2006: 54 (distr.); Lingafelter, 2007: 69, 245, 2 figs, pl. 16, fig. h (hosts); Fernández García & Favila, 2007: 26 (distr.); Touroult, 2007: 7 (distr.); Peres Filho, Dorval & Noquelli, 2007: 47 (hosts); Dorval *et al.*, 2007: 258 (hosts); Ivie *et al.*, 2008: 257 (distr.); Perez-Gelabert, 2008: 119 (distr.); Audureau, 2008: 4 (distr.); Paz *et al.*, 2008: 352 (distr.); Hubweber, 2008: 254 (distr.); Fernández García, Favila Castillo & López Iborra 2009: 322 (distr.); Martins, Galileo & Limeira-de-Oliveira, 2009a: 233 (distr.); Monné, M.L., Monné, M.A. & Mermudes, 2009: 2 (distr.); Monné, M.L. *et al.*, 2010: 238 (distr.); Swift *et al.*, 2010: 10 (distr.); Maes *et al.*, 2010: 31, 5 figs (distr.); Peck, 2009: 22 (distr.); 2010: 52 (distr.); 2011a: 37 (distr.); 2011b: 35 (distr.); Micheli, 2010: 84, pl. 12; Touroult *et al.*, 2010: 28; Bernardi *et al.*, 2010: 583 (distr.); Morvan & Morati, 2011: 14 (distr.); Monné, M.A. *et al.*, 2012: 8 (distr.); Menezes *et al.*, 2012: 50 (distr.); Souza & Silva, 2012: 238 (distr.); Giuglaris, 2012: 61 (distr.); Thomas, Turnbow & Steiner, 2013: 17 (distr.); Barreto, Machiner & Smiderle, 2013: 333 (distr.); Perger & Guerra, 2013: 214 (distr.); Peck, Thomas & Turnbow, 2014: 95 (distr.); Nascimento & Bravo, 2014: 131 (distr.); Santos *et al.*, 2014: 525 (biol.); Lagos & Barrios, 2014: 13 (distr.); Lemes *et al.*, 2015: 61 (hosts); Monné, M.A. & Chaboo, 2015: 42 (distr., hosts); Santos-Silva, 2015b: 399; Chamé-Vázquez & Sánchez-Hernández, 2015: 507, fig. 1d; Ferreira & Rocha, 2015: 365 (distr.); Lanuza-Garay & Barrios, 2015: 65 (hosts); Devesa, Fonseca & Barro, 2015: 33, 336, figs 1-9; cimento & Santos-Silva, 2016: 330 (distr.); Peck, 2016: 178, pl. 42 (distr.); Nascimento, Botero & Bravo, 2016: 556, (distr.); Nascimento, Bravo & Monné, M.A., 2016: 402, fig. 11 (distr.); Monné, M.A. *et al.*, 2016: 8 (distr.); Silva *et al.*, 2016: 1082 (phero.); Nascimento *et al.*, 2017: 351, fig. 11 (distr.); Monné, M.L. & Monné, M.A., 2017: 205 (distr.); Lingafelter, Wappes & Ledezma Arias, 2017: 15, 1 fig.; Lanuza-Garay & Santos Murgas, 2018: 3 (distr.); Lanuza-Garay & Barrios, 2018: 593 (hosts).

*Stenochorus (Chlorida) festivus*; Drury & Westwood, 1837: 80, pl. 37, fig. 5.

*Cerambyx spinosus* Degeer, 1775: 100, pl. 13, fig. 14.

**Type locality** - Holotype: Surinam. (NHRS).

*Cerambyx sulcatus* Sulzer, 1776: 45, pl. 5, fig. 6; Olivier, 1790: 304; 1795: (67) 28, pl. 16, fig. 113.

**Type locality** - Surinam. (Depository unknown).

*Cerambyx africanus* Voet, 1778: 17, pl. 16, fig. 66. (*nomen nudum*).

**Type locality** - Africa. (Depository unknown)

### ***Chrotoma* Casey, 1891**

*Chrotoma* Casey, 1891: 27; Bradley, 1930: 232; Linsley, 1962a: 82; Arnett, 1962: 863, 880; Chemsak & Linsley, 1974a: 181; Fragoso, Monné, M.A. & Seabra, 1987: 198; Monné, M.A., 2005: 555 (cat.); Monné, M.A., 2012: 8.

**Type-species** - *Chrotoma dunniana* Casey, 1891 (monotypy).

#### **1. *Chrotoma dunniana* Casey, 1891**

**Type locality** - Holotype female: United States, Texas: El Paso. (USNM).

**Distribution** - United States (Western Texas to southern California), Mexico (Baja California Norte). **Host plants** - *Condalia globosa* I.M. Johnston (Rhamnaceae), *Lycium* sp. (Solanaceae).

*Chrotoma dunniana* Casey, 1891: 27; Hamilton, in Leng & Hamilton, 1896: 166; Linsley, 1962a: 83, fig. 27; Hovore & Giesbert, 1976: 354 (hosts); Hovore, Penrose & Giesbert, 1978: 99 (hosts); Hovore, 1988: 4 (distr.); Chemsak, Linsley & Noguera, 1992: 30 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 355 (hosts); Monné, M.A., 2001b: 55 (cat. hosts); Monné, M.A., 2005: 555 (cat.); Lingafelter *et al.*, 2014: 56, figs 59i, j (holotype).

### ***Gnaphalodes Thomson, 1861***

*Gnaphalodes* Thomson, 1861: 235; 1864: 252; 1865: 455; Lacordaire, 1868: 278; LeConte, 1873a: 203; Bates, 1880: 17; Leng, 1885b: 28; Bradley, 1930: 232; Linsley, 1962a: 97; Arnett, 1962: 863, 881; Fragoso, Monné, M.A. & Seabra, 1987: 199; Monné, M.A., 2005: 569 (cat.); Monné, M. L. & Napp. 2005b: 51; Monné, M.A., 2012: 8.

**Type-species** - *Gnaphalodes trachyderoides* Thomson, 1860 (monotypy).

#### **1. *Gnaphalodes trachyderoides* Thomson, 1861**

**Syntypes locality** – Syntypes: Mexico. (MNHN). **Distribution** - United States (Texas), Mexico (Nayarit, Quintana Roo, San Luís Potosí, Sinaloa, Durango, Tamaulipas, Veracruz, Yucatán, Baja California, Jalisco, Oaxaca), Belize, Honduras, Nicaragua, Costa Rica, Panama. **Host plants** - *Parkinsonia aculeata* Linné (Caesalpiaceae), *Celtis laevigata* Willdenow, *C. pallida* Torrey (Cannabaceae), *Lonchocarpus* sp., *Phaseolus* sp. (Fabaceae), *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Bentham, *Pithecellobium flexicaule* (Bentham) Coulter, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Citrus paradisi* Macfayden (Rutaceae), *Ulmus crassifolia* Nuttall (Ulmaceae).

*Gnaphalodes trachyderoides* Thomson, 1861: 236; 1864: 252; Lacordaire, 1868: 278; Bates, 1872: 172 (distr.); LeConte, 1873a: 203; Thomson, 1878a: 7 (type); Bates, 1880: 17 (distr.); 1884: 243 (distr.); Leng, 1885b: 28, pl. 2, fig. 32; Horn, 1894: 337 (distr.); Townsend, 1903: 76 (distr.); Schaeffer, 1908: 327 (distr.); Garnett, 1918: 177 (distr.); Linsley & Martin, 1933: 180 (distr.); Linsley, 1942: 34 (distr.); Vogt, 1949: 140 (distr.); Linsley, 1962a: 97; Hovore & Giesbert, 1976: 352 (hosts); Manley & French, 1976: 47, fig. 1; Turnbow & Wappes, 1978: 368 (hosts); Chemsak, Linsley & Mankins, 1980: 33 (distr.); Hovore, Penrose & Neck, 1987: 297 (biol., distr.); Maes & Tellez Robleto, 1988: 22 (hosts); Chemsak, Linsley & Noguera, 1992: 31 (cat.); Maes *et al.*, 1994: 14 (distr.); Chemsak & Noguera, 1995: 58; Noguera & Chemsak, 1996: 397 (distr.); Linsley & Chemsak, 1997: 378 (hosts); Maes, 1998: 888 (distr.); Monné, M.A., 2001b: 57 (cat. hosts); Turnbow, Cave & Thomas, 2003: 17 (distr.); Monné, M.A., 2005: 569 (cat.); MacRae & Rice, 2007: 236 (hosts); Noguera *et al.*, 2007: 310 (distr.); Swift *et al.*, 2010: 10 (distr.); Maes *et al.*, 2010: 35, 4 figs (distr.). Noguera *et al.*, 2012: 620 (distr.); Gutiérrez & Noguera, 2015: 140 (distr.); García Morales *et al.*, 2015: 100 (distr.); Garcia Ochaeta, Aguilar Julio & Taboada-Verona., 2016: 134, fig. 1 (distr.).

*Gnaphalodes trachyderoides* var. *inermis* Bates, 1884: 243.

**Type locality** – Holotype male: Mexico, Durango: Presidio. (MNHN).

#### ***Knulliana* Linsley, 1962**

*Knulliana* Linsley, 1962a: 109; Arnett, 1962: 858, 863, 881; Fragoso, Monné, M.A. & Seabra, 1987: 199; Monné, M.A., 2005: 570 (cat.); Monné, M L. & Napp. 2005b: 51; Monné, M. A., 2012: 8.

**Type-species** - *Cerambyx cinctus* Drury, 1773 (original designation).

*Cerasphorus* Dejean, 1835: 326 (not Audinet-Serville, 1834); LeConte, 1850b: 11; Chenu, 1870: 312; Knull, 1946: 190.

*Eburia* (*Cerasphorus*); Laporte, 1840: 423.

*Chion* Newman, 1840b: 23 (not Scopoli, 1777); Thomson, 1861: 232; 1864: 243; 1865: 451; Lacordaire, 1869: 285; LeConte, 1873b: 302; Provancher, 1877: 579, 591; LeConte & Horn, 1883: 297; Leng, 1886: 115; Blatchley, 1910: 1021; Bradley, 1930: 232.

**Type-species** - *Stenocorus rusticus* Fabricius, 1781 (subsequent designation, Thomson, 1864: 232) [= *Cerambyx cinctus* Drury, 1773].

### 1. *Knulliana cincta cincta* (Drury, 1773)

**Syntypes locality** - Syntypes: United States, Virginia. (Depository unknown).

**Distribution** - Eastern North America to western Texas, south to northern Mexico. **Host plants** - *Acer saccharum* Marshall (Aceraceae), *Cercis canadensis* Linné, *Parkinsonia* sp. (Caesalpiniaceae), *Celtis laevigata* Willdenow (Cannabaceae), *Diospyros virginiana* Linné (Ebenaceae), *Castanea* sp., *Quercus alba* Linné, *Q. macrocarpa* Michaux, *Q. nigra* Linné, *Q. palustris* Du Roi, *Q. phellos* Linné, *Q. stellata* Wangenheim, *Q. velutina* Lamarck (Fagaceae), *Carya glabra* (Miller) Sweet, *C. illinoensis* (Wangenheim) K. Koch, *C. ovata* (Miller) K. Koch, *C. pecan* (Marshall) Engler & Graebner, *Juglans* sp. (Juglandaceae), *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Benth, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Prunus* sp., *Pyrus malus* Linné (Rosaceae), *Citrus paradisi* Macfadyen (Rutaceae), *Salix* sp. (Salicaceae), *Sapindus saponaria* var. *drummondii* (Hooker & Arnott) Benson (Sapindaceae), *Ulmus crassifolia* Nuttall (Ulmaceae).

*Cerambyx cinctus* Drury, 1773: 85, pl. 37, fig. 6.

*Stenocorus cinctus*; Harris, 1838: 92; 1893, 1854: 116, pl., 34, fig. 2.

*Stenocorus* (*Cerasphorus*) *cinctus*; Harris, 1841: 81.

*Cerasphorus cinctus* LeConte, 1852: 177; 1858a: 40 (distr.); Bland, 1861: 94 (distr.); Walsh, 1866: 30, fig. 8 (biol.); Knull, 1946: 191, pl. 9, fig. 37; Beal, Haliburton & Knight, 1952: 118 (biol.); Dean, 1953: 174 (hosts); Dillon & Dillon, 1961: 585, pl. 58, No. 7.

*Chion cinctus*; Packard, 1870: 594, fig. 123 (larva); Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (hosts); Packard, 1881: 70, fig. 29 (biol.); Harrington, 1884: 45 (biol.); Leng, 1885b: 28; Horn, 1885b: 5; 1885c: 88; 1886a: 138; Packard, 1890: 287, fig. 11 (biol.); Blake, 1890: 58 (distr.); Hopkins, 1893: 193 (biol.); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 75 (hosts); Wickham, 1897a: 108, fig. 18; Lugger, 1899: 196, fig. 119 (biol.); Smith, 1900: 287 (distr.); Dury, 1902: 159 (distr.); Ulke, 1903: 25 (distr., hosts); Townsend, 1903: 76 (distr.); Hopkins, 1904: 36 (biol.); Tucker, 1906: 12 (distr.); Schaeffer, 1908: 327 (distr.); Wickham, 1909a: 28 (distr.); Webb, 1909: 162 (biol.); Smith, 1910: 326; Blatchley, 1910: 1022, fig. 433; Leng, 1911: 215 (distr.); Fisher & Kirk, 1912: 210 (distr.); Leng & Mutchler, 1914: 445 (distr.); Dozier, 1918: 334 (distr.); 1920: 366 (distr.); Britton, 1920: 267 (distr.); Rohwer, 1921: 413 (paras.); Craighead, 1923: 678, pl. 8, fig. 14, pl. 28, fig. 5 (larva); Blackman & Stage, 1924: 88 (biol.); Kirk & Knull, 1926: 22 (distr.); Leonard, 1928: 435 (distr.); Ware, 1929: 368 (distr.); St. George, 1929: 7, fig. 14 (biol.); Craighead & Middleton, 1930: 12 (biol.); Beaulne, 1932: 198 (hosts); Doane *et al.*, 1936: 168 (biol.); Brimley, 1938: 210 (biol.); Loding, 1945: 114 (distr.); Vogt, 1949: 150 (distr.); Craighead, 1950: 238, figs 50a, 51b; Duffy, 1953: 276, fig



- 146-148 (larva); Papp, 1955: 217 (distr.); Alexander, 1958: 45 (distr.); Duffy, 1960: 115, figs 65,66; Zayas, 1975: 58 (exclusion).
- Knolliana cincta cincta*; Linsley, 1962: 109; Gosling, 1973: 71 (distr.); Hovore & Giesbert, 1976: 352 (hosts); Laliberte, Chantal & LaRochelle, 1977: 94 (hosts); Turnbow & Franklin, 1980: 341(distr.); Waters & Hyché, 1984: 285 (distr.); Hovore, Penrose & Neck, 1987: 298 (distr.); MacRae, 1993: 228 (distr., hosts); Lingafelter & Horner, 1993: 167 (distr.); Yanega, 1996: 46, pl. 13, fig. 148; Noguera & Chemsak, 1996: 397 (distr.); Linsley & Chemsak, 1997: 385 (hosts); Peck & Thomas, 1998: 117 (distr.); Schiefer, 1998: 120 (distr.); Vlasak & Vlasakova. 2002: 209 (distr.); Monné, M.L. & Napp, 2005: 4, figs 46, 67, 72, 84, 164; MacRae & Rice, 2007: 236 (distr., hosts); Guarnieri, 2009: 17 (distr.); Holt, 2013: 246 (distr., hosts); García Morales *et al.*, 2014: 100 (distr.); Haack, Keena & Eyre, 2017: 77; Klingeman *et al.*, 2017: 96; Bousquet, Laplante, Hammond & Langor, 2017: 75, pl.12
- Knolliana cincta*; Baker, 1972: 178, fig. 54 (biol.); Chemsak, Linsley & Noguera, 1992: 31 (cat.); Browne & Peck, 1996: 2158.
- Stenocorus garganicus* Fabricius, 1775: 178; 1781: 226; 1801: 305; Zimsen, 1964: 172 (type).
- Cerambyx (Stenocorus) garganicus*; Gmelin, 1790: 1861.
- Cerambyx garganicus*; Olivier, 1790: 303, pl. 15, fig. 105; 1795: 39, pl. 15, fig. 105; Schoenherr, 1817: 403; Palisot de Beauvois, 1821: 247.
- Cerasphorus garganicus*; Audinet-Serville, 1834b: 11; Haldeman, 1847a: 32; 1852: 378 (distr.)
- Eburia (Cerasphorus) garganica*; Laporte, 1840: 423.
- Chion garganicus*; Chevrolat, 1852: 650 (error); Provancher. 1877: 591
- Chion garganicus*; Pettit, 1871: 105 (distr.); Bates, 1884: 243; Saunders, 1887: 29 (distr.).
- Syntypes locality** - Syntypes: United States, Maryland. (BMNH).
- Cerambyx balteatus* Degeer, 1775: 111, pl. 14, fig. 3.
- Stenocorus (Cerasphorus) balteatus*; Drury & Westwood, 1837: 80, pl. 37, fig. 6
- Type locality** - Type: United States, Pennsylvania. (NHRS).
- Stenocorus rusticus* Fabricius, 1781: 228; 1801: 311; Schoenherr, 1817: 408; Zimsen, 1964: 173 (types).
- Chion rusticus*; Newman, 1840b: 23; Haldeman, 1847c: 371 (syn.); White, 1853: 112; Thomson, 1861: 244; 1864: 243.
- Cerasphorus rusticus*; LeConte, 1859d: 12.
- Type locality** – Holotype: India Orientali. (BMNH).
- Cerambyx (Stenocorus) ruricola* Gmelin, 1790: 860.
- Type locality** - unknown.
- Cerasphorus quadrispinosus* Haldeman, 1847a: 32.
- Type locality** - Holotype: United States, Pennsylvania. (MCZN).
- Chion filicorne* Casey, 1924: 256; Brimley, 1938: 210; Lingafelter *et al.*, 2014: 62, fig. 66c (holotype).
- Type locality** – Holotype male: United States, North Carolina: Southern Pines (USNM).

#### 1a. *Knolliana cincta sonorensis* (Schaeffer, 1908)

- Type locality** – Lectotype male: United States, Arizona: Huachuca Mts (USNM).
- Distribution** - United States (Southern Arizona to western Texas), northern Mexico. **Host plants** - *Cercidium* sp. (Caesalpinaceae), *Quercus arizonica*

Sargent, *Q. emoryi* Torrey, *Q. pungens* var. *vaseyana* (Buckley) C. H. Müller (Fagaceae).

*Chion cinctus* var. *sonorensis* Schaeffer, 1908: 332; Lingafelter *et al.*, 2014: 41, figs 43a, b (lect. designation).

*Cerasphorus cinctus sonorensis*; Linsley, Knull & Statham, 1961b: 21.

*Knulliana cincta sonorensis*; Linsley, 1962a: 111, fig. 35; Hovore & Giesbert, 1976: 352 (hosts); Chemsak, Linsley & Noguera, 1992: 31 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 386 (hosts); Monné, M.A., 2001b: 58 (cat. hosts); Monné, M.A., 2005: 570 (cat.).

### 1b. *Knulliana cincta spinifera* (Fabricius, 1793)

**Syntypes locality** – Syntypes: America meridionali. (Syntypes. ZMUC, ZMUK).

**Distribution** - Southeastern United States, northeastern Mexico (Tamaulipas), Bahama Islands, Guadeloupe. **Host plants** - *Metopium toxiferum* (Linné) Krug & Urban (Anacardiaceae), *Ostrya virginiana* (Miller) K. Koch (Betulaceae), *Conocarpus erectus* Linné (Combretaceae), *Carya pecan* (Marshall) Engler & Graebner (Juglandaceae), *Lysiloma latisiliqua* (Linné) Benth (Mimosaceae), *Ficus aurea* Nuttall (Moraceae).

*Lamia spinifera* Fabricius, 1793: 275; 1801: 292; Zimsen, 1964: 169 (types); Martins & Moure, 1973: 79, figs 1,2.

*Knulliana cincta spinifera*; Tavakilian, 1997: 132 (syn.); Schiefer, 1998: 120; Monné, M.A., 2001b: 58 (cat. hosts); Monné, M.A., 2005: 570 (cat.); Lingafelter, 2007: 70, 147, 2 figs, pl. 16, fig 1; Turnbow & Thomas, 2008: 19 (distr.); Touroult, 2014 : 82, fig. 1 (syn.); García Morales *et al.*, 2015: 100 (distr.); Peck, 2016: 178 (distr.).

*Eburia cinnamomea* Fleutiaux & Sallé, 1889: 463; Gahan, 1895: 98; Gilmour, 1968: 108; Villiers, 1980a: 276; Chemsak, Linsley & Noguera, 1992: 33 (cat.); Chalumeau & Touroult, 2005: 80; Monné, M.A., 2005: 143 (cat.); Peck, 2016: 173 (distr.).

*Eburia cinnamomea*; Leng & Mutchler, 1914: 445; Peck, Thomas & Turnbow, 2014: 92 (distr.). (error).

**Type locality** – Holotype female: Guadeloupe. (MNHN).

*Chion garganicus* var. (?) *ochraceus* Bates, 1885: 243.

*Chion cinctus* var. *ochraceus*; Schaeffer, 1908: 331; Knull, 1937a: 41; Loding, 1945: 114 (biol.); Fattig, 1947: 8.

*Cerasphorus cinctum ochraceum*; Cazier & Lacey, 1952: 10, fig. 1.

*Knulliana cincta ochracea*; Linsley, 1962a: 111, fig. 35; Chemsak, Linsley & Noguera, 1992: 31 (cat.); Browne, Peck & Ivie, 1993: 48 (distr., hosts); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 386 (hosts); Peck & Thomas, 1998: 117.

**Type locality** – Holotype male: Mexico. (BMNH).

### CALLICHRMATINI Swainson 1840

Callichrominae Swainson, 1840: 293, 294.

Callichromites Blanchard, 1845: 148; Thomson, 1861: 166.

Callicromitae; Blanchard *in* Gay, 1851: 464.

Callichromitae; Thomson, 1865: 157.

Callichromides; Lacordaire, 1869: 1.

Callichrominae; Pascoe, 1869: 553, 582.

Callichromatinae; Bates, 1870: 333.

Callichromini; LeConte, 1873b: 311; LeConte & Horn, 1883: 296; Leng, 1884: 114; Gahan, 1906: 189; Aurivillius, 1912: 297 (cat.); Bradley, 1930: 229; Plavilstshikov, 1940: 193; Gressitt, 1951: 189; Heyrovsky, 1955: 176; Arnett, 1962: 860, 885; Linsley, 1964: 1; Hatch, 1971: 100; Villiers, 1980b: 294.

Callichrominen; Schmidt, 1924: 297.

Callichromina; Plavilstshikov, 1934: 5.

Callichromatini; Fragoso, Monné, M.A. & Seabra, 1987: 195; Monné, M.A., 1993h: 2 (cat.); Giesbert, 1987: 35 (key); Monné, M. A., 2005: 24 (cat.); Napp & Martins, 2009: 224 (rev.); Bousquet *et al.*, 2009: 42; Bouchard *et al.*, 2011: 467.

**Type-genus:** *Callichroma* Latreille, 1816.

**Type-species:** *Cerambyx suturalis* Fabricius, 1781, designated by Desmarest (1860: 315).

Terambidae Gistel, 1848a: [8].

**Type-genus:** *Terambus* Gistel, 1848.

**Type-species:** *Cerambyx moschatus* Linnaeus, 1758 (monotypy).

### ***Plinthocoelium* Schmidt, 1924**

*Plinthocoelium* Schmidt, 1924: 300, 382; Bradley, 1930: 229; Linsley, 1964: 1; Podany, 1965: 38; Monné, M.A., 2005: 34 (cat.); Monné, M.A., 2012: 9.

*Plinthocoelium*; Arnett, 1962: 860 (error).

**Type-species** - *Cerambyx suaveolens* Linnaeus, 1758 (original designation).

*Callichroma*; LeConte, 1850b: 37; 1873b: 311; LeConte & Horn, 1883: 296; Leng, 1886: 60; Casey, 1912: 314 (not Latreille, 1816).

#### **1. *Plinthocoelium schwarzi* (Fisher, 1914)**

**Type locality** - Holotype male: United States, Texas: McAllen. (USNM).

**Distribution** - United States (Texas), Mexico (Nuevo León). **Host plants** - *Condalia* sp. (Rhamnaceae), *Cissus* sp. (Vitaceae).

*Callichroma schwarzi* Fisher, 1914: 97.

*Plinthocoelium schwarzi*; Schmidt, 1924: 385, 395; Linsley & Hurd, 1959: 27; Linsley, 1964: 3; Podany, 1965: 39 (distr.); Hovore, Penrose & Neck, 1987: 305 (distr.); Chemsak, Linsley & Noguera, 1992: 60 (distr.); Lingafelter *et al.*, 2014: 315, fig. 50e (holotype). Gutiérrez & Noguera, 2015: 141 (distr.).

*Callichroma schwarzi*; Vogt, 1949: 143 (error).

*Plinthocoelium schwarzi*; Linsley & Chemsak, 1997: 421 (hosts, error).

#### **2. *Plinthocoelium suaveolens suaveolens* (Linnaeus, 1768)**

**Syntypes locality** - Syntypes: United States, Carolina (Depository unknown)

**Distribution** - Southeastern United States to Delaware and from Florida west to eastern Texas and Missouri. **Host plants** - *Carya* sp. (Juglandaceae), *Morus* sp. (Moraceae), *Nyssa uniflora* Walter (Nyssaceae), *Bumelia lanuginosa* (Michaux) (Sapotaceae).

*Cerambyx suaveolens* Linnaeus, 1768: 224

*Cerambyx (Stenocorus) suaveolens*; Gmelin, 1790: 1862

*Plinthocoelium suaveolens*; Schmidt, 1924: 384; Linsley & Hurd, 1959: 27; Linsley, 1964: 2; Chemsak, Linsley & Noguera, 1992: 60 (cat.); Browne & Peck, 1996: 2159 (distr.).

*Plinthocoelium suaveolens suaveolens*; Linsley & Hurd, 1959: 27; Linsley, 1964: 2; Turnbow & Hovore, 1979: 222 (hosts); Turnbow & Franklin, 1980: 342 (distr.); MacRae, 1993: 232 (distr.); Yanega, 1996: 52, pl. 18, fig. 19a, 19b; Linsley &

Chemsak, 1997: 421 (hosts); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998: 118 (distr.); MacRae & Rice, 2007: 243 (distr., hosts); Holt, 2013: 246 (distr.); Klingeman *et al.*, 2017: 296 (distr.).

*Callichroma suaveolens*; Brimley, 1938: 214 (distr.); Loding, 1945: 118 (distr.); Sherman, 1946: 126 (distr.); Alexander, 1958: 45 (distr.).

*Callichroma splendidum* LeConte, 1850b: 37; White, 1853: 157; Fitch, 1858: 711 (biol.); Lacordaire, 1869: 16; Schaupp, 1878: 34 (distr.); Riley, 1880: 239 (biol.); Leng, 1886: 61, pl. 2, fig. 4; Hamilton, 1892a: 38 (distr., hosts); 1894a: 252 (distr.); Beutenmuller, 1896: 75 (hosts); Dozier, 1918: 334 (distr.); 1920: 366 (distr.).

**Syntypes localities** - Syntypes: United States, Georgia and Louisiana: New Orleans (MCZN).

*Callichroma virescens* Leng, 1886: 61.

*Callichroma suaveolens* ab. *virescens*; Aurivillius, 1912: 312 (cat.)

*Callichroma suaveolens virescens*; Loding, 1945: 118 (distr.)

**Syntypes locality** - Syntypes: United States, Southern States. (Public Museum of Staten Island).

### 1a. *Plinthocoelium suaveolens plicatum* (LeConte, 1853)

**Syntypes locality** – Syntypes: United States, Texas: Camp Bowie. (MCZN).

**Distribution** - United States (central Texas to southeastern Arizona), Mexico (Sonora, Tamaulipas). **Host plants** - *Bumelia lanuginosa* (Michaux) (Sapotaceae).

*Callichroma plicatum* LeConte, 1853: 233; 1858a: 41 (distr.); Lacordaire, 1869: 16; Leng, 1886: 61; Hamilton, 1892a: 39; Snow, 1906a: 147 (distr.); 1906b: 170 (distr.); Tucker, 1906: 87 (distr.); Fisher, 1914: 98.

*Plinthocoelium plicatum*; Schmidt, 1924: 383.

*Plinthocoelium suaveolens plicatum*; Linsley & Hurd, 1959: 27, pls 9-11; Linsley, Knull & Statham, 1961b: 17, fig. 6 (distr., hosts); Linsley, 1964: 3, color fig.; Hovore, Penrose & Neck, 1987: 305 (distr., biol.); Chemsak, Linsley & Noguera, 1992: 60 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 421 (hosts); Monné, M.A., 2001a: 18 (cat. hosts); Monné, M.A., 2005: 35 (cat.); Gutiérrez & Noguera, 2015: 141 (distr.).

*Callichroma smaragdina* Casey, 1912: 314; Fisher, 1914: 98; Lingafelter *et al.*, 2014: 321, figs 156w, x (lect. designation).

*Plinthocoelium smaragdinum*; Schmidt, 1924: 384.

**Type locality** – Lectotype male: United States, Texas. (USNM).

*Plinthocoelium suaveolens smaragdinoides* Schmidt, 1924: 384.

**Syntypes locality** – Syntypes male: United States, Texas: Dallas. (ZMHB).

### CALLIDIINI Kirby, 1837

Callidiadae Kirby, 1837: 170.

Callidiaries Mulsant, 1839: 27, 38; 1862-63: 54, 78.

Callidiites; Blanchard, 1845: 152; Fairmaire *in* Jacquelin DuVal, 1864: 131, 192.

Callidiidae; Gistel, 1848a: (8).

Callidiina; Thomson, C. G., 1859: 148; 1866: 24; Reitter, 1912: 25, 34; Plavilstshikov, 1934: 154.

Callidiitae; Thomson, 1861: 257; 1864: 163.

Callidiini; LeConte, 1873b: 295; LeConte & Horn, 1883: 280; Leng, 1884: 61; Blatchley, 1910: 1016; Aurivillius, 1912: 336 (cat.); Casey, 1912: 269; Portevin, 1927: 30; Bradley, 1930: 228, 238; Plavilstshikov, 1940: 232; Knull, 1946: 204; Heyrovsky, 1955: 182; Duffey, 1957: 136; 1960: 143; Arnett, 1962: 861, 886;

Linsley, 1964: 11; Hatch, 1971: 100; Monné, M.A., 1993h: 35 (cat.); Monné, M.A., 2005: 40 (cat.); Bousquet *et al.*, 2009: 43; Bouchard *et al.*, 2011: 468.

Callidini; Gressitt, 1951: 216; Duffy, 1953: 207.

**Type-genus:** *Callidium* Fabricius, 1775.

**Type-species:** *Cerambyx violaceus* Linnaeus, 1758 designated by Thomson (1864: 264).

Phymatodates Mulsant, 1863: 397

**Type-genus:** *Phymatodes* Mulsant, 1839 [placed on the Official List of Generic Names in Zoology (ICZN 1989a)]. Comment: original vernacular name unavailable (Art.11.7.2): not subsequently latinized.

### ***Callidiellum* Linsley, 1940**

*Callidiellum* Linsley, 1940a: 254; 1957b: 287; Arnett, 1962: 867, 886; Linsley, 1964: 17; Chemsak & Linsley, 1966: 151; Hatch, 1971: 111.

**Type-species** - *Semanotus cupressi* Van Dyke, 1923 (original designation).

#### **1. *Callidiellum cupressi* (Van Dyke, 1923)**

**Type locality** - Holotype male: United States, California: Marin County, Cypress Ridge. (CASC). **Distribution** - United States, California: dry serpentine ridges of Marin, Alameda, Contra Costa, Lake and Napa Cos., to San Luis Obispo Co. **Host plants** - *Cupressus goveniana* Gordon, *C. macrocarpa* Hartweg ex Gordon, *C. sargentii* Jepson.

*Semanotus cupressi* Van Dyke, 1923: 48; Essig, 1926: 455 (biol.); Linsley & Usinger, 1936: 55 (distr.).

*Callidiellum cupressi*; Linsley, 1940a: 254; 1957b: 287 (hosts); 1964: 17, fig. 6; Chemsak & Powell, 1964: 119, pl. 1 (biol.); Chemsak & Linsley, 1966: 251 figs 1-3 (biol.); Chemsak, Linsley & Noguera, 1992: 61 (cat.); Linsley & Chemsak, 1997: 351 (hosts); Drumont *et al.*, 2014: 239 (distr.).

#### **2. *Callidiellum rufipennis* (Motschulsky, 1861)**

**Syntypes locality** – Syntypes male: Japan. (ZMUM). **Distribution** – Eastern Asia: China, Korea Republic, Korea Democratic People’s Republic, Sakhalin, Japan, Ryukyu Islands, Taiwan. Introduced in Canada, United States New Zealand and Argentina (Buenos Aires). **Host plants** - *Juniperus rigida* Siebold & Zuccarini, *Chamaecyparis lawsoniana* (A. Murray) Parlatore, *C. nootkatensis* (D. Don) Spach, *C. obtusa* (Siebold & Zuccarini) Endlicher, *C. pisifera* Siebold & Zuccarini, *Cupressus macrocarpa* Hartweg ex Gordon, *Juniperus communis* Linné, *J. scopulorum* Sargent, *J. virginiana* Linné, Thuja occidentalis Linné, *T. orientalis* Linné, *Thujopsis dolabrata* Hortulanorum ex Carrière, *Thujopsis standishii* Gordon (Cupressaceae), *Quercus aliena* Blume (Fagaceae), *Abies firma* Siebold & Zuccarini, *A. holophylla* Maximowicz, *A. sachalinensis* Masters, *Larix kaempferi* Fortune ex Gordon, *Picea jezoensis* Carrière, *Pinus densiflora* Siebold & Zuccarini, *Pinus thunbergii* Parlatore (Pinaceae), *Taxus cuspidata* Siebold & Zuccarini (Taxaceae), *Cryptomeria japonica* D. Don (Taxodiaceae)

*Callidium rufipenne* Motschulsky, 1861: 19; Leech, 1949: 26 (distr.); Monné, M.A., 1993h: 94 (distr.).

*Callidiellum rufipenne*; Linsley, 1964: 17; Hatch, 1971: 113; Maier & Lemmon, 2000: 747, figs 1-5 (distr., hosts); Di Iorio, 2004d: 671 (distr.); Ray, Lacey & Hanks, 2006: 545 (pheromones); Turienzo, 2006: 155 (distr.); Lingafelter, 2007: 90, 144, pl. 21, fig. 1, 2 figs (hosts); Maier, 2007: 1291 (distr., hosts); Rutledge, Millar,

Romero & Hanks, 2009: 1267 (pherom.); Maier & Graney, 2012: 417 (distr.); Haack in Wang, 2017: w/page fig. 11.3 (biol., hosts); Nakamuta, Zou, Hanks & Millar, 2017: 93 (pherom).

*Callidium nigromaculatum* Kano, 1933: 274.

**Type locality** - Holotype female: Japan, Honshu: Tokyo, Aoyama. (NSMJ).

*Callidium japonicum* Plavilstshikov, 1933: 126 (preoccupied name); Danilevsky, 2009: 704 (lect.).

*Semanotus plavilstshikovi* Matsushita, 1933: 439 (new name).

**Type locality** - Holotype female: Japan, Kyushu, Nagasaki Prefecture: Unzen. (ZMUM).

### 3. *Callidiellum virescens* Chemsak & Linsley, 1966

**Type locality** - United States, Arizona: Manzanita Forest Camp, Oak Creek Canyon, Coconino County. (CASC). **Distribution** - United States (Arizona, Otay Mountain area in southern San Diego County, California). **Host plants** - *Cupressus forbesii* Jepson, *C. glabra* Sandwith (Cupressaceae).

*Callidiellum virescens* Chemsak & Linsley, 1966: 152, figs 1-3; Chemsak, Linsley & Noguera, 1962: 61 (cat.); Swift, 2008a: 2 (hosts); Drumont *et al.*, 2014: 239 (distr.).

### *Callidium* Fabricius, 1775

*Callidium* Fabricius, 1775: 187; Mulsant, 1839: 42 (not Fabricius, 1775); Thomson, C. G. 1859: 150; Thomson, 1861: 258; Mulsant, 1863: 84; Thomson, 1864: 264; 1865: 462; Schjodte, 1865: 205; Lacordaire, 1869: 52; Chenu, 1870: 319; Girard, 1873: 727; LeConte, 1873b: 296; Provancher, 1877: 578, 590; LeConte & Horn, 1883: 281; Leng, 1884: 112; Wickham, 1897a: 107; Casey, 1912: 287; Reitter, 1912: 37; Planet, 1924: 220; Portevin, 1927: 33; Picard, 1929: 93; Bradley, 1930: 238; Plavilstshikov, 1934: 156, 193; 1940: 287; Chagnon, 1938: 257; Knull, 1946: 208; Villiers, 1946: 87; Gressitt, 1951: 223; Heyrovsky, 1955: 198; Arnett, 1962: 867, 886; Chagnon & Robert, 1962: 253, 257; Linsley, 1964: 28; Hatch, 1971: 111; Monné, M.A., 2005: 40 (cat.); Bousquet *et al.*, 2009: 42; Monné, M.A., 2012: 10; Bousquet, Laplante, Hammond & Langor, 2017: 53 (key spp.)

**Type-species** - *Cerambyx violaceus* Linnaeus, 1758 (Thomson, C. G. designation, 1859: 150).

*Meridion* Gozis, 1886: 32.

**Type-species** - *Cerambyx violaceus* Linnaeus, 1758 (original designation).

*Callidium* (*Callidostola*) Reitter, 1912: 37; Plavilstshikov, 1934: 201.

**Type-species** - *Callidium aeneum* Degeer, 1775 (monotypy).

### 1. *Callidium angustipennis* Chemsak, 1964

**Type locality** - Holotype male: United States, California: 2 miles South of Adin Summit, Modoc County. (CASC). **Distribution** - United States (California). **Host plants** - *Juniperus occidentalis* Hooker (Cupressaceae).

*Callidium angustipennis* Chemsak, 1964: 187, fig.1; Ruetter, 1970: 18 (paratype); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 42 (cat.); Linsley & Chemsak, 1997: 351 (hosts).

### 2. *Callidium antenatum antennatum* Newman, 1838

**Type locality** - Holotype: North America. (BMNH). **Distribution** - Canada, United States (North America east of Rocky Mts). **Host plants** - *Picea* sp., *Pinus*

- banksiana* Lambert, *P. contorta* Douglas ex Loudon, *P. nigra laricio* (Poiret) Maire, *P. rigida* Miller, *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae).
- Callidium antennatum* Newman, 1838: 393; Haldeman, 1847c: 372; White, 1855: 316; LeConte, 1857: 23 (distr.); Fitch, 1858: 713 (biol.); Bland, 1861: 95 (distr., hosts); Walsh, 1865: 206; 1867: 109 (biol.); Lacordaire, 1869: 52; Packard, 1872: 496; Riley, 1880: 238 (hosts); Packard, 1881: 159, 246 (biol.); Harrington, 1881: 33 (hosts); Leng, 1884: 112; 1885: 35, pl. 1, fig.16; Horn, 1885b: 5; Snow, 1885: 68 (distr.); Packard, 1890: 700, 906, fig. 236 (biol.); Hopkins, 1893: 293 (biol.); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 75 (hosts); Wickham, 1897a: 107; 1897b: 156 (distr.); Smith, 1900: 287 (distr.); Fall, 1901: 144 (distr.); Dury, 1902: 158 (distr.); MacGillivray & Houghton, 1902: 252 (distr.); Ulke, 1903: 25 (distr.); Hopkins, 1904: 37; Felt, 1906: 660, fig. 189 (biol.); Knaus, 1906: 234 (distr.); Snow, 1906b: 179 (distr.); Tucker, 1906: 12 (distr.); Fall & Cockerell, 1907: 191 (distr.); Smith, 1910: 287; Blatchley, 1910: 1019, fig. 430; Elliott & Morley, 1911: 465 (paras.); Frost, 1912: 306; Casey, 1912: 287; Johnson, 1915: 315 (distr.); Morris, 1916: 19 (hosts); Schaeffer, 1917: 183; Chagnon, 1917: 231 (distr.); Garnett, 1918: 175 (distr.); Nicolay, 1919: 64 (distr.); Britton, 1920: 269 (distr.); Craighead, 1921: 203 (biol.); 1923: 47 (larva); Kirk & Knull, 1926: 39 (distr.); Essig, 1926: 455, fig.358 (biol.); Leonard, 1928: 444 (distr.); St. George, 1929: 8, fig. 18 (biol.); Craighead & Middleton, 1930: 12 (biol.); Pack, 1930: 220 (distr.); Beaulne, 1932: 201 (hosts); Goldman, 1933: 94, pl. 5, figs 36-39; Easterling, 1934: 140 (hosts); Herrick, 1935: 251, 379, fig. 309 (biol.); Doane *et al.*, 1936: 281; Brimley, 1938: 215 (distr.); Savely, 1939: 354, 357 (biol.); Palmerlee, 1941: 377 (hosts); Loding, 1945: 119 (distr.); Knull, 1946: 208; Craighead, 1950: 240, fig. 52F; Knowlton & Wood, 1950: 12 (distr.); Beal, Haliburton & Knight, 1952: 121 (biol.); Papp, 1955: 218 (distr.); Dillon & Dillon, 1961: 594, pl. 59, No 1; Peck, 1963: 955 (paras.); Linsley, 1964: 33; Deyrup, 1977: 182 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Lingafelter, 2007: 85, 144, 2 figs, pl. 20, fig. h (hosts); Haack, 2017: 113 (hosts); Klingeman *et al.*, 2017: 296 (distr.)
- Callidium antenatum antenatum*; Linsley. 1964: 34, fig. 36; Gosling, 1973: 76 (biol., distr.); Kirk & Balsbaugh, 1975: 98 (distr.); Turnbow & Franklin, 1980: 342 (distr.); Monné, M.A., 1993h: 42 (cat.); MacRae, 1993: 232 (distr.); Yanega, 1996: 52, pl. 18, figs 216a-b; Linsley & Chemsak, 1997: 351 (hosts); Schiefer, 1998: 118 (distr.); Vlasák & Vlasakova, 2002: 210 (distr., hosts); Staines, 2008: 146 (distr.); Holt, 2013: 246 (distr.); Spomer, 2014: 299 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 54
- Callidium atennatum*; LeConte, 1850b: 34 (error).

## 2a. *Callidium antennatum hesperum* Casey, 1912

**Type locality** - Lectotype: United States, Nevada. (USNM). **Distribution** - Canada, United States (Pacific coast of North America from British Columbia to California and Rocky Mts.). **Host plants** - *Pinus balfouriana* (Jeffrey) ex A. Murray, *P. cembroides* Zuccarini, *P. edulis* Engelhorn, *P. flexilis* James, *P. jeffreyi* Balfour, *P. monophylla* Torrey & Frémont, *P. ponderosa* Douglas ex Lawson & P. Lawson, *Pseudotsuga menziesii* (Mirbel) Franco, *Tsuga mertensiana* (Bongard) Carrière (Pinaceae).

- Callidium antennatum hesperum* Casey, 1912: 288; Schaeffer, 1917: 148 (distr.); Doane *et al.*, 1936: 181; Powell, 1962: 70 (hosts); Linsley, 1964: 36, figs 12-2, 13, 14; Chemsak & Powell, 1964: 122 (hosts); Tyson, 1970b: 297 (hosts); Hatch, 1971: 114, pl. 12, figs 4, 4a; Baker, 1972: 194, fig. 66 (biol.); Swan & Papp, 1972: 447,

fig. 945; Furniss & Carolin, 1977: 299 (hosts); Rice, Turnbow & Hovore, 1985: 20 (distr.); MacKay, Zak & Hovore, 1987: 364 (distr.); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné. M.A., 1993h: 43 (cat.); Linsley & Chemsak, 1997: 351 (hosts); Heffern, 1998: 13 (distr.); MacRae & Rice, 2007: 230 (distr., hosts); Lingafelter *et al.*, 2014: 17, 366, fig. 17o (lectotype); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 54 (syn.).

*Callidium antennatum* var. *hesperum*; Knowlton & Thatcher, 1936: 279 (distr.); Bedard, 1938: 183 (hosts); Miller, 1943: 1, figs 1-4 (biol.); Knowlton & Wood, 1950: 12 (distr.); Keen, 1952: 194, figs 92, A-D (biol.).

*Callidium vancouverense* Van Dyke, 1927: 104; Hardy & Preece, 1927b: 65 (hosts); Criddle, 1928: 97 (distr.); Hardy, 1942: 11 (biol.); 1944: 17 (distr.); Keen, 1952: 47 (hosts); Ruetter, 1970: 18 (paratype)

**Type locality** - Holotype male: Canada, British Columbia: Sydney, Vancouver Island. (CASC).

### 3. *Callidium californicum* Casey, 1912

**Type locality** - Holotype male: United States, California. (USNM). **Distribution** - United States (California: Sierra Nevada Mts). **Host plants** - *Calocedrus decurrens* (Torrey) Florin (Cupressaceae).

*Callidium californicum* Casey, 1912: 289; Schaeffer, 1917: 186 (distr.); Essig, 1926: 455 (biol.); Knowlton & Thatcher, 1936: 279 (distr.); Knowlton & Wood, 1950: 12 (distr.); Keen, 1952: 47 (hosts); Linsley, 1964: 44; Tyson, 1966: 203 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 43 (cat.); Linsley & Chemsak, 1997: 351 (hosts); Lingafelter *et al.*, 2014: 35, fig. 36g (holotype).

### 4. *Callidium cicatricosum* Mannerheim 1853

**Type locality** - Holotype: United States, Alaska: Peninsula Kenai, Mouth of Kaktnu River. (MZHF). **Distribution** - Alaska to Oregon & northern Rocky Mountains. **Host plants** - *Abies grandis* (Lambert) Lindley, *Pinus jeffreyi* Balfour, *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae).

*Callidium cicatricosum* Mannerheim, 1853: 246; LeConte, 1857: 23; Lacordaire, 1869: 52; Leng, 1884: 113; Hamilton, 1894c: 31; Casey, 1912: 290; Lange, 1937: 173 (hosts); Linsley, 1964: 32; Hatch, 1971: 113; Furniss & Carolin 1977: 299 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 43 (cat.); Linsley & Chemsak, 1997: 352 (hosts); Heffern, 1998: 14 (distr.); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 54, pl. 6

*Callidium subopacum*; Ruetter, 1970: 18 (type).

**Type locality** - Holotype: Canada, Yukon Territory: South Rampart House. (CNCI).

### 5. *Callidium frigidum* Casey, 1912

**Type locality** - Holotype female: Canada. (USNM). **Distribution** - Canada, United States (Eastern Canada and Atlantic states to Virginia and Minnesota). **Host plants** - *Juniperus ashei* Buchholz, *J. communis* Linné, *J. virginiana* Linné, *Thuja occidentalis* Linné (Cupressaceae), *Pinus strobus* Linné (Pinaceae).

*Callidium frigidum* Casey, 1912: 289; Schaeffer, 1917: 186 (distr.); Nicolay, 1919: 65 (distr.); Britton, 1920: 269 (distr.); Kirk & Knull, 1926: 39 (distr.); Leonard, 1928: 444 (distr.); Beaulne, 1932: 201 (hosts); Chagnon, 1938: 257; Chagnon & Robert, 1962: 257; Linsley, 1964: 41, fig. 12-3 (syn.); Gosling, 1973: 76 (biol., distr.);



Laliberté, Chantal & LaRoche, 1977: 91 (hosts); Gosling, 1984: 71 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); MacRae, 1993: 232 (distr.); Monné, M.A., 1993h: 43 (cat.); Yanega, 1996: 52, pl. 18, figs 218a, 218b; Linsley & Chemsak, 1997: 352 (hosts); Vlasák & Vlasakova, 2002: 210 (distr.); Lingafelter, 2007: 85, 144, 2 figs, pl. 20, fig. e (hosts); MacRae & Rice, 2007: 230 (distr., hosts); Maier, 2009: 438 (hosts); Lingafelter *et al.*, 2014: 76, fig. 71e (holotype); Webster *et al.*, 2016:112 (distr., hosts); Bousquet, Laplante, Hammond & Langor, 2017: 54

*Callidium lacustre* Casey, 1912: 289; Schaeffer, 1917: 187; Lingafelter *et al.*, 2014: 85, fig. 93a.

**Type locality** - Holotype female: United States, Wisconsin: Bayfield. (USNM).

#### 6. *Callidium hoppingi* Linsley, 1957

**Type locality** - Holotype male: Canada, British Columbia: Canyon House, about 30 miles West of Princeton.(CASC). **Distribution** - Canada, United States (British Columbia to Utah and Arizona). **Host plants** - *Juniperus scopulorum* Sargent (Cupressaceae).

*Callidium hoppingi* Linsley, 1957c: 33; 1964: 42; Hatch, 1971:114 (distr.); Furniss & Carolin, 1977: 299 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 44 (cat.); Linsley & Chemsak, 1997: 352 (hosts); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 55, pl. 6

#### 7. *Callidium juniperi* Fisher, 1920

**Type locality** - Holotype male: United States, New Mexico: Maxwell. (USNM). **Distribution** - United States (Oklahoma, New Mexico, Colorado and Utah). **Host plants** - *Juniperus californica osteosperma* (Torrey) E. Murray, *Juniperus occidentalis* Hooker (Cupressaceae).

*Callidium juniperi* Fisher, 1920: 157 (hosts); Keen, 1952: 47 (hosts); Alexander, 1958: 45 (distr.); Linsley, 1964: 38; Furniss & Carolin, 1977: 299 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 44 (cat.); Linsley & Chemsak, 1997: 352 (hosts); Heffern, 1998: 14 (distr.); Lingafelter *et al.*, , 2014: 84, fig. 91o (holotype).

#### 8. *Callidium leechi* Linsley & Chemsak, 1963

**Type locality** - Holotype male: United States, California: Marin County, Mill Valley. (CASC). **Distribution** - United States (California, San Francisco Bay area). **Host plants** - *Sequoia sempervirens* (D. Don) Endlicher (Taxodiaceae).

*Callidium leechi* Linsley & Chemsak, 1963: 209; Linsley, 1964: 43; Ruetter, 1970: 18 (paratype); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A.,1993h: 44 (cat.); Linsley & Chemsak, 1997: 352 (hosts).

#### 9. *Callidium powelli* Linsley & Chemsak, 1963

**Type locality** - Holotype male: United States, California: San Bernardino County, Desert Springs. (CASC). **Distribution** - United States (California: Western Mojave Desert). **Host plants** - *Juniperus californica* Afonso-Carrillo (Cupressaceae).

*Callidium powelli* Linsley & Chemsak, 1963: 207; Linsley, 1964: 40; Chemsak & Powell, 1964: 120 (biol.); Ruetter, 1970: 18 (paratype); Chemsak, Linsley &

Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 44 (cat.); Linsley & Chemsak, 1997: 352 (hosts).

#### 10. *Callidium pseudotsugae* Fisher, 1920

**Type locality** - Holotype male: United States, California: Wright. (USNM).

**Distribution** - United States (Oregon to southern California). **Host plants** - *Abies concolor* Gordon & Glen, *A. magnifica* A. Murray, *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae).

*Callidium pseudotsugae* Fisher, 1920: 155 (hosts); Doane *et al.*, 1936: 181 (biol.); Keen, 1952: 47 (hosts); Linsley, 1964: 36, fig. 15; Hatch, 1971: 114, pl. 12, fig. 7; Furniss & Carolin, 1977: 299 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 44 (cat.); Linsley & Chemsak, 1997: 252 (hosts); Lingafelter *et al.*, 2014: 303, fig. 37a (holotype); Rice, MacRae & Merickel, 2017: 669 (distr.).

*Callidium pseudotsuga*; Essig, 1926: 455 (biol., error).

#### 11. *Callidium schotti* Schaeffer, 1917

**Type locality** - Holotype male: United States, New York: Huntington, Long Island. (USNM).

**Distribution** - Northeastern United States and southern Canada. **Host plants** - *Chamaecyparis* sp. (Cupressaceae), *Pinus resinosa* Aiton (Pinaceae).

*Callidium schotti* Schaeffer, 1917: 184; Nicolay, 1919: 64 (distr.); Kirk & Knull, 1926: 39 (distr.); Leonard, 1928: 444 (distr.); Brimley, 1938: 215 (distr.); Knull, 1946: 208, pl. 15, fig. 58; Spencer, 1958: 72; Linsley, 1964: 32, fig. 12-1; Gosling, 1986: 155 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 44 (cat.); Yanega, 1996: 52, pl. 18, fig. 214; Linsley & Chemsak, 1997: 352 (hosts); Lingafelter, 2007: 85, 144, 2 figs, pl. 20, fig. g (hosts); Lingafelter *et al.*, 2014: 315, fig. 150a (holotype).

#### 12. *Callidium sempervirens* Linsley, 1942

**Type locality** - Holotype male: United States, California: Santa Cruz (CASC).

**Distribution** - United States (Coastal California south to Monterey Co.). **Host plants** - *Sequoia sempervirens* (D. Don) Endlicher (Taxodiaceae).

*Callidium sempervirens* Linsley, 1942: 192; Tilden, 1945: 30 (hosts); DeLeon, 1952: 80 (hosts); Keen, 1952: 47 (hosts); Linsley, 1964: 38; Furniss & Carolin, 1977: 200 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 44 (cat.); Linsley & Chemsak, 1997: 252 (hosts).

#### 13. *Callidium sequoiarium* Fisher, 1920

**Type locality** - Holotype male: United States, California: Santa Cruz, Sequoia Gigant Forest. (USNM). **Distribution** - United States (California: Tulare, Fresno and Kern Cos.). **Host plants** - *Sequoiadendron giganteum* (Lindley) Buchholz (Taxodiaceae).

*Callidium sequoiarium* Fisher, 1920: 156 (hosts); Essig, 1926: 455 (biol.); Van Dyke, 1928b: 172; Doane *et al.*, 1936: 181 (hosts); DeLeon, 1952: 87 (hosts); Linsley, 1964: 40; Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 45 (cat.); Linsley & Chemsak, 1997: 352 (hosts); Lingafelter *et al.*, 2014: 317, fig. 152 m (holotype).

*Callidium sequoiae*; Cushman, 1922: 6 (paras., error).

*Callidium sequarium*; Keen, 1952: 47 (hosts, error).

*Callidium sequoiarum*; Furniss & Carolin, 1977: 299 (hosts, error).

**14. *Callidium texanum* Schaeffer, 1917**

**Type locality** - Holotype male: United States, Texas. (USNM). **Distribution** - Eastern United States to Arizona, Utah and Nevada. **Host plants** - *Cupressus sempervirens* Linné, *Juniperus ashei* Buchholz, *J. occidentalis* Hooker, *J. osteosperma* (Torrey) Little, *J. virginiana* Linné (Cupressaceae).

*Callidium texanum* Schaeffer, 1917: 185; Vogt, 1949: 143 (distr.); Chemsak, 1962a: 321, fig. 1 (biol.); Linsley, 1964: 39, fig. 12-4; White, 1968: 31 (biol.); Tyson, 1970b: 297 (hosts); Hatch, 1971: 114, pl. 12, fig. 6; Baker, 1972: 195 (biol.); Furniss & Carolin, 1977: 299 (hosts); Turnbow & Franklin, 1980: 342 (distr., hosts); Hovore, Penrose & Neck, 1987: 322 (distr.); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 45 (cat.); Yanega, 1996: 52, pl. 18, figs 215a,b; Linsley & Chemsak, 1997: 352 (hosts); Heffern, 1998: 14 (distr.); Schiefer, 1998: 118 (distr.); Westcott *et al.*, 2006: 9 (distr.); Lingafelter, 2007: 85, 145, 2 figs, pl. 20, fig. f (hosts); Lingafelter *et al.*, 2014: 332, fig. 169w; Klingeman *et al.*, 2017: 296 (distr.).

**15. *Callidium vandykei* Linsley, 1957**

**Type locality** - Holotype male: United States, California: Arbolado (mouth of Big Sur River). (CASC).

**Distribution** - United States (Coastal California from Monterey Co. to San Mateo Co.). **Host plants** - *Cupressus macrocarpa* Hartweg ex Gordon (Cupressaceae), *Sequoia sempervirens* (D. Don) Endlicher (Taxodiaceae).

*Callidium pallidum* Van Dyke, 1928a: 111 (preoccupied); 1928b: 172 (hosts); Tilden, 1945: 30 (hosts); DeLeon, 1952: 80 (hosts); Keen, 1952: 195 (hosts).

*Callidium vandykei* Linsley, 1957b: 287 (*nom. nov.*); 1964: 37; Tyson, 1966: 203 (hosts); Cope, 1984a: 28 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 45 (cat.); Linsley & Chemsak, 1997: 353 (hosts).

**16. *Callidium violaceipenne* Linsley & Chemsak, 1963**

**Type locality** - Holotype male: United States, California: Humboldt Co., Hartsook Grove. (CASC). **Distribution** - United States (California). **Host plants** - *Sequoia sempervirens* (D. Don) Endlicher (Taxodiaceae).

*Callidium violaceipenne* Linsley & Chemsak, 1963: 208; Linsley, 1964: 42; Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 45 (cat.); Linsley & Chemsak, 1997: 353 (hosts).

**17. *Callidium violaceum* (Linnaeus, 1758)**

**Syntypes locality** - Syntypes: Sweden. (UZIUI). **Distribution** - Europe, Transcaucasia, Siberia, China, Korea, Saghalien, Japan (Kokkaido, Honshu), introduced in: United States (New York, Massachusetts, Maine, Vermont), Canada (Newfoundland) and Uruguay. **Host plants** - *Alnus hirsuta* Turczaninow, *A. japonica* (Thunberg) Steudel (Betulaceae), *Carpinus tschonoskii* Maximowicz, *C. turczaninowii* Hance (Corylaceae), *Juniperus virginiana* Linné (Cupressaceae), *Castanea crenata* Siebold & Zuccarini, *C. henryi* Rehder & E. H. Wilson, *C. sativa* Miller, *Fagus engleriana* Seemen ex Diels, *F. sylvatica* Linné, *Quercus* sp. (Fagaceae), *Abies sachalinensis* Masters, *Larix europaea* de Candolle, *L. gmelinii* Ledebour ex Gordon, *L. kaempferi* Fortune ex Gordon, *L. laricina* (Duroi) K. Koch, *Picea abies* Linné, *P. glehnii* Masters, *P. jezoensis* (Siebold & Zuccarini) Carrière ssp. *hondoensis* (Mayr) P. A. Schmidt, *P. jezoensis* Carrière, *Pinus sylvestris* Linné,

*Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae), *Fagara* sp. (Rutaceae), *Populus maximowiczii* Henry, *Salix* sp. (Salicaceae).

*Cerambyx violaceus* Linnaeus, 1758: 395.

*Callidium violaceum*; Fabricius, 1775: 188; Harris, 1838: 95; 1841: 83; Haldeman, 1847a: 37; Pettit, 1871: 106; Provancher, 1877: 590; Hamilton, 1894b: 395; Shoebottom, 1909: 114 (biol.); Schaeffer, 1917: 185 (syn.); Kirk & Knull, 1926: 39 (distr.); Procter, 1927: 112 (distr.); Leonard, 1928: 444 (distr.); Beaulne, 1932: 201 (hosts); Chagnon, 1938: 257, pl. 17, fig. 3; 1939: 86; Knull, 1946: 208; Procter, 1946: 180 (biol.); Gardiner, 1957: 251 (biol.); Zajciw & Ruffinelli, 1962: 50 (distr.); Chagnon & Robert, 1962: 257, pl. 17, fig. 3; Linsley, 1964: 30; Monné, M.A. & Zajciw, 1970: 32 (distr.); Gosling, 1973: 76 (biol.); Laliberté, Chantal & LaRochelle, 1977: 91 (hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 45 (cat.); Yanega, 1996: 53, pl. 18, figs 217a-b; Linsley & Chemsak, 1997: 253 (hosts); Heffern, 1998: 24 (distr., exclusion); Vlasák & Vlasakova, 2002: 210 (distr.); Sama, 2003: 71, figs 393, 394; Majka, McCorquodale & Smith, 2007: 261 (distr.); Lingafelter, 2007: 86, 145, 2 figs, pl. 20, fig. i (hosts); Staines, 2008: 146 (distr.); Maier, 2009: 438 (distr., hosts); McCorquodale, 2010: 468 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 55, pl. 6

*Callidium janthinum* LeConte, 1850b: 24; 1858a: 40; 1869: 371 (distr.); Walsh, 1865: 206; 1867: 109; Lacordaire, 1869: 52; Pettit, 1871: 106 (distr.); Provancher, 1877: 591; LeConte, 1878b: 461 (distr.); Harrington, 1881: 33 (hosts); Leng, 1884: 112; Hamilton, 1889: 145; Packard, 1890: 809 (hosts); Slossom, 1895b: 319 (distr.); Beutenmuller, 1896: 75 (hosts); Wickham, 1897a: 107; Hopkins, 1899: 1 (hosts); Smith, 1900: 287 (distr.); Chittenden, 1901: 91; Dury, 1902: 158 (distr.); Ulke, 1903: 25 (distr.); Chagnon, 1905: 35 (distr.); Wenzel, 1906: 267 (distr.); Engelhardt, 1909: 189 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 335 (distr.); Blatchley, 1910: 1019; Frost, 1912: 306; Casey, 1912: 288; Johnson, 1915: 315 (distr.); Chagnon, 1917: 231 (distr.); Nicolay, 1917: 94 (distr.); Hatch, 1925: 580 (distr.); Craighead, 1950: 240 (biol.).

**Syntypes locality** - Syntypes female: United States, New York: New York. (MCZN).

### 18. *Callidium viridocyaneum* Linsley & Chemsak, 1963

**Type locality** - Holotype male: United States, South Dakota: Pine Ridge, Shannon County. (CASC). **Distribution** - United States (South Dakota).

*Callidium viridocyaneum* Linsley & Chemsak, 1963: 208; Linsley, 1964: 43; Ruetten, 1970: 18 (paratype); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 46 (cat.); Monné, M.A. & Hovore, 2006: 32 (cat.).

### *Elatotrypes* Fisher, 1919

*Elatotrypes* Fisher, 1919: 38; Bradley, 1930: 238; Arnett, 1962: 867, 886; Linsley, 1964: 72; Hatch, 1971: 111; Monné, M.A., 1993bh: 56 (cat.)

**Type-species** - *Elatotrypes hoferi* Fisher, 1919 (original designation).

#### 1. *Elatotrypes hoferi* Fisher, 1919

**Type locality** - Holotype female: United States, Colorado: El Paso County, Ute Pass. (USNM). **Distribution** - United States (Great Basin region from Colorado to east side of Sierra Nevada Mts.). **Host plants** - *Juniperus californica* Afonso-Carrillo (Cupressaceae), *Pinus flexilis* James, *P. ponderosa* Douglas ex Lawson & P. Lawson (Pinaceae).

*Elatotrypes hoferi* Fisher, 1919: 39 (hosts); Linsley, 1964: 73, fig. 23; Barr & Penrose, 1969: 90 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 62 (cat.); Monné, M.A., 1993h: 56 (cat.); Linsley & Chemsak, 1997: 372 (hosts); Heffern, 1998: 14 (dustr.); Lingafelter *et al.*, 2014: 76, fig. 82o (holotype); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 61, pl. 8  
*Xylocrius* sp. Craighead, 1923: 49 (larva).

### ***Meriellum* LeConte, 1873**

*Merium* LeConte, 1873b: 296; Provancher, 1877: 578; LeConte & Horn, 1883: 281; Leng, 1884: 101; Wickham, 1897a: 85; Blatchley, 1910: 1019; Casey, 1912: 286; Bradley, 1930: 238; Chagnon, 1938: 260; Knull, 1946: 204; Chagnon & Robert, 1962: 254, 260.

*Meriellum* Linsley, 1957b: 287; Arnett, 1962: 867; Linsley, 1964: 25; Hatch, 1971: 111; Monné, M.A., 1993h: 41 (cat.).

**Type-species** - *Callidium (Merium) proteus* Kirby, 1837 (original designation).

#### **1. *Meriellum proteus* (Kirby, 1837)**

**Syntypes locality** - Syntypes: North America, latitude 45 degrees. (BMNH).

**Distribution** - Quebec, Hudson Bay Territory, and northeastern United States to Yukon Territory and Alaska; southward into British Columbia, Colorado, and the Great Lakes region. **Host plants** - *Picea* sp., *Pinus ponderosa* Douglas ex Lawson & P. Lawson (Pinaceae).

*Callidium (Merium) proteus* Kirby, 1837: 172, pl. 5, fig. 5.

*Callidium proteus*; Haldeman, 1847a: 37; LeConte, 1859a: 234; Mannerheim, 1853: 247; White, 1855: 321; Bethune, 1872: 56.

*Physocnemum proteus*; LeConte, 1850b: 32.

*Semanotus proteus*; LeConte, 1857: 6, 23; Lacordaire, 1869: 48.

*Phymatodes proteus*; Pettit, 1871: 106.

*Merium proteus*; LeConte, 1873b: 296; Horn, 1876: 169 (syn.); Provancher, 1877: 589; LeConte & Horn, 1883: 281; Leng, 1884: 101; 1885: 35, pl. 1, fig. 15; Harrington, 1890: 185 (distr.); Hamilton, 1894c: 31 (distr.); Evans, 1895b: 173 (distr.); Chagnon, 1897: 15 (distr.); Wickham, 1897a: 108; 1897b: 156 (distr.); Fall, 1900: 460 (distr.); Joutel, 1906: 233 (distr.); Smith, 1910: 325; Blatchley, 1910: 1019; Casey, 1912: 286; Schaeffer, 1917: 183 (syn.); Chagnon, 1917: 231 (distr.); Britton, 1920: 269 (distr.); Craighead, 1923: 48, pl. 15, fig. 15, pl. 19, fig. 12 (larva); Fall, 1926: 202 (distr.); Kirk & Knull, 1926: 39 (distr.); Leonard, 1928: 444 (distr.); Beaulne, 1932: 201 (hosts); Chagnon, 1938: 260; Hatch, 1939: 49 (distr.); Knull, 1946: 207, pl. 14, fig. 56; Leech, 1947: 108; Chagnon & Robert, 1962: 260.

*Meriellum proteus*; Linsley, 1957b: 287; 1964: 25, fig. 11; Zup, 1967: 13 (biol.); Ross, 1968: 11 (biol.); Barr & Penrose, 1969: 92 (distr.); Hatch, 1971: 113, pl. 12, fig. 2; Gosling, 1973: 76 (distr.); Furniss & Carolin, 1977: 301 (biol.); Arnett, 1985: 365, fig. 24.194; Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 41 (cat.); Yanega, 1996: 53, pl. 18, fig. 220; Linsley & Chemsak, 1997: 396 (hosts); Heffern, 1998: 14 (distr.); Lingafelter, 2007: 90, 147, 2 figs, pl. 21, fig. m (hosts); McCorquodale, 2010: 468 (distr.); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 52, pl. 7

*Callidium (Merium) simile* Kirby, 1837: 173.

*Callidium similis*; Haldeman, 1847a: 37; White, 1855: 321.

*Physocnemum simile*; LeConte, 1850b: 32.

*Semanotus simile*: Lacordaire, 1869: 48.

*Phymatodes simile*; Bethune, 1872: 93.

**Type locality** - Holotype: North America, latitude 65 degrees. (BMNH).

*Merium bifossatum* Casey, 1912: 287; Lingafelter *et al.* 2014: 29, fig. 29o (holotype).

**Type locality** - Holotype female: United States, Wisconsin: Bayfield. (USNM).

### ***Phymatodes* Mulsant, 1839**

*Phymatodes* Mulsant, 1839: 47 (not Dejean); Thomson, 1861: 258; Mulsant, 1863: 92; Thomson, 1864: 265; 1865: 462; Lacordaire, 1869: 53; Chenu, 1870: 319; LeConte, 1873b: 296; Provancher, 1877: 578, 589; LeConte & Horn, 1883: 281; Leng, 1884: 61, 98; Bates, 1885: 293; Wickham, 1897a: 107; Blatchley, 1910: 1017; Casey, 1912: 275; Reitter, 1912: 38; Planet, 1924: 227; Portevin, 1927: 32; Bradley, 1930: 238; Plavilstshikov, 1934: 157, 202; Chagnon, 1938: 257; Plavilstshikov, 1940: 303; Knull, 1946: 209; Villiers, 1946: 87; Gressitt, 1951: 227; Heyrovsky, 1955: 201; Arnett, 1962: 867, 886; Chagnon & Robert, 1962: 254, 257; Linsley, 1964: 44; Hatch, 1971: 111; Monné, M.A., 2005: 43 (cat.); Swift & Ray, 2010: 35 (nomencl.); Monné, M.A., 2012: 10; Bousquet, Laplante, Hammond & Langor, 2017: 55 (key spp.)

**Type-species** - *Cerambyx variabilis* Linnaeus, 1761 (subsequent designation, LeConte, 1850b: 32).

*Poecilium* Fairmaire in Jacquelin DuVal, 1864: 134; Thomson, 1864: 336; Planet, 1924: 224; Plavilstshikov, 1934: 218; 1940: 325; Gressitt, 1951: 227, 229; Heyrovsky, 1955: 208.

*Phymatodes* (*Poecilium*); Casey, 1912: 276; Reitter, 1912: 40.

**Type-species** - *Leptura alni* Linnaeus, 1767 (subsequent designation, Thomson, 1864: 336).

*Phymatodes* (*Melasmetus*) Reitter, 1912: 39; Plavilstshikov, 1934: 209; 1940: 312.

**Type-species** - *Phymatodes femoralis* Ménétries, 1832 (monotypy).

*Phymatodes* (*Phymatoderus*) Reitter, 1912: 39; Plavilstshikov, 1934: 210; 1940: 313; Heyrovsky, 1955: 204.

**Type-species** - *Callidium pusillum* Fabricius, 1786 (subsequent designation, Plavilstshikov, 1940: 313).

*Phymatodes* (*Phymatodellus*) Reitter, 1912: 40; Plavilstshikov, 1934: 214; 1940: 313; Gressitt, 1951: 227, 228; Heyrovsky, 1955: 207.

**Type-species** - *Callidium rufipes* Fabricius, 1776 (monotypy).

*Phymatodina* Casey, 1912: 281.

**Type-species** - *Phymatodes nitidus* LeConte, 1874 (subsequent designation, Linsley, 1964: 45).

*Microcallidium* Casey, 1912: 283.

**Type-species** - *Callidium amoenum* Say, 1824 (subsequent designation, Linsley, 1964: 45).

*Pseudopoecilium* Planet, 1924: 226.

**Type-species** - *Callidium rufipes* Fabricius, 1776 (monotypy).

*Paraphymatodes* Plavilstshikov, 1934: 215; 1940: 320; Gressitt, 1951: 227, 228; Heyrovsky, 1955: 207.

**Type-species** - *Callidium fasciatum* Villiers, 1789 (original designation).

### **1. *Phymatodes aeneus* LeConte, 1854**

**Type locality** - Holotype: United States, Oregon: between Fort Vancouver and Yokolt Plain. (MCZN). **Distribution** - Canada, United States (Pacific coast of North America from British Columbia to central coastal California (Monterey Co.).

**Host plants** - *Corylus californica* A. A. Heller (Corylaceae), *Castanopsis chrysophylla* (Douglas) A. de Candolle, *Lithocarpus densiflora* Rehder, *Quercus wislizenii* A. de Candolle (Fagaceae), *Pseudotsuga menziesii* (Mirbel) Franco, *Tsuga heterophylla* (Rafinesque) Sargent (Pinaceae).

*Phymatodes aeneus* LeConte, 1854b: 18; 1857: 23, 60 (distr.); Leng, 1884: 99; Fall, 1901: 144 (distr.); Garnett, 1918: 175 (distr., hosts); Essig, 1926: 456 (biol.); Hardy & Preece, 1927b: 65 (hosts); 1927: 190 (hosts); Hardy, 1927: 36, pl. 4, fig. 8; Beaulne, 1932: 201 (hosts); Leech, 1955: 40 (hosts); 1959: 44 (hosts); Linsley, 1964: 59; Hatch, 1971: 116; Deyrup, 1977: 182 (paras.); Furniss & Carolin, 1977: 203 (hosts); Cope, 1984a: 32 (hosts); Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 47 (cat.); Linsley & Chemsak, 1997: 417 (hosts); Swift & Ray, 2010: 36, 50, fig. 1; Bousquet, Laplante, Hammond & Langor, 2017: 58, pl. 7

*Phymatodes (Poecilium) aeneus*; Casey, 1912: 276.

## 2. *Phymatodes aereus* (Newman, 1838)

**Type locality** - North America. (BMNH). **Distribution** - Eastern Canada to Georgia and Iowa. **Host plants** - *Ostrya* sp. (Betulaceae), *Castanea sativa* Miller, *Quercus* sp. (Fagaceae).

*Callidium aereum* Newman, 1838: 393; White, 1855: 320; LeConte, 1873a: 172; Harrington, 1884: 72 (distr.); Leng, 1884: 112; Horn, 1885b: 5; Kilman, 1889: 135 (distr.); Packard, 1890: 354 (biol.); Chittenden, 1893: 248 (paras.); 1894: 96 (hosts); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 75 (hosts); Wickham, 1897a: 107; Smith, 1900: 287 (distr.); Ouellet, 1902: 122 (distr.); Ulke, 1903: 25 (distr.); Hopkins, 1904: 36 (biol.); Felt, 1906: 450 (biol.); Wickham, 1909a: 28 (distr.); Blatchley, 1910: 19; Smith, 1910: 326; Fisher & Kirk, 1912: 310 (distr.); Frost, 1915: 269 (distr.); Chagnon, 1917: 231 (distr.); Nicolay, 1919: 65 (distr.); Rohwer, 1921: 441 (paras.); Craighead, 1923: 44, pl.15, fig. 11, pl.19, fig. 9.

*Phymatodes aereus*; LeConte, 1850b: 33; Bland, 1861: 95; Britton, 1920: 269 (distr.); Kirk & Knull, 1926: 39 (distr.); Leonard, 1928: 445 (distr.); Brimley, 1938: 215 (distr.); Chagnon, 1938: 258; Townes, 1944: 73 (paras.); Knull, 1946: 210; Townes & Townes, 1960: 509 (paras.); Chagnon & Robert, 1962: 258; Linsley, 1964: 65; Gosling, 1973: 77 (biol., distr.); Laliberté, Chantal & LaRochelle, 1977: 96 (biol.); Turnbow & Franklin, 1980: 342 (distr.); Rice, 1981: 461 (distr.); Gosling, 1986: 257 (hosts); Chemsak, Linsley & Noguera, 1992: 63 (cat.); MacRae, 1993: 233 (distr.); Monné, M.A., 1993h: 47 (cat.); Yanega, 1996: 53, pl. 16, fig. 193; Krinsky & Godwin, 1996: 238; Linsley & Chemsak, 1997: 417 (hosts); Schiefer, 2001: 334 (distr.); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Sikes & Webster, 2005: 327 (distr.); Lingafelter, 2007: 80, 149, 2 figs, pl. 19, fig. e (hosts); Guarnieri, 2009: 17 (distr.); Swift & Ray, 2010: 36, 50, fig. 2; Majka, Migneault & Turgeon, 2010: 26, 1 fig.: Webster *et al.*, 2012: 312 (hosts, distr.); Holt, 2013: 246 (distr.); Klingeman *et al.*, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 58

*Phymatodes (Poecilium) aereus*; Casey, 1912: 276.

*Callidium pallipes* Haldeman, 1847a: 37

**Syntypes locality** - Syntypes: Pennsylvania, New York. (MCZN).

## 3. *Phymatodes amoenus* (Say, 1824)

**Syntypes locality** - Syntypes: United States, Arkansas: river near the mountains (Depository unknown). **Distribution** - Eastern Canada and Atlantic states to Florida, Oklahoma, and Minnesota. **Host plants** - *Acer saccharum* Marshall (Aceraceae), *Diospyros virginiana* Linné (Ebenaceae), *Quercus imbricaria*

Michaux (Fagaceae), *Crataegus crus-galli* Linné (Rosaceae), *Vitis labrusca* Linné, *Vitis riparia* Michaux (Vitaceae).

*Callidium amoenum* Say, 1824: 413; Haldeman, 1847a: 37; LeConte, 1859c: 193; 1859d: 48 (distr.); Pettit, 1871: 106 (distr.); Packard, 1872: 713, pl. 15, fig. 3, fig. 665; Riley, 1872: 54 (biol.).

*Phymatodes amoenus*; LeConte, 1850b: 33; Bland, 1861: 95 (distr.); Popenoe, 1877: 33 (distr.); Riley, 1880: 238 (hosts); Packard, 1881: 27 (biol.); Leng, 1884: 99; Hamilton, 1886: 28 (hosts); Townsend, 1889: 233 (distr.); Smith, 1889: 290, figs 17-18 (larva); Packard, 1890: 75, fig. 24 (larva); Riley & Howard, 1890: 58 (paras.); Chittenden, 1890: 154; Smith, 1890: 139; Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 74 (hosts); Wickham, 1897a: 107; Lugger, 1899: 195 (biol.); Smith, 1900: 286 (distr.); Dury, 1902: 158 (distr.); Ulke, 1903, 25, 50 (hosts, distr.); Chagnon, 1905: 36 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 325; Blatchley, 1910: 1018, fig. 428; Fisher & Kirk, 1912: 310 (distr.); Chagnon, 1917: 231 (distr.); Nicolay, 1919: 64 (distr.); Britton, 1920: 269 (distr.); Craighead, 1923: 46, pls. 9, 19 (larva); Fletcher, 1926: 143 (distr.); Kirk & Knull, 1926: 39 (distr.); Leonard, 1928: 445 (distr.); Frost & Dietrich, 1929: 436 (distr.); Park, 1931: 193; Beaulne, 1932: 201 (hosts); Chagnon, 1938: 258; Brimley, 1938: 215 (distr.); Knull, 1946: 209; Alexander, 1958: 49 (distr.); Dillon & Dillon, 1961: 595, pl. 58, No. 3; Chagnon & Robert, 1962: 258; Linsley, 1964: 55; Gosling, 1973: 77 (biol., distr.); Laliberté, Chantal & LaRoche, 1977: 96 (hosts); Turnbow & Franklin, 1980: 342 (distr.); Gosling, 1984: 72 (hosts); Waters & Hyché, 1984: 86 (distr.); Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 47 (cat.); MacRae, 1993: 233; Yanega, 1996: 53, pl. 16, fig. 189; Krinsky & Godwin, 1996: 238; Linsley & Chemsak, 1997: 417 (hosts); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998: 118 (distr.); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Lingafelter, 2007: 83, 149, 2 figs, pl. 20, fig. a (hosts); Swift & Ray, 2010: 41, 50, figs. 3,4; Holt, 2013: 246 (hosts., distr.); Steury & MacRae, 2014: 11 (distr.); Webster *et al.* 2016: 113 (distr., hosts); Bousquet, Laplante, Hammond & Langor, 2017: 58, pl. 7

*Phymatodes (Microcallidium) amoenus*; Casey, 1912: 284.

*Eriphus coccineicollis* Haldeman, 1847a: 39.

**Type locality** - Holotype: United States. (MCZN).

*Phymatodes (Microcallidium) amoenus hudsonicus* Casey, 1912: 284; Lingafelter *et al.*, 2014: 14, 369, fig. 14e (lectotype).

**Type locality** – Lectotype: United States, New York. (USNM).

#### 4. *Phymatodes ater* LeConte, 1884

**Type locality** - Holotype female: United States, New York: Buffalo. (MCZN).

**Distribution** - Canada (Nova Scotia) to Pennsylvania. **Host plants** - *Quercus* sp. (Fagaceae).

*Phymatodes ater* LeConte, 1884: 22; Leng, 1884: 99; Wenzel, 1906: 267 (distr.); Smith, 1910: 325; Van Dyke, 1920: 36 (distr.); Kirk & Knull, 1926: 29 (distr.); Leonard, 1928: 445 (distr.); Knull, 1946: 211; Linsley, 1964: 55; Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 48 (cat.); Yanega, 1996: 53, pl. 16, fig. 194; Linsley & Chemsak, 1997: 417 (hosts); McCorquodale, 2010: 468 (distr.); Swift & Ray, 2010: 41, 49, 50, figs 5, 6; Bousquet, Laplante, Hammond & Langor, 2017: 58

*Phymatodes (Poecilium) ? ater*; Casey, 1912: 281.

#### 5. *Phymatodes blandus* LeConte, 1859



**Type locality** – Holotype: United States, California: Tejon. (MCZN). **Distribution** - United States (Coastal central and northern California and south Oregon). **Host plants** - *Populus trichocarpa* Torrey & A. Gray, *Salix* sp. (Salicaceae).

*Callidium blandum* LeConte, 1859b: 79.

*Phymatodes blandus* Leng, 1884: 99; Smith, 1900: 286 (distr.); Fall, 1901: 143; Garnett, 1918: 174 (distr.); Essig, 1926: 455 (biol.); Davis, 1932: 85 (distr.); Linsley, 1964: 57; Furniss & Carolin, 1977: 303 (hosts); Chemsak, Linsley & Noguera, 1992: 63 (cat.); Linsley & Chemsak, 1997: 417 (hosts); Swift & Ray, 2010: 41, 50, fig. 7 (syn.).

*Phymatodes blandus blandus*; Linsley, 1964: 58; Hatch, 1971: 115; Hovore & Giesbert, 1976: 356 (hosts); Monné, M.A., 1993h: 48 (cat.); Heffern, 1998: 14 (distr.).

*Phymatodes (Microcallidium) blandus*; Casey. 1912: 284.

*Phymatodes blandus picipes* Linsley, 1934a: 165; 1964: 58; Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 48 (cat.).

**Type locality** - Holotype male: United States, California: Yosemite Valley. (CASC).

*Phymatodes blandus propinquus* Linsley, 1934b: 181; 1964: 58; Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 48 (cat.).

**Type locality** - Holotype female: United States, California: Orange County, Santa Ana Canyon. (CASC).

#### 6. *Phymatodes concolor* Linsley, 1934

**Type locality** - Holotype male: United States, California: Inyo County, Big Pine. (CASC). **Distribution** - Canada, United States (East side of southern Sierra Nevada Mts., base of San Bernardino Mts.).

*Phymatodes concolor* Linsley, 1934b: 181; Swift & Ray, 2010: 42, 50, fig. 8; Bousquet, Laplante, Hammond & Langor, 2017: 58

*Phymatodes blandus concolor*; Linsley, 1964: 58; Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 48 (cat.).

#### 7. *Phymatodes decussatus* (LeConte, 1857)

**Type locality** - Holotype: United States, California: Sacramento.(MCZN). **Distribution** - Canada, United States, Mexico (From British Columbia to northern Baja California). **Host plants** - *Quercus agrifolia* Née, *Q. douglasii* Hooker & Arnott, *Q. engelmanni* Greene, *Q. garryana* Douglas, *Q. john-tuckeri* K.C. Nixon & C.H. Muller, *Q. lobata* Née, *Q. wislizenii* A. de Candolle (Fagaceae), *Juglans californica* S. Watson, *J. regia* Linné (Juglandaceae), *Prunus* sp. (Rosaceae), *Salix* sp. (Salicaceae).

*Callidium decussatum* LeConte, 1857: 61

*Phymatodes decussatus*; Leng, 1884: 101; 1885: 35, pl. 1, fig. 14; Harrington, 1899: 108 (distr.); Fall, 1901: 143 (distr.); Garnett, 1918: 175 (distr.); Van Dyke, 1920: 35 (distr., hosts); Craighead, 1923: 46 (larva); Essig, 1926: 456 (biol.); Hardy & Preece, 1927a: 191 (distr.); Beaulne, 1932: 201 (hosts); Doane *et al.*, 1936: 182 (hosts); Moore, 1937: 90 (distr.); Linsley, 1940b: 369 (mimetic.); De Leon, 1952: 81 (hosts); Keen, 1952: 176 (hosts); Linsley, 1964: 48, fig. 17; Tyson, 1966: 205 (hosts); Furniss & Carolin, 1977: 303 (hosts); Chemsak, Linsley & Noguera, 1992: 63 (cat.); Swift & Ray, 2010: 42, 49, figs 9, 36, 37.

*Phymatodes decussatus decussatus*; Linsley, 1964: 50; Chemsak, 1965a: 71 (biol.); Hatch, 1971: 115; Hovore & Giesbert, 1976: 356 (hosts); Monné, M.A. 1993h: 50 (cat.); Linsley & Chemsak, 1997: 417 (hosts); Swift, 2008a: 3 (syn., hosts).

*Phymatodes (Poecilium) decussatus*; Casey, 1912: 279.

*Phymatodes juglandis* Leng, 1890: 214 (hosts); Coquillett, 1892: 261 (biol.); Leng & Hamilton 1896: 166 (distr.); Fall, 1897: 238 (distr.); Fall, 1901: 143 (distr.); Garnett, 1918: 175 (distr.); Barrett, 1932: 291 (hosts); Linsley, 1964: 52 (syn.); Tyson, 1966: 205 (hosts); Hatch, 1971: 115; Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A. 1993h: 50 (cat.); Linsley & Chemsak, 1997: 418 (hosts).

*Phymatodes (Poecilium) juglandis*; Casey, 1912: 281.

**Syntypes locality** - Syntypes male and female; United States, California: Los Angeles. (Public Museum of Staten Island).

*Phymatodes fasciapilosus* Van Dyke, 1920: 33

**Type locality** - Holotype male: United States, Oregon: Rogue River Valley. (CASC).

### 8. *Phymatodes dimidiatus* (Kirby, 1837)

**Syntypes locality** – Syntypes: Canada latitude 54. (BMNH). **Distribution** - Pacific coast of North America from Alaska to northern California and eastward to Lake Superior. Introduced in Argentina (Buenos Aires). **Host plants** - *Larix laricina* (Duroi) K. Koch, *Picea* sp., *Pinus resinosa* Aiton, *Pseudotsuga menziesii* (Mirbel) Franco, *Tsuga* sp. (Pinaceae).

*Callidium (Merium) dimidiatum* Kirby, 1837: 173.

*Callidium dimidiatum*; Mannerheim, 1846: 515; Haldeman, 1847a: 37; LeConte, 1850a: 234; White, 1855: 320; LeConte, 1869: 371 (distr.)

*Phymatodes dimidiatus*; LeConte, 1850b: 33; Bethune, 1872: 93 (syn.); Horn, 1876: 169; Snow, 1877: 19 (distr.); Provancher, 1877: 589; LeConte, 1879: 505 (distr.); Leng, 1884: 99; 1885c: 35, pl. 1, fig. 11; Snow, 1885: 68 (distr.); Townsend, 1889: 233 (distr.); Harrington, 1890: 185 (distr.); Davis, 1891: 65 (biol.); 1892: 81 (biol.); Hopkins, 1893: 192 (biol.); Hamilton, 1894c: 31 (distr.); 1895: 338 (distr.); Slossom, 1895b: 319 (distr.); Evans, 1895b: 173 (distr.); Chagnon, 1897: 24 (distr.); Wickham, 1897a: 107; Smith, 1900: 287 (distr.); MacGillivray & Houghton, 1902: 252 (distr.); Snow, 1906b: 179 (distr.); Fall & Cockerell, 1907: 191 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 325; Blatchley, 1910: 1017 (distr.); Dow, 1913: 79; Chagnon, 1917: 231 (distr.); Garnett, 1918: 175 (distr., hosts); Blackman & Stage, 1918: 64 (biol.); Nicolay, 1919: 64 (distr.); Morris, 1920b: 14 (biol.); Britton, 1920: 269 (distr.); Craighead, 1923: 46 (larva); Fall, 1926: 202 (distr.); Hardy, 1926: 31, pl. 4, fig. 21; Kirk & Knull, 1926: 39 (distr.); Essig, 1926: 456 (distr.); Procter, 1927: 112 (distr.); Leonard, 1928: 445 (distr.); Spencer, 1930: 6 (biol.); Knowlton, 1930: 76 (distr.); Beaulne, 1932: 201 (hosts); Mank, 1934: 80 (distr.); Easterling, 1934: 140 (hosts); Doane *et al.*, 1936: 182; Chagnon, 1938: 257, pl. 17, fig. 4; Bedard, 1938: 193 (hosts); Chagnon, 1939: 86 (distr.); Leech, 1944: 211 (biol.); Townes, 1944: 773 (paras.); Knull, 1946: 210; Procter, 1946: 180 (biol.); Knowlton & Wood, 1950: 12 (distr.); Keen, 1952: 176 (hosts); Dillon & Dillon, 1961: 595, pl. 58, No. 1; Chagnon & Robert, 1962: 257, pl. 17, fig. 4; Linsley, 1964: 61; Hatch, 1971: 117; Gosling, 1973: 77 (biol., distr.); Laliberté, Chantal & LaRochelle, 1977: 96; Furniss & Carolin, 1977: 303 (hosts); Gosling, 1986: 157 (hosts); Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 49 (cat.); Yanega, 1996: 118, pl. 16, fig. 195; Linsley & Chemsak, 1997: 417 (hosts); Heffern, 1998: 14 (distr.); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Di Iorio, 2004d: 675 (distr.); Majka, McCorquodale & Smith, 1907: 261 (distr.); McCorquodale, 2010: 468 (distr.); Swift & Ray, 2010: 42, 50, figs. 10-11

(syn.); Haack, 2017: 122 (biol.); Rice, MacRae & Merickel, 2017: 670 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 58, pl. 7

*Phymatodes Kalmi* var. *dimidiatus*; Aurivillius, 1912: 350 (cat.).

*Phymatodes (Poecilium) dimidiatus*; Casey, 1912: 277.

*Cerambyx bajulus* Linnaeus, 1764: 76 (preoccupied, not Linnaeus, 1758).(UZIUI).

**Syntypes locality** - Syntypes: Canada. (UZIUI).

*Callidium Kalmii* Schoenherr, 1817: 442 (*nom. nov.*).

**Type locality** - Holotype: Canada. (NHRS).

*Clytus palliatus* Haldeman, 1847a: 41

**Syntypes locality** - Syntypes: United States, Massachusetts. (MCZN).

*Callidium Mannerheimii* LeConte, 1857: 60.

*Phymatodes Kalmi* var. *Mannerheimii*; Aurivillius, 1912: 350 (cat.).

**Type locality** - Holotype: United States, Washington: Steilacoom (MCZN).

*Phymatodes frosti* Casey, 1924: 240; Lingafelter *et al.*, 2014: 66, 369, fig. 71k (lectotype).

**Type locality** – Lectotype: United States, Maine: Monmouth. (USNM).

### 9. *Phymatodes fulgidus* Hopping, 1928

**Type locality** - Holotype: Canada, British Columbia: Lorna. (CNCI).

**Distribution** - Canada (British Columbia). United States (Washington). **Host plants** - *Abies* sp. (Pinaceae).

*Phymatodes fulgidus* Hopping, 1928b: 246; Linsley, 1964: 61; Ruetter, 1970: 21 (holotype); Hatch, 1971: 116; Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 50 (cat.); Swift & Ray, 2010: 43, 50, fig. 12; Wappes & Santos-Silva, 2019: 2 (syn).

*Phymatodes rainieri* Van Dyke, 1937: 113; Linsley, 1964: 60; Hatch, 1971: 116; Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A., 1993h: 52 (cat.); Linsley & Chemsak, 1997: 419 (hosts); Swift & Ray 2010: 47, 50, fig. 28; Bousquet, Laplante, Hammond & Langor, 2017: 58

**Type locality** - Holotype: United States: Washington: Rainier National Park, Sunrise Park. (CASC).

### 10. *Phymatodes grandis* Casey, 1912

**Type locality** - Holotype male: United States, California: San Diego. (USNM).

**Distribution** - Pacific coast of North America from British Columbia to southern California, Mexico (Baja California). **Host plants** - *Lithocarpus densiflora* Rehder, *Quercus agrifolia* Née, *Q. douglasii* Hooker & Arnott, *Q. garryana* Douglas, *Q. lobata* Née, *Q. wislizenii* A. de Candolle (Fagaceae).

*Phymatodes (Poecilium) grandis* Casey, 1912: 277; Swift & Ray, 2010: 43, fig. 13 (syn.); Vlasák, 2014: 318 (hosts); Lingafelter *et al.*, 2014: 71, figs 76m, n (holotype); Bousquet, Laplante, Hammond & Langor, 2017: 58, pl.7

*Phymatodes lecontei* Linsley, 1938: 109 (*nom. nov. pro Callidium obscurum* LeConte, 1859, not Fabricius, 1787); Hardy, 1950: 86 (hosts); Linsley, 1964: 61; Tyson, 1966: 205 (hosts); Hatch, 1971: 117; Hovore, 1988: 13 (distr.); Chemsak, Linsley & Noguera, 1992: 63 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 418 (hosts); Monné, M.A., 2001a: 21 (cat. hosts); Monné, M.A., 2005: 44 (cat.); Hanks *et al.*, 2007: 889 (pherom.)

**Type locality** - Holotype male: United States, California: Tejon. (MCZN).

*Callidium obscurum* LeConte, 1859b: 79.

*Phymatodes obscurus*; Leng, 1884: 99, 100; Blaisdell, 1892: 34 (biol.); Beutenmuller, 1896: 74 (hosts); Fall, 1901: 143; Garnett, 1918: 175 (distr.); Essig, 1926: 456 (biol.); Hardy, 1927: C36, pl. 4, fig. 4; Davis, 1932: 85 (distr.); Doane *et al.*, 1936: 182 (biol.); Moore, 1937: 90 (distr.); Hardy, 1944: 17 (distr., hosts).

*Phymatodes (Poecilium) obscurus*; Casey, 1912: 277.

#### 11. *Phymatodes hardyi* Van Dyke, 1928

**Type locality** – Holotype: Canada, British Columbia: Gordon Head, (CASC).

**Distribution** – Canada. **Host plants** - *Pseudotsuga menziesii* (Mirbel) Franco, *P. taxifolia* (Poiret) Britton (Pinaceae).

*Callidium hardyi* Van Dyke, 1928a: 112; Brown, 1929: 114; Hardy, 1944: 17 (distr.)

*Phymatodes hardyi*; Linsley, 1940a: 253; Keen, 1952: 58 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 59

#### 12. *Phymatodes hirtellus* (LeConte, 1873)

**Syntypes locality** – Syntypes: United States, Nevada. (MCZN). **Distribution** - United States (Coast ranges of Oregon and California and western slopes of Sierra Nevada Mts.), Mexico (Baja California). **Host plants** - *Pinus balfouriana* (Jeffrey) ex A. Murray, *P. edulis* Engelhorn, *P. jeffreyi* Balfour, *P. ponderosa* Douglas ex Lawson & P. Lawson, *P. sabiniana* Douglas ex D. Don (Pinaceae).

*Callidium hirtellum* LeConte, 1873a: 172; Snow, 1878b: 75 (distr.); 1883: 42 (distr.); Lameere, 1883: 39(cat.); Leng, 1884: 112, 113; 1885c: pl. 1, fig. 17; Fall, 1901: 144 (distr.); Snow, 1906b: 179 (distr.); Fall & Cockerell, 1907: 191 (distr.); Gibson, 1917: 150 (distr.); Garnett, 1918: 176 (distr.); Craighead, 1923: 45(larva); Essig, 1926: 455 (biol.); Doane *et al.*, 1936: 182; Lange, 1937: 174 (hosts).

*Phymatodes hirtellus*; Keen, 1952: 48 (hosts); Linsley, 1964: 65; Hatch, 1971: 116; Chemsak, Linsley & Noguera, 1992: 63 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 418 (hosts); Monné, M.A., 2001a: 20 (cat. hosts); Swift & Ray, 2010: 43, figs 14-16 (syn);. Haack, 2017: 113 (hosts); Rice, MacRae & Merickel, 2017: 670 (distr.).

*Phymatodes hirtellus hirtellus*; Linsley, 1964: 66; Hovore, 1988: 12 (distr.); Monné, M.A., 2005: 44 (cat.); Bousquet, Laplante, Hammond & Langor, 2017: 59, pl. 7

*Phymatodes (Microcallidium) densipennis* Casey, 1912: 284; Lingafelter *et al.*, 2014: 52, figs 55i, j (lect. designation).

*Phymatodes hirtellus densipennis*; Kirk & Balsbaugh, 1975: 98; Lewis, 1979: 24 (distr., biol.); Chemsak, Linsley & Noguera, 1992: 63 (cat.)

**Type locality** – Lectotype: United States, New Mexico. (USNM).

*Phymatodes ursae* Knull, 1940: 556; Linsley, 1964: 59, fig. 19; Chemsak, Linsley & Noguera, 1992: 64 (cat.)

**Type locality** - Holotype: United States, Yellowstone National Park. (FMNH).

#### 13. *Phymatodes huetheri* Wappes & Santos-Silva, 2019

**Type locality** – Holotype male: United States, New York: Whiteface Mountain (Essex County; Mt. Topping). (FSCA). **Distribution** - United States (New York). Canada (Alberta, Ontario);

*Phymatodes (Phymatodes) huetheri* Wappes & Santos-Silva, 2019: 2, figs 1-14.

#### 14. *Phymatodes infuscatus* (LeConte, 1859)

**Type locality** - Holotype: United States, California: Punto de los Reyes. (MCZN).

**Distribution** United States (Oregon to central California). **Host plants** - *Lithocarpus densiflora* Rehder, *Quercus lobata* Née (Fagaceae).

*Callidium infuscatum* LeConte, 1859a: 285, 291.

*Phymatodes infuscatus*; Leng, 1884: 99; Smith, 1900: 286 (distr.); Linsley, 1964: 64; Hatch, 1971: 117; Cope, 1984a: 32 (hosts); Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 50; Linsley & Chemsak, 1997: 418 (hosts); Swift & Ray, 2010: 44, 50, fig. 17.

*Phymatodes (Poecilium) infuscatus*; Casey, 1912: 276.

*Phymatodes testaceus* ab. *infuscatus*; Aurivillius, 1912: 353 (cat.).

### 15. *Phymatodes lengi* Joutel 1911

**Syntypes locality** - Syntypes female: United States, New Jersey: Palisades. (USNM). **Distribution** - Atlantic coast from New York to North Carolina, west to Ohio.

*Phymatodes Lengi* Joutel, 1911: 200.

*Phymatodes lengi*; Nicolay, 1919: 64 (distr.); Kirk & Knull, 1926: 39 (distr.); Leonard, 1928: 445 (distr.); Linsley, 1964: 57; Chemsak, Linsley & Noguera, 1992: 63; Monné, M.A., 1993h: 51 (cat.); Yanega, 1996: 118, pl. 16, fig. 190; Schiefer, 1998: 119 (distr.); Lingafelter, 2007: 83, 149, 2 figs, pl. 20, fig. b; Swift & Ray, 2010: 44, 50, figs 18, 19; Lingafelter *et al.*, 2014: 88, fig. 96w (syntype).

### 16. *Phymatodes maculicollis* LeConte, 1878

**Type locality** - Holotype: United States, Michigan: Lake Superior, Isle Royale. (MCZN). **Distribution** - Canada from Lake Superior to British Columbia, Pacific coast to central coastal California. **Host plants** - *Abies bracteata* (D. Don) Poiteau, *A. concolor* Gordon & Glen, *A. lasiocarpa* Hooker, *A. venusta* (Douglas) K. Koch, *Picea engelmanni* Engelmann, *Pseudotsuga menziesii* (Mirbel) Franco, *P. taxifolia* (Poiret) Britton (Pinaceae).

*Phymatodes maculicollis* LeConte, 1878a: 614; 1879: 505 (distr.); Lameere, 1883: 35 (cat.); Leng, 1884: 99, 100; Wickham, 1897a: 107; Chagnon, 1905: 36; 1917: 231 (distr.); Knowlton & Wood, 1950: 12 (distr.); Linsley, 1964: 67 (syn); Tyson, 1966: 206 (hosts); Hatch, 1971: 116; Gosling, 1973: 77 (distr.); Chantal, 1975: 853 (distr.); Deyrup, 1977: 182 (paras.); Laliberté, Chantal & LaRoche, 1977: 96 (biol.); Furniss & Carolin, 1977: 303 (hosts); Cope, 1984: 32 (hosts); Chemsak, Linsley & Noguera, 1992: 63 (cat.); Monné, M.A., 1993h: 51 (cat.); Yanega, 1996: 118, pl. 16, fig. 192; Linsley & Chemsak, 1997: 418; Heffern, 1998: 14 (distr.); McCorquodale, 2010: 468 (distr.); Swift & Ray, 2010: 44, 50, fig. 21; Webster *et al.*, 2012: 313 (distr.); Rice, MacRae & Merickel, 2017: 670 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 59, pl. 7

*Phymatodes (Poecilium) ? maculicollis*; Casey, 1912: 281

*Phymatodes elongatus* Hopping, 1935: 8; Ruetter, 1970: 21 (types)

**Type locality** - Holotype female: Canada, British Columbia: Stanley. (CNCI).

### 17. *Phymatodes nigerrimus* Van Dyke, 1920

**Type locality** - Holotype: United States, California: Trinity County, Carrville. (CASC). **Distribution** - United States (California: Sierra Nevada Mts. south to Kern Co., northern Coast Ranges). **Host plants** - *Abies concolor* Gordon & Glen, *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae).

*Phymatodes nigerrimus* Van Dyke, 1920: 35; Linsley, 1964: 62; Cope, 1984a: 33 (hosts); Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A. 1993h: 51 (cat.); Linsley & Chemsak, 1997: 418 (hosts); Swift & Ray, 2010: 45, 50, fig. 22; Rice, MacRae & Merickel, 2017: 670 (distr.).

#### 18. *Phymatodes nigrescens* Hardy & Preece, 1927

**Type locality** - Holotype male: Canada, British Columbia: Sydney. (CNCI).

**Distribution** - Canada, United States (British Columbia, Oregon). **Host plants** - *Alnus rhombifolia* Nuttall, *A. rubra* Bongard (Betulaceae).

*Phymatodes vulneratus* var. *nigrescens* Hardy & Preece, 1927b: 190; Criddle, 1928: 97 (distr.); Ruetter, 1970: 21 (types); Hatch, 1971: 114.

*Phymatodes nigrescens*; Swift & Ray, 2010: 45, 49, figs. 23, 24 (syn.); Bousquet, Laplante, Hammond & Langor, 2017: 59, pl. 7

*Phymatodes oregonensis* Chemsak, 1963: 39; Linsley, 1964: 56; Hatch, 1971: 114; Turnbow, 1984: 67 (hosts); Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A., 1993h: 52 (cat.).

**Type locality** - Holotype male: United States, Oregon: Josephine County, Grave Creek (CASC).

#### 19. *Phymatodes nitidus* LeConte, 1874

**Syntypes locality** - Syntypes: United States, California. (MCZN). **Distribution** - Pacific coast of North America from British Columbia southward; California: throughout the distribution of Cupressaceae. **Host plants** - *Calocedrus decurrens* (Torrey) Florin, *Cupressus goveniana* Gordon, *C. macrocarpa* Hartweg ex Gordon, *Juniperus californica* Afonso-Carrillo, *Thuja plicata* Donn ex D. Don (Cupressaceae), *Abies* sp. (Pinaceae), *Cryptomeria* sp., *Sequoia sempervirens* (D. Don) Endlicher, *Sequoiadendron giganteum* (Lindley) Buchholz (Taxodiaceae).

*Phymatodes nitidus* LeConte, 1874: 66; Lameere, 1883: 35 (cat.); Leng, 1884: 99; 1885: 35, pl. 1, fig. 14; Harrington, 1899: 108 (distr.); Fall, 1901: 144 (distr.); Garnett, 1918: 175 (distr., hosts); Van Dyke, 1920: 34 (hosts); Craighead, 1923: 45 (larva); Essig, 1926: 456 (hosts); Hardy, 1926: 32, pl. 4, fig. 5; Beaulne, 1932: 201 (hosts); Hopping, 1935: 9 (distr.); Doane *et al.*, 1936: 182, fig. 90 (biol.); Tilden, 1945: 30 (hosts); DeLeon, 1952: 81, 87 (hosts); Keen, 1952: 24, 176 (hosts); Chemsak, 1958: 41 (hosts); Chemsak & Powell, 1964: 122 (hosts); Linsley, 1964: 53, fig. 18; Tyson, 1966: 206 (hosts); Hatch, 1971: 115, pl. 12, fig. 9; Deyrup, 1977: 182 (paras.); Furniss & Carolin, 1977: 303 (hosts); Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A. 1993h: 52 (cat.); Linsley & Chemsak, 1997: 418 (hosts); Swift & Ray, 2010: 46, 50, fig. 25 (syn.); Bouchard, 2014: 524 (hosts); Haack, 2017: 114; Rice, MacRae & Merickel, 2017: 670 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 60, pl. 7

*Phymatodes (Phymatodina) nitidus*; Casey, 1912: 282.

*Phymatodes (Phymatodina) crucialis* Casey, 1912: 282; Lingafelter *et al.*, 2014: 48, fig. 50u (holotype).

**Type locality** - Holotype male: United States, California: Santa Cruz Mountains. (USNM).

*Phymatodes (Phymatodina) elegans* Casey, 1912: 282; Lingafelter *et al.*, 2014: 56, fig. 60e (holotype).

**Type locality** - Holotype male: United States, California. (USNM).

*Phymatodes (Phymatodina) exilis* Casey, 1912: 283; Lingafelter *et al.*, 2014: 59, fig. 62s (holotype).

**Type locality** - United States, California. (USNM).

*Phymatodes (Phymatodina) collaris* Casey, 1924: 240; Lingafelter *et al.*, 2014: 42, fig. 44e (holotype).

**Type locality** - Holotype female: United States, California: Humboldt County. (USNM).

*Phymatodes mohavensis* Linsley & Chemsak, 1963: 210; Linsley, 1964: 54; Ruetter, 1970: 21 (types); Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A. 1993h: 51 (cat.); Linsley & Chemsak, 1997: 418 (hosts).

**Type locality** - Holotype male: United States, California: Kern County, Mojave. (CNCD).

## 20. *Phymatodes obliquus* Casey, 1891

**Type locality** - Holotype: United States, California: Santa Clara County (USNM).

**Distribution** - Canada (British Columbia), United States (California), Mexico (Baja California). **Host plants** - *Lithocarpus densiflora* Rehder, *Quercus kelloggii* Newberry (Fagaceae).

*Phymatodes obliquus* Casey, 1891: 26; Hamilton, 1896: 166 (distr.); Fall, 1901: 144 (distr.); Swift & Ray, 2010: 46, 49, figs 26, 27 (syn.); Lingafelter *et al.*, 2014: 109, figs 120o, p (holotype); Bousquet, Laplante, Hammond & Langor, 2017: 60, pl. 8

*Phymatodes (Poecilium) obliquus*; Casey, 1912: 279.

*Phymatodes decussatus* var. *obliquus*; Hardy & Preece, 1926: 38; 1927: 191 (distr.); Hardy, 1942: 11 (distr.); Hatch, 1971: 115 (distr.).

*Phymatodes (Poecilium) harfordi* Casey, 1912: 279; Lingafelter *et al.*, 2014: 74, figs 80a, b (lect. designation).

**Type locality** - Lectotype: United States, California: Santa Clara County. (USNM).

*Phymatodes decussatus* var. *posticus* Van Dyke, 1920: 36.

*Phymatodes decussatus posticus*; Linsley, 1964: 51; Chemsak, Linsley & Noguera, 1992: 63 (distr.); Linsley & Chemsak, 1997: 419.

**Type locality** - Holotype male: United States, California: Tulare County, Camp Nelson. (CASC).

*Phymatodes decussatus* var. *latifasciatus* Hardy & Preece, 1927b: 191; Ruetter, 1970: 21.

**Type locality** - Holotype male: Canada, British Columbia: Vancouver Island, Mt. Tolmie (CNCD).

*Phymatodes decussatus australis* Chemsak, 1963a: 40; Linsley, 1964: 51; Chemsak, Linsley & Noguera, 1992: 63 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 417 (hosts); Monné, M.A., 2001a: 20 (cat. hosts); Monné, M.A., 2005: 44 (cat.).

**Type locality** - Holotype male: Mexico, Baja California: Ensenada. (CASC).

## 21. *Phymatodes shareeae* Cope, 1984

**Type locality** - Holotype male: United States, New Mexico: 9 miles SouthWest of Coyote, Nacimiento Mountains, Rio Arriba County. (CASC). **Distribution** - United States (New Mexico). **Host plants** - *Acer glabrum* Torrey (Aceraceae).

*Phymatodes shareeae* Cope, 1984b: 63; Chemsak, Linsley & Noguera, 1992: 64 (cat.); Swift & Ray, 2010: 47, 49, fig. 29.

## 22. *Phymatodes testaceus* (Linnaeus, 1758)

**Syntypes locality** - Syntypes: Sweden. (UZIUI). **Distribution** - Europe, North Africa and eastern North America (eastern Canada to Florida, Minnesota, and

Iowa). **Host plants** - *Acer mono* Maximowicz, *A. rufinerve* Siebold & Zuccarini (Aceraceae), *Alnus hirsuta* Turczaninow (Betulaceae), *Sambucus* sp. (Caprifoliaceae), *Clethra barbinervis* Siebold & Zuccarini (Clethraceae), *Carpinus betulus* Linné, *Corylus avellana* Linné (Corylaceae), *Castanea crenata* Siebold & Zuccarini, *C. sativa* Miller, *Fagus crenata* Blume, *F. ferruginea* Aiton, *F. sylvatica* Linné, *Quercus acutissima* Carruthers, *Q. alba* Linné, *Q. cerris* Linné, *Q. dentata* Thunberg, *Q. faginea* Lamarck, *Q. ilex* Linné, *Q. infectoria* Oliver, *Q. ithaburensis* Decaisne, *Q. mirbeckii* Durand, *Q. mongolica* var. *crispula* (Blume) H. Ohashi, *Q. robur* Linné, *Q. rubra* Linné, *Q. serrata* Thunberg, *Q. variabilis* Blume (Fagaceae), *Aesculus turbinata* Blume (Hippocastaneaceae), *Carya glabra* (Miller) Sweet (Juglandaceae), *Tilia japonica* (Miquel) Simonkai (Malvaceae), *Fraxinus excelsior* Linné (Oleaceae), *Abies concolor* Gordon & Glen, *Picea orientalis* Carrière, *Pinus contorta* Douglas ex Loudon, *P. rigida* Miller, *P. strobus* Linné, *Tsuga canadensis* (Linné) Carrière (Pinaceae), *Rhamnus davurica* subsp. *nipponica* (Makino) Kartesz & Gandhi (Rhamnaceae), *Malus sylvestris* Miller, *M. toringo* K. Koch, *Prunus jamasakura* Siebold ex Koidzumi, *Sorbus* sp. (Rosaceae), *Salix* sp. (Salicaceae), *Ulmus* sp. (Ulmaceae).

*Cerambyx testaceus* Linnaeus, 1758: 396; 1767: 635.

*Callidium testaceum*; Fabricius, 1775: 190; 1787: 153; 1801: 341.

*Cerambyx (Callidium) testaceum*; Gmelin, 1790: 1850 (hosts).

*Phymatodes testaceus*; Mulsant, 1839: 50; Hamilton, 1894b: 395; Kirk & Knull, 1926: 39; Brues, 1927: 77; Leonard, 1928: 445 (distr.); Frost & Dietrich, 1929: 436 (distr.); Knull, 1934b: 210 (hosts); Chagnon, 1938: 258; Loding, 1945: 119 (distr.); Knull, 1946: 210; Craighead, 1950: 259; Duffy, 1953: 217, figs 195, 196, pl. 6, fig. 27 (larva); Townes & Townes, 1960: 509 (paras.); Dillon & Dillon, 1961: 595, pl. 58, No. 14; Chagnon & Robert, 1962: 258; Linsley, 1964: 63; Baker, 1972: 197; Lampert, 1973: 53 (biol.); Gosling, 1973: 77 (biol., distr.); Perry, 1975: 59 (hosts); Laliberté, Chantal & LaRoche, 1977: 96 (biol.); Turnbow & Franklin, 1980: 342 (distr.); Cope, 1984a: 33 (distr., hosts); Gosling, 1984: 72 (hosts); 1986: 157 (hosts); Chemsak, Linsley & Noguera, 1992: 64 (cat.); MacRae, 1993: 233 (distr.); Monné, M.A., 1993h: 52 (cat.); Yanega, 1996: 118, pl. 16, figs 188a,b; Linsley & Chemsak, 1997: 419 (hosts); Peck & Thomas, 1998: 119 (distr.); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Sikes & Webster, 2005: 327 (distr.); Lingafelter, 2007: 83, 149, 2 figs, pl. 19, fig. d (hosts); Webster, McCorquodale & Majka, 2009: 297 (distr.); Guarnieri, 2009: 17 (distr.); McCorquodale, 2010: 468 (distr.); Swift & Ray, 2010: 48, 50, fig. 30; Webster *et al.*, 2012: 314; Holt, 2013: 246 (distr.); Steury & MacRae, 2014: 11 (distr.); Webster *et al.*, 2016: 113 (distr.); Haack *in* Wang, 2017: w/page fig. 11.17 (biol., hosts); Klingeman *et al.*, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 60, pl. 8

*Callidium variabile* var. *testaceus*; Gemminger & Harold, 1872: 2921.

*Cerambyx fennicus* Linnaeus, 1758: 396; 1761: 194; 1767: 636.

*Cerambyx (Callidium) fennicus*; Gmelin, 1790: 1851.

**Syntypes locality** - Syntypes: Finland. (UZI).

*Cerambyx variabilis* Linnaeus, 1761: 192; 1767: 635; White, 1855: 319; LeConte, 1859c: 48; Riley, 1880: 238 (hosts).

*Cerambyx (Callidium) variabilis* Gmelin, 1790: 1850 (hosts).

*Callidium (Merium) variabile*; Kirby, 1837: 172.

*Phymatodes variabilis*; Mulsant, 1839: 47; Haldeman, 1847a: 37; LeConte, 1850b: 33; Bland, 1861: 95 (distr.); Horn, 1861: 30 (biol.); Snow, 1877: 19 (distr.); Packard, 1881: 25, fig. 5 (biol.); Leng, 1884: 99; 1885: 35; Townsend, 1886: 13 (biol.); 1887:



- 15 (biol.); Fauvel, 1889: 149 (distr.); Hamilton, 1889: 145; Packard, 1890: 74, fig. 23; Caulfield, 1890: 60 (biol.); Hopkins, 1893: 192 (biol.); 1894: 149 (biol.); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 74 (hosts); Chagnon, 1897: 15 (distr.); Wickham, 1897a: 107; Hopkins, 1898a: 103 (biol.); Harrington, 1899: 108 (distr.); Smith, 1900: 286 (distr.); Dury, 1902: 158 (distr.); Ulke, 1903: 25 (distr.); Hopkins, 1904: 37; Adams, 1909: 199 (biol.); Blatchley, 1910: 1018, fig. 427; Smith, 1910: 325; Leng, 1911: 215 (distr.); Fisher & Kirk, 1912: 210 (distr.); Johnson, 1915: 314 (distr.); Nicolay, 1917: 94 (distr.); 1919: 64 (distr.); Garnett, 1918: 174 (distr.); Craighead, 1923: 45, pl. 18, fig. 21 (larva); Craighead & Middleton, 1930: 13; Beaulne, 1932: 201 (hosts).
- Callidium variabile*; Elliott & Morley, 1911: 465.
- Phymatodes (Phymatodes) variabilis*; Casey, 1912: 276.
- Phymatodes testaceus* var. *variabilis*; Kirk & Knull, 1926: 39 (distr.); Leonard, 1928: 445 (distr.); Frost & Dietrich, 1929: 436 (distr.); Knull, 1946: 210; Procter, 1946: 180 (distr.).
- Syntypes locality** -Syntypes: Sweden (UZI).
- Callidium praeustum* Fabricius, 1782: 500; Zimsen, 1964: 179 (type).
- Type locality** - Holotype: Italy (UZI).
- Leptura femorata* Geoffroy, 1785: 83.
- Type locality** - Holotype: France, Seine: Paris (MNHN).
- Leptura Fallax* Villers, 1789: 276.
- Type locality** - Holotype: France. (MNHN).
- Cerambyx (Callidium) italicus* Gmelin, 1790: 1851.
- Type locality** - Holotype: Italy (NHRS).
- Cerambyx (Callidium) deustus* Gmelin, 1790: 1850.
- Type locality** - Holotype: Italy. (NHRS).
- Cerambyx (Callidium) carniolicus* Gmelin, 1790: 1858.
- Type locality** - Holotype: Eslovaquia, Carniola. (NHRS).
- Cerambyx melanocephalus* Ponza, 1805: 71.
- Type locality** - Holotype: Saluzzo.
- Phymatodes nigrinus* Mulsant, 1839: 47
- Type locality** - Holotype: France (MNHN).
- Phymatodes nigricollis* Mulsant, 1839: 49
- Type locality** - Holotype: France (MNHN).
- Callidium simile* Küster, 1844: No.1, 54
- Syntypes locality** – Syntypes: Dalmatia. (Naturhistorisches Museum, Nürnberg).
- Phymatodes variabilis* var. *ventralis* Haldeman, 1847a: 37
- Type locality** - Holotype: United States, Alabama. (MCZN).
- Phymatodes analis* Redtenbacher, 1849: 481
- Type locality** - Holotype: Austria. (NHMW).
- Callidium variabile* var. *Sellae* Kraatz, 1868: 338
- Syntypes locality** - Syntypes: Italy, Piemonte. (SDEI).
- Phymatodes variabilis* var. *dimidiatipennis* Chevrolat, 1882: 58
- Type locality** - Holotype: Rusia. (BMNH).
- Phymatodes testaceus* var. *fulvipennis* Reitter, 1901: 101
- Type locality** - Holotype: Turquia, Konya: Aksegir (HNHM).
- Phymatodes testaceus* v. *parnassicus* Pic, 1945: 6.
- Type locality** - Holotype: Greece, Parnasos. (MNHN).
- Phymatodes elongatus* Iablokoff, 1953: 60 (preoccupied).

**Type locality** – Holotype male: Maroc, Moyen Atlas, environs d'Ifrane. (Musée de Zoologie d'Erevan, Armenia).

### 23. *Phymatodes tysoni* Chemsak & Linsley, 1984

**Type locality** - Holotype male: United States, California: Alameda County, Arroyo Mocho Canyon. (CASC). **Distribution** - United States (California). **Host plants** - *Juniperus californica* Afonso Carrillo (Cupressaceae).

*Phymatodes tysoni* Chemsak & Linsley, 1984: 73, fig. 1; Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A., 1993h: 53 (cat.); Linsley & Chemsak, 1997: 419 (hosts); Swift & Ray, 2010: 48, 50, fig. 31.

### 24. *Phymatodes varius* (Fabricius, 1776)

**Type locality** - Holotype: America Boreali. (HMUG). **Distribution** - Eastern North America to Utah and Arizona. **Host plants** - *Quercus alba* Linné, *Q. arizonica* Sargent, *Q. emoryi* Torrey, *Q. hypoleucoides* A. Camus, *Q. pungens* var. *vaseyana* (Buckley) C. H. Müller, *Q. rubra* Linné, *Q. stellata* Wangenheim (Fagaceae), *Vitis* sp. (Vitaceae).

*Callidium varium* Fabricius, 1776: 232; 1781: 241; 1787: 255; Olivier, 1790: 260, pl. 5, fig. 55; Fabricius, 1793: 331; Olivier, 1795: 54, pl. 5, fig. 55; Fabricius, 1801: 345; Schoenherr, 1817: 457; Haldeman, 1847a: 37; White, 1855: 322; LeConte, 1857: 23 (distr.); Horn, 1861: 30 (biol.); Bland, 1861: 95 (distr.); Zimsen, 1964: 180 (types).

*Phymatodes varius* LeConte, 1850b: 33; Henshaw, 1874: 22; Popenoe, 1877: 33 (distr.); Riley, 1880: 238 (hosts); Packard, 1881: 27 (biol.); Horn, 1883a: 289 (syn.); Leng, 1884: 101; Bates, 1885: 294 (distr.); Leng, 1885b: 35, pl. 1, fig. 13; Horn, 1886a: 139; Packard, 1890: 76, fig. 25 (biol.); Caulfield, 1890: 60 (biol.); Davis, 1891: 65 (hosts); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 74 (hosts); Wickham, 1897a: 107, fig. 17; Smith, 1900: 287 (distr., hosts); Dury, 1902: 158 (distr.); Ulke, 1903: 25, 50 (distr., hosts); Felt, 1906: 702 (hosts); Wickham, 1909a: 28 (distr.); Smith, 1910: 325; Blatchley, 1910: 1018, fig. 29; Fisher & Kirk, 1912: 310 (distr.); Garnett, 1918: 175 (distr., hosts); Nicolay, 1919: 64 (distr.); Britton, 1920: 269 (distr.); Rohwer, 1921: 464 (paras.); Craighead, 1923: 46, pl.33, fig. 3 (larva); Kirk & Knull, 1926: 39 (distr.); Leonard, 1928: 445 (distr.); Beaulne, 1932: 201 (hosts); Doane *et al.*, 1936: 182; Knowlton & Thatcher, 1936: 279 (distr.); Brimley, 1938: 215 (distr.); Townes, 1944: 773 (paras.); Knull, 1946: 211, pl. 14, fig. 55; Knowlton & Wood, 1950: 12 (distr.); Townes & Townes, 1960: 499 (paras.); Duffy, 1960: 154 (larva); Linsley, Knull & Statham, 1961: 17 (distr.); Dillon & Dillon, 1961: 595, pl. 58, No.5; Linsley, 1964: 51, fig. 17; Hatch, 1971: 115; Gosling, 1973: 77, fig. 38 (biol., distr.); Turnbow & Franklin, 1980: 342 (distr.); Rice, 1981: 461 (distr.); Hovore, 1983: 381 (hosts); Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A., 1993h: 53 (cat.); MacRae, 1993: 233 (distr.); Lingafelter & Horner, 1993: 174 (distr.); Yanega, 1996: 118, pl. 16 figs 96a,b; Krinsky & Godwin, 1996: 238 (hosts); Linsley & Chemsak, 1997: 419 (hosts); Heffern, 1998: 114 (distr.); Schiefer, 1998: 119 (distr.); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Lingafelter, 2007: 85, 149, 2 figs, pl. 20, fig. j (hosts); MacRae & Rice, 2007: 241 (distr., hosts); Guarnieri, 2009: 17 (distr.); Swift & Ray, 2010: 48, figs. 32, 33; Holt, 2013: 246 (distr.); Klingeman *et al.*, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 60, pl. 8

*Phymatodes (Poecilium) varius*; Casey, 1912: 280.

*Cerambyx (Callidium) versicolor* Gmelin, 1790: 1852.

**Type locality** - America Boreali.

*Callidium subfasciellum* White, 1855: 322.

**Type locality** - Holotype: North America ?. (BMNH).

*Callidium?* (*Phymatodes*) *albo-fasciatum* Bland, 1862: 274.

*Phymatodes varius* var. *albofasciatus*; Frost & Dietrich, 1929: 436 (distr.)

**Type locality** - Lectotype: United States, Pennsylvania: in the neighborhood of Philadelphia. (ANSP).

*Callidium* (*Phymatodes*) *semicircularis* Bland, 1862: 275, fig. 4.

*Callidium semicircularis*; Packard, 1872: 496, fig. 484.

**Type locality** - Lectotype: United States, Pennsylvania: in the vicinity of Philadelphia. (ANSP).

*Phymatodes* (*Poecilium*) *latipennis* Casey, 1912: 280; Lingafelter *et al.*, 2014: 87, 369, fig. 95s (lectotype).

**Type locality** - Lectotype: United States, Massachusetts: Cohasset. (USNM).

*Phymatodes* (*Poecilium*) *varius diffidens* Casey, 1912: 280; Lingafelter *et al.*, 2014: 342, 369, fig. 180c (lectotype).

*Phymatodes varius diffidens*; Brimley, 1938: 215 (distr.);

**Type locality** - Lectotype: United States, Missouri. (USNM).

#### 24. *Phymatodes vilitatis* Linsley, 1940

**Type locality** - United States, California: Mendocino. (MCZN). **Distribution** - United States (Oregon to southern California). **Host plants** - *Abies bracteata* (D. Don) Poiteau, *A. concolor* Gordon & Glen, *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae).

*Callidium vile* LeConte, 1873a: 172 (preoccupied); Lameere, 1883: 35 (cat.); Leng, 1884: 112; Fall, 1901: 144 (distr.); Fall & Cockerell, 1907: 191 (distr.); Garnett, 1918: 376 (distr.).

*Phymatodes vilitatis* Linsley, 1940a: 253 (*nom. nov.*); 1964: 66, fig. 20; Hatch, 1971: 116, pl. 12, fig. 3; Hovore & Giesbert, 1976: 356 (hosts); Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A., 1993h: 54 (cat.); Linsley & Chemsak, 1997: 419 (hosts); Swift & Ray, 2010: 48, 50, fig. 34; Rice, MacRae & Merickel, 2017: 670 (distr.).

#### 25. *Phymatodes vulneratus* (LeConte, 1857)

**Type locality** - Holotype: United States, California: San Francisco. (MCZN).

**Distribution** - Pacific coast of North America from British Columbia. **Host plants** - *Acer circinatum* Pursh, *A. glabrum* Torrey, *A. macrophyllum* Pursh (Aceraceae), *Ficus* sp. (Moraceae), *Fraxinus oregona* Nuttall (Oleaceae), *Pyrus* sp., *Rosa nutkana* Presl (Rosaceae), *Vitis* sp. (Vitaceae).

*Callidium vulneratum* LeConte, 1857: 60; 1869: 371.

*Phymatodes vulneratus*; Leng, 1884: 99; 1885: 35, pl. 1, fig. 12; Fall, 1901: 144 (distr.); Garnett, 1918: 175 (distr.); Van Dyke, 1920: 36 (distr., hosts); Craighead, 1923: 46 (larva); Hardy, 1926: 31, pl.4, fig. 9; Hardy & Preece, 1926: 38 (hosts); Essig, 1926: 456 (biol.); Hardy & Preece, 1927b: 190 (hosts); Linsley, 1928: 181 (hosts); Leech, 1930: 191 (hosts); Hopping, 1935: 9 (syn.); Doane *et al.*, 1936: 182 (biol.); Knowlton & Thatcher, 1936: 279 (distr.); Keen, 1952: 48 (hosts); Linsley, 1964: 47, fig. 16; Tyson, 1966: 206 (hosts); Hatch, 1971: 114, pl. 12, fig. 8; Furniss & Carolin, 1977: 303 (hosts); Cope, 1984b: 64; Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A., 1993h: 54 (cat.); Linsley & Chemsak, 1997: 419 (hosts); Swift & Ray, 2010: 49, fig. 35; Vlasák, 2014: 318 (hosts).

*Phymatodes (Poecilium) vulneratus*; Casey, 1912: 278.

*Phymatodes vulnerata*; Van Dyke, 1925: 176 (biol.).

*Phymatodes (Poecilium) concinnus* Casey, 1912: 278; Lingafelter *et al.*, 2014: 43, fig.45m (holotype).

**Type locality** - Holotype male: United States, California: Santa Cruz Mountains. (USNM).

### ***Physocnemum* Haldeman, 1847**

*Physocnemum* Haldeman, 1847a:36; LeConte. 1850b: 31; 1873b: 296; LeConte & Horn, 1883: 281; Leng, 1884: 97; Wickham, 1897a: 85; Blatchley, 1910: 1017; Casey, 1924: 238; Bradley, 1930: 238; Chagnon, 1938: 257; Knull, 1946: 204; Dillon & Dillon, 1961: 593; Chagnon & Robert, 1962: 253; Arnett, 1962: 867, 886; Linsley, 1964: 68; Monné, M.A., 1993h: 54; Bousquet, Laplante, Hammond & Langor, 2017: 61 (key spp.)

**Type-species** - *Callidium brevilineum* Say, 1823 (monotypy).

*Dularius* Thomson, 1861: 258; 1864: 264, 461; Lacordaire, 1869: 49; Provancher, 1877: 578.

**Type-species** - *Dularius luscus* Thomson, 1860 (monotypy).

#### **1. *Physocnemum andreae* (Haldeman, 1847)**

**Type locality** - Holotype: United States, Georgia. (MCZN). **Distribution** - Atlantic Coast from southeast United States up into Quebec. **Host plants** - *Cupressus* sp. (Cupressaceae), *Taxodium distichum* (Linné) Richard, *T. imbricarium* Harper (Taxodiaceae).

*Callidium Andreae* Haldeman, 1847a: 36;

*Physocnemum andreae*; LeConte, 1850b: 32; Leng, 1884: 97; Hopkins, 1904: 36, 46 (biol.); Bradley, 1913: 159 (hosts); Craighead, 1923: 47, pl. 29, fig. 1; Knull, 1927: 117 (hosts); Doane *et al.*, 1936: 181; Loding, 1945: 118 (distr.); Craighead, 1950: 259 (biol.); Linsley, 1964: 68, fig. 21; Baker, 1972: 197 (biol.); Perry, 1974: 215 (distr.); Turnbow & Franklin, 1980: 342 (distr.); White, 1985: 286 (biol.); Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A., 1993h: 55 (cat.); Yanega, 1996: 118, pl. 17, fig. 111; Linsley & Chemsak, 1997: 420 (hosts); Peck & Thomas, 1998: 119 (distr.); Lingafelter, 2007: 84, 149, 2 figs, pl. 21, fig. d (hosts); Holt, 2013: 247 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 61

*Physocnemum Andreae*; Chevrolat, 1861: 249 (syn.); Leng, 1885: 35, pl. 1, fig. 6

*Dularius Andreae*; Thomson, 1861: 377; 1864: 264; Lacordaire, 1869: 50

*Physocnemus andrea*; Rohwer, 1921: 440 (paras., error).

*Dularius luscus* Thomson, 1861: 259

**Type locality** - Holotype male: Amérique Boreale. (MNHN).

#### **2. *Physocnemum brevilineum* (Say, 1824)**

**Syntypes localities** - Syntypes: United States, Arkansas, Arkansas River; Pennsylvania. (depository unknown). **Distribution** - Eastern North America to Texas. **Host plants** - *Ulmus americana* Linné (Ulmaceae).

*Callidium brevilineum* Say, 1824: 413; LeConte, 1859c: 194

*Physocnemum brevilineum*; Haldeman, 1847a: 38; LeConte, 1850b: 32; Melsheimer, 1853: 104 (cat.); Bland, 1861: 95 (distr.); Walsh & Riley, 1869e: 228 (biol.); Pettitt, 1871: 106 (distr.); Packard, 1872: 244 (hosts); Leng, 1884: 97; 1885: 35, pl. 1, fig. 5; Hamilton 1895: 337 (distr.); Wickham, 1897a: 106; 1897b: 156 (distr.); Chagnon, 1897: 124 (distr.); Smith, 1900: 286 (distr.); Dury, 1902: 158 (distr.);

Felt, 1906: 462, fig. 114; Morris, 1908: 445; Wickham. 1909a: 28 (distr.); Smith, 1910: 325; Blatchley, 1910: 1017, fig. 426; Fisher & Kirk, 1912: 309 (distr.); Frost, 1912: 306; Casey, 1912: 270; Knaus, 1914: 91; Morris, 1916: 19 (hosts); Frost, 1916: 388 (biol.); Chagnon, 1917: 230 (distr.); Nicolay, 1919: 64 (distr.); Morris, 1920a: 76 (distr.); Craighead, 1923: 48 (larva); Casey, 1924: 238; Kirk & Knull, 1926: 26 (distr.); Leonard, 1928: 444 (distr.); Hatch & Ortenburger, 1930: 14; Beaulne, 1932: 201 (hosts); Britton & Friend, 1935: 207; Chagnon, 1938: 257, pl. 17, fig. 2; Knull, 1946: 205; Craighead, 1950: 259 (biol.); Haliburton, 1951: 36 (biol.); Alexander, 1958: 49 (distr.); Gibson & Carrillo, 1959: 119; Dillon & Dillon, 1961: 594, pl. 59, No. 14; Chagnon & Robert, 1962: 257, pl. 17, fig. 2; Linsley, 1964: 69, fig. 21; Baker, 1972: 197 (biol.); Gosling, 1973: 78, fig. 43 (biol., distr.); Kirk & Balsbaugh, 1975: 98 (distr.); Stein & Tigestad, 1976: 28; Solomon, Doolittle & Spillman, 1976: 290; Laliberté, Chantal & LaRochelle, 1977: 96 (biol.); Rice, 1981: 461 (distr.); White, 1985: 285, fig. 124; Gosling, 1986: 257 (hosts); Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A., 1993h : 55 (cat.); MacRae, 1993: 233 (distr.); Lingafelter & Horner, 1993: 174 (distr.); Yanega, 1996: 119, pl. 18, figs 212a, 212b; Linsley & Chemsak, 1997: 420 (hosts); Schiefer, 1998: 119 (distr.); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Lingafelter, 2007: 84, 149, 2 figs, pl. 20, fig. e (hosts); Holt, 2013: 247 (distr.); Haack, 2017: 115 (hosts); Klingeman *et al.*, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 61, pl. 8

*Semanotus brevilineus*; LeConte, 1859c : 48.

*Dularius brevilineus*; Thomson, 1864: 264; Lacordaire, 1869: 50; Provancher, 1877: 586; Popenoe, 1877: 33 (distr.); Riley, 1880: 238 (hosts); Packard, 1861: 60, fig. 19 (biol.); Lugger, 1884: 203 (hosts); Packard, 1890: 228, fig. 73.

*Callidium (Physocnemum) brevilineum*; Fauvel, 1889: 149.

*Physocnomum brevilineum*; Sherman, 1946: 127 (distr., error).

*Physocnenum brevilineum*; Turnbow & Franklin, 1980: 342 (distr., error).

*Physocnemum compressipes* Casey, 1912: 269; 1924: 238; Lingafelter *et al.*, 2014: 43, fig. 45i (holotype).

**Type locality** – Holotype male: United States, Wisconsin: Bayfield. (USNM).

*Physocnemum densum* Casey, 1912: 270; Lingafelter *et al.*, 2014: 52, fig. 55m (holotype).

**Type locality** - Holotype female: United States, Kansas. (USNM).

*Physocnemum pictum* Casey, 1924: 239; Lingafelter *et al.*, 2014: 299, fig. 131u (holotype).

**Type locality** - Holotype male: United States, Dakota. (USNM).

*Physocnemum longitarse* Casey, 1924: 239; Lingafelter *et al.*, 2014: 92, fig. 101q (holotype).

**Type locality** - Holotype male: United States, Nebraska. (USNM).

*Physocnemum angulatum* Casey, 1924: 239; Lingafelter *et al.*, 2014: 16, fig. 15u (holotype).

**Type locality** - United States, Michigan: Marquette. (USNM).

### 3. *Physocnemum violaceipenne* Hamilton, 1896

**Syntypes locality** - Syntypes: United States, Pennsylvania: Westmoreland County, Jeanette. (CMNH). **Distribution** - Eastern Canada and northeastern United States to Great Lakes region. **Host plants** - *Quercus alba* Linné, *Q. velutina* Lamarck (Fagaceae).

*Physocnemum violaceipenne* Hamilton, 1896: 286; Klages, 1901: 272, 290 (distr.); Kirk & Knull, 1926: 26 (distr.); Knull, 1930b: 101 (hosts); 1946: 205, pl. 15, fig. 59; Linsley, 1964: 70, fig. 22; Gosling, 1973: 78 (distr.); Chemsak, Linsley & Noguera, 1992: 64 (cat.); Monné, M.A., 1993h: 55 (cat.); MacRae, 1993: 233 (distr.); Yanega, 1996: 119, pl. 18, fig. 213; Linsley & Chemsak, 1997: 420 (hosts); Guarnieri, 2009: 17 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 61

### ***Poecilium (Phymatoderus) Reitter, 1912***

*Poecilium (Phymatoderus)* Reitter, 1912: 39; Plavilstshikov, 1934: 210; 1940: 313; Heyrovsky, 1955: 204; Zajciw & Ruffinelli, 1962: 50.

*Phymatoderus*; Bilý & Mehl, 1989: 115.

*Reitteroderus* Sama, 1991: 124 (new name for *Phymatoderus* Reitter, 1912).

*Poecilium (Phymatoderus)* Danilevsky, 2010: 228.

**Type-species** – *Callidum pusillum* Fabricius, 1787 (Plavilstshikov, 1940: 313 designation).

#### **1. *Poecilium (Phymatoderus) lividum (Rossi, 1794)***

**Type locality** - Italy, en provinciis Florentina et Pisana. (ZMHB). **Distribution** - Europe, north Africa, Caucasus, Transcaucasia, Turkey, Syria, Lebanon, Israel. Introduced in Canada, United States, Argentina (Buenos Aires) and Uruguay. **Host plants** - *Robinia pseudacacia* Linné (Fabaceae), *Castanea* sp., *Quercus calliprinus* Webb, *Q. cerris* Linné, *Q. faginea* Lamarck, *Q. ilex* Linné, *Q. mirbeckii* Durand (Fagaceae).

*Callidium lividum* Rossi, 1794: 98.

*Phymatodes lividus*; Blatchley, 1910: 1017 (distr.); Leonard, 1928: 445 (distr.); Yanega, 1996: 118, pl. 16, fig. 191; Swift & Ray, 2010: 44, 50, fig. 20.

*Phymatodes (Phymatoderus) lividus*; Zajciw & Ruffinelli, 1962: 50 (distr.).

*Poecilium lividum*; Pesarini & Sabbadini, 1995: 90, pl. 3, fig. 154.

*Phymatoderus lividus*; Di Iorio, 2004d: 666.

*Callidium melancholicum* Fabricius, 1798: 151.

**Type locality** - Germaniae. (ZMUC).

*Callidium brevicolle* Dalman, 1817: 191.

**Type locality** - (not stated). (NHRS).

*Callidium thoracicum* Lucas, 1842: 186.

**Type locality** - environs d'Alger. (MNHN).

*Callidium asperipenne* Fairmaire, 1879: 217.

**Type locality** - Tanger. (MNHN).

#### ***Pronocera* Motschulsky, 1859**

*Pronocera* Motschulsky, 1859: 494; Thomson, 1864: 270; Baeckmann, 1922: 29; Chemsak, 1963a: 37 (syn.); Linsley, 1964: 12; Hatch, 1971: 111; Monné, M.A., 1993h: 36; Sama, 2003: 69.

**Type-species** - *Pronocera daurica* Motschulsky, 1859 (= *Callidium sibiricum* Gebler, 1848) (monotypy).

*Gonocallus* LeConte, 1873a: 171; 1873b: 296; LeConte & Horn, 1883: 281; Leng, 1884: 97; Bradley, 1930: 238; Chagnon, 1938: 257; Knull, 1946: 204; Arnett, 1962: 867, 886; Chagnon & Robert, 1962: 253, 257.

**Type-species** - *Callidium collare* Kirby, 1837 (original designation).

*Phymatodes (Pseudophymatodes)* Pic, 1901: 12.

**Type-species** – *Phymatodes (Pseudophymatodes) altaiensis* Pic, 1901 (= *Callidium sibiricum* Gebler, 1848) (monotypy).

*Protocallidium* Csiki, 1904: 99.

**Type-species** - *Callidium angustum* Kriechbaumer, 1844 (monotypy).

### 1. *Pronocera collaris collaris* (Kirby, 1837)

**Type locality** - Holotype: North America, latitude 54 degrees. (BMNH).

**Distribution** - Eastern North America, extends down the Rocky Mountains into New Mexico, over to British Columbia and northward to Alaska. **Host plants** - *Picea* sp., *Pinus strobus* Linné (Pinaceae).

*Callidium collare* Kirby, 1837: 171; LeConte, 1850a: 234; Melsheimer, 1853: 104 (cat.); White, 1855: 321; Bethune, 1872: 56.

*Eriphus collaris*; Haldeman, 1847a: 39.

*Phymatodes collaris*; LeConte, 1850b: 33.

*Gonocallus collaris*; LeConte, 1873a: 171; 1873b: 296; Horn, 1876: 169; Lameere, 1883: 35 (cat.); LeConte & Horn, 1883: 281; Leng, 1884: 97; 1885c: 35, pl. 1, fig. 4; Harrington, 1890: 185 (distr.); Wickham, 1897a: 106; Chagnon, 1917: 230 (distr.); Craighead, 1923: 48 (larva); Kirk & Knoll, 1926: 26 (distr.); Leonard, 1928: 444 (distr.); Beaulne, 1932: 201 (hosts); Mank, 1934: 80 (distr.); Chagnon, 1938: 257; Hardy, 1942: 11 (distr.); Knoll, 1946: 204, pl. 13, fig. 53; Hardy, 1948: 33; Chagnon & Robert, 1962: 257.

*Pronocera collaris*; Chemsak, 1963a: 38; Linsley, 1964: 13; Arnett, 1985: 364, fig. 24.193; Chemsak, Linsley & Noguera, 1992: 64 (cat.); Lingafelter, 2007: 82, 149, 2 figs, pl. 19, fig. k (hosts); McCorquodale, 2010: 468 (distr.); Rice, MacRae & Merickel, 2017: 670 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 50, pl. 5.

*Pronocera collaris collaris*; Chemsak, 1963a: 38; Linsley, 1964: 13, fig. 5; Hatch, 1971: 111; Gosling, 1973: 76, fig. 34 (biol., distr.); Laliberté, Chantal & LaRochelle, 1977: 97 (biol.); Gosling, 1986: 157 (hosts); Monné, M.A., 1993h: 36 (cat.); Yanega, 1936: 119, pl. 16, fig. 186; Linsley & Chemsak, 1997: 425 (hosts); Heffern, 1998:15 (distr.), Vlasák & Vlasakova. 2002: 211 (distr., hosts); Majka, McCorquodale & Smith, 2007: 261 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 50, pl. 5.

*Phymatodes lepidus* LeConte, 1850b: 34.

*Callidium lepidum* Gemminger & Harold, 1872: 2919 (cat.).

**Type locality** - Holotype: Canada, Ontario: Pic River. (MCZN).

#### 1a. *Pronocera collaris lecontei* Chemsak, 1963

**Type locality** - Holotype male: United States, California: Plumas County, Meadow Valley. (CASC). **Distribution** - Sierra Nevada, California. **Host plants** - *Abies concolor* Gordon & Glen, *A. magnifica* A. Murray (Pinaceae).

*Pronocera collaris lecontei* Chemsak, 1963a: 38; Linsley, 1964: 14, figs 4, 5; Cope, 1984a: 33 (hosts); Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A., 1993h: 36 (cat.); Linsley & Chemsak, 1997: 425 (hosts).

#### *Ropalopus* Mulsant, 1839

*Ropalopus* Mulsant, 1839: 39; Thomson, 1861: 258; 1864: 264; Lacordaire, 1869: 50. LeConte, 1873b: 296; Provancher, 1877: 578; LeConte & Horn, 1883: 281; Wickham, 1897a: 85; Chagnon & Robert, 1962: 254; Arnett, 1962: 867; Linsley, 1964: 71; Bousquet, Laplante, Hammond & Langor, 2017: 61.

**Type species** – *Callidium insubricum* Germar, 1823 (Thomson designation, 1864: 264)

*Euryoptera* Horn, 1860: 571; Thomson, 1864: 269; Lacordaire, 1869: 56

**Type species** – *Euryoptera sanguinicollis* Horn, 1860 (monotypy)

### 1. *Ropalopus sanguinicollis* (Horn, 1860)

**Type locality** – United States: Northern New York. (ANSP). **Distribution** - Eastern Canada and northeastern United States to Ohio and West Virginia. **Host plants** - *Prunus pennsylvanica* Linnaeus fms, *P. virginiana* Linnaeus (Rosaceae).

*Euryoptera sanguinicollis* Horn, 1860: 571, pl.8, fig. 3; Lacordaire, 1869: 56

*Ropalopus sanguinicollis*; Austin, 1874: 270; Provancher, 1877: 587; Slossom, 1894: 3; Hamilton, 1895: 337; Wickham, 1897a: 106; Dury, 1902: 158 (distr.); Blatchley, 1910: 1017; Fisher & Kirk, 1912: 309; Craighead, 1923: 142; Kirk & Knull, 1926: 26; Bird, 1927: 126 (hosts); Procter, 1926: 112; Leonard, 1928: 444; Procter, 1946: 180; Chagnon & Robert, 1962: 258; Linsley, 1964: 72; Stein & Tigestad, 1976: 34 (distr.); Laliberté, Chantal & LaRoche. 1977: 97; Gosling, 1983: 187; 1986: 157; Arnett, 1985: 365, fig. 24; Chemsak, Linsley & Noguera, 1992:65 (cat.); Monné, M.A. 1993h: 56 (cat.); Yanega, 1996: 119, pl. 17, fig. 210; Linsley & Chemsak, 1997: 429 (hosts); Vlasak & Vlasakova, 2002: 211 (distr., hosts); Bousquet, Laplante, Hammond & Langor, 2017: 61, pl. 8

### *Semanotus* Mulsant, 1839

*Semanotus* Mulsant, 1839: 54; 1862-63: 100; Thomson, C. G., 1859: 149; Mulsant, 1863: 100; Thomson, 1864: 265; 1865: 462; Fairmaire in Jacquelin DuVal, 1864: 136; Lacordaire, 1869: 47; Chenu, 1870: 319; Reitter, 1912: 57; Van Dyke, 1923: 49; Planet, 1924: 214; Portevin, 1927: 32; Picard, 1929: 90; Bradley, 1930: 238; Plavilstshikov, 1934: 156, 180; 1940: 274; Knull, 1946: 204, 206; Villiers, 1946: 84; Gressitt, 1951: 221; Heyrovsky, 1955: 193; Arnett, 1962: 867, 886; Linsley, 1964: 18; Hatch, 1971: 111; Monné, M.A., 2005: 44 (cat.); Monné, M.A., 2012: 10; Hammond & Williams, 2013: 101 (rev.); Bousquet, Laplante, Hammond & Langor, 2017: 50 (key spp.)

**Type-species** - *Cerambyx undatus* Linnaeus, 1758 (subsequent designation, Thomson, C. G., 1859: 149).

*Sympiezocera* Lucas, 1851: cvi; 1853: 27; Fairmaire in Jacquelin DuVal, 1864: 190; Lacordaire, 1869: 46; Van Dyke, 1923: 49; Planet, 1924: 216; Portevin, 1927: 50.

*Semanotus* (*Sympiezocera*); Van Dyke, 1923: 50.

**Type-species** - *Sympiezocera laurasi* Lucas, 1851 (monotypy).

*Xenodorum* Marseul, 1856: 48.

**Type-species** - *Xenodorum bonvouloiri* Marseul, 1856 (monotypy).

*Anocomis* Casey, 1912: 271; 1924: 236.

*Anacomis*; Leng, 1920: 275 (cat.); Chagnon, 1938: 258; Chagnon & Robert, 1962: 154, 158.

**Type-species** - *Callidium ligneum* Fabricius, 1787 (subsequent designation, Linsley, 1964: 19).

*Hemicallidium* Casey, 1912: 174; Bradley, 1930: 238.

**Type-species** - *Physocnemum amethystinum* LeConte, 1853 (original designation).

### 1. *Semanotus amethystinus* (LeConte, 1853)



**Type locality** - Holotype: United States, California: Sacramento. (MCZN).  
**Distribution** - From British Columbia into California, west coast, from Washington to southern California, high elevation localities in Wyoming, Utah and Colorado. **Host plants** - *Calocedrus decurrens* (Torrey) Florin, *Thuja plicata* Donn ex D. Don (Cupressaceae).

*Physocnemum amethystinum* LeConte, 1853: 234

*Semanotus amethystinus*; LeConte, 1857: 23 (distr.); Van Dyke, 1923: 51 (hosts); Doane *et al.*, 1936: 181 (hosts); Hatch, 1938: 187; Keen, 1952: 175 (hosts); Linsley, 1964: 19, fig. 7; Tyson, 1966: 206 (hosts); Hatch, 1971: 112, pl.11, fig. 8; Furniss & Carolin, 1977: 304, fig. 183 (hosts); Cope, 1984a: 34 (biol., hosts); Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A., 1993h: 38 (cat.); Linsley & Chemsak, 1997: 432 (hosts); Hammond & Williams, 2013: 115, 116, figs 4A, 7A, 8, 16A; Spomer, 2014: 299, fig. 5 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 51, pl. 6.

*Hylotrupes amethystinus*; Leng, 1884: 98; Fall, 1901: 143 (distr.); Hopkins, 1904: 21 (biol.); Wright & Coolidge, 1908: 68 (distr.); Schaeffer, 1908: 329 (distr.); Fisher, 1915: 78 (hosts); Garnett, 1918: 174 (distr., hosts); Rohwer, 1921: 442 (paras.); Craighead, 1923: 43, pls. 10, 15, 18, 19, 34 (larva).

*Hemicallidium amethystinus*; Casey, 1912: 275; Craighead & Middleton, 1930: 12; Townes, 1944: 773 (paras.).

## 2. *Semanotus amplus amplus* (Casey, 1912)

**Type locality** - Lectotype: United States, California. (USNM). **Distribution** - Southern California north to central British Columbia, Pacific Coast east to continental divide. **Host plants** - *Calocedrus decurrens* (Torrey) Florin, *Cupressus* sp., *Juniperus occidentalis* Hooker, *J. osteosperma* (Torrey) Little, *J. scopulorum* Sargent, *Libocedrus decurrens* Torrey, *Thuja plicata* Donn ex D. Don (Cupressaceae). *Sequoia sempervirens* (D. Don) Endlicher, *Sequoiadendron giganteum* (Lindley) Buchholz (Taxodiaceae).

*Anocomis ampla* Casey, 1912: 273

*Semanotus ligneus* var. *ampla*; Van Dyke, 1923: 50, 51, (syn., hosts, distr.); Knowlton & Thatcher, 1936: 279 (biol.); Keen, 1952: 176 (hosts); Clark, 1956: 41 (distr.).

*Anocomis lígnea* var. *ampla*; Moore, 1937: 90 (distr.).

*Semanotus ligneus amplus*; Hardy, 1942: 11 (biol.); DeLeon, 1952: 87 (hosts); Linsley, 1964: 23; Chemsak, 1984: 189, fig. 1 (hosts, biol.); Tyson, 1966: 206 (hosts); Wickham 1969: 282 (biol.); Barr & Penrose, 1969: 93 (distr.); Tyson, 1970b: 298 (hosts); Hatch, 1971: 112; Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A., 1993h: 40 (cat.); Linsley & Chemsak, 1997: 432 (hosts). Lingafelter *et al.*, 2014: 14, 365, fig. 14g (lectotype); Rice, MacRae & Meckerel, 2017: 670 (distr.).

*Semanotus amplus amplus*; Hammond & Williams, 2013: 216, 124, figs.; Bousquet, Laplante, Hammond & Langor, 2017: 51, pl. 6.

*Anocomis ampla angusta* Casey, 1912: 273; Lingafelter *et al.*, 2014: 14, fig. 14i (holotype).

**Type locality** - Holotype male: United States (California).(USNM).

*Anocomis ampla obliuosa* Casey, 1924: 237; Lingafelter *et al.*, 2014: 15, fig. 14q (holotype).

**Type locality** - Holotype female: United States, California, “probably from the middle coast regions of California”.

*Anocomis ampla terracensis* Casey, 1924: 237; Lingafelter *et al.*, 2014: 15, 365, fig. 14s (lectotype).

**Type locality** - Lectotype: Canada, British Columbia: Terrace. (USNM).

**2a. *Semanotus amplus sequoiae* Van Dyke, 1923**

**Type locality** - Holotype: United States, California: Humboldt County, Trinidad.

**Distribution** - Coastal California from Humboldt Co. to Big Sur, Monterey Co.  
**Host plants** - *Sequoia sempervirens* (D. Don) Endlicher (Taxodiaceae).

*Semanotus ligneus* var. *sequoiae* Van Dyke, 1923: 51 (hosts); Keen, 1952: 176 (hosts).

*Semanotus ligneus sequoiae*; Tilden, 1945: 30 (hosts); DeLeon, 1952: 80 (hosts);  
 Linsley, 1964: 24; Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A.,  
 1993h: 40 cat.); Linsley & Chemsak, 1997: 433 (hosts).

*Semanotus amplus sequoiae*; Hammond & Williams, 2013:116, 128, figs (biol., distr.,  
 hosts).

**3. *Semanotus basalis* (Casey, 1924)**

**Type locality** - Holotype male: Canada, British Columbia: Terrace. (USNM).

**Distribution** - Northern British Columbia to central California. **Host plants** -  
*Thuja plicata* Donn ex D. Don (Cupressaceae).

*Anocomis ampla basalis* Casey, 1924: 237.

*Semanotus ligneus* var. *basalis*; Clark, 1956: 41 (distr.).

*Semanotus ligneus basalis*; Linsley, 1964: 25; Hatch, 1971: 112; Chemsak, Linsley &  
 Noguera, 1992: 65 (cat.); Monné, M.A., 1993h: 40 (cat.); Linsley & Chemsak,  
 1997: 432 (hosts); Lingafelter *et al.*, 2014: 15, fig. 14 m (holotype).

*Semanotus amplus basalis*. Hammond & Williams, 2013: 116, 126, figs.

*Semanotus basalis*; Bousquet, Laplante, Hammond & Langor, 2017: 52, pl. 6.

*Semanotus ligneus thujae* Van Dyke, 1927: 103; Criddle, 1928: 97 (distr.); Ruetter,  
 1970: 22 (paratype).

*Semanotus lignea* var. *thujae*; Hopping, 1931: 235,

**Type locality**— Holotype male: Canada, British Columbia: Vancouver Island, Tod  
 Inlet. (CASC).

**4. *Semanotus conformis* (Casey, 1924)**

**Type locality** - Lectotype: United States, Utah: Vineyard. (USNM), **Distribution**  
 - Higher elevation and xeric south-western environments of Idaho, Oregon,  
 California, Utah, Arizona, Nevada, Oklahoma, Texas, New Mexico. **Host plants** -  
*Cupressus* sp., *Juniperus occidentalis* Hooker, *J. osteosperma* (Torrey) Little  
 (Cupressaceae).

*Anocomis ampla conformis* Casey, 1924: 236; Lingafelter *et al.*, 2014: 15, 365, fig. 14o  
 (lectotype)

*Semanotus ligneus conformis*; Linsley, 1964: 25, fig. 10 (syn.); Barr & Penrose, 1969:  
 93 (distr.); Hatch, 1971: 112; Linsley & Chemsak, 1997: 432 (hosts).

*Semanotus conformis*; Hammond & Williams, 2013: 106, 121, pls. (distr., biol., hosts);  
 Rice, MacRae & Meckerel. 2017: 670 (distr.).

*Anocomis ampla arizonae* Casey, 1924: 236; Lingafelter *et al.*, 2014: 14, 365, fig. 14 k  
 (lectotype).

**Type locality** - Holotype female: United States, Arizona. (USNM).

**5. *Semanotus juniperi* (Fisher, 1915)**

**Type locality** - Holotype: United States, Arizona: Santa Catalina Mountains.  
 (USNM). **Distribution** - High elevation or arid areas of California, Idaho, Nevada,  
 Colorado, Arizona, New Mexico and Texas. **Host plants** - *Juniperus ashei*

Buchholz, *J. deppeana* Steudel, *J. osteosperma* (Torrey) Little, *J. pachyphloea* Torrey (Cupressaceae).

*Hylotrupes juniperi* Fisher, 1915: 77; Craighead, 1923: 44 (larva).

*Semanotus juniperi*; Van Dyke, 1923: 51 (hosts); Essig, 1926: 455 (biol.); Keen, 1952: 176 (hosts); Linsley, Knull & Statham, 1961: 17 (biol., distr.); Linsley, 1964: 21; Barr & Penrose, 1969: 23 (distr., hosts); Hatch, 1971: 112; Furniss & Carolin, 1977: 304 (hosts); Rice, Turnbow & Hovore, 1985: 20 (distr.); Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A., 1993h: 39 (cat.); Linsley & Chemsak, 1997: 433 (hosts); Heffern, 1998: 15 (distr.); Hammond & Williams, 2013: 115, 118, pls. (biol., hosts); Lingafelter *et al.*, 2014: 83, fig. 91m (holotype); Rice, MacRae & Meckerel. 2017: 670 (distr.).

#### 6. *Semanotus ligneus* (Fabricius, 1787)

**Type locality** - Holotype: United States, Maryland. (ZMUC). **Distribution** - Eastern Canada and USA, south to Oklahoma and eastern Texas. **Host plants** - *Chamaecyparis thyoides* (Linné) Britton, Sterns & Poggenburg, *Cupressus* sp., *Juniperus virginiana* Linné, *Thuja occidentalis* (Cupressaceae).

*Callidium ligneum* Fabricius, 1787: 153; Olivier, 1790: 260; Fabricius, 1793: 327; Olivier, 1795: 23, pl. 7, fig. 79; Fabricius, 1801: 341; Schoenherr, 1817: 448; Haldeman, 1847a: 37; White, 1855: 314; Pettit, 1871: 106 (distr.); Zimsen, 1964: 179 (types).

*Physocnemum ligneum*; LeConte, 1850b: 32; Bland, 1861: 95 (distr.).

*Semanotus ligneus*; LeConte, 1857: 23 (distr.); Lacordaire, 1869: 48; Van Dyke, 1923: 50 (hosts); Champlain, Kirk & Knull, 1926: 108 (hosts); Hardy & Preece, 1926: 37 (hosts); Kirk & Knull, 1926: 39 (distr.); Essig, 1926: 455 (biol.); Pack, 1930: 220 (distr.); Doane *et al.*, 1936: 181, fig. 88 (hosts); Van Dyke, 1937: 112 (syn.); Hatch, 1938: 187; Bedard, 1938: 193 (hosts); Craighead, 1950: 250; Knowlton & Wood, 1950: 11 (distr.); Beal, Haliburton & Knight, 1952: 112 (biol.); Townes & Townes, 1960: 145 (paras.); Linsley, 1964: 22; Baker, 1972: 198 (biol.); Furniss & Carolin, 1977: 304 (hosts); Laliberté, Chantal & LaRochelle, 1977: 98 (biol.); Chemsak, Linsley & Noguera, 1992: 65 (cat.); Browne & Peck, 1996: 2159 (distr.); Lingafelter, 2007: 86, 150, 2 figs, pl. 20, fig. k (hosts); Hammond & Williams, 2013: 116, 121; Bousquet, Laplante, Hammond & Langor, 2017: 52, pl.6

*Callidium (Semanotus) ligneum*; LeConte, 1869: 371; Townes, 1944: 773 (paras.); Knull, 1946: 207, pl. 13, fig. 52.

*Hylotrupes ligneus*; LeConte, 1873b: 296; Popenoe, 1877: 33 (distr.); Provancher, 1877: 588; Riley, 1880: 238 (hosts); Packard, 1881: 246 (biol.); Horn, 1883a: 289 (syn.); LeConte & Horn, 1883: 281; Leng, 1884: 98; Ricksecker, 1885: 97 (biol.); Leng, 1885b: 35, pl. 1, fig. 9; Horn, 1886a: 138 (cat.); Packard, 1890: 907, fig. 300 (biol.); Harrington, 1890: 285 (distr.); Hamilton, 1893a: 274 (distr.); 1893b: 326 (distr.); Ashmead, 1893: 78 (hosts, paras.); Beutenmuller, 1896: 74 (hosts); Slossom, 1896: 263 (distr.); Wickham, 1897a: 1908; Smith, 1900: 286 (distr.); Chittenden, 1901: 91 (biol.); Fall, 1901: 143; Dury, 1902: 158 (distr.); Ulke, 1903: 25,50 (distr., hosts); Hopkins, 1904: 27, 38 (biol.); Wright & Coolidge, 1908: 68 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 325; Blatchley, 1910: 1019, fig. 431; Fisher & Kirk, 1912: 309 (distr.); Johnson, 1915: 314 (distr.); Chagnon, 1917: 230 (distr.); Garnett, 1918: 174 (distr., hosts); Craighead, 1921: 207 (biol.); Rohwer, 1921: 443, 448 (paras.); Frost, 1929: 154 (distr.); Craighead & Middleton, 1930: 12 (hosts.); Townes & Townes, 1960: 515 (paras.).

*Hylotrupes (Callidium) ligneus*; Austin, 1874: 270 (distr.).

- Anocomis lignea*; Casey, 1912: 272; Leonard, 1928: 444 (distr.)
- Anacomis lignea*; Britton, 1920: 269 (distr.); Leng, 1920: 275 (cat.); Tanner, 1927: 33; Beaulne, 1932: 201 (hosts); Chagnon, 1938: 258, pl. 17, fig. 5; Brimley, 1938: 214 (distr.); Loding, 1945: 119 (distr.); Procter, 1946: 180 (distr.); Chagnon & Robert, 1962: 258, pl. 17, fig. 5.
- Hylotrupes ligneus*; Craighead, 1923: 44 (larva, error).
- Anacomis (Hylotrupes) lignea*; Herrick, 1935: 378 (biol.).
- Semanotus ligneus ligneus*; Linsley, 1964: 22, figs 3, 10; Gosling, 1973: 76 (biol., distr.); Drouin, 1991: 171, fig. 177; MacRae, 1993: 232 (distr.); Monné, M.A., 1993h: 39 (cat.); Yanega, 1996: 119, pl. 12, fig. 143; Linsley & Chemsak, 1997: 433 (hosts); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998: 119 (distr.); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Maier, 2009: 438 (distr., hosts); Webster, McCorquodale & Majka, 2009: 297 (distr., hosts); McCorquodale, 2010: 468 (distr.); Holt, 2013: 247 (distr., hosts); Hammond & Williams, 2013: 116 (hosts); Klingeman *et al.*, 2017: 296 (distr.).
- Semanotus ligneus ligneus*; Turnbow & Franklin, 1980: 342 (distr., error).
- Callidium russicum* Stephens, 1831: 248, pl. 22, fig. 2.
- Type locality** - Holotype: England, Devonshire: north of Devon. (BMNH).
- Callidium Nicolas* White, 1855: 321.
- Callidium Nicolai*; Gemminger & Harold, 1872: 2919 (cat.).
- Callidium nicolas*; Casey, 1912: 274.
- Semanotus nicolas*; Van Dyke, 1923: 50 (distr.); Essig, 1926: 455 (biol.); Pack, 1930: 220 (distr.); Knowlton & Thatcher, 1936: 279 (hosts); Bedard, 1938: 193 (hosts); Townes & Townes, 1960: 148 (paras.).
- Type locality**- Holotype:?. (BMNH).
- Anocomis lignea parvicollis* Casey, 1912: 272; Lingafelter *et al.*, 2014: 89, fig. 98<sup>a</sup> (holotype).
- Semanotus ligneus parvicollis*; Monné, M.A. & Giesbert, 1992: 251 (syn.); Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A., 1993h: 39 (cat.); Heffern, 1998: 15 (distr.).
- Type locality** - Holotype male: United States, Colorado. (USNM).

### 7. *Semanotus litigiosus* (Casey, 1891)

- Type locality** - Lectotype male: United States, California. (USNM). **Distribution** - Pacific coast, from British Columbia to southern California. Honduras. **Host plants** - *Abies balsamea* (Linné) Miller, *A. bracteata* (D. Don) Poiteau, *A. concolor* Gordon & Glen, *A. grandis* (Lambert) Lindley, *A. lasiocarpa* Hooker, *A. magnifica* A. Murray, *Larix* sp., *Picea sitchensis* (Bongard) Carr, *Pseudotsuga menziesii* (Mirbel) Franco, *P. mucronata* Rafinesque, *Tsuga canadensis* (Linné) Carrière (Pinaceae).
- Hylotrupes litigiosus* Casey, 1891: 25; Hamilton, 1892b: 298 (distr.); Garnett, 1918: 174 (distr.).
- Hylotrupes ligneus* var. *litigiosus*; Leng & Hamilton, 1896: 165.
- Anocomis litigiosa*; Casey, 1912: 273; Criddle, 1925: 98 (distr.); Hardy, 1926: 31.
- Semanotus litigiosus*; Aurivillius, 1912: 342 (cat.); Doane *et al.*, 1936: 181 (biol., distr.); Hardy, 1942: 11 (biol.); Leech, 1947: 108 (hosts); Knowlton & Wood, 1950: 12 (distr.); Keen, 1952: 176 (hosts); Clark, 1956: 41 (distr.); Linsley, 1964: 21; Chemsak, 1964: 190, fig. 2 (hosts); Wickman, 1965a: 162; 1965b: 11 (hosts); 1968: 208, figs 1-11 (biol.); 1969: 282 (hosts); Hatch, 1971: 112; Furniss & Carolin, 1977: 305, figs 184A, B (biol.); Cope, 1984a: 34 (hosts); Drouin, 1991: 172 (distr.);

Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A., 1993h: 41 (cat.); Yanega, 1996: 119, pl.12, fig. 144; Linsley & Chemsak, 1997: 433 (hosts); Heffern, 1998: 15 (distr.); Vlasák & Vlasakova, 2002: 211 (distr.); Turnbow, Cave & Thomas, 2003: 14 (distr.); Webster, McCorquodale & Majka, 2009: 297 (distr.); Majka & Ogden, 2010: 13, figs 2,3; McCorquodale, 2010: 468 (distr.); Hammond & Williams, 2013: 116, 118, figs (biol., hosts); Lingafelter *et al.*, 2014: 90, 367, fig. 99m (lectotype); Haack, Keena & Eyre, 2017: 78 (biol.); Rice, MacRae & Merickel, 2017: 670 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 52.  
*Semanotus (Anacomis) litigiosa*; Van Dyke, 1937: 112 (reval.).

#### 8. *Semanotus terminatus* (Casey, 1912)

**Type locality** - Holotype female: United States, Maine. (USNM). **Distribution** - Canada, United States (higher elevation sites, from Alaska to Nova Scotia, south to Colorado). **Host plants** - *Larix* sp., *Picea glauca* (Moench) Voss, *P. mariana* Britton, Sterns & Poggenburg, *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae).  
*Anocomis terminata* Casey, 1912: 274; Leng, 1920: 276 (cat.); Lingafelter *et al.*, 2014: 331, fig. 168s (holotype).  
*Semanotus terminatus*; Hammond & Williams, 2013: 116, 119, (reinstated, hosts, distr.); Bousquet, Laplante, Hammond & Langor, 2017: 52, pl. 6  
*Anocomis canadensis* Casey, 1924: 238; Lingafelter *et al.*, 2014: 36, 365, fig. 37i (lectotype).  
**Type locality** - Lectotype male: Canada, Ontario: Ottawa. (USNM).

#### *Xylocrius* LeConte, 1873

*Xylocrius* LeConte, 1873b: 296; 1873: 172; LeConte & Horn, 1883: 281; Lameere, 1883: 34; Leng, 1884: 113; Bradley, 1930: 238; Arnett, 1962: 867; Linsley, 1964: 74; Hatch, 1971: 111; Monné, M.A., 1993h: 57 (cat.).  
**Type-species** - *Callidium (Phymatodes) Agassizzi* LeConte, 1861 (subsequent designation, LeConte, 1873b: 297).

#### 1. *Xylocrius agassizzi* (LeConte, 1861)

**Type locality** - Holotype: United States, California: San Mateo. (MCZN).  
**Distribution** - Pacific coast and Rocky Mts. of North America from British Columbia to southern California and New Mexico. **Host plants** - *Ribes* sp. (Grossulariaceae).  
*Callidium (Phymatodes) Agassii* LeConte, 1861: 357 (error).  
*Callidium Agassizi* Gemminger & Harold, 1872: 2917 (emendation).  
*Xylocrius Agassizzi*; LeConte, 1873a: 173. 1873b: 197; LeConte & Horn, 1883: 282; Leng, 1884: 113.  
*Xylocrius agassizzi*; Chittenden, 1900: 91; Fall, 1901: 144 (distr.); Essig, 1915: 253, fig. 243 (biol.); Garnett, 1918: 176 (distr.); Chamberlin, 1925: 674 (biol.); Essig, 1926: 456 (biol.); Beaulne, 1932: 201 (hosts); Van Dyke, 1937: 113 (biol.); Hatch, 1938: 187; Schuh & Mote, 1948: 103 (biol.); Knowlton & Wood, 1950: 12 (distr.); Townes & Townes, 1960: 134 (paras.); Linsley, 1964: 74, fig. 24; Hatch, 1971: 117, pl. 12, fig. 10; Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A., 1993h: 57 (cat.); Linsley & Chemsak, 1997: 451 (hosts); Heffern, 1998: 15 (distr.); Haack, Keena & Eyre, 2017: 84; Rice, MacRae & Merickel, 2017: 670 (distr.); Bezark, 2018: 42, fig. 7 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 62, pl.8

## 2. *Xylocrius cribratus* LeConte, 1873

**Type locality** - Holotype male: United States, Nevada: Virginia City. (MCZN).

**Distribution** - Northern California & Sierra Nevada Mts. **Host plants** – *Prunus virginiana* Linné subsp. *demissa* (Nuttall) R.L. Taylor & B. MacBryde (Rosaceae).

*Xylocrius cribratus* LeConte, 1873a: 172; Leng, 1884: 113; 1885: 35, pl. 1, fig. 18; Fall, 1901: 144 (distr.); Garnett, 1918: 176 (distr.); Essig, 1926: 456 (biol.); Knowlton, 1934: 86 (distr.); Van Dyke, 1937: 113 (biol.); Linsley, 1964: 75; Hatch, 1971: 117; Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A., 1993h: 57 (cat.); Linsley & Chemsak, 1997: 451 (hosts).

## CLYTINI Mulsant, 1839

Clytaires Mulsant, 1839: 27 (key), 70; 1862-63: 135; Planet, 1924: 157.

Clytiidae; Gistel, 1848a: (8).

Clytitae; Thomson, 1861: 214; 1864: 183

Clytides; Lacordaire, 1869: 57.

Clytinae; Pascoe, 1869: 553, 597; Bates, 1870: 395.

Clytini; LeConte, 1873b: 317; LeConte & Horn, 1883: 302; Leng, 1887: 194; Gahan, 1906: 239; Blatchley, 1910: 1032; Casey, 1912: 347; Aurivillius, 1912: 358 (cat.); Bradley, 1930: 230, 238; Hopping, 1932: 530; 1937: 438; Plavilstshikov, 1940: 332; Knull, 1946: 212; Gressitt, 1951: 230; Duffy, 1953: 222; Heyrovsky, 1955: 210; Duffy, 1957: 151; 1960: 170; Arnett, 1962: 861, 886; Linsley, 1964: 76; Hatch, 1971: 100; Villiers, 1980b: 297; Monné, M.A., 1993i: 1 (cat.); Monné, M.A. 2005: 75 (cat.); Bousquet *et al.*, 2009: 43; Martins & Galileo, 2011a: 8 (rev.); Bouchard *et al.*, 2011: 469.

Clytina; Reitter, 1912: 46; Plavilstshikov, 1931: 14.

**Type-genus:** *Clytus* Laicharting, 1784.

**Type-species:** *Leptura arietis* Linnaeus, 1758 designated by Curtis (1828: pl. 199).

Neoclytitae Thomson, 1861: 137 (key), 215 (key), 219.

**Type-genus:** *Neoclytus* Thomson, 1861 (replacement name for *Rhopalomerus* Chevrolat, 1860)

**Type-species:** *Rhopalomerus cacicus* Chevrolat, 1860 designated by Thomson (1864: 193).

Cyllenitae Thomson, 1864: 184.

Comments: Family group permanently invalid because it is based on a preoccupied type genus.

**Type-genus:** *Cyllene* Newman, 1840 (junior homonym of *Cyllene* Gray, 1834 [Mollusca])

**Type-species:** *Cyllene spinifera* Newman, 1840 (monotypy).

## *Calloides* LeConte, 1873

*Calloides* LeConte, 1873b: 319; Provancher, 1877: 579, 597; LeConte & Horn, 1883: 304; Leng, 1887: 195; Casey, 1912: 349, 356; Bradley, 1930: 239; Hopping, 1932: 533; 1937: 439, 450; Chagnon, 1938: 255, 263; Knull, 1946: 212, 214; Chagnon & Robert, 1962: 255, 263; Arnett, 1962: 868, 887; Linsley, 1964: 97; Hatch, 1971: 118; Monné, M.A., 2005: 76 (cat.); Monné, M.A., 2012: 13.

**Type-species** - *Clytus nobilis* Harris, 1837 (subsequent designation, Casey, 1912: 349).

## 1. *Calloides lorquini* (Buquet, 1859)

**Type locality** – Holotype: United States, California (MNHN). **Distribution** - Southern Oregon to southern California and western Nevada. **Host plants** - *Quercus chrysolepis* Liebmann, *Q. wislizenii* var. *frutescens* (Engelmann) E. Murra (Fagaceae).

*Clytus Lorquini* Buquet, 1859: 629; Strauch, 1861: 131.

*Calloides Lorquini*; LeConte, 1873b: 319; Lameere, 1883: 35 (cat.); LeConte & Horn, 1883: 304; Leng, 1887: 197.

*Calloides lorquini*; Fall, 1901: 146 (distr.); Wright & Coolidge, 1908: 68 (distr.); Casey, 1912: 358; Leng, 1920: 277 (cat.); Hopping, 1937: 451, pl. 3; Linsley, 1964: 98, fig. 31; Hatch, 1971: 119, pl. 13, fig. 4; Hope, 1984: 28 (hosts); Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A., 1993i: 16 (cat.); Linsley & Chemsak, 1997: 353 (hosts); Swift, 2008a: 2 (hosts).

## 2. *Calloides nobilis nobilis* (Harris, 1837)

**Syntypes localities** - Syntypes: United States, Massachusetts: Blue Hill; Connecticut: Hartford. (MCZN). **Distribution** - Canada, United States (Eastern North America). **Host plants** - *Castanea sativa* Miller, *Quercus rubra* Linné, *Q. velutina* Lamarck (Fagaceae), *Fraxinus americana* Linné (Oleaceae).

*Clytus nobilis* Harris, 1837: 84, pl. 1, fig. 7; Chevrolat, 1838a: 119; Haldeman, 1847a: 39; Emmons, 1854: 117, pl. 8, fig. 2; Pettit, 1871: 106 (distr.)

*Arhopalus nobilis*; LeConte, 1850b: 18; Bland, 1861: 95

*Plagyonotus nobilis*; Thomson, 1861: 220.

*Calloides nobilis*; LeConte, 1873b: 319; Austin, 1874: 270 (distr.); Provancher, 1877: 596; Popenoe, 1877: 33 (distr.); Packard, 1881: 91 (biol.); Lameere, 1883: 35 (cat.); Snow, 1883: 42 (distr.); LeConte & Horn, 1883: 304; Lugger, 1884: 204 (hosts); Leng, 1887: 197; Harrington, 1887: 30 (biol.); Packard, 1890: 344 (biol.); Caulfield, 1890: 57 (biol.); Hamilton, 1893a: 274 (distr.); 1893b: 326 (distr.); 1895: 338 (distr.); Evans, 1895a: 142 (distr.); 1895b: 173 (distr.); Beutenmuller, 1896: 76 (hosts); Wickham, 1897a: 150; 1897b: 156 (distr.); Smith, 1900: 289 (distr.); Bowditch, 1903: 45 (distr.); Ulke, 1903: 26, 50 (distr.); Felt, 1906: 443 (biol.); Fall & Cockerell, 1907: 192 (distr.); Wickham, 1909a: 28 (distr.); Blatchley, 1910: 1035; Smith, 1910: 328; Leng, 1910: 77 (distr.); Fisher & Kirk, 1912: 311 (distr.); Casey, 1912: 357; Morris, 1916: 20 (hosts); Frost, 1916: 388 (distr.); Chagnon, 1917: 232 (distr.); Greene, 1918: 258; Nicolay, 1919: 67 (distr.); Leng, 1920: 277 (cat.); Britton, 1920: 269 (distr.); Morris, 1920a: 76 (distr.); Craighead, 1923: 51 (larva); Kirk & Knull, 1926: 40 (distr.); Leonard, 1928: 446 (distr.); Beaulne, 1932: 202 (hosts); Hopping, 1937: 451, pl. 3; Brimley, 1938: 215 (distr.); Chagnon, 1938: 263, pl., 17, fig. 9; Knull, 1946: 214, pl. 15, fig. 60; Procter, 1946: 181 (biol.); Fattig, 1947: 24 (biol.); Dillon & Dillon, 1961: 598, pl. 59, No.6; Chagnon & Robert, 1962: 263, pl. 17, fig. 9; Linsley, 1964: 99; Laliberté, Chantal & LaRochelle, 1977: 91; Chemsak, Linsley & Noguera, 1992: 65 (cat.); Lingafelter, 2007: 89, 145, 2 figs, pl. 21, fig. i (hosts).

*Calloides nobilis nobilis*; Linsley, 1964: 99; Gosling, 1973: 69, fig. 47 (distr., biol.); Turnbow & Franklin, 1980: 343 (distr.); Gosling, 1986: 155 (hosts); MacRae, 1993: 234 (distr.); i: 16 (cat.); Yanega, 1996: 120, pl. 9, figs 105a, b; Linsley & Chemsak, 1997: 353 (hosts); Vlasák & Vlasakova, 2002: 211 (distr.); MacRae & Rice, 2007: 231 (distr., hosts); McCorquodale, 2010: 468 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 64, pl.8

### 2a. *Calloides nobilis mormonus* Schaeffer, 1911

**Type locality** - Holotype: United States, Utah: Beaver County. (USNM).

**Distribution** - United States (Utah, Arizona, New Mexico and Colorado).

*Calloides nobilis* var. *mormonus* Schaeffer, 1911: 124; Knowlton & Thatcher, 1936: 279 (distr.); Hopping, 1937: 451.

*Calloides mormonus*; Casey, 1912: 359; 1924: 270

*Calloides nobilis mormonus*; Leng, 1920: 277 (cat.); Chemsak & Linsley, 1982a: 40; Chemsak, Linsley & Noguera, 1992: 65 (cat.); Monné, M.A., 1993i: 17 (cat.); Heffern 1998: 15 (distr.); Lingafelter *et al.*, 2014: 108, 353, fig. 119 m (holotype).

*Calloides bififormis* Casey, 1912: 358; Leng, 1920: 277 (cat.); Lingafelter *et al.*, 2014: 29, 366, fig. 29m (lectotype).

**Type locality** - Lectotype: United States, New Mexico: Fort Wingate. (USNM).

*Calloides muliebris* Casey, 1912: 258; Leng, 1920: 277 (cat.); Lingafelter *et al.*, 2014: 102, fig. 113e (holotype).

**Type locality** - Holotype: female: United States, New Mexico: Jemez Springs. (USNM)

*Calloides coloradensis* Casey, 1912: 358; Lingafelter *et al.*, 2014: 42, 366, fig. 44i (lectotype).

**Type locality** - Lectotype female: United States, Colorado. (USNM).

### ***Clytoleptus* Casey, 1912**

*Clytoleptus* Casey, 1912: 350; Bradley, 1930: 240; Hopping, 1932: 566; 1937: 439 ; Knull, 1946: 223; Dillon & Dillon, 1961: 604; Arnett, 1962: 868, 887; Linsley, 1964: 171; Monné, M.A., 1993i: 60 (cat.).

**Type-species** - *Clytus albofasciatus* Laporte & Gory, 1836 (original designation).

### **1. *Clytoleptus albofasciatus* (Laporte & Gory, 1836)**

**Type locality** - Holotype: Amérique Boreale. (MVMA). **Distribution** - Eastern United States and southern Canada to Kansas and Oklahoma. **Host plants** - *Carya* sp. (Juglandaceae), *Vitis riparia* Michaux (Vitaceae).

*Clytus albofasciatus* Laporte & Gory, 1836: 96, pl. 18, fig. 113; White, 1855: 280.

*Clytanthus albofasciatus* LeConte, 1873b: 319 ; LeConte & Horn, 1883: 304; Hamilton, 1886: 113 (hosts); 1887:141 (biol.) ; Leng, 1887: 23; Packard, 1890: 292; Dury, 1892: 54 (biol.); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 77 (hosts); Smith, 1900: 290 (distr.); Dury, 1902: 160 (distr.); Ulke, 1903: 26, 50 (distr.); Knaus, 1905: 219 (distr.); Smith, 1910: 329; Blatchley, 1910: 1039; Fisher & Kirk, 1912: 312 (distr.).

*Neoclytus albofasciatus*; LeConte, 1879: 505 (distr.).

*Clytoleptus albofasciatus*; Casey, 1912:350; Leng, 1920: 278 (cat.); Craighead, 1923: 59 (larva); Kirk & Knull, 1926: 40 (distr.); Leonard, 1928: 447 (distr.); Hopping, 1932: 566, pl. 5, fig.10; Frost, 1937: 202 (distr.); Knull, 1946: 223, pl. 16, fig. 62; Alexander, 1958: 45 (distr.); Dillon & Dillon, 1961: 604, pl. 59, No. 8; Linsley, 1964: 172, fig. 53; Laliberté, Chantal & LaRochelle, 1977: 91 (hosts); Turnbow & Franklin, 1980: 343 (distr., hosts); Gosling, 1983: 187 (distr., biol.); Waters & Hyche, 1984: 286 (distr.); Chemsak, Linsley & Noguera, 1992: 66 (cat.); Monné, M.A., 1993i: 60 (cat.); MacRae, 1993: 235 (distr.); Yanega, 1996: 120, pl. 17, figs 202a,b ; Linsley & Chemsak, 1997 : 355 (hosts); Heffern, 1998: 15 (distr.); Peck & Thomas. 1998: 119 (distr.); Schiefer, 2001: 334 (distr.); Rice & Veal, 2006: 256 (distr.); Lingafelter, 2007: 88, 145, 2 figs, pl. 21, fig. h (hosts); Holt, 2013: 247 (distr.) ; Klingeman *et al.*, 2017: 296 (distr.) ; Bousquet, Laplante, Hammond & Langor, 2017: 73, pl. 12; Cleger & Gemmill, 2018: 3 (distr.) ;



*Chlorophorus albofasciatus*; Aurivillius, 1912: 405 (cat.).

*Cyrtoloptus albofasciatus*; Arnett, 1985: 365, fig. 24.197 (cat., error).

*Cyrtoloptus gracilicornis* Casey, 1912: 371; Lingafelter *et al.*, 2014: 70, 366, fig. 75s (lectotype).

**Type locality** - Lectotype: United States, Indiana. (USNM).

*Cyrtoloptus tristis* Casey, 1912: 371; Lingafelter *et al.*, 2014: 336, fig. 173s (holotype).

**Type locality** - Holotype male: United States, Pennsylvania. (USNM).

### ***Clytus* Laicharting, 1784**

*Clytus* Laicharting, 1784: 88; Olivier, 1791: 37; Fabricius, 1801: 345; Stephens, 1831: 242; Audinet-Serville, 1834b: 83; Mulsant, 1839: 74; Laporte, 1840: 447; Blanchard, 1845: 153; Blanchard *in* Gay, 1851: 484; Chevrolat, 1860: 456; Mulsant, 1863: 142; Thomson, 1864: 186; 1865: 424; Lacordaire, 1869: 67; Pascoe, 1869: 598; Girard, 1873: 729; LeConte, 1873b: 319; Bates, 1880: 54; LeConte & Horn, 1883: 304; Leng, 1887: 195; Gahan, 1906: 240; Casey, 1912: 350, 372; Reitter, 1912: 48; Aurivillius, 1912: 368 (cat., refs.); Planet, 1924: 168; Bradley, 1930: 240; Hopping, 1932: 561; Chagnon, 1938: 255, 265; Plavilstshikov, 1940: 391; Knull, 1946: 222; Villiers, 1946: 94; Gressitt, 1951: 252; Heyrovsky, 1955: 218; Arnett, 1962: 868, 887; Robert & Chagnon, 1962: 255, 265; Linsley, 1964: 164; Hatch, 1971: 118; Monné, M.A., 2005: 77 (cat.); Monné, M.A., 2012: 13; Bousquet, Laplante, Hammond & Langor, 2017: 71 (key spp.)

**Type-species** - *Cerambyx arietis* Linnaeus, 1758 (subsequent designation, Curtis, 1828: pl. 199).

#### **1. *Clytus blaisdelli* Van Dyke, 1920**

**Type locality** - Holotype: United States, California: Trinity County, Carrville.(CASC). **Distribution** - United States (Northern and coastal California from Humboldt Co. south to Monterey Co.). **Host plants** - *Pinus tuberculata* Gordon, *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae).

*Clytus blaisdelli* Van Dyke, 1920: 39; Hopping, 1932: 564, pl. 4, fig. 16; Linsley & Usinger, 1934: 106 (distr.); Linsley, 1934: 170; Cope, 1984a: 28 (hosts); Chemsak, Linsley & Noguera, 1992: 66 (cat.); Monné, M.A., 1993i: 58 (cat.); Linsley & Chemsak, 1997: 355 (hosts); Monné, M.A. & Hovore, 2006: 40 (cat.).

#### **2. *Clytus canadensis* Hopping, 1928**

**Type locality** - Holotype male: Canada, British Columbia: Crichton V. Lumby (CNCI). **Distribution** - British Columbia and Alberta to southern Oregon and Colorado. **Host plants** - *Thuja plicata* Donn ex D.Don (Cupresaceae), *Abies concolor* Gordon & Glen, *Picea* sp. (Pinaceae).

*Clytus canadensis* Hopping, 1928b: 246; 1932: 565, pl. 4, fig. 8; Linsley, 1964: 165; Ruetten, 1970: 19 (types); Hatch, 1971: 123; Cope, 1984a: 28 (hosts); Chemsak, Linsley & Noguera, 1992: 66 (cat.); Monné, M.A., 1993i: 58 (cat.); Linsley & Chemsak, 1997: 355 (hosts); Heffern, 1998: 15 (distr.); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 72.

#### **3. *Clytus chemsaki* Hovore & Giesbert, 1974**

**Type locality** - Holotype male: United States, California: Los Angeles County, North slope of Mt. Wilson Road (San Gabriel Mountains) (CASC). **Distribution** - United States (California). **Host plants** - *Pseudotsuga macrocarpa* Vasey (Pinaceae).

*Clytus chemsaki* Hovore & Giesbert, 1974: 142, fig. 4; Chemsak, Linsley & Noguera, 1992: 66 (cat.); Monné, M.A., 1993i: 58 (cat.); Swift, 2008a: 3 (hosts).

#### 4. *Clytus clitellarius* (Van Dyke, 1920)

**Type locality** - Holotype: United States, California: near Fallen Leaf Lake, Lake Tahoe. (CASC). **Distribution** - United States (Sierra Nevada Mts. of California from Lassen Co. to Tulare Co.). **Host plants** - *Abies concolor* Gordon & Glen (Pinaceae).

*Neoclytus clitellarius* Van Dyke, 1920: 40.

*Clytus clitellarius*; Hopping, 1932: 564, pl.5, fig. 8; Linsley, 1964: 165 ; Chemsak, Linsley & Noguera, 1992: 66 (cat.); Monné, M.A., 1993i: 59; Linsley & Chemsak, 1997: 355 (hosts); Monné, M.A. & Hovore, 2006 : 40 (cat.)

#### 5. *Clytus marginicollis* Laporte & Gory, 1836

**Type locality** - Holotype: United States, Pennsylvania. (MVMA). **Distribution** - Eastern North America from southern Canada to Florida, Kentucky and Alabama. **Host plants** - *Picea* sp., *Pinus contorta* Douglas ex Loudon, *Pinus palustris* Miller (Pinaceae).

*Clytus marginicollis* Laporte & Gory, 1836: 41, pl. 9, fig. 50; Haldeman, 1847c: 372; LeConte, 1850b: 26; White, 1855: 263; Bland, 1861: 96 (distr., hosts); Lacordaire, 1869: 68; LeConte, 1873b: 319; Provancher, 1877: 597; LeConte & Horn, 1883: 304; Leng, 1887: 198; Ulke, 1903: 26, 50 (distr.); Blatchley, 1910: 1040; Nicolay, 1917: 94 (biol.); Leng, 1920: 278 (cat.); Britton, 1920: 269 (distr.); Morris, 1920a: 74 (distr.); Craighead, 1923: 55 (larva); Champlain, Kirk & Knull, 1925: 139 (distr.); Kirk & Knull, 1926: 40 (distr.); Leonard, 1928: 448 (distr.); Knull, 1932: 63 (biol.); Hopping, 1932: 563, pl. 4, fig. 6 (hosts); Beaulne, 1932 : 202 (hosts); Knull. 1934 : 210 (biol.); Doane *et al.*, 1936 : 285 ; Brimley, 1938: 215 (distr.); Loding, 1945: 120 (distr.); Procter, 1946: 181 (distr.); Knull, 1946: 223, pl. 16, fig. 65; Fattig, 1947: 26 (distr.); Dillon & Dillon, 1961: 603, pl. 59, No. 3; Linsley, 1964: 169, k fig. 52; Laliberté, Chantal & LaRoche, 1977: 92 (biol.); Turnbow & Franklin, 1980: 343 (distr.); Arnett, 1985: 365, fig. 24.196; Chemsak, Linsley & Noguera, 1992: 66 (cat.); Monné, M.A., 1993i: 59 (cat.); Yanega, 1996: 120, pl. 11, fig. 118; Linsley & Chemsak, 1997: 355 (hosts); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998: 119 (distr.); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Lingafelter, 2007: 58, 145, 2 figs, pl. 14, fig. g (hosts); McCorquodale, 2010: 468 (distr.); Holt, 2013 : 247 (distr.); Klingeman *et al.*, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 72, pl.12

*Clytus vespoides* Haldeman, 1847a: 40.

**Type locality** - Holotype: United States, Georgia. (MCZN).

*Clytus carolinensis* Casey, 1912: 372; Brimley, 1938: 215 (distr.); Lingafelter *et al.*, 2014: 37, fig. 38q (holotype).

**Type locality** - Holotype: United States, North Carolina: Southern Pines. (USNM).

#### 6. *Clytus pacificus* (Van Dyke, 1920)

**Type locality** - Holotype female: United States, Oregon: Mary's Peak, near Corvallis. (CASC). **Distribution** - Pacific coast of North America from British Columbia to northern California (Shasta, Trinity, Humboldt, and Mendocino Cos.).

**Host plants** - *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae).

*Clytanthus pacificus* Van Dyke, 1920: 38; Hardy, 1926: 32, pl. 5, fig. 45.

*Clytus pacificus*; Hopping, 1932: 563, pl. 4, fig. 7; Linsley, 1964: 171; Hatch, 1971: 123; Deyrup, 1977: 182 (paras.); Chemsak, Linsley & Noguera, 1992: 66 (cat.); Monné, M. A., 1993: 59 (cat.); Linsley & Chemsak, 1997: 355 (hosts); Monné, M.A. & Hovore, 2006: 40 (cat.); Bousquet, Laplante, Hammond & Langor, 2017: 72, pl.12

### 7. *Clytus planifrons* (LeConte, 1874)

**Syntypes locality** – Syntypes: United States, California. (MCZN). **Distribution** - Pacific coast of North America from British Columbia to the mountains of southern California. **Host plants** - *Abies concolor* Gordon & Glen, *A. grandis* (Lambert) Lindley, *A. magnifica* A. Murray (Pinaceae).

*Xylotrechus planifrons* LeConte, 1874: 67;

*Clytus planifrons*; Lameere, 1883: 37 (cat.); Leng, 1887: 198; Harrington, 1899: 108 (distr.); Gibson, 1917: 150 (distr.); Garnett, 1918: 209 (distr.); Leng, 1920: 278 (cat.); Essig, 1926: 457; Beaulne, 1932: 202 (hosts); Hopping, 1932: 563, pl. 4, fig. 5; Doane *et al.*, 1936: 285 (biol.); Bedard, 1938: 193 (hosts); Linsley, 1964: 167, figs 50, 51; Tyson, 1966: 203 (hosts); Hatch, 1971: 123, pl. 17, fig. 2; Hovore & Giesbert, 1974: 144, fig. 5; Chemsak, Linsley & Noguera, 1992: 66 (cat.); Monné, M.A., 1993: 59 (cat.); Linsley & Chemsak, 1997: 355 (hosts); Heffern, 1998: 24 (distr.); Monné, M.A. & Hovore, 2006: 40 (cat.); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 72, pl.12

### 8. *Clytus ruricola* (Olivier, 1795)

**Type locality** - Holotype: Canada, Québec: Saint Dominique. (Depository unknown). **Distribution** - Eastern Canada and northeastern United States to South Carolina. **Host plants** - *Acer pensylvanicum* Linné, *A. rubrum* Linné, *A. saccharinum* Linné (Aceraceae), *Heracleum lanatum* Michaux (Apiaceae), *Alnus acuminata* Kunth, *Betula lenta* Linné, *Ostrya virginiana* (Miller) K. Koch (Betulaceae), *Fagus ferruginea* Aiton, *Quercus* sp. (Fagaceae), *Carya glabra* (Miller) Sweet (Juglandaceae), *Tilia americana* Linné (Malvaceae), *Pyrus malus* Linné, *Sorbus* sp. (Rosaceae).

*Callidium ruricola* Olivier, 1795: 65, pl. 8, fig. 96.

*Clytus ruricola*; Schonherr, 1817: 467; Laporte & Gory, 1836: 56, pl. 11, fig. 65; Haldeman, 1847c: 372 (syn.); LeConte, 1850b: 27; White, 1855: 268; Bland, 1861: 96 (distr.); Hopping, 1932: 562, pl. 4, fig. 9; Chagnon, 1938: 265, pl. 18, fig. 1; Knull, 1946: 222; Fattig, 1947: 26; Dillon & Dillon, 1961: 603, pl. 59, No 5; Chagnon & Robert, 1962: 265, pl. 18, fig. 1; Linsley, 1964: 168, fig. 50; Gosling, 1973: 82 (biol., distr.); Stein & Tagestad, 1976: 6 (distr.); Laliberté, Chantal & LaRochelle, 1977: 92 (biol.); Turnbow & Franklin, 1980: 343 (distr.); Hansen & Osgood, 1983: 149 (biol.); Gosling, 1986: 155 (hosts); Chemsak, Linsley & Noguera, 1992: 66 (cat.); Monné, M.A., 1993i: 60 (cat.); Yanega, 1996: 120, pl. 11, fig. 119; Krinsky & Godwin, 1996: 238 (hosts); Linsley & Chemsak, 1997: 255 (hosts); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Rice & Veal, 2006: 257 (distr., hosts); MacRae & Rice, 2007: 231 (biol., distr.); Majka, McCorcuodale & Smith, 2007: 261 (distr.); Lingafelter, 2007: 58,145, 2 figs, pl. 14, fig. f (hosts); McCorcuodale, 2010: 468 (distr.); Holt, 2013: 247 (distr.); Steury & MacRae, 2014: 10 (distr.); Klingeman *et al.*, 2017: 296 (distr.); DiGirolomo & Dodds, 2017: 410 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 72, pl. 12

*Clytanthus ruricola*; LeConte, 1873b: 319; Henshaw, 1874: 22 (distr.); Provancher, 1877: 602; Gardiner, 1879: 213 (distr.); LeConte & Horn, 1883: 304; Horn, 1886a:

139; Leng, 1887: 8; Hamilton, 1887: 141 (biol.); 1893a: 274 (distr.); 1893b: 326 (distr.); Harrington, 1887: 30 (biol.); 1894: 15 (distr.); Hopkins, 1893: 195; Hamilton, 1895: 338 (distr.); Slossom, 1895b: 319 (distr.); Evans, 1895b: 173 (distr.); Wickham, 1897a: 152; 1897b: 157 (distr.); Smith, 1900: 290 (distr.); Dury, 1902: 160 (distr.); Ulke, 1903: 26, 50 (distr.); Chagnon, 1905: 35 (distr.); Morris, 1909: 417 (biol.); Smith, 1910: 329; Leng, 1910: 77 (distr.); Blatchley, 1910: 1039; Fisher & Kirk, 1912: 312 (distr.); Casey, 1912: 370; Lovell, 1915: 114; Johnson, 1916: 119 (distr.); Chagnon, 1917: 232 (distr.); Nicolay, 1917: 94 (distr.); 1919: 67 (distr.); Morris, 1920a: 73; Craighead, 1923: 59, pl. 19, fig. 11 (larva); Blackman & Stage, 1924: 107.

*Anthoboscus ruricola*; Leng, 1920: 278 (cat.); Britton, 1920: 269 (distr.); Hatch, 1925: 580 (distr.); Kirk & Knull, 1926: 40; Fletcher, 1926: 143 (distr.); Brues, 1927: 77; Procter, 1927: 113 (distr.); Leonard, 1928: 447 (distr.); Criddle, 1928: 47 (distr.); Knull, 1930b: 102 (hosts); 1932: 63; 1934b: 210 (hosts); Beaulne, 1932: 202 (hosts); Brimley, 1938: 215 (distr.); Sherman, 1946: 127 (distr.); Procter, 1946: 181 (biol.).

*Clytus hamatus* Say, 1824: 423; 1828: 118, pl. 53; Emmons, 1854: 118, pl. 8, fig. 7; LeConte, 1859c: 200, pl. 53, fig. 4.

**Type locality** - Holotype: United States, Illinois: near Illinois River (Depository unknown).

*Clytanthus catulus* Casey, 1912: 370; Lingafelter *et al.*, 2014: 38, fig. 39m (holotype).

*Anthoboscus catulus*; Leng, 1920: 278 (cat.).

**Type locality** - Holotype male: United States, Wisconsin: Bayfield. (USNM).

### ***Euryscelis* Dejean, 1835**

*Euryscelis* Dejean, 1835: 331; 1837: 357; Chevrolat, 1862c: 530; Thomson, 1864: 193; 1865: 426; Lacordaire, 1869: 75; Leng, 1887: 195; Bradley, 1930: 239; Hopping, 1932: 560; Cazier & Lacey, 1952: 35; Arnett, 1962: 868, 887; Linsley, 1964: 163; Monné, M.A., 2005: 78 (cat.); Monné, M.A., 2012: 13; Bousquet & Bouchard, 2013: 81.

**Type-species** - *Callidium suturale* Olivier, 1795 (monotypy).

#### **1. *Euryscelis suturalis* (Olivier, 1795)**

**Type locality** – Holotype male: Santo Domingo. (BMNH). **Distribution** - United States (Florida), Hispaniola, Puerto Rico, Bahamas, Cayman Islands. **Host plants** - *Metopium toxiferum* (Linné) Krug & Urban (Anacardiaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Sideroxylon foetidissimum* Jacquin (Sapotaceae).

*Callidium suturale* Olivier, 1795: (70) 62, pl. 7, fig. 91.

*Clytus suturalis*; Schoenherr, 1817: 473; Laporte & Gory, 1836: 15, pl. 4, fig. 16; White, 1855: 254.

*Euryscelis suturalis*; Dejean, 1835: 331; 1837: 357; Chevrolat, 1862c: 529; Thomson, 1864: 193; Lacordaire 1869: 75; Leng, 1887: 8; Gahan, 1895: 114; Leng & Mutchler, 1914: 447 (distr.); Nicolay, 1919: 67 (distr.); Wolcott, 1924: 110 (distr.); Blatchley, 1928: 70 (distr.); 1930: 33 (distr.); Hopping, 1932: 560, pl. 4, fig. 4; pl. 5, fig. 11; Wolcott, 1936: 262 (distr.); 1941: 99 (distr.); Martorell, 1945: 283, 441 (hosts); Wolcott, 1948: 339; Cazier & Lacey, 1952: 35; Duffy, 1960: 177 (hosts); Linsley, 1964: 163; Chemsak, 1967a: 186, figs 7, 8; Chemsak, Linsley & Noguera, 1992: 66 (cat.); Browne, Peck & Ivie, 1993: 47 (distr., hosts); Linsley & Chemsak, 1997: 377 (hosts); Peck & Thomas, 1998: 119 (distr.); Monné, M.A., 2001: 28 (cat.).

hosts); Peck, 2005: 172 (distr.); Monné, M.A., 2005: 78 (cat.); Ray, Lacey & Hanks, 2006: 545 (pheromones); Lingafelter, 2007: 71, 146, pl. 17a; Perez-Gelabert, 2008: 117 (distr.); Turnbow & Thomas, 2008: 19 (distr.); Micheli, 2010: 88, pl. 13; Thomas, Turnbow & Steiner, 2013: 19 (distr.).

*Euryxelis suturalis*; Russo, 1930: 142 (error).

*Euryscelis dejeanii* Chevrolat, 1862c: 530; Lacordaire, 1869: 75; Gahan, 1895: 115; Leng & Mutchler, 1914: 447 (distr.).

**Type locality** – Holotype female: Santo Domingo. (BMNH).

*Euryscelis megalopus* Casey, 1924: 271; Lingafelter *et al.*, 2014: 97, figs 107k, l (holotype).

**Type locality** – Holotype male: United States, Florida. (USNM).

*Euryscelis subtropica* Casey, 1924: 271; Lingafelter *et al.*, 2014: 329, figs 163q, r (holotype).

**Type locality** – Holotype female: United States, Florida: Key Largo. (USNM).

### ***Glycobius* LeConte, 1873**

*Glycobius* LeConte, 1873b: 319; Provancher, 1877: 579, 594; Casey, 1912: 349, 356; Bradley, 1930: 239; Hopping, 1932: 533; 1937: 439, 449; Chagnon, 1938: 255, 262; Knoll, 1946: 213; Dillon & Dillon, 1961: 598; Arnett, 1962: 868, 886; Chagnon & Robert, 1962: 255, 262; Linsley, 1964: 95; Monné, M.A. 1993i: 15 (cat.).

*Arhopalus* Lacordaire, 1869: 64 (not Audinet-Serville, 64).

*Plagionotus* LeConte & Horn, 1883: 304; Leng, 1887: 195; Blatchley, 1910: 1034 (not Mulsant, 1842)

**Type-species** - *Clytus speciosus* Say, 1828 (original designation).(not Adams, 1817).

#### **1. *Glycobius speciosus* (Say, 1824)**

**Syntypes localities** - Syntypes: United States, Wisconsin, Wisconsin River, Pennsylvania. (Depository unknown). **Distribution** - Eastern Canada and northeastern United States. **Host plants** - *Acer rubrum* Linné, *A. saccharinum* Linné, *A. saccharum* Marshall (Aceraceae), *Picea glauca* (Moench) Voss (Pinaceae).

*Clytus speciosus* Say, 1824: 290; 1828: 628, pl. LIII; Laporte & Gory, 1836: 39, pl. 8, fig. 48; Harris, 1838: 93; 1841: 84; Fitch, 1845: 250; Haldeman, 1847a: 39; LeConte, 1850a: 234; Emmons, 1854: 117, pl. 16, fig. 10; LeConte, 1859c: 193, pl. 53, fig. 1; Riley, 1866: 73; Pettit, 1871: 106 (distr.); Clementi, 1872: 37 (distr.); Packard, 1872: 496 (biol.); Reed, 1873: 35, fig. 26 (biol.); Bethune, 1877a: 23; 1877b: 221; Rogers, 1880: 149, fig. 21 (biol.).

*Arhopalus speciosus*; LeConte, 1850b: 17 (hosts); Lacordaire, 1869: 64; Walsh & Riley, 1869d: 146 (biol.).

*Clytus (Plagionotus) speciosus*. Chevrolat, 1860: 456.

*Glycobius speciosus*; LeConte, 1873b: 319; Provancher, 1877: 595, fig. 46; Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (hosts); Bell, 1881: 236 (hosts); Packard, 1881: 103, fig. 45 (biol.); 1884: 1151 (biol.); Riley, 1885: 382 (biol.); Lintner, 1887: 103 (biol.); Harrington, 1887: 29, fig. 13 (biol.); Lintner, 1889a: 579 (biol.); Packard, 1890: 374, figs 137-140 (biol.); Lintner, 1892: 202, fig. 45 (biol.); 1895: 583 (biol.); Fyles, 1896: 24, fig. 8 (biol.); Casey, 1912: 356; Britton, 1920: 269 (distr.); Leng, 1920: 277 (cat.); Kirk & Knoll, 1926: 39 (distr.); Leonard, 1928: 446 (distr.); Craighead & Middleton, 1930: 7 (biol.); Beaulne, 1932: 202 (hosts); Belkin, 1934: 222 (distr.); Herrick, 1935: 177, figs 147, 149 (biol.); Dunn, 1936: 8 (hosts);

Hopping, 1937: 450, pl. 3 (hosts); Chagnon, 1938: 262, pl.17, fig. 8; Loding, 1945: 119 (distr.); Knull, 1946: 214, pl. 15, fig. 61; Craighead, 1950: 260, fig. 52E; Shenefelt & Benjamin, 1955: 92 (biol.); Anderson, 1960: 275, 282, fig.11.8 (hosts); Dillon & Dillon, 1961: 598, pl. 59, No.4; Chagnon & Robert, 1962: 262, pl. 17, fig. 8; Linsley, 1964: 95, fig. 30-1; Baker, 1972: 180 (biol.); Swan & Papp, 1972: 448, fig. 950; Gosling, 1973: 79 (biol., distr.); Laliberté, Chantal & LaRochelle, 1977: 93 (hosts); Aube *et al.*, 1978: 56; Turnbow & Franklin, 1980: 343 (distr.); Chemsak, Linsley & Noguera, 1992: 66 (cat.); Monné, M.A., 1993i: 15 (cat.); MacRae, 1993: 233 (distr.); Yanega, 1996: 120, pl. 10, fig. 112; Linsley & Chemsak, 1997: 378 (hosts); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Lingafelter, 2007: 64, 147, 2 figs, pl. 11, fig. h (hosts); Majka, McCorquodale & Smith, 2007: 261 (distr.); Holland, 2009a: 54 (distr.); Webster, McCorquodale & Majka, 2009: 297 (distr., hosts); McCorquodale, 2010: 469 (distr.); Holt, 2013: 247 (distr.); Haack in Wang, 2017: w/page fig. 11.7 (biol., hosts); Bousquet, Laplante, Hammond & Langor, 2017: 64, pl.89; Bezark, 2018: 40 (distr.).

*Plagionotus speciosus*; LeConte & Horn, 1883: 304; Leng, 1887: 197; Townsend, 1889: 233 (distr.); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 76 (hosts); Wickham, 1897b: 156 (distr.); 1897a: 150, fig. 24; Kirkland, 1897: 30; Lintner, 1898: 237, pl. 7 (biol.); Felt, 1899b: 49, pl. 3, fig. 1; 1900b: 581 (biol.); 1900a: 19, figs 26, 27 (biol.); Smith, 1900: 289, fig. 129; Jenkins & Britton, 1900: 13, pl. 4, figs. 7, 10, pl. 5, fig. 11 (biol.); Dury, 1902: 160 (distr.); Hopkins, 1904: 35 (biol.); Felt, 1905: 31, figs. 2-4, pl. 2, figs 1-6 (biol.); 1908: 40 (biol.); Morris, 1909: 412 (biol.); Wickham, 1909a: 28 (distr.); Smith, 1910: 328, fig. 132; Blatchley, 1910: 1034, fig. 440; Johnson, 1915: 315 (distr.); Morris, 1916a: 21 (hosts); 1916b: 297 (biol.); Frost, 1916: 289; Blackman & Ellis, 1916: 60, figs 27, 29 (biol.); Chagnon, 1917: 232 (distr.); Kotinsky, 1921: 53, fig. 33 (biol.); Craighead, 1923: 53 (larva); Park, 1931: 194.

*Glycobius (Plagionotus) speciosus*; Doane *et al.*, 1936: 183 (biol.).

*Clytus Hayii* Gray, 1831: s/p, pl. 65, fig. 6, pl. 73, figs 6a-d; White, 1855: 262.

*Callidium (Clytus) Haiji*; Gray, 1832: 118.

*Glycobius Hayi*; Lameere, 1883: 35 (cat.).

**Type locality** - Holotype: Tannaserim Coast. (BMNH).

*Clytus Westermanni* Motschulsky, 1856: 24

**Type locality** – Canada. (ZMUC)

### ***Megacheuma* Mickel 1919**

*Megacheuma* Mickel, 1919: 198; Hopping, 1937: 449, 446; Arnet, 1962: 868, 886; Linsley, 1964: 90; Hatch, 1971: 118; Monné, M A., 1993i: 13 (cat.).

**Type-species** - *Megacheuma melanosticum* Mickel, 1919 (original designation) (= *Cyllene brevipennis* LeConte, 1873).

#### **1. *Megacheuma brevipennis* (LeConte, 1873)**

**Type locality** - Holotype: United States, Utah. (MCZN). **Distribution** - Great Basin to California and Oregon. **Host plants** - *Atriplex* sp., *Sarcobatus vermiculatus* (Hooker) Torrey (Chenopodiaceae).

*Cyllene brevipennis* LeConte, 1873a: 197; Lameere, 1883: 36 (cat.); Casey, 1912: 351  
*Cyllene decora* ab. *brevipennis*; Aurivillius, 1912: 384 (cat.).

*Megacheuma brevipennis*; Hopping, 1937: 447, pl. 3 (syn.); Linsley, 1964: 90, fig. 30-3; Barr & Penrose, 1969: 91 (distr., hosts); Hatch, 1971: 119, pl.13, fig.3; Hovore,

1979: 461; Bechtel, Hanks & Rust, 1983 : 474 (distr.); Chemsak, Linsley & Noguera, 1992: 67 (cat.); Linsley & Chemsak, 1997: 395 (hosts).  
*Megacheuma brevipennis brevipennis*; Monné, M.A., 1993i: 13 (cat.); Heffern, 1998: 15 (distr.) ; Rice, MacRae & Merickel, 2017: 669 (distr.).  
*Megacheuma melanosticum* Mickel, 1919 : 199, figs 1-3.  
**Type locality** - Holotype female: United States, Wyoming : Big Horn Basin. (University of Nebraska State Museum).

**1a. *Megacheuma brevipennis tiemanni* Hovore, 1979**

**Type locality** – Holotype male: United States, California: Kern County, 5 miles North of China Lake. (CASC). **Distribution** - United States (California). **Host plants** - *Atriplex parryi* Watson (Chenopodiaceae).  
*Megacheuma brevipennis tiemanni* Hovore, 1979: 459, fig. 1; Chemsak, Linsley & Noguera, 1992: 67 (cat.); Monné, M.A., 1993i: 13 (cat.); Linsley & Chemsak, 1997: 395 (hosts) ; Monné, M.A. & Hovore, 2006: 42 (cat.).

***Megacyllene* Casey, 1912**

*Megacyllene* Casey, 1912: 348, 351; Bradley, 1930: 239; Fisher, 1945: 251; Knull, 1946: 212; Arnett, 1962: 868, 886; Linsley, 1964: 78; Hatch, 1971: 118; Villiers, 1980b: 297; Di Iorio, 1995: 323 (key spp.); 1998: 12 (key spp.); Monné, M.A., 2005: 85 (cat.); Martins & Galileo, 2011a: 17 (syn., key spp.); Carelli & Monné, M.A., 2011: 159 (rev.); Monné, M.A., 2012: 13.

**Type-species** - *Clytus antennatus* White, 1855 (original designation).

*Cyllene* Newman, 1840b: 7 (not Gray, 1834); Chevrolat, 1860: 453; Thomson, 1861: 215; Chevrolat, 1861: 247; Thomson, 1864: 184; Lacordaire, 1869: 92; Bates, 1870a: 395; LeConte, 1873b: 318; Provancher, 1877: 579, 593; LeConte & Horn, 1883: 303; Leng, 1887: 194; Blatchley, 1910: 1033; Casey, 1912: 348, 351; Bradley, 1930: 239; Hopping, 1932: 533; 1937: 439, 440; Linsley, 1938: 109; Chagnon, 1938: 262; Chagnon & Robert, 1962: 255, 262; Bousquet, Laplante, Hammond & Langor, 2017: 62 (key spp.)

**Type-species** - *Cyllene spinifera* Newman, 1840 (Chevrolat designation, 1860: 453).

*Megacyllene* (*Megacyllene*); Di Iorio, 1998: 14.

*Megacyllene* (*Sierracyllene*) Tippmann, 1960: 133; Di Iorio, 1998: 12 (key spp.); Monné, M. A., 2005: 94 (cat.).

**Type-species** - *Megacyllene* (*Sierracyllene*) *horioni* Tippmann, 1960 (original designation).

**1. *Megacyllene angulifera* (Casey, 1912)**

**Type locality** - Holotype female: United States, Kansas. (USNM). **Distribution** - Canada (Alberta, Manitoba), USA (Arizona, Colorado, Indiana, Kansas, Minnesota, Montana, Nebraska, North Dakota, Oklahoma, South Dakota, Texas, Wyoming).

**Host plants** - *Dalea candida* Michaux ex Willdenow (Fabaceae), *Maclura pomifera* (Rafinesque) C. Schneider (Moraceae), *Malus* sp. (Rosaceae).

*Cyllene angulifera* Casey, 1912: 354; Knaus, 1914: 91; Hopping, 1937: 446, pl. 1

*Megacyllene angulifera*; Linsley, 1964: 89, fig. 25-4; Stein & Tigestad, 1976: 18, fig. 8; Chemsak, Linsley & Noguera, 1992: 67 (cat.); Monné, M.A., 1993i: 3 (cat.); Yanega, 1996: 120, pl. 10, figs 108a-b; Heffern, 1998: 15 (distr.); Blodgett, Ivie & Majerus, 2005: 258 (distr., hosts); Hart & Ivie, 2013: 91, figs. 1-4 (syn. biol.);

Lingafelter *et al.*, 2014: 16, fig. 16c (holotype); Bousquet, Laplante, Hammond & Langor, 2017: 63, pl.9

*Megacyllene (Megacyllene) angulifera*; Monné, M.A. & Giesbert, 1994:112 (cat.).

*Megacyllene comanchei* Rice & Morris, 1992: 200, fig. 1; MacRae & Rice, 2007: 237 (biol., distr.); Lingafelter *et al.*, 2014: 43, fig. 45a (holotype).

*Megacyllene (Megacyllene) comanchei*; Monné, M.A., & Giesbert, 1994: 112 (cat.).

**Type locality** - Holotype male: United States, Texas: Crosby County, White River Lake. (USNM).

## 2. *Megacyllene antennata* (White, 1855)

**Type locality** - Holotype: West coast of America. (BMNH). **Distribution** - Southwestern United States, from Texas to southern California, Mexico (Baja California, Sonora, Sinaloa). **Host plants** - *Acacia greggii* A. Grey, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Clytus antennatus* White, 1855: 252.

*Cyllene antennatus*; Horn, 1880a: 135; Riley, 1880: 239 (biol.); Packard, 1881: 133 (biol.); Leng, 1887: 195, 196; Packard, 1890: 670 (biol.); Horn, 1894: 339 (distr.); Beutenmuller, 1896: 76 (hosts); Griffith, 1900: 569 (distr.); Fall, 1901: 146 (distr.); Grossbeck, 1912: 325 (distr.); Garnett, 1918: 209 (distr.); Craighead, 1920: 207 (biol.); Craighead & Hofer, 1921: 6, figs 3, 5-8 (larva, hosts); Craighead, 1923: 33 (larva); Beaulne, 1932: 33 (larva); Hopping, 1937: 441, pl. 1.

*Cyllene antennata*; Bates, 1885: 295; Saalas, 1936: 100; Linsley, 1942: 54 (distr.).

*Megacyllene antennata*; Casey, 1912: 348, 351; Linsley, 1964: 79, figs 25, 50; Hatch, 1971: 118, pl. 13, fig. 1; Baker, 1972: 178 (biol.); Rogers, 1977a: 227 (hosts); Hovore, Penrose & Giesbert, 1978: 98 (hosts); Chemsak, Linsley & Noguera, 1992: 67 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 395 (hosts); Monné, M.A., 2001a: 32 (cat. hosts); Monné, M.A., 2005: 87 (cat.); Ray, Lacey & Hanks, 2006: 546 (pheromones); Noguera *et al.*, 2009: 87 (distr.); Gutiérrez & Noguera, 2015: 142 (distr.).

*Megacyllene antennatus*; Essig, 1926: 456 (biol.); St. George, 1929: fig. 17 (larva); Doane *et al.*, 1936: 182 (biol.); Moore, 1937: 90 (distr.); Craighead, 1950: 242 (biol.); Keen, 1952: 198 (hosts); Linsley, Knull & Statham, 1961b: 19, fig. 8 (distr., hosts); Gerhardt & Turley, 1963: 270, 2 figs

*Arhopalus eurystethus* LeConte, 1858b: 82; 1859b: 127, pl. 13, fig. 9; 1861: 335 (distr.).

*Clytus eurystethus*; Gemminger & Harold, 1872: 2928 (cat.).

**Syntypes locality** – Syntypes: Sonora. (MCZN).

## 3. *Megacyllene caryae* (Gahan, 1908)

**Type locality** – Lectotype male: North America. (BMNH). **Distribution** - Eastern Canada and eastern United States to Texas and northern Mexico (Durango, Tamaulipas, Nuevo León, Chihuahua, Coahuila). **Host plants** - *Cercis canadensis* Linné, *Gleditschia triacanthos* Linné (Caesalpiniaceae), *Celtis laevigata* Willdenow, *C. occidentalis* Linné (Cannabaceae), *Quercus* sp. (Fagaceae), *Carya cordiformis* (Wagenheim) K. Koch, *C. glabra* (Miller) Sweet, *C. ovata* (Miller) K. Koch, *C. pecan* (Marshall) Engler & Graebner, *Juglans cinerea* Linné, *J. nigra* Linné (Juglandaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Maclura pomifera* (Rafinesque) C. Schneider, *Morus rubra* Linné (Moraceae), *Fraxinus americana* Linné (Oleaceae), *Prunus* sp. (Rosaceae), *Ulmus* sp. (Ulmaceae), *Vitis* sp. (Vitaceae).



*Cyllene caryae* Gahan, 1908: 141; Leng, 1908: 242; Wickham, 1909a: 28 (distr.); Fisher & Kirk, 1912: 311 (distr.); Dusham, 1921: 175, 2 pls (biol., refs); Craighead, 1923: 52, pls 15, 18, 20,21,26 (larva, pupa); Kirk & Knull, 1926: 39 (distr.); Leonard, 1928: 445 (distr.); Knull, 1928b: 316 (hosts); St. George, 1929: 8, figs 15, 19 (biol.); Ware, 1929: 368 (distr.); Craighead & Middleton, 1930: 12 (biol.); Goldman, 1933: 89, pl. 5, fig. 15; Herrick, 1935: 117, figs 84, 85, 301 (biol.); Doane *et al.*, 1936: 183 (biol.); Hopping, 1937: 442, pl. 1; Zacher, 1937: 500, 1 fig. (biol.); Brimley, 1938: 215 (distr.); King, 1943: 180, fig. 3 (biol.); Blair, 1948: 123, pl. D, fig. 4 (hosts); Duffy, 1953: 229 (hosts); Chagnon & Robert, 1962: 262; Chemsak, 1967b: 75 (lect.).

*Megacyllene caryae*; Knull, 1946: 213; Vogt, 1949: 143 (distr., hosts); Craighead, 1950: 242 (biol.); Linsley, 1964: 83; Baker, 1972: 178 (biol.); Swan & Papp, 1972: 448, fig. 947; Gosling, 1973: 79, fig. 45 (biol., distr.); Hovore, Penrose & Neck, 1987: 306 (biol.); Chemsak, Linsley & Noguera, 1992: 67 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 395 (hosts); Heffern, 1998: 15 (distr.); Schiefer, 1998: 119 (distr.); Monné, M.A., 2001a: 32 (cat. hosts); Monné, M.A., 2005: 87 (cat.); Vlasák & Vlasakova, 2002: 211 (distr.); Ruíz Cancino & Coronado Blanco, 2002: 103 (distr.); Ginzel & Hanks, 2005: 214 (biol., hosts); Ginzel *et al.*, 2006: 435 (pheromone); Ray, Lacey & Hanks, 2006: 546 (pheromone); Lingafelter, 2007: 60, 147, 2 figs, pl. 12, fig. b (hosts); Lacey *et al.*, 2008: 408 (pheromone); Holland, 2009b: 230 (biol.); Mitchell *et al.*, 2012: 499 (pheromone); Holt, 2013: 247 (distr.); Hanks & Wang, 2017:134 (biol.); Klingeman *et al.*, 2017: 296 (distr.); Mitchell *et al.*, 2017: 75 (biol.); Bousquet, Laplante, Hammond & Langor, 2017: 63, pl.9

*Clytus pictus*; Fitch, 1845: 250 (not Drury, 1773); Jaeger, 1853: 79, pl. 3, fig. 13; Jaeger, 1859: 55, fig. 13 (biol.); Walsh, 1863: 8; 1864: 420 (biol.); 1865a: 384 (biol.); 1866a: 29, fig. 6 (biol.); 1866b: 89; 1867b: 85, 107 (larva, biol.); Packard, 1872: 497, fig. 485; Moffat, 1882a: 200 (biol.).

*Arhopalus pictus*; Horn, 1861: 30 (not Drury, 1773); Walsh, 1865b: 204; Walsh & Riley, 1869b: 148; 1869a: 58.

*Cyllene pictus*; Provancher, 1877: 594 (not Drury, 1773); Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (biol.); Horn, 1880a: 134, 135, pl. 2, fig. 8g; 1882: 240; Harrington, 1884: 46 (biol.); Leng, 1887: 196; Packard, 1890: 287, 329, 358, fig. 12 (biol.); Gahan, 1892a: 273; Lintner, 1892: 175, fig. 128 (biol.); Hopkins, 1893: 194 (biol.); Hamilton, 1895: 338 (distr.); Britton, 1896: 141 (biol.); Webster, 1897: 81 (biol.); Wickham, 1897a: 149; Felt, 1898: 360 (biol.); Lugger, 1899: 202, pl. 4, fig. 22; Ulke, 1903: 26 (distr.); Felt, 1906: 264, pl. 15, figs 7-12 (biol.); Fall & Cockerell, 1907: 192 (distr.); Blatchley, 1910: 1033; Daecke, 1910: 332; Nicolay, 1919: 67 (distr.); Craighead, 1920: 107 (contr.); 1921: 198 (biol.); Champlain, 1922: 98 (paras.); Beaulne, 1932: 202 (hosts); Dunn, 1936: 8 (hosts); Craighead, 1950: 242 (biol.).

*Cyllene picta*; LeConte, 1880a: 237 (hosts); (not Drury, 1773); Packard, 1881: 70, 75, 90, 95, fig. 30 (biol.); Chittenden, 1893: 248 (paras.); Hopkins, 1894: 146 (biol.); Beutenmuller, 1896: 76 (hosts); Ehrmann, 1897: 168 (hosts); Hopkins, 1898b: 46 (biol.); Dury, 1902: 160 (distr.); Hopkins, 1904: 36.

*Megacyllene pictus*; Townes & Townes, 1960: 140 (paras., not Drury, 1773).

#### 4. *Megacyllene decora* (Olivier, 1795)

**Type locality** - Holotype: United States, New York. (MNHN). **Distribution** - Great Plains region from Alberta and Manitoba to Indiana south to Kansas and

- Texas, east to North Carolina, Georgia, and Alabama. **Host plants** - *Amorpha fruticosa* Linné (Fabaceae).
- Callidium decorum* Olivier, 1795: 63, pl. 8, fig. 92.
- Clytus decorus*; Schoenherr, 1817: 460; Laporte & Gory, 1836: 14, pl. 4, fig. 15; Haldeman, 1847a: 39; White, 1855: 254; LeConte, 1873b: 336; Heyne & Taschenberg, 1907: 240, pl. 36, fig. 18.
- Arhopalus decorus*: LeConte, 1850b: 18.
- Clytus (Plagionotus) decorus*; Chevrolat, 1860: 456.
- Cyllene decorus*; Horn, 1880a: 134, 136, pl. 2, figs 8b,d,g; 1886: 139; Leng, 1887: 196; Lugger, 1899: 202, fig. 121-2; Fall & Cockerell, 1907: 192 (distr.); Wickham, 1909a: 28 (distr.); Beaulne, 1932: 202 (hosts).
- Cyllene decora*; Casey, 1912: 354; Kirk & Knull, 1926: 39 (distr.); Hopping, 1928a: 8 (syn.); 1937: 444, pl. 2; Brimley, 1938: 215 (distr.); Loding, 1945: 119 (distr.).
- Megacyllene decora*; Knull, 1946: 213; Linsley, 1964: 87, fig. 27; Kirk & Balsbaugh, 1975: 98 (distr.); Perry, 1977: 98 (distr.); Turnbow & Franklin, 1980: 342 (distr.); Chemsak, Linsley & Noguera, 1992: 67 (cat.); MacRae, 1993: 233 (distr.); Monné, M.A., 1993i: 6 (cat.); Yanega, 1996: 120, pl. 10, figs 107a-d; Linsley & Chemsak, 1997: 396 (hosts); Peck & Thomas, 1998: 119 (distr.); Heffern, 1998: 16 (distr.); Lingafelter, 2007: 59, 147, 2 figs, pl. 11, fig. j (hosts); Holt, 2013: 247 (distr); Bousquet, Laplante, Hammond & Langor, 2017: 63, pl.9
- Megacyllene (Megacyllene) decora*; Monné, M.A., & Giesbert, 1994: 112 (cat.); Schiefer, 1998: 119 (distr.).
- Clytus charus* Say, 1835: 193; Haldeman, 1847a: 39; White, 1855: 263; LeConte, 1859c: 664.
- Arhopalus charus*; LeConte, 1850b: 17; 1852: 68; 1859c: 20, 48, pl. 1, fig. 16.
- Clytus (Plagionotus) charus*; Chevrolat, 1860: 456.
- Cyllene charus*; Lacordaire, 1869: 63; Popenoe, 1877: 33 (distr.).
- Cyllene decorus* var. *charus*; Horn, 1880a: 136, pl. 2, fig. 8c.
- Cyllene chara*; Casey, 1912: 355; 1913: 387; Leng, 1920: 286 (cat.); Knaus, 1926: 265 (biol.); Loding, 1933: 148 (distr.); Whelan, 1936: 114 (distr.).
- Megacyllene decora* var. *chara*; Alexander, 1958: 48 (distr.).
- Syntype locality** – Syntypes female: United States, Indiana. (Depository unknown).
- Arhopalus infaustus* LeConte, 1850b: 17.
- Clytus infaustus*; Gemminger & Harold, 1872: 2930 (cat.).
- Cyllene decorus* var. *infaustus*; Popenoe, 1878: 83 (distr.); Snow, 1878b: 76 (distr.); Horn, 1880a: 136, pl. 2, fig. 8a; Fall & Cockerell, 1907: 192 (distr.).
- Cyllene infausta*; Craighead, 1923: 140 (larva); Hopping, 1937: 445 (type locality).
- Type locality** - Holotype: United States, Georgia. (MCZN).
- Cyllene chara kansana* Casey, 1912: 355; Lingafelter et al., 2014: 40, 366 fig. 41q (lectotype).
- Type locality** - Lectotype: United States, Kansas. (USNM).
- Cyllene chara solida* Casey, 1912: 355; 1913: 387; Lingafelter et al., 2014: 40, 366 fig. 41s (lectotype).
- Type locality** - Lectotype: United States, Iowa. (USNM)..
- Cyllene chara genitiva* Casey, 1912: 355; Leng, 1920: 387 (cat.); Lingafelter et al., 2014: 40, fig. 41o (holotype).
- Type locality** – Holotype male: United States, Texas. (USNM).

##### 5. *Megacyllene lutosa* (LeConte, 1861)

**Type locality** - Holotype: United States, Kansas, near the Rocky Mountains. (MCZN). **Distribution** - United States (Eastern Colorado, Kansas, Iowa).

*Arhopalus lutosus* LeConte, 1861: 356

*Cyllene decora* var. *lutosus*; Horn, 1880a: 136.

*Clytus lutosus*; Gemminger & Harold, 1872: 2931 (cat.);

*Cyllene lutosus*; Snow, 1881: 76 (distr.); 1883: 42 (distr.); Knaus, 1903: 189 (distr.);

Casey, 1912: 355; Leng, 1920: 277 (cat.); Hopping, 1937: 445, pl. 1

*Megacyllene lutosus*; Linsley, 1964: 88; Chemsak, Linsley & Noguera, 1992: 67 (cat.);

Monné, M.A., 1993i: 8 (cat.); Yanega, 1996: 121, pl. 10, fig. 106; Heffern, 1998: 16

(distr.); Monné, M.A. & Hovore, 2006: 43 (cat.).

## 6. *Megacyllene powersi* Linsley & Chemsak, 1963

**Type locality** - Holotype male: United States, North Dakota : Ramsom County, 7 miles SE of Sheldon. (CASC). **Distribution** - United States (North Dakota).

*Megacyllene powersi* Linsley & Chemsak, 1963: 211; Linsley, 1964: 88, fig. 25-3;

Ruette, 1970: 20 (paratype); Stein & Tigestad, 1976: 19 (distr.); Chemsak, Linsley

& Noguera, 1992: 67 (cat.); Monné, M.A., 1993i : 9; Yanega, 1996: 121, pl. 10,

figs 109a-b; Monné, M.A. & Hovore, 2006: 43 (cat.); Bousquet, Laplante,

Hammond & Langor, 2017: 63

*Megacyllene (Megacyllene) powersi*; Monné, M. A. & Giesbert, 1994: 113 (cat.).

## 7. *Megacyllene robiniae* (Forster, 1771)

**Type locality** - Holotype: America septentrionalis, Provincia Noveboracensi. (LSUK). **Distribution** - Eastern Canada and Atlantic states to Great Plains region.

**Host plants** - *Robinia pseudacacia* Linné (Fabaceae).

*Leptura Robiniae* Forster, 1771: 43.

*Clytus robiniae*; Peck, 1818: 67; Dearborn, 1821: 270; Haldeman, 1847a: 39 (biol.);

Fitch, 1859: 830; 1863: 117; Walsh, 1863: 8 (biol.); 1865a: 384 (biol.); 1866a: 29,

fig. 5; Riley, 1866a: 140; 1867: 151; Walsh, 1867: 107 (biol.); Packard, 1872: 497,

fig. 486; Chambers, 1880: 60 (biol.); Rogers, 1880: 151 (biol.).

*Arhopalus robiniae*; LeConte, 1850b: 17; Walsh, 1865b: 204; Walsh & Riley, 1869b:

148; 1869a: 58; Bethune, 1873: 140 (hosts); 1877a: 223.

*Cyllene robiniae*; Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (hosts); Horn, 1880a:

134, 136, pl., 2, fig. 8f (hosts); 1882: 240; 1886: 139; Leng, 1887: 196; Packard,

1889: 225; 1890: 355; Schwarz, 1891: 75 (biol.); Bates, 1892: 161 (distr.); Jack,

1892: 426 (biol.); Gahan, 1892: 273; Hopkins, 1893: 294 (biol.); Laurent, 1893:

285, pl. 13 (biol.); Bruner, 1893: 192 (biol.); Hamilton, 1895: 338 (distr.); Wolcott,

1895: 310 (distr.); Beutenmuller, 1896: 76 (hosts); Ehrman, 1897: 170 (biol.);

Webster, 1897: 81; Wickham, 1897a: 149; Lugger, 1899: 202, pl. 4, fig. 123 (biol.);

Felt, 1900b: 539 (biol.); Smith, 1900: 287, fig. 127 (biol.); Dury, 1902: 160 (distr.);

Ulke, 1903: 26, 50 (distr.); Hopkins, 1904: 35; Felt, 1905: 93, pl. 5, figs 1-3, 10

(biol.); Hopkins, 1906: 1 (biol.); Laurent, 1906: 404 (distr.); Hopkins, 1907a: 31

(biol.); 1907b: 1, figs 1-4 (biol.); Gillette, 1907: 1 (biol.); Gahan, 1908: 141 (syn.);

Hopkins, 1909: 61 (biol.); Wickham, 1909: 28 (distr.); Daecke, 1910: 332; Smith,

1910: 328; Blatchley, 1910: 1034, fig. 439; Webb, 1911: 347 (biol.); Forbes, 1911:

510, figs 54, 55 (biol.); Fisher & Kirk, 1912: 311 (distr.); Swaine, 1913: 88 (biol.);

Johnson, 1915: 315; Lovell, 1915: 114 (biol.); Blackman & Ellis, 1916: 55, figs 23-

26 (biol.); Swaine, 1916: 100, pl. 1, figs 1-4 (biol.); Garman, 1916: 99, figs 1-4

(biol.); Sanborn & Painter, 1917: 1, figs 1-4 (biol.); Chagnon, 1917: 232 (distr.);

Houser, 1918: 316, pl. 62 (biol.); Nicolay, 1919: 67 (distr.); Craighead, 1919: 1, figs

1-6 (biol.); Britton, 1920: 269 (distr.); Leng, 1920: 277 (cat.); Garman, 1921: 3, figs 1-4 (biol.); Craighead, 1923: 52 (larva); Kirk & Knoll, 1926: 39 (distr.); Essig, 1926: 456 (biol.); Compton & Flint, 1927: 295 (contr.); Leonard, 1928: 445 (distr.); Graham, 1929: 198, fig. 95 (biol.); Ware, 1929: 368 (distr.); Frost & Dietrich, 1929: 436 (distr.); Craighead & Middleton, 1930: 7 (distr., hosts); Hatch & Ortenburger, 1930: 9; Beaulne, 1932: 202 (hosts); Jones, 1932: 353, pl. 18, fig. 15 (mimet.); St. George & Beal, 1932: 713 (contr.); MacAndrews, 1933: 48 (biol.); Goldman, 1933: 89, pl. 5, figs 8-11 (morphol.); Sheppard, 1935: 97 (distr.); Herrick, 1935: 161, figs 135-137 (biol.); Saalas, 1936: 6 fig. 6 (morphol.); Doane *et al.*, 1936: 183, fig. 91 (biol.); Dunn, 1936: 8 (hosts); Hopping, 1937: 442, pl. 1 (distr., hosts); Hall, 1937: 721; Hatch, 1938: 187; Brimley, 1938: 215 (distr.); Chagnon, 1938: 262, pl. 17, fig. 7; Hall, 1942: 1, figs 1-14 (biol.); King, 1943: 180, fig. 2; Smith *et al.*, 1943: 315, fig. 316; Townes, 1944: 773 (paras.); Loding, 1945: 119 (distr.); Procter, 1946: 180 (biol.); Duffy, 1953: 228, fig. 204 (biol., larva); Gibson & Carrillo, 1959: 119 (distr.); Chagnon & Robert, 1962: 262, pl. 17, fig. 7.

*Cylleus robiniae*; Linell, 1889: 40 (error).

*Megacyllene robiniae*; Knoll, 1946: 212, pl. 38, fig. 2; Craighead, 1950: 243, figs 50b, 52b, 53 (biol.); Beal, Haliburton & Knight, 1952: 59 (biol.); Shenefelt & Benjamin, 1955: 94 (biol.); Alexander, 1958: 48 (distr.); English, 1958: 40; Anderson, 1960: 288, fig. 11.6 (biol.); Dillon & Dillon, 1961: 596, pl. 59, No. 12; Wollerman, 1961: 91 (contr.); 1961: 85 (contr.); Nielsen, 1961: 8 (contr.); Peck, 1963: 955 (paras.); Linsley, 1964: 81, fig. 26; Knowlton, 1965: 1 (contr.); Barr & Penrose, 1969: 92 (distr.); Wollerman, Adams & Heaton, 1969: 247 (biol.); Galford, 1969: 1 (biol.); Wollerman, 1971: 37 (biol.); Hatch, 1971: 118, pl. 13, fig. 2; Baker, 1972: 176, fig. 53 (biol.); Kirk & Balsbaugh, 1975: 99 (distr.); Furniss & Carolin, 1977: 301, figs. 180a,b (biol.); Solomon, 1977: 298 (biol.); Galford, 1977b: 1 (biol.); Dailey, Graves & Kingsolver, 1978: 226 (biol.); Turnbow & Franklin, 1980: 343 (distr.); Gosling, 1984: 80 (biol.); Harman & Dixon, 1984: 112 (biol.); White, 1985: 185, fig. 123; Harman, Van Tyne & Thompson, 1985: 50 (biol.); Harman, Rudolf & Dixon, 1985: 207 (biol.); Harman & Harman, 1987: 706 (biol.); 1990: 501 (biol.); McCann & Harman, 1990: 705 (biol.); Terrón, 1992: 288 (distr.); Chemsak, Linsley & Noguera, 1992: 67 (cat.); MacRae, 1993: 233 (distr.); Monné, M.A., 1993i: 10 (cat.); Yanega, 1996: 121, pl. 10, figs 110a-b; Linsley & Chemsak, 1997: 396 (hosts); Peck & Thomas, 1998: 119 (distr.); Heffern, 1998: 16 (distr.); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Sykes & Webster, 2005: 327 (distr.); Westcott *et al.*, 2006: 10 (distr., hosts); Majka, McCorquodale & Smith, 2007: 261 (distr.); Lingafelter, 2007: 60, 147, 2 figs, pl. 12, fig. a (hosts); Staines, 2008: 146 (distr.); Guarnieri, 2009: 17 (distr.); Webster, McCorquodale & Majka, 2009: 298 (distr.); Ray, Ginzler & Hanks, 2009: 425 (biol.); Holt, 2013: 247 (distr., biol.); Haack in Wang, 2017: w/page fig. 11.10 (biol., hosts); Klingeman *et al.*, 2017: 296 (distr.); Rice, MacRae & Merickel, 2017: 675 (distr.); Mitchell *et al.*, 2017: 75 (biol.); Bousquet, Laplante, Hammond & Langor, 2017: 63, pl. 9

*Megacyllene (Megacyllene) robiniae*; Schiefer, 1998: 119 (distr.).

*Megacyllene robineae*; McCorquodale, 2010: 469 (distr., error).

*Leptura picta* Drury, 1773: 91.

*Clytus pictus*; Drury & Westwood, 1837: 87, pl. 41, fig. 2; Harris, 1838: 93; 1841: 85; Emmons, 1854: 117, pl. 16, fig. 9; White, 1855: 253.

*Arhopalus pictus*; LeConte, 1852: 177 (syn.); 1858a: 40 (distr.); 1859: 48 (distr.); Bland, 1861: 95 (distr., hosts); Osten-Sacken, 1862: 121, pl. 1, fig. 7 (larva); Lacordaire, 1869: 64.

*Cyllene picta*; LeConte, 1881: s/p (hosts).

**Type locality** - Holotype: United States, New York. (Depository unknown).

*Callidium flexuosum* Fabricius, 1775: 191; 1781: 241; 1793: 331; Olivier, 1790: 262, pl. 6, fig. 76; 1795: 34, pl. 6, fig. 76; Fabricius, 1793: 331; 1801: 345; Zimsen, 1964: 180 (types).

*Clytus flexuosus*; Schoenherr, 1817: 460; Audinet-Serville, 1834a: 85; Laporte & Gory, 1836: 13, pl.4, fig.14; Laporte, 1840: 450; 1853: 378 (distr.); Melsheimer, 1853: 105 (cat.); Kirkpatrick, 1856: 244 (biol.); Petitt, 1871: 106 (distr.).

*Cerambyx (Callidium) flexuosum*; Gmelin, 1790: 1852 (hosts).

**Type locality** - Holotype: America. (Depository unknown).

### 8. *Megacyllene robusta* Linsley & Chemsak, 1963

**Type locality** - Holotype male: United States, Arizona: Cochise County, Cochise, (CASC). **Distribution** - Southeastern Arizona to southwestern New Mexico. **Host plants** - *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Megacyllene robusta* Linsley & Chemsak, 1963: 211; Linsley, 1964: 89; Hovore, Penrose & Giesbert, 1978: 97 (biol.); Chemsak, Linsley & Noguera, 1992: 67 (cat.); Monné, M.A., 1993i: 11 (cat.); Monné, M.A. & Hovore, 2006: 43 (cat.).

### 9. *Megacyllene snowi snowi* (Casey, 1912)

**Type locality** - Holotype female: United States, Arizona: Oak Creek Canyon. (USNM). **Distribution** - United States (Arizona, Colorado), northern Mexico. **Host plants** - *Robinia neo-mexicana* A. Gray (Fabaceae).

*Cyllene snowi* Casey, 1912: 353; Hopping, 1937: 443, pl. 1; Lingafelter *et al.*, 2014: 321, figs. 157c, d (holotype).

*Megacyllene snowi*; Knull, 1950: 91 (biol.); Linsley, Knull & Statham, 1961b: 19, fig. 9 (distr., hosts); Linsley, 1964: 85, fig. 25; Chemsak, Linsley & Noguera, 1992: 67 (cat.).

*Megacyllene snowi snowi*; Tyson, 1982: 441, figs. 1, 2; Monné, M.A., 1993i: 11 (cat.); 2001: 35 (hosts); 2005: 93 (cat.); Heffern, 1998: 16 (distr.).

### 9a. *Megacyllene snowi zuniana* (Casey, 1912)

**Type locality** - Holotype male: United States, New Mexico: Magdalena Mountains, (USNM). **Distribution** - Higher Mts. of central New Mexico, east of the Continental Divide. **Host plants** - *Robinia neo-mexicana* A. Gray (Fabaceae).

*Cyllene zuniana* Casey, 1912: 253; Leng, 1920: 276 (cat.); Hopping, 1937: 445.

*Megacyllene snowii zuniana*; Tyson, 1982: 441, figs 1,2; MacKay, Zak & Hovore, 1987: 364 (distr.); Chemsak, Linsley & Noguera, 1992: 67 (cat); Monné, M.A., 1993i: 11 (cat.); Lingafelter *et al.*, 2014: 348, fig. 187o (holotype).

### *Neoclytus* Thomson, 1860

*Neoclytus* Thomson, 1860: 67; 1861: 216, 225; 1864: 193; 1865: 426; Lacordaire, 1869: 75; Bates, 1870: 395; LeConte, 1873b: 319; Provancher, 1877: 579, 601; Bates, 1880: 57; Horn, 1885a: 197; Leng, 1887: 195, 4; Casey, 1912: 350, 367; Bradley, 1930: 239; Hopping, 1932: 546; Chagnon, 1938: 255, 265; Knull, 1946: 219; Arnett, 1962: 868, 887; Chagnon & Robert, 1962: 255, 265; Linsley, 1964: 133; Hatch, 1971: 118; Zayas, 1975: 135; Villiers, 1980b: 298; Monné, M. A., 2005: 95 (cat.); Martins & Galileo, 2011a: 100; Monné, M. A., 2012: 14; Bousquet, Laplante, Hammond & Langor, 2017: 64 (key spp.)

**Type-species** - *Callidium erythrocephalum* Fabricius, 1787 (original designation) [= *Callidium acuminatum* Fabricius, 1775].

*Rhopalopachys* Chevrolat, 1860: 457; Thomson, 1864: 193; Lacordaire, 1869: 74

**Type-species** - *Clytus morosus* Chevrolat, 1860 (original designation).

*Rhopalomerus* Chevrolat, 1860: 457.

**Type-species** - *Clytus cacicus* Chevrolat, 1860 (Linsley designation, 1964: 134).

### 1. *Neoclytus acuminatus* (Fabricius, 1775)

**Type locality** - Holotype: America Boreali. (BMNH). **Distribution** -

Eastern North America to Manitoba, introduced from North America to north-eastern Italy, western Balkans, Switzerland, Great Britain, France, Germany, Puerto Rico, Cuba and Argentina (La Pampa). **Host plants** - *Acer rubrum* Linné, *A. saccharinum* Linné, *A. saccharum* Marshall (Aceraceae), *Rhus radicans* Linné (Anacardiaceae), *Ilex* sp. (Aquifoliaceae), *Alnus* sp., *Betula* sp., *Ostrya carpinifolia* Scopoli, *O. virginiana* (Miller) K. Koch (Betulaceae), *Campsis* sp. (Bignoniaceae), *Cercis canadensis* Linné, *Gleditschia triacanthos* Linné (Caesalpiniaceae), *Celtis tenuifolia* Nuttall (Cannabaceae), *Lonicera* sp., *Sambucus canadensis* Linné (Caprifoliaceae), *Euonymus* sp. (Celastraceae), *Cornus florida* Linné (Cornaceae), *Carpinus betulus* Linné, *C. caroliniana* Walter, *Corylus avellana* Linné (Corylaceae), *Diospyros virginiana* Linné (Ebenaceae), *Robinia pseudoacacia* Linné, *Sophora secundiflora* (Ortega) de Candolle (Fabaceae), *Castanea sativa* Miller, *Fagus ferruginea* Aiton, *F. sylvatica* Linné, *Quercus alba* Linné, *Q. macrocarpa* Michaux, *Q. palustris* Du Roi, *Q. phellos* Linné, *Q. prinus* Linné, *Q. rubra* Linné, *Q. velutina* Lamarck (Fagaceae), *Carya glabra* (Miller) Sweet, *C. illinoensis* (Wangenheim) K. Koch, *C. ovata* (Miller) K. Koch, *C. tomentosa* Nuttall, *Juglans regia* Linné (Juglandaceae), *Persea* sp., *Sassafras albidum* (Nuttall) Nees (Lauraceae), *Liriodendron tulipifera* Linné, *Magnolia acuminata* Linné (Magnoliaceae), *Hibiscus* sp., *Tilia americana* Linné (Malvaceae), *Acacia farnesiana* (Linné) Willdenow, *Pithecellobium flexicaule* (Benth) Coulter (Mimosaceae), *Ficus carica* Linné, *Maclura pomifera* (Rafinesque) C. Schneider, *Morus alba* Linné (Moraceae), *Fraxinus americana* Linné, *F. excelsior* Linné, *F. pennsylvanica* Marshall, *F. quadrangulata* Michaux, *Syringa* sp. (Oleaceae), *Abies* sp. (Pinaceae), *Amelanchier arborea* (Michaux fils) Fernald, *Cercocarpus* sp., *Crataegus viridis* Linné, *Malus communis* Linné, *Prunus americana* Marshall, *P. serotina* Ehrhart, *Pyrus* sp., *Rosa* sp. (Rosaceae), *Populus* sp., *Salix exigua* Nuttall, *S. nigra* Marshall (Salicaceae), *Koeleruteria paniculata* Laxmann (Sapindaceae), *Taxodium distichum* (Linné) Richard (Taxodiaceae), *Ulmus americana* Linné, *U. fulva* Michaux (Ulmaceae); *Vitis riparia* Michaux, *V. vinifera* Linné (Vitaceae).

*Callidium acuminatum* Fabricius, 1775: 194; 1781: 243; Zimsen, 1964: 181 (types).

*Clytus acuminatus*; Chevrolat, 1851: 660 (type, syn.).

*Neoclytus acuminatus*; Aurivillius, 1912: 389 (cat.); Britton, 1920: 269 (distr.); Leng, 1920: 277 (cat.); Kirk & Knull, 1926: 40 (distr.); Procter, 1927: 112 (distr.); Brues, 1927: 77; Leonard, 1928: 447 (distr.); Knull, 1930b: 102 (hosts); Hopping, 1932: 550, pl.3, fig. 4; Barrett, 1932: 290 (hosts); Linsley & Martin, 1933: 281 (distr., biol.); Gaines, 1933: 52 (distr.); Britton & Friend, 1935: 306 (biol.); Linsley, 1935b: 163; Chagnon, 1938: 265, pl. 18, fig. 3; Brimley, 1938: 215 (distr.); Flint & Farrar, 1940: 57 (biol.); Townes, 1944: 773 (paras.); Loding, 1945: 119 (distr.); Knull, 1946: 220; Procter, 1946: 181 (biol.); Fattig, 1947: 26 (biol.); Hinton, 1947: 288 (distr.); Blair, 1948: 124, pl.D, fig. 6 (biol.); Craighead, 1950: 253 (biol.); Demelt, 1950: 229 (distr.); Beal, Haliburton & Knight, 1952: 120 (biol.); Robert, 1952: 102

- (biol.); Duffy, 1953: 230; Barr & Manis, 1954: 1150 (biol.); Demelt, 1956: 36, figs 1-3 (biol.); Alexander, 1958: 48 (distr.); Linsley, 1958: 108; Anderson, 1960: 300 (contr.); Dillon & Dillon, 1961: 602, pl. 50, No. 2; Chagnon & Robert, 1962: 265, pl. 18, fig. 3; Linsley, 1964: 144; Galford, 1969: 2 (biol.); Baker, 1972: 184 (biol.); Zayas, 1975: 134 (distr.); Horion, 1975: 98, fig. 1 (distr., hosts); Furniss & Carolin, 1977: 302 (hosts); Haack, Benjamin & Haack, 1983: 49 (hosts); White, 1985: 285, fig. 124; Cantot, 1990: 206, fig. 1 (distr.); Chemsak, Linsley & Noguera, 1992: 67 (cat.); Di Iorio, 2004d: 675 (distr., hosts); 2005: 46, fig. 1; Sikes & Webster, 2005: 327 (distr.); Peck, 2005: 172 (distr.); Micheli, 2007: 502; 2010: 90, pl. 14; Lingafelter, 2007: 71, 148, 2 figs, pl. 17, fig. b (hosts); McCorquodale, 2010: 469 (distr.); Martins & Galileo, 2011a: 104, fig. 68 (hosts); Haack in Wang, 2017: w/page fig. 11.12 (biol., hosts); Klingeman *et al.*, 2017: 296 (distr.); Rice, MacRae & Merickel, 2017: 669 (distr.).
- Neoclytus acuminatus acuminatus*; Linsley, 1964: 144; Hatch, 1971: 122; Gosling, 1973: 82, fig. 54 (distr.); Kirk & Balsbaugh, 1975: 99 (distr.); Stein & Tigestad, 1976: 22; Solomon, Doolittle & Spilman, 1976: 290; Laliberté, Chantal & LaRoche, 1977: 95 (biol.); Turnbow & Franklin, 1980: 343 (distr.); Gosling, 1984: 72 (hosts); Waters & Hyche, 1984: 286 (distr.); Rice, 1985: 1224 (hosts); Rice, Turnbow & Hovore, 1985: 20 (hosts); Gosling, 1986: 156 (hosts); Monné, M.A., 1993i: 41 (cat.); MacRae, 1993: 234 (distr., hosts); Lingafelter & Horner, 1993: 176 (distr.); Yanega, 1996: 121, pl. 9, fig. 104; Linsley & Chemsak, 1997: 404 (hosts); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998: 119 (distr.); Vlasák & Vlasakova, 2002: 211 (distr., hosts); Lacey *et al.*, 2004: 493 (pherom.); Di Iorio, 2006a: 20, figs 35, 36; Lacey, Ray & Hanks, 2007a: 117 (biol.); Lacey *et al.*, 2008: 209 (pherom.); MacRae & Rice, 2007: 238 (distr., hosts); Staines, 2008: 146 (distr.); Guarnieri, 2009: 17 (distr.); Webster, McCorquodale & Majka, 2009: 298 (distr.); Maier, 2009: 438 (hosts); Holt, 2013: 247 (distr.); Steury & MacRae, 2014: 10 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 66, pl. 9
- Callidium erythrocephalum* Fabricius, 1787: 156; Olivier, 1790: 265, pl. 5, fig. 60; 1795: 47, pl. 5, fig. 60; Fabricius, 1793: 335; 1801: 350; Palisot de Beauvois, 1805: 248, pl. 37, fig. 5; Zimsen, 1964: 181 (types).
- Clytus erythrocephalus*; Schoenherr, 1817: 467; Audinet-Serville, 1834a: 84; Laporte & Gory, 1836: 20, pl. 5, fig. 23; Germar, 1839: 331; Haldeman, 1847a: 29; LeConte, 1850b: 26; Fairmaire, 1850: 61 (distr.); Chevrolat, 1852: 650; Melsheimer, 1853: 105 (cat.); White, 1855: 255; LeConte, 1858a: 41 (distr.); 1859: 48 (distr.); Horn, 1861: 29 (biol.); Bland, 1861: 96 (distr., hosts); Rye, 1873: 215 (distr.); Doubleday, 1873: 268 (distr.).
- Clytus (Rhopalomerus) erythrocephalus*; Chevrolat, 1860: 457.
- Neoclytus erythrocephalus*. Thomson, 1861: 226; Lacordaire, 1869: 77; Pettit, 1861: 106 (distr.); Henshaw, 1874: 22 (distr.); Popenoe, 1877: 33 (distr.); Provancher, 1877: 602; LeConte, 1880a: 237 (hosts); Riley, 1880: 239 (biol.); Packard, 1881: 60, 73, 75 (biol.); Townsend, 1884: 221 (biol.); Harrington, 1884: 46 (hosts); Townsend, 1885: 70 (distr.); Horn, 1885c: 88; 1886a: 139; Hamilton, 1886: 28 (hosts); Leng, 1887: 5; Hamilton, 1887: 141 (biol.); 1889: 145; Fauvel, 1889: 150; Horn, 1889: 199 (syn.); Tolman, 1889: 343; Packard, 1890: 228, 293, 373 (biol.); Hopkins, 1893: 195 (biol.); Wickham, 1893: 140 (distr.); Webster, 1894: 140 (hosts); Hamilton, 1894b: 396; 1895: 338 (distr.); Chittenden, 1894: 97; Beutenmuller, 1896: 76 (hosts); Chagnon, 1897: 124 (distr.); Slossom, 1897: 238 (distr.); Wickham, 1897b: 157 (distr.); Hopkins, 1898b: 46 (biol.); Wickham, 1898b: 41; Laurent, 1898: 33 (hosts); Smith, 1900: 290 (distr.); 1902: 198 (biol.);

Dury, 1902: 160 (distr.); Ulke, 1903: 26 (distr.); Hopkins, 1904: 37 (biol.); Tucker, 1906:12 (distr.); Fall & Cockerell, 1907: 192 (distr.); Stüler, 1907: 8 (distr.); Houghton, 1908: 161 (hosts); Daecke, 1909: 630 (hosts); Champlain, 1909: 180 (distr.); Wickham, 1909a: 28 (distr.); Blatchley, 1910: 1038; Smith, 1910: 329; Leng, 1910: 77 (distr.); Webb, 1911: 354, fig. 27 (biol.); Frost, 1912: 307; Fisher & Kirk, 1912: 311 (distr.); Johnson, 1915: 315 (distr.); Morris, 1916: 20 (hosts); Chagnon, 1917: 232 (distr.); Laurent, 1918: 360 (biol.); Dozier, 1918: 335 (distr.); Nicolay, 1919: 67 (distr.); Dozier, 1920: 366 (distr.); Morris, 1920a: 74 (distr.); Rosewall, 1920: 203 (hosts); Craighead, 1920: 108 (biol.); Craighead & Loughborough, 1921: 250 (contr.); Champlain 1922: 96 (paras.); Craighead, 1923: 55 (larva); Felt, 1923: 88 (biol.); Ware, 1929: 368 (distr.); Craighead & Middleton, 1930: 13 (biol.); Beaulne, 1932: 202 (hosts)

*Neoclytus erythrocephalus*; Shufeldt, 1884: 334 (distr., error).

*Plagithmysus erythrocephalus*. Wickham, 1897a: 151.

**Type locality** - America Borealis. (Depository unknown).

*Cerambyx (Callidium) americanus* Gmelin, 1790: 1854.

**Type locality** - Holotype: America Boreali.

*Callidium (Clytus) aspericolle* Germar, 1823: 517.

**Type locality** - Holotype: United States, Georgia (MNHU).

### 1a. *Neoclytus acuminatus hesperus* Linsley, 1935

**Type locality** - Holotype male: United States, Colorado: North Cheyenne Canyon. (CASC). **Distribution** - United States (Colorado, New Mexico, southern Texas), northern Mexico. **Host plants** - *Baccharis angustifolia* Michaux (Asteraceae), *Celtis laevigata* Willdenow, *C. pallida* Torrey (Cannabaceae), *Elaeagnus angustifolia* Linné (Elaeagnaceae), *Quercus* sp. (Fagaceae), *Acacia farnesiana* (Linné) Willdenow, *A. rigidula* Bentham, *Pithecellobium flexicaule* (Bentham) Coulter, *P. pallens* (Bentham) Standley, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Citrus sinensis* (Linné) Osbeck, *Zanthoxylum fagara* (Linné) Sargent (Rutaceae), *Lycopersicum* sp. (Solanaceae).

*Neoclytus acuminatus hesperus* Linsley, 1935b: 163; Vogt, 1949: 144 (distr.); Linsley, 1964: 146; Manley & French, 1976: 49; Turnbow & Wappes, 1978: 369 (hosts); MacKay, Zak & Hovore, 1987: 364 (hosts); Hovore, Penrose & Neck, 1987: 307 (biol.); Chemsak, Linsley & Noguera, 1992: 67 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 405 (hosts); Monné, M. A., 2001a: 36 (cat. hosts); Monné, M.A., 2005: 95 (cat.); MacRae & Rice, 2007: 239 (hosts).

### 2. *Neoclytus angelicus* Van Dyke, 1927

**Type locality** - Holotype female: United States, California: Santa Monica.(CASC).

**Distribution** - United States (California)

*Neoclytus angelicus* Van Dyke, 1927: 107; Hopping, 1932: 555, pl. 5, fig. 7; Linsley, 1964: 149; Chemsak, Linsley & Noguera, 1992: 67 (cat.); Monné, M.A., 1993i: 42; Monné, M.A. & Hovore, 2006: 44 (cat.).

### 3. *Neoclytus approximatus* (LeConte, 1862)

**Syntypes locality** - Syntypes: United States, Kansas. (MCZN). **Distribution** - United States (Missouri, Kansas, Oklahoma, Iowa, Texas).

*Clytus approximatus* LeConte, 1862: 42

*Neoclytus approximatus*; Lacordaire, 1869: 77; Leng, 1887: 5, 7; Fall & Cockerell, 1907: 192 (distr.); Leng, 1920: 277 (cat.); Hopping, 1932: 551, pl. 4, fig. 11;



Alexander, 1958: 48 (distr.); Linsley, 1964: 148; Hovore, 1988: 13; Chemsak, Linsley & Noguera, 1992: 67 (cat.); Monné, M.A., 1993i: 42 (cat.); Yanega, 1996: 121, pl. 11, fig. 128; Heffern, 1998 : 16 (distr.); Rice & Veal, 2006: 257 (distr.).

#### 4. *Neoclytus augusti* (Chevrolat, 1835)

**Syntypes locality** – Syntypes female: Mexico, Veracruz. (BMNH). **Distribution** - United States (Texas), Mexico (Nayarit, Veracruz, San Luís Potosí, Oaxaca, Nuevo León, Tamaulipas), Guatemala. **Host plants** - *Baccharis neglecta* Nuttall, *Pluchea sericea* Coville (Asteraceae), *Celtis lindheimeri* Engelm., *C. pallida* Torrey (Cannabaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Citrus sinensis* (Linné) Osbeck (Rutaceae), *Sapindus saponaria* Linné (Sapindaceae), *Ulmus crassifolia* Nuttall (Ulmaceae), *Phoradendron flavescens* Nuttall (Viscaceae).

*Clytus augusti* Chevrolat, 1835: 4 (55); Laporte & Gory, 1836: 30, pl. 7, fig. 37; White, 1855: 258.

*Clytus (Rhopalomerus) augusti*; Chevrolat, 1860: 495.

*Neoclytus augusti*; Thomson, 1861: 226; Lacordaire, 1869: 77; Bates, 1880: 57 (distr.); Linsley, 1942: 88; Manley & French, 1976: 49; 1977: 39, fig. 1; Turnbow & Wappes, 1978: 369 (hosts); Hovore, 1983: 380 (syn.); Hovore, Penrose & Neck, 1987: 307 (biol.); Chemsak, Linsley & Noguera, 1992: 68 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Monné, M.A., 2001a: 36 (cat. hosts); Monné, M.A., 2005: 96 (cat.); Hovore, 2006: 373 (distr.); Gutiérrez & Noguera, 2015: 143 (distr.); García Morales *et al.*, 2015: 100 (distr.).

*Neoclytus augusti*; Bates, 1885: 301 (error).

*Clytus dubius* Chevrolat, 1835: 4 (57)

*Clytus (Rhopalomerus) augusti* var. *dubius*; Chevrolat, 1860: 495.

*Neoclytus augusti* var. *dubius*; Aurivillius, 1912: 390 (cat.).

**Type locality** - Holotype male: Mexico, Veracruz. (BMNH).

*Neoclytus abbreviatus* Schaeffer, 1908: 340; Hopping, 1932: 551, pl. 4, fig. 15; Vogt, 1949: 144 (distr., hosts); Linsley, 1964: 147; Lingafelter *et al.*, 2014: 361 (holotype presumed lost)

**Type locality** - Holotype: United States, Texas: Brownsville. (USNM?).

#### 5. *Neoclytus balteatus* LeConte, 1873

**Syntypes locality** - Syntypes male and female: United States, Oregon. (MCZN).

**Distribution** - Pacific coast of North America from British Columbia to northern California. **Host plants** - *Arctostaphylos* sp. (Ericaceae), *Ceanothus cordulatus* Kellogg, *C. integerrimus* Hooker & Arnott, *C. thyrsiflorus* Eschscholtz (Rhamnaceae).

*Neoclytus balteatus* LeConte, 1873b: 201; Lameere, 1883: 36 (cat.); Leng, 1887: 5, 7 ; Fall, 1901: 147; Garnett, 1918: 210 (distr.); Leng, 1920: 277 (cat.); Essig, 1926: 457 (hosts); Hopping, 1932: 554; Linsley, 1935b: 164, figs. 3, 3a; Doane *et al.*, 1936: 184 (biol.); Stace-Smith, 1946: 48 (biol.); Leech, 1955: 40 (hosts); Linsley, 1964: 151, fig. 45; Tyson, 1966: 205 (hosts); Barr & Penrose, 1969: 92 (distr.); Hatch, 1971: 121, pl. 13, figs 9, 9a; Chemsak, Linsley & Noguera, 1992: 68 (cat.); Monné, M.A., 1993i: 44 (cat.); Linsley & Chemsak, 1997: 405 (hosts); Swift, 2008a: 3 (distr., hosts, biol.); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 66, pl.9

#### 6. *Neoclytus caprea* (Say, 1824)

**Syntypes localities** - Syntypes: United States, Arkansas, Pennsylvania. (Depository unknown). **Distribution** - Eastern North America to Utah, southern Arizona and Texas. **Host plants** - *Celtis reticulata* Torrey (Cannabaceae), *Diospyros virginiana* Linné (Ebenaceae), *Quercus alba* Linné, *Q. arizonica* Sargent, *Q. emoryi* Torrey, *Q. gambelii* Nuttall, *Q. pungens* var. *vaseyana* (Buckley) C. H. Müller (Fagaceae), *Carya* sp., *Juglans* sp. (Juglandaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Eucalyptus grandis* W. Hill ex Maiden (Myrtaceae), *Fraxinus americana* Linné, *F. nigra* Marshall (Oleaceae), *Ulmus* sp. (Ulmaceae), *Vitis* sp. (Vitaceae).

*Clytus caprea* Say, 1824: 424; 1828: 120, pl. 53; 1835: 194 (distr.); Laporte & Gory, 1836: 116; Fitch, 1845: 250; Haldeman, 1847a: 40; 1847c: 372 (syn.); LeConte, 1850b: 26; Emmons, 1854: 117, pl. 16, fig. 11; White, 1855: 272; LeConte, 1859c: 200, 664, pl. 53, fig. 2; 1859d: 48; Bland, 1861: 96 (distr.); Walsh & Riley, 1869b: 148.

*Neoclytus caprea*; Lacordaire, 1869: 77; Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (biol.); Packard, 1881: 138 (biol.); Bates, 1885: 302; Leng, 1887: 7; Hamilton, 1888: 36 (hosts); Packard, 1890: 229, 543 (biol.); Hamilton, 1891a: 131 (biol.); 1895: 338 (distr.); Hopkins, 1893: 195 (biol.); Beutenmuller, 1896: 77 (hosts); Wickham, 1897a: 151; Smith, 1900: 290 (distr.); Ehrmann, 1900: 620 (distr.); Ulke, 1903: 26 (distr.); Hopkins, 1904: 36 (biol.); Felt, 1905: 279 (biol.); Dury, 1906: 259 (distr.); Wenzel, 1906: 267 (distr.); Schaeffer, 1908: 230 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 329; Blatchley, 1910: 1039; Webb, 1911: 353 (biol.); Fisher & Kirk, 1912: 311 (distr.); Johnson, 1915: 315 (distr.); Britton, 1920: 269 (distr.); Leng, 1920: 277 (cat.); Craighead, 1921: 210 (biol.); Rohwer, 1921: 435 (paras.); Craighead, 1923: 53, pl. 1, fig. 7, pl. 10, fig. 9, pl. 35 (larva); Kirk & Knull, 1926: 40 (distr.); Snyder, 1927: 33 (biol.); Leonard, 1928: 447 (distr.); Ware, 1929: 368 (distr.); MacDougall, 1929: 78; Craighead & Middleton, 1930: 13 (biol.); Pack, 1930: 220 (distr.); Beaulne, 1932: 202 (hosts); Hopping, 1932: 560, pl. 3, fig. 10; Britton & Friend, 1935: 306 (biol.); Doane *et al.*, 1936: 185; Knowlton & Thatcher, 1936: 279 (hosts); Brimley, 1938: 215 (distr.); Townes, 1944: 773 (paras.); Knull, 1946: 222; Blair, 1948: 124, pl. D, fig. 8 (hosts); Knowlton & Wood, 1950: 12 (distr.); Craighead, 1950: 253, fig. 55A (biol.); Keen, 1952: 98 (hosts); Beal, Haliburton & Knight, 1952: 119 (biol.); Duffy, 1953: 231, figs 205, 206 (larva); Alexander, 1958: 48 (distr.); Townes & Townes, 1960: 522 (paras.); Anderson, 1960: 300, fig. 11.14; Linsley, 1964: 560, fig. 49; Galford, 1969: 2 (biol.); Baker, 1972: 184, fig. 58 (biol.); Gosling, 1973: 82, fig. 56 (biol., distr.); Kirk & Balsbaugh, 1975: 99 (distr.); Laliberté, Chantal & LaRochelle, 1977: 95 (biol.); Furniss & Carolin, 1977: 302 (hosts); Turnbow & Franklin, 1980: 343 (distr.); Rice, 1981: 461 (distr.); Hovore, 1983: 381 (hosts); Cope, 1984a: 31 (hosts); White, 1985: 385; MacKay, Zak & Hovore, 1987: 364 (distr.); Chemsak, Linsley & Noguera, 1992: 68 (cat.); Monné, M.A., 1993i: 44 (cat.); MacRae, 1993: 235 (distr.); Lingafelter & Horner, 1993: 76 (distr.); Noguera & Chemsak, 1996: 400 (distr.); Yanega, 1996: 121, pl. 11, fig. 117; Linsley & Chemsak, 1997: 405 (hosts); Heffern, 1998: 16 (distr.); Schiefer, 1998: 119 (distr.); Vlasák & Vlasakova, 2002: 211 (distr.); MacRae & Rice, 2007: 239 (distr., hosts); Lingafelter, 2007: 58, 148, 2 figs, pl. 14, fig. 2 (hosts); Staines, 2008: 146 (distr.); Holt, 2013: 247 (distr.); Steury & MacRae, 2014: 10 (distr.); Haack, 2017: 115; Klingeman *et al.*, 2017: 296 (distr.); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 66, pl. 10; Bezark, 2018: 44, fig. 8 (distr.).

*Clytus elevatus* Laporte & Gory, 1836: 32, pl. 7, fig. 40.

**Type locality** - Holotype: United States. Louisiana: New Orleans. (MVMA).  
*Clytus gibbicollis* Laporte & Gory, 1836: 24, pl. 6, fig. 28.

**Type locality** - Holotype: Amérique Boreale. (MVMA).

### 7. *Neoclytus conjunctus* (LeConte, 1857)

**Type locality** - Holotype: United States, California : San Francisco. (MCZN).

**Distribution** - Pacific coast of North America from British Columbia to southern California. **Hosts plants** - *Arbutus menziesii* Pursh (Ericaceae), *Quercus agrifolia* Née, *Q. garryana* Douglas, *Q. kelloggii* Newberry, *Q. lobata* Née, *Q. wislizenii* A. de Candolle (Fagaceae), *Eucalyptus* sp. (Myrtaceae), *Fraxinus americana* Linné, *Olea* sp. (Oleaceae), *Pyrus* sp. (Rosaceae).

*Clytus conjunctus* LeConte, 1857: 61.

*Neoclytus conjunctus*; Lacordaire, 1869: 77; Ricksecker, 1885: 97 (biol.); Leng, 1887: 5, 7; Harrington, 1899: 108 (distr.); Fall, 1901: 147 (distr.); Wright & Coolidge, 1908: 68 (distr.); Smith, 1910: 329; Garnett, 1918: 210 (distr., hosts); Leng, 1920: 277 (cat.); Craighead, 1923: 54 (larva); Essig, 1926: 457, fig. 362 (biol.); Hardy, 1926: 32, pl. 5, fig. 44; Hardy & Preece, 1926: 39 (biol.); 1927: 192 (hosts); Craighead & Middleton, 1930: 13 (biol.); Hopping, 1932: 559, pl. 3, fig. 9 (hosts); Beaulne, 1932: 202 (hosts); Ingles, 1933: 59 (biol.); Linsley & Usinger, 1934: 106 (hosts); Doane *et al.*, 1936: 184 (biol.); Hardy, 1942 : 11 (biol.); Keen, 1952: 198, fig. 94B (hosts); Linsley, 1964: 159; Tyson, 1966: 205 (hosts); Hatch, 1971: 122, pl. 13, fig. 10; Furniss & Carolin, 1977: 302 (hosts) ; Chemsak, Linsley & Noguera, 1992: 68 (cat.); Monné, M.A., 1993i: 46 (cat.); Linsley & Chemsak, 1997: 405 (hosts); Hart, Cope & Ivie, 2013: 135, fig. 7 (distr.);

*Neoclytus conjunctus occiduus* Casey, 1912: 369; Leng, 1920: 277 (cat.); Lingafelter *et al.*, 2014: 44, 368, fig. 46 m (lectotype); Bousquet, Laplante, Hammond & Langor, 2017: 66, pl.10

**Type locality** - Lectotype: United States, California. (USNM).

*Neoclytus tularensis* Casey, 1912: 369 ; Leng, 1920: 277 (cat.) ; Lingafelter *et al.*, 2014: 337, fig. 175c (holotype).

**Type locality** – Holotype male: United States, California: Kaweah. (USNM).

### 8. *Neoclytus horridus* (LeConte, 1862)

**Type locality** - Holotype male: United States, Middle States. (MCZN).

**Distribution** - Southern Canada and eastern and central states to Texas. **Host plants** - *Quercus borealis* F. Michaux (Fagaceae).

*Clytus horridus* LeConte, 1862: 42.

*Neoclytus horridus*; Aurivillius, 1912: 391 (cat.); Linsley, 1964: 158; Hoffmann, 1968: 67, figs. 1,2 (syn., lectotype); Chemsak, Linsley & Noguera, 1992: 68 (cat.); Monné, M.A., 1993i: 48 (cat.); Yanega, 1996: 121, pl. 11, fig. 127; Schiefer, 1998: 119 (distr.); Burne, 1998: 393 (distr.); Vlasák & Vlasakova, 2002: 211 (distr.); Holt, 2013: 247 (distr., hosts) ; Klingeman *et al*, 2017: 29~6 (distr.).

*Neoclytus fulguratus* Casey, 1912: 367; Leng, 1920: 277 (cat.); Linsley, 1964: 146; Kirk, 1969; 85 (distr.); Waters & Hyeche, 1984: 286 (distr.); Chemsak, Linsley & Noguera, 1992: 68 (cat.); Monné, M.A., 1993i: 48 (cat.); MacRae, 1993: 235 (distr.); Linsley & Chemsak, 1997: 406 (hosts); Lingafelter *et al.*, 2014: 76, fig. 71q (holotype).

**Type locality** - Holotype male: United States, Texas. (USNM).

*Neoclytus confusus* Van Dyke, 1937: 115; Knull, 1946: 221.

**Type locality** - Holotype male: United States, Pennsylvania: Rockville. (CASC).

**9. *Neoclytus interruptus* LeConte, 1873**

**Type locality** - Holotype: United States, California. (MCZN). **Distribution** - United States (Coastal California from Humboldt Co. south to Ventura Co.). **Host plants** - *Ceanothus* sp. (Rhamnaceae).

*Neoclytus interruptus* LeConte, 1873a: 201 ; Leng, 1887: 5, 7 ; Fall, 1901: 247 (distr.); Garnett, 1918: 210 (distr.); Leng, 1920: 277 (cat.); Hopping, 1932: 553, pl. 3, fig. 16; Linsley, 1964: 154; Hatch, 1971: 121; Penrose & Westcott, 1974: 235; Chemsak, Linsley & Noguera, 1992: 68 (cat.); Monné, M.A. 1993i: 49 (cat.); Linsley & Chemsak, 1997: 406 (hosts) ; Monné, M.A. & Hovore, 2006: 44 (cat .).

**10. *Neoclytus irroratus* (LeConte, 1858)**

**Syntypes locality** – Syntypes: United States, Texas. (MCZN). **Distribution** - Southwestern United States from Texas to California, Mexico (Baja California, Chihuahua, Nuevo León, Tamaulipas, Veracruz, Morelos), Guatemala, Honduras. **Host plants** - *Quercus agrifolia* Née, *Q. emoryi* Torrey (Fagaceae).

*Clytus irroratus* LeConte, 1858a: 26.

*Neoclytus irroratus*; Lacordaire, 1869: 77; Horn, 1885a: 197 (syn.); Leng, 1887: 6; Townsend, 1895: 48; Fall, 1901: 147 (distr.); Fall & Cockerell, 1907: 192 (distr.); Garnett, 1918: 210 (distr.); Hopping, 1932: 550, pl. 4, fig. 12; Linsley, 1942: 56; 1964: 139, fig. 42; Chemsak & Linsley, 1974b: 133 (distr.); Chemsak, Linsley & Mankins, 1980: 32 (distr.); Chemsak, Linsley & Noguera, 1992: 68 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 406 (hosts); Monné, M.A., 2001a: 38 (cat. hosts); Turnbow, Cave & Thomas, 2003: 15 (distr.); Monné, M.A., 2005: 100 (cat.); Hovore, 2006: 373 (distr.); MacRae & Rice, 2007: 23 (hosts); García Morales *et al.*, 2015: 100 (distr.).

*Clytus (Rhopalopachys) morosus* Chevrolat, 1860: 501

*Rhopalopachys morosus*; Thomson, 1864: 193; Lacordaire, 1869: 75; Bates, 1880: 58

**Syntypes locality** – Syntypes: Mexico, Totosinapam. (BMNH).

**11. *Neoclytus jouteli jouteli* Davis, 1904**

**Type locality** - Holotype: United States, New Jersey: Lakehurst. (Staten Island Institute of Arts and Sciences). **Distribution** - United States (New Jersey to Virginia and Tennessee). **Host plants** - *Quercus alba* Linné, *Q. geminata* Small, *Q. laevis* Walter, *Q. nigra* Linné, *Q. velutina* Lamarck (Fagaceae), *Carya* sp. (Juglandaceae).

*Neoclytus jouteli* Davis, 1904: 34, pl. 6; Leng, 1907: 175; Bischoff, 1909: 47 (distr.); Smith, 1910: 329; Bischoff, 1918: 231 (distr.); Leng, 1920: 277 (cat.); Kirk & Knull, 1926: 40 (distr.); Hopping, 1932: 559, pl. 3, fig. 15; Knull, 1946: 221; Beal, Haliburton & Knight, 1952: 121 (biol); Linsley, 1964: 143; Rice, 1981: 461 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 68 (cat.); Yanega, 1996: 122, pl. 17, fig. 199; Peck & Thomas. 1998: 119 (distr.); Schiefer, 1998: 119 (distr.); Morris, 2004: 211 (hosts); MacRae & Rice, 2007: 240 (distr., hosts); Holt, 2013: 247 (distr., hosts) ; Klingeman *et al.*, 2017: 296 (distr.); Cleger & Gemmill, 2018: 3 (distr., hosts).

*Neoclytus jouteli jouteli*; Linsley, 1964: 143; M. A., 1993i: 49 (cat.); Linsley & Chemsak, 1997: 406 (hosts); Lingafelter, 2007: 72, 148, 2 figs, pl.17, fig. c (hosts).

**11a. *Neoclytus jouteli simplarius* Blatchley, 1917**

- Syntypes locality** - Syntypes: United States, Florida : Dunedin. (Entomology Research Collection, Department of Entomology, Purdue University). **Distribution** - United States (Georgia and Florida). **Host plants** - *Quercus laevis* Walter, *Q. nigra* Linné (Fagaceae), *Vitis arborea* Linné (Vitaceae).  
*Neoclytus simplarius* Blatchley, 1917: 240 (hosts); Leng, 1920: 277 (cat.); Blatchley, 1928: 70 (distr.).  
*Neoclytus jouteli* var. *simplarius*; Fattig, 1947: 26  
*Neoclytus jouteli simplarius*; Linsley, 1964: 144; Waters & Hyche, 1984: 286 (distr.); Chemsak, Linsley & Noguera, 1992: 68 (cat.); Monné, M.A., 1993i: 50 (cat.); Burne, 1997: 36 (distr.); Linsley & Chemsak, 1997: 406 (hosts); Peck & Thomas, 1998: 119 (distr.); Morris, 2004: 211 (hosts); Lingafelter, 2007: 72, 148, 2 figs, pl.17, fig. c (hosts); Holt, 2013: 247 (distr.).  
*Neoclytus joultei simplarius*; Turnbow & Franklin, 1980: 343 (distr., error).

## 12. *Neoclytus longipes* (Drury, 1773)

- Type locality** - Holotype: Jamaica. (Depository unknown). **Distribution** - United States (Georgia, Florida), Cuba, Jamaica. **Host plants** - *Pimenta dioica* (Linné) Merrill (Myrtaceae).  
*Cerambyx longipes* Drury, 1773: 84, pl. 37, fig. 4.  
*Stenochorus longipes*; Schoenherr, 1817: 408.  
*Clytus longipes*; Drury & Westwood, 1837: 79, pl. 37, fig. 4.  
*Neoclytus longipes*; Gahan, 1895: 115; Fisher & Kirk, 1912: 311 (distr.); Leng & Mutchler, 1914: 447 (distr.); Gowdey, 1926: 21 (distr.); Hopping, 1932: 548, pl. 5, figs 3, 4; Duffy, 1960: 174 (hosts); Linsley, 1964: 137; Zayas, 1975: 138; Chemsak, Linsley & Noguera, 1992: 68 (cat.); Monné, M. A., 2001a: 38 (cat. hosts); Vitali & Resbanyai-Reser, 2003: 6, figs 22 a-d; Peck, 2005: 172 (distr.); Monné, M.A., 2005: 101 (cat.); Di Iorio, 2006a: 22; Lingafelter, 2007: 195, 203, 2 figs, pl. 16, fig. i (hosts); Vitali, 2007: 50.  
*Stenocorus drurii* Fabricius, 1775: 181; 1781: 228; 1787: 145; 1793: 302; Zimsen, 1964: 173 (type).  
*Stenocorus druryi*; Fabricius, 1801: 311.  
*Stenochorus druryi*; Schoenherr, 1817: 408.  
**Type locality** – Type: America. (Depository unknown).  
*Callidium angulatum* Fabricius, 1793: 335; Zimsen, 1964: 181 (type).  
*Clytus angulatus*; Fabricius, 1801: 350; White, 1855: 255.  
*Neoclytus angulatus*; Chevrolat, 1862b: 531; Horn, 1886a: 138; Leng, 1887: 5.  
**Type locality** - Holotype: not stated. (BMNH).  
*Callidium rhombifer* Olivier, 1795: (70) 46, pl. 4, figs 51a, b; Schoenherr, 1817: 459.  
*Clytus rhombifer*; Laporte & Gory, 1836: 17, pl. 4, fig. 19; Haldeman, 1847a: 40; LeConte, 1850b: 26.  
**Syntypes locality** – Syntypes male and female: Georgia. (Depository unknown).  
*Clytus hopei* Laporte & Gory, 1836: 20, pl. 5, fig. 20; LeConte, 1850b: 28.  
*Xylotrechus hopei*; Lacordaire, 1869: 79.  
*Neoclytus hopei*; Waterhouse, 1878: 303 (distr.).  
**Type locality** - Holotype male: America borealis. (OXUM).

## 13. *Neoclytus magnus* Schaeffer, 1904

- Type locality** - Holotype female: Mexico, Baja California: Ensenada. (USNM).  
**Distribution** - United States (Southern California north to Santa Barbara and Inyo

Cos), Mexico (Baja California). **Host plants** - *Adenostoma fasciculatum* Hooker & Arnott (Rosaceae).

*Neoclytus magnus* Schaeffer, 1904: 224; Hopping, 1932: 555, pl. 5, fig. 5; Moore, 1937: 90 (distr.); Linsley, 1942: 56; 1964: 150; Cope, 1984a: 31 (hosts); Chemsak, Linsley & Noguera, 1992: 68 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Monné, M.A., 2001a: 39 (cat. hosts); Monné, M.A., 2005: 102 (cat.); Lingafelter *et al.*, 2014: 94, figs 104i, j (holotype).

#### 14. *Neoclytus modestus modestus* Fall, 1907

**Type locality** - Holotype male: United States, California: Pasadena. (MCZN).

**Distribution** - United States (Southern California: Sierra Madre, San Bernardino, and San Jacinto mts., coastal area south to San Diego Co.). **Host plants** - *Quercus* sp. (Fagaceae).

*Neoclytus modestus* Fall, 1907: 81; Garnett, 1918: 210 (distr.); Leng, 1920: 277 (cat.); Davis, 1925: 169 (syn.); Hopping, 1932: 556, pl. 3, figs 5,6; Linsley, 1964: 154; Chemsak, Linsley & Noguera, 1992: 68 (cat.); Noguera & Chemsak, 1996: 400 (cat.).

*Neoclytus modestus modestus*; Linsley, 1964: 155; Hovore, 1988: 28; Monné, M.A., 1993i: 51 (cat.); Linsley & Chemsak, 1997: 406 (hosts); Hanks *et al.*, 2007: 889 (pherom.)

*Neoclytus carus* Fall, 1907: 81; Garnett, 1918: 210 (distr.); Leng, 1920: 277 (cat.)

**Type locality** - Holotype male: United States, California: Mountains near Pasadena. (MCZN).

#### 14a. *Neoclytus modestus zebratus* Van Dyke, 1927

**Type locality** - Holotype female: United States, California: Plumas County, near Meadow Valley. (CASC). **Distribution** - Oregon and northern California : Coast Range Mts. south to Santa Clara Co., Sierra Nevada Mts. south to Tuolumne Co.

**Hosts plants** - *Quercus* sp. (Fagaceae).

*Neoclytus modestus zebratus* Van Dyke, 1927: 108; Linsley, 1964: 155; Hatch, 1971: 121; Chemsak, Linsley & Noguera, 1992: 68 (cat.); Monné, M.A., 1993i: 51 (cat.); Linsley & Chemsak, 1997: 406 (hosts).

#### 15. *Neoclytus mucronatus mucronatus* (Fabricius, 1775)

**Type locality** - America. (BMNH). **Distribution** - United States (Eastern States to Oklahoma and Texas and northeastern Mexico). **Host plants** - *Acer rubrum* Linné (Aceraceae), *Celtis laevigata* Willdnov (Cannabaceae), *Juniperus virginiana* Linné (Cupressaceae), *Diospyros virginiana* Linné (Ebenaceae), *Quercus* sp. (Fagaceae), *Carya glabra* (Miller) Sweet, *C. illinoensis* (Wangenheim) K. Koch, *C. ovata* (Miller) K. Koch, *C. tomentosa* Nuttall (Juglandaceae), *Pinus contorta* Douglas ex Loudon, *P. resinosa* Aiton (Pinaceae), *Ulmus* sp. (Ulmaceae).

*Callidium mucronatum* Fabricius, 1775: 193; 1781: 243; 1787: 156; Olivier, 1790: 266, pl. 3, fig. 34; Fabricius, 1793: 334; Olivier, 1795: 38, pl. 3, fig. 34; Chevrolat, 1851: 660 (syn.); Zimsen, 1964: 181 (type).

*Clytus mucronatus*; Fabricius, 1801: 350; Schoenherr, 1817: 467.

*Cerambyx (Callidium) maculosus* Gmelin, 1790: 1854.

*Neoclytus mucronatus* Leng, 1920: 277 (cat.); Kirk & Knull, 1926: 40 (distr.); Leonard, 1928: 447 (distr.); Frost & Dietrich, 1929: 436 (distr.); Hopping, 1932: 549, pl. 3, fig. 2; Beaulne, 1932: 202 (hosts); Gaines, 1933: 52 (distr.); Brimley, 1938: 215 (distr.); Hoffmann, 1940: 59 (biol.); Loding, 1945: 119 (distr.); Knull, 1946: 220,

pl. 17, fig. 67; Fattig, 1947: 25; Beal, Haliburton & Knight, 1952: 120 (biol.); Duffy, 1953: 231 (biol.); Linsley, 1964: 141; Chemsak, Linsley & Noguera, 1992: 69 (cat.); McDowell, 2011: 412 (biol.).

*Neoclytus macronatus*; Alexander, 1958: 48 (distr., error).

*Neoclutus mucronatus mucronatus*; Linsley, 1964: 141, fig 143; Gosling, 1973: 82 (biol., distr.); Perry, 1975: 59 (hosts); Solomon, Doolittle & Spilman, 1976: 290; Turnbow & Franklin, 1980: 343 (distr.); Waters & Hyche, 1984: 286 (distr.); MacRae, 1993: 235 (distr., hosts); Monné, M.A., 1993i: 51 (cat.); Lingafelter & Horner, 1993: 175 (distr.); Yanega, 1996: 122, pl. 10, fig. 115; Linsley & Chemsak, 1997: 407 (hosts); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998: 119 (distr.); Ginzl Matthew & Hanks, 2005: 214 (biol., hosts); Rice & Veal, 2006: 257 (distr.); MacRae & Rice, 2007: 240 (distr., hosts); Lingafelter, 2007: 58, 148, 2 figs, pl.14, fig. d (hosts); Lacey *et al.*, 2007: 171 (pherom.); Holt, 2013: 247 (distr., hosts); Spomer, 2014: 300, fig. 5 (distr.); Webster *et al.*, 2016: 114 (distr., hosts); Klingeman *et al.*, 2017: 296 (distr.); DiGirolamo & Dodds, 2017: 410 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 67, pl.10

*Cerambyx (Callidium) maculosus* Gmelin, 1790: 1854.

**Type locality** – Type: America. (NHRS).

*Callidium luscum* Fabricius, 1798: 152; Zimsen, 1964: 181 (type).

*Clytus luscus*; Fabricius, 1801: 347; Schoenherr, 1817: 462; Laporte & Gory, 1836: 27, pl.6, fig. 32; Haldeman, 1847a: 39; 1847c: 372 (syn.); LeConte, 1850b: 26; White, 1855: 257; Bland, 1861: 96 (distr., hosts); Pettit, 1871: 106 (distr.).

*Neoclytus luscus*; Lacordaire, 1869: 77; Popenoe, 1877: 33 (distr.); Leng, 1887: 5,6; Hamilton, 1887: 141 (biol.); Hopkins, 1893: 194; Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 77 (hosts); Wickham, 1898b: 41 (distr.); Smith, 1900: 290 (distr.); Ulke, 1903: 26 (distr.); Townsend, 1903: 78 (distr.); Tucker, 1906: 12 (distr.); Schaeffer, 1908: 328 (distr.); Champlain, 1909: 180 (distr.); Blatchley, 1910: 1038; Smith, 1910: 329; Fisher & Kirk, 1912: 311 (distr.); Craighead, 1923: 54 (larva).

*Plagithmysus lusus*; Wickham, 1897a: 151.

**Type locality** - Holotype: America Boreali. (ZMUC).

*Clytus humeralis* Newman, 1838: 394; Guérin-Méneville, 1844a: 234.

**Syntypes locality** - Syntypes: United States, Ohio: Cincinnati. (BMNH).

*Neoclytus luscus strictulus* Casey, 1912: 369; Lingafelter *et al.*, 2014: 93, fig. 102m (holotype).

*Neoclytus mucronatus strictulus*; Leng, 1920: 277.

**Type locality** - Holotype female: United States. (USNM).

### 15a. *Neoclytus mucronatus vogti* Linsley, 1957

**Type locality** - Holotype female: United States, Texas: Hidalgo Co., Donna. (CASC). **Distribution** - United States (Baboquivari Mts, Arizona to Lower Rio Grande Valley, Texas), Mexico (Nuevo León, Tamaulipas). **Host plants** - *Parkinsonia aculeata* Linné (Caesalpiniaceae), *Celtis laevigata* Willdenow, *C. occidentalis* Linné (Cannabaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Bumelia lanuginosa* Michaux (Sapotaceae), *Ulmus crassifolia* Nuttall (Ulmaceae).

*Neoclytus mucronatus vogti* Linsley, 1957c: 35; 1964: 142; Turnbow & Wappes, 1978: 359 (hosts); Hovore, Penrose & Neck, 1987: 306 (biol.); Linsley & Chemsak, 1997: 407 (hosts); Monné, M. A., 2001a: 39 (cat. hosts); Ruíz Cancino & Coronado

Blanco, 2002: 103 (distr.); Monné, M. A., 2005: 102 (cat.); García Morales *et al.*, 2015: 100 (distr.).

*Neoclytus mucronatus*; Vogt, 1949: 144 (distr., hosts).

#### 16. *Neoclytus muricatus muricatus* (Kirby, 1837)

**Syntypes locality** - Syntypes: Canada, latitude 54 degrees. (BMNH). **Distribution** - From the Lake states and eastern Canada west to the Pacific and south to middle California. **Host plants** - *Abies balsamea* (Linné) Miller, *Larix laricina* (Duroi) K. Koch, *Picea* sp., *Pinus ponderosa* Douglas ex Lawson & P. Lawson (Pinaceae).

*Clytus muricatus* Kirby, 1837: 177; Laporte & Gory, 1836: 90, pl. 17, fig. 105; Haldeman, 1847c: 372; White, 1855: 268.

*Clytus muricatus*; Haldeman, 1847a: 41 (error); Provancher, 1877: 601.

*Neoclytus muricatus*. LeConte, 1873a: 200 (syn.); Horn. 1876: 169 (syn.); Leng, 1887: 5, 8; Tolman, 1889: 343; Harrington, 1890: 185 (distr.); Beutenmuller, 1896: 76 (hosts); Wickham, 1897a: 157; Fall, 1901: 147 (distr.); Ulke, 1903: 26 (distr.); Chagnon, 1905: 36 (distr.); Fall & Cockerell, 1907: 192 (distr.); Davis, 1909a: 42 (distr.); Blatchley, 1910: 1039 (distr.); Frost, 1912: 307; Chagnon, 1917: 232 (distr.); Nicolay, 1917: 94 (distr.); Garnett, 1918: 210 (distr., hosts); Britton, 1920: 269 (distr.); Leng, 1920: 277 (cat.); Craighead, 1923: 55 (larva); Fall, 1926: 202 (distr.); Essig, 1926: 457 (hosts); Kirk & Knull, 1926: 40 (distr.); Procter, 1927: 112 (distr.); Leonard, 1928: 447 (distr.); Criddle, 1928: 97 (distr.); Hopping, 1932: 557, pl. 3, fig. 3 (hosts); Beaulne, 1932: 62 (hosts); Mank, 1934: 80 (distr.); Knowlton & Thatcher, 1936: 80 (hosts); Doane *et al.*, 1936: 184; Van Dyke, 1937: 115 (syn.); Chagnon, 1938: 265, pl. 18, fig. 2; 1938: 86 (distr.); Procter, 1946: 181 (biol.); Knull, 1946: 221; Knowlton & Wood, 1950: 12 (distr.); Keen, 1952: 47 (hosts); Clark, 1956: 41 (distr.); Gardiner, 1957: 251 (biol.); Alexander, 1958: 48 (distr.); Chagnon & Robert, 1962: 265, pl. 18, fig.2; Linsley, 1964: 156; Ross, 1968: 12 (biol.); Furniss & Carolin, 1977: 302 (hosts); Chemsak, Linsley & Noguera. 1992: 69 (cat.); Inglebert, 1997: 180 (distr.); Haack, 2017: 113 (hosts).

*Plagithmysus muricatus*; Wickham, 1897a: 157; 1899a: 198 (distr.); 1899b: 123 (distr.).

*Neoclytus muricatus muricatus*; Linsley, 1964: 157, fig. 47; Hatch, 1971: 122; Gosling, 1973: 82, fig. 55 (biol., distr.); Kirk & Balsbaugh, 1975: 99 (distr.); Stein & Tigestad. 1976: 23, fig. 10 (distr.); Perry, 1975: 98 (distr.); Laliberté, Chantal & LaRochelle, 1977: 95 (biol.); Gosling, 1984: 72 (hosts); 1986: 156 (hosts); Monné, M.A., 1993i: 62 (cat.); Linsley & Chemsak, 1997: 407 (hosts); Rice, MacRae & Merickel, 2017: 669 (distr.).

*Clytus longipes* Kirby, 1837: 176 (not Drury, 1773) (preoccupied); Haldeman, 1847a: 41; LeConte, 1850b: 28; White, 1855: 268; Bethune, 1872: 96 (syn.).

*Plagithmysus longipes*; Wickham, 1897a: 152.

**Type locality** - Holotype: Canada, latitude 54 degrees. (BMNH).

*Clytus leucozonus* Laporte & Gory, 1836: 90, pl. 17, fig. 105; White, 1855: 279.

*Neoclytus leucozonus*; Snow, 1877: 19 (distr.); Hoffman, 1988: 72, figs 3, 4 (syn.); Vlasák & Vlasakova, 2002: 212 (distr.).

*Neoclytus leucozonus leucozonus*; Monné, M.A. & Giesbert, 1995: 117 (cat.); Yanega, 1996: 122, pl. 11, fig.126; Heffern, 1998: 16 (distr., syn); Majka, McCorquodale & Smith, 2007: 261 (distr.); McCorquodale, 2010: 469 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 67, pl.10

**Type locality** - Holotype: United States, Massachusetts, Boston. (BMNH).



*Neoclytus ascendens* LeConte, 1878b: 462; Leng, 1887: 5, 7; 1920: 277 (cat.); Hopping, 1932: 558; Linsley, 1964: 158; Chemsak, Linsley & Noguera, 1992: 68 (cat.); Monné, M.A., 1993i: 43 (cat.).

*Clytus ascendens* Lameere, 1883: 36 (cat.).

**Type locality** - Holotype: United States, Colorado: Leavenworth Valley, above Georgetown. (MCZN).

*Neoclytus Kirbyi* Aurivillius, 1912: 392 (*nom. nov. pro Clytus longipes* Kirby, 1837 non Drury, 1773); Leng, 1920: 277 (cat.).

#### 16a. *Neoclytus muricatus infans* Casey, 1912

**Type locality** - Holotype male: United States, California: Siskiyou County. (USNM). **Distribution** - United States (Southern Oregon and northern California. California: Shasta, Siskiyou, Trinity, Humboldt, and Mendocino Cos.). **Host plants** - *Abies* sp., *Pinus insignis* Douglas ex Loudon, *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae).

*Neoclytus infans* Casey, 1912: 368; Leng, 1920: 277 (cat.); Hopping, 1932: 557, pl. 4, fig. 10.

*Neoclytus muricatus* form *infans*; Van Dyke, 1927: 109.

*Neoclytus muricatus infans*; Linsley, 1964: 158, fig. 47; Cope, 1984a: 31 (hosts); Chemsak, Linsley & Noguera, 1992: 69 (cat.); Monné, M.A., 1993i: 53 (cat.); Linsley & Chemsak, 1997: 407 (hosts).

*Neoclytus leucozonus infans*; Monné, M.A., & Giesbert, 1995: 117 (cat.).

*Neoclytus leucozonas infans*; MacRae & Rice, 2007: 240 (distr., hosts, error).

#### 17. *Neoclytus nubilus* Linsley, 1933

**Type locality** - Holotype female: United States, California: Bass Lake. (CASC).

**Distribution** - United States (Sierra Nevada Mts. of California south to Tulare Co.). **Host plants** - *Abies concolor* Gordon & Glen (Pinaceae).

*Neoclytus nubilus* Linsley, 1933c: 93; 1964: 156; Tyson, 1966: 205 (hosts); Chemsak, Linsley & Noguera, 1992: 69 (cat.); Monné, M.A., 1993i: 53 (cat.); Linsley & Chemsak, 1997: 407 (hosts); Monné, M.A. & Hovore, 2006: 45 (cat.).

*Neoclytus modestus* Fall, 1907: 81 (female not male).

#### 18. *Neoclytus provoanus* Casey, 1924

**Type locality** - Lectotype: United States, Utah: North Fork, Provo Canyon. (USNM). **Distribution** - Pacific coast of North America from British Columbia to northern California & Rocky Mountain region south to Utah.

*Neoclytus provoanus* Casey, 1924: 272; Hopping, 1932: 555, pl. 5, fig. 9; Knowlton & Thatcher, 1936: 280 (distr.); Stace-Smith, 1946: 28; Linsley, 1964: 153 (syn.); Hatch, 1971: 121; Penrose & Westcott, 1974: 235 (distr.); Chemsak, Linsley & Noguera, 1992: 69 (cat.); Monné, M. A., 1993i: 54 (cat.); Lingafelter *et al.*, 2014: 303, 368, fig. 136m (lectotype); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 67, pl.10

*Neoclytus basalis* Van Dyke, 1927: 106 (preoccupied, not Chevrolat)

*Neoclytus basillaris* Van Dyke, 1929: 136 (*nom. nov. pro Neoclytus basalis*); Hopping, 1932: 553, pl. 5, fig. 6;

**Type locality** - Holotype: United States, Washington: Spokane. (CASC).

**19. *Neoclytus resplendens* Linsley, 1935**

**Type locality** – Holotype male: United States, California: Sequoia National Park. (CASC). **Distribution** - United States (Northern California: Sierra Nevada Mts. south to Tulare Co. and Coast Ranges south to Monterey Co.). **Host plants** - *Arctostaphylos patula* Greene (Ericaceae), *Quercus* sp. (Fagaceae).

*Neoclytus resplendens* Linsley, 1935b: 163, figs 4, 4a; 1964: 152, fig. 46; Penrose & Westcott, 1974: 235; Cope, 1984a: 31 (hosts); Chemsak, Linsley & Noguera, 1992: 69 (cat.); Monné, M.A., 1993i: 55 (cat.); Linsley & Chemsak, 1997: 407 (hosts).

**20. *Neoclytus scutellaris* (Olivier, 1790)**

**Syntypes localities** - Syntypes: United States, Georgia, Carolina. (BMNH).

**Distribution** - Canada and Eastern United states west into Nebraska, Kansas and Texas. **Host plants** - *Acer* sp. (Aceraceae), *Cornus* sp. (Cornaceae), *Quercus alba* Linné, *Q. lyrata* Walter, *Q. palustris* Du Roi, *Q. phellos* Linné, *Q. stellata* Wangenheim, *Q. velutina* Lamarck (Fagaceae), *Carya* sp. (Juglandaceae), *Ulmus* sp. (Ulmaceae), *Vitis* sp. (Vitaceae).

*Callidium scutellare* Olivier, 1790: 266, pl. 5, fig. 52; 1795: 51, pl. 5, fig. 52.

*Clytus scutellaris*; Schoenherr, 1817: 467; Audinet-Serville, 1834a: 36; Laporte & Gory, 1836: 53, pl. 11, fig. 52; Haldeman, 1847a: 40; LeConte, 1850b: 25; Melsheimer, 1853: 105 (cat.); LeConte, 1858a: 41 (distr.); 1859: 48 (distr.); Bland, 1861: 96.

*Clytus luscus* var. *scutellaris* White, 1855: 257.

*Neoclytus scutellaris*; Thomson, 1861: 226; Lacordaire, 1869: 77; Horn, 1886a: 139; Hamilton, 1887: 143; Leng, 1887: 5; Hamilton, 1895: 338 (distr.); Smith, 1900: 290 (distr.); Dury, 1902: 160 (distr.); Ulke, 1903: 26 (distr.); Blatchley, 1910: 1038; Smith, 1910: 329; Daecke, 1911: 478 (hosts); Fisher & Kirk, 1912: 311 (distr.); Leng, 1920: 277 (cat.); Craighead, 1923: 54 (larva); Kirk & Knull, 1926: 40 (distr.); Leonard, 1928: 447 (distr.); Frost & Dietrich, 1929: 436 (distr.); Ware, 1929: 368 (distr.); Hopping, 1932: 549, pl. 3, fig. 8; Gaines, 1933: 52 (distr.); Brimley, 1938: 215 (distr.); Savely, 1939: 340 (biol.); Loding, 1945: 119 (distr.); Knull, 1946: 219; Fattig, 1947: 25 (biol.); Beal, Haliburton & Knight, 1952: 121 (biol.); Duffy, 1953: 232 (hosts); Alexander, 1958: 48 (distr.); Dillon & Dillon, 1961: 62, pl. 50, No.1; Linsley, 1964: 140; Gosling, 1973: 81 (biol., distr.); Solomon, Doolittle & Spilman, 1976: 290; Turnbow & Franklin, 1980: 343 (distr.); Waters & Hyche, 1984: 286 (distr.); Chemsak, Linsley & Noguera, 1992: 69 (cat.); MacRae, 1993: 235 (distr.); Lingafelter & Horner, 1993: 175 (distr.); Monné, M.A., 1993i: 55 (cat.); Yanega, 1996: 122, pl.10, fig. 116; Browne & Peck, 1996: 259 (distr.); Linsley & Chemsak, 1997: 407 (hosts); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998: 119 (distr.); Rice & Veal, 2006: 257 (distr.); MacRae & Rice, 2007: 240 (distr., hosts); Lingafelter, 2007: 60, 148, 2 figs, pl. 14, fig. h (hosts); Holt, 2013: 247 (distr., hosts); Spomer, 2014: 300 (distr.); Klingeman, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 67, pl.10

*Clytus elegans* Haldeman, 1847a: 40.

**Syntypes locality** – Syntypes: United States. (MCZN).

**21. *Neoclytus senilis* (Fabricius, 1798)**

**Type locality** - Holotype male: Cayenne. **Distribution** - French Guiana? United States (Georgia, Florida), Mexico, Cuba, Bahamas, Cayman Islands. **Host plants** - *Mangifera indica* Linné (Anacardiaceae), *Baccharis halimifolia* Linné (Asteraceae), *Conocarpus erectus* Linné (Combretaceae), *Piscidia piscipula* (Linné) Sargent

(Fabaceae), *Quercus geminata* Small (Fagaceae), *Carya floridana* Sargent (Juglandaceae), *Lysiloma latisiliqua* (Linné) Benth (Mimosaceae), *Ximenia americana* Linné (Olacaceae), *Punica granatum* Linné (Punicaceae), *Rhizophora mangle* Linné (Rhizophoraceae), *Citrus sinensis* (Linné) Osbeck (Rutaceae), *Sideroxylon foetidissimum* Jacquin (Sapotaceae), *Avicennia germinans* (Linné) Stearns (Verbenaceae).

*Callidium senile* Fabricius, 1798: 152; Zimsen, 1964: 181 (type).

*Clytus senilis*; Fabricius, 1801: 350; Schoenherr, 1817: 467.

*Neoclytus senilis*; Aurivillius, 1912: 393 (cat.); Monné, M.A., 2005: 104 (cat.); Martins & Galileo, 2011a: 115, fig. 75 (syn.); Morvan & Morati, 2011: 17 (distr.); Vlasak, 2014: 318 (hosts); Devesa, Fonseca & Barro, 2015: 32, figs 1-10.

*Clytus cordifer* Klug, 1829: 13.

*Neoclytus cordifer*; Gahan, 1895: 115; Leng & Mutchler, 1914: 447 (distr.); Schwarz in Holland, 1917: 342 (distr.); Watson, 1926: 399 (hosts); Kirk & Knoll, 1926: 40 (distr.); Blatchley, 1930: 33 (distr.); Hopping, 1932: 548, pl. 3, fig. 13; Bruner, Scaramuzza & Otero, 1945: 49 (hosts); Fattig, 1947: 25 (distr.); Duffy, 1960: 174 (hosts); Linsley, 1964: 138; Chemsak, 1969a: 187 (distr.); Zayas, 1975: 135, pl. 18, fig. a; Chemsak, Linsley & Noguera, 1992: 68 (cat.); Linsley & Chemsak, 1997: 405 (hosts); Monné, M. A., 2001a: 37 (cat. hosts); Monné, M.A., 2005: 98 (cat.); Morris, 2004: 211 (hosts); Peck, 2005: 172 (distr.); Fernández García & Favila, 2007: 26 (distr.); Turnbow & Thomas, 2008: 21 (distr.); Fernández García, Favila Castillo & López Iborra 2009: 322 (distr.); Thomas, Turnbow & Steiner, 2013: 19 (distr.);

**Type locality** – Type: Cuba. (Depository unknown).

*Clytus rufescens* Laporte & Gory, 1838: 16, pl. 4, fig. 18; White, 1855: 255; Jacquelin DuVal in Sagra, 1857: 268.

**Type locality** – Holotype: Mexico. (Depository unknown).

*Clytus devastator* Laporte & Gory, 1838: 17, pl. 4, fig 18 bis; White, 1855: 255; Jacquelin DuVal in Sagra, 1857: 268; Back, 1918: 411, pl. 12 (biol.).

*Neoclytus devastator*; Thomson, 1861: 226; Chevrolat, 1862a: 263; 1862b: 531; Lacordaire, 1869: 76; Leng, 1887: 5, 6; Schwarz, 1888: 93 (biol.); Klages, 1901: 273, 290 (distr.).

**Type locality** - Holotype: Cuba. (Depository unknown).

## 22. *Neoclytus tenuiscriptus* Fall, 1907

**Syntypes locality** – Syntypes: United States, California: Claremont. (MCZN).

**Distribution** - United States (Southern California to southwestern Arizona), northern Mexico. **Host plants** - *Baccharis glutinosa* Persoon, *Encelia* sp., *Hymenoclea* sp., *Pluchea* sp. (Asteraceae), *Medicago sativa* Linné, *Trifolium* sp. (Fabaceae), *Eriogonum* sp. (Polygonaceae).

*Neoclytus tenuiscriptus* Fall, 1907: 82; Garnett, 1918: 210 (distr.); Hopping, 1932: 553, pl. 3, fig. 11; Linsley, 1964: 147, fig. 44; Hovore, 1983: 380 (biol.); Chemsak, Linsley & Noguera, 1992: 69 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Monné, M.A., 2001a: 41 (cat. hosts); Monné, M.A., 2005: 105 (cat.).

## 23. *Neoclytus torquatus* LeConte, 1873

**Type locality** - Holotype: United States, Texas. (MCZN). **Distribution** - United States (Texas), Mexico (Nuevo León, Hidalgo). **Host plants** - *Quercus* sp. (Fagaceae).

*Neoclytus torquatus* LeConte, 1873a: 200; Leng, 1887: 5; 1920: 277 (cat.); Hopping, 1932: 551, pl. 3, fig. 12; Linsley, 1964: 149; Chemsak, Linsley & Noguera, 1992:

69; Linsley & Chemsak, 1997: 407 (hosts); Gutiérrez & Noguera, 2015: 143 (distr., hosts); Noguera & Gutiérrez, 2016: 657 (distr.).

#### 24. *Neoclytus vanduzeei* Van Dyke, 1927

**Type locality** - Holotype: United States, Arizona: Nogales. (CASC). **Distribution** - United States (Arizona). **Host plants** - *Baccharis* sp. (Asteraceae), *Arctostaphylos pungens* Kunth (Ericaceae).

*Neoclytus vanduzeei* Van Dyke, 1927: 107; Hopping, 1932: 552, pl. 4, fig. 13; Linsley, 1964: 149; Hovore, 1983: 381; Cope, 1984: 32 (hosts); Hovore, 1988: 13 (hosts); Chemsak, Linsley & Noguera, 1992: 69 (cat.); Monné, M.A., 1993i: 57 (cat.); Linsley & Chemsak, 1997: 408 (hosts); Monné, M.A. & Hovore, 2006: 45 (cat.)

#### *Ochraethes* Chrolat, 1860

*Clytus (Ochraethes)* Chevrolat, 1860: 454.

*Ochraethes*; Casey, 1912: 348, 356; Hopping, 1937: 453; Arnett, 1962: 868, 887; Linsley, 1964: 100; Monné, M.A., 2005: 106 (cat.); Monné, M.A., 2012: 14.

*Ochroesthes*; Chevrolat, 1860: 472 (error).

*Ochraesthes*; Thomson, 1861: 219; 1864: 185; 1865: 424 (error).

*Ochrestes*; Lacordaire, 1869: 65 (error).

*Ochresthes*; Bates, 1880: 50 (error).

**Type-species** - *Clytus (Ochroesthes) circuliferus* Chevrolat, 1860 (subsequent designation, Thomson, 1861: 219). [= *Clytus sommeri* Chevrolat, 1835].

#### 1. *Ochraethes citrinus* (Chevrolat, 1860)

**Syntypes locality** – Syntypes male and female: Mexico. (BMNH). **Distribution** - United States (Texas, Davis Mts.), Mexico (Puebla, Coahuila, San Luis Potosí, Tamaulipas), Guatemala, Honduras. **Host plants** - *Helianthus* sp. (Asteraceae).

*Clytus (Ochroesthes) citrinus* Chevrolat, 1860: 474.

*Ochresthes citrinus*; Bates, 1880: 51 (distr.).

*Ochraethes citrinus*; Aurivillius, 1912: 386 (cat.); Linsley, 1964: 100, fig. 28; Chemsak, Linsley & Mankins, 1980: 31 (distr.); Hovore, Penrose & Neck, 1987: 306 (biol.); Chemsak, Linsley & Noguera, 1992: 69 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 411 (hosts); Monné, M.A., 2001a: 41 (cat. hosts); Turnbow, Cave & Thomas, 2003: 15 (distr.); Monné, M.A., 2005: 106 (cat.); Hovore, 2006: 373 (distr.); García Morales *et al.*, 2015: 100 (distr.); Noguera & Gutiérrez, 2016: 657 (distr.).

*Ochresthes sigmoideus* Bates, 1885: 298, pl. 21, fig. 4; Chemsak, 1967b: 78 (lect.).

*Ochraethes sigmoideus*; Aurivillius, 1912: 386 (cat.); Hopping, 1937: 453, pl. 3.

**Type locality** – Lectotype male: Mexico, San Luis Potosí. (BMNH).

#### *Placosternus* Hopping, 1937

*Placosternus* Hopping, 1937: 447; Arnett, 1962: 868, 887; Linsley, 1964: 92; Martins & Galileo, 2011a: 97; Monné, M.A., 2005: 110 (cat.); Monné, M.A., 2012: 14.

**Type-species** - *Cyllene difficilis* Chevrolat, 1862 (original designation).

#### 1. *Placosternus difficilis* (Chevrolat, 1862)

**Syntypes locality** – Syntypes: Cuba, Habana. (BMNH). **Distribution** - Southwestern United States, from Texas to southern California, northern Mexico (Sonora, Nuevo León, Jalisco, Morelos, Oaxaca, Tamaulipas), Honduras, Cuba, Bahamas. **Host plants** - *Celtis iguanaea* Jacquin, *C. laevigata* Willdenow

- (Cannabaceae), *Acacia farnesiana* (Linné) Willdenow, *A. rigidula* Benth, *Leucaena pulverulenta* (Schlechtendal) Benth, *Pithecellobium flexicaule* (Benth) Coulter, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Platanus occidentalis* Linné (Platanaceae), *Citrus sinensis* (Linné) Osbeck (Rutaceae).
- Cyllene difficilis* Chevrolat, 1862a: 263; Lacordaire, 1869: 92; Gahan, 1895: 114; Leng & Mutchler, 1914: 447 (distr.).
- Clytus difficilis*; Gemminger & Harold, 1872: 2928 (cat.).
- Placosternus difficilis*; Hopping, 1937: 448, pl. 3; Vogt, 1949: 143 (distr., hosts); Cazier & Lacey, 1952: 35; Linsley, 1964: 93, fig. 29; Manley & French, 1976: 47, fig. 1; Rogers, 1977a: 227 (hosts); Hovore, Penrose & Neck, 1987: 306 (biol.); Chemsak, Linsley & Noguera, 1992: 70 (cat.); Browne, Peck & Ivie, 1993: 46 (distr.); Chemsak & Noguera, 1995: 62 (distr., hosts); Noguera & Chemsak, 1996: 401 (cat.); Browne & Peck, 1996: 2159 (distr.); Linsley & Chemsak, 1997: 420 (hosts); Monné, M.A., 2001a: 42 (cat. hosts); Toledo *et al.*, 2002: 528 (distr.); Noguera *et al.*, 2002: 624 (distr.); Turnbow, Cave & Thomas, 2003: 15 (distr.); Monné, M.A., 2005: 111 (cat.); Peck, 2005: 172 (distr.); Hovore, 2006: 373 (distr.); MacRae & Rice, 2007: 242 (hosts); Thomas & Turnbow, 2007: 584 (distr.); Noguera *et al.*, 2007: 310 (distr.); Perez-Gelabert, 2008: 117 (distr.); Turnbow & Thomas, 2008: 21 (distr.); Noguera *et al.*, 2009: 87 (distr.); Morales-Morales *et al.*, 2012: 38 (biol.); Noguera *et al.*, 2012: 620 (distr.); García Morales *et al.*, 2015: 101 (distr.); Devesa, Fonseca & Barro, 2015: 33, 286, figs 1-9; Hernández-Cardenas *et al.*, 2016: 497 (distr.).
- Megacyllene difficilis*; Zayas, 1975: 133, pl. 17, fig. c; Ruíz Cancino & Coronado Blanco, 2002: 103 (distr.);
- Cyllene crinicornis*; Horn, 1880a: 134, pl. 2, fig. 8 (not Chevrolat, 1860); LeConte, 1880b: xxiv; Bates, 1880: 47 (distr.); Packard, 1881: 138 (biol.); Bates, 1885: 294; Leng, 1887: 196; Packard, 1890: 646; Beutenmuller, 1896: 76 (hosts); Schwarz, 1896: 48 (biol.); Wickham, 1898b: 41 (distr.); Fall, 1901: 146 (distr.); Townsend, 1903: 78 (distr.); Knaus, 1905: 352 (distr.); Snow, 1906a: 146 (distr.); Schaeffer, 1908: 328 (distr.); Leng & Mutchler, 1914: 447 (distr.); Garnett, 1918: 209 (distr.); Craighead, 1921: 203 (biol.); Casey, 1924: 270 (syn.); Gowdey, 1926: 21 (distr.); Hopping, 1928a: 8 (syn.); Linsley & Martin, 1933: 181 (distr.); Linsley, 1935a: 85 (distr.); Doane *et al.*, 1936: 182 (biol.).
- Cyllene reducta* Casey, 1912: 351; Lingafelter *et al.*, 2014: 309, figs 142o, p (lect. designation).
- Type locality** – Lectotype: Texas ?. (USNM).
- Cyllene filicornis* Casey, 1912: 352; Lingafelter *et al.*, 2014: 62, figs 66g, h (holotype).
- Cyllene crinicornis filicornis*; Casey, 1924: 270.
- Type locality** – Holotype male: United States, Texas. (USNM).

## 2. *Placosternus erythropus* (Chevrolat, 1835)

**Syntypes locality** – Syntypes: Mexico. (BMNH). **Distribution** - United States (Texas), Mexico (Sonora, Durango, Jalisco, Guanajuato, Mexico, Distrito Federal, Veracruz, Hidalgo, Puebla, Morelos, Tabasco, Tamaulipas), Guatemala, Costa Rica. **Host plants** - *Baccharis neglecta* Nuttall (Asteraceae), *Acacia hindsii* Benth, *Prosopis dulcis* Kunth, *P. juliflora* (Swartz) de Candolle (Mimosaceae), *Condalia globosa* I.M. Johnston (Rhamnaceae), *Crataegus pubescens* Steudel, *Malus sylvestris* Miller, *Prunus capollin* Zuccarini, *P. domestica* Linné, *P. persica* (Linné) Batsch, *Pyrus communis* Willdenow (Rosaceae).

*Clytus erythropus* Chevrolat, 1835: (49); Laporte & Gory, 1836: 4, pl. 2, fig. 1; White, 1855: 249.

*Clytus (Cyllene) erythropus*; Chevrolat, 1860: 458.

*Cyllene erythropus*; Lacordaire, 1869: 63; Horn, 1880a: 135; Bates, 1880: 47; 1885: 294; Dugés, 1885: 40, pl. 3, figs 1-12 (larva, pupa); Perkins & Swezey, 1924: 51 (hosts); Dampf, 1929: 247 (hosts); Linsley, 1935a: 85 (distr.).

*Placosternus erythropus*; Hopping, 1937: 449; Linsley, 1964: 94; Hovore & Giesbert, 1976: 356 (distr., hosts); Hovore, Penrose & Neck, 1987: 306 (distr., biol.); Terrón, 1991: 306, fig. 15; Chemsak, Linsley & Noguera, 1992: 70 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 420 (hosts); Monné, M.A., 2001a: 42 (cat. hosts); Turnbow, Cave & Thomas, 2003: 15 (distr.); Monné, M.A., 2005: 111 (cat.); Hovore, 2006: 373 (distr.); Swift *et al.*, 2010: 14 (distr.); MacRae, Bezark & Swift, 2012: 176; García Morales *et al.*, 2015: 101 (distr.).

*Megacyllene erythropha*; Duffy, 1960: 173 (hosts).

*Clytus mexicanus* Laporte & Gory, 1836: 6, pl. 2, fig. 3; White, 1855: 250.

*Cyllene mexicana*; Bates, 1880: 47 (distr.); 1885: 294.

**Type locality** - Holotype: Mexico. (MVMA).

*Clytus variegatus* Laporte & Gory, 1836: 6, pl. 2, fig. 4; White, 1855: 250.

*Clytus (Cyllene) erythropus* var. *variegatus*; Chevrolat, 1860: 458.

**Type locality** - Holotype: Mexico. (MVMA).

#### ***Sarosesthes* Thomson 1864**

*Sarosesthes* Thomson, 1864: 185, 424; Lacordaire, 1869: 63; LeConte, 1873b: 319; Provancher, 1877: 579, 596; LeConte & Horn, 1883: 304; Leng, 1887: 195; Wickham, 1897a: 87; Blatchley, 1910: 1035; Casey, 1912: 348; Bradley, 1930: 239; Hopping, 1932: 533; 1937: 439, 452; Chagnon, 1938: 263; Knull, 1946: 215; Dillon & Dillon, 1961: 599; Chagnon & Robert, 1962: 255, 263; Arnett, 1962: 868, 887; Linsley, 1964: 102; Monné, M.A., 1993i: 23 (cat.).

**Type-species** - *Clytus fulminans* Fabricius, 1775 (original designation).

#### **1. *Sarosesthes fulminans* (Fabricius, 1775)**

**Syntypes locality** - Syntypes: America meridionali. (BMNH). **Distribution** - Eastern North America to Kansas, Iowa, and Minnesota. **Host plants** - *Conium maculatum* Linné (Apiaceae), *Castanea dentata* (Marshall) Borkhausen, *C. sativa* Miller, *Quercus alba* Linné, *Q. borealis* F. Michaux, *Q. prinus* Linné, *Q. velutina* Lamarck (Fagaceae), *Carya porcina* Nuttall, *Juglans cinerea* Linné (Juglandaceae).

*Callidium fulminans* Fabricius, 1775: 192; 1781: 241; 1787: 155; Olivier, 1790: 264, pl. 5, fig. 63; 1785: 32, pl.5, fig. 63; Fabricius, 1793: 332; 1801: 346; Palisot de Beauvois, 1821: 248, pl. 37, fig. 4; Zimsen, 1964: 181 (types).

*Cerambyx (Callidium) fulminans*; Gmelin, 1790: 1853

*Arhopalus fulminans*; Audinet-Serville, 1834a: 78; Haldeman, 1847a: 36; 1847c: 372; LeConte, 1850b: 18; 1859d: 48; Bland, 1861: 95; LeConte, 1873b: 319; Packard, 1873: 244, fig. 51 (hosts); Provancher, 1877: 597; Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (biol.); Packard, 1881: 74, 221, 243, fig. 129 (biol.); Hopkins, 1893: 194 (biol.); Hamilton, 1893a: 274 (distr.); 1893b: 326 (distr.); 1895: 338 (distr.); Beutenmuller, 1896: 76 (hosts); Wickham, 1897b: 156 (distr.); Ehrmann, 1897: 169 (hosts); Chagnon 1897: 15 (distr.); Smith, 1900: 289 (distr.); Dury, 1902: 160 (distr.); Ulke, 1903: 26,50 (distr.); Hopkins, 1904: 37 (biol.); Felt, 1906: 444 (biol.); Wickham, 1909a: 28 (distr.); Smith, 1910: 328; Blatchley, 1910: 1035, fig. 441; Leng, 1911: 215 (distr.); Fisher & Kirk, 1912: 311 (distr.); Morris, 1916: 20 (hosts);

Johnson, 1916: 119 (distr.); Chagnon, 1917: 232 (distr.); Nicolay, 1919: 67 (distr.); Britton, 1920: 269 (distr.); Morris, 1920a: 76 (distr.); Craighead, 1923: 51, pl. 42, fig. 7 (larva); Champlain, Kirk & Knull, 1925: 108 (hosts); Kirk & Knull, 1926: 39 (distr.); Leonard, 1928: 446 (distr.); Beaulne, 1932: 202 (hosts); Barrett, 1932: 289 (hosts); Herrick, 1935: 221 (hosts); Sheppard, 1936: 75 (distr.); Chagnon, 1938: 263, pl. 17, fig. 12; Loding, 1945: 119 (distr.); Sherman, 1946: 127 (distr.); Chagnon & Robert, 1962: 263, pl. 17, fig. 12.

*Clytus fulminans*; Laporte & Gory, 1836: 35, pl. 8, fig. 24; Chevrolat, 1852: 650; White, 1855: 260.

*Sarosestes fulminans*; Thomson, 1864: 185; Lacordaire, 1869: 64; Hopping, 1937: 453, pl. 3; Knull, 1946: 215, pl. 12, fig. 48; Fattig, 1947: 24 (biol.); Dillon & Dillon, 1961: 599, pl. 59, No. 11; Linsley, 1964: 130, fig. 30-2; Gosling, 1973: 80 (biol., distr.); Turnbow & Franklin, 1980: 343 (distr.); Cote & Allen, 1980: 412 (biol.); Haack, Benjamin & Haack, 1983: 48, 49 (hosts); Gosling, 1984: 73 (hosts); Chemsak, Linsley & Noguera, 1992: 70 (cat.); MacRae, 1993: 234 (distr.); Monné, M.A., 1993i: 23 (cat.); Yanega, 1996: 122, pl. 11, fig. 125; Linsley & Chemsak, 1997: 432 (hosts); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998: 119 (distr.); Vlasák & Vlasakova, 2002: 212 (distr., hosts); Lingafelter, 2007: 88, 150, pl. 21, fig. d; Guarnieri, 2009: 18 (distr.); Lacey, Millar, Moreira & Hanks, 2009: 733 (pherom.); Webster *et al.*, 2012: 314 (distr.); Holt, 2013: 247 (distr.); Spomer, 2014: 300; Klingeman, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 64, pl. 9

*Sarosestes fulminans*; Duffy, 1953: 227 (hosts, error).

### ***Triodoclytus* Casey, 1913**

*Triodoclytus* Casey, 1913: 287; Bradley, 1930: 239; Hopping, 1932: 565; Arnett, 1962: 868, 887; Linsley, 1964: 21; Hatch, 1971: 118; Monné, M.A., 1993i: 21 (cat.).

*Ochraethes* (*Triodoclytus*); Hopping, 1937: 454.

**Type species** - *Clytus laniger* LeConte, 1873 (Hopping designation, 1932: 565).

*Paraclytus* Casey, 1912: 351, 374.

**Type-species** - *Clytus laniger* LeConte, 1873 (original designation) (preoccupied by *Paraclytus* Bates, 1884).

*Synclytus* Lucas, 1920: 480 (cat.).

#### **1. *Triodoclytus laniger* (LeConte, 1873)**

**Syntypes locality** - Syntypes male and female: United States, California: Owen's Valley (MCZN). **Distribution** - United States (Southern Oregon and California).

**Host plants** - *Sambucus* sp. (Caprifoliaceae), *Pickeringia montana* Nuttall ex Torrey & Gray (Fabaceae), *Quercus chrysolepis* Liebmann (Fagaceae), *Ceanothus crassifolius* Torrey, *Rhamnus californica* Eschscholtz (Rhamnaceae).

*Clytus laniger* LeConte, 1873b: 198; Lameere, 1883: 36 (cat.); LeConte & Horn, 1883: 304; Leng, 1887: 198; Fall, 1901: 146 (distr.); Wright & Coolidge, 1908: 68 (distr.); Garnett, 1918: 209 (distr., biol.).

*Paraclytus laniger*; Casey, 1912: 374.

*Triodoclytus laniger*; Casey, 1913: 387; Leng, 1920: 278 (cat.); Hopping, 1932: 565, pl. 4, fig. 3; Moore, 1937: 90 (distr.); Leech, 1959: 44 (hosts); Linsley, 1964: 101, fig. 32; Hatch, 1971: 119, pl. 3, fig. 5; Hovore & Giesbert, 1976: 357 (hosts); Chemsak, Linsley & Noguera, 1992: 71 (cat.); Monné, M.A., 1993i: 21 (cat.); Linsley & Chemsak, 1997: 447 (hosts); Vlasák, 2014: 319 (hosts).

*Ochraethes (Triodoclytus) laniger*; Hopping, 1937: 454.

*Paraclytus brevitarsis* Casey, 1912: 375 ; Lingafelter *et al.*, 2014: 33, 369, 34k (lectotype).

*Triodoclytus brevitarsis*; Leng, 1920: 278 (cat.).

**Type locality** - Holotype male: United States, California: San Diego.(USNM).

*Paraclytus crucialis* Casey, 1912: 375; Lingafelter *et al.*, 2014: 48, fig. 50w (holotype).

*Triodoclytus crucialis*; Leng, 1920 : 278.

**Type locality** - Holotype male: United States, California: Siskiyou County. (USNM).

### ***Tylcus* Casey, 1912**

*Tylcus* Casey, 1912: 348, 351; Bradley, 1930: 239; Hopping, 1937: 451; Arnett, 1962: 868, 886; Linsley, 1964: 91; Monné, M.A., 2005: 115 (cat.); Monné, M.A., 2012: 14.

**Type-species** - *Clytus hartwegi* White, 1855 (original designation).

#### **1. *Tylcus hartwegi* (White, 1855)**

**Type locality** - Holotype: Mexico, Oaxaca. (BMNH). **Distribution** - United States (Western Texas, Davis and Chisos Mts., southern Arizona), Mexico (Baja California Sur, Sonora, Chihuahua, Guanajuato, Oaxaca, Chiapas, Hidalgo, Tamaulipas, Distrito Federal), Guatemala. **Host plants** - *Quercus* sp. (Fagaceae).

*Clytus hartwegi* White, 1855: 252, pl. 6, fig. 8; Lucas, 1857b: xlvi; Strauch, 1861: 131.

*Clytus (Trichoxys) hartwegii*; Chevrolat, 1860: 466.

*Trichoxys hartwegi*; Lacordaire, 1869: 63; Bates, 1880: 50; LeConte & Horn, 1883: 534; Bates, 1885: 296 (distr.); Leng, 1887: 197.

*Tylcus hartwegi*; Casey, 1912: 348; Hopping, 1937: 452, pl. 3; Linsley, 1964: 91, fig. 28; Hovore, 1988: 13 (distr.); Chemsak, Linsley & Noguera, 1992: 71 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 447 (hosts); Monné, M.A., 2001a: 43 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 104 (distr.); Monné, M.A., 2005: 115 (cat.); Hovore, 2006: 373 (distr.); Gutiérrez & Noguera, 2015: 144 (distr.); García Morales *et al.*, 2015: 101 (distr.).

### ***Xylotrechus* Chevrolat, 1860**

*Xylotrechus* Chevrolat, 1860: 456; Thomson, 1861: 221; 1864: 190; 1865: 424; Fairmaire in Jacquelin DuVal, 1864: 143; Lacordaire, 1869: 77; Pascoe, 1869: 606; LeConte, 1873a: 198; 1873b: 319; Provancher, 1877: 579, 598; Bates, 1880: 58; LeConte & Horn, 1883: 304; Leng, 1887: 195; Gahan, 1906: 241; Blatchley, 1910: 1036; Casey, 1912: 349, 359; Reitter, 1912: 47; Planet, 1924: 161; Bradley, 1930: 239; Hopping, 1932: 533; 1937: 439; Chagnon, 1938: 255, 263; Plavilstshikov, 1940: 336; Knull, 1946: 212, 215; Villiers, 1946: 92; Gressitt, 1951: 231; Heyrovsky, 1955: 211; Arnett, 1962: 868, 886; Chagnon & Robert, 1962: 255, 263; Linsley, 1964: 104; Hatch, 1971: 118; Monné, M.A., 2005: 116 (cat.); Sama, 2008: 229 (type-species); Bousquet, Laplante, Hammond & Langor, 2017: 67 (key spp.)

**Type-species** - *Clytus (Xylotrechus) sartori* Chevrolat, 1860 (subsequent designation, Thomson, 1861: 221).

#### **1. *Xylotrechus aceris* Fisher, 1917**



**Type locality** - Holotype male: United States, District Columbia, Washington. (USNM). **Distribution** - Northeastern United States and southern Canada. **Host plants** - *Acer pensylvanicum* Linné, *A. platanoides* Linné, *A. rubrum* Linné, *A. saccharinum* Linné, *A. saccharum* Marshall (Aceraceae).

*Xylotrechus aceris* Fisher, 1917: 215 (hosts); Nicolay, 1919: 277 (distr.); Leng, 1920: 277 (cat.); Britton, 1920: 269 (distr.); Craighead, 1923: 58, pl. 15, fig.7 (larva); Champlain, Kirk & Knull, 1925: 239 (hosts); Kirk & Knull, 1926: 40 (distr.); Leonard, 1928: 446 (distr.); Hopping, 1932: 544, pl. 2, fig. 9; Cooper, 1935: 152 (distr.); Herrick, 1935: 179 (biol.); Chagnon, 1938: 264; Knull, 1946: 217; Craighead, 1950: 269 (biol.); Anderson, 1960: 282 (hosts); Chagnon & Robert, 1962: 264; Linsley, 1964: 132; Baker, 1972: 201 (biol.); Gosling, 1973: 81 (biol., distr.); Laliberté, Chantal & LaRochelle, 1977: 100 (biol.); Turnbow & Franklin, 1980: 343 (distr.); Chemsak, Linsley & Noguera, 1992: 71 (cat.); Monné M.A., 1993i: 33 (cat.); Yanega, 1996: 112, pl. 11, fig. 131; Linsley & Chemsak, 1997: 451 (hosts); Schiefer, 2001: 334 (distr.); Vlasák & Vlasakova, 2002: 212 (distr., hosts); Korotyaev *et al.*, 2005: 253 (hosts); Lingafelter, 2007: 61, 150, 2 figs, pl.14 j (hosts); Staines, 2008: 147 (distr.); Lingafelter *et al.*, 2014: 9, fig. 8m (holotype); Webster *et al.*, 2016: 114 (distr., hosts); Haack, 2017: 118 (hosts); Klingeman *et al.*, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 69, pl.10

## 2. *Xylotrechus albonotatus* Casey, 1912

**Type locality** - Holotype male: United States, California: Siskiyou Co. (USNM). **Distribution** - United States (Sierra Nevada to southern California), Mexico (Baja California). **Host plants** - *Abies concolor* Gordon & Glen, *A. magnifica* A. Murray (Pinaceae).

*Xylotrechus albonotatus* Casey, 1912: 361; Linsley, 1964: 127, figs 39, 40 (syn.); Hovore, 1988: 13 (distr.); Chemsak, Linsley & Noguera, 1992: 71 (cat.: Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 451 (hosts); Monné, M.A., 2001a: 43 (cat. hosts); Monné, M.A., 2005: 116 (cat.); Lingafelter *et al.*, 2014: 12, figs 11u, v (holotype).

*Xylotrechus cinereus* Van Dyke, 1920: 41 (not *cinereus* Laporte & Gory, 1836).

**Type locality** - Holotype male: United States, California: Fallen Leaf Lake. (CASC).

*Xylotrechus abietis* Van Dyke, 1929: 136 (*nom. nov.*); Hopping, 1932: 539, pl. 2, figs 10, 11; Keen 1949: 93 (hosts); 1952: 197 (hosts).

## 3. *Xylotrechus bowditchi bowditchi* Hopping, 1928

**Type locality** - Holotype male: United States, Colorado: Florissant. (MCZN).

**Distribution** - United States (Colorado, Utah and northern Arizona). **Host plants** - *Picea* sp. (Pinaceae).

*Xylotrechus bowditchi* Hopping, 1928b: 247; 1932: 539; Knowlton & Wood, 1950: 12 (distr.); Chemsak, Linsley & Noguera, 1992: 71 (cat.).

*Xylotrechus bowditchi bowditchi*; Linsley, 1964: 129; Monné, M.A., 1993i: 34 (cat.); Linsley & Chemsak, 1997: 452 (hosts); Heffern, 1998: 17 (distr.).

### 3a. *Xylotrechus bowditchi hoppingi* Linsley, 1957

**Type locality** - Holotype male: United States, New Mexico: Jemez Mountains. (CASC). **Distribution** - United States (New Mexico and Colorado). **Host plants** - *Abies* sp., *Picea* sp., *Pinus* sp. (Pinaceae).

*Xylotrechus bowditchi hoppingi* Linsley, 1957c: 35; 1964: 129; Chemsak, Linsley & Noguera, 1992: 71 (cat.); Monné, M.A., 1993i: 34 (cat.); Linsley & Chemsak, 1997: 452 (hosts); Heffern, 1998: 17 (distr.).

#### 4. *Xylotrechus colonus* (Fabricius, 1775)

**Type locality** - Holotype: United States, Carolina. (Depository unknown).

**Distribution** - Eastern North America. **Host plants** - *Acer rubrum* Linné, *A. saccharum* Marshall (Aceraceae), *Betula alleghaniensis* Britton, *B. nigra* Linné (Betulaceae), *Cornus* sp. (Cornaceae), *Carpinus caroliniana* Walter (Corylaceae), *Diospyros virginiana* Linné (Ebenaceae), *Castanea dentata* (Marshall) Borkhausen, *Fagus ferruginea* Aiton, *Quercus alba* Linné, *Q. nigra* Linné, *Q. palustris* Du Roi, *Q. prinus* Linné, *Q. rubra* Linné, *Q. stellata* Wangenheim, *Q. velutina* Lamarck (Fagaceae), *Liquidambar styraciflua* Linné (Hamamelidaceae), *Carya glabra* (Miller) Sweet, *C. illinoensis* (Wangenheim) K. Koch, *C. ovata* (Miller) K. Koch, *C. tomentosa* Nuttall, *Juglans nigra* Linné (Juglandaceae), *Nyssa* sp. (Nyssaceae), *Fraxinus americana* Linné (Oleaceae), *Pinus contorta* Douglas ex Loudon, *Tsuga canadensis* (Linné) Carrière (Pinaceae), *Malus* sp. (Rosaceae), *Salix exigua* Nuttall (Salicaceae), *Ulmus alata* Michaux, *U. americana* Linné (Ulmaceae).

*Callidium colonum* Fabricius, 1775: 191; 1781: 241; 1787: 155; Olivir, 1790: 259, pl. 6, fig. 67; Fabricius, 1793: 331; Olivier, 1795: 31, pl. 6, fig. 67; Zimsen, 1964: 180 (types).

*Cerambyx* (*Callidium*) *colonum*; Gmelin, 1790: 1852.

*Callidium coloreum* Fabricius, 1801: 345 (error).

*Clytus colonus*; Schoenherr, 1817: 468; LeConte, 1850b: 28; 1858a: 41 (distr.); Bland, 1861: 96 (distr., hosts).

*Xylotrechus colonus*; Austin, 1874: 270 (distr.); Provancher, 1877: 599; Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (hosts); Packard, 1881: 27, 114 (biol.); 1883: 259, pl. 12, fig. 3 (biol.); Harrington, 1884: 46 (hosts); Townsend, 1885: 70 (distr.); Horn, 1886a: 138; Harrington, 1887: 30 (biol.); Leng, 1887: 199; Saunders, 1887: 29 (distr.); Packard, 1890: 77, 424, 485, 536, fig. 26, pl. 22, figs 2, 2a, 3 (larva); Caulfield, 1890: 57 (biol.); Hopkins, 1893: 194 (biol.); Chittenden, 1894: 97 (paras., hosts); Hamilton, 1895: 338 (distr.); Slossom, 1895b: 319 (distr.); Evans, 1895b: 173 (distr.); Beutenmuller, 1896: 76 (hosts); Wickham, 1897a: 151, fig. 25; 1897b: 156 (distr.); Hopkins, 1898b: 46 (biol.); Smith, 1900: 290 (distr.); Dury, 1902: 160 (distr.); Ulke, 1903: 26, 50 (distr.); Hopkins, 1904: 38 (biol.); Melander, 1904: 20 (hosts); Felt, 1905: 259, fig. 44 (biol.); Champlain, 1909: 180 (distr.); Morris, 1909: 417 (biol.); Wickham, 1909a: 28 (distr.); Blatchley, 1910: 1037, fig. 442; Smith, 1910: 328; Leng, 1910: 77 (distr.); Aurivillius, 1912: 363 (cat.); Fisher & Kirk, 1912: 311 (distr.); Frost, 1912: 307 (biol.); Kaeber, 1913: 430 (hosts); Lovell, 1915: 115; Chagnon, 1917: 232 (distr.); Dozier, 1918: 334 (distr.); Nicolay, 1919: 67 (distr.); Britton, 1920: 269 (distr.); Cushman & Rohwer, 1921: 441 (paras.); Craighead, 1921: 195 (biol.); 1923: 57, pl. 18, fig. 5, pl. 20, fig. 5 (larva); Felt, 1923: 87 (biol.); Blackman & Stage, 1924: 100 (biol.); Champlain, Kirk & Knul, 1925: 139 (hosts); Hatch, 1925: 580 (distr.); Ortenburger & Hatch, 1926: 147 (distr.); Kirk & Knul, 1926: 40 (distr.); Brues, 1927: 77; Leonard, 1928: 446 (distr.); St. George, 1929: 8 (biol.); Ware, 1929: 368 (distr.); Hopping, 1932: 543, pl. 2, fig. 1; Beaulne, 1932: 202 (hosts); Barrett, 1932: 291 (hosts); Goldman, 1933: 89, pl. 5, figs 16-18 (morphol.); Belkin, 1934: 222 (distr.); Herrick, 1935: 221 (hosts); Doane *et al.*, 1936: 183; Frost, 1937: 202 (distr.); Chagnon, 1938: 86 (distr.); Savely, 1939: 340 (biol.); Townes, 1944: 773 (paras.); Loding, 1945: 119

(distr.); Knull, 1946: 217; Procter, 1946: 181 (biol.); Craighead, 1950: 271; Beal, Haliburton & Knight, 1952: 111 (biol.); Duffy, 1953: 232, fig. 207 (larva); Alexander, 1958: 51 (distr.); Anderson, 1960: 276; Gardiner, 1960: 280, figs 1-15 (larva); Dillon & Dillon, 1961: 602, pl. 59, No. 10; Chagnon & Robert, 1962: 264; Linsley, 1964: 111, fig. 35; Galford, 1969: 2 (biol.); Swan & Papp, 1972: 448, fig. 949; Baker, 1972: 202, fig. 70 (biol.); Gosling, 1973: 80, fig. 50 (biol., distr.); Perry, 1975: 59 (hosts); Kirk & Balsbaugh, 1975: 99 (distr.); Solomon, Doolittle & Spilman, 1976: 290; Stein & Tagestad, 1976: 49 (distr.); Laliberté, Chantal & LaRoche, 1977: 100 (biol.); Turnbow & Franklin, 1980: 343 (distr.); Cote & Allen, 1980: 412 (biol.); Haack, Benjamin & Haack, 1983: 49 (hosts); Gosling, 1984: 73 (hosts); Waters & Hyche, 1984: 286 (distr.); Gosling, 1986: 158 (hosts); Chemsak, Linsley & Noguera, 1992: 71 (cat.); Monné, M.A., 1993i: 34 (cat.); MacRae, 1993: 234 (distr., hosts); Lingafelter & Horner, 1993: 175 (distr.); Yanega, 1996: 123, pl. 11, fig. 129; Krinsky & Godwin, 1996: 238 (hosts); Linsley & Chemsak, 1997: 452 (hosts); Heffern, 1998: 17 (distr.); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998: 119 (distr.); Vlasák & Vlasakova, 2002: 212 (distr., hosts); Ginzl *et al.*, 2003: 533 (pherom.); Ginzl & Hanks, 2005: 214 (biol., hosts); Majka, McCorquodale & Smith, 2007: 261 (distr.); MacRae & Rice, 2007: 245 (distr., hosts); Lingafelter, 2007: 62, 151, 2 figs, pl. 25, fig. a (hosts); Guarnieri, 2009: 18 (distr.); Lacey, Millar, Moreira & Hanks, 2009: 733 (pherom.); Webster McCorquodale, 2010: 469 (distr.); Holt, 2013: 247 (distr.); Steury & MacRae, 2014: 11 (distr.); Haack, Keena & Eyre, 2017: 78 (biol.); Klingeman *et al.*, 2017: 296 (distr.); DiGirolomo & Dodds, 2017: 410 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 70, pl.10

*Callidium campestre* Olivier, 1795: 65, pl. 8, fig. 95

*Clytus campestris*; Schoenherr, 1817: 473; Haldeman, 1847a: 40; LeConte, 1850b: 27; Emmons, 1854: 118, pl. 8, fig. 5; Reed, 1868: 19 (distr.).

*Xylotrechus campestris*; Thomson, 1861: 221; Lacordaire, 1869: 79

**Type locality** – Holotype: Amérique Septentrionale. (Depository unknown).

*Callidium villicum* Olivier, 1795: 64, pl. 8, fig. 94; Schoenherr, 1817: 459.

*Clytus colonus* var. *villicus*; Gemminger & Harold, 1872: 2926 (cat.).

*Xylotrechus colonus* ab. *villicus*; Aurivillius, 1912: 364 (cat.).

**Type locality** - Holotype: Amérique Septentrionale. (MNHN).

*Callidium terminans* Fabricius, 1798: 151; 1801: 345; Schoenherr, 1817: 457; Zimsen, 1964: 180 (types).

*Clytus terminans*; Laporte & Gory, 1836: 83, pl. 15, fig. 96; White, 1855: 277.

**Syntypes locality** - Syntypes: America Borealis. (ZMUC).

*Clytus Upsilon* Stephens, 1831: 244.

**Syntypes locality** - Syntypes: England, Derbshire, near Norwood. (BMNH).

*Clytus agrestis* LeConte, 1850b: 28.

*Xylotrechus colonus* ab. *agrestis*; Aurivillius, 1912: 363 (cat.).

**Type locality** - Holotype: United States, Georgia. (MCZN).

##### 5. *Xylotrechus convergens* LeConte, 1873

**Type locality** - Holotype: United States, Ohio. (MCZN). **Distribution** - Eastern North America to Iowa. **Host plants** - *Crataegus viridis* Linné (Rosaceae).

*Xylotrechus convergens* LeConte, 1873a: 198; Webster, 1879: 20; LeConte, 1880b: xxiv s/p (hosts); Myers, 1881: 151 (biol.); Packard, 1881: 137 (biol.); Lameere, 1883: 36 (cat.); Leng, 1887: 198; Packard, 1890: 536 (hosts); Beutenmuller, 1896: 76 (hosts); Dury, 1902 : 160 (distr.) ; Wickham, 1909a: 28 (distr.); Blatchley, 1910:

1036; Leng, 1920: 277 (cat.); Craighead, 1923: 56 (larva); Kirk & Knull, 1926: 40 (distr.); Leonard, 1928: 447 (distr.); Hopping, 1932: 545, pl. 2, fig. 8 (hosts); Knull, 1946: 218 ; Linsley, 1964: 129 ; Gosling, 1973: 81 (biol., distr.); Stein & Tigestad, 1976: 50 (distr.); Turnbow & Franklin, 1980: 343 (distr.); Chemsak, Linsley & Noguera, 1992: 71 (cat.); Monné, M.A. , 1993i: 35 (cat.); MacRae, 1993: 234 (distr.); Yanega, 1996: 123, pl., fig. 114; Linsley & Chemsak, 1997: 452 (hosts); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998 : 119 (distr.); MacRae & Rice, 2007: 245 (distr., hosts); Lingafelter, 2007: 62, 151, 2 figs, pl. 14, fig. m (hosts); Holt, 2013: 247 (distr.); Hart, Cope & Ivie, 2013: 135 (distr.); Spomer, 2014: 300 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 70

#### 6. *Xylotrechus gemellus* Casey, 1893

**Type locality** - Lectotype male: United States, Indiana. (USNM). **Distribution** - United States (Indiana).

*Xylotrechus gemellus* Casey, 1893: 590; Leng & Hamilton, 1896: 172; Knowlton, 1934: 86 (distr.); Linsley, 1964: 121; Chemsak, Linsley & Noguera, 1992: 71 (cat.); Monné, M.A., 1993i: 36 (cat.); Yanega, 1996: 123, pl. 11, fig. 121; Heffern, 1998: 17 (syntypes); Lingafelter *et al.*, 2014: 69, fig. 74 a (lectotype).

*Xylotrechus undulatus gemellus*; Leng, 1920 : 277 (cat.).

#### 7. *Xylotrechus hovorei* Swift, 2007

**Type locality** - Holotype male: United States, California: San Bernardino County, Mount Baldy Road. (USNM). **Distribution** - United States (California). **Host plants** - *Alnus rhombifolia* Nuttall (Betulaceae).

*Xylotrechus hovorei* Swift, 2007: 287, fig. 1a; Lingafelter *et al.*, 2014: 77, fig. 83o (holotype).

#### 8. *Xylotrechus insignis* LeConte, 1873

**Type locality** – Holotype: United States, California. (MCZN). **Distribution** - United States (Pacific coast from Oregon to southern California), Mexico (Baja California). **Host plants** - *Salix* sp. (Salicaceae).

*Xylotrechus insignis* LeConte, 1873a: 199; Casey, 1891: 35; 1912: 366; 1913: 387 (syn.); Garnett, 1918: 209 (distr.); Van Dyke, 1920: 42 (syn.); Craighead, 1923: 58 (larva); Essig, 1926: 457 (biol.); Hopping, 1932: 541, pl. 2, figs 13, 14; Linsley, 1935b: 163, figs 2, 2A; Doane *et al.*, 1936: 184 (biol.); Linsley, 1942: 55; Keen, 1952: 197 (hosts); Chemsak, 1958: 41 (hosts); Linsley, 1964: 117, figs 35, 37; Tyson, 1966: 207 (hosts); Hatch, 1971: 120, pl. 13, figs 7, 7a; Chemsak, Linsley & Noguera, 1992: 71 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 454 (hosts); Monné, M.A., 2001a: 44 (cat. hosts); Monné, M.A., 2005: 116 (cat.); Ray, Lacey & Hanks, 2006: 546 (pheromones).

*Xylotrechus obliterated*; Leng, 1887: 199; Fall, 1901: 147 (not LeConte, 1873).

*Xylotrechus incongruens* Casey, 1912: 366; Lingafelter *et al.*, 2014: 79, figs 86q, r (lect. designation).

*Xylotrechus insignis* var. *incongruens*; Linsley, 1964: 119.

**Type locality** – Lectotype: United States, California: Humboldt Co., Hoopa Valley. (USNM).

*Xylotrechus disruptus* Casey, 1912: 367; Lingafelter *et al.*, 2014: 54, figs 57e, f (holotype).

**Type locality** – Holotype: United States, California: Los Angeles Co. (USNM).

**9. *Xylotrechus integer* (Haldeman, 1847)**

**Type locality** - Holotype: United States, Pennsylvania. (MCZN). **Distribution** - Eastern Canada and northeastern United States from New Brunswick to West Virginia. **Host plants** - *Chamaecyparis thyoides* (Linné) Britton, Sterns & Poggenburg (Cupressaceae), *Abies balsamea* (Linné) Miller, *Tsuga canadensis* (Linné) Carrière (Pinaceae).

*Clytus undulatus* var. *integer* Haldeman, 1847a: 41.

*Xylotrechus undulatus* ab. *integer*; Aurivillius, 1912: 365.

*Xylotrechus undulatus* var. *integer*; Leng, 1920: 277 (cat.).

*Xylotrechus integer*; Linsley, 1964: 123; Morris, 1987: 141 (distr.); Chemsak, Linsley & Noguera, 1992: 71 (cat.); Monné, M.A., 1993i: 36 (cat.); Yanega, 1996: 123, pl. 11, fig. 123; Linsley & Chemsak, 1997: 453 (hosts); Vlasák & Vlasakova, 2002: 212 (distr., hosts); Lingafelter, 2007: 63, 151, 2 figs, pl. 15, fig. c (hosts); Majka, McCorquodale & Smith, 2007: 261 (distr.); McCorquodale, 2010: 469 (distr.); Klingeman *et al.*, 2017: 296 (distr.); DiGirolamo & Dodds, 2017: 410 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 70, pl.11

*Clytus fuscus* LeConte, 1850b: 27 (not Kirby); 1858a: 41.

*Xylotrechus undulatus* var. *fuscus*; Leng, 1887: 4; Blatchley, 1910: 1037; Casey, 1912: 359; Frost, 1912: 307; Britton, 1920: 269 (distr.); Leng, 1920: 277 (cat.); Kirk & Knoll, 1926: 40 (distr.); Procter, 1927: 112 (distr); Leonard, 1928: 446; Procter, 1946: 181 (biol.).

*Xylotrechus fuscus*; Nicolay, 1917: 94 (distr.); Van Dyke, 1920: 42 (distr.); Hopping, 1932: 538, pl. 2, fig.4; Beaulne, 1932: 202 (hosts).

*Xylotrechus annosus fuscus*; Craighead, 1923: 57 (larva).

*Xylotrechus undulatus fuscus*; Brues, 1927: 77.

*Xylotrechus frosti* Van Dyke, 1937: 114; Knoll, 1946: 216.

**Type locality** - Holotype male: Canada, New Brunswick, Bathurst. (CASC).

**10. *Xylotrechus lengii* Schaeffer, 1908**

**Type locality** - Holotype: United States, Oregon: Dilley. (USNM). **Distribution** - Pacific coast of North America from British Columbia to California. **Host plants** - *Abies concolor* Gordon & Glen, *Pseudotsuga menziesii* (Mirbel) Franco, *P. taxifolia* (Poiret) Britton (Pinaceae).

*Xylotrechus lengii* Schaeffer, 1908: 340; Leng, 1920: 277 (cat.); Hopping, 1932: 540, pl. 4, fig. 2 (hosts); Linsley, 1964: 125; Hatch, 1971: 120; Cope, 1984a: 35 (hosts); Chemsak, Linsley & Noguera, 1992: 71 (cat.); Monné, M.A., 1993i: 36 (cat.); Linsley & Chemsak, 1997: 453 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 70, pl.11

**11. *Xylotrechus mormonus* (LeConte, 1861)**

**Type locality** - Holotype: United States, Utah. (MCZN). **Distribution** - Yukon Territory to Manitoba to northern California and Utah. **Host plants** - *Populus tremuloides* Michaux, *Salix* sp. (Salicaceae).

*Clytus mormonus* LeConte, 1861: 357.

*Xylotrechus mormonus* Lacordaire, 1869: 79; LeConte, 1873a: 200; Leng, 1887: 200; 1920: 277 (cat.); Linsley, 1964: 116; Barr & Penrose, 1969: 94 (distr.); Hatch, 1971: 120; Chemsak, Linsley & Noguera, 1992: 61 (cat.); Monné, M.A., 1993i: 37 (cat.); Linsley & Chemsak, 1997: 453 (hosts); Rice, MacRae & Merickel, 2017: 670 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 70, pl.11

*Xylotrechus obliterated* Hopping, 1932: 534, 542, pl. 2, fig.16 (not LeConte, 1873).

**12. *Xylotrechus nitidus* (Horn, 1860)**

**Syntypes localities** - Syntypes: United States, Texas: Comal County; New Jersey: Gloucester County. (MCZN). **Distribution** - Northeastern United States to Texas.

*Clytus nitidus* Horn, 1860: 570, pl. 8, fig. 2; Bland, 1861: 96 (distr.).

*Xylotrechus nitidus*; Horn, 1875: 150; Leng, 1887: 198; Smith, 1910: 329; Blatchley, 1910: 1036; Fisher & Kirk, 1912: 311 (distr.); Leng, 1920: 277 (cat.); Kirk & Knull, 1926: 40 (distr.); Hopping, 1932: 545, pl. 4, fig. 14; Knull, 1946: 218, pl. 17, fig. 49; Sherman, 1946: 127 (distr.); Linsley, 1964: 130, fig. 41; Turnbow & Franklin, 1980: 343 (distr.); Chemsak, Linsley & Noguera, 1992: 72 (cat.); Monné, M.A., 1993i: 37 (cat.); Yanega, 1996: 123, pl. 10, fig. 113; Klingeman *et al.*, 2017: 296 (distr.).

**13. *Xylotrechus nunenmacheri* Van Dyke, 1920**

**Syntype locality** - Syntypes male: United States, Oregon: Josephine County, Kerby. (CASC). **Distribution** - United States (Southwestern Oregon). **Host plants** - *Salix* sp. (Salicaceae).

*Xylotrechus insignis* race *nunenmacheri* Van Dyke, 1920: 43.

*Xylotrechus nunenmacheri*; Hopping, 1932: 542, pl. 2, fig. 15; Linsley, 1935b: 161, figs. 1,1a; 1964: 119; Hatch, 1971: 120, pl. 13, figs 8, 8a; Chemsak, Linsley & Noguera, 1992: 72 (cat.); Monné, M.A., 1993i: 38 (cat.); Linsley & Chemsak, 1997: 453 (hosts);

*Xylotrechus uniformis* Casey, 1924: 270; Lingafelter *et al.*, 2014: 338, fig. 176w (holotype).

**Type locality** - Holotype male: United States, Oregon: Josephine County, Kerby. (USNM).

**14. *Xylotrechus obliteratus* LeConte, 1873**

**Syntypes locality** - Syntypes: United States, Colorado. (MCZN). **Distribution** - United States (Rocky Mts., above 8,500 ft elev.). **Host plants** - *Populus tremuloides* Michaux (Salicaceae).

*Xylotrechus obliteratus* LeConte, 1873a: 199; Fall & Cockerell, 1907: 192 (distr.); Wright & Coolidge, 1908: 68 (distr.); Casey, 1912: 365; 1913: 387; Van Dyke, 1920: 43 (dist.); Leng, 1920: 277 (cat.); Craighead, 1923: 58 (larva); Essig, 1926: 457 (biol.); Spencer, 1932: 25; Hopping, 1932: 542; Herrick, 1935: 574 (hosts); Knowlton & Thatcher, 1936: 279 (biol.); Hatch, 1939: 49 (distr.); Craighead, 1950: 270 (biol.); Keen, 1952: 197 (hosts); Anderson, 1960: 275; Linsley, 1964: 120; Baker, 1972: 202 (biol.); Furniss & Carolin, 1977: 307 (biol.); Chemsak, Linsley & Noguera, 1992: 72 (cat.); Monné, M.A., 1993i: 38 (cat.); Linsley & Chemsak, 1997: 453 (hosts); Heffern, 1998: 17 (distr.).

*Clytus obliteratus*; Lameere, 1883: 37 (cat.).

**15. *Xylotrechus quadrimaculatus* (Haldeman, 1847)**

**Type locality** - Holotype: United States, Pennsylvania. (MCZN), **Distribution** - Eastern Canada and northeastern United States. **Host plants** - *Alnus* sp., *Betula* sp. (Betulaceae), *Carpinus caroliniana* Walter (Corylaceae), *Fagus ferruginea* Aiton (Fagaceae).

*Clytus 4-maculatus* Haldeman, 1847a: 41; LeConte, 1850b: 29; Bland, 1861: 96 (distr., hosts); Pettit, 1871: 106 (distr.).

*Xylotrechus quadrimaculatus*; Provancher, 1877: 600; Hamilton, 1895: 338 (distr.); Slossom, 1895a: 6 (distr.); Wickham, 1897a: 150; Harrington, 1897: 73 (biol.); Smith, 1900: 290 (distr.); Ouellet, 1902: 122 (distr.); Ulke, 1903: 26, 50 (distr.); Blatchley, 1910: 1036; Smith, 1910: 328; Frost, 1916: 388 (distr.); Chagnon, 1917: 232 (distr.); Leng, 1920: 77 (cat.); Britton, 1920: 269 (distr.); Craighead, 1923: 59, pl. 40, fig. 1 (larva); Champlain, Kirk & Knull, 1925: 108 (biol.); Kirk & Knull, 1926: 40 (distr.); Leonard, 1928: 446 (distr.); Ware, 1929: 368 (distr.); Beaulne, 1932: 202 (hosts); Hopping, 1932: 545, pl. 2, fig. 5; Knull, 1934b: 210 (hosts); Chagnon, 1938: 264; Knull, 1946: 218; Craighead, 1950: 270 (biol.); Chagnon & Robert, 1962: 264; Linsley, 1964: 131; Baker, 1972: 201; Gosling, 1973: 81 (biol., distr.); Laliberté, Chantal & LaRoche, 1977: 100 (biol.); Gosling, 1986: 158 (hosts); Chemsak, Linsley & Noguera, 1992: 72 (cat.); Monné, M.A., 1993i: 38 (cat.); Yanega, 1996: 123, pl. 11, fig. 132; Linsley & Chemsak, 1997: 453 (hosts); Vlasák & Vlasakova, 2002: 212 (distr., hosts); Lingafelter, 2007: 61, 151, 2 figs, pl. 14, fig. k (hosts); McCorquodale, 2010: 469 (distr.); Haack, 2017: 117 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 71, pl. 11

*Xylotrechus 4-maculatus*; Leng, 1887: 198; Bowditch, 1896: 33 (biol.).

#### 16. *Xylotrechus quercus* Schaeffer, 1905

**Syntypes locality** – Syntypes male and female: United States, Arizona: Huachuca Mts. (Miller's Canyon). (USNM). **Distribution** - United States (southeastern Arizona), Mexico (Chihuahua, Sinaloa). **Host plants** - *Quercus* sp. (Fagaceae).

*Xylotrechus quercus* Schaeffer, 1905: 163; 1908: 330 (distr.); Hopping, 1932: 544, pl. 4, fig. 1; Linsley, Knull & Statham, 1961b: 19 (distr.); Linsley, 1964: 108; Chemsak & Linsley, 1974b: 137 (distr.); Hovore & Giesbert, 1976: 357 (hosts); Chemsak, Linsley & Noguera, 1992: 72 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 453 (hosts); Monné, M.A., 2001a: 44 (cat. hosts); Monné, M.A., 2005: 117 (cat.); Lingafelter *et al.*, 2014: 308, figs 141w, x (holotype).

#### 17. *Xylotrechus rameyi* Alten, 2014

**Type locality** - Holotype male: United States, Utah: Kane County, Mount Carmel Junction, 1.5 miles south of junction state highways 9 and 89A (East fork of the Virgin River) [37.20° N, 112.69° W]. (USNM). **Distribution** - United States (Southern Utah and northern Arizona)

*Xylotrechus rameyi* Alten, 2014: 1, 6, figs. 1-4.

#### 18. *Xylotrechus robustus* Hopping, 1941

**Type locality** - Holotype male: United States, Colorado: Griffith Mill, Estes Park. (CASC). **Distribution** - Northern Colorado (Estes Park, Steamboat Springs) through western Colorado (Ouray) to eastern Arizona (Greer). **Host plants** - *Picea* sp. (Pinaceae).

*Xylotrechus robustus* Hopping, 1941: 29; Linsley, 1964: 122; Chemsak, Linsley & Noguera, 1992: 72 (cat.); Monné, M.A., 1993i: 38 (cat.); Heffern, 1998: 17 (distr., hosts).

#### 19. *Xylotrechus sagittatus sagittatus* (Germar, 1821)

**Type locality** - Holotype: America Septentrionalis. (MNHU). **Distribution** - Eastern Canada to Florida and New Mexico. **Host plants** - *Juniperus virginiana* Linné (Cupressaceae), *Quercus rubra* Linné (Fagaceae), *Abies* sp., *Picea* sp., *Pinus*

- banksiana* Lambert, *P. contorta* Douglas ex Loudon, *P. echinata* Miller, *P. palustris* Miller, *P. rigida* Miller, *P. sylvestris* Linné (Pinaceae).
- Clytus sagittatus* Germar, 1821: 171; Laporte & Gory, 1836: 82, pl. 15, fig. 95; LeConte, 1852: 177 (syn.); White, 1855: 277; LeConte, 1866: 349 (distr.).
- Neoclytus sagittarius*; Thomson, 1861: 226 (error); Hamilton, 1895: 338 (error).
- Xylotrechus sagittatus*: Provancher, 1877: 599; Snow, 1883: 42 (distr.); Leng, 1887: 198; Hamilton, 1893a: 274 (distr.); Evans, 1895b: 173 (distr.); Wickham, 1897a: 150; 1897b: 157 (distr.); Smith, 1900: 290 (distr.); Bowditch, 1903: 46 (distr.); Ulke, 1903: 26, 50 (distr., hosts); Snow, 1906a: 146, 149 (distr.); 1906b: 170 (distr.); Felt, 1906: 663, fig. 191 (distr.); Fall & Cockerell, 1907: 192 (distr.); Wickham, 1909a: 402 (distr.); Blatchley, 1910: 1036; Smith, 1910: 328; Casey, 1912: 363; Fisher & Kirk, 1912: 311 (distr.); Davis & Leng, 1912: 121 (hosts); Chagnon, 1917: 232 (distr.); Dozier, 1918: 335; Nicolay, 1919: 67; Dozier, 1920: 366 (distr.); Britton, 1920: 269 (distr.); Craighead, 1923: 57 (larva); Kirk & Knull, 1926: 40 (distr.); Leonard, 1928: 446 (distr.); Hopping, 1932: 534, pl. 2, fig. 2; Beaulne, 1932: 202 (hosts); Chagnon, 1938: 263, pl. 17, fig. 10; Brimley, 1938: 215 (distr.); Savely, 1939: 279 (hosts); Loding, 1945: 119 (distr.); Knull, 1946: 216; Fattig, 1947: 25 (biol.); Beal, Haliburton & Knight, 1952: 121 (biol.); Gardiner, 1957: 249, figs 2, 25 (larva); Alexander, 1958: 51 (distr.); Anderson, 1960: 278; Chagnon & Robert, 1962: 263, pl. 17, fig.10; Linsley, 1964: 107; Baker, 1972: 202 (biol.); Laliberté, Chantal & LaRochelle, 1977: 100 (biol.); Furniss & Carolin, 1977: 308 (hosts); Turnbow & Franklin, 1980: 343 (distr.); Waters & Hyche, 1984: 286 (distr.); Chemsak, Linsley & Noguera, 1992: 72 (cat.); Lingafelter, 2007: 63, 151, 2 figs, pl. 14, fig. n (hosts); Martins & Galileo, 2011: 7 (distr.).
- Xylotrechus sagittatus sagittatus*; Chemsak, 1959: 114; Linsley, 1964: 107, fig. 33; Gosling, 1973: 80, fig. 49 (biol., distr.); Perry, 1975: 59 (distr., hosts); MacRae, 1993: 234 (distr., hosts); Monné, M.A., 1993i: 39 (cat.); Yanega, 1996: 123, pl. 11, fig. 130; Browne & Peck, 1996: 2159 (distr.); Linsley & Chemsak, 1997: 454 (hosts); Schiefer, 1998: 119 (distr.); Heffern 1998: 17 (distr.); Vlasák & Vlasakova, 2002: 212 (distr., hosts); Smith & Hurley, 2005: 488 (distr.); Webster, McCorquodale & Majka, 2009: 298 (distr.); Guarnieri, 2009: 18 (distr.); McCorquodale, 2010: 469 (distr.); Holt, 2013: 247 (distr., hosts); Webster *et al.*, 2016: 114 (distr., hosts); Klingeman *et al.*, 2017: 296 (distr.); DiGirolomo & Dodds, 2017: 409 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 71, pl.11
- Clytus pubescens* Haldeman, 1847a: 40; LeConte, 1850b: 28; Bland, 1861: 96 (distr.); Evett, 1861: 32 (distr.).
- Xylotrechus pubescens*; Lacordaire, 1869: 79.
- Xylotrechus sagittatus pubescens*; Leng, 1920: 277 (cat.).
- Syntypes locality** - Syntypes male and female: United States, Pennsylvania. (MCZN).
- Xylotrechus cylindrus* Casey, 1912: 364; Leng, 1920: 277 (cat.); Lingafelter *et al.* 2014: 49, fig. 42o (holotype).
- Type locality** - Holotype male: United States, Wisconsin: Bayfield. (USNM).
- Xylotrechus salebrosus* Casey, 1912: 364; Leng, 1920: 277 (cat.); Brimley, 1938: 215 (distr.); Lingafelter, 2014: 313, fig. 148c (holotype).
- Type locality** - Holotype female: United States, New Mexico. (USNM).

### 19a. *Xylotrechus sagittatus chiricahuae* Chemsak, 1959



**Type locality** – Holotype male: United States, Arizona: Chiricahua Mts., Southwestern Research Station. (CASC). **Distribution** - United States (Arizona), Mexico (Durango, Chiapas). **Host plants** - *Abies* sp., *Pinus leiophylla chihuahuana* (Engelmann) A.E. Murray (Pinaceae).

*Xylotrechus sagittatus chiricahuae* Chemsak, 1959b: 114; Linsley, Knull & Statham, 1961b: 19 (distr.); Linsley, 1964: 108, fig. 33; Ruetter, 1970: 22 (paratype); Hovore & Giesbert, 1976: 357 (hosts); Chemsak, Linsley & Noguera, 1992: 72 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 454 (hosts); Monné, M.A., 2001a: 45 (cat. hosts); Monné, M.A., 2005: 117 (cat.); Noguera & Gutiérrez, 2016: 658 (distr.).

## 20. *Xylotrechus schaefferi* Schott, 1925

**Type locality** - Holotype: United States, New Jersey: Lakehurst. (AMNH). **Distribution** - United States (New York, New Jersey, Massachusetts, Connecticut) and Canada (Ontario, Manitoba, Quebec). **Host plants** - *Pinus banksiana* Lambert, *P. rigida* Miller (Pinaceae).

*Xylotrechus schaefferi* Schott, 1925: 244, pl. 11; Hopping, 1932: 540, pl. 5, fig. 2; Linsley, 1964: 117; Hoebeke & Huether, 1990: 445, figs 1-8 (larva, hosts, biol.); Chemsak, Linsley & Noguera, 1992: 72 (cat.); Monné, M.A., 1993i: 39 (cat.); Yanega, 1996: 123, pl. 11, fig. 120; Lingafelter, 2007: 62, 64, 151, 2 figs, pl. 14, fig. n (hosts); Haack, 2017: 114 (biol.); Bousquet, Laplante, Hammond & Langor, 2017: 71, pl.11

## 21. *Xylotrechus undulatus* (Say, 1824)

**Syntypes locality** - Syntypes male and female: United States, Northwest Territory. (Depository unknown). **Distribution** - Eastern Canada and Great Lakes region to Yukon Territory and central Alaska. **Host plants** - *Abies balsamea* (Linné) Miller, *Larix laricina* (Duroi) K. Koch, *Picea glauca* (Moench) Voss, *Pinus contorta* Douglas ex Loudon, *P. monticola* Douglas ex D. Don, *P. strobus* Linné, *Pseudotsuga menziesii* (Mirbel) Franco, *Tsuga canadensis* (Linné) Carrière (Pinaceae).

*Clytus undulatus* Say, 1824: 291; 1828: 119, pl. 53; Laporte & Gory, 1836: 57, pl. 11, fig. 56; Haldeman, 1847a: 41; 1847c: 372; LeConte, 1850a: 234; 1850b: 27; White, 1855: 267; LeConte, 1857: 6, 23 (distr.); 1859d: 48 (distr.); 1859c: 193, pl. 53, fig. 3; Saunders, 1868: 13 (distr.); LeConte, 1869: 371 (distr.).

*Clytus (Xylotrechus) undulatus*; Chevrolat, 1860: 456.

*Xylotrechus undulatus*; Lacordaire, 1869: 79; Austin, 1874: 270 (distr.); Horn, 1876: 169 (syn.); Provancher, 1877: 600; LeConte, 1878b: 462 (distr.); Snow, 1881: 70 (distr.); 1883: 42 (distr.); Leng, 1887: 199; 1887: 4; Holland, 1888: 91 (distr.); Packard, 1890: 830, fig. 281 (biol.); Harrington, 1890: 185 (distr.); Hamilton, 1895: 338 (distr.); Evans, 1895b: 173 (distr.); Beutenmuller, 1896: 76 (hosts); Chagnon, 1897: 15 (distr.); Wickham, 1897a: 151; 1897b: 157; Warren, 1899: 296 (distr.); Wickham, 1899c: 7 (distr.). 1899b: 123 (distr.); Smith, 1900: 290 (distr.); Fall, 1901: 147 (distr.); Hopkins, 1904: 37 (biol.); Chagnon, 1905: 36 (distr.); Snow, 1906b: 179 (distr.); Felt, 1906: 671, fig. 198 (distr.); Fall & Cockerell, 1907: 192 (distr.); Adams, 1909: 199 (biol.); Wickham, 1909a: 28 (distr.); Smith, 1910: 329; Blatchley, 1910: 1037; Sherman, 1910: 194 (distr.); Fisher & Kirk, 1912: 311 (distr.); Casey, 1912: 361; Chagnon, 1917: 232 (distr.); Garnett, 1918: 209 (distr., hosts); Britton, 1920: 269 (distr.); Leng, 1920: 277 (cat.); Craighead, 1923: 58; Hatch, 1925: 580 (distr.); Fall, 1926: 202 (distr.); Kirk & Knull, 1926: 40 (distr.);

Essig, 1926: 457 (hosts); Hopping, 1932: 566, pl. 5, fig. 12 (hosts); Beaulne, 1932: 202 (hosts); Ingles, 1933: 59; Brown, 1934: 229 (distr.); DeLeon, 1934: 57 (hosts); Mank, 1934: 80 (distr.); Doane *et al.*, 1936: 183; Van Dyke, 1937: 113 (syn.); Bedard, 1938: 193 (hosts); Chagnon, 1938: 264, pl. 17, fig. 11; 1939: 86; Hatch, 1939: 49 (distr.); Chagnon, 1939: 86; Hardy, 1942: 11 (biol.); Knull, 1946: 216; Leech, 1947: 108 (hosts); Hardy, 1948: 33; Tilden, 1950: 46 (distr.); Keen 1952: 107 (hosts); Clark, 1956: 41 (distr.); Gardiner, 1957: 249 (biol.); Dillon & Dillon, 1961: 599, pl. 59, No. 7; Chagnon & Robert, 1962: 264, pl. 17, fig. 11; Linsley, 1964: 123, fig. 39; Ross, 1968: 11 (biol.); Gosling, 1973: 81 (biol., distr.); Kirk & Balsbaugh, 1975: 99 (distr.); Stein & Tigestad, 1976: 50 (distr.); Laliberté, Chantal & LaRoche, 1977: 100 (biol.); Furniss & Carolin, 1977: 307 (hosts); Gosling, 1984: 73 (hosts); 1986: 158 (hosts); Drouin, 1991: 175 (distr.); Chemsak, Linsley & Noguera, 1992: 72 (cat.); Monné, M.A., 1993i: 40 (cat.); Yanega, 1996: 124, pl. 11, fig. 12a-b; Linsley & Chemsak, 1997: 454 (hosts); Heffern, 1998: 24 (distr., hosts); Majka, McCorquodale & Smith, 2007: 261 (distr.); Webster, McCorquodale & Majka, 2009: 298 (distr.); McCorquodale, 2010: 469 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 71, pl. 11

*Clytus interruptus* Laporte & Gory, 1836: 55, pl. 11, fig. 64.

*Xylotrechus undulatus* var. *interruptus*; Lacordaire, 1869: 79; Leng, 1887: 4; Blatchley, 1910: 1037.

*Xylotrechus interruptus*; Evans, 1895b: 173 (distr.).

*Xylotrechus undulatus* form *interruptus*; Wickham, 1897a: 151.

*Xylotrechus undulatus* var. *interruptus*; Leng, 1920: 277 (cat.); Leonard, 1928: 447 (distr.); Hatch, 1939: 49 (distr.).

**Type locality** - Holotype female: Amérique du Nord. (OXUM).

*Clytus Sayi* Laporte & Gory, 1836: 55, pl. 11, fig. 64; LeConte, 1869: 371.

*Xylotrechus undulatus* var. *Sayi*; Lacordaire, 1869: 79; Leng, 1920: 277 (cat.).

**Type locality** - Holotype: Amérique Boreale. (MVMA).

*Clytus fuscus* Kirby, 1837: 176; Haldeman, 1847a: 41; 1847c: 372; Bethune, 1872: 95.

*Xylotrechus fuscus*; Thomson, 1861: 221; Lacordaire, 1869: 79.

*Xylotrechus undulatus* form *fuscus*; Wickham, 1897: 151.

**Type locality** - Holotype: Canada, latitude 54 degrees. (BMNH).

*Clytus lunulatus* Kirby, 1837: 175; Haldeman, 1847a: 41; Bethune, 1872: 95.

*Clytus undulatus* var. *lunulatus*; White, 1855: 267.

*Xylotrechus lunulatus*; Kilman, 1889: 136 (distr.); Evans, 1895b: 173 (distr.).

*Xylotrechus undulatus* var. *lunulatus*; Leng, 1920: 277 (cat.).

**Type locality** - Holotype: Canada, latitude 54 degrees. (BMNH).

*Clytus undatus* Kirby, 1837: 175; Emmons, 1854: 118, pl. 8, fig. 4.

*Xylotrechus undulatus* var. *undatus*; Leng, 1920: 277 (cat.).

**Syntypes localities** - Syntypes: Canada, latitude 54 degrees and 65 degrees. (BMNH).

*Xylotrechus longitarsis* Casey, 1912: 362; Leng, 1920: 277 (cat.); Linsley, 1964: 126; Tyson, 1966: 207; Hatch, 1971: 120; Kirk & Balsbaugh, 1975: 99 (distr.); Furniss & Carolin, 1977: 307 (hosts); Harling, Snyder & Coletti, 1977: 35 (distr.); Chemsak, Linsley & Noguera, 1992: 71 (cat.); Monné, M.A., 1993i: 36 (cat.); Linsley & Chemsak, 1997: 453 (hosts); Costello, Jacobi & Negrón, 2013: 151 (hosts); Lingafelter *et al.*, 2014: 92, 370, fig. 101s (lectotype); Rice, MacRae & Merickel, 2017: 670 (distr.).

*Xylotrechus undulatus longitarsis*; Casey, 1924: 270.

*Xylotrechus columbianus* Casey, 1912: 361; Leng, 1920: 277 (cat.); Lingafelter et al., 2014: 43, fig. 44u (holotype).

**Type locality** - Holotype female: Canada, British Columbia: Aldermere. (USNM).

*Xylotrechus montanicus* Casey, 1912: 361; Leng, 1920: 277 (cat.); Lingafelter et al., 2014: 101, fig. 1117u (holotype).

*Xylotrechus undulatus montanicus*; Casey, 1924: 270.

**Type locality** - Holotype female: United States, Idaho: Coeur d'Alene. (USNM).

*Xylotrechus inflaticollis* Casey, 1912: 360; Leng, 1920: 277 (cat.); Lingafelter et al., 2014: 80, fig. 87g (holotype).

**Type locality** - Holotype female: United States, Colorado: Boulder County. (USNM).

*Xylotrechus undulatus*; Hardy, 1926: 23, pl. 5, fig. 43 (not Say, 1824); Hardy & Preece, 1926: 39 (hosts); 1927b: 66 (hosts); Hopping, 1932: 564, pl. 2, fig. 3.

### *Xylotrechus (Rusticoclytus) Vives, 1977*

*Rusticoclytus* Vives, 1977: 130; Sama, 2008: 230.

*Xylotrechus (Rusticoclytus)*; Danilevsky, 2012: 144.

**Type-species** - *Leptura rustica* Linnaeus, 1758 (original designation).

#### 1. *Xylotrechus (Rusticoclytus) annosus annosus* (Say, 1827)

**Type locality** - Holotype: United States, Missouri. (Depository unknown).

**Distribution** - Eastern and central Canada and northeastern United States to Rocky Mts. **Host plants** - *Populus aurea* Tidestrom, *P. tremuloides* Michaux, *Salix nigra* Marshall (Salicaceae).

*Clytus annosus* Say, 1827: 277, Haldeman, 1847a: 41; LeConte, 1850b : 28; 1859: 334.

*Xylotrechus annosus*; Provancher, 1877: 331 (distr.); LeConte, 1879: 505 (distr.); Coquillett, 1883: 31 (biol.); Leng, 1887: 199; 1887: 4; Packard, 1890: 557, fig. 187 (biol.); Wickham, 1890: 170 (distr.); Beutenmuller, 1896: 76 (hosts); Wickham, 1897b: 157 (distr.); Fall, 1901: 147 (distr.); Ouellett, 1902: 122 (distr.); Chagnon, 1917: 232 (distr.); Leng, 1920: 277 (cat.); Mason, 1922: 216 (distr.); Schott, 1925: 224 (distr.); Essig, 1926: 457 (biol.); Kirk & Knull, 1926: 40 (distr.); Pack, 1930: 220 (distr.); Beaulne, 1932: 202 (hosts); Brown, 1934: 229 (distr.); Doane et al., 1936: 284; Knowlton & Thatcher, 1936: 279, fig. 1b (biol.); Brimley, 1938: 215 (distr.); Chagnon, 1938: 264; Hardy, 1942: 11 (hosts); Knowlton & Wood, 1950: 12 (distr.); Brown, 1952: 335; Keen, 1952: 197 (hosts); Clark, 1956: 41 (distr.); Townes & Townes, 1960: 40 (paras.); Linsley, 1964: 114; Furniss & Carolin 1977: 308 (hosts); Laliberté, Chantal & LaRochelle, 1977: 100 (biol.); Chemsak, Linsley & Noguera, 1992: 71 (cat.); McCorquodale, 2010: 469 (distr.);

*Xylotrechus annosus annosus*; Linsley, 1964: 114, fig. 36; Gosling, 1973: 80, fig. 51 (biol., distr.); Stein & Tigestad, 1976: 48, fig. 21 (distr.); Turnbow & Franklin, 1980: 343 (distr.); Gosling, 1986: 158 (hosts); MacRae, 1993: 234 (distr.); Monné, M.A., 1993i: 33 (cat.); Yanega, 1996: 122, pl.11, fig. 124; Linsley & Chemsak, 1997: 452 (hosts); Lingafelter, 2007: 63, 88, 151, 2 figs, pl. 15, fig. d (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 69, pl.10

*Rusticoclytus annosus*; Sama, 2008; 231.

#### 1a. *Xylotrechus (Rusticoclytus) annosus emotus* (Brown, 1952)

**Type locality** - Holotype: Canada, British Columbia: Fernie. (CNCI). **Distribution** - Canada (Southern British Columbia to United States, central California to

Colorado. **Host plants** - *Populus tremuloides* Michaux, *P. trichocarpa* Torrey & A. Gray (Salicaceae).

*Xylotrechus annosus emotus* Brown, 1952: 335; Linsley, 1964: 116, fig. 36; Ruetter, 1970: 22 (types); Hatch, 1972: 120; Chemsak, Linsley & Noguera, 1992: 71 (cat.); Monné, M.A., 1993i: 34 (cat.); Linsley & Chemsak, 1997: 452 (hosts); Heffern 1998: 17 (distr.); Rice MacRae & Merickel, 2017: 670 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 70, pl.10

## 2. *Xylotrechus (Rusticoclytus) nauticus* (Mannerheim, 1843)

**Type locality** – Type: United States, California. (MZHF). **Distribution** - Pacific coast of North America, from Washington to California, Mexico (Baja California).

**Host plants** - *Arbutus menziesii* Pursh (Ericaceae) *Lithocarpus densiflora* Rehder, *Quercus agrifolia* Née, *Q. douglasii* Hooker & Arnott, *Q. lobata* Née (Fagaceae), *Juglans californica* S. Watson, *J. regia* Linné (Juglandaceae), *Persea americana* P. Miller (Lauraceae), *Eucalyptus* sp. (Myrtaceae), *Malus* sp., *Pyrus* sp. (Rosaceae), *Salix lasiandra* Benth.

*Clytus nauticus* Mannerheim, 1843: 305; LeConte, 1851: 104 (syn.); White, 1855: 288; LeConte, 1857: 23 (distr.); 1858a: 41 (distr.); 1859a: 80 (distr.).

*Plagithmysus nauticus*; Chevrolat, 1860: 457.

*Xylotrechus nauticus*; Ricksecker, 1885: 97 (biol.); Leng, 1887: 198, 4; Blaisdell, 1892: 34; Coquillett, 1892: 262 (biol.); Xamheu, 1893: 150 (biol.); Beutenmuller, 1896: 76 (hosts); Holland, 1900: 422 (distr.); Fall, 1901: 147 (hosts, distr.); Casey, 1912: 362; Essig, 1915: 254, figs 244-245 (biol.); Garnett, 1918: 210 (distr.); Craighead, 1923: 57 (larva); Criddle, 1925: 98 (distr.); Essig, 1926: 457, figs 359-361 (biol.); Barrett, 1932: 291 (hosts); Hopping, 1932: 535, pl. 2, fig. 7; Beaulne, 1932: 320 (biol.); Davis, 1932: 85 (distr.); Doane *et al.*, 1936: 184, fig. 92 (biol.); Moore, 1937: 90 (distr.); Quayle, 1938: 320 (biol.); Ebeling, 1950: 591 (hosts); Keen, 1952: 197, fig. 94A (hosts); Chemsak, 1958: 41 (hosts); Michelbacher & Ortega, 1958: 61, fig. 63 (biol.); Chemsak, 1963b: 213 (biol.); Linsley, 1964: 110, figs 33, 34; Tyson, 1966: 207 (hosts); Hatch, 1971: 119, pl. 13, fig. 6; Swan & Papp, 1972: 448, fig. 948; Chemsak, Linsley & Noguera, 1992: 72 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 453 (hosts); Monné, M.A., 2001a: 44 (cat. hosts); Monné, M.A., 2005: 117 (cat.); Hanks *et al.*, 2007: 889 (pheromone); Swift, 2008a: 289; Vlasák, 2014: 319 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 70, pl.11

*Rusticoclytus nauticus*; Sama, 2008: 231.

*Clytus gramineus* Haldeman, 1847a: 40; LeConte, 1850b: 27.

*Xylotrechus gramineus*; Lacordaire, 1869: 79; Casey, 1912: 362.

**Type locality** - Holotype: Oregon. (MCZN).

## COMPSOCERINI Thomson, 1864

Compsoceritae Thomson, 1864: 260.

Compsocérides; Lacordaire, 1869: 30.

Compsocerinae; Bates, 1870: 391.

Compsocerini; Aurivillius, 1912: 326 (*pars*); Linsley, 1961a: 631 (mimet.); Monné, M. A., 1993h: 18 (cat.); Monné, M.A., 2005: 117 (cat.); Bousquet *et al.*, 2009: 44;

Dalens, Tavakilian & Touroult, 2010: 93 (syn.); Bouchard *et al.*, 2011: 469.

**Type-genus:** *Compsocerus* Audinet-Serville, 1834.

**Type-species:** *Compsocerus barbicornis* Audinet-Serville, 1834 (monotypy).

Rosaliites Fairmaire, 1864: 137, 192 (key).

Rosaliini; Bousquet *et al.*, 2009: 55; Bouchard *et al.*, 2011: 481.

**Type-genus:** *Rosalia* Audinet-Serville, 1834.

**Type-species:** *Cerambyx alpinus* Linnaeus, 1758 (monotypy).

### ***Rosalia* Audinet-Serville, 1833**

*Rosalia* Audinet-Serville, 1833: 561; Mulsant, 1839: 35; Laporte, 1840: 432; Blanchard, 1845: 148; Thomson, 1861: 233, 250; 1864: 261, 460; Fairmaire, 1864: 137; Lacordaire, 1869: 33; LeConte, 1873b: 310; Girard, 1873: 723; Ganglbauer, 1882: 689; Lameere, 1887: 159; Gahan, 1906: 176; Reitter, 1912: 35; Casey, 1912: 313; Planet, 1924: 205; Portevin, 1927: 30; Picard, 1929: 98; Bradley, 1930: 230; Testout, 1934: 123; Plavilstshikov, 1934: 128; Gressitt, 1951: 212; Heyrovsky, 1955: 180; Arnett, 1962: 861, 885; Linsley, 1964: 4; Monné, M.A. 1993h: 33; Dalens, Tavakilian & Touroult, 2011: 93

**Type-species** - *Cerambyx alpinus* Linnaeus, 1758 (monotypy).

*Charmides* Gistel, 1856: 375.

### **1. *Rosalia funebris* Motschulsky, 1845**

**Type locality** - Holotype: United States, Alaska: Sitka. (ZMUM). **Distribution** - Pacific coast of North America from southern Alaska to southern California and Rocky Mts. south to New Mexico. **Host plants** - *Acer grandidentatum* Nuttall, *A. macrophyllum* Pursh (Aceraceae), *Alnus oblongifolia* Torrey, *A. rhombifolia* Nuttall (Betulaceae), *Quercus* sp. (Fagaceae), *Umbellularia californica* (Hooker & Arnott) Nuttall (Lauraceae), *Fraxinus americana* Linné, *F. dipetala* Hooker & Arnott, *F. oregona* Nuttall (Oleaceae), *Platanus* sp. (Platanaceae), *Salix* sp. (Salicaceae), *Ulmus parvifolia* Jacquin (Ulmaceae).

*Rosalia funebra* Motschulsky, 1845: 87, pl. 2, fig. 8; White, 1853:14; Melsheimer, 1853: 101 (cat.); Lacordaire, 1869: 34

*Rosalia funebris*; Mannerheim, 1852: 365; LeConte, 1857: 61, pl. 2, fig. 11; Thomson, 1861: 250; LeConte, 1869: 371; 1873b: 310; LeConte & Horn, 1883: 295; Leng, 1886: 32, pl. 2, fig.3; Fall, 1893: 135 (distr.); Hamilton, 1894c: 31 (distr.); Harrington, 1899: 108 (distr.); Fall, 1901: 145 (distr.); Casey, 1912: 313; Huguenin, 1912: 89 (hosts); Garnett, 1918: 207 (distr., hosts); Van Dyke, 1919: 3 (distr.); Essig, 1926: 455, fig. 257 (biol.); Hardy, 1926: 31, pl. 5, fig. 38; Tanner, 1928: 277 (distr.); Knowlton, 1930: 76 (distr.); Pack, 1930: 220 (distr.); Beaulne, 1932: 201 (hosts); Knowlton & Thatcher, 1936: 279; Doane *et al.*, 1936: 180, fig. 87; Moore, 1937: 90 (distr.); Hardy, 1942: 11 (biol.); Essig, 1943: 91 (biol.); Knowlton & Wood, 1950: 11 (distr.); Keen, 1952: 198 (hosts); Papp, 1955: 218 (distr.); Linsley, Knull & Statham, 1961: 17, fig. 7 (hosts); Linsley, 1964: 5, figs 1, 2 (syn.); Barr & Penrose, 1969: 93 (distr.); Hatch, 1971: 110, pl. 11, fig. 9; Chemsak & Linsley, 1971: 149, 2 figs (biol.); Swan & Papp, 1972: 449, fig. 951; Furniss & Carolin, 1977: 304, fig. 182 (biol.); Chemsak, Linsley & Noguera, 1992: 61 (cat.); Monné, M.A., 1993h: 34 (cat.); Linsley, 1995: 133; Linsley & Chemsak, 1997: 429 (hosts); Swift, 2008a: 3 (distr., hosts); Skiles, 2008: 165; Ray *et al.*, 2009: 96 (pherom.); Vlasák, 2014: 318 9 (hosts); Spomer, 2014: 300 (distr.); Rice, MacRae & Merickel, 2017: 670 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 50, pl. 5.

*Rosalia (Rosalia) funebris*; Lameere, 1887: 162, pl. 3, fig. 2

*Rosalia alpina*; LeConte, 1852: 177 (not Linnaeus, 1758).

*Rosalia funebris mandibularis* Casey, 1912: 313; Lingafelter *et al.*, 2014: 67, 369, fig. 72u (lectotype).

**Type locality** - Lectotype male: United States, California. (USNM).

*Rosalia funebris acomana* Casey, 1912: 313; Lingafelter *et al.*, 2014: 67, fig. 72s (holotype).

**Type locality** - Holotype female: United States, New Mexico: Jemez Springs. (USNM).

### **CURIINI LeConte, 1873**

Curii LeConte, 1873b: 304; LeConte & Horn, 1883: 289.

Curiini; Aurivillius, 1912: 127 (cat.); Bradley, 1930: 229, 234; Arnett, 1962: 859, 884; Linsley, 1963: 133; Monné, M.A., 1993f: 6 (cat.); Monné, M.A., 2005: 132 (cat.); Nearn & Branham, 2008: 14 (rev.); Bousquet *et al.*, 2009: 44; Bouchard *et al.*, 2011: 470.

**Type-genus:** *Curius* Newman, 1840.

**Type-species:** *Curius dentatus* Newman, 1840 (monotypy).

### ***Curius* Newman, 1840**

*Curius* Newman, 1840b: 17; Blanchard, 1845: 171; LeConte, 1850b: 22; Thomson, 1864: 223; 1865: 441; LeConte, 1873a: 189; 1873b: 304; LeConte & Horn, 1883: 289; Leng, 1884: 115; Bradley, 1930: 234; Arnett, 1962: 866, 884; Linsley, 1963: 133; Monné, M.A., 2005: 132 (cat.); Nearn & Ray, 2006: 49; Nearn & Branham, 2008: 14 (rev.); Monné, M.A., 2012: 16.

**Type-species** - *Curius dentatus* Newman, 1840 (monotypy).

#### **1. *Curius dentatus* Newman, 1840**

**Type locality** - Holotype: United States, Florida: St. John's Bluff. (BMNH).

**Distribution** - United States (Alabama, District of Columbia, Maryland, Florida, Georgia, Louisiana, Illinois, Mississippi, North Carolina, Oklahoma, Pennsylvania, Tennessee, Texas, Virginia). **Host plants** - *Acer rubrum* Linné (Aceraceae), *Cercis canadensis* Linné (Caesalpiniaceae), *Celtis* sp. (Cannabaceae), *Cupressus* sp., *Juniperus virginiana* Linné (Cupressaceae), *Liquidambar styraciflua* Linné (Hamamelidaceae), *Carya floridana* Sargent (Juglandaceae), *Pinus* sp. (Pinaceae), *Citrus* sp. (Rutaceae), *Taxodium distichum* (Linné) Richard (Taxodiaceae).

*Curius dentatus* Newman, 1840b: 17; LeConte, 1850b: 22; White, 1855: 247; Thomson, 1864: 223; Lacordaire, 1869: 352; LeConte, 1873a: 189; 1873b: 304; 1878: 470 (distr.); LeConte & Horn, 1883: 289; Leng, 1885b: 136, pl. 3, fig. 12; Horn, 1885b: 5; Chittenden, 1893: 248 (paras.); 1894: 97 (hosts); Smith, 1900: 288 (distr.); Ulke, 1903: 26 (distr.); Hopkins, 1904: 36 (biol.); Felt, 1906: 702; Smith, 1910: 327; Rohwer, 1921: 439 (paras.); Craighead, 1923: 63, pls 9,15,19,20 (larva); Kirk & Knull, 1926: 23 (distr.); Engelhardt, 1928: 252 (distr.); Loding, 1933: 148 (distr.); Townes, 1944: 772 (paras.); Loding, 1945: 116 (distr.); Kissinger, 1955: 14 (distr.); Linsley, 1963: 134; Wray, 1967: 46 (distr.); Perry, 1974: 215 (distr.); Turnbow & Franklin, 1980: 342 (distr.); Chemsak, Linsley & Noguera, 1992: 64 (cat.); MacRae, 1993: 231 (distr.); Monné, M.A., 1993f: 6 (cat.); Yanega, 1996: 50, pl. 12, fig. 135; Linsley & Chemsak, 1997: 361 (hosts); Schiefer, 1998: 116 (distr.); Peck & Thomas, 1998: 118 (distr.); Morris, 2004: 210 (hosts); Nearn *et al.*, 2005: 172, fig. 1a; Nearn & Ray, 2006: 489, 55, fig. 1c; Lingafelter, 2007: 73, 145, 2 figs, pl. 17, fig. 7 (hosts); Nearn & Branham, 2008: 15, figs (hosts); Maier, 2009: 438 (distr., hosts); Holt, 2013: 247 (distr., hosts); Steury & MacRae, 2014: 10 (distr.); Klingeman *et al.*, 2017: 296 (distr.).

*Plectromerus concinnatus* Haldeman, 1847a: 43.

*Curius concinnatus*; Melsheimer, 1853: 106 (cat.).

**Type locality** - Holotype: United States. (MCZN).

### **DRYOBIIINI Arnett, 1962**

Dryobiini Arnett, 1962: 861; Monné, M.A., 2005: 136 (cat.); Bousquet *et al.*, 2009: 45 (*nomen protectum*); Bouchard *et al.*, 2011: 471.

**Type-genus:** *Dryobius* LeConte, 1850.

**Type-species:** *Callidium sexfasciatum* Say, 1824 (monotypy).

Dryobiadae Gistel 1856: 368 (*nomen oblitum*). (Coleoptera, Ptinidae).

### ***Dryobius* LeConte, 1850**

*Dryobius* LeConte, 1850b: 23; Thomson, 1861: 379; 1864: 220, 439; LeConte, 1873b: 299; LeConte & Horn, 1883: 284; Leng, 1884: 114; Blatchley, 1910: 1021; Bradley, 1930: 231; Linsley, 1932:117; Knull, 1946: 188; Arnett, 1962: 867, 885; Linsley, 1964: 7; Monné, M.A., 1993h: 34.

**Type-species** - *Callidium 6-fasciatum* Say, 1824 (monotypy).

#### **1. *Dryobius sexnotatus* Linsley, 1957**

**Syntypes locality** - Syntypes male and female: United States, Missouri: Missouri River, Loutre Island. (Depository unknown). **Distribution** - Canada, United States (Eastern North America from New York west to Michigan and Oklahoma). **Host plants** - *Acer saccharinum* Linné (Aceraceae), *Fagus ferruginea* Aiton (Fagaceae), *Tilia americana* Linné (Malvaceae), *Ulmus rubra* Mühlenberg (Ulmaceae).

*Dryobius 6-fasciatus*; LeConte, 1850b: 23; 1851: 104; Riley, 1880: 239 (hosts); Packard, 1881: 131 (hosts); Packard, 1890: 520 (hosts).

*Dryobius sexfasciatus*; LeConte, 1859c: 20, 48, pl. 1, fig.15; Thomson, 1864: 220; Walsh & Riley, 1869e: 168 (biol.); LeConte, 1873b: 299; Siewers, 1880: 139 (biol.); LeConte & Horn, 1883: 285; Leng, 1885a: 117; 1885c: 35, pl. 2, fig. 23; Harrington, 1887: 30 (biol.); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 75 (hosts); Harrington, 1897: 73 (hosts); Dury, 1902: 159 (distr.); Felt, 1906: 702 (hosts); Blatchley, 1910: 1021, fig. 432; Kirk & Knull, 1926: 22 (distr.); Ortenburger & Hatch, 1926: 146 (distr.); Leonard, 1928: 434 (distr.); Beaulne, 1932: 198 (hosts); Linsley, 1932: 117 (distr.); Knull, 1946: 188, pl. 8, fig. 32; Alexander, 1958: 46 (distr.); Townes & Townes, 1960: 527 (paras.).

*Callidium sexfasciatum*; Melsheimer, 1853: 103 (cat.).

*Dryobius sexnotatus* Linsley, 1957b: 287 (*nom. nov.*); 1964: 7, fig. 2; Gosling, 1973: 76 (distr.); Perry, Surdick & Anderson, 1974: 169, figs 1-5 (biol.); Solomon, Doolittle & Spilman, 1976: 290; Arnett, 1985: 364, fig. 24.192; Chemsak, Linsley & Noguera, 1992: 61 (cat.); MacRae, 1993: 232 (distr.); Skillman, 1993: 210 (distr.); Monné, M.A., 1993h: 34 (cat.); Yanega, 1996: 52, pl. 9, fig. 103; Linsley & Chemsak, 1997: 367 (hosts); Schiefer, 1998: 118 (distr.); MacRae & Rice, 2007: 231 (distr., hosts); Lingafelter, 2007: 59, 145. 2 figs, pl. 11, fig. i (hosts); Staines, 2008: 146 (distr.); Holt, 2013: 248 (distr.); Haack, 2017: 118 (biol.); Klingeman *et al.*, 2017: 297 (distr.); Diesel *et al.*, 2017: 739 (pherom).

### **EBURIINI Blanchard, 1845**

Eburiites Blanchard, 1845: 145, 168.

Eburiitas Blanchard *in* Gay, 1851: 462.

Eburitae; Thomson, 1861: 237; 1864: 237.

Éburiides; Lacordaire, 1868: 290.

Eburiinae; Bates, 1870: 263.

Eburiini; Aurivillius, 1912: 78 (cat.); Bradley, 1930: 229; Martins & Napp, 1979: 92 (reval.); Monné, M.A., 1993b: 20 (cat.); Monné, M.A. & Martins, 1992: 263 (key genera); Martins, 1997a: 57 (rev.); 1999: 120 (rev.); Monné, M.A., 2005: 137 (cat.); Bousquet *et al.*, 2009: 46; Bouchard *et al.*, 2011: 471. Monné, M.L. & Botero, 2018: 1 (cladistics)

**Type-genus:** *Eburia* Lacordaire, 1830.

**Type-species:** *Cerambyx quadrimaculata* Linnaeus, 1767 (subsequent designation Hope, 1843: 189).

Hétéropsides Lacordaire, 1868: 405 [*nomen protectum*].

**Type-genus:** *Heterops* Blanchard, 1842.

**Type-species:** *Purpuricenus loreyi* Duponchel, 1837 designated by Thomson (1864: 203).

Heteropsinae; Bates, 1870: 410.

Heteropsini; Aurivillius, 1912: 438 (cat.); Linsley, 1961a: 631 (mimet.); Monné, M.A., 1994a: 20 (cat.); Monné, M.A., 2005: 278 (cat.); Bousquet *et al.*, 2009: 48; Bouchard *et al.*, 2011: 473.

### ***Eburia* Lacordaire, 1830**

*Eburia* Lacordaire, 1830: 177; Audinet-Serville, 1834b: 8; Laporte, 1840: 243; Blanchard, 1845: 146; LeConte, 1850b: 11; Blanchard *in* Gay, 1851: 462; Strauch, 1861: 129; Thomson, 1861: 237; 1864: 239; 1865: 449; Lacordaire, 1868: 293; Bates, 1870: 364; Chenu, 1870: 311; LeConte, 1873a: 178; 1873b: 302; Bates, 1880: 19; LeConte & Horn, 1883: 287; Leng, 1884: 115; Blatchley, 1910: 1022; Bradley, 1930: 229; Knull, 1946: 191; Linsley, 1962a: 54; Arnett, 1962: 862, 880; Chemsak & Linsley, 1963a: 213; Gilmour, 1968: 107; Zayas, 1975: 60; Martins & Napp, 1979: 93; Villiers, 1980a: 275; Monné, M.A., 1993b: 21 (cat.); Martins, 1997a: 78 (rev.); 1999: 225 (rev.); Noguera, 2002: 6 (rev., key); Monné, M.A., 2005: 140 (cat.); Bousquet, 2007: 619; Monné, M.A., 2012: 17; Touroult, 2012: 72 (key spp Petites Antilles); 2014: 88 (key spp Petites Antilles); Botero, 2015c: 8

*Eburia* (*Eburia*); Martins, 1997a: 78 (rev.).

**Type-species** - *Cerambyx quadrimaculata* Linnaeus, 1767 (by subsequent designation Hope, 1843: 189).

*Dissacanthus* Hope, 1835: 107; Lacordaire, 1868: 295.

*Dissacantha*; Thomson, 1864: 240 (error).

**Type-species** - *Cerambyx quadrimaculatus* Linnaeus, 1767 (original designation).

*Coeleburia* Thomson, 1861: 237; 1864: 240; Martins, 1997a: 78.

**Type-species** - *Coeleburia semipubescentis* Thomson, 1861 (by monotypy).

*Drymo* Thomson, 1864: 242; Lacordaire, 1868: 292; Martins, 1997a: 78.

**Type-species** - *Coeleburia pulvereae* Chevrolat, 1862 (monotypy).

### **1. *Eburia cinereopilosa* Fisher, 1932**

**Type locality** - Holotype female: Cuba, Guantánamo. (AMNH). **Distribution** - United States (Florida), Cuba.

*Eburia cinereopilosa* Fisher, 1932: 13; Gilmour, 1968: 109; Zayas, 1975: 60, pl. 8; fig. a; Turnbow & Hovore, 1979: 219; Frank & McCoy, 1992: 4 (distr.); Chemsak, Linsley & Noguera, 1992: 33 (cat.); Browne & Peck, 1996: 2158, 2160 (distr.); Peck



& Thomas, 1998: 117 (distr.); Thomas, 1999: 1, fig. 10; Morris, 2004: 210 (distr.); Peck, 2005: 167 (distr.); Monné, M.A., 2005: 143 (cat.); Lingafelter, 2007: 67, 145, 2 figs, pl.16, fig. a; Devesa, Fonseca & Barro, 2015: 30, 115, 116 figs 1-9.

## 2. *Eburia distincta* Haldeman, 1847

**Syntypes locality** – Syntypes: United States, Georgia. (MCZN). **Distribution** - United States (Florida to Mississippi), Bahamas. **Host plants** - *Baccharis halimifolia* Linné (Asteraceae), *Taxodium distichum* (Linné) Richard (Taxodiaceae). *Eburia distincta* Haldeman, 1847b: 150; 1847c: 375; LeConte, 1850b: 11; White, 1853: 88; LeConte, 1873a: 179; Leng, 1885b: 29; Sherman, 1946: 127 (distr.); Linsley, 1962a: 61, fig. 21; Turnbow & Franklin, 1980: 341 (distr.); Chemsak, Linsley & Noguera, 1992: 34 (cat.); Browne, Peck & Ivie, 1993: 42 (distr.); Browne & Peck, 1996: 2158, 2160 (distr.); Thomas, 1999: 1, figs 6, 14, 16; Noguera, 2002: 43, fig. 127; Morris, 2002: 210 (hosts); Monné, M.A., 2005: 145 (cat.); Lingafelter, 2007: 68, 145, 2 figs, pl. 16, fig. c (hosts); Turnbow & Thomas, 2008: 17 (distr.). *Eburia (Eburia) distincta*; Holt, 2013: 248 (distr.).

## 3. *Eburia haldemani* LeConte, 1851

**Type locality** - Holotype: United States, Texas: Fort Gates. (MCZN). **Distribution** - United States (Arizona to Missouri, Tennessee to Florida), northern Mexico (Nuevo León, Tamaulipas). **Host plants** - *Celtis reticulata* Torrey (Cannabaceae), *Juniperus ashei* Buchholz (Cupressaceae), *Morus rubra* Linné (Moraceae), *Salix* sp. (Salicaceae), *Ulmus crassifolia* Nuttall (Ulmaceae). *Eburia haldemani* LeConte, 1851: 102; White, 1853: 88; LeConte, 1858a: 40; 1873a: 179; Leng, 1885c: 29; Fall & Cockerell, 1907: 191 (distr.); Linsley & Martin, 1933: 180 (distr.); Vogt, 1949: 141 (distr., hosts); Alexander, 1958: 43 (distr.); Linsley, 1962a: 67, fig. 23; Turnbow & Franklin, 1980: 341 (distr.); MacKay, Zac & Hovore, 1987: 363 (hosts); Hovore, Penrose & Neck, 1987: 269 (hosts); Lingafelter, 1991: 119; Chemsak, Linsley & Noguera, 1992: 34 (cat.); MacRae, 1993: 228 (distr.); Lingafelter & Horner, 1993: 166 (distr.); Noguera & Chemsak, 1996: 397 (cat.); Yanega, 1996: 46, pl. 13, fig. 147; Linsley & Chemsak, 1997: 367 (hosts); Peck & Thomas, 1998: 117 (distr.); Thomas, 1999: 1, figs 5, 8, 13, 15; Monné, M.A., 2001a: 52 (cat. hosts); Noguera, 2002: 54, fig. 133; Szafranski, 2002: 6 (hosts); Monné, M. A., 2005: 146 (cat.); Lingafelter, 2007: 68, 145. 2 figs, pl. 16, fig. f (hosts); MacRae & Rice, 2007: 232 (hosts); García Morales *et al.*, 2015: 101 (distr.).

## 4. *Eburia linsleyi* Lacey, 1949

**Type locality** - Holotype male: United States, Arizona: Oak Creek Canyon. (AMNH). **Distribution** - United States (Arizona, New Mexico), Mexico (Chihuahua, Sonora). **Host plants** - *Quercus turbinella* Greene (Fagaceae). *Eburia linsleyi* Lacey, 1949: 1, Linsley, Knull & Statham, 1961b: 11 (distr., biol.); Linsley, 1962a: 59; Lewis, 1979: 23; Cope, 1984a: 29 (hosts); Chemsak, Linsley & Noguera, 1992: 34 (cat.); Linsley & Chemsak, 1997: 367; Noguera, 2002: 69, fig. 142; Szafranski, 2002: 66 (distr.); Monné, M.A., 2005: 147 (cat.); Noguera *et al.*, 2009: 87 (distr.).

## 5. *Eburia mutica* LeConte, 1853

**Syntype locality** – Syntypes: United States, Texas: New Braunfels. (MCZN). **Distribution** - United States (Texas), northern Mexico (Nuevo León, Tamaulipas,

San Luís Potosí, Hidalgo, Veracruz, Morelos). **Host plants** - *Acer negundo* Linné (Aceraceae), *Parkinsonia aculeata* Linné (Caesalpinaceae), *Celtis laevigata* Willdenow, *C. lindheimeri* Engelm., *C. pallida* Torrey (Cannabaceae), *Sesbania drummondii* (Rydberg) Cory, *Sophora secundiflora* (Ortega) de Candolle (Fabaceae), *Quercus arizonica* Sargent (Fagaceae), *Havardia* sp., *Leucaena pulverulenta* (Schlechtendal) Benth., *Pithecellobium flexicaule* (Benth.) Coulter, *P. pallens* (Benth.) Standley, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Citrus paradisi* Macfayden, *Zanthoxylum clava-herculis* Linné (Rutaceae), *Ulmus crassifolia* Nuttall (Ulmaceae).

*Eburia mutica* LeConte, 1853: 233; 1858a: 40 (distr.); 1873a: 179; Bates, 1880: 22 (distr.); Leng, 1885c: 29; Townsend, 1903: 76 (distr.); Schaeffer, 1908: 327 (distr.); Vogt, 1949: 141 (distr., hosts), Dean, 1953: 174 (biol.); Linsley, 1962a: 65; Manley & French, 1976: 47, fig. 1; Turnbow & Wappes, 1978: 368 (hosts); Hovore, Penrose & Giesbert, 1978: 96 (hosts); Hovore & Penrose, 1982: 24 (biol.); Rice, 1985: 1224 (hosts); Hovore, Penrose & Neck, 1987: 296 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 34 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 367 (hosts); Monné, M.A., 2001a: 52 (cat. hosts); Noguera, 2002: 76, fig. 147; Szafranski, 2002: 66 (distr., hosts); Monné, M.A., 2005: 148 (cat.); MacRae & Rice, 2007: 232 (hosts); García Morales *et al.*, 2015: 101 (distr.); Heffern, Vlasak & Alten, 2018: 742 (hosts).

*Eburia manca* LeConte, 1858a: 24; 1873a: 179; Leng, 1885c: 29.

*Eburia mutica* var. *manca*; Schaeffer, 1908: 332; Linsley & Martin, 1933: 180 (distr.).

**Type locality** – Holotype: United States, Texas: Ringgold Barracks. (MCZN).

*Eburia tumida* LeConte, 1873a: 181; Lameere, 1883: 17 (cat.); Leng, 1885c: 29; Townsend, 1903: 76 (distr.).

**Syntype locality** – Syntypes: United States, Texas. (MCZN).

## 6. *Eburia ovicollis* LeConte, 1873

**Syntypes locality** – Syntypes: United States, Texas. (MCZN). **Distribution** - United States (southern Texas), northern Mexico (Tamaulipas, San Luís Potosí).

**Host plants** - *Pithecellobium flexicaule* (Benth.) Coulter, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Eburia ovicollis* LeConte, 1873a: 180; Bates, 1880: 22 (distr.); Leng, 1885c: 29; Wickham, 1898b: 41 (distr.); Townsend, 1903: 76 (distr.); Schaeffer, 1908: 327 (distr.); Linsley, 1962a: 63; Hovore & Giesbert, 1976: 351 (hosts); Hovore, Penrose & Neck, 1987: 296 (hosts); Chemsak, Linsley & Noguera, 1992: 34 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 368 (hosts); Monné, M.A., 2001a: 53 (cat. hosts); Noguera, 2002: 83, fig. 150; Monné, M.A., 2005: 149 (cat.); García Morales *et al.*, 2015: 102 (distr.).

*Pantomallus ovicollis*; Lameere, 1883: 17 (cat.); Linsley & Martin, 1933: 180 (distr.); Vogt, 1949: 140 (distr.).

*Eburia quadricollis* Casey, 1924: 259; Lingafelter *et al.*, 2014: 307, figs 141e, f (holotype).

**Type locality** – Holotype male: United States, Texas: Comal Co. (USNM).

*Eburia densa* Casey, 1924: 259; Lingafelter *et al.*, 2014: 52, figs 54u, v (lect. designation).

**Type locality** - Lectotype male: United States, Texas: Brownsville. (USNM).

## 7. *Eburia quadrigeminata* (Say, 1827)

**Syntypes locality** – Syntypes: United States. (Depository unknown). **Distribution** – Canada, United States (Atlantic Coast and southern Canada to Florida, Kansas & Texas). Introduced in Cuba, Argentina (Buenos Aires) and northern Africa. **Host plants** - *Acer* sp. (Aceraceae), *Gleditschia triacanthos* Linné (Caesalpinaceae), *Cupressus* sp. (Cupressaceae), *Robinia* sp. (Fabaceae), *Castanea* sp., *Fagus ferruginea* Aiton, *Quercus* sp. (Fagaceae), *Carya glabra* (Miller) Sweet, *Hicoria* sp. (Juglandaceae), *Fraxinus americana* Linné (Oleaceae), *Prunus* sp. (Rosaceae), *Ulmus* sp. (Ulmaceae).

*Stenocorus quadrigeminatus* Say, 1827: 275.

*Eburia quadrigeminata*; Haldeman, 1847a: 32; White, 1853: 88; LeConte, 1859c: 48; Bland, 1861: 94 (distr.); LeConte, 1873a: 179; Popenoe, 1877: 33 (distr.); Pettit, 1871: 105 (distr.); Westcott, 1879: 140 (distr.); Packard, 1881: 84 (biol.); Harrington, 1884: 46 (hosts); McNeill, 1886: 1055 (biol.); Packard, 1890: 293, 541, 654 (biol.); Gundlach, 1892: 232; Hopkins, 1893: 193 (biol.); Hamilton, 1895: 338 (distr.); Gahan, 1895: 93; Wickham, 1897a: 109; Webster, 1899: 339 (biol.); Dury, 1902: 159 (distr.); Ulke, 1903: 25, 50 (distr.); Melander, 1904: 20; Hopkins, 1904: 38 (biol.); Wickham, 1909a: 28; Blatchley, 1910: 1022, fig.434; Fisher & Kirk, 1912: 310 (distr.); Slossom, 1912: 172 (distr.); Leng & Mutchler, 1914: 445 (distr.); Dozier, 1918: 334 (distr.); Jaques, 1918: 175 (biol.); Craighead, 1923: 66 (larva); Champlain, Kirk & Knull, 1925: 105 (hosts); Balachowsky, 1925: 107 (distr.); Kirk & Knull, 1926: 22 (distr.); Watson, 1927: 40 (biol.); Leonard, 1928: 435 (distr.); Ware, 1929: 368 (distr.); Frost & Dietrich, 1929: 436 (distr.); Beaulne, 1932: 198 (host.); Goldman, 1933: 87, pl.5, figs 1-4 (morphol); Davis, 1934: 200 (hosts); Herrick, 1935: 377 (hosts); Cooper, 1935: 152 (distr.); Doane *et al.*, 1936: 169; Arrow, 1936: 229 (biol.); Cann, 1937: 55, pl. 2 (biol.); Brimley, 1938: 210 (distr.); Van Emden, 1939: 271 (larva); Bosq, 1943a: 29 (distr.); Loding, 1945: 114 (distr.); Knull, 1946: 191, pl.9, fig. 35; Fattig, 1947: 8; Blair, 1948: 123, pl.D, fig. 7; Duffy, 1949: 20 (biol.); Craighead, 1950: 245 (biol.); Hickin, 1951: 32 (biol.); Duffy, 1953: 178, 198, fig. 77 (larva); Papp, 1955:217; Linsley, 1958: 112; Alexander, 1958: 46 (distr.); Hunter, 1959: 261; Duffy, 1960: 119 (hosts); Dillon & Dillon, 1961: 585, pl. 59, No.2; Linsley, 1962: 66, figs 2,3; Rizkallah & Hafez, 1970 107 (distr.); Swan & Papp, 1972: 446, fig. 942; Baker, 1972: 192 (biol.); Gosling, 1973: 70, fig. 13 (biol., distr.); Zayas, 1975: 71 (exclusion); Solomon, Doolittle & Spilman, 1976: 290; Turnbow & Franklin, 1980: 341 (distr.); Waters & Hyche, 1984: 285 (distr.); Arnett, 1985: 362; Hilburn & Gordon, 1989: 677 (distr.); Chemsak, Linsley & Noguera, 1992: 35 (cart.); Monné, M.A., 1993b: 31 (cart.); MacRae, 1993: 229 (distr.); Lingafelter & Horner, 1993: 266 (distr.); Yanega, 1996: 46, pl. 13, fig. 146; Browne & Peck, 1996: 2158 (distr.); Linsley & Chemsak, 1997: 368 (hosts); Schiefer, 1998: 116 (distr.); Peck & Thomas, 1998: 117 (distr.); Thomas, 1999: 1, 3, figs, 4, 7, 18 (hosts); Noguera, 2002: 13, 99, figs 98, 159; Di Iorio, 2004d: 668 (distr.); Lingafelter, 2007: 68, 146, 2 figs, pl. 16, fig.e (hosts); Staines, 2008: 146 (distr.); Guarnieri, 2009: 16 (distr.); Holt, 2013: 248 (distr.); Steury & MacRae, 2014: 10 (distr.); Haack in Wang, 2017: w/page fig. 11.5 (biol., hosts); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 41, pl. 2.

*Eburia 4-geminata*; LeConte, 1850b: 11; Chevrolat, 1862a: 265; Thomson, 1864: 240; Riley, 1880: 239 (hosts); Leng, 1885c: 29, pl. 3, fig. 2; Beutenmuller, 1896: 75 (hosts); Smith, 1900: 287 (distr.); Smith, 1910: 326; Leng, 1911: 215 (distr.); Troop, 1915: 281 (biol.); Nicolay, 1919: 65 (distr.).

*Stenocorus quadrigeminatus*; LeConte, 1859: 333.

**8. *Eburia stigma* (Olivier, 1795)**

**Type locality** - Holotype female: Cuba. (BMNH). **Distribution** - United States (Florida), Mexico (Oaxaca, Yucatán, Quintana Roo), Guatemala, Honduras, Nicaragua, Costa Rica, Cuba, Hispaniola, Bahamas. **Host plants** - *Metopium toxiferum* (Linné) Krug & Urban (Anacardiaceae), *Lysiloma latisiliqua* (Linné) Bentham (Mimosaceae), *Pinus caribaea* Morelet, *P. elliotti* var. *densa* Little & Dorman (Pinaceae), *Citrus* sp. (Rutaceae), *Sideroxylon foetidissimum* Jacquin (Sapotaceae), *Avicennia germinans* (Linné) Stearn (Verbenaceae).

*Cerambyx stigma* Olivier, 1795: (67) 126, pl. 23, fig. 180.

*Stenochorus stigma*; Schoenherr, 1817: 409.

*Eburia stigma*; Audinet-Serville, 1834b: 10; LeConte, 1851: 106; Jacquelin DuVal in Sagra, 1857: 265; Bates, 1872: 174 (distr.); LeConte, 1873a: 179; Bates, 1880: 20 (distr.); Leng, 1885c: 29; Horn, 1886a: 138; Gahan, 1895: 96; Leng & Mutchler, 1914: 445 (distr.); Dozier, 1918: 334 (distr.); Blatchley, 1928: 70; Bruner, Scaramuzza & Otero, 1945: 49 (hosts); Cazier & Lacey, 1952: 12 (distr.); Linsley, 1962a: 60; Gilmour, 1968: 110; Zayas, 1975: 73; Thomas, 1977: 83, 1 fig. (hosts); Chemsak, Linsley & Noguera, 1992: 35 (cat.); Browne, Peck & Ivie, 1993: 42 (distr., hosts); Maes *et al.*, 1994: 12 (distr.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 368 (hosts); Maes, 1998: 889 (distr.); Thomas, 1999: 1, figs 2, 9, 11, 17; Monné, M.A., 2001a: 53 (cat. hosts); Noguera, 2002: 109, fig. 164; Morris, 2004: 210 (hosts); Turnbow, Cave & Thomas, 2003: 7 (distr.); Lozada Piña, Fernández García & Trujillo Anaya, 2004: 106 (distr.); Monné, M.A., 2005: 153 (cat.); Peck, 2005: 168 (distr.); Hovore, 2006: 371 (distr.); Audureau, 2008: 6 (distr.); Perez-Gelabert, 2008: 118 (distr.); Turnbow & Thomas, 2008: 17 (distr.); Fernández García, Favila Castillo & López Iborra 2009: 322 (distr.); Swift *et al.*, 2010: 15 (distr.); Maes *et al.*, 2010: 111, 10 figs (distr.); Noguera *et al.*, 2012: 620 (distr.); Devesa, Fonseca & Barro, 2015: 30, 114, 144, figs 1-12; Noguera *et al.*, 2017: 5 (distr.).

*Dissacantha stigma*; Thomson, 1864: 240.

*Eburia duvalii* Chevrolat, 1862a: 266.

**Syntypes locality** – Syntypes: Cuba. (BMNH).

***Eburia (Eleutho) Thomson, 1864***

*Eleutho* Thomson, 1864: 242; Martins, 1997a: 68.

*Eburia (Eleutho)*; Vitali, 2007: 44; Monné, M.A., 2012: 17; Botero, 2015: 9.

**Type-species** - *Eburia consobrina* Jacquelin DuVal, 1857 (original designation).

**1. *Eburia (Eleutho) stroheckeri* Knull, 1949**

**Type locality** - Holotype male: United States, Florida: Matheson Hammock, Dade County. (FMNH). **Distribution** - United States (Florida).

*Eburia stroheckeri* Knull, 1949: 104, pl. 1, fig. 1; Linsley, 1962: 62, fig. 20; Chemsak, Linsley & Noguera, 1992: 35 (cat.); Monné, M.A., 1993b: 34 (cat.); Browne & Peck, 1996: 2158, 2160 (distr.); Peck & Thomas, 1998: 117 (distr.); Thomas, 1999: 1, 3, figs 3, 12, 19 (distr.); Noguera, 2002: 14, 114, figs. 104, 166; Lingafelter, 2007: 68, 146, 2 figs, pl. 16, fig. d.

*Eburia (Eleutho) stroheckeri*; Botero 2015: 9, figs 2 B,C.

***Heterops* Blanchard, 1842**

*Heterops* Blanchard, 1842: 51; Thomson, 1865: 431; Lacordaire, 1869: 127; Cazier & Lacey, 1952: 42 (key spp.); Zayas, 1975: 153; Monné, M.A., 2005: 293 (cat.); Monné, M.A., 2012: 30.

**Type-species** - *Purpuricenus loreyi* Duponchel, 1837 (original designation).

### 1. *Heterops dimidiatus* (Chevrolat, 1838)

**Syntypes locality** – Syntypes: Cuba, Cienfuegos. (BMNH). **Distribution** - United States (Florida), Bahamas, Cuba.

*Eburia dimidiata* Chevrolat, 1838b: 283; Jacquelin DuVal in Sagra, 1857: 264.

*Heterops dimidiatus*; Blanchard, 1842: 51; White, 1853: 97; Chevrolat, 1862a: 264; Gahan, 1895: 118; Leng & Mutchler, 1914: 447 (distr.); Darlington, 1938: 690, pl. 1, fig. 8 (mimet.); Cazier & Lacey, 1952: 42, 45 (distr.); Zayas, 1975: 154; Hovore, Penrose & Giesbert, 1978: 96 (distr.); Chemsak, Linsley & Noguera, 1992: 76 (cat.); Frank & McCoy, 1992: 4 (distr.); Browne, Peck & Ivie, 1993: 48 (distr.); Peck, 2005: 173 (distr.); Browne & Peck, 1996: 2159; Peck & Thomas, 1998: 120 (distr.); Monné, M.A., 2005: 293 (cat.); Lingafelter, 2007: 75, 147, 2 figs, pl. 15g (distr.); Thomas & Turnbow, 2007: 584 (distr.); Turnbow & Thomas, 2008: 19 (distr.); Devesa, Fonseca & Barro, 2015: 33, 311, 312, figs 1-11 (syn.).

*Eburia subangulata* Chevrolat, 1838b: 283.

*Heterops subangulatus*; Thomson, 1878a: 18 (type).

**Syntypes locality** – Syntypes: Cuba, Cienfuegos. (MNHN).

*Heterops bipartitus* Lacordaire, 1869: 128; Gahan, 1895: 118; Leng & Mutchler, 1914: 447 (distr.); Chemsak, Linsley & Noguera, 1992: 76 (cat.); Monné, M.A., 2005: 293 (cat.).

**Syntypes locality** – Syntypes: Cuba (MNHN).

### *Susuacanga* Martins, 1997

*Susuacanga* Martins, 1997a: 60; 1999: 134 (rev.); Monné, M.A., 2005: 171 (cat.); Monné, M.A., 2012: 18; Botero, 2014: 519 (rev.); 2015c: 11.

**Type-species** - *Cerambyx octoguttatus* Germar, 1821 (original designation).

### 1. *Susuacanga falli* (Linsley, 1940)

**Type locality** - Holotype male: United States, California: Colorado River. (MCZN).

**Distribution** - United States (Arizona, southern California), Mexico (Baja California, Sonora, Sinaloa). **Host plants** - *Cercidium* sp. (Caesalpiniaceae).

*Eburia falli* Linsley, 1940a: 257; 1962a: 57, fig. 19; Hovore & Giesbert, 1976: 351 (hosts); Chemsak, Linsley & Noguera, 1992: 34 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 367 (hosts); Monné, M.A., 2001a: 52 (cat. hosts); Noguera, 2002: 46, fig. 129; Monné, M.A., 2005: 145 (cat.).

*Eburia semipubescens*; Fall, 1909: 163 (not Thomson, 1861).

*Susuacanga falli*; Tavakilian, 2013: 109; Botero, 2014: 520, fig. 7.

### 2. *Susuacanga stigmatica* (Chevrolat, 1834)

**Syntypes locality** – Syntypes: Mexico, Hidalgo: Zimapán. (BMNH). **Distribution** - United States (Texas, Arizona), Mexico (Nuevo León, Tamaulipas, Nayarit, Jalisco, Colima, Hidalgo, Veracruz, Puebla, Oaxaca, Campeche, Yucatán, Quintana Roo). **Host plants** - *Celtis laevigata* var. *texana* (Scheele) Sargent (Cannabaceae), *Acacia* sp., *Pithecellobium flexicaule* (Benth) Coulter (Mimosaceae), *Salix* sp. (Salicaceae).

*Eburia stigmatica* Chevrolat, 1834: fasc. 3, N° 60; Bates, 1880: 19; 1884: 244 (syn.); Leng, 1885c: 29; Townsend, 1903: 76 (distr.); Schaeffer, 1908: 327; Linsley & Martin, 1933: 180 (distr.); Linsley, 1934c: 108; 1942: 86; Vogt, 1949: 141 (distr., hosts); Linsley, 1962a: 58, fig. 21; Hovore, Penrose & Giesbert, 1978: 96 (hosts); Hovore, Penrose & Neck, 1987: 296 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 35 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 368 (hosts); Monné, M.A., 2001a: 54 (cat.); Noguera, 2002: 111, fig. 165; Szafranski, 2002: 66 (distr.); Monné, M.A., 2005: 153 (cat.); Noguera *et al.*, 2012: 620 (distr.); García Morales *et al.*, 2015: 102 (distr.).

*Coeleburia stigmatica*; Thomson, 1861: 238; 1864: 240.

*Susuacanga stigmatica*; Tavakilian, 2013: 109; Botero, 2014: 524, fig. 14; Garcia Ochaeta, Aguilar Julio & Taboada-Verona, 2016: 134, fig. 2 (distr.).

*Eburia perforata* LeConte, 1873a: 180; Bates, 1880: 19 (distr.); Lameere, 1883: 17 (cat.).

**Syntypes locality** – Syntypes: United States, Texas. (MCZN).

### 3. *Susuacanga ulkei* (Bland, 1862)

**Type locality** – Lectotype male: Mexico, Baja California: Cabo San Lucas. (MCZN). **Distribution** - United States (southern Arizona), Mexico (Baja California, Sonora, Sinaloa, Durango, Nayarit). **Host plants** - *Quercus* sp. (Fagaceae).

*Eburia ? ulkei* Bland, 1862: 270, fig. 1; Packard, 1872: 495, fig. 481.

*Eburia ulkei*; LeConte, 1873a: 179; Horn, 1880b: xi; Bates, 1884: 244; Leng, 1885c: 28; Horn, 1894: 338 (distr.); Grossbeck, 1912: 325 (distr.); Linsley, 1942: 34; Linsley, 1962a: 57, fig. 21; Chemsak & Linsley, 1970a: 307, fig. 1 (biol.); Chemsak, Linsley & Noguera, 1992: 35 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Noguera, 2002: 120, fig. 170; Monné, M.A., 2005: 154 (cat.); Noguera *et al.*, 2009: 87 (distr.).

*Susuacanga ulkei*; Tavakilian, 2013: 109; Botero, 2014: 525, fig. 15.

### ELAPHIDIINI Thomson, 1864

Elaphidionitae Thomson, 1864: 235.

Elaphidionini; Bradley, 1930: 229, 232; Arnett, 1962: 859, 882; Linsley, 1963: 1; Hatch, 1971: 99; Villiers, 1980b: 281; Monné, M.A., 1993d: 1 (cat.); Martins, 2005: 2 (rev.).

Elaphidiini; Ivie, 1985: 303; Lingafelter, 1998: 7 (rev.); Monné, M.A., 2005: 180 (cat.); Bousquet *et al.*, 2009: 46; Bouchard *et al.*, 2011: 471.

**Type-genus:** *Elaphidion* Audinet-Serville, 1834

**Type-species:** *Cerambyx spinicornis* Drury, 1773 designated by Newman (1840: 6).

Sphérionides Lacordaire, 1868: 204 (key), 312.

Sphaeriinae; Bates, 1870: 271.

Sphaerionini; Aurivillius, 1912: 96 (cat.); Bradley, 1930: 229, 233; Linsley, 1936a: 461; Knull, 1946: 187; Duffy, 1960: 129.

**Type-genus:** *Sphaerion* Audinet-Serville, 1834.

**Type-species:** *Elaphidion cyanipennis* Audinet-Serville, 1834 (monotypy).

Stenosphenini LeConte, 1873b: 292 (key), 316 ; LeConte & Horn, 1883: 301; Blatchley, 1910: 1031.

**Type-genus:** *Stenosphenus* Haldeman, 1847.

**Type-species:** *Callidium notatum* Olivier, 1795 (monotypy).

***Aneflomorpha* Casey, 1912**

*Aneflomorpha* Casey, 1912: 291, 293; 1924: 242; Bradley, 1930: 233; Linsley, 1936a: 472; Knull, 1946: 197; Linsley, 1961b: 181; 1963: 40; Arnett, 1962: 863, 883; Hatch, 1971: 107; Lingafelter, 1998: 50 (rev.); Chemsak & Noguera, 2005: 31 (key spp.); Monné, M.A., 2005: 183 (cat.); Monné, M.A., 2012: 20.

**Type-species** - *Elaphidion subpubescens* LeConte, 1862 (original designation).

*Anepsyra* Casey, 1912: 291, 293; Bradley, 1930: 232; Linsley, 1936a: 476; 1961b: 182; Zayas, 1975: 110.

**Type-species** - *Elaphidion tenue* LeConte, 1854 (original designation).

**1. *Aneflomorpha aculeata* (LeConte, 1873)**

**Type locality** - Holotype male: United States, Texas. (MCZN). **Distribution** - United States (Central Texas).

*Elaphidion (Elaphidion) aculeatum* LeConte, 1873a: 184.

*Hypermallus aculeatus*; Lameere, 1883: 14 (cat.).

*Elaphidion aculeatum*; Leng, 1885c: 32; Smith, 1900: 288 (distr.); Leng, 1910: 77 (distr.); Smith, 1910: 326 (distr.).

*Aneflomorpha aculeata*; Casey, 1912: 293; Linsley, 1963: 44; Turnbow & Franklin, 1980: 347 (deletion); Chemsak, Linsley & Noguera, 1992: 37 (cat.); Monné, M.A., 1993d: 27 (cat.); Lingafelter & Horner, 1993: 170 (distr.).

*Anepsyra aculeatum*; Linsley, 1936a: 477.

**2. *Aneflomorpha cazieri* Chemsak, 1962**

**Type locality** - Holotype male: United States, Arizona: 5 miles West of Portal (Southwestern Research Station of the AMNH), Cochise County, Chiricahua Mts. (CASC). **Distribution** - United States (Arizona and New Mexico). **Host plants** - *Quercus* sp. (Fagaceae).

*Aneflomorpha cazieri* Chemsak, 1962b: 107; Linsley, 1963: 46; Ruetter, 1970: 18 (paratypes); Chemsak, Linsley & Noguera, 1992: 37 (cat.); Monné, M.A., 1993d: 28 (cat.); Linsley & Chemsak, 1997: 341 (hosts).

**3. *Aneflomorpha citrana* Chemsak, 1960**

**Type locality** - Holotype male: United States, Arizona: Maricopa County, Tempe. (CASC). **Distribution** - United States (Arizona). **Host plants** - *Rhus aromatica* Aitchison (Anacardiaceae), *Euonymus* sp. (Celastraceae), *Indigofera spaherocarpa* A. Gray, *Ficus* sp., *Morus rubra* Linné (Moraceae), *Prunus* sp. (Rosaceae), *Citrus* sp. (Rutaceae).

*Aneflomorpha citrana* Chemsak, 1960: 149; Gerhardt, 1961: 134, figs 1, 2 (biol.); Linsley, 1963: 48; Lewis, 1979: 23 (distr.); Chemsak, Linsley & Noguera, 1992: 37 (cat.); Monné, M.A., 1993d: 28 (cat.); Linsley & Chemsak, 1997: 341 (hosts); Heffern, Vlasak & Alten, 2018: 740 (hosts)

**4. *Aneflomorpha delongi* (Champlain & Knull, 1922)**

**Type locality** - Holotype male: United States, Florida: Dade County, Miami. (FMNH). **Distribution** - United States (Florida). **Host plants** - *Quercus laevis* Walter (Fagaceae).

*Elaphidion (Anepsyra) delongi* Champlain & Knull, 1922: 147; Chemsak, 1977a: 174 (types)

*Aneflomorpha delongi*; Linsley, 1963: 43; Lampert, 1977: 82 (distr.); Chemsak, Linsley & Noguera, 1992: 37 (cat.); Monné, M.A., 1993d: 28 (cat.); Browne & Peck, 1996:

2158 (distr.); Peck & Thomas, 1998: 118 (distr.); Morris, 2004: 209 (distr., hosts); Lingafelter, 2007: 50, 144, 2 figs, pl. 12, fig. k (hosts).

#### 5. *Aneflomorpha fisheri* Linsley, 1936

**Type locality** - Holotype male: United States, Texas: Alpine, Glen Ranch. (CASC).

**Distribution** - United States (Texas).

*Aneflomorpha fisheri* Linsley, 1936a: 475, pl.1, fig.7; 1963: 47; Chemsak, Linsley & Noguera, 1992: 37 (cat.); Monné, M.A., 1993d: 28 (cat.).

#### 6. *Aneflomorpha gilana* Casey, 1924

**Type locality** - Holotype male: United States, Arizona: Phoenix. (USNM).

**Distribution** - United States (Arizona).

*Aneflomorpha gilana* Casey, 1924: 243; Linsley, 1963: 55; Chemsak, Linsley & Noguera, 1992: 37 (cat.); Monné, M.A., 1993d: 28 (cat.); Lingafelter *et al.*, 2014: 69, fig. 74w (holotype).

#### 7. *Aneflomorpha lineare* (LeConte, 1859)

**Type locality** - Holotype: United States, California: Tejon. (MCZN). **Distribution** - United States (Oregon, California), Mexico (Baja California). **Host plants** - *Rhus aromatica* Aitchson (Anacardiaceae), *Quercus agrifolia* Née, *Q. arizonica* Sargent, *Q. dumosa* Nuttall, *Q. emoryi* Torrey (Fagaceae), *Ceanothus integerrimus* Hook. & Arn. (Rhamnaceae), *Adenostoma fasciculatum* Hooker & Arnott, *Purshia tridentata* de Candolle (Rosaceae).

*Elaphidion lineare* LeConte, 1859b: 80.

*Hypermallus linearis*; Gemminger & Harold, 1872: 2817 (cat.).

*Aneflus linearis*; LeConte, 1873a: 186; Lameere, 1883: 18 (cat.); LeConte & Horn, 1883: 288; Leng, 1885c: 34; Horn *in* Leng, 1885b: 131, 132; Fall, 1901: 145 (distr.); Schaeffer, 1908: 330; Garnett, 1918: 205 (distr.).

*Aneflomorpha lineare*; Casey, 1912: 293; Davis, 1932: 85 (distr.); Linsley, 1936a: 472; Moore, 1937: 88 (distr.); Linsley, 1963: 57, fig. 18; Tyson, 1970b: 297; Hatch, 1971: 107, pl. 10, fig. 8; Furniss & Carolin, 1977: 98 (hosts); Cope, 1984a: 27 (hosts); Chemsak, Linsley & Noguera, 1992: 37 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 341 (hosts); Monné, M.A., 2001a: 60 (cat. hosts); Monné, M.A., 2005: 184 (cat.).

*Aneflomorpha longipennis* Casey, 1912: 294; Linsley, 1933a: 92 (distr.); Lingafelter *et al.*, 2014: 92, figs 101g, h (holotype); Heffern, Vlasak & Alten, 2018: 740 (hosts).

**Type locality** - Holotype male: United States, California: Siskiyou Co. (USNM).

*Elaphidion tenue*; Craighead, 1923: 75, pl. 10, fig. 3 (larva, pupa) (not LeConte, 1854).

#### 8. *Aneflomorpha linsleyae* Chemsak, 1962

**Type locality** - Holotype male: United States, Arizona: 5 miles West of Portal (Southwestern Research Station of the AMNH), Cochise County, Chiricahua Mts. (CASC). **Distribution** - United States (Arizona).

*Aneflomorpha linsleyae* Chemsak, 1962b: 105; Linsley, 1963: 43; Chemsak, Linsley & Noguera, 1992: 37 (cat.); Monné, M.A., 1993d: 29 (cat.).

#### 9. *Aneflomorpha luteicornis* Linsley, 1957

**Type locality** - Holotype male: United States, Arizona: Mt. Washington, near Nogales. (CASC). **Distribution** - United States (Southern Arizona mountains).

**Host plants** - *Quercus hypoleucoides* A. Camus (Fagaceae).



*Aneflomorpha luteicornis* Linsley, 1957b: 285; Linsley, 1963: 54; Chemsak, Linsley & Noguera, 1992: 37 (cat.); Monné, M.A., 1993d: 29 (cat.); Heffern, Vlasak & Alten 2018: 740 (hosts).

**10. *Aneflomorpha minuta* Chemsak, 1962**

**Type locality** - Holotype male: United States, Arizona: Baboquivari Mountains, Browns Canyon. (CACS). **Distribution** - United States (Arizona).

*Aneflomorpha minuta* Chemsak, 1962b: 103; Linsley, 1963: 50; Ruetter, 1970: 18 (paratype); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Monné, M.A., 1993d: 30 (cat.).

**11. *Aneflomorpha opacicornis* Linsley, 1957**

**Type locality** - Holotype male: United States, Texas: Cline. (USNM). **Distribution** - United States (Texas).

*Aneflomorpha opacicornis* Linsley, 1957b: 285, 1963: 55; Hovore, Penrose & Neck, 1987: 301 (distr.); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Monné, M.A., 1993d: 30 (cat.); Lingafelter *et al.*, 2014: 292, pl. 123m (holotype).

**12. *Aneflomorpha parkeri* Knull, 1934**

**Type locality** - Holotype: United States, Arizona: Pinal Mountains. (FMNH). **Distribution** - United States (Arizona).

*Aneflomorpha parkeri* Knull, 1934c: 334; Linsley, 1936a: 474; Gerhardt, 1961: 134; Linsley, 1963: 54; Chemsak, 1977a: 173 (types); Lewis, 1979: 23 (distr.); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Monné, M.A., 1993d: 30 (cat.).

**13. *Aneflomorpha parowana* Casey, 1924**

**Type locality** - Lectotype: United States, Utah: Parowan Mountains. (USNM). **Distribution** - United States (Southern Oregon to southern California; Utah and New Mexico), Mexico (Baja California Norte).

*Aneflomorpha parowana* Casey, 1924: 242; Linsley, 1963: 56 (syn.); Hatch, 1971: 107; Lewis, 1979: 23 (distr.); Hovore, 1988: 10 (distr.); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Monné, M.A., 1993d: 30 (cat.); Heffern, 1998: 13 (distr.); Lingafelter *et al.*, 2014: 296, 305, fig. 127 w (lectotype).

*Aneflomorpha testacea* Casey, 1924: 243; Lingafelter *et al.*, 2014: 332, 365, fig. 168 w (lectotype).

**Type locality** - Lectotype: United States, Utah: Eureka. (USNM).

*Aneflomorpha elongata* Linsley, 1936a: 473, pl. 1, fig. 6.

**Type locality**- Holotype female: United States, California: Santa Ana Canyon, Orange County. (CASC).

*Aneflomorpha californica* Linsley, 1936a: 476.

**Type locality** - Holotype male: United States, California: Sequoia National Park, Ash Mountain. (CASC).

**14. *Aneflomorpha rectilinea rectilinea* Casey, 1924**

**Type locality** - Lectotype male: United States, Arizona: Tucson. (USNM).

**Distribution** - United States (Arizona, Texas, New Mexico), Mexico (Baja California, Sinaloa, Jalisco, Sonora). **Host plants** - *Rhus aromatica* Aitchison (Anacardiaceae), *Baccharis sarothroides* A. Gray (Asteraceae), *Quercus* sp. (Fagaceae).

*Aneflomorpha rectilinea* Casey, 1924: 243; Linsley, 1936a: 474; Linsley, Knull & Statham, 1961b: 13 (distr.); Linsley, 1963: 49 (syn.); Lewis, 1979: 23 (distr.); Chemsak & Noguera, 1995: 58; Noguera & Chemsak, 1996: 398 (cat.); Lingafelter, 1998: 48, fig. 65; Noguera *et al.*, 2002: 623 (distr.); Lingafelter *et al.*, 2014: 308, figs 142k, l (lect. designation).

*Aneflomorpha rectilinea rectilinea*; Giesbert & Hovore, 1976: 98; MacKay, Zak & Hovore, 1987: 363 (hosts); Hovore, 1988: 9 (distr.); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Heffern, 1998: 13 (distr.); Monné, M.A., 2001a: 61 (cat. hosts); Monné, M.A., 2005: 184 (cat.); Noguera *et al.*, 2009: 87 (distr.).

*Aneflomorpha spinicornis* Linsley, 1935c: 147.

**Type locality** - Holotype male: Mexico, Sinaloa: Los Mochis. (CASC).

*Aneflomorpha duncani* Linsley, 1936a: 472.

**Type locality** - Holotype male: United States, Arizona: Globe. (CASC).

#### 14a. *Aneflomorpha rectilinea yumae* Giesbert & Hovore, 1976

**Type locality** - Holotype male: United States, Arizona: Yuma County, Morelos Dam. (CASC). **Distribution** - United States (Arizona), Mexico (Baja California Norte).

*Aneflomorpha rectilinea yumae* Giesbert & Hovore, 1976: 97; Hovore, 1988: 27; Chemsak, Linsley & Noguera, 1992: 38 (cat.); Monné, M. A., 1993d: 30 (cat.).

#### 15. *Aneflomorpha seminuda* Casey, 1912

**Type locality** - Holotype male: United States, Texas. (USNM). **Distribution** - United States (Texas).

*Aneflomorpha seminuda* Casey, 1912: 294; Linsley, 1963: 51 (syn.); Turnbow & Wappes, 1978: 368 (distr.); Hovore, Penrose & Neck, 1987: 301 (distr.); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Monné, M.A., 1993d: 31 (cat.); Lingafelter & Horner, 1993: 170 (distr.); Lingafelter, 2014: 317, fig. 152a (holotype).

*Aneflomorpha texana* Linsley, 1936a: 473.

**Type locality** - Holotype male: United States: Texas: Alpine, Glen Ranch. (CASC).

#### 16. *Aneflomorpha subpubescens* (LeConte, 1862)

**Type locality** - Holotype: United States, New Jersey. (MCZN). **Distribution** - Eastern, southeastern and central United States. **Host plants** - *Gaylussia* sp. (Ericaceae), *Castanea* sp., *Quercus alba* Linné, *Q. ilicifolia* Wagenheim (Fagaceae); *Comptonia peregrina* (Linnaeus) M. Coulter (Myricaceae).

*Elaphidion subpubescens* LeConte, 1862: 41; 1873a: 183; Leng, 1885c: 32; Chittenden, 1898: 41 (biol.); Smith, 1900: 288 (distr.); Ulke, 1903: 26, 50 (distr.); Felt, 1906: 702 (hosts); Smith, 1910: 326; Nicolay, 1919: 65 (distr.); Craighead, 1923: 75, pls 1, 15.

*Hypermallus subpubescens*; Gemminger & Harold, 1872: 2818 (cat.).

*Aneflomorpha subpubescens*; Casey, 1912: 291; Champlain, Kirk & Knull, 1925: 106; Kirk & Knull, 1926: 22; Leonard, 1928: 436 (distr.); Loding, 1933: 148 (distr.); Brimley, 1938: 211 (distr.); Loding, 1945: 115 (distr.); Knull, 1946: 197, pl. 11, fig. 45; Craighead, 1950: 246, fig. 56C (larva); Beal, Haliburton & Knight, 1952: 44 (biol.); Alexander, 1958: 44 (distr.); Linsley, 1961b: 169; 1963: 51, fig. 17; Baker, 1972: 194, fig. 65; Turnbow & Franklin, 1980: 341 (distr.); Rice, 1981: 460 (distr.); Arnett, 1985: 362, fig. 24.186; Rice, Turnbow & Hovore, 1985: 19 (distr.); Chemsak, Linsley & Noguera, 1992: 38 (cat.); MacRae, 1993: 229 (distr.); Monné, M.A., 1993d: 31 (cat.); Yanega, 1996: 47, pl. 14, fig. 163; Linsley & Chemsak,

1997:341 (hosts); Schiefer, 1998: 116 (distr.); Peck & Thomas, 1998: 118 (distr.); Vlasák & Vlasakova, 2002: 209 (distr.); Sikes & Webster, 2005: 320 (distr.); Lingafelter, 2007: 50, 144, 2 figs, pl. 12, fig. 6 (hosts); Staines, 2008: 145 (distr.); Guarnieri, 2009: 16 (distr.); Holt, 2013: 248 (distr.); Klingeman *et al*, 2017: 297 (distr.); Heffern, Vlasak & Alten, 2018: 541 (hosts).

#### 17. *Aneflomorpha tenuis* (LeConte, 1854)

**Syntypes locality** – Syntypes: United States, Texas: Laredo to Ringgold Barracks. (MCZN). **Distribution** - United States (Southern and western Texas), northern Mexico (Tamaulipas, Nuevo León). **Host plants** - *Acacia farnesiana* (Linné) Willdenow (Mimosaceae), *Karwinskia humboldtiana* (Roemer & Schultes) Zuccarini (Rhamnaceae).

*Elaphidion tenue* LeConte, 1854b: 81; 1858a: 40 (distr.); Schaeffer, 1908: 327 (distr.).

*Hypermallus tenuis*; Gemminger & Harold, 1872: 2818 (cat.).

*Aneflus tenuis*; LeConte, 1873a: 186; Lameere, 1883: 18 (cat.); LeConte & Horn, 1883: 288; Leng, 1885c: 34, 35; Horn *in* Leng, 1885d: 131, 133.

*Anepsyra tenue*; Casey, 1912: 291; Linsley & Martin, 1933: 180; Vogt, 1949: 141 (distr.); Craighead, 1950: 246 (biol.).

*Aneflomorpha tenuis*; Linsley, 1963: 44, fig. 16; Hovore, Penrose & Neck, 1987: 301 (hosts); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 341 (hosts); Monné, M.A., 2001a: 61 (cat. hosts); Monné, M.A., 2005: 185 (cat.).

#### 18. *Aneflomorpha unispinosa* Casey, 1912

**Type locality** – Holotype male: Mexico, Chihuahua: Colonia Garcia. (USNM).

**Distribution** - United States (Arizona), Mexico (Chihuahua).

*Aneflomorpha unispinosa* Casey, 1912: 295; Linsley, 1936a: 474; Linsley, Knull & Statham, 1961b: 13 (distr.); Linsley, 1963: 47; Chemsak, Linsley & Noguera, 1992: 38 (cat.); Monné, M.A., 2005: 185 (cat.); Lingafelter *et al.*, 2014: 339, figs 177e, f (holotype).

#### 19. *Aneflomorpha weneri* Chemsak, 1962

**Type locality** -Holotype male: United States, Texas: Big Bend National Park, Chisos Mountains. (CASC). **Distribution** - United States (Texas).

*Aneflomorpha weneri* Chemsak, 1962b: 106; Linsley, 1963: 49; Chemsak, Linsley & Noguera. 1992: 38 (cat.); Monné, M.A. 1993d: 32 (cat.).

#### *Aneflus* LeConte, 1873

*Aneflus* LeConte, 1873a: 185; 1873b: 302; LeConte & Horn, 1883: 287; Leng, 1885b: 34; Horn *in* Leng, 1885b: 131; Casey, 1912: 291, 296; Bradley, 1930: 233; Linsley, 1936a: 468, 469; 1961f: 181; 1963: 29; Arnett, 1962: 865, 883; Chemsak & Linsley, 1963b: 81 (rev.); Lingafelter, 1998: 51 (syn.); Monné, M.A., 2005: 186 (cat.); Monné, M.A., 2012: 20.

**Type-species** - *Elaphidion protensum* LeConte, 1858 (subsequent designation, Casey, 1912: 291).

*Axestinus* LeConte, 1873a: 177; 1873b: 301; LeConte & Horn, 1883: 286; Leng, 1884: 115; Bradley, 1930: 232; Linsley, 1936a: 468; 1961f: 180; Arnett, 1962: 865, 883; Linsley, 1963: 58.

**Type-species** - *Axestinus obscurus* LeConte, 1873 (monotypy).

*Proteinidium* Bates, 1892: 149.

**Type-species** - *Proteinidium brevicorne* Bates, 1892 (monotypy).

***Aneflus (Aneflus) LeConte, 1873***

**1. *Aneflus (Aneflus) calvatus* Horn, 1885**

**Type locality** - Holotype male: United States, California. (ANSP). **Distribution** - United States (Arizona, southern California), Mexico (Baja California, Sonora).

*Aneflus calvatus* Horn in Leng, 1885d: 132; Linsley, 1936a: 471; 1942: 37; 1963: 36, fig. 13; Chemsak & Linsley, 1963b: 89; Chemsak, Linsley & Noguera, 1992: 38 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Monné, M.A., 2005: 186 (cat.); Noguera *et al.*, 2009: 87 (distr.).

*Aneflomorpha? calvatus*; Casey, 1912: 293.

**2. *Aneflus (Aneflus) levettei* (Casey, 1891)**

**Type locality** - Lectotype male: United States, Arizona. (USNM). **Distribution** - United States (Arizona) and northern Mexico. **Host plants** - *Mimosa dysocarpa* Benth (Mimosaceae).

*Elaphidion levettei* Casey, 1891: 29; Henshaw, 1895: 24 (cat.); Leng & Hamilton, 1896: 167; Schaeffer, 1908: 335 (distr.).

*Aneflus levettei*; Schaeffer, 1908: 330 (distr.); Casey, 1924: 241; Linsley, Knull & Statham, 1961: 13 (distr.); Chemsak & Linsley, 1963b: 89; Linsley, 1963: 31, fig. 15; Cope, 1984a: 27 (hosts); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Monné, M.A., 1993d: 23 (cat.); Linsley & Chemsak, 1997: 341 (hosts); Lingafelter *et al.*, 2014: 89, 367, fig. 97w (lectotype).

*Aneflomorpha levettei*; Casey. 1912: 293; Linsley, 1936a: 475.

**3. *Aneflus (Aneflus) obscurus* (LeConte, 1873)**

**Type locality** - Holotype: United States, Rio Grande Valley ?. (MCZN). **Distribution** - United States (Arizona, Texas), Mexico (Chihuahua, Coahuila). **Host plants** - *Acacia* sp. (Mimosaceae).

*Axestinus obscurus* LeConte, 1873a: 177; 1873b: 302; Lameere, 1883: 16 (cat.); LeConte & Horn, 1883: 287; Linsley, 1936a: 469, pl. 1, figs 4, 4a (syn.); Linsley, Knull & Statham, 1961b: 13 (distr.); Linsley, 1963: 58, fig. 19; MacKay, Zak & Hovore, 1987: 363 (hosts); Hovore, Penrose & Neck, 1987: 301 (distr.); Chemsak, Linsley & Noguera, 1992: 40 (cat.); Noguera & Chemsak, 1996: 398 (cat.).

*Aneflus obscurus*; Lingafelter, 1998: 51, fig. 67; Monné, M.A., 2001a: 61 (cat. hosts); Monné, M. A., 2005: 187 (cat.).

*Proteinidium brevicorne* Bates, 1892: 150, pl. 5, fig. 4; Chemsak, 1967b: 79 (lect.).

**Type locality** - Lectotype female: Mexico, Chihuahua: Chihuahua City. (BMNH).

**4. *Aneflus (Aneflus) paracalvatus* Knull, 1955**

**Type locality** - Holotype male: United States, Arizona: Santa Rita Mts. (FMNH). **Distribution** - United States (Arizona), northern Mexico. **Host plants** - *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Aneflus paracalvatus* Knull, 1955b: 221.

*Aneflus paracalvatus*; Linsley, 1963: 33; Chemsak & Linsley, 1963b: 95; Chemsak, 1977a: 173 (type); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Monné, M.A., 2001a: 62 (cat. hosts); Monné, M.A., 2005: 187 (cat.).

*Aneflus paraclavatus*; Chemsak & Linsley, 1982a: 19 (error).

*Aneflus prosopidis* Linsley, 1957a: 20; Lingafelter *et al.*, 2014: 303, figs 136i, j (holotype).

**Type locality** - Holotype male: United States, Arizona: Santa Catalina Mts. (Sabino Canyon). (USNM).

##### 5. *Aneflus (Aneflus) prolixus prolixus* LeConte, 1873

**Syntypes locality** – Syntypes male and female: Mexico, Baja California: Cabo San Lucas. (MCZN). **Distribution** – United States (California), Mexico (Baja California).

*Aneflus prolixus* LeConte, 1873a: 203; Lameere, 1883: 18 (cat.); Leng, 1885c: 35; Horn *in* Leng, 1885d: 131, 132; Horn, 1894: 338 (distr.); Garnett, 1918: 205 (distr.); Linsley, 1936a: 470; 1942: 36; 1963: 31; Chemsak, Linsley & Noguera, 1992: 38 (cat.).

*Aneflus prolixus prolixus*; Chemsak & Linsley, 1963b: 87; Noguera & Chemsak, 1996: 398 (cat.); Hovore, 1988 : 27 (distr.) ; Monné, M.A., 2005: 187 (cat.); Swift, 2008a: 2 (distr.).

##### 5a. *Aneflus (Aneflus) prolixus fisheri* Knull, 1934

**Type locality** - Holotype male: United States, Arizona: Globe. (FMNH).

**Distribution** - United States (Southeastern Arizona to Texas), Mexico (Sonora).

*Aneflus fisheri* Knull, 1934c: 335; Chemsak, 1977a: 173 (type).

*Aneflus prolixus*; Linsley, 1936a: 470 (syn.); 1942: 36; Linsley, Knull & Statham, 1961b: 13.

*Aneflus prolixus fisheri*; Linsley, 1963: 32, fig. 11; Chemsak & Linsley, 1963b: 87; Turnbow & Wappes, 1978: 368 (distr.); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Monné, M.A., 2005: 187 (cat.).

*Aneflus prolixus fisheri*; Terrón, 1992: 289 (distr., error).

##### 5b. *Aneflus (Aneflus) prolixus insoletus* Chemsak & Linsley, 1963

**Type locality** - Holotype male: Mexico, Tamaulipas: 29 km S Hidalgo. (CASC).

**Distribution** - United States (Texas), Mexico (Chihuahua, Coahuila, Durango, Tamaulipas, San Luís Potosí, Hidalgo). **Host plants** - *Acacia berlandieri* Benth (Mimosaceae).

*Aneflus prolixus insoletus* Chemsak & Linsley, 1963b: 88; Turnbow & Wappes, 1978: 368 (distr.); Hovore, Penrose & Neck, 1987: 301 (hosts); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 341 (hosts); Monné, M.A., 2001a: 62 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 102 (distr.);

Monné, M.A., 2005: 188 (cat.); García Morales *et al.*, 2015: 102 (distr.).

*Aneflus prolixus insoletus*; Terrón, 1992: 289 (distr., error).

##### 6. *Aneflus (Aneflus) protensus protensus* (LeConte, 1858)

**Type locality** - Holotype female: Mexico, Sonora. (MCZN). **Distribution** - United States (Texas to southern California), Mexico (Baja California, Sonora, Chihuahua, Coahuila, Tamaulipas). **Host plants** - *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Elaphidion protensum* LeConte, 1858b: 82; 1858a: 40 (distr.).

*Hypermallus protensus*; Gemminger & Harold, 1872: 2818 (cat.).

*Aneflus protensus*; LeConte, 1873a: 185; LeConte & Horn, 1883: 288; Lameere, 1883: 18 (cat.); Leng, 1885c: 34, pl. 3, fig. 5; Horn *in* Leng, 1885d: 132; Horn, 1894: 338 (distr.); Garnett, 1918: 205 (distr.); Linsley, 1936a: 470 (syn.); 1942: 36; Vogt, 1949: 141 (distr., hosts); Craighead, 1950: 239 (biol.); Linsley, Knull & Statham, 1961b: 13 (distr.); Linsley, 1963: 32, figs 10, 12; Chemsak & Linsley, 1963b: 90; Baker, 1972: 199 (biol.); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 342 (hosts); Monné, M.A., 2001a: 62 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 102 (distr.).

*Aneflus protensus protensus*; MacKay, Zak & Hovore, 1987: 363 (hosts); Hovore, Penrose & Neck, 1987: 301 (hosts); Monné, M.A., 2005: 188 (cat.).

*Aneflus cochisensis* Casey, 1912: 296; Moore, 1937: 88 (distr.); Lingafelter *et al.*, 2014: 42, figs 43w, x (holotype).

**Type locality** - Holotype male: United States, Arizona: Cochise Co., Douglas. (USNM).

#### 6a. *Aneflus (Aneflus) protensus pallidus* (Tyson, 1968)

**Type locality** - Holotype male: United States, California: Riverside County, Blythe. (CASC). **Distribution** - United States (California and Arizona).

*Aneflus protensus pallidus* Tyson, 1968: 142, fig. 2 (error).

*Aneflus protensus pallidus*; Chemsak, Linsley & Noguera, 1992: 38 (cat.); Monné, M.A., 1993d: 25 (cat.).

#### 7. *Aneflus (Aneflus) sonoranus* Casey, 1924

**Type locality** - Holotype male: United States, Arizona: Baboquivari Mts. (USNM).

**Distribution** - United States (Western Texas to Arizona), Mexico (Sonora). **Host plants** - *Acacia greggii* A. Gray, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Condalia obovata* Hooker, *C. obtusiflora* (Hooker) Weberbauer (Rhamnaceae).

*Aneflus sonoranus* Casey, 1924: 241; Linsley, 1936a: 470, pl. 1, figs 5, 5a; Vogt, 1949: 141 (distr.); Linsley, Knull & Statham, 1961b: 13 (distr.); Linsley, 1963: 30, fig. 14; Chemsak & Linsley, 1963b: 88; Lewis, 1979: 23 (distr.); Hovore, Penrose & Neck, 1987: 301 (hosts); Chemsak, Linsley & Noguera, 1992: 38 (cat.); Linsley & Chemsak, 1997: 342 (hosts); Monné, M.A., 2001a: 62 (cat. hosts); Monné, M.A., 2005: 188 (cat.); Lingafelter *et al.*, 2014: 321, figs 157k, l (holotype).

*Axestinus obscurus*; Leng, 1885c: pl. 2, fig. 27; Schaeffer, 1908: 335 (not LeConte, 1873).

#### *Anelaphus* Linsley, 1936

*Anelaphus* Linsley, 1936a: 464; 1961b: 37; Arnett, 1962: 866, 883; Linsley, 1963: 99; Gilmour, 1968: 130 (key spp.); Villiers, 1980b: 288; Skiles, 1985: 305, 318 (syn.); Lingafelter, 1998: 52 (syn.); Monné, M.A., 2005: 190 (cat.); Lingafelter & Ivie, 2005: 205; Martins, 2005: 303; Monné, M.A., 2012: 20; Bousquet, Laplante, Hammond & Langor, 2017: 45 (key spp.)

**Type-species** - *Elaphidion spurcum* LeConte, 1864 (original designation).

*Elaphidionoides* Linsley, 1957b: 283; 1961b: 35; Arnett, 1962: 866, 883; Linsley, 1963: 86

**Type-species** - *Stenocorus villosus* Fabricius, 1793 (original designation).

*Peranoplium* Linsley, 1957a: 17; 1961b: 40; Arnett, 1962: 866, 884; Linsley, 1963: 115.

**Type-species** - *Elaphidion (Anoplium) hoferi* Knull, 1934 (original designation).

### 1. *Anelaphus albofasciatus* (Linell, 1897)

**Type locality** - Holotype male: United States, California: Los Angeles County, Mojave Desert. (USNM). **Distribution** - United States (Arizona and southern California). **Host plants** - *Cylindropuntia bigelovii* (Engelman) F.M. Knuth, *Echinocactus* sp., *Opuntia acanthocarpa* Engelman & Bigelow, *O. whipplei* Engelman & Bigelow (Cactaceae).

*Elaphidion albofasciatum* Linell, 1897: 393; Fall, 1901: 144 (distr.); Garnett, 1918: 177 (distr.).

*Anoplium albofasciatum*; Leng, 1920: 259 (cat.); Davis, 1928: 123 (biol.); Tanner, 1934: 47 (distr.); Moore, 1937: 88 (distr.).

*Anelaphus albofasciatus*; Linsley, 1963: 101, fig. 37; Raske, 1972: 21, figs 1-5 (biol., hosts); Chemsak, Linsley & Noguera, 1992: 39 (cat.); Monné, M.A., 1993d: 49 (cat.); Linsley & Chemsak, 1997: 342 (hosts); Swift, 2008a: 2 (distr., hosts); Lingafelter *et al.*, 2014: 11, fig. 10o (holotype); Bezark, 2018: 46 (distr.);

*Anoplium linelli* Casey, 1924: 246; Lingafelter *et al.*, 2014: 89, 365, fig. 98q (lectotype).

**Type locality** - Lectotype: United States, Arizona: near Tucson. (USNM).

### 2. *Anelaphus belkini* Skiles, 1985

**Type locality** - Holotype male: United States, Texas: Davis Mountain Resort, Limpia Canyon, Jeff Davis County. (CASC). **Distribution** - United States (Texas). **Host plants** - *Quercus emoryi* Torrey (Fagaceae).

*Anelaphus belkini* Skiles, 1985: 307; Chemsak, Linsley & Noguera, 1992: 39 (cat.); Monné, M. A., 1993: 50 (cat.); MacRae & Rice, 2007: 228 (distr.).

### 3. *Anelaphus brevidens* (Schaeffer, 1908)

**Type locality** - Holotype male: United States, Arizona: Huachuca Mts. (USNM). **Distribution** - United States (Texas to southern California), northern Mexico (Sonora) and Baja California. **Host plants** - *Ericameria linerifolia* (de Candolle) Urbatsch & Wussow (Asteraceae), *Eysenhardtia polystachia* (Fabaceae), *Calliandra eriophylla* Benth, *Mimosa dysocarpa* Benth (Mimosaceae), *Condalia* sp. (Rhamnaceae), *Lycium* sp. (Solanaceae).

*Elaphidion brevidens* Schaeffer, 1908: 333; Lingafelter *et al.*, 2014: 32, figs 33q, r (holotype).

*Anoplium brevidens*; Casey, 1912: 305.

*Anelaphus brevidens*; Linsley, 1936a: 465; 1942: 40; Linsley, Knull & Statham, 1961b: 15 (distr.); Linsley, 1963: 195 (syn.); Cope, 1984a: 27 (hosts); MacKay, Zak & Hovore, 1987: 364 (hosts); Chemsak, Linsley & Noguera, 1992: 39 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 342 (hosts); Monné, M.A., 2001a: 62 (cat. hosts); Monné, M.A., 2005: 190 (cat.); Noguera *et al.*, 2009: 87 (distr.); Heffern, Vlasak & Alten, 2018: 741, 2 figs (hosts).

*Anoplium quadricolle* Casey, 1924: 246; Lingafelter *et al.*, 2014: 307, figs 141c, d (holotype).

*Anelaphus quadricollis*; Linsley, 1936a: 465.

**Type locality** - Holotype female: United States, Arizona: near Tucson. (USNM).

### 4. *Anelaphus cinereus* (Olivier, 1795)

**Type locality** - Lectotype: Santo Domingo. (BMNH). **Distribution** - United States (Florida), Cuba, Hispaniola, Jamaica, Bahamas, Virgin Islands, Cayman Islands, Bermudas, Curaçao, Puerto Rico. **Host plants** - *Metopium toxiferum* (Linné) Krug

- & Urban (Anacardiaceae), *Casuarina equisetifolia* Linné (Casuarinaceae), *Conocarpus erectus* Linné (Combretaceae), *Lysiloma latisiliqua* (Linné) Benth (Mimosaceae), *Zanthoxylum* sp. (Rutaceae), *Sideroxylon foetidissimum* Jacquin (Sapotaceae), *Guaicum officinale* Linné (Zygophyllaceae).
- Callidium cinereum* Olivier, 1795: (70) 69, pl. 8, fig. 102; Schoenherr, 1817: 459.
- Elaphidion cinereum*; White, 1853: 103; Chevrolat, 1862a: 261; Schwarz, 1888: 93 (distr.); Leng, 1890: 214; Gundlach, 1894: 328 (distr.); Wolcott, 1924: 109.
- Anelaphus cinereus*; Ivie, 1985: 307, figs 2-4, (syn., lect.); Chemsak, Linsley & Noguera, 1992: 39 (cat.); Browne, Peck & Ivie, 1993: 44 (distr., hosts); Monné, M.A., 2001a: 63 (cat. hosts); Peck, 2005: 168 (distr.); Monné, M.A., 2005: 191 (cat.); Vitali, 2007: 45; Lingafelter, 2007: 53, 144, 2 figs, pl. 13, fig. f (hosts); Perez-Gelabert, 2008: 118 (distr.); Turnbow & Thomas, 2008: 16 (distr.); Thomas, Turnbow & Steiner, 2013: 17 (distr.); Devesa, Fonseca & Barro, 2015: 31, 154, 158, figs 1-12.
- Elaphidion nanum*; Gahan, 1895: 103; Gowdey, 1926: 21 (distr.); Russo, 1930: 142 (distr.); Duffy, 1953: 183, figs 153, 154, pl. 1, fig. 2 (larva); 1960: 121, figs 70-72 (larva, pupa); Zayas, 1975: 95 (not Fabricius, 1793).
- Anoplium nanum*; Cazier & Lacey, 1952: 19, fig. 2 (*partim*).
- Anoplium subtropicum* Casey, 1924: 245; Lingafelter *et al.*, 2014: 329, figs 165s, t (lect. designation).
- Anelaphus subtropicus*; Linsley, 1963: 103 (*partim*); Chemsak, 1967a: 185 (distr.); Gilmour, 1968: 130, 131, pl. 12, fig. 3 (*partim*); Chemsak, 1969a: 186 (distr.); Turnbow & Hovore, 1979: 222 (hosts); Linsley & Chemsak, 1997: 344 (hosts); Vitali & Rezbanyai-Reser, 2003: 13, fig. 9, a-b.
- Type locality** – Lectotype: United States, Florida: Key West. (USNM).

##### 5. *Anelaphus davisi* Skiles, 1985

- Type locality** - Holotype male: United States, Texas: Jeff Davis County, Davis Mountain Resort, Limpia Canyon. (CASC). **Distribution** - United States (Texas, New Mexico), Mexico (Tamaulipas).
- Anelaphus debilis* Skiles, 1985: 308; Chemsak, Linsley & Noguera, 1992: 39 (cat.); Monné, M. A., 1993: 51 (cat.); MacRae & Rice, 2007: 229 (distr., hosts); García Morales *et al.*, 2015: 102 (distr.); Bezark, 2018: 46, fig. 12 (distr.).

##### 6. *Anelaphus debilis* (LeConte, 1854)

- Syntypes locality** – Syntypes: United States, Texas: near Eagle Pass. (MCZN).
- Distribution** - United States (central and southern Texas), northeastern Mexico (Tamaulipas), Honduras. **Host plants** - *Baccharis angustifolia* Michaux (Asteraceae), *Celtis* sp. (Cannabaceae), *Sesbania drummondii* (Rydberg) Cory (Fabaceae), *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Benth, *Pithecellobium pallens* (Benth) Standley, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).
- Elaphidion debile* LeConte, 1854a: 442; 1858a: 40 (distr.).
- Hypermallus debilis*; Gemminger & Harold, 1872: 2817 (cat.).
- Anoplium debile*; Casey, 1912: 305.
- Anelaphus debilis*; Linsley, 1963: 196; Hovore & Giesbert, 1976: 355 (hosts); Turnbow & Wappes, 1978: 368 (hosts); Hovore & Penrose, 1982: 24 (biol.); Hovore, Penrose & Neck, 1987: 303 (distr.); Chemsak, Linsley & Noguera, 1992: 39 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 342 (hosts); Monné, M.A.,



2001a: 63 (cat. hosts); Turnbow, Cave & Thomas, 2003: 8 (distr.); Monné, M.A., 2005: 191 (cat.); Vlasák, 2014: 318 (hosts); García Morales *et al.*, 2015: 102 (distr.).

#### 7. *Anelaphus dentatus* Chemsak, 1962

**Type locality** – Holotype female: United States, Arizona: Cochise Stronghold, Dragoon Mountains. (CASC). **Distribution** - United States (Arizona). **Host plants** - *Quercus hypoleuca* Engelmann (Fagaceae).

*Anelaphus dentatus* Chemsak, 1962b: 110; Linsley, 1963: 107; Hovore, 1983: 380 (hosts); Chemsak, Linsley & Noguera, 1992: 39 (cat.); Monné, M.A., 1993d: 51 (cat.).

#### 8. *Anelaphus hoferi* (Knull, 1934)

**Type locality** - Holotype male: United States, Arizona: Tucson. (FMNH). **Distribution** - United States (Arizona), northern Mexico.

*Elaphidion (Anoplium) hoferi* Knull, 1934a: 69; Chemsak, 1977a: 174 (type).

*Anoplium hoferi*; Linsley, 1936a: 466.

*Peranoplium hoferi*; Linsley, 1957a: 17; Linsley, Knull & Statham, 1961b: 17; Linsley, 1963: 119; Chemsak, Linsley & Noguera, 1992: 46 (cat.); Noguera & Chemsak, 1996: 399 (cat.).

*Anelaphus hoferi*; Lingafelter, 1998: 48, 52, fig. 70; Monné, M.A., 2005: 193 (cat.).

#### 9. *Anelaphus inermis* (Newman, 1840)

**Syntypes locality** – Syntypes: United States, Florida: St. John's Bluff. (BMNH).

**Distribution** - United States (Florida, Georgia to Texas), Mexico (Quintana Roo, Nuevo León, Tamaulipas, Veracruz), Guatemala, Honduras, Nicaragua, Panama, Bahamas, Guadeloupe, Greater Antilles. **Host plants** - *Yucca* sp. (Agavaceae), *Piscidia piscipula* (Linné) Sargent, *Sesbania drummondii* (Rydberg) Cory (Fabaceae), *Quercus virens* Aiton, *Q. virginiana* Miller (Fagaceae), *Carya* sp. (Juglandaceae), *Citrus aurantium* Linné, *C. sinensis* (Linné) Osbeck (Rutaceae), *Bumelia tenax* Willdenow (Sapotaceae), *Avicennia germinans* (Linné) Stearn (Verbenaceae).

*Elaphidion inerme* Newman, 1840b: 29; Haldeman, 1847c: 372 (syn.); LeConte, 1850b: 15; White, 1853: 101; LeConte, 1873a: 182; Riley, 1880: 239 (hosts); Leng, 1885c: 31; Hubbard, 1885: 125, 171 (biol.); Horn, 1885b: 5; Packard, 1890: 290, fig. 115 (biol.); Hamilton, 1894a: 252 (distr.); Beutenmuller, 1896: 75 (hosts); Chittenden, 1898: 41, figs 12, 13 (biol.); Lugger, 1899: 201 (biol.); Townsend, 1903: 76 (distr.); Schaeffer, 1908: 327 (distr.); Craighead, 1923: 70, pl. 8, fig. 11 (larva); Fisher, 1932: 36; Duffy, 1960: 125 (biol.).

*Hypermallus inermis*; Gemminger & Harold, 1872: 2817 (cat.); Bates, 1885: 249.

*Anoplium inerme*; Casey, 1912: 305; Kirk & Knull, 1926: 23 (distr.); Linsley & Martin, 1933: 180 (distr.); Brimley, 1938: 211 (distr.); Quayle, 1938: 318 (biol.); Ebeling, 1950: 493 (hosts).

*Anelaphus inermis*; Linsley, 1936a: 465; Loding, 1945: 115 (distr.); Cazier & Lacey, 1952: 21; Linsley, 1963: 108, fig. 15; Gilmour, 1968: 131; Manley & French, 1976: 48; Chemsak, Linsley & Mankins, 1980: 30 (distr.); Hovore, Penrose & Neck, 1987: 303 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 39 (cat.); Browne, Peck & Ivie, 1993: 43 (distr., hosts); Maes *et al.*, 1994: 8 (distr., hosts); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 342 (hosts); Maes, 1998: 891 (distr.); Monné, M.A., 2001a: 63 (cat. hosts); Morris, 2002: 210 (distr., hosts); Turnbow, Cave & Thomas, 2003: 8 (distr.); Monné, M.A., 2005: 193 (cat.); Peck,

- 2005: 168 (distr.); Lingafelter, 2007: 54, 144, 2 figs, pl. 13, fig. i (hosts); Turnbow & Thomas, 2008: 16 (distr.); Maes *et al.*, 2010: 157, 2 figs (distr.); Holt, 2013 : 248 (distr.); García Morales *et al.*, 2015: 102 (distr.); Bezark, 2015: 76, figs 4,5 (syn.).  
*Aneflus inermis*; Ruíz Cancino & Coronado Blanco, 2002: 102 (distr.).  
*Elaphidion truncatum* Haldeman, 1847a: 33; Leng, 1885c: 31, 33; Schaeffer, 1908: 327 (distr.).  
*Hypermallus truncatus*; Bates, 1880: 26 (distr.); 1885: 249 (distr.).  
*Anoplium truncatum*; Casey, 1912: 305; Linsley & Martin, 1933: 180 (distr.).  
*Anelaphus truncatus*; Linsley, 1936a: 465; 1942: 87.  
**Type locality** - Holotype: not stated. (MCZN).  
*Hypermallus grisescens* Bates, 1885: 249; Chemsak, 1967b: 76 (lect.).  
*Elaphidion grisescens*; Schaeffer, 1908: 133.  
*Anoplium grisescens*; Casey, 1912: 305.  
**Type locality** – Lectotype female: Mexico, Veracruz: Jalapa. (BMNH).  
*Trichophorus yucatanus* Fuchs, 1961c: 4; Damoiseau & Cools, 1987: 24 (type): Chemsak, Linsley & Noguera, 1992: 49 (cat.); Noguera & Chemsak, 1996: 399 (cat.).  
*Ambonus yucatanus*; Monné, M. A., 1993d: 67 (cat.); Monné, M.A., 2005: 182 (cat.).  
**Type locality** - Holotype female: Mexico, Quintana Roo: Los Lagunas. (ISNB).

#### 10. *Anelaphus inflaticollis* Chemsak, 1959

- Type locality** - Holotype female: United States, California: Apple Valley, San Bernardino County. (CNCI). **Distribution** - United States (California).  
*Anelaphus inflaticollis* Chemsak, 1959b: 65; Linsley, 1963: 105; Ruetter, 1970: 18 (types); Hovore & Giesbert, 1976: 355 (hosts); Hovore, Penrose & Giesbert, 1978: 99; Cope, 1984a: 27 (hosts); Chemsak, Linsley & Noguera, 1992: 39 (cat.); Monné, M.A., 1993d: 52 (cat.); Linsley & Chemsak, 1997: 343 (hosts); Swift, 2008a: 2 (distr., hosts); Ray *et al.*, 2009: 1462 (pherom.).

#### 11. *Anelaphus moestus moestus* (LeConte, 1854)

- Syntypes locality** – Syntypes male and female: United States, Texas: near Eagle Pass. (MCZN). **Distribution** - United States (Texas, Arizona), Mexico (Coahuila).  
**Host plants** - *Rhus aromatica* Aitchison (Anacardiaceae), *Grindelia* sp. (Asteraceae), *Celtis laevigata* Willdenow, *C. lindheimeri* Engelm., *C. reticulata* Torrey (Cannabaceae), *Sophora secundiflora* (Ortega) de Candolle (Fabaceae), *Quercus* sp. (Fagaceae), *Juglans nigra* Linné (Juglandaceae), *Acacia rigidula* Benth., *Pithecellobium flexicaule* (Benth.) Coulter, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Morus rubra* Linné (Moraceae), *Pinus cembroides* Zuccarini (Pinaceae), *Zanthoxylum clava-herculis* Linné (Rutaceae).  
*Elaphidion moestum* LeConte, 1854a: 442; 1858a: 40 (distr.); 1873a: 183; Leng, 1885c: 31, 33; Knaus, 1885: 59 (distr.); Townsend, 1903: 76 (distr.).  
*Hypermallus moestus*; Gemminger & Harold, 1872: 305; Bates, 1880: 26 (distr.); 1885: 249 (distr.).  
*Anoplium moestum*; Casey, 1912: 305; Linsley & Martin, 1933: 180 (distr.); Linsley, 1936a: 466; Vogt, 1949: 142 (distr., hosts).  
*Anelaphus moestus*; Linsley, 1963: 111; Noguera & Chemsak, 1996: 398 (cat.); Lingafelter, 1998: 48, fig. 69; 2007: 52, 144, 2 figs, pl. 12, fig. i (hosts); Cleger & Gemmill, 2018: 2 (distr.).  
*Anelaphus moestus moestus*; Linsley, 1963: 111; Hovore & Giesbert, 1976: 356 (hosts); Turnbow & Wappes, 1978: 368 (hosts); Hovore, Penrose & Neck, 1987: 303

(hosts); Chemsak, Linsley & Noguera, 1992: 39 (cat.); Linsley & Chemsak, 1997: 343 (hosts); Monné, M.A., 2001a: 64 (cat. hosts); Monné, M.A., 2005: 194 (cat.); MacRae & Rice, 2007: 229 (hosts); Klingeman *et al.*, 2017: 297 (distr.)  
*Anoplium laterale* Casey, 1914: 365; Lingafelter *et al.*, 2014: 86, figs 94i, j (lect. designation).

**Type locality** – Lectotype: United States, Texas. (USNM).

*Elaphidion* sp., Craighead, 1923: 71 (larva).

#### 11a. *Anelaphus moestus pinorum* (Casey, 1914)

**Type locality** - Holotype male: United States, North Carolina: Southern Pines. (USNM). **Distribution** - United States (Florida, Alabama, North Carolina, Mississippi). **Host plants** - *Quercus laurifolia* Michaux (Fagaceae).

*Anoplium pinorum* Casey, 1914: 365; Loding, 1933: 148 (distr.); Brimley, 1938: 211 (distr.).

*Anelaphus moestus pinorum*; Linsley, 1963: 111; Turnbow & Franklin, 1980: 342 (distr.); Chemsak, Linsley & Noguera, 1992: 39 (cat.); Monné, M.A., 1993d: 53 (cat.); Browne & Peck, 1996: 2158 (distr.); Schiefer, 1998: 116 (distr.); MacRae & Rice, 2007: 229 (distr., hosts); Holt, 2013: 348 (distr.); Lingafelter *et al.*, 2014: 300, fig. 133c (holotype).

#### 12. *Anelaphus mutatum* (Gahan, 1890)

**Syntypes locality** – Syntypes male and female: Cuba. (BMNH). **Distribution** - United States (Florida), Cuba, Puerto Rico, Bahamas, Dominican Republic. **Host plants** - *Clusia rosea* Jacquin (Clusiaceae), *Lagerstroemia indica* Linné (Lythraceae), *Zanthoxylum flavum* Vahl (Rutaceae).

*Elaphidion mutatum* Gahan, 1890: 32; 1895: 102; Hamilton *in* Leng & Hamilton, 1896: 167; Leng & Mutchler, 1914: 445 (distr.); Wolcott, 1941: 99 (hosts); Martorell, 1945: 352 (hosts); Wolcott, 1948: 337; Duffy, 1960: 124 (hosts); Zayas, 1975: 94, pl. 12, fig. b.

*Elaphidionoides mutatus*; Linsley, 1963: 93; Linsley & Chemsak, 1997: 371 (hosts).

*Parelaphidion mutatum*; Skiles, 1985: 311; Chemsak, Linsley & Noguera, 1992: 46 (cat.); Browne, Peck & Ivie, 1993: 43 (distr.); Monné, M.A., 2001a: 74 (cat. hosts); Lozada Piña, Fernández García & Trujillo Anaya, 2004: 106 (distr.); Peck, 2005: 171 (distr.); Fernández García, Favila Castillo & López Iborra 2009: 322 (distr.).

*Anelaphus mutatum*; Lingafelter & Ivie, 2005: 207, fig. 1c; Monné, M.A., 2005: 194 (cat.); Lingafelter, 2007: 53, 144, 2 figs, pl. 13g (hosts); Lingafelter, 2008: 357 (syn.); Turnbow & Thomas, 2008: 16 (distr.); Devesa, Fonseca & Barro, 2015: 31, 155, 170, figs 1-10.

*Elaphidion pilosum* Fisher, 1932: 36; Chemsak, Linsley & Noguera, 1992: 42 (cat.); Monné, M. A., 2005: 210 (cat.); Perez-Gelabert, 2008: 118 (distr.).

**Type locality** – Holotype female: Dominican Republic, Santo Domingo. (AMNH).

*Elaphidion tomentosum* Chevrolat, 1862a: 260 (*partim*, female).

*Elaphidion lanatum*; Leng, 1890: 214; Hamilton *in* Leng & Hamilton, 1896: 168 (not Chevrolat, 1862).

#### 13. *Anelaphus niveivestitus* (Schaeffer, 1905)

**Type locality** - Lectotype female: United States, Texas: Brownsville, Esperanza Ranch. (USNM). **Distribution** - United States (Texas). **Host plants** - *Celtis berlandieri* Klotzsch (Cannabaceae), *Leucaena pulverulenta* (Schlechtendal) Bentham (Mimosaceae), *Fraxinus americana* Linné (Oleaceae).

*Elaphidion niveivestitum* Schaeffer, 1905: 132.

*Elaphidion niveipenne*; Schaeffer, 1908: 327 (error).

*Anoplium niveivestitum*; Casey, 1912: 305; Linsley & Martin, 1933: 180 (biol.).

*Anelaphus niveivestitus*; Linsley, 1936a: 465; 1963: 104; Hovore, Penrose & Neck, 1987: 303 (distr.); Chemsak, Linsley & Noguera, 1992: 39 (cat.); Monné, M.A., 1993d: 53 (cat.); Linsley & Chemsak, 1997: 343 (hosts); Lingafelter *et al.*, 2014: 108, 367, pl. 119c (lectotype).

#### 14. *Anelaphus parallelus* (Newman, 1840)

**Syntypes localities** - Syntypes: United States, Georgia, East Florida, Delaware. (BMNH). **Distribution** - Eastern North America to Texas. **Host plants** – *Acer saccharum* Marshall (Aceraceae), *Rhus* sp. (Anacardiaceae), *Betula nigra* Linné, *Ostrya virginiana* (Miller) K. Koch (Betulaceae), *Cercis canadensis* Linné, *Gleditsia triacanthos* Linné (Caesalpiniaceae), *Celtis occidentalis* Linné, *C. tenuifolia* Nuttall (Cannabaceae), *Celastrus scandens* Linné (Celastraceae), *Diospyros virginiana* Linné (Ebenaceae), *Cladrastis lutea* (Michaux f.) Rafinesque-Schmaltz, *Wisteria* sp. (Fabaceae), *Castanea* sp., *Quercus alba* Linné, *Q. coccinea* Münchhausen, *Q. imbricaria* Michaux, *Q. phellos* Linné, *Q. rubra* Linné, *Q. stellata* Wangenheim, *Q. velutina* Lamarck (Fagaceae), *Carya glabra* (Miller) Sweet, *C. ovata* (Miller) K. Koch, *C. sulcata* Nuttall, *C. tomentosa* Nuttall, *Juglans nigra* Linné (Juglandaceae), *Sassafras albidum* (Nuttall) Nees (Lauraceae), *Maclura pomifera* (Rafinesque) C. Schneider (Moraceae), *Nyssa sylvatica* Marshall (Nyssaceae), *Platanus occidentalis* Linné (Platanaceae), *Crataegus viridis* Linné, *Malus* sp., *Prunus* sp. (Rosaceae), *Citrus* sp. (Rutaceae); *Ulmus alata* Michaux (Ulmaceae), *Vitis* sp. (Vitaceae).

*Elaphidion parallelum* Newman, 1840b: 29; LeConte, 1851: 103; White, 1853: 103; Chevrolat, 1862a: 262 (distr.); Pettitt, 1871: 105; Riley, 1872: 54 (biol.); Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (hosts); Packard, 1881: 55 (biol.); Leng, 1885c: 32, pl. 3, fig. 4; Horn, 1885b: 5 (syn.); Townsend, 1886: 12 (biol.); Hamilton, 1887: 143 (biol.); Lintner, 1889b: 268 (biol.); Packard, 1890: 89, fig. 32, pl. 17, fig. 1 (biol.); Smith, 1890: 136; Hopkins, 1893: 193; Slossom, 1895a: 9 (distr.); Beutenmuller, 1896: 75 (hosts); Wickham, 1897a: 109; 1897b: 156 (distr.); Castle & Laurent, 1897: 8 (distr.); Lugger, 1899: 197 (biol.); Smith, 1900: 288 (distr.); Dury, 1902: 159 (distr.); Houghton, 1905: 213 (distr.); Wickham, 1909a: 28 (distr.); Blatchley, 1910: 1026; Chagnon, 1917: 231 (hosts); Alexander, 1958: 46 (distr.); Townes & Townes, 1960: 140 (paras.); 1962: 516 (paras.); Dillon & Dillon, 1961: 588, pl. 58, No. 11.

*Hypermallus parallelus*; Lacordaire, 1868: 303; Casey, 1912: 304; Leonard, 1928: 435 (distr.); Brimley, 1938: 211 (distr.); Smith *et al.*, 1943: 313, fig. 311; Loding, 1945: 115 (distr.).

*Elaphidion (Hypermallus) parallelum*; Walsh & Riley, 1869c: 187.

*Elaphidion (Elaphidion) parallelum*; LeConte, 1873a: 183 (syn.).

*Elaphidionoides parallelus*; Linsley, 1963: 92, fig. 33; Gosling, 1973: 73, fig. 26 (distr.); Kirk & Balsbaugh, 1975: 98 (distr.); Stein & Tigestad, 1976: 13 (distr.); Laliberté, Chantal & LaRoche, 1977: 92; Gosling, 1978: 1 (larva); Turnbow & Franklin, 1980: 341 (distr.); Gosling, 1984: 71 (hosts); Waters & Hyche, 1984: 285 (distr.); Linsley & Chemsak, 1997: 371 (hosts).

*Anelaphus parallelus*. Skiles, 1985: 306; Gosling, 1986: 155 (hosts); Chemsak, Linsley & Noguera, 1992: 39 (cat.); MacRae, 1993: 230 (distr., hosts); Lingafelter & Horner, 1993: 172 (distr.); Monné, M.A., 1993d: 54 (cat.); Krinsky & Godwin,

1996: 238 (distr.); Yanega, 1996: 48, pl. 14, figs 162A, B; Browne & Peck, 1996: 2158; Peck & Thomas, 1998: 118 (distr.); Schiefer, 1998: 117 (distr.); Vlasák & Vlasakova, 2002: 209 (distr., hosts); MacRae & Rice, 2007: 229 (distr., hosts); Lingafelter, 2007: 57, 144, 2 figs, pl. 13, fig. m (hosts); Staines, 2008: 145 (distr.); Webster, McCorquodale & Majka, 2009: 296 (distr.); Guarnieri, 2009: 16 (distr.); McCorquodale, 2010: 468 (distr.); Holt, 2013: 248 (distr., hosts); Steury & MacRae, 2014: 10 (distr.); Vlasák, 2014: 118; Brown, Zuefle & Dombroskie, 2016: 2; Haack *in* Wang, 2017: w/page fig. 11.1 (biol., hosts); Haack, Keena & Eyre, 2017: 84, 84, figs 10-11 (biol.); Klingeman *et al.*, 2017: 297 (distr.); DiGirolomo & Dodds, 2017: 410 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 45, pl. 4.

*Callidium pulverulentum* Olivier, 1795: 69, pl. 8, fig. 101; LeConte, 1851: 106.

*Elaphidion pulverulentum*; Gahan, 1895: 105; Leng & Mutchler, 1914: 445; Zayas, 1975: 99.

**Type locality** - Holotype: Amérique Septentrionale. (BMNH).

*Elaphidion arctum* Newman, 1840b: 29; LeConte, 1850b: 16; White, 1853: 102; LeConte, 1873b: 336.

**Type locality** - Holotype: United States, Florida: St. John's Bluff. (BMNH).

*Elaphidion oblitum* LeConte, 1850b: 14; White, 1853: 102.

**Type locality** - Holotype: United States, Pennsylvania. (MCZN).

*Hypermallus medialis* Casey, 1912: 302; Leonard, 1928: 435 (hosts); Lingafelter *et al.*, 2014: 96, fig. 106 o (holotype).

*Hypermallus medialis*; Belkin, 1934: 222 (distr., error); Brimley, 1938: 211 (distr.).

**Type locality** - Holotype male: United States, North Carolina. (USNM).

*Hypermallus medialis canadensis* Casey, 1912: 303; Lingafelter *et al.*, 2014: 97, fig. 106 u (holotype).

**Type locality** - Holotype female: Canada, Ontario. (USNM).

*Hypermallus medialis densicollis* Casey, 1912: 303; Lingafelter *et al.*, 2014: 97, fig. 106 w (holotype).

**Type locality** - Holotype female: United States, Florida (USNM).

*Hypermallus defectus* Casey, 1912: 303; Lingafelter *et al.*, 2014: 51, fig. 53w (holotype).

**Type locality** - Holotype male: United States. (USNM).

*Hypermallus molliculus* Casey, 1912: 304; Lingafelter *et al.*, 2014: 101, fig. 111 i (holotype).

**Type locality** - Holotype male: United States, Texas. (USNM).

### 15. *Anelaphus piceus* (Chemsak, 1962)

**Type locality** - Holotype male: United States, Arizona: Tucson. (CASC).

**Distribution** - United States (Arizona, California), northern Mexico (Jalisco, Sonora, Morelos). **Host plants** - *Annona cherimola* Mill. (Annonaceae), *Encelia farinosa* A. Gray (Asteraceae), *Eysenhardtia orthocarpa* (A.C. Gray) S. Watson (Fabaceae), *Gossypium thurberi* Todaro (Malvaceae), *Acacia constricta* Benth. ex Gray, *Mimosa dysocarpa* Benth., *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Ficus carica* Linnaeus (Moraceae), *Salix* sp. (Salicaceae), *Dodonaea viscosa* (Linnaeus) Jacq. (Sapindaceae).

*Peranoplium piceum* Chemsak, 1962b: 111; Linsley, 1963: 116, fig. 39; Cope, 1984a: 32 (hosts); Rice, Turnbow & Hovore, 1985: 19 (distr.); Chemsak, Linsley & Noguera, 1992: 46 (cat.); Chemsak & Noguera, 1995: 59 (distr.); Noguera &

Chemsak, 1996: 399 (cat.); Linsley & Chemsak, 1997: 416 (hosts); Monné, M.A., 2001a: 65 (cat. hosts).

*Anelaphus piceum*; Lingafelter, 1998: 52; Noguera *et al.*, 2002: 623 (distr.); Toledo *et al.*, 2002: 526 (distr.); Monné, M.A., 2005: 195 (cat.); Noguera *et al.*, 2007: 311 (distr.); Noguera *et al.*, 2009: 87 (distr.); Vlasák, 2014: 318 (hosts); López-Martínez *et al.*, 2015: 780 (hosts); Vargas-Cardoso *et al.*, 2018: 94 (hosts).

#### 16. *Anelaphus pumilus* (Newman, 1840)

**Syntypes locality** - Syntypes: United States, Florida: St. John's Bluff. (BMNH).

**Distribution** - United States (Pennsylvania to Florida and Texas). **Host plants** - *Acer saccharum* Marshall (Aceraceae), *Betula nigra* Linné (Betulaceae), *Cornus* sp. (Cornaceae), *Diospyros virginiana* Linné (Ebenaceae), *Castanea* sp., *Quercus alba* Linné, *Q. nigra* Linné, *Q. phellos* Linné, *Q. velutina* Lamarck (Fagaceae), *Carya* sp. (Juglandaceae), *Tilia americana* Linné (Malvaceae), *Ulmus* sp. (Ulmaceae).

*Elaphidion pumilum* Newman, 1840b: 29; LeConte, 1850b: 24; White, 1853: 101; Leng, 1885c: 32, 33; Smith, 1900: 288 (distr.); Ulke, 1903: 26 (distr.); Knull, 1946: 196, pl. 12, fig. 46.

*Hypermallus pumilus*; Gemminger & Harold, 1872: 2818 (cat.).

*Elaphidion (Elaphidion) pumilum*; LeConte, 1873a: 183.

*Romaleum pumilum*; Castle & Laurent, 1896: 303 (distr.).

*Anoplium pumilum*; Casey, 1912: 305; Knull, 1929: 144 (distr.); Loding, 1945: 115 (distr.).

*Anelaphus pumilus*; Linsley, 1963: 100, figs 35, 36; Gosling, 1973: 73 (biol., distr.); Solomon, Doolittle & Spilman, 1976: 200; Turnbow & Franklin, 1980: 342 (distr.); Rice, 1981: 461 (distr.); Waters & Hyche, 1984: 286 (distr.); Chemsak, Linsley & Noguera, 1992: 40 (cat.); Monné, M.A., 1993d: 54 (cat.); Yanega, 1996: 48, pl. 14, fig. 160; Linsley & Chemsak, 1997: 343 (hosts); Peck & Thomas, 1998: 118 (distr.); Schiefer, 1998: 117 (distr.); Rice & Veal, 2006: 256 (distr.); MacRae & Rice, 2007: 229 (distr., hosts); Lingafelter, 2007: 54, 144, 2 figs, pl. 13, fig. h (hosts); Staines, 2008: 145 (distr.); Holt, 2013: 248 (distr., hosts); Spomer, 2014: 300 (distr.); Steury & MacRae, 2014: 10 (distr.); Vlasák, 2014: 118 (hosts); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 46.

#### 17. *Anelaphus rusticus* (LeConte, 1850)

**Syntypes locality** - Syntypes male and female: United States. (MCZN).

**Distribution** - United States.

*Elaphidion rusticum* LeConte, 1850b: 14; Melsheimer, 1853: 102 (cat.); White, 1853: 102.

*Elaphidionoides rusticus*; Linsley, 1963: 96.

*Anelaphus rusticus*; Monné, M.A., 1993d: 55 (cat.).

#### 18. *Anelaphus simile* (Schaeffer, 1908)

**Syntypes locality** - Syntypes: United States, Arizona: Huachuca Mts. (USNM).

**Distribution** - United States (Arizona, northern Mexico (Sonora)). **Host plants** - *Agave* sp., *Yucca* sp. (Agavaceae).

*Elaphidion simile* Schaeffer, 1908: 334; Lingafelter *et al.*, 2014: 319, figs 155a, b (syntype).

*Anoplium simile*; Casey, 1912: 305; Linsley, 1936a: 466; Knull, 1944: 92 (hosts).

*Peranoplium simile*; Linsley, 1957a: 18; Linsley, Knull & Statham, 1961b: 17; Linsley, 1963: 118; Chemsak, Linsley & Noguera, 1992: 46 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Linsley & Chemsak, 1997: 416 (hosts).

*Anelaphus simile*; Lingafelter, 1998: 52; Monné, M.A., 2001a: 65 (cat.); Monné, M.A., 2005: 196 (cat.); Noguera *et al.*, 2009: 87 (distr.).

#### 19. *Anelaphus spurcus* (LeConte, 1854)

**Type locality** – Holotype: United States, Texas: near Eagle Pass. (MCZN).

**Distribution** - United States (Texas), northern Mexico (Tamaulipas). **Host plants** - *Leucaena pulverulenta* (Schlechtendal) Bentham, *Pithecellobium flexicaule* (Bentham) Coulter (Mimosaceae).

*Elaphidion spurcum* LeConte, 1854a: 442; 1858a: 40 (distr.); 1873a: 103; Leng, 1885b: 31, 33; Townsend, 1903: 76 (distr.); Schaeffer, 1908: 327.

*Hypermallus spurcus*; Gemminger & Harold, 1872: 2818 (cat.).

*Anoplium spurcum*; Casey, 1912: 305.

*Anelaphus spurcus*; Linsley, 1936a: 465; 1963: 108; Hovore, Penrose & Neck, 1987: 303 (biol.); Chemsak, Linsley & Noguera, 1992: 40 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 343 (hosts); Lingafelter, 1998: 48, fig. 68; Monné, M.A., 2001a: 65 (cat. hosts); Monné, M.A., 2005: 196 (cat.); García Morales *et al.*, 2015: 102 (distr.).

#### 20. *Anelaphus subdepressum* (Schaeffer, 1904)

**Type locality** – Holotype female: Mexico, Baja California: San Felipe. (USNM).

**Distribution** - United States (Arizona), northwestern Mexico and Baja California. **Host plants** - *Celtis reticulata* Torrey (Cannabaceae), *Dodonaea viscosa* Linné filis (Sapindaceae).

*Elaphidion subdepressum* Schaeffer, 1904: 222; 1908: 330 (distr.); Lingafelter *et al.*, 2014: 327, figs 163s, t (holotype).

*Anoplium subdepressum*; Casey, 1912: 305.

*Anelaphus subdepressus*; Linsley, 1942: 41; Lingafelter, 1998: 52; Monné, M.A., 2001a: 65 (cat. hosts); Monné, M.A., 2005: 197 (cat.).

*Peranoplium subdepressum*; Linsley, 1957a: 18; 1963: 116; Lewis, 1979: 24 (distr.); Cope, 1984a: 32 (hosts); Chemsak, Linsley & Noguera, 1992: 46 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Linsley & Chemsak, 1997: 416 (hosts).

#### 21. *Anelaphus subinermis* Linsley, 1957

**Type locality** – Holotype male: United States, Texas: Marathon. (CASC).

**Distribution** - United States (Texas), northern Mexico. **Host plants** - *Agave lecheguilla* Torrey, *Dasyllirion* sp. (Agavaceae), *Acacia farnesiana* (Linné) Willdenow (Mimosaceae).

*Anelaphus subinermis* Linsley, 1957b: 286; 1963: 109; Turnbow & Wappes, 1978: 369 (hosts); Hovore, 1983: 374 (syn.); Rice, Turnbow & Hovore, 1985: 19 (biol.); Chemsak, Linsley & Noguera, 1992: 40 (cat.). Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 343 (hosts); Monné, M.A., 2001a: 65 (cat. hosts); Van Pelt, 2002: 128; Monné, M.A., 2005: 197 (cat.).

*Hypermallus inermis*; Bates, 1885: 249 (*partim*).

*Elaphidion inerme*; Leng, 1885b: 31, 33; Schaeffer, 1908: 333 (not Newman, 1840).

*Anelaphus antennatus* Chemsak, 1959a: 166; Linsley, 1963: 107.

**Type locality** - Holotype male: United States, Texas: Jeff Davis Co. (Fort Davis). (CASC).

## 22. *Anelaphus villosus* (Fabricius, 1793)

**Type locality** – Holotype: United States, Carolina. (ZMUC). **Distribution** - Eastern North America to Texas & Arizona, Canada, Cuba. **Host plants** - *Acer rubrum* Linné, *A. saccharum* Marshall (Aceraceae), *Rhus radicans* Linné (Anacardiaceae), *Betula* sp. (Betulaceae), *Cercis canadensis* Linné, *Gleditschia triacanthos* Linné (Caesalpiniaceae), *Celtis* sp. (Cannabaceae), *Celastrus scandens* Linné (Celastraceae), *Carpinus caroliniana* Walter (Corylaceae), *Diospyros virginiana* Linné (Ebenaceae), *Cladrastis lutea* (Michaux f.) Rafinesque-Schmaltz, *Wisteria* sp. (Fabaceae), *Castanea dentata* (Marshall) Borkhausen, *Quercus discolor* Aiton, *Q. rubra* Linné, *Q. velutina* Lamarck (Fagaceae), *Hamamelis virginiana* Linné (Hamamelidaceae), *Carya glabra* (Miller) Sweet, *Juglans nigra* Linné (Juglandaceae), *Sassafras albidum* (Nuttall) Nees (Lauraceae), *Tilia americana* Linné (Malvaceae), *Maclura aurantiaca* Nuttall, *M. pomifera* (Rafinesque) C. Schneider (Moraceae), *Nyssa sylvatica* Marshall (Nyssaceae), *Abies* sp., *Pinus contorta* Douglas ex Loudon, *Tsuga canadensis* (Linné) Carrière (Pinaceae), *Platanus occidentalis* Linné (Platanaceae), *Amelanchier arborea* (Michaux fils) Fernald, *Malus* sp., *Prunus* sp. (Rosaceae), *Citrus sinensis* (Linné) Osbeck (Rutaceae), *Ulmus* sp. (Ulmaceae), *Vitis* sp. (Vitaceae).

*Stenocorus villosus* Fabricius, 1793: 302; 1801: 311; Schoenherr, 1817: 407; Zimsen, 1964: 173 (types).

*Elaphidion villosum*; Newman, 1840b: 28; Haldeman, 1847a: 24 (hosts); LeConte, 1850b: 14; Emmons, 1854: 124, pl. 16, fig. 8; LeConte, 1859c: 48 (distr.); Bland, 1861: 94 (distr., hosts); Horn, 1868: 124 (distr.); Pettit, 1871: 105 (distr.); LeConte, 1873b: 336 (syn.); Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (hosts); Packard, 1881: 30, fig. 8 (biol.); LeConte & Horn, 1883: 329; Leng, 1885b: 33; Clarkson, 1885: 188 (biol.); 1886: 26 (biol.); 1887: 31 (biol.); 1888: 37 (biol.); Townsend, 1886: 12 (biol.); Hamilton, 1888: 38 (biol.); Packard, 1890: 83, fig. 31 (biol.); Caulfield, 1890: 60, figs. 42, 43 (biol.); Smith, 1890: 136; Bruner, 1893: 198, fig. 37 (biol.); Chittenden, 1893: 248 (paras.); Bruner, 1894: 183, fig. 27 (biol.); Chittenden, 1894: 96 (biol.); Hamilton, 1895: 338 (distr.); Gahan, 1895: 195; Beutenmuller, 1896: 75 (hosts); Castle & Laurent, 1896: 301 (distr.); Leng & Hamilton, 1896: 166 (syn.); Bogue, 1897: 14, fig. 11 (biol.); Wickham, 1897a: 109, figs 19-21; Kirkland, 1897: 30 (biol.); Chittenden, 1898: 35, fig. 11 (biol.); Lintner, 1898: 314 (biol.); Bruner, 1899: 162, fig. 36 (biol.); Lintner, 1899: 359 (biol.); Lugger, 1899: 109, fig. 120 (biol.); Smith, 1900: 288, figs 126a-k (biol.); Felt, 1900b: 581 (biol.); 1900a: 20, fig. 28 (biol.); Bruner & Hunter, 1901: 73, fig. 11 (biol.); Dury, 1902: 159 (distr.); Ulke, 1903: 26, 50 (distr.); Hopkins, 1904: 34 (biol.); Melander, 1904: 20 (hosts); Herrick, 1904: 31, fig. 18 (biol.); Wickham, 1909a: 28 (distr.); Smith, 1910: 326; Chittenden, 1910: 1, fig. 1 (biol.); Leng, 1910: 77 (distr.); Blatchley, 1910: 1025, fig. 436 (biol.); Forbes, 1911: 312, figs 56, 57 (biol.); Webb, 1911: 355, fig. 28 (biol.); Fisher & Kirk, 1912: 310 (distr.); Slossom, 1912: 172 (distr.); Leng & Mutchler, 1914: 445 (distr.); Johnson 1916: 119 (distr.); Blackman & Ellis, 1916: 65, figs 30, 31 (biol.); Morris, 1916: 20 (hosts); Houser, 1918: 327, pl. 70, fig. 1 (biol.); Nicolay, 1919: 20 (hosts); Craighead, 1923: 70, pl. 21, fig. 3 (larva); Craighead & Middleton, 1930: 7 (biol.); Beaulne, 1932: 198 (hosts); Knull, 1946: 195; Shenefelt & Benjamin, 1955: 88 (biol.); Alexander, 1958: 46 (distr.); Townes & Townes, 1960: 140 (paras.); Duffy, 1960: 124 (hosts); Dillon & Dillon, 1961: 588, pl. 58, No. 10; Zayas, 1975: 107.

*Elaphidion (Elaphidion) villosum*; LeConte, 1873a: 183 (syn.)



- Hypermallus villosus*; Casey, 1912: 301; Britton 1920: 267 (distr.); Blackman & Stage, 1924: 92; Kirk & Knull, 1926: 22 (distr.); Fletcher, 1926: 143 (distr.); Brues, 1927: 76; Leonard, 1928: 435 (distr.); Frost & Dietrich, 1929: 436 (distr.); Knull, 1930a: 85 (hosts); Moznette, Bissell & Adair, 1931: 53, fig. 69; Barrett, 1932: 290 (hosts); Knull, 1934b: 209 (hosts); Herrick, 1935: 165, fig. 175; Britton & Friend, 1935: 307 (biol.); Brimley, 1938: 211 (distr.); Chagnon, 1938: 261; Flint & Farrar, 1940: 40, fig. 1 (biol.); Smith *et al.*, 1943: 313; Wray & Brimley, 1943: 130 (distr.); Loding, 1945: 115 (distr.); Craighead, 1950: 245 (biol.); Gibson & Carrillo, 1959: 118 (distr.); Chagnon & Robert, 1962: 261 (distr.).
- Elaphidionoides villosus*; Linsley, 1957b: 283; Linsley, Knull & Statham, 1961: 15 (distr.); Linsley, 1963: 89, fig. 23; Baker, 1972: 192, fig. 63 (biol.); Swan & Papp, 1972: 446, fig. 943; Gosling, 1973: 72 (distr.); Perry, 1975: 59 (hosts); Kirk & Balsbaugh, 1975: 98 (distr.); Stein & Tagestad, 1976: 13 (distr.); Manley & French, 1976: 48; Laliberté, Chantal & LaRochelle, 1977: 92 (hosts); Turnbow & Franklin, 1980: 341 (distr.); Rice, 1981: 461 (distr., hosts); Gosling, 1984: 71 (hosts); Waters & Hyche, 1984: 285 (distr.); White, 1985: 285, fig. 124 (biol.); Hovore, Penrose & Neck, 1987: 303 (distr.); Linsley & Chemsak, 1997: 371 (hosts).
- Anelaphus villosus*; Skiles, 1985: 286; Gosling, 1986: 155 (hosts); Chemsak, Linsley & Noguera, 1992: 40 (cat.); MacRae, 1993: 230 (distr., hosts); Monné, M.A., 1993d: 56 (cat.); Lingafelter & Horner, 1993: 172 (distr.); Krinsky & Godwin, 1993: 238; Yanega, 1996: 48, pl. 14, figs 161a,b; Browne & Peck, 1996: 2158 (distr.); Heffern, 1998: 13 (distr.); Peck & Thomas, 1998: 118 (distr.); Schiefer, 1998: 117 (distr.); Vlasák & Vlasakova, 2002: 209 (distr., hosts); Sikes & Webster, 2005: 327 (distr.); Lingafelter, 2007: 57, 144, 2 figs, pl. 13, fig. 1 (hosts); Staines, 2008: 145 (distr.); Guarnieri, 2009: 16 (distr.); McCorquodale, 2010: 468 (distr.); Webster *et al.*, 2012: 316 (distr.); Holt, 2013: 248 (distr., hosts); Steury & MacRae, 2014: 10 (distr.); Vlasák, 2014: 318 (hosts); Devesa, Fonseca & Barro, 2015: 31, 156, 172, figs 1-9; Klingeman *et al.*, 2017: 297 (distr.); DiGirolomo & Dodds, 2017: 410 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 46, pl. 4.
- Stenocorus putator* Peck, 1819: 307; Harris, 1838: 92; Harris, 1852: 425; Bethune, 1872: 75
- Stenocorus (Elaphidion) putator*; Harris, 1841: 81
- Elaphidion putator*; White, 1853: 102; Walsh, 1867c: 96
- Type locality** - Type: United States, Massachusetts. (Depository unknown).
- Elaphidion pruinatum* Guérin-Méneville, 1844a: 225; White, 1853: 103; Chevrolat, 1862a: 160 (distr.).
- Type locality** - Holotype: Amérique Boreale. (MNHN).
- Hypermallus abruptus* Casey, 1912: 301; Leonard, 1928: 435 (distr.); Malkin, 1941: 290 (distr.); Lingafelter *et al.*, 2014: 9, fig. 8i (holotype).
- Type locality** - Holotype female: United States. (USNM).
- Hypermallus villosus scutularis* Casey, 1912: 302; Lingafelter *et al.*, 2014: 343, fig. 81w (holotype).
- Type locality** - Holotype male: United States, Texas. (USNM).
- Hypermallus lacustris* Casey, 1912: 302; Lingafelter *et al.*, 2014: 85, fig. 93i (holotype).
- Type locality** - Holotype male: United States, Wisconsin. (USNM).
- Hypermallus brevisculus* Casey, 1914: 364; Lingafelter *et al.*, 2014: 34, fig. 34o (holotype).
- Type locality** - Holotype male: United States, Massachusetts, Bedford. (USNM).

*Hypermallus militaris* Casey, 1914: 364; Leonard. 1928: 435 (distr.); Lingafelter *et al.*, 2014: 99, fig. 108w (holotype).

**Type locality** - Holotype male: United States, New York: West Point. (USNM).

### ***Anopliomorpha* Linsley, 1936**

*Anopliomorpha* Linsley, 1936a: 465; 1961b: 42; 1963: 37; Arnett, 1962: 865; Lingafelter, 1998: 52; Lingafelter & Ivie, 2005: 206; Monné, M.A., 2005: 198 (cat.); Monné, M.A., 2012: 20.

**Type-species** - *Periboeum reticolle* Bates, 1885 (original designation).

#### **1. *Anopliomorpha rinconium* (Casey, 1924)**

**Type locality** - Holotype male: United States, Arizona: Rincon Mts. (USNM).

**Distribution** - United States (Arizona), Mexico (Baja California, Sonora, Sinaloa).

**Host plants** - *Quercus grisea* Liebmann (Fagaceae).

*Anoplium rinconium* Casey, 1924: 248; Lingafelter *et al.*, 2014: 310, figs 144a, b (holotype).

*Anopliomorpha rinconium*; Linsley, 1936a: 466, pl. 1, fig. 3; 1942: 44; Linsley, 1963: 37; Gibson & Carrillo, 1959: 118 (distr.); Cope, 1984a: 28 (hosts); Hovore, 1988: 27 (distr.); Chemsak, Linsley & Noguera, 1992: 40 (cat.); Monné, M.A., 1993d: 27 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 344 (hosts); Monné, M.A., 2001a: 66 (cat. hosts); Monné, M.A., 2005: 199 (cat.); Noguera *et al.*, 2009: 87 (distr.); Noguera *et al.*, 2017: 5 (distr.).

*Anopliomorpha rinconia*; Santos-Silva, Botero & Le Tirant, 2018: 194.

### ***Anoplocurius* Fisher, 1920**

*Anoplocurius* Fisher, 1920: 153; Bradley, 1930: 234; Knull, 1942: 224; Arnett, 1962: 866, 884; Linsley, 1963: 120; Lingafelter, 1998: 53; Monné, M.A., 2005: 199 (cat.); Monné, M.A., 2012: 20.

**Type-species** - *Anoplocurius canotiae* Fisher, 1920 (original designation).

#### **1. *Anoplocurius altus* Knull, 1942**

**Type locality** - Holotype male: United States, Texas: Davis Mountains. (FMNH).

**Distribution** - United States (Texas, Arizona and New Mexico). **Host plants** - *Quercus* sp. (Fagaceae).

*Anoplocurius altus* Knull, 1942: 224; Linslet, Knull & Statham, 1961: 17 (distr.); Linsley, 1963: 121; Chemsak, 1977a: 173 (types); Lewis, 1979: 24 (distr.); MacKay, Zak & Hovore, 1987: 364 (distr.); Chemsak, Linsley & Noguera, 1992: 40 (cat.); Monné, M.A., 1993d: 60 (cat.); Linsley & Chemsak. 1977: 344 (hosts).

#### **2. *Anoplocurius canotiae* Fisher, 1920**

**Type locality** - Holotype male: United States, Arizona: Cotton City. (USNM).

**Distribution** - United States (Arizona) and Mexico (Sonora). **Host plants** - *Berberis harrisoniana* Kearney & Peebles (Berberidaceae), *Canotia holacantha* Torrey (Celastraceae), *Morus celtidifolia* Kunth (Moraceae).

*Anoplocurius canotiae* Fisher, 1920: 15 (hosts); Gibson & Carrillo, 1959: 118 (distr.); Linsley, 1963: 120, fig. 40; Ruetter, 1970: 18 (paratype); Lewis, 1979: 24 (distr.); Cope, 1984a: 28 (hosts); Chemsak, Linsley & Noguera, 1992: 40 (cat.); Monné,

M.A., 1993d: 60 (cat.); Linsley & Chemsak, 1997: 344 (hosts); Lingafelter, 1998: 53, fig. 1972: Lingafelter *et al.*, 2014: 36, fig. 37s (holotype).

### 3. *Anoplocurius incompletus* Linsley, 1942

**Type locality** - Holotype male: Mexico, Baja California: 20 mi N Comondu. (CASC). **Distribution** - United States (California), Mexico (Baja California). **Host plants** - *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Anoplocurius incompletus* Linsley, 1942: 47, pl. 4, fig. 7; Knull, 1942: 224; Hovore & Giesbert, 1976: 356 (distr.); Chemsak, Linsley & Noguera, 1992: 40 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Monné, M.A., 2005: 199 (cat.); Swift, 2008a: 2 (hosts).

### *Astromula* Chemsak & Linsley, 1965

*Astromula* Chemsak & Linsley, 1965a: 145; Monné, M.A., 1993d: 60 (cat.); Lingafelter, 1998: 46.

**Type-species** - *Astromula nitidum* Chemsak & Linsley, 1965 (original designation).

#### 1. *Astromula nitidum* Chemsak & Linsley, 1965

**Type locality** - Holotype male: United States, California: Riverside County, Squaw Tank, Joshua Tree National Monument. (CASC). **Distribution** - United States (Southern California). **Host plants** - *Yucca brevifolia* Engelmann (Agavaceae).

*Astromula nitidum* Chemsak & Linsley, 1965a: 147, fig. 2; Tyson, 1966: 202 (hosts); Chemsak, 1969c: 81, figs 1-3 (larva, hosts); Chemsak, Linsley & Noguera, 1992: 40 (cat.); Monné, M. A., 1993d: 61 (cat.); Linsley & Chemsak, 1997: 346 (hosts); Lingafelter, 1998: 56, figs 30A, 75.

### *Atylostagma* White, 1853

*Atylostagma* White, 1853: 97; Thomson, 1864: 243; 1865: 451; Lacordaire, 1868: 257; Bates, 1879: 16; 1884: 242; Schaeffer, 1909a: 100; Bradley, 1930: 229; Arnett, 1962: 864, 883; Linsley, 1963: 23; Lingafelter, 1998: 57; Martins, 2005: 140; Monné, M.A., 2005: 201 (cat.); Monné, M.A., 2012: 20.

**Type-species** - *Atylostagma polita* White, 1853 (monotypy).

#### 1. *Atylostagma glabra* Schaeffer, 1909

**Type locality** - Holotype female: United States, Arizona: Tucson. (AMNH). **Distribution** - United States (Central and southern Arizona), southern Mexico.

*Atylostagma glabra* Schaeffer, 1909a: 99; Linsley, Knull & Statham, 1961b: 11 (distr.); Linsley, 1963: 23, fig. 7; Chemsak, Linsley & Noguera, 1992: 40 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Lingafelter, 1998: 57, fig. 76; Monné, M.A., 2005: 201 (cat.).

### *Curtomerus* Stephens, 1839

*Curtomerus* Stephens, 1839: 275; Lacordaire, 1868: 351; Arnett, 1962: 864, 882; Linsley, 1963: 4; Villiers, 1980b: 281; Lingafelter, 1998: 60; Martins, 2005: 18; Monné, M.A., 2005: 203 (cat.); Sama, 2010: 50 (nomen protectum); Monné, M.A., 2012: 21.

**Type-species** - *Callidium luteum* Stephens, 1831 (monotypy) [= *Callidium flavum* Fabricius, 1775].

*Cylindera* Newman, 1833: 509; Schaeffer, 1908: 336; Bradley, 1930: 229; Cazier & Lacey, 1952: 27; Zayas, 1975: 117.

**Type-species** - *Cylindera pallida* Newman, 1833 (monotypy).

*Onchomerus* Dejean, 1835: 332; Bousquet & Bouchard, 2013: 87.

**Type-species** - *Callidium pilicorne* Fabricius, 1793 (monotypy).

*Lampromerus* Thomson, 1861: 202; 1864: 221; Lacordaire, 1868: 350.

**Type-species** - *Callidium pilicorne* Fabricius, 1793 (original designation).

*Cyrtomerus* Gemminger & Harold, 1872: 2836 (incorrect subsequent spelling).

*Cylindrodera* Gemminger & Harold, 1872: 2911 (emend.).

*Sotenus* Sharp, 1878: 205.

**Type-species** - *Sotenus setiger* Sharp, 1878 (monotypy).

### 1. *Curtomerus fasciatus* (Fisher, 1932)

**Type locality** - Holotype female: Cuba, Guantánamo. (USNM). **Distribution** - United States (Florida), Cuba.

*Cylindera fasciata* Fisher, 1932: 49; Zayas, 1975: 117, pl. 15, fig. a; Lingafelter *et al.*, 2014: 59, figs 63o, p (holotype).

*Curtomerus fasciatus*; Linsley, 1963: 5; Chemsak, Linsley & Noguera, 1992: 41 (cat.); Browne & Peck, 1996: 2158 (distr.); Peck & Thomas, 1998: 118 (distr.); Monné, M.A., 2005: 204 (cat.); Peck, 2005: 169 (distr.); Lingafelter, 2007: 87, 145, 2 figs, pl. 21, fig. b; Devesa, Fonseca & Barro, 2015: 31, 154, 176, figs 1-11.

### 2. *Curtomerus flavus* (Fabricius, 1775)

**Syntypes locality** – Syntypes male and female: América. (ZMUC). **Distribution** - United States (Florida), Bahamas, Mexico, Honduras, El Salvador, Antigua, Barbados, Barbuda, Cayman, Cuba, Dominica, Granada, Guadeloupe, Hispaniola, Jamaica, La Désirée, Leeward Islands, Les Saints, Martinica, Mona Island, Montserrat, Porto Rico, Saba, St. Christofer, St. Croix, St. Martin, St. Thomas, St. Vincent, Santa Lucía, Virgin Islands, Winward Islands, Venezuela, Guiana, Suriname, French Guiana, Brasil (Pernambuco, Santa Catarina), Japan, Hawaii, Tahiti, Santa Helena, Marquesas, United Kingdom. **Host plants** - *Metopium toxiferum* (Linnaeus) Krug & Urban (Anacardiaceae), *Cocos* sp. (Arecaceae), *Haematoxylum campechianum* Linnaeus (Caesalpiniaceae), *Casuarina equisetifolia* Linnaeus (Casuarinaceae), *Bucida buceras* Linnaeus, *Conocarpus erectus* Linnaeus (Combretaceae), *Lonchocarpus violaceus* Kunth, *Piscidia piscicula* (Linnaeus) Sargent (Fabaceae), *Xylosma* sp. (Flacourtiaceae), *Acacia decurrens* Willdenow, *Inga* sp., *Leucaena leucocephala* (Lamarck) De Wit *Vachellia farnesiana* (Linnaeus) Wight & Arn. (Mimosaceae), *Myrsine maximowiczii* (Koidzumi) Walker (Myrsinaceae), *Eucalyptus grandis* W. Hill ex Maiden, *Eugenia* sp., *Metrosideros* sp., *Pimenta dioica* (Linnaeus) Merrill, *P. racemosa* (Miller) J.W.Moore, *P. vulgaris* Bello (Myrtaceae), *Coccoloba diversifolia* Jacquin, *C. uvifera* (Linnaeus) Jacquin (Polygonaceae), *Rhaphiolepis wrightiana* Maximowicz (Rosaceae), *Zanthoxylum ailanthoides* Siebold & Zuccarini (Rutaceae), *Sideroxylon foetidissimum* Jacquin (Sapotaceae), *Datura* sp., *Nicotiana trigonophylla* W.S. Dun (Solanaceae), *Avicennia germinans* (Linnaeus) Stearn (Verbenaceae).

*Callidium flavum* Fabricius, 1775: 191; 1781: 240; Olivier, 1790: 261; Fabricius, 1793: 330; 1801: 344; Schoenherr, 1817: 456; Zimsen, 1964: 180 (type).

*Cerambyx* (*Callidium*) *flavum*; Gmelin, 1790: 1849.

- Cylindera flava*; Aurivillius, 1912: 120 (cat.); Leng & Mutchler, 1914: 446 (distr.); 1917: 209 (distr.); Wolcott, 1924: 110 (distr.); Gowdey, 1926: 21 (distr.); Aurivillius, 1929: 2 (distr.); Williams, 1931: 225 (distr.); Wolcott, 1936: 261 (biol.); 1941: 99 (hosts); Beatty, 1944: 141 (distr.); Martorell, 1945: 108, 127, 153 (hosts); Ramos, 1946: 42 (distr.); Wolcott, 1948: 338 (biol.); Tucker, 1952: 345 (distr.); Cazier & Lacey, 1952: 27; Duffy, 1953: 188, figs 159, 160 (larva, pupa); Gilmour, 1963: 96; Zayas, 1975: 118, pl. 15, fig. b.
- Curtomerus flavus*; Duffy, 1960: 138, figs 78, 79 (larva, pupa); Linsley, 1963: 5, fig. 1; Chemsak, 1966a: 212 (distr.); Gilmour, 1968: 143, pl. 14, figs 3, 4; Villiers, 1980a: 131; 1980b: 282, fig. 50; Ivie, 1985: 309 (syn.); Hilburn & Gordon, 1989: 677 (distr.); Chemsak, Linsley & Noguera, 1992: 41 (cat.); Browne, Peck & Ivie, 1993: 43 (distr.); Noguera & Chemsak, 1996: 398 (cat.); Browne & Peck, 1996: 2158, 2160; Lingafelter, 1998: 59, fig. 82; Peck & Thomas, 1998: 18 (distr.); Monné, M.A., 2001a: 66 (cat. hosts); Vitali & Rezbanyai-Reser, 2003: 12, fig. 8, a-b; Turnbow, Cave & Thomas, 2003: 9 (distr.); Morris, 2004: 210 (hosts); Lingafelter & Micheli, 2004: 50 (distr.); Martins, 2005: 21, figs 19-24; Monné, M.A., 2005: 204 (cat.); Chalumeau & Touroult, 2005: 88, fig. 34; Peck, 2005: 169 (distr.); 2006a: 192 (distr.); Touroult, 2007: 7 (distr.); Dalens & Touroult, 2007: 292 (distr.); Vitali, 2007: 44 (distr.); Lingafelter, 2007: 81, 145, 2 figs., pl. 19, fig. g (hosts); Perez-Gelabert, 2008: 118 (distr.); Turnbow & Thomas, 2008: 17 (distr.); Peck, 2009: 20 (distr.); 2010: 51 (distr.); 2011a: 36 (distr.); 2011b: 34 (distr., hosts); Micheli, 2010: 104, pl. 22; Machado *et al.*, 2012: 187 (hosts); Thomas, Turnbow & Steiner, 2013: 18 (distr.); Peck, Thomas & Turnbow, 2014: 92 (distr.); Devesa, Fonseca & Barro, 2015: 31, 154, 178, figs 1-10; Peck, 2016: 174, pl. 42 (distr.).
- Callidium pilicorne* Fabricius, 1793: 327; Olivier, 1795: (70) 68, pl. 8, fig. 99; Fabricius, 1801: 341; Schoenherr, 1817: 452; Zimsen, 1964: 179 (type).
- Lampromerus pilicornis*; Thomson, 1861: 203; Chevrolat, 1862a: 263; Lacordaire, 1868: 351; Bates, 1885: 267 (distr.); Gundlach, 1894: 329 (distr.).
- Cyrtomerus pilicornis*; Gemminger & Harold, 1872: 2836 (cat.); Schwarz, 1890: 267 (distr.); Lameere, 1893: 274 (distr.).
- Cylindera pilicornis*; Gahan, 1895: 108; Schaeffer, 1908: 336.
- Curtomerus pilicornis*; Duffy, 1953: 246, figs 9, 10 (larva, pupa).
- Syntypes locality** – Syntypes: America meridionalis insulis. (ZMUC).
- Callidium luteum* Stephens, 1831: 249
- Cyrtomerus luteus*; Stephens, 1839: 275.
- Syntypes locality** – Syntypes: London, West India docks. (BMNH).
- Cylindera pallida* Newman, 1833: 510.
- Type locality** - Holotype: London, Camberwell. (BMNH).
- Sotenus setiger* Sharp, 1878: 205.
- Type locality** - Holotype male: Oahu. (BMNH).
- Ceresium impuncticolle* Fairmaire, 1881: 473.
- Syntypes locality** - Syntypes: Tahiti, Raiatea. (MNHN).
- Trinophylum boninense* Matsumura & Matsushita, 1932: 72, fig. 5.
- Type locality** - Holotype female: Japan, Bonin Islands. (EMHU).
- Trinophylum barbatum* Matsushita & Ohbayashi, 1938: 97.
- Type locality** - Holotype: Japan, Bonin Islands, Chichijima Island. (EMHU).
- Curtomerus subflavus* Chemsak, 1966a: 213; Lingafelter *et al.*, 2014: 327, figs 163u, v (holotype).
- Type locality** - Holotype male: Anguilla, Flat Top Point. (USNM).

***Elaphidion* Audinet-Serville, 1834**

*Elaphidion* Audinet-Serville, 1834b: 66; Laporte, 1840: 425; Newman, 1840b: 6; Guérin-Méneville, 1844a: 224; LeConte, 1850b: 12; Strauch, 1861: 130; Thomson, 1861: 191; 1864: 235; Lacordaire, 1868: 300; Chenu, 1870: 312; LeConte, 1873a: 182; 1873b: 302; Bates, 1880: 24; LeConte & Horn, 1883: 287; Leng, 1884: 115; 1885c: 31; Casey, 1912: 291, 292; Bradley, 1930: 232; Dillon & Dillon, 1961: 586; Linsley, 1936a: 463; 1961b: 33; Arnett, 1962: 865, 883; Linsley, 1963: 77; Zayas, 1975: 77; Villiers, 1980b: 284; Lingafelter, 1998: 60; Lingafelter & Ivie, 2005: 205, 206 (checklist spp.); Monné, M.A., 2005: 205 (cat.); Ivie & Schwengel-Regala, 2007: 62 (key spp.); Lingafelter, 2008: 376 (key spp. Hispaniola); Monné, M.A., 2012: 21.

**Type-species** - *Cerambyx spinicornis* Drury, 1773 (subsequent designation, Newman, 1840b: 6).

*Elaphidium* Agassiz, 1846: 135 (unnecessary emendation).

*Cycliopleurus* Hope, 1835: 197.

**Type-species** - *Cerambyx irroratus* Linnaeus, 1767 (original designation).

*Centrocerum*; Thomson, 1864: 244; 1865: 451 (not Chevrolat, 1861).

**1. *Elaphidion clavis* Linsley, 1957**

**Type locality** - Holotype female: United States, Florida: Palmetto Key. (AMNH).

**Distribution** - United States (Coastal South Carolina to southern Florida).

*Elaphidion clavis* Linsley. 1957b: 284; 1963: 80; Chemsak, Linsley & Noguera, 1992: 41 (cat.); Monné, M.A., 1993d: 38 (cat.); Browne & Peck, 1996: 2158 (distr.); Peck & Thomas, 1998: 118 (distr.).

**2. *Elaphidion cryptum* Linsley, 1963**

**Type locality** - Holotype female: United States, Florida: Palmetto Key. (AMNH).

**Distribution** - United States (Florida), Bahamas (Andros Island). **Host plants** - *Metopium toxiferum* (Linné) Krug & Urban (Anacardiaceae), *Rhizophora mangle* Linné (Rhizophoraceae).

*Elaphidion cryptum* Linsley, 1963: 79; Hovore, Penrose & Giesbert, 1978: 96 (biol.); Turnbow & Hovore, 1979: 222 (hosts); Chemsak, Linsley & Noguera, 1992: 41 (cat., distr.); Browne & Peck, 1996: 2158, 2160 (distr.); Linsley & Chemsak, 1997: 369 (hosts); Peck & Thomas, 1998: 118 (distr.); Thomas & Turnbow, 2007: 582, fig. 7 (distr.); Lingafelter, 2007: 48, 146, 2 figs, pl. 12, fig. e (hosts); Turnbow & Thomas, 2008: 18 (distr.).

**3. *Elaphidion irroratum irroratum* (Linnaeus, 1767)**

**Type locality** - Neotype male: America. (Depository unknown). (Neotype, Guadeloupe, Piton Ste. Rose). (INRA). **Distribution** - United States (Florida), Mexico (Nuevo León), Honduras, Nicaragua, Costa Rica, Cuba, Bahamas, Hispaniola, Puerto Rico, St. Thomas, St. John, Tortola, St. Croix, St. Barthélemy, St. Martin, St. Christopher, Guadeloupe, Curaçao, Bonaire, Guana, St. Kitts. **Host plants** - *Spondias purpurea* Linné (Anacardiaceae), *Laguncularia racemosa* (Linné) Gaertner f. (Combretaceae), *Swietenia mahagani* Jacquin (Meliaceae), *Albizia lebeck* (Linné) Benth (Mimosaceae), *Rhizophora mangle* Linné (Rhizophoraceae), *Avicennia germinans* (Linné) Stearns (Verbenaceae).

*Cerambyx irroratus* Linnaeus, 1767: 633; Drury, 1773: 92, pl. 41, fig. 3; Gmelin, 1790: 1861; Olivier, 1790: 305; 1795: (67) 45, pl. 21, fig. 163.

*Stenocorus irroratus*; Fabricius, 1775: 180; 1781: 227; 1787: 143; 1793: 295; 1801: 307.

*Elaphidion irroratum*; Audinet-Serville, 1834b: 67; Newman, 1840b: 25; Laporte, 1840: 425; LeConte, 1850b: 13; White, 1853: 100; Jacquelin DuVal *in* Sagra, 1857: 266, pl. 10, fig. 7; Chevrolat, 1862a: 258; Chenu, 1870: 312; Bates, 1872: 175 (distr.); LeConte, 1873a: 182; LeConte *in* Schwarz, 1878a: 470 (distr.); Waterhouse, 1878: 303 (distr.); Riley, 1880: 239 (hosts); Bates, 1880: 24 (distr.); 1884: 248 (distr.); Leng, 1885c: 31, 32; Schwarz, 1888: 93 (biol.); Gahan, 1895: 99; Beutenmuller, 1896: 75 (hosts); Wickham, 1898b: 41 (distr.); Klages, 1901: 272, 290 (distr.); Townsend, 1903: 76 (distr.); Blatchley, 1910: 1024 (distr.); Leng & Mutchler, 1914: 445 (distr.); Schwarz *in* Holland, 1917: 341 (distr.); Wolcott, 1924: 109; Gowdey, 1926: 21 (distr.); Kirk & Knull, 1926: 22 (distr.); Leonard, 1928: 436 (distr.); Russo, 1930: 142 (distr.); Linsley, 1934c: 108 (distr.); Wolcott, 1936: 260 (distr.); 1941: 99 (distr.); Linsley, 1942: 86; Martorell, 1945: 88, 438 (hosts); Ramos, 1946: 42 (distr.); Knull, 1946: 194; Wolcott, 1948: 336 (distr.); Cazier & Lacey, 1952: 17; Duffy, 1960: 123 (hosts); Linsley, 1963: 83, fig. 30; Gilmour, 1968: 124, 125, pl. 12, figs 1, 2; Chemsak, 1969a: 186 (distr.); Zayas, 1975: 90; Hovore, Penrose & Giesbert, 1978: 96 (hosts); Villiers, 1979: 97; 1980c: 285, fig. 54; Chemsak, Linsley & Mankins, 1980: 30 (distr.); Chemsak, Linsley & Noguera, 1992: 42 (cat.); Browne, Peck & Ivie, 1993: 45 (distr., hosts); Maes *et al.*, 1994: 13 (distr., hosts); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Ruíz Cancino Chemsak, 1997: 369 (hosts); Maes, 1998: 891 (distr.); Monné, M.A., 2001a: 68 (cat. hosts); & Coronado Blanco, 2002: 102 (distr.); Vitali & Rezbanyai-Reser, 2003: 14, fig. 13, a-b; Turnbow, Cave & Thomas, 2003: 9 (distr.); Lozada Piña, Fernández García & Trujillo Anaya, 2004: 106 (distr.); Lingafelter & Micheli, 2004: 50 (distr.); Peck, 2005: 169 (distr.); Aragón, 2006: 54 (distr.); Hovore, 2006: 372 (distr.); Lingafelter, 2007: 48, 146, 2 figs, pl. 12, fig. f (hosts); Ivie & Schwengel-Regala, 2007: 60, fig. 15; Turnbow & Thomas, 2008: 18 (distr.); Fernández García, Favila Castillo & López Iborra 2009: 322 (distr.); Swift *et al.*, 2010: 16 (distr.); Micheli, 2010: 108, pl. 24; Peck, 2011a: 36 (distr., hosts); Peck, Thomas & Turnbow, 2014: 93 (distr.); Peck, 2016: 175, pl. 43 (distr., hosts).

*Cycliopleurus irroratus*; Hope, 1835: 107.

*Stenocorus (Elaphidion) irroratus*; Drury & Weswood, 1837: 88, pl. 41, fig. 6.

*Cerambyx bidens*; Olivier, 1790: 306; 1795: (67) 42, pl. 17, fig. 125 (not Fabricius, 1787).

*Elaphidion irroratum irroratum*; Chalumeau & Touroult, 2004: 752, fig. 2 (neotype); 2005b: 97, fig. IX; Monné, M.A., 2005: 208 (cat.); Perez-Gelabert, 2008: 118 (distr.); Maes *et al.*, 2010: 189, 2 figs (distr.); Devesa, Fonseca & Barro, 2015: 31, 157, 204, figs 1-9; Le Tirant & Santos-Silva, 2019: 2 (distr.).

*Elaphidion ordinatum* Newman, 1840b: 26.

**Type locality** - Holotype: Brazil. (BMNH).

*Elaphidion tessellatum* Newman, 1840b: 26.

**Type locality** - Holotype: Brazil. (BMNH).

*Elaphidion insulare*; Gilmour, 1963: 81, pl. 2, fig. 1 (not Newman, 1840).

#### 4. *Elaphidion knulli* Linsley, 1957

**Type locality** - Holotype male: United States, Florida: Miami. (FMNH).

**Distribution** - United States (Florida). **Host plants** - *Avicennia germinans* (Linné) Stearn (Verbenaceae).

*Elaphidion knulli* Linsley, 1957a: 18; 1963: 79; Chemsak, 1977a: 174 (types); Chemsak, Linsley & Noguera, 1992: 42 (cat.); Monné, M.A., 1993d: 42 (cat.); Browne & Peck, 1996: 2158 (distr.); Peck & Thomas, 1998: 118 (distr.); Morris, 2004: 210 (hosts); Lingafelter, 2007: 47, 146.

##### 5. *Elaphidion linsleyi* Knull, 1960

**Type locality** - Holotype male: United States, Texas: Davis Mts., Jeff Davis County. (FMNH). **Distribution** - United States (Texas). **Host plants** - *Rhus virens* var. *choriophylla* (Wootton & Standley) B. L. Turner (Anacardiaceae), *Baccharis neglecta* Nuttall (Asteraceae), *Acacia farnesiana* (Linné) Willdenow (Mimosaceae), *Salix nigra* Marshall (Salicaceae), *Ungnadia speciosa* Endlicher (Sapindaceae).

*Elaphidion linsleyi* Knull, 1960: 7; Linsley, 1963: 82, fig. 29; Ruetter, 1970: 19 (paratype); Chemsak, 1977a: 174 (types); Turnbow & Wappes, 1981: 76 (hosts); Rice, Turnbow & Hovore, 1985: 19 (hosts); Hovore, Penrose & Neck, 1987: 302 (distr.); Chemsak, Linsley & Noguera, 1992: 42 (cat.); Monné, M.A., 1993d: 42 (cat.); Linsley & Chemsak, 1977a: 370 (hosts); Van Pelt, 2002: 128; MacRae & Rice, 2007: 232 (distr., hosts).

##### 6. *Elaphidion mimeticum* Schaeffer, 1905

**Type locality** - Lectotype: United States, Texas: Brownsville. (USNM). **Distribution** - United States (Texas), Mexico (Jalisco, Tamaulipas, Quintana Roo, Chiapas, Nuevo León), Guatemala, Belize, Honduras. **Host plants** - *Acacia farnesiana* (Linné) Willdenow (Mimosaceae), *Salix nigra* Marshall (Salicaceae).

*Elaphidion mimeticum* Schaeffer, 1905: 132. (error).

*Elaphidion mimeticum*; Schaeffer, 1908: 329; Linsley, 1935d: 109 (distr.); Vogt, 1949: 141 (distr., hosts); Linsley, 1963: 85; Hovore, Penrose & Neck, 1987: 302 (biol.); Chemsak, Linsley & Noguera, 1992: 42 (cat.); Chemsak & Noguera, 1995: 59 (distr.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 370 (hosts); Monné, M.A., 2001a: 68 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 102 (distr.); Toledo *et al.*, 2002: 526 (distr.); Turnbow, Cave & Thomas, 2003: 9 (distr.); Monné, M.A., 2005: 209 (cat.); Hovore, 2006: 372 (distr.); Vlasák, 2014: 318 (hosts); Lingafelter *et al.*, 2014: 99, figs 109e, f (lect. designation); García Morales *et al.*, 2015: 102 (distr.).

*Elaphidion mimiticum*; Linsley & Martin, 1933: 180 (error).

##### 7. *Elaphidion mucronatum* (Say, 1824)

**Syntypes locality** - Syntypes male and female: United States. (Depository unknown). **Distribution** - Eastern Canada and New England to Florida, west to Minnesota, Kansas, and Texas. **Host plants** - *Acer rubrum* Linné, *A. saccharinum* Linné, *A. saccharum* Marshall (Aceraceae), *Rhus* sp., *Toxicodendron radicans* (Linné) Kuntze var. *negundo* (E. Greene) J. L. Reveal (Anacardiaceae), *Asimina triloba* W.S. Dun (Annonaceae), *Chamaerops humilis* Linné, *Sabal* sp. (Arecaceae), *Cercis canadensis* Linné, *Gleditschia triacanthos* Linné (Caesalpiniaceae), *Celtis reticulata* Torrey (Cannabaceae), *Cornus florida* Linné (Cornaceae), *Carpinus caroliniana* Walter (Corylaceae), *Diospyros virginiana* Linné (Ebenaceae), *Sesbania drummondii* (Rydberg) Cory, *Wisteria* sp. (Fabaceae), *Castanea* sp., *Fagus ferruginea* Aiton, *Quercus hypoleucoides* A. Camus (Fagaceae), *Liquidambar styraciflua* Linné (Hamamelidaceae), *Carya* sp., *Juglans nigra* Linné (Juglandaceae), *Sassafras albidum* (Nuttall) Nees (Lauraceae), *Liriodendron*



*tulipifera* Linné (Magnoliaceae), *Tilia* sp. (Malvaceae), *Morus rubra* Linné (Moraceae), *Myrica aspleniifolia* Linné (Myroceae), *Nyssa* sp. (Nyssaceae), *Fraxinus* sp. (Oleaceae), *Picea abies* Linné (Pinaceae), *Amelanchier arborea* (Michaux fils) Fernald, *Malus* sp., *Prunus americana* Marshall, *P. serotina* Ehrhart, *Pyrus* sp. (Rosaceae), *Populus* sp., *Salix nigra* Marshall (Salicaceae), *Taxodium distichum* (Linné) Richard (Taxodiaceae), *Ulmus americana* Linné (Ulmaceae), *Vitis* sp. (Vitaceae).

*Stenocorus mucronatus* Say, 1824: 427; LeConte, 1859c: 201.

*Elaphidion mucronatum*; Newman, 1840b: 27; Haldeman, 1847a: 33; LeConte, 1850a: 14; White, 1855: 103; LeConte, 1858a: 40 (distr.); 1859c: 48 (distr.); Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (hosts); Packard, 1881: 55 (biol.); Horn, 1885b: 5; Townsend, 1885: 70 (distr.); Leng, 1885c: 31, 32; Townsend, 1889: 233 (distr.); Packard, 1890: 91 (biol.); Caulfield, 1890: 66 (biol.); Smith, 1890: 137; Hopkins, 1893: 193 (biol.); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 75 (hosts); Chittenden, 1898: 42, fig. 14 (biol.); Smith, 1900: 287 (distr.); Dury, 1902: 259 (distr.); Townsend, 1903: 76 (distr.); Ulke, 1903: 26, 50 (distr.); Melander, 1904: 20 (hosts); Felt, 1906: 702 (hosts); Schaeffer, 1908: 329 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 326; Leng, 1910: 77 (distr.); Blatchley, 1910: 1024, fig. 435; Fisher & Kirk, 1912: 310; Dozier, 1918: 334; Britton, 1920: 267 (distr.); Craighead, 1923: 69, pls 8, 10, 14 (larva); Champlain, Kirk & Knull, 1925: 106 (biol.); Kirk & Knull, 1926: 22; Leonard, 1928: 436 (distr.); Frost & Dietrich, 1929: 436 (distr.); Knull, 1930a: 85 (biol.); Hatch & Ortenburger, 1930: 14 (distr.); Beaulne, 1932: 198 (hosts); Goldman, 1933: 88, pl. 5, figs 5-7 (morphol.); Brimley, 1938: 211 (distr.); Hoffmann, 1940: 59 (biol.); Smith, 1943: 313 (biol.); Wray & Brimley, 1943: 130 (distr.); Loding, 1945: 115; Knull, 1946: 194; Craighead, 1950: 246; Duffy, 1953: 185, fig. 155 (larva, hosts); Dillon & Dillon 1961: 587, pl. 57 No. 12; Linsley, 1963: 81, fig. 30; Baker, 1972: 192 (biol.); Gosling, 1973: 72 (distr.); Stein & Tigestad, 1976: 11 (distr.); Solomon, Doolittle & Spilman, 1976: 290; Turnbow & Franklin, 1980: 341 (distr.); Waters & Hyche, 1984: 285 (distr.); Gosling, 1984: 71 (hosts); Rice, 1985: 1224 (hosts); Chemsak, Linsley & Noguera, 1992: 42 (cat.); MacRae, 1993: 230 (distr., hosts); Monné, M.A., 1993d: 43 (cat.); Lingafelter & Horner, 1993: 171 (distr.); Browne & Peck, 1996: 2158, 2160 (distr.); Yanega, 1996: 48, pl. 13, fig. 155; Linsley & Chemsak, 1997: 370 (hosts); Peck & Thomas, 1998: 118 (distr.); Lingafelter, 1998: 61; Schiefer, 1998: 117 (distr.); Vlasák & Vlasakova, 2002: 210 (distr., hosts); Morris, 2004: 210 (hosts); Sikes & Webster, 2005: 327 (distr.); Lingafelter, 2007: 47, 146, 2 figs, pl. 12, fig. c (hosts); MacRae & Rice, 2007: 232 (distr., hosts); Staines, 2008: 146 (distr.); McDowell, 2011: 412 (biol.); Holt, 2013: 248 (distr., hosts); Steury & MacRae, 2014: 10 (distr.); García Morales *et al.*, 2014: 102 (distr.); Vlasák, 2014: 318 (hosts); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 44, pl. 3; Millar *et al.*, 2017: 1056 (pherom.).

*Elaphidion (Elaphidion) mucronatum*; LeConte, 1873a: 182, 184.

*Elaphidion nebulosum* Guérin-Méneville, 1844a: 255; Thomson, 1878b: 16 (types).

**Type locality** - Holotype: America septentrionalis. (MNHN).

*Elaphidion glabratum* Newman, 1840b: 27 (not Fabricius)

*Elaphidion muricatum* Haldeman, 1847a: 33.

**Type locality** - Holotype: United States: Massachusetts. (MCZN).

*Elaphidion mucronatum* var. *vestitum* Haldeman, 1847a: 34

**Type locality** - Holotype: United States: Pennsylvania. (MCZN).

**8. *Elaphidion tectum* LeConte, 1878**

**Syntypes locality** - Syntypes male: United States, Florida: Cedar Keys. (MCZN).

**Distribution** - United States (Florida). **Host plants** - *Sabal palmetto* (Walter) Schultes & Schultes (Arecaceae), *Baccharis halimifolia* Linné (Asteraceae).

*Elaphidion tectum* LeConte, 1878b: 414; Lameere, 1883: 14 (cat.); Leng, 1885c: 31; Lepesme, 1947: 520 (hosts); Linsley, 1963: 82; Chemsak, Linsley & Noguera, 1992: 42 (cat.); Monné, M.A., & Giesbert, 1994: 54 (cat.); Peck & Thomas, 1998: 118 (distr.); Lingafelter, 2007: 47, 146, 2 figs, pl. 12, fig. d; Vlasák, 2014: 318 (hosts).

***Elaphidionopsis* Linsley, 1936**

*Elaphidionopsis* Linsley, 1936a: 467; Arnett, 1962: 866, 884; Linsley, 1963: 114; Lingafelter, 1998: 61; Monné, M.A., 2005: 212 (cat.); Monné, M.A., 2012: 21.

**Type-species** - *Elaphidionopsis fasciatipennis* Linsley, 1936 (original designation).

**1. *Elaphidionopsis fasciatipennis* Linsley, 1936**

**Type locality** – Holotype female: United States, Texas: Devil’s River, near Del Rio. (CASC). **Distribution** - United States (Texas), Mexico (Coahuila). **Host plants** - *Dermatophyllum secundiflorum* (Ortega) Gandhi & Revea (Fabaceae), *Celtis reticulata* Torrey (Cannabaceae).

*Elaphidionopsis fasciatipennis* Linsley, 1936a: 467, pl. 1, fig. 1; 1963: 115; Hovore, Penrose & Neck, 1987: 304 (distr.); Chemsak, Linsley & Noguera, 1992: 43 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Lingafelter, 1998: 59, figs 84, 140; Monné, M.A., 2005: 212 (cat.); MacRae & Rice, 2007: 233 (hosts); Heffern, Vlasak & Alten, 2018: 742 (hosts)

***Enaphalodes* Haldeman, 1847**

*Enaphalodes* Haldeman, 1847b: 151; Linsley, 1961b: 36; 1963: 62; Hatch, 1971: 107; Lingafelter, 1998: 62; Lingafelter & Chemsak, 2002: 570 (key spp.); Monné, M.A., 2005: 212 (cat.); Martins, 2005: 286; Monné, M.A., 2012: 21; Bousquet, Laplante, Hammond & Langor, 2017: 43 (key spp.) Lingafelter & Santos-Silva, 2018: 2, 17 (key spp).

**Type-species** - *Cerambyx pulverulentus* Degeer, 1775 (subsequent designation, Linsley, 1963: 63) [= *Cerambyx atomarius* Drury, 1773].

*Romaleum* White, 1855: 309; LeConte, 1873b: 302; Bates, 1880: 23; LeConte & Horn, 1883: 287; Leng, 1884: 115; 1885c: 29; Horn in Leng, 1885d: 130; Blatchley, 1910: 1023; Casey, 1912: 291, 297; Bradley, 1930: 233; Linsley, 1936a: 463; Knull, 1946: 192; Arnett, 1962: 865, 883.

*Elaphidion* (*Romaleum*); LeConte, 1873a: 181.

**Type-species** - *Romaleum operarium* White, 1855 (monotypy).

*Thersalus* Pascoe, 1865: 372.

**Type-species** - *Phacodes bispinosus* Pascoe, 1863 (monotypy).

*Hypermallus* Lacordaire, 1868: 302.

**Type-species** - *Cerambyx pulverulentus* Degeer, 1775 (original designation).

**1. *Enaphalodes archboldi* Lingafelter & Chemsak, 2002**

**Type locality** - Holotype female: United States, Florida: Highlands County, Archbold Biological Station. (USNM). **Distribution** - United States (Florida).

**Host plants** - *Quercus geminate* Small, *Q. inopina* Ashe, *Q. myrtifolia* Willdenow (Fagaceae);

*Enaphalodes archboldi* Lingafelter & Chemsak, 2002: 571, 577, figs 1, 2,3f, 4b, 5a; Lingafelter, 2007: 52, 146, 2 figs, pl. 13, fig.d; Lingafelter *et al.*, 2014: 19, fig. 19a (holotype); Lingafelter & Santos-Silva, 2018: 17; Vlasak, 2018: 2, figs 1-19 (hosts).

## 2. *Enaphalodes atomarius* (Drury, 1773)

**Type locality** – Type: United States, New York. (Depository unknown).

**Distribution** - Atlantic coast from southern Canada to Florida, west to Kansas and Arizona, Mexico (Tamaulipas, Veracruz) Guatemala and Honduras. **Host plants** - *Chamaerops* sp., *Sabal palmetto* (Walter) Schultes & Schultes (Arecaceae), *Celtis* sp. (Cannabaceae), *Castanea* sp., *Quercus alba* (Linnaeus), *Q. velutina* Lamarck (Fagaceae), *Carya* sp., *Juglans nigra* Linnaeus (Juglandaceae), *Prunus* sp. (Rosaceae).

*Cerambyx atomarius* Drury, 1773: 93, pl. 41, fig. 6, index.

*Stenochorus atomarius*; Schoenherr, 1817: 403.

*Elaphidion atomarium*; LeConte, 1852: 177; 1858a: 40 (distr.); Bland, 1861: 94 (distr.); Pettit, 1871: 105 (distr.); Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (hosts); Packard, 1881: 55 (biol.); Goldman, 1933: 88, pl. 5, figs 12-14 (biol.).

*Hypermallus atomarius*; Gemminger & Harold, 1872: 2817 (cat.).

*Elaphidion (Romaleum) atomarium*; LeConte, 1873a: 182, 183 (syn.).

*Romaleum atomarium*; Bates, 1884: 247; Leng, 1885c: 30; Horn, 1886a: 138; Townsend, 1889: 233 (distr.); Caulfield, 1890: 66 (biol.); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 75 (hosts); Wickham, 1897a: 109; Dury, 1902: 159 (distr.); Ulke, 1903: 26 (distr.); Townsend, 1903: 76 (distr.); Hopkins, 1904: 36 (biol.); Schaeffer, 1908: 329; Wickham, 1909a: 28 (distr.); Smith, 1910: 326 (distr.); Blatchley, 1910: 1023; Dow, 1913: 78; Dozier, 1918: 334 (distr.); Nicolay, 1919: 65 (distr.); Craighead, 1923: 68, pl. 10, fig. 2 (larva, pupa); Kirk & Knull, 1926: 22 (distr.); Leonard, 1928: 435 (distr.); Barrett, 1932: 291 (hosts); Beaulne, 1932: 198 (hosts); Brimley, 1938: 211 (distr.); Savely, 1939: 340 (biol.); Loding, 1945: 115 (distr.); Knull, 1946: 192, pl. 1, fig. 9; Dillon & Dillon, 1961: 586, pl. 58 No. 6.

*Enaphalodes atomarius*; Linsley, Knull & Statham, 1961b: 15 (distr.); Linsley, 1963: 73, fig. 26; Solomon, Newsome & Darwin, 1972: 78 (biol.); Gosling, 1973: 72, fig. 23 (biol., distr.); Chemsak, Linsley & Mankins, 1980: 30 (distr.); Hovore, Penrose & Neck, 1987: 302 (distr.); Linsley & Chemsak, 1997: 372 (hosts); Heffern, 1998: 13 (distr.); Lingafelter & Chemsak, 2002: 578, fig. 3a (syn.); Turnbow, Cave & Thomas, 2003: 9 (distr.); Monné, M.A., 2005: 212 (cat.); Hovore, 2006: 372 (distr.); Lingafelter, 2007: 56, 146, 2 figs, pl. 14, fig. h (hosts); MacRae & Rice, 2007: 233 (hosts); Staines, 2008: 146 (distr.); Guarnieri, 2009: 16 (distr.); Holt, 2013: 248 (distr.); García Morales *et al.*, 2015: 103 (distr.); Heffern, Vlasak & Alten, 2018: 744 (hosts); Bousquet *et al.* 2017: 44, pl 3

*Stenocorus marylandicus* Fabricius, 1775: 179; 1781: 226; 1787: 143; 1793: 294; Zimsen, 1964: 172 (type).

*Cerambyx marylandicus* Goeze, 1777: 481; Gmelin, 1790: 1859.

*Callidium marylandicum*; Olivier, 1790: 250; 1795: (70) 6, pl. 1, fig. 5.

*Stenocorus marylandicus*; Fabricius, 1801: 306 (error).

*Elaphidion marylandicum*; Dejean, 1835: 327 (cat.); Newman, 1840b: 24; LeConte, 1850b: 13.

*Elaphidion marilandicum*; Haldeman, 1847a: 32; Haldeman *in* Stansbury, 1852: 178.

**Syntypes locality** – Syntypes: United States, Maryland. (BMNH).

*Cerambyx pulverulentus* Degeer, 1775: 118, pl. 14, fig. 12; Gmelin, 1790: 1857.

*Elaphidion pulverulentum*; White, 1853: 99.

*Hypermallus pulverulentus*; Lacordaire, 1868: 302.

**Type locality** – Type: United States, Pennsylvania. (NHRS).

*Cerambyx variegatus* Goeze, 1777: 481.

**Type locality** - Holotype: United States, New York. (Depository unknown).

*Cerambyx multicolor* Gmelin, 1790: 1857.

**Type locality** – Type: Noveboraco. (Depository unknown).

*Phacodes bispinosus* Pascoe, 1863: 562.

*Thersalus bispinosus*; Pascoe, 1865: 372.

*Thersalus bispinus*; Lacordaire, 1868: 303 (error).

**Type locality** - Holotype: Australia. (BMNH).

*Hypermallus decipiens* Bates, 1884: 248.

*Elaphidion decipiens*; Aurivillius, 1912: 86 (cat.).

*Enaphalodes decipiens*; Linsley, 1961b: 36; Chemsak, Linsley & Noguera, 1992: 43 (cat.); Noguera & Chemsak, 1996: 398 (cat.).

**Type locality** - Holotype male: Mexico, Veracruz: Paso del Macho. (BMNH).

*Romaleum thoracicum* Casey, 1912: 297; Brimley, 1938: 211 (distr.); Lingafelter *et al.*, 2014: 333, figs 170o, p (lect. designation).

**Type locality** – Lectotype: United States, Texas. (USNM).

### 3. *Enaphalodes cortiphagus* (Craighead, 1923)

**Type locality** – Lectotype male: United States, Pennsylvania: Charter Oak. (FMNH). **Distribution** - Canada, Northeastern United States west to Arizona. **Host plants** - *Quercus acuminata* (Michaux) Sargent, *Q. alba* Linné, *Q. prinus* Linné (Fagaceae).

*Romaleum cortiphagus* Craighead, 1923: 69 (larva, hosts); Champlain, Kirk & Knull, 1925: 105 (hosts); Kirk & Knull, 1926: 22 (distr.); Knull, 1927: 116 (hosts); 1946: 193, pl. 1, fig. 10, pl. 9, fig. 34; Craighead, 1950: 263 (biol.); Beal, Haliburton & Knight, 1952: 70 (biol.); Chemsak, 1977a: 178 (lectotype).

*Enaphalodes cortiphagus*; Linsley, 1963: 74, fig. 27; Baker, 1972: 181 (biol.); Gosling, 1973: 73 (distr., biol.); Stein & Tigestad, 1976: 14 (distr.); Perry, 1977: 98 (distr.); Arnett, 1985: 363, fig. 24.187; Hovore, Penrose & Neck, 1987: 302; Chemsak, Linsley & Noguera, 1992: 43 (cat.); MacRae, 1993: 229 (distr.); Monné, M.A., 1993d: 34 (cat.); Yanega, 1996: 49, pl.13, fig. 151; Linsley & Chemsak, 1997: 373 (hosts); Burne, 1997: 36 (distr.); Schiefer, 1998: 17 (distr.); Lingafelter & Chemsak, 2002: 557, figs 3c, 4c; Lingafelter, 2007: 56, 146, 2 figs, pl. 14, fig. c (hosts); Guarneri, 2009: 16 (distr.); Spomer, 2014: 300 (distr.); Haack, 2017: 117 (hosts); Klingeman *et al.*, 2017: 297 (biol., distr.); Bousquet *et al.* 2017: 44, pl 3; Lingafelter & Santos-Silva, 2018: 17.

*Romaleum cylindricum* Knull, 1927: 116; Chemsak. 1977: 178 (types).

*Enaphalodes cylindricus*; Linsley, Knull & Statham, 1961: 15 (distr.); Linsley. 1963: 71, fig. 27; Lewis, 1979: 24 (distr.); Chemsak, Linsley & Noguera, 1992: 43 (cat.); Monné, M.A., 1993d: 34 (cat.).

**Type locality** - Holotype: United States, Arizona: Paradise. (FMNH).

### 4. *Enaphalodes hispicornis* (Linnaeus, 1767)

**Type locality** – Type: America. (Depository unknown). **Distribution** - United States (Atlantic coast to Idaho and California), Mexico (Sonora, Mexico, Tamaulipas). **Host plants** - *Quercus agrifolia* Née (Fagaceae).

- Cerambyx hispicornis* Linnaeus, 1767: 634.  
*Calopus hispicornis*; Gmelin, 1790: 1865.  
*Callidium hispicornis*; Olivier, 1790: 250; 1795: (70) 5, pl. 5, fig. 57.  
*Stenochorus hispicornis*; Schoenherr, 1817: 407.  
*Gnaphalodes spinicornis*; Chevrolat, 1861: 248 (error).  
*Romaleum hispicorne*; Aurivillius, 1912: 84 (cat.); Pack, 1930: 219 (distr.); Schaeffer, 1933a: 41 (distr.); Moore, 1937: 87 (distr.); Brimley, 1938: 211 (distr.); Loding, 1945: 115 (distr.); Knowlton & Wood, 1950: 10 (distr.).  
*Enaphalodes hispicornis*; Linsley, Knull & Statham, 1961b: 15; Linsley, 1963: 64, figs 22, 23; Hatch, 1971: 107, pl. 11, fig. 1; Gosling, 1973: 72, fig. 21 (distr.); MacKay, Zak & Hovore, 1987: 363 (hosts); Hovore, Penrose & Neck, 1987: 302 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 43 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Browne & Peck, 1996: 2158 (distr.); Linsley & Chemsak, 1997: 373 (hosts); Peck & Thomas, 1998: 118 (distr.); Schiefer, 1998: 117 (distr.); Monné, M.A., 2001a: 69 (cat. hosts); Lingafelter & Chemsak, 2002: 575, fig. 3d; Monné, M.A., 2005: 214 (cat.); Toledo, 2005b: 416 (distr.); Lingafelter, 2007: 52, 146, 2 figs, pl. 13, fig. e (hosts); Swift, 2008a: 3 (hosts); Holt, 2013: 248 (distr.); García Morales *et al.*, 2015: 103 (distr.); Rice, MacRae & Merickel, 2017: 669 (distr.); Bezark 2019: 406 (distr.).  
*Enaphalodes simplicicollis* Haldeman, 1847b: 151; 1847c: 375.  
*Elaphidion simplicicolle*; LeConte, 1850b: 12; White, 1853: 99; Popenoe, 1877: 33 (distr.).  
*Hypermallus simplicicollis*; Gemminger & Harold, 1872: 2818 (cat.).  
*Romaleum simplicicolle*; LeConte, 1873a: 181; Leng, 1885c: 30; Horn *in* Leng, 1885d: 130 (syn.); Aurivillius, 1893: 186; Townsend, 1895: 46 (distr.); Fall, 1901: 144 (distr.); Fall & Cockerell, 1907: 191 (distr.); Smith, 1910: 326 (distr.); Nicolay, 1919: 65 (distr.).  
**Type locality** – Holotype: United States, Georgia. (MCZN).  
*Elaphidion pulverulentum*; Haldeman, 1847a: 32; LeConte, 1850b: 12 (not Degeer, 1775).  
*Enaphalodes lecontei* Haldeman, 1847b: 151.  
**Type locality** – Type: not stated. (MCZN).  
*Romaleum operarium* White, 1855: 309, pl. 6, fig. 9.  
*Hypermallus operarius*; Gemminger & Harold, 1872: 2818 (cat.).  
*Elaphidion (Romaleum) operarium*; LeConte, 1873a: 183.  
**Type locality** – Holotype: E. Indies ?. (BMNH).  
*Elaphidion procerum* LeConte, 1859b: 88; 1873a: 181; Snow, 1885: 68 (distr.).  
*Hypermallus procerus*; Gemminger & Harold, 1872: 2818 (cat.); Heyne & Taschenberg, 1907: 239, pl. 33, fig. 2.  
*Romaleum procerum*; Leng, 1885c: 30; Aurivillius, 1893: 186.  
*Romaleum simplicicolle* var. *procerum*; Fall & Cockerell, 1907: 191 (distr.).  
*Romaleum hispicorne* var. *procerum*; Aurivillius, 1912: 84 (cat.).  
**Type locality** – Holotype female: United States, Oregon: Umpqua Valley. (MCZN).

##### 5. *Enaphalodes niveitectus* (Schaeffer, 1905)

**Syntypes locality** – Syntypes male and female: United States, Arizona: Huachuca Mts. (Miller's Canyon). (USNM). **Distribution** - United States (Arizona), northern Mexico (Tamaulipas). **Host plants** - *Quercus arizonica* Sargent, *Q. emoryi* Torrey (Fagaceae).

*Romaleum niveitectum* Schaeffer, 1905: 160; 1908: 329 (distr.); Lingafelter *et al.*, 2014: 108, figs 119a, b (holotype).

*Enaphalodes niveitectus*; Linsley, Knull & Statham, 1961b: 15, fig. 4; Linsley, 1963: 69; Cope, 1984a: 29 (hosts); Chemsak, Linsley & Noguera, 1992: 43 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 373 (hosts); Monné, M.A., 2001a: 70 (cat. hosts); Lingafelter & Chemsak, 2002: 575, fig. 3e; Monné, M.A., 2005: 214 (cat.); Toledo, 2005b: 416 (distr.).

#### 6. *Enaphalodes rufulus* (Haldeman, 1847)

**Type locality** - Holotype: United States. (MCZN). **Distribution** - Atlantic coast from Southern Canada and Maine to Florida, west to Minnesota, Iowa and Texas.

**Host plants** - *Acer rubrum* Linné (Aceraceae), *Quercus alba* Linné, *Q. coccinea* Münchhausen, *Q. imbricaria* Michaux, *Q. laurifolia* Michaux, *Q. palustris* Du Roi, *Q. rubra* Linné, *Q. stellata* Wangenheim, *Q. velutina* Lamarck, *Q. virginiana* Miller (Fagaceae).

*Elaphidion rufulum* Haldeman, 1847a: 32; LeConte, 1850b: 13; Bland, 1861: 94; Popenoe, 1878: 82 (distr.); Leng, 1885b: 136, pl. 3, fig. 3.

*Hypermallus rufulus*; Gemminger & Harold, 1872: 2818 (cat.).

*Elaphidion (Romaleum) rufulum*; LeConte, 1873a: 181.

*Romaleum rufulum*; Leng, 1885c: 30, pl. 3, fig. 3; Hamilton, 1895: 338 (distr.); Wickham, 1897a: 109; Smith, 1900: 287; Ulke, 1903: 36, 50 (distr.); Felt, 1906: 702; Dury, 1906: 259 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 326; Blatchley, 1910: 1023; Nicolay, 1919: 65 (distr.); Britton, 1920: 267 (distr.); Craighead, 1923: 68, pls 1, 8, 15, 18-20, 39, 40 (larva, pupa); Kirk & Knull, 1926: 22; Leonard, 1928: 435 (distr.); Craighead & Middleton, 1930: 8 (biol.); Beaulne, 1932: 198 (hosts); Schaeffer, 1933a: 41 (syn.); Sheppard, 1936: 75 (distr.); Brimley, 1938: 211 (distr.); Loding, 1945: 115 (distr.); Knull, 1946: 192, 193; Sherman, 1946: 126 (distr.); Craighead, 1950: 263, fig. 54A (biol.); Beal, Haliburton & Knight, 1952: 70 (biol.); Duffy, 1953: 185 (larva, pupa); Hickin, 1958: 233 (biol.); Alexander, 1958: 50 (distr.); Dillon & Dillon, 1961: 586, pl. 58. No. 8; Hay, 1962: 1 (biol.); Galford, 1969: 1 (biol.).

*Enaphalodes rufulus*; Linsley, 1963: 69, fig. 25; Hay, 1968: 255, 258; 1969: 125 (biol.); Donley, Hay & Burns, 1969: 17 (biol.); Hay, 1972a: 1243 (biol.); 1972b: 1421 (pred.); Baker, 1972: 180, fig. 56 (biol.); Solomon, Newsome & Darwin, 1972: 78 (biol.); Gosling, 1973: 72 (biol. distr.); Hay, 1974: 281 (biol.); Galford, 1974: 709 (biol.); 1975: 1 (biol.); 1977a: 1 (biol.); Donley, 1977: 496 (biol.); Solomon, 1977: 297 (biol.); Turnbow & Franklin, 1980: 341 (distr.); Galford, 1983: 7 (biol.); Donley & Rast, 1984: 41 (biol.); Hovore, Penrose & Neck, 1987: 302 (distr.); Chemsak, Linsley & Noguera, 1992: 43 (cat.); MacRae, 1993: 229 (distr.); Monné, M.A., 1993d: 36 (cat.); Browne & Peck, 1996: 2158 (distr.); Yanega, 1996: 49, pl. 13, fig. 152; Linsley & Chemsak, 1997: 373 (hosts); Peck & Thomas, 1998: 118 (distr.); Schiefer, 1998: 117 (distr.); Vlasák & Vlasakova, 2002: 210 (distr., hosts); Lingafelter & Chemsak, 2002: 578, 579, figs 3g, 4f, 5b; Fierke *et al.*, 2005: 184 (hosts); Ware & Stephen, 2006: 443 (biol.); Kelley *et al.*, 2006: 251 (biol.); Guarnieri, 2009: 17 (distr.); Crook *et al.*, 2007: 589; Fierke & Stephen, 2007: 448 (biol.); Lingafelter, 2007: 56, 146, 2 figs, pl. 14 a (hosts); Riggins, Galligan & Stephen, 2009: 426 (biol.); Verble & Stephen, 2009: 304 (biol.); McCorquodale, 2010: 468 (distr.); Haavik, Ayres, Stange & Stephen, 2011: 380; Haavik *et al.*, 2012: 380 (hosts); Haavik *et al.*, 2012: 1311 (biol.); Holt, 2013: 248 (distr.); Steury & MacRae, 2014: 10 (distr., hosts); Haack in Wang, 2017: w/page fig. 11.6 (biol.,

hosts); Haack, 2017: 110 (biol.); Haack, Keena & Eyre, 2017: 74 (biol.); Bousquet, Laplante, Hammond & Langor, 2017: 44, pl. 3; Klingeman *et al.*, 2017: 297 (distr.); Lingafelter & Santos-Silva, 2018: 17.

*Romaleum mancum* Casey, 1912: 298; Schaeffer, 1932: 152; Lingafelter *et al.*, 2014: 95, fig. 104o, p (holotype).

**Type locality** - Holotype male: United States, Rhode Island. (USNM).

*Romaleum crinicornis* Casey, 1912: 298; Lingafelter *et al.*, 2014: 48, fig. 50k, l (holotype).

**Type locality** - Holotype female: United States, Texas. (USNM).

### 7. *Enaphalodes seminitidus* (Horn, 1885)

**Type locality** – Holotype female: United States, Arizona. (ANSP). **Distribution** - Southwestern United States (Arizona, California), Mexico (Sonora). **Host plants** - *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Romaleum seminitidum* Horn, 1885d: 130; Fall, 1901: 144 (cat.); Garnett, 1918: 177 (distr.).

*Enaphalodes seminitidus*; Linsley, 1963: 65, fig. 24; Hovore & Giesbert, 1976: 355 (hosts); Chemsak, Linsley & Noguera, 1992: 43 (cat.); Lingafelter & Chemsak, 2002: 578, figs 3h, 5d; Toledo, 2005b: 417 (distr.).

### 8. *Enaphalodes taeniatus* (LeConte, 1854)

**Type locality** – Holotype female: United States, Texas: between Laredo and Ringgold Barracks. (MCZN). **Distribution** - United States (Southern Texas) and northeastern Mexico (Tamaulipas). **Host plants** - *Citrus sinensis* (Linné) Osbeck (Rutaceae), *Populus deltoides* Bartram ex Marshall, *Salix* sp. (Salicaceae), *Ulmus* sp. (Ulmaceae).

*Elaphidion taeniatum* LeConte, 1854b: 81; 1858a: 40 (distr.).

*Hypermallus taeniatus*; Gemminger & Harold, 1872: 2818 (cat.).

*Elaphidion (Romaleum) taeniatum*; LeConte, 1873a: 182.

*Romaleum taeniatum*; Leng, 1885c: 30, 31; Schaeffer, 1908: 327, 33 (syn.); Linsley & Martin, 1933: 180 (distr.); Dean 1953: 174 (hosts).

*Enaphalodes taeniatus*; Linsley, 1963: 68, fig. 24; Manley & French, 1976: 48, fig. 2; Hovore, Penrose & Neck, 1987: 302 (biol.); Chemsak, Linsley & Noguera, 1992: 43 (cat.); Lingafelter & Horner, 1993: 171 (distr.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 373 (hosts); Monné, M.A., 2001a: 70 (cat. hosts); Lingafelter & Chemsak, 2002: 575, fig. 3i; Monné, M.A., 2005: 215 (cat.); García Morales *et al.*, 2015: 103 (distr.).

### *Eustromula* Cockerell, 1906

*Eustroma* LeConte, 1873a: 186; 1873b: 302; LeConte & Horn, 1883: 287; Horn *in* Leng, 1885d: 133; Leng, 1885b: 134.

*Eustromula* Cockerell, 1906: 242; Bradley, 1930: 232; Linsley, 1936a: 463; 1961b: 33; Arnett, 1962: 865, 883; Linsley, 1963: 76; Lingafelter, 1998: 63; Monné, M.A., 2005: 215 (cat.); Monné, M.A., 2012: 21.

**Type-species** - *Elaphidion validum* LeConte, 1858 (monotypy).

### 1. *Eustromula validum* (LeConte, 1858)

**Syntypes locality** – Syntypes: United States, Texas. (MCZN). **Distribution** - Southwestern United States, from Texas to southern California, northern Mexico

- (Baja California, Tamaulipas). **Host plants** - *Cercidium floridum* Bentham ex Gray, *Parkinsonia aculeata* Linné (Caesalpiniaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Salix nigra* Marshall (Salicaceae).
- Elaphidion validum* LeConte, 1858b: 82; 1858a: 40 (distr.); 1861: 335 (distr.).
- Hypermallus validus*; Gemminger & Harold, 1872: 2818 (cat.).
- Eustroma validum*; LeConte, 1873a: 186; 1873b: 303; LeConte & Horn, 1883: 288; Bates, 1884: 248; Leng, 1885b: 134, pl. 3, fig. 6; Horn, 1894: 338 (distr.); Griffith, 1900: 569 (distr.); Garnett, 1918: 205 (distr.); Craighead, 1923: 69 (larva).
- Eustromula validum*; Cockerell, 1906: 242; Linsley, 1934d: 59 (distr.); 1936a: 463 (syn.); Moore, 1937: 87 (distr.); Linsley, 1942: 35; Vogt, 1949: 141 (distr.); Chemsak, 1958: 42 (biol.); Linsley, Knull & Statham, 1961b: 15 (distr.); Linsley, 1963: 76, fig. 28; Hovore & Giesbert, 1976: 355 (hosts); Lewis, 1979: 24 (distr.); MacKay, Zak & Hovore, 1987: 363 (hosts); Hovore, Penrose & Neck, 1987: 302 (biol.); Chemsak, Linsley & Noguera, 1992: 43 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 377 (hosts); Lingafelter, 1998: 59, fig. 88; Monné, M.A., 2001a: 70 (cat. hosts); Monné, M.A., 2005: 216 (cat.); García Morales *et al.*, 2015: 103 (distr.).
- Anoplium huachucae* Casey, 1924: 245; Lingafelter *et al.*, 2014: 77, figs 83q, r (holotype).
- Type locality** – Holotype female: United States, Arizona: Huachuca Mts. (USNM).
- Anoplium politum* Casey, 1924: 246; Lingafelter *et al.*, 2014: 302, figs 134u, v (holotype).
- Type locality** - Holotype female: United States, Arizona: Baboquivari Mts. (USNM).

### ***Gymnopsyra* Linsley, 1937**

- Gymnopsyra* Linsley, 1937: 67; Arnett, 1962: 866, 883; Linsley, 1963: 97; Monné, M.A., 2005: 216 (cat.); Monné, M.A., 2012: 22.
- Gymnopsyra*; Lingafelter, 1998: 64 (error).
- Type-species** - *Gymnopsyra phoracanthoides* Linsley, 1937 (original designation) [= *Elaphidion (Anoplium) magnipunctata* Knull, 1934].

#### **1. *Gymnopsyra aspera* Knull, 1962**

- Type locality** - Holotype male: United States, Texas: Big Bend National Park, Panther Junction, Chisos Mts. (USNM). **Distribution** – United States (Texas and Arizona).
- Gymnopsyra aspera* Knull, 1962: 105, fig. 1; Linsley, 1963: 97; Ruetter, 1970: 20 (types); Chemsak, Linsley & Noguera, 1992: 44 (cat.); Monné, M.A., 1993d: 57 (cat.); Lingafelter, 1998: 64, figs 43A, 89; Lingafelter *et al.*, 2014: 20, fig. 20m (holotype).
- Gymnopsyra aspersa*; Van Pelt, 2002: 128 (distr., error).

#### **2. *Gymnopsyra chemsaki* Linsley, 1963**

- Type locality** - Holotype female: United States, Arizona: Noon Creek, Graham Mountains, Graham County. (CASC). **Distribution** - United States (Arizona).
- Gymnopsyra chemsaki* Linsley, 1963: 98; Chemsak, Linsley & Noguera, 1992: 44 (cat.); Monné, M.A., 1993d: 58 (cat.).

#### **3. *Gymnopsyra magnipunctata* (Knull, 1934)**



**Type locality** - Holotype female: United States, New Mexico: Grant County. (FMNH). **Distribution** - United States (Texas, Arizona and New Mexico).

*Elaphidion (Anoplium) magnipunctata* Knull, 1934a: 12; Chemsak, 1977a: 174 (types).  
*Gymnopsyra magnipunctata*; Linsley, Knull & Statham, 1961: 15 (distr.); Linsley, 1963: 98 (syn.); Lewis, 1979: 24 (distr.); Chemsak, Linsley & Noguera, 1992: 44 (cat.); Monné, M.A., 1993d: 58 (cat.); Lingafelter, 1998: 64.

*Gymnopsyra phoracanthoides* Linsley, 1937: 68

**Type locality** - Holotype female: United States, Texas: Alpine, Glen Ranch. (CASC).

### ***Linsleyonides* Skiles, 1985**

*Linsleyonides* Skiles, 1985: 316; Monné, M.A., 2005: 218 (cat.); Monné, M.A., 2012: 22.

**Type-species** - *Elaphidion albomaculatum* Champlain & Knull, 1922 (original designation).

#### **1. *Linsleyonides albomaculatus* (Champlain & Knull, 1922)**

**Type locality** - Holotype male: United States, Florida: Miami. (FMNH).

**Distribution** - United States (Florida), Cuba, Bahamas.

*Elaphidion albomaculatum* Champlain & Knull, 1922: 146; Fisher, 1932: 30 (distr.); Zayas, 1975: 78; Chemsak, 1977a: 174 (type).

*Elaphidionoides albomaculatum*; Linsley, 1963: 87.

*Linsleyonides albomaculatus*; Skiles, 1985: 316; Chemsak, Linsley & Noguera, 1992: 44 (cat.); Browne, Peck & Ivie, 1993: 48 (distr.); Peck & Thomas, 1998: 118 (distr.); Lingafelter, 1999: 19, fig. 3 (in key); Monné, M.A., 2005: 218 (cat.); Peck, 2005: 170 (distr.); Lingafelter, 2007: 48, 147, 2 figs, pl. 12, fig. g; Turnbow & Thomas, 2008: 20 (distr.); Devesa, Fonseca & Barro, 2015: 31, 155, 230, figs 1-8.

### ***Micraneflus* Linsley, 1957**

*Micraneflus* Linsley, 1957b: 284; Arnett, 1962: 865, 883; Linsley, 1963: 60; Lingafelter, 1998: 70; Monné, M.A., 2005: 223 (cat.); Monné, M.A., 2012: 22.

**Type-species** - *Aneflomorpha imbellis* Casey, 1914 (original designation).

#### **1. *Micraneflus imbellis* (Casey, 1914)**

**Type locality** - Holotype male: United States, California: San Diego. (USNM).

**Distribution** - United States (Arizona and southern California), Mexico (Baja California).

*Aneflomorpha imbellis* Casey, 1914: 363; Linsley, 1936a: 474; Moore, 1937: 88 (distr.); Linsley, 1942: 37 (distr.); Lingafelter *et al.*, 2014: 78, figs 85i, j (holotype).

*Micraneflus imbellis*; Linsley, 1957b: 284; 1963: 60, figs 15, 20; Hovore, 1988: 9 (distr.); Chemsak, Linsley & Noguera, 1992: 44 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Lingafelter, 1998: 66, fig. 97; Monné, M.A., 2005: 223 (cat.).

### ***Micranoplium* Linsley, 1957**

*Micranoplium* Linsley, 1957a: 18; Arnett, 1962: 866; Linsley, 1963: 113; Monné, M.A., 1993d: 58 (cat.); Lingafelter, 1998: 70.

**Type-species** - *Anoplium unicolor* Haldeman. 1847 (original designation).

*Anoplium* Haldeman, 1847a: 34 (part); Lacordaire, 1869: 355; LeConte, 1873b: 303; LeConte & Horn, 1883: 388; Casey, 1912: 292, 305; Linsley, 1936a: 466; Knoll, 1946: 196.

### 1. *Micranoplium unicolor* (Haldeman, 1847)

**Type locality** - Holotype: United States, Pennsylvania. (MCZN). **Distribution** - United States, atlantic coast from New York to Georgia, west to Ohio.

*Anoplium unicolor* Haldeman, 1847a: 34; Lacordaire, 1869: 355; Knoll, 1946: 196.

*Elaphidion unicolor*; White, 1853: 104; LeConte & Horn, 1883: 288; Nicolay, 1919: 65 (distr.).

*Elaphidion (Elaphidion) unicolor*; LeConte, 1873a: 183.

*Micranoplium unicolor*; Linsley, 1957a: 18; 1963: 114, fig. 14; Gosling, 1973: 73, fig. 29 (distr.); Solomon, Doolittle & Spilman, 1976: 290; Turnbow & Franklin, 1980: 341 (distr.); Chemsak, Linsley & Noguera, 1992: 44 (cat.); Monné, M.A., 1993d: 58 (cat.); MacRae, 1993: 231 (distr.); Yanega, 1996: 49, pl. 14, fig. 159; Peck & Thomas, 1998: 118 (distr.); Lingafelter, 1998: 70, fig. 98; Schiefer, 1998: 117 (distr.); Vlasák & Vlasakova, 2002: 210 (distr.); Sikes & Webster, 2005: 320 (distr.); Rice & Beal, 2006: 257 (distr.); Lingafelter, 2007: 80, 147, 2 figs, pl. 19, fig. f; Staines, 2008: 146 (distr.); Guarnieri, 2009: 17 (distr.); Holt, 2013: 248 (distr.); Klingeman *et al.*, 2017: 297 (distr.).

*Elaphidion cinerascens* LeConte, 1850b: 15; White, 1853: 104; Popenoe, 1877: 33 (distr.); Leng, 1885c: 32; Smith, 1900: 288; Ulke, 1903: 26 (distr.); Smith, 1910: 327; Leng, 1910: 77 (distr.); Slossom, 1912: 372 (distr.); Nicolay, 1919: 66 (distr.).

*Elaphidion (Elaphidion) cinerascens*; LeConte, 1873a: 183.

*Anoplium cinerascens*; Casey, 1912: 305; Leonard, 1928: 436 (distr.); Loding, 1933: 148 (distr.).

**Type locality** - Holotype: United States, Pennsylvania (MCZN).

### *Neaneflus* Linsley, 1957

*Neaneflus* Linsley, 1957a: 19; Arnett, 1962: 865, 883; Linsley, 1963: 27; Lingafelter, 1998: 74; Monné, M.A., 2005: 226 (cat.); Monné, M.A., 2012: 23.

**Type-species** - *Elaphidion fuchsii* Wickham, 1905 (original designation).

### 1. *Neaneflus brevispinus* Chemsak, 1962

**Type locality** - Holotype male: United States, New Mexico: Dona Ana Co. (Pyramid Peak). (LACM). **Distribution** - United States (Southeastern California to western Texas), Mexico (Zacatecas). **Host plants** - *Dalea formosa* Torrey (Fabaceae).

*Neaneflus brevispinus* Chemsak, 1962b: 109; Linsley, 1963: 28; MacKay, Zak & Hovore, 1987: 363 (hosts); Chemsak, Linsley & Noguera, 1992: 45 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Linsley & Chemsak, 1997: 402 (hosts); Monné, M.A., 2001a: 71 (cat. hosts); Monné, M.A., 2005: 226 (cat.).

### 2. *Neaneflus fuchsii* (Wickham, 1905)

**Type locality** - Holotype male: United States, California: Independence. (USNM).

**Distribution** - United States (Southern Utah and Arizona to southeastern California), Mexico (Baja California). **Host plants** - *Lycium cooperi* A. Gray (Solanaceae).

*Elaphidion fuchsii* Wickham, 1905: 170; Lingafelter *et al.*, 2014: 66, figs 71m, n (holotype).

*Aneflus fuchsi*; Casey, 1912: 296.

*Neaneflus fuchsii*; Linsley, 1957a: 20; 1963: 28, fig. 9; Hovore, 1988: 9; Chemsak, Linsley & Noguera, 1992: 45 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Lingafelter, 1998: 71, fig. 103; Monné, M.A. 2001a: 71 (cat. hosts); Monné, M.A., 2005: 226 (cat.); Swift, 2008a: 3 (hosts); Heffern, Vlasak & Alten, 2018: 744 (hosts).

### ***Orwellion* Skiles, 1985**

*Orwellion* Skiles, 1985: 311; Lingafelter, 1998: 79; Monné, M.A., 2005: 230 (cat.); Monné, M. A., 2012: 24.

**Type-species** - *Hypermallus gibbulus* Bates, 1880 (original designation).

*Elaphidionoides* Linsley, 1963: 86 (*pars*).

#### **1. *Orwellion gibbulum arizonense* (Casey, 1891)**

**Type locality** – Lectotype male: United States, Arizona. (USNM). **Distribution** - United States (southern Arizona and southwestern New Mexico), Mexico (Sonora, Chihuahua). **Host plants** - *Quercus arizonica* Sargent, *Q. emoryi* Torrey (Fagaceae), *Populus* sp., *Salix* sp. (Salicaceae).

*Elaphidion arizonense* Casey, 1891: 28; Hamilton *in* Leng & Hamilton, 1896: 166; Linsley, 1936a: 464; Lingafelter *et al.*, 2014: 19, figs 19s, t (lect. designation).

*Hypermallus arizonensis*; Casey, 1912: 299.

*Elaphidionoides arizonensis*; Linsley, Knull & Statham, 1961b: 15, fig. 6 (distr., hosts).

*Orwellion gibbulum arizonense*; Skiles, 1985: 313; Chemsak, Linsley & Noguera, 1992: 45 (cat.); Noguera & Chemsak, 1996: 398 (cat.); Monné, M.A., 2001a: 72 (cat. hosts); Monné, M.A., 2005: 230 (cat.); Ray, Lacey & Hanks, 2006: 545 (pheromones); MacRae & Rice, 2007: 241 (hosts); Noguera *et al.*, 2009: 88 (distr.).

*Elaphidionoides gibbulus*; Linsley & Chemsak, 1997: 370 (hosts).

#### **2. *Orwellion occidentalis* (Giesbert & Hovore, 1976)**

**Type locality** – Holotype male: United States, California: Imperial Co., Laguna Lake. (CASC). **Distribution** - United States (California), Mexico (Baja California Norte, Tamaulipas).

*Elaphidionoides occidentalis* Giesbert & Hovore, 1976: 95, fig. 1.

*Orwellion occidentalis*; Skiles, 1985: 312; Hovore, 1988: 27 (distr.); Chemsak, Linsley & Noguera, 1992: 45 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M.A., 2005: 231 (cat.); García Morales *et al.*, 2015: 103 (distr.).

### ***Parelaphidion* Skiles, 1985**

*Parelaphidion* Skiles, 1985: 310; Monné, M.A., 1993d: 47 (cat.); Lingafelter, 1998: 82; Lingafelter & Ivie, 2005: 206; Bousquet, Laplante, Hammond & Langor, 2017: 45 (key spp.)

**Type-species** - *Elaphidion aspersum* Haldeman, 1847 (original designation).

#### **1. *Parelaphidion aspersum* (Haldeman, 1847)**

**Type locality** - Holotype: United States. (MCZN). **Distribution** - United States (Atlantic Coast to Iowa & Texas). **Host plants** - *Betula nigra* Linné (Betulaceae),

*Celtis laevigata* var. *texana* (Scheele) Sargent (Cannabaceae), *Quercus prinus* Linné, *Q. velutina* Lamarck (Fagaceae), *Carya glabra* (Miller) Sweet (Juglandaceae).

*Elaphidion aspersum* Haldeman, 1847a: 32.

*Elaphidionoides aspersus*; Linsley, 1963: 95; Gosling, 1973: 73, fig. 27 (distr., hosts); Hovore, Penrose & Neck, 1987: 303 (distr.); Linsley & Chemsak, 1997: 370 (hosts).

*Parelaphidion aspersum*; Skiles, 1985: 311; Chemsak, Linsley & Noguera, 1992: 46 (cat.); MacRae, 1993: 230 (distr.); Monné, M.A., 1993d: 47 (cat.); Yanega, 1996: 49, pl. 13, figs 153a, b; Burne, 1997: 36 (distr.); Peck & Thomas, 1998: 118 (distr.); Lingafelter, 1998: 62, figs 12D, 36C, 116; Schiefer, 1998: 117 (distr.); Androw & Keeney, 1999: 3 (distr.); MacRae & Rice, 2007: 241 (distr., hosts); Lingafelter, 2007: 55, 149, 2 figs, pl. 13, fig. k (hosts); Holt, 2013: 248 (distr., hosts); Spomer, 2014: 300, fig. 6 (distr.); Klingeman *et al.* 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 45, pl. 4.

*Elaphidion vicinum* Haldeman, 1847a: 33; LeConte, 1850b: 13; Melsheimer, 1853: 102 (cat.); Bland, 1861: 94 (distr.); Pettit, 1871: 105 (distr.).

*Hypermallus vicinus*; Gemminger & Harold, 1872: 2818 (cat.).

**Type locality** - Holotype: United States, Pennsylvania. (MCZN).

*Elaphidion incertum*; Haldeman, 1847a: 371 (not Newman, 1840).

*Hypermallus incertus*; Casey, 1912: 300; 1914: 363 (syn.); Blackman & Stage, 1924: 93 (biol.); Knull, 1932: 62; (not Newman, 1840).

*Elaphidion incertum*; Knull, 1946: 95 (not Newman, 1840).

*Hypermallus flumineus* Casey, 1912: 300; Lingafelter *et al.*, 2014: 65, fig. 69m (holotype).

*Hypermallus incertus flumineus*; Casey, 1924: 244.

**Type locality** - Holotype: United States, Missouri. (USNM).

*Hypermallus incertus externus* Casey, 1912: 300; Lingafelter *et al.*, 2014: 79, fig. 86k (holotype).

**Type locality** - Holotype female: United States, Wisconsin. (USNM).

*Hypermallus compactus* Casey, 1914: 364; Lingafelter *et al.*, 2014: 43, fig. 45c (holotype).

*Elaphidion compactum*: Linsley, 1936a: 464; Vogt, 1949: 141 (distr.).

**Type locality** - Holotype male: United States, Texas. (USNM).

## 2. *Parelaphidion incertum* (Newman, 1840)

**Type locality** - Holotype: North America. (BMNH). **Distribution** -

Eastern North America to southern Texas. **Host plants** - *Celtis* sp. (Cannabaceae), *Quercus prinus* Linné (Fagaceae), *Carya glabra* (Miller) (Juglandaceae), Sweet, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Morus rubra* Linné (Moraceae), *Salix* sp. (Salicaceae).

*Elaphidion incertum* Newman, 1840b: 28; LeConte, 1850b: 13; Melsheimer, 1853: 102 (cat.); White, 1853: 101; Popenoe, 1877: 33 (distr.); Provancher, 1877: 592; Leng, 1885b: 31; Horn, 1885b: 5; Townsend, 1885: 70 (distr.); Hamilton, 1895: 338 (distr.); Wickham, 1897a: 109; Smith, 1900: 287 (distr.); Dury, 1902: 159 (distr.); Ulke, 1903: 26 (distr.); Schaeffer, 1908: 327 (distr.); Champlain, 1909: 181 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 326 (distr.); Blatchley, 1910: 1024; Fisher & Kirk, 1912: 310; Nicolay, 1919: 65 (distr.); Craighead, 1923: 70 (larva); Beaulne, 1932: 198 (hosts); Linsley, 1936a: 464 (distr.); Vogt, 1949: 141 (biol.);

- Craighead, 1950: 246 (biol.); Dillon & Dillon, 1961: 587, pl. 58, No. 9; Wray, 1967: 46 (distr.).
- Hypermallus incertus*; Lacordaire, 1868: 303; Kirk & Knull, 1926: 22 (hosts); Leonard, 1928: 435 (distr.); Linsley & Martin, 1933: 180 (distr.); Brimley, 1938: 211 (distr.).
- Elaphidion (Elaphidion) incertum*; LeConte, 1873a: 182 (syn.).
- Elaphidionoides incertus*; Linsley, 1963: 94, fig. 34; Stein & Tigestad, 1976: 12 (distr.); Turnbow & Franklin, 1980: 341 (distr.); Hovore, Penrose & Neck, 1987: 303 (distr.); Linsley & Chemsak, 1997: 371 (hosts).
- Parelaphidion incertum*; Skiles, 1985: 311; Chemsak, Linsley & Noguera, 1992: 46 (cat.); MacRae, 1993: 230 (distr.); Lingafelter & Horner, 1993: 171 (distr.); Monné, M.A., 1993d: 47 (cat.); Yanega, 1996: 49, pl. 13, figs 154a, b; Heffern, 1998: 13 (distr.); Peck & Thomas, 1998: 118 (distr.); Schiefer, 1998: 117 (distr.); MacRae & Rice, 2007: 241 (distr.); Lingafelter, 2007: 55, 149, 2 figs, pl. 13, fig. j (hosts); Holt, 2013: 248 (distr.); Haack, 2017: 117; Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 45, pl. 4.
- Elaphidion neglectum* LeConte, 1850b: 13; Melsheimer, 1853: 102 (cat.).
- Hypermallus neglectus*; Gemminger & Harold, 1872: 2817 (cat.).
- Type locality** - Holotype female: North America. (MCZN).
- Hypermallus brevicornis* Casey, 1912: 301; Lingafelter *et al.*, 2014: 32, fig. 33i (holotype).
- Type locality** - Holotype male: United States, Indiana. (USNM).
- Hypermallus obsolescens* Casey, 1924: 244; Lingafelter *et al.*, 2014: 110, fig. 121k (holotype).
- Type locality** - Holotype female: United States, Pennsylvania: Harrisburg. (USNM).

### ***Pseudoperiboeum* Linsley, 1935**

- Pseudoperiboeum* Linsley, 1935a: 77; 1961f: 179; Chemsak & Linsley, 1967cb: 286 (rev.); Lingafelter, 1998: 87; Monné, M.A., 2005: 239 (cat.); Monné, M.A., 2012: 24.
- Type-species** - *Pseudoperiboeum subarmatum* Linsley, 1935 (original designation).

#### **1. *Pseudoperiboeum lengi* (Schaeffer, 1909)**

- Type locality** - Holotype male: United States, Arizona: Huachuca Mts. (AMNH).
- Distribution** - United States (Arizona), Mexico (Sonora). **Host plants** - *Eysenhardtia polystachya* (Ortega) Sargent (Fabaceae).
- Elaphidion (Aneflus) lengi* Schaeffer, 1909a: 101.
- Aneflomorpha lengi*; Casey, 1912: 293; Linsley, 1963: 53.
- Pseudoperiboeum lengi*; Chemsak & Linsley, 1967b: 287 (syn.); Cope, 1984a: 33 (hosts); Chemsak, Linsley & Noguera, 1992: 46 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M.A., 2001a: 75 (cat. hosts); Monné, M.A., 2005: 239 (cat.); Noguera *et al.*, 2009: 88 (distr.).
- Conosphaerion pullum* Knull, 1958a: 185; Linsley, 1963: 8; Chemsak, 1977a: 174 (type).
- Type locality** - Holotype female: United States, Arizona: 4 mi N of Nogales. (FMNH).

### ***Psyrassa* Pascoe, 1866**

*Psyrassa* Pascoe, 1866: 481; Lacordaire, 1868: 322; Bates, 1880: 28; Bradley, 1930: 233; Linsley, 1936a: 468, 478; Knull, 1946: 198; Dillon & Dillon, 1961: 588; Linsley, 1961b: 177; Arnett, 1962: 864, 883; Linsley, 1963: 9; Lingafelter, 1998: 87 (syn.); Monné, M.A., 2005: 240 (cat.); Martins, 2005: 368; Toledo, 2005a: 1 (rev.); Monné, M.A., 2012: 24.

**Type-species** - *Psyrassa basicornis* Pascoe, 1866 (original designation).

*Pseudibidion* Casey, 1912: 291, 293; Bradley, 1930: 233; Chagnon, 1936: 261; Chagnon & Robert, 1962: 254, 261.

**Type species** - *Stenocorus unicolor* Randall, 1838 (original designation).

*Hemistizocera* Linsley, 1961b: 172.

**Type-species** - *Periboenum cribricolle* Bates, 1885 (original designation).

### 1. *Psyrassa brevicornis* Linsley, 1934

**Type locality** - Holotype male: United States, Texas: Brownsville. (CASC).

**Distribution** - United States (Texas), Mexico (Nuevo León, Tamaulipas). **Host plants** - *Acacia farnesiana* (Linné) Willdenow, *Pithecellobium flexicaule* (Benth) Coulter (Mimosaceae), *Sapindus saponaria* (Hooker & Arnott) Benson (Sapindaceae).

*Psyrassa brevicornis* Linsley, 1934a: 164; Vogt, 1949: 142 (distr.); Hovore, Penrose & Neck, 1987: 300 (distr.); Chemsak, Linsley & Noguera, 1992: 46 (cat.); Linsley & Chemsak, 1997: 426 (hosts); Toledo, 2005a: 8, 17, fig. 31; García Morales *et al.*, 2015: 103 (distr.).

*Psyrassa sallaei*; Linsley & Martin, 1933: 180 (not Bates, 1885).

### 2. *Psyrassa castanea* Bates, 1880

**Type locality** - Holotype male: Mexico, Veracruz: Almolonga. (BMNH).

**Distribution** - United States (Texas), Mexico (Veracruz, Hidalgo, San Luis Potosí, Tamaulipas). **Host plants** - *Celtis berlandieri* Klotzsch (Cannabaceae), *Leucaena pulverulenta* (Schlechtendal) Benth (Mimosaceae), *Fraxinus* sp. (Oleaceae).

*Psyrassa castanea* Bates, 1880: 28; 1885: 255, pl. 17, fig. 8; Lameere, 1883: 19 (cat.); Chemsak, 1967b: 79 (lect.); Chemsak, Linsley & Noguera, 1992: 46 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M.A., 2005: 240 (cat.); Toledo, 2005a: 19, fig. 32 (syn.); García Morales *et al.*, 2015: 103 (distr.); Heffern, Vlasak & Alten, 2018: 745 (hosts).

*Psyrassa texana* Schaeffer, 1905: 160; 1908: 327 (distr.); Linsley & Martin, 1933: 180 (distr.); Linsley, 1963: 10; Hovore, Penrose & Neck, 1987: 300 (distr.); Chemsak, Linsley & Noguera, 1992: 47 (distr.); Linsley & Chemsak, 1997: 427 (hosts); Lingafelter *et al.*, 2014: 332, figs 169s, t (holotype).

**Type locality** - Holotype female: United States, Texas: Brownsville. (USNM).

### 3. *Psyrassa pertenuis* (Casey, 1924)

**Type locality** - Holotype male: United States, Florida. (USNM). **Distribution** - Eastern North America from New York to Florida, west to southern Texas. **Host plants** - *Conocarpus erectus* Linné (Combretaceae), *Carya* sp. (Juglandaceae), *Magnolia grandiflora* Linné (Magnoliaceae), *Prunus* sp. (Rosaceae).

*Pseudibidion pertenuis* Casey, 1924: 248; Knull, 1929: 144 (distr.).

*Psyrassa pertenuis*; Knull, 1946: 199; Linsley, 1963: 11, fig. 3; Gosling, 1973: 72 (distr.); Turnbow & Wappes, 1978: 368 (distr.); Turnbow & Franklin, 1980: 342 (distr.); Hovore, Penrose & Neck, 1987: 300 (distr.); Chemsak, Linsley & Noguera, 1992: 47 (cat.); Monné, M.A., 1993d: 12 (cat.); Browne & Peck, 1996: 2158

(distr.); Yanega, 1996: 50, pl. 14, fig. 164; Linsley & Chemsak, 1997: 426 (hosts); Peck & Thomas, 1998: 118 (distr.); Schiefer, 1998: 117 (distr.); Toledo, 2005: 5, 42, fig. 49 (rev.); MacRae & Rice, 2007: 242, (distr., hosts); Lingafelter, 2007: 51, 149, 2 figs, pl. 13, fig. b (hosts); Holt, 2013: 248 (distr.); Lingafelter *et al.*, 2014: 297, fig. 130i (holotype); Klingeman *et al.* 2017: 297 (distr.).

*Psyrassa pertenus*; Frost, 1969: 95 (distr., error).

#### 4. *Psyrassa sallaei* Bates, 1885

**Type locality** - Holotype male: Mexico. (BMNH). **Distribution** - United States (Texas), northern Mexico (Nuevo León, San Luis Potosí, Tamaulipas), Nicaragua, Costa Rica. **Host plants** - *Cordia boissieri* A. de Candolle (Boraginaceae), *Sapindus saponaria* (Hooker & Arnot) Benson (Sapindaceae).

*Psyrassa sallaei* Bates, 1885: 255, pl. 18, fig. 11; Linsley, 1963: 13; Turnbow & Wappes, 1978: 368 (distr.); Hovore, Penrose & Neck, 1987: 300 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 47 (cat.); Chemsak & Noguera, 1996: 399 (cat.); Linsley & Chemsak, 1997: 426 (hosts); Monné, M.A., 2001a: 75 (cat. hosts); Monné, M.A., 2005: 242 (cat.); Toledo, 2005a: 47, fig. 52; Audureau, 2008: 9 (distr.); Swift *et al.*, 2010: 18 (distr.); Maes *et al.*, 2010: 257, 4 figs (distr.); García Morales *et al.*, 2015: 103 (distr.).

*Psyrassa sallei*; Schaeffer, 1905: 161; 1908: 327 (distr.); Vogt, 1949: 142 (distr., hosts).

#### 5. *Psyrassa unicolor* (Randall, 1838)

**Type locality** - Holotype: United States, Massachusetts: Brookline. (MCZN). **Distribution** - Eastern United States to Alabama, west to Texas, Iowa and Minnesota. **Host plants** - *Cercis canadensis* Linné (Caesalpiniaceae), *Diospyros virginiana* Linné (Ebenaceae), *Fagus grandifolia* Ehrhart, *Quercus rubra* Linné (Fagaceae), *Carya glabra* (Miller) Sweet, *Juglans nigra* Linné (Juglandaceae), *Morus rubra* Linné (Moraceae) *Prunus* sp. (Rosaceae), *Vitis* sp. (Vitaceae).

*Stenocorus unicolor* Randall, 1838: 42.

*Stizocera unicolor*; Haldeman, 1847a: 44.

*Elaphidion unicolor*; LeConte, 1850b: 15; 1873a: 183, 185; Bland, 1861: 94 (distr.); Pettit, 1871: 105 (distr.); Provancher, 1877: 330 (distr.); Popenoe, 1878: 82 (distr.); Lugger, 1884: 204 (hosts); Leng, 1885c: 32, 33; Horn, *in* Leng, 1885: 133; Hamilton, 1894a: 252 (distr.); Wickham, 1897a: 110; Smith, 1900: 288; Dury, 1902: 159 (distr.); Ulke, 1903: 26 (distr.); Townsend, 1903: 76 (distr.); Felt, 1906: 702; Schaeffer, 1908: 329 (distr.); Davis, 1909b: 96; Smith, 1910: 326 (distr.); Blatchley, 1910: 1026; Fisher & Kirk, 1912: 310 (biol.); Slossom, 1912: 172 (distr.); Johnson, 1916: 119 (distr.); Chagnon, 1917: 231 (hosts); Dozier, 1918: 334 (distr.); Beaulne, 1932: 198 (hosts).

*Elaphidion unicolor*; Craighead, 1923: 75, pl. 8, fig. 12 (larva).

*Psyrassa unicolor*; Pascoe, 1866: 482; Schaeffer, 1905: 161; Wickham, 1909a: 28 (distr.); 19099: 402 (distr.); Linsley, 1936a: 478; Knoll, 1946: 199, pl. 12, fig. 47; Alexander, 1958: 50 (distr.); Dillon & Dillon, 1961: 589; Townes & Townes, 1962: 503 (paras.); Gosling, 1973: 72 (distr.); Stein & Tagestad, 1976: 33 (distr.); Turnbow & Franklin, 1980: 342 (distr.); Waters & Hyche, 1984: 285 (distr.); White, 1985: 285 (biol.); Chemsak, Linsley & Noguera, 1992: 47 (cat.); Monné, M.A. 1993: 13 (cat.); Lingafelter & Horner, 1993: 169; MacRae, 1993: 229 (distr.); Krinsky & Godwin, 1996: 238; Yanega, 1996: 50, pl. 14, fig. 165; Linsley & Chemsak, 1997: 427 (hosts); Lingafelter, 1998: 87; Schiefer, 1998: 117 (distr.); Vlasák & Vlasakova, 2002: 210 (distr.); Sikes & Webster, 2005: 237 (distr.);

Toledo, 2005: 58, fig. 59 (rev.); Lingafelter, 2007: 51, 149, 2 figs, pl. 13, fig. a; Guarnieri, 2009: 18 (distr.); Webster, McCorquodale & Majka, 2009: 296 (distr.); McCorquodale, 2010: 468 (distr.); Holt, 2013: 248 (distr.); Steury & MacRae, 2014: 11 (distr.); Haack, 2017: 113 (hosts); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 43, pl. 3.

*Pseudibidion unicolor*; Casey, 1912: 291, 293; Champlain, Kirk & Knull, 1925: 106 (biol.); Kirk & Knull, 1926: 23; Leonard, 1928: 436 (distr.); Frost & Dietrich, 1929: 436 (distr.); Barrett, 1932: 291 (hosts); Chagnon, 1938: 261; Brimley, 1938: 211; Loding, 1945: 115; Chagnon & Robert, 1962: 261.

*Pseudibion unicolor*; Britton, 1920: 267 (error).

### **Romulus Knull, 1948**

*Romulus* Knull, 1948: 82; Arnett, 1962: 865; Linsley, 1963: 61; Monné, M.A., 1993d: 33; Lingafelter, 1998: 89.

**Type-species** - *Romulus globosus* Knull, 1948 (original designation).

#### **1. *Romulus globosus* Knull, 1948**

**Type locality** - Holotype male: United States, Florida: Coral Gables. (FMNH).

**Distribution** - United States (Southern Florida). **Host plants** - *Quercus geminata* Small, *Q. laevis* Walter, *Q. mirtifolia* Willdenow (Fagaceae).

*Romulus globosus* Knull, 1948: 83, fig. 1; Linsley, 1963: 62, fig. 21; Chemsak, 1977a: 178 (types); Thomas, 1991: 127, 2 figs (distr.); Chemsak, Linsley & Noguera, 1992: 47 (cat.); Monné, M. A., 1993D: 33 (cat.); Browne & Peck, 1996: 2158 (distr.); Peck & Thomas, 1998: 118 (distr.); Lingafelter, 1998: 89, figs. 41D, 126; 2007: 49, 150, 2 figs, pl. 12, fig. h.; Vlasak, 2019: 1 (biol., hosts).

### ***Sphaerion* Audinet-Serville, 1834**

*Sphaerion* Audinet-Serville, 1834b: 68; Laporte, 1840: 426; Newman, 1840b: 5; Blanchard, 1845: 147; Strauch, 1861: 130; Thomson, 1861: 248; Pascoe, 1866b: 478; Lacordaire, 1868: 315; Bates, 1870: 272; Chenu, 1870: 312; Gounelle, 1907: 240; Williams, 1931: 225; Linsley, 1961b: 169; Zajciw & Ruffinelli, 1962: 34; Napp & Martins, 1982b: 77 (syn.); Lingafelter, 1998: 91; Monné, M.A., 2005: 244 (cat.); Martins, 2005: 100; Monné, M.A., 2012: 25.

*Sphaerion*; Thomson, 1864: 244; 1865: 452 (error).

**Type-species** - *Sphaerion cyanipenne* Audinet-Serville, 1834 (monotypy).

*Cyrtoma* Gistel, 1848b: 131 (unjustified new name not in prevailing usage).

#### **1. *Sphaerion exutum* (Newman, 1841)**

**Type locality** - Holotype male: Brazil, Rio de Janeiro. (OXUM). **Distribution** - United States (Texas), Mexico (Chiapas), Nicaragua, Brazil (Pará, Piauí, Bahia, Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Santa Catarina), Argentina and Uruguay. **Host plants** - *Acacia berlandieri* Benth, *Pithecellobium flexicaule* (Benth) Coulter (Mimosaceae).

*Nephalius exutus* Newman, 1841: 93; Pascoe, 1866: 477.

*Sphaerion exutum*; White, 1853: 106; Gounelle, 1909: 637; Bruch, 1912: 190 (cat.); Bosq, 1947a: 16 (distr.); Prosen, 1947: 323 (distr.); Bosq & Ruffinelli, 1951: 10 (distr.); Linsley, 1961b: 169; Zajciw & Ruffinelli, 1962: 34 (distr.); Giesbert & Hovore, 1976: 98 (distr.); Hovore, Penrose & Neck, 1987: 301 (distr., hosts);



Chemsak, Linsley & Noguera, 1992: 47 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Martínez, 2000: 87 (distr.); Monné, M.A., 2001a: 76 (cat. hosts); Di Iorio, Riquelme & Esteban-Durán, 2003: 19 (distr.); Monné, M.A., 2005: 245 (cat.); Martins, 2005: 107, figs 93, 96 (syn.); Monné, M.A., 2006: 170 (cat.); Hovore, 2006: 372 (distr.); Monné, M.L., Monné, M.A. & Mermudes, 2009: 10 (distr.); Monné, M.L. *et al.*, 2010: 240 (distr.); Swift *et al.*, 2010: 18 (distr.); Maes *et al.*, 2010: 276, 1 fig. (distr.); Menezes *et al.*, 2012: 51 (distr.); Galileo, Martins & Nascimento, 2014: 397 (distr.); Nascimento & Bravo, 2014: 132 (distr.); Monné, M.A. *et al.*, 2016:11 (distr.); Lingafelter, Wappes & Ledezma Arias, 2017: 65, 1 fig.; Bezark, 2018: 46 (distr.).

*Sphaerion ducale* Bates, 1870: 272; Zajciw, 1974: 48 (distr.); Napp & Martins, 1982b: 86 (syn.); Monné, M.A., 2005: 245 (cat.).

**Type locality** - Holotype male: Brazil, Pará: Tapajós. (MNHN).

*Nephalius dubius* Lane, 1951: 1; Zajciw, 1958: 11 (distr.); 1972a: 51 (distr.); 1974a: 48 (distr.); Julio, Giorgi & Monné, M.A., 2000: 19 (holotype); Monné, M.A. & Monné, M.L., 2016: 14 (holotype).

**Type locality** - Holotype female: Brazil, São Paulo: Batatais. (MNRJ).

### ***Stenelaphus* Linsley, 1936**

*Stenelaphus* Linsley, 1936a: 477; Arnett, 1962: 865, 884; Linsley, 1963: 25; Lingafelter, 1998: 92; Monné, M.A., 2005: 246 (cat.); Monné, M.A., 2012: 25.

**Type-species** - *Elaphidion alienum* LeConte, 1875 (original designation).

#### **1. *Stenelaphus alienus* (LeConte, 1875)**

**Type locality** - Holotype: United States, Arizona. (MCZN). **Distribution** - United States (Arizona), northern Mexico. **Host plants** - *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Elaphidion alienum* LeConte, 1875: 173; Lameere, 1883: 18 (cat.); Leng, 1885c: 31, 32; Snow, 1906a: 147 (distr.); 1906b: 170 (distr.); Craighead, 1923: 72, pl. 21, fig. 8; pl. 15, fig. 5 (larva).

*Stenelaphus alienus*; Linsley, 1936a: 477, pl. 1, fig. 2; Linsley, Knull & Statham, 1961b: 13 (distr.); Linsley, 1963: 25, fig. 8; Chemsak, Linsley & Noguera, 1992: 47 (cat.); Monné, M. A., 1993d: 22 (cat.); Linsley & Chemsak, 1997: 434 (hosts); Lingafelter, 1998: 90, fig. 130; Monné, M.A., 2001a: 76 (cat. hosts); Monné, M.A., 2005: 246 (cat.).

### ***Stenosphenus* Haldeman, 1847**

*Stenosphenus* Haldeman, 1847a: 39; LeConte, 1873b: 316; Bates, 1880: 65; LeConte & Horn, 1883: 301; Bates, 1885: 312; Horn, 1885a: 177; Leng, 1887: 193; Blatchley, 1910: 1031; Casey, 1912: 346; Bradley, 1930: 230; Linsley, 1936a: 477; Chagnon, 1938: 262; Fisher, 1946: 86 (rev.); Knull, 1946: 198; Linsley, 1961b: 178; Chagnon & Robert, 1962: 255, 262; Arnett, 1962: 858, 864; Linsley, 1963: 14; Zayas, 1975: 159; Giesbert & Chemsak, 1989: 270 (rev.); Lingafelter, 1998: 93; Monné, M.A., 2005: 246 (cat.); Monné, M.A., 2012: 25.

**Type-species** - *Callidium notatum* Olivier, 1795 (monotypy).

*Stenosphenus* Thomson, 1861: 372; Lacordaire, 1868: 130 (not Haldeman, 1847).

**Type-species** - *Stenosphenus cribripennis* Thomson, 1861 (monotypy).

*Stenosphenopsis* Linsley, 1935a: 95; 1961f: 178.

**Type-species** - *Stenosphenopsis nitidicollis* Linsley, 1935 (original designation).

### 1. *Stenosphenus beyeri* Schaeffer, 1905

**Type locality** - Lectotype female: United States, Arizona: Cochise County, Palmerlee. (USNM). **Distribution** - Mountains of southern Arizona and New Mexico. **Host plants** - *Robinia neomexicana* A. Gray (Fabaceae), *Quercus* sp. (Fagaceae), *Juglans nigra* Linné, *J. rupestris* (Engelmann) ex Torrey (Juglandaceae).

*Stenosphenus beyeri* Schaeffer, 1905: 163; 1908: 330 (distr.); 1911: 125; Fisher, 1946: 91; Linsley, Knoll & Statham, 1961: 11 (distr.); Linsley, 1963: 19, fig. 6; Lewis, 1979: 23 (distr.); Giesbert & Chemsak, 1989: 296 (rev.); Chemsak, Linsley & Noguera, 1992: 47 (cat.); Monné, M.A., 1993d: 17 (cat.); Linsley & Chemsak, 1997: 435 (hosts); Lingafelter *et al.*, 2014: 27, figs 27 w,x (lectotype).

### 2. *Stenosphenus debilis* Horn, 1885

**Syntypes locality** - Syntypes male: United States, Utah. (ANSP). **Distribution** - United States (Utah, Arizona and western California), Baja California and northwestern Mexico (Durango). **Host plants** - *Morus celtidifolia* Kunth (Moraceae), *Populus fremontii* Watson, *Salix* sp. (Salicaceae).

*Stenosphenus debilis* Horn, 1885a: 179; Leng, 1887: 193, 194; Townsend, 1895: 48; Fisher, 1946: 90; Linsley, 1963: 18, fig. 5; Cope, 1984a: 34 (hosts); Giesbert & Chemsak, 1989: 287 (syn.); Chemsak *et al.*, 1992: 47 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Linsley & Chemsak, 1997: 435 (hosts); Monné, M.A., 2001a: 76 (cat. hosts); Monné, M.A., 2005: 247 (cat.); Vlasák, 2014: 318 (hosts).

*Stenosphenus comus* Bates, 1892: 169; Chemsak, 1967b: 80 (lect.).

**Type locality** - Lectotype female: Mexico, Durango: Villa Lerdo. (BMNH).

*Stenosphenus pruddeni* Casey, 1912: 346; Fisher, 1946: 93; Linsley, 1963: 22; Lingafelter *et al.*, 2014: 303, figs 136q, r (holotype).

**Type locality** - Holotype female: United States, Arizona: Canyon of the Colorado. (USNM).

*Stenosphenus aridus* Linsley, 1935b: 166; Fisher, 1946: 88; Linsley, 1963: 23; Linsley & Chemsak, 1997: 435 (hosts).

**Type locality** - Holotype male: United States, Utah: Zion National Park. (CASC).

*Stenosphenus nigricornis* Fisher, 1946: 90; Linsley, 1963: 17; Linsley & Chemsak, 1997: 436 (hosts); Lingafelter *et al.*, 2014: 106, figs 117c, d (holotype).

**Type locality** - Holotype male: United States, California: Yuma. (USNM).

### 3. *Stenosphenus dolosus* Horn, 1885

**Syntypes locality** - Syntypes: United States, southwestern Texas. (ANSP).

**Distribution** - United States (southern Texas), Mexico (Coahuila, Nuevo León, Tamaulipas, San Luís Potosí, Veracruz). **Host plants** - *Baccharis halimifolia* Linné (Asteraceae), *Acacia farnesiana* (Linné) Willdenow, *A. rigidula* Benth, *Leucaena* sp., *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Stenosphenus dolosus* Horn, 1885a: 179; Leng, 1887: 193, 194; Townsend, 1903: 78 (distr.); Schaeffer, 1908: 328 (distr.); 1911: 125; Linsley & Martin, 1933: 181 (distr.); Fisher, 1946: 91; Vogt, 1949: 175 (distr.); Linsley, 1963: 19, fig. 6; Hovore & Penrose, 1982: 24; Hovore, Penrose & Neck, 1987: 301 (distr., hosts); Giesbert & Chemsak, 1989: 297, fig. 9 (syn.); Chemsak, Linsley & Noguera, 1992: 47 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Linsley & Chemsak, 1997: 436 (hosts); Monné, M.A., 2001a: 77 (cat.); Ruíz Cancino & Coronado Blanco, 2002: 104

(distr.); Monné, M.A., 2005: 248 (cat.); MacRae & Rice, 2007: 244 (hosts); García Morales *et al.*, 2015: 103 (distr.).

*Stenosphenus longicollis* Casey, 1891: 34; 1912: 347; Fisher, 1946: 93; Linsley, 1963: 15; Lingafelter *et al.*, 2014: 91, figs 100e, f (holotype).

**Type locality** - Holotype male: United States, Texas. (USNM).

*Stenosphenus castaneus* Casey, 1924: 269; Fisher, 1946: 89; Linsley, 1963: 15; Lingafelter *et al.*, 2014: 38, figs 39g, h (holotype).

**Type locality** - Holotype female: United States, Texas. (USNM).

#### 4. *Stenosphenus lugens* LeConte, 1862

**Type locality** - Holotype: United States, Texas. (MCZN). **Distribution** - United States (Texas, Lower Rio Grande Valley), Mexico (Nuevo León, San Luís Potosí, Tamaulipas, Veracruz, Oaxaca, Chiapas). **Host plants** - *Celtis lindheimeri* Engelm., *C. pallida* Torrey (Cannabaceae), *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Benth., *Pithecellobium flexicaule* (Benth.) Coulter (Mimosaceae), *Zanthoxylum fagara* (Linné) Sargent (Rutaceae).

*Stenosphenus lugens* LeConte, 1862: 41; Horn, 1885a: 178; 1886b: xii (syn.); Leng, 1887: 193; Schaeffer, 1908: 328 (distr.); 1911: 125; Fisher, 1946: 90; Vogt, 1949: 176 (distr., hosts); Linsley, 1963: 19; Turnbow & Wappes, 1978: 368; Hovore & Penrose, 1982: 24; Hovore, Penrose & Neck, 1987: 300 (distr., hosts); Giesbert & Chemsak, 1989: 279, figs 3, 4; Chemsak, Linsley & Noguera, 1992: 48 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Linsley & Chemsak, 1997: 436 (hosts); Lingafelter, 1998: 90, fig. 131; Monné, M.A., 2001a: 77 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 104 (distr.); Monné, M.A., 2005: 249 (cat.); MacRae & Rice, 2007: 244 (biol.); Noguera *et al.*, 2012: 620 (distr.); García Morales *et al.*, 2015: 103 (distr.).

*Stenosphenus hirsutipennis* Bates, 1872: 191; 1880: 67; 1885: 313.

**Type locality** - Holotype: Mexico. (MNHN).

#### 5. *Stenosphenus notatus* (Olivier, 1795)

**Type locality** - Holotype: United States, New York. (MNHN). **Distribution** - Eastern United States west into southern Texas. **Host plants** - *Celtis reticulata* Torrey (Cannabaceae), *Quercus* sp. (Fagaceae), *Carya aquatica* (F. Michaux) Nuttall, *C. cordiformis* (Wangenheim) K. Koch, *C. glabra* (Miller) Sweet, *C. illinoensis* (Wangenheim) K. Koch, *C. laciniosa* (F. Michaux) Loudon, *C. ovata* (Miller) K. Koch, *C. pecan* (Marshall) Engler & Graebner, *C. tomentosa* Nuttall (Juglandaceae).

*Callidium notatum* Olivier, 1795: 61, pl. 8, fig. 89; Schoenherr, 1817: 459; Newman, 1842: 418.

*Stenosphenus notatus*; Haldeman, 1847a: 39; 1847c: 372 (syn.); White, 1853: 104; Melsheimer, 1853: 104 (cat.); LeConte, 1873b: 316; Popenoe, 1877: 33 (distr.); Riley, 1880: 239 (hosts); Packard, 1881: 73 (biol.); Moffat, 1882b: 58 (distr.); LeConte & Horn, 1883: 201; Harrington, 1884: 46 (hosts); Horn, 1885a: 178; 1885b: 5; Leng, 1887: 193; Hamilton, 1887: 141 (biol.); 1888: 66 (hosts); Packard, 1890: 288 (biol.); Hamilton, 1891a: 130 (hosts); 1895: 338 (distr.); Beutenmuller, 1896: 76 (hosts); Wickham, 1897a: 149; Smith, 1900: 289 (biol.); Dury, 1902: 160 (distr.); Ulke, 1903: 26, 50 (distr.); Chagnon, 1905: 36 (distr.); Greene, 1909: 330 (distr.); Wickham, 1909a: 28 (distr.); Blatchley, 1910: 1032; Smith, 1910: 328; Chagnon, 1917: 232 (distr.); Nicolay, 1919: 67 (distr.); Britton, 1920: 270 (distr.);

ChAMPLAIN, 1922: 97 (paras.); CRAIGHEAD, 1923: 72, pl. 15, fig. 8, pl. 21, fig. 6 (larva); KIRK & KNOLL, 1926: 41 (distr.); LEONARD, 1928: 448 (distr.); WARE, 1929: 368 (distr.); FROST & DIETRICH, 1929: 436 (distr.); BEAULNE, 1932: 203 (hosts); CHAGNON, 1938: 262; BRIMLEY, 1938: 216 (distr.); TOWNES, 1944: 773 (paras.); LODING, 1945: 120 (distr.); FISHER, 1946: 88 (hosts); LINSLEY, 1961b: 167; DILLON & DILLON, 1961: 589, pl. 58, No.15; CHAGNON & ROBERT, 1962: 262; LINSLEY, 1963: 16, figs 4,6; GOSLING, 1973: 72, fig. 20 (biol., distr.); LALIBERTÉ, Chantal & LaRocheLle, 1977: 99; TURNBOW & FRANKLIN, 1980: 341 (distr.); WATERS & HICHE, 1984: 285 (distr.); GOSLING, 1984: 73 (hosts); ARNETT, 1985: 362, fig. 24.185; HOVORE, Penrose & NECK, 1987: 300 (distr.); GIESBERT & CHEMSAK, 1989: 274 (rev., syn.); CHEMSAK, LINSLEY & NOGUERA, 1992: 48 (cat.); MACRAE, 1993: 229 (distr.); MONNÉ, M.A., 1993d: 19 (cat.); LINGAFELTER & HORNER, 1993: 170 (distr.); YANEGA, 1996: 50, pl. 13, fig. 156; LINSLEY & CHEMSAK, 1997: 436 (hosts); SCHIEFER, 1998: 117 (distr.); PECK & THOMAS, 1998: 118 (distr.); VLASÁK & VLASAKOVA, 2002: 210 (distr., hosts); MACRAE & RICE, 2007: 244 (distr., hosts); LINGAFELTER, 2007: 51, 150, 2 figs, pl. 13, fig.c (hosts); HOLT, 2013: 249 (distr., hosts); STEURY & MACRAE, 2014: 11 (distr.); KLINGEMAN *et al.*, 2017: 297 (distr.); BOUSQUET, Laplante, Hammond & Langor, 2017: 43, pl. 3.

*Stenophenus notatus*; Alexander, 1958: 50 (distr., error).

*Elaphidion notatum*; LeConte, 1850b: 12; Bland, 1861: 94 (distr.); Pettitt, 1871: 105 (distr.).

*Elaphidion deflendum* Newman, 1840b: 6, 30.

**Type locality** - Holotype: United States, Georgia. (BMNH).

*Stenosphenus pinorum* Casey, 1924: 268; Brimley, 1938: 216 (distr.); Linsley, 1963: 16; Turnbow & Franklin, 1980: 341 (distr.); Lingafelter *et al.*, 2014: 300, fig. 133g (holotype).

**Type locality** - Holotype male: United States, North Carolina: Southern Pines. (USNM).

## 6. *Stenosphenus sobrius* (Newman, 1840)

**Type locality** - Holotype male: United States. (BMNH). **Distribution** - Southwestern United States, California, throughout Mexico (Aguascalientes, Baja California, Chiapas, Chihuahua, Coahuila, Distrito Federal, Durango, Guanajuato, Guerrero, Hidalgo, Jalisco, Michoacán, México, Morelos, Nayarit, Nuevo León, Oaxaca, Puebla, San Luis Potosí, Sinaloa, Sonora, Tamaulipas, Veracruz, Zacatecas) to Guatemala and Honduras. **Host plants** - *Celtis reticulata* Torrey (Cannabaceae), *Acacia cochliacantha* Humboldt & Bonpland ex Willdenow, *Leucaena diversifolia* (Schlechtendal) Bentham, *Mimosa aculeaticarpa* Ortega, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Cercocarpus betuloides* Nuttall (Rosaceae).

*Elaphidion sobrium* Newman, 1840b: 30; LeConte, 1850b: 15.

*Stenosphenus sobrius*; White, 1853: 105; Bates, 1880: 66 (distr.); 1885: 312 (distr.); Horn, 1885b: 5; Leng, 1887: 194; Giesbert & Chemsak, 1989: 298, fig. 9; Chemsak, Linsley & Noguera, 1992: 48 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M.A., 2001a: 78 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 104 (distr.); Van Pelt, 2002: 128 (distr.); Turnbow, Cave & Thomas, 2003: 11 (distr.); Monné, M.A., 2005: 250 (cat.); Hovore, 2006: 372 (distr.); MacRae, Bezark & Swift, 2012: 177 (hosts); García Morales *et al.*, 2015: 103 (distr.).

*Stenosphenus sobrinus*; Fisher, 1946: 94 (error).

*Elaphidion amabile* Newman, 1841: 112.

*Stenosphenus amabilis*; White, 1853: 104; Lacordaire, 1869: 130; Bates, 1880: 65 (distr.); 1885: 312 (distr.).

**Type locality** - Holotype male: Mexico. (BMNH).

*Stenosphenus subtilis* Bates, 1880: 66; Lameere, 1883: 42 (cat.); Chemsak, 1967b: 80 (lect.).

**Type locality** - Holotype male: Guatemala, Baja Verapaz: San Jerónimo. (BMNH).

*Stenosphenus lepidus* Horn, 1885a: 179; Leng, 1887: 193, 194; Casey, 1891: 34; Fall & Cockerell, 1907: 192 (distr.); Schaeffer, 1908: 330 (distr.); 1911: 124; Fisher, 1946: 92; Linsley, Knull & Statham, 1961b: 11 (distr.); Linsley, 1963: 21; Hovore & Giesbert, 1976: 355 (hosts); Linsley & Chemsak, 1997: 436 (hosts).

**Syntypes locality** – Syntypes: United States, Arizona. (ANSP).

*Stenosphenus basicornis* Linsley, 1934b: 60; 1942: 45; Fisher, 1946: 92.

**Type locality** - Holotype male: Mexico, Golfo de California: Isla Tiburón. (CASC).

*Stenosphenus arizonicus* Linsley, 1935b: 165; Fisher, 1946: 93; Linsley, 1963: 22.

**Type locality** - Holotype male: United States, Arizona: Globe. (CASC).

*Stenosphenus blairi* Linsley, 1935a: 94

**Type locality** - Holotype male: Mexico, Distrito Federal: Tejupilco. (CASC).

*Stenosphenus rossi* Linsley, 1942: 45, pl. 1, fig. 8; Fisher, 1946: 91; Hovore, 1988: 9 (distr.).

**Type locality** - Holotype male: Mexico, Baja California: San Domingo. (CASC).

*Stenosphenus piceus* Knull, 1947a: 253; Linsley, 1963: 21; Chemsak, 1977aa: 178 (type).

**Type locality** - Holotype male: United States, Texas: Davis and Chisos Mts. (FMNH).

*Stenosphenus texanus* Knull, 1947a: 254; Linsley, 1963: 22; Hovore & Giesbert, 1976: 355 (hosts); Chemsak, 1977a: 178 (type); MacKay, Zak & Hovore, 1987: 363 (hosts); Linsley & Chemsak, 1997: 436 (hosts).

**Type locality** - Holotype male: United States, Texas: Davis and Chisos Mts. (FMNH).

### ***Stizocera* Audinet-Serville, 1834**

*Stizocera* Audinet-Serville, 1834b: 107; Strauch, 1861: 132; Thomson, 1861: 201; 1864: 246; Gounelle, 1907: 240; 1909a: 642; Williams, 1931: 225; Linsley, 1961b: 171; Zajciw, 1967b: 293 (rev.); Gilmour, 1968: 135 (key spp.); Zayas, 1975: 112; Martins & Napp, 1983: 80 (rev.); Lingafelter, 1998: 93 (syn.); Lingafelter & Ivie, 2005: 206; Monné, M.A., 2005: 251 (cat.); Martins, 2005: 154 (syn.); Monné, M.A., 2006: 170 (cat.); Monné, M.A., 2012: 25.

**Type-species** - *Ibidion ? armatum* Audinet-Serville, 1834 (original designation).

*Stizocera*; Thomson, 1861: 188 (error).

*Castiale* Pascoe, 1866b: 480; Lacordaire, 1868: 320; Lingafelter, 1998: 57; Monné, M.A., 2005: 201 (cat.).

**Type-species** - *Castiale viridipennis* Pascoe, 1866 (original designation).

*Nesostizocera* Linsley, 1961b: 170; Arnett, 1962: 864, 882; Linsley, 1963: 7; Martins & Napp, 1983: 88 (key spp.).

**Type-species** - *Stizocera floridana* Linsley, 1949 (original designation).

### **1. *Stizocera floridana* Linsley, 1949**

**Type locality** - Holotype female: United States, Florida: Morco. (AMNH).  
**Distribution** - United States (Southern Florida). **Host plants** - *Forestiera segregata* var. *segregata* (Jacquin) Klug & Urban (Oleaceae).

*Stizocera floridana* Linsley, 1949: 154; Lingafelter, 1998: 93; 2007: 50, 150, 2 figs, pl. 12, fig. j (hosts).

*Nesostizocera floridana*; Linsley, 1963: 7; Hovore, Penrose & Giesbert, 1978: 98 (hosts); Martins & Napp, 1982: 88 (list); Chemsak, Linsley & Noguera, 1992: 45 (cat.); Monné, M.A., 1993d: 4 (cat.); Browne & Peck, 1996: 2158 (distr.); Peck & Thomas, 1998: 118 (distr.); Lingafelter, 1998: 21, figs 6, 12E.

### **EUMICHTHINI Linsley, 1940**

Eumichthini Linsley, 1940b: 367 (key), 368 [incorrect stem formation].

**Type genus:** *Eumichthus* LeConte, 1873

**Type species:** *Eumichthus oedipus* LeConte, 1873 by monotypy.

Comment. This family-group name is not properly formed from the stem of the type genus. However, the spelling is in prevailing usage and so is to be maintained (Article 29.5). (Bousquet *et al.*, 2009: 47; Bouchard *et al.*, 2011: 472).

### ***Eumichthus* LeConte, 1873**

*Eumichthus* LeConte, 1873a: 190; 1873b: 305; LeConte & Horn, 1883: 291; Leng, 1886: 27; Bradley, 1930: 234; Linsley, 1940b: 368; Arnett, 1962: 867, 885; Linsley, 1963: 151; Hatch, 1971: 109; Monné, M.A., 1993f: 19 (cat.).

**Type-species** - *Eumichthus oedipus* LeConte, 1873 (monotypy).

#### **1. *Eumichthus oedipus* LeConte, 1873**

**Type locality** - Holotype male: Canada, British Columbia: Vancouver Island. (MCZN). **Distribution** - Pacific coast of North America from British Columbia to Monterey Co., California. **Host plants** - *Pseudotsuga menziesii* (Mirbel) Franco, *Tsuga heterophylla* (Rafinesque) Sargent (Pinaceae).

*Eumichthus oedipus* LeConte, 1873a: 190; 1873b: 306; LeConte & Horn, 1883: 291; Leng, 1885b: 136, pl. 3, fig. 14; 1886: 27; Wickham, 1890: 170 (distr.); Garnett, 1918: 206 (distr.); Hardy & Preece, 1927b: 62 (hosts); 1927a: 188 (distr.); Beaulne, 1932: 198 (hosts); Linsley, 1940b: 369; Hardy, 1944: 15 (distr.); 1950: 18 (distr.); Linsley, 1963: 151, fig. 48 (syn.); Hatch, 1971: 109, pl. 11, fig. 6; Deyrup, 1977: 181 (hosts); Chemsak, Linsley & Noguera, 1992: 56 (cat.); Monné, M.A., 1993f: 19 (cat.); Linsley & Chemsak, 1997: 375 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 48, pl. 4.

*Phymatodes funebris* Van Dyke, 1920: 34

**Type locality** - Holotype: United States, California: Monterey County, Carmel. (CASC).

*Eumichthus oedipus* var. *ater* Hardy & Preece, 1927a: 188; Ruetter, 1970: 19 (types).

**Type locality** - Holotype male: Canada, British Columbia: Sydney. (CNCI).

*Eumichthus oedipus* var. *ruber* Hardy & Preece, 1927a: 188; Ruetter, 1970: 19 (type).

**Type locality** - Holotype male: Canada, British Columbia: Sudney. (CNCI).

*Phymatodes malkini* Fisher, 1942: 51; Lingafelter *et al.*, 2014: 95, fig. 104 m (holotype).

**Type locality** - Holotype male: United States, Oregon: Eugene, On the slope of Baldy Mountains (Coburg Hills), 5 miles Northeast of Eugene. (USNM).

**Poecilobrium Horn in LeConte & Horn, 1883**

*Callimus* LeConte, 1873b: 305 (not Mulsant. 1846).

*Poecilobrium* Horn in LeConte & Horn, 1883: 291; Horn, 1883a: 289; 1883b: xi; Leng, 1886: 27; Casey. 1924: 260; Bradley, 1930: 237; Linsley, 1940b: 369; Arnett, 1962: 867, 885; Linsley, 1963: 152; Hatch, 1971: 109; Monné, M.A., 1993f: 20 (cat.).

**Type-species** - *Callimus chalybeus* LeConte, 1873 (original designation).

**1. *Poecilobrium chalybeum* (LeConte, 1873)**

**Syntypes locality** - Syntypes male: United States, California. (MCZN).

**Distribution** - Pacific coast of North America from British Columbia to southern California, and Rocky Mountains south to Colorado. **Host plants** - *Acer* sp. (Aceraceae), *Rhus* sp. (Anacardiaceae), *Celastrus scandens* Linné (Celastraceae), *Quercus* sp. (Fagaceae), *Ceanothus thyrsiflorus* Eschscholtz (Rhamnaceae), *Amelanchier alnifolia* Nuttall, *Cercocarpus montanus* Rafinesque, *Prunus emarginata* Walp (Rosaceae).

*Callimus chalybeus* LeConte, 1873a: 189; 1873b: 306; Horn, 1875: 150; LeConte, 1879: 505

*Poecilobrium chalybaeum*; Horn, 1883a: 289; 1883b: xi (distr.); LeConte & Horn., 1883: 291; Leng, 1885b: 136, pl. 3, fig.13; 1886: 27; Fall, 1901: 145 (distr.); Garnett, 1918: 206 (distr.); Hopping, 1931: 234; Moore, 1937: 107 (distr.); Linsley, 1938: 107 (syn.); Leech, 1947: 105 (distr.); 1955: 40 (hosts); Linsley, 1963: 162; Hatch, 1971: 109; Hovore & Giesbert, 1976: 365 (biol., distr.); Chemsak, Linsley & Noguera, 1992: 56 (cat.); Monné, M.A., 1993f: 20 (cat.); Linsley & Chemsak, 1997: 422 (hosts); Heffern, 1998: 13 (distr.); MacRae & Rice, 2007: 242 (distr.); Rice, MacRae & Merickel, 2017: 670 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 48, pl. 5.

*Poecilobrium rugosipenne* Linell, 1897: 395; Garnett, 1918: 206 (distr.); Lingafelter *et al.*, 2014: 313., fig. 147o (holotype).

**Type locality** – Holotype: United States, California. (USNM).

*Poecilobrium minutum* Casey, 1924: 261; Lingafelter *et al.*, 2014: 100, fig. 110o (holotype).

**Type locality** - Holotype female: United States, California: Eldorado County. (USNM).

*Poecilobrium gibsoni* Hopping, 1931: 234; Ruetter, 1970: 21 (type).

**Type locality** - Holotype female: Canada, British Columbia: Vernon. (CNCI).

**GRACILIINI Mulsant, 1839**

Graciliares Mulsant, 1839: 27, 99; 1863: 125, 189.

Graciliae; LeConte, 1873b: 300; LeConte & Horn, 1883: 285.

Graciliini; Aurivillius, 1912: 128 (cat.); Bradley, 1930: 229, 234; Saalas, 1936: 65; Linsley, 1962a: 48; Arnett, 1962: 859, 880; Hatch, 1971: 99; Monné, M.A., 1993f: 9 (cat.); Monné, M.A., 2005: 262 (cat.); Martins & Galileo, 2005: 223 (rev.); Bousquet *et al.*, 2009: 47; Bouchard *et al.*, 2011: 472.

**Type-genus:** *Gracilia* Audinet-Serville, 1834.

**Type-species:** *Callidium pygmaeum* Fabricius, 1793 (monotypy).

**Gracilia Audinet-Serville, 1834**

*Gracilia* Audinet-Serville, 1834b: 81; Mulsant, 1839: 102; Laporte, 1840: 445; Blanchard, 1845: 153; Haldeman, 1847c: 372 (syn.); LeConte, 1850b: 24; Thomson, 1861: 189; 1864: 223; 1865:440; Mulsant, 1863: 133, 197; Lacordaire, 1868: 358; Girard, 1873: 731; Leng, 1884: 115; Bradley, 1930: 234; Knull, 1946: 200; Linsley, 1962a: 49; Arnett, 1962: 862, 880; Monné, M.A., 2005: 262 (cat.); Martins & Galileo, 2005: 228

**Type-species** - *Callidium pygmaeum* Fabricius, 1793 (monotypy). [= *Saperda minuta* Fabricius, 1781].

*Nothrus* Haldeman, 1847a: 43.

**Type-species** - *Nothrus fuscus* Haldeman, 1847 (monotypy).

**1. Gracilia minuta (Fabricius, 1781)**

**Syntypes locality** – Syntypes: Anglia (BMNH). **Distribution** - Europe, introduced in United States, Argentina (Buenos Aires) and Uruguay. **Host plants** - *Acer* sp. (Aceraceae), *Betula lenta* Linné, *Corylus* sp. (Betulaceae), *Cassia tora* Linné, *Ceratonia siliqua* Linné (Caesalpiniaceae), *Euonymus alatus* (Thunberg) Siebold (Celastraceae), *Carpinus* sp. (Corylaceae), *Castanea* sp., *Quercus* sp. (Fagaceae), *Aesculus* sp. (Hippocastanaceae), *Juglans nigra* Linné, *J. regia* Linné, *Pterocarya stenoptera* C. de Candolle (Juglandaceae), *Ficus* sp. (Moraceae), *Cedrus* sp., *Pinus halepensis* Miller (Pinaceae), *Rhamnus alaternus* Linné (Rhamnaceae), *Crataegus pinnatifida* Bunge, *Malus* sp., *Prunus armeniaca* Linné, *P. persica* (Linné) Batsch, *Pyrus malus* Linné, *Rosa* sp., *Rubus* sp (Rosaceae), *Citrus aurantium* Linné, *C. paradisi* Macfayden (Rutaceae), *Salix vitellina* Linné (Salicaceae), *Torreya* sp. (Taxaceae), *Ulmus* sp., *Zelkova* sp. (Ulmaceae).

*Saperda minuta* Fabricius, 1781: 235; Olivier, 1795: (68) 41, pl. 3, figs 31, a, b; Zimsen, 1964: 179 (type).

*Gracilia minuta*; Stephens, 1839: 275; Lugger, 1884: 204 (hosts); Leng, 1885a: 118; 1885b: pl. 2, fig. 26; Dimmock, 1885: 283 (hosts); Hamilton, 1889: 145; Packard, 1890: 486 (hosts); Hausen, 1891: 102, figs 2-4; Hamilton, 1894b: 395 (distr.); 1895: 338 (distr.); Beutenmuller, 1896: 75 (hosts); Wickham, 1897a: 110, fig. 22; Ulke, 1903: 25 (distr.); Blatchley, 1910: 1022; Aurivillius, 1912: 129 (cat., refs.); Chagnon, 1917: 231 (distr.); Kirk & Knull, 1926: 23 (distr.); Leonard, 1928: 436 (distr.); Beaulne, 1932: 198 (hosts); Munro, 1936: 65 (biol.); Saalas, 1936: 65 (morphol.); Bosq, 1943a: 30 (hosts); Lepesme, 1944: 193, fig. 174 (biol.); Knull, 1946: 200, pl. 13, fig. 51; Bosq & Ruffinelli, 1951: 11 (distr., hosts); Duffy, 1953: 194 (larva, pupa, refs); 1960: 140, fig. 80 (larva, pupa); Zajciw & Ruffinelli, 1962: 38 (distr., hosts); Linsley, 1962a: 49; Slama, 1965: 300, 5 figs (biol., syn.); Ruffinelli, 1967: 43 (hosts); Hatch, 1971: 102; Manley & French, 1976: 47; Hovore, Penrose & Neck, 1987: 295 (hosts); Chemsak, Linsley & Noguera, 1992: 32 (cat.); Linsley & Chemsak, 1997: 380 (hosts); Monné, M.A., 2001b: 3 (cat., hosts); Di Iorio, 2004d: 670 (distr.); Monné, M.A., 2005: 262 (cat.); Martins & Galileo, 2005: 228, figs 378-383; Lingafelter, 2007: 81, 147, 2 figs, pl. 19, fig. h.

*Oesyophila minuta*; Bruch, 1912: 193 (cat.).

*Callidium pygmaeum* Fabricius, 1793: 323; 1801: 339; Zimsen, 1964: 179 (type).

*Gracilia pygmaea*; Audinet-Serville, 1834b: 82; Mulsant, 1839: 103; Laporte, 1840: 446; Mulsant, 1863: 134, 198; Thomson, 1864: 223; Lacordaire, 1868: 359; LeConte, 1873b: 300; LeConte & Horn, 1883: 286.

**Syntypes locality** – Syntypes: Italia. (ZMUC).



*Saperda picea* Fabricius, 1793: 317; 1801: 332; Schoenherr, 1817: 438; Zimsen, 1964: 177 (type).

**Syntypes locality** – Syntypes: America septentrionali. (ZMUC).

*Callidium vini* Panzer, 1798: 10.

**Type locality** - Holotype: Austria, Vienna. (Depository unknown).

*Nothrus fuscus* Haldeman, 1847a: 43.

*Gracilia fusca*; LeConte, 1850b: 24; White, 1855: 241.

**Type locality** - Holotype: United States. (MCZN).

*Gracilia approximata* Fairmaire, 1883: clix.

**Type locality** - Holotype male: Algeria, Biskra. (MNHN).

*Gracilia obliquata* Horn, 1885a: 174; Leng, 1890: 213.

**Type locality** - Holotype: United States, Texas. (ANSP).

*Gracilia albanica* Csiki, 1931: 278.

**Type locality** - Holotype: Albania, Kula Ljums. (HNHM).

### ***Hypexilis* Horn, 1885**

*Hypexilis* Horn, 1885a: 173; Bradley, 1930: 234; Linsley, 1942: 49; 1962a: 51; Arnett, 1962: 862, 880; Monné, M.A., 2005: 263 (cat.); Monné, M.A., 2012: 26.

**Type-species** - *Hypexilis pallida* Horn, 1885 (monotypy).

#### **1. *Hypexilis pallida* Horn, 1885**

**Type locality** - Holotype male: United States, Texas. (MCZN). **Distribution** - United States (Texas), Mexico (Nuevo León). **Host plants** - *Salix nigra* Marshall (Salicaceae), *Ulmus crassifolia* Nuttall (Ulmaceae).

*Hypexilis pallida* Horn, 1885a: 173; Leng, 1886: pl. 2, fig. 25; 1890: 213; Linsley & Martin, 1933: 181 (distr.); Linsley, 1962a: 51; Hovore, Penrose & Giesbert, 1978: 97 (distr., hosts); Hovore, Penrose & Neck, 1987: 296 (hosts); Chemsak, Linsley & Noguera, 1992: 32 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 384 (hosts); Monné, M.A., 2001b: 4 (cat., hosts); Ruíz Cancino & Coronado Blanco, 2002: 102 (distr.); Monné, M.A., 2005: 263 (cat.); MacRae & Rice, 2007: 236 (hosts); Nearn & Branham, 2008: 6, fig. 46b.

### ***Lianema* Fall, 1907**

*Lianema* Fall, 1907: 85; Bradley, 1930: 234; Arnett, 1962: 880; Monné, M.A., 2005: 263 (cat.); Monné, M.A., 2012: 26.

**Type-species**- *Lianema tenuicornis* Fall, 1907 (monotypy and original designation).

#### **1. *Lianema tenuicornis* Fall, 1907**

**Type locality** - Holotype male: Mexico, Baja California: El Taste. (MCZN).

**Distribution** - Mexico (Baja California).

*Lianema tenuicornis* Fall, 1907: 86; Schaeffer, 1908: 332; Garnett, 1918: 284 (distr.); Linsley, 1942: 48; Hovore, 1988: 5 (distr.); Chemsak, Linsley & Noguera, 1992: 32 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Monné, M.A., 2005: 263 (cat.).

### ***Penichroa* Stephens, 1839**

*Penichroa* Stephens, 1839: 270; Thomson, 1864: 334; Lacordaire, 1868: 358; Planet, 1924: 147; Villiers, 1946: 70; Linsley, 1962a: 75; Arnett, 1962: 862, 880; Monné, M.A., 1993f: 3; Sama, 2003: 55.

**Type-species** - *Callidium fasciatum* Stephens, 1831 (monotypy). (not Herbst, 1784).  
*Exilia* Mulsant, 1863: 131 (not Conrad, 1860); 1862-1863: 195; Fairmaire, in Jacquelin  
 DuVal, 1864: 147; Lacordaire, 1869: 358

**Type-species** - *Callidium timidum* Ménétrés, 1832  
*Liagrica* Costa, 1855: 59; Csiki, 1904: 36.  
*Graecoeme* Adlbauer, 2006: 379.

**Type-species** - *Graecoeme eggeri* Adlbauer, 2006

### 1. *Penichroa fasciata* (Stephens, 1831)

**Syntypes locality** - Syntypes: England. Norwich. (BMNH). **Distribution** - Europe, Caucasus, Azerbaidzhan, northern Iran, Asia Minor, Near East including Cyprus and Israel; North Africa, occasionally imported in North America (New York, Pennsylvania). **Host plants** - *Pistacia lentiscus* Linné (Anacardiaceae), *Ceratonia siliqua* Linné (Caesalpiniaceae), *Carya* sp. (Juglandaceae), *Eucalyptus globulus* Labillardière (Myrtaceae).

*Callidium fasciatum* Stephens, 1831: 250.

*Penichroa fasciata*; Stephens, 1839: 270; Reitter, 1912: 31; Peyerimhoff, 1919: 211; Davatchi, 1958: 72 (biol.); Linsley, 1962a: 75 (syn.); Sama, 2003: 56.

*Callidium timidum* Ménétrés, 1832: 228.

*Gracilia timida*; Mulsant, 1839: 102, pl. 2, fig. 2; Lucas, 1849: lxvi.

*Liagrica timida*; Costa, 1855: 60, pl. 36, fig. 1.

*Exilia timida*; Mulsant, 1863: 131; 1862-1863: 195.

*Penichroa timida*; Planet, 1924: 147, figs 125, 126.

**Syntypes locality** – Syntypes: Azerbaidjan, Caucaso, Lenkoran. (ZISP).

*Callidium bi-punctatum* Zoubkoff, 1833: 336.

**Type locality** - Type: Turmenie. (Depository unknown).

*Callidium fasciolatum* Krynický, 1834: 170.

**Type locality** - Holotype: Turquia, Tauria. (University of Kharkov, Ukraine).

*Zamodes obscurus*; Knull, 1937a: 41 (not LeConte).

*Tylonotus champlaini* Knull, 1941a: 695, pl. 1, fig. 1.

**Type locality** - Holotype: United States, Pennsylvania: Glenside. (FMNH).

*Graecoeme eggeri* Adlbauer, 2006: 381, fig. 1.

**Type locality** - Holotype female: Griechenland, S-Peloponnes, Mani, Stroupa (Collection Karl Adlbauer, Graz).

### *Perigracilia* Linsley, 1942

*Perigracilia* Linsley, 1942: 48; 1962a: 50; Arnett, 1962: 862, 880; Monné, M.A., 2005: 263 (cat.); Monné, M.A., 2012: 26.

**Type-species** - *Perigracilia tenuis* Linsley, 1942 (original designation).

#### 1. *Perigracilia delicata* Knull, 1942

**Type locality** - Holotype male: United States, Arizona: Pima County, Santa Catalina Mountains. (FMNH). **Distribution** - United States (Arizona).

*Perigracilia delicata* Knull, 1942: 225; Linsley, 1962a: 50; Chemsak, Linsley & Noguera, 1992: 32 (cat.); Monné, M.A., 1993f: 10 (cat.).

### HESPEROPHANINI Mulsant, 1839

Hesperophanaires Mulsant, 1839: 27, 61; 1862-63: 124, 430; Planet, 1924: 147.

Hesperophanites; Fairmaire in Jacquelin DuVal, 1864: 130, 192.

Hesperophanides; Lacordaire, 1868: 273.

Hesperophaninae; Pascoe, 1869: 498, 528; Bates, 1870: 259.

Hesperophanini; Gahan, 1906: 109; Aurivillius, 1912: 66 (cat.); Bradley, 1930: 229, 231; Saalas, 1936: 63; Linsley, 1962a: 51; Arnett, 1962: 859, 880; Hatch, 1971: 99; Villiers, 1980b: 274; Monné, M.A., 1993b: 1 (cat.); Martins & Galileo, 1999: 2 (rev.); Monné, M.A., 2005: 264 (cat.); Bousquet *et al.*, 2009: 47; Bouchard *et al.*, 2011: 472.

**Type-genus:** *Hesperophanes* Dejean, 1835.

**Type-species:** *Callidium sericeum* Fabricius, 1787 designated by Thomson (1864: 253).

### ***Brothylus* LeConte, 1859**

*Brothylus* LeConte, 1859b: 80; Thomson, 1864: 268; Lacordaire, 1868: 290; LeConte, 1873b: 301; LeConte & Horn, 1883: 286; Bradley, 1930: 232; Linsley, 1962a: 85; Arnett, 1962: 863, 881; Chemsak & Linsley, 1963a: 216; Hatch, 1971: 103; Monné, M.A., 2005: 266 (cat.); Monné, M.A., 2012: 27.

**Type-species** - *Brothylus gemmulatus* LeConte, 1859 (monotypy).

#### **1. *Brothylus conspersus* LeConte, 1859**

**Syntypes locality** - Syntypes male and female: United States, Oregon. (MCZN).

**Distribution** - Pacific Coast of North America from Oregon to southern California.

**Host plants** - *Quercus agrifolia* Née, *Q. chrysolepis* Liebmann, *Q. douglasii* Hooker & Arnott, *Q. garryana* Douglas, *Q. john-tuckeri* K. C. Nixon & C. H. Muller, *Q. kelloggii* Newberry, *Q. lobata* Née (Fagaceae), *Fraxinus latifolia* Bentham (Oleaceae).

*Brothylus conspersus* LeConte, 1859a: 285; Leng, 1885a: 119; 1885c: 35, pl. 2, fig. 18; Garnett, 1918: 177 (distr.); Doane *et al.*, 1936: 269, fig. 82; Knowlton & Wood, 1950: 10 (distr.); Linsley, 1962: 86, fig. 29; Tyson, 1966: 202 (hosts); Hatch, 1971: 104, pl. 10, fig. 5; Furniss & Carolin, 1977: 298; Cope, 1984a: 33 (hosts); Chemsak, Linsley & Noguera, 1992: 33 (cat.); Monné, M.A., 1993b: 6 (cat.); Linsley & Chemsak, 1997: 351 (hosts); MacRae & Rice, 2007: 230 (distr., hosts); Swift, 2008a: 2 (hosts).

#### **2. *Brothylus gemmulatus* LeConte, 1859**

**Syntypes locality** - Syntypes: United States, California: Tejon. (MCZN).

**Distribution** - Western North America from Oregon and Utah to Mexico (Sinaloa, Mazatlán). **Host plants** - *Quercus agrifolia* Née, *Q. kelloggii* Newberry (Fagaceae).

*Brothylus gemmulatus* LeConte, 1859b: 80; Thomson, 1864: 268; Lacordaire, 1868: 290; Leng, 1885a: 119; Fall, 1901: 144 (distr.); Wright & Coolidge, 1908: 68 (distr.); Garnett, 1918: 177 (distr.); Craighead, 1923: 67 (larva); Casey, 1924: 253; Davis, 1932: 85 (distr.); Linsley, 1935a: 73 (distr.); Doane *et al.*, 1936: 169 (biol.); Linsley, 1938: 106 (syn.); Knowlton & Wood, 1950: 10 (distr.); Keen, 1952: 198 (hosts); Linsley, 1962a: 86, fig. 28; Chemsak & Linsley, 1963a: 216; Tyson, 1966: 202 (hosts); Hatch, 1971: 103, pl. 10, fig. 3; Chemsak, Linsley & Noguera, 1992: 33 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 351 (hosts); Heffern, 1998: 12 (distr.); Monné, M.A., 2001b: 4 (cat. hosts); Monné, M.A., 2005: 266 (cat.).

*Brothylus castaneus* Casey, 1924: 253; Lingafelter *et al.*, 2014: 38, figs 39e, f (holotype).

**Type locality** - Holotype male: United States, Utah: Provo. (USNM).

*Brothylus consors* Casey, 1924: 254; Lingafelter *et al.*, 2014: 44, figs 46s, t (holotype).

**Type locality** - Holotype male: United States, Utah: Eureka. (USNM).

*Brothylus longicollis* Casey, 1924: 254; Lingafelter *et al.*, 2014: 91, figs 100i, j (holotype).

**Type locality** - Holotype male: United States, Utah: Provo. (USNM).

### ***Cacophrissus* Bates, 1885**

*Cacophrissus* Bates, 1885: 252; Chemsak & Linsley, 1963a: 219; 1974: 182 (syn.); Monné, M. A., 2005: 266 (cat.); Monné, M.A., 2012: 27.

**Type-species** - *Cacophrissus pauper* Bates, 1885 (monotypy).

*Knullanoplium* Linsley, 1957a: 16; Arnett, 1962: 866, 884; Linsley, 1963: 112.

**Type-species** - *Brothylus subpubescens* Schaeffer, 1909 (original designation).

#### **1. *Cacophrissus pauper* Bates, 1885**

**Type locality** – Lectotype male: Mexico, Sinaloa: Presidio. (BMNH). **Distribution** - United States (Arizona), Mexico (Baja California, Sinaloa, Jalisco).

*Cacophrissus pauper* Bates, 1885: 252, pl. 18, fig. 8; Chemsak & Linsley, 1963a: 221; 1964a: 226 (distr.); Chemsak, 1967b: 74 (lect.); Chemsak & Linsley, 1974a: 182 (syn.); Hovore, 1988: 8 (distr., syn.); Chemsak, Linsley & Noguera, 1992: 33 (cat.); Chemsak & Noguera, 1995: 58 (distr.); Noguera & Chemsak, 1996: 397 (cat.); Monné, M.A., 2005: 267 (cat.).

*Brothylus subpubescens* Schaeffer, 1909a: 100.

*Knullanoplium subpubescens*; Linsley, 1957a: 17; 1963; 113, fig. 38.

**Type locality** – Holotype: United States, Arizona. (AMNH).

*Elaphidion (Anoplium) duncani* Knull, 1927: 117; Chemsak, 1977a: 174 (type).

**Type locality** – Holotype female: United States, Arizona: Globe. (FMNH).

*Anoplium insoletum* Linsley, 1942: 43.

**Type locality** – Holotype male: Mexico, Baja California: Comondu. (CASC).

### ***Eucrossus* LeConte, 1873**

*Eucrossus* LeConte, 1873a: 174; 1873b: 298; LeConte & Horn, 1883: 284; Leng, 1884: 114; Bradley, 1930: 231; Linsley, 1932: 113; 1962a: 71; Arnett, 1962: 862; Chemsak & Linsley, 1963a: 213; Monné, M. A., 2005: 268 (cat.); Monné, M.A., 2012: 27.

**Type-species** - *Eucrossus villicornis* LeConte, 1873 (monotypy).

#### **1. *Eucrossus villicornis* LeConte, 1873**

**Syntypes locality** – Syntypes male and female: United States, Arizona. (MCZN).

**Distribution** - United States (Nevada and California to Arizona and New Mexico), Mexico (Baja California, Sonora, Chihuahua, Tamaulipas). **Host plants** - *Pinus contorta* Douglas ex Loudon, *P. jeffreyi* Balfour, *P. monophylla* Torrey & Frémont, *P. muricata* D. Don, *P. ponderosa* Douglas ex Lawson & P. Lawson, *P. sabiniana* Douglas ex D. Don, *P. torreyana* Parry ex Torrey (Pinaceae).

*Eucrossus villicornis* LeConte, 1873a: 175; 1873b: 299; Lameere, 1883: 14 (cat.); LeConte & Horn, 1883: 284; Leng, 1884: 116; 1885b: pl. 2, fig. 22; Fall, 1901: 144 (distr.); Garnett, 1918: 176 (distr.); Craighead, 1923: 140 (larva); Linsley, 1932: 117 (syn.); Moore, 1937: 87 (distr.); Keen, 1949: 93 (hosts); Linsley, Knull &

Statham, 1961b: 11 (distr.); Linsley, 1962a: 71; Chemsak & Linsley, 1963a: 213; Tyson, 1966: 203 (hosts); Wickman & Seminoff, 1968: 321, figs 1, 2 (biol.); Tyson, 1970b: 297 (biol.); Chemsak, Linsley & Noguera, 1992: 35 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 374 (hosts); Heffern, 1998: 12 (distr.); Monné, M.A., 2001b: 5 (cat. hosts); Monné, M.A., 2005: 268 (cat.); García Morales *et al.*, 2015: 103 (distr.).

*Eucrossus phoenicis* Casey, 1924: 249; Lingafelter *et al.*, 2014: 298, figs 131k, l (holotype).

**Type locality** – Holotype female: United States, Arizona: Phoenix. (USNM).

### ***Haplidus* LeConte, 1873**

*Haplidus* LeConte, 1873a: 175; 1873b: 299; LeConte & Horn, 1883: 284; Leng, 1884: 115; Linsley, 1932: 113; 1962a: 68; Arnett, 1962: 862, 880; Chemsak & Linsley, 1963a: 227 (key spp.); Hatch, 1971: 103; Monné, M.A., 2005: 269 (cat.); Monné, M.A., 2012: 27.

**Type-species** - *Haplidus testaceus* LeConte, 1873 (monotypy).

#### **1. *Haplidus laticeps* Knull, 1941**

**Type locality** – Holotype male: United States, Texas: Sonora. (FMNH).

**Distribution** - United States (Texas), northern Mexico. **Host plants** - *Acacia constricta* Bentham ex Gray, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Haplidus laticeps* Knull, 1941b: 317; Linsley, 1962a: 71; Chemsak & Linsley, 1963a: 228; Chemsak, 1977a: 175 (type); MacKay, Zak & Hovore, 1987: 363 (hosts); Chemsak, Linsley & Noguera, 1992: 35 (cat.); Linsley & Chemsak, 1997: 381 (hosts); Monné, M.A., 2001b: 6 (cat. hosts); Monné, M.A., 2005: 269 (cat.).

#### **2. *Haplidus testaceus* LeConte, 1873**

**Syntypes localities** - Syntypes\; United States, Nevada, Utah and California. (MCZN). **Distribution** - United States, southeastern California and Great Basin region east to New Mexico. **Host plants** - *Pinus contorta* Douglas ex Loudon, *P. edulis* Engelhorn, *P. monophylla* Torrey & Frémont, *P. ponderosa* Douglas ex Lawson & P. Lawson (Pinaceae).

*Haplidus testaceus* LeConte, 1873a: 299; 1873b: 176; Lameere, 1883: 10 (cat.); LeConte & Horn, 1883: 285; Leng, 1885a: 117; 1885c: 35, pl. 2, fig. 24; Fall, 1901: 144 (distr.); Craighead, 1923: 40 (larva); Linsley, 1932: 114 (distr.); 1962a 40, fig. 24; Tyson, 1970b: 298 (biol.); Hatch, 1971: 103, pl. 10, fig. 4; Furniss & Carolin, 1977: 300 (biol.); Chemsak, Linsley & Noguera, 1992: 36 (cat.); Monné, M.A., 1993b: 2 (cat.); Linsley & Chemsak, 1997: 381 (hosts); Heffern, 1998: 12 (distr.); MacRae & Rice, 2007: 236 (distr., hosts); Hack, 2017: 113 (hosts); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 42, pl. 2.

*Haplidus testaceus*; Garnett, 1918: 177 (distr., error).

*Haplidus breviceps* Casey, 1924: 250; Lingafelter *et al.*, 2014: 32, fig. 32 s (holotype).

**Type locality** - Holotype female: United States, New Mexico: near Fort Wingate. (USNM).

### ***Hesperanoplium* Linsley, 1957**

*Hesperanoplium* Linsley, 1957a: 18; Arnett, 1962: 862, 880; Linsley 1962a: 72; Monné, M.A., 1993b: 3.

**Type-species** - *Haplidus antennatus* Linsley, 1932 (original designation).

### 1. *Hesperanoplium antennatum* (Linsley, 1932)

**Type locality** - Holotype male: United States, California: Carnelian Bay, Lake Tahoe. (CASC). **Distribution** - United States (Oregon and California). **Host plants** - *Acer glabrum* Torrey (Aceraceae), *Rhus integrifolia* Nuttall (Anacardiaceae), *Quercus chrysolepis* Liebmann (Fagaceae), *Cercocarpus betuloides* Nuttall, *C. ledifolius* Nuttall, *Heteromeles arbutifolia* (Aiton) M. Roemer, *Prunus ilicifolia* Nuttall (Rosaceae), *Salix* sp. (Salicaceae).

*Haplidus antennatus* Linsley, 1932: 115.

*Hesperanoplium antennatum*; Linsley, 1957a: 18; 1962a: 72; Tyson, 1970b: 297 (hosts); Penrose & Westcott, 1974: 234 (distr.); Hovore & Giesbert, 1976: 352 (hosts); Cope, 1984a: 29 (hosts); Chemsak, Linsley & Noguera, 1992: 6 (cat.); Monné, M.A., 1993b: 3 (cat.); Linsley & Chemsak, 1997: 381 (hosts).

### 2. *Hesperanoplium notabile* (Knull, 1947)

**Type locality** - Holotype female: United States, California: Jacumba. (FMNH). **Distribution** - United States (California) **Host plants** - *Pinus* sp. (Pinaceae).

*Gymnopsyra notabilis* Knull, 1947: 32.

*Hesperanoplium notabilis*; Linsley, 1957a: 18; 1962a: 73; Hovore & Giesbert, 1976: 352; Chemsak, 1977a: 175 (types); Chemsak, Linsley & Noguera, 1992: 36 (cat.); Monné, M.A., 1993b: 3 (cat.).

## *Hesperophanes* Dejean, 1835

*Hesperophanes* Dejean, 1835: 328; Blanchard, 1851: 492; Thomson, 1864: 253, 455; Lacordaire, 1868: 275; Bates, 1870: 259; Germain, 1898: 463; Gahan, 1906: 112; Planet, 1924: 152; Arnett, 1962: 863, 881; Linsley, 1962a: 87; Hatch, 1971: 103; Sama, 1991: 124; Monné, M. A., 1993b: 6; Martins & Galileo, 2000: 46; Sama, 2003: 49.

*Anoplium* Haldeman, 1847a: 34; Thomson, 1864: 236.

**Type species** - *Anoplium pubescens* Haldeman, 1847 (Thomson designation, 1864: 236)

*Stromatium*; LeConte, 1873b: 301; LeConte & Horn, 1883: 287; Leng, 1884: 115; Blatchley, 1910: 1020; Chagnon, 1938: 260; Knull, 1946: 190.

### 1. *Hesperophanes pubescens* (Haldeman, 1847)

**Type locality** - Holotype: United States, Pennsylvania. (MCZN). **Distribution** - Eastern Canada and northeastern United States, south to Georgia and Alabama and west to Minnesota and Iowa. **Host plants** - *Quercus* sp. (Fagaceae).

*Anoplium pubescens* Haldeman, 1847a: 34; Melsheimer, 1853: 102 (cat.).

*Elaphidion pubescens*; LeConte, 1850b: 16; White, 1853: 104.

*Stromatium pubescens*; LeConte, 1873b: 302; LeConte & Horn, 1883: 287; Leng, 1885a: 119; 1885c: 35, pl. 2, fig. 30; Hamilton, 1895: 338 (distr.); Blatchley, 1910: 1022; Slosson, 1912: 172 (distr.); Nicolay, 1919: 65 (distr.); Britton, 1920: 267 (distr.); Leonard, 1928: 435 (distr.); Cooper, 1935: 152 (distr.); Chagnon, 1938: 260; Loding, 1945: 114 (distr.); Sherman, 1946: 126 (distr.); Knull, 1946: 190, pl. 11, fig. 44; Chagnon & Robert, 1962: 260.

*Hesperophanes pubescens*; Linsley, 1962a: 88, fig. 30; Gosling, 1973: 71, fig. 15 (distr.); Perry, 1977: 98 (distr.); Turnbow & Franklin, 1980: 341; Arnett, 1985: 362, fig. 24.183; Chemsak, Linsley & Noguera, 1992: 36 (cat.); MacRae, 1993: 228 (distr.); Monné, M.A., 1993b: 7 (cat.); Yanega, 1996: 47, pl. 12, fig. 137; Vlasák & Vlasakova, 2002: 209 (distr., hosts); Lingafelter, 2007: 80, 147, 2 figs, pl. 19, fig. b; Guarnieri, 2009: 17 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 42, pl. 3.

### ***Malobidion* Schaeffer, 1908**

*Malobidion* Schaeffer, 1908: 336; Casey, 1912: 258; Bradley, 1930: 234; Martins, 1961: 190; Linsley, 1962a: 53; Arnett, 1962: 862, 880; Chemsak & Linsley, 1963a: 210 (rev.); Monné, M.A., 2005: 271 (cat.); Monné, M.A., 2012: 28.

**Type-species** - *Malobidion brunneum* Schaeffer, 1908 (original designation).

#### **1. *Malobidion brunneum* Schaeffer, 1908**

**Syntypes locality** - Syntypes: United States, Arizona: Huachuca Mts. (USNM).

**Distribution** - United States (Utah, Arizona), Mexico (Sonora). **Host plants** - *Rhus trilobata* Nuttall (Anacardiaceae), *Berberis harrisoniana* Kearney & Peebles (Berberidaceae), *Fraxinus anomala* Torrey ex S. Watson (Oleaceae), *Amelanchier utahensis* Koehne, *Cercocarpus montanus* Rafinesque (Rosaceae).

*Malobidion brunneum* Schaeffer, 1908: 337; Linsley, Knull & Statham, 1961a: 11 (distr.); Linsley, 1962a: 54; Chemsak & Linsley, 1963a: 212; Marqua, 1975: 317; Cope, 1984a: 30 (hosts); Chemsak, Linsley & Noguera, 1992: 36 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 394 (hosts); Monné, M.A., 2001b: 6 (cat. hosts); Monné, M.A., 2005: 271 (cat.); Lingafelter *et al.*, 2014: 34, figs 35e, f (holotype); Vlasak, 2014: 318 (hosts).

*Malobidion uteanum* Casey, 1924: 258; Lingafelter *et al.*, 2014: 339, figs 177m, n (lect. designation).

**Type locality** – Lectotype: United States, Utah: Eureka. (USNM).

*Haplidus palpalis* Linsley, 1932: 114.

**Type locality** – Holotype male: United States, Arizona: Huachuca Mts (Carr Canyon). (CASC).

### ***Meganoplium* Linsley, 1940**

*Meganoplium* Linsley, 1940a: 258; 1962a: 73; Arnett, 1962: 862, 880; Monné, M.A., 2005: 272 (cat.); Monné, M.A., 2012: 28.

**Type-species** - *Elaphidion imbelle* LeConte, 1881 (monotypy and original designation).

#### **1. *Meganoplium imbelle* (LeConte, 1881)**

**Type locality** – Holotype female: United States, California: San Diego Co., Poway. (MCZN). **Distribution** - United States (California), Mexico (Baja California Norte). **Host plants** - *Quercus agrifolia* Née, *Q. chrysolepis* Liebmann, *Q. kelloggii* Newberry, *Q. lobata* Née (Fagaceae).

*Elaphidion imbelle* LeConte, 1881: 27, pl. 1, fig. 1; Lameere, 1883: 82 (cat.); Leng, 1885c: 32, 34; Blaisdell, 1892: 34 (hosts); Fall, 1901: 144 (distr.); Garnett, 1918: 177 (distr.).

*Anoplum imbelle*; Casey, 1912: 305; Moore, 1937: 88 (distr.).

*Meganoplium imbelles*; Linsley, 1940a: 258; 1962a: 74, fig. 25; Hovore, 1988: 8 (distr.); Chemsak, Linsley & Noguera, 1992: 36 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 396 (hosts); Monné, M.A., 2001b: 7 (cat. hosts); Monné, M.A., 2005: 272 (cat.); Ray, Lacey & Hanks, 2006: 545 (pheromones); MacRae & Rice, 2007: 237 (distr., hosts); Vlasák, 2014: 318 (hosts).

### ***Osmidus* LeConte, 1873**

*Osmidus* LeConte, 1873a: 177; 1873b: 301, 302; LeConte & Horn, 1883: 287; Leng, 1884: 115; Linsley, 1962a: 80; Arnett, 1962: 862, 880; Chemsak & Linsley, 1963a: 214; Monné, M.A., 2005: 274 (cat.); Monné, M.A., 2012: 28.

**Type-species** - *Osmidus guttatus* LeConte, 1873 (monotypy).

#### **1. *Osmidus guttatus* LeConte, 1873**

**Syntypes locality** – Syntypes male: Mexico, Baja California: Cabo San Lucas. (MCZN). **Distribution** - United States (southern California, Arizona and southern Nevada), Mexico (Baja California, Sonora, Oaxaca). **Host plants** - *Cercidium* sp. (Caesalpiaceae), *Olneta tesota* A. Gray (Fabaceae), *Prosopis juliflora* (Swartz) de Candolle, *P. pubescens* Benth (Mimosaceae).

*Osmidus guttatus* LeConte, 1873a: 178; Leng, 1885a: 119; 1885b: pl. 2, fig. 29; Horn, 1894: 337 (distr.); Snow, 1906a: 147 (distr.); Garnett, 1918: 177 (distr.); Linsley, 1938: 106 (syn.); 1942: 34; 1962a: 81, fig. 27; Chemsak & Linsley, 1963a: 214; Tyson, 1966: 205 (hosts); 1970: 298 (hosts); Hovore & Giesbert, 1976: 352 (hosts); Chemsak, Linsley & Noguera, 1992: 36 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 414 (hosts); Monné, M.A., 2001b: 7 (cat. hosts); Monné, M.A., 2005: 274 (cat.); Noguera *et al.*, 2009: 88 (distr.).

*Osmidus obscurellus* Casey, 1924: 255; Lingafelter *et al.*, 2014: 110, figs 121e, f (holotype).

**Type locality** – Holotype female: United States, Arizona: Baboquivari Mts. (USNM).

*Osmidus vestitus* Casey, 1924: 255; Lingafelter *et al.*, 2014: 343, figs 181k, l (holotype).

**Type locality** – Holotype male: United States, Arizona: Phoenix. (USNM).

### ***Stromatium* Audinet-Serville, 1834**

*Stromatium* Audinet-Serville, 1834b: 80; Laporte, 1840: 452; Blanchard, 1845: 153; Thomson, 1861: 231; Mulsant, 1863: 129, 435; Thomson, 1864: 253; 1865: 455; Lacordaire, 1868: 282; Pascoe, 1869: 531; Redtenbacher, 1874: 406; Gahan, 1906: 114; Bradley, 1930: 232; Linsley, 1962a: 88; Arnett, 1962: 863, 881; Hatch, 1971: 103; Zayas, 1975: 57; Martins & Galileo, 1999c: 65; Monné, M.A., 2005: 275 (cat.); Monné, M.A., 2012: 29.

**Type-species** - *Callidium barbatum* Fabricius, 1775 (monotypy).

*Solenophorus* Mulsant, 1839: 65.

**Type-species** - *Callidium strepens* Fabricius, 1798 (monotypy).

#### **1. *Stromatium auratum* (Böber, 1793)**

**Type locality** - Holotype: Ukraine, Crimea: vom Dneper bis zum Salgir. (Depository unknown).

**Distribution** – Central and southern Europe, North Africa, Caucasus, northern Iran, Middle East, Cyprus, Middle Asia,, introduced in United States, Cuba, Brazil (Rio



de Janeiro, São Paulo), Paraguay, Uruguay. **Host plants** - *Acer negundo* Linné (Aceraceae), *Pistacia lentiscus* Linné, *Schinus terebenthifolius* Raddi (Anacardiaceae), *Araucaria excelsa* R. Brown (Araucariaceae), *Alnus* sp., *Corylus* sp. (Betulaceae), *Cassia* sp., *Ceratonia siliqua* Linné, *Cercis siliquastrum* Linné, *Delonix regia* (Hooker) Rafinesque-Schmaltz (Caesalpiniaceae), *Celtis australis* Linné (Cannabaceae), *Casuarina cunninghamiana* Miquel (Casuarinaceae), *Carpinus* sp. (Corylaceae), *Cupressus* sp. (Cupressaceae), *Flueggea anatolica* Gemici (Euphorbiaceae), *Cytisus antillanus* de Candolle, *Dalbergia sissoo* Roxburgh, *Robinia pseudoacacia* Linné (Fabaceae), *Castanea* sp., *Fagus ferruginea* Aiton, *Quercus acuminata* (Michaux) Sargent, *Quercus ilex* Linné (Fagaceae), *Carya pecan* (Marshall) Engler & Graebner, *Juglans nigra* Linné (Juglandaceae), *Persea americana* P. Miller (Lauraceae), *Tilia* sp. (Malvaceae), *Acacia* sp. (Mimosaceae), *Ficus* sp., *Morus rubra* Linné (Moraceae), *Eucalyptus* sp. (Myrtaceae), *Fraxinus* sp., *Ligustrum ovalifolium* Hasskarl (Oleaceae), *Abies* sp., *Cedrus* sp., *Larix* sp., *Pinus* sp. (Pinaceae), *Platanus occidentalis* Linné, *P. orientalis* Linné (Platanaceae), *Rhamnus alaternus* Linné, *Zizyphus* sp. (Rhamnaceae), *Prunus armeniaca* Linné (Rosaceae), *Citrus aurantium* Linné (Rutaceae), *Populus* sp., *Salix* sp. (Salicaceae), *Styrax officinale* Linné (Styracaceae), *Tamarix* sp. (Tamaricaceae), *Ulmus* sp. (Ulmaceae).

*Saperda aurata* Böber, 1793: 135.

*Stromatium auratum*; Lazarev, 2014: 274.

*Cerambyx fulvus* Villers, 1789: 256 (not *Cerambyx fulvus* Scopoli, 1763).

*Stromatium fulvum*; Aurivillius, 1912: 73 (cat., refs.); Leng & Mutchler, 1914: 445 (distr.); Leonard, 1928: 435 (distr.); Ware, 1929: 368; Saalas, 1936: 63; Linsley, 1938: 177 (biol.); Lepesme, 1944: 194 (biol.); Bosq, 1947a: 14 (distr.); Bosq & Ruffinelli, 1951: 7 (distr.); Duffy, 1953: 177 (refs.); 1960: 112, fig. 63 (larva); Zajciw & Ruffinelli, 1962: 29 (distr.); Linsley, 1962a: 90; Ruffinelli, 1967: 42 (hosts); Zayas, 1975: 57, pl. 7, fig. b; Chemsak, Linsley & Noguera, 1992: 36 (cat.); Linsley & Chemsak, 1997: 439 (hosts); Martins & Galileo, 1999c: 67, figs 34-36; Monné, M.A., 2001b: 8 (cat. hosts); Sama, 2003: 52 (distr.); Monné, M.A., 2005: 276 (cat.); Peck, 2005: 168 (distr.); Lingafelter, 2007: 79, 150, 2 pls, fig. 19a (hosts); Galileo, Martins & Moyses, 2008: 15.

**Type locality** – Type: Gallia merid. (MNHL).

*Callidium unicolor* Olivier, 1795: (70) 58, pl. 7, fig. 84.

*Stromatium unicolor*; Chevrolat, 1862a: 265; Sama, 1991: 125 (primary homonymy).

**Syntypes locality** – Syntypes: Mesopotamia. (MNHN).

*Callidium strepens* Fabricius, 1798: 150.

*Stromatium strepens*; Pascoe, 1857: 96.

**Syntypes locality** – Syntypes: Tangerang Dom. (ZMUC).

*Callidium pallidum* Zoubkoff, 1833: 336.

**Type locality** – Type: Turcménie. (Depository unknown).

*Stromatium inermis* Tournier, 1872: 260.

**Syntypes locality** - Syntypes male and female: Irak, Bagdad. (MNHN),

*Hesperophanes platifemur* Chevrolat, 1882: 57.

**Type locality** - Holotype male: Syria, (BMNH).

### ***Trichoferus* Wollaston, 1854**

*Trichoferus* Wollaston, 1854: 427; Heyrovsky, 1955: 153; Sama, 1991: 123.

**Type species** - *Trichoferus senex* Wollaston, 1854 (monotypy).

*Hesperandrius* Reitter, 1912: 45

**Type-species** - *Callidium griseum* Fabricius, 1793 (subsequent designation, Sama, 1991: 123).

**1. *Trichoferus campestris* (Faldermann, 1835)**

**Type locality** - Holotype female: China borealis. (Collection of Zoological Institute of the Russian Academy of Sciences, Saint-Petersbourg). **Distribution** - China, Korea, Japan, Mongolia, Hungria, France, introduced in Canada.

*Callidium campestris* Faldermann, 1835: 435.

*Trichoferus campestris*; Gressitt, 1951: 149; Grebennikov, Gill & Vigneault, 2010: 14, figs 1,2,4-5, 7-10-15; Bullas-Appleton, Kimoto, & Turgeon, 2014: 111; Haack in Wang, 2017: w/page fig. 11.20 (biol., hosts); Bousquet, Laplante, Hammond & Langor, 2017: 42, pl. 3.

*Stromatium turkestanicum* Heyden & Kraatz, 1886: 193.

**Type locality** - Holotype female: Kazakhstan, Turquestan. (SDEI).

*Hesperophanes rusticus* Ganglbauer, 1886: 133; 1890: 66 (syn.).

**Type locality** - Holotype: Korea, Centrum der Halbinsel Korea, bei Pung-tung. (NHMW).

*Hesperophanes flavopubescens* Kolbe, 1886: 219.

**Syntypes locality** - Syntypes: Korea, Seul. (ZMHB).

***Tylonotus* Haldeman, 1847**

*Tylonotus* Haldeman, 1847a: 37; LeConte, 1850b: 22; Thomson, 1864: 220; Lacordaire, 1868: 396; LeConte, 1873b: 302; LeConte & Horn, 1883: 287. Leng, 1884: 115; Wickham, 1897a: 96; Blatchley, 1910: 1021; Bradley, 1930: 232; Chagnon, 1938: 260; Knoll, 1946: 189; Dillon & Dillon, 1961: 584; Linsley, 1962a: 76; Chagnon & Robert, 1962: 254; Arnett, 1962: 862; Monné, M.A., 1993b: 4; Bousquet, Laplante, Hammond & Langor, 2017: 42 (key spp.)

**Type-species** - *Tylonotus bimaculatus* Haldeman, 1847 (montypy).

**1. *Tylonotus bimaculatus* Haldeman, 1847**

**Type locality** - Holotype: United States, Pennsylvania. (MCZN). **Distribution** - Eastern Canada and United States to Florida, Texas and Arizona. **Host plants** - *Betula* sp. (Betulaceae), *Quercus rubra* Linné (Fagaceae), *Carya* sp., *Juglans nigra* Linné (Juglandaceae), *Liriodendron tulipifera* Linné (Magnoliaceae), *Tilia americana* Linné (Malvaceae), *Fraxinus americana* Linné, *F. pennsylvanica* Marshall, *Ligustrum* sp. (Oleaceae), *Ulmus* sp. (Ulmaceae).

*Tylonotus bimaculatus* Haldeman, 1847a: 38; LeConte, 1850b: 23; Melsheimer, 1853: 104 (cat.); Bland, 1861: 95 (distr., hosts); Thomson, 1864: 220; Pettit, 1871: 106 (distr.); Popenoe, 1878: 82 (distr.); Riley, 1880: 239 (hosts); Packard, 1881: 129, 138 (biol.); Lugger, 1884: 204 (hosts); Dimmock, 1885: 283 (hosts); Leng, 1885b: 134, pl. 3, fig. 7; Packard, 1890: 485, 545 (biol.); Hamilton, 1891a: 131 (hosts); 1895: 338 (distr.); Beutenmuller, 1896: 75 (hosts); Wickham, 1897a: 110; 1897b: 156 (distr.); Lugger, 1899: 201, pl. 5, fig. 121 (biol.); Smith, 1900: 228 (distr.); Dury, 1902: 159 (distr.); Ulke, 1903: 26, 50 (distr.); Champlain, 1909: 181 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 327; Blatchley, 1910: 1926; Fisher & Kirk, 1912: 310 (distr.); Swaine, 1913: 88 (biol.); Morris, 1916: 298 (biol.); Britton, 1920: 267; Craighead, 1923: 66 (larva); Kirk & Knoll, 1926: 22 (distr.); Fisk, 1928: 184 (biol.); Leonard, 1928: 434 (distr.); Beaulne, 1932: 198 (hosts); Barrett, 1932:

291 (hosts); Cooper, 1932: 194 (distr.); Schaeffer, 1933b: 41 (distr.); Chagnon, 1938: 560, pl. 17, fig. 6; Hoffmann, 1940: 59 (biol.); Knull, 1946: 190, pl. 9, fig. 36; Craighead, 1950: 269, fig. 51g (larva); Duffy, 1953: 170, figs 135-137 (larva); Alexander, 1958: 51 (distr.); Dillon & Dillon, 1961: 584, pl. 57, No.11; Linsley, Knull & Statham, 1961: 11 (biol.); Linsley, 1962a: 77, figs 26, 27; Chagnon & Robert, 1962: 260, pl. 17, fig. 6; Baker, 1972: 199; Gosling, 1973: 70 (biol., distr.); Kirk & Balsbaugh, 1975: 98 (distr.); Stein & Tagestad, 1976: 44 (distr.); Turnbow & Franklin, 1980: 341 (distr.); Rice, 1981: 460 (distr.); Arnett, 1985: 362, fig. 24.182; Hovore, Penrose & Neck, 1987: 296 (distr.); Chemsak, Linsley & Noguera, 1992: 37 (cat.); MacRae, 1993: 228 (distr.); Lingafelter & Horner, 1993: 167 (distr.); Monné, M. A., 1993b: 4 (cat.); Yanega, 1996: 47, pl. 12, fig. 142; Burne, 1997: 36 (distr.); Linsley & Chemsak, 1997: 447 (hosts); Schiefer, 1998: 116 (distr.); Peck & Thomas, 1998: 117 (distr.); Vlasák & Vlasakova, 2002: 209 (distr., hosts); Sikes & Webster, 2005: 320 (distr.); Lingafelter, 2007: 87. 150, 2 figs, pl. 201 (hosts); Holt, 2013: 249 (distr.); Zou *et al.*, 2015: 870 (pherom); Webster *et al.*, 2016: 115 (distr., hosts); Haack, 2017: 117 (hosts); Klingeman *et al.*, 2017: 297 (distr.).

## 2. *Tylonotus masoni* (Knull, 1928)

**Type locality** – Holotype female: United States, Illinois: Edgebrook. (FMNH).

**Distribution** - Canada, United States (Texas, Oklahoma, Missouri, Iowa, Illinois, Indiana, Ohio, Mississippi, Georgia).

*Elaphidion (Anoplium) masoni* Knull, 1928c: 11; Chemsak, 1977a: 174 (types).

*Anoplium masoni*; Knull, 1946: 197, pl. 13, fig. 50.

*Tylonotus masoni*; Linsley, 1962a: 78, fig. 27; Turnbow & Hovore, 1979: 221 (distr.); Turnbow & Franklin, 1980: 341 (distr.); Chemsak, Linsley & Noguera, 1992: 37 (cat.). MacRae, 1993: 228 (distr.); Monné, M. A., 1993b: 4 (cat.); Yanega, 1996: 47, pl. 12, fig. 141; Burne, 1997: 36 (distr.); Schiefer, 1998: 116 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 42.

## *Zamodes* LeConte, 1873

*Zamodes* LeConte, 1873a: 187; 1873b: 302; LeConte & Horn, 1883: 287; Leng, 1884: 115; Bradley, 1930: 232; Linsley, 1962a: 80; Arnett, 1962: 862, 880; Monné, M.A., 1993b: 5 (cat.).

**Type-species** - *Zamodes obscurus* LeConte, 1873 (monotypy).

### 1. *Zamodes obscurus* LeConte, 1873

**Type locality** - Holotype male: United States, Pennsylvania. (MCZN). **Distribution** - United States (Pennsylvania).

*Zamodes obscurus* LeConte, 1873a: 188; Lameere, 1883: 9 (cat.); Leng, 1885b: 134, pl. 3, fig. 8; Blatchley, 1910: 1027; Kirk & Knull, 1926: 22; Linsley, 1962: 80; Chemsak, Linsley & Noguera, 1992: 37 (cat.); Monné, M.A., 1993b: 5; Yanega, 1996: 47, pl. 12, fig. 138.

## HOLOPLEURINI Chemsak & Linsley, 1974

Holopleurini Chemsak and Linsley, 1974: 183; Monné, M.A., 1994a: 50 (cat.);

Bousquet *et al.*, 2009: 48; Bouchard *et al.*, 2011: 473.

**Type genus:** *Holopleura* LeConte, 1873

**Type species:** *Holopleura marginata* LeConte, 1873 designated by Linsley (1962a: 181).

### ***Holopleura* LeConte, 1873**

*Holopleura* LeConte, 1873a: 193; 1873b: 310; LeConte & Horn, 1883: 295; Leng, 1886: 31; Bradley, 1930: 240; Linsley, 1961c: 2; 1962: 181; Arnett, 1962: 864, 882; Hatch, 1971: 106; Chemsak & Linsley, 1974a: 183; Monné, M.A., 1994a: 50 (cat.).

**Type-species** - *Holopleura marginata* LeConte, 1873 (Linsley designation, 1962: 181).

#### **1. *Holopleura marginata* LeConte, 1873**

**Type locality** - Holotype male: United States, California: Marin County. (MCZN).

**Distribution** - Canada (British Columbia) to United States (California). **Host plants** - *Umbellularia californica* (Hooker & Arnott) Nuttall (Lauraceae), *Abies bracteata* (D. Don) Poiteau, *Pseudotsuga macrocarpa* Vasey, *P. menziesii* (Mirbel) Franco, *P. mucronata* Rafinesque (Pinaceae), *Photinia arbutifolia* Lindley (Rosaceae).

*Holopleura marginata* LeConte, 1873a: 194; Lameere, 1883: 40 (cat.); Leng, 1886: 32, pl. 3, fig. 2; Essig, 1926: 458, fig. 363 (biol.); Moore, 1937: 90 (distr.); Bedard, 1938: 193 (hosts); Leech, 1945: 18 (distr.); Hardy, 1950: 85 (distr.); Leech, 1955: 40 (hosts); 1959: 44 (hosts); Linsley, 1961c: 15 (distr.); 1962a: 182, fig. 54; Hatch, 1971: 106, pl. 10, fig. 9; Penrose & Westcott, 1974: 234; Hovore & Giesbert, 1976: 354 (hosts); Deyrup, 1977: 182 (paras.); Furniss & Carolin, 1977: 300 (biol.); Cope, 1984a: 29 (hosts); Chemsak, Linsley & Noguera, 1992: 89 (cat.); Napp, 1994: 278; Monné, M.A., 1994a: 50 (cat.); Linsley & Chemsak, 1997: 382 (hosts); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 74, pl.12

*Holopleura Helena* LeConte, 1873a: 194; Lameere, 1883: 40 (cat.).

*Holopleura helena*; Fall, 1901: 145 (distr.); Garnett, 1918: 207 (distr.).

**Type locality** - Holotype: United States, California: Mariposa. (MCZN).

### **HYBODERINI Linsley 1940**

Hyboderini Linsley, 1940b: 367 (key), 371. Arnett, 1962: 860, 884; Linsley, 1963: 143; Hatch, 1971: 100; Monné, M.A., 1993f: 17 (cat.); Monné, M.A., 2005: 304 (cat.); Bousquet *et al.*, 2009: 48; Bouchard *et al.*, 2011: 474.

**Type-genus:** *Hyboderia* LeConte, 1873.

**Type-species:** *Hyboderia tuberculata* LeConte, 1873 (monotypy)

### ***Hyboderia* LeConte. 1873**

*Hyboderia* LeConte, 1873a: 191; 1873b: 306; LeConte & Horn, 1883: 291; Leng, 1886: 27; Bradley, 1930: 237; Linsley, 1940b: 372; Arnett, 1962: 866, 884; Linsley, 1963: 144; Hatch, 1971: 108; Monné, M.A., 1993f: 17

**Type-species** - *Hyboderia tuberculata* LeConte. 1873 (monotypy).

#### **1. *Hyboderia debilis* LeConte, 1874**

**Syntypes locality** - Syntypes male and female: United States, California. (MCZN).

**Distribution** - United States (Oregon and California). **Host plants** - *Lithocarpus*

*densiflora* Rehde, *Quercus agrifolia* Née, *Q. chrysolepis* Liebmann, *Q. kelloggii* Newberry, *Q. lobata* Née (Fagaceae).

*Hyboderia debilis* LeConte, 1874: 66; Lameere, 1883: 29 (cat.); Leng, 1886: 28; Fall, 1901: 145; Garnett, 1918: 206 (distr.); Leng, 1920: 275 (cat.); Van Dyke, 1925: 175 (hosts); Linsley, 1963: 144, fig. 45; Hatch, 1971: 108, pl. 11, fig. 3; Cope, 1984a: 30 (hosts); Chemsak, Linsley & Noguera, 1992: 55 (cat.); Monné, M.A., 1993f: 17 (cat.); Linsley & Chemsak, 1997: 382 (hosts).

## 2. *Hyboderia tuberculata* LeConte, 1873

**Syntypes localities** - Syntypes: United States, Oregon. Canada, British Columbia: Vancouver Island. (MCZN). **Distribution** - Pacific coast of North America from British Columbia to southern California. **Host plants** - *Acer macrophyllum* Pursh (Aceraceae), *Aesculus californica* (Spach) Nuttall (Hippocastaneaceae).

*Hyboderia tuberculata* LeConte, 1873a: 191; 1873b: 306; LeConte & Horn, 1883: 291; Lameere, 1883: 29 (cat.); Leng, 1885b: 136, pl. 3, fig. 17; 1886: 28; Garnett, 1918: 206 (distr.); Leng, 1920: 275 (cat.); Van Dyke, 1925: 175 (hosts); Hardy, 1926: 31, pl. 4, fig. 16; Beaulne, 1932: 201 (hosts); Hardy, 1944: 17 (distr.); Linsley, 1963: 145; Tyson, 1966: 204 (hosts); Hatch, 1971: 108; Cope, 1984a: 30 (hosts); Chemsak, Linsley & Noguera, 1992: 55 (cat.); Monné, M.A., 1993f: 17 (cat.); Linsley & Chemsak, 1997: 383 (hosts); Bousquet, Laplante, Hammond & Langor, 2017: 47, pl. 4.

## *Megobrium* LeConte, 1873

*Megobrium* LeConte, 1873a: 193; 1873b: 306; LeConte & Horn, 1883: 291; Leng, 1886: 27; Bradley, 1930: 237; Linsley, 1940b: 374; Arnett, 1962: 867, 884; Linsley, 1963: 149; Monné, M.A., 1993f: 18 (cat.).

**Type-species** - *Megobrium edwardsii* LeConte, 1873 (original designation).

### 1. *Megobrium edwardsii* LeConte, 1873

**Type locality** - Holotype female: United States, California: Santa Rosa Island. (MCZN). **Distribution** - Coastal southern and central California from San Diego Co. northward to Contra Costa Co. **Host plants** - *Quercus agrifolia* Née (Fagaceae), *Ceanothus* sp. (Rhamnaceae).

*Megobrium edwardsii* LeConte, 1873a: 306; 1873b: 193; LeConte & Horn, 1883: 291; Leng, 1885b: 136, pl. 3, fig. 18; Fall, 1897: 238 (distr.); 1901: 245 (distr.).

*Megobrium edwardsii*; Lameere, 1883: 29 (cat.); Leng, 1886: 29; Blaisdell, 1892: 34 (hosts).

*Megobrium edwardsii*; Beutenmuller, 1896: 75 (hosts); Leng, 1920: 275 (cat.); Moore, 1937: 90 (distr.); Linsley, 1963: 150; Chemsak, Linsley & Noguera, 1992: 55 (cat.); Monné, M.A., 1993f: 18 (cat.); Linsley & Chemsak, 1997: 396 (hosts).

*Megobrium edwardsii*; Garnett, 1918: 206 (distr.)

## *Pseudopilema* Linsley, 1940

*Pseudopilema* Linsley, 1940b: 371; Arnett, 1962: 860, 884; Linsley, 1963: 142; Hatch, 1971: 100; Monné, M.A., 1993f: 17 (cat.).

**Type-species** - *Callimus hoppingi* Van Dyke, 1920 (original designation).

### 1. *Pseudopilema hoppingi* (Van Dyke, 1920)

**Type locality** - Holotype female: United States, California: Placer County. (CASC).

**Distribution** - United States (California: Sierra Nevada and Coast Ranges from Fresno and Santa Cruz cos. northward to the Oregon border). **Host plants** - *Quercus agrifolia* Née, *Q. chrysolepis* Liebmann (Fagaceae).

*Callimus hoppingi* Van Dyke, 1920: 36

*Pseudopilema hoppingi*; Linsley, 1940b: 374; 1963: 148, fig. 47; Hatch, 1971: 109, pl. 11, fig. 5; Cope, 1984a: 33 (hosts); Chemsak, Linsley & Noguera, 1992: 56 (cat.); Monné, M. A., 1993f: 18 (cat.); Linsley & Chemsak, 1997: 426 (hosts).

#### **HYLOTRUPINI Zagajkevich, 1991**

Hylotruperini Zagajkevich, 1991: 67; Bousquet *et al.*, 2009: 53; Bouchard *et al.*, 2011: 474; Bousquet, Laplante, Hammond & Langor, 2017: 50

**Type-genus:** *Hylotrupes* Audinet-Serville, 1834.

**Type-species:** *Cerambyx bajulus* Linnaeus, 1758 (monotypy).

#### ***Hylotrupes* Audinet-Serville, 1834**

*Hylotrupes* Audinet-Serville, 1834b: 77; Mulsant, 1839: 55; LeConte, 1850b: 31; Thomson, 1861: 258; Mulsant, 1863: 104; Thomson, 1864: 266; 1865: 462; Fairmaire in Jacquelin DuVal, 1864: 136; Lacordaire, 1869: 45; Girard, 1873: 728; LeConte, 1873b: 296; LeConte & Horn, 1883: 281; Leng, 1884: 61, 98; Reitter, 1912: 41; Planet, 1924: 219; Picard, 1929: 90; Bradley, 1930: 238; Plavilstshikov, 1934: 157; Chagnon, 1938: 258; Plavilstshikov, 1940: 238; Knull, 1946: 206; Villiers, 1946: 83; Gressitt, 1951: 217; Heyrovsky, 1955: 185; Arnett, 1962: 867, 886; Chagnon & Robert, 1962: 254, 258; Linsley, 1964: 14; Monné, M.A., 2005: 42 (cat.).

**Type-species** - *Cerambyx bajulus* Linnaeus, 1758, original designation.

#### **1. *Hylotrupes bajulus* (Linnaeus, 1758)**

**Syntypes locality** – Syntypes: Europe. (LSUK). **Distribution** - Europe, North Africa, Canary Islands, Madeira, Asia Minor, Middle East (Syria, Lebanon, Israel), northern Iran, Caucasus, Siberia, China, South Africa, Madagascar, Japan, introduced into United States, southern Brazil, Argentina (Santa Fé), and Uruguay.

**Host plants** - *Conium* sp. (Apiaceae), *Alnus* sp., *Corylus* sp. (Betulaceae), *Genista* sp. (Fabaceae), *Quercus* sp. (Fagaceae), *Acacia* sp. (Mimosaceae), *Abies cilicica* Antoine & Kotschy, *A. numidica*, De Lannoy ex Carrière, *A. pinsapo* Boissier, *Picea orientalis* Carrière, *Pinus brutia* Tenore, *P. halepensis* Miller, *P. radiata* D. Don (Pinaceae), *Populus* sp. (Salicaceae), *Tamarix* sp. (Tamaricaceae).

*Cerambyx bajulus* Linnaeus 1758: 396; 1764: 76; 1767: 636.

*Callidium bajulus*; Fabricius, 1775: 187; 1793: 318; Schoenherr, 1817: 440; Harris, 1838: 95; Laporte, 1840: 454; Harris, 1841: 83.

*Callidium baiulus*; Fabricius, 1781: 236.

*Hylotrupes bajulus*; Audinet-Serville, 1834b: 77; LeConte, 1850b: 31; Bland, 1861: 95 (distr.); Thomson, 1864: 266; Burmeister, 1865: 177; Provancher, 1877: 588; Riley, 1880: 238 (hosts); Packard, 1881: 160 (biol.); Leng, 1884: 98; 1885a: pl. 1, fig. 8; Horn, 1886a: 138; Howard, 1889: 128; Hamilton, 1889: 145; Packard, 1890: 702, fig. 237; Hamilton, 1893a: 274; 1894b: 395; Beutenmuller, 1896: 74 (hosts); Wickham, 1897a: 108; Lugger, 1899: 196, fig. 118 (biol.); Ulke, 1903: 25 (distr.); Snow, 1906a: 146 (distr.); 1906b: 170 (distr.); Wickham, 1909a: 28 (distr.); Tremoleras, 1910: 29 (distr.); Blatchley, 1910: 1019; Bruch, 1912: 199 (cat.); Casey, 1912: 271; Aurivillius, 1912: 339 (cat., refs); Fisher & Kirk, 1912: 309 (distr.);

Chagnon, 1917: 230 (distr.); Nicolay, 1919: 64 (distr.); Craighead, 1923: 43 (larva); Casey, 1924: 233; Champlain, Kirk & Knull, 1925: 26 (distr.); Snyder, 1927: 34; Zwaluwenburg, 1928: 35 (paras.); Leonard, 1928: 444 (distr.); Craighead & Middleton, 1930: 12 (biol.); Beaulne, 1932: 201 (hosts); Bosq, 1934: 338 (hosts); Saalas, 1936: 96, pl. 9, figs 120, 121; Chagnon, 1938: 258; Brimley, 1938: 214; (distr.); Gemignani & Rodrigues, 1940: 370, pl. 8 (biol.); Hayward, 1941: 92 (biol.); Bosq, 1943a: 30 (hosts); Rosillo, 1944: 26 (hosts); Lepesme, 1944: 196, figs 177, 178 (biol.); Loding, 1945: 119 (distr.); Knull, 1946: 206, pl. 14, fig. 57; Prosen, 1947: 326 (distr.); Craighead, 1950: 248, figs 52A, 55B (biol.); Bosq & Ruffinelli, 1951: 14 (distr.); Duffy, 1953: 207, 214, figs 189-192 (larva, pupa, refs); Ruffinelli & Carbonell, 1953: 60 (hosts); Biezanko & Bosq, 1956: 8 (distr.); Buck, 1959: 591 (distr.); Duffy, 1960: 144, figs 82-86 (larva, pupa); Chagnon & Robert, 1962: 258; Zajciw & Ruffinelli, 1962: 44 (distr.); Linsley, 1964: 16; Santoro, 1966: 59 (hosts); Ruffinelli, 1967: 44 (hosts); Baker, 1972: 206, fig. 73 (biol.); Swan & Papp, 1972: 447, fig. 944; Gosling, 1973: 76 (distr.); Laliberte, Chantal & Larochelle, 1977: 94 (hosts); Furniss & Carolyn, 1977: 300, fig. 179 (biol.); Cannon, 1978: 38; Turnbow & Franklin, 1980: 342 (distr.); Cannon, 1980: 78; Cannon & Robinson, 1980: 39 (biol.); 1981: 458; 1982a: 739; 1982b: 173; 1983: 104; Hovore, Penrose & Neck, 1987: 305 (biol.); Chemsak, Linsley & Noguera, 1992: 62 (cat.); MacRae, 1993: 232 (distr.); Di Iorio, 1997b: 163 (hosts); Linsley & Chemsak, 1997: 383 (hosts); Monné, M.A., 2001a: 19 (cat. hosts); Di Iorio, 2004d: 672 (distr., hosts); Monné, M. A., 2005: 42 (cat.); Lingafelter, 2007: 87, 147, 2 figs, pl. 21c (hosts); McCorquodale, 2010: 468 (distr.); Pacini, 2011: 19 (distr.); Bouchard, 2014: 522; Steury & MacRae, 2014: 10 (distr.); Haack in Wang, 2017: w/page fig. 11.9 (biol., hosts); Bousquet, Laplante, Hammond & Langor, 2017: 50, pl. 5.

*Cerambyx caudatus* DeGeer, 1775: 86, fig. 22.

**Type locality** - Holotype: America septentrionalis. (NHRS).

*Callidium Linnelanum* Laicharting, 1784: 69.

**Type locality** - Holotype: Austria, Tyrol. (NHMI).

*Leptura quadripunctata* Geoffroy, 1785: 82.

**Syntypes locality** - Syntypes: France, Seine: Paris. (MNHN).

*Cerambyx similis* Marsham, 1802: 335.

**Syntypes locality** - Syntypes: Britannia. (BMNH).

*Hylotrupes baiulus* var. *bullatus* Haldeman, 1847a: 36.

*Hylotrupes bullatus*; LeConte, 1850b: 31.

**Type locality** - Holotype female: United States, New York. (MCZN).

*Hylotrupes bullatus* var. *lividus* Mulsant, 1839: 56

**Type locality** - Holotype: France (MNHN).

*Hylotrupes Koziorowiczi* Desbrochers, 1873: 429.

**Type locality** - Holotype: France, Corsica: Ajaccio (MNHN).

*Callidium asaemoides* Pascoe, 1863: 563

**Type locality** - Holotype: Australia. South Australia, Adelaide. (BMNH).

*Hylotrupes inaequalis* Casey, 1924: 233; Lingafelter *et al.*, 2014: 79, figs 85s, t (lect. designation).

**Type locality** - Lectotype male: United States, District of Columbia. (USNM).

*Hylotrupes latus* Casey, 1924: 233; Lingafelter *et al.*, 2014: 87, figs 96e, f (holotype).

**Type locality** - Holotype female: United States, Rhode Island. (USNM).

*Hylotrupes nematocerus* Casey, 1924: 234; Lingafelter *et al.*, 2014: 104, figs 115k, l (holotype).

**Type locality** - Holotype female: United States, Indiana ?. (USNM).

*Hylotrupes puncticollis* Casey, 1924: 234; Lingafelter *et al.*, 2014: 306, figs 139s, t (holotype).

**Type locality** – Holotype female: United States, Maryland: Point Lookout. (USNM).

*Hylotrupes incertus* Casey, 1924: 234; Lingafelter *et al.*, 2014: 79, figs 86i, j (holotype).

**Type locality** – Holotype male: United States, New Jersey. (USNM).

*Hylotrupes pedicellatus* Casey, 1924: 235; Lingafelter *et al.*, 2014: 296, figs 129c, d (holotype).

**Type locality** – Holotype male: United States, Virginia: Norfolk. (USNM).

*Hylotrupes minutus* Casey, 1924: 235; Capra, 1927: 132 (syn.); Lingafelter *et al.*, 2014: 100, figs 110u, v (holotype).

**Type locality** – Holotype male: Central Europe. (USNM).

### **LISSONOTINI Swainson, 1840**

Lissonotinae Swainson, 1840: 289, 291; Bates, 1870: 436.

Lissonotitae Thomson, 1861: 212; 1864: 206.

Lissonotides; Lacordaire, 1869: 208.

Lissonotini; Aurivillius, 1912: 483 (cat.); Bradley, 1930: 230; Linsley, 1962a: 185; Arnett, 1962: 860, 882; Fragoso, Monné, M.A. & Seabra, 1987: 195; Monné, M.A., 1994a: 50 (cat.); Monné, M.A., 2005: 389 (cat.); Bousquet *et al.*, 2009: 49; Bouchard *et al.*, 2011: 474.

**Type-genus:** *Lissonotus* Dalman, 1817.

**Type-species:** *Lissonotus biguttatus* Dalman, 1817 designated by Thomson (1864: 207).

### ***Lissonotus* Dalman, 1817**

*Lissonotus* Dalman in Schoenherr, 1817: 364; Germar, 1823: 500; Latreille in Cuvier, 1829: 111; Gray in Griffith & Pidgeon, 1832: 101; Audinet-Serville, 1834b: 56; Dupont, 1836: 6; 1838: viii, pl. 221, fig. 2; 1838: vii; Laporte, 1840: 415; Gistel, 1848b: 130; Strauch, 1861: 126; Thomson, 1861: 208; 1864: 207; 1865: 433; Lacordaire, 1869: 209; Chenu, 1870: 310; Bates, 1870: 436; LeConte, 1873b: 313; LeConte & Horn, 1883: 298; Leng, 1886: 60; Bradley, 1930: 230; Linsley, 1962a: 185; Arnett, 1962: 860, 882; Monné, M. A., 2005: 389 (cat.); Monné, M. A., 2012: 33.

*Lissonotus* (*Lissonotus*); Laporte, 1840: 415.

**Type-species** - *Lissonotus biguttatus* Dalman, 1817 (subsequent designation, Thomson, 1864: 207).

#### **1. *Lissonotus flavocinctus puncticollis* Bates, 1885**

**Type locality** – Holotype: Mexico, Baja California: Cabo San Lucas. (BMNH).

**Distribution** - United States (California, Texas), Mexico (Baja California, Sonora, Puebla, Tamaulipas). **Host plants** - *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Benth (Mimosaceae).

*Lissonotus multifasciatus* var. *puncticollis* Bates, 1885: 333.

*Lissonotus flavocinctus* var. *puncticollis*; Aurivillius, 1912: 484 (cat.); Duffy, 1960: 109 (hosts).

*Lissonotus flavocinctus puncticollis*; Linsley, 1942: 64; Vogt, 1949: 178 (distr., hosts); Linsley, 1962a: 186, fig. 56; Hovore, 1988: 28 (distr.); Linsley & Chemsak, 1997: 393 (hosts); Monné, M.A., 2001b: 28 (cat. hosts); Monné, M.A., 2005: 391 (cat.);



Noguera *et al.*, 2009: 88 (distr.); García Morales *et al.*, 2015: 104 (distr.); Amith & Lingafelter, 2017: 308 (distr.); Heffern, Vlasak & Alten, 2018: 744 (hosts).  
*Lissonotus multifasciatus*; Leng, 1886: 62, pl. 3, fig. 7; Horn, 1894: 338 (distr.); Fall, 1901: 145 (distr.); Grossbeck, 1912: 325 (distr.); Garnett, 1918: 207 (distr.).  
*Lissonotus lucanus* Casey, 1912: 317; Lingafelter *et al.*, 2014: 92, figs 102a, b (holotype).  
**Type locality** – Holotype female: Mexico, Baja California: San José del Cabo. (USNM).

### **METHIINI Thomson, 1860**

Methiitae Thomson, 1860: 5 (key), 127, 128; 1861: 364.  
 Methitae; Thomson, 1864: 92; 1865: 387.  
 Méthiides; Lacordaire, 1872: 465.  
 Methiini; LeConte, 1873b: 347; LeConte & Horn, 1883: 333; Craighead, 1923: 38; Linsley, 1932: 120; 1940c: 29; 1962a: 13; Chemsak & Linsley, 1964b: 40; Martins, Chemsak & Linsley, 1966: 197; Chemsak & Linsley, 1967a: 28; Gilmour, 1968: 88; Villiers, 1980b: 266; Martins & Carvalho, 1984: 214; Monné, M.A., 1993a: 23 (cat.); Browne, Peck & Ivie, 1993: 41; Martins & Galileo, 1997a: 159 (rev.); Philips & Ivie, 1998: 58 (rev.); Martins & Galileo, 2004b: 101; Monné, M.A., 2005: 393 (cat.); Bousquet *et al.*, 2009: 50; Bouchard *et al.*, 2011: 475.  
**Type-genus**: *Methia* Newman, 1842 (replacement name for *Thia* Newman, 1840).  
**Type-species**: *Thia pusilla* Newman, 1840 (monotypy).

### ***Coleomethia* Linsley, 1940**

*Coleomethia* Linsley, 1940c: 32; Linsley, 1962a: 44; Martins, Chemsak & Linsley, 1966: 204; Chemsak & Linsley, 1967a: 29 (key); Gilmour, 1968: 89; Martins & Carvalho, 1984: 215; Hovore, 1987a: 6 (rev.); Philips & Ivie, 1998: 60, 82; Monné, M.A., 2005: 393 (cat.); Monné, M.A., 2012: 33.  
**Type species** - *Methia evaniformis* Knull, 1937 (original designation) [= *Methia xanthocollis* Knull, 1935].

#### **1. *Coleomethia xanthocollis* (Knull, 1935)**

**Type locality** - Holotype male: United States, Texas: Davis Mountains. (Ohio State University, Columbus). **Distribution** - United States, Texas (Davis and Chisos Mts.). **Host plants** - *Quercus* sp. (Fagaceae).  
*Methia xanthocollis* Knull, 1935a: 98; Linsley, 1962a: 33.  
*Coleomethia xanthocollis*; Hovore, 1987: 8 (syn.); Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 1993a: 29 (cat.); Philips & Ivie, 1987: 82, figs 81-83, 86, 87, 99.  
*Methia evaniformis* Knull, 1937b: 306, pl. 1, fig. 3; Chemsak, 1977a: 176 (types).  
**Type locality** - Holotype female: United States, Texas: Davis Mts, (FMNH).  
*Coleomethia evaniformis*; Linsley, 1940c: 32; 1959: 126; 1962: 33; Martins, Chemsak & Linsley, 1966: 205; Linsley & Chemsak 1997: 256 (hosts); Van Pelt, 2002: 128.

### ***Methia* Newman, 1842**

*Methia* Newman, 1842c: 418; LeConte, 1852: 144; Thomson, 1860: 128; 1861: 364; 1864: 92; 1865: 387; Lacordaire, 1872: 466; LeConte, 1873b: 348; LeConte &

Horn, 1883: 334; Melzer, 1923a: 3; Linsley, 1932: 121; 1940c: 36; Linsley, 1962a: 25; Chemsak & Linsley, 1964b: 52 (key spp.); Martins, Chemsak & Linsley, 1966: 205; Chemsak & Linsley, 1967a: 30 (key); Gilmour, 1968: 90, 92 (key spp.); Zayas, 1975: 52; Villiers, 1980b: 268; Martins & Carvalho, 1984: 215; Browne, Peck & Ivie, 1993: 41; Martins & Galileo, 1997a: 165 (rev.); Philips & Ivie, 1998: 63 (rev.); Monné, M.A., 2005: 394 (cat.); Monné, M.A., 2012: 33.

**Type-species** - *Thia pusilla* Newman, 1840 (monotypy).

*Thia* Newman, 1840b: 18.

*Tessaropa* Haldeman, 1847b: 375; Casey, 1914: 371; Linsley, 1932: 120; 1940c: 30; Zajciw, 1957: 304 (key); Linsley, 1962a: 37; Martins, Chemsak & Linsley, 1966: 203; Chemsak & Linsley, 1967a: 29 (key); Gilmour, 1968: 90 (key); Zayas, 1975: 54; Martins & Carvalho, 1984: 215; Martins & Galileo, 1997a: 172 (rev.); Philips & Ivie, 1998: 81; Monné, M.A., 2005: 400 (cat.); Monné, M.A., 2012: 34.

**Type-species** - *Molorchus tenuipes* Haldeman, 1846 (subsequent designation, Thomson, 1864: 93).

*Dysphaga* LeConte, 1852: 143; Thomson, 1860: 128; 1864: 93; 1865: 387; Lacordaire, 1872: 467; LeConte, 1873b: 348; LeConte & Horn, 1883: 334; Leng & Hamilton, 1896: 162.

**Type-species** - *Molorchus tenuipes* Haldeman, 1846 (subsequent designation, Thomson, 1864: 93).

*Tessaroptes* Gemminger & Harold, 1873: 3063 (cat., emend.).

*Staphylinoeme* Gounelle, 1913: 197.

**Type-species** - *Staphylinoeme tubuliventris* Gounelle, 1913 (monotypy).

### 1. *Methia acostata* Linsley, 1940

**Type locality** - Holotype male: United States, Arizona. (FMNH). **Distribution** - United States (Arizona).

*Methia acostata* Linsley, 1940a: 287; 1962: 35; Chemsak, 1977a: 176 (types); Lewis, 1979: 23; Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 1993a: 23 (cat.).

### 2. *Methia aestiva* Fall, 1907

**Syntypes locality** - Syntypes male and female: United States, California: Pasadena. (MCZN). **Distribution** - United States (Central and southern California). **Host plants** - *Quercus agrifolia* Née (Fagaceae).

*Methia aestiva* Fall, 1907: 86; Garnett, 1918: 284 (distr.); Moore, 1937: 87; Linsley, 1962a: 29 (syn.); Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 1993a: 23 (cat.); Linsley & Chemsak, 1997: 397 (hosts).

*Methia mormona*; Fall 1901: 151 (not Linell, 1898).

*Methia fragilis* Linsley, 1932: 121

**Type locality** - Holotype male: United States, California: Orange County, Santa Ana Canyon. (CASC).

### 3. *Methia arizonica* Schaeffer, 1908

**Syntypes locality** - Syntype female: United States, Arizona: Rincon Mountains. (USNM). **Distribution** - Eastern and southern Arizona. **Host plants** - *Olneya tesota* A. Gray (Fabaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Methia arizonica* Schaeffer, 1908: 352; Linsley, 1936b: 199 (hosts); 1962: 30; Cope, 1984a: 30 (hosts); Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné,

M.A., 1993a: 24 (cat.); Linsley & Chemsak, 1997: 397 (hosts); Lingafelter *et al.*, 2014: 19, fig. 19w (syntype).

#### 4. *Methia bicolor* (Horn, 1885)

**Type locality** – Holotype: United States, Texas.(ANSP). **Distribution** - United States, Texas.

*Dysphaga bicolor* Horn, 1885a: 196; 1895: 247; Leng & Hamilton, 1896: 164.

*Tessaropa bicolor*; Aurivillius, 1912: 39 (cat.).

*Methia bicolor*; Linsley, 1940c: 31; 1962: 33; Hovore, 1987: 14; Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 1993a: 24 (cat.).

#### 5. *Methia brevis* Fall, 1929

**Type locality** - Holotype male: United States, California: San Diego Co. (MCZN).

**Distribution** - United States (western Arizona to southern California), Mexico (northern Baja California). **Host plants** - *Bernardia myricaefolia* Bentham & Hooker f. (Euphorbiaceae), *Dalea fremontii* Torrey ex A. Gray (Fabaceae).

*Methia brevis* Fall, 1929: 58; Linsley, 1934b: 59; 1942: 29; 1962a: 32; Chemsak & Linsley, 1964b: 60; Gilmour, 1968: 97; Cope, 1984a: 31 (hosts); Chemsak, Linsley & Noguera, 1992: 27 (cat.); Noguera & Chemsak, 1996: 396 (cat.); Linsley & Chemsak, 1997: 397 (hosts); Monné, M.A., 2001b: 29 (cat. hosts); Monné, M.A., 2005: 395 (cat.); Swift, 2008a: 3 (distr., hosts).

#### 6. *Methia carinata* Linsley, 1940

**Type locality** - Holotype female: United States, Arizona: Hualpai. (FMNH).

**Distribution** - United States (Arizona).

*Methia carinata* Linsley, 1940b: 289; 1962a: 27; Chemsak, 1977a: 176 (types); Lewis, 1979: 22 (distr.); Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 1993a: 24 (cat.).

#### 7. *Methia curvipennis* Chemsak & Linsley, 1965

**Type locality** - Holotype male: United States, California: Riverside County, Deep Canyon. (CASC). **Distribution** - United States (California). **Host plants** - *Prunus fremonti* Watson (Rosaceae).

*Methia curvipennis* Chemsak & Linsley, 1965a: 143; Cope, 1984a: 31 (hosts); Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 1993a: 25 (cat.).

#### 8. *Methia dubia* Linsley, 1940

**Type locality** - Holotype male: United States, Arizona: Wickenburg. (FMNH).

**Distribution** - United States (Arizona).

*Methia dubia* Linsley, 1940b: 286; 1962: 34; Chemsak, 1977a: 176; Lewis, 1979: 22 (distr.); Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 1993a: 25 (cat.).

#### 9. *Methia falli* Martin, 1920

**Type locality** - Holotype male: United States, California: Desert side of the San Bernardino Mts., near Hesperia at the junction of Deep Creek with the Mojave River. (CASC). **Distribution** - United States (California).

*Methia falli* Martin, 1920: 215; Linsley, 1962a: 28; Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 1993a: 25 (cat.).

**10. *Methia flavicornis* Casey, 1924**

**Type locality** - Holotype: United States, Arizona: near Tucson. (USNM).

**Distribution** - United States (Arizona).

*Methia flavicornis* Casey, 1924: 257; Linsley, Knull & Statham, 1961: 9 (distr.); Linsley, 1962a: 31; Lewis, 1979: 22 (distr.); Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 1993a: 25 (cat.); Lingafelter *et al.*, 2014: 63, fig. 67u (holotype).

**11. *Methia juniperi* Linsley, 1937**

**Type locality** - Holotype male: United States, California: Palmdale, Mojave Desert. (CASC). **Distribution** - United States, California: southern margins of the Mojave Desert. **Host plants** - *Juniperus californica* Afonso-Carrillo (Cupressaceae).

*Methia juniperi* Linsley, 1937: 64; Keen, 1952: 47 (hosts); Linsley, 1962a: 35; Chemsak, Linsley & Noguera, 1992: 28 (cat.); Monné, M.A., 1993a: 26 (cat.); Linsley & Chemsak, 1997: 397 (hosts).

**12. *Methia knulli* Linsley, 1940**

**Type locality** - Holotype female: United States, Arizona: Hualpai. (FMNH).

**Distribution** - United States (Arizona).

*Methia knulli* Linsley, 1940b: 288; 1962: 34; Chemsak, 1977a: 176 (type); Lewis, 1979: 22 (distr.); Chemsak, Linsley & Noguera, 1992: 28 (cat.); Monné, M.A., 1993a: 26 (cat.).

**13. *Methia lata* Knull, 1958**

**Type locality** - Holotype female: United States, Texas: Chisos Mountains. (FMNH).

**Distribution** - United States (Texas, Arizona).

*Methia lata* Knull, 1958b: 282; Linsley, 1962a: 30; Chemsak, 1977a: 176 (types); Lewis, 1979: 22 (distr.); Chemsak, Linsley & Noguera, 1992: 28 (cat.); Monné, M.A., 1993: 26 (cat.); Van Pelt, 2002: 128.

**14. *Methia mormona* Linell, 1897**

**Type locality** - Holotype: United States, Utah: Salt Lake City. (USNM).

**Distribution** - United States (Colorado and Utah to New Mexico and southern Arizona), Mexico (Chihuahua). **Host plants** - *Berberis harrisoniana* Kearney & Peebles (Berberidaceae), *Juniperus deppeana* Steudel (Cupressaceae), *Juglans major* A.A. Heller (Juglandaceae), *Salix* sp. (Salicaceae).

*Methia mormona* Linell, 1897: 399; Schaeffer, 1908: 331; Linsley, 1937: 64; 1962a: 29, fig. 15; Chemsak & Linsley, 1964b: 55; Gilmour, 1968: 95; Cope, 1984a: 31 (hosts); Chemsak, Linsley & Noguera, 1992: 28 (cat.); Noguera & Chemsak, 1996: 396 (cat.); Linsley & Chemsak, 1997: 397 (hosts); Heffern, 1998: 12 (distr.); Monné, M.A., 2001b: 29 (cat. hosts); Monné, M.A., 2005: 396 (cat.); Lingafelter *et al.*, 2014: 361 (holotype presumed lost).

*Methia mormonica*; Casey, 1924: 257 (error).

*Methia delicata* Casey, 1924: 257; Lingafelter *et al.*, 2014: 51, figs 54m, n (holotype).

**Type locality** - Holotype: United States, Utah: Parowan. (USNM).

**15. *Methia necydalea* (Fabricius, 1787)**

**Syntypes locality** - Syntypes: "America Meridionali Insulae St. Thomas". (ZMUC).

**Distribution** - United States, Mexico (Nuevo León, Tamaulipas, San Luis Potosí, Oaxaca, Chiapas, Quintana Roo, Campeche), Belize, Puerto Rico, Cuba, Bahamas,

Haiti, Dominican Republic, Cayman Islands, Virgin Islands, Lesser Antilles, Grenada, St. Barthélemy, St. Martin, Antigua, St. Lucia, St. Vincent, Désirade, Dominica, Les Saintes, Nevis, Marie Galante, Guadeloupe, Martinique, Barbados, Guana, Mona, Montserrat, Saba, St. Croix, St. Eustache, St. Johns, St. Kitts, St. Thomas, Union. **Host plants** - *Amyris* sp. (Burseraceae), *Celtis lindheimeri* Engelm., *C. pallida* Torrey (Cannabaceae), *Conocarpus erectus* Linnaeus, *Laguncularia racemosa* (Linnaeus) Gaertner f. (Combretaceae), *Sloanea massoni* Swartz (Elaeocarpaceae), *Quercus phellos* Linnaeus, *Q. virginiana* Miller (Fagaceae), *Inga fagifolia* Willdenow ex Benth., *I. ingoides* Willdenow, *I. laurina* Willdenow, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Eugenia* sp. (Myrtaceae), *Rhizophora mangle* Linnaeus (Rhizophoraceae), *Zanthoxylum fagara* (Linnaeus) Sargent (Rutaceae), *Taxodium distichum* (Linnaeus) Richard (Taxodiaceae), *Avicennia germinans* (Linnaeus) Stearn (Verbenaceae).

*Saperda necydalea* Fabricius, 1798: 148.

*Saperda necydalina*; Fabricius, 1801: 332; Schoenherr, 1817: 439 (unjustified emendation).

*Methia necydalea*; Gahan, 1895: 122; Leng & Mutchler, 1914: 444 (distr.); Wolcott, 1924: 109; Gowdey, 1926: 21 (distr.); Wolcott, 1936: 259 (hosts); 1941: 98; 1948: 334; Beatty, 1944: 141 (distr.); Ramos, 1946: 41 (distr.); Cazier & Lacey, 1952: 46, fig. 13; Linsley, 1962a: 37; Gilmour, 1963: 96; 1968: 97; Chemsak & Linsley, 1964c: 159; Chemsak, 1966a: 211; 1967b: 182 (distr.); 1969a: 186 (distr.); Zayas, 1975: 52; Villiers, 1980a: 130; 1980b: 269, fig. 24-28; Chemsak, Linsley & Noguera, 1992: 28 (cat.); Browne, Peck & Ivie, 1993: 41 (distr.); Philips & Ivie, 1998: 72, figs 1-6, 15-22, 25-30, 33-36, 39-55, 58-71, 92, 97 (syn.); Monné, M.A., 2001b: 29 (cat. hosts); Vitali & Rezbanyai-Reser, 2003: 6, figs 4 a-b; Lingafelter & Micheli, 2004: 50 (distr.); Monné, M.A., 2005: 396 (cat.); Chalumeau & Touroult, 2005: 71, fig. 23; Peck, 2005: 167 (distr.); 2006a: 191 (distr.); Lingafelter, 2007: 40, 147, 2 figs, pl. 10h; Touroult, 2007: 6 (distr.); Perez-Gelabert, 2008: 119 (distr.); Ivie *et al.*, 2008: 257 (distr.); Turnbow & Thomas, 2008: 20 (distr.); Fernández García, Favila Castillo & López Iborra 2009: 322 (distr.); Peck, 2009: 20 (distr.); 2010: 50 (distr.); 2011a: 35 (distr., hosts); 2011b: 33 (distr., hosts); Micheli, 2010: 128, pl. 34; Thomas, Turnbow & Steiner, 2013: 19 (distr.); Peck, Thomas & Turnbow, 2014: 91 (distr.); Devesa, Fonseca & Barro, 2015: 30, 104, figs 11; Peck, 2016: 172, pl. 45 (distr., hosts).

*Thia pusilla* Newman, 1840b: 18; LeConte, 1878b: 470 (distr.); Philips & Ivie, 1998: 72 (lect.).

*Methia pusilla*; Newman, 1842c: 418; LeConte, 1852: 144; White, 1855: 243; Chevrolat, 1862a: 256; Thomson, 1864: 92; Lacordaire, 1872: 467; LeConte, 1873b: 348; Horn, 1885b: 6; Schwarz, 1888: 93 (hosts); Fleutiaux & Sallé, 1889: 468; Gundlach, 1891: 218; Leng & Hamilton, 1896: 162; Craighead, 1923: 41 (larva); Linsley, 1940c: 37; Cazier & Lacey, 1952: 46; Linsley, 1962a: 36, fig. 15; Gilmour, 1968: 94; Turnbow & Wappes, 1978: 367 (distr.); Turnbow & Hovore, 1979: 220 (distr.); Turnbow & Franklin, 1980: 341; Turnbow & Wappes, 1981: 75; Chemsak, Linsley & Noguera, 1992: 28 (cat.); Touroult, 2004: 130 (hosts); Dalens & Touroult, 2007: 291 (distr.).

**Type locality** – Lectotype male: United States, East Florida. (BMNH).

*Methia punctata* LeConte, 1873a: 240; Lameere, 1883: 57 (cat.); Gundlach, 1894: 327; Leng & Hamilton, 1896: 163; Leng & Mutchler, 1914: 444 (distr.); Wolcott, 1924: 109; 1948: 334; Gilmour, 1968: 99; Zayas, 1975: 53; Philips & Ivie, 1998: 72 (lect.).

**Type locality** – Lectotype male: Cuba, San Domingo. (IESC).

*Methia constricticollis* Schaeffer, 1908: 351; Linsley, 1962a: 31; Chemsak & Linsley, 1964b: 57 (distr.); 1964c: 160 (distr.); Gilmour, 1968: 96; Turnbow & Wappes, 1978: 367 (hosts); Hovore, Penrose & Neck, 1987: 395; Chemsak & Feller, 1988: 181; Chemsak, Linsley & Noguera, 1992: 27 (cat.); Noguera & Chemsak, 1996: 396 (cat.); Linsley & Chemsak, 1997: 397 (hosts); Ruíz Cancino & Coronado Blanco, 2002: 103 (distr.); Lingafelter *et al.*, 2014: 45, figs 47m, n (holotype); García Morales *et al.*, 2015: 104 (distr.).

**Type locality** - Holotype: United States, Texas: Brownsville. (USNM).

*Methia pallida* Fisher, 1932: 6; Gilmour, 1968: 94; Chemsak, Linsley & Noguera, 1992: 28 (cat.); Lingafelter *et al.*, 2014: 294, figs 126k, l (holotype).

**Type locality** - Holotype male: Haiti, Port-au-Prince. (USNM).

*Methia pulchra* Chemsak & Linsley, 1964c: 159; Gilmour, 1968: 96; Chemsak, Linsley & Noguera, 1992: 28 (cat.); Noguera & Chemsak, 1996: 396 (cat.); Lingafelter *et al.*, 2014: 305, figs 138u, v (holotype).

**Type locality** - Holotype female: Mexico, Quintana Roo: Isla Cozumel. (USNM).

*Methia insularum* Chemsak, 1966a: 210; Gilmour, 1968: 97; Chemsak, Linsley & Noguera, 1992: 28 (cat.); Lingafelter *et al.*, 2014: 81, figs 88w, x (holotype).

**Type locality** - Holotype male: Virgin Islands, Virgin Gorda: Prickly Pear Isl. (Vixen Point). (USNM).

*Methia impressicollis* Chemsak, 1966a: 211; Gilmour, 1968: 96; Chemsak, Linsley & Noguera, 1992: 28 (cat.); Lingafelter *et al.*, 2014: 79, figs 85q, r (holotype).

**Type locality** - Holotype female: Virgin Islands, Jost Van Dyke, Little Harbor. (USNM).

*Methia rhizophorae* Chemsak & Feller, 1988: 181; Chemsak, Linsley & Noguera, 1992: 28 (cat.); Lingafelter *et al.*, 2014: 309, figs 143m, n (holotype).

**Type locality** - Holotype female: Belize, Twin Cays. (USNM).

#### 16. *Methia robusta* Linsley, 1940

**Type locality** - Holotype male; United States, California: Claremont. (CASC).

**Distribution** - United States (Southern California).

*Methia robusta* Linsley, 1940b: 285; 1962: 32; Chemsak, Linsley & Noguera, 1992: 28 (cat.); Monné, M.A., 1993a: 28 (cat.).

#### 17. *Methia tenuipes* (Haldeman, 1845)

**Type locality** - Holotype female: United States, Pennsylvania. (MCZN).

**Distribution** - Eastern North America: New York to Georgia, Illinois and eastern Texas. **Host plants** - *Ostrya virginiana* (Miller) K. Koch (Betulaceae), *Cercis canadensis* Linné (Caesalpiniaceae), *Diospyros virginiana* Linné (Ebenaceae), *Castanea dentata* (Marshall) Borkhausen, *Fagus grandifolia* Ehrhart, *Quercus alba* Linné (Fagaceae), *Hamamelis virginiana* Linné (Hamamelidaceae), *Carya tomentosa* Nuttall, *Juglans nigra* Linné (Juglandaceae), *Prunus* sp. (Rosaceae).

*Molorchus tenuipes* Haldeman, 1845: 126.

*Dysphaga tenuipes* LeConte, 1852: 143 (hosts); Thomson, 1860: 128; 1864: 93; Le Conte, 1880a: 237 (hosts); Riley, 1880: 271 (biol.); Packard, 1881: 72 (biol.); LeConte & Horn, 1883: 334; Lugger, 1884: 204 (hosts); Packard, 1890: 291; Chittenden, 1894: 101 (hosts); Horn, 1895: 247; Leng & Hamilton, 1896: 163; Beutenmuller, 1896: 81 (hosts); Smith, 1900: 298 (distr.); Ulke, 1903: 27, 51 (distr.); Girault, 1904: 299 (biol.); Fisher & Kirk, 1912: 316 (distr.); Craighead, 1923: 40 (larva); Knull, 1932: 62 (biol.).

*Tessaropa tenuipes*; Melsheimer, 1853: 107 (cat.); Kirk & Knull, 1926: 22 (distr.); Leonard, 1928: 434 (distr.); Barrett, 1932: 291 (hosts); Linsley, 1940c: 31 (rev.); Knull, 1946: 189, pl. 10, fig. 39; Sherman, 1946: 126 (distr.); Linsley, 1962a: 37, figs 13, 15; Peck, 1963: 955 (paras.); Turnbow & Franklin, 1980: 341 (distr.); Arnett, 1985: 361, fig. 24.180; Chemsak, Linsley & Noguera, 1992: 29 (cat.); MacRae, 1993: 228 (distr.); Monné, M.A., 1993a: 32 (cat.); Lingafelter & Horner, 1993: 165 (distr.); Yanega, 1996: 45, pl. 15, fig. 174; Linsley & Chemsak, 1997: 441 (hosts); Schiefer, 1998: 116 (distr.); Philips & Ivie, 1998: 82, figs 72-74, 88-90, 98; MacRae & Rice, 2007: 244 (distr.); Lingafelter, 2007: 40, 150, 2 figs, pl. 10f (hosts); Holt, 2013: 249 (distr., hosts); Vlasák, 2014: 318 (hosts); Steury & MacRae, 2014: 11 (distr.); Haack, 2017: 110 (biol.); Heffern, Vlasak & Alten, 2018: 746 (hosts)

*Methia tenuipes*; Bezark & Santos-Silva, 2019: 73.

*Tessaroptes tenuipes*; Gemminger & Harold, 1873: 3063 (cat.).

*Tessaropa ventralis* Haldeman, 1847c: 375; Melsheimer, 1853: 107 (cat.).

*Dysphaga ventralis*; LeConte, 1852: 144; Thomson, 1860: 128; Lacordaire, 1868: 467.

*Tessaroptes ventralis*; Gemminger & Harold, 1873: 3063 (cat.).

**Type locality** - Holotype male: United States, Pennsylvania. (MCZN).

*Dysphaga laevis* LeConte, 1873a: 140; 1873b: 348; LeConte & Horn, 1883: 334; Horn, 1885a: 197; Horn, 1895: 247; Leng & Hamilton, 1896: 163; Ulke, 1903: 27, 51 (distr.); Blatchley, 1910: 1095.

*Tessaroptes laevis*; Lameere, 1883: 53 (cat.).

**Type locality** - Holotype female: United States, Illinois. (MCZN).

*Tessaropa apicalis* Casey, 1914: 371; Lingafelter *et al.*, 2014: 18, fig. 18A (holotype).

**Type locality** - Holotype male: United States, Pennsylvania: Harrisburg. (USNM).

### ***Styloxus* LeConte, 1873**

*Styloxus* LeConte, 1873a: 239; 1873b: 348; LeConte & Horn, 1883: 334; Linsley, 1932: 122 (syn.); 1940c: 34; 1962a: 39; Zajciw, 1957: 305 (key); Chemsak & Linsley, 1964b: 47 (key); Martins, Chemsak & Linsley, 1966: 205; Chemsak & Linsley, 1967a: 31; Gilmour, 1968: 89 (key); Martins & Carvalho, 1984: 215; Monné, M. A., 2005: 399 (cat.); Monné, M.A., 2012: 33.

**Type-species** - *Styloxus lucanus* LeConte, 1873 (monotypy).

*Idoemea* Horn, 1880a: 137; LeConte & Horn, 1883: 334.

**Type-species** - *Idoemea fulleri* Horn, 1880 (monotypy).

*Malthopia* Casey, 1912: 308.

*Malthopia*; Casey, 1918: 415. (error).

**Type-species** - *Malthopia oculata* Casey, 1912 (original designation).

### **1. *Styloxus bicolor* (Champlain & Knull, 1922)**

**Type locality** - Holotype: United States, New Mexico: Jemez Springs. (FMNH).

**Distribution** - Southwestern United States from New Mexico to California. **Host plants** - *Cupressus arizonica* Greene, *Juniperus californica* Afonso-Carrillo, *J. deppeana* Steudel (Cupressaceae).

*Idoemea bicolor* Champlain & Knull, 1922: 145; Chemsak, 1977a: 175 (type).

*Styloxus bicolor*; Linsley, 1932: 122 (syn.); 1936: 199 (hosts); Keen, 1952: 47 (hosts); Linsley, Knull & Statham, 1961: 11 (biol.); Linsley, 1962a: 41; Furniss & Carolin, 1977: 306, fig. 185 (biol.); Lewis, 1979: 23 (distr.); Itami & Craig, 1989: 582 (biol.); Chemsak, Linsley & Noguera, 1992: 29 (cat.); Monné, M. A., 1993: 30

(cat.); Linsley & Chemsak, 1977a: 440 (hosts); Philips & Ivie, 1998: 82, figs 75-77, 84, 85, 94, 95 (morphol.); Vlasák, 2004: 318 (hosts); Haack, Keena & Eyre, 2017: 89 (biol).

*Styloxus ruficeps* Van Dyke, 1927: 100

**Type locality** - Holotype male: United States, Arizona: Mount Washington, near Nogales. (CACs).

## 2. *Styloxus fulleri fulleri* (Horn, 1880)

**Type locality** - Holotype male: United States, Texas. (ANSP). **Distribution** - Texas to southern California & Oregon. **Host plants** - *Celtis reticulata* Torrey (Cannabaceae).

*Idoemea Fulleri* Horn, 1880a: 138, pl. 2, fig. 10; Lameere, 1883: 53 (cat.);

*Idoemea fulleri*; Leng & Hamilton, 1896: 162; Garnett, 1918: 284 (distr.); Loding, 1945: 114 (distr.).

*Styloxus fulleri*; Linsley, 1932: 122; 1962: 40; Chemsak & Linsley, 1964b: 49; Furniss & Carolin, 1977: 306 (hosts); Chemsak, Linsley & Noguera, 1992: 29 (cat.); Philips & Ivie, 1998: 82

*Styloxus fulleri fulleri*; Linsley, 1962a: 40, fig. 15; Hovore, Penrose & Neck, 1987: 295 (distr.); Monné, M.A., 1993: 30 (cat.); MacRae & Rice, 2007: 244 (distr., hosts)

*Idoemea texana* Schaeffer, 1908: 351; Lingafelter *et al.*, 2014: 332, fig. 169u (holotype).

*Styloxus texanus*; Linsley, 1932: 122

**Type locality** - Holotype male: United States, Texas: Burnett County. (USNM).

### 2a. *Styloxus fulleri californicus* (Fall, 1901)

**Syntypes locality** - Syntypes: United States, California: Pasadena. (MCZN).

**Distribution** - United States (California), Mexico (Baja California Norte). **Host plants** - *Quercus agrifolia* Née (Fagaceae).

*Idoemea californica* Fall, 1901: 256; Van Dyke, 1927: 101 (syn.).

*Styloxus californicus*; Linsley, 1932: 122; 1936b: 199 (hosts).

*Styloxus fulleri californicus*; Linsley, 1962a: 40, fig. 15; Chemsak, Linsley & Noguera, 1992: 29 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 440 (hosts); Monné, M.A., 2001b: 30 (cat. hosts); Monné, M.A., 2005: 399 (cat.).

*Malthopia oculata* Casey, 1912: 309; Lingafelter *et al.*, 2014: 291, figs 122u, v (holotype).

**Type locality** - Holotype male: United States, California: San Diego. (USNM).

### 3. *Styloxus oblatipilis* Chemsak & Linsley, 1964

**Type locality** - Holotype male: Mexico, Tamaulipas: Villagran. (CASC).

**Distribution** - United States (Texas), Mexico (Tamaulipas).

*Styloxus oblatipilus* Chemsak & Linsley, 1964b: 50.

*Styloxus oblatipilis*; Chemsak & Linsley, 1964c: 160; Chemsak, Linsley & Noguera, 1992: 29 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Heffern, 2001: 94 (distr.); Ruíz Cancino & Coronado Blanco, 2002: 104 (distr.); Monné, M.A., 2005: 399 (cat.); García Morales *et al.*, 2015: 104 (distr.).

## MOLORCHINI Gistel, 1848

Molorchidae Gistel, 1848a: [9].

Molorchates Mulsant, 1863: 223.



Molorchites; Fairmaire in Jacquelin DuVal, 1864: 152.

Molorchides; Lacordaire, 1868: 482.

Molorchinae; Pascoe, 1869: 553, 562; Bates, 1870: 314.

Molorchini; Gahan, 1906: 169; Aurivillius, 1912: 263 (cat.); Bradley, 1930: 229, 237; Linsley, 1940b: 371; Duffy, 1953: 189; 1957: 120; Heyrovsky, 1955: 165; Arnett, 1962: 860, 884; Linsley, 1963: 156; Hatch, 1971: 100; Monné, M.A., 1993g: 2 (cat.); Monné, M.A., 2005: 400 (cat.); Bousquet *et al.*, 2009: 50; Bouchard *et al.*, 2011: 475.

**Type-genus:** *Molorchus* Fabricius, 1793.

**Type-species:** *Necydalis umbellatarum* Schreber, 1759 designated by Curtis (1824: pl. 11). Comment. See Bousquet (2008: 620) for a discussion of the type species of *Molorchus* Fabricius.

### ***Molorchus* Fabricius, 1793**

*Molorchus* Fabricius, 1793: 356; Latreille, 1804: 302; Illiger, 1804: 119; Stephens, 1831: 251; Mulsant, 1839: 197; Laporte, 1840: 442; Blanchard, 1845: 150; Thomson, 1861: 162; 1864: 150; Mulsant, 1863: 223; Lacordaire, 1868: 486; Girard, 1873: 733; LeConte, 1873b: 307; Provancher, 1877: 579, 593; LeConte & Horn, 1883: 292; Leng, 1886: 27, 30; Gahan, 1906: 169; Blatchley, 1910: 1028; Bradley, 1930: 237; Chagnon, 1938: 261; Linsley, 1940b: 375 Knull, 1946: 202; Heyrovsky, 1955: 169; Arnett, 1962: 860, 884; Chagnon & Robert, 1962: 255, 261; Linsley, 1963: 156; Monné, M. A., 2005: 401 (cat.); Monné, M. A., 2012: 34.; Bousquet, Laplante, Hammond & Langor, 2017: 48 (key spp.)

**Type-species** - *Necydalis umbellatarum* Schreber, 1759 (subsequent designation, Curtis, 1824: pl. 11).

*Heliomanes* Newman, 1840b: 17; 1840c: 20; LeConte, 1850b: 21; Thomson, 1864: 150.

**Type-species** - *Heliomanes sidus* Newman, 1840 (monotypy).

*Glaphyra* Newman, 1840b: 19; LeConte, 1850b: 38.

**Type-species** - *Glaphyra semiusta* Newman, 1840 (monotypy).

*Laphyra* Newman, 1842c: 418 (*nom. nov. pro Glaphyra* Newman, 1840, not *Glaphyrus* Latreille).

*Caenoptera* Thomson, C. G., 1859: 150; Reitter, 1912: 26.

**Type-species** - *Necydalis minor* Linnaeus, 1758 (original designation).

*Linomius* Mulsant, 1863: 226.

*Caenoptera* (*Linomius*); Reitter, 1912: 27.

**Type-species** - *Necydalis umbellatarum* Linnaeus, 1767 (monotypy).

*Sinolus* Mulsant, 1863: 228.

**Type-species** - *Molorchus kiesenwetteri* Mulsant & Rey, 1861 (monotypy).

*Conchopterus* Fairmaire in Jacquelin DuVal, 1864: 153; Lacordaire, 1868: 487.

**Type-species** - *Necydalis umbellatarum* Linnaeus, 1767 (monotypy).

### **1. *Molorchus bimaculatus bimaculatus* Say, 1824**

**Syntypes locality** - Syntypes: United States. (Depository unknown). **Distribution**

- Eastern North America. **Host plants** - *Acer rubrum* Linné, *A. saccharinum* Linné, *A. saccharum* Marshall (Aceraceae), *Rhus glabra* Linné (Anacardiaceae), *Betula nigra* Linné, *Ostrya* sp. (Betulaceae), *Cercis canadensis* Linné (Caesalpinaceae), *Celtis tenuifolia* (Cannabaceae), *Cornus drummondii* C.A. Meyer, *C. florida* Linné (Cornaceae), *Carpinus caroliniana* Walter ssp. *virginiana* (Marshall) J.J. Furlow (Corylaceae), *Diospyros virginiana* Linné (Ebenaceae),

- Rhododendron occidentale* Gray (Ericaceae), *Castanea* sp., *Quercus nigra* Linné, *Q. prinus* Linné (Fagaceae), *Hamamelis virginiana* Linné, *Liquidambar styraciflua* Linné (Hamamelidaceae), *Carya alba* Koch, *C. cordiformis* (Wangenheim) K. Koch, *C. glabra* (Miller) Sweet, *C. ovata* (Miller) K. Koch, *C. tomentosa* Nuttall, *Juglans nigra* Linné (Juglandaceae), *Fraxinus americana* Linné (Oleaceae), *Amelanchier canadensis* Medikus (Rosaceae), *Staphylea trifolia* Linné (Staphyliaceae), *Ulmus* sp. (Ulmaceae), *Vitis riparia* Michaux (Vitaceae).
- Molorchus bimaculatus* Say, 1824: 428; Haldeman, 1847a: 44 (biol.); LeConte, 1859c: 202; 1866: 348 (distr.); Lacordaire, 1868: 488; Henshaw, 1874: 22 (distr.); Provancher, 1877: 593; Popenoe, 1877: 33 (distr.); LeConte, 1880a: 237 (hosts); Packard, 1881: 75 (biol.); Harrington, 1884: 46 (hosts); Lugger, 1884: 204 (hosts); Horn, 1885b: 5 (syn.); Leng, 1885b: pl. 3, fig. 20; 1886: 30; Packard, 1890: 293, 424 (biol.); Hauser, 1891: 157 (biol.); Hopkins, 1893: 193 (biol.); Chittenden, 1894: 97 (hosts); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 75 (hosts); Chagnon, 1897: 15 (distr.); Wickham, 1897a: 148, fig. 23; Lugger, 1899: 201 (biol.); Smith, 1900: 289 (hosts); Dury, 1902: 159 (distr.); Ulke, 1903: 26, 50 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 327; Blatchley, 1910: 1028, fig. 437; Fisher & Kirk, 1912: 310 (distr.); Lovell, 1915: 114 (biol.); Johnson, 1915: 315 (distr.); Nicolay, 1917: 94 (distr.); Chapin, 1917: 30 (biol.); Chagnon, 1917: 231 (distr.); Nicolay, 1919: 66 (distr.); Britton, 1920: 268 (distr.); Craighead, 1923: 62, pl. 9, fig. 4 (larva); Kirk & Knull, 1926: 26 (distr.); Leonard, 1928: 443 (distr.); Ware, 1929: 368 (distr.); Frost & Dietrich, 1929: 436 (distr.); Knull, 1930b: 101; Park, 1931: 193; Linsley, 1931: 38; Barrett, 1932: 290 (hosts); Beaulne, 1932: 201 (hosts); Chagnon, 1938: 261; Brimley, 1938: 214 (distr.); Loding, 1945: 118 (distr.); Procter, 1946: 180 (biol.); Knull, 1946: 202, pl. 10, fig. 40; Watkins, 1948: 206 (distr.); Alexander, 1958: 58 (distr.); Dillon & Dillon, 1961: 593, pl. 58, No. 4; Chagnon & Robert, 1962: 261; Linsley, 1963: 159; Swan & Papp, 1972: 449, fig. 252; Laliberté, Chantal & LaRochelle, 1977: 95 (hosts); Miliczky & Osgood, 1979: 133 (biol.); White, 1985: 285, fig. 123; Chemsak, Linsley & Noguera, 1992: 57 (cat.); Krinsky & Godwin, 1996: 238 (hosts); Heffern, 1998: 13 (distr.); Vlasák & Vlasakova, 2002: 210 (distr., hosts); Sikes & Webster, 2005: 327 (distr.).
- Heliomanes bimaculatus*; Newman, 1840b: 20; Haldeman, 1847c: 372; LeConte, 1850b: 103; 1851: 103; White, 1855: 180; LeConte, 1859c: 48; Bland, 1861: 97 (distr., hosts).
- Molorchus bimaculatus bimaculatus*; Linsley, 1963: 159, fig. 51; Gosling, 1973: 75 (biol., distr.); Frost, 1979: 346 (biol.); Turnbow & Franklin, 1980: 342 (distr.); Gosling, 1984: 72 (hosts); 1986: 156 (hosts); 1984: 80 (biol.); MacRae, 1993: 231 (distr., hosts); Lingafelter & Horner, 1993: 173 (distr.); Monné, M.A., 1993g: 3 (cat.); Yanega, 1996: 51, pl. 15, fig. 176; Linsley & Chemsak, 1997: 398 (hosts); Schiefer, 1998: 118 (distr.); Peck & Thomas, 1998: 119 (distr.); MacRae & Rice, 2007: 237 (distr., hosts); Staines, 2008: 146 (distr.); Guarnieri, 2009: 17 (distr.); Webster, McCorquodale & Majka, 2009: 296 (distr.); McCorquodale, 2010: 468 (distr.); Holt, 2013: 249 (biol. distr., hosts); Vlasák, 2014: 318 (hosts); Steury & MacRae, 2014: 10 (distr.); Klingeman *et al.*, 2017: 398 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 48, pl. 5.
- Molorchus affinis* LeConte, J.E., 1824: 172, pl. 11, fig. 12.
- Syntypes locality** - Syntypes: United States, Georgia. (MCZN).
- Molorchus obscurus* LeConte, 1850b: 103.
- Heliomanes obscurus*; Thomson, 1864: 150.

**Syntypes localities** - Syntypes: United States, Pennsylvania, New York, Georgia, Missouri Territory. (MCZN).

**1a. *Molorchus bimaculatus californicus* Linsley, 1963**

**Type locality** - Holotype male: United States, California: Yosemite Valley (CASC).

**Distribution** - United States (California). **Host plants** - *Rhododendron occidentale* Gray (Ericaceae).

*Molorchus bimaculatus californicus* Linsley, 1963: 161; Hovore & Giesbert, 1976: 356 (biol.); Chemsak, Linsley & Noguera, 1992: 57 (cat.); Monné, M.A., 1993g: 3 (cat.); Linsley & Chemsak, 1997: 398 (hosts).

**1b. *Molorchus bimaculatus ceanothinus* Linsley, 1963**

**Type locality** - Holotype female: United States, California: Pine Cove, San Jacinto Mountains. (CASC). **Distribution** - United States (California). **Host plants** - *Ceanothus integerrimus* Hooker & Arnott (Rhamnaceae).

*Molorchus bimaculatus ceanothinus* Linsley, 1963: 161; Chemsak, Linsley & Noguera, 1992: 57 (cat.); Monné, M.A., 1993g: 3 (cat.); Linsley & Chemsak, 1997: 398 (hosts).

**1c. *Molorchus bimaculatus celti* Knull, 1930**

**Type locality** - Holotype male: United States, Pennsylvania: Hummelstown. (FMNH). **Distribution** - Northeastern United States. **Host plants** - *Cercis canadensis* Linné (Caesalpiniaceae), *Celtis laevigata* Willdenow, *C. occidentalis* Linné (Cannabaceae).

*Molorchus bimaculatus celti* Knull, 1930b: 101; 1946: 203; Linsley, 1963: 160; Chemsak, 1977a: 176 (types); Chemsak, Linsley & Noguera, 1992: 57 (cat.); Monné, M.A., 1993g: 4 (cat.); Yanega, 1996: 51, pl. 15, fig. 177; Linsley & Chemsak, 1997: 398 (hosts); MacRae & Rice, 2007: 237 (distr.).

**1d. *Molorchus bimaculatus corni* Haldeman, 1847**

**Syntypes locality** - Syntypes: United States, Carolina. (MCZN). **Distribution** - Southeastern United States, Cuba. **Host plants** - *Rhus glabra* Linné (Anacardiaceae), *Cornus florida* Linné (Cornaceae), *Quercus geminata* Small (Fagaceae).

*Molorchus corni* Haldeman, 1847a: 45; 1847c: 372; Lacordaire, 1868: 488; Knaus, 1906: 106; Loding, 1933: 148 (distr.).

*Heliomanes corni*; LeConte, 1850b: 21; White, 1855: 180.

*Molorchus bimaculatus* var. *corni*; Leng, 1886: 30; Dozier, 1918: 334 (distr.); 1920: 366; Loding, 1945: 118 (distr.).

*Molorchus bimaculatus corni*; Brimley, 1938: 214 (distr.); Linsley, 1963: 161; Kirk & Taft, 1970: 8; Turnbow & Franklin, 1980: 342 (distr.); Chemsak, Linsley & Noguera, 1992: 57 (cat.); MacRae, 1993: 232 (distr.); Yanega, 1996: 51, pl. 15, fig. 178; Linsley & Chemsak, 1997: 399 (hosts); Peck & Thomas, 1998: 119; Schiefer, 1998: 118 (distr.); Monné, M.A., 2001b: 30 (cat. hosts); Morris, 2002: 211 (hosts); Monné, M.A., 2005: 401 (cat.); Peck, 2005: 172 (distr.); MacRae & Rice, 2007: 238 (hosts); Lingafelter, 2007: 41, 148, 2 figs, pl. 11 a (hosts); Holt, 2013: 249 (biol.); Klingeman *et al.*, 2017: 297 (distr.).

*Molorchus ruficollis* LeConte, 1850b: 21; Gahan, 1895: 110; Leng & Mutchler, 1914: 446 (distr.); Zayas, 1975: 129.

**Type locality** -Type: United States, Alabama. (MCZN).

*Molorchus sanguinicollis* Chevrolat, 1862a: 257 (not *Necydalis sanguinicollis* Olivier, 1795).

**Type locality** - Holotype female: Cuba. (BMNH).

**1e. *Molorchus bimaculatus semiustus* (Newman, 1840)**

**Type locality** – Holotype: United States, Florida: St. John's Bluff. (BMNH).

**Distribution** - Gulf states from Florida to Texas. **Host plants** - *Celtis* sp. (Cannabaceae), *Carya illinoensis* (Wangenheim) K. Koch (Juglandaceae), *Crataegus viridis* Linné (Rosaceae), *Vitis* sp. (Vitaceae).

*Glaphyra semiusta* Newman, 1840b: 19; LeConte, 1850b: 38; White, 1855: 181.

*Laphyra semiusta*; Thomson, 1864: 150.

*Molorchus bimaculatus* var. *semiustus*; Horn, 1885b: 8; Leng, 1886: 30; Dozier, 1918: 334 (distr.); 1920: 366 (distr.); Loding, 1945: 118 (distr.).

*Molorchus semiustus*; Loding, 1933: 148 (distr.); Swan & Papp, 1972: 449.

*Molorchus bimaculatus semiustus*; Linsley, 1963: 161; Tyson, 1970a: 93 (hosts); Turnbow & Franklin, 1980: 342 (distr.); Chemsak, Linsley & Noguera, 1992: 57 (cat.); Monné, M.A., 1993g: 4 (cat.); Peck & Thomas. 1998: 119 (distr.); Schiefer, 1998: 118 (distr.); MacRae & Rice, 2007: 238 (distr., hosts); Lingafelter, 2007: 41, 148, 2 figs, pl.11c; Holt, 2013: 249 (biol., distr.); Klingeman *et al.*, 2017: 297 (distr.),

**2. *Molorchus longicollis* LeConte, 1873**

**Type locality** - United States: California. (AMNH). **Distribution** - Pacific Coast of North America from British Columbia to southern California. Bitter Root and northern Rocky Mts. **Host plants** - *Rhus* sp. (Anacardiaceae), *Quercus* sp. (Fagaceae), *Abies concolor* Gordon & Glen, *A. magnifica* A.Murray, *Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae), *Ceanothus* sp., *Rhamnus californica* Eschscholtz (Rhamnaceae).

*Molorchus longicollis* LeConte, 1873a: 193; Wickham, 1890: 170 (distr.); Fall, 1901: 145 (distr.); Mutchler, 1912: 213; Garnett, 1918: 207 (distr.); Hardy, 1926: 31, pl. 5, fig. 35; Hardy & Preece, 1927b: 64 (hosts); Linsley & Usinger, 1934: 106 (distr.); Hardy, 1944: 17 (distr.); Leech, 1947: 105; Linsley, 1963: 159; Hatch, 1971: 110; Hovore & Giesbert, 1976: 356 (hosts); Chemsak, Linsley & Noguera, 1992. 57 (cat.); Monné, M.A., 1993g: 4 (cat.); Linsley & Chemsak, 1997: 399 (hosts); Heffern, 1998: 13 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 48, pl. 5; Rice, MacRae & Merickel, 2017: 669 (distr.);

**NEOIBIDIONINI Monné, 2012**

Neoibidionini Monné, M.A., 2012: 35.

**Type-genus:** *Neoibidion* Monné, 2012: 36, *nomen novum pro Ibidion* Audinet-Serville, 1834, *non Ibidion* Gory, 1833 (Cerambycidae, Clytini).

**Type-species:** *Ibidion comatum* Audinet-Serville, 1834 (subsequent designation Thomson, 1864: 215).

Ibidionini Thomson, 1861: 135. Type genus: *Ibidion* Audinet-Serville, 1834, junior homonym of *Ibidion* Gory, 1833 (Coleoptera, Cerambycidae, Clytini). Type-species: *Ibidion amoenum* Gory, 1833 (monotypy). Ibidionini Thomson, 1861 is permanently invalid because it is based on a preoccupied type genus (Article 39).

Ibidionitae Thomson, 1861: 135 (key), 188 (key), 199; 1864: 214

Ibidionides; Lacordaire, 1868: 328.

Ibidiinae; Bates, 1870: 285.

Ibidiones; LeConte, 1873b: 383; LeConte & Horn, 1883: 288.

Ibidionini; Aurivillius, 1912: 105 (cat.); Arnett, 1962: 860, 884; Linsley, 1963: 122; Martins, 1967b: 16 (rev.); Villiers, 1980b: 290; Joly, 1991: 5; Monné, M.A., 1993e: 1 (cat.); Bousquet *et al.*, 2009: 48; Bouchard *et al.*, 2011: 474; Vitali, 2015: 10 (nomenclature).

**Type-genus:** *Ibidion* Gory, 1833.

**Type-species:** *Ibidion amoenum* Gory, 1833 (monotypy).

## COMPSINA Martins & Galileo, 2007

Compsina Martins & Galileo, 2007b: 6; Martins, 2009: 2 (rev.); Bousquet *et al.*, 2009: 49; Bouchard *et al.*, 2011: 474.

## *Heterachthes* Newman, 1840

*Heterachthes* Newman, 1840b: 9; Haldeman, 1847a: 43; Thomson, 1864: 215; Bates, 1870: 303; LeConte, 1873b: 304; Bates, 1880: 33; LeConte & Horn, 1883: 289; Casey, 1912: 306; Martins, 1962: 290; Linsley, 1963: 122; Martins & Chemsak, 1966: 458; Martins, 1970: 1205 (rev.); Zayas, 1975: 114; Monné, M.A., 2005: 367 (cat.); Swift, 2008b: 547 (key spp.); Martins, 2009: 147; Monné, M.A., 2012: 37.

*Ibidion* (*Heterachthos*); Thomson, 1867: 133, 148.

*Ibidion* (*Heterachthes*); Lacordaire, 1868: 332.

*Heterachthes*; Aurivillius, 1912: 110 (error, cat.).

**Type-species** - *Heterachthes ebenus* Newman, 1840 (monotypy).

*Brydaeon* Thomson, 1867: 134, 137.

**Type-species** - *Ibidion dimidiatum* Thomson, 1865 (subsequent designation, Martins, 1970b: 1206).

### 1. *Heterachthes ebenus* Newman, 1840

**Type locality** - Holotype male: United States, East Florida. (BMNH). **Distribution** - Eastern United States, Mexico (Jalisco, Nayarit, Sinaloa, Guerrero, Tamaulipas, Veracruz), Guatemala, Nicaragua, Costa Rica, Colombia, Venezuela, Ecuador, Guiana, French Guiana, Surinam, Brazil (Pará, Rondônia, Rio Grande do Norte, Ceará, Bahia, Minas Gerais, Espírito Santo, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, Rio Grande do Sul), Paraguay, Argentina (Misiones), Uruguay, Cuba, Bahamas. **Host plants** - *Quercus inopina* Ashe (Fagaceae), *Vachellia farnesiana* (Linnaeus) Wight & Arn. (Mimosaceae), *Pinus rigida* Miller (Pinaceae).

*Heterachthes ebenus* Newman, 1840b: 9; Haldeman, 1847a: 53; White, 1855: 236; Bates, 1872: 181; 1880: 33 (distr.); Leng, 1885b: 135; Horn 1885b: 5; Gounelle, 1909: 670 (distr.); Casey, 1912: 307; Dozier, 1918: 334; Blatchley, 1919: 32 (distr.); Craighead, 1923: 77 (larva); Kirk & Knull, 1926: 43 (distr.); Brimley, 1938: 211 (distr.); Wolcott, 1941: 99 (distr.); Loding, 1945: 115 (distr.); Knull, 1946: 200, pl. 12, fig. 49; Wolcott, 1948: 338 (distr.); Biezanko & Bosq, 1956: 8 (distr.); Linsley, 1963: 123, fig. 141; Martins & Chemsak, 1966a: 458; Gilmour, 1968: 145; Zajciw & Monné, M.A., 1968: 52 (distr.); Martins, 1970: 1273, figs 594, 655-659, 661, pl. 29, fig. 1; 1971a: 1478 (distr.); 1971b: 175 (distr.); Viana, 1972: 263 (distr.); Zajciw, 1974: 55 (distr.); Zayas, 1975: 114, pl. 14, fig. c; Chemsak, Linsley & Mankins, 1980: 31 (distr.); Hovore, Penrose & Neck, 1987: 304 (hosts); Joly,

1991: 72, fig. 106; Chemsak, Linsley & Noguera, 1992: 50 (cat.); Chemsak & Noguera, 1995: 60 (distr.); Noguera & Chemsak, 1996: 399 (cat.); Linsley & Chemsak, 1997: 381 (hosts); Maes, 1998: 895 (distr.); Martínez, 2000: 88 (distr.); Monné, M.A., 2001b: 19 (cat. hosts); Morris, 2004: 211 (hosts); Turnbow, Cave & Thomas, 2003: 12 (distr.); Monné, M.A., 2005: 368 (cat.); Peck, 2005: 171 (distr.); Hovore, 2006: 372 (distr.); Lingafelter, 2007: 78, 147, 2 figs, pl. 18 h (hosts); Turnbow & Thomas, 2008: 19 (distr.); Martins, 2009: 155, figs 185-189, 191; Monné, M.L. *et al.*, 2010: 241 (distr.); Swift *et al.*, 2010: 21 (distr.); Maes *et al.*, 2010: 334, 1 fig. (distr.); Martins *et al.*, 2014b: 608 (distr.); García Morales *et al.*, 2015: 103 (distr.); Monné, M.A. & Chaboo, 2015: 58 (distr., hosts); Luna-León, 2015: 838 (distr.); Devesa, Fonseca & Barro, 2015: 32, 244, figs 1-9.

*Ibidion ebenum*; LeConte, 1850b: 23.

*Ibidion (Heterachthes) ebenus*; Thomson, 1864: 215.

*Compsa ebena*; Lacordaire, 1868: 333.

*Heterachthes exilissimus* Casey, 1912: 307; Lingafelter *et al.*, 2014: 59, figs 63e, f (lect. designation).

**Type locality** – Lectotype: United States, North Carolina: Southern Pines. (USNM).

*Heterachthes floridanus* Casey, 1912: 307; Lingafelter *et al.*, 2014: 64, figs 69g, h (lect. designation).

**Type locality** – Lectotype male: United States, Florida: Biscayne Bay. (USNM).

## 2. *Heterachthes nobilis* LeConte, 1862

**Type locality** - Holotype: United States, Texas. (MCZN). **Distribution** - United States (Texas), Mexico (Tamaulipas). **Host plants** - *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Heterachthes nobilis* LeConte, 1862: 41; Leng, 1885b: 135; Schaeffer, 1903: 113; 1908: 327 (distr.); Linsley, 1963: 126; Martins, 1970: 1303; Hovore & Giesbert, 1976: 356 (hosts); Hovore, Penrose & Neck, 1987: 304 (distr.); Chemsak, Linsley & Noguera, 1992: 51 (cat.); Linsley & Chemsak, 1997: 382 (hosts); Swift, 2008b: 547; García Morales *et al.*, 2015: 104 (distr.); Heffern, Vlasak & Alten, 2018: 744 (hosts).

## 3. *Heterachthes polingi* (Fall, 1925)

**Type locality** – Holotype male: United States, Arizona: Baboquivari Mts. (MCZN).

**Distribution** - United States (Arizona), Mexico (Sonora). **Host plants** - *Baccharis glutinosa* Persoon (Asteraceae).

*Ibidion polingi* Fall, 1925: 182; Linsley, 1963: 128.

*Heterachthes polingi*; Martins & Chemsak, 1966a: 459; Martins, 1970: 1309; Chemsak, Linsley & Noguera, 1992: 51 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M. A., 2005: 373 (cat.); Noguera *et al.*, 2009: 88 (distr.).

## 4. *Heterachthes quadrimaculatus* Haldeman, 1847

**Syntypes localities** - Syntypes: United States, Pennsylvania; Carolina. (MCZN). North central and eastern United States and southern Canada to Florida. **Host plants** - *Carpinus caroliniana* Walter (Corylaceae), *Quercus velutina* Lamarck (Fagaceae), *Carya alba* Koch, *C. glabra* (Miller) Sweet, *C. illinoensis* (Wangenheim) K. Koch, *C. laciniosa* (F. Michaux) Loudon, *C. ovata* (Miller) K. Koch, *C. pecan* (Marshall) Engler & Graebner (Juglandaceae), *Liriodendron tulipifera* Linné (Magnoliaceae).

*Heterachthes 4-maculatum* Haldeman, 1847a: 43; 1847c: 372; Melsheimer, 1853: 106 (cat.); Leng, 1885b: 135, pl. 3, fig. 10.

*Ibidion 4-maculatum*; LeConte, 1850b: 23; Bland, 1861: 96 (distr., hosts).

*Heterachthes quadrimaculatus*; White, 1855: 236; Popenoe, 1877: 33 (distr.); LeConte, 1880a: 237 (hosts); Packard, 1881: 75 (hosts); Harrington, 1884: 46 (hosts); Packard, 1890: 203 (hosts); Hamilton, 1895: 338 (distr.); Beutenmuller, 1896: 75 (hosts); Wickham, 1897a: 110; Smith, 1900: 288 (distr.); Dury, 1902: 159 (distr.); Ulke, 1903: 26, 50 (distr.); Blatchley, 1910: 1027; Smith, 1910: 327 (distr.); Fisher & Kirk, 1912: 310 (distr.); Frost, 1915: 270 (distr.); Nicolay, 1919: 66 (distr.); Britton, 1920: 267 (distr.); Craighead, 1923: 76, pl. 18, fig. 4 (larva); Blackman & Stage, 1924: 95 (biol.); Champlain, Kirk & Knoll, 1925: 106 (biol.); Kirk & Knoll, 1926: 23 (distr.); Leonard, 1928: 436 (distr.); Beaulne, 1932: 198 (hosts); Loding, 1933: 148 (distr.); Brimley, 1938: 211 (distr.); Loding, 1945: 115 (distr.); Knoll, 1946: 200; Sherman, 1946: 126 (distr.); Fattig, 1947: 12 (distr.); Alexander, 1958: 47 (distr.); Dillon & Dillon, 1961: 592, pl. 58 No. 13; Martins, 1970: 1317, fig. 679 (rev.); Gosling, 1984: 72 (hosts); Waters & Hyche, 1984: 286 (distr.); Chemsak, Linsley & Noguera, 1992: 51 (cat.); MacRae, 1993: 231 (distr., hosts); Monné, M.A., 1993e: 77 (cat.); Browne & Peck, 1996: 2158 (distr.); Krinsky & Godwin, 1996: 238; Schiefer, 1998: 117 (distr.); Peck & Thomas, 1998: 118 (distr.); Vlasák & Vlasakova, 2002: 210 (distr.); Rice & Veal, 2006: 257 (distr.); Lingafelter, 2007: 77, 147, 2 figs, pl. 18g (hosts); MacRae & Rice, 2007: 236 (distr., hosts); Staines, 2008: 146 (distr.); Guarnieri, 2009: 17 (distr.); Holt, 2013: 249 (distr.); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 46, pl. 4.

*Compsa quadrimaculata*; Lacordaire, 1868: 333.

*Heterachthes 4-maculatum* var. *pallidum* Haldeman, 1847a: 43.

*Heterachthes pallidus*; Blatchley, 1919: 32; Loding, 1933: 148 (distr.); Linsley, 1963: 125 (syn.); Gosling, 1973: 74, fig. 30 (biol., distr.); Turnbow & Franklin, 1980: 342 (distr.); Yanega, 1996: 50, pl. 14, fig. 167; Linsley & Chemsak, 1997: 382 (hosts); Sikes & Webster, 2005: 327 (distr.).

*Heterachthes quadrimaculatus* a. *pallidus*; Loding, 1945: 115 (distr.).

**Type locality** - Holotype: United States. (MCZN).

*Ibidion rotundipenne* White, 1855: 233; Thomson, 1867: 150.

*Ibidion ? rotundipenne*; Lacordaire, 1868: 332.

*Heterachthes rotundipennis*; Aurivillius, 1912: 111 (cat.).

**Type locality** - Holotype female: locality unknown. (BMNH).

*Ibidion (Heterachthon) evanescens* Thomson, 1867: 148.

*Compsa evanescens*; Gemminger & Harold, 1872: 2831 (cat.).

*Ibidion evanescens*; Thomson, 1878a: 6 (type).

*Heterachthes evanescens*; Aurivillius, 1912: 110 (cat.).

**Syntypes locality** - Syntypes: United States, Texas. (MNHN).

*Heterachthes fluviatilis* Casey, 1912: 308; Lingafelter *et al.*, 2014: 65, fig. 69o (holotype).

**Type locality** - Holotype male: United States, Missouri. (USNM).

##### 5. *Heterachthes rugosicollis* Martins, 1970

**Type locality** - Holotype male: Mexico, Durango: El Salto (25 mi E). (CNCI).

**Distribution** - United States (Arizona), Mexico (Durango). **Host plants** - *Pinus leiophylla* var. *chihuahuana* (Engelmann) A. E. Murray (Pinaceae).

*Heterachthes rugosicollis* Martins, 1970: 1330, fig. 680; McNamara, 1977: 182 (holotype); Chemsak, Linsley & Noguera, 1992: 51 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M.A., 2005: 373 (cat.); Swift, 2008b: 546, fig. 1 (hosts).

#### 6. *Heterachthes sablensis* Blatchley, 1920

**Type locality** – Holotype male: United States, Florida: Cape Sable. **Distribution** - United States (Florida), Bahamas (Andros Island), Aruba, Honduras, Guatemala, Belize, Colombia, Ecuador (Islas Galápagos). **Host plants** - *Avicennia germinans* (Linné) Stearns, *A. officinalis* Linné (Verbenaceae).

*Heterachthes sablensis* Blatchley, 1920: 68; Linsley, 1963: 124; Morris, 2004: 211 (hosts); Monné, M. A., 2005: 373 (cat.); Thomas & Turnbow, 2007: 586 (distr.); Lingafelter, 2007: 78, 147, 2 figs, pl 18i (hosts); Turnbow & Thomas, 2008: 19 (distr.); Martins, 2009: 159, fig. 194 (syn.).

*Compsa apicalis* Blair, 1933: 481; Van Dyke, 1953: 134; Linsley & Usinger, 1966: 153; Linsley & Chemsak, 1966: 219, figs 13, 14.

*Neocompsa apicalis*; Martins, 1965a: 99.

*Heterachthes apicalis*; Martins, 1970: 1222; Linsley, 1977: 24 (distr.); Martínez, 2000: 88 (distr.); Monné, M.A., 2001b: 19 (cat. hosts); Turnbow, Cave & Thomas, 2003: 12 (distr.); Monné, M.A., 2005: 367 (cat.); Hovore, 2006: 372 (distr.); Peck, 2006b: 242 (distr.).

**Type locality** – Holotype male: Ecuador, Islas Galápagos: James Island [Santiago]. (BMNH).

*Heterachthes arubae* Gilmour, 1968: 146, pl. 13, fig. 4.

**Type locality** – Holotype female: Aruba. (MAGD).

#### 7. *Heterachthes texanus* Linsley, 1957

**Type locality** - Holotype male: United States, Texas: Chisos Mountains, Big Bend. (CASC). **Distribution** - United States (Texas).

*Heterachthes texanus* Linsley, 1957d: 159; 1963: 126; Martins, 1970: 1314 (rev.); Chemsak, Linsley & Noguera, 1992: 51 (cat.); Monné, M.A., 1993e: 78 (cat.); Van Pelt, 2002: 128.

#### *Neocompsa* Martins, 1965

*Neocompsa* Martins, 1965: 96; Martins & Chemsak, 1966: 450; Martins, 1970: 1036 (rev.); Villiers, 1980b: 290; Monné, M.A., 2005: 377 (cat.); Martins, 2009: 109; Monné, M.A., 2012: 38.

**Type-species** - *Ibidion textile* Thomson, 1865 (original designation).

#### 1. *Neocompsa alacris* (Bates, 1885)

**Type locality** – Lectotype male: Mexico, Oaxaca: Tehuantepec. (BMNH). **Distribution** - United States (Texas), Mexico (Sonora, Sinaloa, Nayarit, Colima, Michoacán, Mexico, Morelos, Guerrero, Oaxaca, Jalisco, Veracruz, Quintana Roo), Guatemala, Honduras, El Salvador. **Host plants** - *Lonchocarpus* sp. (Fabaceae), *Acacia farnesiana* (Linné) Willdenow, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Ibidion textile* var. *alacre* Bates, 1885: 264, pl. 17, fig. 23.

*Compsa textilis* var. *alacris*; Aurivillius, 1912: 110 (cat.).

*Compsa alacre*; Linsley, 1935a: 80.

*Compsa alacris*; Linsley, 1963: 131, fig. 43.



*Neocompsa alacris*; Martins, 1965: 98; Martins & Chemsak, 1966: 460; Chemsak, 1966b: 98, figs 1, 2 (biol.); Martins, 1970: 1094, figs 567, 567a, 577 (lect.); 1971a: 1470 (distr.); 1971b: 166 (distr.); Chemsak, Linsley & Mankins, 1980: 31 (distr.); Chemsak, Linsley & Noguera, 1992: 51 (cat.); Chemsak & Noguera 1995: 60 (distr.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M.A., 2001b: 22 (cat. hosts); Toledo *et al.*, 2002: 527 (distr.); Turnbow, Cave & Thomas, 2003: 12 (distr.); Monné, M.A., 2005: 377 (cat.); Hovore, 2006: 373 (distr.); Noguera *et al.*, 2007: 311 (distr.); Noguera *et al.*, 2009: 88 (distr.).

## 2. *Neocompsa exclamatoris* (Thomson, 1861)

**Type locality** – Holotype male: Mexico. (MNHN). **Distribution** - United States (southern Texas), Mexico (Jalisco, San Luis Potosí, Distrito Federal, Veracruz, Oaxaca, Chiapas, Tamaulipas). **Host plants** - *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Benth., *Mimosa* sp., *Pithecellobium flexicaule* (Benth.) Coulter, *P. pallens* (Benth.) Standley (Mimosaceae), *Ficus glabrata* Kunth (Moraceae), *Zanthoxylum fagara* (Linné) Sargent (Rutaceae).

*Ibidion exclamatoris* Thomson, 1861: 201; Bates, 1880: 32 (distr.); Linell, 1897: 394; Wickham, 1898b: 41 (distr.); Townsend, 1903: 77 (distr.); Schaeffer, 1905: 162; 1908: 327 (distr.); Linsley & Martin, 1933: 181; Vogt, 1949: 142; Linsley, 1963: 127, fig. 42.

*Ibidion exclamatoris*; Craighead, 1923: 77 (error, larva).

*Neocompsa exclamatoris*; Martins & Chemsak, 1966: 462.

*Neocompsa exclamatoris*; Martins, 1970: 1107; Hovore & Penrose, 1982: 23; Hovore, Penrose & Neck, 1987: 304 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 52 (cat.); Chemsak & Noguera, 1995: 60 (distr.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M.A., 2001b: 22 (cat. hosts); Toledo *et al.*, 2002: 527 (distr.); Monné, M.A., 2005: 379 (cat.); MacRae & Rice, 2007: 240 (distr., hosts); García Morales *et al.*, 2015: 104 (distr.).

## 3. *Neocompsa intricata* Martins, 1970

**Type locality** – Holotype male: Mexico, Veracruz: Jalapa. (CASC). **Distribution** - United States (southern Texas), Mexico (San Luis Potosí, Veracruz). **Host plants** - *Prosopis glandulosa* Torrey (Mimosaceae).

*Neocompsa intricata* Martins, 1970: 1088, figs 564, 567; 1971c: 166 (distr.); Hovore, Penrose & Neck, 1987: 304; Chemsak, Linsley & Noguera, 1992: 52 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M.A., 2005: 380 (cat.).

*Ibidion textile*; Schaeffer, 1905: 161, 162 (hosts); 1908: 327 (distr.). (not Thomson, 1865).

*Compsa textilis* var. *alacris*; Linsley & Martin, 1933: 180 (distr.). (not Bates, 1885).

## 4. *Neocompsa mexicana* (Thomson, 1865)

**Type locality** - Holotype male: Mexico. (MNHN). **Distribution** - United States (Texas), Mexico (Tamaulipas, San Luis Potosí, Chiapas, Veracruz, Oaxaca), Guatemala, Honduras, Nicaragua, Costa Rica. **Host plants** - *Baccharis neglecta* Nuttall (Asteraceae), *Celtis laevigata* Willdenow (Cannabaceae), *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Benth., *Pithecellobium flexicaule* (Benth.) Coulter (Mimosaceae), *Zanthoxylum* sp. (Rutaceae).

*Ibidion mexicanum* Thomson, 1865: 573; 1878a: 6 (type); Bates, 1872: 181 (distr.).

- Ibidion (Compsibidion) mexicanum*; Thomson, 1867: 150; Lacordaire, 1868: 332.  
*Neocompsa mexicana*; Martins, 1970: 1119, figs 551, 554, 555 (syn.); Turnbow & Wappes, 1978: 369 (hosts); Hovore & Penrose, 1982: 23; Hovore, Penrose & Neck, 1987: 304 (hosts); Chemsak, Linsley & Noguera, 1992: 52 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M.A., 2001b: 23 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 103 (distr.); Turnbow, Cave & Thomas, 2003: 12 (distr.); Monné, M.A., 2005: 381 (cat.); Hovore, 2006: 373 (distr.); Swift *et al.*, 2010: 21 (distr.); Vlasák, 2014: 318 (hosts); García Morales *et al.*, 2015: 104 (distr.); Audureau & Roguet, 2018: 64 (distr.).  
*Ibidion hippopsioides* Bates, 1885: 265, pl. 18, fig. 25.  
*Compsa hippopsioides*; Aurivillius, 1912: 109 (cat.).  
*Neocompsa hippopsioides*; Martins, 1965a: 99; Martins & Chemsak, 1966a: 461.  
**Type locality** - Holotype female: Guatemala, Baja Verapaz: San Gerónimo. (BMNH).  
*Ibidion ignobile* Bates, 1885: 265, pl. 18, fig. 24.  
*Compsa ignobilis*; Aurivillius, 1912: 109 (cat.).  
*Neocompsa ignobilis*; Martins, 1965: 99.  
**Type locality** - Holotype male: Guatemala, Quetzaltenango: Cerro Zunil. (BMNH).  
*Ibidion townsendi* Linell, 1897: 395; Townsend, 1903: 77; Schaeffer, 1905: 162; 1908: 327 (distr.); Craighead, 1920: 8 (biol.); 1923: 140 (larva); Linsley & Martin, 1933: 181 (distr.); Linsley, 1963: 129; Lingafelter *et al.*, 2014: 334, figs 172e, f (holotype).  
*Neocompsa townsendi*; Martins, 1965: 99.  
**Type locality** - Holotype male: United States, Texas: Brownsville. (USNM).

##### 5. *Neocompsa puncticollis asperula* (Bates, 1885)

- Type locality** – Holotype male: Mexico, Durango: Ventanas [Villa Corona]. (BMNH). **Distribution** - United States (Arizona), Mexico (Sonora, Sinaloa, Durango, Jalisco, Nayarit, Colima, Morelos, Guerrero), Nicaragua. **Host plant** - *Lysiloma acapulcense* (Kunth.) Benth. (Fabaceae).  
*Ibidion asperulum* Bates, 1885: 266, pl. 18, fig. 21.  
*Compsa puncticollis*; Linsley, 1935a: 80; 1963: 130.  
*Neocompsa puncticollis asperula*; Martins & Chemsak, 1966: 465; Martins, 1970a: 1140, figs 574, 584, pl. 28, fig. 4; 1971c: 169 (distr.); Chemsak, Linsley & Noguera, 1992: 52 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Noguera *et al.*, 2002: 624 (distr.); Monné, M.A., 2005: 382 (cat.); Noguera *et al.*, 2007: 311 (distr.); Noguera *et al.*, 2009: 88 (distr.); Maes *et al.*, 2010: 347, 2 figs (distr.); Vargas-Cardoso *et al.*, 2018: 94 (hosts).

##### 5a. *Neocompsa puncticollis orientalis* Martins & Chemsak, 1966

- Type locality** – Holotype male: Mexico, Veracruz: Cotaxtla Experimental Station. (CASC). **Distribution** - United States (Texas), Mexico (Nuevo León, Tamaulipas, San Luis Potosí, Veracruz, Oaxaca).  
*Neocompsa puncticollis orientalis* Martins & Chemsak, 1966: 466; Martins, 1970: 1142, figs 575, 584; Hovore, Penrose & Neck, 1987: 304 (distr.); Chemsak, Linsley & Noguera, 1992: 52 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Ruíz Cancino & Coronado Blanco, 2002: 103 (distr.); Monné, M.A., 2005: 382 (cat.); García Morales *et al.*, 2015: 104 (distr.).  
*Compsa puncticollis*; Vogt, 1949: 142 (distr.).

##### 6. *Neocompsa quadriplagiata* (LeConte, 1873)

**Type locality** - Holotype male: Mexico, Baja California: Cabo San Lucas. (MCZN).

**Distribution** - United States (Texas), Mexico (Baja California, Morelos, Guerrero).

*Compsa quadriplagiata* LeConte, 1873a: 189; Lameere, 1883: 19 (cat.); Leng, 1885b: 134; Horn, 1894: 338; Schaeffer, 1908: 337; Linsley, 1942: 47; 1963: 132 (syn.).

*Neocompsa quadriplagiata*; Martins, 1965: 99; Martins & Chemsak, 1966a: 462; Martins, 1970a: 1068, fig. 546; Chemsak, Linsley & Noguera, 1992: 52 (cat.); Noguera & Chemsak, 1996: 399 (cat.); Monné, M.A., 2005: 383 (cat.).

*Ibidion griseolum* Bates, 1892: 156, pl.5, fig. 13.

**Type locality** – Lectotype male: Mexico, Guerrero: Chilpancingo. (BMNH).

*Ibidion pubescens* Casey, 1924: 260; Lingafelter *et al.*, 2014: 304, figs 137g, h (holotype).

**Type locality** - Holotype male: United States, Texas: Brownsville. (USNM).

*Compsa lecontei* Linsley, 1957e: 87

*Neocompsa lecontei*; Martins, 1965: 100.

**Type locality** - Holotype: Mexico, Baja California: Triunfo (6 mi N). (CASC).

### **OBRIINI Mulsant, 1839**

Obriaires Mulsant, 1839: 27, 95; 1863: 203.

Obriidae; Gistel, 1848a: [9].

Obriites; Fairmaire *in* Jacquelin DuVal, 1864: 178, 194.

Obrionides; Lacordaire, 1868 360.

Obrinae; Pascoe, 1869: 498, 550; Bates, 1870: 308.

Obrini; LeConte, 1873b: 305; LeConte & Horn, 1883: 290; Blatchley, 1910: 1027; Aurivillius, 1912: 132 (cat.); Bradley, 1930: 229, 234; Linsley, 1940b: 369; Heyrovsky, 1955: 161; Arnett, 1962: 859, 885; Linsley, 1963: 135; Hatch, 1971: 99; Monné, M.A., 1993f: 11 (cat.); Martins & Galileo, 2003: 2 (rev.); Monné, M.A., 2005: 405 (cat.); Bousquet *et al.*, 2009: 50; Bouchard *et al.*, 2011: 476.

Obrina; Plavilstshikov, 1931: 12.

**Type-genus:** *Obrium* Dejean, 1821.

**Type-species:** *Cerambyx cantharinus* Linnaeus, 1767 designated by Curtis (1825: pl. 91).

### ***Obrium* Dejean, 1821**

*Obrium* Dejean, 1821: 110; Curtis, 1825: 91; Stephens, 1831: 250; Audinet-Serville, 1834b: 93; Mulsant, 1839: 97; Laporte, 1840: 445; Blanchard, 1845: 152; LeConte, 1850b: 21; Mulsant, 1863: 204; Thomson, 1864: 222; 1865: 440; Pascoe, 1869: 550; Lacordaire, 1868 361; Chenu, 1870: 317; Bates, 1870: 308; LeConte, 1873b: 306; Girard, 1873: 731; Bates, 1880: 33; LeConte & Horn, 1883: 291; Leng, 1886: 27; Gahan, 1906: 165; Reitter, 1912: 29; Planet, 1924: 137; Portevin, 1927: 22; Bradley, 1930: 234; Chagnon, 1938: 260; Linsley, 1940b: 370; Knull, 1946: 201; Knull, 1962: 106 (key spp.); Arnett, 1962: 859, 885; Chagnon & Robert, 1962: 254, 260; Linsley, 1963: 136; Hovore & Chemsak, 1980: 31 (rev.); Martins & Galileo, 2003: 10 (rev.); Monné, M.A., 2005: 405 (cat.); Monné, M.A., 2012: 39; Bousquet, Laplante, Hammond & Langor, 2017: 47 (key spp.)

**Type-species** - *Cerambyx cantharinus* Linnaeus, 1767 (subsequent designation, Curtis, 1825: pl. 91).

*Phyton* Newman, 1840b: 19; LeConte, 1873b: 306; LeConte & Horn, 1883: 291; Leng, 1886: 27, 28.

**Type-species** - *Phyton limum* Newman, 1840 (monotypy).

*Diozodes* Haldeman, 1847a: 42.

**Type-species** - *Callidium pallidum* Say, 1824 (monotypy).

### 1. *Obrium beckeri* Knull, 1962

**Type locality** - Holotype: United States, Texas: Big Bend National Park, Tornillo Flat. (USNM). **Distribution** - United States (Texas).

*Obrium beckeri* Knull, 1962: 105; Linsley, 1963: 141; Ruetter, 1970: 21 (paratypes); Hovore & Chemsak, 1980: 41 (rev.); Chemsak, Linsley & Noguera, 1992: 54 (cat.); Monné, M.A., 1993f: 12 (cat.); Van Pelt, 2002: 128; Lingafelter *et al.*, 2014: 27, fig. 27o (holotype).

### 2. *Obrium californicum* Van Dyke, 1920

**Type locality** - Holotype male: United States, California: Tulare County, Mineral King. (CASC). **Distribution** - United States, central Oregon and northern California south through Sierra Nevada to Tehachapi Mts., and along coast south to Santa Cruz Mts. **Host plants** - *Pinus jeffreyi* Balfour (Pinaceae).

*Obrium californicum* Van Dyke, 1920: 37 (hosts); Knull, 1962: 106; Linsley, 1963: 139, fig. 44; Hatch, 1971: 102, pl. 11, fig. 2; Turnbow, 1984: 67 (distr.); Chemsak, Linsley & Noguera, 1992: 54 (cat.); Monné, M.A., 1993f: 12 (cat.); Rice, MacRae & Merickel, 2017: 669 (distr.).

### 3. *Obrium constricticolle* Schaeffer, 1908

**Type locality** - Lectotype: United States, Arizona: Huachuca Mts., Cochise Co., Palmerlee (USNM). **Distribution** - United States (Arizona), Mexico (Baja California, Sinaloa, Chihuahua). **Host plants** - *Quercus* sp. (Fagaceae).

*Obrium constricticolle* Schaeffer, 1908: 338; Linsley, Knull & Statham, 1961b: 17 (biol.); Knull, 1962: 107; Linsley, 1963: 141; Hovore & Chemsak, 1980: 45; Chemsak, Linsley & Noguera, 1992: 55 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 410 (hosts); Monné, M.A., 2005: 407 (cat.); Lingafelter *et al.*, 2014: 45, figs 47i, j (lect. designation).

### 4. *Obrium discoideum* (LeConte, 1873)

**Syntypes locality** - Syntypes: Mexico, Baja California: Cabo San Lucas. (MCZN). **Distribution** - United States (Arizona), Mexico (Baja California, Sinaloa, Nayarit, Jalisco, Morelos, Guerrero, Oaxaca), Nicaragua, Costa Rica.

*Phyton discoideum* LeConte, 1873a: 190; Lameere, 1883: 18 (cat.); Leng, 1886: 28; Horn, 1894: 338; Garnett, 1918: 206 (distr.).

*Obrium discoideum*; Aurivillius, 1912: 133 (cat.); Linsley, 1957e: 85 (distr.); Knull, 1962: 107; Linsley, 1963: 142; Hovore & Chemsak, 1980: 39; Hovore, 1988: 27 (distr.); Chemsak, Linsley & Noguera, 1992: 55 (cat.); Chemsak & Noguera, 1995: 60 (distr.); Noguera & Chemsak, 1996: 400 (cat.); Noguera *et al.*, 2002: 624 (distr.); Monné, M.A., 2005: 408 (cat.); Hovore, 2006: 373 (distr.); Audureau, 2008: 10 (distr.); Swift *et al.*, 2010: 23 (distr.); Maes *et al.*, 2010: 382, 4 figs (distr.); Noguera *et al.*, 2017: 8 (distr.); Bezark 2019: 408 (distr.).

*Obrium (Phyton) discoideum*; Linsley, 1942: 50, pl. 4, fig. 5.

### 5. *Obrium dominicum* Linsley, 1957

**Type locality** - Holotype male: Mexico, Baja California: San Domingo. (CASC). **Distribution** - United States (Arizona), Mexico (Baja California, Sonora).

*Obrium dominicum* Linsley, 1957e: 85; Knull, 1962: 107; Hovore & Chemsak, 1980: 36; Hovore, 1988: 27 (distr.); Chemsak, Linsley & Noguera, 1992: 55 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Monné, M.A., 2005: 408 (cat.).  
*Obrium constricticollis*; Linsley, 1942: 51 (not Schaeffer, 1908).

#### 6. *Obrium glabrum* Knull, 1937

**Type locality** - Holotype female: United States, Texas: Davis Mountains. (Ohio State University, Columbus). **Distribution** - United States (Texas). **Host plants** - *Quercus* sp. (Fagaceae).

*Obrium glabrum* Knull, 1937a: 41; Linsley, 1963: 143; Hovore & Chemsak, 1980: 43, fig. 3 (rev.); Rice, Turnbow & Hovore, 1985: 20 (distr.); Chemsak, Linsley & Noguera, 1992: 55 (cat.); Monné, M.A., 1993f: 13 (cat.); Linsley & Chemsak, 1997: 410 (hosts).

#### 7. *Obrium maculatum* (Olivier, 1795)

**Type locality** - Holotype: United States, Georgia. (Depository unknown).

**Distribution** - Southeastern Canada to Mexico (Tamaulipas, Nuevo León, Oaxaca), Guatemala, Nicaragua, Costa Rica. **Host plants** - *Betula nigra* Linnaeus (Betulaceae), *Cercis canadensis* Linnaeus, *Gleditschia triacanthos* Linnaeus (Caesalpiniaceae), *Celtis laevigata* Willdenow, *C. pallida* Torrey, *C. reticulata* Torrey, *C. tenuifolia* Nuttall (Cannabaceae), *Jatropha spathulata* Müller-Argoviensis (Euphorbiaceae), *Robinia pseudoacacia* Linnaeus, *Sesbania drummondii* (Ryberg) Cory (Fabaceae), *Castanea pumila* (Linnaeus) Miller, *Quercus inopina* Ashe, *Q. phellos* Linnaeus (Fagaceae), *Carya cordiformis* (Wangenheim) K.Koch, *C. illinoensis* (Wangenheim) K. Koch, *C. ovata* (Miller) K.Koch, *C. sulcata* Nuttall (Juglandaceae), *Acacia cochliacantha* Humboldt & Bonpland ex Willdenow, *Albizia occidentalis* T. S. Brandege, *Leucaena pulverulenta* (Schlechtendal) Benth, *Vachellia farnesiana* (Linnaeus) Wight & Arn. (Mimosaceae), *Ficus* sp., *Maclura pomifera* (Rafinesque) C. Schneider, *Morus alba* Linnaeus, *M. rubra* Linnaeus (Moraceae), *Fraxinus* sp. (Oleaceae), *Amelanchier arborea* (Michaux fils) Fernald, *Crataegus viridis* Linnaeus, *Prunus serotina* Ehrhart (Rosaceae), *Citrus sinensis* (Linnaeus) Osbeck (Rutaceae), *Salix nigra* Marshall (Salicaceae), *Sapindus saponaria* (Hooker & Arnott) Benson (Sapindaceae).

*Saperda maculata* Olivier, 1795: (68), 32, 39, pl. 3, fig. 33; Schoenherr, 1817: 421.

*Obrium maculatum*; Aurivillius, 1912: 133 (cat.); Craighead, 1920: 8; 1923: 62 (larva); Kirk & Knull, 1926: 23 (distr.); Leonard, 1928: 436 (distr.); Beaulne, 1932: 198 (hosts); Linsley & Martin, 1933: 181 (distr.); Brimley, 1938: 211 (distr.); Linsley, 1940e: 561 (biol.); Loding, 1945: 116 (distr.); Knull, 1946: 201; Fattig, 1947: 13 (distr.); Vogt, 1949: 142 (hosts); Knull, 1962: 107; Linsley, 1963: 140; Gosling, 1973: 74 (distr.); Manley & French, 1976: 48, fig. 2; Solomon, Doolittle & Spilman, 1976: 290; Hovore & Chemsak, 1980: 52, figs 13, 14; Turnbow & Franklin, 1980: 342 (distr.); Hovore & Penrose, 1982: 25 (biol.); Waters & Hyche, 1984: 286 (distr.); Hovore, Penrose & Neck, 1987: 305 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 55 (cat.); Lingafelter & Horner, 1993: 173 (distr.); MacRae, 1993: 231 (distr., hosts); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 410 (hosts); Maes, 1998: 896 (distr.); Ruíz Cancino & Coronado Blanco, 2002: 103 (distr.); Turnbow, Cave & Thomas, 2003: 13 (distr.); Monné, M.A., 2005: 408 (cat.); Hovore, 2006: 373 (distr.); MacRae & Rice, 2007: 241 (hosts); Lingafelter, 2007: 74. 148, 2 figs, pl. 17h, (hosts); Staines, 2008: 146 (distr.);

Audureau, 2008: 10 (distr.); Swift *et al.*, 2010: 24 (distr.); Maes *et al.*, 2010: 384, 4 figs (distr.); Holt, 2013: 249 (distr.); Steury & MacRae, 2014: 11 (distr.); Spomer, 2014: 300 (distr.); García Morales *et al.*, 2015: 104 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 47, pl. 4.; Noguera *et al.*, 2018: 464; Audureau & Roguet, 2018: 65 (distr.).

*Callidium pallidum* Say, 1824: 412.

*Diozodes pallida*; Haldeman, 1847a: 42.

*Phyton pallidum*; Haldeman, 1847c: 372; White, 1855: 328; LeConte, 1873a: 191 (syn.); Packard, 1881: 75 (biol.); Horn, 1885b: 6; Leng, 1886: 28, pl. 3, fig. 15; Packard, 1890: 294 (biol.); Chittenden, 1894: 97 (hosts); Wickham, 1897a: 111; Klages, 1901: 273, 290 (distr.); Dury, 1902: 159 (distr.); Ulke, 1903: 26 (distr.); Townsend, 1903: 77 (distr.); Snow, 1906a: 146 (distr.); Houghton, 1908: 161 (hosts); Blatchley, 1910: 1027 (distr.); Leng, 1910: 77 (distr.); Smith, 1910: 327 (distr.); Fisher & Kirk, 1912: 310 (distr.); Nicolay, 1919: 66 (distr.); Rosewall, 1920: 203 (hosts).

*Phyton pallidum*; Beutenmuller, 1896: 75 (hosts, error).

*Obrium pallidum*; Bland, 1861: 96 (distr.); Bates, 1885: 268; Schaeffer, 1908: 327 (distr.).

*Obrium pallidum*; LeConte, 1850b: 22 (error).

**Type locality** - Holotype: United States, Arkansas. (Depository unknown).

*Phyton limum* Newman, 1840b: 18.

**Type locality** - Holotype: United States, Florida: St. John's Bluff. (BMNH).

*Obrium lituratum* Bates, 1885: 268, pl. 19, fig. 6; Chemsak, 1967b: 77 (lect.).

**Type locality** - Lectotype male: Guatemala, Quezaltenango: Cerro Zunil. (BMNH).

*Obrium howdeni* Knull, 1955a: 139; 1962: 106; Linsley, 1963: 140; Chemsak, 1977a: 177 (type).

**Type locality** - Holotype female: United States, Tennessee: Obion Co., Reelfoot Biological Station. (FMNH).

### 8. *Obrium mozinnae* Linell, 1897

**Type locality** - Lectotype male: United States, Texas: Brownsville. (USNM).

**Distribution** - United States (Texas), Mexico (Tamaulipas). **Host plants** - *Jatropha spatulata* Müller-Argoviensis (Euphorbiaceae), *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Benth, *Pithecellobium flexicaule* (Benth) Coulter, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Obrium mozinnae* Linell, 1897: 395; Townsend, 1903: 77; Snow, 1906a: 146; Schaeffer, 1908: 327; Linsley & Martin, 1933: 181; Vogt, 1949: 142 (biol.); Knull, 1962: 106; Linsley, 1963: 142; Turnbow & Wappes, 1978: 369 (hosts); Hovore, Penrose & Giesbert, 1978: 98 (hosts); Hovore & Chemsak, 1980: 35; Hovore & Penrose, 1982: 25 (biol.); Hovore, Penrose & Neck, 1987: 305 (distr.); Chemsak, Linsley & Noguera, 1992: 55 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 410 (hosts); Ruíz Cancino & Coronado Blanco, 2002: 103 (distr.); Monné, M.A., 2005: 409 (cat.); Lingafelter *et al.*, 2014: 102, figs 113c, d (lect. designation); García Morales *et al.*, 2015: 104 (distr.).

### 9. *Obrium rubidum* LeConte, 1850

**Type locality** - Holotype: United States, Pennsylvania. (MCZN). **Distribution** - Eastern North America.

*Obrium rubidum* LeConte, 1850b: 21; Lacordaire. 1868: 361; Leng, 1886: 28; Hamilton, 1895: 338 (distr.); Klages, 1898: 175 (hosts); Smith, 1900: 288 (distr.); Knaus, 1901: 112 (distr.); Dury. 1902: 159 (distr.); Blatchley, 1910: 1028; Smith, 1910: 327; Kirk & Knull, 1926: 23 (distr.); Knull, 1946: 202, pl. 10, fig. 38; Sherman, 1946: 126 (distr.); Knull, 1962: 106; Linsley, 1963: 138; Turnbow & Franklin, 1980: 342 (distr.); Arnett, 1985: 363, fig. 24.189; Chemsak, Linsley & Noguera, 1992: 55 (cat.); Monné. M.A., 1993f: 15 (cat.); Yanega, 1996: 51, pl. 14, fig. 168; Vlasák & Vlasakova. 2002: 210 (distr.); Lingafelter, 2007: 74, 148, 2 figs, pl. 17j.

#### 10. *Obrium rufulum* Gahan, 1908

**Syntypes locality** - Syntypes male: United States. (BMNH). **Distribution** - Southeastern Canada and Eastern United States. **Host plants** - *Quercus* sp. (Fagaceae), *Fraxinus americana* Linné, *F. pennsylvanica* Marshall (Oleaceae).

*Obrium rubrum*; Leng, 1885b: 136, pl. 3, fig. 16; 1886: 28; Hamilton, 1895: 338 (distr.); Wickham, 1897a: 111; Smith, 1900: 288 (distr.); Dury, 1902: 159 (distr.); Ulke, 1903: 26 (distr.); Chagnon, 1905: 36 (distr.); Felt, 1906: 463 (paras.); Wickham, 1909b: 402 (distr.); Blatchley, 1910: 1028; Chagnon, 1917: 231 (distr.). (not Newman, 1838).

*Obrium rufulum* Gahan, 1908: 142; Wickham, 1909a: 28 (distr.); Smith, 1910: 327; Fisher & Kirk, 1912: 310 (distr.); Britton, 1920: 267 (distr.); Craighead, 1923: 62, pl. 18, 19, 30 (larva); Champlain, Kirk & Knull, 1925: 106 (hosts); Kirk & Knull, 1926: 23 (distr.); Leonard, 1928: 436 (distr.); Beaulne, 1932: 198 (hosts); Chagnon, 1938: 260; Townes, 1944: 772 (paras.); Knull, 1946: 202; Alexander, 1958: 49 (distr.); Townes & Townes, 1960: 140 (paras.); Dillon & Dillon, 1961: 592, pl. 58, No.2; Chagnon & Robert, 1962: 260; Knull, 1962: 106; Peck, 1963: 955 (paras.); Linsley, 1963: 138; Gosling, 1973: 74 (distr., hosts); Kirk & Balsbaugh, 1975: 98 (distr.); Stein & Tigestad, 1976: 27 (distr.); Turnbow & Franklin, 1980: 342 (distr.); Gosling, 1984: 72 (hosts); Hovore, Penrose & Neck, 1987: 305 (distr.); Chemsak, Linsley & Noguera, 1992: 55 (cat.); Monné, M.A., 1993f: 15 (cat.); MacRae, 1993: 231 (distr.); Yanega, 1996: 51, pl. 14, fig. 170; Linsley & Chemsak, 1997: 411 (hosts); Schiefer, 1998: 118 (distr.); Peck & Thomas, 1998: 119 (distr.); Vlasák & Vlasakova, 2002: 210 (distr., hosts); Lingafelter, 2007: 74, 148, 2 figs, pl. 17i (hosts); Staines, 2008: 147 (distr.); Guarnieri, 2009: 17 (distr.); Webster, McCorquodale & Majka, 2009: 296 (distr.); McCorquodale, 2010: 468 (distr.); Holt, 2013: 249 (distr.); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 47, pl. 4.

#### OEMINI Lacordaire, 1868

Oemides Lacordaire, 1868: 216.

Oeminae; Pascoe, 1869: 498; Bates, 1870: 243.

Oemes; LeConte, 1873b: 298; LeConte & Horn, 1883: 283.

Oemini; Gounelle, 1909: 592; Aurivillius, 1912: 26 (cat.); Craighead, 1923: 38 (larva); Linsley, 1932: 112; Saalas, 1936: 57; Duffy, 1953: 203; 1960: 136; Martins & Carvalho, 1984: 215 (reval.); Monné, M.A., 1993a: 5 (cat.); Martins, 1997b: 5 (rev.); Martins & Galileo, 2004: 19; Monné, M.A., 2005: 410 (cat.); Bousquet *et al.*, 2009: 51; Bouchard *et al.*, 2011: 476.

**Type-genus:** *Oeme* Newman, 1840.

**Type-species:** *Oeme indecora* Newman, 1840 (monotypy).

Malacopterites Blanchard, 1845: 147 (based on *Malacopterus* Audinet-Serville, 1834).

**Nomen nudum.** Comment. This name is unavailable under Article 11.7 (not subsequently latinized and attributed to Blanchard 1845).

### **OEMINA Lacordaire, 1868**

Oemides Lacordaire, 1868: 216.

Oemina; Plavilstshikov, 1940: 46; Martins, 1997b: 12; Martins & Galileo, 2004: 19; Monné, M.A., 2005: 410 (cat.); Bousquet *et al.*, 2009: 51; Bouchard *et al.*, 2011: 477.

**Type-genus:** *Oeme* Newman, 1840.

**Type-species:** *Oeme indecora* Newman, 1840 (monotypy).

### ***Eudistenia* Fall, 1907**

*Eudistenia* Fall, 1907: 82; Bradley, 1930: 231; Linsley, 1932: 117; 1962a: 16; Arnett. 1962: 861, 879; Martins, Chemsak & Linsley, 1966: 175; Chemsak & Linsley, 1967: 31; Monné, M.A., 1993a: 7.

**Type-species** - *Eudistenia costipennis* Fall, 1907 (original designation).

#### **1. *Eudistenia costipennis* Fall, 1907**

**Syntypes localities** - Syntypes: United States, California: near the summit of Sierra Madre Mountains, above Pasadena. Mountains near Claremont. (MCZN).

**Distribution** - United States, California (Sierra Nevada foothills from Tuolumne Co. southward to the San Bernardino, Sierra Madre and San Jacinto Mts.). **Host plants** - *Quercus agrifolia* Née, *Q. chrysolepis* Liebmann, *Q. kelloggii* Newberry (Fagaceae).

*Eudistenia costipennis* Fall, 1907: 83; Garnett, 1918: 176 (distr.); Linsley, 1932: 117, fig. 4 (biol.); 1933: 92 (hosts); 1962: 16, fig. 7; Hovore & Giesbert, 1976: 351 (hosts); Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 1993a: 7 (cat.); Linsley & Chemsak, 1997: 375 (hosts).

### ***Haplidoeme* Chemsak & Linsley, 1965**

*Haplidoeme* Chemsak & Linsley, 1965a: 142; Martins, Chemsak & Linsley, 1966: 216; Gilmour, 1968: 91; Monné, M.A., 2005: 413 (cat.); Monné, M.A., 2012: 40.

**Type-species** - *Haplidoeme schlingeri* Chemsak & Linsley, 1965 (original designation).

#### **1. *Haplidoeme schlingeri* Chemsak & Linsley, 1965**

**Type locality** - Holotype male: United States, California: Riverside Co., Deep Canyon. (CASC). **Distribution** - United States (California), Mexico (Baja California).

*Haplidoeme schlingeri* Chemsak & Linsley, 1965a: 143, fig. 1; Chemsak, Linsley & Noguera, 1992: 27 (cat.); Monné, M.A., 2005: 413 (cat.).

### ***Liberedaxia* Alten, Alten & Ramey, 2009**

*Liberedaxia* Alten, Alten & Ramey, 2009: a

**Type-species** - *Liberedaxia deslauriersi* Alten, Alten & Ramey, 2009 (original designation).



### 1. *Liberedaxia deslauriersi* Alten, Alten & Ramey, 2009

**Type locality** - Holotype male: United States, Utah: Handcock Road, 2 miles west junction Highway 89. (USNM). **Distribution** - United States (Utah). **Host plants** - *Juniperus osteosperma* (Torrey) Little (Cupressaceae).

*Liberedaxia deslauriersi* Alten, Alten & Ramey, 2009: 2, fig. 1 (hosts, larva); Lingafelter *et al.*, 2014: 53, fig. 56 c (holotype).

### *Malacopterus* Audinet-Serville, 1834

*Malacopterus* Audinet-Serville, 1834a: 565; Laporte, 1840: 426; Strauch, 1861: 129; Thomson, 1861: 376 (syn.); 1864: 248; 1865: 453; Lacordaire, 1868: 227; Bates, 1870: 427; 1879: 15 (syn.); Lameere, 1883: 2 (syn.); LeConte & Horn, 1883: 284; Leng, 1884: 114; Bradley, 1930: 231; Linsley, 1932: 117; 1962a: 14; Arnett, 1962: 861, 879; Chemsak & Linsley, 1964b: 43; Martins, Chemsak & Linsley, 1966: 209; Chemsak & Linsley, 1967a: 30; Gilmour, 1968: 92; Zayas, 1975: 50; Villiers, 1980a: 267; Martins, 1997b: 31 (rev.); Monné, M.A., 2005: 415 (cat.); Monné, M.A., 2012: 40.

*Malacoptera*; Chenu, 1870: 312 (error).

**Type-species** - *Cerambyx (Stenocorus) pavidus* Germar, 1823 (monotypy)

*Malacomacrus* White, 1853: 41

**Type-species** - *Malacomacrus pallescens* White, 153 (monotypy).

*Ganimus* LeConte, 1873a: 173; 1873b: 298.

**Type-species** - *Ganimus vittatus* LeConte, 1873 (monotypy).

### 1. *Malacopterus tenellus* (Fabricius, 1801)

**Type locality** - Holotype male: America meridionalis. (ZMUC). **Distribution** - United States (Texas, California), Mexico (Sonora, Tamaulipas), Guatemala, Belize, Nicaragua, Panama, Colombia, Brazil (Amazonas, Pará, Mato Grosso, Maranhão), Venezuela, Ecuador, Guyana, French Guiana, Surinam, Peru, Bolivia (La Paz, Santa Cruz), Jamaica, Cuba, Guadeloupe, Hispaniola. **Host plants** - *Bursera simaruba* (Linné) Sargent (Burseraceae), *Celtis laevigata* Willdenow (Cannabaceae), *Hevea brasiliensis* (A.Jussieu) Müller-Argoviensis, *H. guianensis* Aublet (Euphorbiaceae), *Quercus* sp. (Fagaceae), *Populus* sp., *Salix* sp. (Salicaceae), *Achras sapota* Linné (Sapotaceae).

*Callidium tenellum* Fabricius, 1801: 335; Schoenherr, 1817: 444.

*Malacopterus tenellus*; Aurivillius, 1912: 35 (cat.); Bréthes, 1920: 45 (distr.); Linsley, 1932: 117 (distr.); Gunther, 1940: 465 (distr.); Linsley, 1942: 32 (distr.); Vogt, 1949: 140 (distr., hosts); Bruner, 1951: 86 (distr.); Freude, 1954: 30 (distr.); Gregoire, 1957: 21 (physiol.); Linsley, 1962a: 15, fig. 6; Chemsak & Linsley, 1964b: 43; Zayas, 1975: 50, pl. 6, fig. c; Chemsak, Linsley & Mankins, 1980: 29 (distr.); Villiers, 1980a: 267, fig. 23; Maes *et al.*, 1994: 15 (distr.); Chemsak & Noguera, 1995: 58 (distr.); Noguera & Chemsak, 1996: 396 (cat.); Martins, 1997b: 35, figs 43, 45; Tavakilian *et al.*, 1997: 337, 338 (hosts); Chemsak & Linsley, 1997: 394 (hosts); Maes, 1998: 886 (distr.); Martínez, 2000: 89 (distr.); Monné, M.A., 2001b: 33 (cat.); Toledo *et al.*, 2002: 525 (distr.); Vitali & Rezbanyai-Reser, 2003: 7, fig. 5; Turnbow, Cave & Thomas, 2003: 6 (distr.); Martins & Galileo, 2004: 11, 38, 40, 1 fig; Monné, M.A., 2005: 415 (cat.); Chalumeau & Touroult, 2005: 69, fig. 22; Peck, 2005: 167 (distr.); Hovore, 2006: 371 (distr.); Morvan & Morati, 2006: 19 (distr.); Wappes *et al.*, 2006: 6 (distr.); Vitali, 2007: 41 (distr.); Audureau, 2008: 10 (distr.); Swift *et al.*, 2010: 24 (distr.); Maes *et al.*, 2010: 14, 5 figs (distr.).

Lingafelter, 2010: 268, figs 3a, 4; Morvan & Morati, 2011: 25 (distr.); Monné, M.A. *et al.*, 2012: 18 (distr.); Barreto, Machiner & Smiderle, 2013: 333 (distr.); Peck, Thomas & Turnbow, 2014: 91 (distr.); Martins *et al.*, 2014: 611 (distr.); Monné, M.A. & Chaboo, 2015: 61 (distr., hosts); Devesa, Fonseca & Barro, 2015: 30, 102, figs 1-7; Peck, 2016: 172, pl. 45 (distr.); Lingafelter, Wappes & Ledezma Arias, 2017: 101, 1 fig.; Audureau & Roguet, 2018: 65 (distr.).

*Malacopterus lineatus* Guérin-Méneville, 1844a: 222; Erichson, 1847: 141; White, 1853: 115; Lacordaire, 1868: 228; Bates, 1870: 247; 1872: 170 (distr.); 1879: 15, pl. 3, fig. 17; 1884: 240; Horn, 1886b: xiii (syn.); Leng & Hamilton, 1896: 166 (syn.); Aurivillius, 1900: 409 (distr.); Craighead, 1923: 41 (larva); García Morales *et al.*, 2015: 105 (distr.).

**Type locality** – Holotype: Colombia. (MNHN).

*Malacopterus mexicanus* Thomson, 1861: 248; Lacordaire, 1868: 228; Thomson, 1878a: 7 (type); Bates, 1879: 15 (distr.).

**Syntypes locality** – Syntypes: Mexico. (MNHN).

*Ganimus vittatus* LeConte, 1873a: 173; 1873b: 299.

*Malacopterus vittatus*; LeConte & Horn, 1883: 284.

**Type locality** – Holotype male: United States, California. (MCZC).

### ***Oeme* Newman, 1840**

*Oeme* Newman, 1840b: 8; Blanchard, 1845: 169; LeConte, 1852: 177; Thomson, 1861: 233, 251; 1864: 248; 1865: 453; Lacordaire, 1868: 222; Bates, 1870: 245; LeConte, 1873b: 299; LeConte & Horn, 1883: 284; Leng, 1884: 114; Casey, 1924: 251; Bradley, 1930: 231; Linsley, 1932: 116; Knull, 1946: 188; Dillon & Dillon, 1961: 582; Linsley, 1962a: 21; Arnett, 1962: 861, 879; Martins, Chemsak & Linsley, 1966: 206; Chemsak & Linsley, 1967a: 30; Hatch, 1971: 102; Philips & Ivie, 1998: 82.

*Sclerocerus* LeConte, 1850b: 20

**Type-species** - *Stenocorus ? linearis* Harris, 1837 (monotypy) (= *Stenocorus rigidus* Say, 1827).

### **1. *Oeme costata costata* LeConte, 1873**

**Type locality** - Holotype female: United States, California. (MCZN). **Distribution** - United States, Rocky Mountain region to California and Texas. **Host plants** - *Pinus contorta* Douglas ex Loudon, *P. edulis* Engelhorn, *P. monophylla* Torrey & Frémont, *P. ponderosa* Douglas ex Lawson & P. Lawson (Pinaceae).

*Oeme costata* LeConte, 1873a: 174; Lameere, 1883: 10 (cat.); Leng, 1884: 116; Fall, 1901: 144 (distr.); Garnett, 1918: 176 (distr.); Craighead, 1923: 39 (larva); Doane *et al.*, 1936: 168 (hosts); Craighead, 1950: 257 (hosts); Keen, 1952: 47 (hosts); Townes & Townes, 1960: 148 (paras.); Linsley, 1962a: 22, figs 10, 12; Brown & Eads, 1967: 50 (biol.); Hatch, 1971: 102, pl. 10, fig. 3; Furniss & Carolin, 1977: 303 (hosts); Lewis, 1979: 22 (distr.); Chemsak, Linsley & Noguera, 1992: 28 (cat.).

*Oeme costata costata*; Tyson, 1970b: 298 (hosts); Monné, M.A., 1993a: 5 (cat.); Linsley & Chemsak, 1997: 411 (hosts); Heffer. 1998: 12 (distr.); Rice, MacRae & Merickel, 2017: 669 (distr.).

*Oeme strangulata* Horn, 1880a: 133, pl. 2, fig. 7; Lameere, 1883: 10 (cat.); Leng, 1884: 116; 1885c: 35, pl. 2, fig. 21; Garnett, 1918: 176 (distr.); Casey, 1924: 253; Tanner, 1934: 47 (distr.); Doane *et al.*, 1936: 168 (hosts); Craighead, 1950: 257 (hosts).

**Type locality** - Holotype male: United States, Utah, Parowan. (ANSP).

*Oeme minutivestis* Casey, 1924: 251; Lingafelter *et al.*, 2014: 100, fig. 110m (holotype).

**Type locality** - Holotype female: United States, Nevada: Las Vegas. (USNM).

*Oeme californica* Linsley, 1934a: 162.

**Type locality** - Holotype male: United States, California: Yosemite Valley. (CASC).

### 1a. *Oeme costata abietis* Chemsak, 1965

**Type locality** - Holotype male: United States, California: Monterey County, Chew's Ridge, Santa Lucia Mountains. (CASC). **Distribution** - United States (California).

**Host plants** - *Abies bracteata* (D. Don) Poiteau (Pinaceae).

*Oeme costata abietis* Chemsak, 1965c: 352, 2 figs; Chemsak, Linsley & Noguera, 1992: 28 (cat.); Monné, M.A., 1993a: 6 (cat.); Linsley & Chemsak, 1997: 411 (hosts).

*Oeme strangulata* Horn, 1880a: 133, pl. 2, fig

### 2. *Oeme rigida rigida* (Say, 1827)

**Type locality** - Holotype: Unknown. (Depository unknown). **Distribution** - Atlantic and southern States to Ohio, Missouri and eastern Texas. Mexico (Tamaulipas), Bermuda. **Host plants** - *Chamaecyparis thyoides* (Linné) Britton, Sterns & Poggenburg, *Juniperus virginiana* Linné (Cupressaceae), *Pinus echinata* Miller (Pinaceae), *Taxodium distichum* (Linné) Richard (Taxodiaceae).

*Stenocorus rigidus* Say, 1827: 274; LeConte, 1859c: 332.

*Elaphidion rigidus*; Haldeman. 1847a: 34; LeConte, 1859d: 16; Melsheimer, 1853: 102 (cat.).

*Hypermallus rigidus*; Gemminger & Harold, 1872: 2818 (cat.).

*Oeme rigida*; LeConte, 1873a: 298; Horn, 1880a: 133; Shufelt, 1884: 334 (distr.); Leng, 1884: 116; Lugger, 1884: 204 (hosts); Leng, 1885b: 35, pl. 2, fig. 20; Horn, 1885b: 6 (syn.); Smith, 1900: 287 (distr.); Ulke, 1903: 25, 50 (distr., hosts); Hopkins, 1904: 37, 46 (biol.); Felt, 1906: 755 (hosts); Smith, 1910: 326; Rohwer, 1917: 168 (paras.); Nicolay, 1919: 65 (distr.); Britton, 1920: 266 (distr.); Craighead, 1923: 39 (larva); Casey, 1924: 252; Kirk & Knull, 1926: 22 (distr.); Leonard, 1928: 434 (distr.); Beaulne, 1932: 198 (hosts); Doane *et al.*, 1936: 168 (hosts); Brimley, 1938: 210 (distr.); Loding, 1945: 114 (distr.); Knull, 1946: 188, pl. 11, fig. 42; Craighead, 1950: 249, 257, fig. 54E (biol.); Dillon & Dillon, 1961: 584, pl. 57, No. 6; Linsley, 1962a: 23; Baker, 1971: 200 (biol.); Swan & Papp, 1972: 446; Gosling, 1973: 69 (biol., distr.); Solomon, Doolittle & Spilman, 1976: 290; Furniss & Carolin, 1977: 303 (hosts); Martins & Carvalho, 1984: 216 (morphol.); Arnett, 1985: 361, fig. 24.179; Hilburn & Gordon, 1989: 678 (distr.); Chemsak, Linsley & Noguera, 1992: 28 (cat.); Browne & Peck, 1996: 2158 (distr.); Lingafelter, 2007: 78, 148, 2 figs, pl. 18j (hosts); Garcia Morales *et al.*, 2014: 105 (distr.).

*Oeme rigida rigida*; Linsley, 1962a: 23, figs 11, 12; Turnbow & Franklin, 1980: 340 (distr.); MacRae, 1993: 128 (distr.); Lingafelter & Horner, 1993: 165 (distr.); Monné, M.A., 1993a: 6 (cat.); Yanega, 1996: 45, pl. 12, fig. 133; Linsley & Chemsak, 1997: 411 (hosts); Schiefer, 1998: 116 (distr.); Peck & Thomas, 1998: 82; Staines, 2008: 147 (distr.); Holt, 2013: 249 (distr.); Maier, 2009: 438 (distr., hosts); Vlasák, 2014: 318 (hosts); Kingeman *et al.*, 2017: 297 (distr.).

*Stenocorus ? linearis* Harris, 1837: 85, pl 1, fig. 8; Chevrolat, 183a: 119.

*Sclerocerus linearis*; LeConte, 1850b: 20.

*Oeme linearis*; Gemminger & Harold, 1872: 2792 (cat.).

**Syntypes locality** - Syntypes: United States, Louisiana, (MCZN).

*Oeme indecora* Newman, 1840b: 8; LeConte, 1852: 177; Thomson, 1861: 251; 1864: 248; Lacordaire, 1868: 223.

**Type locality** - Holotype: United States, Florida: St John's Bluff (BMNH).

## 2a. *Oeme rigida deserta* Casey, 1924

**Type locality** - Holotype male: United States, Arizona. (USNM). **Distribution** - United States, western Texas to Colorado, Utah and Arizona. **Host plants** - *Cupressus arizonica* Greene, *Juniperus* sp. (Cupressaceae).

*Oeme deserta* Casey, 1924: 252; Linsley, Knull & Statham, 1961: 9 (biol.).

*Oeme rigida deserta*; Linsley, 1962a: 25, fig. 12; Lewis, 1979: 22 (distr.); Chemsak, Linsley & Noguera, 1992: 28 (cat.); Monné, M.A., 1993a: 6 (cat.); Linsley & Chemsak, 1997: 411 (hosts); Heffern, 1998: 12 (distr.); Lingafelter *et al.*, 2014: 53, fig. 56a (holotype).

*Oeme incertula* Casey, 1924: 252; Lingafelter *et al.*, 2014: 79, fig. 86g (holotype).

**Type locality** - Holotype female: United States, Arizona. (USNM).

*Oeme subobsoleta* Casey, 1924: 253; Lingafelter *et al.*, 2014: 328,368, fig. 165a (lectotype).

**Type locality**- Holotype female: United States, Utah: Juab County, Trout Creek, Ibapah Mountains (USNM).

*Oeme truncata* Casey, 1924: 253; Lingafelter *et al.*, 2014: 336, fig. 174c (holotype).

**Type locality** - Holotype female: United States, Utah: Juab County, Trout Creek, Ibapah Mountains (USNM).

*Oeme hirsuta* Van Dyke, 1927: 99.

**Type locality** - Holotype male: United States, Arizona: Mount Washington, near Nogales. (CASC).

*Oeme rotundicollis* Linsley, 1932: 116.

**Type locality** - Holotype female: United States, Texas: Alpine. (CASC).

## *Paranoplium* Casey, 1924

*Paranoplium* Casey, 1924: 250; Bradley, 1930: 233; Arnett, 1962: 861, 879; Linsley, 1962a: 19; Martins, Chemsak & Linsley, 1966: 217; Chemsak & Linsley, 1967a: 31; Monné, M.A., 1993: 7 (cat.).

**Type-species** - *Paranoplium densicolle* Casey, 1924 (original designation) (= *Oeme gracilis* LeConte, 1881).

### 1. *Paranoplium gracile gracile* (LeConte, 1881)

**Type locality** - Holotype female: United States, California: San Diego County, Poway. (MCZN). **Distribution** - Coastal California from Monterey Co. to San Diego Co. **Host plants** - *Quercus agrifolia* Née (Fagaceae), *Umbellularia californica* (Hooker & Arnott) Nuttall (Lauraceae), *Acacia* sp. (Mimosaceae), *Ceanothus spinosus* Nuttall (Rhamnaceae).

*Oeme gracilis* LeConte, 1881: 27, pl. 1, fig. 2; Lameere, 1883: 87 (cat.); Leng, 1884: 116; Blaisdell, 1892: 34 (biol.); Beutenmuller, 1896: 75 (hosts); Fall, 1897: 238 (distr.); Smith, 1900: 287 (distr.); Fall, 1901: 144 (distr.); Garnett, 1918: 176 (distr.); Linsley, 1934a: 164 (syn.); Moore, 1937: 87 (distr.); Mansfield, 1947: 43 (distr.); Peck, 1963: 955 (paras.).

*Paranoplium gracile*; Linsley, 1962a: 20, fig. 9; Chemsak, Linsley & Noguera, 1992: 28 (cat.).

*Paranoplium gracile gracile*; Linsley, 1962a: 20; Chemsak, 1965b: 69 (hosts); Hovore & Giesbert, 1976: 351 (hosts); Monné, M.A., 1993a: 7 (cat.); Linsley & Chemsak, 1997: 415 (hosts).

*Paranoplium densicolle* Casey, 1924: 250; Lingafelter *et al.*, 2014: 52, fig. 55e (holotype).

**Type locality** - Holotype male: United States. (USNM).

#### 1a. *Paranoplium gracile laticolle* (Linsley, 1934)

**Type locality** - Holotype male: United States, California: Sequoia National Park. (CASC). **Distribution** - Southern Sierra Nevada Mts., California. **Host plants** - *Juglans californica* S. Watson (Juglandaceae), *Rhamnus californica* Eschscholtz (Rhamnaceae).

*Oeme laticollis* Linsley, 1934d: 63

*Paranoplium gracile laticollis*; Linsley, 1962a: 20; Chemsak, Linsley & Noguera, 1992: 29 (cat.); Monné, M.A., 1993a: 8 (cat.); Vlasák, 2014: 318 (hosts).

#### *Pseudomethia* Linsley, 1937

*Pseudomethia* Linsley, 1937: 65; 1940c: 33; Zajciw, 1957: 305; Linsley, 1962a: 43; Arnett, 1962: 861, 879; Chemsak & Linsley, 1964b: 46; Martins, Chemsak & Linsley, 1966: 205; Chemsak & Linsley, 1967a: 29; Gilmour, 1968: 89; Philips & Ivie, 1998: 82; Monné, M.A., 2005: 398 (cat.); Monné, M.A., 2012: 33.

**Type-species** - *Pseudomethia arida* Linsley, 1937 (original designation).

#### 1. *Pseudomethia arida* Linsley, 1937

**Type locality** - Holotype male: United States, California: 10 mi W Indio. (CACS).

**Distribution** - United States (Arizona, California), Mexico (Baja California, Sonora). **Host plants** - *Bernardia myricaefolia* Bentham & Hooker f. (Euphorbiaceae), *Simmondsia californica* Nuttall (Simmondsiaceae).

*Pseudomethia arida* Linsley, 1937: 67, 1 fig.; 1940c: 34; 1962: 44, fig. 16; Chemsak & Linsley, 1964b: 46; Hovore, 1988: 4 (distr.); Chemsak, Linsley & Noguera, 1992: 29 (cat.); Noguera & Chemsak, 1996: 397 (cat.); Linsley & Chemsak, 1997: 426 (hosts); Monné, M.A., 2005: 399 (cat.).

#### *Vandykea* Linsley, 1932

*Vandykea* Linsley, 1932: 118; 1962: 17; Arnett, 1962: 861, 879; Martins, Chemsak & Linsley, 1966: 215; Chemsak & Linsley, 1967a: 31; Monné, M.A., 1993a: 7 (cat.).

**Type-species** - *Vandykea tuberculata* Linsley, 1932 (original designation).

#### 1. *Vandykea tuberculata* Linsley, 1932

**Type locality** - Holotype female: United States, California: Napa County, Pope Valley. (CASC). **Distribution** - United States, California: Napa Co. and Lake Co.

**Host plants** - *Cupressus goveniana* Gordon, *C. sargentii* Jepson (Cupressaceae).

*Vandykea tuberculata* Linsley, 1932: 118, figs 5, 5a; Linsley & Usinger, 1936: 55 (distr.); Linsley, 1962a: 18, fig. 8; Cope, 1968: 308, figs 1, 2 (hosts, larva); Chemsak, Linsley & Noguera, 1992: 29 (cat.); Monné, M.A., 1993a: 7 (cat.); Linsley & Chemsak, 1997: 450

#### OPSIMINI LeConte, 1873

Opsimi LeConte, 1873b: 293 (key) 294; LeConte & Horn, 1883: 279; Leng, 1884: 96  
Opsimini; Linsley, 1962: 5; Hatch, 1971: 99; Monné, M.A., 1993a: 34 (cat.); Bousquet  
*et al.*, 2009: 51; Bouchard *et al.*, 2011: 477.

**Type genus:** *Opsimus* Mannerheim, 1843.

**Type species:** *Opsimus quadrilineatus* Mannerheim, 1843 (monotypy)

### ***Dicentrus* Le Conte, 1880**

*Dicentrus* LeConte, 1880c: 195; Leng, 1884: 96; Hopping, 1928a: 7; Bradley, 1930:  
231; Linsley, 1962a: 8; Arnett, 1962: 861, 879; Hatch, 1971: 100; Monné, M.A.,  
1993a: 34 (cat.); Bousquet, Laplante, Hammond & Langor, 2017: 41 (key spp.)

**Type-species** - *Dicentrus bluthneri* LeConte, 1880 (monotypy).

*Paraopsimus* Champlain & Knull, 1926: 205; Bradley, 1930: 231.

**Type-species** - *Paraopsimus bidentatus* Champlain & Knull, 1926 (original  
designation).

#### **1. *Dicentrus bidentatus* (Champlain & Knull, 1926)**

**Type locality** - Holotype female: United States, Oregon ?: Subalpine region.  
(FMNH). **Distribution** - United States (Oregon and California), Canada.

*Paraopsimus bidentatus* Champlain & Knull, 1926: 205.

*Dicentrus bidentatus*; Hopping, 1928a: 7; Hardy, 1953: B29; Linsley, 1962: 10; Hatch,  
1971: 191; Chemsak, 1977a: 177 (type); Chemsak, Linsley & Noguera, 1992: 26  
(cat.); Monné, M.A., 1993a: 35 (cat.); Bousquet, Laplante, Hammond & Langor,  
2017: 41, pl. 2.

#### **2. *Dicentrus bluthneri* LeConte, 1880**

**Syntypes localities** - Syntypes: United States, California, Nevada: Sierra Nevada,  
San Joaquin County; Lake Tahoe. (MCZN). **Distribution** - Pacific coast of North  
America from British Columbia to central California. **Host plants** - *Calocedrus*  
*decurrans* (Torrey) Florin (Cupressaceae), *Abies concolor* Gordon & Glen,  
*Pseudotsuga menziesii* (Mirbel) Franco (Pinaceae), *Sequoia sempervirens* (D. Don)  
Endlicher (Taxodiaceae).

*Dicentrus Bluthneri* LeConte, 1880c: 195; LeConte & Horn, 1883: 279; Leng, 1884: 96

*Dicentrus Bluthneri*; Leng, 1885b: 136, pl. 3, fig. 1. (error).

*Dicentrus bluthneri*; Fall, 1901: 143; Garnett, 1918: 174 (distr.); Hardy, 1950: 18  
(distr.); DeLeon, 1952: 81 (hosts); Linsley, 1962a: 8, figs 3, 4; Tyson, 1966: 203  
(hosts); Hatch, 1971: 101, pl. 10, fig. 2; Furniss & Carolin, 1977: 299 (hosts);  
Chemsak, Linsley & Noguera, 1992: 26 (cat.); Monné, M.A., 1993a: 35 (cat.);  
Linsley & Chemsak, 1997: 365 (hosts).

*Dicentrus blunthneri*; Deyrup, 1977: 181 (paras., error); Bousquet, Laplante, Hammond  
& Langor, 2017: 41, pl. 2.

### ***Opsimus* Mannerheim, 1843**

*Opsimus* Mannerheim, 1843: 305; LeConte, 1857: 60; Thomson, 1861: 377; 1864: 267,  
463; Lacordaire, 1868: 212; LeConte, 1873b: 293; Leng, 1884: 96; Craighead,  
1923: 35; Bradley, 1930: 231; Van Emden, 1939: 267; Linsley, 1939: 64; Arnett,  
1962: 861, 878; Linsley, 1962a: 5; Hatch, 1971: 100; Svacha & Lawrence, 2014:  
147, 150.

**Type-species** - *Opsimus quadrilineatus* Mannerheim, 1843 (monotypy).

**1. *Opsimus quadrilineatus* Mannerheim, 1843**

**Type locality** - Holotype: United States, Alaska: Sitkha. (MZHF). **Distribution** - Pacific coast of North America from Alaska to central California. **Host plants** - *Cupressus goveniana* Gordon, *C. macrocarpa* Hartweg ex Gordon (Cupressaceae), *Abies grandis* (Lambert) Lindley, *Picea engelmanni* Engelman, *P. sitchensis* (Bongard) Carr, *Pinus contorta* Douglas ex Loudon, *Pseudotsuga menziesii* (Mirbel) Franco, *P. taxifolia* (Poiret) Britton, *Tsuga heterophylla* (Rafinesque) Sargent (Pinaceae), *Sequoia sempervirens* (D. Don) Endlicher (Taxodiaceae).

*Opsimus quadrilineatus* Mannerheim, 1843: 305; LeConte, 1851: 105; Melsheimer, 1853: 103 (cat.); White, 1855: 308; LeConte, 1857: 23, 60, pl. 2, fig. 10; Thomson, 1861: 377; 1864: 267; Lacordaire, 1868: 212; LeConte, 1873b: 294; LeConte & Horn, 1883: 279; Leng, 1884: 96; 1885: 35, pl. 1, fig. 2; Wickham, 1892: 141 (distr.); Hamilton, 1894c: 30 (distr.); Keen, 1895: 219 (distr.); Van Dyke, 1902: 199 (distr.); Garnett, 1918: 174 (distr., hosts); Craighead, 1923: 35 (larva); Hardy & Preece, 1927b: 62 (hosts); Beaulne, 1932: 198 (hosts); Linsley, 1938: 105 (syn.); Hardy, 1942: 10 (biol.); Tilden, 1945: 30 (hosts); Keen, 1952: 47, 196 (hosts); Spencer, 1958: 11 (biol.); Linsley, 1962a: 6 figs 1,2; Hatch, 1971: 101, pl. 10, fig. 1; Swan & Papp, 1972: 445; Hovore & Giesbert, 1976: 351 (hosts); Deyrup, 1977: 181 (hosts); Furniss & Carolin, 1977: 303 (hosts); Chemsak, Linsley & Noguera, 1992: 26 (cat.); Monné, M.A., 1993a: 34 (cat.); Linsley & Chemsak, 1997: 413 (hosts).

*Opsimus quadrilineatus*; Hardy & Preece, 1926: 34 (hosts, error).

*Opsimus quadrilineatus biplectralis* Casey. 1924: 229; Lingafelter *et al.*, 2014: 307, fig. 141k (holotype).

**Type locality** - Holotype male: United States, California: Del Norte County. (USNM).

**PHORACANTHINI Newman, 1840**

Phoracanthidae Newman, 1840b: 2.

Phoracanthinae Pascoe, 1869: 498, 533., 1869: 298 (*partim*).

Phoracanthini; Aurivillius, 1912: 83 (cat.); Linsley, 1936a: 461; Knull, 1946: 187; Wang, 1998: 667; Wang, Thornton & New, 1999: 631; Monné, M.A., 2005: 430 (cat.); Martins & Galileo, 2006: 2; Bousquet *et al.*, 2009: 51; Bouchard *et al.*, 2011: 477.

**Type-genus:** *Phoracantha* Newman, 1840.

**Type-species:** *Stenocorus semipunctatus* Fabricius, 1775 (original designation).

***Phoracantha* Newman, 1840**

*Phoracantha* Newman, 1840c: 19; Chevrolat in D'Orbigny, 1847a: 774; Thomson, 1861: 231; 1865: 449; Lacordaire, 1868: 303; Wang, 1995: 865 (revis.); Monné, M.A., 2005: 430 (cat.); Martins & Galileo, 2006: 3.

**Type-species** - *Phoracantha synonyma* Newman, 1840 (Thomson designation, 1864: 238).

**1. *Phoracantha recurva* Newman, 1840**

**Type locality** - Holotype: New Holland. (BMNH). **Distribution** - Australia, introduced into Europe (Greece, Spain, France, Belgium, Italy, Turkey, Malta), Africa (South Africa, Malawi, Maroc, Zambia, Mozambique), Israel, United States (California), Brazil (Bahia, Minas Gerais, Paraná, Santa Catarina, Rio Grande do

Sul), Paraguay, Chile, Argentina (Corrientes, Córdoba, La Rioja, Santa Fé, Entre Ríos, Buenos Aires, La Pampa, Río Negro), Uruguay. **Host plants** - *Eucalyptus camaldulensis* Dehnhardt, *E.cinerea* F. Müller ex Benthams, *E. citriodora* Hooker, *E. cloeziana* F. Müller, *E. drepanophylla* F. Müller ex Benthams, *E. globulus* Labillardière, *E. grandis* W. Hill ex Maiden, *E. intermedia* R. T. Baker, *E. maculata* Hooker, *E. nova-anglica* Deane & Maiden, *E. ovata* Labillardière, *E. robusta* Smith, *E. saligna* Smith, *E. sideroxylon* Cunningham ex Woolls, *E. tereticornis* Smith, *E. viminalis* Labillardière (Myrtaceae).

*Phoracantha recurva* Newman, 1840b: 4; White, 1853: 117; Bianchi & Sánchez, 1999: 18, 1 fig.; Chappell & Rogowitz, 2000: 3810 (physiol.); Luhring *et al.*, 2000: 95 (paras.); Monné, M.A., 2001b: 35 (cat. hosts); Monné, M.A. *et al.*, 2002: 66 (hosts); Paine & Millar, 2002: 148 (pests); Millar *et al.*, 2002: 141 (paras.); Morelli, Bianchi & Sanchez, 2002: 853 (larva, biol.); Di Iorio, Riquelme & Esteban-Durán, 2003: 20, fig. 6 (distr.); Di Iorio, 2004a: 503; 2004c: 21 (distr.); Ely e Silva & Kruger, 2004: 69; Bybee *et al.*, 2004: 1232; Monné, M.A., 2005: 430 (cat.); Bosmans, 2006: 105, 1 fig.; Martins & Galileo, 2006: 18, figs 1, 3, 4, 7, 19; Bernardi *et al.*, 2010: 583 (distr.); Joyce *et al.*, 2011: 145 (paras.); Menezes *et al.*, 2012: 53 (distr); Faucheux, 2011: 19; Faucheux, 2012: 12, fig. 1 (morphol.); Nascimento & Bravo, 2014: 134 (distr.); Santos *et al.*, 2014: 525 (biol.); Di Iorio & Turienzo, 2015 : 32 (distr.); Haack in Wang, 2017: w/page fig. 11.15 (biol., hosts).

## 2. *Phoracantha semipunctata* (Fabricius, 1775)

**Syntypes locality** - Syntypes female: Nova Hollandia. (BMNH). **Distribution** - Australia, introduced in Europe (Italy, Spain, France. Sweden, United Kingdom, Turkey, Portugal, Corsica, Canary Islands, Cyprus, Madeira), Africa (South Africa, Zambia, Zimbabwe, Malawi, Argel, Egypt, Maroc, Lybia), Israel, New Zealand, Papua New Guinea, United States, Mexico (Baja California), Cuba, Ecuador, Peru, Chile, Bolivia (Santa Cruz), Brazil (Minas Gerais, Rio de Janeiro, São Paulo, Paraná, Santa Catarina, Rio Grande do Sul), Paraguay, Argentina (Jujuy, San Luís, Santa Fé, Entre Ríos, La Pampa, Buenos Aires, Neuquén), Uruguay. **Host plants** - *Angophora costata* (Gaertner) Britton, *A. intermedia* A.P. de Candolle, *Eucalyptus acmenioides* Schauer, *E. amplifolia* Naudin, *E. botryoides* Smith, *E. camaldulensis* Dehnhardt, *E. capitellata* Smith, *E. cinérea* F. Müller ex Benthams, *E. citriodora* Hooker, *E. cloeziana* F. Müller, *E. corynocalyx* F. Müller, *E. crebra* F. Müller, *E. cypellocarpa* L.A.S. Johnson, *E. dalrympleana* Maiden, *E. deanei* Maiden, *E. delagatensis* R.Baker, *E. diversicolor* F. Müller, *E. dunnii* Maiden, *E. fastigata* Deane & Maiden, *E. globulus* Labillardière, *E. gomphocephala* de Candolle, *E. gracilis* W. Hill ex Maiden, *E. leucoxyton* F. Müller, *E. longifolia* Link, *E. maculata* Hooker, *E. microcorys* F. Müller, *E. nitens* Maiden, *E. nova-anglica* Deane & Maiden, *E. obliqua* L'Heritier, *E. occidentalis* Endlicher, *E. oleosa* F. Müller, *E. oreades* R.T. Baker, *E. paniculata* Smith, *E. pellita* F. Müller, *E. phaeotricha* Blakely & McKie, *E. pilularis* Smith, *E. piperita* Smith, *E. propínqua* Deane & Maiden, *E. punctata* de Candolle, *E. resinifera* Smith, *E. robusta* Smith, *E. rostrata* Schlechtendal, *E. saligna* Smith, *E. salubris* F. Müller, *E. sideroxylon* Cunningham ex Woolls, *E. tereticornis* Smith, *E. urophylla* S.T. Blakely, *E. viminalis* Labillardière, *Syncarpia glomulifera* (Smith) Niedenzu. (Myrtaceae).

*Stenocorus semipunctatus* Fabricius, 1775: 180.

*Phoracantha semipunctata*; Newman, 1840c: 19; Bruch, 1918b: 354, 1 fig.; Molinari, 1923: 135 (hosts); Bosq, 1934: 338 (distr.); Saalas, 1936: 64, pl. 6, fig. 60; Bosq, 1943a: 32 (distr.); De Santis, 1945: 127, 5 pls (biol.); Bosq, 1947b: 6, 4 figs (biol.);



Lepesme, 1950: 578, fig. 2; Bosq & Ruffinelli, 1951: 9 (distr.); Duffy, 1953: 180 (larva, pupa); Ruffinelli & Carbonell, 1953: 60 (hosts); Biezanko & Bosq, 1956: 9 (distr., hosts); Baucke, 1957: 8; Buck, 1959: 584 (distr.); Duffy, 1960: 126, figs 73, 74 (larva, pupa); Zajciw & Ruffinelli, 1962: 32 (distr.); Duffy, 1963: 69, figs 44-46 (biol.); Santoro, 1966: 56 (hosts); Ruffinelli, 1967: 43 (hosts); Dourojeanni, 1967: 3 (biol.); Silva, A.G. *et al.*, 1968: 393 (hosts); Ojeda & Cueva, 1971: 31 (distr.); Hovore, 1988: 10 (distr.); Hanks, Paine & Millar, 1991: 1583 (ecol.); Chemsak, Linsley & Noguera, 1992: 46 (cat.); Hanks *et al.*, 1993: 96 (biol.); Barriga *et al.*, 1993: 72 (hosts); Berti, Cerignoni & Souza Júnior, 1995: 40 (distr.); Wang, 1995: 937 (rev.); Iturre, Darchuck & Diodato, 1995: 60 (hosts); Hanks, Millar & Paine, 1995: 183 (ecol.); Noguera & Chemsak, 1996: 399 (cat.); Di Iorio, 1997b: 162 (hosts); Austin & Dangerfield, 1997: 327 (paras.); Berti, Perecin & Bernardi, 1997: 350 (biol.); Lingafelter, 1998: 115; Hanks, Millar & Paine, 1998: 1418 (dispersal); Hanks *et al.*, 1999: 400 (ecol.); Bianchi & Sánchez, 1999: 18, 1 fig. (biol.); Barata *et al.*, 2000: 1877 (biol.); Chappell & Rogowitz, 2000: 3810 (physiol.); Paine *et al.*, 2000: 223 (paras.); Luhring *et al.*, 2000: 95 (paras.); Monné, M.A., 2001b: 36 (cat. hosts); Oliveira *et al.*, 2001: 52 (biol.); Hanks *et al.*, 2001: 152 (paras.); Monné, M.A. *et al.*, 2002: 66 (hosts); Barata *et al.*, 2002: 121 (physiol.); Joyce *et al.*, 2002: 207 (biol.); Lopes *et al.*, 2002: 1 (morphol.); Millar *et al.*, 2002: 141 (paras.); Morelli, Bianchi & Sanchez, 2002: 857 (larva, pupa, biol.); Paine & Millar, 2002: 147 (pests); Onore & Mazza, 2003: 61, 5 figs; Di Iorio, 2004a: 503; Ely e Silva & Kruger, 2004: 73, figs 2, 4 (distr.); Bybee *et al.*, 2004: 1232; Monné, M.A., 2005: 430 (cat.); Hanks, Paine & Millar, 2005: 25 (larvae); Wappes *et al.*, 2006: 12 (distr.); Vergara, Jerez & Parra, 2006: 375 (distr.); Martins & Galileo, 2006: 7, figs 2, 5, 6, 8-17, 20; Grillo-Ravelo & Fernández, 2007: 444, fig. 1 (distr.); Monné, M.L. *et al.*, 2010: 242 (distr.); Faucheux, 2011: 19; Joyce *et al.*, 2011: 145 (paras.); Pacini, 2011: 27 (distr.); Monné, M.A. & Chaboo, 2015: 61 (distr., hosts); Devesa, Fonseca & Barro, 2015: 33, 342, figs 1-8; Haack in Wang, 2017: w/page fig. 11.16 (biol., hosts); Lingafelter, Wappes & Ledezma Arias, 2017: 105, 1 fig.

*Phoracantha inscripta* Germar, 1848: 226.

**Syntypes locality** – Syntypes: Adelaide. (ZMHB).

*Phoracantha hospita* Pascoe, 1864: 232.

**Syntypes locality** – Syntypes: Queensland. (BMNH).

### **PIEZOCERINI Lacordaire, 1868**

Piezocerides Lacordaire, 1868: 204 (key), 324.

Piezocerinae; Bates, 1870: 280.

Piezocerini; Gounelle, 1909: 651; Aurivillius, 1912: 102 (cat.); Arnett, 1962: 860, 884; Linsley, 1963: 132; Martins, 1976a: 165 (rev.); Monné, M.A., 1993c: 23 (cat.); Martins, 2003b: 65 (rev.); Monné, M.A., 2005: 430 (cat.); Bousquet *et al.*, 2009: 52; Bouchard *et al.*, 2011: 478.

**Type-genus:** *Piezocera* Audinet-Serville, 1834.

**Type-species:** *Piezocera bivittata* Audinet-Serville, 1834 (monotypy).

### **PIEZOCERINA Lacordaire, 1868**

Piezocérides Lacordaire, 1868: 204 (key), 324.

Piezocerina; Martins, 1976a: 199, 227 (rev.); 2003c: 94 (rev.); Monné, M.A., 2005: 433 (cat.); Bousquet *et al.*, 2009: 52; Bouchard *et al.*, 2011: 477.

**Type genus:** *Piezocera* Audinet-Serville, 1834.

**Type species:** *Piezocera bivittata* Audinet-Serville, 1834 (monotypy).  
Zelliboriinae Lane, 1951: 5.

**Type-genus:** *Zelliboria* Lane, 1951.

**Type-species:** *Rhagium daedaleum* Perty, 1830 (original designation).

***Piezocera* Audinet-Serville, 1834**

*Piezocera* Audinet-Serville, 1834b: 92; Laporte, 1840: 446; Berge, 1844: 38; Strauch, 1861: 131; Thomson, 1861: 202; 1864: 221; 1865: 439; Lacordaire, 1868: 326; Bates, 1885: 258; Linell, 1897: 394; Gounelle, 1909: 651; Arnett, 1962: 860, 884; Linsley, 1963: 132; Martins, 1976a: 257 (rev., syn.); 2003: 116; Monné, M.A., 2005: 441 (cat.); Monné, M.A., 2012: 43.

**Type-species** - *Piezocera bivittata* Audinet-Serville, 1834 (original designation).

*Pyrgotes* Bates, 1867: 27; 1870: 283.

**Type-species** - *Pyrgotes aeneus* Bates, 1867 (monotypy).

**1. *Piezocera serraticollis* Linell, 1897**

**Type locality** - United States, Texas: Brownsville. (USNM). **Distribution** - United States (Texas), Mexico (Hidalgo, Chiapas, Oaxaca). **Host plants** - *Celtis laevigata* Willdenow, *C. lindheimeri* Engelm., *C. pallida* Torrey, *C. spinosa* Torrey (Cannabaceae), *Diospyros texana* Scheele (Ebenaceae), *Pithecellobium flexicaule* (Benth.) Coulter, *Prosopis* sp. (Mimosaceae).

*Piezocera serraticollis* Linell, 1897: 394; Wickham, 1898: 41 (distr.); Townsend, 1893: 76 (distr.); Schaeffer, 1908: 327 (distr.); Linsley, 1963: 133; Martins, 1976a: 274, fig. 91; Hovore, Penrose & Giesbert, 1978: 98 (hosts); Turnbow & Wappes, 1978: 369 (hosts); Hovore, Penrose & Neck, 1987: 304 (distr.); Chemsak, Linsley & Noguera, 1992: 49 (cat.); Monné, M.A. & Giesbert, 1994: 66 (cat.); Noguera & Chemsak, 1996: 399 (distr.); Linsley & Chemsak, 1997: 420 (hosts); Lingafelter *et al.*, 2014: 318, figs 153g, h (holotype); Noguera *et al.*, 2017: 9 (distr.); Heffern, Vlasak & Alten, 2018: 745 (hosts).

**PLECTROMERINI Nearn & Branham, 2008**

Plectromerini Nearn & Branham, 2008: 19; Bousquet *et al.*, 2009: 53; Bouchard *et al.*, 2011: 479.

**Type-genus:** *Plectromerus* Haldeman, 1847.

**Type-species:** *Obrium dentatum* J.E. LeConte, 1824 (= *Callidium dentipes* Olivier, 1790) designated by Linsley (1963: 135).

***Plectromerus* Haldeman, 1847**

*Plectromerus* Haldeman, 1847a: 43; LeConte, 1873a: 189; 1873b: 304; LeConte & Horn, 1883: 290; Leng, 1884: 115; Bradley, 1930: 234; Cazier & Lacey, 1952: 29 (key spp.); Arnett, 1962: 866, 884; Linsley, 1963: 134; Zayas, 1975: 122; Giesbert, 1985: 80; Vitali, 2004: 454 (key spp.); Monné, M.A., 2005: 133 (cat.); Nearn & Branham, 2008: 20 (rev., syn.); Nearn & Miller, 2009: 60 (key); Monné, M.A., 2012: 44.

**Type-species** - *Obrium dentatum* J. E. LeConte, 1824 (subsequent designation, Linsley, 1963: 135). [= *Callidium dentipes* Olivier, 1790].

*Pentomacrus* White, 1855: 297; Thomson, 1864: 244; Lacordaire, 1868: 397; Cameron, M., 1910: 136 (key spp.); Cazier & Lacey, 1952: 29 (key spp.); Zayas, 1975: 126.

**Type-species** - *Saperda femorata* Fabricius, 1793 (monotypy).

*Curiosa* Micheli, 1983: 261.

**Type-species** - *Curiosa dominicana* Micheli, 1983 (original designation).

### 1. *Plectromerus dentipes* (Olivier, 1790)

**Type locality** – Holotype: United States, Georgia. (Depository unknown).

**Distribution** - United States (Louisiana to Florida, California), Cuba, Bahamas.

**Host plants** - *Metopium toxiferum* (Linné) Krug & Urban (Anacardiaceae), *Cercis canadensis* Linné (Caesalpiniaceae), *Crossopetalum rhacoma* Hitchcock (Celastraceae), *Conocarpus erectus* Linné (Combretaceae), *Juniperus bermudiana* Linné (Cupressaceae), *Quercus* sp. (Fagaceae), *Carya illinoensis* (Wagenheim) K. Koch, *C. pecan* (Marshall) Engler & Graebner (Juglandaceae), *Lysiloma latisiliqua* (Linné) Bentham (Mimosaceae), *Taxodium distichum* (Linné) Richard (Taxodiaceae).

*Callidium dentipes* Olivier, 1790: 268; 1795: (70) 29, pl. 4, fig. 40.

*Clytus dentipes*; Schoenherr, 1817: 472.

*Clytus ? dentipes*; Haldeman, 1847a: 41.

*Curius dentipes*; Gemminger & Harold, 1872: 2836 (cat.).

*Plectromerus dentipes*; LeConte, 1873a: 189; 1873b: 304; LeConte & Horn, 1883: 290; Leng, 1885b: 135, pl. 3, fig. 11; Horn, 1885b: 5 (syn.); 1886a: 138; Hamilton, 1894a: 252, 256 (distr.); Castle & Laurent, 1897: 8 (distr.); Wickham, 1909b: 402 (distr.); Blatchley, 1917: 272 (distr.); Loding, 1945: 116 (distr.); Cazier & Lacey, 1952: 30; Linsley, 1963: 135; Zayas, 1975: 123, pl. 16, fig. a; Turnbow & Hovore, 1979: 222 (hosts); Turnbow & Franklin, 1980: 342 (distr.); Chemsak, Linsley & Noguera, 1992: 54 (cat.); Browne & Peck, 1996: 2158, 2160 (distr.); Linsley & Chemsak, 1997: 421 (hosts); Monné, M.A., 2001a: 51 (cat. hosts); Vitali & Resbanyai-Reser, 2003: 5; Peck, 2005: 171 (distr.); Monné, M.A., 2005: 133 (cat.); Thomas & Turnbow, 2007: 584 (distr.); Nearn & Branham, 2008: 24, figs 8a-b, 9a-c, 21e (syn.); Swift, 2008a: 3 (distr.); Turnbow & Thomas, 2008: 21 (distr.); Devesa, Fonseca & Barro, 2015: 32, 260, figs 1-9.

*Plectromerus dentipes*; Browne, Peck & Ivie, 1993: 46 (distr., error).

*Pentomacrus dentipes*; Cameron, M., 1910: 136; Gowdey, 1926: 21 (distr.).

*Obrium dentatum* J. E. LeConte, 1824: 172, pl. 11, fig. 11; LeConte, 1850b: 22.

*Plectromerus dentatus*; Haldeman, 1847a: 43.

*Curius dentatus*; Melsheimer, 1853: 106 (not *Curius dentatus* Newman, 1840).

**Syntypes locality** – Syntypes: United States, Georgia. (MCZN).

*Curius scambus* Newman, 1841: 79; LeConte, 1850b: 22; White, 1855: 247; Lacordaire, 1868: 352.

*Plectromerus scambus*; LeConte, 1873b: 304; LeConte & Horn, 1883: 290; Vitali & Resbanyai-Reser, 2003: 5.

*Pentomacrus scambus*; Cameron, M., 1910: 136.

**Type locality** – Holotype: United States, Florida: St. John's Bluff. (BMNH).

*Plectromerus costatus* Cazier & Lacey, 1952: 30, fig. 3; Chemsak, Linsley & Noguera, 1992: 54 (cat.); Vitali & Resbanyai-Reser, 2003: 5; Monné, M.A., 2005: 133 (cat.).

*Plectromerus costatus*; Browne, Peck & Ivie, 1993: 46 (distr., error).

**Type locality** – Holotype: Bahamas, South Bimini Island. (AMNH).

### PLESIOCLYTINI Wappes & Skelley, 2015

Plesioclytini Wappes & Skelley, 2015: 2

**Type genus** - *Plesioclytus* Giesbert, 1993

**Type-species** - *Plesioclytus relictus* Giesbert, 1993 (original designation).

***Plesioclytus* Giesbert, 1993**

*Plesioclytus* Giesbert, 1993a: 129; Wappes & Skelley, 2015: 2.

**Type-species** – *Plesioclytus relictus* Giesbert, 1993 (original designation)

**1. *Plesioclytus morrissi* Wappes & Skelley, 2015**

**Type locality** – Holotype male: United States, Georgia: Emanuel County, Ohoopee Dunes NA, Hall's Bridge Road. (FSCA). **Distribution** - United States (Georgia, Emanuel Co. and Tattnall Co.). **Host plants** - *Polygonum fimbriatum* Elliott, *P. pinicola* T.M. Schust (Polygonaceae)

*Plesioclytus morrissi* Wappes & Skelley, 2015: 3, figs 1z-b, 2a-b, 6a-b; Schnepf, 2019: 2 (biol.).

**2. *Plesioclytus relictus* Giesbert, 1993**

**Type locality** - Holotype male: United States, Florida: Archbold Biological Station, Lake Placid, Highlands County. (FSCA). **Distribution** - United States (SE Florida). **Hosts plants** - *Polygonum polygamum brachystachyum* (Meisn.) (Polygonaceae).

*Plesioclytus relictus* Giesbert, 1993a: 129, figs 1, 2A, 2B; Monné, M.A. & Giesbert, 1994: 119 (cat.); Peck & Thomas, 1998: 119 (distr.); Lingafelter, 2007: 81, 149, 2 figs, pl. 19, fig. c; Wappes & Skelley, 2015: 2, figs 3a-b, 4a-b, 5a-b, 7a-b.; Schnepf, 2019: 2 (biol.)

**PSEBIINI Lacordaire, 1868**

Leptidéites Fairmaire, 1864: 148, 193 (based on *Leptidea* Mulsant, 1839). **Nomen nudum.**

Leptideina; Reitter, 1912: 24, 26.

Psébiides Lacordaire, 1868: 403 (key), 479.

Psebiina; Plavilstshikov, 1932: 74.

Psebiini; Gounelle, 1913: 219; Heyrovsky, 1955: 164; Martins & Napp, 1984: 320 (rev.); Monné, M.A., 1993g: 6 (cat.); Martins, 2003a: 36 (rev., syn.); Monné, M.A., 2005: 445 (cat.); Bousquet *et al.*, 2009: 53; Bouchard *et al.*, 2011: 479.

**Type-genus:** *Psebiium* Pascoe, 1864.

**Type-species:** *Psebiium brevipenne* Pascoe, 1864 (monotypy).

Gracilaires Mulsant, 1839: 99 (*partim*); Planet, 1924: 142 (*partim*).

Graciliates; Mulsant, 1863: 192 (*partim*).

Cambaiinae Lane, 1951: 12.

**Type-genus:** *Cambaia* Lane, 1951.

**Type-species:** *Cambaia longitarsis* Lane, 1951 (original designation).

Nathriini Arnett, 1962: 860; Linsley, 1963: 153; Monné, M.A., 1993g: 1 (cat.). (*partim*).

**Type-genus:** *Nathrius* Brèthes, 1916

**Type-species:** *Nathrius porteri* Brèthes, 1916 (monotypy).

***Nathrius* Brèthes, 1916**

*Nathrius* Brèthes, 1916: 76; Heyrovsky, 1955: 164; Linsley, 1963: 153; Martins, 2003a: 40; Monné, M.A., 2005: 446 (cat.).

**Type-species** - *Nathrius porteri* Brèthes, 1916 (monotypy) [= *Leptidea brevipennis* Mulsant, 1839].

*Leptidea* Mulsant, 1839: 105; 1863: 200; Thomson, 1864: 440; Fairmaire in Jacquelin DuVal, 1864: 149; Lacordaire, 1868: 481; Planet, 1924: 142; Portevin, 1927: 24; Picard, 1929: 79; Plavilstshikov, 1932: 74; Villiers, 1946: 66.

**Type-species** - *Leptidea brevipennis* Mulsant, 1839 (monotypy).

*Leptideella* Strand, 1936: 169 (*nom. nov. pro Leptidea* Mulsant, 1839, not Billberg, 1820)

*Deuteroleptidea* Paclt, 1946: 169 (*nom. nov. pro Leptidea* Mulsant, 1839, not Billberg, 1820).

### 1. *Nathrius brevipennis* (Mulsant, 1839)

**Syntypes locality** – Syntypes male and female: Europe. (MNHN). **Distribution** – Europe (Germany, Great Britain, France, Denmark, Norway, Italy, Croatia, Greece, Crete, Spain), China, Asia Minor, Middle East (Lebanon, Cyprus, Israel), northern Africa (Algeria, Tunisia), introduced by commerce into United States, Brazil, Argentina (Buenos Aires), Chile and Uruguay. **Host plants** - *Pistacia lentiscus* Linné (Anacardiaceae), *Hedera helix* Linné (Araliaceae), *Araucaria angustifolia* (Bertoloni) Kuntze (Araucariaceae), *Alnus* sp., *Ostrya* sp. (Bertulaceae), *Ceratonia siliqua* Linné (Caesalpiniaceae), *Viburnum opulus* Linné (Caprifoliaceae), *Cornus sanguinea* Linné (Cornaceae), *Cupressus sempervirens* Linné (Cupressaceae), *Robinia* sp., *Spartium junceum* Linné, *Wisteria chinensis* de Candolle (Fabaceae), *Castanea sativa* Miller, *Corylus avellana* Linné, *Quercus agrifolia* Née, *Q. faginea* Lamarck, *Q. ilex* Linné, *Q. mirbeckii* Durand, *Q. robur* Linné, *Q. rubra* Linné, *Q. wislizenii* A. de Candolle (Fagaceae), *Juglans californica* S. Watson, *J. regia* Linné (Juglandaceae), *Laurus nobilis* Linné, *Persea americana* P. Miller (Lauraceae), *Ficus carica* Linné, *Maclura aurantiaca* Nuttall, *Morus alba* Linné, *M. nigra* Linné (Moraceae), *Fraxinus* sp., *Ligustrum japonicum* Thunberg, *Olea europaea* Linné (Oleaceae), *Passiflora caerulea* Linné (Passifloraceae), *Cedrus atlantica* Manetti, *Pinus halepensis* Miller (Pinaceae), *Zizyphus lotus* Lamarck (Rhamnaceae), *Cotoneaster* sp., *Cydonia oblonga* Miller, *Eriobotrya* sp., *Photinia arbutifolia* Lindley, *Prunus domestica* Linné, *Prunus persica* (Linné) Batsch, *Pyrus communis* Linné, *Rosa canina* Linné, *Rosa centifolia* Linné (Rosaceae), *Salix alba* Linné, *S. babylonica* Linné, *S. purpurea* Linné, *S. viminalis* Linné, *S. vitellina* Linné (Salicaceae).

*Leptidea brevipennis* Mulsant, 1839: 105, pl. 2, fig. 3; 1863: 200; Thomson, 1864: 223; Fairmaire in Jacquelin DuVal, 1864: 44, fig. 206; Lacordaire, 1868: 482; Nicolas, 1884: 62 (biol.); 1891: 56 (biol.); Aurivillius, 1912: 262 (cat., refs); Linsley, 1933b: 170; Bosq, 1943a: 31; 1943b: 107 (distr., hosts); Lepesme, 1944: 191, fig. 173 (biol.); Prosen, 1947: 325 (distr.); Molinari, 1948: 254, fig. 231 (hosts).

*Gracilia brevipennis*; Dufour, 1851: 350; White, 1855: 241.

*Leptideella brevipennis*; Strand, 1936: 169; Duffy, 1953: 73, 197, fig. 176 (biol., refs).

*Leptidiella brevipennis*; Middlekauff & Underhill, 1949: 128 (hosts); Leech, 1954: 158 (hosts).

*Deuteroleptidea brevipennis*; Paclt, 1946: 169.

*Nathrius brevipennis*; Bosq, 1948: 69; 1949: 81; Bosq & Ruffinelli, 1951: 12 (distr., hosts); Duffy, 1957: 126; Buck, 1959: 587 (distr.); Duffy, 1960: 142, fig. 81 (larva, refs); Zajciw & Ruffinelli, 1962: 38 (distr.); Linsley, 1963: 154, fig. 49 (refs); Tyson, 1966: 204 (hosts); Ruffinelli, 1967: 44 (hosts); Chemsak, Linsley & Noguera, 1992: 56 (cat.); Barriga *et al.*, 1993: 71 (hosts); Di Iorio, 1997b: 162

(hosts); Linsley & Chemsak, 1997: 401 (hosts); Di Iorio & Zelich, 1997: 286 (hosts); Monné, M.A., 2001b: 31 (cat. hosts); Martins, 2003: 40, figs 33-39; Di Iorio, 2004d: 668 (distr., hosts); Monné, M.A., 2005: 446 (cat.); Di Iorio & Farina, 2009: 86 (hosts); Machado *et al.*, 2012: 188 (hosts); Zúñiga-Reinoso, 2013: 55, fig. 1f (distr.); Di Iorio & Turienzo, 2015 : 32 (distr.).

*Leptidea minuta* Motschulsky, 1845: 84.

**Syntypes locality** – Syntypes: Lower Ural River. (ZMUM).

*Gracilia manca* LeConte, 1850b: 24; White, 1855: 241; Leng, 1885a: 118; Leonard, 1928: 436 (distr.).

*Leptidea manca*; Lacordaire, 1868: 482.

**Syntypes locality** – Syntypes: United States, New York. (MCZN).

*Gracilia rufipennis* Dufour, 1851: 351.

**Type locality** – Holotype: United States, New York. (MNHN).

*Nathrius porteri* Bréthes, 1916 77, fig. 1.

**Type locality** – Holotype female: Chile, Santiago. (MACN).

### **RHINOTRAGINI Thomson, 1861**

Rhinotragitae Thomson, 1861: 133 (key), 176 (key), 177.

Rhinotragides; Lacordaire, 1868: 497.

Rhinotraginae; Bates, 1870: 316; 1873: 21.

Rhinotragini; Aurivillius, 1912: 277 (cat.); Linsley, 1961a: 630 (mimet.); Arnett, 1962: 860, 885; Linsley, 1963: 164; Giesbert, 1991: 379 (key gen.); Monné, M.A., 1993g: 10 (cat.); Monné, M.A., 2005: 453 (cat.); Bousquet *et al.*, 2009: 55; Bouchard *et al.*, 2011: 481.

**Type-genus:** *Rhinotragus* Germar, 1823.

**Type-species:** *Rhinotragus dorsiger* Germar, 1823 (monotypy).

### **Ameriphoderes Clarke, 2015**

*Ameriphoderes* Clarke, 2015: 38.

**Type-species** - *Acyphoderes acutipennis* Thomson, 1860 (original designation).

#### **1. Ameriphoderes suavis (Bates, 1885)**

**Type locality** - Holotype male: Mexico, Veracruz: Córdoba. (BMNH). **Distribution** – United States (Texas), Mexico (Sonora, Sinaloa, Tamaulipas, Nayarit, Jalisco, Michoacán, Veracruz, Oaxaca, Chiapas, Yucatán), Guatemala, Costa Rica, Nicaragua. **Host plants** - *Euphorbia* sp., *Jatropha curcas* Linné (Euphorbiaceae), *Casearia nítida* Jacquin (Flacourtiaceae), *Coccoloba liebmanni* (Polygonaceae).

*Acyphoderes suavis* Bates, 1885: 290, pl. 20, fig. 20; Chemsak & Linsley, 1979a: 80, fig. 6; Chemsak, Linsley & Noguera, 1992: 58 (cat.); Chemsak & Noguera, 1995: 61 (distr., hosts); Noguera & Chemsak, 1996: 400 (cat.); Maes, 1998: 897 (distr.); Heffern, 2001: 94 (distr.); Monné, M.A., 2001b: 41 (cat.); Ruíz Cancino & Coronado Blanco, 2002: 102 (distr.); Monné, M.A., 2005: 457 (cat.); Hovore, 2006: 373 (distr.); Noguera *et al.*, 2007: 311 (distr.); Audureau, 2008c: 11 (distr.); Swift *et al.*, 2010: 26 (distr.); Maes *et al.*, 2010: 393, 8 figs (distr.); Noguera *et al.*, 2012: 621 (distr.); García Morales *et al.*, 2015: 105 (distr.).

*Ameriphoderes suavis*; Clarke, 2015: 49, figs 37, 38.

### **Odontocera Audinet-Serville, 1834**

*Odontocera* Audinet-Serville, 1834a: 546; Laporte, 1840: 442; Guérin-Méneville, 1844a: 237; Blanchard, 1845: 151; Thomson, 1861: 177; 1864: 165; 1865: 417; Lacordaire, 1868: 503; Bates, 1870: 320; 1873: 36; Chenu, 1870: 316; Linsley, 1963: 164; Zayas, 1975: 129; Chemsak & Linsley, 1979: 80; Monné, M.A. & Magno, 1988: 441 (key spp.); Monné, M. A. 2005: 469 (cat.); Monné, M.A., 2012: 48.

**Type-species** - *Odontocera vitrea* Audinet-Serville, 1834 (subsequent designation, Thomson, 1864: 165). [= *Necydalis fasciata* Olivier, 1795].

### 1. *Odontocera aurocineta arizonensis* Linsley, 1961

**Type locality** - Holotype male: United States, Arizona: Santa Rita Mts (Box Canyon). (CASC). **Distribution** - United States (Arizona), Mexico (Sonora, Sinaloa).

*Odontocera aurocineta arizonensis* Linsley, 1961d: 163; 1963: 165; Chemsak & Linsley, 1979a: 82, fig. 71; Chemsak, Linsley & Noguera, 1992: 58 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Monné, M.A. 2005: 470 (cat.); Noguera *et al.*, 2009: 88 (distr.).

## RHOPALOPHORINI Blanchard, 1845

Rhopalophorites Blanchard, 1845: 152, 171; Chenu, 1870: 316.

Rhopalophoritae; Thomson, 1861: 176

Rhopalophorides; Lacordaire, 1869: 109.

Rhopalophorinae; Bates, 1870: 403.

Rhopalophorini; LeConte, 1873b: 307; LeConte & Horn, 1883: 292; Leng, 1884: 114; Blatchley, 1910: 1029; Aurivillius, 1912: 430 (cat.); Knull, 1946: 187; Gressitt, 1951: 315; Arnett, 1962: 861, 887; Linsley, 1964: 187; Giesbert & Chemsak, 1993: 28 (key gen.); Monné, M.A., 1994a: 1 (cat.); Marques & Napp, 2003: 491 (cladistics); Monné, M.A., 2005: 508 (cat.); Bousquet *et al.*, 2009: 53; Bouchard *et al.*, 2011: 481.

**Type-genus:** *Rhopalophora* Audinet-Serville, 1834.

**Type-species:** *Rhopalophora sanguinicornis* Audinet-Serville, 1834 (monotypy).

## *Dihammaphora* Chevrolat, 1859

*Dihammaphora* Chevrolat, 1859a: 50; Thomson, 1861: 180; 1864: 170; 1865: 418; Lacordaire, 1869: 108; Bradley, 1930: 228; Arnett, 1962: 861, 887; Linsley, 1964: 187; Mermudes & Napp, 2004: 271 (transf.); Monné, M.A., 2005: 518 (cat.); Napp & Mermudes, 2010: 870 (rev.); Monné, M.A., 2012: 50.

*Dihammaphora*; Chevrolat, 1859a: 50 (error).

*Dihammaphora*; Bates, 1870: 403; 1880: 61; Schaeffer, 1908: 339 (error).

**Type-species** - *Dihammaphora marginicornis* Chevrolat, 1859 (subsequent designation, Thomson, 1864: 170).

*Dihammatophora* Gemminger & Harold, 1872: 2947 (cat., emend.).

*Dihammatophora*; Bruch, 1912: 201 (cat., error).

### 1. *Dihammaphora dispar* Chevrolat, 1859

**Synatypes locality** – Syntypes male and female: Mexico. (MNHN). **Distribution** - United States (Texas), Mexico (Puebla, Veracruz, Oaxaca), Guatemala, Panama.

*Dihammaphora dispar* Chevrolat, 1859a: 52; Linsley, 1964: 187; Chemsak, Linsley & Noguera, 1992: 74 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Monné, M.A., 2005: 520 (cat.); Hovore, 2006: 374 (distr.).

*Dihammaphora dispar*; Bates, 1880: 61 (distr.); 1885: 308 (distr.); Schaeffer, 1908: 338; Hovore, Penrose & Neck, 1987: 307 (biol., distr.).

### ***Rhopalophora* Audinet-Serville, 1834**

*Rhopalophora* Audinet-Serville, 1834a: 100; Laporte, 1840: 439; LeConte, 1854c: 218 (syn.); Chevrolat, 1859b: 57; Strauch, 1861: 132; Thomson, 1861: 177, 180; 1865: 418; Lacordaire, 1869: 110; Chenu, 1870: 316; Bates, 1870: 403; 1880: 61; Leng, 1886: 30; Casey, 1891: 30 (key spp); Gounelle, 1911a: 98; Bradley, 1930: 230; Knull, 1946: 227; Arnett, 1962: 861, 887; Linsley, 1964: 188; Zayas, 1975: 162; Giesbert & Chemsak, 1993: 29 (rev.); Monné, M. A., 2005: 531 (cat.); Monné, M. A., 2012: 51.

*Rhopalophorus*; LeConte, 1873b: 307; LeConte & Horn, 1883: 292. (error).

**Type-species** - *Rhopalophora sanguinicollis* Audinet-Serville, 1834 (monotypy) [= *Callichroma collare* Germar, 1823]

*Tinopus* LeConte, 1850b: 19; Thomson, 1864: 213.

**Type-species** - *Stenocorus longipes* Say, 1824 (monotypy).

### **1. *Rhopalophora angustata* Schaeffer, 1905**

**Syntypes locality** – Syntypes male and female: United States, Texas: Brownsville. (USNM). **Distribution** - United States (Texas, Lower Rio Grande Valley), Mexico (Tamaulipas, Nuevo León). **Host plants** - *Baccharis neglecta* Nuttall (Asteraceae), *Celtis berlandieri* Klotzsch (Cannabaceae), *Diospyros texana* Scheele (Ebenaceae), *Eysenhardtia polystachya* (Ortega) Sargent, *E. texana* Scheele (Fabaceae), *Pithecellobium flexicaule* (Benth) Coulter, *P. pallens* (Benth) Standley (Mimosaceae), *Citrus sinensis* (Linné) Osbeck, *Zanthoxylum fagara* (Linné) Sargent (Rutaceae).

*Rhopalophora angustata* Schaeffer, 1905: 162; 1908: 327; Linsley & Martin, 1933: 181; Vogt, 1949: 175 (biol.); Linsley, 1964: 188; Hovore & Giesbert, 1976: 357 (hosts); Manley & French, 1976: 49; Turnbow & Wappes, 1978: 369 (hosts); 1981: 77 (hosts); Hovore, Penrose & Neck, 1987: 308 (biol.); Chemsak, Linsley & Noguera, 1992: 75 (cat.); Giesbert & Chemsak, 1993: 30; Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 429 (hosts); Monné, M. A., 2001: 50 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 103 (distr.); Monné, M. A., 2005: 532 (cat.); MacRae & Rice, 2007: 243; Lingafelter *et al.*, 2014: 16, figs 16g, h (holotype); García Morales *et al.*, 2015: 105 (distr.).

### **2. *Rhopalophora bicolorella* Knull, 1934**

**Type locality** - Holotype male: United States, Arizona: Cochise County, Palmerlee. (USNM). **Distribution** - United States (Southern Texas to southern Arizona), Mexico (Baja California, Sonora, Coahuila, Tamaulipas, Oaxaca). **Host plants** - *Juglans major* A. A. Heller (Juglandaceae), *Salix* sp. (Salicaceae).

*Rhopalophora bicolorella* Knull, 1934c: 336; Linsley, Knull & Statham, 1961b: 19; Linsley, 1964: 192; Hovore & Giesbert, 1976: 357 (hosts); Cope, 1984a: 34 (hosts); Chemsak, Linsley & Noguera, 1992: 75 (cat.); Giesbert & Chemsak, 1993: 31, fig. 4; Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 429 (hosts); Monné, M. A., 2001b: 50 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 103 (distr.); Monné, M. A., 2005: 532 (cat.); MacRae & Rice, 2007: 643



(biol.); Noguera *et al.*, 2012: 621 (distr.); Lingafelter *et al.*, 2014: 28, figs 28u, v (holotype); García Morales *et al.*, 2015: 105 (distr.).

### 3. *Rhopalophora cupricollis* Guérin-Ménéville, 1844

**Type locality** - Holotype: Mexico (MNHN). **Distribution** - United States (Texas, Lower Rio Grande Valley), Mexico (Sinaloa, Durango, Nuevo León, Tamaulipas, Nayarit, Jalisco, Veracruz, Chiapas), Guatemala, Honduras, Nicaragua, Costa Rica. **Host plants** - *Celtis berlandieri* Klotzsch (Cannabaceae), *Diospyros texana* Scheele (Ebenaceae), *Pithecellobium flexicaule* (Benth) Coulter, *P. pallens* (Benth) Standley, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Condalia obovata* Hooker (Rhamnaceae), *Citrus sinensis* (Linné) Osbeck, *Zanthoxylum fagara* (Linné) Sargent (Rutaceae).

*Rhopalophora cupricollis* Guérin-Ménéville, 1844a: 235; White, 1855: 205; Bates, 1874: 224 (distr.); Thomson, 1878a: 16 (type); Bates, 1880: 62 (distr.); 1885: 309; Chemsak, Linsley & Noguera, 1992: 75 (cat.); Giesbert & Chemsak, 1993: 32, figs 1, 2 (syn.); Maes *et al.*, 1994: 22 (distr.); Chemsak & Noguera, 1995: 62 (biol., distr.); Noguera & Chemsak, 1996: 401 (cat.); Maes, 1998: 903 (distr.); Monné, M.A., 2001b: 51 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 104 (distr.); Toledo *et al.*, 2002: 528 (distr.); Turnbow, Cave & Thomas, 2003: 17 (distr.); Monné, M.A., 2005: 533 (cat.); Hovore, 2006: 374 (distr.); Noguera *et al.*, 2007: 311 (distr.); MacRae & Rice, 2007: 143 (biol.); Swift *et al.*, 2010: 29 (distr.); Maes *et al.*, 2010: 530, 1 fig. (distr.); García Morales *et al.*, 2015: 105 (distr.).

*Rhopalophora (Rhopalophora) cupricollis*; Chevrolat, 1859c: 60.

*Rhopalophorus laevicollis* LeConte, 1873a: 193.

*Rhopalophora laevicollis*; Bates, 1880: 62; Lameere, 1883: 42 (cat.); Leng, 1886: 30, 31; Casey, 1891: 30; Townsend, 1903: 77 (distr.); Fall & Cockerell, 1907: 191 (distr.); Schaeffer, 1908: 327 (distr.); Linsley & Martin, 1933: 181 (distr.); Linsley, 1935a: 91; Vogt, 1949: 144 (biol.); Linsley, 1964: 190; Manley & French, 1976: 50; Chemsak, Linsley & Mankins, 1980: 32 (distr.); Hovore, Penrose & Neck, 1987: 308 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 75 (cat.); Linsley & Chemsak, 1997: 429 (hosts).

**Syntypes locality** – Syntypes: United States, Texas (MCZN).

### 4. *Rhopalophora longipes* (Say, 1824)

**Type locality** - Holotype: United States, Missouri: Fort Kennedy, on Barek Creek. (Depository inkknown). **Distribution** - Eastern North America to Kansas and Oklahoma. **Host plants** - *Cercis canadensis* Linné (Caesalpiniaceae), *Cornus drummondii* C.A. Meyer (Cornaceae), *Robinia pseudoacacia* Linné (Fabaceae), *Quercus* sp. (Fagaceae), *Ulmus rubra* Mühlenberg (Ulmaceae).

*Stenocorus longipes* Say, 1824: 426; Haldeman, 1847a: 32; Melsheimer, 1853: 101; LeConte, 1859c: 201.

*Tinopus longipes*; LeConte, 1850b: 20; Thomson, 1864: 213.

*Rhopalophora longipes*; Chevrolat, 1859: 61; Lacordaire, 1869: 111; Popenoe, 1877: 33 (distr.); Snow, 1878b: 76 (distr.); 1881: 70 (distr.); 1883: 42 (distr.); Leng, 1886: 30, pl. 2, fig. 28; Hamilton, 1892b: 159 (syn.); Chittenden, 1893: 248 (paras.); 1894: 97 (biol.); Hamilton, 1895: 338 (distr.); Smith, 1900: 289 (distr.); Ulke, 1903: 26 (distr.); Schaeffer, 1908: 330 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 327; Blatchley, 1910: 1029; Fisher & Kirk, 1912: 311 (distr.); Dozier, 1918: 334 (distr.); Craighead, 1923: 65, pl. 15, figs 1, 12, pl. 21, fig. 1 (larva); Kirk & Knoll, 1926: 41 (distr.); Beaulne, 1932: 203 (hosts); Brimley, 1938: 216 (distr.); Linsley,

1942: 59; Knull, 1946: 228, pl.19, fig. 76; Fattig, 1947: 27 (biol.); Alexander, 1958: 50 (distr.); Linsley, 1964: 191; Lago & Mann, 1987: 5 (biol.); Hovore, 1988: 28 (distr.); Chemsak, Linsley & Noguera, 1992: 85 (cat.); Giesbert & Chemsak, 1993: 35 (distr.); MacRae, 1993: 236 (distr., hosts); Yanega, 1996: 125, pl. 17, fig. 209; Peck & Thomas, 1998: 120 (distr.); Schiefer, 1998: 120 (distr.); Lingafelter, 2007: 76, 150, 2 figs, pl. 18, fig. d (hosts); McDowell, 2011: 412 (biol.); Holt, 2013: 249 (distr.); Spomer, 2014: 301, fig. 7 (distr.); Klingeman *et al.*, 2017: 297 (distr.).

*Rhopalophorus longipes*; LeConte, 1859c: 48.

*Rhopalophora longipes longipes*; Linsley, 1964: 191, fig. 60; Gosling, 1973: 83, fig. 61 (biol., distr.); Turnbow & Franklin, 1980: 343 (distr.); Gosling, 1984: 73 (hosts); 1984: 80 (biol.); Hovore, Penrose & Neck, 1987: 308 (distr.); Lingafelter & Horner, 1993: 235 (distr.); Linsley & Chemsak, 1997: 429 (hosts); Staines, 2008: 147 (distr.)

*Rhopalophora (Rhopalophora) longipes*; Monné, M.A., 1994a: 4 (cat.).

*Rhopalophora porosa* White, 1855: 206.

**Type locality** - Holotype: North America. (BMNH).

### 5. *Rhopalophora meeskei* Casey, 1891

**Type locality** – Lectotype male: United States, New Mexico: Las Vegas. (USNM).

**Distribution** - United States (South Dakota and Colorado to western Texas and Arizona), Mexico (Nuevo León, Chihuahua, Chiapas, Coahuila, Durango, Guerrero, Hidalgo, Mexico, Michoacán, Tlaxcala, Zacatecas), Guatemala, Honduras. **Host plants** - *Pinus cembroides* Zuccarini (Pinaceae).

*Rhopalophora meeskei* Casey, 1891: 30; Hamilton, 1892b: 159; Fall & Cockerell, 1907: 192 (distr.); Schaeffer, 1908: 330 (distr.); Giesbert & Chemsak, 1993: 36, fig. 5; Noguera & Chemsak, 1996: 401 (cat.); Heffern, 1998: 18 (distr.); Monné, M.A., 2001b: 51 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 104 (distr.); Turnbow, Cave & Thomas, 2003: 17 (distr.); Monné, M.A., 2005: 533 (cat.); Hovore, 2006: 374 (distr.); MacRae & Rice, 2007: 243 (hosts); Lingafelter *et al.*, 2014: 97, figs 107c, d (holotype).

*Rhopalophora longipes meeskei*; Hamilton in Leng & Hamilton, 1896: 168; Linsley, Knull & Statham, 1961b: 19, fig. 12; Linsley, 1964: 192; Kirk & Balsbaugh, 1975: 99 (distr.); Hovore & Giesbert, 1976: 357 (hosts); Chemsak, Linsley & Noguera, 1992: 75 (cat.).

*Rhopalophora longipes*; Bates, 1885: 309; Linsley, 1935a: 91 (not Say, 1824).

### 6. *Rhopalophora prorubra* Knull, 1944

**Type locality** - Holotype: United States, Arizona: Santa Catalina Mts. (Sabino Canyon). (FMNH). **Distribution** - United States (Southern Arizona), Mexico (Sonora).

*Rhopalophora prorubra* Knull, 1944: 91, fig. 7; Linsley, 1964: 189, fig. 59; Hovore & Giesbert, 1976: 357 (biol.); Chemsak, 1977a: 178 (type); Chemsak, Linsley & Noguera, 1992: 75 (cat.); Giesbert & Chemsak, 1993: 39; Noguera & Chemsak, 1996: 401 (cat.); Monné, M.A., 2005: 534 (cat.); Noguera *et al.*, 2009: 88 (distr.).

### 7. *Rhopalophora rugicollis rugicollis* LeConte, 1858

**Type locality** - Holotype: United States, Texas. (MCZN). **Distribution** - United States (Texas, New Mexico, Arizona), Mexico (Sonora, Sinaloa, Nuevo León, Tamaulipas, Nayarit, Jalisco, San Luís Potosí, Michoacán, Guerrero, Chiapas, Oaxaca), Guatemala. **Host plants** - *Celtis* sp. (Cannabaceae), *Eysenhardtia texana*

Scheele (Fabaceae), *Pithecellobium flexicaule* (Benth) Coulter, *P. pallens* (Benth) Standley (Mimosaceae), *Ptelea angustifolia* Benth, *Zanthoxylum clava-herculis* Linné (Rutaceae), *Salix* sp. (Salicaceae).

*Rhopalophorus rugicollis* LeConte, 1858b: 83; 1858a: 41 (distr.).

*Rhopalophora rugicollis*; Lacordaire, 1869: 111; Leng, 1886: 30, 31; Casey, 1891: 30; Schaeffer, 1908: 327, 330 (distr.); Linsley & Martin, 1933: 181 (distr.); Linsley, 1964: 190; Tyson, 1970a: 93 (hosts); Turnbow & Wappes, 1978: 369 (hosts); Cope, 1984a: 34 (hosts); Hovore, Penrose & Neck, 1987: 308 (biol.); Chemsak, Linsley & Noguera, 1992: 75 (cat.); Chemsak & Noguera, 1995: 63 (biol., distr.); Linsley & Chemsak, 1997: 429 (hosts); García Morales *et al.*, 2015: 105 (distr.).

*Rhopalophora rugicollis rugicollis*; Giesbert & Chemsak, 1993: 41; Noguera & Chemsak, 1996: 401 (cat.); Monné, M.A., 2001b: 51 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 104 (distr.); Monné, M.A., 2005: 535 (cat.); Hovore, 2006: 374 (distr.); MacRae & Rice, 2007: 244 (hosts); Noguera *et al.*, 2012: 621 (distr.).

### **SMODICINI Lacordaire, 1868**

*Smodicides* Lacordaire, 1868: 143, 405.

*Smodici*; LeConte, 1873b: 293; LeConte & Horn, 1883: 279.

*Smodicini*; Aurivillius, 1912: 12 (cat.); Bradley, 1930: 228; Knull, 1946: 186; Linsley, 1962a: 10; Arnett, 1962: 859, 879; Martins, 1975: 319 (rev.); Monné, M. A., 1993a: 1 (cat.); Martins & Galileo, 2002: 10 (rev.); Monné, M.A., 2005: 537 (cat.); Bousquet *et al.*, 2009: 55; Bouchard *et al.*, 2011: 481.

**Type-genus:** *Smodicum* Haldeman, 1847.

**Type-species:** *Callidium cucujiforme* Say, 1827 (monotypy).

### ***Smodicum* Haldeman, 1847**

*Smodicum* Haldeman, 1847a: 38; LeConte, 1850b: 24; Thomson, 1861: 189; 1864: 221; Lacordaire, 1869: 145; LeConte, 1873b: 295; LeConte & Horn, 1883: 280; Bates, 1884: 240; Leng, 1884: 96; Blatchley, 1910: 1014; Casey, 1912: 269; Bradley, 1930: 228; Knull, 1946: 187; Linsley, 1962a: 11; Arnett, 1962: 859, 879; Martins, 1975: 332 (rev.); Martins & Galileo, 2002: 20; Monné, M.A., 2005: 537 (cat.); Monné, M.A., 2012: 52.

**Type-species** - *Callidium cucujiforme* Say, 1827 (monotypy).

#### **1. *Smodicum cucujiforme* (Say, 1827)**

**Type locality** – Holotype: United States (Depository unknown). **Distribution** - United States (Atlantic coast to Mississippi Valley and Texas). Introduced in Cuba, Guadeloupe, Argentina and Uruguay. **Host plants** - *Acer saccharinum* Linné (Aceraceae), *Celtis laevigata* Willdenow (Cannabaceae), *Robinia pseudoacacia* Linné (Fabaceae), *Fagus ferruginea* Aiton, *Quercus alba* Linné, *Q. velutina* Lamarck (Fagaceae), *Carya glabra* (Miller) Sweet, *C. ovata* (Miller) K.Koch (Juglandaceae), *Populus* sp., *Salix* sp. (Salicaceae), *Ulmus rubra* Mühlenber (Ulmaceae).

*Callidium cucujiforme* Say, 1827: 277; LeConte, 1859c: 334.

*Smodicum cucujiforme*; Haldeman, 1847a: 38; 1847c: 372 (syn.).

*Smodicum cucujiforme*; LeConte, 1850b: 24; White, 1855: 327; Bland, 1861: 95 (distr.); Thomson, 1864: 221; Horn, 1868: 124 (distr.); Lacordaire, 1869: 146; LeConte, 1873b: 294; Popenoe, 1877: 33 (distr.); Riley, 1880: 238 (hosts); Packard, 1881: 28,

131 (biol.); LeConte & Horn, 1883: 279; Leng, 1884: 97; Lugger, 1884: 203 (hosts); Leng, 1885b: pl. 1, fig. 3; Horn, 1885b: 5 (syn.); Packard, 1890: 79, 250 (biol.); Townsend, 1893: 202 (distr.); Hamilton, 1895: 337; Beutenmuller, 1896: 74 (hosts); Harrington, 1897: 72 (hosts); Klages, 1898: 175 (hosts); Smith, 1900: 286; Dury, 1902: 158 (distr.); Ulke, 1903: 25 (distr.); Schaeffer, 1908: 327 (distr.); Wickham, 1909a: 28 (distr.); Smith, 1910: 325; Blatchley, 1910: 1016 (distr.); Fisher & Kirk, 1912: 309 (distr.); Robinson, 1918: 33 (hosts); Craighead, 1923: 37; Kirk & Knull, 1926: 21 (distr.); Snyder, 1927: 33 (biol.); Leonard, 1928: 433 (distr.); Ware, 1929: 368 (distr.); Craighead & Middleton, 1930: 14 (hosts); Beaulne, 1932: 197 (hosts); Gaines, 1933: 52; Wolcott & Montgomery, 1933: 154 (biol.); Linsley & Martin, 1933: 179 (distr.); Cooper, 1935: 152 (distr.); Brimley, 1938: 210 (distr.); Loding, 1945: 113 (distr.); Knull, 1946: 187, pl. 8, fig. 30; Fattig, 1947: 6 (biol.); Blair, 1948: 123, pl. D, fig. 3 (hosts); Vogt, 1949: 140 (distr., hosts); Craighead, 1950: 268 (larva); Duffy, 1953: 160, figs 122-124 (larva, pupa); Linsley, 1962a: 11, fig. 5; Knull, 1966: 138; Baker, 1972: 189 (biol.); Gosling, 1973: 69, fig. 12 (distr.); Martins, 1975: 348, figs 48-52 (syn.); Waters & Hyche, 1984: 285 (distr.); Hovore, Penrose & Neck, 1987: 294 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 26 (cat.); Lingafelter & Horner, 1993: 161 (distr.); MacRae, 1993: 227 (distr., hosts); Browne & Peck, 1996: 2158 (distr.); Linsley & Chemsak, 1997: 433 (hosts); Schiefer, 1998: 116 (distr.); Peck & Thomas, 1998: 117 (distr.); Monné, M.A., 2001b: 52 (cat. hosts); Di Iorio, 2004d: 666; Monné, M.A., 2005: 538 (cat.); MacRae & Rice, 2007: 244 (hosts); Lingafelter, 2007: 78, 150, 2 figs, pl. 18, fig. k (hosts); Sama, 2008: 221 (syn.); Machado *et al.*, 2012: 190 (hosts); Touroult, 2014: 83, fig. 2 (distr.); Steury & MacRae, 2014: 11 (distr.); Devesa, Fonseca & Barro, 2015: 30, 98, figs 1-6; Peck, 2016: 172 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 40, pl. 2.

*Callidium cylindrides* Newman, 1838: 394.

**Type locality** - Holotype: United States (BMNH).

*Smodicum argentinum* Bruch, 1911: 170, 1 fig.; 1912: 203 (cat.); Zajciw & Ruffinelli, 1962: 21 (distr.); Bachmann & Di Iorio, 2002: 59 (type).

**Type locality** - Holotype male: Argentina, Buenos Aires: La Plata. (MACN).

*Smodicum convergens* Casey, 1912: 269; Lingafelter *et al.*, 2014: 45, figs 47u, v (holotype).

**Type locality** - Holotype female: United States, Texas (USNM).

*Nothorhinomorpha deplanata* Pic, 1930: 63.

**Type locality** - Holotype male: Egypte, Le Caire. (NHMB).

## 2. *Smodicum pacificum* Linsley, 1934

**Type locality** - Holotype male: Mexico, Islas Tres Marias: Isla Magdalena. (CASC). **Distribution** - United States (Arizona, California), Mexico (Baja California, Sonora, Sinaloa, Jalisco).

*Smodicum pacificum* Linsley, 1934c: 107; Martins, 1975: 354, figs 52, 62-65 (syn.); Monné, M. A., 2005: 539 (cat.); Swift, 2008a: 4 (distr.); Noguera *et al.*, 2007: 311 (distr.); Noguera *et al.*, 2009: 88 (distr.).

*Smodicum pacificum pacificum*; Linsley, 1942: 85; Chemsak, Linsley & Noguera, 1992: 26 (cat.); Noguera & Chemsak, 1996: 396 (cat.).

*Smodicum pacificum peninsulare* Linsley, 1942: 27; Chemsak, Linsley & Noguera, 1992: 26 (cat.); Noguera & Chemsak, 1996: 396 (cat.).

**Type locality** - Mexico, Baja California: Miraflores. (CASC).

*Smodicum arizonarium* Knull, 1966: 136; Chemsak, 1977a: 178 (type).

**Type locality** - Holotype female: United States, Arizona: Cochise County, Chiricahua Mts (1 mile SW Portal). (FMNH).

### 3. *Smodicum texanum* Knull, 1966

**Type locality** - Holotype female: United States, Texas: Bentsen Rio Grande Valley State Park, Hidalgo County. (FMNH). **Distribution** - United States (Texas). **Host plants** - *Leucaena pulverulenta* (Schlechtendal) Benth (Mimosaceae), *Salix* sp. (Salicaceae).

*Smodicum texanum* Knull, 1966: 137; Martins, 1975: 350, figs 52-54; Chemsak, 1977a: 177 (types); Hovore, Penrose & Neck, 1987: 295 (distr.); Chemsak, Linsley & Noguera, 1992: 26 (cat.); Monné, M.A., 1993a: 3 (cat.); Linsley & Chemsak, 1997: 433 (hosts).

### STENOPTERINI Gistel, 1848

Stenopteridae Gistel, 1848: [2].

Stenopteri; LeConte, 1873b: 306; LeConte & Horn, 1883: 292.

Stenopterina; Reitter, 1912: 25,28.

Stenopterini; Linsley, 1940b: 377; Arnett, 1962: 860, 885; Linsley, 1963: 162; Hatch, 1971: 100; Monné, M.A., 1993g: 7 (cat.); Bousquet *et al.*, 2009: 56; Bouchard *et al.*, 2011: 482.

**Type genus:** *Stenopterus* Illiger, 1804.

**Type species:** *Necydalis rufa* Linnaeus, 1767 by monotypy.

### *Callimus (Lampropterus)* Mulsant, 1862

*Lampropterus* Mulsant, 1862: 214; Linsley, 1940b: 373; Arnett, 1962: 866, 884; Linsley, 1963: 146; Hatch, 1971: 108; Monné, M.A., 2005: 304 (cat.); Monné, M.A., 2012: 32.

**Type-species** - *Necydalis femoratus* Germar, 1823 (subsequent designation, Linsley, 1940b: 373).

*Callimus* Mulsant, 1846: 4, app.; Thomson, 1861: 145; Mulsant, 1863: 210; Fairmaire in Jacquelin DuVal, 1864: 150, 198; Thomson, 1865: 412; Lacordaire, 1868: 489; Horn, 1883a: 289; LeConte & Horn, 1883: 291; Leng, 1886: 27, 29; Casey, 1912: 310; Bradley, 1930: 237.

**Type-species** - *Callimus nourdini* Mulsant, 1846 (monotypy).

*Callimus (Lampropterus)*; Danilevsky, 2010: 232.

*Pilema* LeConte, 1873a: 191; 1873b: 306; Horn, 1875: 150.

**Type-species** - *Pilema ruficolle* LeConte, 1873 (subsequent designation, Linsley, 1963: 146).

*Callimellum* Strand, 1928: 2; Heyrovsky, 1955: 173 (*nomem novum pro Callimus*).

### 1. *Callimus (Lampropterus) cyanipennis* (LeConte, 1873)

**Syntypes locality** - Syntypes male and female: United States, California. (MCZN).

**Distribution** - United States (Oregon and California). **Host plants** - *Quercus agrifolia* Née, *Q. chrysolepis* Liebmann, *Q. wislizenii* A. de Candolle (Fagaceae), *Ceanothus* sp. (Rhamnaceae), *Prunus* sp. (Rosaceae).

*Pilema cyanipenne* LeConte, 1873a: 192; Lameere, 1883: 29 (cat.).

*Callimus cyanipennis*; Leng, 1886: 29, pl. 3, fig. 27; Fall, 1901: 145 (distr.); Garnett, 1918: 206 (distr.); Moore, 1937: 89 (distr.); Rice, MacRae & Merickel, 2017: 669 (distr.).

*Callimellum cyanipenne*; Linsley, 1938: 106 (syn.).

*Lampropterus cyanipennis*; Linsley, 1963: 146, fig.46; Tyson, 1966: 204 (hosts); Hatch, 1971: 108, pl. 11, fig. 4; Cope, 1984a: 30 (hosts); Chemsak, Linsley & Noguera, 1992: 55 (cat.); Monné, M.A., 1993g: 17 (cat.); Linsley & Chemsak, 1997: 386 (hosts).

*Callimus variipes* Casey, 1912: 311; Moore, 1937: 89 (distr.); Lingafelter *et al.*, 2014: 342, 366, fig. 169u (lectotype).

**Type locality** - Lectotype male: United States, California: Calaveras County, Mokelumne Hill. (USNM).

*Callimus dehiscens* Casey, 1912: 312; Lingafelter *et al.*, 2014: 51, 366, fig. 54e (lectotype).

**Type locality** - Lectotype male: United States, California: Los Angeles County. (USNM).

## 2. *Callimus (Lampropterus) ruficollis* (LeConte, 1873)

**Syntypes locality** – Syntypes male and female: United States, California: Napa. (MCZN). **Distribution** - Pacific coast of North America from British Columbia to southern California, Mexico (Baja California Norte). **Host plants** - *Toxicodendron diversilobum* (Torrey & A. Gray) Greene (Anacardiaceae), *Quercus douglasii* Hooker & Arnott, *Q. wislizenii* A. de Candolle (Fagaceae), *Ceanothus thyrsiflorus* Eschscholtz (Rhamnaceae), *Prunus* sp. (Rosaceae).

*Pilema ruficolle* LeConte, 1873a: 192; Lameere, 1883: 33 (cat.).

*Callimus ruficollis*; Leng, 1886: 29; Fall, 1901: 145 (distr.); Garnett, 1918: 206 (distr.); Leech, 1955: 40 (biol.).

*Callimellum ruficolle*; Linsley, 1938: 106 (syn.).

*Lampropterus ruficollis*; Linsley, 1963: 147; Tyson, 1966: 204 (hosts); Hatch, 1971: 108; Gosling, 1973: 75 (distr.); Hovore, 1988: 12 (distr.); Chemsak, Linsley & Noguera, 1992: 55 (cat.); Noguera & Chemsak, 1996: 400 (cat.); Linsley & Chemsak, 1997: 387 (hosts); Monné, M.A., 2001b: 14 (cat. hosts); Monné, M.A., 2005: 304 (cat.); Bousquet, Laplante, Hammond & Langor, 2017: 49, pl. 5.

*Callimus longicollis* Casey, 1912: 310; Lingafelter *et al.*, 2014: 91, figs 100g, h (holotype).

**Type locality** - Holotype male: United States, California: Kaweah. (USNM).

*Callimus opacipennis* Casey, 1912: 311; Lingafelter *et al.*, 2014: 292, figs 123o, p (lect.).

**Type locality** - Lectotype: United States, California: San Diego. (USNM).

## *Callimoxys* Kraatz, 1863

*Callimoxys* Kraatz, 1863: 105; Thomson, 1864: 152, 412; Fairmaire, 1868: 152; Lacordaire, 1868: 489; Kraatz, 1871: 398; LeConte, 1873b: 307; LeConte & Horn, 1883: 292; Leng, 1886: 27, 29; Wickham, 1897a: 86; Blatchley, 1910: 1028; Bradley, 1930: 237; Chagnon, 1938: 261; Linsley, 1940c: 377; Knull, 1946: 203; Chagnon & Robert, 1962: 255; Arnett, 1962: 860, 885; Linsley, 1963: 162; Monné, M.A., 1993g: 7; Hammond & Williams, 2011: 262; Bousquet, Laplante, Hammond & Langor, 2017: 49 (key spp.)

**Type-species** – *Stenopterus gracilis* Brullé, 1832 (monotypy).

### 1. *Callimoxys fuscipennis* (LeConte, 1861)

**Type locality** - Holotype: United States, California: San Mateo. (MCZN).

**Distribution** - Pacific coast of North America from British Columbia to southern California. **Host plants** - *Toxicodendron diversilobum* (Torrey & A. Gray) Greene (Anacardiaceae), *Lithocarpus densiflora* Rehder, *Quercus agrifolia* Née, *Q. douglasii* Hooker & Arnott, *Q. kelloggii* Newberry (Fagaceae), *Ceanothus crassifolius* Torrey, *C. integerrimus* Hooker & Arnott, *C. thyrsiflorus* Eschscholtz (Rhamnaceae).

*Stenopterus fuscipennis* LeConte, 1861: 356; Lacordaire, 1868: 486.

*Callimoxys fuscipennis*; Horn in Leng, 1886: 30; Craighead, 1923: 63 (larva); Casey, 1924: 261; Kirk & Knoll, 1926: 26 (distr.); Leonard, 1928: 443 (distr.); Ware, 1929: 368 (distr.); Beaulne, 1932: 201 (hosts); Moore, 1937: 89 (distr.); Chagnon, 1938: 261; Chagnon & Robert, 1962: 261; Hammond & Williams, 2011: 264, 76, figs.; Bousquet, Laplante, Hammond & Langor, 2017: 49.

*Callimoxys sanguinicornis fuscipennis*; Linsley, 1963: 163, fig. 52; Hatch, 1971: 110, pl. 11, fig. 7; Cope, 1984a: 28 (hosts); Chemsak, Linsley & Noguera, 1992: 57 (cat.); Monné, M.A., 1993g: 8 (cat.); Linsley & Chemsak, 1997: 353 (hosts).

*Callimoxys sanguinicornis fuscipennis*; Tyson, 1966: 203 (hosts, error).

### 2. *Callimoxys nigrinus* Hammond & Williams, 2011

**Type locality** - Holotype male: United States, Texas: Washington County, 10 miles NE Brenham. (TAMU). **Distribution** - United States (Texas, Alabama). **Host plants** - *Prunus caroliniana* Aiton (Rosaceae).

*Callimoxys nigrinus* Hammond & Williams, 2011: 265, 183, figs (error).

*Callimoxys nigrinus*, Hammond & Williams, 2012: 92 (emendation); Holt, 2013: 250 (distr.).

### 3. *Callimoxys ocellaris* Hammond & Williams, 2011

**Type locality** - Holotype male: United States, Iowa: Polk County, West Saylorville Lake. (USNM). **Distribution** - United States (Iowa, Alabama).

*Callimoxys ocellaris* Hammond & Williams, 2011: 265, 280 figs; Holt, 2013: 250 (distr., biol.); Lingefelter *et al.*, 2014: 291, fig. 122 s (holotype).

### 4. *Callimoxys pinorum* Casey, 1924

**Type locality** - Holotype male: United States, North Carolina: Southern Pines. (USNM). **Distribution** - United States (North Carolina).

*Callimoxys pinorum* Casey, 1924: 261; Brimley, 1938: 214; Hammond & Williams, 2011: 265, 273, figs (reinstated); Lingefelter *et al.*, 2014: 300, fig. 133e (holotype).

### 5. *Callimoxys sanguinicornis* (Olivier, 1795)

**Neotype locality** - Neotype male: United States, New York: Ulster County, Catskill Mountains. (USNM). **Distribution** - Eastern North America. **Host plants** - *Celtis occidentalis* Linné (Cannabaceae), *Cornus drummondii* C.A. Meyer (Cornaceae), *Fagus grandifolia* Ehrhart, *Quercus* sp. (Fagaceae), *Carya tomentosa* Nuttall, *Juglans nigra* Linné (Juglandaceae), *Ceanothus americanus* Linné (Rhamnaceae), *Prunus caroliniana* Aiton (Rosaceae).

*Necydalis sanguinicornis* Olivier, 1795: 9, pl. 1, fig. 7; Schoenherr, 1817: 502; Hammond & Williams, 2011: 263, 265, figs 1,2,6A,7A-B, 8A-B, 10B, 11 (neotype).

*Stenopterus sanguinicollis*; Say, 1835: 194; Haldeman, 1847a: 44; LeConte, 1850b: 20; White, 1855: 185; LeConte, 1859c: 664; Lacordaire, 1868: 486.

*Molorchus sanguinicollis*; Gemminger & Harold, 1872: 2885 (cat.).

*Callimoxys sanguinicollis*; Popenoe, 1877: 33 (distr.); Leng, 1885b: 136, pl. 3, fig. 19; Horn in Leng, 1886: 30; Horn, 1886a: 139; Hamilton, 1895: 338 (distr.); Wickham, 1897a: 148; 1897: 156 (distr.); Dury, 1902: 159 (distr.); Ouellet, 1902: 22 (distr.); Ulke, 1903: 26, 50 (distr.); Chagnon, 1905: 35 (distr.); Wickham, 1909a: 28 (distr.); Blatchley, 1910: 1029, fig. 438; Lovell, 1915: 114 (biol.); Chagnon, 1917: 231; Casey, 1924: 261; Knull, 1946: 203, pl. 10, fig. 41; Linsley, 1963: 163; Bouseman, 1977: 180 (biol.); Arnett, 1985: 364, fig. 24.191; Chemsak, Linsley & Noguera, 1992: 57 (cat.); Krinsky & Godwin, 1996: 237; N. Ohbayashi, Niisato & Wang, 2004: 466; Lingafelter, 2007: 40, 145, 2 figs, pl. 10f; Holt, 2013: 250 (distr.); Lingafelter *et al.*, 2014: 314, 363, fig. 149a (neotype); Vlasák, 2014: 318 (hosts); Klingeman *et al.* 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017:49, pl. 5.

*Callimoxys sanguinicollis sanguinicollis*; Linsley, 1963: 163; Gosling, 1973: 75, fig. 33 (biol., distr.); Kirk & Balsbaugh, 1975: 98 (distr.); Perry, 1977: 98 (distr.); Laliberté, Chantal & LaRochelle, 1977: 91 (hosts); Rice, 1981: 461 (distr.); Gosling, 1984: 80 (biol.); 1986: 155 (biol.); Morris, 1987: 141 (distr.); MacRae, 1993: 232 (distr., hosts); Lingafelter & Horner, 1993: 173 (distr.); Monné, M.A., 1993g: 7 (cat.); Yanega, 1996: 51, pl. 15, fig. 179; Linsley & Chemsak, 1997: 353 (hosts); Peck & Thomas, 1998: 119 (distr.); Schiefer, 1998: 118 (distr.); Burne, 1998: 70 (distr.); Vlasák & Vlasakova, 2002: 210 (distr., hosts); MacRae & Rice, 2007: 231 (distr., hosts); Webster, McCorquodale & Majka, 2009: 297 (distr.); McCorquodale, 2010: 468 (distr.).

### **TILLOMORPHINI Lacordaire, 1868**

Tillomorphides Lacordaire, 1868: 405.

Tillomorphinae Pascoe, 1869: 554, 640; Bates, 1870: 400.

Tillomorphini; Aurivillius, 1912: 418 (cat.); Bradley, 1930: 230, 240, Linsley, 1935a: 87; Gressitt, 1940: 84; Plavilstshikov, 1940: 533; Gressitt, 1942: 32; 1951: 308; Knull, 1946: 225; Gressitt, 1959: 168; Arnett, 1962: 861, 888; Linsley, 1964: 179; Villiers, 1980b: 299; Monné, M.A., 2005: 542 (cat.); Bousquet *et al.*, 2009: 56; Bouchard *et al.*, 2011: 483; Touroult, 2014: 87 (key).

**Type-genus:** *Tillomorpha* Blanchard, 1851.

**Type-species:** *Tillomorpha lineoligera* Blanchard, 1851 (monotypy).

Epipedocerini Gahan, 1906: 92 (key), 305.

**Type-genus:** *Epipedocera* Chevrolat, 1863.

**Type-species:** *Epipedocera zona* Chevrolat, 1863 subsequent designation, Pascoe, 1869: 640.

### **Euderces LeConte, 1850**

*Euderces* LeConte, 1850b: 30; Thomson, 1861: 217, 229; 1864: 195; 1865: 428; Lacordaire, 1869: 89; LeConte, 1873b: 320; Provancher, 1877: 579, 604; Bates, 1880: 59; LeConte & Horn, 1883: 305; Leng, 1887: 195; Schaeffer, 1904: 223; Bradley, 1930: 240; Linsley, 1935a: 87; Chagnon, 1938: 256, 265; Knull, 1946: 225; Arnett, 1962: 869, 888; Chagnon & Robert, 1962: 256, 265; Linsley, 1964: 180;



Chemsak, 1969b: 312 (key spp); Giesbert & Chemsak, 1997: 212 (rev.); Monné, M.A., 2005: 544 (cat.); Monné, M.A., 2012: 52.

**Type-species** - *Callidium picipes* Fabricius, 1787 (monotypy).

*Eplophorus* Chevrolat, 1861: 248; Fisher, 1931: 99; Linsley, 1935a: 87; Chemsak, 1969b: 308.

**Type-species** - *Clytus spinicornis* Chevrolat, 1835 (original designation).

*Apelocera* Chevrolat, 1862a: 61; Thomson, 1864: 195; 1865: 428.

*Apilocera*; Chevrolat, 1862b: 535; Bates, 1880: 60 (error).

**Type-species** - *Apelocera waltlii* Chevrolat, 1862 (subsequent designation, Thomson, 1864: 195).

*Cleozona* Bates, 1874: 223; Linsley, 1935a: 87; Chemsak, 1969b: 304.

**Type-species** - *Cleozona pulchra* Bates, 1874 (monotypy).

### 1. *Euderces bicinctus bicinctus* (Linsley, 1935)

**Type locality** - Holotype female: Mexico, Sinaloa: Los Mochis. (CASC).

**Distribution** - United States (Southern Arizona), Mexico (Sonora, Sinaloa). **Host plants** - *Olneya tesota* A. Gray (Fabaceae), *Quercus* sp. (Fagaceae).

*Eplophorus bicinctus* Linsley, 1935a: 88; Chemsak, 1969b: 308 (syn.).

*Euderces bicinctus*; Chemsak & Linsley, 1982a: 45; Chemsak, Linsley & Noguera, 1992: 72; Noguera & Chemsak, 1996: 401 (cat.); Martínez, 2000: 91 (distr.).

*Euderces bicinctus bicinctus*; Giesbert & Chemsak, 1997: 234, figs 4, 16; Monné, M.A., 2005: 545 (cat.); Noguera *et al.*, 2009: 88 (distr.).

*Euderces balli* Knull, 1935b: 192; Linsley, 1964: 181; Chemsak, 1977a: 175 (type).

**Type locality** - Holotype: United States, Arizona: Baboquivari Mts. (FMNH).

### 2. *Euderces picipes* (Fabricius, 1787)

**Type locality** - Holotype: not stated. (HMUG). **Distribution** - Eastern United States and Canada. **Host plants** - *Acer rubrum* Linné (Aceraceae), *Rhus glabra* Linné (Anacardiaceae), *Betula nigra* Linné, *Ostrya virginiana* (Miller) K. Koch (Betulaceae), *Cercis canadensis* Linné, *Gleditschia triacanthos* Linné (Caesalpiniaceae), *Celtis occidentalis* Linné (Cannabaceae), *Cornus florida* Linné (Cornaceae), *Carpinus caroliniana* Walter (Corylaceae), *Diospyros virginiana* Linné (Ebenaceae), *Robinia pseudoacacia* Linné (Fabaceae), *Castanea sativa* Miller, *Fagus ferruginea* Aiton, *Quercus palustris* Du Roi, *Q. prinus* Linné, *Q. stellata* Wangenheim, *Q. velutina* Lamarck (Fagaceae), *Carya alba* Koch, *C. glabra* (Miller) Sweet, *C. illinoensis* (Wangenheim) K. Koch, *C. ovata* (Miller) K. Koch, *Juglans nigra* Linné (Juglandaceae), *Nyssa sylvatica* Marshall (Nyssaceae), *Amelanchier arborea* (Michaux fils) Fernald, *Prunus serotina* Ehrhart, *Pyrus* sp. (Rosaceae), *Salix nigra* Marshall (Salicaceae), *Taxodium distichum* (Linné) Richard (Taxodiaceae), *Ulmus* sp. (Ulmaceae).

*Callidium picipes* Fabricius, 1787: 157; Olivier, 1790: 269, pl. 4, figs 43a, b; Fabricius, 1794: 338; Olivier, 1795: 57, pl. 4, figs. 43a, b; Zimsen, 1964: 182 (types).

*Clytus picipes*; Fabricius, 1801: 353; Schoenherr, 1817: 472; Laporte & Gory, 1836: 107, pl. 20, fig. 27; Haldeman, 1847a: 41.

*Euderces picipes*; LeConte, 1850b: 30; Melsheimer, 1853: 106 (cat.); White, 1855: 289; Thomson, 1861: 229; Bland, 1861: 96 (biol., distr.); Thomson, 1864: 195; Lacordaire, 1869: 89; Pettit, 1871: 106 (distr.); Provancher, 1877: 604; Popenoe, 1877: 33 (distr.); LeConte & Horn, 1883: 306; Harrington, 1884: 47 (biol.); Horn, 1886a: 139; Leng, 1887: 24; Packard, 1890: 354 (biol.); Hamilton, 1893a: 274 (distr.); 1893: 326 (distr.); 1895: 338 (distr.); Chittenden, 1894: 98; Beutenmuller,

1896: 77 (hosts); Wickham, 1897a: 152; Smith, 1900: 290 (distr.); Dury, 1902: 160 (distr.); Ulke, 1903: 26, 50 (distr.); Chagnon, 1905: 35 (distr.); Felt, 1906: 445, fig. 101 (hosts); Wickham 1909a: 28 (distr.); Morris, 1909: 412; Smith, 1910: 239; Leng, 1910: 77 (distr.); Blatchley, 1910: 1041; Banks, 1912: 106; Fisher & Kirk, 1912: 312 (distr.); Lovell, 1915: 114 (biol.); Johnson, 1915: 315 (distr.); Nicolay, 1917: 94 (distr.); Chagnon, 1917: 233 (hosts); Britton, 1920: 270 (distr.); Craighead, 1923: 64, pl. 8, fig. 3; pl. 18, fig. 10; pl. 19, fig. 2 (larva); Kirk & Knull, 1926: 41 (distr.); Leonard, 1928: 448 (distr., hosts); Ware, 1929: 368 (distr.); Knull, 1930b: 102 (hosts); Beaulne, 1932: 202 (hosts); Chagnon, 1938: 265, pl. 18, fig. 4; Brimley, 1938: 216 (distr.); Hoffmann, 1940: 59 (biol.); 1942: 11 (hosts); Loding, 1945: 120 (distr.); Knull, 1946: 226; Fattig, 1947: 27 (distr.); Gibson & Carrillo, 1959: 119 (distr.); Dillon & Dillon, 1961: 205, pl. 59, No. 9; Chagnon & Robert, 1962: 265, pl. 18, fig. 4; Linsley, 1964: 183; Kirk & Balsbaugh, 1975: 99 (distr.); Chemsak & Linsley, 1975: 87; Cote & Allen, 1980: 412 (biol.); Haack, Benjamin & Haack, 1983: 48 (hosts); Chemsak, Linsley & Noguera, 1992: 73 (cat.); Yanega, 1996: 124, pl. 16, fig. 198a; pl. 17, fig. 198b; Krinsky & Godwin, 1996: 238; Giesbert & Chemsak, 1997: 261 (syn., rev.); Schiefer, 1998: 120 (distr.); Vlasák & Vlasakova, 2002: 212 (distr.); MacRae & Rice, 2007: 233 (distr., hosts); Lingafelter, 2007: 42, 146, 2 figs, pl. 11, fig. g (hosts); Guarnieri, 2009: 17 (distr.); Holt, 2013: 250 (distr., biol., hosts); Steury & MacRae, 2014: 10 (distr.); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 74, pl. 12

*Euderces picipes picipes*; Linsley, 1964: 184, fig. 60; Gosling, 1973: 83, fig. 60 (biol., distr.); Laliberté, Chantal & LaRochelle, 1977: 92 (biol.); Frost, 1979: 346 (biol.); Turnbow & Franklin, 1980: 343 (distr.); Gosling, 1984: 80 (biol.); 1984: 71 (hosts); Waters & Hyche, 1984: 287 (distr.); MacRae, 1993: 235 (hosts); Monné, M.A., 1993i: 69 (cat.); Linsley & Chemsak, 1997: 374 (hosts); Staines, 2008: 146 (distr.)

*Euderces picipes occidentalis* Linsley, 1957f: 38; 1964: 185; Chemsak & Linsley, 1975: 87; Turnbow & Hovore, 1979: 223 (distr., hosts); Turnbow & Franklin, 1980: 343 (distr.); Chemsak, Linsley & Noguera, 1992: 73 (cat.); Monné, M.A., 1993i: 69 (cat.); Lingafelter & Horner, 1993: 177 (distr.); Linsley & Chemsak, 1997: 374 (hosts); Peck & Thomas, 1998: 120 (distr.).

**Type locality** – Holotype male: United States, Texas: Fedor. (CASC).

### 3. *Euderces pini* (Olivier, 1795)

**Type locality** - Holotype: United States, New York. (MNHN). **Distribution** - Southeastern U. S. A. westward to Texas and Kansas. **Host plants** - *Acer negundo* Linné, *A. rubrum* Linné, *A. saccharinum* Linné, *A. saccharum* Marshall (Aceraceae), *Rhus glabra* Linné (Anacardiaceae), *Ostrya virginiana* (Miller) K. Koch (Betulaceae), *Cercis canadensis* Linné, *Gleditschia triacanthos* Linné (Caesalpinaceae), *Celtis laevigata* Willdenow, *C. occidentalis* Linné, *C. reticulata* Torrey, *C. tenuifolia* Nuttall (Cannabaceae), *Celastrus orbiculatus* Thunberg (Celastraceae), *Cornus candidissima* Marshall, *C. florida* Linné (Cornaceae), *Sophora secundiflora* (Ortega) de Candolle (Fabaceae), *Fagus grandifolia* Ehrhart, *Quercus arizonica* Sargent, *Q. palustris* Du Roi, *Q. phellos* Linné, *Q. prinus* Linné, *Q. velutina* Lamarck, *Q. virginiana* Miller (Fagaceae), *Liquidambar styraciflua* Linné (Hamamelidaceae), *Carya illinoensis* (Wangenheim) K. Koch, *C. ovata* (Miller) K. Koch, *C. sulcata* Nuttall, *Juglans nigra* Linné (Juglandaceae), *Maclura pomifera* (Rafinesque) C. Schneider, *Morus* sp. (Moraceae), *Fraxinus quadrangulata* Michaux, *Ligustrum* sp. (Oleaceae), *Amelanchier arborea* (Michaux

files) Fernald, *Crataegus viridis* Linné (Rosaceae), *Salix nigra* Marshall (Salicaceae), *Sapindus saponaria* var. *drummondii* (Hooker & Arnott) Benson (Sapindaceae); *Taxodium distichum* (Linné) Richard (Taxodiaceae), *Ulmus alata* Michaux, *U. americana* Linné (Ulmaceae).

*Callidium Pini* Olivier, 1795: 71, pl. 8, figs 105a, b; Schoenherr, 1817: 459.

*Euderces pini*; Fitch, 1857: 417; Bland. 1861: 96 (distr., hosts); LeConte, 1873a: 202; Packard, 1881: 159 (biol.); LeConte & Horn, 1883: 306; Hamilton, 1884: 36; Horn, 1886a: 139; Leng, 1887: 24; 1887: 44; Packard, 1880: 700 (biol.); Hamilton, 1891a: 132; Beutenmuller, 1896: 77 (hosts); Wickham, 1897a: 152; Smith, 1900: 290 (distr.); Knaus, 1901: 112 (distr.); Ulke, 1903: 26, 50 (distr.); Smith, 1910: 329 (distr.); Blatchley, 1910: 1041; Kirk & Knull, 1926: 41 (distr.); Leonard, 1928: 448 (distr.); Beaulne, 1932: 203 (hosts); Loding, 1933: 149 (distr.); Brimley, 1938: 216 (distr.); Loding, 1945: 120 (distr.); Knull, 1946: 226, pl. 16, fig. 104; Hinton, 1947: 288, pl. A, fig. 9 (distr.); Fattig, 1947: 27 (distr.); Duffy, 1953: 238; Alexander, 1958: 46 (distr.); Linsley, 1964: 182, fig. 57; Chemsak & Linsley, 1975: 87; Turnbow & Hovore, 1979: 223 (hosts); Turnbow & Franklin, 1980: 343 (distr.); Rice, 1981: 461 (distr.); Waters & Hyche, 1984: 286 (distr.); Rice, Turnbow & Hovore, 1985: 20 (hosts); Palmer, 1987: 190 (biol.); Wheeler & Longino, 1988: 26 (biol.); Chemsak, Linsley & Noguera, 1992: 73 (cat.); Monné, M.A., 1993h: 69 (cat.); MacRae, 1993: 236 (hosts); Lingafelter & Horner, 1993: 177 (distr.); Yanega, 1996: 125, pl. 16, fig. 197; Linsley & Chemsak, 1997: 374 (hosts); Giesbert & Chemsak, 1997: 262, figs 5, 41 (rev.); Peck & Thomas, 1998: 120 (distr.); Schiefer, 1998: 120 (distr.); Landry, 2001: 26 (distr.); MacRae & Rice, 2007: 234 (distr., hosts); Lingafelter, 2007: 42, 146, 2 figs, pl. 11, fig. f (hosts); McDowell, 2011: 412 (biol.); Holt, 2013: 250 (biol., distr., hosts); Vlasák, 2014: 318 (hosts); Steury & MacRae, 2014: 10 (distr.); Miroschnikov, 2014: 203, 206, 207, figs 15, 40, 46, 49; Klingeman *et al.* 2017: 297 (distr.).

*Euderces pini*; Fitch, 1858: 713 (error).

*Tillomorpha pini*; Gemminger & Harold, 1872: 2942 (cat.).

*Clytus piniadeus* Fabricius, 1801: 353; Schoenherr, 1817: 472; Audinet-Serville, 1834b: 88; Laporte & Gory, 1836: 109, pl. 20, fig. 129; Haldeman, 1847a: 41; Zimsen, 1964: 182 (types).

*Tillomorpha piniadeus*; Blanchard, 1851: 483; White, 1855: 289; Lacordaire, 1869: 91.

**Syntypes locality** - Syntypes: United States, Carolina. (ZMUC).

*Clytus piniadeus* var. *testaceipes* Haldeman, 1847a: 41.

**Syntypes locality** - Syntypes: United States, Carolina. (MCZN).

#### 4. *Euderces reichei* LeConte, 1873

**Syntypes locality** – Syntypes: United States, Texas. (MCZN). **Distribution** - United States (Ohio, Indiana, southern Illinois, southeast to Florida and west to Texas), Mexico (Tamaulipas, San Luis Potosí, Veracruz, Hidalgo). **Host plants** - *Acer saccharinum* Linnaeus (Aceraceae), *Gleditschia triacanthos* Linnaeus, *Parkinsonia aculeata* Linnaeus (Caesalpiniaceae), *Celtis laevigata* Willdenow, *C. pallida* Torrey, *C. tenuifolia* Nuttall (Cannabaceae), *Cornus candidissima* Marshall, *C. florida* Linnaeus (Cornaceae), *Diospyros texana* Scheele, *D. virginiana* Linnaeus (Ebenaceae), *Croton incanus* Linnaeus (Euphorbiaceae), *Quercus imbricaria* Michaux, *Q. virginiana* Miller (Fagaceae), *Malvaviscus arboreus* Cav. (Malvaceae), *Pithecellobium ebano* (Berlandier) C.H.Muller, *Prosopis juliflora* (Swartz) de Candolle, *Vachellia farnesiana* (Linnaeus) Wight & Arn., *V. tortuosa* (Linnaeus) Seigler & Ebinger, (Mimosaceae), *Condalia obovata* Hooker

(Rhamnaceae), *Crataegus crus-galli* Linnaeus, *C. viridis* Linnaeus (Rosaceae), *Citrus* sp., *Zanthoxylum fagara* (Linnaeus) Sargent (Rutaceae), *Salix* sp. (Salicaceae), *Sapindus saponaria* (Hooker & Arnott) Benson (Sapindaceae), *Ulmus* sp. (Ulmaceae).

*Euderces reichei* LeConte, 1873a: 202; Leng, 1887: 24, 44; Wickham, 1898b: 41; Blatchley, 1910: 1041; 1920: 68 (distr.); Loding, 1933: 149; 1945: 120 (distr.); Knoll, 1946: 226; Fattig, 1947: 27 (distr.); Linsley, 1964: 181; Hoffmann, 1971: 109; Chemsak, Linsley & Noguera, 1992: 73 (cat.); MacRae, 1993: 236 (biol.); Giesbert & Chemsak, 1997: 270, figs 6, 48 (syn.); Monné, M.A., 2001b: 53 (cat. hosts); Monné, M.A., 2005: 550 (cat.); MacRae & Rice, 2007: 235 (hosts); Bouchard, 2014: 521; Steury & MacRae, 2014: 10 (distr.); García Morales *et al.*, 2015: 105 (distr.); Noguera & Gutiérrez, 2016: 658 (distr.); Klingeman *et al.*, 2017: 297 (distr.); Heffern, Vlasak & Alten, 2018: 744 (hosts).

*Euderces reichei reichei*; Linsley, 1964: 182; Turnbow & Franklin, 1980: 343 (distr.); Lingafelter & Horner, 1993: 176; Linsley & Chemsak, 1997: 375 (hosts); Lingafelter, 2007: 42, 146, 2 figs, pl. 11, fig. e (hosts).

*Euderces exilis* Casey, 1893: 591; Hamilton *in* Leng & Hamilton, 1896: 173; Townsend, 1903: 78 (distr.); Schaeffer, 1908: 328 (distr.); Linsley & Martin, 1933: 181 (distr.); Vogt, 1949: 144 (distr., hosts); Lingafelter *et al.*, 2014: 59, figs 62q, r (holotype).

*Apelocera exilis*; Aurivillius, 1912: 420 (cat.).

*Euderces reichei exilis*; Linsley, 1964: 182; Chemsak, 1969b: 315, fig. 5; Manley & French, 1976: 49, fig. 2; Ward *et al.*, 1977: 13 (hosts); Chemsak, Linsley & Noguera, 1992: 73 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 375 (hosts); Ruiz Cancino & Coronado Blanco, 2002: 102 (distr.);

**Type locality** - Holotype: United States, Texas. (USNM).

### ***Tetranodus* Linell, 1897**

*Tetranodus* Linell, 1897: 396; Linsley, 1935a: 87; Arnett, 1962: 869, 888; Linsley, 1964: 185; Chemsak, 1969b: 305 (key spp.); 1977b: 124 (key spp.); Monné, M.A., 2005: 553 (cat.); Monné, M.A., 2012: 53.

*Tetranodes*; Schaeffer, 1904: 223; Bradley, 1930: 240. (error).

**Type-species** - *Tetranodus niveicollis* Linell, 1897 (original designation).

#### **1. *Tetranodus niveicollis* Linell, 1897**

**Type locality** – Holotype male: United States, Texas: Brownsville. (USNM).

**Distribution** - United States (Texas), Mexico (Oaxaca, Veracruz, Tamaulipas, Distrito Federal). **Host plants** - *Acacia farnesiana* (Linné) Willdenow, *Pithecellobium flexicaule* (Benth) Coulter, *Prosopis* sp. (Mimosaceae).

*Tetranodus niveicollis* Linell, 1897: 396; Townsend, 1903: 78 (distr.); Linsley, 1935a: 91; Vogt, 1949: 144 (distr.); Linsley, 1964: 185; Chemsak, 1969b: 306 (syn.); 1977b: 124; Hovore, Penrose & Neck, 1987: 307 (biol.); Chemsak, Linsley & Noguera, 1992: 73 (cat.); Noguera & Chemsak, 1996: 401 (cat.); Linsley & Chemsak, 1997: 441 (hosts); Monné, M.A., 2001b: 53 (cat. hosts); Monné, M.A., 2005: 553 (cat.); Lingafelter *et al.*, 2014: 108, figs 118u, v (holotype); García Morales *et al.*, 2015: 105 (distr.).

*Tetranodes niveicollis*; Schaeffer, 1904: 223; 1908: 328 (distr.); Linsley & Martin, 1933: 181 (distr.).

*Tetranodus mexicanus* Linsley, 1935a: 90.

**Type locality** – Holotype female: Mexico, Distrito Federal: Tejupilco. (CASC).

***Tilloclytus* Bates, 1885**

*Tilloclytus* Bates, 1885: 303; Bradley, 1930: 240; Linsley, 1935a: 87; Knull, 1946: 227; Arnett, 1962: 868, 887; Linsley, 1964: 174; Zayas, 1975: 141; Monné, M.A., 2005: 20 (cat.); Monné, M.A., 2012: 7.

**Type-species** - *Clytus (Tillomorpha) balteatus* Chevrolat, 1860 (subsequent designation, Linsley, 1964: 174).

*Tillomorpha*; Chevrolat, 1860: 503; Lacordaire, 1869: 90; LeConte, 1873b: 320; Bates, 1880: 59; LeConte & Horn, 1883: 305; Leng, 1887: 195; Schaeffer, 1904: 223 (not Blanchard in Gay, 1851: 482).

**1. *Tilloclytus geminatus* (Haldeman, 1847)**

**Syntypes locality** - United States, Pennsylvania. (MCZN). **Distribution** - Canada (Ontario) and northeastern United States. **Host plants** - *Betula nigra* Linné (Betulaceae), *Celtis tenuifolia* Nuttall (Cannabaceae), *Euonymus* sp. (Celastraceae), *Cornus florida* Linné (Cornaceae), *Quercus alba* Linné, *Q. bicolor* Willdenow (Fagaceae), *Hamamelis virginiana* Linné (Hamamelidaceae), *Carya tomentosa* Nuttall (Juglandaceae), *Acacia* sp. (Mimosaceae), *Nyssa sylvatica* Marshall (Nyssaceae), *Pinus contorta* Douglas ex Loudon (Pinaceae), *Crataegus viridis* Linné, *Prunus americana* Marshall (Rosaceae), *Ulmus americana* Linné, *U. crassifolia* Nuttall (Ulmaceae), *Vitis* sp. (Vitaceae).

*Clytus geminatus* Haldeman, 1847a: 42.

*Cyrtophorus geminatus*; LeConte, 1851: 104.

*Eudercus geminatus*; Lacordaire, 1869: 89.

*Tillomorpha geminata*; LeConte, 1873b: 320; 1880: 237 (hosts); Packard, 1881: 75 (biol.); LeConte & Horn, 1883: 305; Lugger, 1884: 204 (hosts); Leng, 1887: 24; Packard, 1890: 294 (biol.); Beutenmuller, 1896: 77 (hosts); Smith, 1900: 290 (distr.); Klages, 1901: 273, 290 (distr.); Ulke, 1903: 26, 50 (distr., hosts); Wenzel, 1906: 267 (distr.); Smith, 1910: 329; Blatchley, 1910: 1040; Nicolay, 1919: 68 (distr.); Britton, 1920: 270 (distr.); Craighead, 1923: 61 (larva).

*Tilloclytus geminatus*; Kirk & Knull, 1926: 41 (distr.); Leonard, 1928: 448 (distr.); Frost & Dietrich, 1929: 436 (distr.); Knull, 1934b: 210 (hosts); Brimley, 1938: 216 (distr.); Knull, 1946: 227, pl. 17, fig. 66; Fattig, 1947: 27 (biol.); Linsley, 1964: 174, fig. 54; Perry, 1975: 59 (hosts); Turnbow & Franklin, 1980: 343 (distr.); Rice, Turnbow & Hovore, 1985: 20 (distr.); Chemsak, Linsley & Noguera, 1992: 74 (cat.); Monné, M.A., 1993h: 63 (cat.); Yanega, 1996: 124, pl. 17, fig. 200; Krinsky & Godwin, 1996: 238; Linsley & Chemsak, 1997: 444 (hosts); Peck & Thomas, 1998: 120 (distr.); Schiefer, 1998: 120 (distr.); Androw & Keeney, 1999: 3 (distr., hosts); Vlasák & Vlasakova, 2002: 212 (distr., hosts); MacRae & Rice, 2007: 244 (distr., hosts); Lingafelter, 2007: 88, 150, 2 figs, pl. 21f (hosts); Maier, 2009: 438 (distr., hosts); Holt, 2013: 246 (distr.); Vlasák, 2014: 319 (hosts); Steury & MacRae, 2014: 11 (distr.); Klingeman *et al.*, 2017: 296 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 73, pl. 12; Heffern, Vlasak & Alten, 2018: 746 (hosts).

**TRACHYDERINI Dupont, 1836**

*Trachyderides* Dupont, 1836: 1; 1838: v; Lacordaire, 1869: 194.

- Trachydérites; Blanchard, 1845: 144; Chenu, 1870: 309  
 Trachyderitae; Thomson, 1861: 206; 1864: 200.  
 Trachyderinae; Bates, 1870: 430.  
 Trachyderini; LeConte, 1873b: 311; LeConte & Horn, 1883: 297; Aurivillius, 1912: 476 (cat.); Bradley, 1930: 230; Saalas, 1936: 113; Duffy, 1960: 102 (larva); Linsley, 1962a: 182; Arnett, 1962: 860, 882; Villiers, 1980b: 302; Huedepohl, 1985: 7 (rev.); Fragoso, Monné, M.A., & Seabra, 1987: 199; Monné, M.A., 1994b: 16 (cat.); Monné, M.A., 2005: 570 (cat.); Bousquet *et al.*, 2009: 57; Bouchard *et al.*, 2011: 483.
- Type-genus:** *Trachyderes* Dalman, 1817.  
**Type-species:** *Cerambyx succinctus* Linnaeus, 1758 designated by Blanchard (1843: pl. 65).
- Purpuricenitae Thomson, 1861: 203; 1864: 195.  
 Purpuricenites; Fairmaire in Jacquelin DuVal, 1864: 141.  
 Purpuricenini; Gahan, 1906: 183; Linsley, 1962a: 90; Arnett, 1962: 860, 881; Hatch, 1971: 100.  
 Purpuricenina; Reitter, 1912: 25, 34.  
 Megaderitae Thomson, 1861: 213; 1864: 206.  
 Mégaderides; Lacordaire, 1869: 215.  
 Megaderini; LeConte, 1873b: 312; LeConte & Horn, 1883: 297; Linsley, 1962a: 187.  
 Metopocoilitae Thomson, 1864: 255.  
 Metopocoelides; Lacordaire, 1869: 244.  
 Metopocoelinae; Bates, 1870: 435.  
 Metopocoilini; Aurivillius, 1912: 44 (cat.).  
 Sternacanthitae Thomson, 1864: 259.  
 Sternacanthides; Lacordaire, 1869: 154.  
 Sternacanthinae; Bates, 1870: 435.  
 Sternacanthini; Aurivillius, 1912: 451 (cat.); Linsley, 1961a: 631 (mimet.).  
 Tropidosomitae Thomson, 1864: 256.  
 Tropidosomides; Lacordaire, 1869: 149.  
 Tropidosomatinae; Bates, 1870: 423.  
 Tropidosomatini; Aurivillius, 1912: 450 (cat.); Linsley, 1961a: 631 (mimet.).  
 Poecilopéplides Lacordaire, 1869: 147  
 Poecilopeplinae; Bates, 1870: 422.  
 Poecilopeplini; Aurivillius, 1912: 449 (cat.).  
 Dorcacérides Lacordaire, 1869: 192.  
 Dorcacerinae; Bates, 1870: 430.  
 Dorcacerini; Aurivillius, 1912: 476 (cat.).  
 Sténaspides Lacordaire, 1869: 166.  
 Stenaspidae; Pascoe, 1869: 552, 653; Bates, 1870: 429.  
 Stenaspes; LeConte, 1873b: 313; LeConte & Horn, 1883: 298.  
 Stenaspini; Aurivillius, 1912: 457 (cat.); Craighead, 1923: 77; Bradley, 1930: 230, 241; Heyrovsky, 1955: 237; Linsley, 1961a: 632 (mimet.).  
 Tyloses LeConte, 1873b: 315.

#### **ANCYLOCERINA Thomson, 1864**

- Ancyloceritae Thomson, 1864: 210.  
 Ancylocérides; Lacordaire, 1869: 135.  
 Ancylocerinae; Bates, 1870: 418.

Ancylocerini; LeConte, 1873b: 308; LeConte & Horn, 1883: 293; Leng, 1884: 114; Aurivillius, 1912: 445 (cat.); Bradley, 1930: 230; Arnett, 1962: 861, 888; Linsley, 1964: 196; Viana, 1971: 150 (cat.)

Ancylocerina; Fragoso, Monné, M.A., & Seabra, 1987: 200; Monné, M.A., 1994b: 17 (cat.); Monné, M.A., 2005: 571 (cat.); Monné, M.L. & Napp, 2000a: 351 (redescr., key genera); Bousquet *et al.*, 2009: 57; Bouchard *et al.*, 2011: 483.

**Type-genus:** *Ancylocera* Audinet-Serville, 1834.

**Type-species:** *Cerambyx cardinalis* Dalman, 1817 (monotypy).

### ***Ancylocera* Audinet-Serville, 1834**

*Ancylocera* Audinet-Serville, 1834b: 107; Laporte, 1840: 438; Blanchard, 1845: 152; LeConte, 1850b: 19; Strauch, 1861: 132; Thomson, 1864: 212; 1865: 437; Lacordaire, 1869: 136; Bates, 1870: 418; Chenu, 1870: 317; Bates, 1880: 68; Leng, 1886: 31; Bradley, 1930: 230; Arnett, 1962: 861, 888; Chemsak, 1963c: 104 (key spp.); Linsley, 1964: 196; Monné, M.L. & Napp, 2000a: 355 (*in key*); 2001: 990 (rev.); Monné, M.A., 2005: 572 (cat.); Monné, M.A., 2012: 54.

**Type-species** - *Cerambyx ? cardinalis* Dalman, 1823 (monotypy).

#### **1. *Ancylocera bicolor* (Olivier, 1795)**

**Type locality** – Holotype female: United States, Georgia. (BMNH). **Distribution** - Southeastern United States from North Carolina and Florida to southern Texas, Nicaragua. **Host plants** - *Quercus* sp. (Fagaceae), *Celtis lindheimeri* Engelm., *Celtis pallida* Torrey *pallida* Torrey (Cannabaceae), *Carya floridana* Sargent, *C. illinoensis* (Wangenheim) K. Koch (Juglandaceae), *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Benth., *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Ulmus crassifolia* Nuttall (Ulmaceae).

*Saperda bicolor* Olivier, 1795: 32, pl. 3, fig. 25.

*Ancylocera bicolor*; Laporte, 1840: 438; Chenu, 1870: 317; Leng, 1885b: 136, pl. 3, fig. 22; Horn, 1886a: 138; Leng, 1886: 31; Casey, 1893: 585; Wickham, 1897a: 148 (distr.); Schaeffer, 1908: 327 (distr.); Blatchley, 1914: 92 (distr.); Casey, 1924: 262; Brimley, 1938: 216; Wray & Brimley, 1943: 130 (distr.); Loding, 1945: 120 (distr.); Fattig, 1947: 28 (biol.); Vogt, 1919: 175 (distr., biol.); Linsley, 1964: 197 (syn.); Perry, 1974: 215 (distr.); Turnbow & Wappes, 1978: 370 (hosts); Turnbow & Hovore, 1979: 221 (biol.); Turnbow & Franklin, 1980: 343 (distr.); Turnbow & Wappes, 1981: 77 (biol.); Hovore, Penrose & Neck, 1987: 308 (distr.); Chemsak, Linsley & Noguera, 1992: 78 (cat.); Monné, M.A., 1994b: 17 (cat.); Yanega, 1996: 125, pl. 19, fig. 227; Browne & Peck, 1996: 2159 (distr.); Linsley & Chemsak, 1997: 340 (hosts); Peck & Thomas, 19

*Gnoma rugicollis* Fabricius, 1801: 317; Illiger, 1805: 114; Schoenherr, 1817: 418; Zimsen, 1964: 174 (type).

*Ancylocera ? rugicollis*; Audinet-Serville, 1834b: 108.

*Ancylocera rugicollis*; Drapiez, 1837: 197; Haldeman, 1847a: 44; LeConte, 1850b: 19; Melsheimer, 1853: 106 (cat.); White, 1855: 210; Lacordaire, 1869: 137; LeConte, 1873b: 308; Lacordaire, 1876: 32, pl. 93, fig. 5; LeConte & Horn, 1883: 294.

**Type locality** - Holotype: United States, Carolina. (MNHN).

*Ancylocera lividipennis* Haldeman, 1847a: 44; Melsheimer, 1853: 106 (cat.).

**Type locality** - Holotype: United States. (MCZN).

*Ancylocera brevicornis* Casey, 1893: 586; Leng & Hamilton, 1896: 169; Hamilton, 1896: 287; Lingafelter *et al.*, 2014: 32, fig. 33g (holotype).

*Ancylocera bicolor brevicornis*; Casey, 1924: 262.

**Type locality** - Holotype female: United States, Florida. (USNM).

*Ancylocera bicolor spissicornis* Casey, 1924: 262; Lingafelter *et al.*, 2014: 28, fig. 28q (holotype).

**Type locality** - Holotype female: United States, Florida: Palm Beach. (USNM).

### **TRACHYDERINA Dupont, 1836**

Trachydérides Dupont, 1836: 1.

Trachyderina; Fragoso, Monné, M.A., & Seabra, 1987: 200; Monné, M.A., 2005: 577 (cat.); Bousquet *et al.*, 2009: 57; Bouchard *et al.*, 2011: 483.

**Type-genus:** *Trachyderes* Dalman, 1817.

**Type-species:** *Cerambyx succinctus* Linnaeus, 1758 designated by Blanchard (1843: pl. 65).

Purpuricenitae Thomson, 1861: 135 (key), 189 (key), 203; 1864: 195.

Purpuricenites; Fairmaire *in* Jacquelin DuVal, 1864: 141.

Purpuricenini; Gahan, 1906: 183; Linsley, 1962a: 90; Arnett, 1962: 860, 881; Hatch, 1971: 100.

Purpuricenina; Reitter, 1912: 25, 34.

**Type-genus:** *Purpuricenus* Dejean, 1821.

**Type-species:** *Cerambyx kaehleri* Linnaeus, 1758 designated by Blanchard (1843: pl. 66).

Tylositae Thomson, 1861: 135 (key), 190 (key), 205.

Tyloses LeConte, 1873b: 315.

**Type-genus:** *Tylosis* LeConte, 1850.

**Type-species:** *Tylosis maculatus* LeConte, 1850 designated by Thomson (1864: 200).

Sphaenothecitae Thomson, 1861: 136 (key), 208 (key), 212.

**Type-genus:** *Sphaenothecus* Dupont, 1838.

**Type-species:** *Sphaenothecus tomentosus* Dupont, 1838 designated by Thomson (1864: 205).

Megaderitae Thomson, 1861: 136 (key), 213; 1864: 206.

Mégaderides; Lacordaire, 1869: 215.

Megaderini; LeConte, 1873b: 312; LeConte & Horn, 1883: 297; Linsley, 1962a: 187.

**Type-genus:** *Megaderus* Dejean, 1821.

**Type-species:** *Cerambyx stigma* Linnaeus, 1758 (monotypy).

Eriphitae Thomson, 1864: 200.

**Type-genus:** *Eriphus* Audinet-Serville, 1834.

**Type-species:** *Callidium bisignatum* Germar, 1823 designated by Thomson (1861: 228).

Pteracanthitae Thomson, 1864: 255.

**Type-genus:** *Pteracantha* Newman, 1838.

**Type-species:** *Pteracantha fasciata* Newman, 1838 (monotypy).

Metopocoilitae Thomson, 1864: 255.

Metopocoelides; Lacordaire, 1869: 244.

Metopocoelinae; Bates, 1870: 435.

Metopocoilini; Aurivillius, 1912: 44 (cat.).

**Type-genus:** *Metopocoilus* Audinet-Serville, 1832.

**Type-species:** *Metopocoilus maculicollis* Audinet-Serville, 1832 (monotypy).

Sternacanthitae Thomson, 1864: 259.



- Sternacanthides; Lacordaire, 1869: 154.  
 Sternacanthinae; Bates, 1870: 435.  
 Sternacanthini; Aurivillius, 1912: 451 (cat.); Linsley, 1961a: 631 (mimet.).  
**Type-genus:** *Sternacanthus* Audinet-Serville, 1832.  
**Type-species:** *Prionus undatus* Olivier, 1795 (monotypy).  
 Tropidosomitae Thomson, 1864: 256.  
 Tropidosomides; Lacordaire, 1869: 149.  
 Tropidosomatinae; Bates, 1870: 423.  
 Tropidosomatini; Aurivillius, 1912: 450 (cat.); Linsley, 1961a: 631 (mimet.).  
**Type-genus:** *Tropidosoma* Perty, 1832.  
**Type-species:** *Prionus spencei* Kirby, 1818 (monotypy).  
 Poecilopéplides Lacordaire, 1868: 404 (key); 1869: 147.  
 Poecilopéplides Lacordaire, 1869: 147  
 Poecilopeplinae; Bates, 1870: 422.  
 Poecilopeplini; Aurivillius, 1912: 449 (cat.).  
**Type-genus:** *Poecilopeplus* Dejean, 1835.  
**Type-species:** *Prionus corallifer* Sturm, 1826 (monotypy).  
 Dorcacérides Lacordaire, 1868: 404 (key); 1869: 192. (based on *Dorcacerus* Dejean, 1821). **Nomen nudum.** Comment. This name is unavailable under Article 11.7 (not subsequently Latinized and attributed to Lacordaire, 1868).  
 Dorcacerini; Aurivillius, 1912: 476 (cat.).  
 Sténaspides Lacordaire, 1868: 404 (key); 1869: 166.  
 Stenaspidinae; Pascoe, 1869: 552, 653; Bates, 1870: 429.  
 Stenaspes; LeConte, 1873b: 313; LeConte & Horn, 1883: 298.  
 Stenaspini; Aurivillius, 1912: 457 (cat.); Craighead, 1923: 77; Bradley, 1930: 230, 241; Heyrovsky, 1955: 237; Linsley, 1961a: 632 (mimet.).  
**Type-genus:** *Stenaspis* Audinet-Serville, 1834.  
**Type-species:** *Stenaspis verticalis* Audinet-Serville, 1834 (monotypy).  
 Paristémiides Lacordaire, 1868: 404 (key).  
 Paristemiini ; LeConte 1873b: 309).  
**Type-genus:** *Paristemia* Westwood, 1841  
**Type-species:** *Paristemia platyptera* Westwood, 1841 (monotypy).  
 Dorcacerinae Bates, 1870: 430.  
**Type-genus:** *Dorcacerus* Dejean, 1821  
**Type-species:** *Callidium barbatum* Fabricius, 1775 by monotypy. Comment. Dorcadocerini used by Aurivillius (1912: 476) is not an available family-group name because it is based on *Dorcadocerus* an incorrect subsequent spelling of *Dorcacerus* Dejean, 1821 introduced by Germar (1823: 501). (Bousquet *et al.*, 2009: 58).

### ***Aethecerinus* Fall & Cockerell, 1907**

- Aethecerinus* Fall & Cockerell, 1907: 154; Bradley, 1930: 241; Linsley, 1962a: 123; Arnett, 1962: 864, 881; Monné, M.A., 2005: 578 (cat.); Monné, M.A., 2012: 55.  
*Aethecerus* Chevrolat, 1862b: 532 (not Wesmael, 1844); Thomson, 1864: 185; 1865: 424; Lacordaire, 1869: 183; LeConte, 1873b: 314; Bates, 1880: 80; Horn, 1880a: 133; LeConte & Horn, 1883: 299; Leng, 1886: 60, 82.  
**Type-species** - *Arhopalus wilsoni* Horn, 1860 (monotypy).

#### **1. *Aethecerinus hornii* (Lacordaire, 1869)**

**Type locality** - Holotype male: Regionibus Internis America Borealis. (MNHN).

**Distribution** - United States (Florida). **Host plants** - *Quercus inopina* Ashe (Fagaceae), *Carya floridana* Sargent (Juglandaceae); *Persea borbonia* (Linné) Sprengel (Lauraceae).

*Aethecerinus Hornii* Lacordaire, 1869: 184; Horn, 1880a: 133; Leng, 1886: 821

*Aethecerinus hornii*; Blatchley, 1914: 92 (biol., distr.); Linsley, 1962a: 125; Turnbow & Hovore, 1979: 221 (biol.); Chemsak, Linsley & Noguera, 1992: 79 (cat.); Monné, M.A., 1994b: 56 (cat.); Linsley & Chemsak, 1997: 340 (hosts); Peck & Thomas, 1998: 117 (distr.); Morris, 2004: 209 (hosts); Lingafelter, 2007: 75, 86, 143, 2 figs, pl. 17, fig. 1 (hosts).

## 2. *Aethecerinus latecinctus* (Horn, 1880)

**Syntypes locality** – Syntypes male and female: United States, Arizona: Tucson (MCZN). **Distribution** - United States (Oklahoma, Texas, Nevada, southern California), Mexico (Baja California). **Host plants** - *Coursetia microphylla* A.

Gray, *Dalea fremontii* Torrey ex A. Gray (Fabaceae), *Gossypium thurberi* Todaro (Malvaceae), *Acacia greggii* A. Gray. *Mimosa dysocarpa* Benth (Mimosaceae).

*Aethecerus latecinctus* Horn, 1880a: 134; Lameere, 1883: 45 (cat.); Leng, 1886: 82, pl. 2, fig. 13; Townsend, 1895: 47; Griffith, 1900: 586 (distr.); Fall & Cockerell, 1907: 192 (distr.).

*Aethecerinus latecinctus*; Fall & Cockerell, 1907: 154; Tanner, 1934: 47 (distr.); Linsley, Knull & Statham, 1961b: 23, fig. 16; Linsley, 1962a: 124; Hurd & Linsley, 1975: 109 (biol.); Cope, 1984a: 27 (hosts); MacKay, Zak & Hovore, 1987: 364 (hosts); Hovore, 1988: 28; Chemsak, Linsley & Noguera, 1992: 79 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 339 (hosts); Monné, M.A., 2001b: 60 (cat. hosts); Monné, M.A., 2005: 579 (cat.); Heffern, Vlasak & Alten, 2018: 740 (hosts).

## 3. *Aethecerinus wilsonii* (Horn, 1860)

**Syntypes locality** - Syntypes: United States, Texas: Comal County. (ANSP).

**Distribution** - United States (Eastern Texas). **Host plants** - *Cercis* sp., *Parkinsonia aculeata* Linnaeus (Caesalpiniaceae), *Celtis laevigata* Willdenow (Cannabaceae), *Quercus havardii* Rydberg (Fagaceae), *Carya texana* Buckley (Juglandaceae), *Ungnadia speciosa* Endlicher (Sapindaceae).

*Aethecerinus Wilsonii* Horn, 1860: 570, pl. 8, fig. 4; Chevrolat, 1862b: 533; Thomson 1864: 186; LeConte, 1866: 349 (distr.); Lacordaire, 1869: 183; 1876: 32, pl. 94, figs 5,5a; Horn, 1880a: 133; Bates, 1880: 80; Leng, 1886: 82; Alexander, 1958: 44 (distr.); Linsley, 1962a: 125; Rice, Turnbow & Hovore, 1985: 21 (distr.); Chemsak, Linsley & Noguera, 1992: 89 (cat.); Lingafelter & Horner, 1993: 168 (distr.); Monné, M.A., 1994b: 56 (cat.); Linsley & Chemsak, 1997: 340 (hosts); Heffern, Vlasak & Alten, 2018: 740 (hosts).

## *Amannus* LeConte, 1858

*Amannus* LeConte, 1858a: 24; Thomson, 1864: 333; 1865: 432; Lacordaire, 1869: 82; LeConte, 1873b: 314; LeConte & Horn, 1883: 299; Leng, 1886: 60; Bradley, 1930: 241; Linsley, 1962a: 125; Arnett, 1962: 864, 881; Hatch, 1971: 104; Monné, M.A., 2005: 579 (cat.); Monné, M. A., 2012: 55.

**Type-species** - *Amannus vittiger* LeConte, 1858 (subsequent designation, Thomson, 1864: 333).

**1. *Amannus atriplicis* Linsley, 1957**

**Type locality** - Holotype male: United States, Texas: Presidio. (USNM).

**Distribution** - United States (Texas). **Host plants** - *Atriplex canescens* James (Chenopodiaceae).

*Amannus atriplicis* Linsley, 1957d: 160; 1962: 128; Chemsak, Linsley & Noguera, 1992: 79 (cat.); Monné, M.A., 1994b: 57 (cat.); Linsley & Chemsak, 1997: 340 (hosts); Lingafelter *et al.*, 2014: 21, fig. 21o (holotype).

**2. *Amannus pectoralis* LeConte, 1858**

**Type locality** - Holotype: United States, California: Fort Yuma. (MCZN).

**Distribution** - United States (Nevada, Arizona, southeastern California), Mexico (Baja California Norte). **Host plants** - *Atriplex canescens* James (Chenopodiaceae).

*Amannus pectoralis* LeConte, 1858a: 25; Lacordaire, 1869: 82; Leng, 1886: 83; Fall, 1901: 146 (distr.); Garnett, 1918: 208 (distr.); Linsley, 1962a: 127, fig. 40; Bechtel, Hanks & Rust, 1983: 474 (distr.); Chemsak, Linsley & Noguera, 1992: 79 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 340 (hosts); Heffern, 1998: 24 (distr., exclusion); Monné, M.A., 2001b: 60 (cat. hosts); Monné, M.A., 2005: 579 (cat.).

**3. *Amannus vittiger* LeConte, 1858**

**Type locality** - Holotype: United States, New Mexico: Llano Estacado. (MCZN).

**Distribution** - Western Texas to southern Utah and Arizona. **Host plants** - *Atriplex canescens* James, *A. confertifolia* S. Watson (Chenopodiaceae), *Sphaeralcea* sp. (Malvaceae).

*Amannus vittiger* LeConte, 1858a: 24; Thomson, 1864: 333; Lacordaire, 1869: 82; Leng, 1886: 83; Fall & Cockerell, 1907: 192 (distr.); Linsley, 1962a: 127 (syn.); Barr & Penrose, 1969: 88 (distr.); Hatch, 1971: 104; Hovore & Giesbert, 1976: 353 (biol.); Chemsak, Linsley & Noguera, 1992: 79 (cat.); Monné, M.A., 1993: 57 (cat.); Linsley & Chemsak, 1997: 340 (hosts); Heffern, 1998: 18 (distr., hosts); Rice, MacRae & Merickel, 2017: 669 (distr.).

*Amannus brevis* Casey, 1924: 267; Lingafelter *et al.*, 2014: 33, fig. 34c (holotype).

**Type locality** - Holotype male: United States, Utah: St. George. (USNM).

***Batyle* Thomson, 1864**

*Batyle* Thomson, 1864: 201; Lacordaire, 1869: 131; LeConte, 1873b: 314; LeConte & Horn, 1883: 299; Leng, 1886: 60, 102; Casey, 1912: 326, 327; Bradley, 1930: 241; Knull, 1946: 230; Linsley, 1962a: 128; Arnett, 1962: 864, 882; Monné, M.A., 2005: 586 (cat.); Monné, M. A., 2012: 56; Bousquet, Laplante, Hammond & Langor, 2017: 76 (key spp.)

**Type-species** - *Callidium ignicolle* Say, 1824 (original designation).

*Batyleoma* Casey, 1912: 326, 329; Bradley, 1930: 241; Chagnon, 1938: 266; Knull, 1946: 231; Chagnon & Robert, 1962: 256, 266.

**Type-species** - *Callidium suturale* Say, 1824 (original designation).

**1. *Batyle ignicollis ignicollis* (Say, 1824)**

**Type locality** - Holotype: United States, Missouri. (Depository unknown).

**Distribution** - Montana and Colorado to Ohio, Missouri and Texas. **Host plants** -

- Rhus aromatica* Aitchison (Anacardiaceae), *Nolina texana* S. Watson (Dracaenaceae), *Hypericum spathulatum* R. Keller, *H. sphaerocarpum* Michaux (Hypericaceae), *Pinus flexilis* James (Pinaceae).
- Callidium ignicolle* Say, 1824: 412; LeConte, 1859c: 193.
- Eriphus ignicollis*; Haldeman, 1847a: 39; LeConte, 1859c: 48.
- Arhopalus ignicollis*; LeConte, 1850b: 18.
- Callideriphus ignicollis*; White, 1855: 294.
- Eriphus ? ignicollis*; LeConte, 1858a: 40.
- Batyle ignicollis*; Thomson, 1864: 201 (syn.); Lacordaire, 1869: 131; LeConte, 1876: 520; Popenoe, 1877: 33 (distr.); Snow, 1877: 19 (distr.); Horn, 1878: 42; LeConte, 1879: 505; Snow, 1883: 42 (distr.); Leng, 1886: 102, pl. 3, fig. 15; Horn, 1889: 199 (syn.); Hopkins, 1893: 194 (biol.); Wickham, 1897a: 148; 1899: 7 (distr.); Fall & Cockerell, 1907: 192 (distr.); Wickham, 1909a: 28 (distr.); Casey, 1912: 328; Craighead, 1923: 81 (larva); Tanner, 1928: 277 (distr.); Pack, 1930: 220 (distr.); Brimley, 1938: 216 (distr.); Knull, 1946: 231, pl. 18, fig. 70; Knowlton & Wood, 1950: 12 (distr.); Alexander, 1958: 45 (distr.); Linsley, 1962a: 133; Hatch, 1971: 105; Kirk & Balsbaugh, 1975: 98 (distr.); Rogers, 1977b: 834 (biol.); Chemsak, Linsley & Noguera, 1992: 79 (cat.); Noguera & Chemsak, 1996: 402 (distr.).
- Batyle ignicollis ignicollis*; Linsley, 1962a: 133, fig. 42; Stein & Tagestad, 1976: 4; Rice, 1981: 460 (biol.); Rice, Turnbow & Hovore, 1985: 21 (hosts); Glaser, 1986: 355 (distr.); MacKay, Zak & Hovore, 1987: 364 (distr.); MacRae, 1993: 237 (distr.); Lingafelter & Horner, 1993: 169; Monné, M.A., 1994b: 57 (cat.); Yanega, 1996: 125, pl. 16, fig. 187; Linsley & Chemsak, 1997: 349 (hosts); Heffern, 1998: 18 (distr.); MacRae & Rice, 2007: 230 (distr., hosts); Lingafelter, 2007: 83, 144, 2 figs, pl. 19, fig. 1 (hosts); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 76, pl. 13.
- Callidium sanguinicolle* Germar, 1823: 515; 1839: 330.
- Type locality** - Holotype: America septentrionalis. (MNHU).
- Batyle seclusa* Casey, 1912: 327; Lingafelter *et al.*, 2014: 316, figs 161 i, j (holotype).
- Type locality** - Holotype male: United States, New Mexico: Jemez Springs. (USNM).
- Batyle punctipennis* Casey, 1912: 328; Lingafelter *et al.*, 2014: 306, figs 140 e, f (holotype).
- Type locality** - Holotype female: United States: New Mexico. (USNM).
- Batyle acomana* Casey, 1912: 328; Lingafelter *et al.*, 2014: 9, fig. 8o, p (lectotype).
- Type locality** - Lectotype: United States, New Mexico: Jemez Springs. (USNM).

### 1a. *Batyle ignicollis australis* Linsley, 1957

- Type locality** - Holotype male: United States, Alabama: Mobile (CASC).
- Distribution** - United States (Alabama, Georgia, Florida and Mississippi). **Host plants** - *Quercus inopita* Ashe (Fagaceae), *Pinus* sp. (Pinaceae).
- Batyle ignicollis australis* Linsley, 1957c: 33; 1962: 134; Turnbow & Franklin, 1980: 341 (distr.); Chemsak, Linsley & Noguera, 1992: 79 (cat.); Monné, M.A., 1994b: 58 (cat.); Yanega, 1996: 125; Linsley & Chemsak, 1997: 349 (hosts); Peck & Thomas, 1998: 117 (distr.); Schiefer, 1998: 120 (distr.); Morris, 2004: 210 (hosts); Lingafelter, 2007: 83, 144, 2 pls, fig. 19m (hosts); Holt, 2013: 250 (biol., distr.).

### 1b. *Batyle ignicollis oblonga* Casey, 1912

- Type locality** - Holotype female: United States, Southwestern Utah. (USNM).
- Distribution** - United States (Utah).

*Batyle oblonga* Casey, 1912: 329; Knowlton & Thatcher, 1936: 280 (distr.).

*Batyle ignicollis oblonga*; Linsley, 1962a: 134; Chemsak, Linsley & Noguera, 1992: 79 (cat.); Monné, M.A., 1994b: 58 (cat.); Lingafelter *et al.*, 2014: 109, fig. 120u (holotype).

## 2. *Batyle knowltoni* Knull, 1968

**Type locality** - Holotype male: United States, Utah: Garfield County, 20 miles East of Escelante.(CASC). **Distribution** - United States (Utah.).

*Batyle knowltoni* Knull, 1968: 233, fig.1; Hovore & Giesbert, 1973: 353 (distr.); Chemsak, Linsley & Noguera, 1992: 79 (cat.); Monné, M.A., 1994b: 58 (cat.).

## 3. *Batyle rufiventris* Knull, 1928

**Type locality** - Holotype female: United States, Arizona: Gila County, Sierra Ancha Mountains. (FMNH). **Distribution** - United States (Central Arizona).

*Batyle rufiventris* Knull, 1928a: 126; Linsley, 1962a: 135; Chemsak, 1977a: 173 (types); Lewis, 1979: 23 (distr.); Chemsak, Linsley & Noguera, 1992: 79 (cat.); Monné, M.A., 1994b: 58 (cat.).

## 4. *Batyle suturalis suturalis* (Say, 1824)

**Type locality** - Holotype: United States, Mississippi. (Depository unknown).

**Distribution** - Eastern North America to Mississippi Valley, New Mexico, Saskatchewan, and Florida. **Host plants** - *Celtis laevigata* Willdenow, *C. tenuifolia* Nuttall (Cannabaceae), *Castanea dentata* (Marshall) Borkhausen, *Quercus coccinea* Münchhausen (Fagaceae), *Carya* sp. (Juglandaceae), *Crataegus viridis* Linné (Rosaceae), *Salix* sp. (Salicaceae), *Sapindus saponaria* var. *drummondii* (Hooker & Arnott) Benson (Sapindaceae).

*Callidium suturale* Say, 1824: 411; LeConte, 1859c: 192.

*Eriphus suturalis*; Haldeman, 1847a: 39; White, 1855: 294; Bland, 1861: 95 (biol., distr.); Horn, 1868: 124 (distr.).

*Arhopalus suturalis*; LeConte, 1850b: 18.

*Batyle suturalis*; Thomson, 1864: 202 (syn.); Lacordaire, 1869: 131; Popenoe, 1877: 33 (distr.); Horn, 1878: 41; Leng, 1886: 102; Horn, 1889: 199 (syn.); Hamilton, 1895: 338 (distr.); Townsend, 1895: 47 (distr.); Wickham, 1897a: 148; 1899c: 7 (distr.); Smith, 1900: 289 (distr.); Fall, 1901: 146 (distr.); Dury, 1902: 160 (distr.); Knaus, 1903: 180; Ulke, 1903: 26, 50 (distr.); Skinner, 1903: 40 (distr.); Knaus, 1905: 351 (distr.); Felt, 1906: 663, fig. 192 (distr.); Fall & Cockerell, 1907: 192 (distr.); Gahan, 1908: 143 (syn.); Wickham, 1909a: 28 (distr.); Smith, 1910: 289 (distr.); Blatchley, 1910: 1031; Leng, 1911: 215 (distr.); Fisher & Kirk, 1912: 311 (distr.); Chagnon, 1917: 231 (distr.); Garnett, 1918: 208 (distr.); Nicolay, 1919: 66 (distr.); Britton, 1920: 270 (distr.); Craighead, 1923: 80 (larva); Champlain, Kirk & Knull, 1925: 140 (hosts); Beaulne, 1932: 203 (hosts); Saalas, 1936: 111 (morphol.); Linsley, 1962a: 129; Hovore & Giesbert, 1976: 353 (distr.); Rogers, 1977b: 834 (biol.); Chemsak, Linsley & Noguera, 1992: 79 (cat.); Lingafelter, 2007: 89, 144, 2 figs, pl. 21, fig. j (hosts); Staines, 2008: 146 (distr.); McDowell, 2011: 412 (biol.).

*Batyle suturalis suturalis*; Linsley, 1962a: 129, fig. 41; Gosling, 1973: 72 (biol., distr.); Stein & Tagestad, 1976: 5 (distr.); Turnbow & Franklin, 1980: 341 (distr.); Gosling, 1984: 79 (biol.); MacRae, 1993: 237 (distr., hosts); Lingafelter & Horner, 1993: 168 (distr.); Monné, M.A., 1994b: 58 (cat.); Noguera & Chemsak, 1996: 402 (distr.); Yanega, 1996: 125, pl. 14, fig. 171; Linsley & Chemsak, 1997: 349 (hosts); Peck & Thomas, 1998: 117 (distr.); Schiefer, 1998: 120 (distr.); Vlasák & Vlasakova, 2002:

212 (distr.); MacRae & Rice, 2007: 230 (distr., hosts); Holt, 2013: 250 (distr., hosts); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 76, pl.13

*Batyleoma suturalis*; Casey, 1912: 329; Kirk & Knull, 1926: 41 (distr.); Ortenburger & Hatch, 1926: 147 (distr.); Leonard, 1928: 449 (distr.); Tanner, 1928: 278 (distr.); Ware, 1929: 368 (distr.); Fletcher, 1929: 259 (biol.); Park, 1931: 190 (distr.); Wolcott & Montgomery, 1933: 156 (distr.); Knowlton, 1934: 86 (distr.); Chagnon, 1938: 266 (distr.); Brimley, 1938: 216 (distr.); Loding, 1945: 121 (distr.); Knull, 1946: 231, pl. 18, fig. 71; Knowlton & Wood, 1950: 12; Alexander, 1958: 45 (distr.); Dillon & Dillon, 1961: 606, pl. 60, No. 6; Chagnon & Robert, 1962: 266.

*Callidium miniatum* Germar, 1823: 515; 1839: 331.

**Type locality** - Holotype: America septentrionali. (MNHU).

*Obrium rubrum* Newman, 1838: 393; LeConte, 1850b: 22; Bland, 1861: 96 (distr., hosts); LeConte, 1873b: 305; LeConte & Horn, 1883: 290.

**Type locality** - Holotype: United States, Ohio: Mount Pleasant. (BMNH).

*Batyleoma fontinalis* Casey, 1912: 330; Lingafelter *et al.*, 2014: 65, fig. 69q.

*Batyle suturalis fontinalis*; Casey, 1924: 264.

**Type locality** - Holotype female: United States, New Mexico: Las Vegas. (USNM).

#### 4a. *Batyle suturalis cylindrella* Casey, 1893

**Type locality** - Holotype male: United States, Texas: El Paso. (USNM).

**Distribution** - Southern and western Texas. **Host plants** - *Ratibida columnifera* (Nuttall) Wooton & Standley, *Thelesperma simplicifolium* A. Gray (Asteraceae), *Castanea* sp., *Quercus* sp. (Fagaceae), *Carya* sp. (Juglandaceae).

*Batyle cylindrella* Casey, 1893: 587; Leng & Hamilton, 1896: 169; Casey, 1912: 329; Lingafelter *et al.*, 2014: 49, fig. 52g (holotype).

*Batyleoma cylindrella*; Alexander, 1958: 45 (distr.).

*Batyle suturalis cylindrella*; Linsley, 1962a: 131, fig. 41; MacKay, Zak & Hovore, 1987: 364 (distr.); Hovore, Penrose & Neck, 1987: 298 (distr.); Chemsak, Linsley & Noguera, 1992: 79 (cat.); Lingafelter & Horner, 1993: 168 (distr.); Monné, M.A., 1994b: 59 (cat.); MacRae & Rice, 2007: 230 (distr., hosts).

*Eriphus ? ruber* LeConte, 1858b: 82; 1858a: 40 (not *Obrium rubrum* Newman, 1838).

#### 4b. *Batyle suturalis infuscatus* Linsley, 1957

**Type locality** - Holotype male: United States, Colorado: Delta County, Paonia. (CASC). **Distribution** - United States (Colorado).

*Batyle suturalis infuscatus* Linsley, 1957c: 33; 1962a: 133, fig. 41; Chemsak, Linsley & Noguera, 1992: 79 (cat.); Monné, M.A., 1994b: 59 (cat.); Heffern, 1998: 18.

#### 4c. *Batyle suturalis melanicollis* Linsley, 1957

**Type locality** - Holotype male: United States, Texas: Hudspeth Co., 8 mi E Hueco. (AMNH). **Distribution** - United States (Texas), Mexico (Chihuahua).

*Batyle suturalis melanicollis* Linsley, 1957c: 34; 1962a: 132, fig. 41; Chemsak, Linsley & Noguera, 1992: 79 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2005: 586 (cat.).

#### 4d. *Batyle suturalis pearsalli* (Bland, 1862)

**Type locality** - Lectotype: United States, Nebraska: Upper Missouri River near Fort Benton. (ANSP). **Distribution** - Southern Colorado to Alberta and Saskatchewan.

*Eriphus Pearsalli* Bland, 1862: 272.

*Batyle Pearsalli*; Popenoe, 1877: 33 (distr.); Snow, 1877: 19 (distr.); 1878: 67 (distr.); 1878: 76 (distr.); 1883: 42 (distr.).

*Batyle suturalis*; Horn, 1880b: s/p (syn.).

*Batyle suturalis* var. *pearsalli*; Knaus, 1905: 219 (distr.).

*Batyleoma pearsalli*; Casey, 1912: 329.

*Batyle suturalis pearsalli*; Linsley, 1962a: 132, fig. 41; Kirk & Balsbaugh, 1975: 98 (distr.); Chemsak, Linsley & Noguera, 1992: 79 (cat.); Monné, M.A., 1994b: 59 (cat.); Heffern, 1998: 18 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 76, pl.13

#### 4e. *Batyle suturalis remota* (Casey, 1924)

**Type locality** - Holotype: United States, Utah: St. George, Washington Field. (USNM). **Distribution** - Southwestern Utah to Charleston Mts., Nevada.

*Batyleoma remota* Casey, 1924: 264.

*Batyle suturalis remota*; Linsley, 1962a: 132, fig. 41; Chemsak, Linsley & Noguera, 1992: 79 (cat.); Monné, M.A., 1994b: 60 (cat.). Lingafelter *et al.*, 2014: 309, fig. 143e (holotype).

#### 4f. *Batyle suturalis rutilans* (LeConte, 1850)

**Type locality** - Holotype: United States, New Mexico: Santa Fé. (MCZN).

**Distribution** - Northern New Mexico.

*Arhopalus rutilans* LeConte, 1850b: 18

*Eriphus rutilans*; Melsheimer, 1853: 104 (cat.).

*Batyle rutilans*; Lacordaire, 1869: 131

*Callideriphus rutilans*; Gemminger & Harold, 1872: 2957 (cat.).

*Batyleoma rutilans*; Casey, 1912: 329

*Batyle suturalis* ab. *rutilans*; Aurivillius, 1912: 475 (cat.).

*Batyle suturalis rutilans*; Linsley, 1962a: 131, fig. 41; Hovore & Giesbert, 1976: 354 ; Chemsak, Linsley & Noguera, 1992: 79 (cat.) ; Monné, M.A., 1994b: 60 (cat.).

#### *Crioprosopus Audinet-Serville, 1834*

*Crioprosopus* Audinet-Serville, 1834b: 53; Dupont, 1838: xii, 53, pl. 224, fig. 15; Strauch, 1861: 127; Thomson, 1864: 208; Lacordaire, 1869: 170; Bates, 1880: 74; 1885: 319; LeConte & Horn, 1883: 299; Leng, 1886: 60; Bradley, 1930: 241; Linsley, 1962a: 101; Arnett, 1962: 863, 881; Monné, M.A., 2005: 592 (cat.); Monné, M.A., 2012: 56; Eya 2015: 372 (rev., syn.).

**Type-species** - *Crioprosopus servillei* Audinet-Serville, 1834 (monotypy).

*Callona* Waterhouse, 1840: 228; Guérin-Méneville, 1844a: 213; Thomson, 1864: 208; Linsley, 1962a: 100; Arnett, 1962: 863, 881; Monné, M.A., 2005: 586 (cat.); Monné, M.A., 2012: 56.

**Type-species** - *Callona tricolor* Waterhouse, 1840 (monotypy).

#### 1. *Crioprosopus rimosus* (Buquet, 1840)

**Type locality** – Holotype female: Colombia, Santa Fé de Bogotá. (MNHN).

**Distribution** - United States (Central Texas), northern Mexico (Chihuahua, Tamaulipas). **Host plants** - *Acacia farnesiana* (Linné) Willdenow, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Stenaspis rimosus* Buquet, 184: 142; 1841b: pl. 66; White, 1853: 78; LeConte, 1880b: xxiv.

*Crioprosopus rimosus*; Lacordaire, 1869: 171; Bates, 1880: 74; 1885: 319; Vogt, 1949: 175 (biol.); Eya, 2015: 390, figs 130-133.

*Callona rimosus*; Linsley, 1962a: 100; Hovore, Penrose & Neck, 1987: 297 (biol., distr.); Chemsak, Linsley & Noguera, 1992: 80 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 354 (hosts); Martínez, 2000: 91 (distr.); Monné, M.A., 2001b: 63 (cat. hosts); Monné, M.A., 2005: 587 (cat.); García Morales *et al.*, 2015: 106 (distr.).

*Stenaspis splendens* LeConte, 1854a: 441; 1858a: 40 (distr.); 1859b: 127, pl. 12, fig. 9.

*Crioprosopus splendens*; Lacordaire, 1869: 171; Leng, 1886: 62, pl. 3, fig. 9.

**Type locality** – Holotype: United States, Texas. (MCZN).

### ***Crossidius* LeConte, 1851**

*Crossidius* LeConte, 1851: 102; Thomson, 1864: 200; Lacordaire, 1869: 191; LeConte, 1873a: 196; 1873b: 316; Bates, 1880: 81; LeConte & Horn, 1883: 301; Leng, 1886: 60, 118; Casey, 1891: 31 (key spp.); Hamilton *in* Leng & Hamilton, 1896: 171; Bradley, 1930: 241; Linsley, 1955: 63; Linsley & Chemsak, 1961: 26, 30; Linsley, 1962a: 142; Arnett, 1962: 864, 882; Hatch, 1971: 104; Monné, M.A., 2005: 594 (cat.); Monné, M.A., 2012: 56; Bousquet, Laplante, Hammond & Langor, 2017: 77 (key spp.)

**Type-species** - *Crossidius testaceus* LeConte, 1851 (monotypy).

*Oxoplus* LeConte, 1862: 41; Thomson, 1864: 200; Lacordaire, 1869: 179; LeConte, 1873b: 315; LeConte & Horn, 1883: 301; Horn, 1885a: 175; Leng, 1886: 60, 102; Casey, 1893: 588; Bradley, 1930: 241.

**Type-species** - *Oxoplus coralinus* LeConte, 1862 (subsequent designation, Thomson, 1864: 200).

### **1. *Crossidius ater* LeConte, 1861**

**Type locality** - Holotype: United States, Utah.(MCZN). **Distribution** - United States (Great Basin region from Colorado. Utah and Idaho to northern Arizona, California and Washington).

**Host plants** - *Artemisia tridentata* Nuttall, *Bigelowia viscidiflora* (Hooker) de Candolle, *Chrysothamnus nauseosus* (Pallas) Britton, *Chrysothamnus nauseosus albicaulis* (Nuttall) H.M. Hall & Clements, *Chrysothamnus nauseosus consimilis* (Greene) H.M. Hall & Clements, *Chrysothamnus nauseosus gnaphalodes* (Greene) H.M. Hall & Clements, *Chrysothamnus nauseosus viridulus* (H.M. Hall) H.M. Hall & Clements, *Chrysothamnus viscidiflorus elegans* (Greene) H.M. Hall & Clements, *Chrysothamnus viscidiflorus lanceolatus* (Nuttall) H.M. Hall & Clements, *Chrysothamnus viscidiflorus pumilus* (Nuttall) H.M. Hall & Clements, *Chrysothamnus viscidiflorus* var. *puberulus* (D.C. Eaton) Jepson, *Haplopappus bloomeri angustatus* (A. Gray) H.M. Hall, *H. suffruticosus* A. Gray (Asteraceae).

*Crossidius ater* LeConte, 1861: 356; Lacordaire, 1869: 192; LeConte, 1873a: 196; Leng, 1886: 118; Fall, 1901: 146 (distr.); Garnett, 1918: 208 (distr.); Knowlton, 1934: 86 (distr.); Knowlton & Wood, 1950: 12 (distr.); Linsley, 1957h: 82 (biol.); Linsley & Chemsak, 1961: 31; Linsley, 1962a: 144, fig. 45; Barr & Penrose, 1969: 89 (distr.); Hatch, 1971: 105; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné, M.A., 1994b: 41 (cat.); Linsley & Chemsak, 1997: 357 (hosts); Heffern, 1998: 18 (hosts); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 77, pl.13



## 2. *Crossidius coralinus coralinus* (LeConte, 1862)

**Syntypes locality** - Syntypes: United States, New Mexico. (MCZN). **Distribution** - United States (New Mexico, Arizona, Colorado, Wyoming, North Dakota, South Dakota, Idaho, Utah, Nevada, California). **Host plants** - *Chrysothamnus nauseosus* (Pallas) Britton, *Haplopappus* sp. (Asteraceae).

*Oxophilus coralinus* LeConte, 1862: 42

*Oxophilus corallinus*; Thomson, 1864: 200; Lacordaire, 1869: 180; Horn, 1885a: 175; Leng, 1886: 102, pl. 3, fig. 16; Knowlton, 1934: 86 (distr.); Knowlton & Wood, 1950: 12 (distr.);

*Crossidius corallinus*; Linsley, 1955: 63; 1957h: 86 (biol.).

*Crossidius coralinus*; Linsley, 1962a: 148; Kirk & Balsbaugh, 1975: 98 (distr.); Stein & Tagestad, 1976: 8 (distr.); Chemsak, Linsley & Noguera, 1992: 80 (cat.); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 77, pl.13

*Crossidius coralinus coralinus*; Linsley & Chemsak, 1961: 41, pl. 2, figs 21, 22; Linsley, 1962a: 154, fig. 46; Monné, M.A., 1994b: 42 (cat.); Heffern, 1998: 18 (distr.).

### 2a. *Crossidius coralinus ascendens* Linsley, 1957

**Type locality** - Holotype male: United States, California: Los Angeles County, Lancaster. (CASC). **Distribution** - United States (California, Western Mojave Desert). **Host plants** - *Chrysothamnus nauseosus mojavensis* (Greene) (Asteraceae).

*Crossidius ruficollis ascendens* Linsley, 1957g: 43; 1957h: 84

*Crossidius coralinus ascendens*; Linsley & Chemsak, 1961: 38, pl. 1, figs 7,8; Linsley, 1962a: 151, fig. 46; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné, M.A., 1994b: 42 (cat.); Linsley & Chemsak, 1997: 357 (hosts).

### 2b. *Crossidius coralinus caeruleipennis* Linsley, 1957

**Type locality** - Holotype male: United States, California: Inyo County, 1 and ½ mile south of Lone Pine. (CASC). **Distribution** - United States (California, Owen's Valley). **Host plants** - *Chrysothamnus nauseosus consimilis* (Greene) H.M.Hall & Clements (Asteraceae).

*Crossidius ruficollis caeruleipennis* Linsley, 1957g: 43; 1957h: 85.

*Crossidius coralinus caeruleipennis*; Linsley & Chemsak, 1961: 38, pl. 1, figs 9, 10; Linsley, 1962a: 152, fig. 46; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné, M.A., 1994b: 42 (cat.); Linsley & Chemsak, 1997: 357 (hosts).

### 2c. *Crossidius coralinus coccineus* (Casey, 1893)

**Type locality** - Lectotype: United States, Utah: St. George. (USNM). **Distribution** - United States (Southwestern Utah). **Host plants** - *Chrysothamnus nauseosus mohavensis* (Greene) H.M. Hall & Clements (Asteraceae).

*Oxophilus coccineus* Casey, 1893: 588; Leng & Hamilton, 1896: 170; Tanner, 1927: 33; Lingafelter *et al.*, 2014: 42, figs 43q, r (lectotype).

*Crossidius coccineus*; Linsley, 1955: 63

*Crossidius coralinus coccineus*; Linsley & Chemsak, 1961: 42, pl. 2, figs 15, 16; Linsley, 1962a: 155, fig. 46; Chemsak, Linsley & Noguera, 1992: 80 (cat.); M.A., 1994b: 42 (cat.); Linsley & Chemsak, 1997: 357 (hosts).

### 2d. *Crossidius coralinus ferruginosus* Chemsak & Linsley. 1959

**Type locality** - Holotype male: United States, California: Fresno County, Firebaugh. (CASC). **Distribution** - United States (California, Fresno County). **Host plants** - *Haploppapus acradenius* var. *bracteosus* (Greene) McMinn, *H. venetus* (Kunth) S. F. Blake (Asteraceae).

*Crossidius coralinus ferruginosus* Chemsak & Linsley, 1959: 178; Linsley & Chemsak, 1961: 36, pl. 1, figs 1,2; Linsley, 1962a: 150, fig. 46; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Linsley & Chemsak, 1997: 357 (hosts).

*Crossidius coralinus feruginosus*; Monné, M.A., 1994b: 42 (cat., error).

## 2e. *Crossidius coralinus fulgidus* Chemsak & Linsley, 1959

**Type locality** - Holotype male: United States, Utah: Duchesne County, Miton. (CASC). **Distribution** - United States (Utah, Duchesne Co. and Uintah Co.). **Host plants** - *Chrysothamnus nauseosus* (Pallas) Britton, *C. viscidiflorus* (Hooker) Nuttall (Asteraceae).

*Crossidius coralinus fulgidus* Chemsak & Linsley, 1959: 179; Linsley & Chemsak, 1961: 41, pl. 1, figs 17, 18; Linsley, 1962a: 154, fig. 46; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné, M.A., 1994b: 42 (cat.); Linsley & Chemsak, 1997: 357 (hosts); Heffern, 1998: 18 (distr.).

## 2f. *Crossidius coralinus jocosus* (Horn, 1885)

**Syntypes locality** - Syntypes male and female: United States, Colorado. (MCZN). **Distribution** - United States (Colorado). **Host plants** - *Xanthocephalus sarothrae* (Pursh) Shinnars (Asteraceae).

*Oxoplus jocosus* Horn, 1885a: 175; Leng, 1886: 103; Garnett, 1918: 208 (distr.); Knowlton, 1930: 73 (distr.); Davis, 1932: 85 (distr.); Knowlton & Thatcher, 1936: 280 (biol.); Knowlton & Wood, 1950: 12 (distr.).

*Crossidius jocosus*; Linsley, 1955: 63; 1957h: 86.

*Crossidius coralinus jocosus*; Linsley & Chemsak, 1961: 40, pl. 2, figs 23, 24; Linsley, 1962a: 153, fig. 46; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné, M.A., 1994b: 42 (cat.); Heffern, 1998: 18.

## 2g. *Crossidius coralinus monoensis* Linsley & Chemsak, 1961

**Type locality** - Holotype male: United States, California: Mono County, 11 miles north of Tom's Place. (CASC). **Distribution** - United States (California, Mono Co.). **Host plants** - *Chrysothamnus nauseosus viridulus* (H.M.Hall) H.M.Hall & Clements (Asteraceae).

*Crossidius coralinus monoensis* Linsley & Chemsak, 1961: 39, pl. 1, figs 11, 12; Linsley, 1962a: 152, fig. 46; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné, M.A., 1994b: 43 (cat.); Linsley & Chemsak, 1997: 357 (hosts).

## 2h. *Crossidius coralinus obfuscipennis* Chemsak & Linsley, 1959

**Type locality** - Holotype male: United States, Idaho: Boise City. (USNM). **Distribution** - United States (Idaho).

*Crossidius coralinus obfuscipennis* Chemsak & Linsley, 1959: 179; Linsley & Chemsak, 1961: 40, pl. 2, figs 19, 20; Linsley, 1962a: 153, fig. 46; Hatch, 1971: 105; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné, M.A., 1994b: 43 (cat.); Lingafelter *et al.*, 2014: 46, fig. 48i (holotype).

## 2i. *Crossidius coralinus parviceps* (Casey, 1924)

**Type locality** - Lectotype: United States, Utah: Vineyard. (USNM). **Distribution** - United States (North Central Utah).

*Oxoplus parviceps* Casey, 1924: 264; Lingafelter *et al.*, 2014: 296, figs 128k, l (lectotype).

*Crossidius coralinus parviceps*; Linsley & Chemsak, 1961: 42; Linsley, 1962a: 155, fig. 46; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné., M.A., 1994b: 43 (cat.).

## 2j. *Crossidius coralinus ruficollis* Linsley, 1943

**Type locality** - Holotype male: United States, California: Kern County. (CASC).

**Distribution** - United States (California, Southern San Joaquin Valley). **Host plants** - *Haplopappus acradenius bracteosus* (Greene) Hall, *H. venetus vernonioides* (Nuttall) Munz (Asteraceae).

*Crossidius ruficollis* Linsley, 1943: 147; 1955: 65 (biol.).

*Crossidius ruficollis ruficollis*; Linsley, 1957h: 84 (biol.).

*Crossidius coralinus ruficollis*; Linsley & Chemsak, 1961: 36, pl. 1, figs 3, 4; Linsley, 1962a: 150, figs 46-48; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné., M.A., 1994b: 43 (cat.); Linsley & Chemsak, 1997: 357 (hosts).

## 2k. *Crossidius coralinus tejonicus* Chemsak & Linsley. 1959

**Type locality** - Holotype male: United States, California: Kern County, Lebec. (CASC). **Distribution** - United States (California, Kern Co. and Ventura Co.).

**Host plants** - *Chrysothamnus nauseosus mohavensis* (Greene) H.M. Hall & Clements (Asteraceae).

*Crossidius coralinus tejonicus* Chemsak & Linsley, 1959: 178; Linsley & Chemsak, 1961: 38, pl. 1, figs 5, 6; Linsley, 1962a: 151, fig. 46; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné., M.A., 1994b: 43 (cat.); Linsley & Chemsak, 1997: 357 (hosts).

## 2l. *Crossidius coralinus temprans* Linsley & Chemsak, 1961

**Type locality** - Holotype male: United States, California: Lassen County, 5 miles W of Standish. (CASC). **Distribution** - United States (Southeastern California, northwestern to west-central Nevada). **Host plants** - *Chrysothamnus nauseosus consimilis* (Greene) H.M.Hall & Clements (Asteraceae).

*Crossidius coralinus temprans* Linsley & Chemsak, 1961: 39, pl. 2, figs 13-14; Linsley, 1962a: 153, fig. 46; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné., M.A., 1994b: 43 (cat.); Linsley & Chemsak, 1997: 357 (hosts).

## 3. *Crossidius discoideus discoideus* (Say, 1824)

**Syntypes locality** - Syntypes: United States, Mississippi. (Depository unknown).

**Distribution** - Mississippi Valley & Great Plains of United States & southern Canada. **Host plants** - *Chrysopsis* sp., *Gutierrezia* sp., *Haplopappus* sp. (Asteraceae).

*Callidium discoideum* Say, 1824: 411; LeConte, 1859c: 192.

*Eriphus discoidea*; Haldeman, 1847a: 39.

*Arhopalus discoideum*; LeConte, 1850b: 192.

*Crossidius discoideus*; LeConte, 1873a: 197; 1873b: 316; 1876: 520 (distr.); Popenoe, 1878: 83 (distr.); Snow, 1878a: 67 (distr.); Horn, 1880b: s/p (syn.); Snow, 1883: 42 (distr.); LeConte & Horn, 1883: 301; LeConte, 1884: 23 (distr.); Leng, 1886: 119, pl. 2, fig. 19; Pack, 1930: 220; Knowlton, 1930: 76 (distr.); Linsley, 1957h: 86 (biol.); Linsley & Chemsak, 1961: 33 (rev.); Linsley, 1962a: 146; Lewis. 1979: 23

(biol., distr.); Chemsak, Linsley & Noguera, 1992: 80 (cat.); Rice, MacRae & Merickel, 2017: 559 (distr.).

*Crossidius discoideus discoideus*; Linsley & Chemsak, 1961: 33 (rev.); Linsley, 1962a: 146; Monné, M.A., 1994b: 43 (cat.); Bousquet, Laplante, Hammond & Langor, 2017: 77

*Crossidius pulchrior* Bland, 1862: 272, fig. 2; Lacordaire, 1869: 192; Packard, 1872: 495;

**Type locality** - Lectotype: United States, Nebraska: Upper Missouri River near Fort Benton. (ANSP).

### 3a. *Crossidius discoideus blandi* Casey, 1893

**Type locality** – Lectotype: United States, Southwestern Utah. (USNM).

**Distribution** - Great Basin and Sonoran Desert from Alberta to central Mexico and northern Baja California. **Host plants** - *Chrysopsis* sp., *Gutierrezia californica* Torrey & A. Gray, *G. lucida* Greene, *G. microcephala* A. Gray, *Haplopappus gracilis* (Nuttall) Hall, *H. hartwegi* (Gray) Blake, *H. spinulosus australis* (Greene) H.M.Hall, *H. venetus vernonioides* (Nuttall) Munz, *Xanthocephalum* sp. (Asteraceae).

*Crossidius blandi* Casey, 1893: 589; Hamilton, in Leng & Hamilton, 1896: 170; Knowlton & Thatcher, 1936: 280 (distr.); Lingafelter *et al.*, 2014: 30, figs 31a, b (lect. designation).

*Crossidius discoideus blandi*; Linsley, 1957h: 86 (hosts); Linsley & Chemsak, 1961: 33; Linsley, 1962a: 147; Barr & Penrose, 1969: 89 (distr., hosts); Hatch, 1971: 105; MacKay, Zak & Hovore, 1987: 365 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 81 (cat.); Linsley & Chemsak, 1997: 358 (hosts); Heffern, 1998: 19 (distr.); Monné, M.A., 2001b: 66 (cat. hosts); Monné, M.A., 2005: 594 (cat.); Noguera & Gutiérrez, 2016: 659 (distr.).

### 3b. *Crossidius discoideus sayi* Casey, 1912

**Type locality** - Lectotype: United States, New Mexico. (USNM). **Distribution** - United States (Central and southern Rocky Mountain Region). **Host plants** - *Artemisia frigida* Willdenow, *Chrysothamnus nauseosus* (Pallas) Britton, *Cirsium undulatum* Sprengel, *Gutierrezia sarothrae* Britton & Rusby, *Heterotheca villosa* (Pursh) Shinnars (Asteraceae).

*Crossidius sayi* Casey, 1912: 340; Lingafelter *et al.*, 2014: 315, figs 149 g, h (lectotype).

*Crossidius discoideus*; Casey, 1893: 589.

*Crossidius discoideus sayi*; Linsley & Chemsak, 1961: 33; Linsley, 1962a: 147; Lavigne, 1976: 755 (biol.); 1980: 39 (hosts); Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1994b: 44 (cat.); Heffern, 1998: 19 (distr.).

*Crossidius sayi bilenticulatus* Casey, 1912: 340; Lingafelter *et al.*, 2014: 315, figs 149 i, j (holotype).

**Type locality** - Holotype female: United States, New Mexico. (USNM).

*Crossidius submetallicus* Casey, 1912: 341; Lingafelter *et al.*, 2014: 328, figs 164u, v (holotype).

**Type locality** - Holotype male: United States, Colorado: Boulder Co. (USNM).

### 4. *Crossidius grahami* Morris & Wappes, 2013

**Type locality** - Holotype male: United States, Georgia: Emanuel County, 1,5 miles South of Coven. (FSCA). **Distribution** - United States, Georgia (restricted to the

relict island sand dune systems along the Ohoopsee and Little Ohoopsee rivers in Emanuel and Tattnall counties of Georgia). **Host plants** - *Chrysoma pauciflosculosa* (Michaux) Greene (Asteraceae).  
*Crossidius grahami* Morris & Wappes, 2013: 3, figs 1,2, 3,5 (hosts).

#### 5. *Crossidius hirtipes hirtipes* LeConte, 1854

**Type locality** - Holotype: United States, Oregon: Wenass river to Fort Colville. (MCZN). **Distribution** - United States (Northeastern Washington to east-central California, Idaho, Nevada, Utah, to Colorado, possibly to New Mexico and Missouri; Upper drainage basins of the Columbia, Snake and Deschutes rivers).  
**Host plants** - *Chrysothamnus viscidiflorus* (Hooker) Nuttall (Asteraceae).

*Crossidius ? hirtipes* LeConte, 1854d: 18; 1857: 23, 61.

*Crossidius hirtipes*; Lacordaire, 1869: 192; LeConte, 1873a: 196; Leng, 1886: 119; Casey, 1891: 31; Leng & Hamilton, 1896: 171; Knowlton & Wood, 1950: 12 (distr.); Linsley, 1957h: 86 (biol.); Linsley & Chemsak, 1961: 53, fig. 5; Linsley, 1962: 166; Furniss & Carolin, 1977: 209 (biol.); Bechtel, Hanks & Rust, 1983: 474 (distr.); Chemsak, Linsley & Noguera, 1992: 81 (cat.); Rice, MacRae & Merickel, 2017: 669 (distr.).

*Crossidius hirtipes hirtipes*; Linsley & Chemsak, 1961: 54, fig. 5, pl. 3, fig. 2 (rev); Linsley, 1962a: 167, fig. 52; Monné, M.A., 1994b: 44 (cat.); Linsley & Chemsak, 1997: 358 (hosts).

#### 5a. *Crossidius hirtipes allgewahri* LeConte, 1878

**Syntypes locality** - Syntypes: United States, Idaho: Atlanta, (MCZN). **Distribution** - United States (Southern Idaho, northern Utah, southwestern Wyoming). **Host plants** - *Chrysothamnus viscidiflorus lanceolatus* (Nuttall) H.M. Hall & Clements, *Chrysothamnus viscidiflorus pumilus* (Nuttall) H.M. Hall & Clements, *C. viscidiflorus stenophyllus* (A. Gray) H.M. Hall & Clements (Asteraceae).

*Crossidius Allgewahri* LeConte, 1878b: 461; 1879: 1, pl. 1, fig. 1; Lameere, 1883: 41 (cat.).

*Crossidius allgewahri*; Leng, 1886: 119; Knowlton, 1934: 86 (distr.); Knowlton & Thatcher, 1936: 80 (distr.); Linsley, 1958: 88 (biol.); Linsley & Chemsak, 1961: 61, pl. 3, fig. 15 (rev.); Linsley, 1962a: 174, fig. 52; Hatch, 1971: 106; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1994b: 44 (cat.); Linsley & Chemsak, 1997: 358 (hosts); Heffern, 1998: 19 (distr.); Rice, MacRae & Merickel, 2017: 671, fig. 1 (distr.).

#### 5b. *Crossidius hirtipes bechteli* Linsley & Chemsak, 1961

**Type locality** - Holotype male: United States, Nevada: Lander County, 2 miles NW of Tenabo. (CASC). **Distribution** - United States (Nevada). **Host plants** - *Bigelowia viscidiflora* (Hooker) de Candolle, *Chrysothamnus nauseosus albicaulis* (Nuttall) H.M. Hall & Clements (Asteraceae).

*Crossidius hirtipes bechteli* Linsley & Chemsak, 1961: 59, fig. 5, pl. 3, fig. 12; Linsley, 1962a: 173, fig. 52; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1994b: 44 (cat.); Linsley & Chemsak, 1997: 358 (hosts).

#### 5c. *Crossidius hirtipes brunneipennis* Linsley, 1943

**Type locality** - Holotype male: United States, Nevada: Lincoln County, Ash, 12 miles North of Alamo. (CASC). **Distribution** - United States (Southern half of Nevada). **Host plants** - *Chrysothamnus filifolius* Rydberg, *Chrysothamnus*

*nauseosus leiospermus* (A. Gray) H.M. Hall & Clements, *C. viscidiflorus pumilus* (Nuttall) H.M. Hall & Clements, *C. viscidiflorus* var. *puberulus* (D.C. Eaton) Jepson (Asteraceae).

*Crossidius brunneipennis* Linsley, 1943: 148.

*Crossidius hirtipes brunneipennis*; Linsley & Chemsak, 1961: 59, pl. 3, fig. 11; Linsley, 1962a: 173, pl. 52; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1993: 45 (cat.); Linsley & Chemsak, 1997: 358 (hosts).

#### 5d. *Crossidius hirtipes cerarius* Chemsak & Linsley, 1959

**Type locality** – Holotype male: United States, Nevada: Elko County, 3 miles South of Currie. (CASC). **Distribution** - United States (Northern half of eastern Nevada).

**Host plants** - *Chrysothamnus viscidiflorus pumilus* (Nuttall) H.M. Hall & Clements, *C. viscidiflorus stenophyllus* (A. Gray) H.M. Hall & Clements (Asteraceae).

*Crossidius cerarius* Chemsak & Linsley, 1959: 177.

*Crossidius hirtipes cerarius*; Linsley & Chemsak, 1961: 60, fig. 5, pl.3, fig. 13; Linsley, 1962a: 173, fig. 72; Chemsak, Linsley & Noguera, 1992: 81 (cat); Monné, M.A., 1994b: 45 (cat.); Linsley & Chemsak, 1997: 358 (hosts).

#### 5e. *Crossidius hirtipes flavescens* Chemsak & Linsley, 1959

**Type locality** – Holotype male: United States, California: Tulare County, Kennedy Meadow. (CASC). **Distribution** - East side of Sierra Nevada from Sequoia National Forest to Walker Pass, California. **Host plants** - *Chrysothamnus viscidiflorus* (Hooker) Nuttall (Asteraceae).

*Crossidius rhodopus flavescens* Chemsak & Linsley, 1959: 180

*Crossidius hirtipes flavescens*; Linsley & Chemsak, 1961: 57, fig. 5, pl. 3, fig. 5; Linsley, 1962a: 170, fig. 52; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1994b: 45 (cat.); Linsley & Chemsak, 1997: 358 (hosts).

#### 5f. *Crossidius hirtipes francesae* Chemsak & Linsley, 1959

**Type locality** - Holotype male: United States, California: Siskiyou County, Weed. (CASC). **Distribution** - United States (California, Siskiyou Co.). **Host plants** - *Bigelowia viscidiflora* (Hooker) de Candolle (Asteraceae).

*Crossidius hirtipes francesae* Chemsak & Linsley, 1959: 181; Linsley & Chemsak, 1961: 54, fig. 5; Linsley, 1962a: 169, fig. 52; Chemsak, Linsley & Noguera, 1992: 61 (cat.); Monné, M.A., 1994b: 45 (cat.); Linsley & Chemsak, 1997: 358 (hosts).

#### 5g. *Crossidius hirtipes immaculatus* Chemsak & Linsley, 1959

**Type locality** - Holotype male: United States, California: Lassen County, Litchfield. (CASC). **Distribution** - United States (Eastern Oregon to east-central California across northern Nevada). **Host plants** – *Bigelowia viscidiflora* (Hooker) de Candolle, *Chrysothamnus nauseosus consimilis* (Greene) H.M. Hall & Clements, *C. viscidiflorus latifolius* (D.C. Eaton) H.M. Hall & Clements, *Gutierrezia sarothrae* Britton & Rusby, *Haplopappus cooperi* Hall (Asteraceae).

*Crossidius hirtipes immaculatus* Chemsak & Linsley, 1959: 182; Linsley & Chemsak, 1961: 56, fig. 5, pl. 3, fig. 3; Linsley, 1962a: 169, fig. 52; Chemsak, Linsley & Noguera, 1992: 61 (cat.); Monné, M.A., 1994b: 45 (cat.); Linsley & Chemsak, 1997: 359 (hosts).

#### 5h. *Crossidius hirtipes immaculipennis* Chemsak & Linsley, 1959

**Type locality** - Holotype male: United States, Nevada: Lyon County, 10 miles North of Smith. (CASC). **Distribution** - United States (Nevada, desert area of western Lyon Co.). **Host plants** - *Chrysothamnus viscidiflorus* (Hooker) Nuttall (Asteraceae).

*Crossidius hirtipes immaculipennis* Chemsak & Linsley, 1959: 180; Linsley & Chemsak, 1961: 57, fig. 5, pl. 3, fig. 6 (rev.); Linsley, 1962a: 171, fig. 52; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1994b: 45 (cat.); Linsley & Chemsak, 1997: 359 (hosts).

**5i. *Crossidius hirtipes macswaini* Chemsak & Linsley, 1961**

**Type locality** - Holotype male: United States, Nevada: Douglas County, 19 miles SE of Wellington. (CASC). **Distribution** - United States (Southern Douglas Co., Nevada to southwestern Lyon Co.). **Host plants** - *Chrysothamnus viscidiflorus* (Hooker) Nuttall (Asteraceae).

*Crossidius hirtipes macswaini* Chemsak & Linsley, 1961: 58, fig. 5, pl. 3, fig. 8; Linsley, 1962a: 171, fig. 52; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1994b: 45 (cat.); Linsley & Chemsak, 1997: 359 (hosts).

**5j. *Crossidius hirtipes nigripennis* Chemsak & Linsley, 1959**

**Type locality** - Holotype male: United States, Idaho: Idaho County, Riggins. (CASC). **Distribution** - United States (Mountains of Idaho, eastern Washington to northwestern Wyoming). **Host plants** - *Bigelowia viscidiflora* (Hooker) de Candolle, *Chrysothamnus viscidiflorus stenophyllus* (A. Gray) H.M. Hall & Clements (Asteraceae).

*Crossidius hirtipes nigripennis* Chemsak & Linsley, 1959: 180; Linsley & Chemsak, 1961: 54, fig. 5, pl. 1, fig. 3; Linsley, 1962a: 167, fig. 52; Hatch, 1971: 106; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1994b: 46 (cat.); Linsley & Chemsak, 1997: 359 (hosts).

**5k. *Crossidius hirtipes nubilus* Linsley, 1957**

**Type locality** - Holotype male: United States, California: Inyo County, Westgaard Pass. (CASC). **Distribution** - United States (California, Inyo County). **Host plants** - *Chrysothamnus viscidiflorus* (Hooker) Nuttall (Asteraceae).

*Crossidius rhodopus nubilus* Linsley, 1957g: 42; 1957h: 83

*Crossidius hirtipes nubilus*; Linsley & Chemsak, 1961: 58, pl. 3, fig. 10; Linsley, 1962a: 172, fig. 52; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1994b: 46 (cat.); Linsley & Chemsak, 1997: 359.

**5l. *Crossidius hirtipes rhodopus* Linsley, 1955**

**Type locality** - Holotype male: United States, California: Inyo County, Convict Lake (CASC). **Distribution** - United States (California, Mono Basin).

*Crossidius hirtipes rhodopus* Linsley, 1955: t64; 1957g: 43; 1957h: 83; Linsley & Chemsak, 1961: 58, pl. 3, fig. 9; Linsley, 1962a: 172; Chemsak, Linsley & Noguera, 1962: 81 (cat.); Monné, M.A., 1984: 46 (cat.); Linsley & Chemsak, 1997: 359.

**5m. *Crossidius hirtipes rubrescens* Linsley & Chemsak, 1961**

**Type locality** - Holotype male: United States, Nevada: Lyon County, 3.5 miles N of Yerington. (CASC), **Distribution** - United States (Nevada, central Lyon Co.).

*Crossidius hirtipes rubrescens* Linsley & Chemsak, 1961: 58, pl. 3, fig. 7; Chemsak, Linsley & Noguera, 1962: 81 (cat.); Monné, M.A., 1994b: 46 (cat.); Linsley & Chemsak, 1997: 359.

**5n. *Crossidius hirtipes setosus* Chemsak & Linsley, 1959**

**Type locality** – Holotype male: United States, California: Nevada County, Boca Dam, 11 miles E Truckee). **Distribution** – United States (California, Nevada County);

*Crossidius hirtipes setosus* Chemsak & Linsley, 1959: 181; Linsley & Chemsak, 1961: 57, pl. 3, fig. 4; Linsley, 1962a: 170; Chemsak, Linsley & Noguera, 1962: 81 (cat.). Monné, M.A., 1994b: 46 (cat.); Linsley & Chemsak, 1997: 359.

**5o. *Crossidius hirtipes wickhami* Casey, 1912**

**Type locality** - Holotype male: United States, Utah: Marysvale. (USNM).

**Distribution** - United States (Western Utah and eastern Nevada to Arizona). **Host plants** - *Chrysothamnus viscidiflorus stenophyllus* (A. Gray) H.M. Hall & Clements, *C. nauseosus* (Pallas) Britton, *Gutierrezia lucida* Greene (Asteraceae).

*Crossidius wickhami* Casey, 1912: 337; Knowlton & Thatcher, 1936: 280; 1950: 12; Linsley, 1957h: 83; Lingafelter *et al.*, 2014: 347, figs 185g, h (holotype).

*Crossidius wickhami wickhami*; Linsley, 1955: 64

*Crossidius hirtipes wickhami*; Linsley & Chemsak, 1961: 60, pl. 3, fig. 14; Linsley, 1962a: 174, fig. 52; Heffern, 1998: 19; MacRae & Rice, 2007: 231.

*Crossidius truncatellus* Casey, 1912: 338; Lingafelter *et al.*, 2014: 336, figs 174 e, f (holotype).

**Type locality** - Holotype male: United States, Utah: Marysvale. (USNM).

*Crossidius curticolis* Casey, 1924: 265; Lingafelter *et al.*, 2014: 49, figs 51w, x (holotype).

**Type locality** - Holotype female: United States, Utah: Parowan Canyon. (USNM).

*Crossidius parallelus* Casey, 1924: 265.

**Type locality** – United States, Utah, Eureka. (USNM).

**6. *Crossidius humeralis humeralis* LeConte, 1858**

**Syntypes locality** – Syntypes: United States: Llano Estacado, Texas and New Mexico. (MCZN). **Distribution** - United States (Southeastern New Mexico and western Texas), northern Mexico (Durango). **Host plants** - *Haplopappus heterophyllus* S.F.Blake, *H. pluriflorus* (Gray) Hall (Asteraceae).

*Crossidius humeralis* LeConte, 1858a: 25; Lacordaire, 1869: 192; LeConte, 1873a: 197; Horn, 1885a: 176; Leng, 1886: 119; Fall & Cockerell, 1907: 192 (distr.); Linsley & Chemsak, 1961: 48; Linsley, 1962a: 161; Penrose, 1974: 248; Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 360 (hosts).

*Crossidius humeralis humeralis*; Penrose, 1974: 249, figs 1, 2; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 2001b: 66 (cat. hosts); Monné, M.A., 2005: 594 (cat.).

**6a. *Crossidius humeralis quadrivittatus* Penrose, 1974**

**Type locality** - Holotype male: United States, Texas: San Patricio County, Welder (Wildlife) Refuge. **Distribution** - United States, Texas (along the southern gulf coast of Texas). **Host plants** - *Haplopappus* sp., *Isocoma coronopifolia* (A. Gray) E. Greene. *I. drummondii* (A. Gray) E. Greene (Asteraceae).



*Crossidius humeralis quadrivittatus* Penrose, 1974: 251, figs 3, 4; Hovore & Giesbert, 1976: 354 (biol.); Hovore, Penrose & Neck, 1987: 298 (distr.); Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1994b: 47 (cat.); Linsley & Chemsak, 1997: 360 (hosts); Morris & Wappes, 2013: 4, figs 4a, 4b, 6.

#### 7. *Crossidius hurdi* Chemsak & Linsley, 1959

**Type locality** - Holotype male: United States, Arizona: Cochise County, Skeleton Canyon, 6 miles SE of Apache. (CASC). **Distribution** - United States (Southeastern Arizona). **Host plants** - *Haplopappus hartwegi* (Gray) Blake, *Xanthocephalum sarothrae* (Pursh) Shinnery (Asteraceae).

*Crossidius hurdi* Chemsak & Linsley, 1959: 176; Linsley & Chemsak, 1961: 50 (rev.); Linsley, 1962a: 165; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Monné, M.A., 1994b: 47 (cat.); Linsley & Chemsak, 1997: 360 (hosts).

#### 8. *Crossidius militaris* Bates, 1892

**Type locality** - Lectotype male: Mexico, Durango: Villa Lerdo. (BMNH). **Distribution** - United States (Eastern Texas, New Mexico), Mexico (Durango). **Host plants** - *Gutierrezia lucida* Greene (Asteraceae).

*Crossidius militaris* Bates, 1892: 177, pl. 7, fig. 14; Linsley & Chemsak, 1961: 35; Linsley, 1962a: 147; Chemsak, 1967b: 75 (lect.); Hovore & Giesbert, 1976: 354 (hosts); Chemsak, Linsley & Noguera, 1992: 81 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 360 (hosts); Monné, M.A., 2001b: 66 (cat. hosts); Monné, M.A., 2005: 594 (cat.).

*Crossidius inflaticollis* Linsley, 1957f: 39.

**Type locality** - Holotype male: United States, Texas: Presidio Co. (Chinati Mts ). (CASC).

#### 9. *Crossidius mojavensis mojavensis* Linsley, 1955

**Type locality** - Holotype male: United States, California: Los Angeles County, Palmdale. (CASC). **Distribution** - United States (California, western edge of Mojave Desert and adjacent areas) **Host plants** - *Chrysothamnus nauseosus gnaphalodes* (Greene) H.M. Hall & Clements, *Chrysothamnus nauseosus mohavensis* (Greene) H.M. Hall & Clements (Asteraceae).

*Crossidius mojavensis* Linsley, 1955: 63; 1957h: 82 (biol.); 1962: 162; Linsley & Chemsak, 1961: 48 (rev.); Walters, 1978: 356 (distr.); Chemsak, Linsley & Noguera, 1992: 81 (cat.); Noguera & Chemsak, 1996: 402 (distr.).

*Crossidius mojavensis mojavensis*; Linsley & Chemsak, 1961: 49; Linsley, 1962a: 162; Monné, M.A., 1994b: 47 (cat.); Linsley & Chemsak, 1997: 360 (hosts).

#### 10. *Crossidius pulchellus* LeConte, 1861

**Type locality** - Holotype: United States, Bitter Root Valley. (MCZN). **Distribution** - Canada (Alberta) to Mexico (Chihuahua, Nuevo León, Zacatecas), westward to southeastern California and eastward to Missouri. **Host plants** - *Artemisia frigida* Willdenow, *Chrysothamnus nauseosus* (Pallas) Britton, *Grindelia squarrosa* Dunal, *Gutierrezia longifolia* Greene, *G. microcephala* A. Gray, *G. microphylla* Durand & Hilg., *G. sarothrae* Britton & Rusby, *Gymnosperma* sp., *Haplopappus hartwegi* (Gray) Blake, *Xanthocephalum glutinosum* (Sprengel) Shinnery, *X. sarothrae* (Pursh) Shinnery (Asteraceae).

*Crossidius pulchellus* LeConte, 1861: 356; Lacordaire, 1869: 192; LeConte, 1873a: 186; Popenoe, 1878: 82 (distr.); Snow, 1878a: 67 (distr.); 1883: 42 (distr.); Leng,

1886: 118, 119; Casey, 1891: 31; Wickham, 1893: 190, figs a-j, q-t; Hamilton, *in* Leng & Hamilton, 1896: 171; Fall & Cockerell, 1907: 192 (distr.); Casey, 1912: 338; Craighead, 1923: 81 (larva); Criddle, 1926: 98 (distr.); Knowlton, 1930: 76 (distr.); Beaulne, 1932: 203 (hosts); Knowlton, 1934: 86 (distr.); Knowlton & Thatcher, 1936: 280 (distr.); Knowlton & Wood, 1950: 12 (distr.); Linsley, 1955: 66 (distr.); 1957h: 88 (hosts); Linsley & Chemsak, 1961: 52; Linsley, Knull & Statham, 1961b: 23 (distr.); Linsley, 1962a: 165, fig. 51; Barr & Penrose, 1969: 90 (distr.); Hatch, 1971: 106; Stein & Tigestad, 1976: 9, fig. 3 (biol.); Lavigne, 1980: 39 (hosts); Wangberg, 1982: 237 (hosts); MacKay, Zak & Hovore, 1987: 365 (hosts); Hovore, Penrose & Neck, 1987: 299 (distr., hosts); Chemsak, Linsley & Noguera, 1992: 81 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 360 (hosts); Monné, M.A., 2001b: 66 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 102 (distr.); Monné, M.A., 2005: 595 (cat.); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 78, pl.14

*Crossidius palmeri* Bates, 1880: 81; 1892: 177 (distr.).

**Syntypes locality** – Syntypes male and female: Mexico, San Luis Potosí: Alvarez Mountains. (BMNH).

*Crossidius nitidicollis* Casey, 1891: 33; Wickham, 1893: 191, figs m, n; Hamilton, *in* Leng & Hamilton, 1896: 170, 171; Lingafelter *et al.*, 2014: 107, figs 118m, n (lect. designation).

**Type locality** – Lectotype male: United States, Arizona: Tucson. (USNM).

*Crossidius pulchellus sinuosus* Casey, 1912: 339; Lingafelter *et al.*, 2014: 305, figs 138m, n (holotype).

**Type locality** - Holotype male: not stated. (USNM).

*Crossidius pulchellus retractus* Casey, 1912: 339; Lingafelter *et al.*, 2014: 305, figs 138k, l (holotype).

**Type locality** - Holotype male: United States, Kansas. (USNM).

*Crossidius pulchellus vegasensis* Casey, 1912: 339; Lingafelter *et al.*, 2014: 305, figs 138o, p (holotype).

**Type locality** - Holotype male: United States, New Mexico: Las Vegas. (USNM).

*Crossidius debilis* Casey, 1912: 339; Lingafelter *et al.*, 2014: 50, figs 53k, l (holotype).

**Type locality** - Holotype male: United States, Kansas. (USNM).

*Crossidius lanaticollis* Casey, 1912: 339; Lingafelter *et al.*, 2014: 85, figs 93s, t (holotype).

**Type locality** - Holotype female: not stated. (USNM).

## 11. *Crossidius punctatus* LeConte, 1873

**Syntypes locality** - Syntypes male and female: United States, Oregon. (MCZN).

**Distribution** - British Columbia to northeastern California, northern Utah and Montana. **Host plants** - *Artemisia tridentata* Nuttall, *Bigelowia viscidiflora* (Hooker) de Candolle, *Chrysothamnus nauseosus* (Pallas) Britton, *C. nauseosus albicaulis* (Nuttall) H.M. Hall & Clements, *C. nauseosus consimilis* (Greene) H.M. Hall & Clements, *C. nauseosus gnaphalodes* (Greene) H.M. Hall & Clements, *C. viscidiflorus* (Hooker) Nuttall, *C. viscidiflorus stenophyllus* (A. Gray) H.M. Hall & Clements, *Haplopappus bloomeri angustatus* (A. Gray) H.M. Hall, *H. suffruticosus* A. Gray (Asteraceae).

*Crossidius punctatus* LeConte, 1873a: 197; Leng, 1886: 118; Casey, 1891: 31; Leng & Hamilton, 1896: 171; Linsley, 1957h: 82 (biol.); Linsley & Chemsak, 1961: 49; Linsley, 1962a: 163, fig. 51; Hatch, 1971: 105; Chemsak, Linsley & Noguera, 1992:

81 (cat.); Monné, M.A., 1994b: 48 (cat.); Linsley & Chemsak, 1997: 360 (hosts); Rice, MacRae & Merickel, 2017: 669 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 78, pl.14

*Crossidius crassipes* Casey, 1891: 32; Leng & Hamilton, 1896: 170, 171; Lingafelter *et al.*, 2014: 47, figs 49s, r (holotype).

**Type locality** - Holotype male: United States, Washington. (USNM).

*Crossidius plagiatus* Casey, 1912: 336; Lingafelter *et al.*, 2014: 300, figs 133m,n (holotype).

**Type locality** – Holotype male: locality unknown. (USNM).

*Crossidius hirsuticollis* Casey, 1924: 266; Lingafelter *et al.*, 2014: 75, figs 81o, p (holotype).

**Type locality** - Holotype male: United States, Utah: Stockton. (USNM).

*Crossidius vinosus* Casey, 1924: 266; Lingafelter *et al.*, 2014: 344, figs 182c, d (holotype).

**Type locality** - Holotype female: United States, Utah: Vineyard. (USNM).

## 12. *Crossidius suturalis suturalis* LeConte, 1858

**Type locality** - Holotype female: Sonora, Mexico or New Mexico. (MCZN).

**Distribution** - United States (western Texas to eastern Arizona), Mexico (Sonora, Chihuahua). **Host plants** - *Chrysothamnus viscidiflorus* (Hooker) Nuttall, *Gutierrezia longifolia* Greene, *G. lucida* Greene, *G. wrightii* A. Gray, *Haplopappus hartwegi* (Gray) Blake, *H. pluriflorus* (Gray) Hall, *Xanthocephalum glutinosum* (Sprengel) Shinnars, *X. sarothrae* (Pursh) Shinnars (Asteraceae).

*Crossidius suturalis* LeConte, 1858b: 83; Lacordaire, 1869: 192; LeConte, 1873a: 197; Linsley, 1957h: 87 (hosts); Linsley & Chemsak, 1961: 44; Linsley, 1962a: 157; MacKay, Zak & Hovore, 1987: 365 (hosts).

*Crossidius suturalis suturalis*; Linsley & Chemsak, 1961: 44; Linsley, Knull & Statham, 1961b: 23 (distr.); Linsley, 1962a: 159, fig. 50; Chemsak, Linsley & Noguera, 1992: 81 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 361 (hosts); Monné, M. A., 2001b: 67 (cat. hosts); Monné, M.A., 2005: 595 (cat.).

*Crossidius longipennis* Casey, 1891: 31; Wickham, 1893: 191, fig. k; Hamilton, *in* Leng & Hamilton, 1896: 170; Fall & Cockerell, 1907: 192 (distr.); Lingafelter *et al.*, 2014: 92, figs 101e, f (lect. designation).

**Type locality** – Lectotype: United States, New Mexico. (USNM).

*Crossidius aegrotus* Bates, 1892: 178.

**Syntypes locality** – Syntypes: Mexico, Chihuahua. (BMNH).

### 12a. *Crossidius suturalis intermedius* LeConte, 1873

**Syntypes locality** – Syntypes male and female: United States, Arizona. (MCZN).

**Distribution** - United States (Arizona, southern Nevada), Mexico (Sonora). **Host plants** - *Haplopappus acradenius eremophilus* (Greene) Hall, *H. drummondii* (Torrey & A. Gray) Blake, *H. hartwegi* (Gray) Blake, *H. tenuisectus* (Greene) Blake (Asteraceae).

*Crossidius intermedius* LeConte, 1873a: 196; Ulke, 1875: 813, pl. 61, fig. 1; 1882: 42; Lameere, 1883: 45 (cat.); Snow, 1883: 42 (distr.); Leng, 1886: 118, 119, pl. 3, fig. 20; Casey, 1891: 31; Wickham, 1893: 191, fig. 1; Townsend, 1895: 48 (distr.); Hamilton, *in* Leng & Hamilton, 1896: 171; Griffith, 1900: 569 (distr.); Kunze, 1904: 24 (mimet.); Fall & Cockerell, 1907: 192 (distr.); Knowlton, 1934: 86 (distr.); Saalas, 1936: 111; Linsley, 1955: 65 (distr.); 1957h: 87 (hosts).

*Crossidius intermedius intermedius*; Linsley, 1957g: 44; 1957h: 87 (hosts).

*Crossidius suturalis intermedius*; Linsley & Chemsak, 1961: 46; Linsley, 1962a: 159, fig. 50; Chemsak, Linsley & Noguera, 1992: 82 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 360 (hosts); Monné, M.A., 2001b: 67 (cat. hosts); Monné, M.A., 2005: 596 (cat.).

#### 12b. *Crossidius suturalis melanipennis* Penrose, 1984

**Type locality** - Holotype male: United States, Texas: Kleberg Co., Riviera Beach. (CASC). **Distribution** - Coastal portions of southern Texas to extreme northern Mexico. **Host plants** - *Haplopappus drummondii* (Torrey & A. Gray) Blake (Asteraceae).

*Crossidius suturalis melanipennis* Penrose, in Giesbert & Penrose, 1984: 62, fig. 3; Hovore, Penrose & Neck, 1987: 298 (biol., distr.); Chemsak, Linsley & Noguera, 1992: 82 (cat.); Linsley & Chemsak, 1997: 361 (hosts); Monné, M.A., 2001b: 68 (cat. hosts); Monné, M.A., 2005: 596 (cat.).

#### 12c. *Crossidius suturalis minutivestis* Linsley, 1957

**Type locality** - Holotype male: United States, California: Los Angeles County, 2 miles north of Lancaster. (CASC). **Distribution** - United States (California, Western Mojave Desert). **Host plants** - *Haplopappus acradenius* S.F. Blake (Asteraceae).

*Crossidius intermedius minutivestis* Linsley, 1957g: 44; 1957h: 87.

*Crossidius suturalis minutivestis*; Linsley & Chemsak, 1961: 46; Linsley, 1962a: 160, fig. 50; Chemsak, Linsley & Noguera, 1992: 82 (cat.); Monné, M.A., 1994b: 49 (cat.); Linsley & Chemsak, 1997: 360 (hosts).

#### 12d. *Crossidius suturalis pubescens* Linsley, 1957

**Type locality** - Holotype male: United States, California: Riverside County, 2 1/8 miles east of Indio. (CACS). **Distribution** - United States (Southeastern California). **Host plants** - *Haplopappus acradenius eremophilus* (Greene) Hall (Asteraceae).

*Crossidius intermedius pubescens* Linsley, 1957g: 44; 1957h: 46.

*Crossidius suturalis pubescens*; Linsley & Chemsak, 1961: 46. Linsley, 1962a: 160, fig. 50; Chemsak, Linsley & Noguera, 1992: 82 (cat.); Monné, M.A., 1994b: 49 (cat.); Linsley & Chemsak, 1997: 360 (hosts).

#### 13. *Crossidius testaceus testaceus* LeConte, 1851

**Syntypes locality** - Syntypes: United States, California: San Diego. (MCZN). **Distribution** - United States (San Diego Co., California), Mexico (northwestern Baja California). **Host plants** - *Baccharis* sp., *Bigelowia arborescens* A. Gray, *Haplopappus vernonioides* (Nuttall) Munz (Asteraceae).

*Crossidius testaceus* LeConte, 1851: 102; White, 1853: 144; LeConte, 1858a: 40 (distr.); Thomson, 1864: 200; Lacordaire, 1869: 192; LeConte, 1873a: 196; Leng, 1886: 118, 119; Casey, 1891: 31; Hamilton in Leng & Hamilton, 1896: 171; Fall, 1901: 146 (distr.); Garnett, 1918: 208 (distr.); Moore, 1937: 91 (distr.); Linsley, 1957e: 85 (distr.); 1957h: 83 (hosts); Linsley & Chemsak, 1961: 47; Linsley, 1962a: 160; Heffern, 1998: 24 (distr.).

*Crossidius testaceus testaceus*; Linsley & Chemsak, 1961: 47; Linsley, 1962a: 161, fig. 45; Chemsak, Linsley & Noguera, 1992: 82; Noguera & Chemsak, 1996: 402 (cat.);

Linsley & Chemsak, 1997: 361 (hosts); Monné, M.A., 2001b: 68 (cat. hosts); Monné, M.A., 2005: 596 (cat.).

### 13a. *Crossidius testaceus maculicollis* Casey, 1912

**Type locality** - Lectotype: United States, California: Los Angeles County. (USNM). **Distribution** - United States (California, Los Angeles Co. to western Riverside Co.). **Host plants** - *Haplopappus vernonioides* (Nuttall) Munz (Asteraceae).

*Crossidius maculicollis* Casey, 1912: 337.

*Crossidius testaceus maculicollis*; Linsley & Chemsak, 1961: 48; Linsley, 1962a: 161, fig. 45; Chemsak, Linsley & Noguera, 1992: 82 (cat.); Monné, M.A., 1994b: 49 (cat.); Linsley & Chemsak, 1997: 361 (hosts); Lingafelter *et al.* 2014: 94, 366, fig. 113u (lectotype).

### *Deltaspis* Audinet-Serville, 1834

*Deltaspis* Audinet-Serville, 1834b: 7; Strauch, 1861: 128; Chevrolat, 1861: 247; Lacordaire, 1869: 172; Chenu, 1870: 314; Bates, 1880: 76; Monné, M.A., 2005: 598 (cat.); Monné, M. A., 2012: 57.

*Chrysoprasia* (*Deltaspis*); Laporte, 1840: 433.

**Type-species** - *Deltaspis auromarginata* Audinet-Serville, 1834 (monotypy).

*Eudoxilus* Lacordaire, 1869: 172.

### 1. *Deltaspis cruentus* (LeConte, 1862)

**Type locality** - Holotype: Mexico, Baja California: San José del Cabo. (MCZN).

**Distribution** - United States (California, San Bernardino Mts.), Mexico (Baja California Sur). **Host plants** - *Encelia farinosa* A. Gray, *Gutierrezia californica* Torrey & A. Gray (Asteraceae), *Eriogonum fasciculatum* Benth (Polygonaceae).

**Host flowers** - *Baccharis sergiloides* Gray, *Encelia farinosa* A. Gray, *Gutierrezia californica* Torrey & A. Gray (Asteraceae), *Eriogonum fasciculatum* Benth (Polygonaceae).

*Oxoplus cruentus* LeConte, 1862: 42; Lacordaire, 1869: 180; Horn, 1885a: 175; Leng, 1886: 102, 103; Garnett, 1918: 208 (distr.); Linsley, 1942: 62.

*Crossidius cruentus*; Linsley, 1955: 63; 1957h: 86 (hosts); 1962a: 156; Linsley & Chemsak, 1961: 43.

*Deltaspis cruentus*; Chemsak & Linsley, 1974a: 182; Hovore & Giesbert, 1976: 354 (hosts); Chemsak, Linsley & Noguera, 1992: 82 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Heffern 1998: 24 (distr., exclusion); Beierl & Barchet, 2000: 6, 7 (biol.); Monné, M.A., 2001b: 68 (cat. hosts); Monné, M.A., 2005: 598 (cat.).

*Oxoplus cruentatus*; Horn, 1894: 338 (error).

*Oxoplus marginatus* LeConte, 1862: 42; Lacordaire, 1869: 180; LeConte, 1884: 23; Horn, 1885a: 175; Leng, 1886: 102, 103; Horn, 1894: 338 (distr.); Garnett, 1918: 208 (distr.); Linsley, 1942: 62.

*Crossidius marginatus*; Linsley, 1955: 63, 66 (biol.).

**Type locality** - Holotype: Mexico, Baja California: San José del Cabo. (MCZN).

### 2. *Deltaspis ivae* Beierl & Barchet-Beierl, 2000

**Type locality** - Holotype male: United States, California: San Diego Co. (Lower Otay Lake). (EMEC). **Distribution** - United States (California), Mexico (Baja California Norte). **Host plants** - *Baccharis* sp., *Iva hayesiana* A. Gray (Asteraceae).

*Deltaspis ivae* Beierl & Barchet-Beierl, 2000: 5, fig. 1; Monné, M.A., 2001b: 68 (cat. hosts); Monné, M.A., 2005: 599 (cat.).  
*Crossidius cruentus*; Linsley, 1962a: 156 (*partim*).

### 3. *Deltaspis tumacacorii* (Knull, 1944)

**Type locality** - - Holotype male: United States, Arizona: Tumacacori Mts. (FMNH).

**Distribution** - United States (Arizona), northern Mexico (Sonora).

*Oxoplus tumacacorii* Knull, 1944: 91, 1 fig.; Chemsak, 1977a: 177 (type).

*Crossidius tumacacorii*; Linsley & Chemsak, 1961: 43; Linsley, 1962a: 155, fig. 49.

*Deltaspis tumacacorii*; Chemsak & Linsley, 1974a: 181; Chemsak, Linsley & Noguera, 1992: 82 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2005: 600 (cat.).

### *Dendrobias* Dupont, 1834

*Dendrobias* Dupont in Audinet-Serville, 1834b: 41; Dupont, 1836: 21; 1838: x, pl. 221, fig. 8; Drapiez, 1838a: 427; Chevrolat in D'Orbigny, 1844: 666; Strauch, 1861: 127; Thomson, 1861: 207; 1864: 209; 1865: 435; Lacordaire, 1869: 200; LeConte, 1873b: 313; LeConte & Horn, 1883: 298; Leng, 1886: 60; Casey, 1912: 315; Bradley, 1930: 230; Linsley, 1962a: 182; Arnett, 1962: 860, 882; Villiers, 1980b: 303; Vlasak & Santos-Silva, 2018: 389.

*Trachyderes* (*Dendrobias*); Laporte, 1840: 416; Huedepohl, 1985: 127 (rev.); Monné, M.A., 2005: 651 (cat.); Monné, M.A., 2012: 62.

*Lacaena* Gistel, 1848b: ix (unjustified new name not in prevailing usage).

*Dendrobias*; LeConte, 1858a: 40; Desmarest in Chenu, 1860: 310; Desmarest in Chenu, 1870: 310 (error).

**Type-species** - *Dendrobias mandibularis* Dupont, 1834 (subsequent designation, Thomson, 1864: 209).

### 1. *Dendrobias mandibularis mandibularis* Dupont, 1834

**Type locality** - Lectotype: Mexico. (MNHN). **Distribution** - United States (Arizona, New Mexico and southern Texas), Mexico (Baja California, Sonora, Durango, Nayarit, Jalisco, Veracruz, Oaxaca, Puebla, Chiapas, Guerrero, Tamaulipas, Yucatán, Colima), Guatemala, Honduras. **Host plants** - *Mangifera indica* Linnaeus, *Metopium toxiferum* (Linnaeus) Krug & Urban (Anacardiaceae), *Parkinsonia aculeata* Linnaeus (Caesalpinaceae), *Celtis laevigata* Willdenow, *C. reticulata* Torrey (Cannabaceae), *Carica papaya* Linnaeus (Caricaceae), *Sesbania drummondii* (Rydberg) Cory (Fabaceae), *Casearia corymbosa* Kunth (Flacourtiaceae), *Persea americana* P. Miller (Lauraceae), *Acacia* sp., *Enterolobium cyclocarpum* (Jacquin) Grisebach, *Leucaena pulverulenta* (Schlechtendal) Benth, *Pithecellobium* sp., *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Ficus* sp. (Moraceae), *Psidium guajava* Linnaeus (Myrtaceae), *Prunus persica* (Liné) Batsch (Rosaceae), *Citrus aurantium* Linnaeus (Rutaceae), *Salix* sp. (Salicaceae), *Tamarix gallica* Linnaeus (Tamaricaceae), *Ulmus* sp. (Ulmaceae), *Vitis vinifera* Linnaeus (Vitaceae). **Host flowers** - *Amaranthus* sp. (Amaranthaceae), *Baccharis angustifolia* Michaux, *B. halimifolia* Linnaeus, *B. neglecta* Nuttall, *B. sarothroides* A. Gray, *Solidago canadensis canescens* Gray (Asteraceae), *Croton punctatus* Jacquin (Euphorbiaceae), *Sphaeralcea angustifolia* G. Don (Malvaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Leucophyllumtexanum* Benth (Scrophulariaceae).

- Dendrobias mandibularis* Dupont in Audinet-Serville, 1834b: 42; Dupont, 1836: 23, pl. 151, fig. 1; Drapiez, 1838a: 427; White, 1853: 67; Strauch, 1861: 127; Thomson, 1864: 209; Lacordaire, 1869: 201; Bates, 1880: 88; 1885: 331 (distr.); Leng, 1886: 61, pl. 2, fig. 6; Horn, 1894: 338 (distr.); Townsend, 1903: 77 (distr.); Schwarz, 1904: 21 (biol.); Schaeffer, 1908: 328 (distr.); Casey, 1912: 315; Grossbeck, 1912: 325 (distr.); Garnett, 1918: 207 (distr.); Craighead, 1923: 81 (larva); Linsley & Martin, 1933: 181 (distr.); Linsley, 1935a: 102 (distr.); Saalas, 1936: 113; Linsley, 1942: 64; Vogt, 1949: 178; Duffy, 1960: 107 (larva); Linsley, 1962a: 183; Chemsak & Linsley, 1974a: 182 (syn.); Chemsak, Linsley & Mankins, 1980: 33 (distr.); Cope, 1984a: 29 (hosts); Goldsmith, 1985: 534 (biol.); 1987a: 111 (biol.); Terron, 1992: 288 (distr.); Linsley & Chemsak, 1997: 364 (hosts).
- Trachyderes (Dendrobias) mandibularis*; Laporte, 1840: 416; Huedepohl, 1985: 127, fig. 55w; 1987: 201; MacKay, Zak & Hovore, 1987: 365 (hosts); Hovore, Penrose & Neck, 1987: 299 (biol.); Chemsak, Linsley & Noguera, 1992: 87 (cat.); Goldsmith & Alcock, 1993: 351 (biol.); Chemsak & Noguera, 1995: 64 (biol., distr.); Noguera & Chemsak, 1996: 403 (cat.); Monné, M.A., 2001b: 81 (cat. hosts); Toledo *et al.*, 2002: 529 (distr.); Turnbow, Cave & Thomas, 2003: 18 (distr.); Monné, M.A., 2005: 651 (cat.); Hovore, 2006: 374 (distr.); Noguera *et al.*, 2007: 312 (distr.); Noguera *et al.*, 2009: 89 (distr.); MacRae, Bezark & Swift, 2012: 182; Noguera *et al.*, 2012: 621 (distr.).
- Dendrobias mandibularis*; LeConte, 1858a: 40 (distr.); Desmarest in Chenu, 1870: 310; Fall, 1901: 145 (distr.); Swan & Papp, 1972: 445, fig. 938A.
- Dendrobias mandibularis mandibularis*; Chemsak, 1958: 42 (biol.); Linsley, 1962a: 183; Hovore & Giesbert, 1976: 355 (hosts); Manley & French, 1976: 47; Bezark 2019: 411 (distr.).
- Trachyderes mandibularis mandibularis*; Morales-Morales *et al.*, 2012: 38 (biol.); García Morales *et al.*, 2015: 106 (distr.); Luna-León, 2015: 838 (distr.).
- Trachyderes (Dendrobias) mandibularis mandibularis*; Noguera & Gutiérrez, 2016: 659 (distr.); Noguera *et al.*, 2017: 10 (distr.).
- Dendrobias quadrimaculatus* Dupont, 1836: 22, pl. 151, fig. 2.
- Dendrobias mandibularis quadrimaculatus*; Linsley, 1962a: 183.
- Type locality** - Holotype male: Mexico. (MNHN).
- Dendrobias testaceus* Dupont, 1836: 24, pl. 152, fig. 1.
- Type locality** - Holotype male: Mexico. (MNHN).
- Dendrobias basalis* Dupont, 1840: 6, pl. 33.
- Type locality** - Holotype: Colombia, Santa Fé de Bogotá. (MNHN).
- Trachyderes spinicollis* Bates, 1885: 332; Linsley, 1942: 88; Chemsak & Linsley, 1970b: 406 (lect.).
- Type locality** - Lectotype female: Mexico, Islas Tres Mariás. (BMNH).
- Dendrobias debilicollis* Casey, 1912: 316; Lingafelter *et al.*, 2014: 50, figs 53g, h (lect. designation).
- Type locality** - Lectotype: United States, New Mexico. (USNM).
- Dendrobias peninsularis* Casey, 1912: 316; Lingafelter *et al.*, 2014: 297, figs 129q, r (holotype).
- Type locality** - Holotype female: Mexico, Baja California Sur. (USNM).

#### 1a. *Dendrobias mandibularis reductus* Casey, 1912

- Type locality** - Holotype male: United States, California: near Yuma. (USNM).
- Distribution** - United States (Colorado River area of California and Arizona),

Mexico (Baja California). **Host plants** - *Celtis laevigata* Willdenow (Cannabaceae), *Citrus paradisi* Macfayden (Rutaceae), *Salix* sp. (Salicaceae).

*Dendrobias reductus* Casey, 1912: 316; Lingafelter *et al.*, 2014: 309, figs 142s, t (lect. designation).

*Dendrobias mandibularis reductus*; Linsley, 1962a: 184, fig. 55; Linsley & Chemsak, 1997: 364 (hosts).

*Trachyderes (Dendrobias) mandibularis reductus*; Huedepohl, 1987: 201; Chemsak, Linsley & Noguera, 1992: 87 (cat.); Noguera & Chemsak, 1996: 403 (cat.); Monné, M.A., 2001b: 82 (cat. hosts); Monné, M.A., 2005: 652 (cat.).

### **1b. *Dendrobias) mandibularis virens* Casey, 1912**

**Type locality** - Lectotype: United States, Texas. (USNM). **Distribution** - United States (Texas), Mexico (Tamaulipas). **Host plants** - *Celtis laevigata* Willdenow (Cannabaceae), *Leucaena pulverulenta* (Schlechtendal) Benth (Mimosaceae), *Citrus sinensis* (Linnaeus) Osbeck (Rutaceae). **Host flowers** - *Abutilon* sp. (Malvaceae).

*Dendrobias virens* Casey, 1912: 316.

*Dendrobias mandibularis virens*; Linsley, 1962a: 185; Hovore & Penrose, 1982: 25 (biol.).

*Trachyderes (Dendrobias) mandibularis virens*; Huedepohl, 1987: 201, fig. 2 (reval.); Hovore, Penrose & Neck, 1987: 299 (hosts); Chemsak, Linsley & Noguera, 1992: 87 (cat.); Lingafelter *et al.*, 2014: 344, 366, fig. 18 g (lectotype); García Morales *et al.*, 2015: 106 (distr.).

### ***Elytroleptus* Dugés, 1879**

*Elytroleptus* Dugés, 1879: 182; Bates, 1885: 317; Leng, 1886: 31; Bradley, 1930: 240; Knull, 1946: 228; Linsley, 1961a: 632 (key spp.); 1961c: 9; 1962a: 175; 1962b: 1 (rev.); Chemsak & Linsley, 1965c: 193 (rev.); 1974: 182; Monné, M.A., 2005: 603 (cat.); Monné, M.A., 2012: 57; Grzymala & Miller, 2013: 1 (rev.).

**Type-species** - *Elytroleptus alfredi* Dugés, 1879 (subsequent designation, Linsley, 1962a: 175) [= *Pteroplatus pallidus* Thomson, 1861].

*Pteroplatus*; Thomson, 1861: 255; LeConte, 1873b: 310; LeConte & Horn, 1883: 295 (not Buquet, 1840).

### **1. *Elytroleptus apicalis* (LeConte, 1884)**

**Type locality** - Lectotype male: United States, Arizona. (MCZN). **Distribution** - United States (Western Texas to southern Arizona), Mexico (Aguascalientes, Chihuahua, Coahuila, Durango, Sonora, Jalisco, Tamaulipas, Zacatecas). **Host plants** - *Quercus* sp. (Fagaceae).

*Pteroplatus apicalis* LeConte, 1884: 24.

*Elytroleptus apicalis*; Bates, 1885: 318 (distr.); Leng, 1886: 32; Linsley, Eisner & Klotz, 1961: 19, fig. 2 (biol.); Linsley, 1961c: 10; Linsley, Knull & Statham, 1961b: 19, fig. 11; Linsley, 1962a: 176; 1962b: 5, fig. 1; Eisner, Kafatos & Linsley, 1962: 316, figs 1,3 (biol.); Selander, Miller & Mathieu, 1963: 46 (mimet.); Chemsak & Linsley, 1965c: 195; Skiles & Chemsak, 1982: 19 (lect., hosp.); Chemsak, Linsley & Noguera, 1992: 82 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2001b: 70 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 102 (distr.); Monné, M.A., 2005: 604 (cat.); Noguera *et al.*, 2009: 88 (distr.); Grzymala & Miller, 2013: 14, figs 4,33; García Morales *et al.*, 2015: 106 (distr.).



## 2. *Elytroleptus divisus* (LeConte, 1884)

**Type locality** – Holotype male: United States, Texas: Dallas. (MCZN).

**Distribution** - United States (Texas), Mexico (Coahuila, Nuevo León, San Luis Potosí, Querétaro, Tamaulipas). **Host flowers** - *Eysenhardtia polystachya* (Ortega) Sargent (Fabaceae), *Vachellia farnesiana* (Linnaeus) Wight & Arn. (Mimosaceae), *Condalia hookeri* M.C. Johnston, *C. obtusiflora* (Hooker) Weberbauer, *Karwinskia humboldtiana* (Schoemer & Schultes) Zuccarini (Rhamnaceae), *Bumelia lanuginosa* Michaux (Sapotaceae).

*Pteroplatus divisus* LeConte, 1884: 23.

*Elytroleptus divisus*; Leng, 1886: 32; Vogt, 1949: 175; Linsley, 1961c: 11; 1962a: 177; 1962b: 11; Chemsak & Linsley, 1965c: 196; Hovore, Penrose & Neck, 1987: 299 (distr.,biol.); Chemsak, Linsley & Noguera, 1992: 82 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Ruíz Cancino & Coronado Blanco, 2002: 102 (distr.); Monné, M.A., 2005: 604 (cat.); Grzymala & Miller, 2013: 21, figs5,33 (syn.); García Morales *et al.*, 2015: 106 (distr.).

*Elytroleptus dichromaticus* Linsley, 1961c: 13, fig. 1; 1962b: 11; Chemsak & Linsley, 1965c: 196; Chemsak, Linsley & Noguera, 1992: 82 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2005: 604 (cat.).

**Type locality** – Holotype female: Mexico, Querétaro: Querétaro. (CASC).

## 3. *Elytroleptus floridanus* (LeConte, 1862)

**Type locality** - Holotype female: United States, Florida. (MCZC). **Distribution** - Canada, United States, area including Virginia, North Carolina, South Carolina, eastern Tennessee, Georgia, Alabama, Mississippi, Florida, Arkansas, Louisiana.

**Host plants** - *Quercus alba* Linnaeus, *Q. laevis* Walt., *Q.inopina* Ashe (Fagaceae).

*Pteroplatus ? floridanus* LeConte, 1862: 42; Bates, 1885: 317

*Elytroleptus floridanus*; Leng, 1886: 31, pl. 2, fig. 1; Knull, 1946: 228, pl. 27, fig. 177; Linsley, 1961c: 11; 1962: 177; 1962: 10; Chemsak & Linsley, 1965: 194; 1975: 109; 1982a: 56; Yanega, 1996: 127, pl. 19, fig. 228; Morris, 2002: 210 (hosts); Lingafelter, 2007: 77, 146, 2 figs, pl. 18f (hosts); Grzymala & Miller, 2013: 23, figs 6, 34 (rev.); Holt, 2013: 250 (distr.); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 78, pl.14; Heffern, Vlasak & Alten, 2018: 743 (hosts).

*Elytroleptus floridana*; Chemsak, Linsley & Noguera, 1992: 82 (cat.).

## 4. *Elytroleptus ignitus* (LeConte, 1884)

**Type locality** - Holotype female: United States, Arizona. (MCZN). **Distribution** -

United States (Arizona), Mexico (Sonora, Chihuahua). **Host plants** - *Quercus hypoleucoides* A. Camus (Fagaceae). **Host flowers** – *Rhus* sp. (Anacardiaceae), *Acacia* sp. (Mimosaceae), *Clematis pauciflora* Nuttall in Torrey & Gray (Ranunculaceae), *Ceanothus* sp., *Condalia ericoides* (A, Gray) M.C. Johnston (Rhamnaceae), *Sapindus saponaria* var, *drummondii* (Hooker & Arnott) Benson (Sapindaceae).

*Pteroplatus ignitus* LeConte, 1884: 24.

*Elytroleptus ignitus*; Bates, 1885: 317; Leng, 1886: 32; Schaeffer, 1908: 330 (distr.); Knull, 1948: 83 (distr.); Linsley, Eisner & Klotz, 1961a: 21, fig. 3; Linsley, 1961c: 12; Linsley, Knull & Statham, 1961b: 21, fig. 10; Linsley, 1962a: 179; 1962b: 5; Eisner, Kafatos & Linsley, 1962: 316, figs 1, 2 (biol.); Selander, Miller & Mathieu, 1963: 46; Chemsak & Linsley, 1965c: 196 (distr.); Skiles & Chemsak, 1982: 69

(lect.); Chemsak, Linsley & Noguera, 1992: 83 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2005: 604 (cat.); Grzymala & Miller, 2013: 28, figs 9, 35 (syn).

*Elytroleptus luteicollis* Skiles & Chemsak, 1982: 66; Chemsak, Linsley & Noguera, 1992: 83 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2005: 605 (cat.).

**Type locality** - Holotype male: Mexico, Chihuahua: 25 mi W Hidalgo del Parral. (CASC).

##### 5. *Elytroleptus immaculipennis* Knull, 1935

**Type locality** - Holotype male: United States, Texas: Davis Mts. (OZUC).

**Distribution** - United States (western Texas), Mexico (Durango, Oaxaca, Baja California Sur, Puebla). **Host plants** - *Quercus hypoleucoides* A. Camus (Fagaceae).

*Elytroleptus floridanus immaculipennis* Knull, 1935a: 99.

*Elytroleptus immaculipennis*; Knull, 1950: 91; Linsley, 1961c: 11; 1962a: 178; 1962b: 10; Chemsak & Linsley, 1965c: 196 (distr.); Chemsak, Linsley & Noguera, 1992: 83 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2005: 605 (cat.); Grzymala & Miller, 2013: 31, figs 10, 36 (syn); Noguera & Gutiérrez, 2016: 659 (distr.).

*Elytroleptus immaculipennis* var. *obliquus* Knull, 1950: 91; Chemsak, 1977a: 174 (type).

**Type locality** - Holotype female: United States, Texas: Davis Mts. (FMNH).

*Elytroleptus peninsularis* Hovore, 1988: 16, fig. 3a; Chemsak, Linsley & Noguera, 1992: 83 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2005: 606 (cat.).

**Type locality** - Holotype female: Mexico, Baja California Sur: Santa Victoria trail, W La Laguna. (CASC).

##### 6. *Elytroleptus limpianus* Skiles & Chemsak, 1982

**Type locality** - Holotype male: United States, Texas, Davis Mountain Range, Limpia Canyon. (CASC). **Distribution** - United States (Texas).

*Elytroleptus limpianus* Skiles & Chemsak, 1982: 67; Chemsak, Linsley & Noguera, 1992: 83 (cat.); Grzymala & Miller, 2013: 33, figs 11, 36 (rev.).

##### 7. *Elytroleptus luteus* Dugés, 1879

**Type locality** - Holotype male: Mexico, Guanajuato. (UNAM). **Distribution** - United States (western Texas to southern Arizona), Mexico (Sonora, Chihuahua, Nayarit, Guanajuato, Mexico, Durango), Guatemala, Honduras. **Host plants** - *Acacia decurrens* Willdenow (Mimosaceae). **Host flowers** - *Buddleja cordata* Kunth (Buddlejaceae), *Clematis pauciflora* Nuttall in Torrey & Gray (Ranunculaceae).

*Elytroleptus luteus* Dugés, 1879: 185, fig. 10; Lameere, 1883: 44 (cat.); Bates, 1885: 317 (distr.); Chemsak & Linsley, 1965c: 199 (distr.); Chemsak, Linsley & Mankins, 1980: 33 (distr.); Noguera & Chemsak, 1996: 402 (cat.); Grzymala & Miller, 2013: 34, figs 1, 2, 3, 12, 36; Zaragoza-Caballero & Pérez-Hernández, 2017: 33 (paratype).

*Elytroleptus luteus luteus*; Linsley, 1961c: 12; 1962b: 12; Chemsak, Linsley & Noguera, 1992: 83 (cat.); Turnbow, Cave & Thomas, 2003: 18 (distr.); Monné, M.A., 2005: 605 (cat.); Hovore, 2006: 374 (distr.).

*Elytroleptus davisi* Knull, 1940: 558, fig. 6; Chemsak, 1977a: 174 (type).

*Elytroleptus luteus davisi*; Linsley, 1961c: 12; 1962a: 180, fig. 53; 1962b: 12; Skiles & Chemsak, 1982: 69 (syn.); Chemsak, Linsley & Noguera, 1992: 83 (cat.); Monné, M.A., 2005: 605 (cat.).

**Type locality** - Holotype: United States, Texas: Davis Mts., Fort Davis. (FMNH).

*Elytroleptus lineatus* Knull, 1950: 91; Linsley, 1961c: 11; 1962a: 179; 1962b: 12; Chemsak & Linsley, 1965c: 195; Chemsak, 1977a: 174 (type).

**Type locality** - Holotype female: United States, Texas: Davis Mts. (FMNH).

### 8. *Elytroleptus rufipennis* (LeConte, 1884)

**Type locality** – Lectotype male: United States, Arizona. (MCZN). **Distribution** - United States (southern Arizona, New Mexico), Mexico (Chihuahua, Durango, Hidalgo, Veracruz, Puebla, Oaxaca, Chiapas). **Host flowers** - *Melilotus alba* Medikus (Fabaceae), *Muhlenbergia longiligula* Hitchcock (Poaceae), *Bumelia lanuginosa* (Michaux) (Sapotaceae).

*Pteroplatus rufipennis* LeConte, 1884: 23.

*Elytroleptus rufipennis*; Leng, 1886: 31, 32; Fall & Cockerell, 1907: 192 (distr.); Schaeffer, 1908: 330 (distr.); Linsley, 1961c: 12 (syn.); 1962a: 179; 1962b: 7; Linsley, Knull & Stataham, 1961b: 21 (distr.); Chemsak & Linsley, 1965c: 196 (distr.); Emmel, 1965: 14, fig. 1 (biol.); Skiles & Chemsak, 1982: 70 (lect.); Chemsak, Linsley & Noguera, 1992: 83 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2005: 606 (cat.); Grzymala & Miller, 2013: 40, figs 16, 38.

*Elytroleptus longipennis* Bates, 1885: 318; Linsley, 1935a: 96 (distr.).

**Type locality** - Holotype female: Mexico. (BMNH).

*Elytroleptus eros* Bates, 1885: 318, pl. 21, fig. 23; Linsley, 1935a: 96 (distr.); Chemsak & Linsley, 1970b: 406 (lect.).

**Type locality** – Lectotype female: Mexico, Oaxaca. (BMNH).

### *Lophalia* Casey, 1912

*Lophalia* Casey, 1912: 333, 335; Linsley, 1962a: 96; Arnett, 1962: 863, 881; Monné, M.A., 2005: 614 (cat.); Monné, M.A., 2012: 58.

**Type-species** - *Sphaenothecus cyanicollis* Dupont, 1838 (original designation).

*Entomosterna*; LeConte, 1873b: 314; LeConte & Horn, 1883: 299; Leng, 1886: 30, 83 (not Chevrolat, 1862).

### 1. *Lophalia cyanicollis* (Dupont, 1838)

**Type locality** - Holotype female: Mexico. (MNHN). **Distribution** - United States (Arizona to Texas), Mexico (Mexico, Veracruz, Chiapas, Puebla, Tamaulipas, Oaxaca). **Host flowers** - *Baccharis* sp., *Cosmos sulphureus* Cavanilles, *Montanoa* sp., *Tithonia rotundifolia* Blake, *Verbesina* sp. (Asteraceae), *Karwinskia* sp. (Rhamnaceae).

*Sphaenothecus cyanicollis* Dupont, 1838: 59, pl. 220, fig. 2; Lacordaire, 1869: 184.

*Sphenothecus cyanicollis*; White, 1853: 86; LeConte, 1858a: 40 (distr.); Bates, 1880: 85 (distr.); 1885: 329 (distr.).

*Entomosterna cyanicollis*; LeConte, 1873b: 314; LeConte & Horn, 1883: 300; Leng, 1886: 83.

*Lophalia cyanicollis*; Casey, 1912: 335; Linsley, 1962a: 96; Hovore, Penrose & Neck, 1987: 297 (biol.); Chemsak, Linsley & Noguera, 1992: 84 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Toledo *et al.*, 2002: 529 (distr.); Monné, M.A., 2005:

615 (cat.); MacRae, Bezark & Swift, 2012: 180; Morales-Morales *et al.*, 2012: 38 (biol.); García Morales *et al.*, 2015: 106 (distr.); Santos-Silva, Botero & Le Tirant, 2018: 203 (distr.).

*Sphaenothecus (Lophalia) cyanicollis*; Linsley, 1935a: 100 (distr.).

### ***Mannophorus* LeConte, 1854**

*Mannophorus* LeConte, 1854a: 442; Thomson, 1864: 333; 1865: 432; LeConte, 1873b: 314; Bates, 1880: 82; LeConte & Horn, 1883: 299; Leng, 1886: 60, 83; Bradley, 1930: 241; Linsley, 1962a: 94; Arnett, 1962: 863, 881; Monné, M.A., 2005: 615 (cat.); Monné, M.A., 2012: 58.

**Type-species** - *Mannophorus laetus* LeConte, 1854 (monotypy).

#### **1. *Mannophorus forreri* Bates, 1885**

**Type locality** – Lectotype male: Mexico, Durango: Ventanas.[Villa Corona]. (BMNH). **Distribution** - United States (Arizona), Mexico (Durango, Chihuahua, Sonora).

*Mannophorus forreri* Bates, 1885: 327, pl. 21, fig. 24; Chemsak, 1967b: 77 (lect.); Giesbert & Hovore, 1976: 98 (distr.); Marqua, 1976: 37 (distr.); Chemsak, Linsley & Noguera, 1992: 84 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2005: 615 (cat.); Noguera *et al.*, 2009: 88 (distr.).

#### **2. *Mannophorus laetus* LeConte, 1854**

**Syntypes locality** - Syntypes male and female: United States, Texas: near Eagle Pass. (MCZN). **Distribution** - United States (southern and western Texas), Mexico (Nuevo León, San Luis Potosí, Hidalgo, Tamaulipas). **Host plants** - *Helianthus* sp., *Verbesina encelioides* (Cavanilles) Benth & Hooker, *Viguiera* sp. (Asteraceae). **Host flowers** - *Helianthus* sp., *Verbesina encelioides* (Cavanilles) Benth & Hooker, *Viguiera stenoloba* S.F.Blake (Asteraceae), *Acaia berlandieri* Benth (Mimosaceae), *Condalia obtusiflora* (Hooker) Weberbauer (Rhamnaceae).

*Mannophorus laetus* LeConte, 1854a: 442; 1858a: 40 (distr.); Thomson, 1864: 333; Bates, 1880: 82 (distr.); Leng, 1886: 83, pl. 2, fig. 14; Vogt, 1949: 178 (distr.); Linsley, 1962a: 94; Chemsak & Linsley, 1974a: 182 (syn.); Hovore, Penrose & Giesbert, 1978: 99 (hosts); Hovore, Penrose & Neck, 1987: 296 (biol., distr.); Chemsak, Linsley & Noguera, 1992: 84 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 394 (hosts); Monné, M.A., 2001b: 71 (cat. hosts); Monné, M.A., 2005: 615 (cat.); Gutiérrez & Noguera, 2015: 145 (distr.); García Morales *et al.*, 2015: 106 (distr.).

*Mannophorus ferreus* Bates, 1880: 82; Lameere, 1883: 41 (cat.); Chemsak, 196b: 77 (lect.).

**Type locality** - Mexico, San Luis Potosí: Alvarez mountains. (BMNH).

### ***Megaderus* Germar, 1823**

*Megaderus* Dejean, 1821: 106 (cat., *nomen nudum*); Germar, 1823: 501; Latreille *in* Cuvier, 1829: 111; Gray *in* Griffith & Pidgeon, 1832: 102; Audinet-Serville, 1834b: 57; Dupont, 1836: 3; 1838: vii, pl. 221, fig. 1; Laporte, 1840: 413; Blanchard *in* Cuvier, 1849: 473; Strauch, 1861: 126; Thomson, 1861: 214; 1864: 206; 1865: 433; Lacordaire, 1869: 216; Chenu, 1870: 310; Bates, 1870: 438; Girard, 1873: 721; LeConte, 1873b: 312; Leng, 1886: 60; Bradley, 1930: 230; Linsley, 1962a: 187;

Arnett, 1962: 860, 882; Monné, M.A., 2005: 616 (cat.); Monné, M.L. & Monné, M.A., 2013: 360 (reinstated).

**Type-species** - *Cerambyx stigma* Linnaeus, 1758 (monotypy).

*Neomegaderus* Monné, M.A., 2006: 179; 2012: 59 (unnecessary replacement name).

### 1. *Megaderus bifasciatus* Dupont, 1838

**Type locality** – Holotype: Mexico. (BMNH). **Distribution** - United States (Texas, southern Arizona), Mexico (Jalisco, Morelos, Mexico, Guanajuato), Honduras. **Host plants** - *Juniperus* sp. (Cupressaceae), *Pinus* sp. (Pinaceae).

*Megaderus bifasciatus* Dupont, 1838: 5, pl. 141, fig. 2; LeConte, 1852: 176; 1858a: 40 (distr.); Lacordaire, 1869: 217; LeConte, 1873b: 312; Bates, 1880: 91 (distr.); Riley, 1880: 239 (hosts); LeConte & Horn, 1883: 297; Bates, 1885: 338 (distr.); Leng, 1886: 61, pl. 3, fig. 5; Beutenmuller, 1896: 76 (hosts); Linsley, 1935a: 102 (distr.); Linsley, 1962a: 187; Chemsak, Linsley & Mankins, 1980: 34 (distr.); Chemsak, Linsley & Noguera, 1992: 84 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Monné, M.A., 2001b: 71 (cat. hosts); Turnbow, Cave & Thomas, 2003: 18 (distr.); Monné, M.A., 2005: 616 (cat.); Toledo, 2005b: 419 (distr.); Hovore, 2006: 374 (distr.).

*Megaderus corallifer* Newman, 1840a: 195; Guérin-Méneville, 1844a: 217; Haldeman in Stansbury, 1852: 378, pl. 9, fig. 15; White, 1853: 67.

**Type locality** – Holotype: Mexico. (BMNH).

### *Megapurpuricenus* Eya, 2015

*Megapurpuricenus* Eya, 2015: 398.

**Type-species** - *Purpuricenus magnificus* LeConte, 1875 (original designation).

### 1. *Megapurpuricenus magnificus* (LeConte, 1875)

**Type locality** – Holotype female: United States, Arizona. (MCZN). **Distribution** - United States (Arizona), northern Mexico (Chihuahua, Aguascalientes). **Host plants** - *Quercus arizonica* Sargent, *Q. eduardii* Trel., *Q. emoryi* Torrey, *Q. grisea* Liebmann, *Q. hypoleuca* Engelman, *Q. potosina* Trel. (Fagaceae).

*Purpuricenus magnificus* LeConte, 1875: 173; Lameere, 1883: 44 (cat.).

*Crioprosopus magnificus*; Leng, 1886: 62; Linsley, 1962a: 102; Hovore, 1983: 381 (biol., distr.); Chemsak, Linsley & Noguera, 1992: 80 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 356 (hosts); Monné, M.A., 2001b: 66 (cat. hosts); Monné, M.A., 2005: 593 (cat.); Sánchez-Martínez, Moreno-Rico & Siqueiros-Delgado, 2010: 319, 4 figs (biol.); Sosa-Ramírez, 2011: 60, 2 figs.

*Megapurpuricenus magnificus*; Eya, 2015: 398, figs 148-151.

### *Metaleptus* Bates, 1872

*Metaleptus* Bates, 1872: 192; 1880: 78; Horn, 1885a: 175; Leng, 1886: 60, 82; Casey, 1912: 325; Bradley, 1930: 241; Linsley, 1942: 60; 1962a: 121; Arnett, 1962: 863, 881; Monné, M.A., 2005: 617 (cat.); Monné, M.A., 2012: 58.

**Type-species** - *Metaleptus marginellus* Bates, 1872 (Linsley designation, 1962a: 121).

### 1. *Metaleptus batesi* Horn, 1885

**Syntypes locality** – Syntypes male and female: United States, Arizona (MCZN).

**Distribution** - United States (Southern California, Arizona), northern Mexico

(Sonora). **Host plants** - *Quercus* sp. (Fagaceae), *Acacia greggii* A. Gray (Mimosaceae).

*Metaleptus batesi* Horn, 1885a: 174; Leng, 1886: 82; Schaeffer, 1908: 330 (distr.); Craighead, 1923: 80, pl. 1, fig. 8; pl. 10, fig. 1; Linsley, Knull & Statham, 1961b: 23; Linsley, 1962a: 121, fig. 39; Chemsak, Linsley & Noguera, 1992: 84 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 397 (hosts); Monné, M.A., 2001b: 72 (cat. hosts); Monné, M.A., 2005: 617 (cat.).

### ***Parevander Aurivillius, 1912***

*Parevander Aurivillius*, 1912: 453; Linsley, 1961a: 632; 1961c: 7 (key spp.); Chemsak & Linsley, 1974a: 182; Monné, M.A., 1994b: 73 (cat.); Monné, M.A., 2005: 627 (cat.); 2012: 60.

**Type-species** - *Amphidesmus nietii* Guérin-Méneville, 1844 (subsequent designation, Monné, M.A., 1994b: 73).

*Evander*; Lacordaire, 1869: 160 (not Thomson, 1861); Bates, 1880: 71.

#### **1. *Parevander hovorei* Giesbert, 1984**

**Type locality** – Holotype male: Mexico, Tamaulipas: 51 km S Ciudad Victoria. (CASC). **Distribution** - United States (central Texas), Mexico (Coahuila, Nuevo León, San Luis Potosí, Tamaulipas, Hidalgo). **Host plants** - *Helianthus* sp., *Verbesina* sp., *Viguiera* sp. (Asteraceae).

*Parevander hovorei* Giesbert, in Giesbert & Penrose, 1984: 59, figs 2, 2a; Hovore, Penrose & Neck, 1987: 299 (biol., distr.); Chemsak, Linsley & Noguera, 1992: 85 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 415 (hosts); Monné, M.A., 2001b: 75 (cat. hosts); Ruíz Cancino & Coronado Blanco, 2002: 103 (distr.); Monné, M.A., 2005: 627 (cat.); Gutiérrez & Noguera, 2015: 145 (distr.); García Morales *et al.*, 2015: 106 (distr.); Zaragoza-Caballero & Pérez-Hernández, 2017: 37 (paratype).

#### **2. *Parevander xanthomelas* (Guérin-Méneville, 1844)**

**Type locality** – Holotype: Mexico. (Depository unknown). **Distribution** - United States (Texas), Mexico (Puebla, Morelos, Chiapas, Jalisco, Oaxaca), Guatemala, Honduras, Nicaragua. **Host plants** - *Lantana* sp. (Verbenaceae).

*Amphidesmus xanthomelas* Guérin-Méneville, 1844a: 258; 1844b: 3; White, 1853: 85; Horn, 1875: 150 (distr.).

*Evander xanthomelas*; Lacordaire, 1869: 161; Bates, 1880: 72 (distr.); 1885: 316 (distr.); Perkins & Swezey, 1924: 69 (biol.).

*Evanda xanthomelas*; Leng, 1886: 32 (error).

*Parevander xanthomelas*; Aurivillius, 1912: 453 (cat.); Linsley, 1942: 64; 1961c: 7; Hovore & Giesbert, 1976: 354 (distr.); Hovore, Penrose & Giesbert, 1978: 99 (hosts); Chemsak, Linsley & Noguera, 1992: 85 (cat.); Chemsak & Noguera, 1995: 63 (biol., distr.); Noguera & Chemsak, 1996: 402 (cat.); Maes, 1998: 906 (distr.); Monné, M.A., 2001b: 75 (cat. hosts); Toledo *et al.*, 2002: 529 (distr.); Turnbow, Cave & Thomas, 2003: 18 (distr.); Monné, M.A., 2005: 627 (cat.); Hovore, 2006: 374 (distr.); Noguera *et al.*, 2007: 312 (distr.); Swift *et al.*, 2010: 32 (distr.); Maes *et al.*, 2010: 602, 5 figs (distr.); MacRae, Bezark & Swift, 2012: 180; Noguera *et al.*, 2012: 621 (distr.).

#### ***Perarthrus* LeConte, 1851**

*Perarthrus* LeConte, 1851: 101; Thomson, 1861: 190; 1864: 200; 1865: 430; Lacordaire, 1869: 191; LeConte, 1873b: 316; LeConte & Horn, 1883: 301; Leng, 1886: 61; Casey, 1912: 333, 334; Bradley, 1930: 241; Linsley, 1962a: 92; Arnett, 1962: 863, 881; Monné, M.A., 2005: 629 (cat.); Monné, M.A., 2012: 60.

**Type-species** - *Perarthrus vittatus* LeConte, 1851 (monotypy).

### 1. *Perarthrus linsleyi* (Knull, 1942)

**Type locality** – Holotype male: United States, Arizona: Phoenix. (FMNH).

**Distribution** - United States (Arizona and southeastern California), Mexico (Baja California Norte). **Host plants** - *Encelia farinosa* A. Gray (Asteraceae).

*Taronomis linsleyi* Knull, 1942: 226; Chemsak, 1977a: 178 (type).

*Perarthrus linsleyi*; Linsley, 1962a: 94; Hurd & Linsley, 1975: 109 (biol.); Hovore, 1983: 381 (biol.); Goldsmith, 1987b: 317 (biol.); Chemsak, Linsley & Noguera, 1992: 85 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 416 (hosts); Monné, M.A., 2001b: 75 (cat. hosts); Monné, M.A., 2005: 629 (cat.); Bezark, 2018: 51 (distr.).

### 2. *Perarthrus vittatus* LeConte, 1851

**Type locality** – Holotype: United States, California: San Diego. (MCZN).

**Distribution** - United States (California, San Diego, Riverside, Imperial Cos.), Mexico (Baja California Norte). **Host plants** - *Artemisia californica* Lessing, *A. tridentata* Nuttall, *Haplopappus venetus vernonioides* (Nuttall) Munz (Asteraceae).

*Perarthrus vittatus* LeConte, 1851: 102; White, 1853: 143; LeConte, 1858a: 40 (distr.); Thomson, 1864: 200; Lacordaire, 1869: 191; Leng, 1886: 120; Garnett, 1918: 208; Moore, 1937: 91 (distr.); Linsley, 1962a: 92, fig. 31; Hovore, 1988: 28; Chemsak, Linsley & Noguera, 1992: 85 (cat.); Noguera & Chemsak, 1996: 402 (cat.); Linsley & Chemsak, 1997: 416 (hosts); Monné, M.A., 2001b: 75 (cat. hosts); Monné, M.A., 2005: 629 (cat.).

### *Pilostenaspis* Eya, 2015

*Pilostenaspis* Eya, 2015: 399.

**Type-species** - *Crioprosopus lateralis* LeConte, 1884 (original designation).

#### 1. *Pilostenaspis lateralis* (LeConte, 1884)

**Type locality** - United States, Texas: Bosque Co. Belfrage. (MCZN). **Distribution** - United States (Texas). **Host plants** - *Quercus mohriana* Buckley ex Rydberg (Fagaceae).

*Crioprosopus lateralis* LeConte, 1884: 22; Leng, 1886: 62; Linsley, 1962a: 102; Chemsak, Linsley & Noguera, 1992: 80 (cat.); Monné, M.A., 1994b: 38 (cat.).

*Pilostenaspis laterali*; Eya, 2015 : 400, figs 154-157; Heffern, Vlasak & Alten, 2018: 745 (distr.).

### *Placoschema* Chemsak & Hovore, 2010

*Placoschema* Chemsak & Hovore in Eya, 2010: 15; Monné, M.A., 2012: 60.

**Type-species** - *Placoschema dimorpha* Chemsak & Hovore, 2010 (original designation).

### 1. *Placoschema dimorpha* Chemsak & Hovore, 2010

**Type locality** – Holotype male: Mexico, Hidalgo: 4 mi W Pachuca. (SMEC).

**Distribution** - United States (Arizona), Mexico (Hidalgo, Mexico, Chihuahua, Durango).

*Placoschema dimorpha* Chemsak & Hovore *in* Eya, 2010: 16, figs 11, 12; Huether & Huether, 2013: 264 (distr.).

### *Plionoma* Casey, 1912

*Plionoma* Casey, 1912: 333, 334; Linsley, 1962a: 136; Arnett, 1962: 864, 882; Monné, M.A., 2005: 632 (cat.); Monné, M.A., 2012: 60.

**Type-species** - *Sphenothecus suturalis* LeConte, 1858 (original designation).

*Sphaenothecus*; LeConte, 1873b: 316; LeConte & Horn, 1883: 301; Leng, 1886: 60; Casey, 1891: 33; Bradley, 1930: 241 (not Dupont, 1838).

### 1. *Plionoma rubens* (Casey, 1891)

**Type locality** – Lectotype male: United States, Southeastern Arizona. (USNM).

**Distribution** - United States (Texas, California), northern Mexico and Baja California. **Host plants** - *Cercidium microphyllum* Rose & M. I. Johnston (Caesalpiaceae), *Acacia greggii* A. Gray, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Sphenothecus rubens* Casey, 1891: 34; Hamilton, 1892b: 160; Lingafelter *et al.*, 2014: 311, figs 145m, n (holotype).

*Sphaenothecus suturalis* var. *rubens*; Hamilton, *in* Leng & Hamilton, 1896: 171.

*Plionoma rubens*; Casey, 1912: 334; Linsley, 1942: 62; 1962a: 137, fig. 44; Hurd & Linsley, 1975: 109 (biol.); Chemsak, Linsley & Noguera, 1992: 85 (cat.); Noguera & Chemsak, 1996: 403 (cat.); Linsley & Chemsak, 1997: 422 (hosts); Monné, M.A., 2001b: 76 (cat. hosts); Monné, M. A., 2005: 632 (cat.).

### 2. *Plionoma suturalis* (LeConte, 1858)

**Type locality** – Holotype: United States, Texas: Rio Grande Valley. (MCZN).

**Distribution** - United States (Texas, southern California), northern Mexico (Sonora, Baja California). **Host plants** - *Acacia farnesiana* (Linné) Willdenow, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Sphenothecus suturalis* LeConte, 1858a: 25.

*Sphaenothecus suturalis*; LeConte, 1873b: 316; Snow, 1883: 42 (distr.); Leng, 1886: 119, pl. 2, fig. 21; Casey, 1891: 34; Hamilton, 1892b: 160; Townsend, 1892: 39 (hosts); Griffith, 1900: 569 (distr.); Fall & Cockerell, 1907: 192 (distr.); Schaeffer, 1908: 328 (distr.); Garnett, 1918: 208 (distr.); Linsley & Martin, 1933: 181 (distr.); Moore, 1937: 91 (distr.).

*Plionoma suturalis*; Casey, 1912: 333; Vogt, 1949: 177; Linsley, Knull & Statham, 1961b: 21 (distr., hosts); Linsley, 1962a: 137; Hurd & Linsley, 1975: 109 (biol.); MacKay, Zak & Hovore, 1987: 365 (hosts); Hovore, Penrose & Neck, 1987: 298 (biol., distr.); Chemsak, Linsley & Noguera, 1992: 85 (cat.); Noguera & Chemsak, 1996: 403 (cat.); Linsley & Chemsak, 1997: 422 (hosts); Monné, M.A., 2001b: 76 (cat. hosts); Monné, M.A., 2005: 632 (cat.); Noguera & Gutiérrez, 2016: 659 (distr.).

*Plionoma degener* Casey, 1912: 334; Lingafelter *et al.*, 2014: 51, figs 54a, b (holotype).

**Type locality** – Holotype female: United States, Arizona (USNM).

### *Purpuricenus* Dejean 1821



*Purpuricenus* Dejean, 1821: 105; Germar, 1823: 500; Audinet-Serville, 1833: 568; Mulsant, 1839: 32; LeConte, 1850b: 10; Thomson, 1860: 190; Mulsant, 1862: 374; Thomson, 1864: 198, 429; Fairmaire in Jacquelin DuVal, 1864: 142; Lacordaire, 1869: 177; LeConte, 1873b: 314; Ganglbauer, 1881: 688; LeConte & Horn, 1883: 299; Leng, 1886: 81; Wickham, 1897a: 86; Gahan, 1906: 184; Schaufuss, 1916: 858; Planet, 1924: 186; Bradley, 1930: 241; Chagnon, 1938: 266; Knull, 1946: 230; Linsley, 1962a: 103; Hatch, 1971: 104; MacRae, 2000: 138; Eya, 2015: 361; Bousquet, Laplante, Hammond & Langor, 2017: 75 (key spp.)

**Type-species** - *Cerambyx kaehleri* Linnaeus, 1767 (designations of Blanchard in Cuvier, 1849: 6, fig. 1 and Linsley, 1962a: 203)

*Acanthoptera* Latreille 1829:114.

*Acanthopterus*; Guérin-Méneville, 1844a: 224

**Type-species** - *Cerambyx Budensis* Götze, 1783

*Purpuricenus (Sternoplistes)* Guérin-Méneville, 1844a: 224

*Sternoplistes*; Thomson, 1864: 198

**Type-species** - *Purpuricenus (Sternoplistes) Temminckii* Guérin-Méneville, 1844 (monotypy).

*Cyclodera* White 1846: 510

**Type-species** - *Cyclodera quadrinotata* White, 1846 (monotypy).

*Philagathes* Thomson 1864: 196; Lacordaire, 1869: 169, 176

**Type-species** - *Philagathes Lætus* Thomson, 1864 (original designation).

*Porphyrocerus* Reitter 1912: 34

**Type-species** - *Purpuricenus spectabilis* Motschulsky, 1857 (original designation).

### 1. *Purpuricenus axillaris* Haldeman 1847

**Type locality** - Lectotype male: United States, Pennsylvania. (MCZN).

**Distribution** - Eastern North America. **Host plants** - *Carya alba* Koch, *C. glabra* (Miller) Sweet (Juglandaceae).

*Purpuricenus axillaris* Haldeman, 1847a: 31; LeConte, 1850b: 11; Bland, 1861: 94 (biol.); Lacordaire, 1869: 178; Henshaw, 1885: 98; Hamilton, 1890: 238; 1895: 368; Wolcott, 1900: 470; Blatchley, 1910: 1031; Fisher & Kirk, 1912: 311 (distr.); Britton, 1920: 270 (distr.); Craighead, 1923: 79 (larva); Blackman & Stage, 1924: 258 (biol.); Kirk & Knull, 1926: 41; Leonard, 1928: 449 (hosts); Frost & Dietrich, 1929: 427 (biol.); Alexander, 1958: 50; Bayer & Shenefelt, 1969: 16; Swan & Papp, 1972: 446; Rice, 1981: 460 (distr.); Chemsak, Linsley & Noguera, 1992: 85 (cat.); MacRae, 1993: 236 (distr.); Skillman, 1993: 210 (distr.); Monné, M.A., 1994b : 40 (cat.); Linsley & Chemsak, 1997: 255, 257, 427 (hosts); Peck & Thomas, 1998: 117 (distr.); Schiefer, 1998: 120 (distr.); MacRae, 2000: 145 (rev.); Vlasák & Vlasakova, 2002: 212 (distr., hosts); Lingafelter, 2007: 66, 149, 2 figs, pl. 15, fig. I; MacRae, 2009: 7, fig. 2; Haack, 2017: 113 (hosts); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 75

*Purpuricenus humeralis* var. *axillaris*; Leng, 1886: 82; Bowditch, 1896: 34 (biol.); Ulke, 1903: 26 (distr.)

### 2. *Purpuricenus dimidiatus* LeConte 1884

**Type locality** - Holotype male: United States, California: Yreka. (MCZN).

**Distribution** - Throughout the foothills and mountains of California and into southwestern Oregon. Northwestern and northeastern Oregon. **Host plants** - *Quercus agrifolia* Née, *Q. dumosa* Nuttall, *Q. john-tuckeri* K. C. Nixon & C. H.

Muller, *Q. palmeri* Engelmann, *Q. wislizenii* A. de Candolle, *Q. wislizenii* var. *frutescens* (Engelmann) E. Murray (Fagaceae), *Salix* sp. (Salicaceae).  
*Purpuricenus dimidiatus* LeConte, 1884: 23; Hensahw, 1885: 98 (cat.); Leng, 1886: 82; Fall, 1901: 146 (distr.); Huguenin, 1909: 230 (biol.); Garnett, 1918: 207 (distr.); Moore, 1937: 91 (distr.); Linsley, 1962a: 104, figs 32, 34; Hatch, 1971: 104, pl.10, fig. 7; Swan & Papp, 1972: 446, fig. 940; Penrose & Westcott, 1974: 236; Hovore & Giesbert, 1976: 352 (hosts); Skiles, Hovore & Giesbert, 1978: 107 (hosts); Chemsak, Linsley & Noguera, 1992: 85 (cat.); Monné, M.A., 1994b: 40 (cat.); Solomon, 1995: 471, fig. 186; Linsley & Chemsak, 1997: 427 (hosts); MacRae, 2000: 140, figs 1, 2, 10 (distr., hosts); Swift, 2008a: 3 (distr., hosts).

### 3. *Purpuricenus humeralis* (Fabricius 1798)

**Type locality** - Holotype: America borealis. (ZMUC). **Distribution** - Eastern United States and southeastern Canada. **Host plants** - *Acer rubrum* Linné, *A. saccharum* Marshall (Aceraceae), *Alnus acuminata* Kunth, *A. incana* (Linné) Moench, *Betula* sp. (Betulaceae), *Cercis canadensis* Linné (Caesalpinaceae), *Robinia pseudoacacia* Linné (Fabaceae), *Castanea dentata* (Marshall) Borkhausen, *Quercus ellipsoidalis* E. J. Hill, *Q. lyrata* Walter, *Q. palustris* Du Roi, *Q. rubra* Linné (Fagaceae), *Carya alba* Koch, *C. ovata* (Miller) K. Koch (Juglandaceae), *Morus rubra* Linné (Moraceae).

*Cerambyx humeralis* Fabricius, 1798: 143; 1801: 274; Schoenherr, 1817: 360; Zimsen, 1964: 165 (types).

*Purpuricenus humeralis*; Fitch, 1845: 254, pl. 3, fig. 2; Haldeman, 1847a: 31; LeConte, 1850b: 11; White, 1853: 139; Bland, 1861: 94 (distr., hosts); 1862: 276 (distr.); Horn, 1868: 124 (distr.); Lacordaire, 1869: 178; Popenoe, 1877: 33 (distr.); Lugger, 1884: 204 (hosts); Harrington, 1884: 72 (distr.); Leng, 1886: 82; 1886: s/p, pl. 2, fig. 11; Hopkins, 1893: 194 (biol.); Hamilton, 1895: 368 (distr.); Wickham, 1897a: 149; 1897b: 156; Smith, 1900: 289 (distr.); Dury, 1902: 159 (distr.); Ulke, 1903: 26, 50 (distr., hosts); Felt, 1906: 702 (hosts); Morris, 1908: 443 (biol.); Wickham, 1909a: 28 (distr.); Smith, 1910: 328; Blatchley, 1910: 1030; Fisher & Kirk, 1912: 311 (distr.); Frost, 1912: 307; Banks, 1912: 106; Johnson, 1916: 119 (distr.); Chagnon, 1917: 231 (distr.); Nicolay, 1919: 66 (distr.); Frost, 1920: 26 (biol.); Britton, 1920: 270 (distr.); Craighead, 1923: 79 (larva); Champlain & Kirk, 1926: 290; Kirk & Knull, 1926: 41 (biol.); Leonard, 1928: 449 (distr.); Ware, 1929: 368 (distr.); Frost & Dietrich, 1929: 427 (biol.); Champlain & Knull, 1932: 257; Knull, 1932: 63; 1946: 230; Beaulne, 1932: 203 (hosts); Sherman, 1946: 127 (distr.); Dillon & Dillon, 1961: 606, pl. 50, No. 8; Chagnon & Robert, 1962: 266, Linsley, 1962: 106, fig. 34; Bayer & Shenefelt, 1969: 26, fig. 25; Swan & Papp, 1972: 446, fig. 939; Gosling, 1973: 71 (distr.); Stein & Tagestad, 1976: 33 (distr.); Laliberté, Chantal & LaRochelle, 1977: 97 (hosts); Turnbow & Franklin, 1980: 341 (distr.); Papp, 1984: 210, fig. 704; Chemsak, Linsley & Noguera, 1992: 85 (cat.); MacRae, 1993: 236 (distr., hosts); Monné, M.A., 1994b: 40 (cat.); Yanega, 1996: 126, pl. 19, fig. 224; Linsley & Chemsak, 1997: 427 (hosts); MacRae, 2000: 155, figs. 7, 13; Vlasák & Vlasakova, 2002: 212 (distr., hosts); Lingafelter, 2007: 66, 149, 2 figs, pl. 15, fig. h; MacRae, 2009: 6, 1 fig.; Guarnieri, 2009: 18 (distr.); Webster, McCorquodale & Majka, 2009: 299 (distr.); McCorquodale, 2010: 469 (distr.); Holt, 2013: 250 (distr.); Hart, Cope & Ivie, 2013: 136; Steury & MacRae, 2014: 11 (distr.); Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 75, pl.13

#### 4. *Purpuricenus linsleyi* Chemsak 1961

**Type locality** - Holotype female: United States, Texas. (MCZN). **Distribution** - From north-central to south-central Texas.

*Purpuricenus linsleyi* Chemsak, 1961: 184; Linsley, 1962a: 107; Chemsak, Linsley & Noguera, 1992: 85 (cat.); Monné, M.A., 1994b: 40 (cat.); MacRae, 2000: 163; 2001: 281 (type); MacRae & Rice, 2007: 242 (holotype).

#### 5. *Purpuricenus opacus* (Knull 1937)

**Type locality** - Holotype male: United States, Texas: Davis Mts. (FMNH). **Distribution** - Davis Mountains of western Texas. **Host plants** - *Quercus* sp. (Fagaceae).

*Tragidion opacum* Knull, 1937b: 306; Chemsak, 1977a: 178 (types).

*Purpuricenus opacus*; Knull, 1954:159; Linsley, 1962a: 105; Chemsak, Linsley & Noguera, 1992: 85 (cat.); Monné, M.A., 1994b: 40 (cat.); MacRae, 2000: 143, figs 3, 4, 10 (rev.); Heffern, Vlasak & Alten, 2018: 746 (hosts).

#### 227. *Purpuricenus paraxillaris* MacRae 2000

**Type locality** - Holotype male: United States, Missouri: Jefferson County, Victoria Glades (Natural Area, 3.8 km SE of Hillsboro. (MCZN). **Distribution** - Eastern United States. District of Columbia, Florida, Illinois, Indiana, Louisiana, Maryland, Missouri, New Jersey, New York, Ohio, Oklahoma, Pennsylvania, Tennessee, Texas, Virginia. **Host plants** - *Castanea dentata* (Marshall) Borkhausen, *Quercus alba* Linné, *Q. bicolor* Willdenow, *Q. coccinea* Münchhausen, *Q. prinus* Linné, *Q. rubra* Linné, *Q. stellata* Wangenheim, *Q. velutina* Lamarck (Fagaceae).

*Purpuricenus paraxillaris* MacRae, 2000: 150, figs 6, 12; MacRae & Rice, 2007: 242 (distr., hosts); MacRae, 2009: 8, fig. 3; Guarnieri, 2009: 18 (distr.); Holt, 2013: 250 (distr.); Klingeman *et al.*, 2017: 297 (distr.).

*Purpuricenus axillaris*; Lugger, 1884: 204 (biol.); Smith, 1900: 289; 1910: 328; Champlain, 1922: 96; Champlain, Kirk & Knull, 1925: 139 (biol.); Knull, 1932: 64 (biol.); 1934: 210 (biol.); 1946: 230, pl. 18, fig. 72; Linsley, 1962a: 105, figs 33, 34; Rice, Turnbow & Hovore, 1985: 21 (distr.); Yanega, 1996: 126, figs 222a,b; Linsley & Chemsak, 1997: 259,276,318, 320, 322 (hosts) (not Haldeman, 1847).

#### *Rhodoleptus* Linsley, 1962

*Rhodoleptus* Linsley, 1962a: 123; Arnett, 1962: 863, 881; Chemsak & Linsley, 1982b: 390 (rev.); Giesbert, 1993b: 149 (key spp.); Monné, M.A., 2005: 639 (cat.); Monné, M.A., 2012: 61.

**Type-species** - *Metaleptus femoratus* Schaeffer, 1909 (original designation).

#### 1. *Rhodoleptus femoratus* (Schaeffer, 1909)

**Type locality** - Syntypes male and female: United States, Arizona: Baboquivari Mts. (USNM). **Distribution** - United States (Gulf of California to southern Arizona), Mexico (Baja California, Sonora, Sinaloa). **Host plants** - *Coursetia microphylla* A Gray (Fabaceae).

*Metaleptus femoratus* Schaeffer, 1909b: 384; 1911: 124; Linsley, 1934d: 61 (distr.); 1942: 60; Lingafelter *et al.*, 2014: 61, figs 65q, r (holotype).

*Rhodoleptus femoratus*; Linsley, 1962a: 123; Chemsak & Linsley, 1982b: 391; Cope, 1984a: 34 (hosts); Chemsak, Linsley & Noguera, 1992: 85 (cat.); Noguera &

Chemsak, 1996: 403 (cat.); Linsley & Chemsak, 1997: 428 (hosts); Monné, M.A., 2001b: 78 (cat. hosts); Monné, M.A., 2005: 639 (cat.).

*Metaleptus gracilior* Fall, 1909: 164.

**Type locality** – Holotype: United States, Arizona: Baboquivari Mts. (MCZN).

### **Schizax LeConte 1873**

*Schizax* LeConte, 1873a: 195; 1873b: 315; LeConte & Horn, 1883: 301; Leng, 1886: 60; Bradley, 1930: 241; Linsley, 1962a: 135; Arnett, 1962: 864, 882; Monné, M.A., 1994b: 60 (cat.).

**Type-species** - *Schizax senex* LeConte, 1873 (monotypy).

#### **1. *Schizax senex* LeConte 1873**

**Syntypes locality** - Syntypes male and female: United States, Arizona. (MCZN).

**Distribution** - United States (Arizona and southern California). **Host plants** - *Chilopsis saligna* D. Don (Bignoniaceae), *Cercidium floridum* Bentham ex A. Gray, *C. microphyllum* Rose & I.M. Johnston (Caesalpiniaceae), *Celtis reticulata* Torrey (Cannabaceae), *Gossypium* sp. (Malvaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Zizyphus* sp. (Rhamnaceae), *Larrea divaricata tridentata* (DC) Felder & Lowe (Zygophyllaceae).

*Schizax senex* LeConte, 1873a: 196; 1873b: 316; LeConte & Horn, 1883: 301; Leng, 1886: 118, pl. 2., fig. 7; Townsend, 1892: 39 (hosts); 1895: 47 (distr.); Beutenmuller, 1896: 76 (hosts); Fall & Cockerell, 1907: 192 (distr.); Martin, 1919: 231 (biol.); Middlebrook, 1923: 17 (biol.); Essig, 1926: 458; Knull, 1944: 92 (biol.); Linsley, 1962a: 135, fig. 43; MacKay, Zak & Hovore, 1987: 365 (distr.); Chemsak, Linsley & Noguera, 1992: 85 (cat.); Monné, M.A., 1994b: 60 (cat.); Linsley & Chemsak, 1997: 432 (hosts); Swift, 2008a: 4 (hosts).

*Schizax senax*; Craighead, 1923: 80 (larva, error).

### **Sphaenothecus Dupont, 1838**

*Sphaenothecus* Dupont, 1838: xii, 55, pl. 224, fig. 16; Thomson, 1861: 209; Lacordaire, 1869: 184; Girard, 1873: 722; Casey, 1912: 333; Chemsak & Noguera, 1998: 12 (rev.); Monné, M. A., 2005: 640 (cat.); Monné, M.A., 2012: 61.

*Sphenothecus*; White, 1853: 85; Bates, 1880: 84.

*Sphoenotheucus*; Thomson, 1864: 205.

**Type-species** - *Sphaenothecus tomentosus* Dupont, 1838 (subsequent designation, Thomson, 1864: 205) [= *Sphaenothecus trilineatus* Dupont, 1838].

*Ischnocnemis*; LeConte, 1873b: 316; LeConte & Horn, 1883: 201 (not Thomson, 1864).

*Taranomis* Casey, 1912: 333, 334; Arnett, 1962: 863, 888; Linsley, 1962a: 95.

**Type-species** - *Sphaenothecus bivittatus* Dupont, 1838 (original designation) [= *Leptocera bilineata* Gory, 1831].

#### **1. *Sphaenothecus bilineatus* (Gory, 1831)**

**Type locality** – Holotype male: Mexico. (Depository unknown). **Distribution** - United States (Southern California to Texas), Mexico (Baja California, Coahuila, Jalisco, Morelos, Chiapas, Oaxaca, Sonora, Tamaulipas, Hidalgo), Honduras, Nicaragua. **Host plants** - *Baccharis* sp. (Asteraceae), *Cassia* sp. (Caesalpiniaceae), *Acacia farnesiana* (Linné) Willdenow, *Leucaena pulverulenta* (Schlechtendal) Bentham, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Ficus* sp.

- (Moraceae), *Coffea arabica* Linné (Rubiaceae), *Ulmus crassifolia* Nuttall (Ulmaceae).
- Leptocera bilineata* Gory, in Guérin-Méneville, 1831: pl. 45, fig. 9; Laporte, 1840: 490, pl. 34, fig. 4.
- Cerambyx bilineatus*; Berge, 1844: 126, pl. 13, fig. 2.
- Taranomis bilineata bilineata*; Monné, M.A., 1994b: 32 (cat.).
- Sphaenothecus bilineatus*; Monné, M.A., 2001b: 78 (cat. hosts); Monné, M.A., 2005: 641 (cat.); Noguera & Gutiérrez, 2016: 659 (distr.).
- Sphaenothecus bivittatus* Dupont, 1838: 58, pl. 220, fig. 1; Guérin-Méneville, 1844a: 250; Lacordaire, 1869: 184; Girard, 1873: 722; 1885: pl. 56, fig. 9; Casey, 1891: 34; Linsley, 1934d: 61 (distr.); Saalas, 1936: 111; Chemsak & Noguera, 1998: 15; Toledo *et al.*, 2002: 529 (distr.); Noguera *et al.*, 2002: 624 (distr.); Turnbow, Cave & Thomas, 2003: 18 (distr.); Ray, Lacey & Hanks, 2006: 546 (pheromones); Noguera *et al.*, 2007: 312 (distr.); Noguera *et al.*, 2009: 88 (distr.); Maes *et al.*, 2010: 608, 5 figs (distr.); Noguera *et al.*, 2012: 621 (distr.); García Morales *et al.*, 2015: 106 (distr.).
- Sphenothecus bivittatus*; White, 1853: 86; LeConte, 1858a: 40 (distr.); Bates, 1880: 84; 1885: 329 (distr.).
- Ischnocnemis bivittatus*; LeConte, 1873b: 316; LeConte & Horn, 1883: 301; Leng, 1886: pl. 3, fig. 22; Griffith, 1900: 569 (distr.); Fall, 1901: 146 (distr.); Townsend, 1903: 77 (distr.); Schaeffer, 1908: 328 (distr.).
- Taranomis bivittata*; Casey, 1912: 333; Linsley, 1942: 63; Vogt, 1949: 177 (distr.); Duffy, 1960: 109, fig. 1 (larva); Linsley, Knull & Statham, 1961b: 21 (distr.); Linsley, 1962a: 95; Rogers, 1977a: 227 (hosts); Chemsak, Linsley & Mankins, 1980: 33 (distr.); Maes & Tellez Robleto, 1988: 71 (hosts).
- Taranomis bivittata bivittata*; Linsley, 1962a: 95; Turnbow & Wappes, 1978: 368 (hosts); MacKay, Zak & Hovore, 1987: 364 (hosts); Hovore, Penrose & Neck, 1987: 296 (biol., distr.); Chemsak, Linsley & Noguera, 1992: 86 (cat.); Chemsak & Noguera, 1995: 64 (biol.); Noguera & Chemsak, 1996: 403 (cat.); Linsley & Chemsak, 1997: 441 (hosts) Maes, 1998: 907 (distr.).
- Type locality** - Holotype male: Mexico. (MNHN).
- Taranomis cylindricollis* Casey, 1924: 267; Lingafelter *et al.*, 2014: 49, figs 52m, n (holotype).
- Taranomis bivittata cylindricollis*; Linsley, 1962a: 96; Linsley & Chemsak, 1997: 441 (hosts).
- Taranomis bilineata cylindricollis*; Monné, M.A., 1994b: 32 (cat.).
- Type locality** - Holotype male: United States, Arizona: near Tucson. (USNM).
- Taranomis nematocera* Casey, 1924: 268; Lingafelter *et al.*, 2014: 104, figs 115i, j (holotype).
- Type locality** - Lectotype male: United States, Arizona: near Tucson. (USNM).

## 2. *Sphaenothecus trilineatus* Dupont, 1838

**Type locality** - Holotype male: Mexico, Oaxaca. (MNHN). **Distribution** - United States (Southern Texas), Mexico (Sinaloa, Jalisco, Michoacán, Veracruz, Guerrero, Morelos, Oaxaca, Puebla, Chiapas), Honduras. **Host plants** - *Spondias purpurea* Linné (Anacardiaceae), *Caesalpinia eriostachys* Benth., *C. platyloba* S. Watson, *Delonix regia* (Hooker) Rafinesque-Schmalz, *Senna wislizeni* (A. Gray) H.S. Irwin & Barneby (Caesalpiniaceae), *Ipomoea pauciflora* M. Martens & Galeotti (Convolvulaceae), *Lonchocarpus magallanesii* M. Souza S. (Fabaceae), *Amphipterygium adstringens* (Schlechtendal) Standley (Julianaceae), *Ceiba*

*pentandra* (Linné) Gaertner, *Pseudobombax* sp. (Malvaceae), *Acacia angustissima* (Miller) Kuntze, *A. cochliacantha* Humboldt & Bonpland ex Willdenow, *A. farnesiana* (Linné) Willdenow, *A. filicina* Willdenow (Mimosaceae), *Citrus* sp. (Rutaceae).

*Sphaenothecus trilineatus* Dupont, 1838: 57, pl. 219, fig. 2; Lacordaire, 1869: 184; Casey, 1912: 333; Linsley, 1935a: 100 (distr.); Chemsak, Linsley & Mankins, 1980: 33 (distr.); Maes & Tellez Robleto, 1988: 67 (hosts); Chemsak, Linsley & Noguera, 1992: 86 (cat.); Chemsak & Noguera, 1995: 64 (hosts, distr.); Noguera & Chemsak, 1996: 403 (cat.); Chemsak & Noguera, 1998: 23, pl. 7; Monné, M.A., 2001b: 79 (cat.); Toledo *et al.*, 2002: 529 (distr.); Noguera *et al.*, 2002: 624 (distr.); Turnbow, Cave & Thomas, 2003: 18 (distr.); Monné, M. A., 2005: 642 (cat.); Noguera *et al.*, 2007: 312 (distr.); MacRae, Bezark & Swift, 2012: 181; López-Martínez *et al.*, 2015: 780 (hosts); Luna-León. 2015: 838 (distr.); Hernández-Cardenas *et al.*, 2016: 497 (distr.); Vargas-Cardozo *et al.*, 2018: 95 (distr.).

*Sphenothecus trilineatus*; White, 1853: 85; Bates, 1880: 84 (distr.); 1885: 329 (distr.).

*Sphaenothecus tomentosus* Dupont, 1838: 56, pl. 219, fig. 1; Lacordaire, 1869: 184; Casey, 1912: 333.

*Sphenothecus tomentosus*; White, 1853: 85; Bates, 1880: 84 (distr.); 1885: 328 (distr.).

**Type locality** - Holotype male: Mexico, Oaxaca. (BMNH).

*Sphenothecus trilineatus* var. *lateralis* Bates, 1885: 329.

**Type locality** - Holotype: Mexico. (BMNH).

### ***Stenaspis* Audinet-Serville, 1834**

*Stenaspis* Audinet-Serville, 1834b: 51; Dupont, 1838: xii, 50, pl. 224, fig. 14; Laporte, 1840: 419; Blanchard, 1845: 415; LeConte, 1854a: 441 (syn.); Strauch, 1861: 127; Thomson, 1861: 208; 1864: 208; 1865: 434; Lacordaire, 1869: 171; Chenu, 1870: 311; LeConte, 1873b: 314; Bates, 1880: 76; LeConte & Horn, 1883: 299; Leng, 1886: 60; Bradley, 1930: 241; Linsley, 1962a: 98; Arnett, 1962: 863, 881; Monné, M.A., 2005: 642 (cat.); Monné, M.A., 2012: 62.

**Type-species** - *Stenaspis verticalis* Audinet-Serville, 1834 (monotypy).

*Smileceras* LeConte, 1850b: 8; Thomson, 1864: 208.

**Type-species** - *Cerambyx solitarius* Say, 1824 (monotypy).

### **1. *Stenaspis solitaria* (Say, 1824)**

**Type locality** – Holotype male: Upper Arkansa. (Depository unknown).

**Distribution** - Southwestern United States to South Texas, Mexico (Baja California, Sonora, Durango). **Host plants** - *Acacia berlandieri* Bentham, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Cerambyx solitarius* Say, 1824: 410; LeConte, 1859c: 191.

*Callichroma solitaria*; Haldeman, 1847a: 32.

*Smileceras solitarius*; LeConte, 1850b: 9; White, 1853: 143; Thomson, 1864: 208.

*Stenaspis solitaria*; LeConte, 1854a: 441; 1858a: 25 (distr.); 1859c: 20, pl. 2, fig. 14; 1859b: 127; Lacordaire, 1869: 171; Bates, 1880: 76 (distr.); Snow, 1883: 42 (distr.); Bates, 1885: 321 (distr.); Leng, 1886: 62, pl. 3, fig. 8; Horn, 1894: 338 (distr.); Townsend, 1895: 47 (distr.); Wickham, 1898a: 22 (distr.); Fall & Cockerell, 1907: 192 (distr.); Schaeffer, 1908: 330 (distr.); Grossbeck, 1912: 325 (distr.); Garnett, 1918: 207 (distr.); Linsley, 1934d: 60 (distr.); 1942: 59; Vogt, 1949: 177 (biol.); Spieth, 1950: fig. 36; Linsley, Knull & Statham, 1961b: 21, fig. 14; Linsley, 1962a: 99; Linsley & Cazier, 1962: 745, figs 1, 2 (biol.); MacKay, Zak & Hovore, 1987: 364 (hosts); Hovore, Penrose & Neck, 1987: 297 (biol., distr.); Chemsak, Linsley &

Noguera, 1992: 86 (cat.); Noguera & Chemsak, 1996: 403 (cat.); Linsley & Chemsak, 1997: 434 (hosts); Monné, M.A., 2001b: 79 (cat. hosts); Monné, M.A., 2005: 643 (cat.); Swift, 2008a: 4 (distr., hosts); Noguera *et al.*, 2009: 89 (distr.).

*Stenaspis unicolor* Dupont, 1840: 11, pl. 38; White, 1853: 78; Lacordaire, 1869: 171.

**Type locality** - Holotype male: Mexico ?. (MNHN).

*Stenaspis lugubris* Casey, 1912: 318; Lingafelter *et al.*, 2014: 93, figs 102g, h (lect. designation).

**Type locality** – Lectotype male: United States, Arizona: Santa Rita Mts. (USNM).

## 2. *Stenaspis verticalis verticalis* Audinet-Serville, 1834

**Syntypes locality** – Syntypes male: Mexico. (BMNH). **Distribution** – United States (Southern Texas and Arizona), Mexico (Sonora, Jalisco, Veracruz, Morelos, Guerrero, Puebla, Tamaulipas, Hidalgo, Durango), Guatemala, Honduras, Nicaragua.

*Stenaspis verticalis* Audinet-Serville, 1834b : 52; Dupont, 1838: 51, pl. 216, fig. 1; Laporte, 1840: 419; Guérin- Méneville, 1844: 218 (syn.); White, 1853: 78 (syn.); Strauch, 1861: 127; Thomson, 1864: 208; Lacordaire, 1869: 171; Chenu, 1870: 311; Bates, 1880: 76; 1885: 321; Leng, 1886: 62; Townsend, 1895: 47; Fall & Cockerell, 1907: 192 (distr.); Casey, 1912: 319; Perkins & Swezey, 1924: 51 (biol.); Smyth, 1934: 117 (biol.); Linsley, 1962a: 98; Chemsak, Linsley & Mankins, 1980: 33 (distr.); Chemsak, Linsley & Noguera, 1992: 86 (cat.); Chemsak & Noguera, 1995: 64 (biol., distr.); Noguera & Chemsak, 1996: 403 (cat.); Noguera *et al.*, 2002: 624 (distr.); Turnbow, Cave & Thomas, 2003: 18 (distr.); Monné, M.A., 2005: 643 (cat.); Hovore, 2006: 374 (distr.); Noguera *et al.*, 2007: 312 (distr.); García Morales *et al.*, 2015: 106 (distr.).

*Stenaspis verticalis verticalis*; Maes *et al.*, 2010: 614, 2 figs (distr.); Noguera & Gutiérrez, 2016: 659 (distr.).

*Trachyderes superbus* Newman, 1838: 493.

**Type locality** - Holotype: Mexico. (BMNH).

### 2a. *Stenaspis verticalis arizonicus* Casey, 1912

**Type locality** - Holotype male: United States, Arizona: Baboquivari Mts. (USNM).

**Distribution** - United States (Southern Arizona). **Host plants** – *Baccharis sarothroides* A. Gray (Asteraceae).

*Stenaspis arizonicus* Casey, 1912: 318

*Stenaspis verticalis arizonicus*; Linsley, 1962a: 99; Chemsak, Linsley & Noguera, 1992: 86 (cat.); Monné, M.A., 1994b: 35 (cat.); Lingafelter *et al.*, 2014: 20, fig. 20c (holotype); Heffern, Vlasak & Alten, 2018: 746 (hosts).

### 2b. *Stenaspis verticalis insignis* Casey, 1924

**Type locality** - Holotype female: United States, Texas: Comal Co. (USNM).

**Distribution** - United States (Southcentral Texas), northern Mexico.

*Stenaspis insignis* Casey, 1924: 262; Vogt, 1949: 177 (distr.); Lingafelter *et al.*, 2014: 80, figs 87s, t (holotype).

*Stenaspis verticalis insignis*; Linsley, 1962a: 99; Hovore, Penrose & Neck, 1987: 297 (biol., distr.); Chemsak, Linsley & Noguera, 1992: 86 (cat.); Monné, M.A., 2005: 644 (cat.).

(lect.).

***Tragidion* Audinet-Serville, 1834**

*Tragidion* Audinet-Serville, 1834a: 541; 1834b: 89; Laporte, 1840: 452; LeConte, 1850b: 10; Strauch, 1861: 130; Thomson, 1861: 190; 1864: 199; 1865: 429; Lacordaire, 1869: 173; LeConte, 1873b: 314; Bates, 1880: 77; LeConte & Horn, 1883: 299; Leng, 1886: 60, 81; Casey, 1893: 586 (key spp.); Hamilton, *in* Leng & Hamilton, 1896: 169; Blatchley, 1910: 1030; Casey, 1912: 321; Bradley, 1930: 241; Linsley, 1940d: 135; Knull, 1946: 229; Linsley, 1962a: 111; Arnett, 1962: 863, 881; Hatch, 1971: 104; Monné, M.A., 2005: 653 (cat.); Swift & Ray, 2008: 1 (rev.); Monné, M.A., 2012: 62.

**Type-species** - *Cerambyx coquus* Linnaeus, 1758 (monotypy).

*Trichoscelis* Bates, 1885: 324.

**Type-species** - *Tragidion bicolor* Bates, 1885 (monotypy).

**1. *Tragidion agave* Swift & Ray, 2008**

**Type locality** - Neotype male: United States, California: Riverside County. (USNM). **Distribution** - United States and Mexico (Mountains of southern California including the San Jacinto, Santa Rosa, and Laguna Mountains, as well as the San Pedro Martir Mountains of northern Baja California). **Host plants** - *Agave deserti* Engelman (Agavaceae).

*Tragidion agave* Swift & Ray, 2008: 7, figs 1A-B, 7A-B, 7A; Lingafelter et al., 2014: 10, figs 10g, h (neotype); Haack, 2017: 111 (hosts).

**2. *Tragidion annulatum* LeConte, 1858**

**Type locality** - Holotype male: Mexico, Sonora. (MCZN). **Distribution** - United States (Texas, Arizona), Mexico (Sonora, Baja California). **Host plants** - *Rhus integrifolia* Nuttall, *R. ovata* Watson (Anacardiaceae), *Baccharis sergiloides* Gray (Asteraceae), *Quercus agrifolia* Née, *Q. chrysolepis* Liebmann, *Q. dumosa* Nuttall (Fagaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Adenostoma fasciculatum* Hooker & Arnott, *Heteromeles arbutifolia* (Aiton) M. Roemer (Rosaceae).

*Tragidion annulatum* LeConte, 1858b: 83; Lacordaire, 1869: 174; LeConte, 1873b: 314; Popenoe, 1877: 33 (distr.); Bates, 1880: 77; Snow, 1883: 42 (distr.); Leng, 1886: 81, pl. 3, fig. 10; Horn, 1894: 338 (distr.); Townsend, 1895: 47; Fall & Cockerell, 1907: 192 (distr.); Schaeffer, 1908: 330, 339; Garnett, 1918: 207 (distr.); Linsley, 1934d: 61 (distr.); Linsley, 1962a: 116, fig. 37; Chemsak, Linsley & Noguera, 1992: 87 (cat.); Noguera & Chemsak, 1996: 403 (cat.); Linsley & Chemsak, 1997: 445 (hosts); Monné, M.A., 2001b: 82 (cat. Hosts); Monné, M.A., 2005: 653 (cat.); Swift & Ray, 2008: 10, figs 1C-D, 7C. (syn.).

*Tragidion annulatum* var. *peninsulare* Schaeffer, 1908: 339; Lingafelter et al., 2014: 17, figs 16w, x (holotype, available).

**Type locality** - Holotype: Mexico, Baja California: San Felipe. (USNM).

*Tragidion peninsulare*; Casey, 1912: 321; Linsley, 1940d: 137; 1942: 60; 1962a: 118; Chemsak, Linsley & Noguera, 1992: 88 (cat.); Noguera & Chemsak, 1996: 403 (cat.).

*Tragidion peninsulare peninsulare*; Linsley, 1940d: 135; 1942: 60; 1962a: 118, fig. 37; Linsley & Chemsak, 1997: 446 (hosts); Monné, M.A., 2001b: 83 (cat., hosts); Monné, M.A., 2005: 654 (cat.).

*Tragidion annulatum*; Casey, 1893: 856; Hamilton, *in* Leng & Hamilton, 1896: 196; Fall, 1901: 146 (not LeConte, 1858).]



*Tragidion peninsulare californicum* Linsley, 1940d: 137; 1962a: 118; Hovore & Giesbert, 1976: 353 (hosts); Chemsak, Linsley & Noguera, 1992: 88 (cat.); Linsley & Chemsak, 1997: 445 (hosts).

*Tragidion californicum*; Hatch, 1971: 104;

**Type locality** - Holotype female: United States, California: Kern County, Paradise Valley, Kings River. (CACS).

*Tragidion annulatum*; Casey, 1893: 856; Hamilton, *in* Leng & Hamilton, 1896: 196; Fall, 1901: 146 (not LeConte, 1858).

### 3. *Tragidion armatum* LeConte, 1858

**Syntypes locality** – Syntypes: United States, New Mexico-Texas: Llano Estacado. (MCZN). **Distribution** – United States (western Texas to southern California), Mexico (Baja California, Sonora, Chihuahua). **Host plants** - *Agave deserti* Engelm., *A. palmeri* Engelm., *Dasyilirion* sp., *Yucca angustifolia* Pursh, *Y. baccata* Torrey, *Y. brevifolia* Engelm., *Y. elata* Engelm., *Y. glauca* Nuttall ex Fraser, *Y. schidigera* Ortgies, *Y. whipplei* Torrey (Agavaceae).

*Tragidion armatum* LeConte, 1858a: 25; 1873b: 314; LeConte & Horn, 1883: 299; Leng, 1886: 81; Townsend, 1892: 39 (biol.); Casey, 1893: 586; Hamilton *in* Leng & Hamilton, 1896: 169; Beutenmuller, 1896: 76 (hosts); Fall, 1901: 146; Fall & Cockerell, 1907: 192 (distr.); Casey, 1912: 324; Garnett, 1918: 207 (distr.); Craighead, 1923: 79, pl. 27, fig. 3 (larva); Hicks, 1929: 2 (biol.); Park, 1932: 18, fig. 1; Linsley, 1940d: 135; 1942: 60; Linsley, Knull & Statham, 1961b: 23; Linsley, 1962a: 119; Stein & Tigestad, 1976: 44, fig. 19 (biol.); Chemsak, Linsley & Noguera, 1992: 87 (cat.); Swift & Ray, 2008: 13, figs 1E-F, 6A (syn.).

*Phoenicus ? armatum*; Lacordaire, 1869: 174.

*Tragidion armatum armatum*; Linsley, 1962a: 119; Tyson, 1966: 207 (hosts); Chemsak & Powell, 1966: 36, figs 1-3 (biol.); MacKay, Zak & Hovore, 1987: 374 (hosts); Noguera & Chemsak, 1996: 403 (cat.); Linsley & Chemsak, 1997: 445 (hosts); Monné, M.A., 2001b: 83 (cat. hosts); Monné, M.A., 2005: 653 (cat.).

*Tragidion texanum* Schaeffer, 1932: 152.

**Syntypes locality** – Syntypes female: United States, Texas: El Paso. (AMNH).

*Tragidion armatum brevipenne* Linsley, 1957c: 33; Chemsak, Linsley & Noguera, 1992: 87 (cat.); Linsley & Chemsak, 1997: 45 (hosts).

**Type locality** – Holotype male: United States, California: San Bernardino Co., Daggett (CACS).

### 4. *Tragidion auripenne* Casey, 1893

**Type locality** - Lectotype male: United States, Southwestern Utah. (USNM).

**Distribution** - Four Corners region of the southwestern USA on the Colorado Plateau in southern Utah and Colorado, northern Arizona and northwestern New Mexico. **Host plants** - *Celtis reticulata* Torrey (Cannabaceae), *Quercus turbinella* Greene (Fagaceae), *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae), *Bumelia lanuginosa* (Michaux) (Sapotaceae).

*Tragidion auripenne* Casey, 1893: 587; Hamilton *in* Leng, 1896: 169; Casey, 1912: 322; 1924: 264; Linsley, 1962a: 115; Hovore & Giesbert, 1976: 352; Lewis, 1979: 23 (distr.); Cope, 1984a: 35 (hosts); MacKay, Zak & Hovore, 1987: 364 (distr.); Chemsak, Linsley & Noguera, 1992: 87 (cat.); Monné, M.A., 1994b: 52 (cat.); Linsley & Chemsak, 1997: 445 (hosts); Swift & Ray, 2008: 14, figs 2A,B, 7F (rev., lectotype); Lingafelter *et al.*, 2014: 23, figs 23e, f (lectotype).

*Tragidion hirsuticolle* Casey, 1912: 321; Smith *et al.*, 1943: 316, pl. 4, fig. 8; Alexander, 1958: 51 (distr.); Lingafelter *et al.*, 2014: 75, fig. 81m (holotype).

**Type locality** - Holotype female: United States, New Mexico: Fort Wingate. (USNM).

*Tragidion parowanum* Casey, 1924: 263; Lingafelter *et al.*, 2014: 296, 370, fig. 128a (lectotype).

**Type locality** - Holotype female: United States, Utah: Parowan Canyon. (USNM).

##### 5. *Tragidion coquus* (Linnaeus, 1758)

**Type locality** - Holotype: Canada. (Depository unknown). **Distribution** - Eastern North America to Arizona, western & southern Texas. **Host plants** - *Cercis canadensis* Linné (Caesalpiniaceae), *Quercus* sp. (Fagaceae), *Acacia* sp.,

*Prosopis* sp. (Mimosaceae), *Ulmus* sp. (Ulmaceae).

*Cerambyx coquus* Linnaeus, 1758: 393; 1767: 630.

*Lamia coquus*; Fabricius, 1775: 176; 1781: 222; 1793: 286; 1801: 300.

*Cerambyx (Lamia) coquus*; Gmelin, 1790: 1834.

*Tragidion coquus*; Audinet-Serville, 1834b: 90; LeConte, 1850b: 10; White, 1853: 145; LeConte, 1854a: 441 (distr.); 1858a: 41 (distr.); Thomson, 1861: 204; Bland, 1861: 94; Thomson, 1864: 199; Lacordaire, 1869: 173; Popenoe, 1877: 33 (distr.); Snow, 1877: 19 (distr.); Leng, 1886: 81; Horn, 1886a: 138; 1889: 199; Casey, 1893: 586; Hamilton *in* Leng, 1896: 169; Beutenmuller, 1896: 76 (hosts); Smith, 1900: 289; Ulke, 1903: 26, 50 (distr.); Fall & Cockerell, 1907: 192; Smith, 1910: 327; Dickerson, 1912: 215 (biol.); Casey, 1912: 323; Nicolay, 1919: 66 (distr.); Craighead, 1923: 80 (larva); Kirk & Knull, 1926: 41; Leonard, 1928: 449 (distr.); Frost & Dietrich, 1929: 436 (distr.); Brimley, 1938: 216 (distr.); Loding, 1945: 120 (distr.); Knull, 1946: 229, pl. 18, fig. 73; Alexander, 1958: 51; Dillon & Dillon, 1961: 605, pl. 50, No.7; Linsley, 1962a: 113, figs 36, 37; Kirk & Balsbaugh, 1975: 98 (distr.); Hovore & Giesbert, 1976: 352; Turnbow & Franklin, 1980: 341 (distr.); MacKay, Zak & Hovore, 1987: 364 (distr.); Hovore, Penrose & Neck, 1987: 298; Chemsak, Linsley & Noguera, 1992: 87 (cat.); MacRae, 1993: 237 (distr.); Lingafelter & Horner, 1993: 168 (distr.); Monné, M.A., 1994b: 53 (cat.); Yanega, 1996: 126, pl. 19, figs 225a,b; Heffern, 1998: 19 (distr.); Peck & Thomas, 1998: 117; Schiefer, 1998: 120 (distr.); MacRae & Rice, 2007: 245 (biol., distr.); Swift & Ray, 2008: 16, figs 2E-F, 3A, 6D; Holt, 2013: 250; Klingeman *et al.*, 2017: 297 (distr.); Bousquet, Laplante, Hammond & Langor, 2017: 75, pl.13

*Callidium lynceum* Fabricius, 1775: 191; 1781: 240; 1793: 129; 1801: 344; Zimsen, 1964: 180 (type).

*Cerambyx lynceum*; Olivier, 1790: 307, pl. 14, fig. 97; 1795: 37, pl. 4, fig. 97.

*Tragidion lynceum*; Audinet-Serville, 1834: 90; Laporte, 1840: 452; Haldeman, 1847a: 35.

**Type locality** - Holotype: Cape of Good Hope. (HMUG).

*Callidium fulvipenne* Say, 1824: 414; LeConte, 1859c: 194.

*Tragidion fulvipenne*; Haldeman, 1847a: 37; LeConte, 1850b: 10; White, 1853: 146; Bland, 1861: 94; Lacordaire, 1869: 173; Popenoe, 1877: 33 (distr.); Snow, 1877: 19; 1881: 70; 1883: 42 (distr.); Riley, 1880: 239 (biol.); Riley & Howard, 1889: 192 (biol.); Popenoe, 1889: 192 (biol.); 1890: 15 (biol.); Packard, 1890: 91, fig. 33 (biol.); Caulfield, 1890: 66 (biol.); Townsend, 1895: 47 (distr.); Casey, 1912: 323; Craighead, 1923: 80 (larva); Ware, 1929: 368 (distr.); Beaulne, 1932: 203 (hosts); Loding, 1933: 149 (distr.);

*Tragidion coquus* var. *fulvipenne*; Leng, 1886: 81; Knull, 1946: 229; Ulke, 1903: 26,50 (distr.); Felt, 1906: 702; Tucker, 1906: 12 (distr.); Fall & Cockerell, 1907: 192; Tanner, 1934: 47 (distr.); Knull, 1946: 229.

*Tragidion coquus fulvipenne*; Brimley, 1938: 216; Loding, 1945: 120 (distr.); Alexander, 1958: 51.

**Type locality** - Holotype male: United States: Arkansa, Arkansa River. (Depository unknown).

*Cerambyx (Purpuricenus) Melsheimeri* Germar, 1823: 502.

*Anoplistes Melsheimeri*; Germar, 1839: 330.

**Type locality** - Holotype: America septentrionalis. (MNHU).

*Tragidion coquus filicorne* Casey, 1912: 323; Lingafelter *et al.*, 2014: 46, figs 48g, h (lectotype).

**Type locality** - Lectotype male: United States: New Mexico: Las Vegas. (USNM).

*Tragidion fulvipenne nubifer* Casey, 1912: 323; Lingafelter *et al.*, 2014: 67, figs 72g, h (holotype).

**Type locality** - Holotype male: United States, Texas. (USNM).

*Tragidion fulvipenne levipes* Casey, 1912: 323; Lingafelter *et al.*, 2014: 67, figs 72e, f (holotype).

**Type locality** - Holotype male: United States, New Mexico: Las Vegas. (USNM).

*Tragidion apicatum* Casey, 1912: 323; Lingafelter *et al.*, 2014: 18, figs 18m, n (holotype).

**Type locality** - Holotype male: United States, Texas. (USNM).

## 6. *Tragidion deceptum* Swift & Ray, 2008

**Type locality** - Neotype male: United States, Arizona: Cochise County, Huachuca Mountains. (USNM). **Distribution** - United States (Arizona, New Mexico, Texas), Mexico (Sonora, Chihuahua, Durango). **Host plants** - *Quercus arizonica* Sargent, *Q. hypoleucoides* A. Camus, *Q. oblongifolia* Torrey (Fagaceae).

*Tragidion deceptum* Swift & Ray, 2008: 17, figs 3B-C, 7D (hosts); Lingafelter *et al.*, 2014: 51, figs 53s, t (neotype).

*Tragidion annulatum*; Linsley, Knull & Statham, 1961b: 23, fig. 13 (not LeConte, 1858).

## 7. *Tragidion densiventre* Casey, 1912

**Type locality** - Holotype female: United States, Arizona. (USNM) - **Distribution** - United States (Arizona, New Mexico, Texas), Mexico (Sonora, Chihuahua). **Host plants** - *Acacia greggii* A. Grey, *Prosopis juliflora* (Swartz) de Candolle (Mimosaceae).

*Tragidion densiventre* Casey, 1912: 322; Swift & Ray, 2008, figs 3D-E, 7E (reval., hosts); Lingafelter *et al.*, 2014: 52, figs 55k, l (holotype).

## 8. *Tragidion gracilipes* Linsley, 1940

**Type locality** - United States, California: Napa County. (CASC). **Distribution** - United States (California), Mexico (Baja California). **Host plants** - *Rhamnus californica* Eschscholtz (Rhamnaceae), *Adenostoma fasciculatum* Hooker & Arnott (Rosaceae).

*Tragidion gracilipes* Linsley, 1940d: 136; Hovore & Giesbert, 1976: 353 (hosts); Swift & Ray, 2008: 20, figs 4B-C, 7B (hosts); Swift, 2008a: 4 (distr., hosts); Hefern, Vlasak & Alten, 2018: 747 (hosts).

***Tylosis* LeConte, 1850**

*Tylosis* LeConte, 1850b: 9; Thomson, 1861: 190; 1864: 200; 1865: 430; Lacordaire, 1869: 181; LeConte, 1873b: 316; LeConte & Horn, 1883: 301; Leng, 1886: 60; Casey, 1912: 341; Bradley, 1930: 241; Linsley, 1962a: 138; Arnett, 1962: 864, 882; Valdez & MacKay, 1993: 241 (rev.); Monné, M.A., 2005: 656 (cat.); Monné, M.A., 2012: 63.

**Type-species** - *Tylosis maculatus* LeConte, 1850 (subsequent designation, Thomson, 1864: 200).

**1. *Tylosis jimenezi* Dugés, 1879**

**Type locality** – Holotype : Mexico, Guanajuato. (ISNB). **Distribution** - United States (Texas), Mexico (Coahuila, Durango, Guanajuato, Distrito Federal). **Host plants** - *Sphaeralcea* sp. (Malvaceae).

*Tylosis jimenezi* Dugés, 1879: 186, pl. 6, fig. 11; Bates, 1885: 326; Linsley, 1962a: 140; Damoiseau & Cools, 1987: 13 (type); MacKay, Zak & Hovore, 1987: 365 (hosts); Chemsak, Linsley & Noguera, 1992: 88 (cat.); Valdez & MacKay, 1993: 242, 245, figs 1c, 2 ; Noguera & Chemsak, 1996: 403 (cat.); Linsley & Chemsak, 1997: 447 (hosts); Monné, M.A., 2001b: 83 (cat. hosts); Monné, M.A., 2005: 656 (cat.).

**2. *Tylosis maculatus* LeConte, 1850**

**Type locality** - Holotype: United States, New Mexico. (MCZN). **Distribution** - United States (Texas, New Mexico), Mexico (Sonora, Chihuahua, Coahuila, Durango, Hidalgo, Jalisco, Mexico, Distrito Federal, Michoacán, Morelos, Nayarit, Nuevo León, San Luis Potosí, Zacatecas). **Host plants** - *Sphaeralcea ambigua* A. Gray, *S. subhastata* Coulter (Malvaceae).

*Tylosis maculatus* LeConte, 1850b: 9; White, 1853: 140; LeConte, 1858a: 40 (distr.); 1859c: 20, pl. 2, fig. 15; Thomson, 1864: 200; Lacordaire, 1869: 181; Linsley, Knull & Statham, 1961b: 23; Linsley, 1962a: 140; MacKay, Zak & Hovore, 1987: 365; Chemsak, Linsley & Noguera, 1992: 88 (cat.); Valdez & MacKay, 1993: 242, 245, figs 1d, 2; Noguera & Chemsak, 1996: 403 (cat.); Linsley & Chemsak, 1997: 447 (hosts); Monné, M.A., 2001b: 84 (cat. hosts); Monné, M.A., 2005: 656 (cat.).

*Tylosis maculata*; Popenoe, 1877: 33 (distr.); Snow, 1883: 42 (distr.); Horn, 1885a: 176 (syn.); Bates, 1885: 325; Leng, 1886: 118, pl. 2, fig. 18; Townsend, 1895: 47; Fall & Cockerell, 1907: 192 (distr.); Schaeffer, 1908: 330 (distr.); Casey, 1912: 342.

*Tylosis sellatus* LeConte, 1858a: 25; Lacordaire, 1869: 181; Bates, 1885: 326.

*Tylosis maculata* ab. *sellata*; Aurivillius, 1912: 470 (cat.).

**Type locality** - Holotype: United States, New Mexico-Texas: Llano Estacado. (MCZN).

*Tylosis robusta* Casey, 1912: 342; Lingafelter *et al.*, 2014: 310, figs 144g, h (holotype).

**Type locality** - Holotype female: United States, Arizona: Cochise Co., San Bernardino Ranch. (USNM).

*Tylosis argus* Casey, 1912: 342; Lingafelter *et al.*, 2014: 19, figs 19m, n (holotype).

**Type locality** - Holotype male: United States, New Mexico. (USNM).

*Tylosis sexualis* Casey, 1912: 343; Lingafelter *et al.*, 2014: 319, figs 154c, d (lect. designation).

**Type locality** – Lectotype male: United States, New Mexico: Jemez Springs. (USNM).

*Tylosis texana* Casey, 1912: 343; Lingafelter *et al.*, 2014: 332, figs 169m, n (lectotype).

**Type locality** - Holotype female: United States, Texas: El Paso.(USNM).

*Tylosis subtruncata* Casey, 1912: 343; Lingafelter *et al.*, 2014: 329, figs 165w, x (holotype).

**Type locality** - Holotype male: United States, New Mexico: Jemez Springs. (USNM).

*Tylosis brevicollis* Casey, 1912: 344; Lingafelter *et al.*, 2014: 32, figs 32u, v (holotype).

**Type locality** - Holotype female: United States, New Mexico. (USNM).

*Tylosis medialis* Casey, 1912: 344; Lingafelter *et al.*, 2014: 96, figs 106q, r (lect. designation).

**Type locality** - Lectotype male: United States, New Mexico: Jemez Springs. (USNM).

*Tylosis medialis bifasciata* Casey, 1912: 344; Lingafelter *et al.*, 2014: 97, figs 106s, t (holotype).

**Type locality** - Holotype male: United States, New Mexico: Jemez Springs. (USNM).

*Tylosis conjuncta* Casey, 1912: 344; Lingafelter *et al.*, 2014: 44, figs 46i, j (holotype).

**Type locality** - Holotype male: United States, New Mexico: Jemez Springs. (USNM).

*Tylosis conjuncta parva* Casey, 1912: 345; Lingafelter *et al.*, 2014: 44, figs 46k, l (holotype).

**Type locality** - Holotype male: United States, New Mexico: Jemez Springs. (USNM).

### 3. *Tylosis oculatus* LeConte, 1850

**Type locality** - Holotype: Mexico, Veracruz: Puente Nacional. (MCZN).

**Distribution** - United States (Western and southern Texas), Mexico (Durango, Mexico, Distrito Federal, Jalisco, Michoacán, Nuevo León, Tamaulipas, Puebla, Coahuila, Veracruz, Oaxaca). **Host plants** - *Abutilon incanum* Sweet, *A. indicum* Linné (Malvaceae).

*Tylosis oculatus* LeConte, 1850b: 9; White, 1853: 140; LeConte, 1858a: 40 (distr.); Lacordaire, 1869: 181; Bates, 1885: 325 (distr.); Leng, 1886: 118; Schaeffer, 1908: 328 (distr.); Vogt, 1949: 177 (distr.); Linsley, 1962a: 139; Hovore, Penrose & Neck, 1987: 298 (biol., distr.); Chemsak, Linsley & Noguera, 1992: 88 (cat.); Valdez & MacKay, 1993: 242, 244, figs 1e, 2; Noguera & Chemsak, 1996: 403 (cat.); Linsley & Chemsak, 1997: 447 (hosts); Monné, M. A., 2001b: 84 (cat. hosts); Monné, M.A., 2005: 657 (cat.); Ray, Lacey & Hanks, 2006: 546 (pheromones); Noguera *et al.*, 2007: 312 (distr.); García Morales *et al.*, 2015: 106 (distr.).

### 4. *Tylosis puncticollis* Bates, 1885

**Type locality** - Lectotype female: Mexico. (BMNH). **Distribution** - Mexico (Sonora, Chihuahua, Coahuila, Durango, Guanajuato, Michoacán, Guerrero, Hidalgo, Jalisco, Aguascalientes, Oaxaca, Morelos, Mexico, Puebla, Colima, Tabasco, Tamaulipas).

*Tylosis puncticollis* Bates, 1885: 325; 1892: 177 (syn., distr.); Linsley, 1935a: 100 (distr.); Saalas, 1936: 110; Linsley, 1962a: 141; Chemsak, 1967b: 80 (lect.); Terrón, 1992: 288 (distr.); Valdez & MacKay, 1993: 242, 245, figs 1f, 2; Noguera *et al.*, 2002: 625 (distr.); Toledo, 2005b: 419 (distr.); Noguera *et al.*, 2007: 312 (distr.); Noguera *et al.*, 2009: 89 (distr.); MacRae, Bezark & Swift, 2012: 182; García Morales *et al.*, 2015: 107 (distr.).

*Tylosis puncticollis puncticollis*; Linsley, 1962a: 141; Chemsak, Linsley & Noguera, 1992: 88 (cat.); Noguera & Chemsak, 1996: 403 (cat.); Monné, M.A., 2005: 657 (cat.).

*Tylosis angusticollis* Bates, 1885: 325; Perkins & Swezey, 1924: 51 (hosts); Chemsak, 1967c: 83 (lect.).

*Tylosis puncticollis* var. *angusticollis*; Aurivillius, 1912: 470 (cat.).

**Type locality** – Lectotype female: Mexico, Durango: Ventanas [Villa Corona]. (MNHN).

*Tylosis maculata*; Bates, 1880: 81 (not LeConte, 1850).

*Tylosis sellata*; Bates, 1880: 81 (not LeConte, 1850).

*Tylosis puncticollis arizonicus* Linsley, 1957c: 34; 1962: 142; Chemsak, Linsley & Noguera, 1992: 88 (cat.); Monné, M.A., 1994b: 62 (cat.).

*Tylosis puncticollis arizonensis*. Linsley, Knull & Statham, 1961: 23 (distr.).

**Type locality** - Holotype male: United States, Arizona: Palmerlee. (CASC).

### 5. *Tylosis suturalis* White, 1853

**Type locality** – Holotype: Mexico. (BMNH). **Distribution** - Southern United States (New Mexico), Mexico (Chihuahua, Zacatecas, San Luís Potosí, Michoacán, Guanajuata, Oaxaca, Tamaulipas).

*Tylosis suturalis* White, 1853: 141, pl. 4, fig. 5; Chemsak, Linsley & Noguera, 1992: 88 (cat.); Valdez & MacKay, 1993: 244, 245, figs 1g, 2; Noguera & Chemsak, 1996: 403 (cat.); Monné, M.A., 2005: 658 (cat.); García Morales *et al.*, 2015: 107 (distr.).

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