SECOND AND THIRD
SUPPLEMENTS
1925 to 1932 (inclusive)
to
CATALOGUE
of the
COLEOPTERA
of
AMERICA, NORTH OF MEXICO

By
CHARLES W. LENG, B.Sc.
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and

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in charge of
Coleoptera
AMERICAN MUSEUM OF NATURAL HISTORY

Mount Vernon, N. Y.
JOHN D. SHERMAN, JR.
December 18
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AFFECTIONATELY
DEDICATED TO
SAMUEL HENSHAW

IN CONTINUED APPRECIATION OF
THE HENSHAW LIST OF COLEOPTERA
PUBLISHED ALMOST HALF A CENTURY AGO.
WE REJOICE IN HIS UNABATED
INTEREST IN BIBLIOGRAPHICAL MATTERS.
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SIGNS AND ABBREVIATIONS

∥ indicates name preoccupied.
‡ indicates name cited in error.
† indicates introduced species.
¹ A figure one following name means it was based upon a single specimen.

ab. aberration
auct. authors
fide according to
ined. unpublished
i. litt. in a letter
n. n. nomen novum, name substituted for one preoccupied.
nec not
s. str. sensu strictu, in a restricted sense.
subg. subgenus
subsp. subspecies
syn. synonym
var. variety

For other abbreviations (of localities, etc.) see original catalogue.
INTRODUCTION

In the second supplement to the Catalogue of Coleoptera of America, north of Mexico, we record the species, subspecies, and "aberrations," described during the period from January 1, 1925, to December 31, 1930. As in the catalogue and first supplement, the new species are serially numbered, with subspecies and varieties indicated by the addition of a letter to the serial number of the species with which they are allied. An unusual number of names have been proposed for so-called "aberrations;" these have not been numbered, but are not necessarily synonyms. Many are recognizable variations which, however, have been regarded by some author or reviewer as of less than subspecific rank.

By thus numbering the names which have been proposed we do not intend to present our own opinion as to their validity, but to reflect the opinions of the authors quoted. In a few instances, where the opinions conflict, we have, as far as possible, presented both views.

In preparing this supplement we have used as a basis the data assembled in Entomological News, and added thereto those found in the Zoological Record and, in a few instances, others cited in Biological Abstracts. The result was then compared with the original papers, as published in various periodicals, here and abroad, and in many instances, preliminary copy was sent to the authors for correction. Finally comparison was made with the Junk Coleopterorum Catalogus, which disclosed some differences which have been noted, but not always followed.

The original intention was to print the second supplement in 1931. Financial difficulties having caused a postponement, we have taken advantage thereof to carry the bibliography down to December, 1932, and to indicate the new species, etc., proposed in 1931 and 1932, as a third supplement.

In the bibliography we have included all contributions bearing directly or indirectly upon the classification of Coleoptera, as well as a few papers of literary interest. The period covered by this supplement has produced several papers of importance in clarifying the classification. Bradley's Manual of the Genera brings together in one volume, for the first time since 1883, definitions of nearly all the genera. Jeannel's Monograph of Trechinae is an example of able taxonomic work covering the species of the old and new world.
Tillyard’s Insects of Australia and New Zealand reviews the classification with special reference to the phylogeny, and recent discoveries in fossil insects. Forbes’ studies in venation and wing folding patterns afford an independent view of relationships. Finally and most important we have included, though not published until 1931, “An Illustrated Synopsis of the principal Larval Forms of the order Coleoptera” by Böving and Craighead. By the publication in this paper of the results of the studies of many years, it becomes possible to compare the existing classification of adult beetles with one based entirely upon their immature stages.

Happily for the permanence of our classification there is now a more substantial agreement between the two than when MacLeay in “Horæ Entomologicæ” (1819-1821) attempted to make such a comparison. Dr. Böving’s statement of this fact is “As a rule the classification of the larvæ agrees with the commonly recognized classification of the imagines, and particularly well with the one followed in Leng’s catalogue.” The division of the order into suborders Adephaga and Polyphaga, and the subdivision of the suborders into superfamilies, grouped into series, is found in both systems. The differences consist in the composition of the suborders, and of their subdivisions, in which the knowledge of larval relationships affords valuable evidence, heretofore lacking. A brief statement of some of these differences follows.

ARCHOSTEMATA

The families Cupesidæ and Micromalthidæ, the anomalous characters of which have heretofore been recognized, are ranked as a third suborder by Böving. He says “I cannot see how we can escape giving to this group the rank of a suborder, the Archostemata of Kolb, as it can be joined neither with the Adephaga nor the Polyphaga.” Forbes, from studies of wing folding pattern, grouped these families under the same name. Tillyard, though he placed Cupesidæ in Adephaga, described it as “an annectent group between the Adephaga and Polyphaga.” There is thus a substantial agreement on the division into three suborders; and in future catalogues the first should be on phylogenetic grounds, the Archostemata.

ADEPHAGA

The family Rhysodidæ is transferred by Dr. Böving from Polyphaga to Adephaga. “The larva of Clinidium,” he says, “... can without reservation be placed in the suborder Adephaga.” The superfamilies Caraboidæ and Gyrinoideæ are sustained by characters of their larvæ, which also afford important help in arranging in natural sequence the subfamilies and tribes of Carabidæ and Dytiscidæ. On the basis of larval characters Cicindelidæ, Carabidæ, Omophronidæ, Haliplidæ, Hygrobiidæ, Noteridæ, Dytiscidæ, and Amphizoidæ, are entitled to rank as
families, with the rank of the Pseudomorphidae unknown. The subfamilies indicated in the Carabidae are Lebiniæ; Dromiinæ, Odacanthinæ; Dririnæ, Nebrinæ; Loricerinæ; Carabinae, Cychrinae, Chlæninae; Licininae, Bembidinæ, Sphodrinae, Broscinæ, Dyschirinæ, Scaritinae, Elaphrinæ; Patrobinæ, Pterostichinæ, Amarinæ, Harpalinæ, Glyptinæ. The semicolons in this enumeration separate the related groups of subfamilies. The Trechini appear to be separable from Bembidini, on their larval characters, only by differences of tribal rank.

As to the sequence of the suborders Dr. Böving considers that it would “be logical to place the Adephaga third, as the more modern of the three,” “but for practical purposes it appears more advisable to rank the suborders in the commonly accepted sequence.” The well developed tarsus of adephagous larvae, carrying one or two distinct and movable claws, may be a primitive character, as regarded by us in 1920; and the great similarity in this respect between the larvae of the Caraboidea and those of certain neuropterous larvae is interesting and possibly significant. However there are several polyphagous larvae, specifically mentioned by Dr. Böving, in which the tarsungulus is “divided by a faint suture into a proximal and distal portion which possibly correspond respectively to tarsus and claw.” In Dr. Böving’s definition of the suborders by larval characters, the Adephaga are placed second, and the resemblance of their legs and claws to those of the Archostemata seems to us to indicate this as their natural sequence.

**POLYPHAGA**

The greatest difficulties in the classification have been in this suborder, and in the differences between the opinions expressed by Böving, Forbes, and Tillyard, they are still apparent. The removal of Cupesidæ and Mieromalthidæ to Archostemata, and of Rhysodidæ to Adephaga, simplifies the classification of the Polyphaga; and fortunately the isolation of the Scarabæoidea, of the so-called Phytophaga, and of the Hydrophiloidea and Staphylinoidæ is not questioned; though, as to the latter two, the composition is somewhat altered. Believing that the larval characters afford the safest guidance, not however to the exclusion of other considerations, we review the superfamilies in the sequence adopted by Dr. Böving.

**Staphylinoidæ.** The component families, based on larval characters, would be Limnebiidae, Hydroscaphidæ, Leptinidæ, Ptilidæ, Anisotomidæ; Platypsyllidæ, Scaphidiidæ; Silphidæ, Staphylinidæ, Pselaphidæ, Seydmanidæ. The families also included, though their larvae are imperfectly known or entirely unknown, are Clambidæ, Brathinidæ, Sphæritidæ, Sphæriidæ, and Micropeplidæ. The differences between this and existing classification is the removal from Hydrophilidæ of the aberrant genera Limnebius, Ochthebius, and Hydræna; and the suppression of Silphoidea as a superfamily.
Introduction

Forbes reached a similar result from his studies of the wings. "Ochthebius and Hydraena," he says, "do not belong here (in Hydrophilidae), but with the aberrant "Silphidae;" and the latter he classifies with his Staphyliniformia.

It should be noted that within the families Anisotomidæ and Staphyliniidæ, the larval characters indicate many subfamilies, with Oxyporinæ, Habrocerinæ, and others, quite definitely separated; and that the Histeridæ, on larval characters, are associated with Hydrophiloidea, a view in which apparently Forbes' conclusions are not entirely in accord.

Hydrophiloidea. In this superfamily Dr. Boving groups Histeridæ and Helophoridae, "on account of an unquestionable conformity in the development of the fundamental systematic characters" of their larvæ: Spercheidæ; Hydrochidæ and Hydrophilidæ, the latter divided into subfamilies Berosinæ, Hydrophilinæ, Hydrobinaæ, and Sphæridiinæ. The treatment of Histeridæ, regarded by Forbes as a superfamily, and by Tillyard as "very distinct and isolated," is at first sight rather startling; but it is to be noted that Forbes also found that the venational characters seemed "to link with the Hydrophilidæ on one side and more closely to the Lamellicornia on the other." The views of Tillyard regarding Hydrophiloidea as "perhaps the oldest of existing Coleopterous groups" traceable "back geologically to the upper Permian" are interesting. He further says "the fossil evidence, so far as at present available, would tend to indicate that...the development of longitudinal striae and intervals is an entirely new formation. If this be so, the almost smooth elytra of many Hydrophilidæ probably represent the most primitive type."

The same argument would apply to the comparatively smooth elytra of the Histeridæ, and thereby support Dr. Boving's classification of the larvæ. Moreover, while Hololepta and Hydrophilus in the adult stage seem far apart, some of the small Saprini are not so dissimilar to the Sphæridiinæ.

Cucujoidæ. Dr. Boving finds three types of larvæ in the Polyphaga. The primitive type is found in its most characteristic and original form in such families as the Limnebiidæ, Leptinidæ, and Anisotomidæ. From it are derived the more or less specialized larvæ of the Staphylinoidea and Hydrophiloidea, which have therefore preceded other Polyphaga in his conspectus.

A distinct polyphagous larval type is found in the series Cucujoidæ. It shows such close affinities with the staphylinoid-leptinid type as to be placed next thereto in the conspectus. The families included are (semi-colons indicating their grouping) Eucinetidæ, Derodontidæ, Monotomidæ, Rhizophagidæ; Languridæ, Cryptophagidæ, Silvanidæ, Cucujidæ, Prostomidæ; Catagenidæ, Lamphiohcidæ, Phalacridæ, Smicripidæ, Coryphidæ; Nitidulidæ, Cybocephalidæ; Sphindidæ; Lathridiidæ, Murmididæ, Endomy-
chidæ, Coccinellidæ, Erotylidæ, Daecidæ, Melandryidæ, Scaptiidaæ, Anthicidæ, Byturidæ; Bothrideridæ, Colydiidæ, Mycetophagidæ; Oedemeridæ, Cephaloidæ; Zopheridæ, Synchroidæ, Pedilidæ; Eurystethidæ, Salpingidæ, Pyrochroidæ, Boridæ, Pythidæ, Othniidæ; Alleculidæ, Tenebrionidæ (to be divided into many sub-families), Nilionidæ. Lagridæ. In addition, though the larvae are imperfectly known, the Monommatusidæ and Lymexylidæ are included, and with doubt possibly the Mordellidæ.

These families have been heretofore, with some exceptions named below, the components of the superfamilies Cucujoidea, Tenebrionoidea, and Mordelloidea, which thus become united as one superfamily, but divided into a greater number of families. The families added are indicated by italics. On the other hand, Myceteidæ, Euglenidæ, and Monoeadæ are reduced on larval characters to subfamily or tribal rank. The exceptions above referred to are Eugnetidæ, formerly classed as a subfamily of Daseillidæ, but agreeing in its larval form, apart from the lack of jointed urogomphi, with the leptinid association of the Staphylinoidæ: Corylophidæ, usually placed as an aberrant family in the Silphid association: Sphindidæ, the larvae of which represent "unquestionably a simple, primitive cucujoid type," and have heretofore been included in Bostrichoidea.

In this treatment of the Cucujoidea it is to be hoped that the clues to actual relationship afforded by the larval characters, so thoroughly studied by Dr. Böving, may be reconcilable with adult characters. But it cannot be denied that Forbes' classification (Journ. N. Y. Ent. Soc., XXXIV, 113-115), based on wing venation and folding pattern, is not in agreement. Of the four series, Haplogastra, Bostryceformia, Diversicormia, and Dryopiformia, into which he divides the Polyphaga, only the first can, by transferring the Scarabæoidea, be compared with Dr. Böving's leptinidstaphylinoide association. We admit that our tendency is to regard the larval characters, based on mouth parts and organs of locomotion, as the surer guide; but we cannot conceal the differences that are apparent in Forbes' views.

Byrrhoidea. The larvae of this series are found to represent another distinct polyphagous type, not linked by any larval type known up to this time with the primitive Staphylinoidæ. This type of larva is in fact so distinct that Dr. Böving appears to have considered founding a suborder thereon. However some of the derived families of the byrrhois type and some of the cucujoid type approach one another. Wherefore Dr. Böving writes "rather isolated as the series Byrrhoidea appears in the polyphagous suborder, it does not seem necessary to rank it and the families and series derived from it as a separate suborder." These families and series include, in Dr. Böving's conspectus, the remainder of the Coleoptera. The
Byrrhoidea includes only the family Byrrhidæ. Two series, Dascilloidea and Cleroidea, are descended directly from the Byrrhoidea; Dryopoidea can be derived through the Ptilodaactylidæ; Elateroidea, through the Eurypongonidæ; Cantharoidea and Scarabæoidea from other dascilloid or dryopoid families.

With the Cleroidea may be associated Mordelloidea, Bostrichoidea, and the so-called phytophagous assemblage. The series Meloidea may also belong here but Dr. Böving adds that there are some reasons for considering the possibility that it might be related to the Cantharoidea.

The composition of the series thus hypothetically derived from Byrrhoidea differs in some cases from that heretofore assumed and will be discussed below.

Dascilloidea. The Eucinetidæ are removed to Cucujoidea, other families to Dryopoidea, as stated below. The Nosodendridæ and Heteroceridæ are added, making four families, viz: Dascillidæ, Heteroceridæ, Helodidæ, Nosodendridæ.

Dryopoidea. This series includes new families Ptilodaactylidæ and Eurypongonidæ, taken from Dascilloidea; Psephenidæ, divided into subfamilies Psepheninæ and Eubrianacinae of which the latter is taken from Dascilloidea; Chelonariidæ; Dryopidæ, divided into subfamilies Larinæ, Pelonominae? and Helminæ.

In the rearrangement of the families of Byrrhoidea, Dascilloidea, and Dryopoidea, discussed in detail by Dr. Böving in his paper of 1929 in the Bulletin of the Brooklyn Entomological Society, the value of larval characters in determining relationships is strikingly exhibited.

Cantharoidea. The Melyridæ, Cleridæ, and Corynetidæ are removed to a new series Cleroidea. The family Brachypsectridæ, following Blair, is considered valid on larval characters, but is included here, rather than in Dascillidæ. The Cantharidæ are divided into subfamilies Malthinæ, Chauliognathinæ, Malthodinæ, and Cantharinæ.

Elateroidea. The differences here from existing classification are slighter than in some preceding series. Plastoceridæ are included in Cebrionidæ, and Drapetes is removed from Throscidæ to the subfamily Oestodinæ of Elateridæ. Sandalidæ is treated as a family, quite distinct on larval characters from Rhipiceridæ.

Scarabæoidea. This superfamily is unchanged, but the larval characters accentuate its subdivisions into families and subfamilies.

Cleroidea. The families included in this new superfamily are Dermestidæ, Melyridæ, Ciidæ, Ostomatidæ, Cleridæ, Catogenidæ (?), and Bothrideridæ (?). The relationship of the last two is regarded as problematical. As to some of the other families, the larval characters suggest the need of many subfamilies.
**Introduction**

**Meloidea.** This new superfamily includes Meloidae, divided into three subfamilies (after erecting a new family Tetraonycidae), and Rhipiphoridae. "Probably the Strepsiptera are to be classified in the Coleoptera and close to the Rhipiphoridae," is added in a footnote.

**Mordelloidea.** This series, which was proposed by us with great hesitation, is reduced to the family Mordellidae, and to its main genera Tomoxia, Mordella, and Mordellistena. Even these in the larval stage are related to several of the melandryid genera.

**Cerambycoidea.** This series is restricted by its larval characters to the family Cerambycidae, divided into subfamilies Prioninae, Cerambycinæ, Asemia, Lepturinae, Lamiæ and Disteniæ. The Chrysomelidae are regarded as a superfamily.

**Bostrichoidea.** This series, comprising Ptinidae, Anobiidae, Bostrichidae, Psodidae, and Lycidae, differs from the existing classification only by the removal of the families Ciiæ and Sphingidae.

**Chrysomeloidea.** Larval studies indicate the necessity of separating the Bruchidae and Chrysomelidae, as a superfamily, and of dividing the latter into many families. Some have heretofore been recognized as subfamilies, others are the result of recent studies, and many are again subdivided; it is even stated that "when better studied, the classification of the entire family Galerucidae will unquestionably be changed." The families indicated by larval studies are Bruchidae, Sagra; Orsodacnidae, Donaciidae, Camptosomatidae, Eumolpidae, Crioceridae, Chrysomelidae, Galerucidae (divided into Galerucineæ, Diabroticinæ, and Halticinæ), Hispidae, and Cassididae.

**Platystomoidea.** In the division of the Rhynchophora by larval characters the family Platystomidae becomes a superfamily divided into two subfamilies Brachytarsinae and Choraginae.

**Curculionoidea.** The remainder of the Rhynchophora are divided into Brentidae, Proterhinidae, Attelabidae, Apionidae, Curculionidae (with Lissorhoptrinae as a subfamily), Calendridae, Platypodidae, and Scolytidae. In regard to the latter it is stated that "the larvæ of the Curculionidae and Scolytidae cannot be separated." Belidae larvæ are unknown.

Finally the conspectus by Dr. Boving ends with the superfamily Lymexylidea for Lymexylidae and Telecoptidae, the larva of the latter being unknown. As far as known the larva of this superfamily approaches in important characters those of Oedemeridae and Calopidae, "but also greatly resembles the larval form of the ancient suborder Archostemata." "The systematic position of this series is uncertain."

As a final summary of this important contribution to the classification of the Coleoptera we note with satisfaction that, in its main
features, the classification reached after nearly two centuries of study of the adults is confirmed. The phylogeny of the order, relieved of the supposition that all its families must be traceable to a common ancestral type, becomes plainer as the morphology of the larvae displays the wide gaps between the three suborders Archostemata, Adephaga, and Polyphaga. The difficulty of subdividing the Polyphaga on characters drawn from the number of tarsal joints, or the form of the antennae, becomes lessened by the recognition of three types of larvae, leptinid-staphylinoid, cucujoid, and byrrhoid, by means of which the true relationship of heretofore baffling forms may be indicated.

We congratulate Dr. Böving and his co-workers, F. C. Craighead, R. A. St. George, and others, in this country and abroad, on the successful outcome of their patient research, aided by the inspiring influence and learning of the late Dr. E. A. Schwarz. Even more, perhaps, are the students of the classification of the Coleoptera to be congratulated on the guidance in their studies afforded by Dr. Böving’s work. The task remains of reconciling the differences between the classification of the adults and that of the larvae. In this supplement we are therefore content to indicate, through this introduction, and by footnotes in the text, the alterations in the classification which are probably needed.

It is a matter of regret that the work of P. de Peyerimhoff on the Larvae of Coleoptera (Annales Soc. Ent. France, 1933) appeared too late for its valuable comments on classification to be noticed in these supplements.

We thank the many students of North American Coleoptera who have so willingly assisted us in our work, and it is a pleasure to acknowledge for the printers, for the publisher, and for ourselves, the assistance of Miss Ethel Olsen, by whom, practically without error, the manuscript was typewritten.

Charles W. Leng

Andrew J. Mutchler

September 1, 1933.
Alleculidæ

MYCETÆIDÆ

Stethorhanis Blais. 30-376
21122. vandykei Blais. 30-381 Cal.

ENDOMYCHIDÆ

Stenotarsus
21123. blatchleyi Walton 28-217 Fla.

PHALACRIDÆ

Hetschko, Col. Cat. pars 108 (1930).

Phalacrus
21125. propinquus Guill. 94-293 Kan.
21126. americanus Guill. 94-294 Mich.

Olibrus
10778. caseyi n.n. Hetschko 28-142 egenus[Cs]. nec Guill.
piceus Boh. 58-38 (Eugen. Reise) Cal.(?)

COCCINELLIDÆ*

Hyperaspis
21129. pluto Fall 25-311 Cal.
21130. jovialis Fall 25-311 Cal.

Scymnus
21131. pello Blatch. 27-142 Fla.
11028. melsheimeri n.n. Weise 29-33 for collaris Melsh. nec Herbst sanctus n.n. Weise 29-33 for decipiens Cs. nec Weise 11084. nevadensis n.n. Weise 29-33 for innocuus Cs. nec Boh.
11085. indianensis n.n. Weise 29-33 for rusticus Cs. nec Weise
11092. georgei n.n. Weise 29-33 for bisignatus Horn nec Boh.

Delphastus
19760. removed to Scymnillodes, Chapin 30-493.

Psyllobora
11150 b, is a valid species. fide Blatch. 30-33

Adalia
11193a. schuetti Park 29-4 Iowa

Scymnus
11115a. caseylanus n.n. for brunescens Cs. nec Mota. caseyll[Weise 29-33 nec Berthes
11120. lunaris n.n. Weise 29-33 for stigma Cs. nec Weise

ALLECU LidÆ

Mycetochara
11331. rufipes Lec. belongs here, not under 11267.

* The European Bulaeichatschovi has been found at Paterson, N. J., fide Schott 26-17.
Coccinellidæ

LATHRIDIIDÆ

Lathridius
21538. laevior ¹ Brown 32-208 Que.

ENDOMYCHIDÆ

Epipocus
21539. subcostatus Gorh. Ariz.
fide Benedict 31-156

COCCINELLIDÆ

Korschefsky 31, 32; Dobzhansky 31.

In the arrangement of genera and tribes the following changes are made in Col. Cat. 118 and 120:

- Oxynychus Lee. is recognized as genus for 10938.
- Pentilia and Pentiliini are used for Microweisea and Microweiseini.
- Exoplectra is placed in tribe Exoplectrini.
- Rhizobiini are consolidated with Coccidulini.
- Psyllobora is placed in Coccinellini.
- Cycloneda and Olla are in Synonychini.
- Cleis is changed to Mulsantina Ws. 06-34.
- Arawana is suppressed in Chilocorus.
- Brumus is recognized as valid genus.

The taxonomic changes proposed by Korschefsky are numerous in nearly every genus. They are as follows:

Hyperaspis
Unnumbered names under 10877, 10922, 10923, and 10930, are called aberrations.
The unrecognized names festiva, floridanus, and annularis, are treated as good species.
The species mendica Muls. 53-232 is included.
10874a is treated as an aberration.
The species subsignata Cr. 74-226 is valid.
19739a may be a good species (pp. 192, 198, 58').
10938 is transferred to Oxynychus.

Brachyacantha
The variety americana Leng 11-302, is said to occur in Ky., Kan., Tex.
10974a is treated as syn. of 10974.
10974b. fulvopustulata Melsh. 47-178.
10972d. troglodytes Muls. 50-534, ab. of 10972.
stelleta Csy. syn. of 10972d.
uteilla Csy. ab. of stelleta.

Microweisea
10991. caseyi n.n. Korsch. 31-223 for minuta || Csy.

Scymnus
The first four of the unrecognized species in our catalogue are treated as valid.
guttiger Muls. is called ab. of 11093.
marginellus " " " " "
11011a is syn. of 11011.

Scymnus
21590. lovei Muls. 50-980, described from Mex.
10975a. minor n.n.
11014. read postpinctus.
11067. calaveras Csy. 99-150 treated as valid.
11063. reverse synonymy.
11115a. (including caseyi Ws. n.n.) treated as syn. of 11115.
11115. femoralis Say is treated as ab. of 11115.
Novius
11130 is transferred to Rodolia.

Psyllobora
11150. borealis, separata, deficiens, called ab.
Four Boh. Eugen. Resa. names are revived.

Anisosticta
11154. is treated as strigata Thunb. 95-113 with bitriangularis Say and multisquemata Rand. as ab.
11154. novemdecim-punctata L. 58-366 as good sp. with irregularis Ws. as ab.

Ceratomegilla
11158. is treated as maculata DeG. with fusilabris Muls. (= strenua Csy.), and mediolis Csy. 99-76, as aberrations.

Adonka
11160. is treated as palearctic.
Neoharmonia
This is treated as a subgenus of Coccinella.
11178 (= 11179).

Cycloneda
11159 (= 11193a).
11191. spelling changed to ater

Olla
11192. binotata Say 26-302 is cited as a synonym (erroneously? compare 10579).

Adalia
Our unnumbered names are treated generally as aberrations.

11193a. schuetti Park 29-429 is a syn. of sesquipunctata Haw. 12-272
fide Mader 31-476

Cleis
Mulsant used this name twice, on page 135 and again on page 208, but corrected the error on page 1025 and in his "Table Méthodique." The substitution of Mulsantina Ws. 00-34 therefore seems unnecessary.

11196. impictipennis Ws. 93-125 is added as an ab.

Anatis
11202. The following, each described from a single specimen, are added as aberrations:
caseyi Westcott, Ent. News, xxhi, 1912, 422.
signaticollis Muls. 50-135.

Chilocus
11217. stigma Say 35-202 is preferred to bivulnerus Muls.
Say's description is doubt'fully valid. 11220a and 11220b are treated as synonyms.

Arawana
This genus is erroneously suppressed.

21867. scapularis Gorb. 94-178
Ariz.

Brunus
This genus is correctly recognized.

Epilachna
Juncta Joh. is treated as aberration.

Knausia Fall 31-15
21838. crassicornis Fall 31-16 N.Mex.

Hymenorus
21859. distinctus Fall 31-179 Miss. Ala.
21870. molestus1 Fall 31-152 Pa.
21871. arkansanus Fall 31-183
Ark.
21872. dubius Fall 31-184
Miss. Ala.
21873. caurinus2 Fall 31-185 B.C.
21874. ulomoides1 Fall 31-187 So.Cal.

Hymenopus
21875. sinuatus1 Fall 31-187 B.C.
21876a. ebeninus1 Fall 31-188 Cal.
21876. macilens1 Fall 31-188 N.Mex.
21877. atratus1 Fall 31-189 Ariz.
21878. ilius Fall 31-193 Ala.
21879. bitumescens1 Fall 31-194
Ariz.
21880. protibialis Fall 31-196 So.Cal.
21881. cassus Fall 31-197 L.Cal.
21882. irritus Fall 31-199 Cal.Ariz.
21883. conformis Fall 31-199 Tex.
21884. vigilax1 Fall 31-200 Ariz.