

# A Contribution to the Knowledge of Longicorn Beetles (Coleoptera, Cerambycidae) of the Caucasus: 7. Notes on the Distribution of Some Species

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Received May 9, 2011

**Abstract**—The distribution of 28 species of longicorn beetles in the Caucasus and neighboring territories is discussed with new distributional data reported for some species. The records of *Rhagium fasciculatum*, *Paraclytus sexguttatus*, and *Anaglyptus arabicus* from northern Iran (Elburz Mts.) are considered erroneous. Photographs of old specimens of *Phytoecia pontica* (a male labeled “Caucasus Leder”) and *Ph. wachanrui* (a male labeled “Daghestan”) are given; the occurrence of these species in the Caucasus is considered probable. The records of *Cortodera flavimana*, *Pedostrangalia verticenigra* and *Chlorophorus hircanus* from northeastern Azerbaijan are considered erroneous; these species are not known from the Caucasus. The distribution of *Brachypteroma ottomanum*, *Leioderes kollari*, *Phymatodes glabratus*, and *Dorcadion equestre* still remains to be proved; the known records of *B. ottomanum* supposedly refer to *B. holtzi*, and those of *L. kollari*, to *L. tuerki*. It is also speculated that the records of *Pedostrangalia revestita* from Borjomi refer to the closely related *P. tokatensis*, and the records of *Pedostrangalia emmipoda* from Sevan and Batumi, to *P. kurda*.

DOI: 10.1134/S0013873811080045

The distribution of many species of longicorn beetles in the Caucasus and neighboring territories is still insufficiently studied. Some forms reported from the Caucasus are known from occasional, often dubious findings, whereas the numerous published data on the distribution of taxa in some parts of their ranges are not always confirmed by collection material and sometimes appear to be erroneous. The information presented in this paper could partly solve these problems for more than 20 species; the distribution of some of these species in the Caucasus is discussed for the first time.

The material examined is kept in the following institutions and private collections: ZIN, the Zoological Institute of the Russian Academy of Sciences (St. Petersburg; Russia); ZMMU, the Zoological Museum of Moscow State University (Moscow; Russia); MSPU, Moscow State Pedagogical University (Moscow; Russia); HNHN, the Hungarian Natural History Museum (Természettudományi Múzeum) (Budapest; Hungary); MNHN, Muséum national d'Histoire naturelle (Paris; France); ZMHB, Museum für Naturkunde der Humboldt-Universität (Berlin; Germany); AM, the author's collection (Krasnodar; Russia); DK, collection of

D.G. Kasatkin (Rostov-on-Don; Russia). Some other collections are referred to in the text.

## *Rhagium (Megarhagium) fasciculatum* Faldermann, 1837

This species was described from the Transcaucasia. Its distribution in the Caucasus was described in the works of many researchers (Motschulsky, 1838; Tournier, 1872; Schneider and Leder, 1879; Leder, 1880; König, 1899; Clermont, 1909; Plavilstshikov, 1915a, 1931b; Bogdanov-Kat'kov, 1917; Eichler, 1930, etc.). The publication by Leder (1886) deserves special attention since *Rh. fasciculatum* was recorded there for the Talysh piedmont area. Plavilstshikov (1915a) in his revision of the Palaearctic representatives of the genus *Rhagium* F. also recorded this species for Talysh based on the cited Leder's paper. Bodemeyer (1930) recorded *Rh. fasciculatum* for the Elburz Mountains. Plavilstshikov (1936) was the first to describe its general range: “The Caucasus, from the Ciscaucasian piedmont to the southern borders of the Transcaucasia; also occurs in Turkish [Western] Armenia (at least in its northern part: Kars) and northern Iran (Elburz).” According to the same author

(Plavilstshikov, 1948), the distribution of this species in the former Soviet Armenia is restricted to the northern part of the republic. Later publications by Plavilstshikov and other authors (except A. Villiers; see below) made no significant changes in the description of the general distribution of *Rh. fasciculatum* (Plavilstshikov, 1955; Podaný, 1964; Mamaev and Danilevsky, 1975; Lobanov et al., 1981; Danilevsky and Miroshnikov, 1985, etc.). Sama (2002) was the first of the modern authors to exclude Iran from the range of this species, but he made no comments on this decision. In the publication on the fauna of Iran (Sama et al., 2008) it was assumed that *Rh. fasciculatum* could have been mistakenly reported from Iran (including the report of Villiers, 1967) due to confusion with *Rh. pygmaeum* Ganglbauer, 1881 which is indeed distributed in northern Iran.

A report of *Rh. fasciculatum* from northern Iran (Elburz) based on collection material was published by Villiers (1967): “Iran: Kalardacht, au de Chalus, 1200 m, sur des Aubépines en fleurs, mai (Mission franco-iranienne); Sari, Mazanderan, mai (Charif, Institut d’Évine) ... Tariki Rud (Bodemeyer coll.).” The range of *Rh. fasciculatum* was erroneously described in the cited paper as “Talysh, Nord de l’Iran.” Examination of the general collection of MNHN carried out on my request by S.V. Murzin in 2009 has shown that it includes a male and a female with labels: “IRAN, Kalardacht, 12-5-65, 1200 m,” “MUSEUM PARIS Mission Franco-Iranienne 1965,” “*Rhagium pygmaeum* Ganglb. A. Villiers det.” (The labels are of the same design as in Fig. 18). In my opinion, two possible sources of this error can be considered. First, these specimens could have been misidentified by Villiers as *Rh. fasciculatum* and given in his paper under that name. However, considering the wrong distribution range corresponding to that of *Rh. pygmaeum*, it is more likely that Villiers was planning to record *Rh. pygmaeum* (which was not included in his paper!) for Elburz, but instead used the name *Rh. fasciculatum* for an unknown reason. *Rhagium pygmaeum* was recorded for northern Iran in a number of preceding publications, including those cited by Villiers (Pic, 1898, 1900; Aurivillius, 1912; Boppe, 1921; Winkler, 1929; Bodemeyer, 1930; Plavilstshikov, 1915a, 1936, 1955; Davatchi et al., 1959; Podaný, 1964). Villiers’ collection includes only 1 male of *Rh. fasciculatum* labeled “Geok Tapa, Transcaucasia, coll. J. Clermont.”

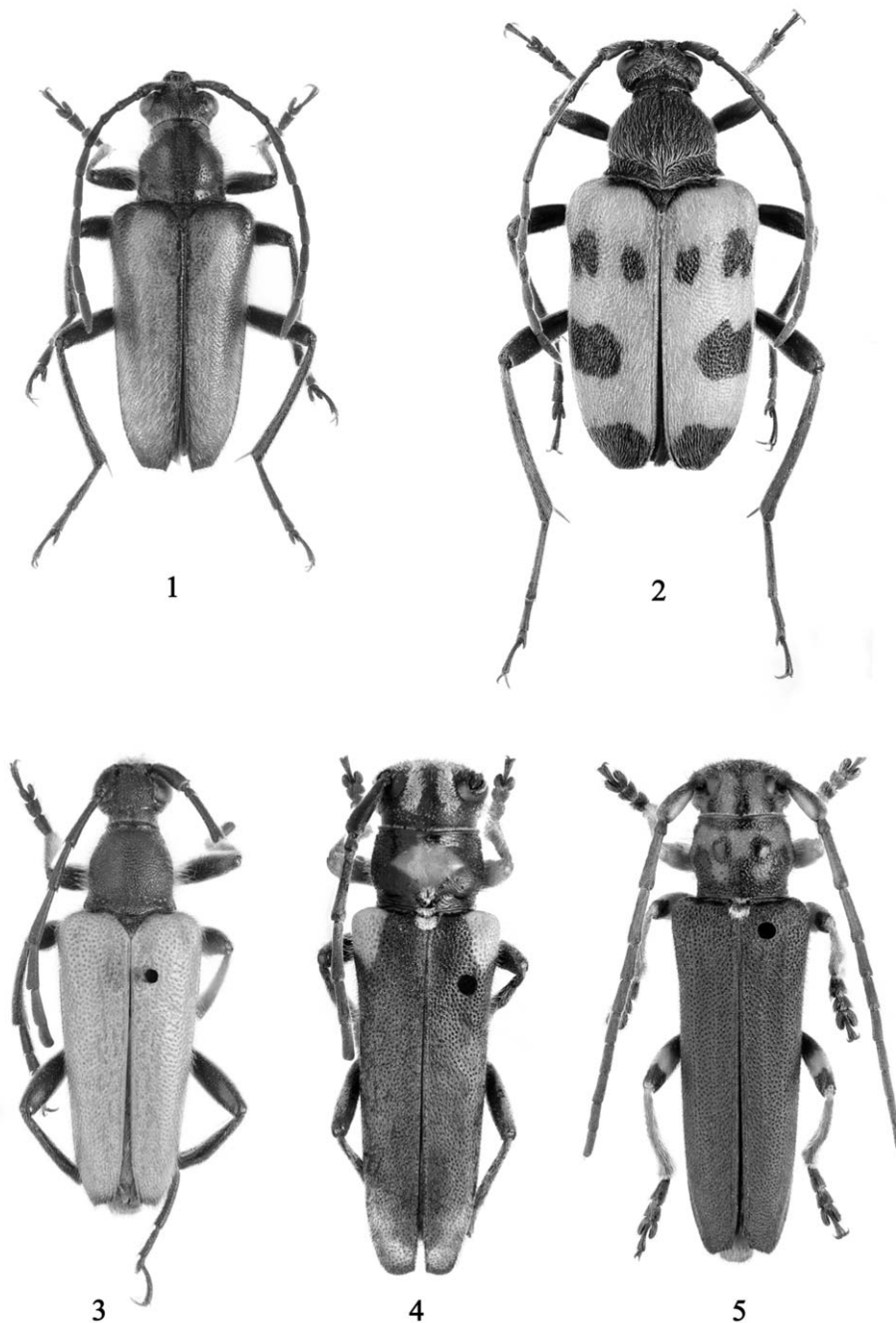
Based on examination of the voluminous material from the Caucasus and analysis of the general trends

of distribution of many longicorn beetle species in this region and adjacent territories, I consider erroneous the records of *Rh. fasciculatum* from the Elburz and Talysh Mts., as well as its records from the entire territory of Armenia (Khnzorian, 1957; Mirzoyan, 1977). According to my data, in Azerbaijan this species inhabits only the northern part, extending southwards to the Yevlakh area, and in Armenia it is distributed as far southwards as Yerevan. In northern Anatolia *Rh. fasciculatum* reaches in the west at least Bolu Province (Özdikmen, 2007).

***Rhagium (Megarhagium) caucasicum caucasicum***  
Reitter, 1889

The records of this taxon from Abkhazia (Milyanovskii, 1953, 1971) have not been confirmed so far. The ecological and biological characteristics of the Abkhazian *Rh. caucasicum caucasicum* given by Milyanovskii (1953) suggest an obvious misidentification: “The most common representative of this genus ... quite numerous in fir forests of the mountain zone. The larva develops under the bark of dead and fallen fir trees.” In the first of the cited publications, Milyanovskii (1953) also mentioned the following details for this taxon: “can be often observed in May ... The larva probably develops in poplars.” It is difficult to say which species was mistaken for *Rh. caucasicum caucasicum*, since the later publication (Milyanovskii, 1971) lists all the species of *Rhagium* (in addition to the taxon in question) which do occur in Abkhazia: *Rh. bifasciatum* F., *Rh. fasciculatum* Fald., and *Rh. inquisitor schtschukini* Sem. All the 3 species are quite common in the fir forests of Abkhazia; the larvae of the last 2 species develop under the bark, and those of the first species, in the wood. On the contrary, as far as we know, the development of *Rh. caucasicum caucasicum* is associated exclusively with broadleaf trees; some researchers have noted that these beetles are not very common (Khnzorian, 1953; M.Yu. Kalashyan, pers. comm.). The record of *Rh. caucasicum caucasicum* as a species quite common in Armenia (Mirzoyan, 1977) appears to be erroneous.

*Rhagium caucasicum caucasicum* was also recorded from Abkhazia by Zaitsev (1954): “Tbilisi, Sukhumi (on poplar, Milyan[ovskii]). Very rare.” The paper by Milyanovskii (1953), cited by Zaitsev, included no records of this taxon from Sukhumi (though this locality was specified for many other species); however, Milyanovskii noted in the preface that “most longicorn



**Figs. 1–5.** Cerambycidae, habitus: (1) *Gnathacmaeops pratensis* (Laich.), male (Teberda, ZMMU); (2) *Pachytodes cerambyciformis* (Schränk), female (Abastumani, ZMMU); (3) *Paracorymbia pallidipennis* (Tourn.), male (*P. "tonsa,"* Novorossiisk, ZMMU); (4) *Phytoecia pontica* Ganglb., male ("Caucasus," HNHM); (5) *Phytoecia wachanrui* Muls., male (*Ph. "faldermanni,"* "Daghestan," ZMHB).

beetles were collected in the lower parts of Sukhumi and Gulripsh districts, within 15 km of the coast." In all likelihood, Zaitsev did not actually examine the specimens collected by Milyanovskii. At the same time, his record of *Rh. caucasicum caucasicum* from Tbilisi appears to be reliable, this being the northernmost locality of the taxon. All the other Caucasian re-

cords of *Rh. caucasicum caucasicum* known to me are those from Armenia (Vanadzor, Dilijan, Lichk, Khosrov Reserve, Artsvanik, Kajaran, and Meghri) and the Nakhchivan Autonomous Republic (Bichenek, Ordubad). In the original description, Reitter (1889) listed this taxon for "the Central Caucasus," but the material on which this record is based remains unknown.

***Gnathacmaeops pratensis*** (Laicharting, 1784)  
(Fig. 1)

Some modern researchers (for example, Sama, 2002) consider the data of Plavilstshikov (1936) concerning the presence of this species in the Caucasus to be erroneous. Sama (2002) claimed that the Caucasian records of the species were not confirmed by Lobanov and co-authors (Lobanov et al., 1981, erroneously cited as 1985 by Sama), though in fact these researchers did include the Caucasus into the range of *G. pratensis*.

Before the cited publication of Plavilstshikov (1936), this species was reported from the Transcaucasia by Tournier (1872: "Persath"), Schneider and Leder (1879: "Zalka," as *Acmaeops smaragdula* Fabr.), König (1899: "Borshom, Lomis-Mta"), Pic (1914a: "Ratcha dans le Caucase (ex coll. Tournier)"), and Plavilstshikov himself (1930: "Transkaukasien: Grusia, Borzhom, 31.V.1913 (Kozlovsky!), Tsagveri (Mus. Cauc.!)"). *G. pratensis* was also listed for Georgia (Bakuriani, Borjomi, Tsagveri, Lomis Mta, and Tsalka) by Zaitsev (1954), and for northern Armenia, including Sevan City, by Plavilstshikov (1948). In the North Caucasus the species was recorded in the Makhar locality of Karachay-Cherkessia (Kasatkin and Arzanov, 1997).

In addition to the published data, the following material from the Caucasus is known to me. "Caucasus, Thana-Thal, E. König," 1 ♂, 1 ♀ (ZIN); "Borshom, 3 Juli 1895," "coll. of G. Silvers," 1 ♀ (ZIN); "Borshom, 28 Juni 1896," "coll. of G. Silvers," 1 ♂ (ZIN); "near Borzhom, 29.VII.[1]911, Mlokozevich," 1 ♀ (ZIN); Karachay-Cherkessia: Daut Canyon, 21.VI.1998 (D.G. Kasatkin), 1 ♂ (DK); the Uzunkol River canyon, 10–11.VII.1999 (D.G. Kasatkin, M.V. Nabozhenko), 1 ♀ (DK). I have also examined the specimen from Kozlovsky's collection mentioned above (ZMMU) and a male (Fig. 1) from the environs of Teberda (near Kel-Bashi Mt., 11.VIII.1939, D. Romashov) (ZMMU).

***Anoplodera (Anoplodera) sexguttata***  
(Fabricius, 1775)

The distribution of *A. sexguttata* in the Caucasus is still unknown. Plavilstshikov did not specify the Caucasus as part of this species' range but described it as "in the European part of the USSR, from the Black Sea to Leningrad and Perm ..." (Plavilstshikov, 1936), or as "the south [of the European part of the USSR]"

(Plavilstshikov, 1965). Although Danilevsky and Mirosnikov (1985) recorded *A. sexguttata* for the North Caucasus, the only locality was specified by Arzanov and co-authors (1993): Krasnodar Territory, Dolzhan-skaya. I have examined 2 females from ZMMU with labels "Caucasus, Teberda, 11.VI.[1]912," "ex coll. A. Menshikov," "*L. 6-guttata* F. a. *exclamationis* F., N. Plavilstshikov det." (The latter label was written by Plavilstshikov himself!). It is hard to explain why these specimens were not mentioned in any of Plavilstshikov's publications.

***Paracorymbia (Paracorymbia) pallidipennis***  
(Tournier, 1872) (Figs. 3, 16)

The taxonomy of this species and the very close *P. tonsa* K. Dan. et J. Dan. is obscure, whereas the status of the latter form appears to be doubtful. In the northwestern part of its range, the records of *P. pallidipennis* were previously restricted to the southeast of Krasnodar Territory and southern part of Adygeya. A considerably remote locality of the species in the Markotkh Range near Novorossiisk was reported by Bogdanov-Kat'kov (1917, as *Leptura tonsa*). I found the specimen (Fig. 3) from Novorossiisk (Fig. 16) in the collections of ZMMU. *Paracorymbia pallidipennis* may be distributed over the entire Black Sea coast of Russia.

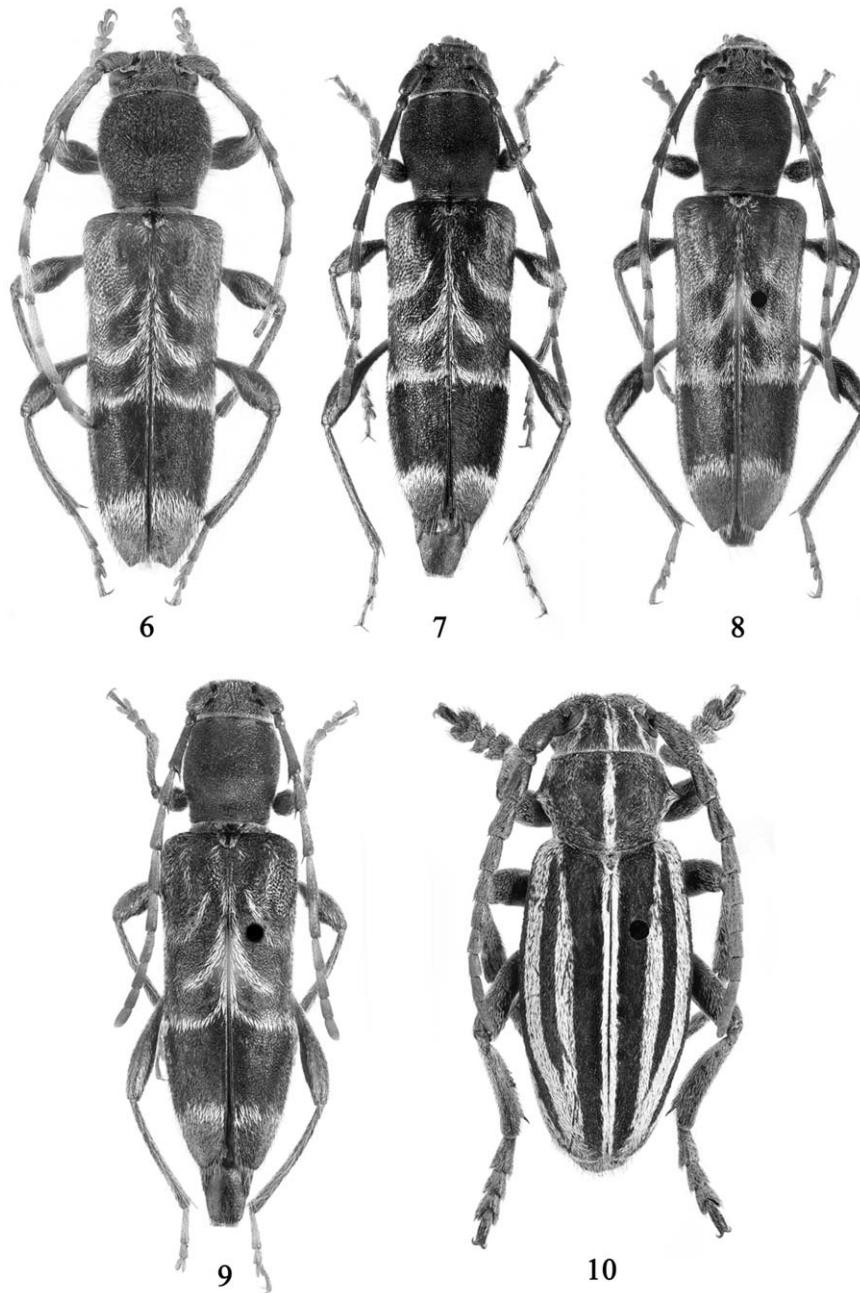
**Material.** "West-Caucas. Novorossiisk, E. Koenig," "Mus. Cauc. № 80–14 coll. E. König," "*Leptura tonsa*," 1 ♂ (ZMMU).

***Stictoleptura cordigera*** (Fuessly, 1775)

In the *Fauna of the USSR*, Plavilstshikov (1936) noted that *S. cordigera* occurred "over the entire Caucasus." According to the available material and reliable published data, the species is distributed almost exclusively in the Transcaucasia, reaching Derbent in the east and the Borjomi region in the northwest. It should also be noted that Plavilstshikov (1965) did not include *S. cordigera* in his *Keys to Insects of the European Part of the USSR*. The record of this species from Ubinskoe forestry in Krasnodar Territory (Nikit-skii et al., 2008) needs to be confirmed. It is essential that according to Zagaikevich (1991), *S. cordigera* is absent in the Crimea.

***Pedostrangalia (Pedostrangalia) tokatensis*** Sama,  
1996

Plavilstshikov (1916) published the first record of *P. revestita* (L.) from the Caucasus: "*Strangalia*

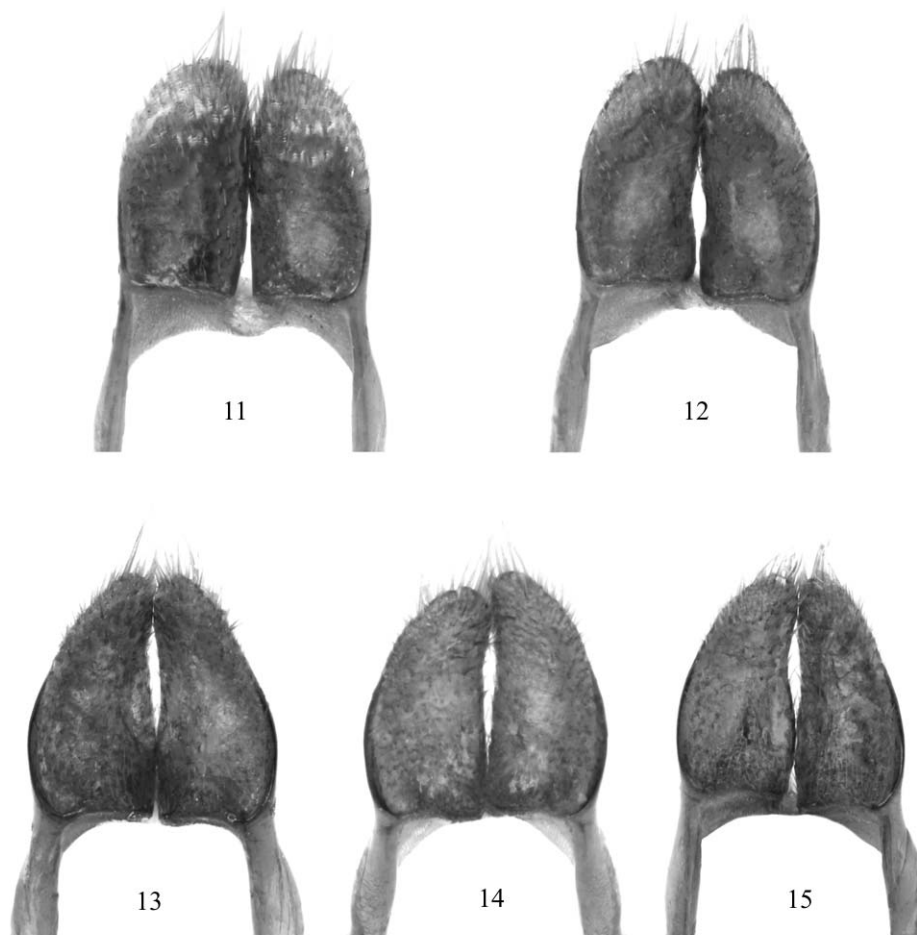


**Figs. 6–10.** Cerambycidae, habitus: (6) *Anaglyptus ganglbaueri* Reitt., male (*A. "arabicus,"* Iran, Elburz, MNHN); (7–9) *A. ganglbaueri*, female; (10) *Dorcadion elegans* Kr., male (Maikop, ZMMU).

(*Sphenalia*) *revestita* L. ab. *rubra* Geoff.—Borjomi (25.V.1911, Vinogradov-Nikitin).” The validity of this record raises no doubts since reliable material from Borjomi collected by P.Z. Vinogradov-Nikitin is preserved at ZMMU and other institutions. A later paper by Plavilstshikov (1930) contained the same data on *P. revestita*. In the *Fauna of the USSR* he also listed this species for the environs of Batumi but did not specify any additional material. The specimen mentioned by Plavilstshikov was not found at ZMMU in

spite of repeated attempts; it may be kept in the collections of the State Museum of Georgia in Tbilisi.

According to the recent data, *P. revestita* is distributed only in Europe, reaching as far eastwards as Poland and Odessa Province of Ukraine, and extending to the southeast only in the European part of Turkey; the species is absent in Asia Minor. A very close species, *P. tokatensis*, was described by Sama (1996) from the environs of Tokat in Anatolia. The records of



**Figs. 11–15.** *Dorcadion* Dalm., parameres: (11) *D. elegans* Kr. (Maikop); (12) same (Budennovsk); (13) *D. ciscaucasicum* Jak. (lower course of the Kuma River); (14) same (Taman); (15) same (Kerch).

*P. revestita* from the Caucasus (at least from Borjomi) most probably refer to *P. tokatensis*.

***Pedostrangalia (Neosphenalia) emmipoda***  
(Mulsant, 1863)

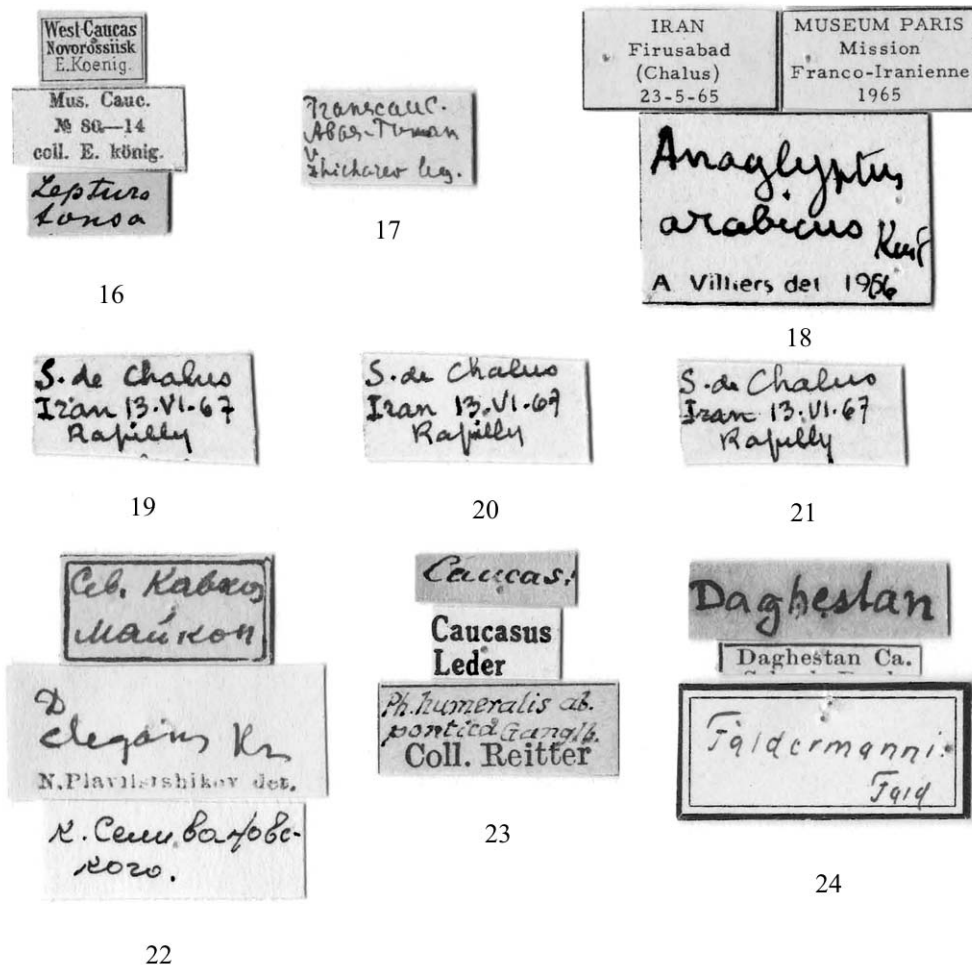
This species was recorded in several localities in the Caucasus: Mingrelia (Tournier, 1872); the Sevan Mt. area (Schneider and Leder, 1879); Batumi (Plavilstshikov, 1936); Gagri (Zaitsev, 1954), but I have not examined any material from this region.

Sama (1996) described the species *P. kurda*, close to *P. emmipoda*, from eastern Anatolia (Pülümür, Tunceli, Bitlis, Bingöl) and northeastern Iraq. Some researchers (Tozlu et al., 2002) also listed this species for Sylvan (Diyarbakir Province, Turkey) and suggested that the published records of *P. emmipoda* from eastern Anatolia might actually refer to *P. kurda*. I support this opinion. The records of *P. emmipoda*

from Sevan and Batumi are also likely to refer to *P. kurda*. In my opinion, the findings in Mingrelia and Gagri cannot be considered completely reliable either.

***Pachytodes cerambyciformis*** (Schrank, 1781)  
(Figs. 2, 17)

As already noted (Miroshnikov, 2009), in the Caucasus this species is known only from Abastumani (Georgia), based on the only record by Plavilstshikov (1925: “Transcaucasie: Abas-Tuman, V (Zhicharev! coll. mea)”). After repeated unsuccessful attempts to find this material in ZMMU, in 2010 I finally discovered one female (Fig. 2) with the label cited by Plavilstshikov (Fig. 17). One more specimen of *P. cerambyciformis* from the Caucasus (“Caucasus, Teberda?,” 1 ♂) was found in the collections of ZIN. Thus, the species is likely to occur in the North Caucasus as well.



**Figs. 16–24.** Labels of specimens of Cerambycidae: (16) *Paracorymbia pallidipennis* (Tourn.) (*P. "tonsa"*); (17) *Pachytodes cerambyci-formis* (Schränk); (18) *Anaglyptus ganglbaueri* Reitt. (*A. "arabicus"*); (19) same; (20) same; (21) same; (22) *Dorcadion elegans* Kr.; (23) *Phytoecia pontica* Ganglb.; (24) *Phytoecia wachanrui* Muls. (*Ph. "faldermanni"*).

***Stenurella septempunctata suturata***  
(Reiche et Saulcy, 1858)

In the *Fauna of the USSR*, Plavilstshikov (1936) mentioned "the Crimea, the Caucasus (rare)" as part of the distribution range of this taxon; the same data (without the indication of rarity) were repeated in the *Keys to Insects of the European Part of the USSR* (Plavilstshikov, 1965). Examination of the material and analysis of the published data have shown that this taxon is distributed only in the Transcaucasia (Georgia, north Armenia). The report of *S. septempunctata* being found in Ubinskoe Forestry of Krasnodar Territory (Nikitskii et al., 2008) is certainly erroneous; the record of this species from the Caucasian Reserve (cited as my personal communication, apparently to one N.B. Niitskii's co-authors) is based on some misunderstanding, for I have no such information. The presence of *S. septempunctata* in the Crimean Penin-

sula remains unconfirmed, as was already noted by some authors, in particular Zagaikovich (1991).

***Purpuricenus (Purpuricenus) budensis***  
(Goetz, 1783)

The distribution of this species in the Caucasus is well studied only in its eastern part. The scarce reports of *P. budensis* being found in the Northwest Caucasus appear doubtful. In particular, the record from Novorossiisk (Plavilstshikov, 1931a) most probably refers to *P. caucasicus* T. Pic; the relevant material was not found in ZMMU, it may be kept in the State Museum of Georgia in Tbilisi.

***Obrium cantharinum* (Linnaeus, 1767)**

This species is widespread in the Palaearctic and quite common in many regions. There are few records

from the Caucasus; *O. cantharinum* appears to be scarce as compared to another Caucasian species of this genus, *O. brunneum* (F.) which is very abundant in some places. The following localities of this species were described in the literature (Plavilstshikov, 1927, 1930, 1931a; Dobrovolsky, 1951; Zaitsev, 1954): Borjomi, Sarydzha tract (near the northwest shore of the Mingachevir Reservoir), Agdash (=Aresh), Bum (Gabala District, Azerbaijan), Gagri, and Naurskaya.

Examination of the additional material has shown that *O. cantharinum* is widely distributed in the Caucasus, from the environs of Krasnodar and Stavropol in the northwest to the Caspian Sea coast of Daghestan in the east; in the south its range covers North Azerbaijan and, according to some data (Plavilstshikov, 1948; Mirzoyan, 1977), also the northern districts of Armenia and possibly the Ararat Depression.

**Material.** Krasnodar, near Elizavetinskaya, 20.VI.1979, light trap (A.I. Miroshnikov), 1 ♂ (AM); Krasnodar, 25.07 (collector and year unknown; probably collected by L.A. Anufriev in 1973–1975), “*Obrium cantharinum* (L.) L. Anufriev det.,” 1 ♂ (Krasnodar plant protection station); “Caucas. occ., Majkop, 29.V.[19]29,” “*Obrium cantharinum* (L.) A. Bogačev det.,” 1 ♂ (ZMMU); “Stavropol, 16.VII.[19]66, A. Bogačev,” “*Obrium cantharinum* (L.) A. Bogačev det.,” 1 ♀ (ZMMU); Daghestan, Magaramkent District, near Samur, 15.VII.1991 (A.E. Brinev), 1 ♀ (MSPU); “Kaukasus, Kr. Aresch, 9.VI.[19]02, E. Koenig,” “*Obrium cantharinum* (L.) N. Plavilstshikov det.,” 1 ♂ (ZMMU); “Geok-Tapa, Caucasus, A. Schelkownikow,” “*Obrium cantharinum* (L.) N. Plavilstshikov det.,” 1 ♂, 2 ♀ (ZMMU); “Aresch, Caucasus, A. Schelkownikow,” 1 ♀ (ZMMU).

### *Deilus fugax* (Olivier, 1790)

The presence of this species in the Caucasus was first suggested by Plavilstshikov (1931a), but in his subsequent works (in particular, Plavilstshikov, 1932, 1940, 1948, 1955, 1965) he did not mention *D. fugax* from the Caucasus. Miroshnikov (2007) published old material of this species from Borjomi (ZIN, Christof coll.). In 2009 I found in the ZIN collections one more specimen of *D. fugax* with the following labels: “Deliskhan, 24/V” (= Dilijan), “coll. of REO [Russian Entomol. Society] (Elena Pavl.),” “*Deilus*.” Thus, the distribution of this species in the Caucasus has been confirmed by the collection material.

### *Callimus (Callimus) angulatus* (Schränk, 1789)

This species was first listed for the Caucasus by Leder (1886) based on material from Lerik (the Talysh Mts.). König (1899) also reported this locality. Based on the two above publications, Plavilstshikov (1931a) suggested a wider distribution of the species in the Caucasus. In the *Fauna of the USSR* (Plavilstshikov, 1940) he noted that *C. angulatus* had been found only in the Transcaucasia, as far eastwards as the Talysh, whereas in the review of the Armenian fauna (Plavilstshikov, 1948) he listed this species for “the Aras valley.” Zaitsev (1954) listed *C. angulatus* for the environs of Tbilisi based on the record of Schneider and Leder (1879: “*Callimus ruficollis* Friv.—Keroglu”).

In my opinion, since all the numerous known Caucasian specimens of *C. angulatus* were collected in the Talysh Mountains, the presence of this species in the Caucasus outside this region still needs to be confirmed.

### *Brachypteroma ottomanum* Heyden, 1863

The localities of this species in the Caucasus were given in only two old publications: Schneider and Leder (1879: “Elisabetthal”) and Leder (1886: “Lyrik”). Based on the above works, Plavilstshikov (1931a, 1940) erroneously recorded *B. ottomanum* from Elizavetpol which he confused with Elisabetthal (now Asureti in Georgia). In his *Keys to Longicorn Beetles of Armenia*, Plavilstshikov (1948) also mentioned the presence of *B. ottomanum* in “the Aras valley.”

*Brachypteroma ottomanum* is distributed only in the extreme west of Anatolia; if a representative of the genus *Brachypteroma* Heyd. is indeed present in the Caucasus, this is most likely to be *B. holtzi* Pic, a species close to *B. ottomanum* and known so far from southern Anatolia, Syria, and Lebanon. The record of *B. ottomanum* from Namrun in Mersin Province of Turkey (Demelt, 1963) is clearly erroneous and evidently refers to *B. holtzi*. My collection includes 4 specimens of the latter species from Namrun, obtained from Dr. C. Holzschuh (Villach).

### *Leioderes kollari* L. Redtenbacher, 1849

According to some authors, in particular, Sama (2002), this species is distributed only in Europe, whereas the old records from Syria and Asia Minor refer to *L. tuerki* Ganglb. In my opinion, the only record of *L. kollari* from the Caucasus (near Tbilisi:



Eichler, 1930) should also be regarded as that of *L. tuerki*; in general, the presence of any member of the genus *Leioderes* Redt. in the Caucasus needs to be reliably confirmed.

***Phymatodes (Phymatoderus) glabratus***  
(Charpentier, 1825)

In his paper on the longicorn beetles of the Caucasus, Plavilstshikov (1931a) suggested that this species might be present in the region, most probably in the West Ciscaucasia. A year later, Plavilstshikov (1932) listed *Ph. glabratus* for the south of the European part of the USSR and the Caucasus. In his subsequent publications the species was listed for the Crimea and the Northwest (Plavilstshikov, 1936, 1955) or West Caucasus (Plavilstshikov, 1965).

The record of this species from Pyatigorsk (Kasatkin and Arzanov, 1995) was based on misidentification of a single female of *Ph. pusillus* (D.G. Kasatkin, pers. comm.); the error was corrected in the subsequent publications of the same authors (Kasatkin and Arzanov, 1997; Kasatkin, 1999). Thus, in the absence of reliable data on the distribution of *Ph. glabratus* in the Caucasus, the species should be excluded from the faunistic list of this region for the time being. The findings of *Ph. glabratus* in the Crimea remain unconfirmed; according to Zagaikevich (1991), this species is absent there as well.

***Phymatodes (Phymatoderus) lividus*** (Rossi, 1794)

This species was recorded from the Caucasus for the first time by Plavilstshikov (1915b): "Burgun-Madzhary, 7.V.1890 (Prave)" (now Burgun-Madzhary, Levokumskii District of Stavropol Territory). In a later publication, Plavilstshikov (1931a) cited his early work but designated Stavropol, rather than Burgun-Madzhary, as the locality of *Ph. lividus*. In the subsequent monographs (Plavilstshikov, 1940, 1948, 1955) this species was already listed for the Caucasus and Transcaucasia; in the first two works it was characterized as rare in the Transcaucasia.

The actual distribution of *Ph. lividus* in the Caucasus remains completely unknown. I am unaware of any material or published record of this species from the Caucasus, other than that from Burgun-Madzhary.

***Phymatodes (Phymatoderus) puncticollis***  
Mulsant, 1862

Plavilstshikov (1931a) was the first to suggest that this species might be present in the Caucasus. In the

*Fauna of the USSR* (Plavilstshikov, 1940) and subsequent works (Plavilstshikov, 1955, 1965) the species was listed only for the Ciscaucasia. I could not find any material from the Caucasus in the ZMMU and ZIN collections. A single specimen of *Ph. puncticollis* found in Adygeya was reported by Arzanov and co-authors (1993): "Maikop, 4 V 1926." Correct identification of this material was confirmed by D.G. Kasatkin (pers. comm.). I have examined 2 more specimens from the same locality: "Maikop, 15.V.[1]938," "coll. of Selivanovskij," "*Phymatodes puncticollis* Muls. Selivanovskij det.," 1 ♀ (ZMMU); "Maikop, Yuzhnye Sady, 15.V.1925, [?] Yastrova Sev.-Kav. Kraistazra [North Caucasus regional plant protection station]" (the initial and last name are hardly legible; may be different), "on vine," 1 ♀ (AM). I do not know of any other records of *Ph. puncticollis* from the Caucasus.

***Paraclytus sexguttatus*** (Adams, 1817)

Analysis of the material and published data on the distribution of this species in the Caucasus and Turkey showed the indications of its presence in northern Iran to be erroneous. To the best of my knowledge, no specific localities (even erroneous ones) of *P. sexguttatus* in this region have been reported. In the papers devoted to the longicorn beetles of Iran, Villiers (1967) cited the record of *P. sexguttatus* from northern Iran published by Plavilstshikov (1940), whereas Sama and co-authors (2008) did not mention this species at all.

According to my data, the southernmost Caucasian localities of *P. sexguttatus* lie in the Aragats Mt. area in Armenia and near Ganja and Yevlakh in Azerbaijan. In the northwest the species extends at least as far as Krestovaya Mt. near Gelendzhik (the author's collections).

***Anaglyptus (Anaglyptus) arabicus***  
(Küster, 1847)

In my opinion, the general records of this species from northern Iran (in any event, from Elburz) are erroneous, whereas the reported localities in Elburz (Villiers, 1967, 1971) result from misidentification. My examination of the specimens mentioned by Villiers (MNHN; Figs. 6–9, 18–21) has shown that they belong to *A. ganglbaueri* Reitt.

Judging by the material examined, the southernmost Caucasian localities of *A. arabicus* lie in the environs of Geghard near Yerevan and in the Yevlakh area (Mi-

roshnikov, 2000). The record from “Zangezur” (Mirzoyan, 1977) needs to be confirmed.

**Material.** “IRAN, Firusabad (Chalus), 23-5-65,” “MUSEUM PARIS Mission Franco-Iranienne 1965,” “*Anaglyptus arabicus* Kust. A. Villiers det. 1966,” 1 ♂ (MNHN); “S. de Chalus, Iran, 13.VI.69, Rapilly,” 3 ♀ (MNHN). All the specimens are supplemented with labels “*Anaglyptus ganglbaueri* Reitter A. Miroshnikov det. 2010.”

***Isotomus comptus* (Mannerheim in Hummel, 1825)**

This species is distributed over almost the entire Caucasus. Tozlu and co-authors (2005) listed *I. comptus* for northeastern Azerbaijan (Zeiva, Shabran District) and recorded it as a new species for the fauna of Azerbaijan. In fact, however, *I. comptus* was long ago reported from the Talysh Mountains (where it is quite common, judging by the abundant material available) and other regions of Azerbaijan in the following publications: Ménétriés, 1832 (“Lenkoran et sur l’île Sara,” as *Clytus comptus*); Leder, 1886 (“Lyrik,” as *Clytus comptus*); König, 1899 (“Lenkoran,” as *Clytanthus comptus*); Plavilstshikov, 1931a (Lenkoran); Danilevsky and Miroshnikov, 1981 (Avrora); Danilevsky, 1988 (Avrora; Nabran).

Tozlu and co-authors (2005) listed 25 species of longicorn beetles for northeastern Azerbaijan, of which *Cortodera flavimana* (Waltl), *Pedostrangalia verticenigra* (Pic), and *Chlorophorus hircanus* Pic were erroneously recorded. The range of *C. flavimana* is limited to the southeastern part of Western Europe and Anatolia, that of *P. verticenigra* covers northeastern Anatolia and possibly the adjacent territories of Georgia and Armenia, whereas *Ch. hircanus* has been known so far only from Elburz; the latter species may be found only in the Talysh Mountains.

***Xylotrechus (Rusticoclytus) pantherinus***  
(Savenius in Hummel, 1825)

Only 2 localities of this species have been known in the Caucasus until now: the environs of Akhty in southern Dagestan (Semenov, 1899) and the environs of Ubinskaya in Krasnodar Territory (coll. of M.L. Danilevsky). I have examined a specimen labeled “Teberda, 11.VI.1956, Milyanovskii” from the collection of Ing. J. Voříšek (Jirkov, Czechia). Thus, *X. pantherinus* appears to be widely distributed in the mountain forests of the North Caucasus.

***Dorcadion (Cribridorcadion) elegans* Kraatz, 1873**  
(Figs. 10–12, 22)

Plavilstshikov (1958) considered *D. elegans* to be “one of the typical species in the steppes of the Lower Volga Basin and the southeastern Trans-Volga region, as well as of the eastern Ciscaucasia.” In the available collections, including those of ZIN and ZMMU, the Caucasian material of the species was limited to specimens from Stavropol Territory; I examined material from the following localities: Temnolesskaya (Shpakov District), Kevsala (Ipatov District), Manyshkoe (= Kistinskoe), Divnoe, Raguli (Apanasenkov District), Sharakhalsun (Turkmenskoe District), and Budennovsk (= Prikumsk; Budennovsk District). In addition, I recently discovered 2 male specimens from the environs of Maikop, considerably emending the known distribution of *D. elegans* in the North Caucasus. The specimens have identical labels (Fig. 22); they were identified by Plavilstshikov, apparently after the description of the species’ range was published. Since a very closely related species, *D. ciscaucasicum* Jak., is very likely to occur in the environs of Maikop, I have checked identification of *D. elegans* males using not only the characters of the integument but also genital morphology; the two species in question differ well in the shape of the parameres (Fig. 11–15).

**Material.** “North Caucasus, Maikop,” “*D. elegans* Kr. N. Plavilstshikov det.,” 1 ♂ (ZIN); “North Caucasus, Maikop,” “coll. of Selivanovski,” “*D. elegans* Kr. N. Plavilstshikov det.,” 1 ♂ (ZMMU).

***Dorcadion (Cribridorcadion) equestre***  
(Laxmann, 1770)

This species was recorded from the Caucasus for the first time by Bogdanov-Kat’kov (1917) in his review of longicorn beetles of the former Kuban Province: “Novotitarovskaya, spring 1912.” Dobrovolsky (1951) evidently referred to the same record: “Found ... in Krasnodar Territory (Novo-Titarovskaya);” the preceding publication was not cited in the text but included in the list of references. Zaitsev (1954) listed *D. equestre* for Abkhazia (“Gagra, VII, one spec.”) and noted: “The record of *D. equestre* Poda [sic!] from Tsalka by Schneider and Leder [1879] is unlikely.” However, *D. equestre* was not mentioned at all in the work cited by Zaitsev; among the species considered by Schneider and Leder (1879), only *D. pedestre* (Poda von Neuhaus, 1761) was listed for Tsalka, which Plavilstshikov (1958) regarded as a gross error.

In his *Fauna of the USSR* volume, the Caucasian range of *D. equestre* was described as follows: “in the European part [of the USSR] distributed ... as far southwards as the northern boundaries of North Caucasian steppes; ... on the Black Sea coast of the Caucasus, found in Gagri (F.A. Zaitsev). Records from the Transcaucasia by the foreign authors need to be confirmed (in any event, the species is very rare in the region)” (Plavilstshikov, 1958). Breuning (1958, 1962) did not mention the Caucasus in his description of the range of *D. equestre*, which was on the whole very incomplete; in particular, he omitted a considerable territory of the European part of the USSR described by Plavilstshikov (1958) and other researchers.

I found one female in the ZIN collection with labels “Caucasus,” “Caucasus, coll. of E. Fisher.” Despite the abundant material of *D. equestre* in different collections, often including large series from different localities, I could not find other specimens from the Caucasus. Therefore the records from the environs of Krasnodar (Novotitarovskaya) and from Gagri need to be reliably confirmed.

***Phytoecia (Helladia) pontica* Ganglbauer, 1884**  
(Figs. 4, 23)

In the original description, the place of collection was designated as “Pontus, Caucasus.” The following records were cited in the subsequent works of some old authors: “Turquie d’Asie, Caucasus” (Pic, 1903), “Anatolie, Arménie” (Pic, 1914b; as *Ph. humeralis* var. *pontica*), “Pontus, Kaukasus” (Aurivillius, 1923; as *Ph. humeralis* var. *pontica*), “Asia Minor, Caucasus” (Winkler, 1929; as *Ph. humeralis* ab. *pontica*). As far as I know, there are no other publications, including those of Plavilstshikov, listing *Ph. pontica* for the Caucasus. It should also be noted that data on distribution of this species in Asia Minor are very scarce. I have examined no material from this region; the only published record is based on an old finding in Kastamonu (Breuning, 1951: “Kastamuni (Heyden)”). Many researchers (Villiers, 1959; Demelt, 1963, 1967; Breuning and Villiers, 1967; Fuchs and Breuning, 1971; Gfeller, 1972; Holzschuh, 1980; Sama, 1982, 1996; Adlbauer, 1988, 1992; Rejzek et al., 2001; Rejzek and Hoscovec, 1999; Rejzek et al., 2003; Tozlu et al., 2003; Özdikmen, 2006, 2007, 2008a, 2008b, 2011; Özdikmen and Okutaner, 2006; Özdikmen et al., 2009; Özdikmen and Turgut, 2010, etc.) who studied vast collections from Anatolia in different years did not

mention this species. Numerous localities of *Ph. pontica* are known only in more southern regions, mostly in Israel (Heyrovský, 1948, 1954, 1963; Breuning, 1951; Bytinski-Salz, 1956; Rejzek et al., 2001; Sama et al., 2010, etc.).

I have examined a specimen of *Ph. pontica* (Figs. 4, 23) located by D.G. Kasatkin at HNHM in 2009. It is possible that this specimen was used by Ganglbauer (1884) for description of *Ph. pontica*, in which case it represents a syntype. The labeling data suggest that this species occurs in the territories of Asia Minor adjoining the Caucasus and possibly also in the Transcaucasia. The data of Pic (1914b) concerning the presence of *Ph. pontica* in “Armenia” most probably refer to Turkish (Western) Armenia.

***Phytoecia (Musaria) wachanrui* Mulsant, 1851**  
(Figs. 5, 24)

A male of *Phytoecia* (Fig. 5) with labels “Daghestan,” “Daghestan Ca.,” “*faldermanni* Fald.” (Fig. 24) was recently found in ZMHB by D.G. Kasatkin. I have examined this specimen and preliminarily identified it as *Ph. wachanrui*.

*Phytoecia wachanrui* was not reported from the Caucasus. According to the recent data (Sama et al., 2010), the species is distributed in southeastern Turkey, Syria, Lebanon, Jordan, and Israel; however, according to some authors (Özdikmen and Turgut, 2007; Özdikmen, 2008a, 2011) it was also found in Antalya Province of Turkey, whereas the findings in the north of Central Anatolia were confirmed by personal communications of my colleagues. Although the known northeast distribution boundaries of *Ph. wachanrui* (Kahramanmaraş and Gaziantep provinces in Turkey) run far from Daghestan, the presence of this species in the south of Daghestan cannot be excluded.

***Phytoecia (Phytoecia) pubescens* Pic, 1895**

The Caucasian range of this species covers only the eastern part of the region; there are few known localities, nearly all of them being limited to the Transcaucasia. The only record of *Ph. pubescens* from the North Caucasus was published by Kasatkin (1999): “Daghestan, Sulak, 10.VI.1954, 1 ♂.” My collection includes a specimen of this species also collected in Daghestan but in a more southern area.

**Material.** Daghestan, Untsukul District, near Kudutl, VI.2001 (coll. unknown), 1 ♂ (AM).

## ACKNOWLEDGMENTS

The author expresses his sincere gratitude to A.A. Gusakov (ZMMU), A.L. Lobanov (ZIN), and K.V. Makarov (MSPU) for the provided possibility to work with the collections of their institutions, to Dr. T. Deuve (MNHN), Dr. O. Merkl (HNHM), and Dr. J. Frisch (ZMHB) for the material provided, to D.G. Kasatkin (Rostov-on-Don) and S.V. Murzin (Moscow) for their help with locating some specimens in the foreign museums, and to all the colleagues who helped with this research in different ways.

## REFERENCES

1. Adlbauer, K., "Neues zur Taxonomie und Faunistik der Bockkäferfauna der Türkei (Coleoptera, Cerambycidae)," *Entomofauna* **9** (12), 257–297 (1988).
2. Adlbauer, K., "Zur Faunistik und Taxonomie der Bockkäferfauna der Türkei. 2 (Coleoptera, Cerambycidae)," *Entomofauna* **13** (30), 485–509 (1992).
3. Arzanov, Yu.G., Kasatkin, D.G., Fomichev, A.I., Khachikov, E.A., *Materials on the Fauna of Beetles (Coleoptera) of the North Caucasus and the Lower Don Basin. IV. Longicorn Beetles. Part 1* (Rostov. Gos. Univ., Rostov-on-Don, 1993), pp. 1–18. Deposited at VINITI 21.IV.93, No. 1042-B93 [in Russian].
4. Aurivillius, C., "Cerambycidae: Cerambycinae," in *Coleopterorum Catalogus. Pars 39*, Ed. by S. Schenkling (W. Junk, Berlin, 1912), pp. 1–574.
5. Aurivillius, C., "Cerambycidae: Lamiinae 2," in *Coleopterorum Catalogus. Pars 74*, Ed. by S. Schenkling (W. Junk, Berlin, 1923), pp. 323–704.
6. Bodemeyer, B., *Ueber meine Entomologischen Reisen nach Kleinasien (1911), Ost-Sibirien, Schilka und Amur (1912), Tunis, Oasis Gafsa, Khroumerie (1913) und Iran, das Elbursgebirge (1914). Bd 4. Iran, das Elbursgebirge* (Alfred Kernen, Stuttgart, 1930).
7. Bogdanov-Kat'kov, N.N., "On the Fauna of Longicorn Beetles of Kuban Province," *Izv. Kavkaz. Muzeya* **11** (1–2), 3–52 (1917).
8. Boppe, P., "Coleoptera Longicornia. Fam. Cerambycidae. Subfam. Disteniinae–Lepturinae," in *Genera Insectorum, Issue 178*, Ed. by P. Wytsman (Louis Desmet-Verteneuil, Bruxelles, 1921), pp. 1–121.
9. Breuning, S., "Revision genre *Phytoecia* Muls. (Col. Cerambycidae)," *Entomol. Arb. Mus. Frey* **2** (1), 1–103; **2** (2), 353–460 (1951).
10. Breuning, S., *Catalogue des Lamiaires du Monde (Col. Céramb.). Lief. 1* (Museums G. Frey, Tutzing bei München, 1958).
11. Breuning, S., "Revision der Dorcadionini (Coleoptera, Cerambycidae)," *Entomol. Abh. Mus. Tierk.* **27**, 1–665 (1962).
12. Breuning, S. and Villiers, A., "Cérambycides de Turquie (2<sup>e</sup> note)," *L'Entomologiste* **23** (3), 59–63 (1967).
13. Bytinski-Salz, H., "The Cerambycidae of Israel," *Bull. Res. Counc. Israel* **5B**, 207–226 (1956).
14. Clermont, J., "Liste de Coléoptères récoltés en Transcaucasie par M. Louis Mesmin," *Miscellanea Entom.* **17** (1), 1–6 (1909).
15. Danilevsky, M.L., "Subfamily Cerambycinae Latreille, 1804," *Acta Univ. Carolinae—Biologica* **31** (3–4), 129–281 (1988).
16. Danilevsky, M.L. and Miroshnikov, A.I., "New Data on Biology of *Enoploderes sanguineum* Fald. and *Isotomus comptus* Mannh. (Coleoptera, Cerambycidae) with Description of the Larvae," *Biol. Nauki*, No. 9, 50–53 (1981).
17. Danilevsky, M.L. and Miroshnikov, A.I., *Longicorn Beetles (Coleoptera, Cerambycidae) of the Caucasus: a Key* (Krasnodar, 1985) [in Russian].
18. Davatchi, A., Taghi-Zadeh, F., and Safavi, M., "Contribution a l'étude biologique et économique des Coléoptères phytophages et xylophages de l'Iran (première note)," *Rev. Path. Vég. Entomol. Agric. Fr.* **38**, 235–252 (1959).
19. Demelt, C. von., "Beitrag zur Kenntnis der Cerambycidenfauna Kleinasien 13. Beitrag zur Biologie palaearkt. Cerambyciden, sowie Beschreibung einer neuen *Obeerea*-Art," *Entomol. Blätt.* **59** (3), 132–151 (1963).
20. Demelt, C. von., "1. Nachtrag zur Kenntnis der Cerambyciden-Fauna Kleinasien," *Entomol. Blätt.* **63** (2), 106–109 (1967).
21. Dobrovolsky, B.V., *Beetles as Pests* (Rostizdat, Rostov-on-Don, 1951) [in Russian].
22. Eichler, W., "Chrząszcze okolic Tyflisu," *Polskie Pismo Entomol.* **9** (3–4), 213–258 (1930).
23. Fuchs, E. and Breuning, S., "Die Cerambycidenausbeute der Anatolienexpeditionen 1966–67 des Naturhistorischen Museums, Wien," *Ann. Naturhist. Mus. Wien* **75**, 435–439 (1971).
24. Ganglbauer, L., "Bestimmungs-Tabellen der europäischen Coleopteren. 8. Cerambycidae," *Verhandl. Zool.-Bot. Ges. Wien* **33**, 437–586 (1884).
25. Gfeller, W., "Cerambycidae (Coleoptera) der Türkei-Persienexpedition 1970 der Herren Dr. h. c. W. Wittmer und U. v. Bothmer," *Mitt. Entom. Ges. Basel N. F.* **22** (1), 1–8 (1972). Jg.
26. Heyrovský, L., "Příspěvek k poznání palestinských tesaříků," *Časopis Čsl. Spol. Entom.* **45** (1–2), 17–22 (1948).
27. Heyrovský, L., "Dritter Beitrag zur Kenntnis Cerambycidenfauna Israels," *Entomol. Arb. Mus. Frey* **5** (1), 394–396 (1954).
28. Heyrovský, L., "Beitrag zur Kenntnis Cerambyciden-Fauna Jordaniens (Coleoptera, Cerambycidae)," *Folia Entomol. Hung.* **16** (15), 257–260 (1963).
29. Holzschuh, C., "Revision einer Cerambycidenausbeute des Naturhistorischen Museums Wien (Coleoptera)," *Ann. Naturhist. Mus. Wien* **83**, 573–574 (1980).

30. Kasatkin, D.G., "On the Knowledge of Longicorn Beetles (Coleoptera, Cerambycidae) of the South of Russia and Adjacent Territory," *Izv. Kharkov. Entomol. O-va* **7** (2), 37–39 (1999).
31. Kasatkin, D.G. and Arzanov, Yu.G., "New Data on the Ranges of Longicorn Beetles in the South of European Russia and the Caucasus," in *Topical Problems of Study and Protection of Aquatic Biocenoses and Adjacent Territories* (Krasnodarskie Izvestiya, Krasnodar, 1995), pp. 171–174 [in Russian].
32. Kasatkin, D.G. and Arzanov, Yu.G., "Longicorn Beetles (Cerambycidae) (Part 2). Materials on the Fauna of Beetles (Coleoptera) of the North Caucasus and the Lower Don Basin," *Izv. Kharkov. Entomol. O-va* **5** (2), 63–70 (1997).
33. Khnzorian, S.M., "Beetles Occurring on Oaks in the Armenian SSR," in *Zool. Sbornik*, No. 10, 59–152 (1957).
34. König, E., "Coleoptera Caucasica," in Radde, G., *Die Sammlungen des Kaukasischen Museums. 1* (Tiflis, 1899), pp. 339–403.
35. Leder, H., "Beitrag zur kaukasischen Käfer-Fauna. Unter Mitwirkung hervorragender Fachgenossen," *Verhandl. Zool.-Bot. Ges. Wien* **29**, 451–488 (1880).
36. Leder, H., "Die Coleopteren des Talysh-Gebietes. Nach den neuesten Materialien bearbeitet von E. Reitter, Dr. Eppelsheim, A. Chevrolat, L. Ganglbauer und Dr. G. Kraatz," in Radde, G., *Die Fauna und Flora des südwestlichen Caspi-Gebietes. Wissenschaftliche Beiträge zu den Reisen an der persisch-russischen Grenze* (F.A. Brockhaus, Leipzig, 1886), pp. 89–235.
37. Lobanov, A.L., Danilevsky, M.L., Murzin, S.V., "A Taxonomic List of Longicorn Beetles (Coleoptera, Cerambycidae) of the Fauna of the USSR. 1," *Entomol. Obozr.* **60** (4), 784–803 (1981).
38. Mamaev, B.M. and Danilevsky, M.L., *Larvae of Longicorn Beetles* (Nauka, Moscow, 1975) [in Russian].
39. Ménétériés, E., *Catalogue raisonné des objets de zoologie recueillis dans un voyage au Caucase et jusqu' aux frontières actuelles de la Perse entrepris par ordre de S. M. L'Empereur* (Acad. Impér. Sci., St.-Petersbourg, 1832).
40. Milyanovskii, E.S., "On the Fauna of Longicorn Beetles of Abkhazia," *Trudy Inst. Zool. Akad. Nauk GruzSSR* **11**, 209–213 (1953).
41. Milyanovskii, E.S., "On the Fauna of Longicorn Beetles (Coleoptera, Cerambycidae) of Abkhazia," *Trudy Inst. Zashch. Rast. GruzSSR* **22**, 76–83 (1971).
42. Miroshnikov, A.I., "Contribution to the Knowledge of the Longicorn Beetles of the Caucasus. 3. Genus *Anaglyptus* Mulsant, 1839 (Coleoptera Cerambycidae)," *Entomologia Kubanica*, No. 1, 61–103 (2000).
43. Miroshnikov, A.I., "Inventory of the Fauna of Longicorn Beetles (Coleoptera, Cerambycidae) of the Caucasus and Credibility of the Presence of Different Representatives of the Family," in *Problems and Prospects of General Entomology. Abstracts of Papers, XIII Congr. of the Russian Entomological Society, Krasnodar, September 9–15, 2007*, Ed. by A.S. Zamotailov (Krasnodar, 2007), pp. 230–231.
44. Miroshnikov, A.I., "Contribution to the Knowledge of Longicorn Beetles (Coleoptera, Cerambycidae) of the Caucasus. 6. Notes on the Distribution of Some Species with New Biological Data," *Entomol. Obozr.* **88** (4), 787–795 (2009) [*Entomol. Rev.* **90** (9), 1159–1166 (2010)].
45. Mirzoyan, S.A., *Dendrophilic Insects in Forests and Parks of Armenia* (Aiastan, Erevan, 1977) [in Russian].
46. Motschulsky, V.I., "Coléoptères du Caucase et des provinces Transcausiennes, recueillis et décrits," *Bull. Soc. Nat. Mosc.* **11** (2), 175–188 (1838).
47. Nikitskii, N.B., Bibin, A.R., and Dolgin, M.M., *Xylophilic Beetles (Coleoptera) of the Caucasian Biosphere Reserve and Adjacent Territories* (Syktyvkar, 2008) [in Russian].
48. Özdikmen, H., "Contribution to the Knowledge of Turkish Longicorn Beetles Fauna (Coleoptera: Cerambycidae)," *Mun. Entomol. Zool.* **1** (1), 71–90 (2006).
49. Özdikmen, H., "The Longicorn Beetles of Turkey (Coleoptera: Cerambycidae) Part 1—Black Sea Region," *Mun. Entomol. Zool.* **2** (2), 179–422 (2007).
50. Özdikmen, H., "The Longicorn Beetles of Turkey (Coleoptera: Cerambycidae) Part 2—Marmara Region," *Mun. Entomol. Zool.* **3** (1), 7–152 (2008a).
51. Özdikmen, H., "The Longicorn Beetles of Turkey (Coleoptera: Cerambycidae) Part 3—Aegean Region," *Mun. Entomol. Zool.* **3** (1), 355–436 (2008b).
52. Özdikmen, H., "The Longicorn Beetles of Turkey (Coleoptera: Cerambycidae) Part 4—Aegean Region," *Mun. Entomol. Zool.* **6** (1), 6–145 (2011).
53. Özdikmen, H. and Okutaner, A.Y., "The Longhorned Beetles Fauna (Coleoptera, Cerambycidae) of Kahramanmaraş Province," *G. U. J. Sci.* **19** (2), 77–89 (2006).
54. Özdikmen, H. and Turgut, S., "A Review of the Genus *Musaria* Thomson, 1864 (Coleoptera: Cerambycidae) in Turkey with Zoogeographical Remarks," *Mun. Entomol. Zool.* **2** (2), 511–516 (2007).
55. Özdikmen, H. and Turgut, S., "An Overview on the W-Palaearctic Subgenus *Phytoecia* (Helladia) Fairmaire, 1964 with a New Subspecies *Phytoecia* (Helladia) *humeralis caneri* ssp. n. from Turkey (Coleoptera: Cerambycidae: Lamiinae)," *Mun. Entomol. Zool.* **5** (2), 317–343 (2010).
56. Özdikmen, H., Turgut, S., and Güzel, S., "Longhorned Beetles of Ankara Region in Turkey (Coleoptera: Cerambycidae)," *Mun. Entomol. Zool.* **4** (1), 59–102 (2009).
57. Pic, M., "Descriptions, notes et renseignements divers sur certains Longicornes de la faune d'Europe et Circa," in *Matériaux pour servir à l'étude des Longicornes. 2<sup>me</sup> cahier* (Imprimerie L. Jacquet, Lyon, 1898), pp. 18–20.

58. Pic, M., "Catalogue bibliographique et synonymique d'Europe et des régions avoisinantes comprenant les régions suivantes: Région circum méditerranéenne. Région caucasique. Région transcaspienne. La Perse, le Turkestan, la Sibérie," in *Matériaux pour servir à l'étude des Longicornes. 3<sup>me</sup> cahier* (Imprimerie L. Jacquet, Lyon, 1900), pp. 1–66 ("pagination spéciale").
59. Pic, M., "Étude sur le groupe des *Helladia*," in *Matériaux pour servir à l'étude des Longicornes. 4<sup>me</sup> cahier. 2<sup>me</sup> partie* (Imprimerie Bussière, Saint-Amand (Cher), 1903), pp. 11–18.
60. Pic, M., "Habitats et notes complémentaires concernant les *Acmaeops* Lec. paléarctiques," in *Matériaux pour servir à l'étude des Longicornes. 9<sup>me</sup> cahier. 1<sup>re</sup> partie* (Imprimerie Bussière, Saint-Amand (Cher), 1914a), pp. 21–24.
61. Pic, M., "Catalogue bibliographique et synonymique d'Europe et des régions avoisinantes comprenant les régions suivantes: Région circum méditerranéenne. Région caucasique. Région transcaspienne. La Perse, le Turkestan, la Sibérie," in *Matériaux pour servir à l'étude des Longicornes. 9<sup>me</sup> cahier. 1<sup>re</sup> partie* (Imprimerie Bussière, Saint-Amand (Cher), 1914b), pp. 107–110 ("pagination spéciale").
62. Plavilstshikov, N.N., "Palaeartic Species of the Genus *Rhagium* F. (Coleoptera, Cerambycidae)," *Russ. Entomol. Obozr.* **15** (1), 31–49 (1915a).
63. Plavilstshikov, N.N., "On the Fauna of Cerambycidae (Coleoptera) of Stavropol Province," *Trudy Stavr. O-va Izuch. Sev.-Kavkaz. Kraya* **3** (2–3), 105–110 (1915b).
64. Plavilstshikov, N.N., "Notes on Longicorn Beetles of the Caucasus (Coleoptera, Cerambycidae)," *Izv. Kavkaz. Muzeya* **9** (3–4), 243–249 (1916).
65. Plavilstshikov, N.N., "Révision des espèces eurasiennes du genre *Judolia* Muls. (Col. Ceramb.)," *Eos* **1** (3), 117–128 (1925).
66. Plavilstshikov, N.N., "Notes on Longicorn Beetles of the Caucasus. 2 (Coleoptera, Cerambycidae)," *Izv. Stavr. Entomol. O-va* **3** (1), 18–24 (1927).
67. Plavilstshikov, N.N., "Beitrag zur Verbreitung der paläarktischen Cerambyciden. 1," *Entomol. Nachr. Ber.* **4** (2), 48–55 (1930).
68. Plavilstshikov, N.N., "On the Knowledge of Longicorn Beetles of the Caucasus and Adjacent Countries. The Longicorn Beetles of the Caucasus, 1: Group Cerambycini (Coleopt., Cerambycidae)," *Byul. Muzeya Gruzii* **6**, 43–84 (1931a).
69. Plavilstshikov, N.N., "Zwölf neue Cerambyciden-Aberrationen (Coleopt.)," *Entomol. Nachr. Ber.* **5** (2), 37–39 (1931b).
70. Plavilstshikov, N.N., *Longicorn Beetles as Wood Pests* (Gos. Lesotekhn. Izdat., Moscow, 1932) [in Russian].
71. Plavilstshikov, N.N., *Longicorn Beetles, Part 1. Fauna of the USSR. Insecta, Coleoptera. Vol. 21* (Akad. Nauk SSSR, Moscow, 1936) [in Russian].
72. Plavilstshikov, N.N., *Longicorn Beetles, Part 2. Fauna of the USSR. Insecta, Coleoptera. Vol. 22* (Akad. Nauk SSSR, Moscow, 1940) [in Russian].
73. Plavilstshikov, N.N., *Keys to Longicorn Beetles of Armenia* (Acad. Sci. ArmSSR, Erevan, 1948) [in Russian].
74. Plavilstshikov, N.N., "Family Cerambycidae, Longicorn Beetles," in *Reference Book of Forest Pests. Part 2* (Acad. Sci. USSR, Moscow, 1955), pp. 493–546 [in Russian].
75. Plavilstshikov, N.N., *Longicorn Beetles, Part 3. Subfamily Lamiinae, Part 1. Fauna of the USSR. Insecta, Coleoptera. Vol. 23* (Akad. Nauk SSSR, Moscow, 1958) [in Russian].
76. Plavilstshikov, N.N., "Family Cerambycidae, Longicorn Beetles," in *Keys to Insects of the European Part of the USSR. Vol. 2. Coleoptera and Strepsiptera* (Nauka, Moscow, 1965), pp. 389–419 [in Russian].
77. Podaný, C., "Monographie des genus *Rhagium* Fabricius (Col., Cerambycidae, Stenocorini)," *Acta Zool. Mexicana* **7** (1), 1–55 (1964).
78. Reitter, E., "Neue Coleopteren aus Europa, den angrenzenden Ländern und Sibirien, mit Bemerkungen über bekannte Arten," *Deutsche Entomol. Zeitschr.* **33** (2), 271–288 (1889).
79. Rejzek, M. and Hoskovec, M., "Cerambycidae of Nemrud Dağı National Park (Turkey) (Coleoptera, Cerambycidae)," *Biocosme Mésogéen* **15** (4), 257–272 (1999).
80. Rejzek, M., Kadlec, S., and Sama, G., "Contribution to the Knowledge of Syrian Cerambycidae Fauna (Coleoptera)," *Biocosme Mésogéen* **20** (1), 7–50 (2003).
81. Rejzek, M., Sama, G., and Alziar, G., "Host Plants of Several Herb-Feeding Cerambycidae Mainly from East Mediterranean Region (Coleoptera: Cerambycidae)," *Biocosme Mésogéen* **17** (4), 263–294 (2001).
82. Rejzek, M., Sama, G., Alziar, G., and Sádlo, J., "Host Plants of Longhorn Beetles (Coleoptera: Cerambycidae) from Balkan Peninsula, Asia Minor and Iran (Part 2)," *Biocosme Mésogéen* **19** (3), 161–189 (2003).
83. Sama, G., "Contributo allo studio dei Coleotteri Cerambycidae di Grecia e Asia Minore," *Fragm. Entomol.* **16** (2), 205–227 (1982).
84. Sama, G., "Contribution a la connaissance des Longicornes de Grece et d'Asie Mineure (Coleoptera, Cerambycidae)," *Biocosme Mésogéen* **12** (4), 101–116 (1996).
85. Sama, G., *Atlas of the Cerambycidae of Europe and the Mediterranean Area. Volume 1: Northern, Western, Central and Eastern Europe, British Isles and Continental Europe from France (excl. Corsica) to Scandinavia and Urals* (Kabourek, Zlin, 2002).
86. Sama, G., Buse, J., Orbach, E., et al., "A New Catalogue of the Cerambycidae (Coleoptera) of Israel with Notes on Their Distribution and Host Plants," *Mun. Entomol. Zool.* **5** (1), 1–51 (2010).

87. Sama, G., Seddighi, N., and Talebi, A.A., "Preliminary Note for a Checklist of the Cerambycidae of Iran (Coleoptera–Cerambycidae)," *Biocosme Mésogéen* **25** (3), 101–126 (2008).
88. Schneider, O. and Leder, H., "Beiträge zur Kenntniss der kaukasischen Käferfauna (Fortsetzung aus dem 16 Bande)," *Verh. Naturf. Verein. Brünn.* **17**, 3–104 (1879).
89. Semenov, A.P., "Notes on Beetles (Coleoptera) of European Russia and the Caucasus," *Bull. Soc. Nat. Mosc. (N. S.)* **13**, 101–141 (1899).
90. Tournier, H., "Catalogue des Longicornes récoltés par M. Théophile Deyrolle, en Imirétie, Mingrélie et Géorgie, et description des espèces nouvelles," *Rev. Mag. Zool. Sér. 2* **23**, 338–349 (1872).
91. Tozlu, G., Maharramova, Sh.M., Kerimova, I.G., and Huseynova, E.A., "Coleoptera (Cerambycidae, Curculionidae) of the Oil-Polluted Forests in North Eastern Azerbaijan," *Linzer Biol. Beitr.* **37** (1), 477–488 (2005).
92. Tozlu, G., Rejzek, M., and Özbek, H., "A Contribution to the Knowledge of Cerambycidae (Coleoptera) Fauna of Turkey. Part 2: Subfamily Lamiinae," *Biocosme Mésogéen* **19** (3), 95–110 (2003).
93. Villiers, A., "Cérambycides de Turquie," *L'Entomologiste* **15** (1–2), 8–11 (1959).
94. Villiers, A., "Contribution a la faune de l'Iran. 1. Coléoptères Cérambycidae," *Ann. Soc. Entomol. Fr. N. S.* **3** (2), 327–379 (1967).
95. Villiers, A., "Cérambycides récoltés en Iran par MM. R. Naviaux et M. Rapilly," *L'Entomologiste* **26** (5–6), 133–137 (1971).
96. Winkler, A., "Cerambycidae," in *Catalogus Coleopterorum regionis palaearcticae. Bd 2* (Verlag von A. Winkler, Wien, 1929), pp. 1135–1226.
97. Zagaikevich, I.K., *Taxonomy and Ecology of Longicorn Beetles* (Naukova Dumka, Kiev, 1991) [in Russian].
98. Zaitsev, F.A., "Longicorn Beetles (Cerambycidae) in the Fauna of Georgia," *Trudy Inst. Zool. Akad. Nauk GruzSSR* **13**, 5–27 (1954).