

A Catalog and Bibliography
of the
Buprestoidea
of America North of Mexico

Nelson[†]
·
Walters
·
Haines
·
Bellamy



A Catalog and Bibliography of the Buprestoidea of America North of Mexico

Gayle H. Nelson[†]

George C. Walters, Jr.

105 Homestead Street,
La Puente, California, 91744, USA

R. Dennis Haines

Tulare County Agriculture Commissioner's Office,
4437 South Laspina Street
Tulare, California, 93274, USA

Charles L. Bellamy

Plant Pest Diagnostics Center,
California Department of Food & Agriculture,
3294 Meadowview Road,
Sacramento, California, 95832, USA



Special Publication No. 4
Terry N. Seeño, Editor
Special Publications Series

The Coleopterists Society
15703 Quince Orchard Road
North Potomac, Maryland, 20878

2008

Published by: © The Coleopterists Society 2008

Printed:  LECTRA MEDIA, Nevada City, CA 95959

ISBN: 978-0-9726087-8-7

Printing date: March 15, 2008

Front Cover Photos—top left, *Sphaerobothris platti* (Cazier 1938), ♀; center, *Poecilonota salixi* Chamberlin 1925; bottom left, *Chrysobothris octocola* LeConte 1858; bottom right, *Thrincopyge ambiens* (LeConte 1854).

Back Cover Photos—top right, *Schizopus sallei* Horn 1885; center, *Acmaeodera gibbula* LeConte 1858; bottom left, *Acmaeoderoides stramineus* Nelson 1968.

Cover photos: © C. L. Bellamy 2008

Special publications of the Coleopterists Society are subject to the same standards and review requirements as are contributions to *The Coleopterists Bulletin* except that more editorial latitude is permitted. Instructions to authors are posted on the Society website <<http://www.coleopsoc.org/>>

Preface

This volume is the result of at least 20 years of painstaking effort by Gayle Nelson, who we had personally known for at least 25 years, if not much longer. Gayle had originally planned to do this catalog as one fascicle of the now long-discontinued U.S. Department of Agriculture “Catalog of the Coleoptera of America north of Mexico”, but when that project’s funding source failed, he continued to accumulate data with the result published herein.

Readers will firstly notice that in the sense of the traditional catalog, at least how such a work usually looks and what is included, this volume differs in several ways. It is not a complete, all-inclusive list of all citations for all taxa and taxonomic acts over the time since their respective original descriptions. Often volumes appear with titles announcing “catalog”, when in fact the contents are mere checklists, with or without annotation. This volume is far more than an annotated checklist, but still falls short of a full catalog; it might be best considered as a summary catalog if it really needs specific characterization.

About 1996, one of us (CLB) was approached by a California-based publisher who had an idea to publish a new volume or series and thus would do for buprestids what E. G. Linsley and J. A. Chemsak (1961–1997) had done for North American Cerambycidae, that is a complete monograph of the family for the fauna from north of Mexico. At that time, CLB was living overseas and suggested that Gayle should be contacted since he was already accumulating this catalog data and would be well-advanced towards such a potential project. There was also the suggestion that, with the advent of low-cost color printing and digital photography, it would be possible to produce such a North American buprestid monograph that would include color images for all species. Unfortunately that collaboration between Gayle and that publisher never went very far. However, as this project must have evolved in Gayle’s mind, it is obvious to a few of us now that he continued to think about adding color images. Following Gayle’s death (24 September 2005), two of us traveled back east to Blue Springs, Missouri, to be with Jean Nelson and to help her make informed decisions regarding the disposition of Gayle’s entomological estate. It was already decided that Gayle’s collection would be transferred to the Florida State Collection of Arthropods in Gainesville and we had coordinated their arrival with our time to help with the packing, etc. As we helped Mike Thomas and Paul Skelley over that weekend, we noticed that throughout Gayle’s collection specimens had already been selected, their antennae and legs posed, locality labels were removed and he was apparently ready to begin photographing.

One of us (GCW) had been helping Gayle with the preparation of the catalog manuscript, receiving vast stacks of Gayle’s carefully handwritten pages, then returning the typed (or electronic) copy for him to edit and correct. This effort went on for several years and was continuing up to the time of Gayle’s death. And while this was going on, Gayle and CLB had been collaborating via email and snail mail on coordinating the reference lists for our respective catalog projects. CLB would send incomplete references that he had not been able to trace to Gayle and he would do the same in reverse. We would discuss the organization of the taxa and the appropriate higher classification to follow; changes were made following several substantial publications although Gayle remained skeptical of the need to immediately adopt the next radical shift in higher taxa. During the course of many exchanges, interesting things turned up, e.g. alternative dates of publication, gender issues, and one of us would ask the other “are you going to follow that?”

In early 2006, GWC contacted RDH to help review the nomenclature and format of the host lists. With the numerous sources that Gayle had relied on over the years there was a lack of uniformity to the various lists. It was decided that the best solution was to bring all of the botanical nomenclature up to today’s taxonomic understanding. It was apparent throughout Gayle’s manuscript that he had not intended to list all of the plant synonyms within the host list, and so for the sake of clarity none are given. One exception was the status of *Quercus dumosa* Nutt., Gayle had wanted to point out those specific host associations that were now known as *Q. berberidifolia* Liebm. in an effort to insure that there would not be confusion over which species was being considered the host. With the

tightening up of the format in the host lists additional effort was then turned to standardizing much of the rest of the manuscript.

The Bibliography that completes this catalog was a surprise to us all, since none of us had seen it until after Gayle's death. It is not just a list of references in the old sense, or the modern "Literature Cited" where each reference is used in the main catalog. Rather, and for reasons we can't explain, it is a partial bibliography of papers that include something about buprestids, whether original descriptions and taxonomic acts, or distributional, biological, ecological, host/parasite, etc. works, with many apparently having been included because of something Gayle thought would be of interest to the readers. With his design of the catalog categories, the great majority of the citations are not directly referenced to any particular taxon, but it has not been our intent to edit this volume and remove what might be seen as superfluous references as their inclusion has far more potential utility than any minor savings in costs or paper to cut it down to just a functional 'Lit. Cited'.

With Gayle's death, the task to complete this work fell to us, first to GCW since he had been involved with the manuscript and maintained the digital files (with assistance from RDH), and then to CLB to check against taxonomic changes and publications since 2005 that might need adding, including several that appeared only in early 2008. There were other data available that Gayle had not included, e.g. type registration numbers from various museums, to be included. A complete format adjustment then took place to tighten the presentation and arrangement of data which we think, makes the catalog far more utilitarian than the earlier layout. In the end, this is still Gayle's work, filled with detail, assembled together as his final contribution to his passion for buprestids, the largest distraction from his career as an anatomy professor. Gayle was an inspiration to all of us and we feel fortunate to have become involved in the concluding years with him, aiding in the completion of his catalog.

Gayle's life and entomological contributions were honored in a special memorial issue of *The Pan-Pacific Entomologist* (Volume 82(2):115–273) in 2006. In that work, 19 colleagues published 18 papers and notes recognizing Gayle either through anecdote or patronymic dedication. One of Gayle's final contributions was also published in that volume. The publication of this catalog is likely the penultimate publication as the joint revision of the genus *Anambodera* with GCW is still pending.

George C. Walters, Jr.
La Puente, California

R. Dennis Haines
Tulare, California

Charles L. Bellamy
Sacramento, California

Literature Cited

Linsley, E. G. 1961–1964. The Cerambycidae of North America. Parts I–V. *University of California Publications in Entomology*, volumes 18–22.

Linsley, E. G. & J. A Chemsak. 1972–1997. The Cerambycidae of North America. Parts VI (1&2), VII (1&2), VIII. *University of California Publications in Entomology*, volumes 69, 80, 102, 114 & 117.

Contents

Introduction.....	3
Taxonomy.....	3
Morphology.....	4
Biology.....	4
Acknowledgements.....	5
How to use the catalog.....	5
Abbreviations.....	6
Museums and their CODENS.....	7
List and map of the states and provinces of the United States and Canada.....	8
Catalog.....	9
Appendix 1: Classification Summary.....	191
Appendix 2: Summary of Constituents.....	193
Bibliography.....	195
Index.....	261

—

|

Introduction

The superfamily Buprestoidea, as currently presented, includes two families: Schizopodidae and Buprestidae. Schizopodidae, “false jewel beetles,” contains seven species in three genera from the far southwestern United States and adjacent northern Baja California.

Buprestidae “jewel beetles,” “metallic wood borers” (adults) or “flat-headed borers” (larvae) are found almost wherever terrestrial plants occur. Worldwide there are nearly 14,800 valid species arranged in some 514 genera. In North America north of Mexico there are 787 species and 36 subspecies in 55 genera, with an additional 529 invalid names (e.g. junior synonyms and unavailable names) (Table 1). A few are of economic importance, feeding on plants used by man for food, shade or lumber. Several species recorded from North America have been either accidentally introduced through commerce, e.g. the emerald ash borer, *Agrilus planipennis* Fairmaire, *Aphanisticus seminulum cochinchinae* Obenberger and *Trachys troglodytiformis* Obenberger (= *pygmaea* (Fabricius 1787)) or to control introduced weeds, e.g. *Agrilus hyperici* (Cruetzer) and *Sphenoptera jugoslavica* Obenberger.

Most information about animal species, whether biological, experimental or economical, is filed under the species’ scientific name. These names are therefore the key to retrieval of such information. Because some species have been known by several names, a complete listing of these names for each species is necessary.

For the user of scientific names, an up-to-date taxonomic catalog providing currently accepted (valid) names and pertinent bibliographic, distributional and biological data is an indispensable aid.

Since the buprestid catalog by Chamberlin (1926), the Coleoptera catalog by Leng (1920) with supplements to 1947 and the Buprestidae fascicles of the *Coleopterorum Catalogus* by Obenberger (1926–1937), reliable catalog information has not been available. It is hoped that the present work will fill this need for the North American fauna. Every effort has been made to include the needed published information about each species name in Buprestoidea as accurately as possible. The authors take full responsibility for any errors of fact or omission. Fossil species are not included. Original papers or copies of them have been consulted for all but a few of the references.

Taxonomy

The nomenclature of the Buprestidae began with Linnaeus (1758), who included 19 species in the genus *Buprestis* and set it apart on the basis of “*antennae setaceae longitudine thoracis, caput dimidum intra thoaceum retractum*”. Olivier (1790) and Herbst (1801) maintained the genus *Buprestis* and added many new species. Fabricius (1801) added the genus *Trachys* and Curtis (1825) the genus *Agrilus*. Eschscholtz (1829) erected the family name as Buprestides and utilizing groupings proposed by Dalman in Schönherr (1817) (based on pronotal shape and features of the scutellum) established many additional genera. Solier (1833) contributed both order to the classification and new genera, but utilized difficult-to-see mouthparts as a basis for many of his groupings. In their monographs or faunal studies, Chevrolat (1834, 1835, 1838), Laporte & Gory (1835–1841), Kirby (1837), Mannerheim (1837), LeConte (1860), Deyrolle (1864) and Marseul (1865) added genera and/or species. Lacordaire (1857) introduced “tribes” and based them on the arrangement of antennal sensory pores. LeConte (1861a) and LeConte & Horn (1883) utilized a variety of basic body structures, including the shape and manner of articulation of the body sclerites, to erect many of the supra-generic groupings in use today. Kerremans (1893, 1902–1903, 1904–1914) studied the family worldwide. Fall (1899) revised *Acmaeodera* and added many new species to various genera. Casey (1909), in spite of an unconventional concept of species, added to our understanding of some genera. Knull (1920–1974) described and figured two new genera and many new species from the USA. Chamberlin (1926) published his *Catalogue of the Buprestidae of North America north of Mexico*. Fisher (1928a, 1942a) contributed revisions of *Agrilus* and the tribe Chrysobothrini and was the first to fully utilize male genitalia to distinguish species. Cobos (1955) used genitalia and wing venation, among other features, in proposing new tribes; and (1980) outlined thirteen subfamilies and suggested a fourteenth. Bellamy and Nelson, in Arnett, *et al.* (2002) presented keys to the USA genera.

Sloop (1937), Helfer (1941), Barr (1949), Evans (1957), Nelson (1968b, 1975b, 1978b, 1980c, 1981, 1986), Nelson & Bellamy (1996) and Nelson & Westcott (1991) revised various genera and groups. Barr (1970, 1974) reevaluated some genera and proposed two new ones, which were previously, included in *Acmaeodera*. Nelson & Bellamy (1991) utilized larval characteristics, wing venation, genital features and external adult characters in re-establishing Schizopodidae as a separate family. Hołyński (1993) proposed a new structure of higher categories in which he included Schizopodidae as one of four subfamilies and emphasized the subtribal category. Bellamy (1995a, 1996, 1997a, 1997b), Bellamy & Bílý (1997), Bellamy & Westcott (1996) and Bellamy & Williams (1985) have presented other interpretations with the help of cladistic methods. Volkovitsh (2001), in an extensive study of the evolutionary trends in comparative morphology of antennal structures, suggested some revisions in the higher classification of Buprestidae. Kolibáč (2001) contributed a significant phylogenetic study of the Buprestoidea based on many characters. Concepts of relationships among the higher categories will undoubtedly be influenced by DNA analyses already initiated.

Morphology

The adults vary in size from minute sub-triangular leaf-miners 1 mm long to elongate–oval tropical wood–borers up to 75 mm long. They are often of metallic or iridescent color, sometimes in gaudy array. Adults are characterized as follows: Head vertical, retracted into the prothorax as far as the large elliptical eyes; antennae inserted on front, generally 11-segmented, serrate or flabellate, modified segments with sensory pores; labrum small, distinct; mentum quadrate or triangular; mandibles short, stout; maxillary palpi short, with four palpomeres; labium with three palpomeres. Pronotum: transverse, quadrate or cylindro–conical. Elytra covering abdomen, occasionally brachypterous partially exposing flying wings (*Hesperorhipis*, *Trichinorhipis*, *Xenorhipis*). Prosternum fixed, immobile and prolonged posteriorly as a process inserted into mesosternum; mesosternum short, divided or emarginate; metasternum: transverse, with partial transverse suture near metacoxae. Procoxae and mesocoxae: globular or oval. Trochantins distinct; metacoxae transverse, platelike. Legs relatively, short. All tarsi with five tarsomeres, 1 to 4 progressively emarginated, each with pad-like lobe below; claws simple, variably lobed or bifid. Abdomen with five visible ventrites, first and second connate with weak suture.

The larvae are characterized by well-developed ambulatory plates on the dorsal and ventral surfaces of the first segment; each plate with a median line, groove or inverted V. The larvae are of two forms: one (bark- and wood-borers) with an abruptly dilated thoracic region and a long slender, subcylindrical abdomen ending in a bilobed fleshy segment or in a chitinous fork (*Agrilus*, *Eupristocerus*); the other flattened, rather oval and gradually tapering to the last segment (leaf-miners). Burke (1917a) figured and keyed the larvae of 20 of our genera and Benoit (1964, 1965b, 1966a, 1966b) described larvae of some species of the genera *Agrilus*, *Chrysobothris* and *Melanophila*.

Biology

Adults either feed on pollen, flowers, foliage, bark or occasionally on the spores of fungi. The oval eggs are laid singly or in a mass on the surface of leaves and bark or are inserted into cracks and crevices of wood or bark. Most larvae of wood boring groups mine injured, dying or dead trees and shrubs. A few apparently work in healthy living wood. Of the latter some cause gall formation on small limbs and twigs. Some feed in the roots, some in the bark, others in the sapwood and heartwood and several species mine cones. Their work consists of a flattened, oval, gradually enlarging, somewhat tortuous tunnel that widens into an elongate–oval pupal cell. This cell connects to the outer surface by a short tunnel leading to an oval or circular exit hole. The life cycle is completed in from one to several years. Some leaf mining species are multivoltine (e.g. MacRae 2004). The leaf mining larvae feed between the epidermal layers of living leaves. Detailed biology is known for only a few of the “pest” species and apart from these, the egg and pupal stages are largely unrecorded. The larvae of 17 of our 55 genera and of the great majority of our species remain undescribed.

Acknowledgments

The completion of this catalog would not have been possible without the input and help from many individuals and institutions regarding the types in their care or pertinent literature. Their contributions are greatly appreciated, among these are the following: D. Azuma, Academy of Sciences of Philadelphia; W. F. Barr, Moscow, Idaho; S. Bílý, National Museum of Natural History, Prague, Czech Republic; J. M. Davidson, Hereford, Arizona; P. Harpootlian, Simpsonville, South Carolina; H. A. Hespenheide, University of California, Los Angeles; E. Jendek, Slovak Academy of Sciences, Bratislava, Slovak Republic; V. Kubáň, Moravian Museum, Brno, Czech Republic; T. C. MacRae, Monsanto Company, Chesterfield, Missouri; M. G. Volkovitsh, Zoological Museum, Academy of Science, St. Petersburg, Russia; S. G. Wellso, Bastrop, Texas; R. L. Westcott, Salem, Oregon; and to F. Harris for help in typing parts of the manuscript.

How to use this catalog

The classification framework used in this catalog utilizes all of the concepts currently available and largely follows that in Bellamy (2003a) and is augmented by recent changes proposed for the Palearctic fauna from the recent catalogue of that fauna: Bílý (2006c), Jendek (2006), Kubáň (2006), Volkovitsh (2006) and Volkovitsh & Kalashian (2006). Schizopodidae is regarded as a valid family as was advanced by Nelson & Bellamy (1991, 2002). The family Buprestidae is recognized as having six major lineages, i.e. subfamilies. Of these, neither Galbellinae nor Julodinae are represented in the Western Hemisphere. The other four major lineages are Polycestinae, Chrysochroinae, Buprestinae and Agrilinae. The apparently polyphyletic Trachyini are placed within the Agrilinae. This framework does not accept the thirteen subfamilies, including Schizopodinae, of Cobos (1980) but has slightly increased from the grand general reduction proposed by Hołyński (1993). There is a general need to correlate biology, structure of adults and immatures in further developing buprestid classification and a utilization of modern molecular techniques will certainly add additional information to help polarize data that might otherwise be unable to help resolve some questions that would never be solved solely on morphological convergence. Several of the larger genera are in need of revision and the relationship of some tribes and subtribes remain unclear.

Generic groups and higher categories within the family are arranged in a putative phylogenetic sequence. Valid species names are arranged alphabetically while the respective invalid species names are arranged chronologically. Several notes are necessary about the general philosophy employed herein regarding the listing of erroneous concepts (“of authors”) and those for infrasubspecific taxa. Below the species rank listings, the following headings for categories are used when needed:

“synonym”: declared junior objective or subjective synonyms or those infrasubspecific taxa originally defined as varieties, e.g. *Chrysophana*:

placida

synonym: *cupriola* Van Dyke 1937:105 (as variety of *placida*).

synonym: *strandii* Obenberger 1936a:106 (as variety of *placida*).

“unavailable name”: all infrasubspecific names that have been declared unavailable or are so according to the ICZN (1999, Articles 10.2, 45.5), e.g. *Chrysophana*:

placida

unavailable name: *coerulans* Obenberger 1924:100 (as aberration of *placida*).

“misidentification”: as was employed in his respective revisions of North American *Agrilus* (Fisher 1928a) and *Chrysobothrini* (Fisher 1942a), the term “misidentification” is used to indicate an alternative, yet erroneous, concepts of species-group names “of authors” (*Auctorum*) other than the original author of a given taxon., e.g. *Acmaeodera*:

dolorosa dolorosa

misidentification: *fenyesi* of authors, not *fenyesi* Fall 1899

“misspelling”: alternative spellings of original names, e.g. unjustified emendations, *lapsus calami*; these are *nomina nuda* and are unavailable, e.g. *Acmaeodera*:

comata

misspelling: *conata* (error for *comata*, *nomen nudum*).

One other possibly novel catalog format adjustment has been applied herein. Rather than simply presenting a bold-faced alphabetical list of valid species and subspecies beneath each respective genus, we have added an additional line for each subspecies and each synonym in the alphabetical list so that a user unfamiliar with the taxonomic history of any particular taxon would not have to make a visual search or turn to the index to find a name missing from the bold-faced valid names, e.g.

nelsoni Beer 1974 [ssp. of *hornii*]

nigra Casey 1909 [syn. of *divaricata*]

obscura (Fabricius) 1781:274 (*Buprestis*).

This method may add several extra pages of text, arguably redundant, but we think that such a format permits more rapid location of any given name without constantly having to thumb between the main text and the index. Please note that these extra listings are only for invalid available names, not for unavailable names nor spellings errors.

The general intra-generic and intra-specific formatting follows the general pattern of the now discontinued “Catalog of the Coleoptera of America north of Mexico,” originally sponsored by the U.S. Department of Agriculture. Some categories are much expanded. Each available name is followed by the author(s), date proposed and page number referring to the complete bibliographic citation containing the original description. Following each generic name are the type–species and method of its designation, necessary explanatory notes and pertinent references on immature stages, taxonomy, redescription, ecology and keys. After the specific name entry is the original genus, explanatory notes, type locality, type–specimen depository and its sex if known, pertinent references to immature stages, taxonomy, redescription, ecology information; geographical distribution by country state or province and hosts. Larval hosts and then adult “hosts” are listed alphabetically. The scientific names of plants are current as listed in: Hickman, James C. (Ed.) 1996. *The Jepson Manual Higher Plants of California*, University of California Press Berkeley, CA 94720 USA and USDA, NRCS 2006, “The Plants Database (<http://plants.usda.gov>, 28 September 2006) National Plant Data Center”, Baton Rouge, LA 70874–4490 USA.

Abbreviations

Abbreviations used in this catalog: abd. = abdominal; ab.= aberration; Agric = Agricultural; Amer. Bor. = America Borealis; Amer Sept = America Septentrionalis; autom = automatic; BCN = Baja California (Norte); BCS = Baja California Sur; biol. = biology; CAN = Canada; Cyn = canyon; Coll = Collection; Co = County; Cr = Creek; design = designated; distr. = distribution; E = East; fig., figs. = figure, figures; Hwy = Highway; holarc = holartic; IND = Indies; Isl. = Island; jct. = Junction; lat. = lateral; mi = mile; Monot = Monotype; Mtns = Mountains; Mtn = Mountain; Mus = Museum; N.P. = National Park; N = North; No. Amer. = North America; NE = Northeast; NW = Northwest; ovip. = ovipositor; pl. = plate; preocc. = preoccupied; Rge = Range; R = River; Rd = Road; S = South; sp. = species; Sprs = Springs; ssp. = subspecies; syn. = synonymized; USA = United States of America; var = variety; W = West.

Museums and their Codens

AMNH – American Museum of Natural History, New York City, New York
ANSP – Academy of Natural Sciences, Philadelphia, Pennsylvania
BMNH – British Museum (Natural History), London, United Kingdom
CASC – California Academy of Sciences, San Francisco
CNCI – Canadian National Collections, Ottawa
DEIC – Deutsches Entomologisches Institut, Eberswalde, Germany
FMNH – Field Museum of Natural History, Chicago, Illinois
GUHC – Glasgow University, Hunterian College, Scotland
HNHM – Hungarian Natural History Museum, Budapest, Hungary
ICCM – Carnegie Museum, Pittsburgh, Pennsylvania
IZAC – Instituto de Zoologia, Academia de Ciencias de Cuba, Habana
LACM – Natural History Museum of Los Angeles County, California
LSUC – Louisiana State University, Baton Rouge, Louisiana
LSUK – Linnean Society, London, United Kingdom
MCPM – Milwaukee City Public Museum, Milwaukee, Wisconsin
MCZC – Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts
MHNG – Muséum, d’Histoire Naturelle, Geneva, Switzerland
MHNL – Musée Guinet d’Histoire Naturelle de Lyon, Lyon, France
MNHG – Museum für Naturkunde, Humboldtät, Berlin, Germany
MNHN – Muséum National d’Histoire Naturelle, Paris, France
MNNC – Museo Nacional de Historia Natural, Santiago, Chile
MSUC – Michigan State University, East Lansing, Michigan
NHMV – Naturhistorisches Museum, Vienna, Austria
NHRS – Naturhistorische Riksmuseet, Stockholm, Sweden
NMBS – Naturhistorische Museum, Bern, Switzerland
NMPC – Narodni Museum, Prague, Czech Republic
NSMT – National Science Museum (Natural History) Tokyo, Japan
NYSM – New York State Museum, Albany, New York
OSUO – Oregon State University, Corvallis, Oregon
OXUM – University Museum, Oxford, United Kingdom
PURC – Purdue University, West Lafayette, Indiana
SEMC – Snow Museum, University of Kansas, Lawrence, Kansas
SNMB – Staatliches Naturhistorisches Museum, Braun–Schweig, Germany
TARI – Taiwan Agricultural Research Institute, Taichung, Taiwan
UCRC – University of California, Riverside, California
UNAM – Universidad Nacional Autónoma de México, México, D.F.
USNM – U. S. National Museum of Natural History, Washington, D.C.
UZMC – University Zoological Museum, Copenhagen, Denmark
UZMH – University Zoological Museum, Helsinki, Finland
ZIN – Zoological Institute, Academy of Science, St. Petersburg, Russia
ZMHB – Museum für Naturkunde der Humboldt, Universität zu Berlin, Germany
ZMUM – Zoological Museum, University of Moscow, Russia

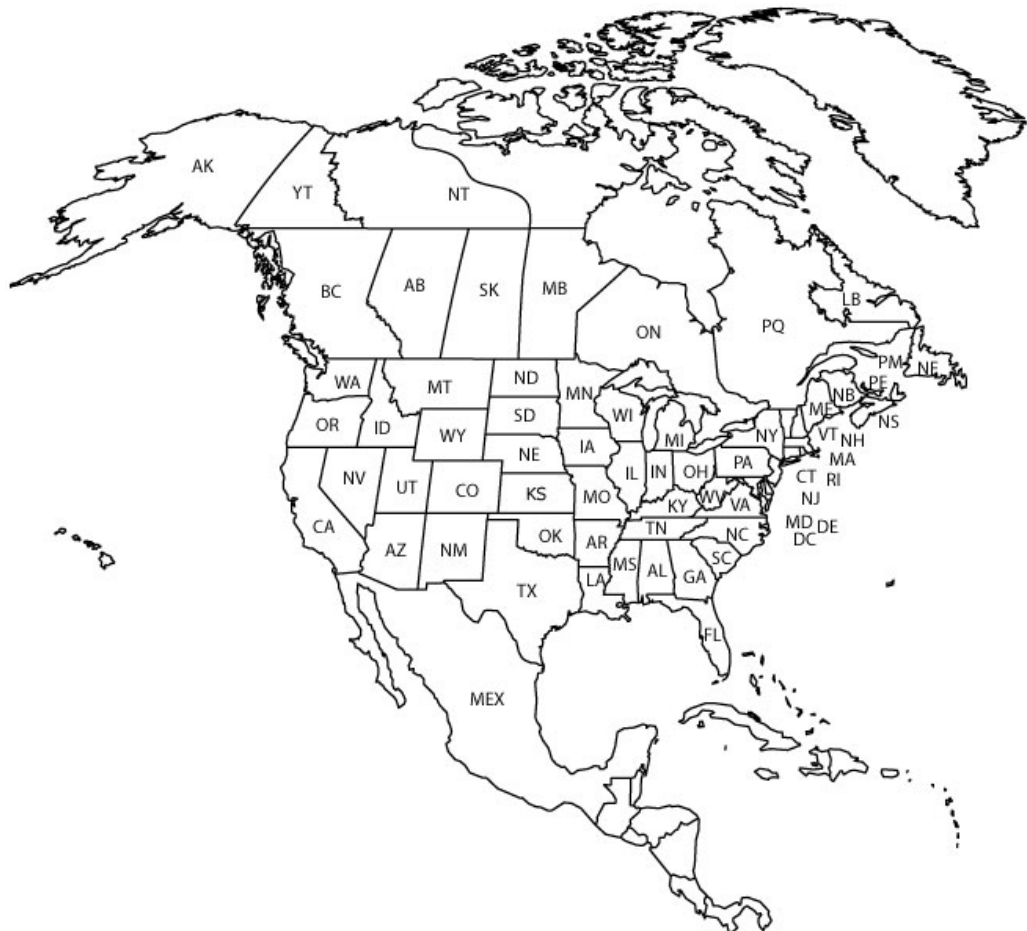
Alphabetical list of the Provinces and Territories of Canada and The United States of America

CANADA

AB -Alberta	NF -Newfoundland	PM -St. Pierre– Miquelon
BC -British Columbia	NS -Nova Scotia	PQ -Quebec
LB -Labrador	NT -Northwest Territories	SK -Saskatchewan
MB -Manitoba	ON -Ontario	YT -Yukon Territory
NB -New Brunswick	PE -Prince Edward Island	

USA

AK -Alaska	IL -Illinois	NC -North Carolina	RI -Rhode Island
AL -Alabama	IN -Indiana	ND -North Dakota	SC -South Carolina
AR -Arkansas	KS -Kansas	NE -Nebraska	SD -South Dakota
AZ -Arizona	KY -Kentucky	NH -New Hampshire	TN -Tennessee
CA -California	LA -Louisiana	NJ -New Jersey	TX -Texas
CO -Colorado	MA -Massachusetts	NM -New Mexico	UT -Utah
CT -Connecticut	MD -Maryland	NV -Nevada	VA -Virginia
DC -Dist. of Columbia	ME -Maine	NY -New York	VT -Vermont
DE -Delaware	MI -Michigan	OH -Ohio	WA -Washington
FL -Florida	MN -Minnesota	OK -Oklahoma	WI -Wisconsin
GA -Georgia	MO -Missouri	OR -Oregon	WV -West Virginia
IA -Iowa	MS -Mississippi	PA -Pennsylvania	WY -Wyoming
ID -Idaho	MT -Montana		



SUPERFAMILY BUPRESTOIDEA LEACH 1815

Bupresti Leach 1815:85.

Buprestoidea: Crowson 1955:15, 58–60; Bellamy & Volkovitsh 2005:461, 463.

FAMILY SCHIZOPODIDAE LECONTE 1859

Schizopodidae LeConte 1859b:122.

Classification: LeConte 1859b (as family); 1866; LeConte & Horn 1883; Kerremans 1893; 1902; 1907; Obenberger 1926 (as tribe); Arnett 1962; Nelson 1982; Bellamy 1985 (as subfamily); Nelson & Bellamy 1991; 2002 (as family); Hołyński 1993; Volkovitsh 2001 (as subfamily); Kolibác 2001 (as family); Bellamy 2003a.

Geographic Distribution: Nelson & Bellamy 1991.

Biology: Nelson & Bellamy 1991.

Morphology: Good 1925 (wing); Rees 1941 (larva); Nelson & Bellamy 1991 (♂ & ♀, genitalia, wing, larva); Volkovitsh 2001 (antennae).

Key(s): Arnett 1962:483 (genera); Nelson & Bellamy 1991:987 (tribes, genera, species & subspecies); 2002:96 (tribes & genera).

Subfamily Schizopodinae LeConte 1859

Schizopodidae LeConte 1859b:122.

Schizopodinae: Crowson 1955:60.

Tribe Schizopodini LeConte 1859

Schizopodidae LeConte 1859b:122.

Schizopodini LeConte 1866:386.

Type genus: *Schizopus* LeConte 1858.

Schizopodini: Nelson 1982:386 (spelling emendation).

Schizopodina: Hołyński 1993.

Classification: LeConte 1866; LeConte & Horn 1883; Kerremans 1893; 1902; 1904; 1907; Obenberger 1939; Arnett 1962; Nelson 1982; Bellamy 1985; Nelson & Bellamy 1991; 2002; Hołyński 1993; Bellamy 2003a.

Key(s): Kerremans 1907:583 (genera & species); Arnett 1962:483 (genera); Nelson & Bellamy 1991:987 (genera, species & subspecies); 2002:96 (genera).

Genus *Schizopus* LeConte 1858*Schizopus* LeConte 1858a:70.Type species: *Schizopus laetus* LeConte 1858 (fixed by monotypy).*Yermoella* Obenberger 1939a:263 – Synonymy: Cazier 1941:33.Type species: *Yermoella helferi* Obenberger 1939 (fixed by original designation).

Immature stages: Rees 1941 (first instar larva).

Taxonomy: Rees 1941; Cazier 1941; Nelson 1982; Nelson & Bellamy 1991; Volkovitsh 2001; Nelson & Bellamy 2002; Bellamy 2003a.

Redescription: Nelson & Bellamy 1991:989.

Ecology: Nelson & Bellamy 1991 (biol., distr.).

Key(s): Kerremans 1907:592; Obenberger 1939a:257; Cazier 1939a:86; Nelson & Bellamy 1991:987.

***laetus* LeConte 1858a:71 (♂).**

Type locality: None listed but gold disk on type indicates CA – Type depository: MCZC 2712 (♂).

synonym: *helferi* (Obenberger) 1939a:264, plate 11, fig. 4 (♀) (*Yermoella*) – Synonymy: Cazier 1941:33.Type locality: S CA – Type depository: DEIC (♀) (Lectotype designation: Nelson *in* Nelson & Bellamy 1991:994).

Taxonomy: Cazier 1941; Nelson & Bellamy 1991.

Redescription: Obenberger 1939a:264, plate 11, fig. 4 (♀ as *Yermoella helferi*); Nelson & Bellamy 1991:993 (♂, ♀), figs. 1, 2, 22–27, 52, 59, 80 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 1 (adults, sexes reversed); Volkovitsh 2001: fig. 1 (antennomere).Ecology: Cazier 1939a; Nelson & Bellamy 1991 (biol., distr.); Nelson, *et al.* 1996 (biol.).

Distribution: USA: AZ, CA, NV

SCHIZOPODIDAE: Schizopodinae: Schizopodini, Dystaxiini

Host(s): adults on *Boerhavia annulata* Cov., *Cassia armata* S. Wats., *Chaenactis carphoclinia* Gray, *Dalea schottii* Torr., *Encelia farinosa* T. & G., *Ephedra californica* S. Wats., *Eschscholzia* sp. and *Geraea canescens* T. & G.

sallei nigricans Nelson in Nelson & Bellamy 1991:996 (♂, ♀), figs. 30a, 80 (clypeus, distr.).

Type locality: CA, San Benito Co., 8.2 mi W of I-5, Panoche Rd. – Type depository: CASC 16780 (♀).

Ecology: Nelson & Bellamy 1991 (biol., distr.).

Distribution: USA: CA

Host(s): adults on dried grass.

sallei sallei Horn 1885:145 (♀), plate 4, fig. 14 (adult).

Type locality: CA, Mariposa – Type depository: MCZC 33801 (♀).

Immature stages: Rees 1941:214, plate 23 (first instar larva).

Taxonomy: Obenberger 1939a; Cazier 1939a; Rees 1941; Nelson & Bellamy 1991.

Redescription: Good 1925: plate 11 (wing); Cazier 1939a:85 (♂); Nelson & Bellamy 1991 (♂, ♀), figs. 3, 14, 15, 28, 29, 30b, 31, 53, 60, 80 (♂ habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 2 (♀).

Ecology: Cazier 1939a; Nelson & Bellamy 1991.

Distribution: USA: CA

Host(s): adults on dry grass, *Brodiaea* sp., *Clarkia* sp., *Dichelostemma* sp. and *Triteleia* sp.

Tribe Dystaxiini Théry 1929

Dystaxiini Théry 1929b:60.

Type genus: *Dystaxia* LeConte 1866.

Glyptoscelimorphini Cobos 1963b:354; Nelson & Bellamy 1991:997 (synonym of Dystaxiini).

Type genus: *Glyptoscelimorpha* Horn 1893.

Dystaxiina: Hotyński 1993.

Classification: Théry 1929b; Bellamy 1985; Nelson & Bellamy 1991; 2002; Volkovitsh 2001; Bellamy 2003a.

Key(s): Arnett 1962:483 (genera as Schizopinae, *lapsus calami*); Nelson & Bellamy 1991:987 (genera, species & subspecies); 2002:96 (genera).

Genus *Dystaxia* LeConte 1866

Dystaxia LeConte 1866:385.

Type species: *Dystaxia murrayi* LeConte 1866 (fixed by original designation).

Immature stages: Nelson & Bellamy 1991 (larva).

Taxonomy: Nelson 1982; Nelson & Bellamy 1991; 2002; Volkovitsh 2001; Bellamy 2003a.

Redescription: Nelson & Bellamy 1991:997.

Ecology: Chamberlin 1926; Nelson & Bellamy 1991 (biol., distr.).

Key(s): Kerremans 1907:587; Nelson & Bellamy 1991:987.

cuprea Knull 1947 [syn. of *murrayi*]

elegans Fall 1905:71 (♂, ♀).

Type locality: CA, San Diego – Type depository: MCZC 24433 (♂) (Lectotype designation: Nelson & Bellamy 1991:1001).

Taxonomy: Nelson & Bellamy 1991.

Redescription: Obenberger 1939a: plate 11, fig. 2 (adult); Nelson & Bellamy 1991:1000 (♂, ♀), figs. 5, 12, 13, 36–39, 55, 62, 81 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 4 (♂, ♀); Volkovitsh 2001: fig. 4 (♂ antennomere).

Ecology: Walters & Bellamy 1982 (biol.); Nelson & Bellamy 1991 (biol., distr.).

Distribution: USA: CA

Host(s): adults on *Quercus agrifolia* Neé and *Q. berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

lecontei Thomson 1879 [syn. of *murrayi*]

murrayi LeConte 1866:385.

Type locality: CA – Type depository: MCZC 2711 (♀).

synonym: *lecontei* Thomson 1879:6 – Synonymy: Horn 1891a:45.

Type locality: CA – Type depository: MNHN (♂).
 synonym: *cuprea* Knull 1947a:72 (as subspecies of *murrayi*) – Synonymy: Nelson 1980a:92.
 Type locality: CA, Cajon Pass – Type depository: FMNH (♀).
 Taxonomy: Nelson 1980a; Nelson & Bellamy 1991.
 Redescription: Good 1925: plate 11 (wing); Nelson & Bellamy 1991:998 (♂, ♀), figs. 4, 9–11, 32–35, 54, 61, 81 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 3–1 (♂, ♀).
 Ecology: Chamberlin 1926; Nelson & Bellamy 1991 (biol., distr.).
 Distribution: **USA:** CA
 Host(s): adults on *Chrysothamnus nauseosus* (Pall.) Britt. ssp. *mohavensis* (Greene) Hall & Clem. and *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

Genus *Glyptoscelimorpha* Horn 1893

Glyptoscelimorpha Horn 1893:137.
 Type species: *Glyptoscelimorpha marmorata* Horn 1893 (fixed by monotypy).
 Taxonomy: Nelson & Bellamy 1991; Volkovitsh 2001; Nelson & Bellamy 2002; Bellamy 2003a.
 Redescription: Nelson & Bellamy 1991:2002.
 Ecology: Nelson & Bellamy 1991.
 Key(s): Nelson & Bellamy 1991:987.

subgenus *Glyptoscelimorpha* (*Dystaxiella*) Knull 1940

Dystaxiella Knull 1940c:362 (as genus).
 Type species *Dystaxiella juniperae* Knull 1940 (fixed by original designation).
 Taxonomy: Nelson & Bellamy 1991; 2002; Bellamy 2003a.
 Redescription: Nelson & Bellamy 1991:1002.
 Ecology: Nelson & Bellamy 1991.
 Key(s): Nelson & Bellamy 1991:987.

juniperae juniperae (Knull) 1940c:362 (*Dystaxiella*) (♂, ♀).

Type locality: CA, Mountain Springs – Type depository: FMNH (♂).
 Taxonomy: Nelson & Bellamy 1991.
 Redescription: Nelson & Bellamy 1991:1002 (♂, ♀) figs. 6, 16, 17, 48–51, 56, 63, 82 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 6 (as *G. marmorata*).
 Ecology: Nelson & Bellamy 1991 (biol., distr.).
 Distribution: **USA:** CA
 Host(s): adults on *Juniperus californica* Carr.

juniperae viridiceps Nelson in Nelson & Bellamy 1991:1005 (♂, ♀).

Type locality: CA, Inyo Co., Hwy. 190, near Jackass Springs – Type depository: CASC 16750 (♂).
 Taxonomy: Nelson & Bellamy 1991.
 Ecology: Nelson & Bellamy 1991 (biol., distr.).
 Distribution: **USA:** CA
 Host(s): adults on *Juniperus osteosperma* (Torr.) Little.

subgenus *Glyptoscelimorpha* (*Glyptoscelimorpha*) Horn 1893

Glyptoscelimorpha Horn 1893:137.
 Type species: *Glyptoscelimorpha marmorata* Horn 1893.

marmorata Horn 1893:137 (♂).

Type locality: CA, near Los Angeles – Type depository: MCZC 33800 (♂) (Lectotype designation: Nelson & Bellamy 1991:1007).
 Taxonomy: Nelson & Bellamy 1991.
 Redescription: Good 1925: plate 11 (wing); Obenberger 1939a: plate 11, fig. 1 (adult); Nelson & Bellamy 1991:1006 (♂, ♀), figs. 7, 20, 21, 40–43, 57, 64, 82 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 7 (as *G. juniperae*).
 Ecology: Walters 1978; Nelson & Bellamy 1991 (biol., distr.).
 Distribution: **USA:** CA
 Host(s): adults on *Juniperus californica* Carr.

viridis Chamberlin 1931:47 (♂, ♀).

Type locality: CA, Palmdale – Type depository: CASC 5475 (♂).

Taxonomy: Nelson & Bellamy 1991.

Redescription: Nelson & Bellamy 1991:1008 (♂, ♀), figs. 8, 18 19, 44–47, 58, 65, 82 (habitus, parts, genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 5 (♂, ♀); Volkovitsh 2001: figs. 2, 3 (antenna).

Ecology: Nelson 1959 (biol.); Nelson & Bellamy 1991 (biol., distr.).

Distribution: USA: CA

Host(s): adults on *Juniperus californica* Carr.

FAMILY BUPRESTIDAE LEACH 1815

Buprestis Leach 1815:85.

Type genus: *Buprestis* Linnaeus 1758.

Bupreste Olivier 1790.

Sternoxes Latreille 1804.

Buprestoides Burmeister 1829.

Buprestites Newman 1834.

Buprestidae: Laporte 1835.

Priocerata Westwood 1839.

Buprestis Redtenbacher 1845.

Pteroteidae Gistel 1848b:cover – (3).

Type genus: *Ancylochira* Eschscholtz 1829.

Buprestes Schioedte 1865.

Buprestidi Acloque 1896.

Buprestinae Fowler 1912.

Classification: Eschscholtz 1829; Solier 1833; Laporte & Gory 1835–1841; Kirby 1837; Westwood 1840; Lacordaire 1857; LeConte 1860; 1861; LeConte & Horn 1883; Kerremans 1893; 1902–1903; 1904–1914; Casey 1909; Théry 1929; Arnett 1962; Cobos 1979; 1980; Nelson 1982; Bellamy 1985; 1996b; Tôyama 1987; Hołyński 1993; Bílý 1999a; Kolibác 2001; Kubáň, *et al.* 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Geographic Distribution: Kerremans 1894; 1904; Leng 1920; Chamberlin 1926; Obenberger 1926; 1930; Leng & Mutchler 1927; 1933; Obenberger 1934; 1935; 1936; 1937; Blackwelder 1939; Blackwelder & Blackwelder 1948.

Biology: Kerremans 1904; Burke 1917a; Essig 1926; Craighead 1950; Furniss & Carolin 1977; Crowson 1981; Solomon 1995.

Morphology: Lacordaire 1857; Kerremans 1904; Burke 1917a (larvae); Good 1925 (wings); Lawrence 1991 (larvae); Bílý 1999 (larvae).

Key(s): LeConte & Horn 1883:195; Kerremans 1893:101; 1902:5 (tribes & genera); 1904:37 (tribes); Burke 1917a:5 (larvae, genera); Arnett 1962:483 (genera); Wellso, *et al.* 1976 (Michigan genera & species); Cobos 1980:18 (subfamilies); Nelson 1982; 432 (subfamilies & tribes); Bright 1987:23 (Canada & Alaska subfamilies, tribes, genera & species); MacRae 1991 (same for Missouri); Hołyński 1993:33 (subfamilies, tribes & subtribes); Downie & Arnett 1996:737 (NE No. Amer. subfamilies); Bílý 1999a (Central European larvae, subfamilies & genera); Bellamy & Nelson 2002:101 (tribes, subtribes & genera).

Subfamily Polycestinae Lacordaire 1857

Polycestinae Lacordaire 1857:61.

Type genus: *Polycesta* Eschscholtz 1829.

Excuteallatae (Section 2) Schönherr 1817 (part).

Chrysochroites Laporte & Gory 1837 (part).

Polycestides Lacordaire 1857.

Julodini LeConte 1861 (part).

Acmaeoderini Kerremans 1893 (part).

Polycestites Kerremans 1902 (part).

Acmaeoderinae Arnett 1962 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1902; 1905; Burke 1917a

(larvae); Arnett 1962; Cobos 1955; 1980; 1981; Nelson 1982; Bellamy 1985; Bílý 1999a; Kolibác 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Kerremans 1905:373 (genera); Cobos 1980:25, 87 (tribes & genera); Bellamy & Nelson 2002:101 (tribes & genera).

Tribe Haplostethini LeConte 1861

Haplostethini LeConte 1861:161.

Type genus: *Haplostethus* LeConte 1860.

Mastogeniini LeConte & Horn 1883:195, 199 (Mastogenini).

Type genus: *Mastogenius* Solier 1849.

Classification: LeConte & Horn 1883; Kerremans 1893; 1903; Cobos 1957a; Arnett 1962; Nelson 1982; Tôyama 1983; Bellamy 1985; Manley 1986; Kolibác 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002a; 2002b; 2003a.

Key(s): Kerremans 1903:332; Cobos 1957a:92; Arnett 1962:485; Manley 1986; Bellamy & Nelson 2002:102; Bellamy 2002a:7.

Genus *Mastogenius* Solier 1849

Mastogenius Solier 1849:507.

Type species: *Mastogenius parallelus* Solier 1849 (fixed by monotypy).

Haplostethus LeConte 1860:253 – Synonymy: LeConte & Horn 1883:199.

Type species: *Haplostethus subcyaneus* LeConte 1860 (fixed by monotypy).

Taxonomy: Cobos 1956b; Toyoma 1983; Manley 1986; Bellamy 1987a; 1990; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002; 2003c.

Key(s): Obenberger 1939c:78; Tôyama 1983:55 (genera); Bellamy 2002:7 (genera & species).

antennatus Cazier 1952 [syn. of *castlei*]

arizonicus Bellamy 2002a:2, figs. 1–3 (adults, ♂ genitalia).

Type locality: AZ, Pima Co., Santa Catalina Mtns., Oracle–Mt.Lemmon Road, vic. Marble Peak, N32E27'46", W11DE43'53" – Type depository: LACM (♂).

Taxonomy: Bellamy 2002a.

Ecology: Bellamy 2002a (biol., distr.).

Distribution: **USA:** AZ

Host(s): adults on dead branches *Quercus hypoleucoides* Camus.

castlei Champlain & Knull 1922:145.

Type locality: FL, Miami – Type depository: FMNH (♀).

synonym: *antennatus* Cazier 1952:6 – Synonymy: Westcott 1990:256.

Type locality: Brit. W Ind., Bahamas, S Bimini Isld. – Type depository: AMNH (♂).

Taxonomy: Westcott 1990; Bellamy 2002a.

Ecology: Knull 1954b (as *antennatus*); Bellamy 2002a (distr.); Westcott 1990; MacRae & Nelson 2003 (biol.).

Distribution: **USA:** FL; also recorded from the West Indies.

Host(s): larvae in pods of *Tamarindus indica* L.; adults also on *Conocarpus erectus* L. and *Laguncularia racemosa* (L.) Gaertn. f.

crenulatus Knull 1934:334 (as subspecies of *subcyaneus*).

Type locality: PA, Dauphin Co., Clark's Valley – Type depository: FMNH.

synonym: *knulli* Obenberger 1939c:79 – Synonymy: Nelson 1985b:140.

Type locality: TX – Type depository: NMPC

Taxonomy: Hesperheide 1974.

Ecology: Nelson 1987a; MacRae 2006 (biol., distr.); Nelson & MacRae 1990; Bellamy 2002a (distr.); Knull 1974; Nelson, *et al.* 1981; 1996 (biol.).

Distribution: **Canada:** ON; **USA:** AL, AR, CT, FL, GA, IL, LA, MD, MO, NC, NJ, OH, PA, SC, TN, TX

Host(s): larvae in *Carya illinoensis* (Wangenh.) K. Koch., *Cercis canadensis* L., *Diospyros texana* Scheele and *Quercus alba* L., *Q. phellos* L.; adults also on *Acer saccharum* Marsh. and *Salix* sp.

knulli Obenberger 1939 [syn. of *crenulatus*]

BUPRESTIDAE: Polycestinae: Haplostethini, Acmaeoderini

puncticollis Schaeffer 1919:213.

Type locality: AZ, Huachuca Mtns – Type depository: USNM 42634.

Ecology: Walters & Bellamy 1990 (biol.); Bellamy 2002a (distr.).

Distribution: **USA:** AZ, CA

Host(s): adults on *Quercus* sp.

robustus Schaeffer 1905b:148.

Type locality: AZ, Cochise Co., Palmerlee – Type depository: USNM 42645 (Lectotype not designated).

Ecology: Nelson 1965 (biol.); Bellamy 2002a (distr.).

Distribution: **USA:** AZ

Host(s): adults on *Quercus hypoleucoides* Camus.

subcyaneus (LeConte) 1860:254 (*Haplostethus*).

Type locality: Southern States – Type depository: MCZC 2737 (Lectotype designation: Knull 1934d:334).

Taxonomy: Tôyama 1983.

Redescription: Knull 1925: plate 7, fig. 3 (adult); Good 1925: plate 11 (wing); Akiyama & Ohmomo 2000: fig. 11.

Ecology: Kissinger 1955 (biol.); Hespeneheide 1974; Nelson, *et al.* 1981; Nelson 1987a; Bellamy 2002a (distr.).

Distribution: **USA:** CT, DC, DE, FL, GA, IL, IN, LA, MD, MO, MS, NC, NJ, NY, PA, RI, SC, TN, TX, VA, WV

Host(s): larvae in *Quercus* sp.; adults also on *Cornus* sp.

texanus Bellamy 2002:4, figs. 4–6 (adults, ♂ genitalia).

Type locality: TX, Jeff Davis Co., Davis Mtns., Picnic Area, 11.3 mi W Ft. Davis on Hwy 161, elev. 5080' – Type depository: LACM (♂).

Taxonomy: Bellamy 2002a

Ecology: Bellamy 2002a (biol., distr.).

Distribution: **USA:** TX

Host(s): larvae in *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.; adults also on *Q. grisea* Liebm.

Genus *Trigonogya* Schaeffer 1919

Trigonogya Schaeffer 1919:213.

Type species: *Mastogenius reticulaticollis* Schaeffer 1904 (fixed by original designation).

reticulaticollis (Schaeffer) 1904:210 (*Mastogenius*).

Type locality: TX, Brownsville – Type depository: USNM 8761.

Ecology: Knull 1937b; MacRae 2006 (biol., distr.).

Distribution: **USA:** TX

Host(s): larvae in *Fraxinus berlandieriana* DC. (misapplied to *F. caroliniana* Mill.).

Genus *Micrasta* Kerremans 1893

Micrasta Kerremans 1893:115.

Type species: *Micrasta typica* Kerremans 1893 (fixed by original designation).

Taxonomy: Kerremans 1893:115; 1896:148; 1903:332.

Redescription: Kerremans 1896:148.

Key(s): Kerremans 1896:148 (revision, key to species).

oakleyi Fisher 1935:30.

Type locality: Ponce, Puerto Rico – Type depository: USNM 50779.

Ecology: Nelson, *et al.* 1996 (biol., distr.).

Distribution: **USA:** FL; also recorded from the West Indies.

Host(s): adults on *Trophis racemosa* (L.) Urban.

Tribe Acmaeoderini Kerremans 1893

Acmaeoderini Kerremans 1893:112.

Type genus: *Acmaeodera* Eschscholtz 1829.
 Exscutellatae (Section 2) Schönherr 1817 (part).
 Chrysochroites Laporte & Gory 1837 (part).
 Polycestides Lacordaire 1857 (part).
 Julodini LeConte 1861 (part).
 Acmaeoderites Kerremans 1893 (part).

Subtribe Acmaeoderoidina Cobos 1955

Acmaeoderoidina Cobos 1955:15 (as tribe).
 Type genus: *Acmaeoderoides* Van Dyke 1942.
 Classification: Cobos 1955; 1980; Nelson 1970; 1982; Bellamy 1985; Holm 1986; Volkovitsh 2001;
 Bellamy & Nelson 2002; Bellamy 2003a.
 Key(s): Bellamy & Nelson 2002:102 (genera).

Genus *Acmaeoderoides* Van Dyke 1942

Acmaeoderoides Van Dyke 1942:108.
 Type species: *Acmaeoderoides insignis* Horn 1894 (fixed by monotypy).
 Taxonomy: Cobos 1955 (tribal placement); Nelson 1968c (revision); Volkovitsh 2001; Bellamy &
 Nelson 2002; Bellamy 2003.
 Redescription: Nelson 1968c:127.
 Ecology: Nelson 1968c; 1999 (biol., distr.).
 Key(s): Nelson 1968c:128; 1999:374.

balli (Knull) 1937 [syn. of *rossi*]

cazieri Nelson 1968c:137 (♂, ♀), fig. 8 (adult ♂).
 Type locality: CA, Imperial Co., 11 mi S Palo Verde – Type depository: CASC 9827 (♀).
 Taxonomy: Nelson 1968c.
 Redescription: Akiyama & Ohmomo 2000: fig. 163 (♂).
 Ecology: Nelson 1968c (biol., distr.).
 Distribution: **USA:** CA
 Host(s): adults on *Atriplex lentiformis* (Torr.) S. Wats., *Prosopis glandulosa* Torr. and *P. pubescens*
 Benth.

confusus Nelson 1999:371 (♂, ♀), fig. 1 (adult ♀).
 Type locality: CA, Riverside Co., above Palm Desert, Hwy. 74, 3500' – Type depository: CASC 17650
 (♀).
 Taxonomy: Nelson 1999.
 Ecology: Walters & Bellamy 1982 (as *verityi*); Nelson 1999 (biol., distr.).
 Distribution: **USA:** AZ, CA; also recorded from Mexico: BCN.
 Host(s): larvae in *Simmondsia chinensis* (Link) C.K. Schneid.; adults also on flowers of *Eriogonum*
fasciculatum (Benth.) T. & G., *E. inflatum* Torr. & Frem., *E. trichopes* Torr. and *Hyptis emoryi*
 Torr.

depressus Nelson 1968c:136 (♂, ♀), fig. 7 (adult ♀).
 Type locality: CA, Imperial Co., Mt. Springs, E of Jacumba – Type depository: CASC 9828 (♀).
 Taxonomy: Nelson 1968c.
 Ecology: Nelson 1968c (biol., distr.).
 Distribution: **USA:** CA; also recorded from Mexico: BCN.
 Host(s): adults on flowers of *Salvia vaseyi* (Porter) Parish.

distinctus Nelson 1968c:129 (♂, ♀), fig. 1, 5 (ovipositor, adult ♀).
 Type locality: CA, Riverside Co., Pinyon Flat, 4000' – Type depository: CASC 9829 (♀).
 Taxonomy: Nelson 1968c.
 Ecology: Nelson 1968c (biol., distr.); 1999 (distr.).
 Distribution: **USA:** CA; also recorded from Mexico.
 Host(s): adults on flowers of *Eriogonum fasciculatum* (Benth.) T. & G. and *Salvia apiana* Jeps.

ferruginis Wellso & Nelson in Nelson 1968c:132, fig. 6 (adult ♂).
 Type locality: TX, Presidio Co., 3 mi N Presidio – Type depository: AMNH (♂).
 Taxonomy: Nelson 1968c.

BUPRESTIDAE: Polycestinae: Acmaeoderini

Redescription: Nelson 1999:375 (♀)

Ecology: Nelson 1968c; 1999 (biol.).

Distribution: USA: TX

Host(s): adults on *Acacia greggii* Gray and flowers of *Tiquilia greggii* (T. & G.) Richards.

humeralis (Cazier) 1938a:12 (*Acmaeodera*).

Type locality: CA, San Bernardino Co., Amboy – Type depository: AMNH.

Taxonomy: Nelson 1968c.

Redescription: Nelson 1968c:143 (♂, ♀), fig. 12 (adult ♀); Akiyama & Ohmomo 2000: fig.161 (♂).

Ecology: Nelson 1968c (biol., distr.); Westcott 1991; 2001b (distr.); 2005 (distr.).

Distribution: USA: AZ, CA, NV, TX

Host(s): adults on flowers of *Eriogonum inflatum* Torr. & Frem., *Geraea canescens* Gray and *Palafoxia* sp.

insignis (Horn) 1894:377 (*Acmaeodera*).

Type locality: Mexico: Baja California, San Raymundo – Type depository: CASC 28 (♀).

Taxonomy: Van Dyke 1942; Nelson 1968c.

Redescription: Van Dyke 1942: plate 6, fig. 4 (adult); Nelson 1968c:130 (♂, ♀), fig. 3 (adult ♀).

Ecology: Nelson 1968c (biol., distr.).

Distribution: USA: CA; also recorded from Mexico.

Host(s): adults on flowers of *Nicolletia trifida* Rydb. and *Phacelia crenulata* Torr.

knalli Nelson 1968c:139 (♂, ♀), fig. 9 (adult ♀).

Type locality: CA, Riverside Co., North Palm Springs – Type depository: CASC 9830 (♀).

Taxonomy: Nelson 1968c.

Redescription: Akiyama & Ohomomo, 2000: fig. 162 (♂).

Ecology: Nelson 1968c (biol., distr.).

Distribution: USA: CA

Host(s): adults on flowers of *Eriogonum inflatum* Torr. & Frem.

rossi (Cazier) 1937:115 (*Acmaeodera*).

Type locality: CA, Holtville – Type depository: AMNH (♀).

synonym: *balli* (Knull) 1937d:302 (*Tyndaris*), fig. 1 (adult) – Synonymy: Van Dyke 1942:109.

Type locality: AZ, Congress Junction – Type despository: FMNH (♀).

Taxonomy: Nelson 1968c.

Redescription: Cobos 1955: figs. 8, 11, 14, 15, 18 (antenna, wing, ♂ genitalia, ovipositor); Nelson 1968c:141 (♂, ♀), fig. 10 (adult ♀).

Ecology: Nelson 1968c (biol., distr.); Walters 1978 (distr.); Westcott 2005 (distr.).

Distribution: USA: AZ, CA, NV

Host(s): adults on *Acacia* sp., *Cercidium floridum* Gray, *Ephedra* sp., *Eriogonum deserticola* S. Wats., *E. inflatum* Torr. & Frem., *Hyptis emoryi* Torr., *Larrea tridentata* (DC.) Cov., *Palafoxia* sp., *Prosopis* sp. and *Stephanomeria* sp.

rufescens Nelson 1968c:144 (♂, ♀), figs. 2, 13 (ovipositor, adult ♀).

Type locality: CA, Riverside Co., 5 mi W Indio –Type depository: CASC 9831 (♀).

Taxonomy: Nelson 1968c.

Redescription: Akiyama & Ohmomo 2000: fig. 164 (♀).

Ecology: Nelson 1968c (biol., distr.).

Distribution: USA: CA; also recorded from Mexico.

Host(s): adults on *Geraea canescens* T. & G., *Palafoxia* sp. and *Prosopis glandulosa* Torr.

stramineus Nelson 1968c:142 (♂, ♀), fig. 11 (adult ♀).

Type locality: CA, Imperial Co., 14 mi E Holtville – Type depository: CASC 9832 (♀).

Taxonomy: Nelson 1968c.

Redescription: Akiyama & Ohmomo 2000: fig. 166 (♀).

Ecology: Nelson 1968c; 1999 (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: CA

Host(s): adults on flowers of *Eriogonum deserticola* S. Wats., *Palafoxia arida* B. Turner & ♂ Morris var. *gigantea* (♂E. Jones) B. Turner & M. Morris and *Tiquilia plicata* (Torr.) Richards.

verityi Nelson 1968c:133 (♂, ♀), fig. 4 (adult).

Type locality: CA, Riverside Co., above Palm Desert, 3500' – Type depository: CASC 9833 (♀).

Taxonomy: Nelson 1968c; 1999.

Redescription: Nelson 1999:375; Akiyama & Ohmomo 2000: fig.165 (♀).
 Ecology: Nelson 1968c; 1987a (biol.); 1999 (biol., distr.).
 Distribution: USA: CA
 Host(s): adults on flowers of *Salvia apiana* Jeps. and *S. vaseyi* (Porter) Parish.

Subtribe Acmaeoderina Kerremans 1893

Acmaeoderites Kerremans 1893:113.
 Type genus: *Acmaeodera* Eschscholtz 1829.
 Classification: Kerremans 1893; 1902; 1906; Cobos 1955; 1980; Arnett 1962; Nelson 1982; Bellamy 1985; Bílý 1999a; Volkovitsh 2001; Kolíbác 2001; Bellamy & Nelson 2002; Bellamy 2003a; Davidson 2003.
 Key(s): Kerremans 1902:27; Arnett 1962:485; Bellamy & Nelson 2002:102 (genera).

Genus *Acmaeodera* Eschscholtz 1829

Acmaeodera Eschscholtz 1829:9.
 Type species: *Buprestis cylindrica* Fabricius 1775 (fixed by subsequent designation: Opinion 2100, ICZN 2005a:47).
Andromeda Gistel 1834:10 – Synonymy: Mannerheim 1837:24.
 Type species: *Buprestis ornata* Fabricius 1775 (fixed by subsequent designation: Bellamy 2003a:16).
 Taxonomy: Horn 1878 (revision); Fall 1899 (revision); Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
 Redescription: Bright 1987:32.
 Ecology: Burke 1917a (biol.).
 Key(s): Fall 1899:4 (USA); Barr 1971:83 (Pacific NW); Bright 1987:32 (Canada); Downie & Arnett 1996:738 (NE No. Amer.).

subgenus *Acmaeodera (Acmaeodera)* Eschscholtz 1829

Acmaeodera Eschscholtz 1829:9.
 Type species: *Buprestis cylindrica* Fabricius 1775.

***acanthicola* Barr 1972:177.**

Type locality: AZ, Cochise Co., 2 mi E Portal – Type depository: CASC 11485 (♂).
 misidentification: *stigmata* of authors (in part), not *stigmata* Horn 1884
 Taxonomy: Barr 1972b.
 Redescription: Akiyama & Ohmomo 2000: fig. 213 (as *stigmata*).
 Ecology: Barr 1972b; Westcott, *et al.* 1979 (biol., distr.).
 Distribution: USA: AZ, CA; also recorded from Mexico.
 Host(s): larvae in *Celtis ehrenbergia* (Klot.) Liebm.; adults also on *Acacia constricta* Benth., *A. greggii* Gray, *A. vernicosa* Standl. and *Cercidium floridum* Gray.

***acuta* LeConte 1860:224.**

Type locality: CA, Fort Tejon – Type depository: MCZC 2723.
 Ecology: Barr 1971 (biol., distr.); Westcott, *et al.* 1979.
 Distribution: USA: CA, ID, NV, OR
 Host(s): adults on *Achillea* sp., *Encelia actoni* Elmer, *Rosa* sp., *Salix* sp. and *Sphaeralcea* sp.

***adenostomae* Cazier 1938b:137 (♂, ♀).**

Type locality: CA, Santa Barbara Co., Sunset Valley – Type depository: AMNH (♀).
 Ecology: White 1939 (biol.).
 Distribution: USA: CA
 Host(s): adults on *Adenostoma fasciculatum* H. & A.

***adenostomensis* Knull 1941c:691.**

Type locality: CA, Jacumba – Type depository: FMNH.
 Ecology: Nelson 1965 (biol.); 1967a (distr.).
 Distribution: USA: CA; also rcorred from Mexico.
 Host(s): adults on *Adenostoma fasciculatum* H. & A. and *A. sparsifolium* Torr.

***alacris* Horn 1878:25.**

Type locality: CA, near Fort Yuma – Type depository: MCZC 8033.

BUPRESTIDAE: Polycestinae: Acmaeoderini

Taxonomy: Horn 1878; Fall 1899.

Ecology: Nelson 1967a; Westcott, *et al.* 1979 (biol., distr.).

Distribution: USA: CA; also recorded from Mexico.

Host(s): adults on *Cercidium plurifoliolatum* Michx. and *Prosopis* sp.

alicia Fall 1899:29.

Type locality: CA, Los Angeles Co. – Type depository: USNM 4189.

Taxonomy: Fall 1899.

Redescription: Akiyama & Ohmomo 2000: fig. 210.

Ecology: Knull 1937d; Westcott, *et al.* 1979; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: AZ, CA; also recorded from Mexico.

Host(s): larvae in *Acacia willardiana* Rose and *Cercidium floridum* Gray; adults also on *Baileya pleniradiata* Gray, *Ferocactus wislizeni* (Engelm.) Britt. & Rose, *Hymenothrix* sp., *Larrea tridentata* (DC.) Cov., *Prosopis glandulosa* Torr. and *Sesbania exaltata* (Raf.) Cory.

alpina Barr 1972b:173.

Type locality: CA, Inyo Co., Big Pine Creek Cyn., Second Lake, 10040' – Type depository: CASC 11487 (♂).

Taxonomy: Barr 1972b.

Ecology: Barr 1972b (distr.); Westcott, *et al.* 1979 (biol.); Westcott 2005 (distr.); 2007b (biol., distr.).

Distribution: USA: CA, CO, NV, UT

Host(s): adults on *Poliomintha incana* (Torr.) Gray, *Leptodactylon pungens* (Torr.) Rydb. and ground.

amabilis Horn 1878:7.

Type locality: AZ – Type depository: MCZC 33807 (Lectotype not designated).

Taxonomy: Horn 1878; Fall 1899; Cazier 1940a; Barr 1975.

Redescription: Fall 1899:10.

Ecology: Burke 1917b (biol.); Westcott, *et al.* 1979; MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).

Distribution: USA: AZ, CO, NM, TX

Host(s): larvae in *Alnus incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung; adults also on *Baccharis salicifolia* (Ruiz & Pavon) Pers., *Bahia dissecta* (Gray) Britt., *Chrysothamnus* sp., *Glandularia gooddingii* (Briq.) Solbrig., *Machaeranthera gracilis* (Nutt.) Shinn., *Senecio macdougalii* Heller and *Viguiera longifolia* (Robins. & Greenm.) Blake.

amazonica Nonfried 1895 [syn. of *xanthosticta*]

amplicollis LeConte 1866:383.

Type locality: AZ, Fort Whipple – Type depository: MCZC 2719 (Lectotype not designated).

Taxonomy: Horn 1878; Fall 1899.

Redescription: Horn 1878:6, plate 1, fig. 1 (elytron); Cazier 1951b: fig. 7 (adult); Akiyama & Ohmomo 2000: fig. 202 (♂, ♀).

Distribution: USA: AZ, NM; also recorded from Mexico.

Ecology: Cazier 1951b (distr.); Westcott, *et al.* 1979; MacRae 2006 (biol., distr.).

Host(s): adults on *Baileya multiradiata* Gray, *Gaillardia pinnatifida* Torr., *Gutierrezia microcephala* (DC.) Gray, *Gymnosperma glutinosum* Less., *Helianthus nutallii* T. & G., *Heliopsis parvifolia* Gray, *Heterotheca subaxillaris* (Lam.) Britt. & Rusby, *Machaeranthera gracilis* (Nutt.) Shinn., *Senecio flaccidus* Less. and *Verbesina encelioides* (Cav.) Gray.

angelica Fall 1899:16.

Type locality: CA, Los Angeles Co. – Type depository: MCZC 24401 (Lectotype not designated).

Taxonomy: Fall 1899.

Redescription: White 1939: fig. 3 (ovipositor); Helfer 1970:91 fig. (adult).

Ecology: Burke 1917b; White 1939; Beer 1940; 1944 (biol.); Westcott, *et al.* 1979; Westcott 2001b; MacRae 2006 (biol., distr.).

Distribution: USA: AZ, CA, NV, OR, UT; also recorded from Mexico.

Host(s): larvae in *Ceanothus cuneatus* (Hook.) Nutt., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *C. integerrimus* H. & A., *C. oliganthus* Nutt., *Quercus douglasii* H. & A., *Q. john-tuckeri* K. Nixon & C.H. Muller and *Toxicodendron diversilobum* (T. & G.) Greene; adults also on *Cercocarpus betuloides* T. & G., *Fremontodendron californicum* (Torr.) Cov., *Phacelia imbricata* Greene, *Rhamnus tomentella* Benth. ssp. *cuspidata* (Greene) J.O. Sawyer and various flowers.

anthobia Obenberger 1924 [syn. of *obtusa*]

arizonae Horn 1878 [syn. of *mixta*]

atactospilota Westcott 1971b:7.

Type locality: CA, Los Angeles Co., near Littlerock – Type depository: CASC 9848 (♀).

Taxonomy: Westcott 1971b.

Ecology: Westcott 1971b; Westcott, *et al.* 1979 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA, NV, UT

Host(s): larvae in *Ephedra viridis* Cov.; adults also on *Ephedra nevadensis* S. Wats.; and flowers of *Acacia greggii* Gray, *Coreopsis bigelovii* (Gray) Hall, *Encelia farinosa* T. & G., *Eriogonum fasciculatum* (Benth.) T. & G., *E. inflatum* Torr. & Frem., *Fallugia paradoxa* (D. Don) Endl., *Salvia dorii* (Kell.) Abrams, *Sphaeralcea rusbyi* Gray var. *eremicola* (Jeps.) Kearns., *Stephanomeria pauciflora* (Torr.) Nelson and *Viguiera reticulata* S. Wats.

audreyae Westcott & Barr 2007:56, fig. 3 (♂).

Type locality: 5 mi NW Ocotillo, Imperial Co., Calif. – Type depository: EMEC 69341 (♂).

Taxonomy: Westcott & Barr 2007.

Ecology: Westcott & Barr 2007.

Distribution: **USA:** CA

Host(s): adults on *Larrea tridentata* (DC.) Cov.

auritincta Fall 1922:88.

Type locality: TX, Culberson Co., Kent, 3900–4200' – Type depository: MCZC 24402.

Taxonomy: Fall 1922; Barr 1992:81 (syn. of *delectabilis* Waterhouse); Westcott 2007b (resurrection).

Redescription: Cazier 1951b: fig. 5.

Ecology: Cazier 1951b (distr.); Westcott, *et al.* 1979 (biol.); 2007b (distr.).

Distribution: **USA:** NM, TX; also recorded from Mexico.

Host(s): adults on *Psilostrophe* sp. and *Viguiera stenoloba* Blake.

aurora Fall 1922:88.

Type locality: CA, San Diego Co., Jacumba – Type depository: MCZC 24403.

Taxonomy: Westcott 2001b.

Ecology: Nelson 1960b; 1962 (biol.); Westcott 2001b (biol., distr.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): adults on *Acacia greggii* Gray, *Eriogonum fasciculatum* (Benth.) T. & G. and *Juniperus californica* Carr.

bacchariphaga Westcott & Verity 1977:149.

Type locality: Mexico: BCN, 16.7 mi SE Santo Tomas, 150 m. – Type depository: CASC 12747 (♀).

Taxonomy: Westcott & Verity 1977.

Ecology: Westcott & Verity 1977 (biol., distr.).

Distribution: **USA:** CA; also recorded from Mexico: BCN.

Host(s): larvae in *Baccharis sarothroides* Gray; adults also on flowers of *Bebbia juncea* (Benth.) Greene; *Cirsium* sp., *Stephanomeria* sp. and dead twigs of *Hymenoclea monogyra* Gray.

bernardino Van Dyke 1937 [syn. of *mariposa dohrni*]

biedermanni Skinner 1903 [syn. of *pubiventris lanata*]

bishopiana Fall 1907:240.

Type locality: CA, Inyo Co., Bishop – Type depository: MCZC 24404 (Lectotype not designated).

Taxonomy: Fall 1907.

Ecology: Beer 1944; Barr 1971 (biol., distr.); Westcott, *et al.* 1979 (biol.).

Distribution: **USA:** CA, ID, NV, OR

Host(s): larvae in *Atriplex canescens* (Pursh) Nutt. and *A. confertifolia* (Torr. & Frem.) S. Wats.; adults also on various flowers.

bisseptemguttata Marseul 1867 [syn. of *xanthosticta*]

bivulnera Horn 1894:371.

Type locality: AZ, near Tucson – Type depository: MCZC 33810 (Lectotype not designated).

Taxonomy: Fall 1899.

Redescription: Fall 1899:32; Cazier 1951b: fig. 24 (adult).

Ecology: Barr 1941a (biol., distr.); Cazier 1951b (distr.); Nelson 1959; Westcott, *et al.* 1979; Bellamy 1982 (biol.).

Distribution: **USA:** AZ, CA, NM; also recorded from Mexico.

BUPRESTIDAE: Polycestinae: Acmaeoderini

Host(s): larvae in *Krameria grayi* Rose & Painter; adults also on *Acacia greggii* Gray, *Cercidium floridum* Gray, *Hymenoclea salsola* Gray, *Justicia californica* (Benth.) D. Gibson, *Larrea tridentata* (DC.) Cov. and *Prosopis glandulosa* Torr.

bouvieri Kerremans 1906 [syn. of *haemorrhoea*]

bowditchi Fall 1901:307.

Type locality: AZ, Prescott – Type depository: MCZC 24405 (Lectotype not designated).
misidentification: *connexa* of authors, not *connexa* LeConte 1859.

Redescription: Akiyama & Ohmomo 2000: fig. 206 (♂, ♀).

Ecology: Westcott, *et al.* 1979; 2001b; MacRae 2006 (biol., distr.).

Distribution: USA: AZ, NM, NV, TX

Host(s): larvae in dead branches of *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.; adults also on flowers of cactus, *Erigeron traceyi* Greene, *Eriogonum fasciculatum* (Benth.) T. & G., *Melampodium leucanthum* T. & G., *Sphaeralcea* sp. and *Tetraneuris scaposa* (DC.) Greene var. *scaposa*.

bryanti Van Dyke 1953:104.

Type locality: TX, Del Rio – Type depository: CASC 8121.

Distribution: USA: TX

Host(s): unknown.

carlota Fall 1932:81.

Type locality: AZ, wheatfields near Globe – Type depository: MCZC 24406.

Taxonomy: Fall 1932.

Ecology: Westcott, *et al.* 1979 (biol.).

Distribution: USA: AZ

Host(s): adults on flowers of cactus, *Eriogonum fasciculatum* (Benth.) T. & G., *Melampodium leucanthum* T. & G. and *Sphaeralcea* sp.

cazieri Knull 1960a:6 (♂, ♀), fig. 1 (adult) (as subspecies of *quadrivittata*).

Type locality: AZ, Cochise Co., Chiricahua Mtns. – Type depository: FMNH (♂).

Taxonomy: MacRae & Nelson 2003.

Ecology: Knull 1960a; MacRae & Nelson 2003 (biol.).

Distribution: USA: AZ

Host(s): adults on flowers of *Allionia incarnata* L., *Argemone* sp., *Boerhavia* sp., *Cirsium* sp., *Jatropha macrorrhiza* Benth.; also landing on white areas of cans.

ceanothae Nelson 1967b:57 (♂, ♀).

Type locality: AZ, Yavapai Co., Yarnell – Type depository: CASC 9317 (♂).

Taxonomy: Nelson 1967b.

Ecology: Nelson 1967b; Westcott, *et al.* 1979 (biol.).

Distribution: USA: AZ

Host(s): adults on *Ceanothus* sp. and *Quercus turbinella* Greene.

chiricahuae Barr 1972b:146, fig. 1 (adult).

Type locality: AZ, Cochise Co., 5 mi W Portal – Type depository: CASC 11488 (♂).

Taxonomy: Barr 1972b.

Ecology: Barr 1972b (biol., distr.).

Distribution: USA: AZ

Host(s): adults on flowers of *Artemisia* sp., *Cirsium* sp., *Heliopsis parvifolia* Gray, *Heterotheca subaxillaris* (Lam.) Britt. & Rusby and *Verbesina encelioides* (Cav.) Gray.

comata LeConte 1858:70.

Type locality: AZ, Colorado R. below the Gila – Type depository: MCZC 2734.
misspelling: *conata* (error for *comata*, *nomen nudum*).

Redescription: Horn 1878: fig. 39 (elytron).

Ecology: Westcott, *et al.* 1979 (biol.); Westcott 2001b (distr.).

Distribution: USA: AZ, CA, NM; also recorded from Mexico.

Host(s): larvae in *Prosopis glandulosa* Torr.

condita Barr 1972b:171, fig.11 (adult).

Type locality: NV, Clark Co., Kyle Cyn. – Type depository: CASC 11490 (♂).

misidentification: *inyoensis* of authors, not *inyoensis* Cazier 1940.

Taxonomy: Barr 1972b.

Ecology: Barr 1972b; MacRae 2006 (biol., distr.).

Distribution: USA: NV

Host(s): adults on flowers of *Eriodictyon* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *Rosa* sp.

confusa Fisher 1925 [syn. of *xanthosticta*]

connexa LeConte 1859:71.

Type locality: CA, Fort Tejon – Type depository: MCZC 2722 (Lectotype not designated).

Taxonomy: Horn 1878; Fall 1899.

Redescription: Horn 1878:13, plate 1, fig. 13 (elytron); Fall 1899:22; Barr 1971: plate 8, fig. 5 (adult); Akiyama & Ohmomo 2000: fig. 205 (♂, ♀).

Ecology: Chamberlin 1917; Burke 1917b; White 1939; Beer 1940; Tilden 1955; Westcott, *et al.* 1979 (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: CA, NV, OR, WA

Host(s): larvae in *Quercus garryana* Hook. and *Q. wislizeni* A. DC.; adults also on dead branches of *Cercocarpus betuloides* Nutt.; and on flowers of *Encelia actoni* Elmer, *Erigeron* sp., *Eriodictyon* sp., *Rosa* sp., *Salvia* sp. and *Sphaeralcea ambigua* Gray.

conoidea Fall 1899:31.

Type locality: AZ – Type depository: MCZC? ANSP 8193 (type is lost).

Taxonomy: Fall 1899; Cazier 1940a.

Ecology: Westcott, *et al.* 1979; Westcott, *et al.* 1991 (distr.); MacRae & Nelson 2003 (biol.).

Distribution: USA: AZ, NM, TX

Host(s): larvae in *Celtis laevigata* Willd. var. *reticulata* (Torr.) L. Benson, *Juglans* sp. and *Ulmus crassifolia* Nutt.; adults also on flowers of *Cirsium* sp., *Erigeron divergens* T. & G., *Fallugia paradoxa* (D. Don) Endl., *Diospyros texana* Scheele and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

consors Horn 1878:20, plate 1, fig. 30 (elytron).

Type locality: TX – Type depository: MCZC 8031.

synonym: *perforata* Cazier 1940a:17 - Synonymy: Westcott 2007b:33.

Type locality: TX, New Braunfels – Type depository: AMNH (♂).

Taxonomy: Horn 1878; Fall 1899; Cazier 1940a; Westcott 2007b.

Distribution: USA: TX

Host(s): unknown.

constrictinotum Westcott & Nelson 2000:305 (♀): figs. 2, 4, 5, 8, 9 (holotype, ovipositor, ♂ genitalia).

Type locality: CA, San Bernardino Co., Clark Mt., 1860–1950 m, Sec. 33, T17 N, R13 E – Type depository: CASC 17762 (♀).

Taxonomy: Westcott & Nelson 2000.

Ecology: Westcott & Nelson 2000 (biol., distr.); Westcott 2005 (biol., distr.).

Distribution: USA: CA, NV

Host(s): adults on *Chrysothamnus nauseosa* (Pall.) Britt., *Eriodictyon californicum* (Hook. & Arn.) Torrey, *Prunus fasciculata* (Torr.) Gray and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

convicta Fall 1899:11.

Type locality: AZ, Santa Rita Mtns. – Type depository: USNM 55857.

synonym: *papagonis* Duncan 1934:231 – Synonymy: Barr 1975:412.

Type locality: AZ, Baboquivari Mtns., El Oro Cyn., 4000' – Type depository: AMNH.

Taxonomy: Fall 1899; Barr 1975.

Ecology: Westcott, *et al.* 1979 (distr.); Bellamy 1982 (biol.).

Distribution: USA: AZ; also recorded from Mexico.

Host(s): adults beaten from dead branches of *Prosopis glandulosa* Torr.; and on flowers of *Allionia incarnata* L. and *Boerhavia coccinea* Mill.

coquilletti Fall 1899:15.

Type locality: CA, Los Angeles Co. – Type depository: MCZC 24407 (Lectotype not designated).

Taxonomy: Fall 1899.

Redescription: White 1939: fig. 1 (ovipositor).

Ecology: White 1939; Tilden 1955; Bellamy 1982 (biol.).

Distribution: USA: CA

BUPRESTIDAE: Polycestinae: Acmaeoderini

Host(s): adults on *Ceanothus crassifolius* Torr., *Eriogonum fasciculatum* (Benth.), T. & G., *Lotus scoparius* (Nutt.) Ottley, *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.) and *Q. wislizeni* A. DC.

cribricollis Horn 1894:375, plate 8, fig. 4 (adult).

Type locality: TX – Type depository: MCZC 33812.

synonym: *larreae* Fall 1907:241 – Synonymy: Cazier 1940a:27.

Type locality: CA: Mojave – Type depository: MCZC 24417.

Taxonomy: Fall 1899; Cazier 1940a.

Ecology: Burke 1918a (biol. as *larreae*); Hurd & Linsley 1975 (biol.); Westcott, *et al.* 1979; Davidson & Davidson 2005 (biol., distr.).

Distribution: USA: AZ, CA, NM, TX; also recorded from Mexico.

Host(s): larvae in *Larrea tridentata* (DC.) Cov.; adults also on flowers of *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston.

culta (Weber) 1801 [syn. of *tubulus*]

cuneata Fall 1899:21.

Type locality: AZ, Tempe Desert. – Type depository: MCZC 24408 ANSP 8192 (Lectotype not designated).

Taxonomy: Fall 1899.

Ecology: Burke 1917b (biol.); Westcott 2001b; MacRae 2006 (biol., distr.).

Distribution: USA: AZ, NV, TX

Host(s): larvae in *Alnus incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung; adults also on flowers of *Encelia farinosa* T. & G., *Eriodictyon angustifolium* Nutt., *Fallugia paradoxa* (D. Don.) Endl., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Senecio* sp. and *Sphaeralcea* sp.

curtilata Knull 1941:692, plate 1, fig. 2 (adult).

Type locality: CA, Morongo Valley – Type depository: FMNH.

Ecology: Nelson 1959 (biol.).

Distribution: USA: CA

Host(s): adults on *Psorothamnus arborescens* (Gray) Barneby var. *simplicifolius* (Parish) Barneby.

daggetti Fall 1899 [syn. of *solitaria*]

davidsoni Barr 1972b:179.

Type locality: NM, Hidalgo Co., Peloncillo Mtns., Granite Gap – Type depository: CASC 11491 (♂).

Taxonomy: Barr 1972b.

Ecology: Barr 1972b (biol., distr.); Westcott, *et al.* 1979 (distr.); Bellamy 1982 (biol.).

Distribution: USA: AZ, NM, TX; also recorded from Mexico.

Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray and *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby.

decipiens LeConte 1866:383.

Type locality: AZ – Type depository: MCZC 2725.

synonym: *durangana* Obenberger 1928:120 – Synonymy: Barr 1975:412.

Type locality: Mexico, Durango – Type depository: NMPC 19693.

Taxonomy: Horn 1878; Fall 1899; Barr 1975.

Redescription: Horn 1878: fig. 17 (elytron); Akiyama & Ohmomo 2000: fig. 209.

Ecology: Westcott, *et al.* 1979 (biol., distr.).

Distribution: USA: AZ; also recorded from Mexico.

Host(s): adults on various flowers.

delumbis Horn 1894:378.

Type locality: AZ – Type depository: MCZC 33814 (Lectotype not designated).

Taxonomy: Fall 1899; Duncan 1934a; Cazier 1940a.

Redescription: Cazier 1951b: fig. 2 (adult).

Ecology: Cazier 1951b; Westcott, *et al.* 1979 (distr.); Davidson & Davidson 2005; MacRae 2006 (distr. & biol.).

Distribution: USA: AZ, NM, TX; also recorded from Mexico.

Host(s): larvae in *Prosopis glandulosa* Torr. and *Acacia constricta* Benth.; adults also on *A. greggii* Gray, *Condalia spathulata* Gray and “squawbush”.

depressa Barr 1972b:162, fig. 8 (adult).

Type locality: AZ, Maricopa Co., Morristown – Type depository: CASC 11492 (♂).

Taxonomy: Barr 1972b.

Ecology: Barr 1972b; MacRae & Nelson 2003 (biol., distr.); Westcott 2005 (biol., distr.); 2007b (biol.).

Distribution: **USA:** AZ, CA, NV, UT

Host(s): larvae in *Bursera microphylla* Gray, *Fouquieria splendens* Engelm., *Hyptis emoryi* Torrey; adults also on flowers of *Encelia* sp., *Eriodictyon angustifolium* Nutt., *Eriodictyon californicum* (Hook. & Arn.) Torrey, *Fallugia paradoxa* (D. Don) Endl., *Melampodium leucanthum* T. & G., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *Sphaeralcea* sp.

deviata Barr 1972b:151, fig. 3 (adult).

Type locality: CA, San Bernardino Co., Desert Springs (Pinyon Hills) – Type depository: CASC 11493 (♂).

Taxonomy: Barr 1972b.

Ecology: Barr 1972b; MacRae 2006 (biol., distr.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): larvae in *Juniperus californica* Carr.; adults also on flowers of cactus, *Encelia* sp., *Eriogonum fasciculatum* (Benth.) T. & G., *Salvia apiana* Jeps., *S. dorrii* (Kell.) Abrams and *Sphaeralcea ambigua* Gray.

diffusa Barr 1969:13, fig. 1 (adult).

Type locality: NV, Lincoln Co., Highland Range, above Mendha – Type depository: CASC 10221 (♂).

misidentification: *hepburnii* of authors, not *hepburnii* LeConte 1860.

misidentification: *variegata* of authors, not *variegata* LeConte 1852.

Taxonomy: Barr 1969a.

Ecology: Barr 1969a (biol., distr.); Westcott 1991 (distr.).

Distribution: **USA:** AZ, CA, CO, NM, NV, UT

Host(s): adults on flowers of *Calochortus* sp., *Chaenactis* sp., *Garrya* sp., *Heliomeris multiflora* Nutt., *Opuntia* sp. and *Sphaeralcea* sp.

discalis Cazier 1940a:24.

Type locality: AZ, Gila Co., Pinal Mtns. – Type depository: AMNH (♂).

Taxonomy: Cazier 1940a; Nelson 1980b.

Redescription: Cazier 1951b: fig. 19 (adult); Nelson 1980b:179 (♀), figs. 1, 3 (adult, ovipositor).

Ecology: Cazier 1951b (distr.); Nelson 1980b (biol., distr.).

Distribution: **USA:** AZ

Host(s): adults on lavender Asteraceae; also landing on rocks.

disjuncta Fall 1899:9.

Type locality: AZ – Type depository: MCZC 24410 ANSP 8194 (Lectotype not designated).

Taxonomy: Fall 1899.

Redescription: Cazier 1951b: fig. 10 (adult).

Ecology: Cazier 1951b (distr.); Westcott, *et al.* 1979; Westcott 1991 (biol.).

Distribution: **USA:** AZ, NM; also recorded from Mexico.

Host(s): larvae in *Fouquieria splendens* Engelm.; adults also on flowers of *Baileya multiradiata* Gray, *Chrysothamnus nauseosus* (Pall.) Britt., *Gutierrezia microcephala* (DC.) Gray, *Helianthus petiolaris* Nutt. and *Verbesina encelioides* (Cav.) Gray.

dispar Gory 1840 [syn. of *ornata*]

distincta Kerremans 1902 [syn. of *variegata*]

dohrni Horn 1878 [ssp. of *mariposa*]

dolorosa dolorosa Fall 1899:25.

Type locality: CA, Los Angeles Co. – Type depository: MCZC 24411 (Lectotype not designated).

misidentification: *fenyessi* of authors, not *fenyessi* Fall 1899.

Taxonomy: Fall 1899; Barr 1975.

Ecology: Beer 1944 (as *fenyessi*); Nelson 1962 (distr.); Westcott, *et al.* 1979 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA, OR

Host(s): larvae in *Arctostaphylos viscida* Parry, *Prunus fasciculata* (Torr.) Gray and *Simmondsia chinensis* (Link) C. Schneid.; adults also on flowers of *Eriophyllum lanatum* (Pursh) James Forbes

BUPRESTIDAE: Polycestinae: Acmaeoderini

var. *achillaeoides* (DC.) Jeps., *E. l.* var. *grandiflorum* (Gray) Jeps., *Eriodictyon californicum* (H. & A.) Torr. and *E. ichocalyx* Heller.

dolorosa liberta Fall 1922:89.

Type locality: CA, Independence – Type depository: MCZC 24419.

Taxonomy: Barr 1975.

Ecology: Barr 1975; Westcott, *et al.* 1979 (distr.).

Distribution: **USA:** CA, NV, OR

Host(s): adults on flowers *Encelia actoni* Elmer.

duboisii Cazier 1938 [syn. of *tuta*]

durangana Obenberger 1928 [syn. of *decipens*]

eburna Van Dyke 1949 [syn. of *immaculata*]

errans Barr 1972b:170, fig. 10 (adult).

Type locality: NV, Clark Co., Kyle Cyn. – Type depository: CASC 11494 (♂).

Taxonomy: Barr 1972b.

Ecology: Barr 1972b; Westcott 2001b (biol., distr.).

Distribution: **USA:** NV, UT

Host(s): adults on flowers *Psoralea* sp. and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

falli Kerremans 1902 [syn. of *flavopicta*]

fattigi Knull 1953:144, fig. 1 (adult).

Type locality: CA, San Diego Co., Jacumba – Type depository: FMNH (♀).

Taxonomy: Knull 1953.

Ecology: Nelson 1965 (biol.).

Distribution: **USA:** CA

Host(s): larvae in *Acacia greggii* Gray.

fenyesi Fall 1899:12.

Type locality: southern CA, Riverside – Type depository: MCZC 24413 (Lectotype not designated).

Taxonomy: Fall 1899.

Ecology: Nelson 1987a (biol.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): larvae in *Lotus scoparius* (Nutt.) Ottley; adults also on *L. rigidus* (Benth.) Greene and *Quercus* sp.

fisheri Cazier 1940 [syn. of *vanduzeei*]

flavinigrapunctata Knull 1928 [syn. of *princeps*]

flavomarginata (Gray) 1832:358 (*Buprestis*), plate 31, fig.2 (adult).

Type locality: Brazil – Type depository: OXUM COLE1019.

Taxonomy: Horn 1878; Fall 1899.

Redescription: Horn 1878:8, plate 1, fig. 4 (elytron); Fall 1899:8; Cazier 1951b: fig. 3 (adult); Akiyama & Ohmomo 2000: fig.201.

Ecology: Vogt 1949b; Cazier 1951b; Westcott, *et al.* 1990 (distr.); Westcott 2001b; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).

Distribution: **USA:** TX; also recorded from Mexico, Central and South America.

Host(s): larvae in *Acacia rigidula* Benth., *Diospyros texana* Scheele and *Prosopis glandulosa* Torr.; adults also on flowers of *Helianthus annuus* L. and other Asteraceae.

flavopicta Waterhouse 1889:180 (replacement name for *flavosticta* Waterhouse 1882).

synonym: *flavosticta* Waterhouse 1882:24, plate 2, fig. 13 (adult) (preoccupied: *flavosticta* Horn 1878).

Type locality: Mexico – Type depository: BMNH (Lectotype not designated).

synonym: *subcyanea* Fall 1899:8 (preoccupied: *subcyanea* Reitter 1890) – Synonymy: Obenberger 1926a:75.

Type locality: AZ – Type depository: ANSP 8195.

synonym: *falli* Kerremans 1902:34 (replacement name for *subcyanea* Fall 1899) – Synonymy: Cazier 1951b:23.

Redescription: Cazier 1951b: fig. 6 (adult).

Ecology: Cazier 1951b; Westcott, *et al.* 1979; Westcott 1990a (distr.).

Distribution: **USA:** AZ, NM, TX; also recorded from Mexico.

Host(s): adults on *Flourensia cernua* DC. and on flowers of Asteraceae.

flavosignata Gory 1840 [syn. of *pulchella*]

flavosticta Waterhouse 1882 [syn. of *flavopicta*]

gibbula LeConte 1858:69.

Type locality: San Diego to El Paso – Type depository: MCZC 2733 (Lectotype not designated).
synonym: *gila* Knull 1930b:16 (as subspecies of *gibbula*) – Synonymy: Westcott & Barr 1998:55.

Type locality: AZ, Gila R. Valley, San Carlos. – Type depository: FMNH.

Taxonomy: Horn 1878; Fall 1899.

Redescription: Horn 1878:24, fig. 38 (elytron); Cazier 1951b: fig. 1 (adult); Akiyama & Ohmomo 2000: fig.203 (♂, ♀).

Ecology: Knull 1937d; Vogt 1949b; Cazier 1951b (distr.); Westcott, *et al.* 1979; Nelson & MacRae 1990 (biol.); Davidson & Davidson 2005; MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA, NM, TX, UT; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray, *Cercidium floridum* Gray, *Olneya tesota* Gray, *Parkinsonia aculeata* L., *Prosopis glandulosa* Torr. and *Salix gooddingii* Ball; adults also on *Bahia absynthifolia* Benth., *B. pedata* Gray, *Engelmannia peristenia* (Raf.) Goodman & Lawson, *Leucophyllum frutescens* (Berl.) I.♂ Johnst., *Ratibida columnaris* (Sims.) D. Don and *Ziziphus obtusifolia* (T. & G.) Gray.

gila Knull 1930 [syn. of *gibbula*]

gillespiensis Knull 1941a:98.

Type locality: TX, Gillespie Co. – Type depository: FMNH (♀).

Taxonomy: Knull 1941a.

Ecology: Westcott, *et al.* 1979; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).

Distribution: **USA:** TX

Host(s): larvae in *Quercus* sp.; adults also on flowers of *Argemone* sp., *Baileya multiradiata* Gray, *Convolvulus equitans* Benth., *Erigeron traceyi* Greene, *Helenium armatum* (Raf.) H. Rock var. *badium* (Gray ex S. Wats.) Waterfall, *Opuntia imbricata* (Haw.) DC., *Ratibida columnaris* (Sims.) D. Don, *Sphaeralcea* sp., *Tetranneuris linearifolia* (Hook.) Greene, *T. scaposa* (DC.) Greene var. *scaposa*, *Thelesperma simplicifolium* Gray, *Vernonia marginata* (Torr.) Raf. and *Xanthisma* sp.

griffithi Fall 1899:36.

Type locality: AZ, Tempe Desert – Type depository: MCZC 24414 (Lectotype not designated).

Ecology: Nelson 1965; Westcott, *et al.* 1979 (biol.).

Distribution: **USA:** AZ

Host(s): adults on *Acacia greggii* Gray, *Cercidium* sp., *Olneya tesota* Gray and *Prosopis glandulosa* Torr.

haemorrhhoa LeConte 1858:69.

Type locality: TX, Laredo to Ringgold Barracks – Type depository: MCZC 2726 (Lectotype not designated).

synonym: *bouvieri* Kerremans 1906:120 – Synonymy: Westcott 2005:7.

Type locality: Mexico – Type depository: MNHN (Lectotype not designated).

misidentification: *rubronotata* of authors, not *rubronotata* Laporte & Gory 1835.

misidentification: *stellaris* of authors, not *stellaris* Chevrolat 1835.

Taxonomy: Horn 1878 (as *stellaris*); Barr 1975.

Redescription: Horn 1878:14, fig. 18 (as *stellaris*); Cazier 1951b: fig. 12 adult as *rubronotata*).

Ecology: Vogt 1949b; Cazier 1951b; Westcott, *et al.* 1979 (biol.); MacRae 2006 (distr. & biol. as *rubronotata*).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): adults on flowers of *Helianthus annuus* L., *Tithonia rotundifolia* (Mill.) Blake and *Viguiera stenoloba* Blake.

hepburnii LeConte 1860:254.

Type locality: CA – Type depository: MCZC 2721.

Taxonomy: Horn 1878; Fall 1899.

Redescription: Horn 1878:12, plate 1, fig. 12 (elytron); Fall 1899:17; Akiyama & Ohmomo 2000: fig. 207 (♂, ♀).

Ecology: Burke 1917b; Chamberlin 1917; White 1939; Beer 1944; Tilden 1955 (biol.); Nelson 1962; Westcott, *et al.* 1979; MacRae 2006 (biol., distr.).

Distribution: **USA:** CA, OR; also recorded from Mexico.

BUPRESTIDAE: Polycestinae: Acmaeoderini

Host(s): larvae in *Ceanothus* spp., *Pyrus communis* L., *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.), *Q. douglasii* H. & A., *Q. garryana* Hook. and *Q. wislizeni* A. DC.; adults also on dead branches of *Fremontodendron californicum* (Torr.) Cov.; and on flowers of *Achillea* sp., *Baeria* sp., *Castilleja lineariloba* (Benth.) Chuang & Heckard, *Encelia actonii* Elmer, *Erigeron foliosus* Nutt. var. *hartwegii* (Greene) Jeps., *Eriodictyon californium* (H. & A.) Torr., *E. trichocalyx* Heller, *E. traskiae* Eastw., *Eriophyllum confertiflorum* (DC.) Gray, *E. lanatum* (Pursh) James Forbes, *Gilia capitata* Sims. and *Helianthus gracilentus* Gray.

holsteni White 1939:71 (♂, ♀), fig. 2 (ovipositor).

Type locality: CA, Santa Barbara Co., Sunset Valley – Type depository: CASC 8124 (♀).

Taxonomy: White 1939.

Ecology: White 1939 (biol., distr.); Bellamy 1982 (biol.).

Distribution: **USA:** CA

Host(s): larvae in *Adenostoma fasciculatum* H. & A.; adults also on *Arctostaphylos* sp., *Eriogonum fasciculatum* (Benth.) T. & G. and *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

horni Fall 1899:25.

Type locality: AZ – Type depository: ANSP 8179.

Taxonomy: Fall 1899; Westcott & Bellamy 2004.

Redescription: Westcott & Bellamy 2004:2, figs. 1, 2.

Ecology: Westcott & Bellamy 2004 (biol., distr.).

Distribution: **USA:** AZ

Host(s): adults on *Quercus arizonicus* Sarg. and *Q. emoryi* Torr.

idahoensis Barr 1969c:331.

Type locality: ID, Nez Perce Co, Spalding – Type depository: CASC 10220 (♂).

misidentification: *variegata* of authors, not *variegata* LeConte 1852.

Taxonomy: Barr 1969c; Bright 1987.

Redescription: Bright 1987:39.

Ecology: Beer 1944; 1949 (both as *variegata*); Barr 1971; Westcott, *et al.* 1979 (biol.); Bright 1987; MacRae 2006 (biol., distr.).

Distribution: **Canada:** BC; **USA:** CA, ID, MT, NV, OR, UT, WA, WY

Host(s): larvae in *Celtis occidentalis* L., *Cercocarpus ledifolius* Nutt., *Crataegus douglasii* Lindl. and *Quercus garryana* Hook.; adults also on flowers of the following genera: *Achillea*, *Agoseris*, *Balsamorhiza*, *Chaenactis*, *Eriophyllum*, *Erysimum*, *Mimulus*, *Prunus*, *Rosa*, *Senecio*, *Taraxacum* and *Wyethia*.

immaculata Horn 1878:19 (as variety of *pulchella*).

Type locality: Owens Valley, CA – Type depository: MCZC 33804 (Lectotype not designated).

synonym: *eburna* Van Dyke 1949:53 (as subspecies of *lucia* Fall) – Synonymy: Barr 1975:413.

Type locality: CA, 25 mi E Baker – Type depository: CASC 6105.

Taxonomy: Barr 1975.

Ecology: Barr 1969a; Westcott 1991 (biol., distr.); 2001b (distr.).

Distribution: **USA:** AZ, CA, CO, ID, MT, NV, SD, UT, WY

Host(s): larvae in Roots of *Krascheninnikovia lanata* (Pursh) A.D.J. Meeuse & Smit.; adults also on flowers *Opuntia polyacantha* Haw. and *Sarcobatus vermiculatus* (Hook.) Torr.

inopinata Barr 1972b:149, fig. 2 (adult).

Type locality: CA, Los Angeles Co., Tanbark Flat – Type depository: CASC 11495 (♂).

Taxonomy: Barr 1972b.

Ecology: Barr 1972b (biol., distr.).

Distribution: **USA:** CA

Host(s): larvae in *Ericameria pinifolia* (Gray) H. ♂ Hall; adults also on flowers *Salvia apiana* Jeps.

interrupta Kerremans 1897 [syn. of *solitaria*]

inyoensis Cazier 1940a:18.

Type locality: CA, Inyo Co., Panamint Mtns. – Type depository: AMNH.

Taxonomy: Cazier 1940a; Westcott & Nelson 2000.

Redescription: Westcott & Nelson 2000: figs. 6, 7 (ovipositor).

Ecology: Barr 1941a (biol., distr.).

Distribution: **USA:** CA

Host(s): adults on flowers of *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

jocosa Fall 1899:14.

Type locality: CA, Los Angeles Co., Mt. Wilson – Type depository: MCZC 24415 (Lectotype not designated).

Taxonomy: Fall 1899.

Ecology: White 1939; Barr 1941a; Tilden 1955 (biol.); Nelson 1962 (distr.).

Distribution: USA: CA; also recorded from Mexico.

Host(s): adults on *Adenostoma fasciculatum* H. & A.

knowltoni Barr 1969c:328.

Type locality: UT, Juab Co., Mt. Nebo, Bear Creek Camp – Type depository: CASC 10219 (♂).

Taxonomy: Barr 1969c.

Ecology: Barr 1969c; 1971 (biol., distr.).

Distribution: USA: AZ, ID, NV, UT

Host(s): adults on *Chrysothamnus nauseosa* (Pall.) Britt.; also on flowers of *Calochortus* sp., *Cirsium undulatum* (Nutt.) Spreng, *Helianthus nuttallii* T. & G., *Mimulus guttatus* DC., *Penstemon cyananthus* Hook., *Rhus trilobata* T. & G., *Rosa* sp. and *Senecio intergerrimus* Nutt.

knullorum Barr 1972b:155, fig. 5 (adult).

Type locality: CA, San Jacinto Mtns., Pinyon Flat – Type depository: CASC 11496 (♂).

Taxonomy: Barr 1972b.

Ecology: Barr 1972b (biol., distr.).

Distribution: USA: CA

Host(s): adults on *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.); also on flowers of *Acacia greggii* Gray, *Eriogonum fasciculatum* (Benth.) T. & G., *Purshia tridentata* (Pursh) DC. var. *glandulosa* (Curran) M. E. Jones and *Sphaeralcea ambigua* Gray.

labyrinthica Fall 1899:21.

Type locality: CA, Tuolumne Co. – Type depository: MCZC 24416 ANSP 8205 (Lectotype not designated).

Taxonomy: Fall 1899.

Ecology: Beer 1944; Barr 1971 (biol., distr.); Westcott, *et al.* 1979; Bellamy 1982; Westcott 1991 (biol.).

Distribution: USA: AZ, CA, NV, OR, UT

Host(s): larvae in *Quercus garryana* Hook. and *Umbellularia californica* (H. & A.) Nutt.; adults also on flowers of *Chaenactis fremontii* Gray, *Encelia actoni* Elmer, *E. farinosa* T. & G. and *Eriophyllum lanatum* (Pursh) James Forbes.

lanata Horn 1880 [ssp. of *pubiventris*]

larreae Fall 1907 [syn. of *cribricollis*]

laticollis Kerremans 1902:28.

Type locality: USA – Type depository: BMNH.

Taxonomy: Barr 1975.

Distribution: USA

Host(s): unknown.

latiflava latiflava Fall 1907:240 (as variety of *hepburnii*).

Type locality: S. CA – Type depository: MCZC 24418 (Lectotype not designated).

synonym: *pallidula* Kerremans 1910:269 – Synonymy: Théry 1926:42.

Type locality: CA – Type depository: MNHN.

Taxonomy: Barr 1975.

Ecology: Lindahl 1935; Knull 1947c; Beer 1949; Nelson 1962 (distr.); Westcott, *et al.* 1979 (biol., distr.); Westcott, 2001b (biol.).

Distribution: USA: AZ, CA, NV

Host(s): larvae in flower stalks of *Agave deserti* Engelm., *Yucca brevifolia* Engelm., *Y. schidigera* Ortgies and *Y. whipplei* Torr.; adults also on *Adenostoma* sp., *Baileya* sp., *Encelia* sp., *Eriodictyon trichocalyx* Heller, *Falugia paradoxa* (D. Don) Endl., *Helianthus gracilentus* Gray, *Melampodium leucanthum* T. & G., *Opuntia* sp., *Salvia apiana* Jeps., *S. vaseyi* (Porter) Parrish, *Sphaeralcea ambigua* Gray, *Stephanomeria pauciflora* (Torr.) Nelson and *Viguiera parishii* Greene.

latiflava lineipicta Fall 1932:81 (as species).

Type locality: AZ, near Globe, San Carlos Lake – Type depository: MCZC 24420.

BUPRESTIDAE: Polycestinae: Acmaeoderini

Taxonomy: Cazier 1940a.

Ecology: Westcott, *et al.* 1979 (biol.).

Distribution: USA: AZ

Host(s): larvae in flower stalks of *Dasyilirion wheeleri* S. Wats.; adults also on flowers of *Sphaeralcea* sp.

ligulata Cazier 1940a:20.

Type locality: AZ, Globe, San Carlos Lake – Type depository: AMNH.

Taxonomy: Cazier 1940a.

Ecology: Cazier 1940a; Westcott, *et al.* 1979 (biol.); Westcott 1991; 2001b (distr.); MacRae 2006 (biol., distr.).

Distribution: USA: AZ, NM, NV, UT

Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.) and *Q. pungens* Liebm.; adults also on flowers of *Echinocereus* sp., *Fallugia paradoxa* (D. Don) Endl., *Opuntia* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Sphaeralcea* sp. and *Tetranneuris linearifolia* (Hook.) Greene.

linsleyi Van Dyke 1943:101.

Type locality: CA, Riverside Co., San Jacinto Mtns., Pinyon Flat – Type depository: CASC 5336.

Taxonomy: Van Dyke 1943.

Ecology: Van Dyke 1943; Nelson 1962 (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: CA

Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.); adults also on flowers of *Encelia actoni* Elmer, *Eriogonum fasciculatum* (Benth.) T. & G. var. *foliolosum* (Nutt.) Abrams, *Salvia apiana* Jeps. and *Sphaeralcea emoryi* Torr. ex Gray.

lucia Fall 1901 [syn. of *variegata*]**lupinae** Nelson 1996b:176, figs. 1–3 (adult, ♂ genitalia, ovipositor).

Type locality: CA, San Bernardino Co., San Gabriel Mtns., 2 mi E Wrightwood – Type depository: CASC 17418 (♂).

Taxonomy: Nelson 1996b.

Ecology: Nelson 1996b; Westcott 2001b (biol., distr.).

Distribution: USA: CA, CO, NV, UT

Host(s): adults on flowers of *Cryptantha flavoculata* (Nelson.) Payson, *Encelia actoni* Elmer, *Eriodictyon crassifolium* Benth., *Eriogonum* sp., *Lupinus excubitus* M. E. Jones, *L. formosus* Greene and *L. odoratus* Heller.

macra Horn 1878:8, plate 1, fig. 5 (elytron).

Type locality: TX – Type depository: MCZC 8022 (Lectotype not designated).

Taxonomy: Horn 1878; Fall 1899.

Redescription: Fall 1899:10.

Ecology: Vogt 1949b; Westcott, *et al.* 1979 (biol.); Westcott 2001b; MacRae 2006 (biol., distr.).

Distribution: USA: OK, TX

Host(s): adults on *Acacia berlandieri* Benth.; also on flowers of *Grindelia* sp., *Helianthus annuus* L. and *Verbesina encelioides* (Cav.) Gray.

maculifera Horn 1894:372, plate 8, fig. 5 (adult).

Type locality: TX – Type depository: MCZC 33811.

Taxonomy: Fall 1899.

Redescription: Fall 1899:8.

Ecology: Westcott, *et al.* 1979; 1990; MacRae 2006 (biol., distr.).

Distribution: USA: NM, TX; also recorded from Mexico.

Host(s): adults on flowers of *Baileya multiradiata* Gray, *Bigelowia* sp., *Chrysothamnus viscidiflorus* (Hook.) Nutt. ssp. *puberulus* (D.C. Eaton) H.M. Hall & Clements, *Helianthus petiolaris* Nutt., *Sphaeralcea angustifolia* (Cav.) G. Don and *Verbesina encelioides* (Cav.) Gray.

marginotata Chevrolat 1867:583.

Type locality: Cuba, au center dl'ile – Type depository: BMNH.

misidentification: *cubaecola* of authors, not *cubaecola* Jacquelin du Val 1857.

Taxonomy: Fall 1899 (as *cubaecola*).

Redescription: Fall 1899:35 (as *cubaecola*).

Distribution: USA: FL; also recorded from the West Indies.

Host(s): adults on *Conocarpus erectus* L.

mariposa dohrni Horn 1878:15, plate 1, fig. 21 (elytron) (as species).

Type locality: CA – Type depository: MCZC 3803 (Lectotype not designated).

synonym: *bernardino* Van Dyke 1937:109 (as subspecies) – Synonymy: Barr 1975:412.

Type locality: CA, San Bernardino Co., Lytle Cr. – Type depository: CASC 4245.

Taxonomy: Horn 1878; Fall 1899; Barr 1975; Westcott & Nelson 2000.

Redescription: Fall 1899:24.

Ecology: White 1939 (biol., as *mariposa bernardino*); Westcott & Nelson 2000 (distr.); MacRae 2006 (biol., distr.).

Distribution: USA: CA

Host(s): adults on *Adentostoma fasciculatum* H. & A., *Ceanothus crassifolius* Torr., *C. integerrimus* H. & A., *C. oliganthus* Nutt. *Cercocarpus betuloides* T. & G., *Purshia tridentata* (Pursh) DC. var. *glandulosa* (Curran) M.E. Jones, *Quercus berberidifolia* Liebm (misapplied to *Q. dumosa* Nutt.) and *Q. wislizeni* A. DC.

mariposa mariposa Horn 1878:22, pl.1, fig. 35 (elytron).

Type locality: CA, Mariposa – Type depository: MCZC 8032.

Taxonomy: Horn 1878; Fall 1899; Barr 1975; Westcott & Nelson 2000.

Ecology: Burke 1917b; Beer 1944; Westcott, *et al.* 1979 (biol.); Westcott & Nelson 2000 (distr.).

Distribution: USA: CA, OR

Host(s): larvae in *Ceanothus cuneatus* (Hook.) Nutt., *C. integerrimus* H. & A., *C. thyrsiflorus* Esch., *Cercis occidentalis* Torr., *Cercocarpus betuloides* T. & G., *C. ledifolius* Nutt., *Heteromelas arbutifolia* (Lindl.) Roemer, *Rhamnus californica* Esch. and *Toxicodendron diversilobum* (T. & G.) Greene; adults also on *Purshia tridentata* (Pursh) DC. var. *glandulosa* (Curran) M.E. Jones.

mexicana Kerremans 1900 [syn. of *solitaria*]

miliaris Horn 1878:10, plate 1, fig. 9 (elytron).

Type locality: TX – Type depository: MCZC 8026 (Lectotype not designated).

Taxonomy: Horn 1878; Fall 1899.

Redescription: Fall 1899:15; Cazier 1951b: fig. 15 (adult).

Ecology: Vogt 1949b; Cazier 1951b (distr.); Westcott, *et al.* 1979 (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: TX; also recorded from Mexico.

Host(s): adults on *Acacia constricta* Benth, *Mimosa* sp.; and on flowers of *Porophyllum* sp., *Ratibida columnaris* (Sims.) D. Don, *Simsia calva* (Engelm. & Gray) Gray, *Viguiera stenoloba* Blake and *Xanthisma* sp.

mimicata Knull 1938c:136 (♂, ♀).

Type locality: AZ, Congress Junction – Type depository: FMNH (♂).

Ecology: Westcott, *et al.* 1979 (biol., distr.).

Distribution: USA: AZ, CA; also recorded from Mexico.

Host(s): larvae in *Celtis ehrenbergia* (Klot.) Liebm.; adults also on *Acacia constricta* Benth, *Cercidium floridum* Benth., *C. microphyllum* (Torr.) Rose & Johnston, *Lycium* sp. and *Olnya tesota* Gray.

mixta LeConte 1860:227.

Type locality: NM – Type depository: MCZC 2729 (Lectotype not designated).

synonym: *arizonae* Horn 1878:19 (as variety of *pulchella*) – Synonymy: Barr 1975:416.

Type locality: AZ – Type depository: MCZC?

synonym: *obesa* Kerremans 1910:271 – Synonymy: Barr 1975:416.

Type locality: TX – Type depository: MNHN.

Taxonomy: Horn 1878; Barr 1975.

Redescription: Cazier 1951b: fig. 17 (adult as *pulchella*).

Ecology: Vogt 1949b (as *pulchella*); Cazier 1951b (as *pulchella*); Westcott, *et al.* 1979; Nelson 1987a (distr.); MacRae & Nelson 2003; Davidson & Davidson 2005; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).

Distribution: USA: AZ CO KS NE NM OK TX UT; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray, *Avicennia germinans* (L.) L., *Celtis laevigata* Willd. and *Prosopis glandulosa* Torr.; adults also on flowers of *Penstemon barbatus* (Cav.) Roth, *Sphaeralcea* sp., *Tetraneuris scaposa* (DC.) Greene var. *scaposa*, *Thelesperma simplicifolium* Gray and various Asteraceae.

mojavei Westcott 1971b:14, figs. 9, 15 (adult, ovipositor).

BUPRESTIDAE: Polycestinae: Acmaeoderini

Type locality: CA, Inyo Co., Panamint Mtns., S Emigrant Jct., 4500–5000' – Type depository: CASC 9850 (♀).

Taxonomy: Westcott 1971b.

Ecology: Westcott 1971b (biol., distr.); Westcott, *et al.* 1979 (biol.); Westcott 2005 (biol.).

Distribution: USA: AZ, CA, NV, UT

Host(s): larvae in *Lycium cooperi* A. Gray; adults also on flowers of *Baileya* sp., *Encelia farinose* T. & G., *Senna armata* (S. Wats.) Irwin & Barneby, *S. covesii* (Gray) Irwin & Barneby and *Sphaeralcea rusbyi* Gray var. *eremicola* (Jeps.) Kearn.

morbosa Fall 1899:20.

Type locality: CA, Los Angeles Co. – Type depository: MCZC 24422 (Lectotype not designated).

Taxonomy: Fall 1899.

Distribution: USA: CA

Host(s): unknown.

moronga Van Dyke 1943 [syn. of *tuta*]

nanbrownae Figg–Hoblyn 1953 [syn. of *vanduzeei*]

nautica Van Dyke 1945 [syn. of *simulata*]

navajo Nelson & Westcott 1995:82 (♂, ♀), figs. 2, 7, 12 (adult, ovipositor, distr. map).

Type locality: AZ, Coconino Co., 9 mi NW Page – Type depository: USNM (♀).

Ecology: Nelson & Westcott 1995 (biol., distr.).

Distribution: USA: AZ, UT

Host(s): adults on flowers of *Linum lewisii* Pursh, *Opuntia* sp. and *Sphaeralcea* sp.

neglecta Fall 1899:31.

Type locality: TX – Type depository: MCZC 24423.

Taxonomy: Fall 1899.

Ecology: Westcott, *et al.* 1979; Nelson 1987a; MacRae 1991; 2006 (biol., distr.); MacRae & Nelson 2003 (biol.).

Distribution: USA: AR, MO, OK, TX

Host(s): larvae in *Quercus pungens* Liebm, *Ulmus crassifolia* Nutt. and *Ziziphus obtusifolia* (T. & G.) Gray; adults also on flowers of the following genera: *Amelanchier*, *Antennaria*, *Calylophus*, *Chrysanthemum*, *Cologania*, *Coreopsis*, *Cornus*, *Erigeron*, *Dentaria*, *Fragaria*, *Hypoxis*, *Lithospermum*, *Oenothera*, *Oxalis*, *Penstemon*, *Phlox*, *Potentilla*, *Ranunculus*, *Rosa*, *Rudbeckia*, *Senecio*, *Sida*, *Stylosanthes*, *Taraxacum*, *Tetraneuris* and *Viburnum*.

nelsoni Barr 1972b:175, fig. 15 (adult).

Type locality: CA, San Bernardino Mtns., 3 mi S Camp Angeles, 5000' – Type depository: CASC 11498 (♂).

misidentification: *dohrni* of authors, not *dohrni* Horn 1878.

Taxonomy: Barr 1972b.

Ecology: Barr 1972b (biol., distr.).

Distribution: USA: CA

Host(s): adults on *Adenostoma fasciculatum* H. & A., *Ceanothus crassifolius* Torr., *C. cuneatus* (Hook.) Nutt., *Cercocarpus betuloides* T. & G., *Heteromeles arbutifolia* (Lindl.) Roemer, *Lotus* sp. and *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

neoneglecta Fisher 1949:336.

Type locality: Mexico. Type from mesquite intercepted at Brownsville, TX – Type depository: USNM 58789.

Ecology: Westcott, *et al.* 1979 (biol., distr.); Westcott 1991; MacRae & Nelson 2003; Wellso & Jackman 2006 (biol.).

Distribution: USA: TX; also recorded from Mexico.

Host(s): larvae in *Acacia farnesiana* (L.) Willd., *A. rigidula* Benth., *Carya tomentosa* Nutt., *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Leucaena pulverulenta* (Schlecht.) Benth., *Prosopis glandulosa* Torr., *Sophora secundiflora* (Ortega) Lag. ex DC. and *Ulmus crassifolia* Nutt.; adults also on flowers of *Cologania angustifolia* Kunth. and *Opuntia engelmannii* Salm–Dyck ex Engelm. var. *linderheimi* (Engelm.) Parfitt & Pinkava.

nevadica Barr 1972b:158, fig. 6 (adult).

Type locality: NV, Clark Co., Kyle Cyn. – Type depository: CASC 11499.

Taxonomy: Barr 1972b.

Ecology: Barr 1972b; Westcott, *et al.* 1979 (biol., distr.).

Distribution: USA: CA, NV

Host(s): adults on flowers of *Cirsium* sp., *Cowania* sp., *Senecio* sp. and *Sphaeralcea* sp.

nexa Fall 1922:89.

Type locality: CA, San Bernardino Mtns. – Type depository: MCZC 24424.

Taxonomy: Chamberlin 1929; White 1939.

Ecology: White 1939; Beer 1944 (biol., as variety of *angelica*).

Distribution: USA: CA, OR

Host(s): larvae in *Cercocarpus betuloides* T. & G.; adults also on *Ceanothus crassifolius* Torr., *C. cuneatus* (Hook.) Nutt., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *C. oliganthus* Nutt. ex T. & G. and *Quercus* spp.

nigrovittata Van Dyke 1934:61.

Type locality: CA, Fresno Co., Selma – Type depository: CASC 3756.

Taxonomy: Cazier:1940a.

Ecology: Nelson 1962; Westcott, *et al.* 1979 (biol.).

Distribution: USA: CA

Host(s): larvae in *Atriplex polycarpa* (Torr.) S. Wats. and *Suaeda moquinii* (Torr.) Greene.; adults also on flowers of *Centaurea solstitialis* L., *Cirsium* sp., *Hemizonia kelloggii* Greene and *Monolopia lanceolata* Nutt.

obesa Kerremans 1910 [syn. of *mixta*]

obtusa Horn 1878:19, plate 1, fig.29 (elytron).

Type locality: TX. – Type depository: MCZC 8030 (Lectotype not designated).

synonym: *anthobia* Obenberger 1924:33 – Synonymy: Barr 1975:417.

Type locality: TX – Type depository: NMPC 19692

Taxonomy: Horn 1878; Fall 1899; Barr 1975.

Redescription: Fall 1899:29.

Ecology: Vogt 1949b (biol.); Westcott, *et al.* 1979 (distr.); MacRae 2006 (biol., distr.).

Distribution: USA: OK, TX

Host(s): adults on recently bulldozed *Prosopis glandulosa* Torr.; and on flowers of Asteraceae, *Calyophus berlandieri* Spach ssp. *pinifolius* (Engelm. ex Gray) Towner and *Opuntia engelmannii* Salm–Dyck ex Engelm. var. *linderheimeri* (Engelm.) Parfitt & Pinkava.

opacula LeConte 1858:69.

Type locality: TX, El Paso – Type depository: MCZC 2720.

Taxonomy: Horn 1878; Fall 1899; Cazier 1940a; Barr 1975.

Redescription: Horn 1878:7, plate 1, fig. 2 (elytron).

Distribution: USA: TX

Host(s): unknown.

opuntiae Knull 1966a:332 (♂, ♀), fig. 1 (adult).

Type locality: TX, Starr Co., 5 mi W Sullivan City – Type depository: FMNH (♂).

Taxonomy: Knull 1966a.

Ecology: Knull 1966a; Westcott 2001b (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: TX

Host(s): larvae in dead stalks of *Karwinskia humboldtiana* (J.A. Schultes) Zucc. and *Parkinsonia texana* (Gray) S. Wats. var. *texana*; adults also on flowers of *Astrophytum asterias* (Zucc.) Lem., *Opuntia engelmannii* Salm–Dyck ex Engelm. var. *linderheimeri* (Engelm.) Parfitt & Pinkava.

ornata (Fabricius) 1775:220 (*Buprestis*).

Type locality: PA – Type depository: BMNH.

synonym: *dispar* Gory 1840:31 – Synonymy: Obenberger 1926:79.

Type locality: “Amer. Bor.” – Type depository: MNHN.

synonym: *quatuordecimspilota* Obenberger 1917:55 – Synonymy: Westcott & Barr 1998:56.

Type locality: “Nordamerika” – Neotype ♂ from USA: AR, Ozark Natl. For., Newton Co., Forest Service Rd. 1209, at Buck Brook, designation: Westcott & Barr 1998:56 – Type depository: NMPC.

Taxonomy: Horn 1878; Fall 1899; Barr 1975; Westcott & Barr 1998.

Redescription: Horn 1878: fig. 15 (elytron); Westcott & Barr 1998: fig. 3 (Neotype of *quatuordecimguttata*).

BUPRESTIDAE: Polycestinae: Acmaeoderini

Ecology: Westcott, *et al.* 1979; Nelson, *et al.* 1981 (distr.); Nelson 1987a; MacRae 1991; 2006 (biol., distr.).

Distribution: **USA:** AL, AR, DC, FL, GA, IN, KY, MO, NC, NJ, OH, OK, PA, SC, TN, VA, WV

Host(s): adults on recently cut *Persea borbonia* (L.) Spreng. and *Quercus alba* L.; also on flowers of *Amelanchier arborea* (Michx. f.) Fern., *Coreopsis lanceolata* L., *Cornus florida* L., *Echinacea pallida* Nutt., *Erigeron* sp., *Geranium maculatum* L., *Helianthus* sp., *Hypoxis hirsuta* (L.) Cov., *Leucanthemum vulgare* Lam., *Lithospermum canescens* (Michx.) Lehm., *Oenothera macrocarpa* Nutt., *Opuntia* sp., *Packera obovata* (Muhl. ex Willd.) Weber & Love, *P. plattensis* (Nutt.) Weber & Love, *Parthenium integrifolium* L., *Potentilla recta* L., *P. simplex* Michx., *Prunus americana* Marsh., *Rosa carolina* L., *R. multiflora* Thunb. ex Murr., *R. setigera* Michx., *Rubus* sp., *Rudbeckia hirta* L., *Stylophorum diphyllum* (Michx.) Nutt., *Taenidia integerrima* (L.) Drude, *Taraxacum officinale* Wiggers and *Viburnum rufidulum* Raf.

ornatoides Barr 1972b:167, fig. 9 (adult).

Type locality: TX, Goliad Co., Weser – Type depository: AMNH (♂).

misidentification: *ornata* of authors (in part), not *ornata* Fabricius 1775.

Taxonomy: Barr 1972b.

Ecology: Barr 1972b; Westcott, *et al.* 1979 (biol.); Westcott 2001b; MacRae 2006 (biol., distr.).

Distribution: **USA:** NM, OK, TX

Host(s): larvae in *Diospyros texana* Scheele and *Quercus fusiformis* Small; adults also on flowers of *Callirhoe* sp., *Calyophus berlandieri* Spach ssp. *pinifolius* (Engelm. ex Gray) Towner, *Lygodesmia texana* (T. & G.) Greene, *Oenothera speciosa* Nutt., *Opuntia* sp. and *Prosopis glandulosa* Torr.

pallidula Kerremans 1910 [syn. of *latiflava latiflava*]

panamintensis Westcott 1971b:17, figs. 3, 11 (adult, ovipositor)

Type locality: CA, Inyo Co., Panamint Mtns., Wildrose Cyn., 7000' – Type depository: CASC 9851 (♀).

Taxonomy: Westcott 1971b.

Ecology: Westcott 1971b; Westcott, *et al.* 1979 (biol., distr.).

Distribution: **USA:** CA, NV.

Host(s): larvae in *Ephedra viridis* Cov.; adults also on flowers of *Fallugia paradoxa* (D. Don) Endl., *Monardella* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Salvia* sp. and *Tetradymia* sp.

panocheae Westcott 2001 [ssp. of *pubiventris*]

papagonis Duncan 1934 [syn. of *convicta*]

paradisjuncta Knull 1940a:36 (♂, ♀).

Type locality: TX, Davis Mtns. – Type depository: FMNH.

Taxonomy: Knull 1940a.

Redescription: Cazier 1951b: fig. 8 (adult).

Ecology: Cazier 1951b; Westcott, *et al.* 1979 (biol.); Westcott 1991 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** NM, TX; also recorded from Mexico.

Host(s): larvae in *Dasyilirion wheeleri* S. Wats.; adults also on flowers of *Baileya multiradiata* Gray, *Jefea brevifolia* (Gray) Stother, *Mentzelia oligosperma* Nutt. ex Sims, *Porophyllum* sp., *Psilostrophe* sp. and *Viguiera stenoloba* Blake.

parkeri Cazier 1940a:22.

Type locality: AZ, Globe – Type depository: AMNH.

Taxonomy: Cazier 1940a.

Redescription: Cazier 1951b: fig. 18 (adult).

Ecology: Cazier 1951b; Westcott, *et al.* 1979 (distr.); Bellamy 1982 (biol.).

Distribution: **USA:** AZ, NM, TX; also recorded from Mexico.

Host(s): adults on flowers of *Allionia incarnata* L., *Boerhavia coccinea* Mill. and *Ericameria* sp.

perforata Cazier 1940 [syn. of *consors*]

perlanosa Timberlake 1939:179.

Type locality: CA, near Palm Sprs. andreas Cyn. – Type depository: CASC 12191 (♂).

Ecology: Tilden 1955 (biol.); Nelson 1987a (distr.).

Distribution: **USA:** AZ, CA

Host(s): adults on flowers of *Eriodictyon crassifolium* Benth. and *E. trichocalyx* Heller.

pinalorum Knull 1930b:15.

Type locality: AZ, base of Pinal Mtns., 4000' – Type depository: FMNH.
 Ecology: Barr 1941a; Westcott, *et al.* 1979; 1990 (distr.); Walters & Bellamy 1990 (biol., distr.).
 Distribution: **USA:** AZ, CA, NM, TX; also recorded from Mexico.
 Host(s): adults on *Acacia constricta* Benth., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby and *Prosopis glandulosa* Torr.

plagiaticauda Horn 1878:10, plate 1, fig. 8 (elytron).

Type locality: CA, Mariposa region – Type depository: MCZC 8025 (Lectotype not designated).
 synonym: *postica* Fall 1899:25 – Synonymy: Westcott & Nelson 2000:301.
 Type locality: CA, Los Angeles Co. – Type depository: USNM 4179.
 synonym: *verecunda* Barr 1972b:153, fig. 4 (adult) – Synonymy: Westcott & Nelson 2000:301.
 Type locality: CA, Santa Barbara Co., Sunset Valley – Type depository: CASC 11505 (♂).
 Taxonomy: Horn 1878; Fall 1899; Westcott & Nelson 2000.
 Ecology: Beer 1940; 1944; Westcott, *et al.* 1979 (biol.); Westcott & Nelson 2000 (distr.).
 Distribution: **USA:** CA, OR
 Host(s): larvae in *Arctostaphylos canescens* Eastw., *A. glauca* Lindl. and *A. viscida* Parry; adults also on flowers of *Lotus* sp.

pletura Barr 1972b:164, fig. 12 (adult).

Type locality: NV, Clark Co., Lee Cyn. – Type depository: CASC 11502 (♂).
 Taxonomy: Barr 1972b.
 Ecology: Barr 1972b (biol., distr.); Westcott 1991 (distr.).
 Distribution: **USA:** AZ, NV, UT
 Host(s): adults on flowers of *Fallugia paradoxa* (D. Don) Endl., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *Sphaeralcea* sp.

princeps Kerremans 1908:591.

Type locality: “Nouv Zelande” – Type depository: MNHN.
 synonym: *flavinigrapunctata* Knull 1928:314 – Synonymy: Bellamy & Williams 1985:160.
 Type locality: TX, Raymondville – Type depository: FMNH (♂).
 Taxonomy: Bellamy & Williams 1985.
 Ecology: Vogt 1949b; Westcott, *et al.* 1979 (biol., all as *flavinigrapunctata*); MacRae 2006 (biol., distr.).
 Distribution: **USA:** TX; also recorded from New Zealand (likely in error).
 Host(s): larvae in *Parkinsonia aculeata* L., *P. texana* (Gray) S. Wats.; adults ovipositing in dead *Diospyros texana* Scheele; and on flowers of *Engelmannia peristenia* (Raf.) Goodman & Lawson, *Jefea brevifolia* (Gray) Stother, *Thelesperma simplicifolium* Gray and *Viguiera stenoloba* Blake.

postica Fall 1899 [syn. of *plagiaticauda*]

prorsa Fall 1899:23.

Type locality: CA, San Bernardino Co. – Type depository: MCZC 24426 (Lectotype not designated).
 Immature stages: Burke 1917a: plate 5, fig. 2 (larva).
 Taxonomy: Fall 1899.
 Ecology: White 1939; Tilden 1955; Westcott, *et al.* 1979 (biol.); Bellamy 1982 (distr.); MacRae 2006 (biol., distr.).
 Distribution: **USA:** CA
 Host(s): adults on *Quercus dumosa* Nutt., also on flowers of *Eriodictyon trichocalyx* Heller, *Rosa californica* Cham. & Schldl., *Salvia* spp., and *Turricula parryi* (Gray) Macbr.

pubiventris lanata Horn 1880:148. (as species).

Type locality: UT, Kanab – Type depository: MCZC 33809.
 synonym: *biedermani* Skinner 1903:329 – Synonymy: Van Dyke 1919c:189.
 Type locality: AZ, Florence – Type depository: ANSP 8196.
 Taxonomy: Fall 1899; Westcott 1966; 1971; Barr 1975; Westcott 2001a; 2001b.
 Redescription: Fall 1899:11; Westcott 1971: figs. 5, 12 (adult, ovipositor); 2001a:175, figs. 2–6 (adult variation).
 Ecology: Barr 1969a; Westcott 2001a; MacRae 2006 (biol., distr.).
 Distribution: **USA:** AZ, CA, NV, UT; also recorded from Mexico.
 Host(s): larvae in *Ephedra californica* S. Wats., *E. nevadensis* S. Wats. and *E. trifurca* Torr.; adults also on *Cercocarpus* sp., *Encelia actoni* Elmer, *Eriodictyon trichocalyx* Heller, *Fremontodendron*

BUPRESTIDAE: Polycestinae: Acmaeoderini

californicum (Torr.) Cov., *Pleuraphis rigida* Thurb., *Psorothamnus arborescens* (Gray) Barneby var. *simplicifolius* (Parish) Barneby; and flowers of *Acacia greggii* Gray, *Coreopsis bigelovii* (Gray) Hall, *Encelia farinosa* T. & G., *E. actoni* Elmer, *Eriogonum fasciculatum* (Benth.) T. & G., *Fallugia paradoxa* (D. Don) Endl., *Poliomintha incana* (Torr.) Gray, *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Salvia vaseyi* (Porter) Parish, *Senna armata* (S. Wats.) Irwin & Barneby, *Sphaeralcea rusbyi* Gray var. *eremicola* (Jeps.) Kearn., *Stephanomeria pauciflora* (Torr.) Nelson *Thelesperma subnudum* Gray and *Viguiera reticulata* S. Wats.

pubiventris panocheae Westcott 2001a:176, fig. 8 (adult).

Type locality: CA: San Benito Co., 8.2 mi on Panoche Rd. W from Hwy. I-5 – Type depository: CASC 17790.

Taxonomy: Westcott 2001a.

Ecology: Westcott 2001a (biol., distr.).

Distribution: USA: CA

Host(s): larvae in *Ephedra californica* S. Wats.; adults also on flowers of *Eriogonum fasciculatum* (Benth.) T. & G.

pubiventris pubiventris Horn 1878:9, plate 1, fig. 7 (elytron).

Type locality: CA, Owen's Valley – Type depository: MCZC 8024 (Lectotype not designated).

Taxonomy: Horn 1878; Fall 1899; Westcott 2001a.

Redescription: Westcott 2001a:175, fig. 1 (adult).

Ecology: Westcott 2001a (biol., distr.).

Distribution: USA: CA

Host(s): larvae in *Ephedra nevadensis* S. Wats.; adults also on *Psorothamnus* sp.; and flowers of *Encelia actoni* Elmer, *Monardella* sp. and *Tetradymia* sp.

pubiventris yumae Knull 1937d:301 (as species).

Type locality: AZ, Yuma – Type depository: FMNH.

Taxonomy: Knull 1937d; Westcott 2001a.

Redescription: Akiyama & Ohmomo 2000: fig. 212 (♀); Westcott 2001a:177, fig. 9 (adult).

Ecology: Barr 1941a; Westcott 2001a (biol., distr.); Nelson 1962; Westcott, *et al.* 1979 (distr.).

Distribution: USA: AZ, CA; also recorded from Mexico.

Host(s): larvae in *Ephedra trifurca* Torr.; adults also on *Larrea tridentata* (DC.) Cov.; and flowers of *Pluchea sericea* (Nutt.) Cov.

pulchella (Herbst) 1801:211, plate 154, fig. 6 (adult) (*Buprestis*).

Type locality: "Amer. Sept." – Type depository: ZMHB.

synonym: *flavosignata* Gory 1840:30, plate 6, fig. 28 (adult) – Synonymy: LeConte 1860:226.

Type locality: "Amer. Sept." – Type depository: MNHN.

misidentification: *ornata* of authors (in part), not *ornata* Fabricius 1775.

Taxonomy: Horn 1878; Fall 1899.

Redescription: Horn 1878:18; Knull 1925: plate 2, fig. 4 (adult); Bright 1987:33.

Ecology: Westcott, *et al.* 1979; Bright 1987; Nelson 1987a; MacRae 1991; Westcott 1991 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** MB, ON, PQ; **USA:** AL, AR, FL, GA, IA, IL, IN, KS, KY, LA, MD, MI, MO, MT, NC, ND, NJ, OH, PA, SC, SD, TN, WI, WY

Host(s): larvae in *Crataegus* sp., *Gleditsia triacanthos* L. and *Taxodium distichum* (L.) Rich.; adults also on *Acer saccharinum* L., *Diospyros virginiana* L., *Quercus alba* L.; and flowers of *Apocynum cannabinum* L., *Asclepias tuberosus* L., *Carduus nutans* L., *Ceanothus* sp., *Coreopsis palmata* Nutt., *Erigeron* sp., *Helianthus tuberosus* L., *Heliopsis helianthoides* L., *Ratibida pinnata* (Vent.) Barnh., *Rudbeckia hirta* L., *R. missouriensis* Engelm., *R. triloba* L., *Ruellia strepens* L., *Tephrosia virginiana* (L.) Pers., *Verbesina alternifolia* (L.) Britt. and *Vernonia baldwini* Torr.

pullata Cazier 1940b:57.

Type locality: CA, Riverside Co., Keen Cp. to Hemet, S Jac. R., 4000' – Type depository: CASC 8105.

Taxonomy: Cazier 1940b.

Ecology: Nelson 1959; 1960b (biol.).

Distribution: USA: CA

Host(s): adults on *Adenostoma fasciculatum* H. & A., *Ceanothus greggii* Gray var. *perplexans* (Trel.) Jeps. and *Quercus dumosa* Nutt.

purshiae Fisher 1926:114.

Type locality: NV, “Mount Rose, five miles southwest of Reno” – Type depository: USNM 28323.

Taxonomy: Fisher 1926.

Ecology: Fisher 1926; Cazier 1940a; Barr 1941a; Beer 1944; Barr 1969a (biol., distr.); Nelson 1959 (distr.).

Distribution: **USA:** CA, ID, NV, OR, UT

Host(s): larvae in *Purshia tridentata* (Pursh) DC var. *glandulosa* (Curran) M.E. Jones; adults also on *Fallugia paradoxa* (D. Don) Endl. and *Juniperus* sp.

quadriseriata Fall 1899:18.

Type locality: CA, Santa Barbara Co. – Type depository: MCZC 24427 (Lectotype not designated).

Taxonomy: Fall 1899.

Ecology: White 1939 (biol.); Nelson 1962 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): adults on *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.), *Q. wislizeni* A. DC. and *Prunus ilicifolia* (Nutt.) Walp.; also on flowers of *Ceanothus crassifolius* Torr., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *C. leucodermis* Greene, *C. oliganthus* Nutt., *Encelia actoni* Elmer, *Eriodictyon traskiae* Eastw., *E. trichocalyx* Heller, *Eriogonum fasciculatum* (Benth.) T. & G., *Eriophyllum confertiflorum* (DC.) Gray, *Heterotheca fastigiata* (Greene) Harnes, *Lotus scoparius* (Nutt.) Ottley and *Salvia apiana* Jeps.

quadrivittata Horn 1870:79.

Type locality: UT – Type depository: MCZC 33319 (♀).

Taxonomy: Horn 1878; Fall 1899; Nelson 1985b; Nelson & Westcott 1995.

Redescription: Horn 1878:23, plate 1, fig. 37 (elytron); Cazier 1951b: fig. 20 (adult); Nelson & Westcott 1995: fig. 6 (ovipositor).

Ecology: Cazier 1951b (distr.); Nelson & Westcott 1995; Westcott 2001b (biol.); MacRae 2006 (biol., distr.)

Distribution: **USA:** CA, NV, UT; also recorded from Mexico.

Host(s): larvae in *Yucca schidigera* Ortgies and *Y. whipplei* Torr.; adults also on wide variety of flowers including: *Acacia greggii* Gray, *Adenostoma fasciculatum* H. & A., *Encelia actoni* Elmer, *Eriogonum elongatum* Benth., *E. fasciculatum* (Benth.) T. & G., *Fallugia paradoxa* (D. Don) Endl., *Hymenoclea salsola* Gray, *Langloisia setosissima* (T. & G.) Greene, *Opuntia* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Salvia vaseyi* (Porter) Parish and *Sphaeralcea ambigua* Gray.

quadrivittatoides Nelson & Westcott 1995:77, figs. 1, 5, 9, 10, 12 (adult, ovipositor, parts).

Type locality: TX, Brewster Co., Big Bend Natl. Park, 3 mi E Panther Junction – Type depository: USNM (♀).

misidentification: *quadrivittata* of authors (in part), not *quadrivittata* Horn 1870.

Ecology: Nelson & Westcott 1995; Davidson & Davidson 2005; MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA, NM, NV, TX, UT; also recorded from Mexico.

Host(s): adults on flowers of *Acacia berlandieri* Benth., *A. constricta* Benth., *Argemone polyanthemus* (Fedde) Ownbey, *Asclepias* sp., *Bahia pedata* Gray, *Baileya multiradiata* Gray, *Bebbia* sp., *Boerhavia* sp., *Chaetopappa ericoides* (Torr.) Nesom, *Cirsium neomexicanum* Gray, *C. undulatum* (Nutt.) Spreng, *Croton pottsii* (Klot.) Muell.–Arg., *Echinocactus horizontalis* Lem., *Echinocereus* sp., *Erigeron divergens* T. & G., *Eriodictyon angustifolium* Nutt., *Fallugia paradoxa* (D. Don) Endl., *Ferocactus* sp., *Gaillardia arizonica* Gray, *Machaeranthera gracilis* (Nutt.) Shinn., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Opuntia basilaris* Engelm. & Bigel., *O. engelmannii* Salm–Dyck ex Engelm. var. *linderheimeri* (Engelm.) Parfitt & Pinkava, *Palafoxia* sp., *Penstemon ambiguus* Torr., *Poliomintha incana* (Torr.) Gray, *Porophyllum* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Sphaeralcea coccinea* (Nutt.) Rydb., *S. hastulata* Gray, *Tiquilia canescens* (DC.) Richards., *T. greggii* (T. & G.) Richards and *Verbena* sp.

quatuordecimguttata (Fabricius 1801) [syn. of *tubulus*]

quatuordecimpilota Obenberger 1917 [syn. of *ornata*]

recticollis Fall 1899:13.

Type locality: NM – Type depository: MCZC 58128 ANSP 8381 (Lectotype not designated).

Taxonomy: Fall 1899; Westcott & Barr 1998.

BUPRESTIDAE: Polycestinae: Acmaeoderini

Redescription: Westcott & Barr 1998: figs. 2, 5 (adult, ovipositor).

Ecology: Westcott & Barr 1998; Westcott 2001b (distr.); Davidson & Davidson 2005 (biol., distr.).

Distribution: USA: AZ, NM, TX, UT

Host(s): larvae in *Ephedra* spp.; adults also on flowers of *Fallugia paradoxa* (D. Don) Endl., *Prosopis* sp.

recticollis Westcott 1971b:3, figs. 1, 10 (adult, ovipositor).

Type locality: Mexico: BCN, Valley de Trinidad, La Zapopita – Type depository: CASC 9852 (♀).

Taxonomy: Westcott 1971b; Westcott & Barr 1998.

Ecology: Westcott 1971b (biol., distr.).

Distribution: USA: CA; also recorded from Mexico: BCN.

Host(s): adults on *Ephedra californica* S. Wats. and *Lotus scoparius* (Nutt.) Ottley.

reflexa Barr 1992:74, fig. 4 (adult).

Type locality: NM, Hidalgo Co., Animas Mtns., 6000', Indian Creek – Type depository: CASC 16954 (♀).

Taxonomy: Barr 1992.

Ecology: Barr 1992 (distr.).

Distribution: USA: NM; also recorded from Mexico.

Host(s): unknown.

resplendens Van Dyke 1937:106 (♂, ♀).

Type locality: AZ, Santa Rita Mtns. – Type depository: CASC 4242 (♂).

misidentification: *cuprina* of Horn 1878, not of Spinola 1838 – Synonymy: Duncan 1934a:229.

Redescription: Cazier 1951b: fig. 4 (adult); Akiyama & Ohmomo 2000; fig. 199 (♂, ♀).

Ecology: Cazier 1951b; Westcott, *et al.* 1979 (biol.); Westcott, *et al.* 1990 (distr.).

Distribution: USA: AZ; also recorded from Mexico.

Host(s): adults on flowers of *Helianthus nuttallii* T. & G. and *Verbena gooddingii* Briq.

retifera LeConte 1859:72.

Type locality: CA, Fort Tejon – Type depository: MCZC 2724.

misidentification: *acuta* of authors (in part), not *acuta* LeConte 1860.

Ecology: Burke 1917b; Beer 1944 (biol. as *acuta*); Barr 1971; MacRae 2006 (biol., distr.).

Distribution: USA: CA, OR

Host(s): larvae in *Quercus douglasii* H. & A. and *Q. garryana* Hook.; adults also on *Ceanothus cuneatus* (Hook.) Nutt.; and on flowers of *Eriophyllum lanatum* (Pursh) James Forbes, *Lupinus benthamii* Heller and *Rosa pisocarpa* Gray.

riograndei Nelson 1980b:175 (♂, ♀) figs. 2, 4 (adult, ovipositor).

Type locality: TX, Brewster Co., W side Chisos Mtns., Oak Sprs. – Type depository: USNM (♀).

misidentification: *discalis* of authors (in part), not *discalis* Cazier 1940.

Taxonomy: Nelson 1980b.

Ecology: Nelson 1980b (biol., distr.); MacRae & Nelson 2003 (biol.).

Distribution: USA: TX; also recorded from Mexico.

Host(s): adults on flowers of *Cirsium* sp. and *Tiquilia greggii* (T. & G.) Richards.

robigo Knull 1954a:27.

Type locality: TX, Lake Corpus Christi – Type depository: FMNH (♂).

Taxonomy: Knull 1954a.

Ecology: Nelson, *et al.* 1996 (biol., distr.).

Distribution: USA: TX

Host(s): larvae in *Dalea formosa* Torr.; adults also on small white Asteraceae flowers.

robusta Horn 1878:9, plate 1, fig. 6 (elytron).

Type locality: CA, Owen's Valley – Type depository: MCZC 8023 (Lectotype not designated).

Taxonomy: Horn 1878; Fall 1899.

Redescription: Akiyama & Ohmomo 2000: fig. 2004.

Ecology: Westcott, *et al.* 1979 (biol.).

Distribution: USA: CA

Host(s): adults on *Chrysothamnus* sp., *Ephedra* sp.; also flowers of *Dalea* sp., *Psoralea* sp. and *Encelia actoni* Elmer.

rubrocuprea Westcott & Nelson 2000:302 (♂): fig. 1 (holotype).

Type locality: CA, Santa Barbara Co., Sunset Valley – Type depository: CASC 17763 (♂).

misidentification: *postica* of authors, not *postica* Fall 1899.

Taxonomy: Westcott & Nelson 2000.

Ecology: Chamberlin 1926 (in part, distr. as *postica*); White 1939 (biol., as *postica*); Westcott & Nelson 2000 (biol., distr.)

Distribution: **USA**: CA; also recorded from Mexico.

Host(s): larvae in *Cercocarpus betuloides* T. & G.

rubronotata Laporte & Gory 1835:5, plate 1, fig. 5 (adult).

Type locality: Mexico. (type locality originally cited erroneously as Chili. Label on type, "Mexico") – Type depository: MNHN.

synonym: *sparsa* Horn 1878:11, plate 1, fig. 10 (elytron) – Synonymy: Barr 1975:418.

Type locality: CO – Type depository: MCZC 8027 (Lectotype not designated).

Taxonomy: Horn 1878; Fall 1899 (as *sparsa*); Barr 1975.

Redescription: Horn 1878:11, plate 1, fig. 10 (elytron as *sparsa*); Cazier 1951b: fig. 14 (adult as *sparsa*).

Ecology: Cazier 1951b (as *sparsa*); Westcott, *et al.* 1990; Westcott 2001b (distr.); MacRae 2006 (biol., distr.)

Distribution: **USA**: AZ, CO, ID, NM, NV, TX, UT; also recorded from Mexico.

Host(s): larvae in *Quercus* sp.; adults also on flowers of *Asclepias* sp., *Bahia dissecta* (Gray) Britt., *Baileya multiradiata* Gray, *Chrysothamnus* sp., *Erigeron neomexicanus* Gray, *Gymnosperma glutinosum* Less., *Helianthus nuttallii* T. & G., *Heliopsis parvifolia* Gray, *Heterotheca subaxillaris* (Lam.) Britt. & Rusby, *Lasianthaea podocephala* (Gray) K. Becker, *Machaeranthera gracilis* (Nutt.) Shinn., *Senecio flaccidus* Less. and *Verbesina encelioides* (Cav.) Gray.

rubrosuffusa Fall 1907 [syn. of *tuta*]

sabinae Knull 1937a:15.

Type locality: AZ, Sabino Cyn., near Tucson – Type depository: FMNH (♂).

Ecology: Cazier 1940a; Barr 1941a; Westcott, *et al.* 1979 (biol., distr.)

Distribution: **USA**: AZ, CA; also recorded from Mexico.

Host(s): larvae in *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston; adults also on *Baccharis* sp., *Pluchea sericea* (Nutt.) Cov. and *Prosopis pubescens* Benth.

scalaris Mannerheim 1837:25.

Type locality: Mexico: Mineral del Zimapan – Type depository: UZMH (Lectotype designation: Nelson 1976:167).

misidentification: *mima* of authors, not *mima* Gory 1840.

synonym: *semivittata* LeConte 1858:69 – Synonymy: Waterhouse 1882:23.

Type locality: TX, Eagle Pass – Type depository: MCZC 2728.

Taxonomy: Horn 1878 (as *mima*); Fall 1899.

Redescription: Horn 1878:17, plate 1, fig. 20 (elytron as *mima*); Cazier 1951b: fig. 13 (adult).

Ecology: Vogt 1949 (biol.); Cazier 1951b (distr.); Westcott, *et al.* 1979; 1990 (biol., distr.)

Distribution: **USA**: AZ, NM, TX; also recorded from Mexico. and Central America.

Host(s): adults on *Acacia farnesiana* (L.) Willd. and *Cercidium* sp.; also flowers of *Bahia absynthifolia* Benth., *Baileya* sp., *Cleome* sp., *Gutierrezia sarothrae* (Pursh) Britt. & Rusby, *Helianthus petiolaris* Nutt. and *Sphaeralcea* sp.

semivittata LeConte 1858 [syn. of *scalaris*]

serena Fall 1899:16.

Type locality: AZ, Tucson – Type depository: MCZC 24429 (Lectotype not designated).

Taxonomy: Fall 1899.

Ecology: Nelson 1962 (distr.); Westcott, *et al.* 1979 (biol., distr.)

Distribution: **USA**: AZ, CA; also recorded from Mexico.

Host(s): adults on flowers of *Pluchea sericea* (Nutt.) Cov. and *Sphaeralcea* sp.

simulata Van Dyke 1937:108.

Type locality: CA, Sequoia Natl. Park, Camp Potwisha – Type depository: CASC 4244.

synonym: *nautica* Van Dyke 1945:106 – Synonymy: Westcott & Barr 1998:56.

Type locality: CA, Contra Costa Co., near Lafayette – Type depository: CASC 5440.

Taxonomy: Van Dyke 1937; Westcott & Barr 1998.

Ecology: Van Dyke 1937; Nelson 1959 (biol., distr.); Westcott, *et al.* 1979 (biol. as *nautica*).

Distribution: **USA**: CA, OR

BUPRESTIDAE: Polycestinae: Acmaeoderini

- Host(s): larvae in *Quercus kelloggii* Newb. and *Q. wislizeni* A. DC.; adults also on flowers of *Rosa* sp.
sinuata sexnotata Van Dyke 1919:153, plate 7, fig. 3 (elytron).
Type locality: CA, Lake Co., Hullville – Type depository: CASC 3258.
Ecology: Beer 1940; 1944 (biol.).
Distribution: **USA:** CA, OR
Host(s): larvae in *Ceanothus cuneatus* (Hook.) Nutt.; adults also on *C. greggii* Gray.
sinuata sinuata Van Dyke 1919:152, plate 7, fig. 1 (elytron).
Type locality: CA, El Dorado Co., above Placerville, Placerville Rd. – Type depository: CASC 3257.
Redescription: Akiyama & Ohmomo 2000: fig. 211(♀).
Ecology: White 1939; Tilden 1955; Nelson 1959 (biol.).
Distribution: **USA:** CA
Host(s): adults on *Ceanothus crassifolius* Torr., *C. cuneatus* (Hook.) Nutt., *C. greggii* Gray var. *perplexans* (Trel) Jeps. and *Cercocarpus betuloides* T. & G.
solitaria Kerremans 1897:40.
Type locality: “Mexique” – Type depository: BMNH.
synonym: *interrupta* Kerremans 1897:41 (preoccupied: *interrupta* Kerremans 1892).
synonym: *daggetti* Fall 1899:26 – Synonymy: Théry 1935:255.
Type locality: AZ, Ft. Huachuca – Type depository: MCZC 24409.
synonym: *mexicana* Kerremans 1900:310 (replacement name for *interrupta* Kerremans 1897, not Kerremans 1892) – Synonymy: Barr 1992:83.
Type locality: “Mexique” – Type depository: BMNH.
Taxonomy: Fall 1899 (as *daggetti*); Barr 1992.
Redescription: Fall 1899:26; Kerremans 1906: plate 13, fig. 7 (all as *daggetti*).
Ecology: Bellamy 1982; Woods 1992 (biol., as *daggetti*); MacRae 2006 (biol., distr.).
Distribution: **USA:** AZ, CA; also recorded from Mexico.
Host(s): adults on flowers of *Abutilon* sp., *Allionia incarnata* L., Asteraceae, *Boerhavia coccinea* Mill., *Heterotheca subaxillaris* (Lam.) Britt. & Rusby, *Lasiantha podocephala* (Gray) K. Becker, *Mimosa dysocarpa* Benth., *Parkinsonia aculeata* L. and *Tephrosia* sp.
sparsa Horn 1878 [syn. of *rubronotata*]
sphaeralceae Barr 1972b:166, fig. 13 (adult).
Type locality: AZ, Santa Catalina Mtns., Molina Basin – Type depository: CASC 11503 (♂).
Taxonomy: Barr 1972b.
Ecology: Barr 1972b; Westcott, *et al.* 1979; Westcott 1991(biol., distr.); 2001b; MacRae & Nelson 2003 (distr.).
Distribution: **USA:** AZ, CA, CO, NM, NV, UT
Host(s): adults on flowers of *Encelia farinosa* T. & G. and *Sphaeralcea laxa* Woot. & Standl.
starrae Knull 1966a:334, fig. 2 (adult).
Type locality: TX, Starr Co., 5 mi W Sullivan City – Type depository: FMNH (♂).
Taxonomy: Knull 1966.
Ecology: Knull 1966 (biol.).
Distribution: **USA:** TX
Host(s): unknown.
subcyanea Fall 1899 [syn. of *flavopicta*]
tenebricosa Fall 1922:90.
Type locality: CA, Kern Co., Havilah – Type depository: MCZC 24430.
Ecology: Nelson 1962 (biol.).
Distribution: **USA:** CA
Host(s): larvae in *Fremontodendron californicum* (Torr.) Cov.
texana LeConte 1860:228.
Type locality: TX – Type depository: MCZC 2731.
Taxonomy: Horn 1878; Fall 1899.
Redescription: Horn 1878:20, plate 1, fig. 32 (elytron); Fall 1899:30.
Ecology: Westcott, *et al.* 1979; Nelson 1987a; MacRae 1991 (biol.); MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.)
Distribution: **USA:** AL, AR, GA, IL, LA, MO, MS, NC, OK, TX
Host(s): adults on flowers of *Chamaecrista fasciculata* (Michx.) Greene, *Hypericum perforatum* L.,

Linum sulcatum Riddell, *Ludwigia alternifolia* L., *Rosa carolina* L., *Ruellia humilis* Nutt., *R. strepens* L., *Stylosanthes biflora* (L.) B.S.P. and *Tephrosia virginiana* (L.) Pers.

thoracata Knull 1974:143, fig. 1 (adult).

Type locality: TX, Starr Co. – Type depository: FMNH.

Taxonomy: Knull 1974.

Distribution: **USA:** TX

Host(s): unknown.

tildenorum Nelson & Westcott 1995:85 (♂, ♀), figs. 3, 4, 8, 11 (adult, ♀, ♂, ovipositor, ♂ genitalia).

Type locality: TX, Hidalgo Co., Sullivan – Type depository: CASC 17651 (♀).

Ecology: Nelson & Westcott 1995 (biol., distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): adults on flowers of *Acacia berlandieri* Benth., *Echinocactus* sp., *Opuntia engelmannii* Salm-Dyck ex Engelm. var. *lindheimeri* (Engelm.) Parfitt & Pinkava and *Opuntia* sp.

tiquilia Westcott & Barr 1998:53, figs. 1, 4, 6, 7 (adult, ovipositor, unguis).

Type locality: TX, “Lower Pine Cyn.”, Big Bend N.P. – Type depository: CASC 17815 (♀).

Taxonomy: Westcott & Barr 1998.

Ecology: Westcott & Barr 1998; MacRae 2006 (biol., distr.).

Distribution: **USA:** TX

Host(s): larvae in *Ephedra aspera* Engelm. ex S. Wats.; adults on flowers of *Tiquilia canescens* (DC.) Richards. and *T. greggii* (T. & G.) Richards.

tubulus (Fabricius) 1801:200 (*Buprestis*).

Type locality: Carolina – Type depository: UZMC.

synonym: *culta* (Weber) 1801:75 (*Buprestis*) – Synonymy: LeConte 1857a:7.

Type locality: Amer. – Type depository: unknown.

synonym: *quatuordecimguttata* (Fabricius) 1801:209 (*Buprestis*) – Synonymy: Waterhouse 1882:27.

Type locality: none given – Type depository: type lost.

synonym: *geranii* (Harris) 1829:2 (*Buprestis*) – Synonymy: LeConte 1857a:7.

Type locality: MA? – Type depository: MCZC (Lectotype not designated).

Taxonomy: Horn 1878 (as *culta*); Fall 1899.

Redescription: Horn 1878:22, plate 1, fig. 36 (elytron as *culta*); Wellso, *et al.* 1976: fig. 7 (procoxal setae); Bright 1987:38, fig. 73 (♂ genitalia).

Ecology: Knull 1920 (as *culta*); 1922; Vogt 1949b; Wellso 1974; Westcott, *et al.* 1979; Nelson 1987a; MacRae 1991; Nelson, *et al.* 1996 (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** ON; **USA:** AL, AR, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, NC, NE, NJ, NY, OH, OK, PA, SC, TN, TX, VA, WV

Host(s): larvae in *Betula nigra* L., *Carya alba* (L.) Nutt., *C. glabra* (Mill.) Sweet, *C. illinoensis* (Wangenh.) K. Koch, *C. ovata* (Mill.) K. Koch, *Celtis occidentalis* L., *Cercis canadensis* L., *C. c. var. texensis* (S. Wats.) M. Hopkins, *Crataegus* spp., *Gleditsia triacanthos* (L.), *Juglans nigra* L., *Ostrya virginiana* (Mill.) K. Koch, *Quercus alba* L., *Salix* sp., *Ulmus crassifolia* Nutt., *U. rubra* Muhl.; adults also on *Juniperus virginiana* L., *Quercus velutina* Lam., *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson, *Taxodium distichum* (L.) Rich.; and on flowers of *Achillea millefolium* L., *Amelanchier arborea* (Michx. f.) Fern., *Cardamine concetenara* (Michx.) Sw., *Centaureum maculosum* Lam., *Conradina canescens* Gray, *Cornus drummondii* C. A. Mey., *C. florida* L., *Crataegus* sp., *Daucus carota* L., *Fragaria* sp., *Geranium maculatum* L., *Glandularia canadensis* (L.) Nutt., *Hudsonia ericoides* L., *Hydrophyllum appendiculatum* Michx., *Hypericum perforatum* L., *Hypoxis hirsuta* (L.) Cov., *Iris* sp., *Krigia virginica* (L.) Willd., *Leucanthemum vulgare* Lam., *Leucothoe racemosa* (L.) Gray, *Linum sulcatum* Riddell, *Lithospermum canescens* (Michx.) Lehm., *Mimosa microphylla* Dry., *Minuartia nuttallii* (Pax) Briq., *Monarda russeliana* Nutt. ex Sims, *Opuntia ficus-indica* (L.) Mill., *Oxalis* sp., *Packera obovata* (Muhl. ex Willd.) Weber & Love, *P. plattensis* (Nutt.) Weber & Love, *Penstemon coboea* Nutt., *P. digitalis* Nutt. ex Sims, *P. grandiflorus* Nutt., *Phlox pilosa* L., *Potentilla simplex* Michx., *Prunus americana* Marsh., *Ranunculus harveyi* (Gray) Britt., *Rosa carolina* L., *R. setigera* Michx., *Rubus trivialis* Michx., *Ruellia humilis* Nutt., *R. strepens* L., *Sassafras albidum* (Nutt.) Nees, *Scutellaria incana* Biehler, *Stylophorum diphyllum* (Michx.) Nutt., *Taraxacum officinale* Wigg., *Tephrosia virginiana* (L.) Pers., *Thalictrum thalictroides* (L.) Eames & Boivin, *Tradescantia* sp. and *Viburnum rufidulum* Raf.

BUPRESTIDAE: Polycestinae: Acmaeoderini

tuta Horn 1878:11, plate 1, fig. 11 (elytron).

Type locality: UT, St. George – Type depository: MCZC 8028 (Lectotype not designated).

synonym: *rubrosuffusa* Fall 1907:240 (as variety of *robusta*) – Synonymy: Barr 1975:419.

Type locality: CA, Mojave – Type depository: MCZC 24428.

synonym: *duboisii* Cazier 1938b:138 (♂, ♀) (as subspecies of *robusta*) – Synonymy: Cazier 1940b:59.

Type locality: CA, Death Valley, Furnace Creek – Type depository: AMNH (♀).

synonym: *moronga* Van Dyke 1943:102 – Synonymy: Barr 1975:419.

Type locality: CA, Riverside Co., Moronga Valley – Type depository: CASC 5337.

Taxonomy: Horn 1878; Fall 1899; Cazier 1940b; Barr 1975.

Redescription: Fall 1899:17; Akiyama & Ohmomo: fig. 208.

Ecology: Westcott, *et al.* 1979 (biol., distr.).

Distribution: **USA:** AZ, CA, NV, UT

Host(s): larvae in *Psorothamnus schottii* (Torr.) Barneby; adults also on *P. arborescens* (Gray) Barneby var. *simplicifolius* (Parish) Barneby, *P. polyadenius* (S. Wats.) Rydb., *Prosopis glandulosa* Torr.; and on flowers of *Encelia farinosa* T. & G., *E. frutescens* (Gray) Gray, *Salvia* sp. and *Stephanomeria pauciflora* (Torr.) Nelson.

uvaldensis Knull 1936:73.

Type locality: TX, Uvalde – Type depository: FMNH.

Taxonomy: Cazier 1940a.

Ecology: Vogt. 1949b (biol.); Westcott, *et al.* 1990 (distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): adults on *Prosopis glandulosa* Torr.

vandykei Fall 1899:23.

Type locality: “Washington Territory” – Type depository: MCZC 24431 (Lectotype not designated).

Taxonomy: Fall 1899.

Redescription: Good 1925: plate 11, fig. 47 (wing); Bright 1987:37.

Ecology: Burke 1917b; Chamberlin 1917; Beer 1944; Barr 1971; Bright 1987 (biol., distr.).

Distribution: **Canada:** BC; **USA:** CA, ID, NV, OR, UT, WA

Host(s): larvae in *Ceanothus integerrimus* H. & A., *C. leucodermis* Greene, *C. velutinus* Dougl., *Quercus wislizeni* A. DC.; adults also on *Ceanothus oliganthus* Nutt., *Cercocarpus ledifolius* Nutt. and flowers of *Rosa* sp.

variegata LeConte 1852:67.

Type locality: NM, Santa Fe – Type depository: MCZC 2727 (Lectotype not designated).

synonym: *lucia* Fall 1901:307 – Synonymy: Barr 1975:420.

Type locality: AZ, Prescott – Type depository: MCZC 24421 (Lectotype not designated).

synonym: *distincta* Kerremans 1902:29 – Synonymy: Barr 1975:420.

Type locality: CO – Type depository: BMNH.

Taxonomy: Barr 1975.

Ecology: Westcott, *et al.* 1979 (distr.); MacRae & Nelson 2003 (biol.).

Distribution: **USA:** AZ, CO, NM, TX

Host(s): adults on flowers of *Machaeranthera bigelovii* (Gray) Greene and *Sphaeralcea* sp.

verecunda Barr 1972 [syn. of *plagiaticauda*]

verityi Westcott 1971b:11, figs. 7, 8, 14 (adults, ovipositor).

Type locality: CA, Riverside Co., 5 mi NW Palm Springs – Type depository: CASC 9853 (♀).

Taxonomy: Westcott 1971b.

Ecology: Westcott 1971b (biol., distr.); Bellamy 1982 (biol.).

Distribution: **USA:** CA

Host(s): adults on *Ephedra californica* S. Wats. and *Psorothamnus arborescens* (Gray) Barneby var. *simplicifolius* Barneby; also flowers of *Chaenactis fremontii* Gray and *Viguiera deltoidea* Gray.

vermiculata Knull 1947 [syn. of *vanduzeei*]

vernalis Barr 1972b:160, fig. 7 (adult).

Type locality: CA, Riverside Co., Palm Sprs., Tahquitz Cyn. – Type depository: CASC 11506 (♂).

misidentification: *flavosticta* of authors (in part), not *flavosticta* Horn 1878.

Taxonomy: Barr 1972b.

Ecology: Barr 1972b (biol., distr.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): adults on flowers of *Encelia farinosa* T. & G., *Eriodictyon crassifolium* Benth. and *Viguiera parishii* Greene.

vulturei Knull 1938d:228.

Type locality: AZ, Vulture Mtns., near Wickenburg – Type depository: FMNH (♀).

Ecology: Barr 1941a; Westcott 2005 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA

Host(s): larva in *Quercus beriberidifolia* Liebm.; adults on *Q. beriberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.) and *Q. wislizeni* A. DC.; also flowers of *Encelia actoni* Elmer, *Eriogonum fasciculatum* (Benth.) T. & G. and *Sphaeralcea ambigua* Gray.

wenzeli Van Dyke 1919a:154, plate 7, fig. 4 (elytron).

Type locality: TX, Chisos Mtns. – Type depository: CASC 3259.

Redescription: Cazier 1951b: fig. 16 (adult).

Ecology: Cazier 1951b (distr.); Westcott, *et al.* 1979 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): larvae in *Acacia constricta* Benth.; adults also on *A. farnesiana* (L.) Willd.

wheeleri Van Dyke 1919a:155, plate 7, fig. 5 (elytron).

Type locality: AZ, Santa Catalina Mts., Sabino Cyn. – Type depository: CASC 3260.

Ecology: Westcott, *et al.* 1979 (biol., distr.).

Distribution: **USA:** AZ; also recorded from Mexico.

Host(s): larvae in *Celtis ehrenbergia* (Klot.) Liebm.; adults also on *Cercidium* sp. and various flowers.

wickenburgana Knull 1939:28 (♂, ♀), plate 1, fig. 1 (adult).

Type locality: AZ, Wickenburg – Type depository: FMNH (♂).

Ecology: Westcott, *et al.* 1979 (biol., distr.).

Distribution: **USA:** AZ; also recorded from Mexico.

Host(s): adults on *Parkinsonia* sp.; also on flowers of various Asteraceae.

xanthosticta Laporte & Gory 1835:4.

Type locality: “Columbie” – Type depository: MNHN (Lectotype not designated).

synonym: *bisseptemguttata* Marseul 1867:48 – Synonymy: Kerremans 1906:57.

Type locality: “Columbie” – Type depository: MNHN?

synonym: *amazonica* Nonfried 1895:303 – Synonymy: Kerremans 1906:57.

Type locality: “Minas Geraes und Amazonenstromgebiet” – Type depository: MNHN? (Lectotype not designated).

synonym: *confusa* Fisher 1925:41 (new name proposed for *cubaecola* Kerremans not Jacquelin du Val)

– Synonymy: Barr 1992:83.

misidentification: *cubaecola* of authors, not *cubaecola* Jacquelin du Val 1857.

misidentification: *pulcherrima* of authors, not *pulcherrima* Jacquelin du Val 1857.

Taxonomy: Fall 1899 (as *pulcherrima*).

Redescription: Fall 1899:16 (as *pulcherrima*).

Ecology: MacRae 2006 (biol., distr.).

Distribution: **USA:** FL; also recorded from South America and West Indies.

Host(s): adults on *Conocarpus erectus* L. and *Suriana maritima* L.; also on flowers of *Laguncularia racemosa* (L.) Gaertn. f.

yuccavora Knull 1962:2 (♂, ♀), fig. 1 (adult ♂).

Type locality: AZ, Chiricahua Mtns., 5100' – Type depository: FMNH (♂).

Taxonomy: Knull 1962.

Ecology: Knull 1962 (biol., distr.); Westcott, *et al.* 1979 (biol.).

Distribution: **USA:** AZ

Host(s): larvae in dead flower stalks of *Yucca* sp.; adults also on flowers of *Allionia incarnata* L.

yumae Knull 1937 [ssp. of *pubiventris*]

subgenus *Acmaeodera* (*Squamodera*) Nelson 1996

Squamodera Nelson 1996a:167 (as genus), figs. 1–14 (wing, ♂ genitalia, ovipositor, adults).

Type species: *Acmaeodera vanduzeei* Van Dyke 1934 (fixed by original designation).

Taxonomy: Nelson 1996a; Bellamy & Nelson 2002; Bellamy 2003a; Davidson 2003 (as subgenus).

Ecology: Nelson 1996a.

Key(s): Nelson 1996a:169.

BUPRESTIDAE: Polycestinae: Acmaeoderini

barri Cazier 1940b:58.

Type locality: CA, Riverside Co., Painted Cyn. – Type depository: AMNH (σ).

Taxonomy: Cazier 1940b; Nelson 1996a.

Redescription: Nelson 1996a:174 (σ , φ), figs. 6, 14 (ovipositor, adult).

Ecology: Knull 1950; Nelson 1962 (distr.); 1996a (biol., distr.); Walters & Bellamy 1990 (biol.).

Distribution: USA: AZ, CA; also recorded from Mexico: BCN.

Host(s): larvae in *Psorothamnus spinosa* (Gray) Barneby; adults also on *Bebbia juncea* (Benth.) Greene, *Croton* sp., *Encelia farinosa* T. & G., *Hymenoclea salsola* Gray and *Stephanomeria* sp.

constricticollis Knull 1937d:301.

Type locality: AZ, Phoenix – Type depository: FMNH.

Taxonomy: Knull 1937d; Nelson 1996a.

Redescription: Nelson 1996a:173, figs. 5, 13 (ovipositor, adult).

Ecology: Westcott 1991; Nelson 1996a (biol., distr.).

Distribution: USA: AZ, CA

Host(s): Larvae in *Atriplex canescens* (Pursh) Nutt.; adults also on *Pluchea sericea* (Nutt.) Cov.

ephedrae Barr 1942:113.

Type locality: CA, Riverside Co., 5 mi N Palm Springs – Type depository: CASC 5024.

Taxonomy: Barr 1942; Nelson 1996a.

Redescription: Nelson 1996a:172, figs. 4, 12 (ovipositor, adult).

Ecology: Barr 1942; Walters & Bellamy 1990; Nelson 1996a (biol., distr.).

Distribution: USA: AZ, CA

Host(s): larvae in *Palafoxia arida* B. Turner & σ Morris, *Psorothamnus arborescens* (Gray) Barneby var. *simplicifolius* (Parish) Barneby and *P. emoryi* (Gray) Rydb.; adults also on *Cercidium floridum* Gray, *Ephedra californica* S. Wats., *Eriogonum deserticola* S. Wats., *E. inflatum* Torr. & Frem., *Frankenia palmeri* S. Wats., *Hymenoclea salsola* Gray, *Psorothamnus spinosus* (Gray) Barneby and *Tiquilia plicata* (Torr.) Richards.

vanduzeei Van Dyke 1934:64.

Type locality: Mexico: Baja CA, Angel de la Guardia Isld., Pond Isld. Bay Gulf Calif. – Type depository: CASC 3755.

synonym: *fisheri* Cazier 1940a:19 – Synonymy: Nelson 1996a:169.

Type locality: CA, Mojave – Type depository: USNM 54787.

synonym: *vermiculata* Knull 1947b:174 (σ , φ) (as variety of *fisheri*) – Synonymy: Nelson 1996a:169.

Type locality: CA, Palm Springs – Type depository: FMNH (σ).

synonym: *nanbrownae* Figg–Hoblyn 1953:219, fig. 1 (adult) – Synonymy: Nelson 1996a:169.

Type locality: NV, Esmeralda Co., 10 mi NW Tonopah – Type depository: CASC 8111.

Taxonomy: Van Dyke 1934; Cazier 1940a; Nelson 1996a.

Redescription: Van Dyke 1942: plate 6, fig. 9 (adult); Nelson 1996a:169, figs. 1–3, 7–11 (wing, σ genitalia, ovipositor, adults).

Ecology: Barr 1941a (as *fisheri*); Nelson 1960; 1962; 1968a (all as *vermiculata*); Westcott, *et al.* 1979; Bellamy 1982; Westcott 1991 (all as *fisheri*); Nelson 1996a (biol., distr.).

Distribution: USA: AZ, CA, NV; also recorded from Mexico: BCN and BCS.

Host(s): larvae in *Argythammia bandegeei* Millsp., *Atriplex lentiformis* (Torr.) S. Wats., *Cercidium microphyllum* (Torr.) Rose & Johnston., *Eriogonum inflatum* Torr. & Frem. and mallow; adults also on *Acacia greggii* Gray, *Atriplex confertifolia* (Torr. & Frem.) S. Wats., *Cercocarpus ledifolius* Nutt., *Eriogonum deserticola* S. Wats., *Ferocactus gracilis* Gates, *Hyptis emoryi* Torr., *Justicia californica* (Benth.) D. Gibson, *Opuntia* spp., *Pluchea sericea* (Nutt.) Cov., *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston and *Psorothamnus spinosus* (Gray) Barneby.

Genus *Acmaeoderopsis* Barr 1974

Acmaeoderopsis Barr 1974:11.

Type species: *Acmaeodera squamosa* Van Dyke 1919 (fixed by original designation) (= *junki* (Théry 1929)).

Taxonomy: Barr 1974; Bellamy & Nelson 2002; Bellamy 2003a.

chisosensis (Knull) 1952b:349 (*Acmaeodera*) (σ , φ), fig. 1 (adult).

Type locality: TX, Brewster Co., Chisos Mtns. – Type depository: FMNH (σ).

Taxonomy: Barr 1974.

Ecology: Nelson & Westcott 1976 (biol.); Nelson, *et al.* 1981; Westcott, *et al.* 1990; Davidson & Davidson 2005 (distr. & biol.); MacRae 2006 (biol., distr.).

Distribution: USA: TX; also recorded from Mexico.

Host(s): larvae in *Acacia constricta* Benth.; adults also on *A. farnesiana* (L.) Willd. and *Prosopis glandulosa* Torr.

guttifera (LeConte) 1859:72 (*Acmaeodera*).

Type locality: CA, Fort Tejon – Type depository: MCZC 2732 (♂).

synonym: *versuta* (Horn) 1878:21 (*Acmaeodera*), plate 1, fig. 33 (elytron) – Synonymy: Leng 1920:178.

Type locality: CA, Mariposa – Type depository: MCZC 33805 (♀).

Taxonomy: Horn 1878; Fall 1899; Barr 1974.

Redescription: Horn 1878:21, plate 1, fig. 34 (elytron); Fall 1899:33; Akiyama & Ohmomo 2000: fig. 172.

Ecology: Fall 1899 (distr.); White 1939; Tilden 1955; Nelson 1959; Bellamy 1982; MacRae & Nelson 2003 (biol.).

Distribution: USA: CA

Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.), *Q. douglasii* H. & A. and *Q. wislezeni* A. DC.; adults also on *Arctostaphylos* sp., *Ceanothus crassifolius* Torr., *C. oliganthus* Nutt., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *Cercidium* sp., *Cercocarpus betuloides* T. & G., *Condalia* sp., *Rhamnus californica* Esch., *R. crocea* Nutt., *Yucca* sp. and *Ziziphus parryi* Torr.

hassayampae (Knull) 1961:80 (*Acmaeodera*) (♂, ♀).

Type locality: AZ, Wickenburg – Type depository: FMNH (♂).

misidentification: *hulli* of authors, not *hulli* Knull 1928.

Taxonomy: Barr 1974.

Ecology: Nelson, *et al.* 1981 (distr.); Nelson 1965 (biol.); Davidson & Davidson 2005 (biol., distr.).

Distribution: USA: AZ, CA, NM; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray; adults also on *Atriplex canescens* (Pursh) Nutt., *Cercidium floridum* Gray, *Mimosa* sp. and *Prosopis* sp.

hualpaiana (Knull) 1952b:349 (*Acmaeodera*) (♂, ♀), fig. 5 (adult).

Type locality: AZ, Hualpai Mtns. – Type depository: FMNH (♂).

Taxonomy: Barr 1974.

Ecology: Nelson & Westcott 1976; Nelson, *et al.* 1981 (biol.); Westcott 2005 (distr.); MacRae 2006 (biol., distr.).

Distribution: USA: AZ, CA, NV

Host(s): larvae in *Prosopis* sp.; adults also on *Acacia constricta* Benth., *A. greggii* Gray and *Prosopis glandulosa* Torr. var. *torreyana* (Benson) Johnston.

hulli (Knull) 1928:315 (*Acmaeodera*).

Type locality: NM, Mesilla Park – Type depository: FMNH (♀).

Taxonomy: Barr 1974.

Redescription: Cazier 1951b: fig. 23 (adult); Akiyama & Ohmomo 2000: fig. 171.

Ecology: Cazier 1951b; Nelson & Westcott 1976; Nelson, *et al.* 1981; Westcott, *et al.* 1990; Davidson & Davidson 2005; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (distr.).

Distribution: USA: AZ, NM, TX; also recorded from Mexico.

Host(s): larvae in *Celtis* sp., *Prosopis glandulosa* Torr. and *Quercus* sp.; adults also on *Acacia* sp., *Celtis ehrenbergia* (Klot.) Liebm., *Larrea tridentata* (DC.) Cov. and *Mimosa* sp.

jaguarina (Knull) 1938c:135 (*Acmaeodera*) (♂, ♀).

Type locality: AZ, Yuma – Type depository: FMNH (♂).

Taxonomy: Barr 1974.

Ecology: Barr 1941a (biol., distr.).

Distribution: USA: AZ, CA

Host(s): larvae in *Salix gooddingii* Ball; adults also on *Pluchea sericea* (Nutt.) Cov. and *Prosopis pubescens* Benth.

junki (Théry) 1929:115 (*Acmaeodera*, replacement name for *squamosa* Van Dyke 1919).

Type locality: AZ, Florence – Type depository: ANSP 8197 (♀).

synonym: *squamosa* Van Dyke 1919:186 (♂, ♀) (*Acmaeodera*) (preoccupied: *squamosa* Théry 1912).

BUPRESTIDAE: Polycestinae: Acmaeoderini, Ptosimini

Taxonomy: Barr 1974.

Redescription: Cazier 1951b: figs. 21, 28 (adult, elytral seta); Akiyama & Ohmomo 2000: fig. 170.

Ecology: Cazier 1951b; Nelson 1965; Nelson & Westcott 1976 (distr.); Nelson & MacRae 1990; Davidson & Davidson 2005; Davidson 2006 (biol.).

Distribution: **USA:** AZ, CA, NM, TX; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray, *Cercidium floridum* Gray, *C. microphyllum* Torr., “Palo Verde” and *Prosopis glandulosa* Torr.; adults also on *Acacia constricta* Benth., *Jatropha multifida* L. and *Prosopis pubescens* Benth.

paravaripilis (Barr) 1972b:189 (*Acmaeodera*), fig. 22 (adult).

Type locality: AZ, Globe – Type depository: CASC 11500 (♂).

misidentification: *varipilis* of authors, not *varipilis* Van Dyke 1934.

Taxonomy: Barr 1972b; 1974.

Ecology: Barr 1972b (biol., distr.); Nelson, *et al.* 1981 (biol.).

Distribution: **USA:** AZ

Host(s): larvae in *Acacia greggii* Gray; adults also on *Mimosa* sp. and *Prosopis glandulosa* Torr.

prosopis Davidson 2006:214 (♂, ♀), figs. 1, 2, 4, 9–12 (adult, ♂ genitalia, setae).

Type locality: CA, San Bernardino Co., SW jct. Hwy. 15 & Basin Road – Type depository: CSCA (♂).

Ecology: Davidson 2006 (biol.).

Distribution: **USA:** CA

Host(s): adults on *Prosopis glandulosa* Torr.

rockefelleri (Cazier) 1951b:9 (*Acmaeodera*) (♂, ♀), figs. 22, 27 (adult, elytral seta).

Type locality: Mexico: Chihuahua, Samalayuca – Type depository: AMNH (♂).

Taxonomy: Barr 1974.

Ecology: Nelson & Westcott 1976; Davidson & Davidson 2005 (biol., distr.).

Distribution: **USA:** NM, TX; also recorded from Mexico.

Host(s): adults on *Acacia constricta* Benth. and *Prosopis glandulosa* Torr.

squamosa Van Dyke 1919 [syn. of *junki*]

versuta (Horn 1878) [syn. *guttifera*]

westcotti (Barr) 1972b:186 (*Acmaeodera*), fig.21 (adult).

Type locality: CA, Imperial Co., 15 mi E Calexico – Type depository: CASC 11507 (♂).

Taxonomy: Barr 1972b; 1974.

Ecology: Barr 1972b (biol., distr.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): adults on *Acacia* sp., *Atriplex lentiformis* (Torr.) S. Wats., *Olneya tesota* Gray, *Prosopis chilensis* (Molina) Stuntz, *P. glandulosa* Torr. and *P. pubescens* Benth.

Genus *Anambodera* Barr 1974

Anambodera Barr 1974:9.

Type species: *Acmaeodera gemina* Horn 1878 (fixed by original designation).

Taxonomy: Barr 1974; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Bright 1987:39.

gemina (Horn) 1878:23 (*Acmaeodera*), plate 1, fig. 37 (elytra).

Type locality: CA, San Bernardino Valley – Type depository: MCZC 33806 (Lectotype not designated).

Taxonomy: Horn 1878; Fall 1899; Barr 1974.

Redescription: Fall 1899:34; Bright 1987:40; Akiyama & Ohmomo 2000: fig. 168.

Ecology: Chamberlin 1917; White 1939; Bright 1987 (biol., distr.); Fall 1899; Nelson 1962 (distr.).

Distribution: **Canada:** BC; **USA:** AZ, CA, ID, MT, OR, WA; also recorded from Mexico.

Host(s): unknown.

lucernae (Knull) 1973:299 (*Acmaeodera*), fig. 1 (adult).

Type locality: CA, San Bernardino Co., Lucerne Valley – Type depository: FMNH (♀).

Taxonomy: Barr 1974.

Ecology: Westcott 2001b (biol., distr.); 2005 (distr.).

Distribution: **USA:** AZ, CA, NV

Host(s): adults on *Sphaeralcea* sp.

lucksani Walters 1982:180 (♂, ♀), fig. 1 (♂ holotype).

Type locality: CA, Riverside Co., Pinyon Flat – Type depository: LACM (♂).

Taxonomy: Walters 1982.

Ecology: Walters 1982 (biol., distr.).

Distribution: **USA:** CA

Host(s): adults on *Eriastrum densifolium* (Benth.) Mason ssp. *elongatum* (Benth.) Mason, *Salvia* sp. and *Sphaeralcea ambigua* Gray.

nebulosa (Horn) 1894:376 (*Acmaeodera*).

Type locality: CA, Napa Co. – Type depository: MCZC 33813 (Lectotype not designated).

Taxonomy: Barr 1974.

Ecology: White 1939 (biol.).

Distribution: **USA:** CA

Host(s): adults on dry grass and small yellow flowered Asteraceae.

palmarum (Timberlake) 1939:181 (*Acmaeodera*).

Type locality: CA, 5 mi S Palm Springs – Type depository: CASC 12190 (♂).

Taxonomy: Barr 1974.

Redescription: Akiyama & Ohmomo 2000: fig. 169.

Ecology: Nelson 1960b; 1962; 1968a (distr.); Nelson, *et al.* 1981 (biol.).

Distribution: **USA:** CA, NV; also recorded from Mexico.

Host(s): adults on flowers of *Dicoria canescens* Gray, *Eriogonum inflatum* Torr. & Frem., *Geraea canescens* Gray and *Hyptis emoryi* Torr.

santarosae (Knull) 1960c:322 (*Acmaeodera*) (♂, ♀).

Type locality: CA, Riverside Co., Santa Rosa Mtns., 4000' – Type depository: FMNH (♂).

Taxonomy: Barr 1974.

Ecology: Knull 1960c (biol., distr.).

Distribution: **USA:** CA

Host(s): adults on flowers *Eriogonum fasciculatum* (Benth.) T. & G.

Tribe Ptosimini Kerremans 1902

Ptosimites Kerremans 1902:37.

Type genus: *Ptosima* Dejean 1833.

Polycestides Lacordaire 1857 (part).

Julodini LeConte 1861 (part).

Acmaeoderites Kerremans 1893 (part).

Ptosimites Kerremans 1902.

Ptosimini: Bedel 1921:169.

Acmaeoderinae Arnett 1962 (part).

Classification: Cobos 1955; 1980; Nelson 1982; Bellamy 1985; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Cobos 1980:46; Bellamy & Nelson 2002:102 (genera).

Genus *Ptosima* Dejean 1833

Ptosima Dejean 1833:79.

Type species: *Buprestis novemmaculata* Fabricius 1775 (fixed by monotypy) (= *undecimmaculata* (Herbst 1784)).

Immature stages: Burke 1917a: plate 5, fig. 3 (larva); Schaefer 1949:78, plate 5, fig. 56 (larva); Bílý & Volkovitsh 1996.

Taxonomy: Kerremans 1907; Nelson 1978; Bellamy 1997d; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Kerremans 1907:539; Schaefer 1949:77; Nelson 1978:328.

Ecology: Schaefer 1949 (biol.); Nelson 1978 (biol., distr.).

Key(s): Kerremans 1907:540 (world); Nelson 1978:329 (No. Amer.).

gibbicollis (Say) 1823:161 (*Buprestis*).

Type locality: AR – Type depository: type destroyed.

synonym: *luctuosa* Gory 1840:71, plate 13, fig. 69 (adult) – Synonymy: Crotch 1873:89.

BUPRESTIDAE: Polycestinae: Ptosimini, Thrincopygini

Type locality: “Amer. Bor.” – Type depository: MNHN.

Immature stages: Burke 1917a: pl.5, fig. 3A, C (larva); Solomon 1995, fig. 110, B (larval workings).

Taxonomy: Nelson 1978.

Redescription: Knull 1925: plate 2 (adult); Good 1925: plate 10 (wing); Nelson 1978:332, fig. 4 (adult); Akiyama & Ohmomo 2000: fig. (115) (σ , φ).

Ecology: Knull 1920; Hespenheide 1974; Nelson 1978 (biol., distr.); Nelson, *et al.* 1981; Nelson 1987a; Nelson & MacRae 1990 (distr.); Solomon 1995 (biol.).

Distribution: **USA:** AL, AR, DC, FL, GA, IA, IL, IN, KS, KY, LA, MD, MI, MO, MS, NC, NJ, OH, OK, PA, SC, TN, TX, VA, WV

Host(s): larvae in *Cercis canadensis* L.; adults also on *Prunus serotina* Ehrh. and *Sassafras albidum* (Nutt.) Nees.

idolynae Frost 1923:279.

Type locality: MS, Agric. College – Type depository: MCZC 35057.

Taxonomy: Frost 1923; Nelson 1978.

Redescription: Nelson 1978:335 (σ , φ), figs. 6–8 (adult); Akiyama & Ohmomo 2000: fig. (113) (σ , φ).

Ecology: Knull 1970; Nelson 1978 (biol., distr.); Nelson, *et al.* 1981; Nelson 1987a (distr.).

Distribution: **USA:** AR, MS, OK, TX

Host(s): larvae in *Crataegus* sp.; adults also on *Gleditsia triacanthos* L.

laeta Waterhouse 1882:20.

Type locality: Mexico: Playa Vicente – Type depository: BMNH.

synonym: *schaefferi* Chamberlin 1926:235 (as variety of *gibbicollis*) – Synonymy: Nelson 1978:333.

Type locality: TX, Cypress Mills – Type depository: CASC 5474.

Taxonomy: Waterhouse 1882; Nelson 1978.

Redescription: Nelson 1978:334 (σ , φ), fig. 5 (adult); Akiyama & Ohmomo 2000: fig. 114 (σ).

Ecology: Knull 1970 (as *schaefferi*); Nelson 1978 (biol., distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): larvae in *Cercis canadensis* L var. *texensis* (S. Wats.) M. Hopkins.

luctuosa Gory 1840 [syn. of *gibbicollis*]

schaefferi Chamberlin 1926 [syn. of *laeta*]

walshii LeConte 1863:81.

Type locality: IL, Rock Island – Type depository: MCZC 2735 (φ) (Lectotype designation: Nelson 1978:332).

Taxonomy: Nelson 1978.

Redescription: Nelson 1978:329 (σ , φ), figs.1–3 (adult & parts).

Ecology: Nelson 1978 (distr.); Nelson, *et al.* 1981 (biol.); Westcott 1991; MacRae 2006 (biol., distr.).

Distribution: **USA:** IA, IL, KS, MI, MN, MO, MS, OH, OK, TX, WI

Host(s): larvae in *Quercus macrocarpus* Michx.

Tribe Thrincopygini LeConte 1861

Thrincopygini LeConte 1861:154.

Type genus: *Thrincopyge* LeConte 1858.

Classification: LeConte & Horn 1883; Kerremans 1893; 1902; 1907; Arnett 1962; Nelson 1980c; 1982; Bellamy 1985; Hołyński 1993; Kolibác 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Hołyński 1993:33 (subtribes); Bellamy & Nelson 2002:101 (genera).

Genus *Thrincopyge* LeConte 1858

Thrincopyge LeConte 1858:17.

Type species: *Buprestis ambiens* LeConte 1854 (fixed by subsequent designation: Chamberlin 1926:240).

Immature stages: Burke 1917a: plate 4, fig. 3 (larva); Bílý & Volkovitsh 1996.

Taxonomy: Kerremans 1907; Nelson 1980c; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Kerremans 1907:595; Nelson 1980c:298.

Ecology: Nelson 1980c.

Key(s): Horn 1885:147; Kerremans 1907:597; Nelson 1980c:299.

alacris LeConte 1858:17.

Type locality: AZ – Type depository: MCZC 2713 (♀) (Lectotype designation: Nelson 1980c:302).
 synonym: *strandii* Obenberger 1936a:104 (as variety of *alacris*) – Synonymy: Nelson 1980c:301.
 Type locality: TX – Type depository: NMPC.
 Taxonomy: Kerremans 1907; Nelson 1980c.
 Redescription: Kerremans 1907:598; Good 1925: plate 10 (wing); Nelson 1980c:301 (♂, ♀), figs. 2, 11 (adult, ♂ genitalia); Ohmomo & Akiyama 1997: figs. 5–7; Akiyama & Ohmomo 2000: fig. 154 (♂, ♀).
 Ecology: Cazier 1951b; Nelson & Westcott 1976; Nelson 1980c (biol., distr.); Westcott, *et al.* 1990 (distr.); Villalón, *et al.* 1997 (biol.).
 Distribution: **USA:** AZ, NM, TX; also recorded from Mexico.
 Host(s): larvae in *Beaucarnea recurvata* Lem., *Dasyilirion leiophyllum* Engelm. and *D. wheeleri* S. Wats.

ambiens (LeConte) 1854:83 (*Buprestis*).

Type locality: TX, Frontera, Rio Grande – Type depository: MCZC 2714 (♀) (Lectotype designation: Nelson 1980c:305).
 synonym: *laetifica* Horn 1885:146 – Synonymy: Nelson 1980c:304.
 Type locality: TX – Type depository: MCZC 33802 (♂) (Lectotype designation: Nelson 1980c:307).
 Immature stages: Burke 1917a: plate 4, fig. 3 (larva).
 Taxonomy: Kerremans 1907; Nelson 1980c.
 Redescription: Kerremans 1907:599; Nelson 1980c:304 (♂, ♀), figs. 4, 5, 7–10, 12 (adult, ♂ genitalia, parts); Ohmomo & Akiyama 1997: figs. 10, 11 (as *T. amabuens*, *lapsus calami*); Akiyama & Ohmomo 2000: fig. 156 (♂, ♀).
 Ecology: Burke 1917a; 1917b (biol.); Nelson & Westcott 1976; Nelson 1980c (biol., distr.); Westcott, *et al.* 1990 (distr.).
 Distribution: **USA:** AZ, NM, TX; also recorded from Mexico.
 Host(s): larvae in *Dasyilirion wheeleri* S. Wats.; adults also on *D. leiophyllum* Engelm., *Nolina microcarpa* S. Wats. and *N. bigelovii* (Torr.) S. Wats.

***Chrysophana* generic group (Tribal level) sensu Volkovitsh 2001**

Chrysophana generic group Volkovitsh 2001:53.
 Classification: Bellamy 2003a

Genus *Beerellus* Nelson 1982

Beerellus Nelson 1982:438, figs. 2, 9 (tarsus, wing).
 Type species: *Beerellus taxodii* Nelson 1982 (fixed by original designation).
 Taxonomy: Nelson 1982; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
 Ecology: Nelson 1982.

taxodii Nelson 1982:438, figs. 2, 9, 43–47 (tarsus, wing, adult, antenna).

Type locality: GA, Clinch Co., 9 mi NE Fargo – Type depository: USNM 77534 (♀).
 Taxonomy: Nelson 1982.
 Ecology: Nelson 1982 (biol., distr.).
 Distribution: **USA:** GA
 Host(s): larvae in *Taxodium distichum* (L.) Rich.

Genus *Chrysophana* LeConte 1860

Chrysophana LeConte 1860:219.
 Type species: *Ancylochira placida* LeConte 1854 (fixed by monotypy).
 Taxonomy: Cobos 1955; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.
 Ecology: Burke 1917a (biol.).
 Key(s): Barr 1971.

conicola Van Dyke 1937:105 (as subspecies of *placida*)

Type locality: CA, Mt. St Helena – Type depository: CASC 4241.
 Immature stages: Keen 1958:37, fig. 2 (larva in cone).

BUPRESTIDAE: Polycestinae: Thrincopygini, Polycestini

Taxonomy: Barr 1971.

Ecology: Keen 1958; Barr 1971 (biol., distr.).

Distribution: USA: CA, OR

Host(s): larvae in cones of *Pinus attenuata* Lemmon and *P. coulteri* D. Don.

placida (LeConte) 1854:17 (*Ancylochira*).

Type locality: OR – Type depository: MCZC 2736.

unavailable name: *coerulans* Obenberger 1924:100 (as aberration of *placida*).

Type locality: CA – Type depository: NMPC.

synonym: *strandi* Obenberger 1936a:106 (as variety of *placida*).

Type locality: CA, Yosemite Valley – Type depository: NMPC.

synonym: *cupriola* Van Dyke 1937:105 (as variety of *placida*).

Type locality: CA, Tulare Co., Atwells Mill – Type depository: CASC 4240.

Immature stages: Burke 1917a: plate 5, fig. 1 (larva).

Redescription: Good 1925: plate 10 (wing); Cobos 1955: figs. 2–5 (wing, ovipositor, ♂ genitalia); Barr 1971: plate 8 (adult); Akiyama & Ohmomo 2000: fig. 125.

Ecology: Chamberlin 1917; Burke 1917c; 1920a (biol.); Bright 1987; Westcott 1991; Davies 1991; MacRae & Nelson 2003 (distr.).

Distribution: **Canada:** AB, BC; **USA:** AZ, CA, CO, ID, MT, NE, NM, NV, OR, SD, UT, WA

Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *A. lasiocarpa* Nutt., *A. magnifica* A. Murr., *Pinus contorta* Loud., *P. c.* var. *murrayana* (Grev. & Balf.) Critchf., *P. flexilis* James, *P. jeffreyi* Grev. & Balf., *P. lambertiana* Dougl., *P. monophylla* Torr. & Frem., *P. monticola* Dougl., *P. ponderosa* Laws., *P. sabiniana* Dougl., *Pseudotsuga menziesii* (Mirb.) Franco and *Tsuga mertensiana* (Bong.) Carr.

Tribe Polycestini Lacordaire 1857

Polycestides Lacordaire 1857:61.

Type genus: *Polycesta* Dejean 1833.

Exscutellatae (Section 2) Schönherr 1817 (part).

Chrysochroites Laporte & Gory 1837 (part).

Polycestides Lacordaire 1857.

Julodini LeConte 1861 (part).

Acmaeoderini Kerremans 1893 (part).

Polycestites Kerremans 1902 (part).

Acmaeoderinae Arnett 1962 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1902; 1905; Cobos 1955; 1980; 1981; Arnett 1962; Nelson 1982; Bellamy 1985; Volkovitch 2001; Bellamy & Nelson 2002; Bellamy 2000b; 2003a.

Key(s): Kerremans 1905:373; Cobos 1980:25, 87 (genera); Hołyński 1993 (subtribes); Bellamy & Nelson 2002:102 (genera).

Genus *Polycesta* Dejean 1833

Polycesta Dejean 1833:78.

Type species: *Buprestis porcata* Fabricius 1775 (fixed by monotypy).

Lycaste Gistel 1834:10 – Synonymy: Mannerheim 1837:36.

Type species: *Buprestis porcata* Fabricius (fixed by monotypy).

Taxonomy: Barr 1949 (revision of USA. spp.); Cobos 1980; 1981 (revision of subfamily); Bílý & Bellamy 1996; Nelson 1997b; Bellamy 1997d; Volkovitch 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Barr 1949:7; Cobos 1981:59.

Ecology: Barr 1949 (biol., distr.).

Key(s): Barr 1949:10 (USA.); Cobos 1981:62 (subgenera).

subgenus *Polycesta* (*Polycesta*) Dejean 1833

Polycesta Dejean 1833:78.

Type species: *Buprestis porcata* Fabricius 1775.

angulosa Jacquelin du Val 1856:62.

Type locality: Cuba – Type depository: IZAC? (MNHN).

synonym: *obtusa* LeConte 1858:68 – Synonymy: Schaeffer 1906:23.

Type locality: PA, near Philadelphia (error). Type depository: MCZC 2718 (♂).

misidentification: *excavata* of authors (in part), not *excavata* Blanchard 1846.

Taxonomy: Barr 1949; Cobos 1981.

Redescription: Barr 1949:20 (♂, ♀), fig. 2 (♂ genitalia).

Ecology: Barr 1949 (biol., distr.); Westcott 1991 (biol.).

Distribution: **USA**: AL, FL; also recorded from the West Indies.

Host(s): larvae in *Coccolobis laurifolia* Jacq. and *Metopium toxiferum* Kr. & Urb.

goryi Saunders 1871:58 (replacement name for *depressa* Gory & Laporte 1838).

synonym: *depressa* Gory & Laporte 1838:3 (primary junior homonym; preoccupied: *depressa* Linnaeus 1771:533).

Type locality: Caienne – Type depository: MNHN.

synonym: *cribrata* Thomson 1878:44 – Synonymy: Kerremans 1906:481.

Type locality: Caracas – Type depository: MNHN (♂).

synonym: *abdita* Barr 1949:17 – Synonymy: Cobos 1981:68.

Type locality: FL, Chocologoskee – Type depository: USNM 59153 (♂).

Taxonomy: Cobos 1981.

Redescription: Barr 1949:17 19 (♂, ♀), fig. 1 (♂ genitalia, as *abdita*); Cobos 1981: figs. 87–89 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 141 (♂).

Ecology: Barr 1949 (distr. & biol. as *abdita*); Beer 1970 (biol., as *abdita*); Westcott, *et al.* 1990 (distr.).

Distribution: **USA**: FL; also recorded from Mexico, South America and West Indies.

Host(s): larvae in *Casuarina equisetifolia* L., *Conocarpus erectus* L. and *Laguncularia racemosa* (L.) Gaertn. f.

subgenus *Polycesta* (*Arizonica*) Cobos 1981

Polycesta (*Arizonica*) Cobos 1981:63.

Type species: *Polycesta arizonica* Schaeffer 1906 (absolute tautonymy).

Taxonomy: Cobos 1981; Bilý & Bellamy 1996; Nelson 1997b.

Key(s): Cobos 1981:62.

arizonica arizonica Schaeffer 1906:21.

Type locality: AZ, Cochise Co., Palmerlee – Type depository: USNM 43632 (♂) (Lectotype designation: Bellamy & Nelson 1990:295).

Taxonomy: Barr 1949; Cobos 1981.

Redescription: Barr 1949:12 (♂, ♀), fig. 3 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 143 (♂, ♀).

Ecology: Duncan 1934a; Barr 1949; Nelson & MacRae 1990 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA**: AZ, NM, TX

Host(s): larvae in *Quercus arizonica* Sarg., *Q. emoryi* Torr., *Q. gravesii* Sudw., *Q. hypoleuroides* Camus and *Q. pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.

aruensis Obenberger 1924:100.

Type locality: “Ins. Aru” (sic) Ariz. – Type depository: NMPC 19654 (♀).

synonym: *californica* Ménériés 1859:180 – Synonymy: Nelson 1980a:94 (as *deserticola*).

Type locality: “California Sept.” – Type depository: ZIN.

synonym: *deserticola* Barr 1974:6 – Synonymy: Bilý & Bellamy 1996.

Type locality: CA, Riverside Co., Painted Cyn. – Type depository: CASC 12301 (♂) (Lectotype designation: Nelson 1980a:94, as *deserticola*).

misidentification: *velasco* of authors, not *velasco* Gory & Laporte 1838.

Immature stages: Burke 1917a: plate 4, fig. 4 (larva as *velasco*).

Taxonomy: Cobos 1981.

Redescription: Barr 1974:6 (♂, ♀); Cobos 1981: fig. 86, (♂ gent.), 91 (♂ silhouette); Nelson, *et al.* 1996 (variation) (all as *deserticola*); Akiyama & Ohmomo 2000: fig. 144 (♂, ♀).

Ecology: Cazier 1951b (distr. as *velasco*); Bellamy 1982; Westcott 1991 (biol.).

Distribution: **USA**: AZ, CA, TX; also recorded from Mexico.

BUPRESTIDAE: Polycestinae: Polycestini, Tyndarini

Host(s): larvae in *Ebenopsis ebano* (Berl.) Barneby & Grimes and *Salix* sp.; adults also on *Acacia greggii* Gray, *Baccharis sergiloides* Gray, *Cercidium floridum* Gray, *Larrea tridentata* (DC.) Cov., *Prosopis glandulosa* Torr., *P. pubescens* Benth., *Psorothamnus spinosus* (Gray) Barneby and *Tamarix gallica* L.

subgenus *Polycesta* (*Nelsonella*) Cobos 1981

Polycesta (*Nelsonella*) Cobos 1981:64.

Type species: *Polycesta flavomaculata* Nelson 1960 (fixed by monotypy).

Key(s): Cobos 1981:62 (subgenera).

Taxonomy: Cobos 1981; Bily & Bellamy 1996; Nelson 1997b.

***flavomaculata* Nelson 1960:30, figs. 1–3 (adult ♂ & genitalia).**

Type locality: CA, Riverside Co., 2.5 mi N Pinyon Flat – Type depository: CASC 8118 (♂).

Taxonomy: Nelson 1960a; Cobos 1981.

Redescription: Cobos 1981: fig. 106 (♂ genitalia); Ohmomo & Akiyama 1997: fig. 14; 2000: fig. 147 (♂, ♀).

Ecology: Walters 1975 (biol.).

Distribution: USA: CA

Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

subgenus *Polycesta* (*Tularensia*) Nelson 1997

Polycesta (*Tularensia*) Nelson 1997b:318.

Type species: *Polycesta tularensis* Chamberlin 1938 (fixed by original designation).

Key(s): Cobos 1981:62 (subgenera).

Taxonomy: Cobos 1981; Nelson 1997b.

bernardensis Obenberger 1924 [syn. of *californica*]

***californica* LeConte 1857:45.**

Type locality: CA, Sacramento – Type depository: MCZC 2715 (♀).

synonym: *cribrana* Motschulsky 1859:182 – Synonymy: Chamberlin 1933:42.

Type locality: “dans nord du Mexique et prob. Midi de Calif.” – Type depository: ZMUM.

synonym: *bernardensis* Obenberger 1924:35 (as subspecies) – Synonymy: Chamberlin 1933:42.

Type locality: CA, San Bernardino – Type depository: NMPC 19655.

Taxonomy: Barr 1949; Cobos 1981.

Redescription: Good 1925: plate 10 (wing); Barr 1949:24 (♂, ♀), fig. 8 (♂ genitalia); 1971: plate 8 (adult); Akiyama & Ohmomo 2000: fig. 145 (♂, ♀).

Ecology: Barr 1949; MacRae 2006 (biol., distr.); Beer 1949; Walters 1975; Nelson, *et al.* 1981 (biol.).

Distribution: USA: CA, OR

Host(s): larvae in *Acacia greggii* Gray, *Acer macrophyllum* Pursh, *Alnus rhombifolia* Nutt., *Arbutus menziésii* Pursh, *Cercocarpus betuloides* T. & G., *Heteromelas arbutifolia* (Lindl.) Romer, *Malus sylvestris* Mill., *Platanus racemosa* Nutt., *Populus fremontii* S. Wats., *Quercus agrifolia* Neé, *Q. berberidifolia* (misapplied to *Q. dumosa* Nutt.), *Q. chrysolepis* Liebm., *Q. douglasii* H. & A., *Q. garryana* Hook, *Q. kelloggii* Newb., *Q. lobata* Nee, *Q. wislizeni* A. DC. and *Salix* sp.; adults also on *Adenostoma fasciculatum* H. & A., *Calocedrus decurrens* (Torr.) Florin, *Ceanothus cuneatus* (Hook.) Nutt., *C. oliganthus* Nutt. ex T. & G., *Eriodictyon* sp. and *Fremontodendron californicum* (Torr.) Cov.

cavata LeConte 1858 [syn. of *elata*]

***cazieri* Barr 1949:36 (♂, ♀), fig. 10 (♂ genitalia).**

Type locality: CA, Santa Barbara Co., Sunset Valley – Type depository: CASC 5933 (♂).

Taxonomy: Barr 1949; Cobos 1981.

Ecology: Barr 1949 (biol., distr.); Nelson 1959; MacRae & Nelson 2003 (biol.).

Distribution: USA: CA

Host(s): larvae in *Adenostoma fasciculatum* H. & A.; adults also on *Arctostaphylos* sp., *Ceanothus crassifolius* Torr., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *Cercocarpus betuloides* T. & G. and *Chaenactis artemisiifolia* (Gray) Gray.

cribrana Motschulsky 1859 [syn. of *californica*]

crypta Barr 1949:52 (♂, ♀), fig. 6 (♂ genitalia).

Type locality: CA, Riverside Co., San Jacinto Mtns., Idyllwild – Type depository: CASC 5931 (♂).

Taxonomy: Barr 1949; Cobos 1981.

Ecology: Barr 1949 (distr.); Nelson 1959 (biol.).

Distribution: **USA:** CA

Host(s): larvae in *Arctostaphylos* sp.; adults also on *Adenostoma fasciculatum* H. & A. and *Ceanothus oliganthus* Nutt.

cyanea Chamberlin 1933:41 (justified emendation).

Type locality: CA, Sequoia Natl. Park – Type depository: CASC 5472 (♂).

synonym: *cyaneous* Chamberlin 1933:41 (in part, original spelling emended by Barr 1949).

Taxonomy: Barr 1949; Cobos 1981.

Redescription: Barr 1949:39 (♂, ♀), fig. 11 (♂ genitalia).

Ecology: Barr 1949 (biol., distr.); Nelson, *et al.* 1981 (distr.).

Distribution: **USA:** CA

Host(s): larvae in *Ceanothus crassifolius* Torr.

cyaneous Chamberlin 1933 [syn. of *tularensis*]

elata LeConte 1858:68.

Type locality: TX – Type depository: MCZC 2717 (♀).

synonym: *cavata* LeConte 1858:68 – Synonymy: Crotch 1873:89.

Type locality: AL – Type depository: MCZC 2716 (♂).

Taxonomy: Barr 1949; Cobos 1981.

Redescription: Barr 1949:22 (♂, ♀), fig. 7 (♂ genitalia).

Ecology: Knull 1937a; Barr 1949 (biol., distr.); Nelson, *et al.* 1981; MacRae & Nelson 2003 (biol.); Wellso & Jackman 2006 (distr.).

Distribution: **USA:** AL, AR, IL, LA, MO, OK, TX

Host(s): larvae in *Fraxinus greggii* Gray, *Platanus occidentalis* L. and *Quercus texana* Buckl.

hageni Barr 1949:30 (♂, ♀), figs. 9, 12 (♂ genitalia, antenna).

Type locality: CA, Kern Co., Kernville – Type depository: CASC 5930 (♂).

Taxonomy: Barr 1949; Cobos 1981.

Ecology: Barr 1949 (biol., distr.); Nelson 1967a (biol.).

Distribution: **USA:** CA

Host(s): larvae in *Chrysothamnus nauseosus* (Pall.) Britt.

tularensis Chamberlin 1938b:445 (♂, ♀).

Type locality: CA, Tulare Co., Springville – Type depository: CASC 5470 (♂).

synonym: *cyaneous* Chamberlin 1933:41 (in part, original spelling emended by Barr 1949).

Taxonomy: Barr 1949; Cobos 1981.

Redescription: Barr 1949:34 (♂, ♀), fig. 5 (♂ genitalia).

Ecology: Barr 1949 (biol., distr.); Nelson 1959; 1987a (biol.).

Distribution: **USA:** CA

Host(s): larvae in *Fremontodendron californicum* (Torr.) Cov. and *Quercus douglasii* H. & A.; adults also on *Salix* sp.

Tribe Tyndarini Cobos 1955

Tyndarini Cobos 1955:11.

Type genus: *Tyndaris* Thomson 1857.

Acmaeoderites Kerremans 1893 (part).

Ptosimites Kerremans 1902 (part).

Acmaeoderinae Arnett 1962 (part).

Classification: Cobos 1955; 1980; Nelson 1982; Bellamy 1985; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Cobos 1980:33; Bellamy & Nelson 2002:102 (genera).

Genus *Paratyndaris* Fisher 1919

Paratyndaris Fisher 1919:92.

Type species: *Tyndaris olneyae* Skinner 1903 (fixed by original designation).

misidentification: *Tyndaris* of authors (in part), not *Tyndaris* Thomson 1857.

misidentification: *Ancylotela* of authors (in part), not *Ancylotela* Waterhouse 1882.

Immature stages: Burke 1917a (larva).

Taxonomy: Skinner 1903 (review: USA spp., as *Tyndaris*); Fisher 1919; Fall 1934; Knull 1937c (review: USA spp., as *Paratyndaris*); Cobos 1955; Barr 1972 (review: No. Amer. spp., as *Ancylotela*); Cobos 1980; Westcott 1998; Volkovitsh & Hawkswood 1999; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a; Nelson & Bellamy 2004 (revision).

Redescription: Cobos 1980 (as subgenus of *Tyndaris*); Nelson & Bellamy 2004:10.

Ecology: Skinner 1903 (as *Tyndaris*); Burke 1918; Knull 1937c; Barr 1941; Van Dyke 1945 (distr.); Parker 1947; Vogt 1949 (biol.); Barr 1972; Westcott 1998; Nelson & Bellamy 2004 (biol., distr.).

Key(s): Skinner 1903:238 (as *Tyndaris*); Kerremans 1907:557 (as *Tyndaris*); Knull 1937c:252 (USA sp.); Barr 1972:106 (as *Ancylotela*); Cobos 1980:40 (as *Tyndaris*) (subgenera); Nelson & Bellamy 2004:11 (subgenera & species).

subgenus *Paratyndaris* (*Knulliella*) Cobos 1980

Paratyndaris (*Knulliella*) Cobos 1980:41.

Type species: *Paratyndaris suturalis* Fall 1934 (fixed by monotypy).

Taxonomy: Bellamy & Nelson 2002; Nelson & Bellamy 2004.

Key(s): Nelson & Bellamy 2004:11.

***chamaeleonis* (Skinner) 1903:237 (♀), plate 10, fig. 1 (adult) (*Tyndaris*).**

Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM 42657 (♀).

Taxonomy: Skinner 1903; Kerremans 1907 (both as *Tyndaris*); Fisher 1919; Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.

Redescription: Akiyama & Ohmomo 2000: plate 10, fig. 101 (adult); Akiyama & Ohmomo 2000: fig. 101 (♂); Nelson & Bellamy 2004:21, figs. 16, 30 (adult).

Ecology: Knull 1937c; Vogt 1949; Nelson 1987 (biol. as *Tyndaris*); Westcott, *et al.* 1989 (distr.); Nelson & Bellamy 2004; MacRae 2006 (biol., distr.).

Distribution: USA: TX; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray var. *wrightii* (Benth.) Isley, *Diospyros texana* Scheele, *Ebenopsis ebano* (Berl.) Barneby & Grimes and *Parkinsonia aculeata* L.; adults also on *Celtis ehrenbergiana* (Klot.) Liebm., *Leucophyllum frutescens* (Berl.) I. ♂ Johnst., *Lippia alba* (Mill.) N.E. Br. ex Britt. & P. Wilson, *Lycium berlandieri* Dunal, *Prosopis glandulosa* Torr. and *Sorghum* sp.

***suturalis* Fall 1934:193 (♀).**

Type locality: FL, Big Pine Key – Type depository: MCZC 24432 (♀).

Taxonomy: Fall 1934; Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*).

Redescription: Cobos 1980: fig. 15 (antenna); Bily 1987: fig. 3 (aedeagus); Akiyama & Ohmomo 2000: plate 10, fig. 108 (adult); Akiyama & Ohmomo 2000: fig. 108 (♀); Nelson & Bellamy 2004:15 (♂, ♀), figs. 1 (elytra apex), 4 (tarsus), 7 (antenna), 16 (adult).

Ecology: Cazier 1951a (distr.); Nelson, *et al.* 1981 (as *Tyndaris*); Nelson & Bellamy 2004 (distr., biol.).

Distribution: USA: FL; also recorded from the West Indies.

Host(s): larvae in *Rhizophora mangle* L.; adults also on *Conocarpus erectus* L. and *Laguncularia racemosa* (L.) Gaertn. f.

subgenus *Paratyndaris* (*Paratyndaris*) Fisher 1919

Paratyndaris (*Paratyndaris*) Fisher 1919:92.

Type species: *Tyndaris olneyae* Skinner 1903.

Taxonomy: Bellamy & Nelson 2002; Nelson & Bellamy 2004.

Key(s): Nelson & Bellamy 2004:11.

***acaciae* Knull 1937c:254 (♂, ♀), fig. 3 (adult).**

Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1937c; Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.

Redescription: Akiyama & Ohmomo 2000, plate 10, fig. 102 (adult); Nelson & Bellamy 2004:25 (♂, ♀), figs. 22 (map), 33 (adult), 71 (photo).

Ecology: Knull 1937c; Blackwelder 1939 (distr.); Nelson & Bellamy 2004; Davidson & Davidson 2005 (biol., distr.).

Distribution: **USA:** NM, TX; also recorded from Mexico.

Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray, *Celtis ehrenbergia* (Klot.) Liebm., *C. laevigata* Willd., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Prosopis glandulosa* Torr., *Quercus emoryi* Torr. and *Viguiera stenoloba* Blake.

albofasciata Knull 1937c:273 (♀), plate 1, fig. 1 (adult).

Type locality: AZ, Tucson – Type depository: FMNH (♀).

Taxonomy: Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.

Redescription: Nelson & Bellamy 2004:67, figs.19 (map), 57 (adult).

Ecology: Knull 1937c; Barr 1941b; Van Dyke 1945 (distr.); Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** AZ, CA; also recorded from Mexico.

Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray, *Celtis* sp., *Cercidium floridum* Gray, *C. microphyllum* (Torr.) Rose & Johnston, *Lysiloma candidum* Brandegees and *Olneya tesota* Gray.

anomalis Knull 1937c:272 (♂, ♀), plate 1, fig. 2 (adult).

Type locality: NV, Las Vegas – Type depository: FMNH (♂).

Taxonomy: Knull 1937c; Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.

Redescription: Helfer 1970:91, fig. (adult); Nelson & Bellamy 2004:22, figs. 17 (map), 31 (adult).

Ecology: Knull 1937c; Blackwelder 1939 (distr.); Barr 1941b; Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** AZ, CA, NV.

Host(s): larvae in *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston.

cincta (Horn) 1885:147 (*Tyndaris*).

Type locality: TX – Type depository: MCZC 33815 (♂).

Taxonomy: Horn 1885; Skinner 1903; Kerremans 1907 (as *Tyndaris*); Fisher 1919; Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.

Redescription: Skinner 1903: plate 10, fig. 5 (adult); Nelson & Bellamy 2004:56 (♂, ♀), figs. 23 (map), 48, 49 (Adult).

Ecology: Horn 1885 (distr. as *Tyndaris*); Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): larvae in *Ebenopsis ebano* (Berl.) Barneby & Grimes; adults also on *Prosopis glandulosa* Torr.

coursetiae Fisher 1919:93 (♂).

Type locality: AZ, Santa Catalina Mtns., Tucker Cyn. – Type depository: USNM 22097 (♂).

Taxonomy: Fisher 1919; Cobos 1955 (as *Ancylotela*); 1980 (as *Tyndaris*); Nelson & Bellamy 2004.

Redescription: Knull 1937c: plate 1, fig. 4 (adult); Cobos 1955: figs. 6 (antenna), 12 (wing), 16 (tegmen), 17 (♂ genitalia); Akiyama & Ohmomo 2000: plate 10, fig. 103 (adult); Nelson & Bellamy 2004:30 (♂, ♀) figs. 19 (map), 36 (adult).

Ecology: Fisher 1919; Knull 1937c; Parker 1947 (biol.); Walters & Bellamy 1982; Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** AZ; also recorded from Mexico..

Host(s): larvae in *Cercidium floridum* Gray, *Coursetia glandulosa* Gray; adults also on *Acacia greggii* Gray, *Celtis ehrenbergia* (Klot.) Liebm., *Condalia* sp., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby and *Olneya tesota* Gray.

crandalli Knull 1941c:694 (♀) (as subspecies of *olneyae*).

Type locality: TX, Laredo – Type depository: FMNH (♀).

Taxonomy: Knull 1941c; 1950; Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.

Redescription: Nelson & Bellamy 2004:51 (♂, ♀), figs. 21 (map), 44 (adult).

Ecology: Knull 1950; Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** TX

Host(s): adults on *Eysenhardtia texana* Scheele and *Prosopis glandulosa* Torr.

grassmani Parker 1947:31 (♂, ♀).

Type locality: AZ, Maricopa Co., Cave Cr. – Type depository: CASC 8119 (♂).

Taxonomy: Parker 1947; Nelson & Bellamy 2004.

Redescription: Nelson & Bellamy 2004:58 (♂, ♀), figs. 9 (antenna), 22 (map), 50 (adult).

Ecology: Parker 1947; Nelson 1987 (biol.); Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** AZ; also recorded from Mexico..

Host(s): larvae in *Olneya tesota* Gray; adults also on *Celtis ehrenbergia* (Klot.) Liebm., *Cercidium floridum* Gray and *Ziziphus obtusifolia* (T. & G.) Gray.

BUPRESTIDAE: Polycestinae: Tyndarini—Chrysochroinae: Chrysochroini

olneyae (Skinner) 1903:236 (*Tyndaris*), fig. 4 (adult).

Type locality: AZ, Florence – Type depository: USNM 6956 (♂).

Immature stages: Burke 1917: plate 7, fig. 4 (larva).

Taxonomy: Skinner 1903; Kerremans 1907 (as *Tyndaris*); Fisher 1919; Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.

Redescription: Nelson 1981: fig. 13 (elytra apex); Akiyama & Ohmomo 2000: plate 10, fig. 100 (adult); Nelson & Bellamy 2004:45 (♂, ♀), figs. 2 (elytra apex), 5 (tarsus), 8 (antenna), 18 (map), 44 (adult), 74 (photo).

Ecology: Skinner 1903; Burke 1917a; 1918a; Knull 1937c; Barr 1941b; Van Dyke 1945; Nelson 1962 (biol. as *Ancylotela*); Nelson, *et al.* 1981 (distr.); Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** AZ, CA, NM, NV, UT; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray, *Cercidium floridum* Gray, *Olneya tesota* Gray and *Prosopis glandulosa* Torr.; adults also on *Acacia constricta* Benth., *Atriplex* sp., *Celtis ehrenbergia* (Klot.) Liebm., *Cercidium microphyllum* (Torr.), *Condalia* sp., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Pluchea sericea* (Nutt.) Cov., *Prosopis pubescens* Benth. and *Ziziphus* sp.

prosopis (Skinner) 1903:237 (*Tyndaris*) (♀), plate 10, fig. 6 (adult).

Type locality: TX, Austin – Type depository: USNM 6957 (♀).

Taxonomy: Skinner 1903; Kerremans 1907(both as *Tyndaris*); Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.

Redescription: Nelson & Bellamy 2004:55 (♂, ♀), figs. 20 (map), 47 (adult).

Ecology: Skinner 1903 (as *Tyndaris*); Knull 1937c; Nelson & Westcott 1976; Nelson 1987 (as *Tyndaris*); Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** AZ, OK, MS, TX

Host(s): larvae in *Prosopis glandulosa* Torr. and *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.; adults also on *Quercus marilandica* (L.) Muenchh. and *Q. stellata* Wangenh.

quadrinotata Knull 1938b:22 (♂, ♀).

Type locality: AZ, Tucson – Type depository: FMNH (♂).

Taxonomy: Knull 1938b; Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.

Redescription: Nelson & Bellamy 2004:36 (♂, ♀), figs. 19 (map), 40 (adult).

Ecology: Nelson 1987; Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** AZ; also recorded from Mexico.

Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray, *A. willardiana* Rose, *Olneya tesota* Gray, *Prosopis glandulosa* Torr. and *Quercus oblongifolia* Torr.

tucsoni Knull 1938b:21(♂, ♀).

Type locality: AZ, Tucson – Type depository: FMNH (♂).

Taxonomy: Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.

Redescription: Nelson & Bellamy 2004:24 (♂, ♀), figs. 17 (map), 32 (adult).

Ecology: Parker 1947; Nelson 1965 (as *Ancylotela*); Nelson, *et al.* 1981 (biol. as *Tyndaris*); Walters & Bellamy 1990 (as *Tyndaris*); Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** AZ, CA, NM; also recorded from Mexico.

Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray, *Cercidium floridum* Gray, *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Olneya tesota* Gray and *Prosopis glandulosa* Torr.

subgenus *Paratyndaris* (*Waltersia*) Nelson & Bellamy 2004

Paratyndaris (*Waltersia*) Nelson & Bellamy 2004:68, figs. 3 (elytra apex), 6 (tarsus), 10 (antenna).

Type species: *Tyndaris barberi* Skinner 1903 (fixed by original designation).

barberi (Skinner) 1903:238 (*Tyndaris*), plate 10, fig. 3 (adult).

Type locality: AZ, Florence – Type depository: ANSP 8167 (♀) (Lectotype designation: Barr 1972:101).

Taxonomy: Fisher 1919; Barr 1972 (as *Ancylotela*); Nelson & Bellamy 2004.

Redescription: Barr 1972:100, fig. 1 (adult as *Ancylotela*); Cobos 1980: fig. 13 (antenna); Akiyama & Ohmomo 2000: plate 10, fig. 106 (adult) (both as *Tyndaris*); Nelson & Bellamy 2004:68 (♂, ♀), figs. 3 (elytra apex), 6 (tarsus), 10 (antenna), 24 (map), 58 (adult).

Ecology: Knull 1937c; Nelson 1962 (as *Ancylotela*); Walters & Bellamy 1990 (distr., as *Tyndaris*);

Nelson & Bellamy 2004 (biol., distr.); Westcott 2005 (distr.).

Distribution: **USA:** AZ, CA

Host(s): adults on *Acacia greggii* Gray, *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Olneya tesota* Gray, *Prosopis glandulosa* Torr. and *Quercus turbinella* Greene.

knulli (Barr) 1972:102 (*Ancylotela*) (♂, ♀), fig. 2 (holotype).

Type locality: CA, San Diego Co., Jacumba – Type depository: CASC 11508 (♀).

Taxonomy: Barr 1972 (as *Ancylotela*); Cobos 1980 (as *Tyndaris*); Nelson & Bellamy 2004.

Redescription: Akiyama & Ohmomo 2000: plate 10, fig. 107 (adult); Nelson & Bellamy 2004:70 (♂, ♀), figs. 24 (map), 59 (adult), 72 (photo).

Ecology: Barr 1972; Nelson & Bellamy 2004 (biol., distr.).

Distribution: **USA:** AZ, CA, NV; also recorded from Mexico.

Host(s): larvae in *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston; adults also on *Acacia greggii* Gray, *Cercidium floridum* Gray, *Gutierrezia* sp., *Olneya tesota* Gray and *Prosopis pubescens* Benth.

Subfamily Chrysochroinae Laporte 1835

“Chrysochroites, Chrysochroidae” Laporte 1835:158.

Type genus: *Chrysochroa* Dejean 1833.

Scutellatae (Section 1, Subdivision 3) Schönherr 1817 (part).

Chrysochroites Laporte & Gory 1837 (part).

Chalcophorides Lacordaire 1857.

Chalcophorae LeConte 1861 (part).

Chalcophorini Kerremans 1893 (part).

Catoxanthina Jackson 1911.

Buprestini Arnett 1962 (part).

Chalcophoritae Cobos 1975b.

Classification: Leconte & Horn 1883; Kerremans 1893; 1903; 1908; Cobos 1955; 1975b; Arnett 1962; Nelson 1982; Bellamy 1985; Bílý 1999a; Kolibác 2001; Volkovitsh 2001; Bellamy 2002b; 2003a.

Key(s): Kerremans 1893:104; 1903:56; 1908:242; Arnett 1962:484 (genera); Cobos 1975b:39; Nelson 1982:432 (tribes).

Tribe Chrysochroini Laporte 1835

Chrysochroini Laporte 1835:158.

Type genus: *Chrysochroa* Dejean 1833.

Scutellatae (Section 1, Subdivision 3) Schönherr 1817 (part).

Chalcophorides Lacordaire 1857.

Type genus: *Chalcophora* Eschscholtz 1829.

Chalcophorae LeConte 1861 (part).

Chrysochroini Kerremans 1903 (part).

Buprestini Arnett 1962 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; 1908; Cobos 1957b; Arnett 1962; Nelson 1982; Bellamy 1985; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Kerremans 1893:104; 1903:56; 1908:242; Arnett 1962:484; Bellamy & Nelson 2002:104 (genera).

Nanularia generic group (Tribal level) sensu Volkovitsh 2001

Nanularia generic group Volkovitsh 2001:54.

Classification: Bellamy 2003a; Bílý & Volkovitsh 2003.

Genus *Ampheremus* Fall 1917

Ampheremus Fall 1917:68.

Type species: *Ampheremus cylindricollis* Fall 1917 (fixed by monotypy).

Taxonomy: Nelson & Barr 1960; Barr 1970; Bellamy 1987b; Nelson & Bellamy 1996; Bílý & Volkovitsh 1996; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Barr 1970:3; Bellamy 1987b:16.

Ecology: Bellamy 1987b.

BUPRESTIDAE: Chrysochroinae: Chrysochroini

cylindricollis Fall 1917:69.

Type locality: CA, Palm Springs – Type depository: MCZC 24434 (♂).

synonym: *inyoensis* (Van Dyke) 1942:112 (♂, ♀) (*Hippomelas*) – Synonymy: Nelson & Barr 1960:178.

Type locality: CA, Inyo Co., near Lone Pine – Type depository: CASC 4841 (♀).

Taxonomy: Fall 1917; Nelson & Barr 1960; Bellamy 1987b.

Redescription: Helfer 1970; fig. (adult as *inyoensis*); Bellamy 1987b:17 (♂, ♀), figs. 3, 6, 9, 12, 14, 25, 27, 33, 38, 39 (wing, parts, ♂ & ♀ genitalia, habitus, map, feeding); Akiyama & Ohmomo 2000: fig. 538 (♂, ♀).

Ecology: Knull 1970; Nelson, *et al.* 1981 (distr.).

Distribution: USA: AZ, CA, NM, NV, UT

Host(s): adults on *Eriogonum inflatum* Torr. & Frem.

Genus Nanularia Casey 1909

Nanularia Casey 1909:172.

Type species: *Nanularia cupreofusca* Casey 1909 (fixed by original designation).

Immature stages: Nelson & Bellamy 1996 (larva).

Taxonomy: Barr 1970; Bellamy 1987b (revision); Nelson & Bellamy 1996; Bílý & Volkovitsh 1996, Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Barr 1970:2; Bellamy 1987b:3; Nelson & Bellamy 1996:905, figs. 1, 2, 4, 7 (parts), 66–68 (wings), 83 (♂ genitalia), 96 (ovipositor), 100, 101 (larva), 107 (feeding); Bílý & Volkovitsh 1996, figs. 48, 49 (antenna).

Ecology: Bellamy 1987b; Nelson & Bellamy 1996.

Key(s): Bellamy 1987b:5.

alpina Bellamy 1987b:11 (♂, ♀), figs. 22 (♂ genitalia), 34 (adult), 37 (distr. map).

Type locality: CA, Los Angeles Co., San Gabriel Mtns., Throop Peak Trail near Dawson Saddle, 8100' – Type depository: LACM (♂).

Taxonomy: Bellamy 1987b.

Redescription: Akiyama & Ohmomo 2000: fig. 537 (♂, ♀).

Ecology: Bellamy 1987b (biol., distr.).

Distribution: USA: CA

Host(s): adults on *Eriogonum kennedyi* S. Wats var. *alpigenum* (M. & J.) M. & J.

brunneata (Knull) 1947c:210 (*Hippomelas*).

Type locality: CA, Palm Springs – Type depository: FMNH (♀).

Taxonomy: Bellamy 1987b.

Redescription: Bellamy 1987b:10 (♂, ♀), figs. 2, 21, 30, 37 (wing, ♂ genitalia, habitus, map); Nelson & Bellamy 1996: fig. 101 (larva); Bílý & Volkovitsh 1996, figs. 48, 49 (antenna); Akiyama & Ohmomo 2000: fig. 536 (♂, ♀).

Ecology: Nelson 1960b; Barr 1971; Nelson & Westcott 1976 (biol.); Nelson, *et al.* 1981 (distr.); Bellamy 1987b (biol., distr.)

Distribution: USA: AZ, CA, ID, NV, UT

Host(s): larvae in *Eriogonum elongatum* Benth., *E. inflatum* Torr. & Frem. and *E. microthecum* Nutt.; adults also on *E. baileyi* S. Wats., *E. fasciculatum* (Benth.) T. & G. and *E. nummulare* ME. Jones.

californica (Horn) 1875:147 (*Gyascutus*).

Type locality: CA, San Joaquin Valley – Type depository: MCZC 8302 (♂) (Lectotype designation: Bellamy 1987b:7).

misidentification: *cylindricollis* Helfer 1970:102, not *cylindricollis* Fall 1917.

Taxonomy: Bellamy 1987b.

Redescription: Bellamy 1987b:7 (♂, ♀), figs. 13, 17, 19, 26, 28, 36 (habitus, ♂ & ♀ genitalia, distr. map).

Ecology: Bellamy 1987b (biol., distr.).

Distribution: USA: CA

Host(s): larvae in *Eriogonum nudum* Benth.; adults also on *E. fasciculatum* (Benth.) T. & G. and *E. latifolium* Smith.

cupreofusca Casey 1909:173.

Type locality: CA, San Diego Co., Poway – Type depository: USNM 35857 (♀) (Lectotype designation:

Bellamy 1987b:10).

Taxonomy: Bellamy 1987b.

Redescription: Bellamy 1987b:8 (♂, ♀), figs. 16, 20, 29, 37 (habitus, ♂ genitalia, distr. map); Nelson & Bellamy 1996: fig. 83 (♂ genitalia).

Ecology: Bellamy 1987b (biol., distr.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): larvae in *Eriogonum nudum* Benth.; adults also on *E. fasciculatum* (Benth.) and *E. latifolium* Smith.

monoensis Bellamy 1987b:13 (♂, ♀), figs. 24, 35, 36, 40 (♂ genitalia, habitus, distr. map, feeding).

Type locality: CA, Mono Co., 6.5–7.0 mi NW Benton Hot Springs, 2000 m. – Type depository: LACM (♂).

Immature stages: Nelson & Bellamy 1996: fig. 100 (larva).

Taxonomy: Bellamy 1987b.

Ecology: Bellamy 1987b (biol., distr.).

Distribution: **USA:** CA

Host(s): larvae in *Eriogonum nummulare* ME. Jones.

obrénorum Knull 1971:242, figs. 1, 2 (♂ genitalia).

Type locality: CA, Kern Co., McKittrick – Type depository: FMNH (♂).

Taxonomy: Bellamy 1987b.

Redescription: Bellamy 1987b:12 (♂, ♀), figs. 5, 8, 11, 15, 18, 23, 31, 36 (habitus, parts, ♂ genitalia, distr. map); Nelson & Bellamy 1996: fig. 96 (ovipositor).

Ecology: Nelson, *et al.* 1981; Bellamy 1987b (biol., distr.).

Distribution: **USA:** CA

Host(s): adults on *Atriplex polycarpa* (Torr.) S. Wats., *Eriogonum fasciculatum* (Benth.) T. & G. and *E. nudum* Benth. var. *indictum* (Jeps.) Reveal.

pygmaea (Knull) 1941d:386 (*Hippomelas*), plate 1, fig. 6 (adult ♀).

Type locality: TX, Val Verde Co. – Type depository: FMNH (♀).

Taxonomy: Nelson 1980a; Bellamy 1987b.

Redescription: Bellamy 1987b:16, fig. 32 (habitus).

Ecology: Bellamy 1987b (biol., distr.).

Distribution: **USA:** TX

Host(s): unknown.

Texania generic group (Tribal level) sensu Volkovitsh 2001

Texania generic group Volkovitsh 2001:55.

Classification: Bellamy 2003a; Bilý & Volkovitsh 2003.

Genus *Texania* Casey 1909

Texania Casey 1909:84.

Type species: *Buprestis campestris* Say 1823 (fixed by original designation).

misspelling: *Chalcophana* Chevrolat 1853:308 (*lapsus calami*).

misidentification: *Chalcophorella* of authors (in part), not *Chalcophorella* Kerremans 1903

misspelling: *Texiana* Kerremans 1909:60 (*lapsus calami*).

Immature stages: Burke 1917a: plate 1, fig. 2 (larva as *Chalcophorella*).

Taxonomy: Casey 1909; Kerremans 1909 (as *Chalcophorella*, part); Casey 1914; Obenberger 1942a; Nelson 1982; Bellamy & Nelson 1990; 2002; Hołyński 1993; Volkovitsh 2001; Bellamy 2003a.

Redescription: Obenberger 1942a.

Ecology: Burke 1917a (biol. as *Chalcophorella*).

Key(s): Casey 1909:85; Knull 1956:48.

campestris (Say) 1823:165 (*Buprestis*).

Type locality: AR – Type depository: type destroyed.

synonym: *substrigosa* (Laporte & Gory) 1836:13 (*Buprestis*) – Synonymy: LeConte 1857a:7.

Type locality: “Amer. Bor.” – Type depository: MNHN (♂).

synonym: *serriger* Casey 1909:85 – Synonymy: Leng 1920:179.

Type locality: PA – Type depository: USNM 35743 (♂)

BUPRESTIDAE: Chrysochroinae: Chrysochroini

Immature stages: Burke 1917a: plate 1, fig. 2 (larva); Knull 1925: plate 8, fig. 3 (larva).

Taxonomy: Casey 1909; Kerremans 1909.

Redescription: Casey 1909:85 (♂, ♀); Kerremans 1909:74; Knull 1925: plate 3 (adult); Good 1925: plate 9 (wing); Ohmomo & Akiyama 1997: figs. 6–7; Akiyama & Ohmomo 2000: fig. 383 (♂, ♀).

Ecology: Drury 1902; Casey 1909; Knull 1920 (biol.); Nelson, *et al.* 1981; Bright 1987; Solomon 1995; (biol., distr.); Peck & Thomas 1998; MacRae 2006 (distr.).

Distribution: **Canada:** ON; **USA:** AL, AR, DC, FL, IL, IN, KY, LA, MD, MI, MO, NC, NJ, OH, OK, PA, TN, TX, WV

Host(s): larvae in *Acer* sp., *Fagus grandifolia* Ehrh., *Platanus occidentalis* L. and *Salix nigra* Marsh.; adults also on *Quercus* sp.

fulleri (Horn) 1875:147 (*Chalcophora*).

Type locality: TX – Type depository: MCZC 8303 (Lectotype not designated).

synonym: *bisinuata* Casey 1909:86 – Synonymy: Bellamy & Nelson 1990:296.

Type locality: TX – Type depository: USNM 35742 (♀) (Lectotype designation: Bellamy & Nelson 1990:296).

Taxonomy: Casey 1909; Kerremans 1909.

Redescription: Casey 1909:86; Kerremans 1909:71; Good 1925: plate 9 (wing); Ohmomo & Akiyama 1997: fig. 8; Akiyama & Ohmomo 2000: fig. 384 (♂).

Ecology: Casey 1909; Chamberlin 1926 (distr.); Nelson & MacRae 1990 (biol.).

Distribution: **USA:** TX

Host(s): larvae in *Celtis laevigata* Willd.

langeri (Chevrolat) 1853:308 (*Chalcophora*).

Type locality: LA, Greenville, near New Orleans – Type depository: BMNH (♀).

synonym: *obsolescens* Casey 1914:361 (*Chalcophorella*) – Synonymy: Knull 1956:48.

Type locality: LA – Type depository: USNM 35744 (♀).

synonym: *strandii* Obenberger 1936d:109 – Synonymy: Nelson 1980a:88.

Type locality: IA, Fort Madison – Type depository: NMPC 20102 (♀).

Taxonomy: Knull 1956; Nelson 1980a.

Ecology: Knull 1956 (distr.).

Distribution: **USA:** IA, LA, MO, TX, VA

Host(s): unknown.

Subtribe *Chalcophorina* Lacordaire 1857

Chalcophorides Lacordaire 1857:14.

Buprestina Jakobson 1913 (part).

Chalcophorellini Tôyama 1986 (part).

Chalcophora generic group Volkovitsh 2001:55.

Classification: Hołyński 1993; Bellamy & Nelson 2002; Bellamy 2003a; Bílý & Volkovitsh 2003.

Key(s): Bellamy & Nelson 2002:104 (genera).

Genus *Chalcophora* Dejean 1833

Chalcophora Dejean 1833:77.

Type species: *Buprestis mariana* Linnaeus 1758 (fixed by subsequent designation: Desmarest 1860:39).

Immature stages: Burke 1917a: plate 1, fig. 1 (larva).

Taxonomy: Casey 1909; Kerremans 1909; Arnett 1960; Nelson 1982; Bright 1987; Hołyński 1993; Bellamy 1997d; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Casey 1909:77; Bright 1987:41.

Ecology: Burke 1917a (biol.); Chamberlin 1926 (distr.).

Key(s): Casey 1909:78 (No. Amer.); Kerremans 1909:19 (world); Wellso, *et al.* 1976:6 (MI); Bright 1987:41 (Canada & Alaska); Downie & Arnett 1996:739 (NE No. Amer.).

angulicollis (LeConte) 1857b:44 (*Buprestis*).

Type locality: CA, Sacramento – Type depository: MCZC 2646.

synonym: *oregonensis* Fitch 1859:702 – Synonymy: LeConte 1860:190.

Type locality: OR, The Dalles on Columbia River – Type lost (NYSM?).

synonym: *montana* Casey 1909:80 (as subspecies of *angulicollis*) – Synonymy: Kerremans 1909:31.

Type locality: CO, Boulder Co. – Type depository: USNM 35735 (♀) (Lectotype designation: Bellamy & Nelson 1990:293).

synonym: *prominens* Casey 1909:81 – Synonymy: Leng 1920:179.

Type locality: FL (error?) – Type depository: USNM 35737 (♀).

synonym: *pallida* Kerremans 1919:48 – Synonymy: Barr 1971:57.

Type locality: BC – Type depository: BMNH.

Immature stages: Burke 1917a: plate 1, fig. 1 (larva).

Taxonomy: Casey 1909; 1914; Kerremans 1909; Barr 1971; Bright 1987:42 considered this a synonym of *virginiensis*

Redescription: Barr 1971: plate 6, fig. 2 (adult); Akiyama & Ohmomo 2000: fig. 357 (♂, ♀).

Ecology: Chamberlin 1917 (biol.); Nelson, *et al.* 1981 (distr.).

Distribution: **Canada**: BC; **USA**: AZ, CA, CO, ID, NE, NM, OR, SD, TX, WA, WY

Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *A. grandis* Lindl., *Pinus ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

antennalis Casey 1914 [syn. of *virginiensis*]

borealis (Laporte & Gory 1836) [syn. of *liberta*]

brevicollis Casey 1909 [syn. of *virginiensis*]

cupreola Casey 1914 [syn. of *fortis*]

cupreomaculata (Goeze 1777) [syn. of *virginiensis*]

fili-grana Obenberger 1913 [syn. of *virginiensis*]

fortis LeConte 1860:191.

Type locality: PA, NY – Type depository: MCZC 2646 (Lectotype not designated).

synonym: *laurentica* Casey 1909:82 – Synonymy: Leng 1920:179.

Type locality: ON – Type depository: USNM 35739 (♂) (Lectotype designation: Bellamy & Nelson 1990:293).

synonym: *cupreola* Casey 1914:360 – Synonymy: Leng 1920:179.

Type locality: KS – Type depository: USNM 35740.

Taxonomy: Casey 1909; Kerremans 1909.

Redescription: Casey 1909:82; Kerremans 1909: plate 23 (adult); Knull 1925: plate 3 (adult); Wellso, *et al.* 1976 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 363 (♀).

Ecology: Knull 1922 (biol.); Nelson, *et al.* 1981; Nelson 1987a; Bright 1987; Davies 1991 (distr.).

Distribution: **Canada**: MB, ON, PQ; **USA**: CT, IA, KS, MA, ME, MI, MN, NE, NH, NJ, NY, PA, VT, WI

Host(s): larvae in *Pinus strobus* L.

georgiana (LeConte) 1857:7 (*Buprestis*) (replacement name for *liberta* (Laporte & Gory 1836)).

Type locality: No. Amer. – Type depository: MCZC 2648 (Lectotype not designated).

synonym: *liberta* (Laporte & Gory) 1836:11 (*Buprestis*) (primary junior homonym; preoccupied: Germar 1824:38) – Synonymy: LeConte 1857a:7.

Type locality: No. Amer. – Type depository: MNHN (Lectotype not designated; the type series contains both sexes).

synonym: *iridescens* Casey 1909:81 – Synonymy: Casey 1914:355.

Type locality: S Atlantic States – Type depository: USNM 35733 (♂).

Taxonomy: Casey 1909; Kerremans 1909; Casey 1914.

Redescription: Casey 1909:81; Akiyama & Ohmomo 2000: fig. 362 (♀).

Ecology: Casey 1909; Chamberlin 1926 (biol.); Nelson, *et al.* 1981 (distr.).

Distribution: **USA**: AL, FL, GA, LA, MS, NC, PA, VA

Host(s): larvae in *Pinus caribaea* Morelet, *P. echinata* Mill., *P. palustris* Mill. and *P. taeda* L.

ingens Casey 1914 [syn. of *virginiensis*]

iridescens Casey 1909 [syn. of *georgiana*]

lacustris LeConte 1860 [syn. of *virginiensis*]

laurentica Casey 1909 [syn. of *fortis*]

liberta (Germar) 1824:38 (*Buprestis*).

Type locality: “Amer. Bor.” – Type depository: ZMHB.

synonym: *borealis* (Laporte & Gory) 1836:13 (*Buprestis*) – Synonymy: LeConte 1857a:7.

Type locality: “Amer. Sept.” – Type depository: MNHN (♀).

BUPRESTIDAE: Chrysochroinae: Chrysochroini, Poecilonotini

synonym: *parviceps* Casey 1909:83 – Synonymy: Leng 1920:179.

Type locality: Northern NY – Type depository: USNM 35741 (♀).

Taxonomy: Casey 1909; Kerremans 1909.

Redescription: Casey 1909:82; Wellso, *et al.* 1976: fig. 4B (♂ genitalia); Bright 1987:45; Akiyama & Ohmomo 2000: fig. 364 (♀).

Ecology: Casey 1909; Bright 1987; Nelson & MacRae 1990 (distr.); Chamberlin 1926 (biol.).

Distribution: **Canada:** MB, ON, PQ; **USA:** AL, CT, IN, MA, ME, MI, MN, NH, NY, PA, TX, WI, WV

Host(s): larvae in *Pinus resinosa* Ait. and *P. strobus* L.

liberta (Laporte & Gory) 1836 [syn. of *georgiana*]

melanotum Muttkowski 1910 [syn. of *virginiensis*]

montana Casey 1909 [syn. of *angulicollis*]

novaeboracensis Fitch 1859 [syn. of *virginiensis*]

obliterata Casey 1909 [syn. of *virginiensis*]

oregonensis Fitch 1859 [syn. of *angulicollis*]

pallida Kerremans 1919 [syn. of *angulicollis*]

parviceps Casey 1909 [syn. of *liberta*]

prominens Casey 1909 [syn. of *angulicollis*]

virginica (Gmelin 1790) [syn. of *virginiensis*]

virginiensis (Drury) 1770:60, plate 30, fig. 3 (adult) (*Buprestis*).

Type locality: VA – Type depository: unknown (BMNH?).

synonym: *cupreomaculata* (Goeze) 1777:596 (*Buprestis*) (name evidently based on illustration in Drury 1770: plate 30, fig. 3) – Synonymy: Saunders 1871:12.

synonym: *virginica* (Gmelin) 1790:1940 (*Buprestis*) (name evidently based on description and illustration in Drury 1770:66, plate 30, fig. 3) – Synonymy: LeConte 1860:191.

Type locality: VA – Type depository: unknown.

synonym: *novaeboracensis* Fitch 1859:701 – Synonymy: LeConte 1860:191.

Type locality: NY – Type depository: type lost (NYSM?).

synonym: *lacustris* LeConte 1860:190 – Synonymy: Wellso, *et al.* 1976:6.

Type locality: Lake Superior – Type depository: MCZC 2647 (Lectotype not designated; the type series contains both sexes).

synonym: *obliterata* Casey 1909:78 (as subspecies of *virginiensis*) – Synonymy: Kerremans 1909:27.

Type locality FL – Type depository: USNM 35731 (♂).

synonym: *brevicollis* Casey 1909:79 (as subspecies of *lacustris*) – Synonymy: Kerremans 1909:29.

Type locality: MA – Type depository: USNM 35732 (♂).

synonym: *melanotum* Muttkowski 1910:135 – Synonymy: Leng 1920:179.

Type locality: WI, Ashland Co., Apostle Islands. – Type depository: MCPM (♂).

synonym: *filigrana* Obenberger 1913:331 (as subspecies of *mariana*; probably introduced into Europe).

Type locality: Grecia. Synonymy: Bílý 1981:348. Type depository: NMPC 20092 (♀).

synonym: *antennalis* Casey 1914:360 (as subspecies of *virginiensis*) – Synonymy: Chamberlin 1926:133.

Type locality: ID – Type depository: USNM 35734 (♀).

synonym: *ingens* Casey 1914:360 – Synonymy: Chamberlin 1926:133.

Type locality: none given – Type depository: USNM 35736 (♀).

Immature stages: Bøving & Craghead 1931: plate 80, figs. H–K (larva).

Taxonomy: Casey 1909; Kerremans 1909; Casey 1914; Wellso, *et al.* 1976; Bílý 1981.

Redescription: Casey 1909:78; Good 1925: plate 9 (wing); Wellso, *et al.* 1976: fig. 4A (♂ genitalia); Akiyama & Ohmomo 2000: fig. 360 (♂, ♀).

Ecology: Howden & Vogt 1951 (biol.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** ON; **USA:** AL, AR, CT, DC, DE, FL, GA, IA, IL, IN, KY, LA, MA, MD, ME, MI, MN, MO, MS, NC, NH, OH, OK, PA, SC, TX, VA, WI, WV; also recorded from Mexico. and Central America.

Host(s): larvae in *Pinus echinata* Mill., *P. palustris* Mill., *P. rigida* Mill., *P. strobus* L., *P. taeda* L., *P. virginiana* Mill. and *Taxodium distichum* (L.) Rich.

Tribe Poecilonotini Jakobson 1913

Poecilonotini Jakobson 1913:786.

Type genus: *Poecilonota* Eschscholtz 1829.

Polybothrisidae Gistel 1848b:cover-[3].

Type genus: *Dendrochariessa* Gistel 1848b.

Classification: Volkovitsh 2001; Bellamy 2003a.

Genus *Poecilonota* Eschscholtz 1829

Poecilonota Eschscholtz 1829:9.

Type species: *Buprestis variolosa* Paykull 1799 (fixed by subsequent designation: Opinion 1825, ICZN 1996a:57).

Castalia of authors (in part), not *Castalia*: Lacordaire 1857.

Dendrochariessa Gistel 1848:ix (rejected: Opinion 1825, ICZN 1996a:57).

Descarpentriessina Leraut 1983:6 (rejected: Opinion 1825, ICZN 1996a:57).

Type species: *Buprestis variolosa* Paykull 1799 (fixed by original designation).

Lampra of authors (in part), not *Lampra* Lacordaire 1835 (junior homonym of *Lampra* Hübner 1821).

Latipalpis of authors (in part), not *Latipalpis* Solier 1833.

Polydora Gistel 1848 (erroneously listed as replacement name for *Poecilonota* Eschscholtz 1829, not *Polydora* Gistel 1834).

Immature stages: Chamberlin 1922:53 (larva).

Taxonomy: Chamberlin 1922 (revision); Evans 1957 (revision); Leraut 1983; ICZN 1996; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Evans 1957:22; Bright 1987.

Ecology: Chamberlin 1922; 1926; Evans 1957 (biol., distr.).

Key(s): Evans 1957:24 (No. Amer. N. of Mexico.); Barr 1971:60 (Pacific NW); Wellso, *et al.* 1976:8 (MI).

apicilla Obenberger 1928 [syn. of *cyanipes*]

bridwelli Van Dyke 1918:53 (♂, ♀).

Type locality: CA, Imperial Co. – Type depository: CASC 3280 (♂).

Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989; 1996c.

Redescription: Chamberlin 1922: plate 5 (adults), plate 7 (parts); Evans 1957:36 (♂, ♀), fig. 9 (♂ genitalia); Nelson 1997: figs. 2, 4, 6 (type); Akiyama & Ohmomo 2000: fig. 774 (♂, ♀).

Ecology: Evans 1957 (biol., distr.); Nelson 1965 (biol.).

Distribution: **USA**: AZ, CA; also recorded from Mexico.

Host(s): larvae in *Populus fremontii* S. Wats.

californica Chamberlin 1922:57 (♂, ♀) (as variety of *cyanipes*).

Type locality: CA, Vade – Type depository: CASC 5484 (♂).

Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989.

Redescription: Evans 1957:26 (♂, ♀), fig. 3 (♂ genitalia); Helfer 1970:95, fig. (adult); Akiyama & Ohmomo 2000: fig. 770 (♂, ♀).

Ecology: Chamberlin 1922; Evans 1957; Barr 1971; Nelson & Westcott 1976 (distr.); Solomon 1995; MacRae 2006 (biol., distr.).

Distribution: **USA**: CA, ID, NV, OR

Host(s): larvae in *Populus tremuloides* Michx. and “cottonwood”; adults also on *Populus fremontii* S. Wats.

collaris Obenberger 1928 [syn. of *cyanipes*]

costicollis (Gory 1841) [syn. of *thureura*]

cupripes Casey 1909 [syn. of *cyanipes*]

cyanipennis Hamilton 1895 [syn. of *cyanipes*]

cyanipes (Say) 1823:164 (*Buprestis*).

Type locality: MO – Type depository: type destroyed.

synonym: *erecta* (Gory) 1841:110 (*Buprestis*) – Synonymy: Crotch 1873:88.

Type locality: “Amer. Bor.” – Type depository: MNHN (♂).

synonym: *debilis* LeConte 1860:204 – Synonymy: Horn 1891a:45.

Type locality: MD, Baltimore – Type depository: MCZC 2665 (♀).

BUPRESTIDAE: Chrysochroinae: Pocilonotini, Sphenopterini

misspelling: *cyanipennis* Hamilton 1895:364.

synonym: *cupripes* Casey 1909:168 – Synonymy: Chamberlin 1922:61.

Type locality: WI, Bayfield – Type depository: USNM 35852 (♂) (Lectotype designation: Bellamy & Nelson 1990:295).

synonym: *parviceps* Casey 1909:169 – Synonymy: Chamberlin 1922:62.

Type locality: NM – Type depository: USNM 35853 (♀) (Lectotype designation: Bellamy & Nelson 1990:295).

synonym: *apicilla* Obenberger 1928:181 (as variety of *cyanipes*) – Synonymy: Evans 1957:28.

Type locality: ON, Hamilton – Type depository: NMPC 21974 (♀).

synonym: *collaris* Obenberger 1928:181 (as variety of *cyanipes*) – Synonymy: Evans 1957:28.

Type locality: NY, Buffalo – Type depository: NMPC 21973 (Lectotype not designated; the type series contains both sexes).

Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989.

Redescription: Chamberlin 1922 (adult, parts); Knull 1925 (adult); Good 1925 (wing); Evans 1957 (♂, ♀, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 771 (♂, ♀).

Ecology: Knull 1920; 1922 (biol.); Chamberlin 1922; Knull 1932; Evans 1957; Barr 1971; Nelson, *et al.* 1981; Nelson & MacRae 1990; Davies 1991 (distr.); Solomon 1995; MacRae 2006 (biol., distr.).

Distribution: **Canada:** AB, BC, MB, NB, NT, ON, PQ, SK, YT; **USA:** AZ, CO, DC, ID, IL, IN, KS, MA, MD, ME, MI, MN MO, MS, MT, ND, NE, NH, NJ, NM, NY, OH, OK, PA, RI, SD, TN, TX, UT, VT, WI, WV, WY

Host(s): larvae in *Populus deltoides* Marsh., *P. grandidentata* Michx., *P. tremuloides* Michx., *Robinia pseudoacacia* L. and *Salix nigra* Marsh.

debilis LeConte 1860 [syn. of *cyanipes*]

erecta (Gory 1841) [syn. of *cyanipes*]

ferrea (Melsheimer) 1845:144 (*Dicerca*).

Type locality: VA – Type depository: MCZC (♀).

Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989.

Redescription: Chamberlin 1922:59 (♂, ♀), Pls. 6, 7 (adults & parts); Evans 1957:34 (♂, ♀), fig. 5 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 767 (♂).

Ecology: Chamberlin 1922; Evans 1957; Westcott 1991 (biol., distr.); Nelson, *et al.* 1981; Bright 1987; Davies 1991 (distr.).

Distribution: **Canada:** AB, BC, MB, ON, PQ, SK; **USA:** IL, IN, KS, KY, MI, MN, MT, NE, SD, TX, WI

Host(s): larvae in *Populus* sp.

fraseri Chamberlin 1922:64, pls. 5, 7 (adult ♂ & parts).

Type locality: BC, Fraser R. – Type depository: CASC 5479 (♂).

Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989.

Redescription: Evans 1957:32 (♂, ♀), fig. 7 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 769 (♂, ♀).

Ecology: Chamberlin 1925b; Evans 1957; Barr 1971; Nelson, *et al.* 1981 (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada:** BC; **USA:** CA, OR

Host(s): larvae in *Salix lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr.

montana Chamberlin 1922:63.

Type locality: MT, Missoula – Type depository: CASC 5480 (Lectotype not designated; the type series contains both sexes).

Taxonomy: Chamberlin 1922; Evans 1957; Nelson 1989.

Redescription: Evans 1957:25 (♂, ♀), fig. 2 (♂ genitalia); Barr 1971: plate 6, fig. 6 (adult); Akiyama & Ohmomo 2000: fig. 768 (♂, ♀).

Ecology: Chamberlin 1922; Knull 1929; Burke 1930; Evans 1957; Beer 1970 (biol.); Barr 1971; Nelson & Westcott 1976; Bright 1987 (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada:** BC, MB; **USA:** CA, ID, MN, MT, NV, OR, PA, WA, WI

Host(s): larvae in *Populus balsamifera* L. ssp. *trichocarpa* (T. & G.) Brayshaw.

parviceps Casey 1909 [syn. of *cyanipes*]

salixi Chamberlin 1925:186 (♂, ♀) (justified emendation).

Type locality: CA, San Diego Co., Warners – Type depository: CASC 5482 (♂).

synonym: *salicis* (original spelling, emended by Chamberlin 1926:229).

Taxonomy: Chamberlin 1925b; 1926; Evans 1957; Nelson 1989.

Redescription: Evans 1957:30 (♂, ♀), fig. 8 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 773 (♂, ♀).

Ecology: Chamberlin 1925b (biol.); Evans 1957; Nelson 1967a (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): larvae in *Salix lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr.

thureura (Say) 1832:3 (*Buprestis*).

Type locality: LA – Type depository: type destroyed.

synonym: *costicollis* (Gory) 1841:109 (*Buprestis*) – Synonymy: LeConte 1857a:8.

Type locality: LA – Type depository: MNHN (Lectotype not designated).

Immature stages: Burke 1917a: plate 3, fig. 4 (larva).

Taxonomy: Evans 1957; Nelson 1989.

Redescription: Chamberlin 1922:54 (♂, ♀), plate 5, 7 (adults & parts); Evans 1957:35 (♂, ♀), fig. 6 (♂ genitalia); Knull 1922 (biol.); Akiyama & Ohmomo 2000: fig. 772 (♂, ♀).

Ecology: Chamberlin 1922; Evans 1957; Nelson, *et al.* 1981; Davies 1991(distr.); Solomon 1995 (biol., distr.); Westcott 2005 (distr.).

Distribution: **Canada:** MB; **USA:** CO, FL, GA, IA, IL, IN, KS, LA, MA, MO, NC, NJ, OK, PA, SC, TX, VA

Host(s): larvae in *Salix nigra* Marsh. and *Salix* sp.; adults also on *Cercis canadensis* L.

viridicyanea Nelson 1997:1, figs. 1, 3, 5 (Holotype & parts).

Type locality: CA, San Bernardino Co., Yermo – Type depository: CASC 17419 (♂).

Taxonomy: Nelson 1997.

Ecology: Nelson 1997 (biol., distr.).

Distribution: **USA:** CA

Host(s): larvae in *Chilopsis linearis* (Cav.) Sweet; adults also on *Salix* sp. and flying around *Populus* sp.

Tribe Sphenopterini Lacordaire 1857

Sphenopterides Lacordaire 1857:68.

Type genus: *Sphenoptera* Dejean 1833.

Scutellatae (Section 8, Subdivision 1) Schönherr 1817 (part).

Anthaxidae, Anthaxides Gory & Laporte 1839 (part).

Sphenopterides Lacordaire 1857.

Type genus: *Sphenoptera* Dejean 1833.

Buprestites propres Jacquelin du Val 1859 (part).

Sphenopterini Stein 1868.

Sphenopteridae Quedenfeldt 1886.

Buprestisii Acloque 1896 (part).

Polycestini Reitter 1906 (part).

Sphenopterina Jakobson 1913.

Classification: Kerremans 1893; 1903; 1912; 1913a; 1914; Cobos 1980; Nelson 1982; Bellamy 1985; Hołyński 1993; Bílý 1999a; Kolibác 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Kerremans 1893:107; 1903:109, 111; 1912:2 19; 1913a, Vol. 6:174, 188, 262, 265, 313, 377, 387, Vol. 7:1; Bellamy & Nelson 2002:104.

Genus *Sphenoptera* Dejean 1833

Sphenoptera Dejean 1833:81.

Type species: *Buprestis antiqua* Illiger 1803 (fixed by subsequent designation: Volkovitsh & Kalashian 2002:166).

Chrysodera Gistel 1834:11.

Type species: *Buprestis antiqua* Illiger 1803 (fixed by subsequent designation: Bellamy 2003a:10) – Synonymy: Mannerheim 1837:92.

Taxonomy: Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

BUPRESTIDAE: Chrysochroinae: Sphenopterini, Dicercini

subgenus *Sphenoptera* (*Chilostetha*) Jakovlev 1889

Sphenoptera (*Chilostetha*) Jakovlev 1889:84.

Type species: *Sphenoptera basalis* Morawitz 1861 (fixed by subsequent designation: Volkovitsh & Kalashian 1994:103).

jugoslavica Obenberger 1926:207.

Type locality: Istrien; Herzegowina; Macedonien; Bulgarien (Old World) (introduced into No. Amer. in 1979 for biological control of *Centaurea diffusa* Lam., diffuse knapweed) – Type depository: NMPC (Lectotype not designated).

Redescription: Akiyama & Ohmomo 2000: fig. 685 (♂, ♀).

Ecology: Rees, *et al.* 1996 (biol.); Lang, *et al.* 1998; 2000 (distr.).

Distribution: **USA:** CA, CO, ID, MT, OR, SD, UT, WA, WY; also recorded from Europe.

Host(s): larvae in *Centaurea diffusa* Lam.

Tribe Dicercini Gistel 1848

Dicercaidae Gistel 1848:cover – (3).

Type genus: *Dicerca* Eschscholtz 1829.

Scutellatae (Section 1, Subdivisions 1, 3) Schönherr 1817 (part).

Dicercaidae Gistel 1848.

Type genus: *Dicerca* Eschscholtz 1829.

Psiloptérides Lacordaire 1857.

Type genus: *Psiloptera* Dejean 1833.

Buprestides, Chalcophorae LeConte 1861 (part).

Dicercites Kerremans 1893.

Type genus: *Dicerca* Eschscholtz 1829.

Chrysochroini Kerremans 1903 (part).

Capnodina Jakobson 1913.

Type genus: *Capnodis* Eschscholtz 1829.

Dicercina Jakobson 1913.

Buprestini Reitter 1916 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; 1910; Arnett 1962; Nelson 1982; Bellamy 1985; Kurosawa 1993; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Kerremans 1893:106, 107; 1903:89, 125; 1910:1; Arnett 1962:484; Bellamy & Nelson 2002:104.

Subtribe Hippomelanina Hołyński 1993

Hippomelanina Hołyński 1993:13, 24.

Type genus: *Hippomelas* Laporte & Gory 1837.

Classification: Casey 1909; Hołyński 1993; Nelson & Bellamy 1996; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Casey 1909:50 (part); Nelson & Bellamy 1996:865 (genera & subgenera); Bellamy & Nelson 2002:103 (genera).

Genus *Barrellus* Nelson & Bellamy 1996

Barrellus Nelson & Bellamy 1996:903.

Type species: *Hippomelas femoratus* Knull 1941 (fixed by monotypy).

Taxonomy: Knull 1941; Nelson & Bellamy 1996; Bellamy & Nelson 2002; Bellamy 2003a.

femoratus (Knull) 1941d:386 (*Hippomelas*).

Type locality: CA, San Diego Co., Potrero – Type depository: FMNH (♂).

Taxonomy: Nelson & Bellamy 1996.

Redescription: Nelson & Bellamy 1996:903 (♂, ♀), figs. 48, 49–59, 65, 82, 95, 108 (adult ♂, parts, wing, ♂ genitalia, ovipositor, distr. map).

Ecology: Nelson & Bellamy 1996 (distr.).

Distribution: **USA:** CA

Genus *Gyascutus* LeConte 1858*Gyascutus* LeConte 1860:189.Type species: *Chalcophora planicosta* LeConte 1858 (fixed by subsequent designation: Casey 1909:50).

Taxonomy: Casey 1909; Barr 1970; Nelson 2000; Bellamy & Nelson; 2002; Bellamy 2003a.

Redescription: Casey 1909:60; Barr 1970:4; Nelson & Bellamy 1996:900; Nelson 2000:2253.

Ecology: Nelson 2000.

Key(s): Casey 1909:61; Nelson 2000:2253 (species).

subgenus *Gyascutus* (*Gyascutus*) LeConte 1858*Gyascutus* LeConte 1860:189.Type species: *Chalcophora planicosta* LeConte 1858.*aeneoviridis* Casey 1909 [syn. of *carolinensis*]**allenrolfeae** (Verity) 1978:161 (♂, ♀) (*Hippomelas*), figs. 1, 2 (holotype, ♂ genitalia).

Type locality: Calif., Imperial Co., 1 mi SE Niland Marina – Type depository: CASC 12978 (♂).

Immature stages: Nelson 2000: fig. 44 (larva).

Taxonomy: Verity 1978; Nelson 2000; Bellamy & Nelson 2002.

Redescription: Nelson 2000:2285 (♂, ♀), figs. 13, 23, 41, 44–46, 50 (adults, antennae, ♂ genitalia, larva, larval workings, distr. map).

Ecology: Verity 1978; Nelson 2000 (biol., distr.).

Distribution: USA: AZ, CA; also recorded from Mexico.

Host(s): larvae in *Allenrolfea occidentalis* (S. Wats.) Kuntze.**carolinensis** Horn 1883:288.

Type locality: NC, near Wilmington (error) – Type depository: MCZC 8124 (♂).

synonym: *juniperinus* Wickham 1905:167 – Synonymy: Nelson 2000:2280.

Type locality: UT, 22 mi N St. Geo., Pine Vly. Mtns., 4500', Chadburns – Type depository: MCZC 25979 (♀) (Lectotype designation: Nelson 2000:2281).

synonym: *obesus* Casey 1909:65 – Synonymy by Nelson 2000:2280.

Type locality: TX, near El Paso – Type depository: USNM 35717 (♀).

synonym: *aeneoviridis* Casey 1909:66 (as subspecies of *obesus*) – Synonymy: Nelson 2000:2280.

Type locality: TX, El Paso – Type depository: USNM 35718 (♂).

synonym: *compactus* Casey 1909:66 – Synonymy: Nelson 2000:2280.

Type locality: SE AZ – Type depository: USNM 35721 (♀) (Lectotype designation: Bellamy & Nelson 1990:294).

synonym: *cylindrinus* Casey 1909:66 – Synonymy: Nelson 2000:2280.

Type locality: NM – Type depository: USNM 35719 (♂).

synonym: *solidus* Casey 1909:66 (as subspecies of *compactus*) – Synonymy: Nelson 2000:2280.

Type locality: SE AZ – Type depository: USNM 35720 (♀).

synonym: *debilis* Casey 1909:67 – Synonymy: Nelson 2000:2280.

Type locality: SE AZ – Type depository: USNM 35722 (♂).

synonym: *tenuis* Casey 1909:67 – Synonymy: Nelson 2000:2280.

Type locality: SE AZ – Type depository: USNM 35723 (♂).

Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson 2000.

Redescription: Kerremans 1908:317; Casey 1909:66; Helfer 1970:102 (♂ genitalia); Nelson 2000:2280 (♂, ♀), figs. 11, 22, 31, 37, 48 (adults, antennae, parts, ♂ genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 532 (♂, ♀).

Ecology: Linsley & Ross 1977; Westcott 1991 (biol.); Nelson 2000 (biol., distr.).

Distribution: USA: AZ, CA, NM, NV, TX, UT; also recorded from Mexico.

Host(s): larvae in *Croton* sp. roots, *Encelia* sp., *Encelia farinosa* T. & G., *Gutierrezia sarothrae* (Pursh) Britt. & Rusby, *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston and *Psorothamnus emoryi* (Gray) Rydb.; adults also on *Acacia greggii* Gray, *Adenostoma sparsifolium* Torr., *Baccharis sergiloides* Gray, *Cercidium floridum* Gray, *Dalea* sp., *Ephedra californica* S. Wats., *E. trifurca* Torr., *Eriogonum deserticola* S. Wats., *E. fasciculatum* (Benth.) T. & G., *Juniperus californica* Carr., *J. osteosperma* (Torr.) Little, *Larrea tridentata* (DC.) Cov., *Psorothamnus* sp., *Tamarix* sp. and *Viguiera stenoloba* Blake.

BUPRESTIDAE: Chrysochroinae: Dicerini*compactus* Casey 1909 [syn. of *carolinensis*]*cylindrinus* Casey 1909 [syn. of *carolinensis*]*debilis* Casey 1909 [syn. of *carolinensis*]**dianae** (Helfer) 1954:117 (♂, ♀) (*Hippomelas*).

Type locality: CA, Riverside Co., Whitewater – Type depository: CASC 8112 (♂).

Taxonomy: Barr 1970; Nelson 2000.

Redescription: Helfer 1970:94 (adult), 102 (♂ genitalia); Nelson 2000:2283 (♂, ♀), figs. 12, 38, 43, 49 (adults, ♂ genitalia, mating pair, distr. map); Akiyama & Ohmomo 2000: fig. 531 (♂, ♀).

Ecology: Linsley & Ross 1977; Walters 1978 (biol.); Nelson 2000 (biol., distr.).

Distribution: USA: AZ, CA, NV; also recorded from Mexico.

Host(s): larvae in *Allenrolfea occidentalis* (S. Wats.) Kuntze, *Datura discolor* Benh. and *Psorothamnus emory* (Gray) Rydb.; adults also on *Acacia greggii* Gray, *Croton wigginsii* Wheeler, *Ephedra californica* S. Wats., *E. trifurca* Torr., *E. viridis* Cov., *Eriogonum deserticola* S. Wats., *Justicia californica* (Benth.) D. Gibson, *Larrea tridentata* (DC.) Cov. and *Parkinsonia aculeata* L.*fidelis* Casey 1909 [syn. of *planicosta planicosta*]**fulgidus** (Barr) 1969c:321 (♂, ♀) (*Hippomelas*), fig. 1 (♂ genitalia).

Type locality: ID, Owyhee Co., 2 mi SW Bruneau – Type depository: CASC 19217 (♂).

misidentification: *obliterata* of Linsley & Ross 1977:275 (in part), not *obliterata* LeConte 1858.

Taxonomy: Barr 1970; Nelson 2000.

Redescription: Barr 1971: plate 6, fig. 1 (adult); Nelson 2000:2271 (♂, ♀), figs. 6, 30, 34, 48 (adults, abdominal sterna, ♂ genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 533 (♂, ♀).

Ecology: Barr 1969c; Nelson & Westcott 1976; Linsley & Ross 1977 (biol.); Nelson 2000 (biol., distr.).

Distribution: USA: CA, ID, NV, OR

Host(s): larvae in *Atriplex confertifolia* (Torr. & Frem.) S. Wats.; adults also on *Artemisia tridentata* Nutt., *Chrysothamnus nauseosus* (Pall.) Britt., *Melilotus albus* Medikus, *Salix exigua* Nutt., *S.lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr., *Salsola tragus* L. and *Sarcobatus vermiculatus* (Hook.) Torr.**jeanae** (Nelson) 1988:279 (♂, ♀) (*Hippomelas*), figs. 1–8 (holotype, parts, ♂ genitalia).

Type locality: CA, Kern Co., Grapevine Cyn., 10 mi NW Inyokern, 1.8 mi W Hwy. 395 – Type depository: CASC 16393 (♂).

misidentification: *metallicus* of Helfer 1970:102 (♂ genitalia), not *metallicus* Casey 1909.

Taxonomy: Nelson 1988; 2000.

Redescription: Nelson 2000:2287 (♂, ♀), figs. 14, 42, 50 (adults, ♂ genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 534 (♂, ♀).

Ecology: Nelson 1988; 2000 (biol., distr.).

Distribution: USA: CA

Host(s): adults on *Juniperus californica* Carr., *Populus fremontii* S. Wats. and *Salix lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr.*juniperinus* Wickham 1905 [syn. of *carolinensis*]*obesus* Casey 1909 [syn. of *carolinensis*]**pacificus** (Chamberlin) 1938b:446 (♂, ♀) (*Hippomelas*).

Type locality: CA, Fresno Co., Rolinda – Type depository: CASC 5477 (♂).

Taxonomy: Barr 1970; Nelson 2000.

Redescription: Nelson & Bellamy 1996: fig. 80 (♂ genitalia); Nelson 2000:2273 (♂, ♀), figs. 7, 18, 49 (adults, antenna, distr. map).

Ecology: Nelson 1962; Linsley & Ross 1977 (biol.); Nelson 2000 (biol., distr.).

Distribution: USA: CA

Host(s): larvae in *Suaeda moquinii* (Torr.) Greene; adults also on *Allenrolfea occidentalis* (S. Wats.) Kuntze and *Atriplex polycarpa* (Torr.) S. Wats.*pimalicus* Casey 1909 [syn. of *planicosta planicosta*]*pistorius* Casey 1909 [syn. of *planicosta obliteratus*]**planicosta cribriceps** Casey 1909:62 (as species).

Type locality: AZ – Type depository: USNM 35709 (♂).

synonym: *acutangulus* Casey 1909:63 – Synonymy: Nelson 2000:2268.

Type locality: AZ, Winslow – Type depository: USNM 35711 (♂).

synonym: *amplus* Casey 1909:63 – Synonymy: Nelson 2000:2268.

Type locality: UT, St. George – Type depository: USNM 35713 (♀) (Lectotype designation: Bellamy & Nelson 1990:294).

synonym: *aerata* Casey 1909:64 (as subspecies of *amplus*) – Synonymy: Nelson 2000:2268.

Type locality: UT, St. George – Type depository: USNM 35714 (♀).

synonym: *egregius* Casey 1909:64 – Synonymy: Nelson 2000:2268.

Type locality: UT, St. George – Type depository: USNM 35715 (♀).

synonym: *lariversi* (Barr) 1969c:324 (♂, ♀), fig. 2 (♂ genitalia) (*Hippomelas*) – Synonymy: Nelson 2000:2268.

Type locality: NV, Pershing Co., W side Nightingale Mtns. – Type depository: CASC 10218 (♂)

misidentification: *obliteratus* of authors (in part), not *obliteratus* LeConte 1858.

Taxonomy: Barr 1969c; Nelson 2000.

Redescription: Nelson 2000:2268 (♂, ♀), figs. 3, 47 (adults, distr. map).

Ecology: Nelson 2000 (biol., distr.).

Distribution: USA: AZ, CA, CO, NM, NV, UT

Host(s): larvae in *Atriplex hymenelytra* (Torr.) S. Wats.; adults also on *Artemisia tridentata* Nutt., *Atriplex canescens* (Pursh) Nutt., *A. confertifolia* (Torr. & Frem.) S. Wats., *Ephedra* sp., *Prosopis pubescens* Benth., *Salix exigua* Nutt., *Sarcobatus vermiculatus* (Hook.) Torr., *Tamarix gallica* L. and *T. ramosissima* Ledeb.

planicosta obliteratus (LeConte) 1858:66 (*Chalcophora*) (as species).

Type locality: San Diego – Type depository: MCZC 2643 (♀).

synonym: *pistorius* Casey 1909:62 – Synonymy: Nelson 2000:2267.

Type locality: NM, Demming – Type depository: USNM 35710 (♂) (Lectotype designation: Bellamy & Nelson 1994:294.).

misidentification: *planicosta* of authors (in part), not *planicosta* LeConte 1858.

Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson 2000.

Redescription: Kerremans 1908:316; Casey 1909:64; Good 1925: plate 8, fig. 9 (wing); Nelson 2000:2267 (♂, ♀), figs. 2, 47 (adults, distr. map).

Ecology: Linsley & Ross 1977 (biol.); Nelson 2000 (biol., distr.).

Distribution: USA: AZ, NM, TX; also recorded from Mexico.

Host(s): adults on *Acacia greggii* Gray, *Atriplex* sp., *Larrea tridentata* (DC.) Cov., *Mimosa* sp. and *Tamarix* sp.

planicosta planicosta (LeConte) 1858:66 (*Chalcophora*).

Type locality: San Diego – Type depository: MCZC 2642 (♀).

misidentification: *acutangulus* of authors, not *acutangulus* Casey 1909.

misidentification: *aerata* of authors, not *aerata* Casey 1909.

misidentification: *amplus* of authors, not *amplus* Casey 1909.

misidentification: *cribriceps* of authors, not *cribriceps* Casey 1909.

misidentification: *obliteratus* of authors (in part), not *obliteratus* LeConte 1858.

misidentification: *pistorius* of authors, not *pistorius* Casey 1909.

synonym: *snowi* Casey 1909:62 – Synonymy: Leng 1920:179.

Type locality: AZ, Bill William's Fork – Type depository: USNM 35708 (♂).

synonym: *pimalicus* Casey 1909:63 – Synonymy: Leng 1920:179.

Type locality: AZ – Type depository: USNM 35712 (♀).

synonym: *fidelis* Casey 1909:65 – Synonymy: Leng 1920:179.

Type locality: SE AZ – Type depository: USNM 35716 (♂) (Lectotype designation: Bellamy & Nelson 1990:294).

Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson 2000.

Redescription: Kerremans 1908:314; Casey 1909:61; Nelson 2000:2261 (♂, ♀), figs. 1, 15, 27, 33, 47 (adults, antennae, abdominal ventrites, ♂ genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 529 (♂, ♀).

Ecology: Cazier 1951b (distr.); Alcock 1976; Linsley & Ross 1977 (biol.); Nelson 2000 (biol., distr.).

Distribution: USA: AZ, CA, NV; also recorded from Mexico.

Host(s): larvae in *Atriplex canescens* (Pursh) Nutt., *A. hymenelytra* (Torr.) S. Wats., *A. lentiformis* (Torr.) S. Wats., *A. l.* ssp. *torreyi* (S. Wats.) Hall & Chem., *Encelia farinosa* T. & G. and *Suaeda moquini* (Torr.) Greene; adults also on *Acacia greggii* Gray, *Allenrolfea occidentalis* (S. Wats.) Kuntze,

BUPRESTIDAE: Chrysochroinae: Dicerini

Cercidium floridum Gray, *C. microphyllum* (Torr.) Rose & Johnston, *Larrea tridentata* (DC.) Cov., *Medicago sativa* L., *Pluchea sericea* (Nutt.) Cov., *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston, *P. pubescens* Benth., *Psorothamnus spinosus* (Gray) Barneby and *Tamarix gallica* L.

snowi Casey 1909 [syn. of *planicosta planicosta*]

solidus Casey 1909 [syn. of *carolinensis*]

tenuis Casey 1909 [syn. of *carolinensis*]

subgenus *Gyascutus* (*Stictocera*) Casey 1909

Stictocera Casey 1909:69 (as genus).

Type species: *Chalcophora caelata* LeConte 1858 (fixed by original designation).

Taxonomy: Casey 1909; Barr 1970; Nelson 1981; Bellamy 1985; Nelson & Bellamy 1996; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Barr 1970:6; Nelson & Bellamy 1996:900.

Ecology: Nelson & Bellamy 1996 (biol., distr.).

Key(s): Casey 1909:69.

***caelatus* (LeConte) 1858:67 (*Chalcophora*).**

Type locality: Sonora, Ures – Type depository: MCZC 2645 (♂).

synonym: *pollens* (Casey) 1909:69 (*Stictocera*) – Synonymy: Leng 1920:179.

Type locality: TX, near El Paso – Type depository: USNM 35725 (♀) (Lectotype designation: Bellamy & Nelson 1990:296).

synonym: *laticornis* (Casey) 1909:70 (*Stictocera*) – Synonymy: Leng 1920:179.

Type locality, AZ, Tucson – Type depository: USNM 35724 (♀) (Lectotype designation: Bellamy & Nelson 1990:296).

Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson & Bellamy 1996.

Redescription: Kerremans 1908:312; Casey 1909:69; Helfer 1970:102 (♂ genitalia); Linsley & Ross 1977: fig. 1 (adult); Nelson & Bellamy 1996:901 (♂, ♀), figs. 17, 42, 47, 63, 78, 94, 106, 110 (parts, wing, ♂genitalia, ovipositor, distr. map); Akiyama & Ohmomo 2000: fig. 535 (♂, ♀).

Ecology: Cazier 1951b (distr.); Linsley & Ross 1977 (biol.); Nelson & Bellamy 1996; Davidson & Davidson 2005 (biol., distr.).

Distribution: USA: AZ, NM, TX; also recorded from Mexico.

Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray, *A. neovernicosa* Isely and *Prosopis glandulosa* Torr.

laticornis (Casey 1909) [syn. of *caelatus*]

pollens (Casey 1909) [syn. of *caelatus*]

Genus *Hippomelas* Laporte & Gory 1837

Hippomelas Laporte & Gory 1837:92 (as subgenus of *Buprestis*).

Type species: *Buprestis* (*Hippomelas*) *mexicana* Laporte & Gory 1837 (fixed by monotypy).

Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson 1982; Nelson & Bellamy 1996; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Kerremans 1908:307; Casey 1909:55; Barr 1970:4; Nelson & Bellamy 1996:865.

Ecology: Linsley & Ross 1977; Nelson & Bellamy 1996.

Key(s): Kerremans 1908:309; Casey 1909:55; Barr 1971:56 (Pacific NW); Nelson & Bellamy 1996:866.

cylindricus Casey 1909 [syn. of *planicauda*]

grossus Casey 1909 [syn. of *sphenicus*]

martini Nelson in Nelson & Bellamy 1996:872 (♂, ♀), figs. 46, 72, 85, 108 (metacoxa, ♂ genitalia, ovipositor, distr.).

Type locality: Mexico: Sinaloa, Culiacan – Type depository: CASC 17280 (♂).

Taxonomy: Nelson & Bellamy 1996.

Ecology: Nelson & Bellamy 1996 (biol., distr.).

Distribution: USA: AZ; also recorded from Mexico.

Host(s): adults on *Antigonon leptopus* H. & A.

parkeri Nelson *in* Nelson & Bellamy 1996:891 (♂, ♀), figs. 76, 90, 110 (♂ genitalia, ovipositor, distr. map).

Type locality: AZ; Gila Co., 12 mi E Globe, Gilson Butte – Type depository: CASC 17281 (♂).

Taxonomy: Nelson & Bellamy 1996.

Ecology: Nelson & Bellamy 1996 (biol., distr.).

Distribution: **USA:** AZ

Host(s): adults on *Acacia greggii* Gray and *Calliandra eriophylla* Benth.

planicauda Casey 1909:57.

Type locality: Southern AZ – Type depository: USNM 35704 (♀) (Lectotype designation: Bellamy & Nelson 1990:294).

synonym: *cylindricus* Casey 1909:58 – Synonymy: Leng 1920:179.

Type locality: AZ, Nogales – Type depository: USNM 35705 (♂).

Taxonomy: Casey 1909; Barr 1970; Nelson & Bellamy 1996.

Redescription: Nelson & Bellamy 1996:878 (♂, ♀), figs. 43–45, 73, 87, 104, 108 (tibiae, ♂ genitalia, ovipositor, feeding, distr. map); Akiyama & Ohmomo 2000: fig. 524 (♂, ♀).

Ecology: Linsley & Ross 1977 (biol.); Nelson & Bellamy 1996 (biol., distr.).

Distribution: **USA:** AZ, NM, TX; also recorded from Mexico.

Host(s): adults on *Acacia greggii* Gray, *A. neovernicosa* Isely, *Eriogonum* sp., *Mimosa aculeaticarpa* Ortega var *biuncifera* (Benth.) Barneby, ♂ *dysocarpa* Benth. and *Prosopis glandulosa* Torr.

robustus Casey 1909 [syn. of *sphenicus*]

serrulatus Casey 1909 [syn. of *sphenicus*]

sphenicus (LeConte) 1854:83 (*Buprestis*).

Type locality: TX, Laredo to Ringgold Barracks – Type depository: MCZC 2644 (♂).

synonym: *grossus* Casey 1909:56 – Synonymy: Leng 1920:179.

Type locality: Western TX – Type depository: USNM 35702 (♀) (Lectotype designation: Bellamy & Nelson 1990:294).

synonym: *robustus* Casey 1909:57 (ssp. of *grossus*) – Synonymy: Leng 1920:179.

Type locality: Western TX – Type depository: USNM 35701.

synonym: *serrulatus* Casey 1909:57 – Synonymy: Leng 1920:179.

Type locality: AZ, Tucson – Type depository: USNM 35703.

Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson & Bellamy 1996.

Redescription: Kerremans 1908:310; Casey 1909:57; Helfer 1970:102 (♂ genitalia); Linsley & Ross 1977, fig. 2 (♂, ♀); Nelson & Bellamy 1996:889 (♂, ♀), figs. 8, 12–15, 77, 89, 109 (epipleuron, parts, ♂ genitalia, ovipositor distr. map); Akiyama & Ohmomo 2000: fig. 526 (♂, ♀).

Ecology: Vogt 1949b; Cazier 1951b (distr.); Linsley & Ross 1977; Nelson & Bellamy 1996 (biol., distr.); MacRae & Nelson 2003 (biol.).

Distribution: **USA:** AZ, NM, TX; also recorded from Mexico.

Host(s): adults on *Acacia greggii* Gray, *Anisacanthus thurberi* (Torr.) Gray, *Cercidium floridum* Gray, *Chrysothamnus* sp. and *Larrea tridentata* (DC.) Cov.

Genus *Prasinalia* Casey 1909

Prasinalia Casey 1909:56.

Type species: *Gyascutus cuneatus* Horn 1868 (fixed by subsequent designation: Barr 1970:7).

Immature stages: Nelson & Bellamy 1996:893, figs. 98, 99 (larva).

Taxonomy: Casey 1909; Barr 1970; Nelson & Bellamy 1996; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Barr 1970:7; Nelson & Bellamy 1996:893.

Key(s): Casey 1909:59; Nelson & Bellamy 1996:893.

angustus Casey 1909 [syn. of *cuneata*]

cuneata (Horn) 1868:133 (*Gyascutus*).

Type locality: CA, Owens Valley – Type depository: MCZC 33786 (♂).

synonym: *angustus* Casey 1909:59 – Synonymy: Leng 1920:179.

Type locality: AZ, Florence – Type depository: USNM 35707.

synonym: *metallicus* Casey 1909:59 – Synonymy: Leng 1920:179.

Type locality: Southern CA – Type depository: USNM 35706.

Taxonomy: Kerremans 1908; Casey 1909; Barr 1970; Nelson & Bellamy 1996.

BUPRESTIDAE: Chrysochroinae: Dicercini

Redescription: Kerremans 1908:318; Casey 1909:59; Helfer 1970:102 (♂ genitalia); Nelson & Bellamy 1996:893, 896 (♂, ♀), figs. 16, 38–41, 61, 79, 110 (♂ metatarsus, ♂ and parts, wing, ♂ genitalia, distr. map); Akiyama & Ohmomo 2000: fig. 527 (♂, ♀).

Ecology: Nelson 1959; Linsley & Ross 1977 (biol.); Nelson & Bellamy 1996 (biol., distr.).

Distribution: **USA:** AZ, CA; also recorded from Mexico.

Host(s): adults on *Acacia greggii* Gray, *Larrea tridentata* (DC.) Cov., *Populus fremontii* S. Wats., *Prosopis glandulosa* Torr., *P. pubescens* Benth., *Salix* sp. and *Tamarix* sp.

imperialis (Barr) 1969c:326 (♂, ♀) (*Hippomelas*).

Type locality: CA, Imperial Co., 4 mi W Gordon's Well – Type depository: CASC 10341 (♂).

Immature, stages: Nelson & Bellamy 1996:899, figs. 98, 99, 102, 103 (larval workings, larva, anterior part of head).

Taxonomy: Barr 1970; Nelson & Bellamy 1996.

Redescription: Nelson & Bellamy 1996:899 (♂, ♀), figs. 62, 92, 110 (wing, ovipositor, distr. map); Akiyama & Ohmomo 2000: fig. 528 (♂, ♀).

Ecology: Barr 1969c; Walters 1975; Linsley & Ross 1977 (biol.); Nelson & Bellamy 1996 (biol., distr.).

Distribution: **USA:** CA

Host(s): larvae in *Eriogonum deserticola* S. Wats.; adults also on *Ephedra trifurca* Torr.

metallicus Casey 1909 [syn. of *cuneata*]

Subtribe Dicercina Gistel 1848

Dicercaidae Gistel 1848:cover – (3).

Type genus: *Dicerca* Eschscholtz 1829.

Dicercina: Bellamy 2003a:45.

***Lampetis* generic group (Tribal level) sensu Volkovitsh 2001**

Lampetis generic group Volkovitsh 2001:56.

Classification: Bellamy 2003b; Bilý & Volkovitsh 2003.

Genus *Lampetis* Dejean 1833

Lampetis Dejean 1833:76.

Type species: *Buprestis bioculata* Olivier 1790 (fixed by subsequent designation: Lacordaire 1857:30).

subgenus *Lampetis* (*Spinthoptera*) Casey 1909

Spinthoptera Casey 1909:71.

Type species: *Psiloptera valens* LeConte 1858 (= *drummondi* (Laporte & Gory 1837)) (fixed by original designation).

Taxonomy: Casey 1909; Kerremans 1910; Bellamy 1985; Nelson 1986 (as *Psiloptera*); Kurosawa 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Kerremans 1910:35; Nelson 1986:274 (as *Psiloptera*).

Key(s): Casey 1909:72 (USA); Kerremans 1910:35 (world); Nelson 1986:274 (USA).

arizonica (Casey 1909) [syn. of *webbii*]

caseyi (Kerremans 1910) [syn. of *drummondi*]

convexa (Casey 1909) [syn. of *drummondi*]

cupreopunctata (Schaeffer) 1905:147 (*Psiloptera*).

Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM (♂) (Lectotype designation: Nelson 1986:276).

Taxonomy: Casey 1909; Kerremans 1910; Nelson 1986; Corona 2005.

Redescription: Casey 1909:74; Kerremans 1910:141; Nelson 1986:275 (♂, ♀), figs. 1, 4 (adult, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 592 (♂, ♀); Corona 2005:755.

Ecology: Vogt 1949b (biol.); Nelson 1986 (biol., distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): adults on *Acacia farnesiana* (L.) Willd., *Prosopis glandulosa* Torr., *Sideroxylon celastrinum* (Kunth) T.D. Pennington and *Sorghum bicolor* (L.) Moench.

drummondi (Laporte & Gory) 1837:37, plate 9, fig. 44 (adult) (*Buprestis*).

Type locality: Mexico – Type depository: MNHN (Lectotype not designated).

synonym: *woodhousei* (LeConte) 1852:68 (*Dicerca*) – Synonymy: Nelson 1986:276.

Type locality: NM – Type depository: MCZC 2652 (♀) (Lectotype designation: by Nelson 1986:279).

synonym: *valens* (LeConte) 1858:66 (*Psiloptera*) – Synonymy: Leng 1920:179.

Type locality: TX, Eagle Pass – Type depository: MCZC 2650 (♀) (Lectotype designation: Nelson 1986:279).

synonym: *convexa* (Casey) 1909:72 (*Spinthoptera*) (preoccupied: *convexa* Laporte & Gory 1836:58).

Type locality: TX, El Paso – Type depository: USNM 35726.

synonym: *ocularis* (Casey) 1909:73 (*Spinthoptera*) – Synonymy: Leng 1920:179

Type locality: W TX – Type depository: USNM 35727 (Lectotype designation: by Nelson 1986:279).

synonym: *parva* (Casey) 1909:73 (*Spinthoptera*) – Synonymy: Nelson 1986:276.

Type locality: TX – Type depository: USNM 35728 (♂) (Lectotype designation: Nelson 1986:279).

synonym: *caseyi* (Kerremans) 1910:126 (*Psiloptera*) (as replacement name for *convexa* Casey 1909) –

Synonymy: Leng 1920:179.

Taxonomy: Kerremans 1910; Nelson 1986; Corona 2005.

Redescription: Kerremans 1910:130; Good 1925: plate 9 (wing); Nelson 1986:276 (♂, ♀) figs. 2, 5 (adult, ♂ genitalia); Nelson, *et al.* 1996 (variation); Akiyama & Ohmomo 2000: fig. 597 (♂, ♀); Corona 2005:758.

Ecology: Marlatt 1891; Vogt 1949b; Dobson & Wats 1956 (biol.); Nelson 1986; Davidson & Davidson 2005; MacRae 2006 (distr., biol.).

Distribution: USA: AZ, CO, KS, LA, MO, NM, OK, TX; also recorded from Mexico.

Host(s): adults on *Acacia berlandieri* Benth., *A. constricta* Benth., *A. greggii* Gray, *A. rigidula* Benth., *Carya illinoensis* (Wangenh.) K. Koch, *Chilopsis linearis* (Cav.) Sweet, *Condalia* sp., *Dalea multiflora* (Nutt.) Shinner, *Diospyros texana* Scheele, *Euphorbia* sp., *Fallugia paradoxa* (D. Don) Endl., *Gleditsia triacanthos* L., *Gossypium* sp., *Karwinskia humboldtiana* (J. A. Schultes) Zucc., *Nolina microcarpa* S. Wats., *Prosopis pubescens* Benth., *Rhus virens* Lindheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson, *Quercus gravesii* Sudw., *Salix* sp. and *Tamarix* sp.

ocularis (Casey 1909) [syn. of *drummondi*]

parva (Casey 1909) [syn. of *drummondi*]

valens (LeConte 1858) [syn. of *drummondi*]

webbii (LeConte) 1858:66 (*Psiloptera*).

Type locality: Mexico: Sonora, Ures. – Type depository: MCZC 2651 (♀) (Lectotype designation: Nelson 1986:282).

synonym: *arizonica* (Casey) 1909:74 (*Spinthoptera*) – Synonymy: Leng 1920:179.

Type locality: AZ – Type depository: USNM 35729 (♀) (Lectotype designation: Nelson 1986:282).

Taxonomy: Casey 1909; Kerremans 1910; Nelson 1986; Corona 2005.

Redescription: Casey 1909:75; Kerremans 1910:132; Nelson 1986:281 (♂, ♀), figs. 3, 6–8 (adult, ♂ genitalia, antenna); Akiyama & Ohmomo 2000: fig. 598 (♂, ♀); Corona 2005:774.

Ecology: Burke 1918a (biol.); Cazier 1951b (distr.); Nelson 1986 (biol., distr.).

Distribution: USA: AZ, NM, TX; also recorded from Mexico.

Host(s): larvae in *Cercidium floridum* Gray; adults also on *Acacia greggii* Gray, *Sideroxylon lanuginosa* (Michx.) Pers., *Chrysothamnus nauseosus* (Pall.) Britt., *Juniperus* sp., *Larrea tridentata* (DC.) Cov., *Prosopis glandulosa* Torr., *Quercus arizonica* Sarg., *Q. oblongifolia* Torr., *Rhus virens* Lindheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson and *Salix gooddingii* Ball.

woodhousei (LeConte 1852) [syn. of *drummondi*]

***Dicerca* generic group (Tribal level) sensu Volkovitsh 2001**

Dicerca generic group Volkovitsh 2001:56.

Classification: Bellamy 2003a; Bilý & Volkovitsh 2003.

Genus *Dicerca* Eschscholtz 1829

Dicerca Eschscholtz 1829:9 (original spelling emended: Lacordaire 1857; verified by Opinion 1784, ICZN 1994).

Type species: *Buprestis aenea* Linnaeus 1758 (fixed by subsequent designation: Westwood 1838:24).

Argante Gistel 1834:10.

BUPRESTIDAE: Chrysochroinae: Dicerini

Type species: *Buprestis moesta* Fabricius 1793 (fixed by subsequent designation: Richter 1952:108).
Stenuris Kirby 1837:154.

Type species: *Buprestis lurida* Fabricius 1775 (fixed by original designation) – Synonymy: Lacordaire 1857:35.

Immature stages: Burke 1917a:6 (larva).

Taxonomy: Casey 1909; Nelson 1975b (revision No. Amer. sp.); Nelson & Alten 1998; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Casey 1909:128; Nelson 1975b:91; Bright 1987:51.

Ecology: Nelson 1975b (biol., distr.).

Key(s): Barr 1971:58 (Pacific NW); Nelson 1975b:96 (N AMER.); Wellso, *et al.* 1976:6 (MI); Bright 1987:52 (Canada & AK); MacRae 1991:107 (MO).

subgenus *Dicerca* (*Dicerca*) Eschscholtz 1829

Dicerca Eschscholtz 1829:9.

Type species: *Buprestis aenea* Linnaeus 1758.

abrupta Casey 1909 [syn. of *caudata*]

aestiva Casey 1909 [syn. of *divaricata*]

ampliata Casey 1909 [syn. of *hornii hornii*]

angusticauda Casey 1909 [syn. of *divaricata*]

aurichalcea Melsheimer 1845 [syn. of *divaricata*]

asperata (Laporte & Gory) 1837:105, plate 27, fig. 143 (adult) (*Buprestis*).

Type locality: “Amer. Bor.” – Type depository: MNHN.

synonym: *molitor* Melsheimer 1845:144 – Synonymy: Nelson 1975b:144.

Type locality: PA – Type depository: type lost (MCZC?).

misidentification: *scobina* of authors, not *scobina* Chevrolat 1838.

Taxonomy: Casey 1909 (as *scobina*); Nelson 1975b.

Redescription: Casey 1909:163 (as *scobina*); Nelson 1975b:144 (♂, ♀) figs. 57, 81 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 756 (♀).

Ecology: Nelson 1975b; Peck & Thomas 1998; MacRae & Nelson 2003 (distr.); Wellso & Jackman 2006 (biol., distr.).

Distribution: **Canada**: PQ; **USA**: AL, CT, DC, FL, GA, IA, IL, IN, MA, MD, MI, MO, MS, NC, NH, NJ, NY, OH, PA, RI, SC, TX, VA, WV

Host(s): larvae in *Quercus* sp.

baltimorensis (Herbst 1801) [syn. of *obscura*]

biangulata Casey 1909 [syn. of *caudata*]

cajonensis Knull 1944b:90, plate 1, fig. 8 (adult ♀) (as subspecies of *querci*).

Type locality: CA, Cajon Pass – Type depository: FMNH (♀).

Taxonomy: Nelson 1975b; Nelson & Alten 1998.

Immature stages: Nelson & Alten 1998:234 figs. 8–10 (larval workings, larva).

Redescription: Nelson 1975b:160 (♀), fig. 20 (♀ last abd. ventrite); Nelson & Alten 1998:235 (♂), figs. 1, 3, 5, 7 (parts ♂, ♀, ♂ genitalia).

Ecology: Nelson 1975b (biol., distr.); Nelson & Alten 1998 (biol.).

Distribution: **USA**: CA

Host(s): larva in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

callosa callosa Casey 1909:150.

Type locality: NY – Type depository: USNM 35839 (♀).

synonym: *rigida* Casey 1909:150 – Synonymy: Nelson 1975b:122.

Type locality: MI, Lake Superior, Whitefish Point – Type depository: USNM 35840 (♀).

synonym: *tetrica* Casey 1909:151 – Synonymy: Nelson 1975b:122.

Type locality: ON, Port Hope – Type depository: USNM 35841 (♀).

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Nelson 1975b:122 (♂, ♀), figs. 37, 50, 72 (antenna, ♂ genitalia, adult).

Ecology: Nelson 1975b (biol., distr.); Westcott 1991; Davies 1991 (distr.).

Distribution: **Canada**: AB, BC, MB, NT, ON, PQ, SK, YT; **USA**: AK, CO, ME, MI, MN, ND, NH, NY, SD, WY

Host(s): adults on *Betula* sp., *Populus tremuloides* Michx. and *Salix* sp.

callosa frosti Nelson 1963:65 (♂, ♀), figs. 1, 2 (♂ genitalia, tibia) (as species).

Type locality: OR, Harney Co., Steens Mtns. – Type depository: CASC 8117 (♂).

Taxonomy: Nelson 1963; 1975b.

Redescription: Nelson 1975b:125 (♂, ♀), figs. 27, 38, 73 (♂ mesotibia, antenna, adult); Akiyama & Ohmomo 2000: fig. 750 (♂, ♀).

Ecology: Nelson 1975b (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada:** AB, BC; **USA:** AZ, CA, CO, ID, MT, NV, OR, UT, WY

Host(s): adults on *Populus tremuloides* Michx.

caudata LeConte 1860:195.

Type locality: Middle States – Type depository: MCZC 2654 35818 (♀).

synonym: *abrupta* Casey 1909:139 – Synonymy: Leng 1920:180.

Type locality: MA – Type depository: USNM (♀).

synonym: *biangulata* Casey 1909:140 – Synonymy: Leng 1920:180.

Type locality: NH, Hampton – Type depository: USNM 35819 (♂).

synonym: *inflata* Casey 1909:140 – Synonymy: Leng 1920:180.

Type locality: MA – Type depository: USNM 35820 (♀).

synonym: *pisciformis* Casey 1909:140 – Synonymy: Leng 1920:180.

Type locality: MA – Type depository: USNM 35821 (♀) (Lectotype designation: Nelson 1985b:138).

synonym: *cupreola* Casey 1909:141 – Synonymy: Leng 1920:180.

Type locality: MA – Type depository: USNM 35823 (♂).

synonym: *filiola* Casey 1909:141 (as subspecies of *cupreola*) – Synonymy: Leng 1920:180.

Type locality: MA – Type depository: USNM 35824 (♂).

synonym: *longicauda* Casey 1909:141 (as subspecies of *pisciformis*) – Synonymy: Leng 1920:180.

Type locality: MA – Type depository: USNM 35822 (♀) (Lectotype designation: Nelson 1985b:138).

Taxonomy: Casey 1909; 1914; Nelson 1975b.

Redescription: Casey 1909:142; Nelson 1975b:135 (♂, ♀), figs. 54, 75 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 753 (♂, ♀).

Ecology: Downie 1958 (biol.); Nelson 1975b; Nelson, *et al.* 1981; 1996; Bright 1987; Davies 1991 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** AB, BC, MB, MT, NS, NT, ON, PQ, SK; **USA:** AZ, CO, CT, DC, DE, IA, IL, IN, LA, MA, MD, ME, MI, MN, ND, NC, NE, NH, NJ, NY, OH, PA, RI, SD, UT, VA, VT

Host(s): larvae in *Alnus* sp. and *Betula nigra* L.; adults also on *Alnus incana* (L.), Moench, *Betula occidentalis* Hook., *Crataegus* sp., *Malus sylvestris* Mill., *Prunus persica* (L.) Batsch. and *P. virginiana* L.

consimilis (Laporte & Gory 1837) [syn. of *obscura*]

cupreola Casey 1909 [syn. of *caudata*]

divaricata (Say) 1823:163 (*Buprestis*).

Type locality: USA – Type depository: type destroyed.

synonym: *aurichalcea* Melsheimer 1845:142 – Synonymy: LeConte 1860:195.

Type locality: VA – Type depository: type lost (MCZC?) (♀).

synonym: *dubia* Melsheimer 1845:142 – Synonymy: LeConte 1860:195.

Type locality: PA – Type depository: type lost (MCZC?) (♂).

synonym: *parumpunctata* Melsheimer 1845:143 – Synonymy: LeConte 1860:195.

Type locality: PA – Type depository: type lost (MCZC?) (♂).

synonym: *subaequalis* Casey 1909:142 – Synonymy: Nelson 1975b:132.

Type locality: PA, Allegheny – Type depository: USNM 35836 (♂).

synonym: *nigra* Casey 1909:143 – Synonymy: Nelson 1975b:132.

Type locality: NY, Adirondack Mtns. – Type depository: USNM 35826 (♂).

synonym: *incisa* Casey 1909:144 (as subspecies of *divaricata*) – Synonymy: Leng 1920:180.

Type locality: IN – Type depository: USNM 35828 (♀).

synonym: *limula* Casey 1909:144 (as subspecies of *divaricata*) – Synonymy: Leng 1920:180.

Type locality: NY, Buffalo – Type depository: USNM 35827 (♀).

synonym: *aestiva* Casey 1909:145 – Synonymy: Leng 1920:180.

Type locality: VT, Bennington Co. – Type depository: USNM 35829 (♂).

synonym: *rustica* Casey 1909:146 – Synonymy: Leng 1920:180.

BUPRESTIDAE: Chrysochroinae: Dicerini

- Type locality: NH, Hampton – Type depository: USNM 35830 (♀).
 synonym: *vancouveri* Casey 1909:147 – Synonymy: Leng 1920:180.
- Type locality: BC, Vancouver Isld., Victoria (prob. error) – Type depository: USNM 35834 (♀).
 synonym: *angusticauda* Casey 1909:148 – Synonymy: Leng 1920:180.
- Type locality: WI – Type depository: USNM 35835 (♂).
 Taxonomy: Casey 1909; Nelson 1975b.
 Redescription: Casey 1909:143; Good 1925 (wing); Nelson 1975b:132 (♂, ♀), figs. 35, 53, 77 (antecoxa, ♂ genit, adult); Akiyama & Ohmomo 2000: fig. 752 (♂, ♀).
 Ecology: Nelson 1975b; Bright 1987; Davies 1991 (distr.); MacRae 2006 (biol., distr.).
 Distribution: **Canada:** AB, MB, NB, NS, ON, PQ, SK; **USA:** AL, CT, DC, DE, GA, IA, IL, IN, MA, MD, ME MI, MN, NC, ND, NE, NH, NJ, NY, OH, PA, RI, SD, TX, UT, VA, VT, WI, WV; also recorded from the West Indies.
- Host(s): larvae in *Acer pennsylvanicum* L., *A. saccharum* Marsh., *Betula lenta* L., *Cercis canadensis* L., *Fraxinus americana* L., *F. nigra* Marsh., *Ostrya virginiana* (Mill.) K. Koch., *Quercus alba* L., *Q. rubra* L. and *Ulmus americana* L.; adults also on *Abies* sp., *Acer negundo* L., *A. rubrum* L., *Betula alleghaniensis* Britt., *Fagus grandifolia* Ehrh., *Pinus* sp., *Populus balsamifera* L. and *Prunus* sp.
- dubia* Melsheimer 1845 [syn. of *divaricata*]
erosa Casey 1909 [syn. of *lurida*]
filiola Casey 1909 [syn. of *caudata*]
floridae Casey 1909 [syn. of *lurida*]
frosti Nelson 1963 [ssp. of *callosa*]
gaudens Casey 1909 [syn. of *lurida*]
gracilis Casey 1909 [syn. of *lurida*]
- hesperoborealis** Hatch & Beer 1938:151.
 Type locality: WA, Wawawai – Type depository: OSUO (♀).
 Taxonomy: Barr 1971; Nelson 1975b.
 Redescription: Nelson 1975b:129 (♂, ♀), figs. 34, 52, 74 (antecoxa, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 751 (♂, ♀).
 Ecology: Nelson 1975b (biol., distr.); Bright 1987; Davies 1991 (distr.); Westcott 2005.
 Distribution: **Canada:** AB, BC; **USA:** CA, ID, MT, OR, UT, WA
 Host(s): larvae in *Alnus* sp. and *Betula occidentalis* Hook.; adults also on *Alnus incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung.
- hornii hornii** Crotch 1873:86.
 Type locality: CA – Type depository: MCZC 5077 (♂).
 synonym: *ampliata* Casey 1909:153 (as subspecies of *hornii*) – Synonymy: Leng 1920:180.
 Type locality: CA, Kaweah – Type depository: USNM 35842 (♀).
 Taxonomy: Casey 1909; Nelson 1975b.
 Redescription: Casey 1909:152; Nelson 1975b:157 (♂, ♀), figs. 32, 41, 82 (♂ mesotibia, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 760 (♂, ♀).
 Ecology: Nelson 1975b (biol., distr.); Nelson, *et al.* 1981 (biol.); Davies 1991 (distr.).
 Distribution: **Canada:** BC; **USA:** AZ, CA, ID, NV, OR, UT, WA
 Host(s): larvae in *Alnus rhombifolia* Nutt., *Ceanothus cuneatus* (Hook.) Nutt., *Juglans regia* L. and *Rhamnus californica* Esch.; adults also on *Alnus rubra* Bong., *Ceanothus crassifolius* Torr., *C. integerrimus* H. & A., *C. oliganthus* Nutt. ex T. & G., *C. thyrsiflorus* Esch., *Cercocarpus betuloides* T. & G., *C. ledifolius* Nutt., *Prunus* spp., *Quercus wislezani* A. DC., *Salix exigua* Nutt. and *Symphoricarpos* sp.
- hornii nelsoni** Beer 1974:49 (♂, ♀).
 Type locality: CA, Inyo Co., E flank Sierra Nevada Rge., Cottonwood Cr. – Type depository: CASC 12045 (♂).
 Taxonomy: Beer 1974; Nelson 1975b.
 Redescription: Nelson 1975b:160 (♂, ♀).
 Ecology: Nelson 1975b; Nelson, *et al.* 1996 (biol., distr.).
 Distribution: **USA:** CA
 Host(s): adults on *Betula occidentalis* Hook. and *Salix exigua* Nutt.
- impressifrons* Melsheimer 1845 [syn. of *spretta*]
incisa Casey 1909 [syn. of *divaricata*]

indistincta Melsheimer 1845 [syn. of *lurida*]

indurata Casey 1909 [syn. of *lurida*]

inflatula Casey 1909 [syn. of *caudata*]

juncea Knull 1958b:153 (♂, ♀), fig. 1 (♂ genitalia).

Type locality: FL, Navarre – Type depository: FMNH (♂).

Taxonomy: Knull 1958b; Nelson 1975b.

Redescription: Nelson 1975b: figs. 59, 84 (♂ genitalia, adult).

Ecology: Nelson 1975b; MacRae 2006 (biol., distr.).

Distribution: **USA**: AL, FL, GA, LA, MS, NC, SC

Host(s): adults on *Acer* sp., *Cyrilla racemiflora* L., *Prunus persica* (L.) Batsch. and *Quercus* sp.

lepida LeConte 1857a:7.

Type locality: PA – Type depository: MCZC 2656 (♂).

misidentification: *pugionata* of Laporte & Gory 1837:99, not *pugionata* Germar 1824.

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Casey 1909:137; Nelson 1975b:141 (♂, ♀), figs. 56, 79 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 755 (♀).

Ecology: Nelson 1975b; Solomon 1995 (biol., distr.); Nelson, *et al.* 1981; Nelson & MacRae 1990 (distr.).

Distribution: **USA**: AL, AR, DC, IA, IN, KS, MD, MO, NM, NY, OK, PA, TX

Host(s): larva in *Crataegus coccinea* L. and *Ostrya virginiana* (Mill.) K. Koch.; adults also on *Quercus* sp.

levettei Casey 1909 [syn. of *lurida*]

limula Casey 1909 [syn. of *divaricata*]

longicauda Casey 1909 [syn. of *caudata*]

longipennis Casey 1909 [syn. of *tenebrica*]

lurida (Fabricius) 1775:217 (*Buprestis*).

Type locality: “Amer.” – Type depository: BMNH.

synonym: *pruinosa* (Gory) 1841:109, plate 19, fig. 106 (adult) (*Buprestis*) – Synonymy: Nelson 1975b:152.

Type locality: LA, New Orleans – Type depository: MNHN.

synonym: *indistincta* Melsheimer 1845:143 – Synonymy: LeConte 1860:197.

Type locality: PA – Type depository: type lost (MCZC?).

synonym: *indurata* Casey 1909:131 – Synonymy: Nelson 1975b:153.

Type locality: TX – Type depository: USNM 35806 (♀).

synonym: *gracilis* Casey 1909:132 – Synonymy: Nelson 1975b:153.

Type locality: NH, Hampton – Type depository: USNM 35808 (♀).

synonym: *truncata* Casey 1909:132 – Synonymy: Nelson 1975b:153.

Type locality: WI – Type depository: USNM 35807 (♀).

synonym: *innocua* Casey 1909:133 – Synonymy: Nelson 1975b:153.

Type locality: FL, Marion Co. – Type depository: USNM 35811 (♀).

synonym: *porcatula* Casey 1909:133 – Synonymy: Nelson 1975b:153.

Type locality: KS – Type depository: USNM 35809 (♀) (Lectotype designation: Nelson 1985b:139).

synonym: *sagax* Casey 1909:133 – Synonymy: Nelson 1975b:153.

Type locality: IN – Type depository: USNM 35812 (♀).

synonym: *floridae* Casey 1909:134 – Synonymy: Nelson 1975b:153.

Type locality: FL – Type depository: USNM 35813 (♀) (Lectotype designation: Nelson 1985b:139).

synonym: *regularis* Casey 1909:134 (as subspecies of *soror*) – Synonymy: Nelson 1975b:153.

Type locality: NY, Buffalo – Type depository: USNM 35814 (♀).

synonym: *soror* Casey 1909:134, not LeConte.

synonym: *gaudens* Casey 1909:135 – Synonymy: Leng 1920:180.

Type locality: S IL – Type depository: USNM 35815 (♀).

synonym: *levettei* Casey 1909:135 – Synonymy: Leng 1920:180.

Type locality: N IL – Type depository: USNM 35816 (♀) (Lectotype designation: Nelson 1985b:139).

synonym: *erosa* Casey 1909:136 – Synonymy: Leng 1920:180.

Type locality: IA – Type depository: USNM 35810 (♀).

synonym: *seriata* Casey 1909:136 – Synonymy: Leng 1920:180.

BUPRESTIDAE: Chrysochroinae: Dicerini

Type locality: TX – Type depository: USNM 35817 (♀).

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Nelson 1975b:153 (♂, ♀), figs. 26, 61, 86 (parts, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 759 (♂).

Ecology: Knull 1920; 1930c; Nelson 1975b; 1987a; Nelson & MacRae 1990; Davies 1991 (distr.); Nelson, *et al.* 1996 (biol.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** ON, PQ; **USA:** AL, AR, CT, DC, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MN, MO, MS, NC, NE, NH, NJ, NY, OH, OK, PA, SC, TN, TX, VA, VT, WI, WV

Host(s): larvae in *Alnus incana* (L.) Moench ssp. *rugosa* (DuRoi) Clausen, *Carpinus caroliniana* Walt., *Carya cordiformis* (Wangenh.) K. Koch, *C. glabra* (Mill.) Sweet, *C. laciniosa* (Michx. f.) G. Don, *Prunus caroliniana* (Mill.) Ait., *Salix exigua* Nutt. and *Tilia americana* L.; adults also on *Carya ovata* (Mill.) K. Koch, *Quercus alba* L., *Q. falcata* Michx. and *Q. velutina* Lam.

molitor Melsheimer 1845 [syn. of *aspirator*]

mutica LeConte 1860:196.

Type locality: NY, Brooklyn – Type depository: MCZC 2664 (♂).

synonym: *strandtmanni* Knull 1947b:174 – Synonymy: Nelson 1975b:155.

Type locality: TX – Type depository: FMNH (♀).

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Casey 1909:165; Nelson 1975b:155 (♂, ♀), figs. 21, 40, 62, 83 (parts, ♂ genitalia, adult).

Ecology: Nelson 1975b (distr.); Nelson, *et al.* 1981 (biol., distr.).

Distribution: **USA:** MD, MO, NY, TX

Host(s): adults on *Acer saccharum* Marsh.

nelsoni Beer 1974 [ssp. of *hornii*]

nigra Casey 1909 [syn. of *divaricata*]

obscura (Fabricius) 1781:274 (*Buprestis*).

Type locality: “Amer. Bor.” – Type depository: UZMC.

synonym: *baltimorensis* (Herbst) 1801:99 (*Buprestis*) – Synonymy: LeConte 1857a:7.

Type locality: MD, Baltimore – Type depository: ZMHB.

synonym: *consimilis* (Laporte & Gory) 1837:104, plate 27, fig. 142 (adult) (*Buprestis*) – Synonymy: Leng 1920:180.

Type locality: “Amer. Bor.” – Type depository: MNHN.

synonym: *soror* LeConte 1860:197 – Synonymy: Crotch 1873:85.

Type locality: PA – Type depository: MCZC 2655.

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Casey 1909:131; Nelson 1975b:150 (♂, ♀), figs. 25, 60, 85 (metacoxa, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 758 (♀).

Ecology: Burke 1917b; Knull 1920 (biol.); Nelson 1975b (biol., distr.); Nelson 1987a (distr.).

Distribution: **USA:** AL, AR, CT, DC, DE, FL, GA, IN, KY, LA, MA, MD, MO, MS, NC, NJ, NY, OH, OK, PA, SC, TN, TX, VA, WV

Host(s): larvae in *Diospyros virginiana* L. and *Rhus typhina* L.; adults also on *Carya* sp. and *Quercus* sp.

parumpunctata Melsheimer 1845 [syn. of *divaricata*]

pectorosa LeConte 1857b:45.

Type locality: OR – Type depository: MCZC 2663.

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Casey 1909:165; Nelson 1975b:119 (♂, ♀), figs. 49, 71 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 740 (♂, ♀).

Ecology: Chamberlin 1920b; 1925a (biol.); Nelson 1975b (biol., distr.); Davies 1991 (distr.); Westcott 1991.

Distribution: **Canada:** BC, SK; **USA:** CA, CO, ID, MT, NE, NV, OR, UT, WA

Host(s): larvae in *Prunus domestica* L.; adults also on *Ceanothus integerrimus* H. & A., *Chrysothamnus viscidiflorus* (Hook.) Nutt., *Prunus ilicifolia* (Nutt.) Walp., *P. persica* (L.) Batsch. and *P. virginiana* L. var. *demissa* (Nutt.) Torr.

pertinax Casey 1909 [syn. of *tenebrica*]

pisciformis Casey 1909 [syn. of *caudata*]

porcatula Casey 1909 [syn. of *lurida*]

prolongata LeConte 1860 [syn. of *tenebrica*]

pruinosa (Gory 1841) [syn. of *lurida*]

pugionata (Germar) 1824:37 (*Buprestis*).

Type locality: KY – Type depository: ZMHB.

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Casey 1909:138; Nelson 1975b:140 (♂, ♀), figs. 39, 55, 78 (antenna, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 754 (♂, ♀).

Ecology: Knull 1920; 1922 (biol.); Nelson 1975b; Nelson, *et al.* 1981; 1996; Davies 1991; Solomon 1995; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada**: ON; **USA**: AR, CT, DC, DE, KY, MA, MD, MI, MO, NH, NJ, NY, OH, PA, VA, WV

Host(s): larvae in *Alnus incana* (L.) Moench, *A. serrulata* (Ait.) Willd., *Hamamelis virginiana* L. and *Physocarpus opulifolius* (L.) Maxim.

querci Knull 1941c:694 (♂, ♀), plate 1, fig. 3 (adult).

Type locality: CA, Santa Rosa Mtns., Pinyon Flat – Type depository: FMNH (♂).

Taxonomy: Nelson 1975b.

Redescription: Nelson 1975b:162 (♂, ♀), figs. 29, 63 (♂ mesotibia & genitalia); Nelson & Alten 1998:235 (♂, ♀), figs. 2, 4 (♂ & ♀ last abd. ventrite); Akiyama & Ohmomo 2000: fig. 761 (♂).

Ecology: Nelson 1975b (biol., distr.).

Distribution: **USA**: CA

Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

regularis Casey 1909 [syn. of *lurida*]

rigida Casey 1909 [syn. of *callosa callosa*]

rustica Casey 1909 [syn. of *divaricata*]

sagax Casey 1909 [syn. of *lurida*]

seriata Casey 1909 [syn. of *lurida*]

severa Casey 1909 [syn. of *tenebrica*]

soror Casey 1909 [syn. of *lurida*]

spretia (Gory) 1841:108 (*Buprestis*), plate 19, fig. 105 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN.

misidentification: *americana* of authors, not *americana* Melsheimer 1853.

misidentification: *asperata* of authors, not *asperata* Laporte & Gory 1837.

synonym: *impressifrons* Melsheimer 1845:144 – Synonymy: LeConte 1857a:8.

Type locality: PA – Type depository: type lost (MCZC?).

misidentification: *scobina* of authors, not *scobina* Chevrolat 1838.

Taxonomy: Casey 1909 (as *americana*); Nelson 1975b.

Redescription: Nelson 1975b:146 (♂, ♀), figs. 58, 80 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 757 (♀)

Ecology: Knull 1920 (biol. as *scobina*); Nelson 1975b (biol., distr.); 1987a; Davies 1991 (distr.).

Distribution: **USA**: AL, AR, DC, FL, GA, KY, LA, MD, MS, NC, OK, PA, SC, VA

Host(s): larvae in *Nyssa sylvatica* Marsh.

strandtmanni Knull 1947 [syn. of *mutica*]

subaequalis Casey 1909 [syn. of *divaricata*]

subargentea Casey 1909 [syn. of *tenebrica*]

subcuprea Casey 1909 [syn. of *tenebrica*]

sulcatula Casey 1909 [syn. of *tenebrica*]

tenebrica (Kirby) 1837:156 (*Buprestis*).

Type locality: No. Amer., Lat. 54° – Type depository: BMNH? (type lost).

misidentification: *divaricata* of authors, not *divaricata* Say 1823.

synonym: *prolongata* LeConte 1860:194 – Synonymy: Crotch 1873:84.

Type locality: Lake Superior – Type depository: MCZC 2653 (♂).

synonym: *subcuprea* Casey 1909:146 – Synonymy: Nelson 1975b:127.

Type locality: MI – Type depository: USNM 35831 (♀) (Lectotype designation: Nelson 1985b:137).

synonym: *pertinax* Casey 1909:147 (as subspecies of *subcuprea*) – Synonymy: Nelson 1985b:137.

BUPRESTIDAE: Chrysochroinae: Dicerini

Type locality: New Hampshire – Type depository: USNM 35831 (♂) (Neotype designation: Nelson 1985b:137).

synonym: *sulcatula* Casey 1909:147 – Synonymy: Nelson 1975b:127.

Type locality: CO – Type depository: USNM 35833 (♀).

synonym: *subargentea* Casey 1909:148 – Synonymy: Nelson 1975b:127.

Type locality: WI, Bayfield – Type depository: USNM 35836 (♀).

synonym: *longipennis* Casey 1909:149 (as subspecies of *prolongata*) – Synonymy: Nelson 1975b:127.

Type locality: “British America” – Type depository: USNM 35837 (♀) (Lectotype designation: Nelson 1985b:138).

synonym: *severa* Casey 1909:149 – Synonymy: Nelson 1975b:127.

Type locality: Canada: ON – Type depository: USNM 35838 (♀).

Immature stages: Burke 1917a: plate 4, fig. 1 (larva as *prolongata*).

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Nelson 1975b:127 (♂, ♀), figs. 30, 33, 51, 76 (parts, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 749 (♂).

Ecology: Nelson 1975b; Nelson, *et al.* 1981; 1996; Nelson & MacRae 1990; Davies 1991 (distr.); Solomon 1995 (biol., distr.).

Distribution: **Canada:** AB, BC, MB, NS, NT, ON, PQ, SK, YT; **USA:** AK, AZ, CA, CO, CT, GA, IA, ID, IL, IN, MD, ME, MI, MN, MO, MT, ND, NE, NH, NM, NV, NY, OH, OR, PA, RI, SD, TX, UT, VA, VT, WA, WI, WY

Host(s): larvae in *Populus grandidentata* Michx.; adults also on *P. angustifolia* James, *P. balsamifera* (L.) ssp. *trichocarpa* (T. & G.) Brayshaw and *P. tremuloides* Michx.

tetrica Casey 1909 [syn. of *callosa callosa*]

truncata Casey 1909 [syn. of *lurida*]

vancouveri Casey 1909 [syn. of *divaricata*]

subgenus *Dicerca* (*Neoargante*) Nelson 2006

Dicerca (*Neoargante*) Nelson 2006:272.

Type species: *Buprestis moesta* Fabricius 1793 (fixed by original designation).

acerba Casey 1909 [syn. of *tenebrosa tenebrosa*]

austera Casey 1909 [syn. of *lugubris*]

bifoveata LeConte 1860 [syn. of *tenebrosa tenebrosa*]

californica Crotch 1873 [syn. of *crassicollis*]

chrysea Melsheimer 1845 [syn. of *tenebrosa tenebrosa*]

consobrina Melsheimer 1845 [syn. of *dumolini*]

crassicollis LeConte 1857b:45.

Type locality: WA, Steilacoon – Type depository: MCZC 2658 (♀).

synonym: *californica* Crotch 1873:87 – Synonymy: Leng 1920:180.

Type locality: CA – Type depository: MCZC 5075 (♂).

synonym: *hesperica* Casey 1909:155 (as subspecies of *crassicollis*) – Synonymy: Casey 1914:355.

Type locality: WA – Type depository: USNM 35844 (♀).

Taxonomy: Casey 1909; 1914; Nelson 1975b.

Redescription: Casey 1909:154; Nelson 1975b:106 (♂, ♀), figs. 43, 65 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 737 (♀).

Ecology: Nelson 1975b (biol., distr.); Bright 1987; Davies 1991 (distr.).

Distribution: **Canada:** AB, BC; **USA:** CA, OR, ID, WA

Host(s): adults on *Abies magnifica* A. Murr., *Pinus ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

distinguenda (Laporte & Gory 1837) [syn. of *tenebrosa tenebrosa*]

dumolini (Laporte & Gory) 1837:98 (*Buprestis*), plate 25, fig. 133 (adult).

Type locality: “Senegal” (error) – Type depository: MNHN.

synonym: *consobrina* Melsheimer 1845:145 – Synonymy: Leng 1920:180.

Type locality: VA – Type depository: type lost (MCZC?).

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Casey 1909:157; Nelson 1975b:115 (♂, ♀), figs. 47, 67 (♂ genitalia, adult).

Ecology: Nelson 1975b (biol., distr.); Nelson, *et al.* 1981; Davies 1991 (distr.).

Distribution: **Canada:** PQ; **USA:** CT, ME, NJ, NY, PA, VA

Host(s): adults on *Abies balsamea* (L.) Mill., *Picea* sp. and *Pinus* sp.

hesperica Casey 1909 [syn. of *crassicolis*]

hilaris LeConte 1860 [syn. of *tuberculata*]

knulli Nelson 1975 [ssp. of *tenebrosa*]

lacustris LeConte 1860 [syn. of *lugubris*]

lugubris LeConte 1860:200.

Type locality: MI, Lake Superior, Marquette – Type depository: MCZC 2661 (♂).

synonym: *lacustris* LeConte 1860:202 – Synonymy: Crotch 1873:86.

Type locality: MI, Lake Superior, Point Kewenaw – Type depository: MCZC 2662 (♀).

synonym: *morio* Casey 1909:155 – Synonymy: Nelson 1975b:111.

Type locality: MI, Lake Superior, Whitefish Point – Type depository: USNM 35846 (♂).

synonym: *austera* Casey 1909:157 – Synonymy: Nelson 1975b:111.

Type locality: MI, Lake Superior, Whitefish Point – Type depository: USNM 35845 (♂).

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Casey 1909:156; Nelson 1975b:111 (♂, ♀), figs. 45, 69 (♂ genitalia, adult); Akiyama &

Ohmomo 2000: fig. 741 (♂).

Ecology: Nelson 1975b (biol., distr.); Bright 1987; Davies 1991 (distr.).

Distribution: **Canada:** MB, NT, ON, PQ, SK; **USA:** IA, MI, MN, NB, WI

Host(s): adults on *Pinus banksiana* Lamb.

manca LeConte 1860 [syn. of *tuberculata*]

montana Casey 1909 [syn. of *tenebrosa tenebrosa*]

morio Casey 1909 [syn. of *lugubris*]

mystica Casey 1909 [syn. of *tenebrosa tenebrosa*]

pinorum Casey 1909 [syn. of *punctulata*]

punctulata (Schönherr) 1817:123 (*Buprestis*).

Type locality: GA – Type depository: NHRS (♀).

synonym: *transversa* (Say) 1825:249 (*Buprestis*) – Synonymy: LeConte 1857a:7.

Type locality: none stated – Type depository: type destroyed.

synonym: *pinorum* Casey 1909:154 (as subspecies of *punctulata*) – Synonymy: Leng 1920:180.

Type locality: NC, Southern Pines – Type depository: USNM 35843 (♂).

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Casey 1909:154; Nelson 1975b:113 (♂, ♀), figs. 46, 68 (♂ genitalia, adult); Akiyama &

Ohmomo 2000: fig. 733 (♀ as *punctata*).

Ecology: Knull 1920 (biol.); Nelson 1975b (biol., distr.); Nelson 1987a; Davies 1991; MacRae & Nelson 2003 (distr.); Westcott 2005 (distr.).

Distribution: **Canada:** ON, PQ; **USA:** AL, CT, DC, DE, FL, GA, IA, IN, LA, MA, MD, MI, MS, MO, NC, NH, NJ, NY, OH, OK, PA, RI, SC, TX, VA, WI, WV

Host(s): larvae in *Pinus echinata* Mill., *P. rigida* Mill., *P. strobus* L. and *P. taeda* L.

scobina Chevrolat 1838 [syn. of *tuberculata*]

sexualis Crotch 1873:87.

Type locality: OR – Type depository: MCZC 5076 (♀).

Taxonomy: Nelson 1975b.

Redescription: Nelson 1975b:108 (♂, ♀), figs. 22, 28, 44, 66 (parts, ♂ genitalia, adult); Akiyama &

Ohmomo 2000: fig. 738 (♂, ♀).

Ecology: Nelson 1975b (biol., distr.); Davies 1991 (distr.); Westcott 2005 (distr.).

Distribution: **Canada:** BC; **USA:** CA, ID, MT, NV, OR, WA

Host(s): larvae in *Pseudotsuga menziesii* (Mirb.) Franco; adults also on *Pinus attenuata* Lemmon and *P. jeffreyi* Grev. & Balf.

stolida Casey 1909 [syn. of *tenebrosa tenebrosa*]

tenebrosa knulli Nelson 1975b:105 (♂, ♀), fig. 24 (elytra apex).

Type locality: VA, New Kent Co. – Type depository: USNM 72511 (♂).

Taxonomy: Nelson 1975b.

Ecology: Howden & Vogt 1951 (biol. as *tenebrosa*); Nelson 1975b (biol., distr.); Westcott 2006 (distr.).

Distribution: **USA:** FL, GA, MD, NC, VA, WV

BUPRESTIDAE: Chrysochroinae: Dicerini— Buprestinae: Buprestini

Host(s): adults on *Pinus echinata* Mill. and *P. virginiana* Mill.

tenebrosa tenebrosa (Kirby) 1837:155 (*Buprestis*).

Type locality: No. Amer., Lat. 65° – Type depository: BMNH.

synonym: *distinguenda* (Laporte & Gory) 1837:100, plate 26, fig. 137 (adult) (*Buprestis*) – Synonymy: Leng 1920:180.

Type locality: “Brésil interior” (error) – Type depository: MNHN.

synonym: *chrysea* Melsheimer 1845:143 – Synonymy: Nelson 1975b:103.

Type locality: PA – Type depository: lost (MCZC?).

synonym: *bifoveata* LeConte 1860:202 – Synonymy: Nelson 1975b:103.

Type locality: Lake Superior – Type depository: MCZC 2657 (♀).

synonym: *acerba* Casey 1909:158 – Synonymy: Nelson 1975b:103.

Type locality: Canada: ON, Sudbury – Type depository: USNM 35848 (♀).

synonym: *montana* Casey 1909:159 – Synonymy: Nelson 1975b:103.

Type locality: MT – Type depository: USNM 35849 (♀) (Lectotype designation: Nelson 1985b:139).

synonym: *mystica* Casey 1909:159 (as subspecies of *bifoveata*) – Synonymy: Nelson 1975b:103.

Type locality: MI – Type depository: USNM 35847 (♀).

synonym: *stolida* Casey 1909:160 – Synonymy: Nelson 1975b:103.

Type locality: CO – Type depository: USNM 35851 (♀).

synonym: *wickhami* Casey 1909:160 – Synonymy: Nelson 1975b:103.

Type locality: WI, Bayfield – Type depository: USNM 35840 (♀).

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Nelson 1975b:103 (♂, ♀), figs. 19, 31, 36, 42, 64 (parts, ♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 736 (♂, ♀).

Ecology: Nelson 1975b (biol., distr.); Nelson, *et al.* 1981; Bright 1987; Davies 1991 (distr.).

Distribution: **Canada:** AB, BC, MB, NB, NS, NT, ON, PE, PQ, SK, YT; **USA:** AK, AZ, CA, CO, CT, ID, ME, MI, MN, MT, NE, NH, NM, NY, OR, PA, SD, UT, VT, WA, WI, WY

Host(s): adults on *Abies balsamea* (L.) Mill., *A. concolor* (Gord. & Glend.) Lindl., *Picea glauca* (Moench) Voss, *Pinus banksiana* Lamb., *P. contorta* Loud., *P. flexilis* James, *P. ponderosa* Laws., *P. resinosa* Ait., *P. scopulorum* Engelm. and *Pseudotsuga menziesii* (Mirb.) Franco.

transversa (Say 1825) [syn. of *punctulata*]

tuberculata (Laporte & Gory) 1837:99, plate 25, fig. 135 (adult) (*Buprestis*).

Type locality: “Amer. Bor.” – Type depository: MNHN.

synonym: *scobina* Chevrolat 1838:66 – Synonymy: Nelson 1975b:117.

Type locality: MA, Boston – Type depository: BMNH.

synonym: *hilaris* LeConte 1860:200 – Synonymy: LeConte 1873:331.

Type locality: NY, Brooklyn – Type depository: MCZC 2659 (♀).

synonym: *manca* LeConte 1860:201 – Synonymy: LeConte 1873:331.

Type locality: NY – Type depository: MCZC 2660 (♀).

Taxonomy: Casey 1909; Nelson 1975b.

Redescription: Casey 1909:158; Nelson 1975b:117 (♂, ♀), figs. 48, 70 (♂ genitalia, adult); Akiyama & Ohmomo 2000: fig. 739 (♀).

Ecology: Knull 1922 (biol.); Nelson 1975b (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada:** NB, NS, ON, PQ; **USA:** CT, MA, ME, MI, NC, NH, NY, PA, VA

Host(s): larvae in *Tsuga canadensis* (L.) Carr.; adults also on *Abies balsamea* (L.) Mill., *Larix laricina* (DuRoi) K. Koch., *Picea glauca* (Moench) Voss, *Pinus banksiana* Lamb. and *Thuja occidentalis* L.

wickhami Casey 1909 [syn. of *tenebrosa tenebrosa*]

Subfamily Buprestinae Leach 1815

Bupresti Leach 1815:85.

Buprestides vrais (Group I) Lacordaire 1857.

Buprestes LeConte 1861.

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Bílý 1999a; Kolibác 2001; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Kerremans 1893:107; 1903:124; Arnett 1962:483 (genera); Nelson 1982:432 (tribes); Downie & Arnett 1996:740 (NE No. Amer. genera); Bellamy & Nelson 2002:102 (tribes & genera).

Tribe Buprestini Leach 1815

Buprestini Leach 1815:85.

Type genus: *Buprestis* Linnaeus 1758.

Buprestides Leach 1815.

Buprestides vrais Lacordaire 1857 (part).

Buprestites LeConte 1861 (part).

Buprestes Kerremans 1893 (part).

Ancylochirina Jakobson 1913.

Type genus: *Ancylocheria* Eschscholtz 1829.

Ancylocheirini Richter 1952.

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Kerremans 1893:108; 1903:138; Arnett 1962:483; Bellamy & Nelson 2002:103 (genera).

Subtribe Trachykelina Hołyński 1988

Trachykelina Hołyński 1988:51.

Type genus: *Trachykele* Marseul 1865.

Classification: Hołyński 1988; 1993; Bellamy & Nelson 2002; Bellamy 2003a.

Genus *Trachykele* Marseul 1865

Trachykele Marseul 1865:149.

Type species: *Trachykele blondeli* Marseul 1865 (fixed by monotypy).

Immature stages: Burke 1917a: plate 4, fig. 2 (larva).

Taxonomy: Cobos 1974b; Nelson 1981; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Ecology: Burke 1917b (biol., distr.).

Key(s): Fall 1906:165; Barr 1971:57 (Pacific NW).

***blondeli blondeli* Marseul 1865:150.**

Type locality: Liban (error) – Type depository: MNHN (♀).

Immature stages: Burke 1928: figs. 3, 5–8 (life cycle, larva); Hopping 1928: plate 2 (egg, larva, pupa).

Redescription: Burke 1928 (♂, ♀); Hopping 1928: plate 1 (adult); Barr 1971: plate 6, fig. 3 (adult); Akiyama & Ohmomo 2000: fig. 789–1 (♂).

Ecology: Burke 1917b; 1920a; 1928; Hopping 1928; Beer 1970; Westcott 1991 (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada:** BC; **USA:** AZ, CA, NM, OR, WA; also recorded from Mexico.

Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin, *Chamaecyparis lawsoniana* (A. Murr.) Parl., *Cupressus arizonica* Greene, *C. macnabiana* A. Murr., *C. macrocarpa* Gord., *C. sargentii* Jeps. and *Thuja plicata* D. Don.

***blondeli cupreomarginata* Helfer 1953b:176 (♂, ♀).**

Type locality: CA, Marin Co., Cypress Ridge – Type depository: CASC 8115 (♂).

Taxonomy: Helfer 1953b.

Redescription: Helfer 1970:96 fig. (adult); Akiyama & Ohmomo 2000: fig. 789–2 (♂).

Ecology: Helfer 1970; Nelson, *et al.* 1981 (biol.).

Distribution: **USA:** CA

Host(s): larvae in *Cupressus goveniana* Gord. ssp. *pygmaea* (Lemmon) J. Bartel, *C. macrocarpa* Gord. and *C. sargentii* Jeps.

***blondeli juniperi* Burke 1928:8 (♂, ♀).**

Type locality: CA, Eldorado Co., Strawberry, Pyramid Ranger Sta. – Type depository: USNM 29072 (♀).

Immature stages: Burke 1928:9 (larva).

Distribution: **USA:** CA

Host(s): larvae in *Juniperus occidentalis* Hook.

cupreomarginata Helfer 1953 [ssp. of *blondeli*]

***fattigi* Knull 1954:294, fig. 2 (adult).**

Type locality: GA, Stone Mtn. – Type depository: FMNH (♀).

BUPRESTIDAE: Buprestinae: Buprestini

Redescription: Beer 1974 (♂).

Distribution: **USA:** GA

Host(s): larvae in *Juniperus virginiana* L.

hartmani Burke 1920b:169 (♂, ♀).

Type locality: CA, Lake Co., Mtn. St. Helena – Type depository: USNM 22804 (♀).

Distribution: **USA:** CA

Host(s): larvae in *Cupressus sargentii* Jeps.

juniperi Burke 1928 [ssp. of *blondeli*]

lecontei (Gory) 1841:107, plate 18, fig. 104 (adult) (*Buprestis*).

Type locality: “Amer. Bor.” – Type depository: MNHN.

Immature stages: Burke 1917a: plate 4, fig. 2 (larva).

Redescription: Akiyama & Ohmomo 2000: fig. 793 (♂, ♀).

Ecology: Burke 1917b; 1920a; Knull 1964 (biol., distr.).

Distribution: **USA:** AL, GA, LA, MS, NC, SC, TX, VA

Host(s): larvae in *Taxodium distichum* Rich.

nimbosa Fall 1906:164.

Type locality: CA, Tulare Co., Marble Bridge, 5200' – Type depository: MCZC 24435 (♀).

Redescription: Bright 1987, fig. 126 (adult); Akiyama & Ohmomo 2000: fig. 792 (♂, ♀).

Ecology: Burke 1917b; 1920a; Barr 1971 (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada:** BC; **USA:** CA, ID, OR, WA

Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *A. grandis* (Dougl.) Lindl., *A. magnifica* A.

Murr. and *Tsuga mertensiana* (Bong.) Carr.

opulenta Fall 1906:162.

Type locality: CA, Tulare Co., Giant Forest Region – Type depository: MCZC 24436 (♂).

Immature stages: Burke 1928: fig. 9 (pupa).

Redescription: Good 1925: plate 8 (wing); Akiyama & Ohmomo 2000: fig. 790 (♂).

Ecology: Burke 1917b; 1920a (biol., distr.); Van Duzee 1923 (biol.); Nelson, *et al.* 1981 (distr.).

Distribution: **USA:** CA, OR

Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin and *Sequoiadendron giganteum* (Lindl.) Buchh.

Subtribe Buprestina Leach 1815

Buprestini Leach 1815:85.

Buprestes: LeConte & Horn 1883.

Ancylochirina Jakobson 1991.

Type genus *Ancylochira* Eschscholtz 1829.

Genus Buprestis Linnaeus 1758

Buprestis Linnaeus 1758:408.

Type species *Buprestis octoguttata* Linnaeus 1758 (fixed by subsequent designation: Opinion 1784, ICZN 1994:280).

Buprestis (Anoplis) Kirby 1837:151 – Synonymy: Kerremans 1903:140.

Type species: *Buprestis rustica* Linnaeus 1758 (fixed by original designation).

Immature stages: Burke 1917a (larvae); Rees 1941 (first instar larva).

Taxonomy: Casey 1909; Burke 1917a; Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Nicolay & Weiss 1918:80; Helfer 1941:124; Bright 1987:94; Kurosawa 1988:268.

Ecology: Nicolay & Weiss 1918 (life cycle); Helfer 1941 (biol., distr.).

Key(s): Helfer 1941:131 (No. Amer.); Barr 1971:61 (Pacific NW); Wellso, *et al.* 1976:8 (MI); MacRae 1991:109 (MO).

subgenus Buprestis (Buprestis) Linnaeus 1758

Buprestis Linnaeus 1758:408.

Type species *Buprestis octoguttata* Linnaeus 1758.

acomana Casey 1909 [syn. of *lyrata*]

adducta Casey 1909 [syn. of *lyrata*]

adonea Casey 1909 [syn. of *subornata*]

alternans (LeConte 1860) [syn. of *nutalli*]

boulderensis Casey 1909 [syn. of *nutalli*]

caliginosa Casey 1909 [syn. of *lyrata*]

conicicauda Casey 1909 [syn. of *nutalli*]

consularis Gory 1840:120, plate 21, fig. 118 (adult).

Type locality: "Amer. Bor." – Type depository: MNHN (♀) (Lectotype not designated).

synonym: *flavopicta* Casey 1909:96 – Synonymy: Casey 1914:355.

Type locality: WI, Lake Superior, Bayfield – Type depository: USNM 35757 (♂) (Lectotype designation: Bellamy & Nelson 1990:292).

Taxonomy: Casey 1914; Knull 1947b; Bellamy & Nelson 2002.

Redescription: Knull 1947b: figs. 3, 4 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 908 (♂, ♀).

Ecology: Burke 1918b; Howden & Vogt 1951 (biol.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Peck & Thomas 1998 (distr.); Wellso & Jackman 2006 (distr. & biol.).

Distribution: **Canada:** ON, PQ; **USA:** AL, AZ, CO, FL, MA, MD, ME, MI, MN, MS, NE, NJ, NM, NY, SC, SD, TX, VA, WI, WV

Host(s): larvae in *Picea glauca* (Moench) Voss., *Pinus resinosa* Ait., *P. rigida* Mill., *P. taeda* L. and *P. virginiana* Mill.

contorta Casey 1909 [syn. of *nutalli*]

davisi Nicolay & Weiss 1918 [syn. of *lineata*]

deficiens Casey 1909 [syn. of *maculipennis*]

diruptans Casey 1909 [syn. of *nutalli*]

flavopicta Casey 1909 [syn. of *consularis*]

fusca Casey 1909 [syn. of *lyrata*]

gravidula Casey 1909 [syn. of *nutalli*]

fusiformis Casey 1909 [syn. of *maculipennis*]

histrion Casey 1909 [syn. of *subornata*]

inconstans Melsheimer 1845 [syn. of *maculipennis*]

laeviventris (LeConte) 1857b:43 (*Ancylochira*).

Type locality: northern CA – Type depository: MCZC 2668.

synonym: *pugetana* Casey 1909:94 (as subspecies) – Synonymy: Nicolay & Weiss 1918:98.

Type locality: WA – Type depository: USNM 35751 (♀).

Immature stages: Burke 1917a: plate 2, fig. (larva).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941 (as subspecies of *nutalli*).

Redescription: Helfer 1941:171 (♂, ♀), plate 7, fig. 4 (adult); Akiyama & Ohmomo 2000: fig. 909 (♂, ♀).

Ecology: Chamberlin 1917; Burke 1918b; Helfer 1941(biol.); Davis 1991; Westcott 2001b (distr.); 2005 (distr.).

Distribution: **Canada:** BC; **USA:** AZ, CA, ID, MT, NM, OR, SD, UT, WA

Host(s): larvae in *Pinus contorta* Loud. var. *murrayana* (Grev. & Balf.) Critchf., *P. lambertiana* Dougl., *P. ponderosa* Laws., *P. radiata* D. Don, *P. sabiniana* Dougl. and *Pseudotsuga menziesii* (Mirb.) Franco.

lecontei Saunders 1871 [syn. of *lyrata*]

leporina Casey 1909 [syn. of *maculipennis*]

lineata Fabricius 1775:217.

Type locality: "Amer." – Type depository: BMNH, UZMC (Lectotype not designated).

synonym: *davisi* Nicolay & Weiss 1918:95 (as variety of *lineata*) – Synonymy: Helfer 1941:157.

Type locality: FL, Big Pine Key – Type depository: USNM (♂).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941.

Redescription: Nicolay & Weiss 1918: plate 5 (elytra); Helfer 1941:157 (♂, ♀), plate 4 (♂ genitalia), plate 7 (adult).

Ecology: Burke 1918b; Knull 1922; 1932; Helfer 1941 (biol., distr.); Howden & Vogt 1951 (biol.); Nelson, *et al.* 1981; Nelson 1987a; Davis 1991; Dearborn & Donahue 1993 (distr.).

Distribution: **Canada:** NS, ON, PQ; **USA:** AL, AR, DC, DE, FL, GA, IN, LA, MA, MD, ME, MS, NC, NH, NJ, NY, OK, PA, RI, SC, TN, TX, VA, WV; also recorded from the West Indies.

Host(s): larvae in *Pinus echinata* Mill., *P. palustris* Mill., *P. rigida* Mill., *P. strobus* L., *P. sylvestris* L., *P. taeda* L. and *P. virginiana* Mill.

BUPRESTIDAE: Buprestinae: Buprestini

lyrata Casey 1909:103.

Type locality: BC, Golden – Type depository: USNM 35770 (♂) (Lectotype not designated).

misidentification: *rusticorum* of Gory 1841, not *rusticorum* Kirby 1837.

synonym: *lecontei* Saunders 1871:40 (unjustified new name for *rusticorum*) *sensu* Gory 1840, of authors, not *rusticorum* Kirby 1837.

synonym: *acomana* Casey 1909:100 – Synonymy: Nicolay & Weiss 1918:91.

Type locality: NM, Cloudercroft – Type depository: USNM 35764 (♂).

synonym: *fusca* Casey 1909:101 – Synonymy: Nicolay & Weiss 1918:91.

Type locality: CO – Type depository: USNM 35766 (♀) (Lectotype designation: Bellamy & Nelson 1990:292).

synonym: *morosa* Casey 1909:101 – Synonymy: Nicolay & Weiss 1918:91.

Type locality: KS (?) – Type depository: USNM 35765 (♀).

synonym: *caliginosa* Casey 1909:102 – Synonymy: Nicolay & Weiss 1918:91.

Type locality: CO, Boulder Co. – Type depository: USNM 35768 (♂) (Lectotype designation: Bellamy & Nelson 1990:292).

synonym: *nigricans* Casey 1909:102 – Synonymy: Nicolay & Weiss 1918:91.

Type locality: MT – Type depository: USNM 35769 (♀).

synonym: *sublivida* Casey 1909:102 (as subspecies of *fusca*) – Synonymy: Nicolay & Weiss 1918:91.

Type locality: MT – Type depository: USNM 35767 (♀).

synonym: *adducta* Casey 1909:103 – Synonymy: Nicolay & Weiss 1918:91.

Type locality: OR – Type depository: USNM 35771 (♀) (Lectotype designation: Bellamy & Nelson 1990:291).

synonym: *unicus* Miwa & Chûjô 1935:272, fig. 18 – Synonymy: Kurosawa 1989:189.

Type locality: Japan, Hyôgo Pref., Akashi – Type depository: TARI (♂).

Immature stages: Rees 1941:210, plate 22 (first instar larva as *rusticorum*).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941 (as *rusticorum*); Barr 1972c; Bright 1987.

Redescription: Helfer 1941:165 (♂, ♀), plate 4, fig. 5 (♂ genitalia), plate 8, fig. 2 (adult) (as *rusticorum*); Bright 1987; Akiyama & Ohmomo 2000: fig. 901 (♂, ♀).

Ecology: Chamberlin 1917; Burke 1918b; Helfer 1941 (distr. & biol. all as *rusticorum*); Bright 1987; Davies 1991 (distr.).

Distribution: **Canada:** BC, MB, SK **USA:** AZ, CA, CO, ID, KS, MT, NM, NV, OR, SD, TX, UT, WA
Host(s): larvae in *Abies grandis* (Dougl.) Lindl., *Pinus ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

maculiventris Say 1824:272.

Type locality: Canada, Northwest Territory – Type depository: type destroyed.

synonym: *paganorum* Kirby 1837:152 – Synonymy: Barr 1972c:343.

Type locality: Canada: SK, Cumberland-house, Lat. 54° – Type depository: BMNH?

misidentification: *maura* of Laporte & Gory 1837, not *maura* Olivier 1790.

synonym: *rusticorum* Kirby 1837:151 – Synonymy: Barr 1972c:343.

Type locality: Lat. 54° – Type depository: BMNH.

synonym: *sexnotata* Laporte & Gory 1837:129, plate 32, fig. 178 (adult) – Synonymy: LeConte 1860:208.

Type locality: “Amer. Bor.” – Type depository: MNHN (♀).

misspelling: *maculiventris* Gemminger & Harold 1869 (*maculiventris* [sic!], subsequent incorrect spelling, unavailable name).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941.

Redescription: Helfer 1941:161 (♂, ♀), plate 4, fig. 3 (♂ genitalia), plate 7, fig. 6 (adult); Akiyama & Ohmomo 2000: fig. 896 (♂, ♀).

Ecology: Helfer 1941; Bright 1987 (biol., distr.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Davies 1991 (distr.); Westcott 1991; 2001b.

Distribution: **Canada:** AB, BC, MB, NF, NS, NT, ON, PQ, SK; **USA:** CO, IN, MA, ME, MI, MN, MT, NE, NH, NM, NY, PA, SD, VT, WI, WY; also recorded from the West Indies.

Host(s): larvae in *Abies fraseri* (Pursh) Poir., *Picea* sp., *Pinus echinata* Mill., *P. resinosa* Ait. and *P. strobus* L.

maculipennis Gory 1840:118, plate 21, fig. 117 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN (♀) (Lectotype not designated).

synonym: *inconstans* Melsheimer 1845:146 – Synonymy: Kerremans 1892:96.

Type locality: PA – Type depository: MCZC (♂).

synonym: *deficiens* Casey 1909:90 (as subspecies of *maculipennis*) – Synonymy: Casey 1914:355.

Type locality: NC, Southern Pines – Type depository: USNM 35745 (♀) (Lectotype designation: Bellamy & Nelson 1990:293).

synonym: *fusiformis* Casey 1909:91 (as subspecies of *maculipennis*) – Synonymy: Nicolay & Weiss 1918:93.

Type locality: VA, Cape Henry – Type depository: USNM 35747 (♀).

synonym: *scripta* Casey 1909:91 (as ssp. of *inconstans*) – Synonymy: Nicolay & Weiss 1918:93.

Type locality: MI – Type depository: USNM 35749 (♀) (Lectotype not designated).

synonym: *leporina* Casey 1909:92 – Synonymy: Nicolay & Weiss 1918:93.

Type locality: MI – Type depository: USNM 35748 (♀) (Lectotype designation: Bellamy & Nelson 1990:292).

synonym: *reducta* Casey 1909:92 – Synonymy: Nicolay & Weiss 1918:93.

Type locality: NY, Adirondack Mtns. – Type depository: USNM 35746 (♀).

Taxonomy: Casey 1914; Nicolay & Weiss 1918; Helfer 1941.

Redescription: Nicolay & Weiss 1918 (elytral variation); Helfer 1941:159 (♂, ♀), plate 4 (♂ genitalia), plate 7 (adult); Akiyama & Ohmomo 2000: fig. 913 (♂, ♀).

Ecology: Knull 1922; Howden & Vogt 1951 (biol.); Nelson, *et al.* 1981; Bright 1987; Davies 1991 (distr.); Westcott 1991; MacRae 2006 (biol., distr.).

Distribution: **Canada:** MB, ON, PQ, SK; **USA:** AL, FL, GA, IN, LA, MA, ME, MI, MO, MS, NC, NH, NJ, NY, PA, SC, TX, VA, WI, WV

Host(s): larvae in *Pinus virginiana* Mill., *Taxodium distichum* (L.) Rich. and *Tsuga canadensis* (L.) Carr.

morosa Casey 1909 [syn. of *lyrata*]

nigricans Casey 1909 [syn. of *lyrata*]

nutalli Kirby 1837:152.

Type locality: Lat 65° & on the Rocky Mtns. – Type depository: BMNH.

synonym: *alternans* (LeConte) 1860:207 (*Ancylochira*) – Synonymy: Kerremans 1892:97.

Type locality: NM, Santa Fe – Type depository: MCZC 2667 (♀).

synonym: *conicicauda* Casey 1909:93 (as subspecies of *alternans*) – Synonymy: Nicolay & Weiss 1918:106.

Type locality: AZ, Walnut – Type depository: USNM 35750 (♀).

synonym: *contorta* Casey 1909:94 – Synonymy: Nicolay & Weiss 1918:106.

Type locality: WA, Tacoma – Type depository: USNM 35753 (♂).

synonym: *diruptans* Casey 1909:94 – Synonymy: Nicolay & Weiss 1918:106.

Type locality: NM – Type depository: USNM 35752 (♂) (Lectotype designation: Bellamy & Nelson 1990:292).

synonym: *gravidula* Casey 1909:95 – Synonymy: Nicolay & Weiss 1918:106.

Type locality: CA – Type depository: USNM 35755 (♂).

synonym: *torva* Casey 1909:95 (as subspecies of *gravidula*) – Synonymy: Nicolay & Weiss 1918:106.

Type locality: WA – Type depository: USNM 35754 (♂).

synonym: *boulderensis* Casey 1909:96 (as subspecies of *gravidula*) – Synonymy: Nicolay & Weiss 1918:106.

Type locality: CO, Boulder Co. – Type depository: USNM 35756 (♀) (Lectotype designation: Bellamy & Nelson 1990:292).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941.

Redescription: Knull 1947b: figs. 1, 2 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 907 (♂, ♀).

Ecology: Helfer 1941 (in part); Dearborn & Donahue 1993; MacRae 2006 (biol., distr.).

Distribution: **Canada:** AB, BC, NT, YT; **USA:** AK, AZ, CA, CO, ID, ME, MT, NM, OR, SD, TX, UT, WA, WY

Host(s): larvae in *Pinus cembroides* Zucc., *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.; adults also on *Pinus strobus* L.

paganorum Kirby 1837 [syn. of *maculativentris*]

parmaculativentris Knull 1958b:154, figs. 3–4 (♂ genitalia).

Type locality: TX, Chisos Mtns. – Type depository: FMNH (♂).

BUPRESTIDAE: Buprestinae: Buprestini

Taxonomy: Knull 1958b.

Redescription: Nelson 1980a:87 (♀), figs. 4, 5 (♂ & ♀ last abd. ventrite); Akiyama & Ohmomo 2000: fig. 902 (♂, ♀).

Ecology: Nelson 1980a; MacRae & Nelson 2003 (biol.)

Distribution: USA: TX

Host(s): larvae in *Pinus cembroides* Zucc.

pugetana Casey 1909 [syn. of *laeviventris*]

punctiventris Casey 1909 [syn. of *subornata*]

reducta Casey 1909 [syn. of *maculipennis*]

rubronotans Casey 1909 [syn. of *subornata*]

rusicorum Kirby 1837 [syn. of *maculativentris*]

scripta Casey 1909 [syn. of *maculipennis*]

sexnotata Laporte & Gory 1837 [syn. of *maculativentris*]

sublivida Casey 1909 [syn. of *lyrata*]

subornata (LeConte) 1860:208 (*Ancylochira*).

Type locality: NM – Type depository: MCZC 2669 (Lectotype not designated).

synonym: *adonea* Casey 1909:97 – Synonymy: Nicolay & Weiss 1918:92.

Type locality: MT – Type depository: USNM 35760 (♀).

synonym: *rubronotans* Casey 1909:97 – Synonymy: Nicolay & Weiss 1918:92.

Type locality: CO (?) – Type depository: USNM 35768 (♀).

synonym: *histrion* Casey 1909:98 – Synonymy: Nicolay & Weiss 1918:92.

Type locality: UT, Stockton – Type depository: USNM 35761 (♀).

synonym: *punctiventris* Casey 1909:99 (as subspecies of *subornata*) – Synonymy: Casey 1914:355.

Type locality: CO, Boulder Co. – Type depository: USNM 35762 (♀).

synonym: *violescens* Casey 1909:99 – Synonymy: Nicolay & Weiss 1918:92.

Type locality: KS – Type depository: USNM 35763 (♀).

Taxonomy: Casey 1914; Nicolay & Weiss 1918; Helfer 1941.

Redescription: Helfer 1941:163 (♂, ♀), plate 4, fig. 4 (♂ genitalia), plate 8, fig.1 (adult); Akiyama & Ohmomo 2000: fig. 903 (♂, ♀).

Ecology: Burke 1918b; Helfer 1941; Nelson & Westcott 1976; Nelson 1987a (biol.); Davies 1991 (distr.).

Distribution: **Canada**: BC; **USA**: AZ, CA, CO, ID, KS, MT, NE, NM, OR, UT, WA

Host(s): larvae in *Pinus monophylla* Torr. & Frem., *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

torva Casey 1909 [syn. of *nutalli*]

violescens Casey 1909 [syn. of *subornata*]

subgenus *Buprestis* (*Cypriacis*) Casey 1909

Buprestis (*Cypriacis*) Casey 1909:116.

Type species: *Ancylochira lauta* LeConte 1854 (fixed by original designation) (= *aurulenta* Linnaeus 1767).

Taxonomy: Casey 1909; Burke 1917a; Nicolay & Weiss 1918; Helfer 1941; Richter 1952; Kurosawa 1988; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Kurosawa 1988:264.

Key(s): Casey 1909:117; Helfer 1941:131 (USA); Barr 1971:61 (Pacific NW); Wellso, *et al.* 1976:8 (MI).

adjecta (LeConte) 1854:17 (*Ancylochira*).

Type locality: WA, between Ft. Vancouver & Yokolt Plain – Type depository: MCZC 2674.

synonym: *brevis* Casey 1909:117 – Synonymy: Nicolay & Weiss 1918:84.

Type locality: BC, Vancouver Island, Nanaimo – Type depository: USNM 35792 (♀).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988; Bellamy & Nelson 2002.

Redescription: Helfer 1941:149 (♂, ♀), plate 3, figs. 8, 12b (♂ genitalia, ovipositor), plate 6 (adult); Barr 1971: plate 6 (adult); Akiyama & Ohmomo 2000: fig. 943 (♀).

Ecology: Burke 1918b; Helfer 1941; Beer 1949 (biol.); Nelson & Westcott 1976; Davies 1991 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** BC; **USA:** CA, CO, ID, MT, NM, NV, OR, WA, WY

Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *Pinus contorta* Loud. var. *murrayana* (Grev. & Balf.) Critchf., *P. jeffreyi* (Grev. & Balf.), *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

aemula Casey 1909 [syn. of *aurulenta*]

aurulenta Linnaeus 1767:661.

Type locality: Carolina – Type depository: LSUK.

synonym: *lauta* (LeConte) 1854:17 (*Ancylochira*) – Synonymy: Kerrermans 1892:94.

Type locality: OR – Type depository: MCZC 2672 (Lectotype not designated).

synonym: *radians* (LeConte) 1854:17 (*Ancylochira*) – Synonymy: Nicolay & Weiss 1918:82.

Type locality: WA, Ft. Vancouver – Type depository: MCZC 2673.

synonym: *chrysochlora* (Philippi) 1864:314 (*Stigmodera*) – Synonymy: Helfer 1941:140.

Type locality: Chile, Valparaiso – Type depository: MHNC.

synonym: *villosa* (LeConte) 1873:331 (*Ancylochira*) – Synonymy: Nicolay & Weiss 1918:82

Type locality: CA – Type depository: “type in coll. Lansberge” (MNHN?).

synonym: *fabulosa* Casey 1909:119 – Synonymy: Nicolay & Weiss 1918:82.

Type locality: Mexico, Chihuahua – Type depository: USNM 35795.

synonym: *nupta* Casey 1909:121 – Synonymy: Nicolay & Weiss 1918:82.

Type locality: ID, Coeur d’Alene – Type depository: USNM 35798 (♀).

synonym: *tacomae* Casey 1909:121 – Synonymy: Nicolay & Weiss 1918:82.

Type locality: WA, Tacoma – Type depository: USNM 35797 (♂).

synonym: *aemula* Casey 1909:121 – Synonymy: Nicolay & Weiss 1918:82.

Type locality: CO, Boulder Co. – Type depository: USNM 35796 (♀).

synonym: *venusta* Casey 1909:122 – Synonymy: Nicolay & Weiss 1918:82.

Type locality: CA – Type depository: USNM 35799 (♀) (Lectotype designation: Bellamy & Nelson 1990:293).

synonym: *adulans* Casey 1909:123 – Synonymy: Nicolay & Weiss 1918:83.

Type locality: CA, Yreka – Type depository: USNM 35801 (♀).

synonym: *affinis* Casey 1909:123 – Synonymy: Nicolay & Weiss 1918:83.

Type locality: OR – Type depository: USNM 35802 (♀).

synonym: *sterbai* Obenberger 1943:109 – Synonymy: Kurosawa 1989:190 (under *venusta* Casey).

Type locality: Japan meridionalis – Type depository: NMPC 21996 (♂).

Immature stages: Burke 1917a: plate 1, fig. 4 (larva).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:140 (♂, ♀), plate 3, fig. 4 (♂ genitalia), plate 5 (adult); Barr 1971: plate 6 (adult); Akiyama & Ohmomo 2000: figs. 938, 939, 940 (♂ & ♀ as *aurulenta*, *adulans*, & *tacoynae*).

Ecology: Burke 1918b; Helfer 1941; Chamberlin 1947; Beer 1949 (biol.); Bright 1987 (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada:** AB, BC, MB; **USA:** AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY; also recorded from Mexico.

Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *A. grandis* (Dougl.) Lindl., *Pinus contorta* Loud., *P. flexilis* James, *P. jeffreyi* Grev. & Balf., *P. lambertiana* Dougl., *P. muricata* D. Don, *P. ponderosa* Laws., *P. radiata* D. Don, *Pseudotsuga menziesii* (Mirb.) Franco and *Thuja plicata* D. Don.

brevis Casey 1909 [syn. of *adjecta*]

canadensis Casey 1909 [syn. of *striata*]

chrysochlora (Philippi 1864) [syn. of *aurulenta*]

contortae Hopping 1933 [syn. of *intricata*]

fabulosa Casey 1909 [syn. of *aurulenta*]

impedita Say 1833 [syn. of *striata*]

intricata Casey 1909:118.

Type locality: NM – Type depository: USNM 35793.

synonym: *contortae* Hopping 1933:84 (preoccupied: *contortae* Casey 1909).

Type locality: Canada: BC, Midday Valley, Merritt – Type depository: CNCI 3267 (♂).

synonym: *murrayanae* Hopping 1934:174 (replacement name for *contortae* Hopping 1933).

BUPRESTIDAE: Buprestinae: Buprestini

Taxonomy: Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:146 (♂, ♀), plate 3, figs. 7, 12a (♂ genitalia, ovipositor), plate 6, fig. 2 (adult); Akiyama & Ohmomo 2000: fig. 942 (♂).

Ecology: Helfer 1941 (biol., distr.); Nelson & Westcott 1976; Bright 1987; Davies 1991; Nelson, *et al.* 1996 (distr.).

Distribution: **Canada:** AB, BC; **USA:** AZ, CA, CO, ID, MT, NM, OR, WA, WY

Host(s): larvae in *Pinus contorta* Loud.; adults also on *P. ponderosa* Laws.

lateralis Casey 1909 [syn. of *sulcicollis*]

lauta (LeConte 1854) [syn. of *aurulenta*]

murrayanae Hopping 1934 [syn. of *intricata*]

nupta Casey 1909 [syn. of *aurulenta*]

obscura Casey 1909 [syn. of *striata*]

prospera Casey 1909:122.

Type locality: NM – Type depository: USNM 35800.

Taxonomy: Knull 1947b; Kurosawa 1988.

Ecology: Nelson & Westcott 1976; Walters & Bellamy 1982; Westcott 1991 (distr.).

Distribution: **USA:** AZ, CA, NM, NV, UT

Host(s): adults on *Pinus monophylla* Torr. & Frem.

radians (LeConte 1854) [syn. of *aurulenta*]

striata Fabricius 1775:217.

Type locality: PA – Type depository: BMNH.

synonym: *impedita* Say 1833:63 – Synonymy: Helfer 1941:144.

Type locality: PA, near Philadelphia – Type depository: type destroyed.

synonym: *canadensis* Casey 1909:124 – Synonymy: Nicolay & Weiss 1918:87.

Type locality: Canada: ON, Georgian Bay – Type depository: USNM 35803 (♀).

synonym: *obscura* Casey 1909:125 (preoccupied: Fabricius 1781) – Synonymy: Nicolay & Weiss 1918:85.

Type locality: PA – Type depository: USNM 35804 (♀) (Lectotype designation: Bellamy & Nelson 1990:293).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:144 (♂, ♀), plate 3, fig. 6 (♂ genitalia), plate 5, fig. 5 (adult); Akiyama & Ohmomo 2000: fig. 941 (♂, ♀).

Ecology: Knull 1922; Helfer 1941; Howden & Vogt 1951 (biol.); Nelson, *et al.* 1981; Bright 1987; Nelson & MacRae 1990; Davies 1991; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** NB, ON, PQ; **USA:** AL, AR, DC, FL, GA, IL, IN, LA, MA, MD, ME, MI, MO, NC, NH, NJ, NY, OH, PA, SC, TN, TX, VA, VT, WV; also recorded from the West Indies.

Host(s): larvae in *Picea* sp., *Pinus palustris* Mill., *P. rigida* Mill., *P. strobus* L., *P. virginiana* Mill. and *Tsuga canadensis* (L.) Carr.

sulcicollis (LeConte) 1860:209 (*Ancylochira*).

Type locality: Lake Superior – Type depository: MCZC 2671 (♀).

synonym: *lateralis* Casey 1909:119 – Synonymy: Nicolay & Weiss 1918:85.

Type locality: MI, Lake Superior, Whitefish Point – Type depository: USNM 35794 (♂).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:142 (♂, ♀), plate 3, fig. 5 (♂ genitalia), plate 5, fig. 4 (adult).

Ecology: Helfer 1941; Bright 1987 (biol., distr.); Davies 1991; Westcott 1991 (distr.).

Distribution: **Canada:** AB, MB, NS, NT, ON, PQ; **USA:** ME, MI, NH, NJ, NY, PA, WI

Host(s): larvae in *Pinus rigida* Mill. and *P. strobus* L.

tacomae Casey 1909 [syn. of *aurulenta*]

venusta Casey 1909 [syn. of *aurulenta*]

villosa (LeConte 1873) [syn. of *aurulenta*]

subgenus *Buprestis* (*Knulliobuprestis*) Kurosawa 1988

Buprestis (*Knulliobuprestis*) Kurosawa 1988:273.

Type species: *Buprestis rufipes* Olivier 1790 (fixed by original designation).

Taxonomy: Bellamy & Nelson 2002.

confluenta Say 1823:159.

Type locality: MO, Fort Osage – Type depository: type destroyed.

misspelling: *confluens* (misspelling).

synonym: *tesselata* Casey 1909:104 (as subspecies of *confluenta*) – Synonymy: Nicolay & Weiss 1918:98.

Type locality: TX – Type depository: USNM 35759 (♂).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988; Nelson 1991.

Redescription: Helfer 1941:181 (♂, ♀), plate 4, fig. 7 (♂ genitalia), plate 8, figs. 3, 5 (adults); Barr 1971: plate 6, fig. 9 (adult); Akiyama & Ohmomo 2000: fig. 927 (♂, ♀).

Ecology: Burke 1917b; 1918b (biol. as *confluens*); 1920a; Helfer 1941; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Davies 1991 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** AB, BC, MB, ON, PQ, SK; **USA:** CA, CO, IA, ID, IL, IN, KS, MI, MO, MT, ND, NE, NM, NV, OK, OR, SD, TX, UT, WA, WI, WY

Host(s): larvae in *Populus deltoides* Marsh., *P. deltoides* ssp. *monilifera* (Ait.) Eckenwalder and *P. tremuloides* Michx.

elongata Casey 1909 [syn. of *rufipes*]

fremontiae Burke 1924:70 (♂, ♀).

Type locality: CA, Madera Co., North Fork – Type depository: USNM 26885 (♀).

Taxonomy: Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:179 (♂, ♀), plate 4, fig. 11 (♂ genitalia), plate 9, fig. 2 (adult ♀); Akiyama & Ohmomo 2000: fig. 928 (♂, ♀).

Ecology: Helfer 1941 (biol., distr.).

Distribution: **USA:** CA

Host(s): larvae in *Fremontodendron californicum* (Torr.) Cov.

gibbsii (LeConte) 1857b:42, plate 1, fig. 17 (adult) (*Ancylochira*).

Type locality: WA, Steilacoom – Type depository: MCZC 2666.

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:175 (♂, ♀), plate 4, fig. 9 (♂ genitalia), plate 8, fig. 4 (adult ♀); Akiyama & Ohmomo 2000: fig. 931 (♂, ♀).

Ecology: Burke 1920a; 1924b; Beer 1941 (biol.); Helfer 1941 (biol., distr.).

Distribution: **USA:** CA, OR, WA

Host(s): larvae in *Quercus garryana* Hook. and *Q. kelloggii* Newb.

lesnei Garnett 1922 [syn. of *viridisuturalis*]

rufipes Olivier 1790:16, plate 73, fig. 7a, b (adult).

Type locality: “l’Amérique septentrionale, la Caroline” – Type depository: type destroyed (MNHN ?)

synonym: *elongata* Casey 1909:105 – Synonymy: Nicolay & Weiss 1918:106.

Type locality: NY – Type depository: USNM 35773.

synonym: *virens* Casey 1909:105 – Synonymy: Casey 1914:335.

Type locality: CA (probably an error) – Type depository: USNM 35772 (♀).

Taxonomy: Casey 1914; Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:173 (♂, ♀), plate 4, fig. 8 (♂ genitalia), plate 8, fig. 6 (adult); Akiyama & Ohmomo 2000: fig. 929 (♂, ♀).

Ecology: Dury 1902; Burke 1918b; Nicolay & Weiss 1918; Knull 1920; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AL, AR, DC, DE, FL, GA, IN, KS, KY, LA, MD, MO, NC, NJ, OH, OK, PA, SC, TX, VA, WV

Host(s): larvae in *Acer saccharinum* L., *A. saccharum* Marsh., *Fagus grandifolia* Ehrh., *Nyssa sylvatica* Marsh., *Quercus palustris* Muenchh., *Ulmus americana* L. and *U. rubra* Muhl.; adults also on *Platanus occidentalis* L.

tesselata Casey 1909 [syn. of *confluenta*]

virens Casey 1909 [syn. of *rufipes*]

viridisuturalis Nicolay & Weiss 1918:100.

Type locality: Southern CA, Tulare Co. – Type depository: USNM 35463 (♂).

misidentification: *gibbsii* of authors, not *gibbsii* LeConte 1857.

synonym: *lesnei* Garnett 1922:9 (as variety of *viridisuturalis*) – Synonymy: Helfer 1941:177.

BUPRESTIDAE: Buprestinae: Buprestini

Type locality: CA, San Bernardino Co., Oro Grande – Type depository: CASC 4508.

Taxonomy: Nicolay & Weiss 1918; Helfer 1941.

Redescription: Helfer 1941:177 (♂, ♀), plate 4, fig. 10 (♂ genitalia); Barr 1971: plate 7, figs. 1, 2 (♂, ♀); Akiyama & Ohmomo 2000: fig. 932 (♂, ♀).

Ecology: Burke 1920a (biol.); Helfer 1941 (biol., distr.); Westcott 2005 (distr.).

Distribution: USA: CA, NV, OR, WA

Host(s): larvae in *Alnus rhombifolia* Nutt., *Populus balsamifera* L. ssp. *trichocarpa* (T. & G.) Brayshaw, *P. deltoides* Bartr. ex Marsh., *P. fremontii* S. Wats. and *Salix gooddingii* Ball.

subgenus *Buprestis* (*Nelsonocheira*) Kurosawa 1988

Cypriacis (*Nelsonocheira*) Kurosawa 1988:266.

Type species: *Buprestis fasciata* Fabricius 1787 (fixed by original designation).

Taxonomy: Kurosawa 1988; Bellamy & Nelson 2002.

angusta Casey 1909 [syn. of *langii*]

bistrinotata Casey 1909 [syn. of *langii*]

callida Casey 1909 [syn. of *langii*]

crenata Casey 1909 [syn. of *langii*]

depressa Casey 1909 [syn. of *langii*]

fasciata Fabricius 1787:177.

Type locality: “Amer. Bor.” – Type depository: GUHC (♀).

synonym: *sexmaculata* Hausmann 1799:30 – Synonymy: Helfer 1941:155.

Type locality: “Amer. Sept.” – Type depository: unknown.

synonym: *sexplagiata* (LeConte) 1860:205 (*Ancylochira*) – Synonymy: Kerremans 1892:95.

Type locality: VT – Type depository: MCZC 2670 (♀) (Lectotype not designated).

synonym: *lherminieri* (Chevrolat) 1838:68 (*Ancylochira*) – Synonymy: Kerremans 1892:95.

Type locality: Insula Guadulpiae, Pointe à Pitre – Type depository: BMNH.

synonym: *fulgens* Casey 1909:106 – Synonymy: Casey 1914:355.

Type locality: Dakota – Type depository: USNM (♀) (Lectotype designation: Bellamy & Nelson 1990:292).

synonym: *fortunata* Casey 1909:107 (as subspecies of *sexplagiata* LeConte) – Synonymy: Nicolay & Weiss 1918:102.

Type locality: MI – Type depository: USNM (Lectotype not designated).

synonym: *saturata* Casey 1909:114 – Synonymy: Nicolay & Weiss 1918:102.

Type locality: MI, Lake Superior, Isle Royale – Type depository: USNM 35791.

Taxonomy: Casey 1914; Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.

Redescription: Good 1925: plate 8 (wing); Staig 1940: plate 40 (type); Helfer 1941:155 (♂, ♀), plate 3 (♂ genitalia), plate 6, 7 (♀, ♂); Akiyama & Ohmomo 2000: fig. 948 (♂, ♀).

Ecology: Helfer 1941; Nelson, *et al.* 1981; Bright 1987; Davies 1991 (distr.).

Distribution: **Canada**: MB, NB, NS, ON, PQ, SK; **USA**: AL, GA, IN, KY, MD, ME, MI, MN, MS, NC, NH, NJ, NY, OH, PA, VA, VT, WI; also recorded from the West Indies.

Host(s): adults on *Abies* sp., *Picea* sp. and *Quercus* sp.

fastidiosa Casey 1909 [syn. of *langii*]

fortunata Casey 1909 [syn. of *fasciata*]

fulgens Casey 1909 [syn. of *fasciata*]

graminea Casey 1909 [syn. of *langii*]

incolumis Casey 1909 [syn. of *langii*]

langii Mannerheim 1843:237.

Type locality: AK, “Insula Sitkha” – Type depository: UZMH (♀) (Lectotype designation: Nelson 1976:167).

synonym: *ornata* Walker 1866:324 – Synonymy: Nicolay & Weiss 1918:103.

Type locality: BC & Vancouver Island – Type depository: BMNH.

synonym: *angusta* Casey 1909:108 – Synonymy: Nicolay & Weiss 1918:103.

Type locality: CA – Type depository: USNM 35777 (♂).

synonym: *bistrinotata* Casey 1909:108 – Synonymy: Nicolay & Weiss 1918:103.

Type locality: CA – Type depository: USNM 35776.

- synonym: *callida* Casey 1909:109 – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: OR, Newport – Type depository: USNM 35778 (♂).
- synonym: *fastidiosa* Casey 1909:109 – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: CA – Type depository: USNM 35781 (♀) (Lectotype designation: Bellamy & Nelson 1990:292).
- synonym: *mediocris* Casey 1909:109 (as subspecies of *fastidiosa*) – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: CA – Type depository: USNM 35782.
- synonym: *crenata* Casey 1909:110 – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: CA – Type depository: USNM 35787 (♀) (Lectotype designation: Bellamy & Nelson 1990:292.).
- synonym: *seditiosa* Casey 1909:110 (as subspecies of *crenata*) – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: CA, Yreka – Type depository: USNM 35786 (♂).
- synonym: *leviceps* Casey 1909:110 – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: WA, Tacoma – Type depository: USNM 35788 (♀).
- synonym: *depressa* Casey 1909:111 – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: CA – Type depository: USNM 35779 (♂).
- synonym: *viridimicans* Casey 1909:111 – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: Canada: BC, Stickine River. Type depository: USNM 35780
- synonym: *incolumis* Casey 1909:112 (as subspecies of *langii*) – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: Canada: BC, Vancouver Island, Na naimo – Type depository: USNM 35785.
- synonym: *oregona* Casey 1909:112 (as subspecies of *langii*) – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: OR – Type depository: USNM 35783.
- synonym: *graminea* Casey 1909:113 – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: CO, Boulder Co. – Type depository: USNM 35790 (♀) (Lectotype designation: Bellamy & Nelson 1990:292).
- synonym: *obliqua* Casey 1909:113 (as subspecies of *langii*) – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: Canada: BC, Golden – Type depository: USNM 35784.
- synonym: *patruelis* Casey 1909:113 – Synonymy: Nicolay & Weiss 1918:104.
 Type locality: NM – Type depository: USNM 35789.
 Taxonomy: Casey 1914; Nicolay & Weiss 1918 (as variety of *fasciata*); Helfer 1941; Kurosawa 1988.
 Redescription: Helfer 1941:153 (♂, ♀), plate 3, fig. 10 (♂ genitalia), plate 6, figs. 4, 5 (adult ♂, ♀);
 Akiyama & Ohmomo 2000: fig. 947 (♂, ♀).
 Ecology: Helfer 1941; Beer 1949 (biol.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987
 (biol., distr.); Davies 1991 (distr.).
 Distribution: **Canada:** AB, BC, MB, SK; **USA:** AZ, CA, CO, ID, MT, NE, NM, NV, OR, SD, UT, WA, WY
 Host(s): larvae in *Pseudotsuga menziesii* (Mirb.) Franco.
- leviceps* Casey 1909 [syn. of *langii*]
lherminieri (Chevrolat 1838) [syn. of *fasciata*]
mediocris Casey 1909 [syn. of *langii*]
obliqua Casey 1909 [syn. of *langii*]
oregona Casey 1909 [syn. of *langii*]
ornata Walker 1866 [syn. of *langii*]
patruelis Casey 1909 [syn. of *langii*]
saturata Casey 1909 [syn. of *fasciata*]
seditiosa Casey 1909 [syn. of *langii*]
sexmaculata Hausmann 1799 [syn. of *fasciata*]
sexplagiata (LeConte 1860) [syn. of *fasciata*]
viridimicans Casey 1909 [syn. of *langii*]

subgenus *Buprestis* (*Stereosa*) Casey 1909

- Buprestis* (*Stereosa*) Casey 1909:126.
 Type species: *Buprestis decora* Fabricius 1775 (fixed by original designation).
 Taxonomy: Casey 1909; Burke 1917a; Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988; Bellamy

BUPRESTIDAE: Buprestinae: Buprestini, Phrxiini

& Nelson 2002.

Redescription: Kurosawa 1988:272.

Key(s): Helfer 1941 (No. Amer. sp.); Wellso, *et al.* 1976 (MI sp.).

apricans Herbst 1801:125, plate 145, fig. 9 (adult).

Type locality: "Amer." – Type depository: MNHN (Lectotype not designated).

synonym: *bosci* Laporte & Gory 1837:146, plate 36, fig. 201 (adult) – Synonymy: Kerremans 1892:93.

Type locality: "Amer. Bor." Type depository: MNHN (Lectotype not designated).

synonym: *cribripennis* Casey 1909:127 – Synonymy: Nicolay & Weiss 1918:88.

Type locality: AL, Grand Bay – Type depository: USNM 35805 (♂) (Lectotype designation: Bellamy & Nelson 1990:296).

Immature stages: Burke 1917a: plate 1, fig. 3 (larva).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:136 (♂, ♀), plate 3, fig. 1 (♂ genitalia), plate 5, fig.2 (adult); Akiyama & Ohmomo 2000: fig. 937 (♂, ♀).

Ecology: Burke 1918b (biol.); Helfer 1941 (biol., distr.); Nelson & Westcott 1981 (distr.).

Distribution: **USA**: AL, AR, FL, GA, LA, MS, NC, NJ, NY, PA, SC, TX, VA (?); also recorded from the West Indies.

Host(s): larvae in *Pinus palustris* Mill. and *P. taeda* L.

bosci Laporte & Gory 1837 [syn. of *apricans*]

cazieri Helfer 1946 [syn. of *salisburyensis*]

connexa Horn 1875:148.

Type locality: OR – Type depository: MCZC 8304 (♀).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:151 (♂, ♀), plate 3, fig. 9 (♂ genitalia), plate 6, fig. 3 (adult); Akiyama & Ohmomo 2000: fig. 936 (♀).

Ecology: Chamberlin 1917; Burke 1918b; Chamberlin 1925 (biol.); Helfer 1941; Nelson 1967a (distr.).

Distribution: **USA**: CA, ID, NV, OR, WA

Host(s): larvae in *Pinus jeffreyi* Grev. & Balf. and *P. ponderosa* Laws.

cribripennis Casey 1909 [syn. of *apricans*]

decora Fabricius 1775:217.

Type locality: "Amer." – Type depository: BMNH.

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Kurosawa 1988.

Redescription: Helfer 1941:137 (♂, ♀), plate 3, fig. 3 (♂ genitalia), plate 5, fig. 1 (adult); Akiyama & Ohmomo 2000: fig. 934 (♂, ♀).

Ecology: Helfer 1941 (biol., distr.); Nelson, *et al.* 1981; Nelson & MacRae 1990 (distr.).

Distribution: **USA**: AL, AR, DC, FL, GA, LA, MO, MS, NC, NJ, NY, PA, TX, VA; also recorded from the West Indies.

Host(s): larvae in *Pinus palustris* Mill.

salisburyensis Herbst 1801:174, plate 148, fig. 8 (adult).

Type locality: "Amer." – Type depository: unknown (ZMHB).

synonym: *ultramarina* Say 1833:64 – Synonymy: Nicolay & Weiss 1918:89.

Type locality: NJ. – Type depository: type destroyed.

synonym: *cazieri* Helfer 1946:100 (as subspecies of *salisburyensis*) – Synonymy: Nelson 1980a:87.

Type locality: NY, Bear Mtn. – Type depository: CASC 5765 (♀).

Taxonomy: Nicolay & Weiss 1918; Helfer 1941; Nelson 1980a; Kurosawa 1988.

Redescription: Helfer 1941:139 (♂, ♀), plate 3, fig. 2 (♂ genitalia), plate 5, fig. 3 (adult); Akiyama & Ohmomo 2000: fig. 935 (♂, ♀).

Ecology: Helfer 1941; Bright 1987 (biol., distr.); Nelson 1987a; Nelson & MacRae 1990; Davies 1991 (distr.).

Distribution: **Canada**: ON; **USA**: GA, MA, MI, NC, NJ, NY, OK, PA, TN, VA, WI, WV

Host(s): larvae in *Pinus rigida* Mill.

ultramarina Say 1833 [syn. of *salisburyensis*]

Subtribe Agaocerina Nelson 1982

Agaocerina Nelson 1982:440.

Type genus: *Agaeocera* Saunders 1871.
Chalcophorini Kerremans 1893 (part).
 Classification: Nelson 1982; Bellamy 1985; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002;
 Bellamy 2003a.

Genus *Agaeocera* Saunders 1871

Agaeocera Saunders 1871:50.
 Type species: *Anthaxia gigas* Gory & Laporte 1839 (fixed by monotypy).
Anataxis Casey 1909:170 – Synonymy: Leng 1920:179.
 Type species: *Halecia gentilis* Horn 1885 (fixed by original designation).
 Taxonomy: Kerremans 1909; Nelson 1982; Bellamy 1997b; Volkovitsh, 2001; Bellamy & Nelson 2002;
 Bellamy 2003a.
 Redescription: Kerremans 1909:270; Nelson 1982: figs. 22, 23, 49 (antenna, metaventrite, ♂ genitalia).
 Ecology: Kerremans 1909:271 (distr.).
 Key(s): Kerremans 1909:272.

fenyesi Kerremans 1903 [syn. of *gentilis gentilis*]

***gentilis gentilis* (Horn) 1885:144 (*Halecia*).**

Type locality: SW TX – Type depository: MCZC.
 synonym: *fenyesi* Kerremans 1903:60 – Synonymy: Kerremans 1908:275.
 Type locality: Mexico: Laredo – Type depository: BMNH (Lectotype not designated)
 Taxonomy: Kerremans 1908; Casey 1909.
 Redescription: Kerremans 1908:275; Good 1925: plate 8 (wing); Nelson 1981:
 figs. 22, 23 (antenna, metaventrite); Akiyama & Ohmomo 2000: fig. 706 (♂, ♀).
 Ecology: Cazier 1951b (distr.); Nelson, *et al.* 1981; 1991 (biol., distr.).
 Distribution: USA: AZ, CA, NM, TX; also recorded from Mexico.
 Host(s): larvae in *Sphaeralcea* sp.

***scintillans* Waterhouse 1882:4.**

Type locality: Mexico: Songora – Type depository: BMNH.
 Taxonomy: Kerremans 1908.
 Redescription: Kerremans 1908:274; Akiyama & Ohmomo 2000: fig. 707 (♂, ♀).
 Ecology: Nelson & Westcott 1976; Nelson, *et al.* 1981 (biol.); Westcott 1990 (distr.).
 Distribution: USA: AZ, TX; also recorded from Mexico.
 Host(s): adults on *Abutilon incanum* (Link) Sweet.

***Spectralia* generic group (Tribal level) sensu Volkovitsh 2001**

Spectralia generic group Volkovitsh 2001:58.
 Classification: Bellamy 2003a.

Tribe Phrixiini Cobos 1975

Phrixiini Cobos 1975b:102.
 Type genus: *Phrixia* Deyrolle 1864.
 Classification: Cobos 1975b; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.8.
 Key(s): Hołyński 1993:33 (subtribe); Bellamy & Nelson 2002:103.

Genus *Spectralia* Casey 1909

Cinyra (*Spectralia*) Casey 1909:175.
 Type species: *Dicerca gracilipes* Melsheimer 1845 (fixed by original designation).
Cinyra of authors (in part), not *Cinyra* Laporte & Gory 1837.
Cynira (*lapsus calami*).
Leptia Chevrolat 1838:78 (*nomen oblitum*).
 Immature stages: Burke 1917a: plate 3, fig. 3 (larva).
 Taxonomy: Casey 1909; Chamberlin 1920b; Cobos 1979b; Volkovitsh 2001; Bellamy & Nelson 2002;
 Bellamy 2003a.
 Redescription: Chamberlin 1920b: figs. 1–6 (parts as *Cinyra*).
 Key(s): Casey 1909:175; Chamberlin 1920b:243.

BUPRESTIDAE: Buprestinae: Phrxiini, Anthaxiini

abbreviata (Casey 1914) [syn. of *gracilipes*]

cuprescens (Knull) 1940c:363 (*Cinyra*) (♂, ♀).

Type locality: AZ, Tucson Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1940c.

Redescription: Akiyama & Ohmomo 2000: fig. 779 (♂, ♀).

Ecology: Knull 1970; Nelson & Westcott 1976 (biol., distr.).

Distribution: **USA:** AZ, NM

Host(s): larvae in *Anisacanthus thurberi* (Torr.) Gray.

gracilipes (Melsheimer) 1845:145 (*Dicerca*).

Type locality: PA – Type depository: type lost (MCZC?).

synonym: *macilenta* (Casey) 1909:176 (*Cinyra*) – Synonymy: Chamberlin 1920b:243.

Type locality: TX – Type depository: USNM 35854.

synonym: *abbreviata* (Casey) 1914:361 (*Cinyra*) – Synonymy: Chamberlin 1926:178.

Type locality: NC, Southern Pines – Type depository: USNM 35853.

synonym: *ocularis* (Casey) 1914:362 (*Cinyra*) – Synonymy: Chamberlin 1926:178.

Type locality: IL – Type depository: USNM 35855.

Immature stages: Burke 1917a: plate 3, fig. 3 (larva).

Redescription: Knull 1925: plate 2, fig. 2 (adult); Good 1925: plate 8 (wing); Bright 1987:49, fig. 81;

Akiyama & Ohmomo 2000: fig. 780 (♂, ♀).

Ecology: Knull 1920; 1922 (biol.); 1932; Nelson & Westcott 1976; Wellso, *et al.* 1976 (biol.); Nelson, *et al.* 1981; Davies 1991; Nelson, *et al.* 1996; Peck & Thomas 1998; Westcott 2001b (distr.).

Distribution: **Canada:** ON; **USA:** DC, FL, IA, IL, IN, KS, LA, MA, MD, MI, MN, MO, MS NC, NE, NJ, NY, OH, OK, PA, TN, TX, VA, WI

Host(s): larvae in *Fraxinus* sp., *Ostrya virginiana* (Mill.) K. Koch, *Quercus alba* L., *Q. bicolor* Willd., *Q. macrocarpa* Michx. and *Q. stellata* Wangenh.; adults also on *Celtis* sp., *Crataegus* sp. and flowers of *Solidago* sp.

macilenta (Casey 1909) [syn. of *gracilipes*]

ocularis (Casey 1914) [syn. of *gracilipes*]

prosternalis (Schaeffer) 1904:205 (*Cinyra*).

Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM 57405 (♂) (Lectotype designation: Bellamy & Nelson 1990:293).

Ecology: MacRae, 2006 (distr., biol).

Distribution: **USA:** TX

Host(s): larvae in dead *Diospyros texana* Scheele.

purpurascens (Schaeffer) 1905:127 (*Cinyra*).

Type locality: Mexico: Baja CA, El Taste – Type depository: USNM 42653.

Redescription: Akiyama & Ohmomo 2000: fig. 778 (♂).

Ecology: Nelson 1962 (biol., distr.); Bellamy 2003b (biol.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): larvae in *Justicia californica* (Benth.) D. Gibson.

riograndei (Knull 1937) [syn. of *robusta*]

roburella (Knull) 1941a:99 (*Cinyra*).

Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).

Redescription: Akiyama & Ohmomo 2000: fig. 776 (♀ as *robullela*, *lapsus calami*).

Ecology: Nelson, *et al.* 1981 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA:** TX

Host(s): larvae in *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.; adults also on *Q. grisea* Liebm.

robusta (Chamberlin) 1920b:241 (*Cinyra*).

Type locality: TX – Type depository: CASC

misidentification: *prosternalis* of authors, not *prosternalis* Schaeffer 1904.

synonym: *riograndei* (Knull) 1937a:16 (♂, ♀) (*Psiloptera*) – Synonymy: Knull 1950:89; 1970:264.

Type locality: TX, Pecos River – Type depository: FMNH (♂).

Taxonomy: Nelson 1985b.

Redescription: Akiyama & Ohmomo 2000: fig. 777 (♀).

Ecology: Nelson 1968a (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: TX

Host(s): larvae in *Diospyros texana* Scheele.

Tribe Anthaxiini Gory & Laporte 1839

“Anthaxites, Anthaxidae” Gory & Laporte 1839:1.

Type genus: *Anthaxia* Eschscholtz 1829.

Scutellatae (Section 5) Schönherr 1817 (part).

Anthaxidae, Anthaxites Gory & Laporte 1839 (part).

Anthaxiites Jacquelin du Val 1863 (part).

Anthaxiae LeConte 1861.

Anthaxiina C. G. Thomson 1864.

Anthaxini Kerremans 1893.

Anthaxites Kerremans 1903.

Melanophilini Bedel 1921 (part).

Buprestini Arnett 1962 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Cobos 1956c; 1971; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Bílý 1997; 1999b; 2000; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Kerremans 1893:109; 1903:154; Cobos 1956c:105, 107 (genera); 1958a:71, 84 (species); 1971:10; Arnett 1962:485 (genera); Hołyński 1993:33 (subtribes); Bellamy & Nelson 2002:104 (subtribes & genera).

Subtribe Anthaxiina Gory & Laporte 1839

“Anthaxites, Anthaxidae” Gory & Laporte 1839:1.

Classification: Cobos 1958a; Bílý 1997; 1999b; 2000; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Cobos 1958a:71, 84 (subgenera & species).

Genus *Agrilaxia* Kerremans 1903

Agrilaxia Kerremans 1903:177.

Type species: *Anthaxia flavimana* Gory 1841 (fixed by subsequent designation: Chamberlin 1926:45).

Taxonomy: Cobos 1971 (revision); Nelson 1985b; Bílý 1997; Bílý & Bellamy 1999; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Cobos 1971:8; Nelson 1985b:136; Bílý & Bellamy 1999:93.

Key(s): Cobos 1971:10.

arizonae Chamberlin 1926 [syn. of *flavimana*]

arizonae Obenberger 1922 [syn. of *flavimana*]

borealis Obenberger 1924 [syn. of *flavimana*]

flavimana (Gory) 1841:291 (*Anthaxia*).

Type locality: “Amer. Bor.” – Type depository: MNHN (♂).

synonym: *gracilis* (Melsheimer) 1845:148 (*Anthaxia*) – Synonymy: LeConte 1860b:218.

Type locality: PA. Type depository: type lost (MCZC?).

synonym: *arizonae* Obenberger 1922:180 – Synonymy: Cobos 1971:48

Type locality: AZ – Type depository: NMPC.

synonym: *borealis* (Obenberger) 1924:107 (*Anthaxia*) – Synonymy: Cobos 1971:48.

Type locality: PA, Jeannette – Type depository: NMPC.

synonym: *arizonae* Chamberlin 1926:46 (as variety of *flavimana*) (preoccupied: *arizonae* Obenberger 1922) – Synonymy: Cobos 1971:48.

Type locality: AZ, Huachuca Mtns. – Type depository: unknown (CASC?).

synonym: *huachucae* Obenberger 1930:551 (replacement name for *arizonae* Chamberlin 1926) – Synonymy: Cobos 1971:48.

Taxonomy: Cobos 1971; Bílý 1997; Bílý & Bellamy 1999.

Redescription: Good 1925: plate 11 (wing); Cobos 1971:48 (♂, ♀), fig. 2 (♂) plate 2 (♀, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1007 (♂, ♀).

Ecology: Cobos 1971; Nelson, *et al.* 1981; Nelson 1987a; Westcott, *et al.* 1990; MacRae 1991; Bílý

BUPRESTIDAE: Buprestinae: Anthaxiini

1997 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).

Distribution: USA: AL, AR, AZ, CO, DC, FL, GA, IL, IN, KS, KY, LA, MD, MI, MO, MS, NC, NJ, NM, NY, OK, PA, SC, TN, TX, VA, WV; also recorded from Mexico.

Host(s): larvae in *Cercis canadensis* L., *Pinus echinata* Mill., *P. ponderosa* Laws., *Prunus domestica* L., *Quercus alba* L., *Q. arizonica* Sarg., *Q. macrocarpa* Michx., *Q. muehlenbergii* Engelm., *Q. pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller., *Q. stellata* Wangenh. *Q. virginiana* Mill. and *Ulmus crassifolia* Nutt.; adults also on foliage and flowers of many plants.

gracilis (Melsheimer 1845) [syn. of *flavimana*]

hespenheidei (Bílý) 1984:220 (*Anthaxia*), figs. 4, 13 (adult, ♂ genitalia).

Type locality: AZ, Cochise Co., Huachuca Mtns., Copper Cyn. – Type depository: USNM (♂).

Taxonomy: Bílý 1997.

Redescription: Akiyama & Ohmomo 2000: fig.1008 (♂, ♀).

Ecology: Nelson 1987a; Bílý 1997 (distr.); Akiyama & Ohmomo 2002; Bellamy 2003b (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: AZ, NM; also recorded from Mexico.

Host(s): adults on *Quercus arizonica* Sarg. and *Rhus virens* Lindenheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson; also on flowers of *Bouvardia ternifolia* (Cav.) Schldtl. and *Cirsium* sp.

Genus *Anthaxia* Eschscholtz 1829

Anthaxia Eschscholtz 1829:9.

Type species: *Buprestis nitida* Rossi 1794 (designated by Westwood 1838:24).

Anthraxia Stephens 1839:103 (*lapsus calami*).

Paranthaxia Gozis 1886:21 – Synonymy: Obenberger 1958:228.

Type species: *Buprestis nitida* Rossi 1794 (fixed by subsequent designation: Bílý 2006c:58).

Trichocratomerus Richter 1944:111 (as subgenus of *Cratomerus*) – Synonymy: Nelson 1985b:135.

Type species: Unavailable name, without fixation of type species in original publication (ICZN 1999 Article 13.3).

Anthaxiola Richter 1944:118 – Synonymy: Obenberger 1958:228.

Type species: *Anthaxia anatolica* Chevrolat 1838 (fixed by monotypy).

Homalanthaxia Richter 1944:118 – Synonymy: Obenberger 1958:229.

Type species: Unavailable name, without fixation of type species in original publication (ICZN 1999 Article 13.3).

Cyclanthaxia Richter 1944:121 – Synonymy: Obenberger 1958:228.

Type species: *Buprestis croesus* Villiers 1789 (fixed by subsequent designation: Richter 1949:137).

Callanthaxia Richter 1944:124 – Synonymy: Obenberger 1958:228.

Type species: *Buprestis passerinii* Pecchioli 1837 (fixed by subsequent designation: Richter 1949:168).

Eoanthaxites Haupt 1950:68 – Synonymy: Obenberger 1958:228.

Type species: *Coraebus carniolica* Pongrácz 1935 (fixed by original designation).

Immature stages: Burke 1917a (larva).

Taxonomy: Cobos 1958a (rev. N. Amer. spp.); Bílý 1997 (world catalog); Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Ecology: Cobos 1958a.

Key(s): Obenberger 1928:247 (N. Amer. spp.); Cobos 1958a:84 (No. Amer.); Barr 1971:67 (Pacific NW spp.); Wellso, *et al.* 1976:9 (MI spp.); Bright 1987:141 (Canada spp.); Downie & Arnett 1996:751 (NE No. Amer. spp.).

subgenus *Anthaxia* (*Anthaxia*) Eschscholtz 1829

Anthaxia Eschscholtz 1829:9.

Type species: *Buprestis nitida* Rossi 1794.

amplexus Rey 1891 [syn. of *salicis*]

croesus (Villiers) 1789 [syn. of *salicis*]

hirticollis Rey 1891 [syn. of *salicis*]

salicis (Fabricius) 1776:237 (*Buprestis*).

Type locality: Germaniae Salice. Europe; Asia Minor; N. Africa (Old World, accidentally introduced into No. Amer., current presence needs verification) – Type depository: UZMC.

synonym: *croesus* (Villiers) 1789:339 (*Buprestis*) – Synonymy: Schaefer 1937:211.

Type locality: Environs de Marseille – Type depository: MNHN.

synonym: *amplexus* Rey 1891:4 – Synonymy: Théry 1943:41.

Type locality: Corse (Saône-et-Loire) – Type depository: MHNL.

synonym: *hirticollis* Rey 1891:5 (as variety of *semicuprea*) – Synonymy: Schaefer 1937:216.

Type locality: France, L'Estérel – Type depository: MNHN.

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:87 (♂, ♀), plate 2, figs. 10–12 (adult, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1047 (♂, ♀).

Ecology: Cobos 1958a; Bílý 1997 (distr.).

Distribution: **USA**: KS; also recorded from Europe, Asia Minor and North Africa

Host(s): larvae in *Acer* sp., *Quercus* sp. and *Salix* sp. in Europe; adults also on Malvaceae in KS.

subgenus Anthaxia (Haplanthaxia) Reitter 1911

Haplanthaxia Reitter 1911:187.

Type species: *Buprestis cichorii* Oliver 1790 (fixed by subsequent designation: Richter 1949:66).

Chrysanthaxia Richter 1949:63 – Synonymy: Nelson 1985b:135.

Type species: *Anthaxia polychloros* Abeille de Perrin 1894 (fixed by monotypy).

Cryptocratomerus Richter 1949:205 – Synonymy: Nelson 1985b:135.

Type species: *Anthaxia kiesenwetteri* Marseul 1865 (fixed by subsequent designation: Richter 1949:205).

Cryptanthaxia Richter 1949:77 – Synonymy: Nelson 1985b:135.

Type species: *Anthaxia rossica* Daniel 1903 (fixed by original designation).

Euanthaxia Richter 1949:86 – Synonymy: Obenberger 1958:228.

Type species: *Buprestis millefolii sensu* Richter 1949 (= *Anthaxia nitidula signaticollis* Krynicki 1832) (fixed by original designation).

Mesanthaxia Richter 1944:124 – Synonymy: Nelson 1985b:135.

Type species: *Anthaxia olympica* Kiesenwetter 1880 (fixed by monotypy).

Cratomerella Richter 1949:38 – Synonymy: Nelson 1985b:135.

Type species: *Anthaxia proteus* Saunders 1873 (fixed by original designation).

Taxonomy: Cobos 1958a (revision No. Amer. sp.); Nelson 1985b; Bellamy & Nelson 2002.

Redescription: Richter 1949:66; Cobos 1958a:70; Nelson 1985b:136.

Ecology: Cobos 1958a.

Key(s): Cobos 1958a:71 (No. Amer. sp.); Barr 1971:67 (Pacific NW sp.); Wellso, *et al.* 1976:9 (MI sp.);

Bright 1987:151 (Canadian sp.); Downie & Arnett 1996:751 (NE No. Amer. sp.).

carolinensis Obenberger 1928:256.

Type locality: Carolina, Sylvania – Type depository: NMPC (♂).

Taxonomy: Cobos 1958a; Bílý 1997.

Ecology: Bílý 1997 (distr.); Westcott 2007b (distr.).

Distribution: **USA**: CA, (NC, PA)

Host(s): unknown.

carya Wellso & Jackman 2006:262 (♂, ♀), fig. 1 (adult).

Type locality: TX, Kimble Co., Junction – Type depository: USNM (♀).

Taxonomy: Wellso & Jackman 2006.

Ecology: Wellso & Jackman 2006 (distr. & biol.).

Distribution: **USA**: AL, GA, TX

Host(s): larvae in *Carya illinoensis* (Wangenh.) K. Koch and *Carya* sp.

caseyi caseyi Obenberger 1914:25.

Type locality: CA – Type depository: NMPC (♀) (Lectotype not designated).

synonym: *deleta* LeConte 1878b:459 (preoccupied: *deleta* Hayden 1865).

Type locality: UT, American Fork Canyon – Type depository: MCZC 2684.

Taxonomy: Cobos 1958a (as *deleta*); Bílý 1999.

BUPRESTIDAE: Buprestinae: Anthaxiini

Redescription: Cobos 1958a:76 (♂, ♀), figs. 4–6 (adult & ♂ genitalia as *deleta*).

Ecology: Cobos 1958a; Bright 1987 (biol., distr.); Barr 1971; Nelson, *et al.* 1981; Bílý 1997 (distr.); Chamberlin 1925a; Leech 1959; Barr 1969a; Nelson 1987a (biol.) (all except Bílý as *deleta*).

Distribution: **Canada:** BC; **USA:** AZ, CA, ID, MT, NV, OR, UT, WA

Host(s): larvae in *Pinus coulteri* D. Don, *P. ponderosa* Laws. and *P. sabiniana* Dougl.; adults also on *Alnus rhombifolia* Nutt., *Betula occidentalis* Hook., *Calocedrus decurrens* (Torr.) Florin, *Salix* sp.; and flowers of *Adenostoma fasciculatum* H. & A., *Ceanothus cordulatus* Kell., *C. integerrimus* H. & A., *C. oliganthus* Nutt., *Fremontodendron californicum* (Torr.) Cov. and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

caseyi pseudotsugae Chamberlin 1928:95 (♂, ♀).

Type locality: OR, near Ashland – Type depository: CASC 5488 (♀).

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:text fig. 10 (adult).

Ecology: Cobos 1958a; Barr 1971; Bright 1987; Nelson 1987a; Bílý 1997 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA, CO, ID, NM, NV, OR, UT, WA

Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *Juniperus occidentalis* Hook., *Pinus attenuata* Lemon, *P. jeffreyi* Grev. & Balf., *P. monophylla* Torr. & Frem., *P. sabiniana* Dougl. and *Pseudotsuga menziesii* (Mirb.) Franco.; adults also on flowers of *Ceanothus integerrimus* H. & A. and *Rosa* sp.

caseyi santarosae Cobos 1958a:72, text fig. 11 (adult).

Type locality: CA, Santa Rosa Mtns. – Type depository: FMNH (♂).

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Akiyama & Ohmomo 2000: fig. 1089 (♀) (under *deleta*).

Ecology: Cobos 1958a; Bílý 1997 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA

Host(s): adults on *Pinus monophylla* Torr. & Frem.; and on flowers of *Acacia greggii* Gray, *Adenostoma fasciculatum* H. & A., *Ceanothus crassifolius* Torr., *Eriogonum fasciculatum* (Benth.) T. & G. var. *foliolosum* (Nutt.) Abrams, *E. f.* var. *polifolium* (Benth.) Torr., *E. umbellatum* Torr. and *Lotus nevadensis* (S. Wats.) Greene.

caseyi sublaevis Van Dyke 1916:406 (♂, ♀).

Type locality: CA, Tuolumne Co. – Type depository: CASC 3347 (♂).

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:test fig. 9 (adult).

Ecology: Cobos 1958a (biol., distr.); Leech 1959 (biol.); Bílý 1997 (distr.).

Distribution: **USA:** CA

Host(s): larvae in *Pinus sabiniana* Dougl.; adults also on *Astragalus* sp., *Cercocarpus* sp. and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

cuneiformis Gory 1841 [syn. of *quercata*]**cyaneella** Gory 1841:285, plate 47, fig. 278 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN (♀).

synonym: *scoriacea* Melsheimer 1845:148 – Synonymy: Bílý 1997:19.

Type locality: PA – Type depository: MCZC.

synonym: *kaszabiana* Pochon 1967:282, fig. 11 (adult) – Synonymy: Nelson 1980a:86.

Type locality: OH, Fundort – Type depository: HNHM (♂).

Taxonomy: Wellso 1973; Nelson 1980a; Bílý 1997.

Redescription: Wellso, *et al.* 1976: fig. 5C (♂ genitalia).

Ecology: Hespenheide 1974; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Downie & Arnett 1996; Bílý 1997 (distr.); MacRae & Nelson 2003 (biol.); Westcott 2005 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AL, AR, DC, FL, GA, IA, ID, IL, KY, LA, MI, MO, MS, NC, OH, OK, PA, VA, WI

Host(s): larvae in *Amelanchier arborea* (Michx. f.) Fern., *Betula nigra* L., *Cercis canadensis* L., *Gleditsia triacanthos* L. and *Vitis* sp.; adults also on *Crataegus* sp., *Ostrya virginiana* (Mill.) K. Koch, *Prunus americanus* Marsh., *Rhus aromatica* Ait. and *Ulmus rubra* Muhl.

deleta LeConte 1878 [syn. of *caseyi*]

dichroa Bílý 1991:134, figs. 28, 29 (adult, ♂ genitalia).

Type locality: LA, Baton Rouge, east B. R. Parish – Type depository: LSUC (♂).

Taxonomy: Bílý 1991; 1997; MacRae & Nelson 2003.

Redescription: MacRae & Nelson 2003:63.

Ecology: Bílý 1997 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.).

Distribution: **USA:** FL, KS, LA, MO, PA, SC, TX

Host(s): larvae in *Vitis* spp.

fisheri Obenberger 1928:255.

Type locality: KS – Type depository: NMPC.

Taxonomy: Wellso, *et al.* 1976; Bílý 1997.

Redescription: Wellso, *et al.* 1976: fig. 5A (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1087 (♂, ♀).

Ecology: Nelson & Westcott 1976; Wellso, *et al.* 1976 (biol.); Nelson, *et al.* 1981; Nelson 1987a;

Downie & Arnett 1996; Nelson, *et al.* 1981; 1996; Bílý 1997 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** ON; **USA:** AL, FL, IN, KS, LA, MI, MO, MS, NE, OH, OK, SD

Host(s): larvae in *Prunus americana* Marsh. and *P. serotina* Ehrh.; adults also on *Acer* sp. and *Gleditsia triacanthos* L.

kaszabiana Pochon 1967 [syn. of *cyanella*]

pennsylvanica Obenberger 1914:26.

Type locality: PA – Type depository: NHMV, NMPC (Lectotype not designated).

Taxonomy: Cobos 1958a; Bílý 1997.

Ecology: Bílý 1997 (distr.).

Distribution: **USA:** PA.

Host(s): unknown.

pseudotsugae Chamberlin 1928 [ssp. of *caseyi*]

quercata (Fabricius) 1801:216 (*Buprestis*).

Type locality: Carolinae – Type depository: UZMC.

synonym: *cuneiformis* Gory 1841:290, plate 48, fig. 248 (adult) – Synonymy: Crotch 1873:89.

Type locality: “Amer. Bor.” – Type depository: MNHN.

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:73 (♂, ♀), plate 1, figs. 1–3 (adult, ♂ genitalia); Wellso, *et al.* 1976: fig. 5D (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1086 (♂, ♀).

Ecology: Knull 1920; Howden & Vogt 1951; Hespeneheide 1974 (biol.); Cobos 1958a; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Downie & Arnett 1996; Bílý 1997 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AL, AR, CT, DC, FL, GA, IA, IL, IN, KY, LA, MA, MD, MI, MO, MS, MT, NC, NH, NJ, NY, OH, OK, PA, RI, SC, TX, VA, WI, WV

Host(s): larvae in *Cercis canadensis* L., *Crataegus chrysocarpa* Ashe, *Larix laricina* (DuRoi) K. Koch, *Picea mariana* B.S.P., *Pinus echinata* Mill., *P. rigida* Mill., *P. strobus* L. and *P. taeda* L.; adults also on *Carya alba* (L.) Nutt., *Corylus americana* Walt., *Pinus virginiana* Mill., *Prunus americana* Marsh., *Quercus coccinea* Muenchh., *Q. laurifolia* Michx., *Q. palustris* Muenchh., *Q. rubra* L., *Q. stellata* Wangenh., *Q. velutina* Lam. and *Sassafras albidum* (Nutt.) Nees.

quercicola Wellso 1974:165 (♂, ♀), figs. 1–3 (♂ genitalia, protibia).

Type locality: TX, near College Station, Easterwood Airport – Type depository: USNM 73571 (♂).

Taxonomy: Wellso 1974.

Ecology: Wellso 1974; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; MacRae 1991; Downie & Arnett 1996 (biol., distr.); Peck & Thomas 1998 (distr.).

Distribution: **USA:** FL, GA, MI, MO, MS, OK, TX

Host(s): larvae in *Quercus sinuata* Walt.; adults also on *Gleditsia triacanthos* L., *Quercus palustris* Muenchh. and *Q. velutina* Lam.

santarosae Cobos 1958 [ssp. of *caseyi*]

scoriacea Melsheimer 1845 [syn. of *cyanella*]

subaenea LeConte 1860 [syn. of *viridifrons*]

sublaevis Van Dyke 1916 [ssp. of *caseyi*]

viridicornis (Say) 1823:162 (*Buprestis*).

Type locality: MO – Type depository: destroyed. ANSP (teste Bílý 1997).

Taxonomy: Cobos 1958a; Wellso, *et al.* 1976; Bílý 1997.

BUPRESTIDAE: Buprestinae: Anthaxiini

Redescription: Wellso, *et al.* 1976: fig. 5F (♂ genitalia).

Ecology: Knull 1922; Nelson, *et al.* 1981; Nelson 1987a; Bright 1987; Dearborn & Donahue 1993 (biol.); Downie & Arnett 1996; Nelson, *et al.* 1996; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** ON; **USA:** AR, CO, CT, DC, FL, GA, IA, IL, IN, KY, LA, MA, ME, MI, MO, MS, NC, NE, NJ, NY, OH, OK, PA, SC, SD, TN, TX, VA, WV

Host(s): larvae in *Quercus* sp., *Salix caroliniana* Michx., *S. exigua* Nutt., *S. nigra* Marsh.; adults also on *Abies* sp., *Populus* sp. and *Salix babylonica* L.

viridifrons Gory 1841:284, plate 47, fig. 277 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN.

synonym: *subaenea* LeConte 1860:216 – Synonymy: Crotch 1873:89.

Type locality: Middle States – Type depository: MCZC 2685.

misidentification: *viridicornis* of authors (in part), not *viridicornis* Say 1823.

Taxonomy: Wellso, *et al.* 1976; Bílý 1997.

Redescription: Wellso, *et al.* 1976: fig. 5G (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1088 (♂, ♀).

Ecology: Knull 1920; 1922; Hespenheide 1974 (as *viridicornis*); Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a; Nelson & MacRae 1990 (biol.); Downie & Arnett 1996; Bílý 1997 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** MB, ON, PQ; **USA:** AR, CT, DC, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, MS, NC, ND, NE, NH, NJ, NY, OK, PA, SC, SD, TN, TX, VA, WV

Host(s): larvae in *Amelanchier arborea* (Michx. f.) Fern., *Carya alba* (L.) Nutt., *C. glabra* (Mill.) Sweet, *C. illinoensis* (Wangenh.) K. Koch, *C. ovata* (Mill.) K. Koch, *Morus* sp., *Ulmus alata* Michx., *U. americana* L., *U. crassifolia* Nutt. and *U. rubra* Muhl.; adults also on *Acer saccharum* Marsh., *Asimina triloba* (L.) Dunal, *Carya cordiformis* (Wangenh.) K. Koch, *Celtis occidentalis* L., *Cercis canadensis* L., *Cornus racemosa* Lam., *Crataegus* sp., *Fraxinus americana* L., *Gleditsia triacanthos* L., *Juglans nigra* L., *Malus* sp., *Quercus alba* L., *Q. rubra* L., *Rubus* sp. and *Salix* sp.

subgenus Anthaxia (Melanthaxia) Richter 1944

Melanthaxia Richter 1949:102.

Type species: *Anthaxia godeti* Gory & Laporte 1839 (fixed by original designation).

Taxonomy: Nelson 1985b; Bílý 1997; Bellamy & Nelson 2002.

Redescription: Nelson 1985b:136.

Key(s): Obenberger 1928:247 (No. Amer. sp.); Cobos 1958a:84 (N. Amer. sp.); Barr 1971:67 (Pacific NW sp.); Wellso, *et al.* 1976:9 (MI sp.); Bright 1987:141 (Canada sp.); Downie & Arnett 1996:751 (NE No. Amer. sp.).

aeneogaster Gory & Laporte 1839:32, plate 7, fig. 44 (adult).

Type locality: CA. Due to confusion about the limits of this species, some of the distributional and host records might refer to other species – Type depository: MNHN.

Immature stages: Burke 1917a: plate 3, fig. 2 (larva).

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:106 (♂, ♀), plate 7, figs. 37–39 (adult, ♂ genitalia).

Ecology: Cobos 1958a; Barr 1971 (biol., distr.); Bílý 1997 (distr.).

Distribution: **Canada:** BC; **USA:** AZ, CA, ID, NM, OR, UT, WA

Host(s): larvae in *Fremontodendron californicum* (Torr.) Cov. and *Pinus ponderosa* Laws.; adults also on *Cercocarpus betuloides* T. & G., *Quercus kelloggii* Newb., *Q. wislizenii* A. DC. and on flowers of *Encelia farinosa* T. & G., *Eriodictyon trichocalyx* Heller, *Eriophyllum confertiflorum* (DC.) Gray, *Helianthus gracilentus* Gray, *Lupinus* sp., *Potentilla* sp., *Ranunculus* sp. and *Sphaeralcea ambigua* Gray.

aenescens Casey 1884:175.

Type locality: CA – Type depository: USNM 35860.

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:99 (♂, ♀), plate 5, figs. 25–27 (adult, ♂ genitalia).

Ecology: Cobos 1958a; Barr 1971; Nelson, *et al.* 1981 (biol.); Nelson 1987a (biol., distr.); Bílý 1997 (distr.).

Distribution: **Canada:** BC; **USA:** CA, ID, MT, OR, WA

Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin, *Pseudotsuga menziesii* (Mirb.) Franco

and *Sequoiadendrom giganteum* (Lindl.) Buchh.; adults also on flowers of *Taraxacum* sp. and Brassicaceae.

barri Bílý 1995a:53 (replacement name for *confusa* Barr 1971).

synonym: *confusa* Barr 1971:72 (preoccupied: *confusa* Gory 1841:296).

Type locality: OR, Grants Pass – Type depository: CASC 11142 (♂).

Taxonomy: Barr 1971; Bílý 1997.

Ecology: Barr 1971; Bílý 1997 (distr.).

Distribution: USA: CA, OR

Host(s): unknown.

californica Obenberger 1914:26.

Type locality: CA – Type depository: NHMV.

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:102 (♂, ♀), plate 6, figs. 31–33 (adult, ♂ genitalia).

Ecology: Cobos 1958a (biol., distr.); Barr 1971; Bílý 1997 (distr.).

Distribution: USA: AZ, CA, NM, NV, OR.

Host(s): larvae in *Pinus ponderosa* Laws.; adults also on *Calocedrus decurrens* (Torr.) Florin, *Quercus kelloggii* Newb. and *Rhamnus californica* Esch.; and on flowers of *Achillea millefolium* L., *Ceanothus cordulatus* Kell., *C. integerrimus* H. & A., *Cryptantha* sp., *Draperia systyla* (Gray) Torr., *Eriodictyon trichocalyx* Heller, *Eriophyllum confertiflorum* (DC.) Gray, *Lupinus* sp. and *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh.

confusa Barr 1971 [syn. of *barri*]

cupriola Barr 1971:69.

Type locality: ID, Franklin Co., 21 mi NE Preston – Type depository: CASC 11143 (♂).

Taxonomy: Barr 1971; Bílý 1997.

Ecology: Barr 1971 (biol., distr.); Bílý 1997 (distr.).

Distribution: USA: CA, ID

Host(s): adults on flowers of *Agoseris grandiflora* (Nutt.) Greene, *Chaenactis douglasii* (Hook.) H. & A., *Eriodictyon trichocalyx* Heller, *Hackelia* sp., *Prunus virginiana* L., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh, *Salvia apiana* Jeps. and *Senecio* sp.

emarginata Barr 1971:69.

Type locality: OR, Prospect – Type depository: CASC 11141.

Taxonomy: Barr 1971; Bílý 1997.

Ecology: Bílý 1997 (distr.).

Distribution: USA: OR

Host(s): unknown.

embrikstrandella Obenberger 1936d:135.

Type locality: CA, San Diego Co., Cuyamaca – Type depository: NMPC.

Taxonomy: Bílý 1997.

Ecology: Bílý 1997 (distr.).

Distribution: USA: CA

Host(s): unknown.

exasperans Cobos 1958a:116 (♂, ♀), figs. 49–51 (adult, ♂ genitalia).

Type locality: CA, Shasta Springs – Type depository: CASC 8108 (♂).

Taxonomy: Cobos 1958a; Bílý 1997.

Ecology: Cobos 1958a (distr.).

Distribution: USA: CA

Host(s): unknown.

expansa LeConte 1857b:44.

Type locality: OR – Type depository: MCZC 2681.

synonym: *foveicollis* LeConte 1860:215 – Synonymy: Cobos 1959a:91.

Type locality: CA, Sacramento Valley – Type depository: MCZC 2679.

Taxonomy: Cobos 1958a; Nelson 1985b; Bílý 1997.

Redescription: Wellso, *et al.* 1976: fig. E (♂ genitalia).

Ecology: Bílý 1997 (distr.).

Distribution: USA: AZ, CA, NV, OR, WA

Host(s): unknown.

BUPRESTIDAE: Buprestinae: Anthaxiini

falsula Obenberger 1928 [syn. of *prasina*]

foveicollis LeConte 1860 [syn. of *expansa*]

furnissi Barr 1971:71.

Type locality: ID, Valley Co., Krassel Rang. Sta., S Fork Salmon River – Type depository: CASC 11140 (♂).

Taxonomy: Barr 1971; Bílý 1997.

Ecology: Barr 1971 (biol., distr.); Bílý 1997 (distr.).

Distribution: **USA:** ID

Host(s): larvae in *Pseudotsugae menziesii* (Mirb.) Franco.

hatchi Barr 1971:71 & 72 (♀).

Type locality: WA, Whitman Co., Wawawai – Type depository: USNM (♂).

Taxonomy: Barr 1971; Bílý 1997.

Ecology: Nelson, *et al.* 1981 (biol., distr.); Bílý 1997 (distr.).

Distribution: **USA:** CA, OR, WA

Host(s): adults on flowers of *Rosa* sp.

helferi Cobos 1958 [syn. of *helferiana*]

helferiana Bílý 1995a:53 (replacement name for *helferi* Cobos 1958).

synonym: *helferi* Cobos 1958a:115 (♂, ♀), figs. 46–48 (adult, ♂ genitalia) (preoccupied: *helferi* Obenberger 1928:238).

Type locality: UT, Zion Cyn. – Type depository: CASC 8106 (♂).

Taxonomy: Cobos 1958a:116 (♀); Bílý 1995a.

Ecology: Horning & Barr 1970 (biol. as *helferi*); Barr 1971 (distr. & biol. as *helferi*); Bílý 1997 (distr.).

Distribution: **USA:** CA, UT

Host(s): adults on flowers *Eriogonum ovalifolium* Nutt. var. *depressum* Blank. and *Heterotheca villosa* (Pursh) Shinnars.

hurdi Cobos 1958a:112 (♂, ♀), figs. 43–45 (adult, ♂ genitalia).

Type locality: CA, Eldorado Co., Echo Lake – Type depository: CASC 9484 EMEC 69307 (♂).

Taxonomy: Cobos 1958a; Bílý 1997.

Ecology: Cobos 1958a; Bílý 1997 (distr.).

Distribution: **USA:** CA

Host(s): unknown.

imperfecta LeConte 1860:215.

Type locality: NM, Santa Fe – Type depository: MCZC 2683

Taxonomy: Nelson 1985b; Bílý 1997.

Ecology: Bílý 1997 (distr.).

Distribution: **USA:** AZ, CA, NM, NV, OR

Host(s): unknown.

inornata (Randall) 1838:4 (*Buprestis*).

Type locality: ME, near Moosehead Lake – Type depository: Probably destroyed.

misidentification: *aeneogaster* of authors (in part), not *aeneogaster* Gory & Laporte 1839.

Taxonomy: Cobos 1958a; Nelson 1985b:137; Bílý 1997.

Redescription: Cobos 1958a:91 (♂, ♀), plate 3, figs. 16–18 (adult & ♂ genitalia as *expansa*).

Ecology: Cobos 1958a; Horner & Barr 1970; Barr, 1971; Nelson & Westcott 1976; Nelson, *et al.* 1981 (distr. & biol. as *expansa*); Dearborn & Donahue 1993 (biol.); Bílý 1997 (distr.).

Distribution: **Canada:** AB, BC, MB, ON, PQ; **USA:** CA, CO, ID, ME, MI, MT, ND, NV, NY, OH, OR, SD, UT, WA, WI, WY

Host(s): adults on *Pinus* sp.; also flowers of *Arnica mollis* Hook., *Heterotheca villosa* (Pursh) Skinnars, *Ranunculus acris* L., *Rosa* sp. and *Tragopogon pratensis* L.

knulli Obenberger 1928:256, figs. 6, 7 (♂ genitalia, head).

Type locality: CA, Yosemite Valley – Type depository: NMPC.

Taxonomy: Cobos 1958a; Bílý 1997.

Ecology: Bílý 1997 (distr.).

Distribution: **USA:** AZ, CA, NV

leechi Cobos 1958a:89 (♂, ♀), figs. 13–15 (adult, ♂ genitalia).

Type locality: CA, Riverside – Type depository: CASC 8107 (♂).

Taxonomy: Cobos 1958a; Bílý 1997.

Ecology: Bílý 1997 (distr.); Leech 1959 (biol.).

Distribution: **USA:** CA

Host(s): adults on *Pinus lambertiana* Dougl.

nanula Casey 1884:174.

Type locality: CA – Type depository: USNM 35839 (Lectotype not designated).

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:118 (♂, ♀), figs. 52–54 (adult, ♂ genitalia).

Ecology: Nelson 1987a (biol.); Bílý 1997 (distr.).

Distribution: **USA:** AZ, CA, NV, UT

Host(s): adults on flowers of *Adenostoma fasciculatum* H. & A., *Ceanothus* sp., *Cryptanthus* sp., *Encelia farinosa* T. & G., *Eriodictyon trichocalyx* Heller, *Eriophyllum confertiflorum* (DC.) Gray and *Salvia apiana* Jeps.

neofunerula Obenberger 1942b:129.

Type locality: NH, Charlestown – Type depository: NMPC.

Taxonomy: Bílý 1997.

Distribution: **USA:** NH

Host(s): unknown.

nevadensis Obenberger 1928:257.

Type locality: NV – Type depository: NMPC.

Taxonomy: Cobos 1958a; Barr 1971; Bílý 1997.

Ecology: Bílý 1997 (distr.).

Distribution: **USA:** NV

Host(s): unknown.

oregonensis Obenberger 1942b:127.

Type locality: OR, Klamath Co., Aspen Lake – Type depository: NMPC (♂).

Taxonomy: Bílý 1997.

Ecology: Bílý 1997 (distr.).

Distribution: **USA:** OR

Host(s): unknown.

porella Barr 1974:2 (♂, ♀).

Type locality: ID, Adams Co., 1 mi S Mesa – Type depository: CASC 12299 (♂).

Taxonomy: Bílý 1997.

Ecology: Horning & Barr 1970; Barr 1971 (distr. & biol. as *simiola*); Bílý 1997 (distr.).

Distribution: **Canada:** BC; **USA:** ID, OR, WA

Host(s): adults on flowers *Agoseris retrorsa* (Benth.) Greene, *Eriogonum ovalifolium* Nutt. var. *depressum* Blank., *Chrysopsis villosa* *Eriophyllum lanatum* (Pursh) James Forbes and *Heterotheca villosa* (Pursh) Skinnners.

prasina Horn 1882:108.

Type locality: CA, Yosemite Valley – Type depository: MCZC 33790 (♂) (Lectotype designation: Nelson 1980a:86).

synonym: *falsula* Obenberger 1928:257 (as variety of *prasina*) - Synonymy: Cobos 1958a:100.

Type locality: CA. - Type depository: NMPC.

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:100 (♂, ♀), figs. 28–30 (adult, ♂ genitalia).

Ecology: Barr 1971 (biol., distr.); Bílý 1997 (distr.); Westcott 2005 (distr.).

Distribution: **Canada:** BC; **USA:** CA, ID, MT, OR

Host(s): adults on *Ceanothus integerrimus* H. & A. and *Ranunculus* sp.

retifer LeConte 1860:215.

Type locality: NM, Santa Fe – Type depository: MCZC 2680.

misspelling: *retifera* of authors (*lapsus calami*).

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:95 (♂, ♀), figs. 19–21 (adult, ♂ genitalia).

Ecology: Cobos 1958a; Barr 1971 (biol., distr.); Bílý 1997 (distr.).

Distribution: **USA:** AZ, CA, ID, NM, NV, OR, UT

Host(s): larvae in *Cupressus goveniana* Gord., *C. sargentii* Jeps. and *Fremontodendron californicum* (Torr.) Cov.; adults also on *Ceanothus oliganthus* Nutt., *Cercocarpus betuloides* T. & G.,

BUPRESTIDAE: Buprestinae: Anthaxiini, Xenorhipidini

Eriodictyon sp., *Eriophyllum confertiflorum* (DC.) Gray, *Pinus attenuata* Lemmon, *P. contorta* Loud var. *murrayana* (Grev. & Balf.) Critchf., *P. ponderosa* Laws., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *Quercus kelloggii* Newb.

sculpturata Barr 1971:68.

Type locality: OR, McMinnville – Type depository: CASC 11144.

Taxonomy: Barr 1971; Bílý 1977.

Ecology: Bílý 1977 (distr.).

Distribution: USA: OR

Host(s): unknown.

serripennis Obenberger 1936d:136.

Type locality: UT, Iron Co., Cedar City – Type depository: NMPC.

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:105 (♂, ♀), figs. 34–36 (adult, ♂ genitalia).

Ecology: Cobos 1958a (biol., distr.); Bílý 1997 (distr.).

Distribution: USA: AZ, CA, UT

Host(s): adults on flowers of *Eriodictyon* sp., *Lotus* sp., *Opuntia* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *Sphaeralcea ambigua* Gray.

simiola Casey 1884:175.

Type locality: CA – Type depository: USNM 35858.

synonym: *vandykeana* Obenberger 1936d:13 – Synonymy: Cobos 1958a:110.

Type locality: CA, Carville – Type depository: NMPC.

Taxonomy: Cobos 1958a; Bílý 1997.

Redescription: Cobos 1958a:110 (♂, ♀), figs. 40–42 (adult, ♂ genitalia).

Ecology: Cobos 1958a; Bílý 1997 (distr.).

Distribution: USA: AZ, CA, ID, NV, OR, UT

Host(s): adults on *Calocedrus decurrens* (Torr.) Florin, *Ceanothus oliganthus* Nutt. *Prunus emarginata* (Hook.) Walp.; and flowers of *Coreopsis bigelovii* (Gray) Hall.

strigata LeConte 1859:71.

Type locality: CA, Fort Tejon – Type depository: MCZC 2682.

synonym: *fallaciosa* Obenberger 1913b:68 – Synonymy: Bílý 1996:30.

Type locality: “Turkestan”? – Type depository: NMPC.

synonym: *grossa* Obenberger 1928:257 (as subspecies of *strigata*) – Synonymy: Bílý 1996:30.

Type locality: CA – Type depository: NMPC.

Taxonomy: Cobos 1958a; Bílý 1997.

Ecology: Bílý 1977 (distr.).

Distribution: USA: AZ, CA, ID, NV, OR, UT

Host(s): unknown.

subprasina Cobos 1958a:97.

Type locality: CA, Giant Forest, Tulare – Type depository: CASC 8109.

Taxonomy: Cobos 1958a; Bílý 1997.

Ecology: Bílý 1997 (distr.).

Distribution: USA: CA

Host(s): unknown.

tarsalis Barr 1971:68.

Type locality: ID, Latah Co., Harvard – Type depository: CASC 11139.

Taxonomy: Barr 1971; Bílý 1997.

Ecology: Bílý 1997 (distr.).

Distribution: USA: ID

Host(s): unknown.

vandykeana Obenberger 1936 [syn. of *simiola*]

wallowae Obenberger 1942b:128.

Type locality: OR, Wallowa Mtns., Lake Wallowa – Type depository: NMPC.

Taxonomy: Barr 1971; Bílý 1997.

Ecology: Bílý 1997 (distr.).

Distribution: USA: OR

Host(s): unknown.

Tribe Xenorhipidini Cobos 1986

Xenorhipini Cobos 1986:136.

Type genus: *Xenorhipis* LeConte 1866.

Classification: Cobos 1986; Hołyński 1993; Bílý 2000; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Bellamy & Nelson 2002:104 (genera).

Subtribe Xenorhipidina Cobos 1986

Xenorhipidina: Hołyński 1988:52.

Type genus: *Xenorhipis* LeConte 1866.

Classification: Hołyński 1988; 1993; Volkovitsh 2001; Bellamy 2006.

Genus *Hesperorhipis* Fall 1930

Hesperorhipis Fall 1930:74.

Type species: *Hesperorhipis albofasciata* Fall 1930 (fixed by original designation).

Taxonomy: Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

***albofasciata* Fall 1930:75.**

Type locality: CA, Fort Tejon – Type depository: MCZC 24437 (♂).

Distribution: USA: CA

Host(s): larvae in *Juglans regia* L. and *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.); adults also on “mistletoe”.

albopennis Knull 1951 [ssp. of *mirabilis*]

californica Knull 1947 [ssp. of *hyperbola*]

***hyperbola californica* Knull 1947a:70, figs. 4, 5 (parts, adult ♂).**

Type locality: CA, Santa Rosa Mtns., 4000' – Type depository: FMNH (♂).

Ecology: Bellamy 2008 (biol.).

Distribution: USA: CA

Host(s): unknown.

***hyperbola hyperbola* Knull 1938c:137, fig. 3 (adult ♂).**

Type locality: AZ, Prescott National Forest – Type depository: FMNH (♂).

Distribution: USA: AZ

Host(s): adults on *Quercus turbinella* Greene.

***jacumbae* Knull 1954b:294 (♂, ♀), figs. 1, 3, 4 (♀, ♂, parts).**

Type locality: CA, San Diego Co., Jacumba – Type depository: FMNH (♂).

Redescription: Akiyama & Ohmomo 2000: fig. 1006 (♂, ♀).

Distribution: USA: CA

Host(s): larvae in *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.).

***mirabilis albopennis* Knull 1951:87, fig. 1 (adult ♂).**

Type locality: CA, Riverside Co., Blythe – Type depository: FMNH (♂).

Redescription: Akiyama & Ohmomo 2000: fig. 1005–3 (♂).

Ecology: Bellamy 2008 (biol.).

Distribution: USA: CA

Host(s): adults on dead *Prosopis* sp.

***mirabilis mirabilis* Knull 1937d:303, fig. 2 (adult ♂).**

Type locality: AZ, Gila Mtns. – Type depository: FMNH (♂).

Redescription: Akiyama & Ohmomo 2000: fig. 1005 (♂, ♀).

Distribution: USA: AZ, CA

Host(s): larvae in *Salix* sp.; adults also on *Acacia* sp.

Genus *Xenorhipis* LeConte 1866

Xenorhipis LeConte 1866b:384.

Type species: *Xenorhipis brendeli* LeConte 1866 (fixed by monotypy).

Lamesis Westwood 1883:67 (generic identity verified: Bellamy 1998) – Synonymy: Kerremans 1903:162.

Type species: *Lamesis suturalis* Westwood 1883 (fixed by monotypy).

Isophaenus Waterhouse 1889:175 – Synonymy: Bellamy 2005:26.

Type species: *Isophaenus parallelus* Waterhouse 1889 (fixed by monotypy).

BUPRESTIDAE: Buprestinae: Xenorhipidini, Melanophilini

Taxonomy: Volkovitsh 2001; Bellamy & Nelson; Bellamy 2003a; 2005.

Ecology: Chamberlin 1926 (biol., distr.); Burke 1917a (biol.).

Key(s): Nelson 1968:96 (♂).

brendeli LeConte 1866:384.

Type locality: IL, Peoria – Type depository: MCZC 8021 (♂).

synonym: *vejdovskyi* Obenberger 1939b:338 – Synonymy: Helfer 1952:188.

Type locality: CT – Type depository: NMPC (♂).

Redescription: Horn 1882:111, plate 4 (♂, ♀); Knull 1925: plate 6, fig. 1 (adult ♂); Good 1925: pl.11 (wing); Akiyama & Ohmomo 2000: fig. 1002 (♂, ♀).

Ecology: Cooper 1933; Downie 1958; Wellso 1966; Nelson, *et al.* 1981; 1987a; Peck & Thomas 1998 (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AL, CT, FL, GA, IA, IL, IN, MA, MO, NC, NY, OH, OK, PA, TX

Host(s): larvae in *Betula nigra* L., *Carya illinoensis* (Wangenh.) K. Koch, *C. laciniosa* (Michx. f.) G. Don, *C. ovata* (Mill.) K. Koch., *Quercus alba* L.; adults also on *Gleditsia triacanthos* L.

hidalgoensis Knull 1952a:177 (♂, ♀).

Type locality: TX, Hidalgo Co. – Type depository: FMNH (♀).

Taxonomy: Knull 1952a.

Ecology: Nelson, *et al.* 1981 (distr.).

Distribution: **USA:** TX; also recorded from Mexico.

osburni Knull 1936:73 (♂, ♀).

Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).

Ecology: Knull 1936 (biol.); 1964 (distr.).

Distribution: **USA:** TX

Host(s): larvae in *Acacia constricta* Benth.

vejdovskyi Obenberger 1939 [syn. of *brendeli*]

Subtribe Trichinorhipidina Bellamy 2006

Trichinorhipidina Bellamy 2006:139.

Type genus: *Trichinorhipis* Barr 1948.

Genus Trichinorhipis Barr 1948

Trichinorhipis Barr 1948:70.

Type species: *Trichinorhipis knulli* Barr 1948 (fixed by original designation).

Taxonomy: Barr 1948; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a; 2006.

Redescription: Nelson 1962 (♀).

Ecology: Nelson, *et al.* 1981 (biol.).

knulli Barr 1948:71.

Type locality: CA, Riverside Co., Painted Cyn. – Type depository: CASC 8515 (♂)

Taxonomy: Barr 1948.

Redescription: Nelson 1962 (♀); Helfer 1970:100 fig. (adult ♂); Nelson, *et al.* 1981; Akiyama & Ohmomo 2000: fig. 1003 (♂, ♀).

Ecology: Nelson 1962; Nelson, *et al.* 1981; Bellamy 1982 (biol.); 2006 (biol., distr.); 2008 (biol.).

Distribution: **USA:** CA

Host(s): larvae in *Simmondsia chinensis* (Link) C. Schneid.; adults also on *Acacia greggii* Gray and *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) ♂ Johnston.

Tribe Melanophilini Bedel 1921

Melanophilini Bedel 1921:171.

Type genus: *Melanophila* Eschscholtz 1829.

Anthaxiae LeConte 1861 (part).

Anthaxini Kerremans 1893 (part).

Anthaxites Kerremans 1903 (part).

Buprestini Arnett 1962 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Sloop 1937; Arnett 1962;

Nelson 1982; Bellamy 1985; Cobos 1987; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Kerremans 1893:109; 1903:154; Sloop 1937:4; Arnett 1962:484; Cobos 1987:49; Hołyński 1993:33 (subtribes); Bellamy & Nelson 2002:104 (genera).

Genus *Melanophila* Eschscholtz 1829

Melanophila Eschscholtz 1829:9.

Type species: *Buprestis acuminata* DeGeer 1774 (fixed by subsequent designation: Opinion 1826, ICZN 1996b:60).

Apatura Laporte & Gory 1837:1 (preoccupied: *Apatura* Fabricius 1807, Lepidoptera) – Synonymy: Lacordaire 1857:47.

Type species: *Buprestis appendiculata* Fabricius 1792 (= *acuminata* (DeGeer 1774)) (fixed by subsequent designation: Desmarest 1841:641).

Oxypteris Kirby 1837:160 (as subgenus of *Buprestis*) – Synonymy: Lacordaire 1857:47.

Type species: *Buprestis appendiculata* Fabricius 1792 (= *acuminata* (DeGeer 1774)) (fixed by original designation).

Trachypteris sensu Akiyama & Ohmomo 2000 (part).

Taxonomy: Sloop 1937 (revision No. Amer. spp.); Cobos 1987 (revision world spp.); Volkovitsh, 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Sloop 1837:4; Cobos 1987:52.

Ecology: Sloop 1937; Cobos 1987 (biol., distr.).

Key(s): Sloop 1937:6 (No. Amer.); Wellso, *et al.* 1976:9 (MI); Bright 1987:125 (Canada & AK); Cobos 1987:56 (world); MacRae 1991:111 (MO).

acuminata (DeGeer) 1774:133 (*Buprestis*).

Type locality: Sweden – Type depository: NHRS (♀).

synonym: *acuta* (Gmelin) 1790:1939 (*Buprestis*) – Synonymy: Saunders 1871:48.

Type locality: Europe – Type depository: unknown.

synonym: *appendiculata* (Fabricius) 1792:210 (*Buprestis*) – Synonymy: Saunders 1871:48.

Type locality: Germany – Type depository: type lost.

synonym: *morio* (Fabricius) 1792:210 (*Buprestis*) – Synonymy: Saunders 1871:48.

Type locality: Hafniae Dom. Lund – Type depository: NHRS (♀).

synonym: *longipes* (Say) 1823:163 (*Buprestis*) – Synonymy: Burke 1919a:107.

Type locality: PA & W. states – Type depository: types destroyed.

synonym: *immaculata* Mannerheim 1837:70 – Synonymy: Burke 1919a:107.

Type locality: “Amer. Bor.” – Type depository: UZMH (♂) (Lectotype designation: Nelson 1976:167).

synonym: *anthaxoides* Marquet 1870:368 – Synonymy: Obenberger 1930:443.

synonym: *opaca* LeConte 1860:213 – Synonymy: Cobos 1987:61.

Type locality: GA – Type depository: MCZC 2676.

Type locality: France, Hyères; Spain l’Escorial – Type depository: type lost.

synonym: *obscurata* Lewis 1893:331 – Synonymy: Théry 1942:71.

Type locality: Japan: Yezo (= Hokkaido), Otaru & Kiushiu, Higo – Type depository: BMNH.

misidentification: *pecchiolii* of authors, not *pecchiolii* Gory & Laporte 1839.

misidentification: *hungarica* of authors, not *hungarica* Csiki 1905.

Immature stages: Benoit 1966b: figs. 1–4, 9–14 (larva).

Taxonomy: Sloop 1937; Nelson 1980a; Cobos 1987.

Redescription: Sloop 1937:8, figs. 9, 18, 20 (♂ genitalia, wing, thorax); Barr 1971: plate 7, fig. 4 (adult); Cobos 1987:61; Akiyama & Ohmomo 2000: fig. 964 (♂, ♀).

Ecology: Burke 1919a; Sloop 1937; Benoit 1965 (biol.); Cobos 1987 (biol., distr.); Davies 1991; Dearborn & Donahue 1993 (distr.).

Distribution: **Canada:** AB, BC, MB, NF, NT, ON, PQ, SK, YT; **USA:** AK, AL, AZ, CA, CO, CT, DC, FL, GA, IA, ID, IL, IN, KS, KY, ME, MI, MN, MT, NE, NC, NH, NJ, NM, NY, OR, PA, SD, TX, UT, VA, WA, WI, WY; also recorded from Central America, the West Indies and the Old World.

Host(s): larvae in *Abies balsamea* (L.) Mill., *A. grandis* (Dougl.) Lindl., *Betula alleghaniensis* Britt., *Cupressus macrocarpa* Gord., *Picea glauca* (Moench) Voss., *Pinus contorta* Loud. var. *murrayana*

BUPRESTIDAE: Buprestinae: Melanophilini

(Grev. & Balf.) Critchf., *P. resinosa* Ait., *P. strobes* L. and *Thuja occidentalis* L.; adults also on *Picea engelmannii* Engelm., *P. sitchensis* (Bong.) Carr., *Pinus ponderosa* Laws. and *Thuja plicata* D. Don.

acuta (Gmelin 1790) [syn. of *acuminata*]

anthaxoides Marquet 1870 [syn. of *acuminata*]

appendiculata (Fabricius 1792) [syn. of *acuminata*]

atropurpurea (Say) 1823:160 (*Buprestis*).

Type locality: "Arkansa" – Type depository: type destroyed.

misidentification: *acuminata* of authors, not *acuminata* DeGeer 1774.

misidentification: *occidentalis* of authors, not *occidentalis* Obenberger 1928.

Taxonomy: Sloop 1937; Cobos 1987.

Redescription: Sloop 1937:10, fig. 10 (♂ genitalia); Cobos 1987:70, figs. 27, 28 (silhouette ♂, ♂ genitalia).

Ecology: Sloop; 1937; Barr & Linsley 1947; Cobos 1987 (biol., distr.).

Distribution: USA: AR, AZ, CA, CO, KS, NM, OR, TX, UT; also recorded from Mexico.

Host(s): larvae in *Abies* sp., *Pinus ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.

consputa LeConte 1857:44.

Type locality: Northern CA – Type depository: MCZC 2677.

unavailable name: *isolata* Obenberger 1928:209 (as aberration of *consputa*) – Synonymy: Sloop 1937:6.

Type locality: CA – Synonymy: Sloop 1937:6 – Type depository: NMPC

unavailable name: *monochroa* Obenberger 1928:209 (as aberration of *consputa*) – Synonymy: Sloop 1937:6.

Type locality: CA. – Type depository: NMPC

unavailable name: *chamberlini* Obenberger 1944:318 (as aberration of *consputa*).

Type locality: CA – Type depository: NMPC.

unavailable name: *franciscana* Obenberger 1944:318 (as aberration of *consputa*).

Type locality: CA, San Francisco – Type depository: NMPC.

unavailable name: *occitanea* Obenberger 1944:318 (as aberration of *consputa*).

Type locality: CA – Type depository: NMPC

Taxonomy: Sloop 1937; Cobos 1987.

Redescription: Sloop 1937:6, figs. 11, 22 (♂ genitalia, elytra); Helfer 1970:98 (adult); Cobos 1987:78; Akiyama & Ohmomo 2000: fig. 959 (♂, ♀).

Ecology: Ricksecker 1885; Sloop 1937; Beer 1940; 1949; Linsley 1943; Barr & Linsley 1947; Linsley & Hurd 1957 (biol.); Barr 1969a; Kirk & Balsbaugh, Jr. 1975 (distr.); Cobos 1987 (biol., distr.).

Distribution: USA: AZ, CA, CO, ID, NV, OR, SD, UT, WA; also recorded from Mexico.

Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin, *Eucalyptus* sp., *Pinus attenuata* Lemmon, *P. contorta* Loud., *P. c. var. murrayana* (Grev. & Balf.) Critchf., *P. ponderosa* Laws., *P. radiata* D. Don, *P. torreyana* Carr. and *Pseudotsuga menziesii* (Mirb.) Franco; adults also feed on termites.

elegans Sloop 1937 [syn. of *notata*]

hungarica Csiki 1905 [syn. of *notata*]

immaculata Mannerheim 1837 [syn. of *acuminata*]

longipes (Say 1823) [syn. of *acuminata*]

luteosignata Mannerheim 1837 [syn. of *notata*]

morio (Fabricius 1792) [syn. of *acuminata*]

notata (Laporte & Gory) 1837:4, plate 1, fig. 5 (adult) (*Apatura*).

Type locality: "Amer. Bor." – Type depository: MNHN.

synonym: *luteosignata* Mannerheim 1837:70 – Synonymy: LeConte 1860:212.

Type locality: "Amer. Bor." – Type depository: UZMH (♀) (Lectotype designation: Nelson 1976:167).

synonym: *hungarica* Csiki 1905:579 – Synonymy: Nelson 1980a:92.

Type locality: Hungary (error or introduced) – Type depository: HNHM (Lectotype not designated).

synonym: *elegans* Sloop 1937:7, fig. 23 (elytra) (as subspecies of *notata*) – Synonymy: Cobos 1987:75

Type locality: AZ, Douglas. – Type depository: CASC 4537 (♀).

unavailable name: *horniella* Obenberger 1944:318 (as aberration of *notata*, based on plate 4, fig. 6 in Horn 1882).

unavailable name: *paupera* Obenberger 1944:318 (as aberration of *notata*).

Type locality: NC – Type depository: NMPC.

unavailable name: *sloopi* Obenberger 1944:318 (as aberration of *notata*, based on fig. 24 in Sloop 1937).

Type locality: FL – Type depository: NMPC.

Taxonomy: Sloop 1937; Nelson 1980a; Cobos 1987.

Redescription: Sloop 1937:7, fig. 24 (elytra); Cobos 1987:75, figs. 31–34 (silhouettes ♂, ♀; ♂ genitalia).

Ecology: Sloop 1937; Craighead 1950 (biol.); Cobos 1987 (biol., distr.); Nelson 1987a (distr.).

Distribution: **USA**: AL, AZ, DC, FL, GA, IN, LA, MS, NC, NJ, OK, SC; also recorded from Mexico, Central America and the West Indies.

Host(s): unknown.

obscurata Lewis 1893 [syn. of *acuminata*]

occidentalis Obenberger 1928:209.

Type locality: CA – Type depository: NMPC.

Taxonomy: Sloop 1937; Cobos 1987.

Redescription: Sloop 1937:10, fig. 12 (♂ genitalia); Cobos 1987:68, figs. 25, 26 (silhouette ♂, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 962 (♂, ♀).

Ecology: Sloop 1937; Beer 1940; Barr & Linsley 1947; Linsley & Hurd 1957 (biol.); Cobos 1987 (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada**: BC; **USA**: AZ, CA, ID, OR, UT, WA

Host(s): larvae in *Arbutus menziesii* Pursh, *Quercus garryana* Dougl. and *Q. john-tuckeri* K. Nixon & C.H. Muller; adults also on *Eucalyptus* sp., *Juniperus californica* Carr., *Larrea tridentata* (DC.) Cov., *Quercus kelloggii* Newb., *Q. chrysolepis* Liebm. and *Tamarix* sp.

opaca LeConte 1860 [syn. of *acuminata*]

Genus *Phaenops* Dejean 1833

Phaenops Dejean 1833:79.

Type species: *Buprestis cyaneus* Fabricius 1775 (fixed by subsequent designation: Opinion 1826, ICZN 1996b:60).

Melanophila of authors (in part), not *Melanophila* Eschscholtz 1829.

Taxonomy: Bellamy 1997d Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Sloop 1937:11 (USA); Barr 1971:65 (Pacific NW); Wellso, *et al.* 1976:9 (MI); Bright 1987:125; (Canada & AK); Downie & Arnett 1996:750 (NE USA).

abies (Champlain & Knull) 1923b:105 (*Melanophila*, as variety of *drummondii*).

Type locality: Western ON, Lake Opasatika – Type depository: CNCI 543 (♂).

unavailable name: *abietis* (Obenberger) 1930:441 (*Melanophila*) (unjustified emendation).

unavailable name: *abietis* Nelson 1980a:93 (unjustified change of author).

Taxonomy: Sloop 1937; Nelson 1980a; 1985b.

Redescription: Sloop 1937:14; Nelson 1980a:93, fig. 8 (adult, clypeus).

Ecology: Sloop 1937 (biol., distr.); Davies 1991; Westcott 1991 (distr.).

Distribution: **Canada**: NB, ON, PQ; **USA**: NH, NY

Host(s): adults on *Abies balsamea* Mill.

aeneola (Melsheimer) 1845:146 (*Melanophila*).

Type locality: PA – Type depository: MCZC 34640 (Holotype authenticated: Nelson 1985b:142).

synonym: *metallicus* (Melsheimer) 1845:146 (*Melanophila*) – Synonymy: LeConte 1860:214.

Type locality: PA – Type depository: MCZC 34641 (Holotype authenticated: Nelson 1985b:142).

Taxonomy: Sloop 1937; Nelson 1985b.

Redescription: Sloop 1937:12, figs. 8, 13 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 823 (♂, ♀).

Ecology: Burke 1919a; Sloop 1937; Howden & Vogt 1951; Nelson, *et al.* 1981; Bright 1987 (distr., biol.); Nelson 1987a; Davies 1991; MacRae 1991 (distr.); Dearborn & Donahue 1993; MacRae & Nelson 2003 (biol.).

Distribution: **Canada**: ON, PQ; **USA**: AL, DC, DE, FL, GA, LA, MD, ME, MI, MO, MS, NC, NH, NJ, NY, PA, SC, TX, VA, WI, WV

Host(s): larvae in *Pinus resinosa* Ait. and *P. virginiana* Mill.; adults also on *Picea* sp., *Pinus banksiana* Lamb. and *P. echinata* P. Mill.

arcuatus (Fall 1932) [syn. of *lecontei*]

BUPRESTIDAE: Buprestinae: Melanophilini**californica** (Van Dyke) 1918:54 (*Melanophila*).

Type locality: CA, Trinity Co., Carrville – Type depository: CASC 3282 (♂).

unavailable name: *monostigmus* (Obenberger) 1944:319, plate 1, fig. 18 (elytra) (*Melanophila*, as aberration of *californicus*).

Type locality: OR, Baker Co., Wallowa Mtns. (Type information from type label) – Type depository: NMPC.

unavailable name: *tetractictulus* (Obenberger) 1944:319, plate 1, fig. 17 (elytra) (*Melanophila*, as aberration of *californicus*).

Type locality: CA, Carville; OR, Baker Co, Wallowa Mtns. (Type locality information from syntype labels) – Type depository: NMPC (Lectotype not designated).

unavailable name: *vandykeanus* (Obenberger) 1944:319, plate 1, fig. 19 (elytra) (*Melanophila*, as aberration of *californica*).

Type locality: CA, Carville (Type information from type label) – Type depository: NMPC (Lectotype not designated).

Immature stages: West 1947: figs. 2–6 (egg, larva, pupa).

Taxonomy: Sloop 1937.

Redescription: Sloop 1937:16, fig. 4 (♂ genitalia); West 1947: fig. 1 (adult); Akiyama & Ohmomo 2000: fig. 827 (♂, ♀).

Ecology: Burke 1919a; Keen 1949; Leech 1959; Powell 1965; Lyon 1970 (biol.); Nelson & Westcott 1976; Davies 1991 (distr.).

Distribution: USA: CA, ID, NV, OR, WA; also recorded from Mexico.

Host(s): larvae in *Pinus attenuata* Lemmon, *P. coulteri* D. Don, *P. jeffreyi* Grev. & Balf., *P. ponderosa* Laws., *P. radiata* D. Don, *P. sabiniana* Dougl. and *Pseudotsuga macrocarpa* (Vasey) Mayr.

carolina (Manee) 1913:171 (*Melanophila*).

Type locality: NC, Southern Pines – Type depository: USNM 27475.

Taxonomy: Sloop 1937.

Redescription: Sloop 1937:14.

Distribution: USA: NC, SC

Host(s): adults on *Pinus palustris* Mill.

caseyi (Obenberger) 1944:321 (*Melanophila*).

Type locality: CA – Type depository: NMPC (♂).

Distribution: USA: CA

Host(s): unknown.

croceosignatus (Laporte & Gory 1837) [syn. of *fulvoguttata*]

decoloratus (Laporte & Gory 1837) [syn. of *fulvoguttata*]

drummondi drummondi (Kirby) 1837:159, plate 2, fig. 8 (adult) (*Buprestis*).

Type locality: Lat. 54° & 65°, in Rocky Mtns. – Type depository: BMNH (Lectotype not designated).

synonym: *umbellatarum* (Kirby) 1837:159 (*Buprestis*) – Synonymy: Chamberlin 1926:214.

Type locality: Lat. 54°, near Cumberland House – Type depository: BMNH? (Lectotype not designated; syntypes not located 1976).

synonym: *guttulatus* (Mannerheim) 1853:221 (*Melanophila*), not Gebler – Synonymy: LeConte 1860:213.

Type locality: “Amer. Bor.” – Type depository: UZMH.

unavailable name: *tristiculus* (Obenberger) 1928:209 (*Melanophila*, as aberration of *d. drummondi*).

Type locality: not stated – Type depository: NMPC.

unavailable name: *plagiferus* (Obenberger) 1928:210 (*Melanophila*, as aberration of *d. drummondi*).

Type locality: CA, White Mtns. Type depository: NMPC.

unavailable name: *lanchesteri* (Obenberger) 1944:320, plate 1, fig. 22 (elytra) (*Melanophila*, as aberration of *d. drummondi*).

Type locality: CA, Carville – Type depository: NMPC (Lectotype not designated).

unavailable name: *monostictulus* (Obenberger) 1944:320 (*Melanophila*, as aberration of *d. drummondi*).

Type locality: CA – Type depository: NMPC.

unavailable name: *quirsfieldi* (Obenberger) 1944:320, plate 1, fig. 24 (elytra) (*Melanophila*, as aberration of *d. drummondi*).

Type locality: OR – Type depository: NMPC.

Immature stages: Burke 1917a: plate 2, fig. 2 (larva).

Taxonomy: Sloop 1937; Nelson 1980a.

Redescription: Sloop 1937:16, figs. 6, 16 (♂ genitalia, elytra); Helfer 1970:98 fig. (adult); Barr 1971: plate 7, fig. 5 (adult); Nelson 1980a: fig. 10 (adult, clypeus); Akiyama & Ohmomo 2000: fig. 829, 1–2 (♂, ♀).

Ecology: Burke 1919a; Chamberlin 1925a; Sloop 1937 (biol., distr.); Nelson & Westcott 1976 (biol.); Davies 1991 (distr.).

Distribution: **Canada:** AB, BC, YK; **USA:** AK, AZ, CA, CO, ID, MT, NM, OR, UT, WA, WY

Host(s): larvae in *Abies*, *Cedrus*, *Larix*, *Picea* and *Pseudotsuga*.

drummondi nicolayi (Obenberger) 1944:320, plate 1, fig. 23 (elytra) (*Melanophila*, as aberration of *drummondi*, elevated to ssp. by Wellso, *et al.* 1976:9).

Type locality: NH – Type depository: NMPC (♂).

Taxonomy: Obenberger 1944; Wellso, *et al.* 1976.

Redescription: Akiyama & Ohmomo 2000: fig. 829, 3–4 (♂, ♀)

Ecology: Wellso, *et al.* 1976 (biol., distr.); Westcott 1991 (distr.); Wellso & Jackman 2006 (biol.).

Distribution: **USA:** NH, MI, NY

Host(s): larvae in *Larix laricina* (DuRoi) K. Koch; adults also on “conifers”.

fulvoguttata (Harris) 1829:2 (*Buprestis*).

Type locality: New England, not stated – Type depository: MCZC.

synonym: *croceosignatus* (Laporte & Gory) 1837:5, plate 1, fig. 6 (adult) (*Apatura*) – Synonymy: Saunders 1871:48.

Type locality: No. Amer. – Type depository: MNHN (♂).

synonym: *decoloratus* (Laporte & Gory) 1837:5, plate 1, fig. 7 (adult) (*Apatura*) – Synonymy: Saunders 1871:48.

Type locality: “Amer. Bor.” – Type depository: MNHN.

synonym: *octospilotus* (Laporte & Gory) 1837:4, plate 1, fig. 4 (adult) (*Apatura*) – Synonymy: Saunders 1871:48.

Type locality: No. Amer. – Type depository: MNHN.

misspelling: *octospilatus* (*lapsus calami*).

misidentification: *guttulatus* of authors, not *guttulatus* Gebler 1830.

unavailable name: *harrisi* (Obenberger) 1944:320, plate 1, fig. 14 (elytra) (*Melanophila*, as aberration of *fulvoguttata*).

Type locality: PA – Type depository: NMPC

unavailable name: *pacificus* (Obenberger) 1944:320, plate 1, fig. 13 (elytra) (*Melanophila*, as aberration of *fulvoguttata*).

Type locality: CA – Type depository: NMPC

Immature stages: Benoit 1966b: figs. 1–4 (larva).

Taxonomy: Sloop 1937.

Redescription: Knull 1925: plate 5, fig. 1 (adult); Sloop 1937:15, fig. 2 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 826 (♂, ♀).

Ecology: Felt 1906; Burke 1919a; Knull 1920 (biol.); Sloop 1937 (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada:** ON, QC; **USA:** CT, MA, ME, MI, NC, NH, NJ, NY, PA, SC, TN, WV

Host(s): larvae in *Abies balsamea* (L.) Mill., *Larix laricina* (DuRoi) K. Koch, *Picea glauca* (Moench) Voss, *P. mariana* (Mill.) B.S.P., *P. rubens* Sarg., *Pinus strobus* L. and *Tsuga canadensis* Carr.

gentilis (LeConte) 1863:42 (*Melanophila*, replacement name for *prasina* (LeConte 1860)).

synonym: *prasinus* (LeConte) 1860:254 (*Melanophila*, preoccupied: *prasina* Mannerheim 1837).

Type locality: CA, San Mateo – Type depository: MCZC 2678.

Taxonomy: Sloop 1937.

Redescription: Good 1925: plate 8 (wing); Sloop 1937:14, figs. 1, 17, 21 (♂ genitalia, wing, thorax); Akiyama & Ohmomo 2000: fig. 838 (♂, ♀).

Ecology: Chamberlin 1917; Burke 1917b; 1919a (biol.); Nelson & Westcott 1976; Davies 1991 (distr.).

Distribution: **Canada:** BC; **USA:** AZ, CA, CO, ID, MT, NE, NM, NV, OR, SD, UT, WA

Host(s): larvae in *Pinus contorta* Loud., *P. contorta* var. *murrayana* (Grev. & Balf.) Critchf., *P. ponderosa* Laws. and *P. scopulorum* Engelm.

guttulatus (Mannerheim 1853) [syn. of *drummondi drummondi*]

BUPRESTIDAE: Buprestinae: Melanophilini, Actenodini

horni (Obenberger) 1944:319 (*Melanophila*).

Type locality: NY, Buffalo – Type depository: NMPC (Lectotype not designated).

unavailable name: *immaculatellus* Obenberger 1944:319 (*Melanophila*, as aberration of *horni*).

Type locality: NY, Buffalo – Type depository: NMPC.

Distribution: **USA**: NY.

Host(s): unknown.

intrusa (Horn) 1882:105 (*Melanophila*).

Type locality: NV – Type depository: MCZC 8123.

Immature stages: Burke 1917a: plate 2, fig. 3 (larva).

Taxonomy: Sloop 1937.

Redescription: Sloop 1937:12, fig. 7 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 824 (♂, ♀).

Ecology: Burke 1917b; 1919a; Beer 1940; Leech 1959 (biol.); Nelson & Westcott 1976 (biol., distr.); Davies 1991 (distr.); Westcott 1991.

Distribution: **Canada**: BC, NB; **USA**: AZ, CA, CO, ID, MT, NV, OR, WA

Host(s): larvae in *Larix occidentalis* Nutt., *Pinus attenuata* Lemmon, *P. flexilis* James, *P. lambertiana* Dougl. and *P. ponderosa* Laws.

lecontei (Obenberger) 1928:210 (*Melanophila*).

Type locality: CA, Tahoe, Grass Valley – Type depository: NMPC.

synonym: *arcuatus* (Fall) 1932:83 (*Melanophila*) – Synonymy: Nelson, *et al.* 1996:189.

Type locality: AZ, Grand Cyn. of the Colo., N. Rim – Type depository: MCZC 24438 (♀).

unavailable name: *burkei* (Obenberger) 1944:321, plate 1, fig. 10 (elytra) (*Melanophila*, as aberration of *lecontei*).

Type locality: OR – Type depository: NMPC.

unavailable name: *oregonicus* (Obenberger) 1944:321 plate 1, fig. 9 (elytra) (*Melanophila*, as aberration of *lecontei*).

Type locality: OR – Type depository: NMPC.

Taxonomy: Nelson 1980a; Nelson, *et al.* 1996.

Redescription: Obenberger 1944: plate 1, fig. 11 (elytra); Nelson 1980a: fig. 9 (adult, clypeus); Akiyama & Ohmomo 2000: fig. 828 (♂, ♀).

Ecology: Nelson, *et al.* 1981; 1996 (biol., distr.); Westcott 1991 (distr.); 2007b (distr.)

Distribution: **Canada**: BC; **USA**: AZ, CA, CO, ID, MT, NM, OR, UT, WA, WY

Host Larvae in bark of *Abies concolor* (Gord. & Glend.) Lindl., *A. lasiocarpa* (Hook.) Nutt., *A. magnifica* A. Murr. and *Tsuga mertensiana* (Bong.) Carr.; adults also on *Abies bracteata* D. Don and *Pinus* sp.

metallicus (Melsheimer 1845) [syn. of *aeneola*]

nicolayi (Obenberger) 1944) [ssp. of *drummondi*]

obenbergeri (Knull) 1952:350 (*Melanophila*), fig. 2 (♀ type).

Type locality: TX, Fayette Co. – Type depository: FMNH (♀)

Distribution: **USA**: TX

Host(s): unknown.

obtusa (Horn) 1882:106 (*Melanophila*).

Type locality: GA – Type depository: MCZC 33789.

Taxonomy: Sloop 1937.

Ecology: Nelson & Westcott 1976; (biol., distr.); MacRae 2006 (distr.).

Distribution: **USA**: AL, FL, GA, LA, MS, NY, SC

Host(s): adults on *Pinus* sp.

octospilotus (Laporte & Gory 1837) [syn. of *fulvoguttata*]

piniedulis (Burke) 1908:117, fig. 6 (♀) (*Melanophila*).

Type locality: AZ, Bright Angel Hotel, Grand Cyn. P.O. – Type depository: USNM 11351.

Taxonomy: Sloop 1937.

Redescription: Sloop 1937:15, figs. 3, 14 (♂ genitalia, elytra); Akiyama & Ohmomo 2000: fig. 831 (♂, ♀).

Ecology: Burke 1919a; Sloop 1937; Nelson 1962 (biol., distr.); Barr 1969a; Knull 1974 (distr.); MacRae & Nelson 2003 (biol.).

Distribution: **USA**: AZ, CA, CO, NM, NV, TX, UT

Host(s): larvae in *Pinus edulis* Engelm. and *P. monophylla* Torr. & Frem.

prasinus (LeConte 1860) [syn. of *gentilis*]

umbellatarum (Kirby 1837) [syn. of *drummondi drummondi*]

vandykei (Obenberger) 1944:321 (*Melanophila*).

Type locality: CA, Carville – Type depository: NMPC 22081.

Redescription: Akiyama & Ohmomo 2000: fig. 825 (♂, ♀).

Distribution: **USA:** CA

Host(s): unknown.

Genus *Xenomelanophila* Sloop 1937

Xenomelanophila Sloop 1937:18.

Types species: *Phaenops mirandus* LeConte (fixed by monotypy).

Trachypteris sensu Akiyama & Ohmomo 2000 (part).

Taxonomy: Sloop 1937; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Sloop 1937.

miranda LeConte 1854b:83 (*Phaenops*).

Type locality: NM, Fort Union – Type depository: MCZC 2675.

Taxonomy: Sloop 1937; Cobos 1987.

Redescription: Sloop 1937: figs. 5, 15 19 (♂ genitalia, elytra, wing); Cobos 1987:88, figs. 40, 45, 48 (♂ genitalia, ovipositor); Akiyama & Ohmomo 2000: fig. 967 (♂ & ♀ as *Trachypteris miranda*).

Ecology: Sloop 1937 (distr.); Barr 1971; Cobos 1987; (biol., distr.); Westcott 2007b (biol., distr.).

Distribution: **USA:** AZ, CA, CO, ID, NM, NV, OR, TX, UT, WA; also recorded from Mexico.

Host(s): larvae in *Juniperus occidentalis* Hook. And adults on *Calocedrus decurrens* (Torr.) Florin.

Genus *Juniperella* Knull 1947

Juniperella Knull 1947a:69, plate 1, fig. 2 (adult).

Type species: *Juniperella mirabilis* Knull 1947 (fixed by original designation).

Taxonomy: Knull 1947a; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

mirabilis Knull 1947a:69, plate 1, fig. 2 (adult).

Type locality: CA, Santa Rosa Mtns., 4000' – Type depository: FMNH (♀).

Immature stages: Alten 2005: figs. 1–3 (larval workings, larva, pupa).

Redescription: Akiyama & Ohmomo 2000: fig. 968 (♂, ♀).

Ecology: Knull 1948; Nelson 1960b; 1962; Alten 2005 (biol.).

Distribution: **USA:** CA

Host(s): larvae in *Juniperus californica* Carr.

Tribe Actenodini Kerremans 1890

Actenodites Kerremans 1890:cxv.

Type genus: *Actenodes* Dejean 1833.

Belionota Jackson 1913:793, not Eschscholtz 1829.

Type genus: *Belionota* Eschscholtz 1829.

Classification: Fisher 1942; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Bellamy & Nelson 2002:104 (genus).

Genus *Actenodes* Dejean 1833

Actenodes Dejean 1833:80.

Type species: *Buprestis nobilis* Linnaeus 1758 (fixed by monotypy).

Taxonomy: Fisher 1942 (revision No. Amer. spp.); Volkovitsh 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Fisher 1942:4.

Ecology: Burke 1917a (biol.); Fisher 1942 (biol., distr.).

Key(s): Fisher 1942:5, Knull 1964:377, Nelson 1979:90.

BUPRESTIDAE: Buprestinae: Actenodini, Chrysobothrini**acornis** (Say) 1833:63 (*Buprestis*).

Type locality: IN, Lake Co. – Type depository: USNM (♀ neotype designated: Fisher 1942:14).
 synonym: *rugulosus* (Gory) 1841:177 (*Chrysobothris*) – Synonymy: LeConte 1873:332.

Type locality: “Amer. Bor.” Type depository: MNHN (Lectotype not designated).
 synonym: *punctatus* (Melsheimer) 1845:147 (*Chrysobothris*) – Synonymy: LeConte 1860:241.
 Type locality: PA. Type depository: MCZC.

synonym: *californicus* (Motschulsky) 1859:184 (*Belionota*) – Synonymy: Horn 1886:118.

Type locality: Nova-Helvetica CA, Sacramento – Type depository: ZMUM (original type was lost).

Taxonomy: Fisher 1942.

Redescription: Knull 1925; plate 5 (adult); Good 1925: plate 8 (wing); Fisher 1942:14 (♂, ♀), fig. 110F (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1432 (♂, ♀).

Ecology: Fisher 1942; Wellso 1974; Nelson, *et al.* 1981; Nelson & MacRae 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: AL, CT, DC, FL, GA, IA, IL, IN, KS, KY, LA, MD, MI, MO, MS, NC, NJ, NY, OH, OK, PA, TN, TX, VA, WI, WV

Host(s): larvae in *Acer rubrum* L., *A. saccharum* Marsh., *Betula lenta* L., *B. nigra* L., *Carya glabra* (Mill.) Sweet, *C. illinoensis* (Wangenh.) K. Koch, *C. laciniosa* (Michx. f.) G. Don, *C. ovata* (Mill.) K. Koch, *Cercis canadensis* L., *Fagus grandifolia* Ehrh. and *Quercus velutina* Lam.; adults also on *Diospyros virginiana* L. and *Quercus prinoides* Willd.

arizonicus Knull 1927:115.

Type locality: AZ, Tucson – Type depository: FMNH (♀).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:12 (♂, ♀), fig. 110E (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1431 (♂, ♀).

Ecology: Fisher 1942 (distr.); Nelson 1962; Walters 1978 (biol.).

Distribution: USA: AZ, CA

Host(s): adults on *Prosopis glandulosa* Torr.

auronotatus Gory & Laporte 1837:20, plate 4, fig. 30 (adult).

Type locality: Cuba – Type depository: MNHN.

synonym: *bellus* LeConte 1860:240 – Synonymy: Fisher 1942:6.

Type locality: GA – Type depository: MCZC 2710 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:6 (♂, ♀), fig. 110A (♂ genitalia) Akiyama & Ohmomo 2000: fig. 1433 (♀).

Ecology: Fisher 1942 (biol., distr.); Nelson, *et al.* 1981 (biol.).

Distribution: USA: FL, GA; also recorded from the West Indies.

Host(s): larvae in *Baccharis halimifolia* L., *Metopium toxiferum* (L.) Krug & Urban and *Taxodium distichum* (L.) Rich.; adults also on *Cajanus cajan* (L.) Millsp., *Casuarina equisetifolia* Foster and *Lysiloma latisiliquum* (L.) Benth.

bellus LeConte 1860 [syn. of *auronotatus*]

calcaratus (Chevrolat) 1835: No. 103 (*Belionota*).

Type locality: Mexico: Pres des mines Zimapan – Type depository: BMNH.

synonym: *fulguratus* (Mannerheim) 1837:80 (*Chrysobothris*) – Synonymy: Saunders 1871:93.

Type locality: Mexico – Type depository: UZMH (♂) (Lectotype designated: Nelson 1976:168.).

synonym: *lebasi* (Gory & Laporte) 1837:30 (*Chrysobothris*), plate 6, fig. 43 (adult) – Synonymy: Saunders 1871:93.

Type locality: Colombia: Carthagene – Type depository: MNHN.

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:9 (♂, ♀), fig. 110C (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1429 (♂, ♀).

Ecology: Fisher 1942; Nelson 1962; Walters 1978; Westcott 1991 (distr.); MacRae 2006 (distr., biol.).

Distribution: USA: AZ, CA, LA, TX; also recorded from Mexico, Central and South America.

Host(s): larvae in *Acacia farnesiana* (L.) Willd., *Cercidium floridum* Gray, *Leucaena pulverulenta* (Schlecht.) Benth., *Olneya tesota* Gray and *Ziziphus obtusifolia* (T. & G.) Gray; adults also on *Acacia constricta* Benth., *A. pennatula* (Schltld. & Cham.) Benth., *Parkinsonia* sp. and *Prosopis glandulosa* Torr.

californicus (Motschulsky 1859) [syn. of *acornis*]

davidi Nelson 1979:87, figs. 1–3 (♂, ♀), (♂ genitalia).

Type locality: MO, Jackson Co., Lees Summit – Type depository: CASC 13668 (♀).

Ecology: Westcott 1991 (biol., distr.); MacRae & Nelson 2003 (biol.).

Distribution: **USA:** KS, KY, MO, MS, TX

Host(s): larvae in *Gleditsia triacanthos* L.

flexicaulis Schaeffer 1904:209.

Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM 42369 (♀) (Lectotype designation: Fisher 1942:9).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:8 (♂, ♀), fig. 110B (♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Vogt 1949b; Manley 1977 (biol.).

Distribution: **USA:** TX

Host(s): larvae in *Celtis ehrenbergia* (Klot.) Liebm.; adults also on *Acacia farnesiana* (L.) Willd., *Condalia hooker* Johnston and *Ebenopsis ebano* (Berl.) Barneby & Grimes.

fulguratus (Mannerheim) 1837) [syn. of *calcaratus*]

lebasi (Gory & Laporte 1837) [syn. of *calcaratus*]

mendax Horn 1891:46.

Type locality: TX – Type depository: MCZC 33799 (♂) (Lectotype designation: Fisher 1942:12).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:11 (♂, ♀), fig. 110D (♂ genitalia); Nelson 1979: fig.4 (♀).

Ecology: Fisher 1942 (biol., distr.); Wellso 1974 (biol.); Nelson & Westcott 1979 (distr.).

Distribution: **USA:** AZ, NM, TX

Host(s): larvae in *Gleditsia triacanthos* L. and *Prosopis glandulosa* Torr.

mimicus Knull 1964:376 (♂, ♀), figs. 1, 2 (♂ genitalia).

Type locality: AZ, Chiricahua Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1964.

Ecology: Knull 1964 (biol., distr.).

Distribution: **USA:** AZ

Host(s): adults on *Quercus hypoleucoides* Camus.

punctatus (Melsheimer 1845) [syn. of *acornis*]

rugulosus (Gory 1841) [syn. of *acornis*]

simi Fisher 1940:176.

Type locality: NJ, Brigantine – Type depository: USNM 54368 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:15 (♂, ♀).

Ecology: Fisher 1942; Nelson, *et al.* 1981 (distr.); Westcott 1991; MacRae & Nelson 2003 (biol.); MacRae 2006; Wellso & Jackman 2006 (biol., distr.).

Distribution: **USA:** IA, KS, IN, MA, MI, MO, NH, NJ, NY, PA, RI, TX, WI

Host(s): larvae in *Acer saccharinum* L., *Celtis tenuifolia* Nutt., *Quercus alba* L. and *Ulmus crassifolia* Nutt.; adults also on *Quercus palustris* Muenchh. and *Q. velutina* Lam.

Tribe Chrysobothrini Gory & Laporte 1838

“Chrysobothrites, Chrysobothridae” Gory & Laporte 1838:1.

Type genus: *Chrysobothris* Eschscholtz 1829.

Scutellatae Section 4 Schönherr 1817.

Chrysobothridae Gory & Laporte 1838.

Chrysobothrites Gory & Laporte 1838.

Actenodeidae Gistel 1848b; 1856.

Type genus: *Tamina* Gistel 1848.

Buprestides vrais Lacordaire 1857 (part).

Chrysobothrides Lacordaire 1857.

Anthaxites Jacquelin du Val 1863 (part).

Chrysobothres LeConte 1861.

Anthaxiina C. G. Thomson 1864.

Anthaxiini Schioedte 1865.

BUPRESTIDAE: Buprestinae: Chrysobothrini

Buprestinae Bøving & Craighead 1931 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Fisher 1942; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Bellamy & Volkovish 1997; Bílý 1999a; Kolibác 2001; Volkovitch 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Kerremans 1893:111; 1903:181; Fisher 1942:4 (genera); Arnett 1962:485; Hołyński 1993:33; Bellamy & Volkovitch 1997; Bellamy & Nelson 2002:104 (genera).

Genus *Chrysobothris* Eschscholtz 1829

Chrysobothris Eschscholtz 1829:9 (original spelling: *Chrysobotris*, emended by Dejean 1833; emended spelling confirmed by Opinion 1784, ICZN 1994:989).

Type species: *Buprestis chryso stigma* Linnaeus 1758 (fixed by subsequent designation: Westwood 1838:24).

Amblis Gistel 1834:10 – Synonymy: Mannerheim 1837:74.

Type species: *Bupresties chryso stigma* Linnaeus 1758 (fixed by subsequent designation: Bellamy 2003a:10).

Odontomus Kirby 1837:156 (as subgenus of *Buprestis*) – Synonymy: Lacordaire 1857:75.

Type species: *Buprestis chryso stigma* Linnaeus 1758 (fixed by original designation).

Tamina Gistel 1848:cover – (3) (pp. 9, 11 above) – Synonymy: Bellamy 2003a:11.

Type species: *Buprestis chryso stigma* Linnaeus 1758 (fixed by subsequent designation: Bellamy 2003a:11).

Enocys Gistel 1856:366 – Synonymy: Obenberger 1934a:578.

Type species: *Buprestis chryso stigma* Linnaeus 1758 (fixed by subsequent designation: Bellamy 2003a:10).

Ceratobothris Pochon 1972:105, figs. 2, 3 – Synonymy: Cobos 1978:43 (erroneously reversed).

Type species: Unavailable name, without fixation of type species in original publication (ICZN 1999, Article 13.3).

Immature stages: Burke 1917a (larvae).

Taxonomy: Horn 1886; Fisher 1942 (revisions); Volkovitch 2001; Bellamy & Nelson 2002.

Redescription: Horn 1886:67; Fisher 1942:17.

Ecology: Fisher 1942 (biol., distr.).

Key(s): Horn 1886:71; Fisher 1942:20 (N AMER. N. of Mexico.); Barr 1971:73 (Pacific NW); Wellso, *et al.* 1976:11 (MI); Bright 1987:163 (Canada & AK); MacRae 1991:111 (MO).

acaciae Knull 1936:105 (♂, ♀).

Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).

misidentification: *axillaris* of authors, not *axillaris* Horn 1886.

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:114 (♂, ♀), figs. 43, 117A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1388 (♂, ♀).

Ecology: Fisher 1942; Cazier 1951b; Nelson 1987a; Westcott, *et al.* 1990 (distr.); Davidson & Davidson 2005; MacRae 2006 (distr., biol.).

Distribution: USA: NM, TX; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray and *Prosopis glandulosa* Torr. var. *glandulosa*; adults also on *A. constricta* Benth. and *A. farnesiana* (L.) Willd.

acuminata LeConte 1860 [syn. of *acutipennis*]

acutipennis Chevrolat 1835: No. 190.

Type locality: Mexico: Tuspan – Type depository: BMNH.

synonym: *cupreoaenea* Gory & Laporte 1837:39 – Synonymy: Waterhouse 1887:42.

Type locality: “Caienne” – Type depository: MNHN.

synonym: *acuminata* LeConte 1860:237 – Synonymy: Westcott 1990a:324.

Type locality: Mexico: Tamaulipas to Matamoras – Type depository: MCZC 3763 (♂) (Lectotype designation: Fisher 1942:202, no locality label).

synonym: *cupreosignata* Thomson 1878:80 – Synonymy: Waterhouse 1887:42.

Type locality: “Mexicum” – Type depository: MNHN.

Taxonomy: Fisher 1942; Westcott 1990a.

Redescription: Horn 1886 (part); Fisher 1942:203 (♂, ♀), figs. 85, 123F (parts, ♂ genitalia); Westcott 1990a:324, fig. 1 (adult).

Ecology: Fisher 1942; Vogt 1949b; Westcott 1990a (biol., distr.).

Distribution: **USA:** TX; also recorded from Mexico, Central and South America.

Host(s): larvae in *Ebenopsis ebano* (Berl.) Barneby & Grimes and *Leucaena pulverulenta* (Schlecht.) Benth.

adelpha Harold 1869:124 (replacement name for *soror* LeConte 1860).

misidentification: *femorata* of authors, not *femorata* Olivier 1790.

synonym: *soror* LeConte 1860:232 (preoccupied: *soror* Gory & Laporte 1837).

Type locality: Western States – Type depository: MCZC 2692 (♀).

Immature stages: Benoit 1964:1112, fig. 22 (larva).

Taxonomy: Fisher 1942; Wellso & Manley 2007.

Redescription: Fisher 1942:130 (♂, ♀), figs. 52, 118D (parts, ♂ genitalia); Wellso & Manley 2007:6 (♂, ♀), figs. 3, 15, 27 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Ecology: Fisher 1942; Bright 1987; Westcott 1990 (distr.); MacRae 1991; Nelson, *et al.* 1996 (biol.); MacRae 2006 (biol., distr.); Wellso & Manley 2007 (biol., distr.).

Distribution: **Canada:** ON, PQ; **USA:** AR, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NJ, NY, OH, OK, PA, RI, TN, TX, VA, WI, WV

Host(s): larvae in *Amelanchier arborea* (Michx. f.) Fern., *Carya alba* (L.) Nutt., *C. floridana* Sarg., *C. glabra* (Mill.) Sweet, *C. illinoensis* (Wangenh.) K. Koch, *C. laciniosa* (Michx. f.) G. Don, *C. ovata* (Mill.) K. Koch, *C. tomentosa* Nutt. and *Prosopis glandulosa* Torr.; adults also on *Acer platanoides* L., *Fraxinus pennsylvanica* Marsh. and *Quercus* sp.

aeneola LeConte 1860:239.

Type locality: KS, Fort Riley – Type depository: MCZC 2707 (♂) (Lectotype designation: Fisher 1942:66).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:113, figs. 222–226 (adult & parts); Fisher 1942:65 (♂, ♀), figs. 19, 113D (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Bright 1987; Davies 1991 (distr.).

Distribution: **Canada:** AB, SK; **USA:** CA, CO, KS, NM, NV, WY

Host(s): larvae in *Eriogonum* sp.

analis LeConte 1860:238.

Type locality: Mexico: Matamoras – Type depository: MCZC 2705 (♂) (Lectotype designation: Fisher 1942:216).

synonym: *austinii* Thomson 1878:78 – Synonymy: Waterhouse 1887:40.

Type locality: Mexico – Type depository: MNHN.

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:111, figs. 207–211 (adult & parts); Fisher 1942:215 (♂, ♀), figs. 92, 124E (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1409 (♂, ♀).

Ecology: Fisher 1942; Vogt 1949b; Wellso 1974; Nelson & Westcott 1976; Manley 1977; Nelson, *et al.* 1981; Nelson, *et al.* 1996; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, NM, TX; also recorded from Mexico.

Host(s): larvae in *Acacia berlandieri* Benth., *A. farnesiana* (L.) Willd., *A. rigidula* Benth., *Carya illinoensis* (Wangenh.) K. Koch, *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd., *C. lindheimeri* Engelm. ex K. Koch, *Cercis canadensis* L. var. *texasensis* (S. Watts.) ♂ Hopkins, *Citrus* sp., *Coccoloba liebmanni* Lindau, *Diospyros texana* Scheele, *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Haematoxylon* sp., *Juglans major* (Torr.) Heller, *Leucaena pulverulenta* (Schlecht.) Benth., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Parkinsonia aculeata* L., *Prosopis glandulosa* Torr., *Prunus persica* (L.) Batsch., *Rhus virens* Lindheimer ex Gray, *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson and *Ulmus crassifolia* Nutt.; adults also on *Acacia greggii* Gray.

apache Westcott & Barr 2007 [ssp. of *socialis*]

arizonica Chamberlin 1938a:13 (♂, ♀).

Type locality: AZ, Coconino Co. – Type depository: CASC 5504 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:36 (♂, ♀), figs. 4, 111D (parts, ♂ genitalia); Akiyama & Ohmomo 2000:

BUPRESTIDAE: Buprestinae: Chrysobothrini

fig. 1388 (♂, ♀).

Ecology: Fisher 1942; Barr 1969a; Wellso 1974 (distr.); Westcott 1990 (biol., distr.).

Distribution: USA: AZ, CO, NM, WY

Host(s): larvae in *Ericameria laricifolia* (Gray) Skinner and *Gutierrezia sarothrae* (Pursh) Britt. & Rusby.

atriplexae Fisher 1942:45 (♂, ♀).

Type locality: CA, Death Valley – Type depository: USNM 55292 (♂).

Taxonomy: Fisher 1942.

Ecology: Fisher 1942 (biol., distr.); Nelson 1959 (biol.).

Redescription: Akiyama & Ohmomo 2000: fig. 1414 (♂, ♀).

Distribution: USA: CA

Host(s): larvae in *Atriplex hymenelytra* (Torr.) S. Wats.; adults also on *A. canescens* (Pursh) Nutt.

austinii Thomson 1878 [syn. of *analisis*]

axillaris Horn 1886:75, plate 2, figs. 20–24 (adult, parts).

Type locality: S AZ – Type depository: MCZC 33792 (♀).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:112 (♂, ♀), figs. 42, 116F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1387 (♂, ♀).

Ecology: Fisher 1942; Barr & Westcott 1976 (distr.); MacRae 2006 (biol., distr.).

Distribution: USA: AZ, TX

Host(s): larvae in *Quercus arizonica* Sarg., *Q. emoryi* Torr., *Q. hypoleucooides* Camus and *Q. mohriana* Buckl. ex Rydb.; adults also on *Q. gambelii* Nutt.

azurea LeConte 1857:8 (replacement name for *ultramarina* Gory & Laporte 1837).

synonym: *ultramarina* Gory & Laporte 1837:13, plate 3, fig. 19 (adult) (misidentified as *ultramarina* Say) – Synonymy: LeConte 1860:239.

Type locality: “Amer. Bor.” Type depository: MNHN (Lectotype not designated).

unavailable name: *lecontei* Leng 1920:182 (unjustified new name).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:112, figs. 217–221 (adult, parts); Fisher 1942:222 (♂, ♀), figs. 95, 125c (parts, ♂ genitalia).

Ecology: Fisher 1942; Barr 1971; Barr & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Davies 1991; MacRae 1991 (biol.); Nelson, *et al.* 1996; Peck & Thomas 1998 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.).

Distribution: **Canada:** AB, BC, MB, ON, PQ, SK; **USA:** AL, AR, CO, CT, FL, GA, IA, ID, IL, IN, KS, MA, MD, ME, MI, MO, MT, NH, NJ, NY, OH, OK, PA, RI, TN, TX, VA, WV

Host(s): larvae in *Acer* sp., *Alnus incana* (L.) Moench ssp. *rugosa* (DuRoi) Clausen, *Amelanchier arborea* (Michx. f.) Fern., *Betula populifolia* Marsh., *Carya illinoensis* (Wangenh.) K. Koch., *Celastrus scandens* L., *Cercis canadensis* L., *Crataegus viridis* L., *Diospyros virginiana* L., *Juglans nigra* L., *Pinus* sp., *Prunus virginiana* L., *Quercus bicolor* Willd., *Q. coccinea* Muenchh., *Rhus glabra* L., *Vitis* sp. and *Wisteria chinensis* DC.; adults also on *Acer saccharum* Marsh., *A. platanoides* L., *Carya tomentosa* Nutt., *Cornus florida* L., *C. racemosa* Lam., *Crataegus* sp., *Fraxinus americana* L., *F. pennsylvanica* Marsh., *Gleditsia triacanthos* L., *Koelreuteria paniculata* Laxmann, *Pinus strobus* L., *Populus tremuloides* Michx., *Quercus palustris* Muenchh., *Q. velutina* Lam. and *Toxicodendron pubescens* Mill.

bacchari Van Dyke 1923:38 (♂, ♀).

Type locality: CA, Los Gatos – Type depository: CASC 3320 (♂).

Immature stages: Benoit 1966a:325 (larva).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:61 (♂, ♀), figs. 17, 113c (parts, ♂ genitalia).

Ecology: Fisher 1942; Tilden 1951; Nelson, *et al.* 1981 (biol.); Solomon 1995 (biol., distr.).

Distribution: USA: CA

Host(s): larvae in *Baccharis pilularis* DC. and *B. sergiloides* Gray; adults also on *B. sarathroides* Gray.

barri Westcott 1971:131 (♂, ♀), figs. 1–5 (parts, ♂ genitalia).

Type locality: NV, Shoshone Mtns., Ichthyosaur St. Mon., 7000' – Type depository: CASC 11559 (♂).

Taxonomy: Westcott 1971.

Ecology: Barr & Westcott 1976 (biol.); MacRae & Nelson 2003 (biol., distr.).

Distribution: USA: CA, NV

Host(s): larvae in *Pinus monophylla* Torr. & Frem.

basalis LeConte 1858:68.

Type locality: TX, Laredo to Ringgold Barracks – Type depository: MCZC (♀) (Lectotype designation: Fisher 1942:79).

misidentification: *atabalipa* of authors (in part), not *atabalipa* Gory & Laporte 1837.

misidentification: *multistigma* of authors (in part), not *multistigma* Mannerheim 1837.

Taxonomy: Fisher 1942; Nelson 1975a.

Redescription: Fisher 1942 (♂, ♀), figs. 26, 114C (parts, ♂ genitalia); Nelson 1975a: figs. 9, 20 (♀ pygidium, ♂ genitalia).

Ecology: Fisher 1942 (distr.); Vogt 1949b; Nelson 1975a; Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: AZ, TX; also recorded from Mexico.

Host(s): larvae in *Acacia farnesiana* (L.) Willd., *A. rigidula* Benth. and *Leucaena pulverulenta* (Schlecht.) Benth.; adults also on *Prosopis glandulosa* Torr.

beameri Knull 1954a:27, figs. 6, 9–12 (parts, ♂ genitalia).

Type locality: TX, Big Bend – Type depository: SEMC (♂).

Taxonomy: Knull 1954a; Westcott & Davidson 2001.

Redescription: Nelson 1968a:28 (♀), fig. 1 (last abd. ventrite).

Ecology: Manley 1977 (biol.); Westcott & Davidson 2001; MacRae 2006 (biol., distr.).

Distribution: USA: TX

Host(s): larvae in *Rhus virens* Lindheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson; adults also on *Pinus cembroides* Zucc. and *Rhus aromatica* Ait.

beeri Barr 1969 [syn. of *caurina*]

beyeri Schaeffer 1904:207.

Type locality: BAJA CA N, San Felipe – Type depository: USNM 42637 (♂).

misidentification: *bacchari* of authors (in part), not *bacchari* Van Dyke 1923.

misidentification: *lineatipennis* of authors (in part), not *lineatipennis* Van Dyke 1916.

Taxonomy: Fisher 1942.

Redescription: Van Dyke 1942: fig. 7 (adult); Fisher 1942:60 (♂, ♀), figs. 16, 113B (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.).

Distribution: USA: AZ; also recorded from Mexico: BCN.

Host(s): larvae in *Baccharis sergiloides* Gray; adults also on *Salix* sp.

bicolor Horn 1894:366.

Type locality: Mexico: BCN, San José del Cabo – Type depository: CASC 19 (♀).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:244 (♂, ♀), figs. 107, 126F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1417 (♂, ♀).

Ecology: Fisher 1942 (distr.); Nelson 1965; Knull 1970 (biol., distr.); Nelson, *et al.* 1981 (biol.).

Distribution: USA: AZ, CA, NM; also recorded from Mexico: BCN.

Host(s): larvae in *Prunus fremontii* S. Wats.; adults also on *Acacia greggii* Gray and *Rhus trilobata* Nutt.

bimarginicollis Schaeffer 1905b:148.

Type locality: AZ, Huachuca Mtns., Miller's Cyn. – Type depository: USNM (♂) (Lectotype designation: Fisher 1942:220).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:220 (♂, ♀), figs. 94, 125A (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); MacRae & Nelson 2003 (distr.).

Distribution: USA: AZ, NM, TX

Host(s): larvae in *Quercus arizonica* Sarg. and *Q. hypoleucoides* Camus; adults also on *Q. chrysolepis* Liebm.

bisinuata Chamberlin 1938a:13, figs. 12, 13 (parts).

Type locality: CA, Willows – Type depository: CASC 5503 (♀).

Taxonomy: Fisher 1942.

BUPRESTIDAE: Buprestinae: Chrysobothrini

Redescription: Fisher 1942:42 (♀), fig. 7 (parts).

Distribution: **USA**: CA

Host(s): unknown.

bispinosa Schaeffer 1909:376.

Type locality: AZ, Santa Cruz County, Nogales – Type depository: USNM 42649 (♀).

Taxonomy: Fisher 1942; Westcott 1983.

Redescription: Fisher 1942:212 (♂, ♀), figs. 90, 124C (parts, ♂ genitalia); Westcott 1983:345, figs. 2, 17–24, 33 (adult, parts).

Ecology: Fisher 1942 (distr.); Nelson & Westcott 1976; Westcott 1983 (biol., distr.).

Distribution: **USA**: AZ; also recorded from Mexico.

Host(s): larvae in *Quercus hypoleucoides* Camus; adults also on *Q. arizonica* Sarg. and *Q. emoryi* Torr.

blanchardi Horn 1886 [syn. of *rotundicollis*]

boharti Van Dyke 1934:89 (♂, ♀).

Type locality: CA, Yosemite Nat. Park, Mt. Hoffman, 1100' – Type depository: CASC 3758 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:32 (♂), figs. 2, 111B (parts, ♂ genitalia).

Distribution: **USA**: CA

Host(s): unknown.

breviloba Fall 1910:51, fig. 1f (♂ protibia).

Type locality: CO, Boulder – Type depository: MCZC 24439 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:183 (♂, ♀), figs. 76, 122C (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1404 (♂).

Ecology: Fisher 1942; Barr & Westcott 1976; Davies 1991 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada**: AB; BC; **USA**: AZ, CO, MT, NM, NV, SD, TX, UT, WY

Host(s): larvae in *Pinus edulis* Engelm., *P. flexilis* James, *P. ponderosa* Laws., *P. remota* (Little) D.K. Bailey & Hawksworth and *Pseudotsuga menziesii* (Mirb.) Franco.

breviloboides Barr 1969b:126 (♂, ♀), figs. 5, 12 (♂ genitalia, protibia).

Type locality: ID, Butte Co., Craters of the Moon Natl. Mon. – Type depository: CASC 10214 (♂).

Taxonomy: Barr 1969b.

Ecology: Barr 1969b (biol., distr.).

Distribution: **USA**: ID

Host(s): larvae in *Pinus flexilis* James.

burkei Chamberlin 1929 [syn. of *semisculpta*]

caddo Wellso & Manley 2007:15 (♂, ♀), figs. 11, 23, 35 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Type locality: TX, Bastrop Co., Bastrop – Type depository: USNM (♂).

Taxonomy: Wellso & Manley 2007.

Ecology: Wellso & Manley 2007 (biol., distr.).

Distribution: **USA**: AZ, FL, LA, MO, NE, NM, OK, TX

Host(s): larvae in *Celtis reticulata* Torr. and *Pithecellobium ebano* (Berl.) Muller; adults also on *Celtis laevigata* Willd. and *Celtis* sp.

calcarata Chamberlin 1938 [syn. of *chamberliniana*]

calcarata Melsheimer 1845 [syn. of *cribraria*]

californica LeConte 1860:255.

Type locality: CA – Type depository: MCZC 2698 (♂).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:93, figs. 110–114 (adult, parts); Fisher 1942:167 (♂, ♀), figs. 69, 121c (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Barr 1971 (distr.).

Distribution: **USA**: CA, OR

Host(s): larvae in *Pinus jeffreyi* Grev. & Balf. and *P. ponderosa* Laws.

canadensis Chamberlin 1934 [syn. of *vulcanica*]

carinipennis LeConte 1878:459.

Type locality: UT, American Fork Cyn., 9500' – Type depository: MCZC 2697 (♂).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:91, figs. 100–104 (adult, parts); Fisher 1942:189 (♂, ♀), figs. 79, 122F

(parts, ♂ genitalia).

Ecology: Fisher 1942; Barr 1971 (biol., distr.); Westcott 1990 (distr.).

Distribution: **Canada:** BC; **USA:** AZ, CO, ID, MT, NV, OR, UT, WA, WY

Host(s): larvae in *Pseudotsuga menziesii* (Mirb.) Franco; adults also on *Abies* sp.

carmelita Fall 1907:236.

Type locality: AZ – Type depository: MCZC 24440 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:108 (♂, ♀), figs. 40, 116D (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1386 (♂, ♀).

Ecology: Fisher 1942 (biol., distr.); Nelson 1959 (biol.).

Distribution: **USA:** AZ, CA

Host(s): adults on *Acacia greggii* Gray *Mimosa* sp. and *Olneya tesota* Gray.

caurina Horn 1886:92.

Type locality: NV – Type depository: MCZC 8116 (♂).

misidentificatoin: *laracis* of Chamberlin 1932, not *laricis* Van Dyke 1916.

synonym: *beeri* Barr 1969b:128, figs. 6, 13 (♂ genitalia, protibia) – Synonymy: Westcott 1990:327.

Type locality: OR, Lane Co., Horse Lake Ranger Station – Type depository: CASC 10215 (♂).

Taxonomy: Horn 1886; Fisher 1942; Barr 1974; Westcott 1990.

Redescription: Fisher 1942:161 (♂, ♀) (figs. of ♂ and many of the distributional records in Fisher 1942, refer to *leechi*).

Ecology: Westcott 1970 (distr.).

Distribution: **Canada:** BC; **USA:** CA, NV, OR, WA

Host(s): unknown.

caviventris Théry 1926 [syn. of *octocola*]

cercocarpi Westcott & Nelson 2000 [ssp. of *purpureovittata*]

chalcophoroides Horn 1886:110 (♀), figs. 203–206 (adult, parts).

Type locality: AZ – Type depository: MCZC 33797 (♀).

Taxonomy: Fisher 1942; Westcott 1983.

Redescription: Fisher 1942:210 (♀), fig. 89 (parts); Nelson 1967a:24 (♂), figs. 1–4 (parts, ♂ genitalia); Westcott 1983:351, fig. 6 (adult).

Ecology: Fisher 1942; Nelson 1967a; Nelson, *et al.* 1981; Westcott 1983 (biol., distr.).

Distribution: **USA:** AZ

Host(s): adults on *Quercus oblongifolia* Torr. (records as *Q. arizonica* Sarg. in error).

chamberlini Fisher 1942 [syn. of *chamberliniana*]

chamberlini Obenberger 1940 [syn. of *edwardsii*]

chamberliniana Fisher 1948:40 (replacement name for *chamberlini* Fisher 1942).

synonym: *calcarata* Chamberlin 1938a:12, figs. 9–11 (parts) (preoccupied: *calcarata* Melsheimer 1845).

Type locality: AZ, Prescott – Type depository: CASC 5493 (♂).

synonym: *chamberlini* Fisher 1942:40 (replacement name for *calcarata* Chamberlin 1938, preoccupied: *chamberlini* Obenberger 1940).

unavailable name: *trinuncupata* Helfer 1955:14 (unjustified replacement name for *chamberlini* Fisher 1942).

Taxonomy: Fisher 1942 (as *chamberlini*).

Redescription: Beer 1940 (♀ as *calcarata*); Fisher 1942:41 (♂), figs. 6, 111F (parts & ♂ genitalia as *chamberlini*).

Ecology: Beer 1940 (biol. as *calcarata*); Fisher 1942 (distr. & biol. as *chamberlini*).

Distribution: **USA:** AZ, OR

Host(s): adults on *Ceanothus cuneatus* (Hook.) Nutt.

characteristica Harris 1829 [syn. of *dentipes*]

chiricahuae Knull 1937b:37 (♂, ♀).

Type locality: AZ, Chiricahua Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1937b; Westcott 1990.

Redescription: Fisher 1942:122 (♂, ♀), figs. 47, 117E (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Nelson, *et al.* 1996 (distr.); Westcott 1990 (biol.).

Distribution: **USA:** AZ

Host(s): adults on *Pinus ponderosa* Laws.

BUPRESTIDAE: Buprestinae: Chrysobothrini

chlorocephala Gory 1841:161, plate 27, fig. 156 (adult) (resurrected name).

Type locality: “Amer. Bor.” – Type depository: MNHN (♂).

synonym: *concinnum* LeConte 1860:238 (erroneously described as ♀) – Synonymy: Nelson 1980a:88.

Type locality: MO – Type depository: MCZC 2708 (♂).

misidentification: *scitula* of authors, not *scitula* Gory 1841.

Taxonomy: Fisher 1942 (as *concinnum*); Nelson 1980a.

Redescription: Fisher 1942:227 (♂, ♀), figs. 96, 125E (parts & ♂ genitalia as *concinnum*).

Ecology: Fisher 1942 (as *concinnum*); Nelson 1960b (as *concinnum*); Nelson, *et al.* 1981; Nelson 1987a; MacRae 1991; Nelson, *et al.* 1996 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).

Distribution: USA: AR, DC, DE, GA, IL, IN, KS, LA, MD, MI, MO, NC, NJ, NY, OH, OK, PA, TN, VA

Host(s): larvae in *Amelanchier arborea* (Michx. f.) Fern., *Betula nigra* L., *Carya glabra* (Mill.) Sweet, *C. illinoensis* (Wangenh.) K. Koch, *Quercus nigra* L., *Q. stellata* Wangenh. and *Vitis* sp.; adults also on *Quercus alba* L.

chrysoella (Illiger) 1800:122 (*Buprestis*).

Type locality: “Neu Georgien” – Type depository: SNMB.

synonym: *hybernata* (Fabricius) 1801:209 (*Buprestis*) – Synonymy: Horn 1886:121.

Type locality: “Carolina” – Type depository: unknown.

synonym: *viridipunctata* Gory & Laporte 1837:21, plate 4, fig. 31 (adult) – Synonymy: Horn 1886:121.

Type locality: “Amer. Bor.” Type depository: MNHN (♂).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:114, figs. 227–231 (adult, parts); Fisher 1942:218 (♂, ♀), figs. 93, 124F (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Barr & Westcott 1976; Nelson, *et al.* 1981; Wellso & Jackman 2006 (biol.).

Distribution: USA: AL, DC, FL, GA, LA, MS, NC, SC, TX, VA

Host(s): larvae in *Betula nigra* L., *Carya illinoensis* (Wangenh.) K. Koch, *Celtis laevigata* Willd., *Cercis canadensis* L., *Conocarpus erectus* L., *Diospyros virginiana* L., *Ficus* sp., *Juglans nigra* L., *Piscidia piscipula* (L.) Sarg., *Taxodium distichum* (L.) Rich., *Ulmus crassifolia* Nutt. and *Ximenia americana* L.; adults also on *Citrus paradisi* Macfad., *Morella cerifera* (L.) Small, “Privet” and *Quercus* sp.

cicatricosa Motschulsky 1852 [syn. of *trinervia*]

columbiana Barr 1969 [syn. of *rotundicollis*]

comanche Wellso & Manley 2007:14 (♂, ♀), figs. 10, 22, 34 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Type locality: TX, Val Verde Co., 4 mi N. Comstock – Type depository: USNM (♂)

Taxonomy: Wellso & Manley 2007.

Ecology: Wellso & Manley 2007 (biol., distr.).

Distribution: USA: NM, TX, UT

Host(s): larva in *Juglans* sp.; adults on *Juglans microcarpa* Berland.

concinnum LeConte 1860 [syn. of *chlorocephala*]

contigua LeConte 1860 [syn. of *semisculpta*]

convexa Fall 1907:233.

Type locality: NM, Alamogordo – Type depository: ANSP 8216 (♀).

Taxonomy: Fisher 1942; Westcott 1990.

Redescription: Fisher 1942:231 (♂, ♀), figs. 99, 126A (parts, ♂ genitalia); Westcott 1990:fig. 8 (adult); Akiyama & Ohmomo 2000: fig. 1410 (♂, ♀).

Ecology: Westcott 1990 (biol., distr.).

Distribution: USA: NM, TX

Host(s): adults on *Viguiera stenoloba* Blake.

costifrons costifrons Waterhouse 1887a:45, plate 3, fig. 19 (adult).

Type locality: Mexico: N Sonora – Type depository: BMNH (♂) (Lectotype designation: Fisher 1942:197; redesignated: Westcott 1983:353).

misidentification: *aerea* of authors, not *aerea* Chevrolat 1834.

Immature stages: Benoit 1966a:325 (larva), fig. 2 (clypeus of larva).

Taxonomy: Horn 1886 (as *aerea*); Fisher 1942; Westcott 1983.

Redescription: Horn 1886:104 (♂, ♀), plate 6, figs. 173–177 (adult & parts as *aerea*); Fisher 1942:196 (♂, ♀), figs. 82, 123C (parts, ♂ genitalia); Westcott 1983:353, fig. 7 (adult).

Ecology: Fisher 1942; Cazier 1951b (distr.); Westcott 1983 (biol., distr.).

Distribution: **USA**: AZ; also recorded from Mexico.

Host(s): larvae in *Quercus arizonica* Sarg. and *Q. emoryi* Torr.

contigua LeConte 1860 [syn. of *semisculpta*]

crandalli Knull 1943b:34 (♂, ♀), figs. 1–6 (♂ genitalia, parts).

Type locality: AZ, Phoenix – Type depository: FMNH (♂).

Taxonomy: Knull 1943b.

Ecology: Nelson, *et al.* 1981 (distr.); Westcott 1990; MacRae 2006 (biol., distr.).

Distribution: **USA**: AZ, CA, NM, NV, UT

Host(s): adults on *Ambrosia acanthicarpa* Hook., *Bebbia juncea* (Benth.) Greene, *Chaenactis* sp., *Croton wigginsii* Wheeler, *Encelia actoni* Elmer, *Heliotropium curassavicum* L., *Hymenoclea* sp. and *Palafoxia arida* B. Turner & M. Morris.

cribraria Mannerheim 1837:77.

Type locality: PA – Type depository: UZMH (♀) (Lectotype designation: Nelson 1976:168).

synonym: *floricola* Gory 1841:179, plate 30, fig. 175 (adult) – Synonymy: Nelson 1980a:88.

Type locality: “Amer. Bor.” – Type depository: MNHN (♂).

synonym: *calcarata* Melsheimer 1845:146 – Synonymy: Horn 1886:119.

Type locality: PA – Type depository: MCZC.

misidentification: *femorata* of authors, not *femorata* Oliver 1790.

synonym: *lata* Kerremans 1899:336 – Synonymy: Westcott 1990:330.

Type locality: FL – Type depository: BMNH.

Taxonomy: Horn 1886; Fisher 1942 (both as *floricola*).

Redescription: Horn 1886:81 (♂, ♀), figs. 45–50 (adult, parts); Knull 1925: plate 5, fig. 2 (adult); Fisher 1942:128 (♂, ♀), figs. 51, 118C (parts & ♂ genitalia all as *floricola*).

Ecology: Fisher 1942 (as *floricola*); Bright 1987; MacRae 1991; Nelson, *et al.* 1981; Nelson 1987a; Davies 1991; Nelson, *et al.* 1996; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada**: AB, MB, ON, PQ, SK, NT; **USA**: AL, AR, CT, DC, DE, FL, GA, IL, IN, LA, MA, MD, MI, MN, MS, NC, ND, NH, NJ, NY, OH, OK, PA, SC, TX, VA, WI, WV

Host(s): larvae in *Pinus echinata* Mill., *P. palustris* Mill., *P. resinosa* Soland., *P. rigida* Mill., *P. strobus* L., *P. sylvestris* L. and *P. taeda* L.

culbersoniana Knull 1943b:34 (♂), figs. 7–11 (♂ genitalia, parts).

Type locality: TX, Culberson Co. – Type depository: FMNH (♂).

Taxonomy: Knull 1943b; Westcott 1990.

Redescription: Westcott 1990:331, figs. 3, 13 (adult ♀).

Ecology: Westcott 1990; Davidson & Davidson 2005 (biol., distr.).

Distribution: **USA**: NM, TX

Host(s): adults on *Acacia constricta* Benth., *A. greggii* Gray and *Quercus* sp.

cuprascens LeConte 1860:234.

Type locality: NM, Santa Fe – Type depository: MCZC 2695 (♂).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:81, figs. 40–44 (adult, parts); Fisher 1942:86 (♂, ♀), figs. 29, 114F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1376 (♂, ♀).

Ecology: Fisher 1942; Barr 1969a (biol., distr.); Nelson, *et al.* 1981 (biol.).

Distribution: **USA**: AZ, CO, NM, NV, UT

Host(s): larvae in *Pinus monophylla* Torr. & Frem.; adults also on *Juniperus osteosperma* (Torr.) Little, *Pinus leiophylla* Scheide & Deppe var. *chihuahuana* (Engelm.) Shaw and *P. ponderosa* Laws.

cupreoenea Gory & Laporte 1837 [syn. of *acutipennis*]

cupreohumeralis Van Dyke 1934 [syn. of *humilis*]

cupressicona Barr & Westcott 1976:141 (♂, ♀), figs. 1–6 (parts, ♂ genitalia).

Type locality: CA, S. L. O. Co., Santa Lucia Range, 2 mi NW Cuesta Pass – Type depository: CASC 12638/EMEC 69308 (♂).

misidentification: *purpurata* of authors, not *purpurata* Bland 1864.

Taxonomy: Barr & Westcott 1976.

Ecology: Powell 1965 (biol. as *purpurata*); Barr & Westcott 1976 (biol., distr.).

BUPRESTIDAE: Buprestinae: Chrysobothrini

Distribution: USA: CA

Host(s): larvae in cones of *Cupressus goveniana* Gord. and *C. sargentii* Jeps.

cyanella Horn 1886:102 (♂, ♀), figs. 164–168 (adult, parts).

Type locality: CA – Type depository: MCZC 8121 (♂).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:30 (♂, ♀), figs. 1, 111A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1419 (♂ & ♀ as *cyanela*, *lapsus calami*).

Ecology: Fisher 1942 (biol., distr.).

Distribution: USA: CA, OR

Host(s): larvae in roots of *Eriogonum nudum* Benth.

debilis LeConte 1860:236.

Type locality: OH (probably an error) – Type depository: MCZC 2686 (♂)

synonym: *disjuncta* LeConte 1860:236 – Synonymy: Horn 1886:75.

Type locality: AZ – Type depository: MCZC 2687 (♂).

Immature stages: Benoit 1966a:325 (larva).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:75 (♂, ♀), figs. 15–19 (adult, parts); Fisher 1942:72 (♂, ♀), fig. 23 (parts); Akiyama & Ohmomo 2000: fig. 1372 (♂, ♀).

Ecology: Fisher 1942; Nelson & Westcott 1976 (biol., distr.).

Distribution: USA: AZ, CA, NV, UT; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray, *Celtis laevigata* Willd. var. *reticulata* (Torr.) L. Benson, *Cercidium floridum* Gray, *Prosopis glandulosa* Torr., *Quercus emoryi* Torr. and *Salix* sp.

deleta LeConte 1860 [syn. of *subcylindrica*]

denticulata Gory & Laporte 1837 [syn. of *tranquebarica*]

dentipes (Germar) 1824:38 (*Buprestis*).

Type locality: “Amer. Bor.” – Type depository: ZMHB

synonym: *characteristica* Harris 1829:2 – Synonymy: LeConte 1860:235.

Type locality: none given – Type depository: MCZC? (Lectotype not designated).

unavailable name: *maculicornis* LeConte (manuscript name, *nomen nudum*) – Synonymy: Kerremans 1892:211.

synonym: *planata* Gory & Laporte 1837:56, plate 10, fig. 77 (adult) – Synonymy: LeConte 1860:235.

Type locality: “Amer. Bor.” – Type depository: MNHN (Lectotype not designated).

synonym: *posticalis* Gory & Laporte 1837:56, plate 10, fig. 76 (adult) – Synonymy: Horn 1886:120.

Type locality: “Amer. Bor.” – Type depository: MNHN (♂) (Lectotype not designated).

misidentification: *rotundicollis* of authors, not *rotundicollis* Gory & Laporte 1837.

Immature stages: Benoit 1964:1112, fig. 19 (larva).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:87 (♂, ♀), plate 3, figs. 75–79 (adult, parts); Good 1925: plate 9, fig. 13 (wing); Fisher 1942:147 (♂, ♀), figs. 59, 119F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1396 (♂, ♀).

Ecology: Howden & Vogt 1951; Nelson & Westcott 1976; Dearborn & Donahue 1993 (biol.); MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).

Distribution: Pine regions of Canada & USA; also recorded from Mexico. and the West Indies.

Host(s): larvae in *Abies balsamea* (L.) Mill., *Larix laricina* (DuRoi) K. Koch, *Pinus ponderosa* Laws. and *P. strobus* L.; adults also on *P. contorta* Loud., *P. echinata* Mill., *P. elliotii* Engelm., *P. palustris* Mill., *P. parryana* Engelm. and *P. virginiana* Mill.

deserta Horn 1886:100, plate 5, figs. 155–158.

Type locality: CA, Mojave Desert – Type depository: MCZC (♂) (Lectotype designation: Fisher 1942:44).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:44 (♂, ♀), figs. 8, 112A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1368 (♂).

Ecology: Fisher 1942 (biol., distr.); Nelson 1962 (biol.).

Distribution: USA: CA, UT

Host(s): larvae in roots of *Atriplex* sp.; adults also on *A. polycarpa* (Torr.) S. Wats.

difficilis LeConte 1873 [syn. of *sexsignata*]

disjuncta LeConte 1860 [syn. of *debilis*]

distincta Gory 1841:176, plate 30, fig. 1171 (adult).

Type locality: Mexico – Type depository: MNHN (Lectotype not designated).

Taxonomy: Knull 1949.

Redescription: Knull 1949:104 (♂, ♀), figs. 4–9 (parts, ♂ genitalia).

Ecology: Knull 1949 (distr.).

Distribution: USA (?); also recorded from Mexico.

Host(s): unknown.

dolata Horn 1886:87 (♀), figs. 71–74 (adult, parts).

Type locality: NV – Type depository: MCZC 33793 (♀) (Lectotype designation: Fisher 1942:149).

Immature stages: Benoit 1966a:326 (larva).

Taxonomy: Fisher 1942.

Redescription: Chamberlin 1917a:137 (♂); Fisher 1942:148 (♂, ♀), figs. 60, 120A (parts, ♂ genitalia);

Akiyama & Ohmomo 2000: fig. 1397 (♀)

Ecology: Fisher 1942; Barr 1971 (biol., distr.).

Distribution: USA: CA, ID, NV, OR, WA

Host(s): larvae in *Abies concolor* (Gord. & Glend.) Lindl., *Pinus ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco; adults also on *Larix occidentalis* Nutt., *Pinus contorta* Loud., *P. jeffreyi* Grev. & Balf. and *P. lambertiana* Dougl.

dudleyaphaga Westcott 2007b:24 (♂, ♀), figs. 1–6 (adults, ♂ genitalia, larva, pupal cells, exit hole).

Type locality: Mex., Baja Calif. N., 9.3 mi SW Colonet – Type depository: CASC 18332 (♂).

Taxonomy: Westcott 2007.

Ecology: Westcott 2007 (biol., distr.).

Distribution: USA: CA; also recorded from Mexico: BCN.

Host(s): larvae reared from *Dudleya* sp.; adults also on *Eriogonum fasciculatum* (Benth.) T. & G.

edwardsii Horn 1886:74 (♀), figs. 11–14 (adult, parts).

Type locality: AZ, Tucson – Type depository: MCZC 33791 (♀)

synonym: *chamberlini* Obenberger 1940:93, fig. 5 (♂ protibia) – Synonymy: Barr & Westcott 1976:145.

Type locality: “California m.” – Type depository: NMPC (♂).

Immature stages: Benoit 1966a:326 (larva), figs. 1, 5 (ocellus, abdominal spiracle).

Taxonomy: Fisher 1942; Barr & Westcott 1976.

Redescription: Fisher 1942:75 (♂, ♀), figs. 24, 114A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1373 (♀).

Ecology: Fisher 1942 (biol., distr.); Nelson 1959; Barr & Westcott 1976 (biol.); Westcott, *et al.* 1990 (distr.).

Distribution: USA: AZ, CA, NM, TX; also recorded from Mexico.

Host(s): larvae in *Fouquieria splendens* Engelm.; adults also on *Acacia greggii* Gray and *Cercidium floridum* Gray.

ephedrae ephedrae Knull 1942:390 (♂, ♀), figs. 1–6 (♂ genitalia).

Type locality: NM, Las Cruces – Type depository: FMNH (♂).

Taxonomy: Knull 1942.

Redescription: Akiyama & Ohmomo 2000: fig. 1369 (♂ ♀).

Ecology: Knull 1942; Nelson, *et al.* 1981; Davidson & Davidson 2005 (distr., biol.).

Distribution: USA: NM, TX

Host(s): adults on *Ephedra trifurca* Torr.

ephedrae vogti Knull 1964:376 (♂)

Type locality: TX, Starr Co., 5 mi W Sullivan City – Type depository: FMNH (♂).

Taxonomy: Vogt 1949b:196 (as *ephedrae*); Knull 1964.

Ecology: Vogt 1949b (as *ephedrae*); Knull 1970 (biol.).

Distribution: USA: TX

Host(s): adults on *Acacia rigidula* Benth. and *Ephedra* sp.

erioni Westcott 2005:15 (♂, ♀), figs. 1–6 (adult, ♂, ♀ abdominal ventrites, ♂ genitalia).

Type locality: OR, Wasco Co., I80N, 2.8 mi W Rowena – Type depository: CASC 18049 (♂).

Taxonomy: Westcott 2005.

Ecology: Westcott 2005, fig. 6 (larvae in host root).

Distribution: USA: OR, WA

BUPRESTIDAE: Buprestinae: Chrysobothrini

Host(s): larvae in *Eriogonum compositum* Benth. var. *compositum* and *E. elatum* Benth.; adults on same species.

exesa LeConte 1858:68.

Type locality: CA, Colorado River – Type depository: MCZC 2701 (♀) (Lectotype designation: Fisher 1942:145).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:95 (♂, ♀), plate 4, figs. 125–129 (adult, parts); Fisher 1942:144 (♂, ♀), figs. 58, 119E (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1395 (♀).

Ecology: Fisher 1942; Van Dyke 1942 (distr.); Vogt 1949b; Westcott 1990 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA, NM, TX; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray, *Celtis* sp., *Prosopis glandulosa* Torr. and *Salix* sp.

falli Van Dyke 1918:56 (♂, ♀).

Type locality: CA, Placer Co., Donner Lake – Type depository: CASC 3283 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:180 (♂, ♀), figs. 75, 122B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1403 (♂).

Ecology: Fisher 1942 (biol., distr.).

Distribution: **USA:** CA, OR

Host(s): larvae in *Pinus contorta* Loud.; adults also on *P. jeffreyi* Grev. & Balf. and *P. ponderosa* Laws.

femorata (Olivier) 1790:47, plate 11, fig. 121 (adult) (*Buprestis*).

Type locality: GA, Fort Valley, April, 1905 – Type depository: USNM (♂) (Neotype designation: Wellso & Manley 2007:10).

misidentification: *dentipes* of Gory & Laporte 1837:52, plate 9, fig. 70 (adult), not *dentipes* Germar 1824) – Synonymy: Kerremans 1903:187.

Type locality: "Amer. Bor." – Type depository: MNHN.

synonym: *dissimilis* Gory 1841:181, plate 31, fig. 177 (adult) – Synonymy: Kerremans 1903:187.

Type locality: "Amer. Bor." – Type depository: MNHN (?).

synonym: *insculpta* (Herbst) 1801:145, plate 146, fig. 10 (*Buprestis*) – Synonymy: Schönherr 1817:235.

Type locality: recorded as Germany (probably an error) – Type depository: not known.

synonym: *nigritula* Gory & Laporte 1837:54, plate 10, fig. 73 (adult) – Synonymy: Kerremans 1903:187.

Type locality: PA, Philadelphia – Type depository: MNHN (♀).

synonym: *obscura* LeConte 1860:232 – Synonymy: Kerremans 1903:187.

Type locality: "southern & western states" – Type depository: MCZC 2691.

misspelling: *semisculpta* Crotch 1873:90 (probably a typographical error for *insculpta*; not *semisculpta* Leconte 1860).

Immature stages: Benoit 1964:1112, figs. 18, 25 (larva).

Taxonomy: Horn 1886; Fisher 1942; Wellso & Manley 2007.

Redescription: Fisher 1942:133 (♂, ♀), figs. 53, 119A (parts, ♂ genitalia); Barr 1971: plate 8, fig. 2 (adult); Akiyama & Ohmomo 2000: fig. 1394 (♀); Wellso & Manley 2007:10 (♂, ♀), figs. 8, 20, 32 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Ecology: Fisher 1942; Vogt 1949b (biol.); Cazier 1951b; Nelson 1987a; Davies 1991 (distr.); Solomon 1995 (biol., distr.); Westcott 2005 (distr. for *quadriimpressa*); Wellso & Manley 2007 (biol., distr.).

Distribution: **Canada:** AB, BC, MB, NB, NS, ON, PQ, SK; **USA:** all continental states; also recorded from Mexico.

Host(s): larvae in *Acer negundo* L., *A. rubrum* L., *A. saccharinum* L., *Amelanchier arborea* (Michx. f.) Fern., *Carpinus carolineana* Walt., *C. japonica* Bl., *Carya illinoensis* (Wangenh.) K. Koch, *Castanea dentata* (Marsh.) Borkh., *Celtis occidentalis* L., *Cercis canadensis* L., *C. japonica* Siebold ex Planch., *Crataegus* sp., *Cydonia oblonga* Mill., *Diospyros virginiana* L., *Fraxinus pennsylvanica* Marsh., *Juglans cinerea* L., *J. nigra* L., *Liquidambar styraciflua* L., *Malus* spp., *Platanus occidentalis* L., *Populus tremuloides* Michx., *Prunus armeniaca* L., *P. domestica* L., *P. persica* (L.) Batsch., *Quercus agrifolia* Née, *Q. alba* L., *Q. kelloggii* Newb., *Q. laurifolia* Michx., *Q. lobata* Née, *Q. wislizeni* A. DC., *Salix lasiolepis* Benth., *Sorbus americana* Marsh., *Tilia glabra* Vent., *Ulmus americana* L. and *U. parvifolia* Jacq.

fiskei Fisher 1942:221 (♂, ♀), fig. 125B (♂ genitalia).

Type locality: TX, Montell – Type depository: USNM 55298 (♂).

Taxonomy: Fisher 1942.

Ecology: Barr & Westcott 1976; Westcott, *et al.* 1990; Nelson, *et al.* 1996; MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** OK, TX; also recorded from Mexico.

Host(s): larvae in *Cercis canadensis* L. var. *texensis* (S. Wats.) ♂ Hopkins and *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller.

floricola Gory 1841 [syn. of *cribraria*]

fragariae Fisher 1930C:149.

Type locality: WA, Grand Mound – Type depository: USNM 43175 (♂).

misidentification: *deleta* of authors, not *deleta* LeConte 1860.

misidentification: *pubescens* of authors, *pubescens* not Fall 1907.

Taxonomy: Fisher 1930c; 1942.

Redescription: Fisher 1942:49 (♂, ♀), figs. 11, 112D (parts, ♂ genitalia); Barr 1971: plate 8, fig. 1 (adult).

Ecology: Fisher 1942; Barr 1971 (biol., distr.).

Distribution: **USA:** OR, WA

Host(s): larvae in *Eriogonum compositum* Benth., *Fragaria chiloensis* (L.) Duchesne and *Fragaria* sp.

gemmata LeConte 1858:67.

Type locality: Mexico: Sonora. Type depository: MCZC 2704 (♀) (Lectotype designation: Fisher 1942:208).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:208 (♂, ♀), figs. 87, 124B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1408 (♂ ♀).

Ecology: Fisher 1942; Westcott, *et al.* 1990 (distr.); Solomon 1995 (biol., distr.).

Distribution: **USA:** AZ NM; also recorded from Mexico.

Host(s): larvae in *Prosopis glandulosa* Torr.

grandis Chamberlin 1938 [syn. of *monticola*]

grindeliae Van Dyke 1937:111 (♂, ♀).

Type locality: CA, Solano Co., Fairfield – Type depository: CASC 4248 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:47 (♂, ♀), figs. 10, 112C (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Westcott 2001b (biol.).

Distribution: **USA:** CA

Host(s): larvae in *Gutierrezia californica* (DC.) T. & G.; adults also on *Grindelia camporum* Greene.

harrisi Hentz 1827:373 (*Buprestis*), fig. 1 (adult).

Type locality: MA – Type depository: MCZC? (probably destroyed).

misidentification: *chalcophoroides* of Smith 1887:39, not *chalcophoroides* Horn 1886:110.

misspelling: *harrissi* (*lapsus calami*).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:120 (♂, ♀), figs. 46, 117D (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1390 (♂ ♀).

Ecology: Fisher 1942; Nelson, *et al.* 1981; Bright 1987 (biol., distr.); Nelson & MacRae 1990; Davis 1991; Nelson, *et al.* 1996 (distr.); Westcott 2005 (distr.).

Distribution: **Canada:** AB, BC, MB, NB, NS, ON, PQ; **USA:** AL, CT, DC, FL, GA, MA, MD, ME, MI, MN, NC, NH, PA, RI, SC, SD, TN, VA, WI, WV

Host(s): larvae in *Picea glauca* (Moench) Voss, *Pinus strobus* L., and *P. virginiana* Mill.

helferi Fisher 1942:92 (♂, ♀), figs. 32, 115C (parts, ♂ genitalia).

Type locality: CA, Los Angeles Co. – Type depository: USNM 55294 (♂).

Taxonomy: Fisher 1942.

Redescription: Akiyama & Ohmomo 2000: fig. 1381 (♀).

Ecology: Fisher 1942 (biol., distr.); Nelson 1967a (distr.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): larvae in *Juniperus californica* Carr.

BUPRESTIDAE: Buprestinae: Chrysobothrini

hidalgoensis Knull 1951:87 (♂, ♀), figs. 2–7 (parts, ♂ genitalia).

Type locality: TX, Hidalgo Co., near Mission – Type depository: FMNH (♂).

Taxonomy: Knull 1951.

Distribution: USA: TX

Host(s): unknown.

horningi Barr 1969b:117 (♂, ♀), figs. 1, 8 (♂ genitalia, protibia).

Type locality: ID, Butte Co., Craters of the Moon Natl. Mon. – Type depository: CASC 10211 (♂).

Taxonomy: Barr 1969b.

Ecology: Barr 1969b (biol., distr.).

Distribution: USA: ID

Host(s): adults on *Eriogonum ovalifolium* Nutt. var. *depressum* Blank.

hubbardi Fisher 1942:174, fig. 72 (parts).

Type locality: FL, Crescent City – Type depository: USMN 55296 (♀).

Taxonomy: Fisher 1942; Westcott 1990.

Redescription: Westcott 1990, fig. 6 (♀).

Ecology: Nelson, *et al.* 1981; Westcott 1990 (distr.).

Distribution: USA: FL, SC

Host(s): unknown.

humilis Horn 1886:102 (♀), figs. 169–172 (adult, parts).

Type locality: AZ – Type depository: MCZC 33795 (♀).

synonym: *cupreohumeralis* Van Dyke 1934:65 (♂ described as ♀) – Synonymy: Nelson 1965:38.

Type locality: TX, El Paso – Type depository: CASC 3757 (♂).

Taxonomy: Nelson 1965.

Redescription: Fisher 1942:67 (♀), 68 (♂ as *cupreohumeralis*), figs. 20, 21 113E (parts, ♂ genitalia).

Ecology: Nelson 1960b; Knull 1964; Hespeneheide 1976 (biol.); Nelson 1987a (distr.); Westcott 2005 (distr.).

Distribution: USA: AZ, CA, NM, NV, TX; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray.

hybernata (Fabricius 1801) [syn. of *chrysoela*]

idahoensis Barr 1969b:124 (♂, ♀), figs. 4, 11 (♂ genitalia, protibia).

Type locality: ID, Blaine Co., Alturas Lake – Type depository: CASC 10213 (♂).

Taxonomy: Barr 1969b.

Ecology: Barr 1969; 1971 (biol., distr.); Westcott 1990 (distr.).

Distribution: USA: ID, NV

Host(s): adults on *Eriogonum ovalifolium* Nutt. and *E. umbellatum* Torr.

ignicolis Horn 1885:145.

Type locality: CO – Type depository: MCZC 8112 (♂) (Lectotype designation: Fisher 1942:95).

synonym: *scotti* Chamberlin 1938a:11, figs. 5–8 (parts) – Synonymy: Fisher 1942:94.

Type locality: NM, Taos – Type depository: CASC 5494 (♂).

Immature stages: Benoit 1966a:327 (larva).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:82 (♂, ♀), plate 3, figs. 51–55 (adult, parts); Fisher 1942:94 (♂, ♀), figs. 33, 115D (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1379 (♂).

Ecology: Fisher 1942; Powell 1965; Barr 1971; Wellso 1974 (biol.); Barr & Westcott 1976; Westcott, *et al.* 1990 (distr.); MacRae 2006 (biol., distr.).

Distribution: USA: AZ, CA, CO, ID, KS, NM, NV, TX, UT; also recorded from Mexico.

Host(s): larvae in *Chamaecyparis* sp., *Cupressus arizonica* Greene, *Juniperus californica* Carr., *J. deppeana* Steud., *J. monosperma* (Engelm.) Sarg., *J. osteosperma* (Torr.) Little, *J. scopulorum* Sarg., *J. virginiana* L. and *Vauquelinia californica* (Torr.) Sarg.

impressa (Fabricius 1787) [syn. of *tranquebarica*]

iris Van Dyke 1937:110 (♂, ♀).

Type locality: UT, near St. George – Type depository: CASC 4246 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:99 (♂, ♀), figs. 35, 115F (parts, ♂ genitalia).

Ecology: Fisher 1942; Nelson, *et al.* 1996 (biol., distr.).

Distribution: USA: AZ, NV, TX, UT

- Host(s): adults on *Juniperus osteosperma* (Torr.) Little and *J. deppeana* Steud.
juniperinus Chamberlin 1925 [syn. of *lilaceous*]
- kelloggi** Knull 1937b:36.
 Type locality: NM, Silver City – Type depository: FMNH (♂).
 Taxonomy: Knull 1937b; Nelson 1987b; Westcott 2001.
 Redescription: Fisher 1942:125 (♂), figs. 49, 118A (parts, ♂ genitalia); Nelson 1987b:70 (♀), figs. 1–3 (parts); Westcott 2001:78.
 Ecology: Westcott 2001 (biol., distr.).
 Distribution: **USA:** AZ, NM
 Host(s): adults on *Juniperus* sp.
- knulli** Nelson 1975a:23 (♂, ♀), figs. 1, 16, 28 (adult, ♂ genitalia).
 Type locality: AZ, Cochise Co., 2 mi E Portal – Type depository: USNM 72503 (♂).
 misidentification: *multistigmata* of authors (in part), not *multistigmata* Mannerheim 1837.
 Taxonomy: Nelson 1975a.
 Ecology: Nelson 1975a (biol.).
 Distribution: **USA:** AZ, NM; also recorded from Mexico.
 Host(s): adults on *Acacia constricta* Benth.
- laricis** Van Dyke 1916:409.
 Type locality: OR, Grant Co., Sumpter – Type depository: CASC 3352 (♂).
 Taxonomy: Fisher 1942.
 Redescription: Fisher 1942:185 (♂, ♀), figs. 77, 122D (parts, ♂ genitalia).
 Ecology: Fisher 1942; Barr 1971 (biol.); Barr & Westcott 1976 (distr.); Westcott 1990 (biol., distr.); 2005 (distr.).
 Distribution: **Canada:** AB, BC, NT; **USA:** AZ, CO, ID, MT, NM, OR, UT, WA, WY
 Host(s): adults on *Abies* sp., *Larix occidentalis* Nutt., *Picea engelmannii* Engelm., *Pinus contorta* Loud., *P. c.* var. *murrayana* (Grev. & Balf.) Critchf., *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.
- lata* Kerremans 1899 [syn. of *cribraria*]
- lateralis** Waterhouse 1887:47, plate 3, fig. 20 (adult).
 Type locality: Mexico: N. Sonora – Type depository: BMNH.
 misidentification: *debilis* of authors (in part), not *debilis* LeConte 1860.
 Taxonomy: Fisher 1942.
 Redescription: Fisher 1942:106 (♂, ♀), figs. 39, 116C (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1384 (♂ ♀).
 Ecology: Fisher 1942; Cazier 1951b; Nelson & Westcott 1976 (distr.); Davidson & Davidson 2005; MacRae 2006 (biol., distr.).
 Distribution: **USA:** AZ, CA, NM, TX; also recorded from Mexico.
 Host(s): larvae in *Acacia greggii* Gray, *Prosopis glandulosa* Torr. and *Vauquelinia californica* (Torr.) Sarg.; adults also on *Acacia greggii* Gray and *Mimosa* sp.
- leechi** Barr 1974:3.
 Type locality: CA, Truckee – Type depository: CASC 12300 (♂).
 misidentification: *caurina* of authors (in part), not *caurina* Horn 1886.
 Taxonomy: Barr 1974.
 Redescription: Fisher 1942: figs. 66, 120F (♂ parts & ♂ genitalia as *caurina*).
 Ecology: many distributional and host records for *caurina* in Fisher 1942 (as *leechi*); Powell 1965:136 (biol. as *caurina*); Bright 1987; Westcott 1990; Davies 1991 (distr.); MacRae 2006 (biol., distr.).
 Distribution: **Canada:** AB, BC; **USA:** CA, ID, MT, NV, OR, WA
 Host(s): larvae in *Pinus aristata* Engelm. and *P. ponderosa* Laws.
- libonoti** Horn 1886:108 (♂, ♀), plate 6, figs. 193–197 (adult, parts).
 Type locality: AZ – Type depository: MCZC 8122 (♂).
 Taxonomy: Horn 1886; Fisher 1942.
 Redescription: Fisher 1942:194 (♂, ♀), figs. 81, 123B (parts, ♂ genitalia).
 Ecology: Fisher 1942 (biol., distr.); Nelson & Westcott 1976 (biol.); Nelson, *et al.* 1981 (distr.).
 Distribution: **USA:** AZ, CO, NM
 Host(s): larvae in *Quercus arizonica* Sarg., *Q. hypoleucoides* Camus and *Q. oblongifolia* Torr.

BUPRESTIDAE: Buprestinae: Chrysobothrini**lilaceous** Chamberlin 1925a:190.

Type locality: OR, 6 mi W Klamath Falls – Type depository: CASC? (♀).
 synonym: *juniperinus* Chamberlin 1925a:192 – Synonymy: Barr 1971:77.
 misspelling: *lilacea* Obenberger 1934a:639 (error).

Type locality: OR, Harney Co., Stein Mtns., 7500' – Type depository: CASC 5496 (♂).

Taxonomy: Barr 1971.

Redescription: Fisher 1942:136 (♂, ♀), figs. 54, 55, 119B (parts & ♂ genitalia as *juniperinus*).

Ecology: Fisher 1942; Barr 1971 (biol., distr.).

Distribution: USA: CA, ID, OR

Host(s): adults on *Juniperus occidentalis* Hook. and *J. scopulorum* Sarg.

lineatipennis Van Dyke 1916:411 (as variety of *mali*).

Type locality: CA, Santa Monica Hills, near Santa Monica – Type depository: CASC 3351 (♂).

Taxonomy: Van Dyke 1923; Fisher 1942.

Redescription: Fisher 1942:58 (♀), fig. 15 (parts); Westcott 1990, fig. 12 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1371 (♂, ♀).

Ecology: Nelson 1960b; Nelson, *et al.* 1981 (biol.).

Distribution: USA: CA

Host(s): larvae in *Eriogonum fasciculatum* (Benth.) T. & G. and *E. inflatum* Torr. & Frem.

lixa Horn 1886:101 (♂, ♀), plate 5, figs. 159–163 (adult, parts).

Type locality: TX – Type depository: MCZC 8120 (♀).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:34 (♂, ♀), figs. 3, 111C (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1366 (♀).

Ecology: Fisher 1942 (biol., distr.); Van Dyke 1942; Vogt 1949b; Cazier 1951b (distr.); Walters & Bellamy 1990 (biol.).

Distribution: USA: AZ, TX; also recorded from Mexico.

Host(s): adults on *Jatropha multifida* L., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Prosopis glandulosa* Torr. and *Sphaeralcea* sp.

lucana Horn 1894:367.

Type locality: Mexico, Baja CA, San José del Cabo – Type depository: CASC 21, 22 (♀) (Lectotype not designated).

Immature stages: Benoit 1966a:328 (larva), fig. 6 (dorsal abd. ampullae).

Taxonomy: Fisher 1942.

Redescription: Van Dyke 1942: fig. 1 (adult); Fisher 1942:239 (♂, ♀), figs. 104, 126D (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1416 (♂, ♀).

Ecology: Barr 1971; Nelson, *et al.* 1981 (biol.).

Distribution: USA: AZ, CA, OR; also recorded from Mexico.

Host(s): larvae in *Simmondsia chinensis* (Link.) C.K. Schneid.; adults also on *Acacia greggii* Gray, *Ceanothus crassifolius* Torr., *C. cuneatus* (Hook.) Nutt., *C. integerrimus* H. & A., *C. oliganthus* Nutt., *C. greggii* Gray var. *perplexans* (Trel.) Jeps., *Cercidium floridum* Gray, *Juniperus* sp., *Larrea tridentata* (DC.) Cov., *Mimosa* sp., *Psorothamnus spinosus* (Gray) Barneby, *Quercus arizonica* Sarg. and *Q. emoryi* Torr.

ludificata Horn 1886:88 (♂, ♀), plate 3, figs. 80–84 (adult, parts).

Type locality: CO – Type depository: MCZC 8115 (♂) (Lectotype designation: Fisher 1942:152).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:150 (♂, ♀), figs. 61, 120B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1398 (♀).

Ecology: Fisher 1942; Cazier 1951b; Westcott 1971a (distr.); MacRae 2006 (biol., distr.).

Distribution: USA: AZ, CA, CO, NM, NV, UT; also recorded from Mexico.

Host(s): larvae in *Pinus edulis* Engelm., *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco.; adults also on *Picea pungens* Engelm. and *Pinus flexilis* James.

mali Horn 1886:97 (♂, ♀), plate 5, figs. 135–139 (adult, parts).

Type locality: CA – Type depository: MCZC 8118 (♂) (Lectotype designation: Fisher 1942:56).

misidentification: *deleta* of authors, not *deleta* LeConte 1860.

Immature stages: Burke & Böving 1929 (life cycle), 9 figs. (larva, pupa); Benoit 1966a:328 (larva).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:55 (♂, ♀), figs. 14, 113A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1370 (♀).

Ecology: Fisher 1942; Brown & Eads 1965 (biol.); Barr 1971; Bright 1987; Davies 1991; Solomon 1995; MacRae & Nelson 2003 (distr.); MacRae 2006 (distr., biol.).

Distribution: **Canada:** AB, BC, MB, SK; **USA:** AZ, CA, CO, ID, MN, ND, NM, NV, OR, TX, UT, WA, WY

Host(s): larvae in *Acer negundo* L., *A. macrophyllum* Pursh, *A. pseudoplatanus* L., *A. rubrum* L., *A. saccharinum* L., *Adenostoma fasciculatum* H. & A., *Aesculus hippocastanum* L., *Alnus rhombifolia* Nutt., *Arbutus menziesii* Pursh, *Arctostaphylos tomentosa* (Pursh) Lindl., *Betula* sp., *Ceanothus crassifolius* Torr., *C. oliganthus* Nutt. var. *sorediatus* (H. & A.) Hoover, *Cerasus* sp., *Cercocarpus betuloides* T. & G., *Corylus* sp., *Cotoneaster horizontalis* Decne., *Crataegus xlavallei* Herincq ex Lavallee 'Carrierei', *Cydonia oblonga* Mill., *Eriobotrya japonica* (Thunb.) Lindl., *Eucalyptus globulus* Labill., *Fagus sylvatica* L., *Ficus* sp., *Juglans regia* L., *Laurocerasus* sp., *Liriodendron* sp., *Malus* sp., *Oemleria cerasiformis* (H. & A.) Landon, *Persea* sp., *Photinia serratifolia* (Desf.) Kalkm., *Pickeringia montana* Nutt., *Platanus orientalis* L., *Populus deltoides* Bartr. ex Marsh., *P. nigra* L., *Prosopis glandulosa* Torr., *Prunus americana* Marsh., *P. armeniaca* L., *P. avium* (L.) L., *P. cerasifera* Ehrh., *P. cerasus* L., *P. domestica* L., *P. dulcis* (Mill.) D.A. Webb, *P. ilicifolia* (Nutt.) Walp., *P. persica* (L.) Batsch., *P. serrulata* Lindl., *P. subcordata* Benth., *P. subhirtella* Miq. 'Shidarehigan', *Pyracantha coccinea* Roemer, *Pyrus communis* L., *Quercus agrifolia* Née, *Q. kelloggii* Newb., *Q. wislizeni* A. DC., *Rhamnus crocea* Nutt., *R. purshiana* DC., *R. tomentella* Benth. ssp. *cuspidata* (Greene) J.O. Sawyer, *Rhaphiolepis indica* (L.) Lindl. *Ribes rubrum* L., *Rosa* spp., *Rubus loganobaccus* Bailey, *Salix babylonica* L., *S. laevigata* Bebb, *S. lasiolepis* Benth., *S. matsudana* Koidzumi., *Sorbus aucuparia* L., *Ulmus americana* L., *U. glabra* Huds., *U.xhollandica* Mill. and *Wisteria sinensis* (Sims) DC.

merkelii Horn 1886:106 (♂, ♀), plate 6, figs. 183–187 (adult, parts).

Type locality: TX – Type depository: MCZC 33796 (♀) (Lectotype designation: Fisher 1942:206).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:206 (♂, ♀), figs. 86, 124A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1407 (♀).

Ecology: Fisher 1942; Vogt 1949b; Cazier 1951b; Westcott, *et al.* 1990 (distr.); Solomon 1995; Nelson, *et al.* 1996 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA, NM, NV, TX; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray, *Albizia julibrissin* Durazz., *Prosopis glandulosa* Torr.; adults also on *Acacia constricta* Benth, *Cercidium floridum* Gray, *Diospyros texana* Scheele, *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Harvardia pallens* (Benth.) Britt. & Rose and *Mimosa dysocarpa* Benth.

mescalero Wellso & Manley 2007:4 (♂, ♀), figs. 1, 13, 25 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Type locality: TX, Pecos Co., 28 mi S. Ft. Stockton, HWY 385 rest stop – Type depository: USNM (♂).

Taxonomy: Wellso & Manley 2007.

Ecology: Wellso & Manley 2007.

Distribution: **USA:** NM, TX

Host(s): adults on *Quercus havardii* Rydb. and *Q. mohriana* Buckl. ex. Rydb.

micromorpha Fall 1907:237.

Type locality: AZ – Type depository: MCZC 24441 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:124 (♂, ♀), figs. 48, 117F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1391 (♂).

Ecology: Fisher 1942; Knull 1970 (biol.); Nelson, *et al.* 1981 (biol., distr.).

Distribution: **USA:** AZ, CA, NM; also recorded from Mexico.

Host(s): adults on *Acacia greggii* Gray, *Mimosa* sp., *Olneya tesota* Gray and *Prosopis glandulosa* Torr.

monticola Fall 1910:51, fig. 1g (♂ proleg).

Type locality: CA, San Jacinto Mtns. – Type depository: MCZC 24442 (♂).

synonym: *grandis* Chamberlin 1938:14, figs. 17–19 (parts) – Synonymy: Westcott 1990:332.

Type locality: OR, Grand Co., Fall Mt. Lookout trail, 5200–6000'. Type depository: CASC 5489 (♀).

Taxonomy: Fisher 1942; Westcott 1990.

BUPRESTIDAE: Buprestinae: Chrysobothrini

Redescription: Fisher 1942:158 (♂, ♀), figs. 65, 120E (parts, ♂ genitalia); Westcott 1990, figs. 10, 11 (♂ genitalia); Akiyama & Ohmomo 2000: fig. 1400 (♂).

Ecology: Fisher 1942; Barr 1971 (distr.); Westcott 1990 (biol., distr.).

Distribution: **Canada:** AB, BC; **USA:** CA, CO, ID, MT, OR, WA; also recorded from Mexico.

Host(s): larvae in *Pinus contorta* Loud., *P. jeffreyi* Grev. & Balf., *P. monticola* D. Don and *P. ponderosa* Laws.; adults also on *P. sabiniana* Dougl.

nelsoni Westcott & Alten 2006:208 (♂, ♀), fig. 1–3 (adult, ♂ genitalia).

Type locality: UT, Kane Co., Coral Pink Sand Dunes – Type depository: CASC 18190 (♂).

Ecology: Westcott & Alten 2006 (biol., distr.); Westcott 2007b (distr.).

Distribution: **USA:** CA, NV, UT

Host(s): larvae in *Eriogonum alatum* Torr.

neopusilla Fisher 1942:102 (♂, ♀), fig. 37 (parts).

Type locality: VA, Pennington Gap – Type depository: USNM 55295 (♂).

Taxonomy: Fisher 1942.

Ecology: Fisher 1942; Nelson, *et al.* 1981 (biol., distr.); Nelson 1987a; Wellso & Jackman 2006 (distr.).

Distribution: **Canada:** MB, NB, PC; **USA:** GA, ME, MI, NC, NH, NS, NY, VA, WV

Host(s): larvae in *Abies fraseri* (Pursh) Poir. and *Picea mariana* B.S.P.; adults also on *P.glauca* (Moench) Voss.

neotexana B. K. Dozier 1955:75 (♂, ♀), figs. (♂ genitalia, parts).

Type locality: NC, Charlotte – Type depository: USNM 62301 (♂).

misidentification: *texana* in Franklin & Lund 1956:31, not *texana* LeConte 1860.

Taxonomy: Barr & Westcott 1976.

Ecology: Barr & Westcott 1976 (distr.); Nelson & MacRae 1990 (biol., distr.); Westcott 2005 (distr.).

Distribution: **USA:** AR, GA, MD, MO, NC, TN, TX, VA

Host(s): larvae in *Juniperus virginiana* L.

nixa Horn 1886:98 (♂, ♀), plate 5, figs. 145–149 (adult, parts).

Type locality: W. NV – Type depository: MCZC 8119 (♂) (Lectotype designation: Fisher 1942:157).

Immature stages: Benoit 1966a:329 (larva).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:157 (♂, ♀), figs. 64, 120D (parts, ♂ genitalia); Nelson, *et al.* 1996 (variation).

Ecology: Fisher 1942; Barr 1971; Nelson & Westcott 1976; Nelson, *et al.* 1981 (biol., distr.); Westcott 1990; Davies 1991 (distr.); Nelson, *et al.* 1996 (biol.).

Distribution: **Canada:** BC; **USA:** CA, MT, NV, OR, WA, WY

Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin, *Cupressus arizonica* Greene ssp. *nevadensis* (Abrams) Murray, *C. forbesii* Jeps., *C. macrocarpa* Gord., *C. sargentii* Jeps. and *Juniperus chinensis* (L.) ‘Kaizuka’; adults also on *Juniperus occidentalis* Hook. and *Thuja plicata* D. Don.

octocola LeConte 1858:67.

Type locality: AZ, Colorado near Gila – Type depository: MCZC 2688 (♀).

synonym: *caviventris* Théry 1926:165 – Synonymy: Obenberger 1934:644.

Type locality: “Siberie”? – Type depository: unknown.

misspelling: *octopunctata* (*lapsus calami*).

Immature stages: Bøving & Craighead 1931: plate 80, figs. F, I (larva); Benoit 1966a:329, fig. 3 (larva).

Taxonomy: Horn 1886; Fisher 1942; Nelson 1975a.

Redescription: Horn 1886:73 (♂, ♀), plate 2, figs. 6–10 (adult parts); Fisher 1942:81 (♂, ♀), figs. 27, 114D (parts, ♂ genitalia); Nelson 1975a: figs. 7, 13, 24 (last abd. ventrite, pygidium ♀, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1375 (♂, ♀).

Ecology: Fisher 1942; Vogt 1949b; Cazier 1951b (distr.); Nelson 1975a; Westcott 1990; Woods 1992; MacRae & Nelson 2003 (biol.); Davidson & Davidson 2005; MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA, CO, NM, NV, TX; also recorded from Hawai’i (introduced) and Mexico

Host(s): larvae in *Acacia constricta* Benth., *A. rigidula* Benth., *Cercidium floridum* Benth., *Prosopis glandulosa* Torr., *Prunus persica* (L.) Batsch. and *Salix* sp.; adults also on *Acacia farnesiana* (L.) Willd., *A. greggii* Gray, *A. greggii* var. *wrightii* (Benth.) Isely, *A. tortuosa* (L.) Willd., *Atriplex lentiformis* (Torr.) S. Wats., *Celtis laevigata* Willd., *Parkinsonia aculeata* L. and *Pluchea sericea* (Nutt.) Cov.

oregona Chamberlin 1934:38 (♂, ♀), fig. 9 (♂ protibia).

Type locality: OR, Lake Co., Bull Prairie, 7000' – Type depository: CASC 5498 (♂).

Synonym: *planomarginata* Chamberlin 1938a:10 (♂, ♀), figs. 1–4 (parts) – Synonymy: Fisher 1942:53.

Type locality: OR, Lake Co., Bull Prairie, 7000' – Type depository: CASC 5492 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:53 (♂, ♀), figs. 13, 112F (parts, ♂ genitalia).

Ecology: Fisher 1942; Barr 1971 (biol., distr.); Nelson, *et al.* 1981 (distr.).

Distribution: **Canada:** BC; **USA:** CA, ID, OR, WA

Host(s): larvae in *Geranium* sp.; adults also on *Eriogonum* sp., *Potentilla gracilis* Dougl. ex Hook var. *flabelliformis* (Lehm.) Nutt. ex T. & G.

orono Frost 1920:232.

Type locality: ME, Orono – Type depository: MCZC 35038 (♂).

Taxonomy: Fisher 1942; Westcott 1990.

Redescription: Fisher 1942:173 (♂, ♀), figs. 71, 121E (parts, ♂ genitalia); Wilson 1969: fig. 4A (adult); Westcott 1990:335, fig. 5 (adult).

Ecology: Fisher 1942; Wilson 1969; Bright 1987 (distr.); Westcott 1990 (biol., distr.).

Distribution: **Canada:** MB, ON; **USA:** GA, ME, MI, NC, SC, TN, VA

Host(s): larvae in *Pinus banksiana* Lamb. and *P. resinosa* Soland.

paragrindeliae Knull 1943a:42, figs. 1–5 (parts, ♂ genitalia).

Type locality: CA, Oak Grove – Type depository: FMNH (♂).

Taxonomy: Knull 1943a.

Distribution: **USA:** CA

Host(s): unknown.

parapiuta Knull 1938c:138 (♂, ♀), plate 1, fig. 5 (♂ genitalia).

Type locality: AZ, Wickenburg – Type depository: FMNH (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:126 (♂, ♀), figs. 50, 118B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1393 (♂, ♀).

Ecology: Fisher 1942 (distr.); Nelson 1959; 1960b; 1962 (biol.).

Distribution: **USA:** AZ, CA

Host(s): adults on *Acacia greggii* Gray, *Ceanothus greggii* Gray var. *perplexans* (Trel.) Jeps. and *Ziziphus parryi* Torr.

peninsularis peninsularis Schaeffer 1904:207.

Type locality: Mexico, BCN, San Felipe – Type depository: USNM 42638 (♂).

Taxonomy: Fisher 1942; Westcott 1990.

Redescription: Van Dyke 1942: fig. 2 (adult); Fisher 1942:89 (♂, ♀), figs. 30, 115A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1377 (♀).

Ecology: Fisher 1942; Barr & Westcott 1976 (biol., distr.); Walters & Bellamy 1982 (biol.); Westcott 1990 (distr.).

Distribution: **USA:** AZ, CA, NV, TX; also recorded from Mexico: BCN.

Host(s): adults on *Acacia greggii* Gray, *Dalea californica* Wats., *Hymenoclea salsola* Gray, *Krameria grayi* Rose & Painter, *Prosopis glandulosa* Torr. and *Psoralea arborescens* (Gray) Barneby var. *simplicifolia* (Parish) Barneby.

piuta Wickham 1903:67 (♂, ♀).

Type locality: CA, Owen's Valley, near Independence – Type depository: USNM 51938 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:110 (♂, ♀), figs. 41, 116E (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1385 (♂, ♀).

Ecology: Fisher 1942; Nelson 1960b; Barr & Westcott 1976 (biol., distr.); Westcott 1990 (distr.); MacRae & Nelson 2003 (biol.).

Distribution: **USA:** AZ, CA, MT, NV, UT

Host(s): adults on *Ceanothus oliganthus* Nutt., *Cercocarpus betuloides* T. & G., *C. ledifolius* Nutt., *Penstemon* sp., *Purshia mexicana* (D. Don) Welsh var. *stansburyana* (Torr.) Welsh and *P. tridentata* (Pursh) DC. var. *glandulosa* (Curran) E. Jones.

planata Gory & Laporte 1837 [syn. of *dentipes*]

planomarginata Chamberlin 1938 [syn. of *oregona*]

BUPRESTIDAE: Buprestinae: Chrysobothrini

posticalis Gory & Laporte 1837 [syn. of *dentipes*]

potentillae Barr 1969b:123 (♂, ♀), figs. 3, 10 (♂ genitalia, protibia).

Type locality: OR, Corvallis – Type depository: CASC 10210 (♂).

Taxonomy: Barr 1969b.

Ecology: Barr 1969b (biol., distr.).

Distribution: **USA:** OR

Host(s): adults on *Potentilla* sp.

prasina Horn 1886:118 (♀), plate 7, figs. 244–247 (adult, parts).

Type locality: CA – Type depository: MCZC 33798 (♀).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:248 (♀), fig. 109 (parts); Nelson 1967a:26 (♂); figs. 9 – 12 (♂ genitalia, parts); Akiyama & Ohmomo 2000: fig. 1418 (♂, ♀).

Ecology: Nelson 1967a; Barr & Westcott 1976 (biol., distr.).

Distribution: **USA:** AZ, CA, NV, UT

Host(s): adults on *Ephedra californica* S. Wats., *E. viridis* Cov. and *Psorothamnus spinosus* (Gray) Barneby.

prospidis Fisher 1942 [syn. of *rossi*]

proxima Kirby 1837 [syn. of *scabripennis*]

pseudacutipennis Obenberger 1940:94, figs. 1, 2 (adult, scutellum).

Type locality: TX – Type depository: NMPC 22929 (♀).

misidentification: *acuminata* of authors (in part), not *acuminata* Leconte 1860.

misidentification: *acutipennis* of authors (in part), not *acutipennis* Chevrolat 1835.

misspelling: *pseudoacutipennis* (*lapsus calami*).

Taxonomy: Obenberger 1940; Westcott 1990.

Redescription: Fisher 1942:201, figs. 84, 123E (as *acuminata*); Westcott 1990, fig. 2 (adult); Akiyama & Ohmomo 2000: fig. 1406 (♂).

Ecology: Westcott 1990 (biol., distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): adults on *Prosopis glandulosa* Torr.

pseudotsugae Van Dyke 1916:407, fig. 1 (♂ protibia).

Type locality: CA, Trinity Co., Carrville – Type depository: CASC 3349 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:191 (♂, ♀), figs. 80, 123A (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Barr 1971 (distr.).

Distribution: **Canada:** BC; **USA:** CA, NV, OR, WA

Host(s): larvae in *Pseudotsuga menziesii* (Mirb.) Franco; adults also on *Abies concolor* (Gord. & Glend.) Lindl., *A. grandis* Lindl., *Pinus jeffreyi* Grev. & Balf., *P. ponderosa* Laws. and *Tsuga mertensiana* Sarg.

pubescens Fall 1907 [syn. of *purpurifrons*]

pubilineata Vogt 1949a:48 (♂, ♀), figs. 1–6 (parts, ♂ genitalia).

Type locality: TX, Starr Co., 6.5 mi SE Rio Grande City, Hwy. to Mission – Type depository: USNM 58386 (♂).

Taxonomy: Vogt 1949a.

Ecology: Vogt 1949b; Nelson, *et al.* 1981 (biol., distr.).

Distribution: **USA:** NM, TX

Host(s): adults on *Acacia rigidula* Benth. and *Mimosa* sp.

purpurata Bland 1864:66.

Type locality: NE – Type depository: ANSP? (♀) (Lectotype designation: Fisher 1942:64).

misidentification: *aeneola* of authors (in part), not *aeneola* LeConte 1860.

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:63 (♂, ♀), fig. 18 (parts).

Ecology: Fisher 1942 (distr.).

Distribution: **USA:** NE

Host(s): unknown.

purpureoplagiata Schaeffer 1904:206.

Type locality: AZ, Florence – Type depository: USNM 42636 (♂) (Lectotype designation: Fisher 1942:116).

Taxonomy: Fisher 1942.

Redescription: Van Dyke 1942: fig. 3 (adult); Fisher 1942:116 (♂, ♀), figs. 44, 117B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1420 (♂, ♀).

Ecology: Fisher 1942; MacRae 2006 (biol., distr.); Nelson, *et al.* 1981 (biol.).

Distribution: **USA:** AZ, CA; also recorded from Mexico.

Host(s): larvae in *Canotia holocantha* Torr., “greasewood” and *Psorothamnus spinosus* (Gray) Barneby; adults also on *Acacia greggii* Gray and *Larrea tridentata* (DC.) Cov.

purpureovittata purpureovittata Horn 1886:76 (♂, ♀), plate 2, figs. 25–29 (adult, parts).

Type locality: TX – Type depository: MCZC 8111 (♂) (Lectotype designation: Fisher 1942:118).

Taxonomy: Fisher 1942; Westcott & Nelson 2000.

Redescription: Fisher 1942:117 (♂, ♀), figs. 45, 117C (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1389 (♂, ♀).

Ecology: Fisher 1942; Vogt 1949b; Cazier 1951b (as *purpureoplagiata*); Westcott & Nelson 2000 (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006; Wellso & Jackman 2006 (biol., distr.).

Distribution: **USA:** AR, IL, IN, KS, LA, MO, MS, OK, TN, TX

Host(s): larvae in *Acacia greggii* Gray, *Carya illinoensis* (Wangenh.) K. Koch, *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd., *C. l.* var. *reticulata* (Torr.) L. Benson, *C. tenuifolia* Nutt., *Cercis canadensis* L., *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Gleditsia triacanthos* L., *Karwinskia humboldtiana* (J.A. Schultes) Zucc., *Koelreuteria paniculata* Laxmann, *Parkinsonia aculeata* L., *Prunus* sp., *Quercus pungens* Liebm. var. *vaseyana* (Buckl.) C.H. Muller., *Rhus virens* Lindenheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson, *Ulmus* sp. and *Ziziphus obtusifolia* (T. & G.) Gray; adults also on *Acacia constricta* Benth., *A. farnesiana* (L.) Willd., *Celtis occidentalis* L., *Cercocarpus montanus* Raf., *Crataegus phaenopyrum* (L. f.) Medik., *Diospyros texana* Scheele, *D. virginiana* L., *Juniperus deppeana* Steud., *Prosopis glandulosa* Torr., *Prunus americana* Marsh. and *Quercus* sp.

purpureovittata cercocarpi Westcott & Nelson 2000:310 (♂, ♀), fig. 10 (♂ genitalia).

Type locality: NM, Otero Co., Cloudcroft – Type depository: CASC 17819 (♂).

Taxonomy: Westcott & Nelson 2000.

Ecology: Westcott & Nelson 2000 (biol., distr.).

Distribution: **USA:** NM

Host(s): adults on *Cercocarpus montanus* Raf.

purpurifrons Motschulsky 1859:183.

Type locality: CA, San Francisco – Type depository: ZMUM (♀).

synonym: *pubescens* Fall 1907:238 – Synonymy: Nelson 1980a:89.

Type locality: CA, Southern Sierras, 3000–6000' – Type depository: MCZC (♂).

misspelling: *subpubescens* (error for *pubescens*, *nomen nudum*).

Taxonomy: Fisher 1942 (as *pubescens*); Nelson 1980a.

Redescription: Fisher 1942:51 (♂, ♀), figs. 12, 112E (parts & ♂ genitalia as *pubescens*).

Ecology: Fisher 1942 (distr. & biol. as *pubescens*); Nelson, *et al.* 1996 (biol.); MacRae 2006 (distr., biol.).

Distribution: **USA:** CA

Host(s): larvae in *Delphinium* sp.; adults also on *Quercus berberidifolia* Liebm. (misapplied to *Q. dumosa* Nutt.); and flowers of *Eriogonum kennedyi* Gray.

pusilla Gory & Laporte 1837:53, plate 10, fig. 72 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN (Lectotype not designated).

unavailable name: *biguttata* in Gory & Laporte 1837: plate 10, fig. 72 (*lapsus calami*).

synonym: *strangulata* Melsheimer 1845:147 – Synonymy: LeConte 1860:236.

Type locality: PA – Type depository: MCZC? (♂).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:97 (♂, ♀), plate 5, figs. 140–144 (adult, parts); Fisher 1942:104 (♂, ♀), figs. 38, 116B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1383 (♀).

Ecology: Fisher 1942; Barr & Westcott 1976; Nelson, *et al.* 1981; Bright 1987 (biol., distr.); Nelson 1987a; Davies 1991; Dearborn & Donahue 1993; Peck & Thomas 1998 (distr.); Westcott 2005 (distr.).

Distribution: **Canada:** NB, ON, PQ; **USA:** AL, DC, FL, GA, LA, MA, MD, ME, MI, MN, MS, NC, NH, NJ, NY, PA, TN, VA, WI, WV

Host(s): larvae in *Pinus rigida* Mill. and *Tsuga canadensis* (L.) Carr.; adults also on *Pinus banksiana* Lamb., *P. echinata* Mill. and *P. strobus* L.

BUPRESTIDAE: Buprestinae: Chrysobothrini

quadriimpresa Gory & Laporte 1837:48, plate 9, fig. 64 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN (♂).

synonym: *misella* LeConte 1860:233 – Synonymy: Horn 1886:79.

Type locality: Saratoga – Type depository: MCZC (♂).

Taxonomy: Kerremans 1903:187 (syn. of *femorata*); Wellso & Manley 2007.

Redescription: Wellso & Manley 2007:9 (♂, ♀), figs. 7, 19, 31 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Ecology: Wellso & Manley 2007 (biol., distr.).

Distribution: USA: AL, AZ, CT, DE, FL, ID, IL, IN, IO, MA, MD, ME, MI, NC, NJ, NY, OH, OR, PA, RI, TN, TX, VA, WI

Host(s): larvae in from *Juglans nigra* L.; *Liquidamber styraciflua* L., *Quercus alba* L., *Q. coccinea* Muenchh., *Q. emoryi* Torr., *Quercus rubra* L., and *Sapindus saponaria* var. *drummondii* Hook. & Arn.

quadrilineata LeConte 1860:233.

Type locality: NM, Santa Fe – Type depository: MCZC 2700 (♂).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:94 (♂, ♀), plate 4, figs. 120–124 (adult, parts); Fisher 1942:153 (♂, ♀), figs. 62, 120C (parts, ♂ genitalia).

Ecology: Fisher 1942; Barr & Westcott 1976 (biol., distr.); Nelson, *et al.* 1981; Nelson 1987a (distr.).

Distribution: USA: AZ, CA, CO, NM, NV, OR, SD, TX, UT

Host(s): adults on *Juniperus californica* Carr. and *J. deppeana* Steud.

rossi Beer 1967:18 (♂, ♀), figs. 1–6 (♂ genitalia, parts).

Type locality: OR, Josephine Co., Finley Bend, 10 mi W Grants Pass – Type depository: CASC 9826 (♂).

Taxonomy: Beer 1967.

Redescription: Barr 1971: plate 7, fig. 8 (adult).

Ecology: Barr 1971 (biol., distr.).

Distribution: USA: OR

Host(s): larvae in *Eriogonum compositum* Benth.

rossi Van Dyke 1942:117 (♂, ♀), plate 7, fig. 4 (adult ♂).

Type locality: Mexico. Baja CA, 15 mi N San Ignacio – Type depository: CASC 4836 (♂).

misidentification: *debilis* of authors (in part), not *debilis* LeConte 1860.

synonym: *prosopidis* Fisher 1942:70 (♂, ♀) – Synonymy: Nelson 1968a:28.

Type locality: AZ, Sabino Cyn. – Type depository: USNM 55293 (♂).

Taxonomy: Fisher 1942 (as *prosopidis*); Nelson 1968a.

Redescription: Fisher 1942:70 (♂, ♀), figs. 22, 113F (parts & ♂ genitalia as *prosopidis*).

Ecology: Fisher 1942 (distr. & biol. as *prosopidis*); Vogt 1949b (as *prosopidis*); Cazier 1951b (as *prosopidis*); Barr & Westcott 1976; Nelson & Westcott 1976 (distr.); MacRae & Nelson 2003; Davidson & Davidson 2005; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).

Distribution: USA: AZ, CA, NM, TX; also recorded from Mexico.

Host(s): larvae in *Acacia constricta* Benth., *A. farnesiana* (L.) Willd., *A. greggii* Gray, *A. rigidula* Benth., *Celtis laevigata* Willd. var. *reticulata* (Torr.) L. Benson, *Juniperus californica* Carr. and *Prosopis glandulosa* Torr.; adults also on *Cercidium floridum* Gray.

rotundicollis Gory & Laporte 1837, 51, plate 9, fig. 69 (adult).

Type locality: “Saint-Domingue” – Type depository: MNHN (♀) (Lectotype designation: Barr & Westcott 1976:150).

synonym: *blanchardi* Horn 1886:93 (♂, ♀), plate 4, figs. 115–119 (adult, parts) – Synonymy: Westcott 1990:338.

Type locality: MA, Tyngsboro – Type depository: MCZC 8117 (♂).

synonym: *columbiana* Barr 1969:131, figs. 7, 14 (♂ genitalia, protibia) – Synonymy: Westcott 1990:338.

Type locality: BC, Midday Valley, Merritt – Type depository: CASC 10216 (♂).

Taxonomy: Horn 1886; Fisher 1942 (as *blanchardi*); Barr 1969b (as *columbiana*); Barr & Westcott 1976; Westcott 1990.

Redescription: Fisher 1942:164 (♂, ♀), figs. 67, 121A (parts & ♂ genitalia as *blanchardi*).

Ecology: Fisher 1942; Howden & Vogt 1951 (biol.); Nelson & Westcott 1976; Nelson, *et al.* 1981

(both as *blanchardi*); Westcott 1990; MacRae & Nelson 2003 (biol., distr.); Westcott 2005 (distr.); Wellso & Jackman 2006 (distr.).

Distribution: **Canada:** AB, BC, MB, NB, ON, PQ, SK; **USA:** AZ, DC, FL, IA, IN, MA, ME, MI, MN, MT, NC, NE, NH, NJ, NM, NY, PA, SD, TX, WA, WY

Host(s): larvae in *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Larix laricina* (Du Roi) K. Koch, *Pinus rigida* Mill., *P. strobus* L. and *P. virginiana* Mill.; adults also on *Pinus contorta* Loud. and *P. ponderosa* Laws.

rugosiceps Melsheimer 1845:147.

Type locality: PA – Type depository: MCZC (♂) (Neotype designation: Wellso & Manley 2007:7).

synonym: *alabamae* Gory 1841:185, plate 32, fig. 183 (adult) – Synonymy: Horn 1886:78.

Type locality: AL – Type depository: MNHN (♂).

misidentification: *femorata* of authors (in part), not *femorata* Oliver 1790.

Taxonomy: Fisher 1942; Wellso & Manley 2007.

Redescription: Fisher 1942:131 (♂, ♀), fig. 118E (♂ genitalia); Wellso & Manley 2007:7 (♂, ♀), figs. 5, 17, 29 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Ecology: Fisher 1942; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; MacRae 1991 (biol., distr.); Nelson, *et al.* 1996; Westcott 2001b (distr.); Wellso & Manley 2007 (distr.).

Distribution: **Canada:** MB, ON, PQ; **USA:** AL, AR, CT, DC, DE, FL, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, NC, ND, NH, NJ, NY, OK, PA, SC, SD, TN, TX, VA, WI, WV

Host(s): larvae in *Castanea dentata* Borkh., *Quercus alba* L., *Q. macrocarpa* Michx. and *Q. velutina* Lam.; adults also on *Carya ovata* (Mill.) K. Koch, *Pinus echinata* Mill., *Quercus marilandica* Muenchh., *Q. palustris* Muenchh. and *Q. stellata* Wangenh.

scabra Gory 1841 [syn. of *scabripennis*]

scabripennis Gory & Laporte 1837:53, plate 9, fig. 71 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN.

synonym: *proxima* Kirby 1837:157 – Synonymy: Saunders 1871:98.

Type locality: “Amer. Bor.” – Type depository: BMNH.

synonym: *scabra* Gory 1841:182, plate 31, fig. 178 (adult) – Synonymy: Saunders 1871:98.

Type locality: “Amer. du Sud” – Type depository: MNHN (type not located in 1978).

Immature stages: Benoit 1964:1114, figs. 5–17, 21, 23, 24 (larva).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:89 (♂, ♀), plate 3, figs. 85–89 (adult, parts); Fisher 1942:176 (♂, ♀), figs. 73, 121F (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1401 (♂, ♀).

Ecology: Fisher 1942; Barr 1971 (biol., distr.); Nelson, *et al.* 1981; Bright 1987; Davies 1991 (distr.); Dearborn & Donahue 1993 (biol.); Nelson, *et al.* 1996.

Distribution: **Canada:** AB, BC, MB, NB, ON, NT, PQ, SK; **USA:** GA, MA, ME, MI, MN, NC, NH, NY, PA, VA (?), VT, WI, WV

Host(s): larvae in *Picea glauca* (Moench) Voss, *Pinus strobus* L. and *Tsuga canadensis* (L.) Carr.

schaefferi Obenberger 1934:649 (replacement name for *thoracicus* Schaeffer 1905).

misidentification: *edwardsii* of authors (in part), not *edwardsii* Horn 1886.

synonym: *thoracicus* Schaeffer 1905a:128 (preoccupied: *thoracicus* Fabricius 1798).

Type locality: Mexico, Baja CA, El Taste – Type depository: USNM 42654 (♀).

Taxonomy: Fisher 1942.

Redescription: Van Dyke 1942: plate 7, fig. 5 (adults as *thoracicus*); Fisher 1942:76 (♂, ♀), figs. 25, 114B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1371 (♂, ♀).

Ecology: Fisher 1942; Nelson 1965 (biol., distr.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): larvae in *Bursera microphylla* Gray; adults also on *Acacia greggii* Gray and *Cercidium floridum* Gray.

schistomorion Westcott & Davidson 2001:83 (♂, ♀), plate 2, A (holotype), B (♂ genitalia), figs. 1 (protibia), 2 (last visible abdominal ventrite).

Type locality: AZ, Prescott – Type depository: MCZC 35063 (♂).

Taxonomy: Westcott & Davidson 2001.

Ecology: Westcott & Davidson 2001 (distr.).

Distribution: **USA:** AZ

Host(s): unknown.

BUPRESTIDAE: Buprestinae: Chrysobothrini

scitula Gory 1841:160, plate 27, fig. 155 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN.

Taxonomy: Fisher 1942.

Ecology: Nelson, *et al.* 1981; Westcott 1990; 2001b (distr.).

Distribution: **USA**: AL, GA, LA, MS, SC, TX

Host(s): unknown.

scotti Chamberlin 1938 [syn. of *ignicollis*]

seminole Wellso & Manley 2007:5 (♂, ♀), figs. 2, 14, 26 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Type locality: GA, Emanuel Co., I-16 & US 1, Gar road – Type depository: USNM (♂).

Taxonomy: Wellso & Manley 2007.

Ecology: Wellso & Manley 2007 (biol., distr.).

Distribution: **USA**: FL, GA

Host(s): reared from *Chrysoma pauciflosculosa* (Michx.) Greene.

semisculpta LeConte 1860:254.

Type locality: CA – Type depository: MCZC 2694 (♀).

synonym: *contigua* LeConte 1860:255 – Synonymy: Fisher 1942:83.

Type locality: CA – Type depository: MCZC 2683 (♂).

synonym: *burkei* Chamberlin 1929:110, figs. 2–3 (Clypeus, ♂ proleg.) – Synonymy: Westcott 1990:339.

Type locality: CA, San Mateo Co., Big Basin – Type depository: CASC 5500 (♂).

Taxonomy: Fisher 1942; Westcott 1990.

Redescription: Fisher 1942:83 (♂, ♀), figs. 28, 114E (parts, ♂ genitalia).

Ecology: Fisher 1942; Barr 1971 (biol., distr.); Nelson, *et al.* 1981; Nelson 1987a; MacRae & Nelson 2003 (biol.).

Distribution: **USA**: CA, ID, NV, OR, WA

Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin, *Pinus attenuata* Lemmon, *P. contorta* Loud., *P. jeffreyi* Grev. & Balf., *P. lambertiana* Dougl., *P. monophylla* Torr. & Frem., *P. ponderosa* Laws., *P. sabiniana* Dougl. and *Pseudotsuga menziesii* (Mirb.) Franco.

serripes Schaeffer 1905a:130.

Type locality: UT, Beaver Cyn. – Type depository: USNM 42655 (♂).

Taxonomy: Fisher 1942; Westcott 1983.

Redescription: Fisher 1942:213 (♂, ♀), figs. 91, 124D (parts, ♂ genitalia); Westcott 1983:347, figs. 3, 25, 26 (adult, parts).

Ecology: Fisher 1942; Westcott 1983 (biol., distr.).

Distribution: **USA**: AZ, CO, NM, UT

Host(s): adults on *Quercus gambelii* Nutt.

sexfasciata Schaeffer 1919:212.

Type locality: FL, Key West – Type depository: USNM 42633 (♀).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:230 (♂, ♀), fig. 125F (♂ genitalia).

Ecology: Fisher 1942 (distr.); Barr & Westcott 1976 (biol.).

Distribution: **USA**: FL; also recorded from the West Indies.

Host(s): larvae in *Conocarpus erectus* L.; adults also on *Laguncularia racemosa* (L.) Gaertn. f.

sexguttata Say 1823 [syn. of *sexsignata*]

sexsignata Say 1839:158 (replacement name for *sexguttata* Say 1823).

synonym: *sexguttata* Say 1823:161 (preoccupied: *sexguttata* Herbst 1801).

Type locality: USA – Type depository: USNM (♀) (Original type destroyed; Neotype, from PA, Frankford, designation: Fisher 1942:226).

synonym: *germari* Gory & Laporte 1837:50, plate 9, fig. 67 (adult) – Synonymy: LeConte 1860:238.

Type locality: “Amer. Bor.” – Type depository: MNHN (♂).

synonym: *ignipes* Gory & Laporte 1837:50, plate 9, fig. 68 (adult) – Synonymy: LeConte 1860:238.

Type locality: MA, Boston – Type depository: BMNH.

misspelling: *difficilis* LeConte 1873:332 (probably a typographical error for *dissimilis* Gory).

Immature stages: Benoit 1964:1114 (larva).

Taxonomy: Horn 1886; Fisher 1942; ICZN 2007.

Redescription: Horn 1886:112 (♂, ♀), plate 7, figs. 212–216 (adult, parts); Fisher 1942:225 (♂, ♀), figs.

96, 125D (parts, ♂ genitalia).

Ecology: Fisher 1942; Hespenheide 1974; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Davies 1991 (distr.); Nelson & MacRae 1991; MacRae & Nelson 2003; MacRae 2006 (biol., distr.); Wellso & Jackman 2006 (biol.).

Distribution: **Canada:** NB, ON, PE, PQ; **USA:** AR, CO, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, MA, MD, ME, MI, MO, MS, NC, NE, NJ, NY, OH, OK, PA, RI, SC, TX, VA, WV

Host(s): larvae in *Acacia* sp., *Acer rubrum* L., *A. saccharum* Marsh., *Amelanchier arborea* (Michx. f.) Fern., *Betula alleghaniensis* Britt., *B. nigra* L., *Carya ovata* (Mill.) K. Koch, *Castanea dentata* (Marsh.) Borkh., *Celtis laevigata* Willd., *C. occidentalis* L., *C. tenuifolia* Nutt., *Cercis canadensis* L., *Crataegus viridis* L., *Diospyros virginiana* L., *Fagus* sp., *Fraxinus americana* L., *M. nigra* Marsh., *M. pennsylvanica* Marsh., *M. quadrangulata* Michx., *Gleditsia triacanthos* L., *Juglans cinerea* L., *J. nigra* L., *Larix laricina* (DuRoi) K. Koch, *Picea mariana* (Mill.) B.S.P., *Pinus rigida* Mill., *Prosopis* sp., *Quercus alba* L., *Q. bicolor* Willd., *Q. macrocarpa* Michx., *Q. muehlenbergii* Engelm., *Q. stellata* Wangenh., *Taxodium distichum* (L.) Rich., *Tsuga canadensis* (L.) Carr., *Ulmus alata* Michx., *U. rubra* Muhl. and *Vitis* sp; adults also on *Acer saccharinum* L., *Quercus palustris* Muenchh. and *Sorbus aucuparia* L.

shawnee Wellso & Manley 2007:18 (♂, ♀), figs. 12, 24, 36 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Type locality: TX, Brazos Co., College Station – Type depository: USNM (♂).

Taxonomy: Wellso & Manley 2007.

Ecology: Wellso & Manley 2007 (biol., distr.).

Distribution: **USA:** AL, CO, CT, DC, FL, GA, IL, IN, IO, KS, KY, MA, MD, MI, MO, MS, NH, NJ, NC, NY, OK, PA, RI, SC, TN, TX, VA, WV

Host(s): larva in *Castanea dentata* (Marshall) Borkhausen, *Quercus palustris* Muenchh., *Q. phellos* L., *Q. stellata* Wangenh. and *Quercus* sp.; adults also on *Celtis laevigata* Willd., *Fraxinus pennsylvanica* Marsh., *Quercus alba* L., *Q. bicolor* Willd., *Q. coccinea* Muenchh., *Q. gravesii* Sudw., *Q. marilandica* Muenchh., *Q. michauxi* Nutt., *Q. rubra* L. and *Q. velutina* Lam.

sloicola Manley & Wellso 1976:317 (♂, ♀), fig. 1 (♂ genitalia, parts).

Type locality: MI, Shiawassee Co., (T5N R1E Sec. 35) – Type depository: USNM 73570 (♂).

Taxonomy: Manley & Wellso 1976; Wellso & Manley 2007.

Redescription: Wellso & Manley 2007:6 (♂, ♀), figs. 4, 16, 28 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Ecology: Manley & Wellso 1976 (biol., distr.).

Distribution: **USA:** MI

Host(s): adults on *Prunus americana* Marsh.

smaragdula Fall 1907:239.

Type locality: AZ, Oak Creek Cyn. – Type depository: MCZC 56658 (♀).

synonym: *verdevallis* Fisher 1943b:202 – Synonymy: Nelson 1987b:71.

Type locality: AZ, Verde Valley. Type depository: USNM (♀).

Taxonomy: Fisher 1942; Nelson 1987b.

Redescription: Fisher 1942:246 (♂, ♀), fig. 108 (parts).

Ecology: Fisher 1942 (distr.); Nelson 1962; 1965 (biol., distr.).

Distribution: **USA:** AZ, CA

Host(s): adults on *Acacia greggii* Gray, *Mimosa* sp., *Quercus gambelii* Nutt. (*Q. utahensis* Rydb.).

socialis apache Westcott & Barr 2007:55 (♂, ♀).

Type locality: Nogales, St. Cruz Co., Ariz. – Type depository: USNM.

Taxonomy: Fisher 1942:237 (as *socialis*); Nelson, *et al.* 1981 (as *socialis*).

Redescription: Fisher 1942:238 (♂, ♀), figs. 103, 126C (parts, ♂ genitalia) (as *socialis*).

Ecology: Fisher 1942; Cazier 1951b (distr.); Nelson, *et al.* 1981 (biol.).

Distribution: **USA:** AZ; also recorded from Mexico.

Host(s): adults on *Anisacanthus thurberi* (Torr.) Gray, *Baccharis* sp., *Celtis ehrenbergia* (Klot.) Liebm., *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *Mimosa* sp., *Prosopis glandulosa* Torr. and *Prosopis* sp.

soror LeConte 1860 [syn. of *adelpha*]

speculifer Horn 1886:83 (♂, ♀), plate 3, figs. 56–60 (adult, parts).

Type locality: CO – Type depository: MCZC 8113 (♂) (Lectotype designation: Fisher 1942:98).

Taxonomy: Horn 1886; Fisher 1942.

BUPRESTIDAE: Buprestinae: Chrysobothrini

Redescription: Fisher 1942:97 (♂, ♀), figs. 34, 115E (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Powell 1965 (biol.).

Distribution: **USA:** AZ, CA, CO, NM, TX, UT

Host(s): larvae in *Juniperus californica* Carr. and *J. monosperma* (Engelm.) Sarg. *strangulata* Melsheimer 1845 [syn. of *pusilla*]

subcylindrica Ménétries in Motschulsky 1859:182, plate 4, fig. 17 (adult).

Type locality: (CA, Sacramento) “Nova-Helvetia” – Type depository: ZMUM (♀).

synonym: *deleta* LeConte 1860:255 – Synonymy: Nelson 1980a:90.

Type locality: CA – Type depository: MCZC 2703 (♀).

misspelling: *delecta* (error for *deleta*, *lapsus calami*).

Taxonomy: Horn 1886; Fisher 1942 (both as *deleta*); Barr & Westcott 1976 (*subcylindrica*) name resurrected but not associated); Nelson 1980a.

Redescription: Horn 1886:99 (♂, ♀), plate 5, figs. 150–154 (adult, parts); Fisher 1942:38 (♂, ♀), figs. 5, 111E (parts, ♂ genitalia) (both as *deleta*); Westcott 1990 (biol., distr.).

Ecology: Fisher 1942; Barr 1971 (both as *deleta*); Walters 1975; Barr & Westcott 1976 (biol. as *deleta*).

Distribution: **USA:** AZ, CA, ID, NM, NV, OR, UT

Host(s): larvae in *Artemesia tridentata* Nutt., *Chrysothamnus nauseosus* (Pall.) Britt., *Gutierrezia sarothrae* (Pursh) Britt. & Rusby and *Heterotheca villosa* (Pursh) Shinnars; adults also on *Prosopis glandulosa* Torr., *Psorothamnus emoryi* (Gray) Rydb., *Purshia tridentata* (Pursh) DC. var. *glandulosa* (Curran) ♂E. Jones and *Senna armata* (S. Wats.) Irwin & Barneby.

subopaca Schaeffer 1904:208 (misspelled *subapaca* in description).

Type locality: CA, Tulare Co. – Type depository: CASC 8120 (♂).

Distribution: **USA:** CA

Host(s): unknown.

sylvania Fall 1910:50, fig. 1d (♂ protibia).

Type locality: CA, Sylvania – Type depository: MCZC 24445 (♂).

Immature stages: Chamberlin 1920a (life cycle), plate 7, figs. 1, 2 (pupa, larva).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:187 (♂, ♀), figs. 78, 122E (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.).

Distribution: **Canada:** BC; **USA:** CA, OR, WA

Host(s): larvae in *Pseudotsuga menziesii* (Mirb.) Franco.

texana LeConte 1860:234.

Type locality: TX – Type depository: MCZC 2702 (♂).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Horn 1886:96 (♂, ♀), plate 5, figs. 130–134 (adult, parts); Fisher 1942:90 (♂, ♀), figs. 31, 115B (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1378 (♂, ♀).

Ecology: Fisher 1942; Barr 1971; Barr & Westcott 1976; Westcott 1990; 2001b (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA, CO, ID, ND, NE, NM, NV, OK, TX, UT; also recorded from Mexico.

Host(s): larvae in *Cupressus arizonica* Greene, *Juniperus deppeana* Steud., *J. occidentalis* L., *J. osteosperma* (Torr.) Little, *J. scopulorum* Sarg. and *J. virginiana* L.

thoracicus Schaeffer 1905 [syn. of *schaefferi*]

tranquebarica (Gmelin) 1788:1932 (*Buprestis*, replacement name for *impressa* Fabricius 1787, not 1775).

Type locality: “Tranquebariae” – Type depository: unknown.

synonym: *impressa* (Fabricius) 1787:182 (*Buprestis*, preoccupied: *impressa* Fabricius 1775).

unavailable name: *excavata* Olivier 1790:232 (unjustified new name).

misidentification: *chalcophoroides* of Smith 1887:39, not *chalcophoroides* Horn 1886:110.

synonym: *denticulata* Gory & Laporte 1837:46, plate 8, fig. 62 (adult) – Synonymy: Fisher 1942:201.

Type locality: “Guadeloupe” – Type depository: MNHN (♂).

synonym: *fraterna* Mannerheim 1837:75 – Synonymy: Fisher 1942:201.

Type locality: “Insula Porto Rico” – Type depository: UZMH (♀) (Lectotype designation: Nelson 1976:168).

synonym: *denticollis* Gory 1841:178, plate 30, fig. 173 (adult) – Synonymy: Fisher 1942:201.

Type locality: Colombia: Bogota – Type depository: MHNG.

Immature stages: Snyder 1919:158 (egg, larva, pupa), plate 20 (larva, pupa); Benoit 1966a:330, fig. 4 (clypeus of larva).

Taxonomy: Horn 1886 (as *impressa*); Fisher 1942.

Redescription: Snyder 1919: plate 21 (adult ♂); Fisher 1942:199 (♂, ♀), figs. 83, 123D (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1405 (♂).

Ecology: Fisher 1942 (biol., distr.).

Distribution: **USA**: FL; also recorded from the West Indies.

Host(s): larvae in *Casuarina equisetifolia* Foster, *Pinus palustris* Mill. and *Rhizophora mangle* L.; adults also on *Cassia fistula* L. and *Laguncularia racemosa* (L.) Gaertn. f.

trinervia Kirby 1837:157, plate 2, fig. 9 (adult).

Type locality: Lat.54° and 65° and in Rocky Mtns. – Type depository: BMNH.

synonym: *cicatricosa* Motschulsky 1852:77 – Synonymy: LeConte 1860:235.

Type locality: AK, Kodiak – Type depository: ZMUM.

Immature stages: Burke 1917a: plate 4, fig. 4 (larva); Benoit 1964:1114, fig. 20 (larva).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:178 (♂, ♀), figs. 74, 122A (parts, ♂ genitalia); Barr 1971: plate 7, fig. 9 (adult); Akiyama & Ohmomo 2000: fig. 1402 (♂)

Ecology: Fisher 1942; Bright 1987; Westcott 1990; Davies 1991 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada**: AB, BC, MB, NB, NF, NS, NT, ON, PE, PQ, SK, YT; **USA**: AK, AZ, CA, CO, ID, ME, MI, MN, MT, NH, NM, OR, SD, UT, VT, WA, WY

Host(s): larvae in *Larix laricina* (DuRoi) K. Koch, *Picea* sp., *Pinus flexilis* James, *P. ponderosa* Laws. and *Pseudotsuga menziesii* (Mirb.) Franco; adults also on *Abies* sp., *Pinus banksiana* Lamb., *P. edulis* Engelm. and *P. strobus* L.

ultramarina Gory & Laporte 1837 [syn. of *azurea*]

verdevallis Fisher 1943 [syn. of *smaragdula*]

verdigripennis Frost 1910:43.

Type locality: ME, Wales – Type depository: MCZC 2696 (♂).

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:142 (♂, ♀), figs. 57, 119D (parts, ♂ genitalia).

Ecology: Fisher 1942; Bright 1987 (biol., distr.); Davies 1991 (distr.).

Distribution: **Canada**: AB, MB, NB, NS, NT, ON, PQ, SK; **USA**: CT, MA, ME, MI, NY, PA, VT

Host(s): larvae in *Picea abies* (L.) Karst. and *Tsuga canadensis* (L.) Carr.; adults also on *Abies balsamea* (L.) Mill., *Fagus grandifolia* Ehrh., *Picea glauca* (Moench) Voss and *Pinus* sp.

viridiceps Melsheimer 1845:147.

Type locality: PA – Type depository: MCZC (♂) (Neotype designation: Wellso & Manley 2007:8).

synonym: *lesueuri* Gory & Laporte 1837:49, plate 9, fig. 66 (adult) – Synonymy: Horn 1886:79.

Type locality: “Amer. Sept.” – Type depository: MNHN (♂).

misidentification: *femorata* of authors (in part), not *femorata* Oliver 1790.

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:132 (♂, ♀), fig. 118F (♂ genitalia); Wellso & Manley 2007:8 (♂, ♀), figs. 6, 18, 30 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Ecology: Fisher 1942; Vogt 1949b; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; MacRae 1991 (biol., distr.); Davies 1991; Nelson, *et al.* 1996; Peck & Thomas 1998 (distr.); Westcott 2001b (biol.); Wellso & Manley 2007 (biol., distr.).

Distribution: **USA**: AR, FL, GA, IA, IN, KY, IL, IN, KY, MA, MD, MI, MN, MO, MS, NC, NE, NJ, NM, NY, OH, OK, PA, RI, SD, TN, TX, VA, VT, WI, WV

Host(s): larvae in *Acer rubrum* L., *Carya illinoensis* (Wang.) K. Koch., *Pinus* sp., *Prosopis* sp., *Quercus alba* L., *Q. grisea* Liebm., *Q. macrocarpa* Michx., *Q. stellata* Wangenh., *Quercus* sp. and *Ulmus crassifolia* Nutt.; adults also on *Acer saccharinum* L., *Carya ovata* (Mill.) K. Koch, *Q. bicolor* Willd., *Q. marilandica* Muenchh., *Q. velutina* Lam. and *Ulmus americana* L.

viridicyanea Horn 1886:84 (♂, ♀), plate 3, figs. 61–65 (adult, parts).

Type locality: NV – Type depository: MCZC 8114 (♂) (Lectotype designation: Fisher 1942:102).

Taxonomy: Horn 1886; Fisher 1942.

Redescription: Fisher 1942:101 (♂, ♀), figs. 36, 116A (parts, ♂ genitalia); Akiyama & Ohmomo 2000: fig. 1380 (♂, ♀).

BUPRESTIDAE: Buprestinae: Chrysobothrini

Ecology: Fisher 1942; Barr 1971 (biol., distr.).

Distribution: USA: CA, NV, OR

Host(s): larvae in *Calocedrus decurrens* (Torr.) Florin., *Chamaecyparis lawsoniana* (A. Murr.) Parl., *Juniperus occidentalis* Hook. and *J. scopulorum* Sarg.; adults also on *Pinus jeffreyi* Grev. & Balf. and *Pseudotsuga menziesii* (Mirb.) Franco.

viridipunctata Gory & Laporte 1837 [syn. of *chrysoela*]

vivida Knull 1952b:352, figs. 3, 4 (parts).

Type locality: KS, Scott Co. – Type depository: FMNH (♀).

Distribution: USA: KS

Host(s): unknown.

vogti Knull 1964 [ssp. of *ephedrae*]

vulcanica LeConte 1861:346.

Type locality: OR, E. of Fort Colville – Type depository: MCZC 2699 (♀).

misidentification: *californica* of authors (in part), not *californica* LeConte 1860.

synonym: *canadensis* Chamberlin 1934:37 (♂, ♀), fig. 12 (♂ protibia) – Synonymy: Barr 1971:80.

Type locality: **Canada**: AB, Banff – Type depository: CASC 5490 (♂).

Taxonomy: Fisher 1942; Barr 1971.

Redescription: Fisher 1942:170 (♀), 165 (♂ as *canadensis*), figs. 68, 121B (parts & ♂ genitalia as *canadensis*).

Ecology: Fisher 1942 (distr. as *canadensis*); Barr 1971; Westcott 1990 (biol., distr.).

Distribution: **Canada**: AB, BC; USA: CA, ID, MT, OR, WA, WY

Host(s): adults on *Pseudotsuga menziesii* (Mirb.) Franco.

westcotti Barr 1969b:120 (♂, ♀), figs. 2, 9 (♂ genitalia, protibia).

Type locality: OR, Baker Co., 11.5 mi NW Lime – Type depository: CASC 10212 (♂).

Taxonomy: Barr 1969b.

Ecology: Barr 1969b (biol.).

Distribution: USA: OR

Host(s): larvae in *Eriogonum compositum* Benth.

wickhami Fisher 1942:209, fig. 88 (parts, ♀).

Type locality: AZ, Yuma – Type depository: USNM 55297 (♀).

Taxonomy: Fisher 1942.

Redescription: Nelson 1967a:24 (♂), figs. 5–8 (parts, ♂ genitalia).

Ecology: Fisher 1942 (distr.); Nelson 1960b (biol.).

Distribution: USA: AZ, CA

Host(s): adults on *Prosopis glandulosa* Torr. and *P. pubescens* Benth.

wintu Wellso & Manley 2007:12 (♂, ♀), figs. 9, 21, 33 (elytral sculpture, ♂ genitalia, ♀ pygidium).

Type locality: CA, Shasta Co., 4 mi W Redding – Type depository: WFBC (♂).

Taxonomy: Wellso & Manley 2007.

Ecology: Wellso & Manley 2007.

Distribution: USA: AZ, CA, OR, WA; also recorded from Mexico: BCN.

Host(s): larvae in *Platanus racemosa* Nutt., *Prunus domestica* L., *Quercus berberidifolia* Liebm. misapplied to *Q. dumosa* Nutt.), *Q. douglasii* Hook. & Arn., *Q. kelloggii* Newb., *Q. wislizenii* A. DC., *Quercus* spp., *Salix lasiolepis* Benth. and *S. nigra* Marsh; adults also on *Betula* spp., *Quercus agrifolia* Neé, *Q. chrysolepis* Liebm., *Q. gravesii* Sudw., *Q. garryana* Douglas, *Arctostaphylos viscida* Parry, *Pyrus communis* L. and *Salix scouleriana* Barratt ex Hook.

woodgatei Champlain & Knull 1922:144 (♂, ♀).

Type locality: NM, Jemez Sprs. – Type depository: FMNH (♂).

misidentification: *quadrilineata* Tanner 1928:274, not *quadrilineata* LeConte 1860.

Taxonomy: Fisher 1942.

Redescription: Fisher 1942:171 (♂, ♀), figs. 70, 121D (parts, ♂ genitalia); Westcott 1990: fig. 9 (adult).

Ecology: Fisher 1942; Barr & Westcott 1976; Westcott 1990 (biol., distr.); Nelson, *et al.* 1996 (distr.).

Distribution: USA: AZ, CO, NM, UT, WY

Host(s): adults on *Pinus ponderosa* Laws.

Genus *Knowltonia* Fisher 1935*Knowltonia* Fisher 1935c:117.Type species: *Knowltonia biramosa* Fisher 1935 (fixed by original designation).Taxonomy: Fisher 1942:17 (synonym of *Chrysobothris*); Westcott & Barr 2007:49 (resurrected).

Ecology: Westcott & Barr 2007:51.

Key(s): Westcott & Barr 2007:51.

***alleni* (Cazier) 1938a:15 (*Chrysobothris*) (♂, ♀).**

Type locality: AZ, 20 mi E Tuba City – Type depository: AMNH (♀).

misidentification: *biramosa* of authors, not *biramosa* Fisher, 1935.

Taxonomy: Fisher 1942; Westcott & Barr 2007.

Redescription: Fisher 1942:243 (♂, ♀), figs. 106, 126E (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Westcott & Barr 2007.

Distribution: USA: AZ, CO

Host(s): larvae in *Atriplex* sp.; adults on *Atriplex canescens* (Pursh) Nutt.***atrifasciata* (LeConte) 1873:332 (*Chrysobothris*, replacement name for *nigrofasciata* LeConte 1860).**misidentification: *nigrofasciata* LeConte 1860:240, not *nigrofasciata* Gory & Laporte 1837).

Type locality: NM – Type depository: MCZC 2709 (♀).

Taxonomy: Horn 1886; Fisher 1942; Westcott & Barr 2007.

Redescription: Horn 1886:116, figs. 237–242 (adult & parts); Fisher 1942:236 (♂, ♀), figs. 102, 126B (parts, ♂ genitalia).

Ecology: Fisher 1942 (biol., distr.); Knull 1970 (biol.); Nelson, *et al.* 1981 (distr.); Westcott & Barr 2007.

Distribution: USA: CO, NM, TX, UT

Host(s): larvae in *Atriplex* sp.; adults also on *Atriplex canescens* (Pursh) Nutt., *Chrysothamnus nauseosus* (Pall.) Britt.***biramosa* Fisher 1935c:117.**

Type locality: UT, Skull Valley – Type depository: USNM 50965 (♂).

misidentification: *atrifasciata* of authors, not *atrifasciata* LeConte 1873.misidentification: *biramosa calida* of authors, not *biramosa calida* Knull 1958.

Taxonomy: Fisher 1942; Westcott & Barr 2007.

Redescription: Fisher 1942:233 (♂), fig. 100 (clypeus, last abd. ventrite); Nelson 1967a:26 (♀), fig. 13 (last abd. ventrite); Akiyama & Ohmomo 2000: fig. 14141, 1–2 (♂, ♀).

Ecology: Beer 1949 (as *atrifasciata*); Knull 1958; Nelson 1965 (biol., distr.); 1966; Walters 1975 (as *atrifasciata*).

Distribution: USA: AZ, ID, NV, UT

Host(s): larvae in roots of *Atriplex nuttallii* S. Wats.; adults on *A. confertifolia* (Torr. & Frem.) S. Wats.***calida* (Knull) 1958a:96 (*Chrysobothris*, ssp. of *biramosa*) (♂, ♀).**

Type locality: CA, Riverside Co., Santa Rosa Mts. – Type depository: FMNH (♂).

misidentification: *atrifasciata* of authors, not *atrifasciata* LeConte 1873.

Taxonomy: Westcott & Barr 2007 (full species).

Redescription: Akiyama & Ohmomo 2000: fig. 1411, 3–4 (♂, ♀).

Ecology: Wickham 1898 (as *atrifasciata*); Nelson 1959 (as *atrifasciata*); 1960b (biol.); Barr 1971 (as *biramosa*); Barr & Westcott 1976 (biol., distr.).

Distribution: USA: AZ, CA, ID, NV, OR; also recorded from Mexico: BCN., possibly BCS.

Host(s): larvae in *Atriplex canescens* (Pursh) Nutt., *A. confertifolia* (Torr. & Frem.) S. Wats. and *A. nuttallii* S. Wats.; adults also on *A. lentiformis* (Torr.) S. Wats.**Genus *Sphaerobothris* Semenov-Tian-Shanskij & Richter 1934***Sphaerobothris* Semenov–Tian–Shanskij & Richter 1934:93.Type species: *Chrysobothris globicollis* Reitter 1895 (fixed by monotypy).

Taxonomy: Richter 1944:73; 1952:221; Bellamy 1985:422; Bellamy & Volkovitsh 1997:61; Volkovitsh & Kalashian 1998:307; Bellamy & Nelson 2003; Bellamy 2003a; Westcott & Barr 2007.

Ecology: Bellamy & Volkovitsh 1997:61.

Key(s): Bellamy & Volkovitsh 1997:62.

BUPRESTIDAE: Buprestinae: Chrysobothrini—Agrilinae: Coraebini, Agrilini

subgenus *Sphaerobothris* (*Sphaerobothris*) Semenov-Tian-Shanskij & Richter 1934

Sphaerobothris Semenov-Tian-Shanskij & Richter 1934:93.

Type species: *Chrysobothris globicollis* Reitter 1895.

platti (Cazier) 1938a:14 (*Chrysobothris*) (♂, ♀).

Type locality: CA, Riverside Co., Snow Creek – Type depository: AMNH (♀).

synonym: *santarosae* (Knull) 1947a:70 (*Chrysobothris*), figs. 8–11 (♂ genitalia, parts) – Synonymy: Knull 1970:264.

Type locality: CA, Santa Rosa Mtns., 3500' – Type depository: FMNH (♂).

Taxonomy: Knull 1970; Bellamy & Volkovitsh 1997:66.

Redescription: Fisher 1942:241 (♂, ♀), fig. 105 (parts); Bellamy & Volkovitsh 1977, figs. 2 (erroneously as fig. 3), 8, 12 (dorsal habitus, parts); Akiyama & Ohmomo 2000: fig. 1415 (♂ & ♀ as *Chrysobothris*).

Ecology: Fisher 1942; Nelson 1960b; Barr 1969a (biol., distr.); Knull 1970; MacRae & Nelson 2003 (biol.).

Distribution: **USA:** CA, NV

Host(s): larvae in *Ephedra californica* S. Wats. and *E. nevadensis* S. Wats.; adults also on *E. viridis* Cov.

santarosae (Knull 1947) [syn. of *platti*]

ulkei (LeConte) 1860:240 (*Chrysobothris*).

Type locality: TX – Type depository: MCZC (♀).

Taxonomy: Horn 1886; Fisher 1942; Bellamy & Volkovitsh 1997.

Redescription: Horn 1886: fig. (pronotum); Fisher 1942:234 (♀), fig. 101 (parts); Nelson 1980a:90 (♂), figs. 6, 7 (abd. ventrites, ♂ genitalia); Bellamy & Volkovitsh 1997, figs. 3 (erroneously as fig. 2), 9, 13 (dorsal habitus, parts); Akiyama & Ohmomo 2000: fig. 1413 (♂ & ♀ as *Chrysobothris*).

Ecology: Nelson 1962; Barr & Westcott 1976 (biol., distr.); MacRae & Nelson 2003 (biol.).

Distribution: **USA:** AZ, NM, TX; also recorded from Mexico.

Host(s): larvae in *Ephedra trifurca* Torr.

Subfamily Agrilinae Laporte 1835

“Agrilites, Agrilidae” Laporte 1835:165.

Type genus: *Agrilus* Curtis 1825.

Scutellatae Section 8 Schönherr 1817.

Agrilites Gory & Laporte 1839.

Agrilidae Gistel 1856.

Agrilides Lacordaire 1857.

Aphanisticites Jacquelin du Val 1863 (part).

Agrili LeConte 1861.

Trachydini Reitter 1906 (part).

Trachydinae Csiki 1912 (part).

Agrilina Jakobson 1913.

Trachinae Obenberger 1924 (part).

Aphanisticini Fuente 1931 (part).

Cylindromorphini Portevin 1931 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Bílý 1999a; Kubáň, *et al.* 2000; Kolibác 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): LeConte 1861:156; Kerremans 1893:116; 1903:218; Arnett 1962:485 (genera); Nelson 1982:432 (tribes); Hołyński 1993:33 (tribes & subtribes) Bellamy & Nelson 2002:104 (tribes, subtribes & genera).

Tribe Coraebini Bedel 1921

Coraebini Bedel 1921:170

Type genus: *Coraebus* Gory & Laporte 1839.

Scutellatae (Section 8, Subdivision 1) Schönherr 1817 (part).

Agrilidae Gistel 1856 (part).

Agrilides Lacordaire 1857 (part).
 Aphanisticites Jacquelin du Val 1863 (part).
 Agrili LeConte 1861 (part).
 Agrilini Warnier 1901 (part).
 Agrilites Kerremans 1903 (part).
 Agrilina Jakobson 1913 (part).
 Aphanisticini Fuente 1931 (part).
 Cylindromorphini Portevin 1931 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Kubáň, *et al.* 2000; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): LeConte 1861:156; LeConte & Horn 1883:201; Kerremans 1893:116; 1903:218; Arnett 1962:485; Bellamy & Nelson 2002:105.

Genus *Eupristocerus* Deyrolle 1864

Eupristocerus Deyrolle 1864:113.

Type species: *Buprestis ignarus* Fabricius 1801 (= *cogitans* (Weber 1801)) (fixed by original designation).

Agrilus of authors (in part), not *Agrilus* Curtis 1825.

Buprestis of authors, not *Buprestis* Linnaeus 1758.

Coraebus of authors, not *Coraebus* Gory & Laporte 1839.

Rhaeboscelis of authors, not *Rhaeboscelis* Chevrolat 1838.

Taxonomy: Nelson 1982; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Bright 1987:218.

Ecology: Burke 1917a (biol.).

cogitans (Weber) 1801:75 (*Buprestis*).

Type locality: “Amer. Sept.” – Type depository: ZMUC.

misspelling: *cognitans* (*lapsus calami*).

synonym: *ignarus* (Fabricius) 1801:211 (*Buprestis*) – Synonymy: LeConte 1860:241.

Type locality: “Amer.” – Type depository: unknown.

synonym: *ruficollis* Herbst 1801:4 (*Buprestis*) – Synonymy: Kerremans 1892:230.

Type locality: “Nordamerika” – Type depository: ZMHB.

Immature stages: Burke 1917a: plate 6, fig. 1 (larva).

Redescription: Knull 1925: plate 6, fig. 2 (adult), plate 10, fig. 3 (larval workings); Good 1925: plate 11 (wing), Akiyamam& Ohmomo 2000: fig. 1558 (♂, F).

Ecology: Knull 1920, life cycle; 1930c (biol.); Nelson, *et al.* 1981; Bright 1987; Solomon 1995 (biol., distr.); Peck & Thomas 1998 (distr.).

Distribution: **Canada**: NB, NS, ON, PQ; **USA**: AL, CT, DC, DE, FL, GA, KY, MA, MD, ME, MI, MS, NC, NH, NJ, NY, OH, PA SC, VA, VT

Host(s): larvae in living *Alnus incana* L. Moench, *A. rugosa* (DuRoi) Clausen and *Betula nigra* L.

Tribe Agrilini Laporte 1835

“Agrilites, Agrilidae” Laporte 1835:165.

Scutellatae Section 8 Subdivisions 2 & 3 Schönherr 1817.

Agrilites Gory & Laporte 1839 (part).

Agrilidae Gistel 1856 (part).

Agrilides Lacordaire 1857 (part).

Aphanisticites Jacquelin du Val 1863 (part).

Agrili LeConte 1861 (part).

Trachydini Reitter 1906 (part).

Trachydinae Csiki 1912 (part).

Agrilina Jakobson 1913 (part).

Trachinae Obenberger 1924 (part).

Aphanisticini Fuente 1931 (part).

Cylindromorphini Portevin 1931 (Part).

BUPRESTIDAE: Agrilinae: Agrilini

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Nelson 1982; Bellamy 1985; Hołyński 1993; Kubáň, *et al.* 2000; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): LeConte 1861:156; LeConte & Horn 1883:201; Kerremans 1893:116; 1903: 218; Arnett 1962:485 (genera); Hołyński 1993:33 (subtribes); Bellamy & Nelson 2002:105 (genera).

Genus *Lepismadora* Velten 1987

Lepismadora Velten *in* Velten & Bellamy 1987:186, figs. 1, 2, 4, 6, 9–11.

Type species: *Lepismadera algodones* Velten 1987 (fixed by original designation).

Taxonomy: Velten & Bellamy 1987; Kubáň, *et al.* 2001; Bellamy & Nelson 2002; Bellamy 2003a.

Ecology: Velten & Bellamy 1987.

Key(s): Velten & Bellamy 1987.

algodones Velten *in* Velten & Bellamy 1987:188, figs. 1, 2, 4, 6, 9–11.

Type locality: CA, Imperial Co., Algodones Sand Hills, 7.2 mi W Glamis – Type depository: CASC 15918 (♂).

Taxonomy: Velten & Bellamy 1987.

Redescription: Akiyama & Ohmomo 2000: fig. 1620 (♂, ♀).

Ecology: Velten & Bellamy 1987 (biol., distr.).

Distribution: USA: CA

Host(s): adults on *Tiquilia plicata* (Torr.) Richards.

Subtribe *Rhaeboscelidina* Cobos 1976

Rhaeboscelidina Cobos 1976:20.

Type genus: *Rhaeboscelis* Chevrolat 1838.

Classification: Cobos 1976; Hołyński 1993; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Cobos 1976:22; Bellamy & Nelson 2002:105 (genera).

Genus *Paragrilus* Saunders 1871

Clinocera Deyrolle 1864:116 (preoccupied: *Clinocera* Meigen 1803; unavailable name, cited without description, definition or indication (ICZN 1999 Article 12.1)).

Paragrilus Saunders 1871:127 (replacement name for *Clinocera* Deyrolle 1864).

Type species: *Agrilus modicus* Solier 1833 (fixed by subsequent designation: Nelson 1987b:71).

Agrilus of authors (in part), not *Agrilus* Curtis 1825.

Rhaeboscelis of authors, not *Rhaeboscelis* Chevrolat 1838.

Taxonomy: Bellamy & Nelson 2002; Hespenheide 2002 (revision); Bellamy 2003a.

Redescription: Hespenheide 2002:2.

Ecology: Hespenheide 2002 (biol., distr.).

Key(s): Hespenheide 2002 (N & C Amer. sp.)

burkei Hespenheide 2002:22 (♂, ♀), figs. 16, 32 (adult, ♂ genitalia).

Type locality: Arizona, Cochise Co., 8 mi E Sierra Vista – Type depository: TAMU (to be deposited in USNM (♂)).

Taxonomy: Hespenheide 2002.

Ecology: Hespenheide 2002 (biol., distr.).

Distribution: USA: AZ; also recorded from Mexico and Central America.

Host(s): unknown.

lecontei Obenberger 1924 [syn. of *tenuis*]

rugatulus Thomson 1879:74.

Type locality: Mexico – Type depository: MNHN.

synonym: *texanus* (Schaeffer) 1904:211 (*Rhaeboscelis*) – Synonymy: Hespenheide 1979a:118.

Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM (♂) (Lectotype designation: Bellamy & Nelson 1990:295).

Taxonomy: Hespenheide 1979a.

Redescription: Akiyama & Ohmomo 2000: fig. 1701; Hespenheide 2002:11, figs. 6, 24 (dorsal, M, genitalia).

Ecology: Vogt 1949b (biol. as *texanus*); Hespenheide 2002 (biol., distr.).

Distribution: USA: TX; also recorded from Mexico.

Host(s): adults on *Acacia farnesiana* (L.) Willd., *Callirhoe* sp., *Leucaena pulverulenta* (Schlecht.) Benth., Malvaceae, *Prosopis glandulosa* Torr. and *Sida* spp.

tenuis (LeConte) 1863:82 (*Rhaeboscelis*).

Type locality: MD – Type depository: MCZC (Lectotype not designated).

synonym: *lecontei* Obenberger 1924:149 (as subspecies of *tenuis*) – Synonymy: Hespenheide 1979a:118.

Type locality: NJ, Angelsea – Type depository: NMPC.

Immature stages: Weiss & Dickerson 1919 (larva & pupa).

Taxonomy: Hespenheide 1979a; 2002.

Redescription: Knull 1925: plate 5, fig. 4 (adult); Good 1925: plate 11 (wing); Hespenheide 2002:12, figs. 7, 25 (adult, ♂ genitalia).

Ecology: Chamberlin 1926; Hespenheide 2002; MacRae 2006 (biol., distr.); Nelson 1987a; Nelson & MacRae 1990 (distr.); Knull 1922 (biol.).

Distribution: USA: DC, DE, FL, GA, IL, MD, MO, MS, NC, NJ, NY, PA

Host(s): larvae in *Hibiscus laevis* All., *H. lasiocarpus* Cav., *H. moscheutos* L. and *H. moscheutos* ssp. *lasiocarpus* (Cav.) O. J. Blanchard.

texanus (Schaeffer 1904) [syn. of *rugatulus*]

Subtribe *Agrilina* Laporte 1835

Agrilina: Cobos 1988:10.

Classification: Hołyński 1993; Kubáň, *et al.* 2000; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Bellamy & Nelson 2002:105 (genera).

Genus *Agrilus* Curtis 1825

Agrilus Curtis 1825:no. 67.

Type species: *Buprestis viridis* Linnaeus 1758 (fixed by original designation).

Teres Harris 1829:2 – Synonymy: Fisher 1928a:3.

Type species: Unavailable name, cited without description, definition or indication (ICZN 1999 Article 12.1)).

Paradomorphus Waterhouse 1887:183 – Synonymy: Hespenheide 1974a:49.

Type species: *Agrilus frontalis* Laporte & Gory 1887 (fixed by original designation).

Immature stages: Burke 1917a: plate 6, fig. 2 (larva).

Taxonomy: Horn 1891 (revision); Fisher 1928a (revision); Hespenheide 1974a; Bellamy 1995b; Bellamy & Nelson 2002; Bellamy 2003a; MacRae 2003 (*otiosus* group).

Redescription: Fisher 1928a:3.

Ecology: Burke 1917a (biol.); Fisher 1928a (biol., distr.).

Key(s): Fisher 1928a:8 (USA & Canada); Barr 1971; 87 (Pacific NW); Wellso, *et al.* 1976:13(MI); Bright 1987:221 (Canada & AK); MacRae 1991:114 (MO); Downie & Arnett 1996:759 (NE No. Amer.); MacRae 2003:7 (males of *otiosus* group).

subgenus *Agrilus* (*Agrilus*) Curtis 1825

Agrilus Curtis 1825, no. 67.

Type species: *Buprestis viridis* Linnaeus 1758.

abditus Horn 1891b:332.

Type locality: W NV – Type depository: MCZC 33831 (♀) (Lectotype designation: Fisher 1928a:315).

Taxonomy: Horn 1891b; Fisher 1928a; Bellamy & Nelson 2002.

Redescription: Fisher 1928a:313 (♂, ♀), fig. 86 (♂ genitalia).

Ecology: Fisher 1928a (distr.); Nelson, *et al.* 1996 (biol., distr.).

Distribution: USA: AZ, NM, NV

Host(s): adults on *Quercus arizonica* Sarg.

abductus Horn 1891b:325.

Type locality: TX – Type depository: MCZC 33828 (♀) (Lectotype designation: Fisher 1928a:283).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:281 (♂, ♀), fig. 74 (♂ genitalia).

BUPRESTIDAE: Agrilinae: Agrilini

Ecology: Fisher 1928a; Hespenheide 1974; Nelson & Westcott 1976; (distr. & biol.); Westcott, *et al.* 1990; Nelson & MacRae 1990; Westcott 2005 (distr.); Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** AL, GA, LA, MO, NC, OK, TN, TX; also recorded from Mexico.

Host(s): adults on *Cornus florida* L.; *Quercus stellata* Wangenh. and *Zanthoxylum clava-herculis* L.

abjectus Horn 1891b:321.

Type locality: TX – Type depository: MCZC 33827 (♀) (Lectotype designation: Fisher 1928a:297).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:295 (♂, ♀), fig. 79 (♂ genitalia).

Ecology: Fisher 1928a (distr.).

Distribution: **USA:** TX

Host(s): unknown.

abstersus Horn 1891b:324.

Type locality: S AZ – Type depository: MCZC 2140 (♂) (Lectotype designation: Fisher 1928a:330).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:329 (♂, ♀), fig. 91 (♂ genitalia).

Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981 (biol.); Nelson 1987a (biol., distr.); Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** AZ; also recorded from Mexico.

Host(s): larvae in *Acacia greggii* Gray and *Castela emoryi* (Gray) Moran & Felger; adults also on *Acacia constricta* Benth., *Celtis ehrenbergiana* (Klot.) Liebm., *Olneya tesota* Gray and *Prosopis glandulosa* Torr.

acaciae Fisher 1928a:279 (♂, ♀), fig. 73 (♂ genitalia).

Type locality: TX, Brownsville, Los Borregos – Type depository: USNM 41010 (♂).

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a; Vogt 1949b; Nelson & Westcott 1976; Nelson, *et al.* 1981; Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.); Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): larvae in *Acacia farnesiana* (L.) Willd., *A. rigidula* Benth., *Leucaena pulverulenta* (Schlecht.) Benth. and *Prosopis glandulosa* Torr.; adults also on *Ebenopsis ebano* (Berl.) Barney & Grimes.

acutipennis Mannerheim 1837:109.

Type locality: “Amer. Bor.” – Type depository: UZMH (♂) (Lectotype designation: Nelson 1976:168).

synonym: *latebrus* Gory & Laporte 1837:38, plate 9, fig. 50 (adult) – Synonymy: LeConte 1857a:9.

Type locality: “Caroline” – Type depository: MNHN.

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:127 (♂, ♀), fig. 30 (♂ genitalia).

Ecology: Fisher 1928a; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a (distr.); Nelson & MacRae 1990; MacRae 1991 (biol.); Solomon 1995; MacRae & Nelson 2003; MacRae 2006 (biol., distr.); Westcott 2007b (biol.).

Distribution: **Canada:** NF, ON, PQ; **USA:** AL, AR, CO, CT, FL, GA, IA, IL, IN, KS, LA, MA, ME, MI, MN, MO, MS, NC, NJ, NY, OH, OK, PA, SC, TX, VA, WI

Host(s): larvae in *Quercus alba* L. and *Q. lyrata* Walt.; adults also on *Amelanchier arborea* (Michx. f.) Fern., *Betula* sp., *Carya cordiformis* (Wangenh.) K. Koch, *Corylus americana* Walt., *Diospyros virginiana* L., *Juglans nigra* L., *Populus* sp., *Quercus imbricaria* Michx., *Q. laurifolia* Michx., *Q. macrocarpa* Michx., *Q. marilandica* (L.) Muenchh., *Q. stellata* Wangenh. and *Q. velutina* Lam.

addendus Crotch 1873:95.

Type locality: TX – Type depository: MCZC 5079 (Lectotype designation: Hespenheide 2007:64).

synonym: *frisoni* Fisher 1943b:201 – Synonymy: Hespenheide 2007:63.

Type locality: TX – Type depository: USNM 56659 (♂).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:267 (♂, ♀).

Ecology: Fisher 1928a (biol., distr.); Van Dyke 1942; Vogt 1949b (biol.); Nelson, *et al.* 1981; Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol., distr. as *frisoni*); Wellso & Jackman 2006 (distr.).

Distribution: **USA:** ND, NM, OK, TX, also recorded from Mexico.

Host(s): adults on *Acacia farnesiana* (L.) Willd., *A. rigidula* Benth. and *Prosopis glandulosa* Torr.

- aeneocephalus** Fisher 1928a:245 (♂, ♀), fig. 61 (♂ genitalia).
 Type locality: AZ, Huachuca Mtns. – Type depository: USNM 41008 (♂).
 Taxonomy: Fisher 1928a.
 Ecology: Nelson 1965 ; MacRae & Nelson 2003 (biol.).
 Distribution: **USA:** AZ
 Host(s): adults on *Acacia angustissima* (Mill.) Kuntze, *Mimosa aculeaticarpa* Ortega var. *biuncifera* (Benth.) Barneby, *M. dysocarpa* Benth. and *M. grahamii* Gray.
- albocomus** Fisher 1928a:59 (♂, ♀).
 Type locality: AZ, Williams – Type depository: USNM 40990 (♂).
 Taxonomy: Fisher 1928a.
 Ecology: Fisher 1928a; MacRae 2006 (biol., distr.).
 Distribution: **USA:** AZ, NM, TX
 Host(s): larvae in *Quercus emoryi* Torr. and *Q. grisea* Liebm.; adults also on *Q. gambelii* Nutt. and *Rhus glabra* L.
- amabilis* Gory & Laporte 1837 [syn. of *cyanescens*]
- amelanchieri** Knull 1944a:80 (♂, ♀), plate 2, fig. 10 (♂ genitalia).
 Type locality: PA, Mont Alto – Type depository: FMNH (♂).
 misidentification: *arcuatus* of Knull 1930c:84, not *arcuatus* Say 1825.
 Taxonomy: Knull 1944a.
 Ecology: Nelson & Westcott 1976; Westcott 1991 (biol., distr.); 2001b (distr.).
 Distribution: **USA:** CA, CO, MI, ND, NV, OR, PA, UT
 Host(s): larvae in *Amelanchier canadensis* (L.) Medik.; adults also on *Amelanchier alnifolia* (Nutt.) Nutt. ex Roemer and *Crataegus douglasii* Lindl.
- angelicus** Horn 1891b:298.
 Type locality: CA, near Los Angeles – Type depository: MCZC (♀) (Lectotype designation: Fisher 1928a:55).
 misidentification: *arcuatus* of Chamberlin 1926:52 (part), not *arcuatus* Say 1825.
 misidentification: *politus* of authors (in part), not *politus* Say 1825.
 Immature stages: Burke 1920c (life cycle).
 Taxonomy: Horn 1891b; Fisher 1928a.
 Redescription: Fisher 1928a:53 (♂, ♀), fig. 10 (♂ genitalia).
 Ecology: Fisher 1928a (biol., distr.); Brown & Eads 1965; Nelson & Westcott 1976 (distr.); Solomon 1995 (biol.).
 Distribution: **USA:** CA, OR
 Host(s): larvae in *Lithocarpus densiflora* (H & A.) Rehd., *Quercus agrifolia* Neé, *Q. chrysolepis* Liebm., *Q. durata* Jeps., *Q. engelmannii* Greene, *Q. kelloggii* Newb. and *Q. wislizeni* A. DC.
- anxius** Gory 1841:226, plate 37, fig. 217 (adult).
 Type locality: “Amer. Bor.” – Type depository: MNHN (Lectotype not designated).
 synonym: *gravis* LeConte 1860:247 – Synonymy: Horn 1891b:335.
 Type locality: Lake Superior – Type depository: MCZC 2738 (♀) (Lectotype not designated).
 synonym: *torpidus* LeConte 1860:247 – Synonymy: Horn 1891b:335.
 Type locality: Lake Superior – Type depository: MCZC 2739 (♂).
 misidentification: *bilineatus* of Moffatt 1900:100, not *bilineatus* Weber 1801.
 Immature stages: Barter 1957:13, figs. 2–6 (egg, larva, pupa).
 Taxonomy: Horn 1891b; Fisher 1928a.
 Redescription: Fisher 1928a:116 (♂, ♀), fig. 35 (♂ genitalia); Carlson & Knight 1969: figs. 3, 4B, 5 (parts).
 Ecology: Fisher 1928a; Barter 1957; Carlson & Knight 1969; Nelson & Westcott 1976; Bright 1987; Nelson 1987a; Westcott 1991; Dearborn & Donahue 1993 (parasitoids); Solomon 1995 (biol., distr.); Nelson, *et al.* 1996; MacRae 2006 (distr.).
 Distribution: **Canada:** AB, BC, NB, ON, PQ; **USA:** AZ, CO, CT, DE, GA, IA, ID, IL, IN, KY MA, MD, ME, MI, MN, MO, MT, ND, NH, NJ, NM, NV, NY, OH, OR, PA, RI, SD, UT, VA, VT, WA, WI, WV, WY
 Host(s): larvae in *Betula alleghaniensis* Britt., *B. lenta* L., *B. occidentalis* Hook., *B. papyrifera* Marsh., *B. pendula* Roth., *B. platyphylla* Suk., *B. populifolia* Marsh., *B. pubescens* Ehrh., *Populus balsamifera* L., *P. b. trichocarpa* (T. & G.) Brayshaw, *P. deltoides* Bartr. ex Marsh, *P. grandidentata* Michx. and *P. tremuloides* Michx.

BUPRESTIDAE: Agrilinae: Agrilini*apachei* Knull 1938 [syn. of *delicatulus*]**arbuti** Fisher 1928a:50 (♂, ♀).

Type locality: OR, Ashland – Type depository: USNM 40989 (♂).

synonym: *manzanitae* Chamberlin 1929:113 – Synonymy: Leng & Mutchler 1933:85.

Type locality: OR, Ashland – Type depository: CASC 5507 (♀).

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a (biol., distr.); Nelson 1960b (biol.).

Distribution: **USA:** CA, ORHost(s): larvae in *Arbutus menziesii* Pursh; adults also on *Arctostaphylos glauca* Lindl., *A. manzanita* Parry, *A. tomentosa* (Pursh) Lindl. and *A. viscida* Parry.**arcuatus** (Say) 1825:251 (*Buprestis*).Type locality: MI, Lake Superior, Eagle Harbor – Type depository: MCZC (♀) (Type of *obliquus* LeConte designated as neotype of *arcuatus* Say 1825 by Fisher 1928a:66 (*arcuatus* No. 10)).synonym: *obliquus* LeConte 1860:243 – Synonymy: Horn 1891b:334.

Type locality: MI, Lake Superior, Eagle Harbor – Type depository: MCZC 2125 (♀).

misidentification: *politus* of Ruggles 1918:15, not *politus* Say 1825.misidentification: *torquatus* of Ruggles 1918:15, not *torquatus* LeConte 1860b.

Immature stages: Ruggles 1918 (egg, larva).

Taxonomy: Fisher 1928a; Nelson & Hespeneide 1998.

Redescription: Ruggles 1918: plate 1, figs. 1, 2 (adults); Fisher 1928a:64 (♂, ♀), fig. 13 (♂ genitalia).

Ecology: Mutchler & Weiss 1922; Fisher 1928a; Hespeneide 1974 (biol.); Nelson & Westcott 1976; Bright 1987; Nelson 1987a; Dearborn & Donahue 1993; Peck & Thomas 1998; MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** ON, PQ; **USA:** AL, AR, CT, DC, FL, GA, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MS, MT, NC, NH, NJ, NY, OH, OK, PA, SC, SD, VA, WVHost(s): larvae in *Castanea dentata* (Marsh.) Borkh., *Fagus grandifolia* Ehrh., *Quercus alba* L., *Q. ilicifolia* Wangenh. and *Q. velutina* Lam.; adults also on *Carya* sp., *Juglans nigra* L., *Quercus shumardii* Buckl. and *Q. stellata* Wangenh.**arizonicus** Obenberger 1936b:139 (replacement name for *strigicollis* Fall 1912).synonym: *strigicollis* Fall 1912:41 (preoccupied: *strigicollis* Rey 1891).

Type locality: AZ, Huachuca Mtns. – Type depository: MCZC 24450 (♀).

Taxonomy: Fisher 1928a (as *strigicollis*).Redescription: Fisher 1928a:232 (♂, ♀), fig. 57 (♂ genitalia as *strigicollis*).Ecology: Knull 1970 (biol.); Nelson & Westcott 1976; Westcott, *et al.* 1990; Westcott & Hespeneide 2006 (distr.).Distribution: **USA:** AZ; also recorded from Mexico.Host(s): adults on *Desmodium batocaulon* Gray.**arizonus** Knull 1934a:11.

Type locality: AZ, White Mtns. – Type depository: FMNH (♀).

Taxonomy: Knull 1934a.

Distribution: **USA:** AZ

Host(s): unknown.

asperulus Waterhouse 1889:101, plate 6, fig. 7 (adult).

Type locality: Mexico: Ciudad in Durango 8100' – Type depository: BMNH.

synonym: *exhuachucae* Knull 1937d:305 – Synonymy: Hespeneide 1979a:105.

Type locality: AZ, Huachuca Mtns. – Type depository: FMNH (♂).

Taxonomy: Waterhouse 1889; Hespeneide 1979.

Redescription: Knull 1937d:305 (♂ & ♀ as *exhuachucae*); 1944a: plate 2, fig. 12 (♂ genitalia as *exhuachucae*).Ecology: Nelson & Westcott 1976 (biol. as *exhuachucae*); Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol.); Westcott & Hespeneide 2006 (distr.); .Distribution: **USA:** AZ; also recorded from Mexico.Host(s): adults on *Baccharis sarothroides* Gray, *Bouvardia ternifolia* (Cav.) Schlecht., *Quercus hypoleuroides* Camus and *Rhus virens* Lindenheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson.

atricornis Fisher 1928a:86 (♂, ♀).

Type locality: CT, Lyme – Type depository: USNM 40991 (♂).

Taxonomy: Fisher 1928a; MacRae 2003.

Ecology: Fisher 1928a; MacRae 2006 (biol., distr.).

Distribution: **Canada:** ON; **USA:** CT, IL, MA, MI, RI

Host(s): larvae in *Quercus phellos* L. and *Salix nigra* Marsh.; adults also on *Corylus americana* Walt.

audax Horn 1891b:300.

Type locality: TX – Type depository: MCZC 33820 (♂) (Lectotype designation: Fisher 1928a:111).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:109 (♂, ♀), fig. 26 (♂ genitalia).

Ecology: Knull 1934c; Nelson & MacRae 1990 (biol., distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (distr.).

Distribution: **USA:** AZ, IL, MO, OK, TX

Host(s): larvae in *Ulmus fulva* Muhl.; adults also on *Quercus macrocarpa* Michx. and *Q. marilandica* Muench.

aureus Chevrolat 1838:98.

Type locality: Mexico: Tuspan – Type depository: BMNH.

synonym: *couesii* LeConte 1866:384 – Synonymy: LeConte 1873:333.

Type locality: AZ – Type depository: MCZC (♀)

Taxonomy: Horn 1891b (as *couesii*); Fisher 1928a.

Redescription: Horn 1891b: fig. 1 (elytra, as *couesii*); Fisher 1928a:169 (♂, ♀), fig. 37 (♂ genitalia).

Ecology: Fisher 1928a; Nelson & Westcott 1976; Westcott, *et al.* 1990 (biol., distr.); Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** AZ, NM, TX; also recorded from Mexico.

Host(s): adults on *Mentzelia nuda* (Pursh) T. & G. and *Sphaeralcea angustifolia* (Cav.) G. Don.

aurichalceus Redtenbacher 1849 [syn. of *cuprescens*]

auricomus Frost 1912 [syn. of *nigricans*]

aurilaterus Waterhouse 1889:120.

Type locality: Mexico: Chihuahua, Pinos Altos – Type depository: BMNH (Lectotype designation: Hespenheide 1974c:74).

Taxonomy: Waterhouse 1899.

Redescription: Hespenheide 1974c: fig. 1 (♂ genitalia).

Ecology: Hespenheide 1974c (biol., distr.); Walters 1978; Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** AZ; also recorded from Mexico.

Host(s): adults on *Baccharis sergiloides* Gray.

auroguttatus Schaeffer 1905 [syn. of *coxalis*]

aurolineatus Gory 1841 [syn. of *bilineatus*]

azureus Knull 1922 [syn. of *carpini*]

baboquivariae Fisher 1928a:184 (♂) 186 (♀ from SEMC), fig. 42 (♂ genitalia).

Type locality: AZ – Type depository: USNM 41000 (♂).

Taxonomy: Fisher 1928a.

Ecology: Knull 1944a; Nelson & Westcott 1976; Nelson, *et al.* 1981 (biol.); Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** AZ; also recorded from Mexico.

Host(s): larvae in *Celtis ehrenbergia* (Klot.) Liebm.; adults also on *Bumelia* sp., *Condalia* sp. and *Sapindus* sp.

barberi Fisher 1928a:311 (♂, ♀), fig. 85 (♂ genitalia).

Type locality: AZ, Williams – Type depository: USNM 41014 (♂).

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a (distr.); Knull 1944a; Nelson, *et al.* 1981 (biol.).

Distribution: **USA:** AZ

Host(s): adults on *Rhamnus* sp. and *Robinia neomexicana* Gray.

benjamini Fisher 1928a:107 (♂) 109 (♀ from SEMC), fig. 25 (♂ genitalia).

Type locality: TX, Victoria – Type depository: USNM 40992 (♂).

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; Nelson 1987a; MacRae 1991; Peck &

BUPRESTIDAE: Agrilinae: Agrilini

Thomas 1998 (distr.); MacRae & Nelson 2003 (biol.).

Distribution: **USA:** IL, KS, MO, OK, TX

Host(s): adults on *Quercus alba* L. and *Q. macrocarpa* Michx.

bentseni Knull 1954a:28.

Type locality: TX, Hidalgo Co., Bentsen Rio Grande State Park – Type depository: FMNH (♀).

Taxonomy: Knull 1954a; 1966b.

Redescription: Knull 1966b:238 (♂), figs. 1, 2 (♂ genitalia).

Ecology: Knull 1966b (biol.); MacRae 2006 (distr.).

Distribution: **USA:** TX

Host(s): adults on *Bernardia myricifolia* (Scheele) S. Wats.

bespencus Barr 2008:34 (♂, ♀), figs. 2, 5 (adult ♂, ♂ genitalia).

misidentification: *pubescens* of authors, not *pubescens* Fisher, 1928.

Type locality: Sheffield Tex. – Type depository: USNM (♂).

Taxonomy: Barr 2008.

Ecology: Barr 2008 (biol., distr.).

Distribution: **USA:** TX

Host(s): unknown.

betulae Fisher 1928 [syn. of *pensus*]

betulanigrae MacRae 2003:1 (♂, ♀), figs. 1–3 (adult ♂, ♂ genitalia).

Type locality: **USA:** MO, Carter Co. Ozark National Scenic Riverway, Big Spring Cpgd., T27N R1E S31 (SE ¼) – Type depository: USNM (♂).

Taxonomy: MacRae 2003.

Ecology: MacRae 2003; 2006 (biol., distr.).

Distribution: **USA:** MO

Host(s): larvae in *Betula nigra* L. and *Aesculus glabra* L.

bilineatus (Weber) 1801:74 (*Buprestis*).

Type locality: “Amer.” – Type depository: unknown.

synonym: *bivittatus* Kirby 1837:161 – Synonymy: LeConte 1860:245.

Type locality: “Canad.” – Type depository: BMNH.

synonym: *flavolineatus* Mannerheim 1837:110 – Synonymy: LeConte 1860:245.

Type locality: “Amer. Bor.” – Type depository: MZHF?.

synonym: *aurolineatus* Gory 1841:248, plate 41, fig. 241 (adult) – Synonymy: LeConte 1860:245.

Type locality: “Amer. Bor.” – Type depository: MNHN.

Immature stages: Burke 1917a: plate 6, fig. 2 (Larva).

Taxonomy: Fisher 1928a; Nelson & Hespenheide 1998.

Redescription: Knull 1925: plate 1, fig. 8 (pygidium), plate 6, fig. 3 (adult); Fisher 1928a:116 (♂, ♀), fig. 27 (♂ genitalia).

Ecology: Burke 1917a; Mutchler & Weiss 1922; Fisher 1928a; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a (distr.); Dearborn & Donahue 1993; Solomon 1995; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** ON, PQ; **USA:** AL, AR, CT, DC, DE, FL, GA IA, IL, IN, KS, MA, MD, ME, MI, MO, MS, NC, NH, NJ, NY, OH, OK, PA, RI, SC, SD, TX, VA, WI, WV

Host(s): larvae in *Quercus alba* L., *Q. coccinea* Muenchh., *Q. lyrata* Walt., *Q. macrocarpa* Michx., *Q. muehlenbergii* Engelm., *Q. rubra* L., *Q. stellata* Wangenh. and *Q. velutina* Lam.; adults also on *Abies* sp., *Q. palustris* Muenchh. and feeding on chestnut blight fungal spores (*Cryphonectria parasitica* (Murr.) Barr).

bivittatus Kirby 1837 [syn. of *bilineatus*]

blanchardi Horn 1891 [syn. of *horni*]

blandus Horn 1891b:321.

Type locality: CA, Tehachapi – Type depository: MCZC 33826 (♂) (Lectotype designation: Fisher 1928a:299).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:297 (♂, ♀), fig.80 (♂ genitalia).

Ecology: Fisher 1928a (distr.); Nelson & Westcott 1976 (biol.).

Distribution: **USA:** CA

Host(s): larvae in *Eriogonum elongatum* Benth.; adults also on *E. fasciculatum* (Benth.) T. & G.

browni Carlson & Knight 1969 [syn. of *sayi*]

burkei Fisher 1917:287 (♂, ♀).

Type locality: CA, Placerville – Type depository: USNM 21386 (♂).

misidentification: *politus* of authors, not *politus* Say 1825.

Taxonomy: Fisher 1928a; Barr 1971.

Redescription: Helfer 1970:93 fig. (adult).

Ecology: Fisher 1928a (biol., distr.); Davis 1991 (distr.); Maser & Beer 1971; Solomon 1995 (biol.).

Distribution: **Canada**: AB, BC; **USA**: CA, ID, OR, WA, WY

Host(s): larvae in *Alnus rhombifolia* Nutt. and *A. incana* (L.) Moench ssp. *tenuifolia* (Nutt.) Breitung.

caeruleus Rossi 1792 [syn. of *cyanescens*]

californicus Westcott & Nelson 2000 [syn. of *parvus*]

canadensis Obenberger 1917 [syn. of *politus*]

carpini Knull 1923b:105 (replacement name for *azureus* Knull 1922).

synonym: *azureus* Knull 1922:84 (♂, ♀) (as variety of *bilineatus*, preoccupied: *azureus* Kerremans 1899).

Type locality: PA, Hummelstown – Type depository: FMNH (♂).

Taxonomy: Fisher 1928a; Nelson & Hespeneheide 1998.

Redescription: Fisher 1928a:119 (♂) (as subspecies of *bilineatus*).

Ecology: Fisher 1928a (biol., distr.); Hespeneheide 1979b; Nelson, *et al.* 1981; 1996; Davies 1991; Peck & Thomas 1998; Westcott 2001b (distr.).

Distribution: **Canada**: ON, PQ; **USA**: CT, IL, MI, OH, PA, SC, VT, WI

Host(s): larvae in living *Carpinus caroliniana* Walt., *Fagus grandifolia* Ehrh. and *Ostrya virginiana* (Mill.) K. Koch.

catalinae Knull 1940b:556, fig. 4 (♂ genitalia).

Type locality: AZ, near Tucson – Type depository: FMNH (♂).

Taxonomy: Knull 1940b.

Ecology: Westcott, *et al.* 1990; Westcott & Hespeneheide 2006 (distr.).

Distribution: **USA**: AZ; also recorded from Mexico.

Host(s): unknown.

cavatus Chevrolat 1838:99.

Type locality: Mexico – Type depository: BMNH.

synonym: *texanus* Crotch 1873:94 – Synonymy: Horn 1891b:335.

Type locality: TX – Type depository: MCZC, ANSP (Lectotype not designated).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:166 (♂, ♀) fig. 36 (♂ genitalia).

Ecology: Fisher 1928a; Nelson 1965; Nelson & Westcott 1976; Walters & Bellamy 1982 (biol.); Westcott, *et al.* 1990; Wellso & Jackman 2006; Westcott & Hespeneheide 2006 (distr.).

Distribution: **USA**: AZ, OK, TX; also recorded from Mexico. and South America.

Host(s): adults on *Acacia angustissima* (Mill.) Kuntz var. *suffrutescens* (Rose) Isely.

cavifrons Waterhouse 1889:189, plate 9, fig. 18 (adult).

Type locality: Mexico: Venta de Zopilote in Guerrero – Type depository: BMNH.

Taxonomy: Waterhouse 1889; Knull 1944a.

Redescription: Knull 1944a:75 (♂, ♀), plate 2, fig. 6 (♂ genitalia).

Ecology: Knull 1937d (biol.); Westcott, *et al.* 1990; MacRae 2006 (biol., distr.); Westcott & Hespeneheide 2006 (distr.).

Distribution: **USA**: AZ; also recorded from Mexico.

Host(s): larvae in *Celtis ehrenbergiana* (Klot.) Liebm.

celti Knull 1920:11 (♂, ♀).

Type locality: PA, Hummelstown – Type depository: FMNH (♂).

misidentification: *egenus* of authors, not *egenus* Gory 1841.

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:322 (♂, ♀), fig. 89 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a; MacRae 1991 (biol.); Westcott 2001b; MacRae 2006 (distr.).

Distribution: **Canada**: ON; **USA**: AR, CT, DC, GA, IA, IL, IN, KS, KY, MD, MI, MO, NE, ND, NH, NY, OH, OK, PA, SC, SD, TN, TX, VA, WV

Host(s): larvae in *Celtis laevigatus* Willd. and *C. occidentalis* L.; adults also on *C. tenuifolia* Nutt.,

BUPRESTIDAE: Agrilinae: Agrilini

Cercis canadensis L., *Corylus americanus* Walt. and *Gleditsia triacanthos* L.
celticola Fisher 1928 [ssp. of *lecontei*]

cephalicus LeConte 1860:249.

Type locality: DC – Type depository: MCZC 2248 (Lectotype not designated).

misidentification: *egenus* of authors (in part), not *egenus* Gory 1841.

misidentification: *otiosus* of authors (in part), not *otiosus* Say 1833.

Taxonomy: Fisher 1928a.

Redescription: Knull 1925: figs. 29, 30 (parts); Fisher 1928a:229 (♂, ♀), fig. 56 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Hespenheide 1974; Nelson & Westcott 1976; Davies 1991; MacRae 1991; Solomon 1995 (biol.); Peck & Thomas 1998 (distr.); Westcott 2007b (distr.).

Distribution: **Canada:** AB, MB, ON; **USA:** AL, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NE, NJ, NY, OH, OK, PA, SC, SD, TX, VA, WI, WV

Host(s): larvae in *Cornus florida* L.; adults also on *C. racemosa* Lam. and *Juglans nigra* L.

cercidii Knull 1937d:304 (♂, ♀).

Type locality: AZ, Sabino Cyn., near Tucson – Type depository: FMNH (♂).

synonym: *teuqualoi* Fisher 1938:136 – Synonymy: Hespenheide 1984:306.

Type locality: Mexico: Temescaltepec, Tejupilco – Type depository: USNM 51566 (♂).

Taxonomy: Knull 1937d; Hespenheide 1984.

Redescription: Knull 1944a: plate 3, fig. 16 (♂ genitalia).

Ecology: Knull 1937d (biol., distr.); Westcott, *et al.* 1990; Westcott 1991; Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** AZ, NM; also recorded from Mexico.

Host(s): adults on *Cercidium floridum* Gray.

champlaini Frost 1912:245 (♂, ♀).

Type locality: CT, Lyme – Type depository: USNM 66204 (♂).

misidentification: *otiosus* of Felt 1916:95, not *otiosus* Say 1833.

Immature stages: Knull 1925: plate 9, fig. 1 (larval workings).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:27 (♂, ♀), fig. 3 (♂ genitalia).

Ecology: Fisher 1928a; Knull 1947b; Nelson & MacRae 1990; Solomon 1995 (biol., distr.).

Distribution: **USA:** CT, MI, MO, NY, OH, PA, WV

Host(s): larvae in *Carpinus caroliniana* Walt. and *Ostrya virginiana* (Mill.) K. Koch.

chiricahuae Fisher 1928a:243 (♂, ♀), fig. 60 (♂ genitalia).

Type locality: AZ, Williams – Type depository: USNM 41003 (♂).

Taxonomy: Fisher 1928a.

Ecology: Nelson & Westcott 1976; Nelson, *et al.* 1996; MacRae & Nelson 2003 (biol.); Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** AZ, NM; also recorded from Mexico.

Host(s): larvae in *Quercus hypoleucoides* Camus.; adults also on *Mimosa* sp., *Platanus wrightii* S. Wats., *Quercus emoryi* Torr. and *Q. gambelii* Nutt.

chisosanus Knull 1956 [syn. of *obscurilineatus*]

cladrastis Knull 1945:80 (♂, ♀), plate 1, figs. 3, 4 (♂ genitalia).

Type locality: KY, Lexington – Type depository: FMNH (♂).

Taxonomy: Knull 1945.

Ecology: Knull 1945 (biol.); Nelson, *et al.* 1981 (distr.); Westcott 2007b (distr.).

Distribution: **USA:** KY, MO, MS

Host(s): adults on *Cladrastis kentukea* (Dum. & Coult.) Rudd.

cliftoni Knull 1941d:382, plate 1, fig. 5 (♂ genitalia).

Type locality: OH, Clifton – Type depository: FMNH (♂).

Taxonomy: Knull 1944a; MacRae 2003.

Redescription: Nelson 1980a:82 (♀).

Ecology: Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a; MacRae 1991 (biol.); Westcott 1991 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.).

Distribution: **USA:** AR, GA, IN, MI, MO, NC, NY, OH, OK, TN, TX

Host(s): larvae in *Juglans nigra* L.; adults also on *Carya cordiformis* (Wangenh.) K. Koch, *Cercis canadensis* L., *Cornus* sp. and *Platanus occidentalis* L.

coghisei Knull 1948:72 (♂, ♀), figs. 1, 2 (♂ genitalia).

Type locality: AZ, Dragoon Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1948.

Ecology: Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.).

Distribution: **USA**: AZ; also recorded from Mexico.

Host(s): unknown.

concinnus Horn 1891d:310.

Type locality: FL – Type depository: MCZC (Type series contains both ♂ and ♀; no lectotype has been designated).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:171 (♂, ♀), fig. 38 (♂ genitalia).

Ecology: Fisher 1928a; Nelson, *et al.* 1981; Nelson 1987a; Nelson & MacRae 1990 (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.).

Distribution: **USA**: AR, FL, GA, IL, KS, MD, MO, MS, TX

Host(s): larvae in *Hibiscus laevis* All.; adults also on *H. lasiocarpus* Cav. and “huckleberry”.

coryli Horn 1891 [syn. of *corylicola*]

corylicola Fisher 1928a:71 (♂, ♀) (replacement name for *coryli* Horn 1891).

synonym: *coryli* Horn 1891b:297 (as variety of *arcuatus*, preoccupied: *coryli* Ratzeburg 1837).

Type locality: MA, Dracut – Type depository: MCZC 33832 (♂) (Lectotype designation: Fisher 1928a:71).

Taxonomy: Fisher 1928a (as subspecies of *arcuatus*); Nelson & Hespenheide 1998.

Redescription: Fisher 1928a:71 (♂, ♀).

Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; Nelson, *et al.* 1981 (distr.).

Distribution: **USA**: CT, IA, IL, IN, MA, MD, ME, MO, NH, NJ, NY, PA, RI

Host(s): adults on *Corylus americana* Walt.

costipennis Fisher 1928 [syn. of *fisherellus*]

couesii LeConte 1866 [syn. of *aureus*]

coxalis Waterhouse 1889:89.

Type locality: Mexico: Juquila. Type depository: BMNH (♀) (Lectotype designation: Hespenheide 1979a:106).

synonym: *auroguttatus* Schaeffer 1905b:149 – Synonymy: Hespenheide 1979a:106.

Type locality: AZ, Huachuca Mtns., Palmerlee – Type depository: USNM 42646 (♂) (Lectotype designation: Bellamy & Nelson 1990:290).

synonym: *socus* Obenberger 1935:118 – Synonymy: Hespenheide 1979a:106.

Type locality: Mexico. Type depository: NMPC 24562

Taxonomy: Fisher 1928a (as *auroguttatus*); Hespenheide 1979.

Redescription: Fisher 1928a:135 (♂ & ♀ as *auroguttatus*).

Ecology: Fisher 1928a (distr. & biol. as *auroguttatus*); Westcott, *et al.* 1990 (distr.); Westcott 2005 (distr.).

Distribution: **USA**: AZ, CA; also recorded from Mexico.

Host(s): adults on *Quercus hypoleucoides* Camus and “black oak”.

crataegi Frost 1912:247.

Type locality: PA, Harrisburg – Type depository: MCZC 35039 (♂).

misidentification: *politus* of authors, not *politus* Say 1825.

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:227 (♂, ♀), fig. 55 (♂ genitalia).

Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a; Nelson & MacRae 1990; Davies 1991; MacRae 1991; Solomon 1995 (biol., distr.); Nelson, *et al.* 1996 (distr.); Westcott 2005.

Distribution: **Canada**: AB, PQ; **USA**: AL, AR, FL, IA, IL, IN, KS, MI, MO, NE, NY, OH, OK, PA, VA

Host(s): larvae in *Amelanchier alnifolia* (Nutt.) Nutt. and *Crataegus* sp.; adults also on *C. columbiana* Howell, *C. crus-galli* L., *C. douglasii* Lindley and *Juglans nigra* L.

criddlei Frost 1920:249.

Type locality: Canada: MB, Aweme – Type depository: MCZC 35040 (♂).

Immature stages: Wellso, *et al.* 1976: fig. 8 (willow stem gall).

Taxonomy: Fisher 1928a.

BUPRESTIDAE: Agrilinae: Agrilini

Redescription: Fisher 1928a:122 (♂, ♀), fig. 29 (♂ genitalia).

Ecology: Fisher 1928a; Wong & McLeod 1965; Wellso, *et al.* 1976; Davies 1991 (distr.); Solomon 1995 (distr., biol.).

Distribution: **Canada:** MB, ON, PQ, SK.; **USA:** MI

Host(s): larvae in *Salix bebbiana* Sarg.

crnicornis Horn 1891b:294.

Type locality: MA – Type depository: MCZC 2121 (♂) (Lectotype designation: Fisher 1928a:74).

Taxonomy: Horn 1891b; Fisher 1928a; MacRae 2003.

Redescription: Knull 1925: plate 1, fig.10 (♂ antenna); Fisher 1928a:72 (♂, ♀) fig. 14 (♂ genitalia).

Ecology: Fisher 1928a; Hesperheide 1974; Nelson & Westcott 1976; Hesperheide 1979b; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Davies 1991 (distr.); MacRae 1991; 2006 (biol., distr.).

Distribution: **Canada:** ON, PQ; **USA:** IL, IN, KS, MA, MD, ME, MI, MO, NH, NJ, NY, OH, PA, VA, WV

Host(s): larvae in *Diospyros virginiana* L., *Fagus grandifolia* Ehrh., *Gleditsia triacanthos* L. and *Quercus alba* L.; adults also on *Carya glabra* (Mill.) Sweet and *Juglans nigra* L.

cuneus LeConte 1866 [syn. of *lacustris*]

cupreolus LeConte 1860 [syn. of *politus*]

cupreomaculatus Dugès 1891 [syn. of *flohri*]

cupreonitens Fisher 1928a:265 (♂, ♀), fig. 68 (♂ genitalia).

Type locality: TX, Brownsville – Type depository: USNM 41013 (♂).

Taxonomy: Fisher 1928a.

Ecology: Vogt 1949b; Nelson & Westcott 1976 (biol.); Westcott, *et al.* 1990; Westcott & Hesperheide 2006 (distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): adults on *Acacia farnesiana* (L.) Willd., *A. rigidula* Benth. and *Prosopis glandulosa* Torr.

cuprescens (Ménétries) 1832:154 (*Buprestis*).

Type locality: (S part of Azerbaijan, partly in Iran) “Périmbal sur les montagnes de Talyche” (Old World, accidentally introduced into No. Amer.) – Type depository: ZIN.

synonym: *aurichalceus* Redtenbacher 1849:286 – Synonymy: Jendek 2003:6.

Type locality: Austria – Type depository: NHMW.

synonym: *rubicola* Abiella 1897:15 (as variety of *chrysoderes* Abeille de Perrin) – Synonymy: Alexeev 1990:8.

Type locality: France, Hautes-Alpes, Landes – Type depository: MNHN (Lectotype not designated).

misidentification: *fagi* of authors, not *fagi* Ratzeburg 1837.

misidentification: *politus* of Weiss 1914:438, not *politus* Say 1825.

misidentification: *viridis* of authors, not *viridis* Linnaeus 1758.

Taxonomy: Fisher 1928a (as *communis rubicola* Abeille de Perrin); Schaefer 1949 (as *aurichalceus rubicola* Abeille de Perrin); Alexeev 1989; 1990; Mühle, *et al.* 2000.

Redescription: Knull 1925: plate 9 (galls); Fisher 1928a:210 (♂, ♀), fig. 5 (♂ genitalia) (all as *communis rubicola* Abeille de Perrin).

Ecology: Weiss 1916b (as *viridis*); Mutchler & Weiss 1922 (biol.); Fisher 1928a (as *viridis fagi*); Homan 1975 (as *aurichalceus*); Nelson, *et al.* 1981 (as *aurichalceus rubicola*); Bright 1987 (as *aurichalceus*); MacRae 1991 (as *aurichalceus*); Solomon 1995 (as *aurichalceus*); Nelson, *et al.* (as *cupreus*); Nelson & MacRae 1990; Davies 1991; Westcott 1991 (all as *aurichalceus*); Bílý, 2002 (biol., distr.); MacRae & Nelson 2003 (distr.).

Distribution: **Canada:** NB, PQ; **USA:** CO, CT, IA, ID, IL, IN, MA, ME, MI, MN, MO, MT, ND, NE, NH, NJ, NY, OH, OR, PA, SD, UT, VT, WV; also recorded from the Old World.

Host(s): larvae in *Rosa nutkana* K. Presl. var. *hispidula* Fern. and *R. woodsii* Lindl. var. *ultramontana* (S. Wats.) Jeps.; adults also on *Ribes alpinum* L., *Rosa blanda* Ait., *R. carolina* L., *R. hugonis* Hemsl., *R. multiflora* Thunb. ex Murr., *R. nitida* Willd., *R. rubrifolia* Vill., *R. rugosa* Thunb., *R. setigera* Michx.

cupricollis Gory 1841 [syn. of *ruficollis*]

cyanescens Ratzeburg 1837:61, plate 2, fig. 2 (adult).

Type locality: Germany (Old World, accidentally introduced into No. Amer.) – Type depository: DEIC.

synonym: *caeruleus* Rossi 1792:62 (*Buprestis*) (preoccupied: *caeruleus* Thunberg 1789) – Synonymy: Saunders 1871:119.

Type locality: Italy, Pisanae – Type depository: unknown.

misspelling: *coeruleus* of authors (*lapsus calami*).

synonym: *cyaneus* Lacordaire 1835:612 (preoccupied: *cyaneus* Rossi 1790) – Synonymy: Saunders 1871:119.

synonym: *amabilis* Gory & Laporte 1837:52, plate 12, fig. 67 (adult) – Synonymy: Saunders 1871:119.

Type locality: Germany, Saxe – Type depository: MNHN (♂) (Lectotype designation: Jendek 1998:317).

synonym: *sulcaticeps* Abeille de Perrin 1869:79 – Synonymy: Schaefer 1949:384.

Type locality: France, Basses Alpes – Type depository: type lost.

synonym: *virens* Schilski 1888:187 (as variety of *coeruleus*) – Synonymy: Obenberger 1936:976.

Type locality: Germany "aus Glatz und Thüringen" – Type depository: MNHG.

synonym: *fissifrons* Abeille de Perrin 1897:3 – Synonymy: Obenberger 1924:50.

Type locality: Carpathian Mtns. "Karpathes" – Type depository: MNHN.

synonym: *kyselyi* Obenberger 1924:50 (replacement name for *fissifrons* Abeille de Perrin 1869, not *fissifrons* Fairmaire 1849) – Synonymy: Richter & Alexeev 1965:301.

Immature stages: Xambeu 1893 (larva & pupa as *coeruleus*).

Taxonomy: Fisher 1928a (as *coeruleus*).

Redescription: Fisher 1928a:224 (♂, ♀), fig. 54 (♂ genitalia as *coeruleus*).

Ecology: Fisher 1928a; Knull 1944a (as *coeruleus*); Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Davies 1991; Westcott 1991; Nelson, *et al.* 1996 (distr.); Bílý, 2002 (biol., distr.).

Distribution: **Canada**: ON; **USA**: CO, CT, IL, MA, MI, MO, NH, NY, OH, UT, VA, WI, WV; also widely recorded from Palearctic region.

Host(s): larvae in *Lonicera* sp.; adults also on *Symphoricarpus orbiculatus* Moench. and *Viburnum* sp.; in Europe associated with *Alnus*, *Betula*, *Crataegus*, *Eryngium*, *Fagus*, *Quercus*, *Rosa* and *Rubus*.

cyaneus Lacordaire 1835 [syn. of *cyanescens*]

davisi Knull 1941d:385, plate 1, fig. 3 (♂ genitalia).

Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1941d.

Distribution: **USA**: TX

Host(s): unknown.

defectus LeConte 1860:244.

Type locality: PA – Type depository: MCZC 2122 (♀) (Lectotype designation: Fisher 1928a:77).

misidentification: *otiosus* of authors (in part), not *otiosus* Say 1833.

Taxonomy: Horn 1891b; Fisher 1928a; MacRae 2003.

Redescription: Knull 1925: plate 1, fig. 19 (♂ last abd. ventrite); Fisher 1928a:76 (♂, ♀), fig. 15 (♂ genitalia).

Ecology: Fisher 1928a; Hespenheide 1974; Nelson & Westcott 1976; Hespenheide 1979b; Nelson, *et al.* 1981; Bright 1987; Davies 1991 (biol.); MacRae 1991; Nelson, *et al.* 1996; MacRae 2006 (biol., distr.).

Distribution: **Canada**: PQ; **USA**: AL, AR, CT, GA, IA, IL, IN, KS, MA, MD, MI, MO, MS, NC, ND, NJ, NY, OH, OK, PA, TX, VA, WV

Host(s): larvae in *Quercus alba* L., *Q. muehlenbergii* Englem. and *Q. stellata* Wangenh.; adults also on *Aesculus glabra* Willd., *Carya ovata* (Mill.) K. Koch, *C. tomentosa* Nutt., *Celtis occidentalis* L., *Cercis canadensis* L., *Crataegus* sp., *Gymnocladus dioicus* (L.) K. Koch, *Quercus macrocarpa* Michx., *Q. marilandica* (L.) Muenchh. and *Q. velutina* Lam.

delicatulus Waterhouse 1889:191.

Type locality: Mexico: Guerrero, Chilpancingo 4600' – Type depository: BMNH (Lectotype designation: Hespenheide 1974a:49).

synonym: *apachei* Knull 1938c:139 (♂, ♀), fig. 2 (♂ genitalia) – Synonymy: Hespenheide 1974a:49.

Type locality: AZ Santa Cruz River Bend – Type depository: FMNH (♂).

synonym: *mixcoati* Fisher 1938:135 – Synonymy: Hespenheide 1974a:49.

Type locality: Mexico: Morelos, Cuernavaca – Type depository: USNM 51564 (♂).

Taxonomy: Hespenheide 1974a.

Redescription: Knull 1938c:139 (♂, ♀), fig. 2 (♂ genitalia) (as *apachei*); Fisher 1938:135 (♂).

BUPRESTIDAE: Agrilinae: Agrilini

Ecology: Westcott & Hespenheide 2006 (distr.).
 Distribution: **USA:** AZ; also recorded from Mexico.
 Host(s): unknown.

desertus LeConte 1860 [syn. of *politus*]

difficilis Gory 1841:224, plate 37, fig. 215 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN (Lectotype not designated).
 synonym: *occidentalis* Uhler 1855:416 – Synonymy: LeConte 1860:244.
 Type locality: IN, Evansville – Type depository: MCZC 25970.
 Taxonomy: Horn 1891b; Fisher 1928a.
 Redescription: Fisher 1928a:39 (♂, ♀), fig. 7 (♂ genitalia).
 Ecology: Fisher 1928a; Wray 1967; Hespenheide 1974; Nelson, *et al.* 1981; Westcott 1991 (distr.);
 Solomon 1995 (biol., distr.); Westcott 2005 (distr.).
 Distribution: **USA:** AL, AR, CO, GA, IA, IL, IN, KS, KY, LA, MI, MO, NC, NE, NJ, NM, OH, OK,
 SC, SD, TN, TX, UT
 Host(s): larvae *Gleditsia triacanthos* L.

diospyroides Knull 1942:390, figs. 7, 8 (♂ genitalia).

Type locality: TN, Great Smoky Mtns. National Park – Type depository: FMNH (♂).
 Taxonomy: Knull 1942; MacRae 2003.
 Redescription: Nelson, *et al.* 1996:184 (♀).
 Ecology: Hespenheide 1974 (biol., distr.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson &
 MacRae 1990; Wellso & Jackman 2006 (distr.).
 Distribution: **USA:** IN, KS, MD, MO, NC, NJ, TN
 Host(s): larvae in *Diospyros virginiana* L.

dolli Schaeffer 1904:210.

Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM 42641 (♂) (Lectotype
 designation: Bellamy & Nelson 1990:290).
 Taxonomy: Fisher 1928a.
 Redescription: Fisher 1928a:289 (♂, ♀), fig. 77 (♂ genitalia).
 Ecology: Fisher 1928a (biol., distr.); MacRae & Nelson 2003 (biol.); Westcott & Hespenheide 2006
 (distr.).
 Distribution: **USA:** TX; also recorded from Mexico.
 Host(s): larvae in *Diospyros texana* Scheele.

dozieri Fisher 1918:67 (♂, ♀).

Type locality: FL, Gainesville – Type depository: USNM 21708 (♂).
 Taxonomy: Fisher 1928a.
 Redescription: Fisher 1928a:207 (♂, ♀), fig. 50 (♂ genitalia).
 Ecology: Fisher 1928a (biol., distr.); Nelson & MacRae 1990 (distr.).
 Distribution: **USA:** FL, GA
 Host(s): adults on *Ostrya virginiana* (Mill.) K. Koch.

duncani Knull 1929:270.

Type locality: AZ, Sierra Ancha Mtns. – Type depository: FMNH (♂).
 synonym: *nodicornis* Fall 1932:82 – Synonymy: Nelson & Westcott 1976:279.
 Type locality: AZ, Tucson – Type depository: MCZC 24449 (♂).
 Taxonomy: Knull 1970; Nelson & Westcott 1976.
 Redescription: Nelson 1980a:82 (♀).
 Ecology: Nelson 1965 (biol., distr.); Knull 1970 (biol.); Nelson 1987a (distr.).
 Distribution: **USA:** AZ; also recorded from Mexico.
 Host(s): adults on *Baccharis* sp. and *Chrysothamnus nauseosus* (Pall.) Britt.

egeniformis Champlain & Knull 1923a:84 (♂, ♀), fig. 3 (♂ genitalia).

Type locality: MO – Type depository: FMNH (♂).
 misidentification: *addendus* of authors, not *addendus* Crotch 1873.
 misidentification: *impexus* of authors, not *impexus* Horn 1891.
 Taxonomy: Fisher 1928a.
 Redescription: Fisher 1928a:287 (♂, ♀), fig. 76 (♂ genitalia).
 Ecology: Fisher 1928a; Nelson & Westcott 1976; Manley 1977; Nelson, *et al.* 1981; MacRae 1991
 (biol.); MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AR, IA, IL, KS, MI, MO, NE, NM, OH, OK, PA, SC, SD, TN, TX

Host(s): larvae in *Gleditsia triacanthos* L. and *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson; adults also on *Celtis occidentalis* L. and *Robinia pseudoacacia* L.

egenus Gory 1841:258, plate 43, fig.251 (adult).

Type locality: "Amer. Bor." – Type depository: MNHN (Lectotype not designated).

misidentification: *otiosus* of authors (in part), not *otiosus* Say 1833.

misidentification: *politus* of authors (in part), not *politus* Say 1825.

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Knull 1925: plate 1, fig. 11 (♂ antenna); Fisher 1928a:326 (♂, ♀), fig. 90 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Nelson, *et al.* 1981; Nelson & MacRae 1990; Nelson, *et al.* 1996 (distr.).

Distribution: **Canada:** ON, PQ; **USA:** AL, AR, AZ, CO, CT, DC, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NE, NH, NJ, NM, NY, OH, OK, PA, SC, SD, TN, TX, VA, WI, WV

Host(s): larvae in *Robinia neomexicana* Gray and *R. pseudoacacia* L.

eleonorae Fisher 1928a:320, fig. 88 (♂ genitalia).

Type locality: TX, Devil's River – Type depository: USNM 41016 (♂).

Taxonomy: Fisher 1928a.

Redescription: Nelson, *et al.* 1996:184 (♀).

Ecology: Fisher 1928a (biol., distr.); Vogt 1949b (biol.); Nelson & MacRae 1990; Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** AZ, TX; also recorded from Mexico.

Host(s): adults on *Acacia berlandieri* Benth., *A. rigidula* Benth. and *Ebenopsis* sp.

esperanzae Knull 1935a:96.

Type locality: TX, Brownsville – Type depository: FMNH (♀).

Taxonomy: Knull 1935a.

Redescription: Manley 1977:79 (♂), fig. 1 (♂ genitalia).

Ecology: Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): unknown.

exhuachucae Knull 1937 [syn. of *asperulus*]

exiguellus Fisher 1928a:277 (♂, ♀), fig. 72 (♂ genitalia).

Type locality: TX – Type depository: USNM 41011 (♂).

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a (distr.); Manley 1977 (biol.).

Distribution: **USA:** KS, TX

Host(s): adults on *Quercus* sp.

exsapindi Vogt 1949a:49 (♂, ♀), fig. 7 (♂ genitalia).

Type locality: TX, SW Hidalgo Co., 1 mi S Granjeno – Type depository: USNM 58837 (♂).

Taxonomy: Vogt 1949a.

Ecology: Manley 1976a (biol.).

Distribution: **USA:** TX

Host(s): larvae in *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson.

fallax Say 1833:66.

Type locality: IN – Type depository: USNM (♂) (original type destroyed; Neotype, from MO: Cliff Cave, designation: Fisher 1928a:195).

synonym: *zemes* Gory 1841:234, plate 39, fig.225 (adult) – Synonymy: Horn 1891b:335.

Type locality: AL – Type depository: MNHN.

synonym: *impressipennis* Uhler 1855:416 – Synonymy: LeConte 1860:246.

Type locality: MD, Baltimore – Type depository: type lost.

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Horn 1891b: plate 8, fig. 8 (elytra); Knull 1925: plate 1, fig. 26 (prosternal lobe); Fisher 1928a:194 (♂, ♀), fig. 45 (♂ genitalia).

Ecology: Fisher 1928a; Hespenheide 1974 (biol.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson, *et al.* 1996 (distr.); Nelson 1997a; MacRae 2006 (biol., distr.);

Distribution: **USA:** AL, AR, CO, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MD, MI, MO, MS,

BUPRESTIDAE: Agrilinae: Agrilini

NC, NE, NJ, NM, NY, OH, OK, PA, SC, TN, TX, VA, WV

Host(s): larvae in *Acer saccharum* Marsh.(?), *Celtis laevigata* Willd., *C. occidentalis* L., *C. tenuifolia* Nutt., *Cornus florida* L. and *Gleditsia triacanthos* L.; adults also on *Crataegus viridis* L., *Diospyros virginiana* L., *Juglans nigra* L. and *Tilia* sp.

falli Fisher 1928a:249 (♂, ♀), fig. 63 (♂ genitalia).

Type locality: AZ, Santa Cruz Co., Nogales – Type depository: MCZC 22551 (♂).

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a; Westcott & Hespenheide 2006 (distr.).

Distribution: USA: AZ, TX; also recorded from Mexico.

Host(s): unknown.

feretrius Obenberger 1936 [syn. of *planipennis*]

felix Horn 1891b:326.

Type locality: AZ, probably near Tucson – Type depository: MCZC 33829 (♀) (Lectotype designation: Fisher 1928a:257).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:255 (♂, ♀), fig. 65 (♂ genitalia).

Ecology: Fisher 1928a; Vogt 1949b (biol.); Cazier 1951b; Barr 1969a; Nelson, *et al.* 1981 (biol., distr.); Westcott 2005 (distr.); Westcott & Hespenheide 2006 (distr.).

Distribution: USA: AZ, CA, CO, ID, NM, NV, TX, UT; also recorded from Mexico.

Host(s): larvae in *Atriplex confertifolia* (Torr. & Frem.) S. Wats., *Cercidium microphyllum* (Torr.) Rose & Johnston and *Grayia spinosa* (Hook.) Moq.; adults also on *Prosopis glandulosa* Torr., *Psoralea emoryi* (Gray) Rydb., *Sphaeralcea ambigua* Gray and *S. rusbyi* Gray var. *eremicola* (Jeps.) Kearns.

ferrisi Dury 1908:368.

Type locality: OH, Cincinnati – Type depository: USNM 28514 (♂) (Lectotype designation: Bellamy & Nelson 1990:290).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:18 (♂, ♀), fig. 1 (♂ genitalia).

Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a (distr.); MacRae 2006 (biol., distr.).

Distribution: USA: IA, IL, IN, KY, MI, MO, MS, OH, TN, TX, WI

Host(s): larvae in *Acer saccharum* Marsh.(?), *Celtis occidentalis* L. and *C. tenuifolia* Nutt.

fisherellus Obenberger 1936a:92 (replacement name for *costipennis* Fisher 1928).

synonym: *costipennis* Fisher 1928a:182, fig. 41 (♂ genitalia) (preoccupied: *costipennis* Kerremans 1899).

Type locality: CA, Pasadena – Type depository: USNM 40999 (♂).

synonym: *tarahumarae* Cazier 1951b:32, fig. 42 (♂ genitalia) – Synonymy: Nelson 1980:82.

Type locality: Mexico: Chihuahua, 80 km N Chihuahua City – Type depository: AMNH (♂).

Taxonomy: Fisher 1928a (as *costipennis*); Nelson 1980a.

Redescription: Fisher 1928a: fig. 41 (♂ genitalia); Knull 1944a:78 (♀) (all as *costipennis*).

Ecology: Knull 1944a; Wellso 1974; Nelson 1980a; Bellamy 1982 (distr., biol.).

Distribution: USA: AZ, CA, TX; also recorded from Mexico.

Host(s): adults on *Acacia greggii* Gray, *Baccharis sergiloides* Gray, *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd., *C. l. reticulata* (Torr.) L. Benson, *Hymenoclea salsola* Gray, *Prosopis glandulosa* Torr. var. *torreyana* (L. Benson) Johnston, *Quercus hypoleucooides* Camus and *Stillingia* sp.

fisheri Knull 1929 [syn. of *fisherianus*]

fisherianus Knull 1930a:3 (replacement name for *fisheri* Knull 1929).

synonym: *fisheri* Knull 1929:271 (preoccupied: *fisheri* Obenberger 1924).

Type locality: AZ, Phoenix – Type depository: FMNH (♀).

Taxonomy: Knull 1929 (as *fisheri*).

Redescription: Knull 1944a: plate 2, fig. 7 (♂ genitalia).

Ecology: Nelson & Westcott 1976 (biol., distr.); Nelson, *et al.* 1981; MacRae & Nelson 2003 (biol.).

Distribution: AZ, CA, NM

Host(s): Larvae in *Salix gooddingii* Ball.

fissifrons Abeille de Perrin 1897 [syn. of *cyanescens*]

flavolineatus Mannerheim 1837 [syn. of *bilineatus*]

flohri (Waterhouse) 1890a:219 (*Trypantius*).

Type locality: Mexico: Navarrete – Type depository: BMNH.

synonym: *cupreomaculatus* Dugès 1891:30 – Synonymy: Hesperheide 1974a:50.

Type locality: Mexico: Tupátaro – Type depository: unknown.

synonym: *opacus* Kerremans 1897:85 – Synonymy: Hesperheide 1974a:50.

Type locality: Mexico – Type depository: BMNH.

Taxonomy: Waterhouse 1890; Hesperheide 1974a.

Redescription: Fisher 1928a:44 (♀ as *cupreomaculatus*).

Ecology: Fisher 1928a; Westcott & Hesperheide 2006 (distr. as *cupreomaculatus*).

Distribution: **USA**: AZ, also recorded from Mexico.

Host(s): unknown.

floridanus Crotch 1873:94.

Type locality: FL – Type depository: ANSP 2712 (♂).

synonym: *parafloridanus* Knull 1929:272 – Synonymy: Knull 1970:263.

Type locality: FL, Apopka – Type depository: FMNH (♀).

Taxonomy: Horn 1891b; Fisher 1928a; Knull 1970.

Redescription: Fisher 1928a:260 (♂, ♀).

Ecology: Fisher 1928a (biol., distr.); Nelson, *et al.* 1981 (biol.).

Distribution: **USA**: FL, GA

Host(s): adults on “huckleberry”, *Opuntia* sp. and *Quercus* sp.

frenatus Gory 1841 [syn. of *vittaticollis*]

frisoni Fisher 1943 [syn. of *addendus*]

frosti Knull 1920:8 (♂, ♀).

Type locality: MA, Framingham – Type depository: FMNH (♂).

misidentification: *otiosus* of authors (in part), not *otiosus* Say 1833.

Taxonomy: Fisher 1928a; MacRae 2003.

Redescription: Fisher 1928a:91 (♂, ♀), fig. 20 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; MacRae 1991 (biol.); MacRae & Nelson 2003 (distr.).

Distribution: **Canada**: MB; **USA**: CT, IA, IL, MA, MI, MO, NC, NY, PA; also recorded from Mexico.

Host(s): larvae in *Quercus* sp.; adults also on *Q. stellata* Wangenh.

fulgens LeConte 1860:243.

Type locality: MO – Type depository: MCZC 2124 (♂) (Type is No. 7 in *arcuatus* series according to Fisher 1928a:69).

Taxonomy: LeConte 1860; Fisher 1928a (as subspecies of *arcuatus*); Nelson & Hesperheide 1998 (as full species).

Redescription: Fisher 1928a:68 (♂, ♀).

Ecology: Fisher 1928a (biol., distr.); Nelson & MacRae 1990; MacRae & Nelson 2003 (distr.).

Distribution: **Canada**: ON; **USA**: AR, IA, IL, IN, KS, MI, MN, MO, NE, OH, VA, WV

Host(s): larvae in *Corylus americana* Walt.

fulminans Fisher 1928 [ssp. of *quadriguttatus*]

funestus Gory 1841:221 (plate 36, fig. 212).

Type locality: “Mexique” – Type depository: MNHN.

Taxonomy: Gory 1841; Hesperheide 2007.

Redescription: Hesperheide 2007 (diagnosis), fig. 4 (dorsal & lateral habitus), fig. 5 (♂ genitalia).

Ecology: Hesperheide 2007 (distr.).

Distribution: **USA**: TX; also recorded from Mexico and Central America.

Host(s): unknown.

fuscipennis Gory 1841:238, plate 39, fig. 230 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN (type series contains both ♂ & ♀, lectotype not designated).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:46 (♂, ♀), fig. 9 (♂ genitalia).

Ecology: Fisher 1928a; Knull 1944a; Nelson & Westcott 1976 (distr.); Solomon 1995 (biol., distr.).

Distribution: **USA**: FL, GA, KY, MO, MS, NC, OH, SC, TN, TX

Host(s): larva in *Diospyros virginiana* L.; adults also on *Oxydendrum arboreum* (L.) DC.

BUPRESTIDAE: Agrilinae: Agrilini**geminatus** (Say) 1823:163 (*Buprestis*).

Type locality: MO – Type depository: USNM (♂) (original type destroyed; Neotype, from central MO, designation: Fisher 1928a:80).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:79 (♂, ♀), fig. 16 (♂ genitalia).

Ecology: Fisher 1928a; Hespenheide 1974; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Davies 1991; Nelson, *et al.* 1996 (distr.); MacRae & Nelson 2003; MacRae 2006 (biol., distr.).

Distribution: **Canada**: ON, PQ; **USA**: AR, FL, GA, IL, IN, LA, MA, MI, MN, MO, MS, NC, NH, NJ, OK, PA, SC, TX, VA, WI, WV

Host(s): larvae in *Quercus phellos* L. and *Q. velutina* Lam.; adults also on *Carya alba* (L.) Nutt., *C. tomentosa* Nutt., *Gymnocladus dioicus* (L.) K. Koch., *Juglans nigra* L., *Quercus alba* L. and *Q. coccinea* Muenchh.

geronimoi Knull 1950:90.

Type locality: AZ, Chiricahua Mtns., 4000' – Type depository: FMNH (♀).

Taxonomy: Knull 1950; Nelson 1985a.

Redescription: Nelson 1987b:67 (♂), fig. 7 (♂ genitalia).

Ecology: Westcott & Hespenheide 2006 (distr.).

Distribution: **USA**: AZ; also recorded from Mexico.

Host(s): unknown.

gibbicollis Fall 1901:241.

Type locality: CA, near San Bernardino – Type depository: MCZC 24446.

synonym: *mercurius* Wickham 1903:70 – Synonymy: Fisher 1928a:234.

Type locality: NM, Deming – Type depository: USNM 51936 (♂).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:234 (♂, ♀), fig. 58 (♂ genitalia).

Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson & MacRae 1990; Westcott 1991; MacRae & Nelson 2003; MacRae 2006; Westcott & Hespenheide 2006 (biol., distr.).

Distribution: **USA**: AZ, CA, CO, KS, MT, NM, NV, OK, TX, UT, WY; also recorded from Mexico.

Host(s): adults on *Gutierrezia californica* (DC.) T. & G., *Prosopis glandulosa* Torr. and *Quercus* sp.

gillespiensis Knull 1947a:70 (♂, ♀), figs. 6, 7 (♂ genitalia).

Type locality: TX, Gillespie Co. – Type depository: FMNH (♂).

Taxonomy: Knull 1947a.

Ecology: Manley 1977 (biol.).

Distribution: **USA**: TX

Host(s): adults on *Celtis* sp.

granulatus granulatus (Say) 1823:162 (*Buprestis*).

Type locality: MO – Type depository: USNM (♀) (original type destroyed, Neotype, from Riley Co., KS, designation: Fisher 1928a:140).

Taxonomy: Horn 1891b; Fisher 1928a; Carlson & Knight 1969.

Redescription: Fisher 1928a:138 (♂, ♀).

Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson & MacRae 1990 (distr.); Solomon 1995 (biol., distr.); Westcott 2005 (distr.).

Distribution: **USA**: AL, AZ, CA, CO, IL, KS, MI, MN, MO, MS, MT, NM, NY, OK, PA, SD, UT, WY

Host(s): larvae in *Betula* sp., *Populus deltoides* Marsh., *P. deltoides* ssp. *monilifera* (Ait.) Eckenwalder and *P. nigra* L.

granulatus liragus Barter & Brown 1949:247 (♂, ♀), fig. 1a (♂ genitalia) (as species).

Type locality: Canada: NB, Fredericton – Type depository: CNCI 5803 (♂).

Taxonomy: Barter & Brown 1949; Carlson 1969; Carlson & Knight 1969 (ssp. of *granulatus*).

Redescription: Carlson & Knight 1969: figs. 2, 4A, 6, 39 (♀ pygidium, elytra, ♂ genitalia, ♂ & ♀ en copula).

Ecology: Barter 1965 (biol. & parasitoids); Nelson & Westcott 1976; Nelson 1987a; Dearborn & Donahue 1993 (distr.); Solomon 1995 (biol.).

Distribution: **Canada**: AB, BC, MB, NB, PQ, SK; **USA**: AZ, CA, CO, ME, MI, MN, ND, NH, NV, OR, PA, UT, WI

Host(s): larvae in *Populus tremuloides* Michx.

- granulatus mojavei** Knull 1952b:352, figs. 6, 7 (♂ genitalia) (as species).
 Type locality: CA, San Bernardino Co., Oro Grande – Type depository: FMNH (♂).
 Taxonomy: Knull 1952b; Nelson & Westcott 1976 (ssp. of *granulatus*).
 Redescription: Nelson 1965:40 (♀).
 Ecology: Nelson 1965 (biol.).
 Distribution: **USA:** CA
 Host(s): larvae in *Populus fremontii* S. Wats.
- granulatus populi** Fisher 1928a:150 (♂, ♀), fig. 34 (♂ genitalia) (as species).
 Type locality: CA, Yreka – Type depository: USNM 40997 (♂).
 misidentification: *niveiventris* of authors (in part), not *niveiventris* Horn 1891.
 synonym: *trichocarpha* Chamberlin 1929:112 – Synonymy: Leng & Mutchler 1933:85.
 Type locality: OR, Oakridge – Type depository: CASC 5506 (♂).
 Taxonomy: Fisher 1928a; Carlson 1969; Carlson & Knight 1969 (ssp. of *granulatus*).
 Ecology: Fisher 1928a (biol., distr.); Davies 1991 (distr.); Solomon 1995 (biol.).
 Distribution: **Canada:** AB, BC; **USA:** CA, ID, MT, OR, WA
 Host(s): larvae in *Populus nigra* L. and *P. balsamifera* L. ssp. *P. trichocarpa* (T. & G.) Brayshaw.
- gravis* LeConte 1860 [syn. of *anxius*]
- harenus** Nelson 1994:261 (♂, ♀), figs. 1, 3 (pronotum, ovipositor).
 Type locality: CA, Imperial Co., 7.2 mi W Glamis, Hwy. 78 – Type depository: CASC 17248 (♂).
 misidentification: *lacustris* of authors (in part), not *lacustris* LeConte 1860.
 Taxonomy: Nelson 1994.
 Ecology: Nelson 1994 (biol., distr.).
 Distribution: **USA:** CA
 Host(s): adults on *Croton wigginsii* Wheeler.
- hazardi** Knull 1966b:239, figs. 3, 4 (♂ genitalia).
 Type locality: GA, Gilmer Co. – Type depository: FMNH (♂).
 Taxonomy: Knull 1966b; MacRae 2003.
 Ecology: Knull 1966b (distr.).
 Distribution: **USA:** GA
 Host(s): unknown.
- heterothecae** Knull 1972a:299 (♂, ♀), figs. 1, 2 (♂ genitalia).
 Type locality: AZ, Chiricahua Mtns., near Portal – Type depository: FMNH (♂).
 misidentification: *huachucae* of authors, not *huachucae* Schaeffer 1905.
 Taxonomy: Knull 1972b.
 Ecology: Nelson 1965 (as *huachucae*); Knull 1972b (biol.); Westcott & Hespenheide 2006 (distr.).
 Distribution: **USA:** AZ; also recorded from Mexico.
 Host(s): adults on *Heterotheca* sp.
- horni** Kerremans 1900:341 (replacement name for *blanchardi* Horn 1891).
 synonym: *blanchardi* Horn 1891b:305 (preoccupied: *blanchardi* Saunders 1871).
 Type locality: MA – Type depository: MCZC 2130 (♂).
 Immature stages: Nord, *et al.* 1965.
 Taxonomy: Horn 1891b (as *blanchardi*); Carlson & Knight 1969.
 Redescription: Fisher 1928a:158 (♂); Carlson & Knight 1969: figs. 1, 7, 9 (ventral abd., ♂ genitalia, adult ♂); Nelson, *et al.* 1996:185 (♀).
 Ecology: Carlson & Knight 1969; Nelson, *et al.* 1981; Davies 1991 (distr.); Solomon 1995 (biol.).
 Distribution: **Canada:** MB, PQ; **USA:** MA, MI, WI
 Host(s): larvae in *Populus tremuloides* Michx.
- howdeni** Knull 1957:234 (♂, ♀), figs. 1, 2 (♂ genitalia).
 Type locality: AZ, Chiricahua Mts., SW. Research Station of AMNH – Type depository: FMNH (♂).
 Taxonomy: Knull 1957; Nelson, *et al.* 1996.
 Ecology: Knull 1957 (biol., distr.); Westcott & Hespenheide 2006 (distr.).
 Distribution: **USA:** AZ; also recorded from Mexico.
 Host(s): adults on *Platanus wrightii* S. Wats.
- huachucae** Schaeffer 1905b:150.
 Type locality: AZ, Huachuca Mtns., Ramsey Cyn. – Type depository: USNM (♂) (Lectotype designation: Bellamy & Nelson 1990:291).

BUPRESTIDAE: Agrilinae: Agrilini

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:186 (♂, ♀), fig. 43 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Cazier 1951b; Nelson & Westcott 1976; Nelson, *et al.* 1981; Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** AZ, NM; also recorded from Mexico.

Host(s): adults on *Brickellia californica* (T. & G.) Gray and *Quercus* sp.

hualpaii Knull 1939:30.

Type locality: AZ, Hualapai Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1939.

Ecology: Knull 1939 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA

Host(s): adults on *Acacia greggii* Gray.

hyperici Creutzer 1799:122, plate 3, fig. 26 (adult).

Type locality: Austriae (Old World) (introduced into No. Amer. for biological control of *Hypericum perforatum* L., St. John's Wort) – Type depository: unknown.

Synonymy: currently seven junior synonyms and several unavailable infrasubspecific names from Palaeartic fauna.

Taxonomy: Schaefer 1949.

Ecology: Harris, *et al.* 1969; Bílý, 2002 (biol., distr.).

Distribution: **Canada:** BC; **USA:** CA, ID, MT, OR, WA; also recorded from the Palaeartic region.

Host(s): larvae in *Hypericum perforatum* L.

illectus Fall 1901:242.

Type locality: CA, Pomona – Type depository: MCZC 24447 (♂).

misidentification: *jacobinus* of authors (in part), not *jacobinus* Horn 1891.

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:251 (♂, ♀), fig. 64 (♂ genitalia).

Ecology: Fisher 1928a; Nelson 1962; Nelson & Westcott 1976; Westcott 2001b (distr.); 2005 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AZ, CA, NV, OR

Host(s): adults on *Atriplex confertifolia* (Torr. & Frem.) S. Wats., *Eriogonum umbellatum* Torr. var. *dichrocephalum* Gand., *Lotus nevadensis* (S. Wats.) Greene, *L. purshianus* (Benth.) Clem. & Clem., *L. rigidus* (Benth.) Greene, *L. scoparius* (Nutt.) Otlely and *Prosopis glandulosa* Torr.

imbellis Crotch 1873:94.

Type locality: FL – Type depository: ANSP 2713 (♂).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:308 (♂, ♀), fig. 84 (♂ genitalia).

Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Davies 1991; MacRae 1991 (biol., distr.); Westcott 2001b (distr.); 2005 (distr.).

Distribution: **Canada:** ON; **USA:** AL, CT, DC, FL, GA, LA, MA, MD, MI, MN, MS, NH, NJ, NY, OK, PA, SC, TX, VA, WI

Host(s): adults on *Bigelowia nudata* (Michx.) DC., *Helianthemum canadense* (L.) Michx., *H. rosmarinifolium* Pursh and *Rudbeckia* sp.

impexus Horn 1891b:327.

Type locality: NE – Type depository: MCZC 33830 (♀) (Lectotype designation: Fisher 1928a:264).

Taxonomy: Horn 1891b; Fisher 1928a; Hespenheide 2007.

Redescription: Fisher 1928a:262 (♂, ♀), fig. 67 (♂ genitalia).

Ecology: Hespenheide 2007 (biol., distr.).

Distribution: **USA:** AR, CO, IA, KS, MN, MO, MS, NE, NM, OK, WY

Host(s): adults have been collected on *Chrysothamnus* sp.

impressiceps Pic 1918 [syn. of *ruficollis*]

impressipennis Uhler 1855 [syn. of *fallax*]

interruptus LeConte 1860 [syn. of *obsoletoguttatus*]

jacobinus Horn 1891b:314.

Type locality: CA, San Diego – Type depository: MCZC 2134 (♂) (Lectotype designation: Fisher 1928a:260).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:258 (♂, ♀), fig. 66 (♂ genitalia).

Ecology: Fisher 1928a; Cazier 1951b (distr.).

Distribution: **USA:** CA; also recorded from Mexico.

Host(s): unknown.

juglandis Knull 1920:7 (♂, ♀).

Type locality: PA, Hummelstown – Type depository: FMNH (♂).

Taxonomy: Fisher 1928a; MacRae 2003.

Redescription: Fisher 1928a:94 (♂, ♀), fig. 21 (♂ genitalia).

Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Davies 1991 (distr.); Solomon 1995 (biol.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** ON, PQ; **USA:** AR, CT, IA, IL, MD, MI, MO, NH, NY, PA, VA

Host(s): larvae in *Juglans cinerea* L.; adults also on *J. nigra* L.

knausi Schaeffer 1909 [syn. of *obolinus*]

kyselyi Obenberger 1924 [syn. of *cyanescens*]

lacustris LeConte 1860:250.

Type locality: WI, Lake Superior at LaPointe – Type depository: MCZC 2246 (♀).

synonym: *cuneus* LeConte 1866:384 – Synonymy: Horn 1891b:336.

Type locality: TX – Type depository: MCZC.

synonym: *pubiventris* Crotch 1873:95 – Synonymy: Horn 1891b:336.

Type locality: TX – Type depository: MCZC 2247 (Lectotype not designated).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:305 (♂, ♀), fig. 83 (♂ genit).

Ecology: Fisher 1928a; Vogt 1949b; Cazier 1951b; Nelson & Westcott 1976; Bellamy 1982; Bright 1987 (biol., distr.); Davies 1991; MacRae & Nelson 2003 (biol.); Westcott & Hespeneide 2006 (distr.).

Distribution: **Canada:** ON; **USA:** AL, AZ, CA, CO, IL, KS, NM, OK, TX, WI; also recorded from Mexico.

Host(s): adults on *Croton pottsii* (Klot.) Muell.–Arg., *C. punctatus* Jacq. and *Solanum* sp.

latebrus Gory & Laporte 1837 [syn. of *acutipennis*]

lateralis (Say 1823) [syn. of *sayi*]

latifrons Waterhouse 1889:191.

Type locality: Mexico: Guerrero, Tepetlapa – Type depository: BMNH (Lectotype designation: Hespeneide 1974a:51).

synonym: *santaritae* Knull 1937b:39 – Synonymy: Hespeneide 1974a:51.

Type locality: AZ, Santa Rita Mtns. – Type depository: FMNH (♂).

Taxonomy: Waterhouse 1899.

Redescription: Knull 1944a: plate 2, fig. 9 (♂ genitalia as *santaritae*).

Ecology: Cazier 1951b; Knull 1970 (as *santaritae*) (biol.); Nelson, *et al.* 1981; Westcott, *et al.* 1990; Westcott 1991 (distr.).

Distribution: **USA:** AZ, NM; also recorded from Mexico.

Host(s): adults on *Desmodium batocaulon* Gray.

lautuellus Fisher 1928a:202 (♂, ♀), fig. 48 (♂ genitalia).

Type locality: TX, San Diego – Type depository: USNM 41001 (♂).

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a (distr.); Knull 1944a; MacRae & Nelson 2003 (biol.).

Distribution: **USA:** TX

Host(s): larvae in *Diospyros texana* Scheele.

lecontei celticola Fisher 1928a:294 (♂, ♀).

Type locality: TX, Brownsville – Type depository: USNM 41012 (♂).

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a; Vogt 1949b; Nelson, *et al.* 1981; Nelson 1987a; Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.); Westcott & Hespeneide 2006 (distr.).

Distribution: **USA:** AZ, KS, LA, MS, NM, OK, TX; also recorded from Mexico.

Host(s): larvae in *Baccharis* sp., *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd., *C. l. reticulata* (Torr.) L. Benson, *Havardia pallens* (Benth.) Britt. & Rose and *Leucaena pulverulenta* (Schlecht.) Benth.; adults also on *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd. var. *texana* Sarg. and *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson.

BUPRESTIDAE: Agrilinae: Agrilini

lecontei lecontei Saunders 1871:117 (replacement name for *subfasciatus* LeConte 1860).

synonym: *subfasciatus* LeConte 1860:245 (preoccupied: *subfasciatus* Gory 1841).

Type locality: IL – Type depository: MCZC 2244 (♂).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Horn 1891b: plate 8, fig. 5 (elytra); Fisher 1928a:292 (♂, ♀), fig. 78 (♂ genitalia).

Ecology: Fisher 1928a; Hespeneheide 1974; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987 (biol., distr.); Nelson 1987a; Davies 1991; Peck & Thomas 1998 (distr.); MacRae & Nelson 2003 (biol.).

Distribution: **Canada:** ON; **USA:** AL, AR, DC, GA, IA, IL, IN, KS, KY, MD, MI, MO, NE, NJ, NY, OH, OK, PA, SC, SD, TN, VA, WI, WV

Host(s): larvae in *Celtis laevigata* Willd., *C. occidentalis* L. and *C. tenuifolia* Nutt.

limpiae Knull 1941b:283 (♂, ♀).

Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1941b.

Redescription: Knull 1944a: plate 1, fig. 5 (♂ genitalia).

Ecology: Nelson & Westcott 1976; Manley 1977 (biol.); Nelson, *et al.* 1981 (distr.); Westcott 2005 (biol.).

Distribution: **USA:** KS, OK, TX

Host(s): larvae in *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson; adults on *Ptelea trifoliata* L.

liragus Barter & Brown 1949 [ssp. of *granulatus*]

macer LeConte 1858:70.

Type locality: TX, Eagle Pass – Type depository: MCZC 2127 (♂).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:98 (♂, ♀), fig. 22 (♂ genitalia).

Ecology: Fisher 1928a; MacRae 2006 (biol., distr.); Nelson 1987a; Peck & Thomas 1998; Westcott & Hespeneheide 2006 (distr.); Vogt 1949b; Wellso 1974 (biol.).

Distribution: **USA:** FL, LA, TX; also recorded from Mexico.

Host(s): larvae in *Celtis laevigata* Willd. and *C. occidentalis* L.; adults also on *C. laevigata reticulata* (Torr.) L. Benson.

malvastris Fisher 1928a:247 (♂, ♀), fig. 62 (♂ genitalia).

Type locality: KS, Meade Co. – Type depository: USNM 41005 (♂).

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a (biol., distr.); Nelson, *et al.* 1981; 1996; Westcott & Hespeneheide 2006; Westcott & Hespeneheide 2006 (distr.); Nelson & Westcott 1976 (biol.).

Distribution: **Canada:** AB **USA:** AZ, CA, CO, KS, MT, NM, SD, TX, UT, WY; also recorded from Mexico.

Host(s): adults on *Eriogonum fasciculatum* (Benth.) T. & G. and *Sphaeralceacoccinea* (Nutt.) Rydb.

manzanitae Chamberlin 1929 [syn. of *arbuti*]

marcopoli Obenberger 1930 [syn. of *planipennis*]

masculinus Horn 1891b:295.

Type locality: IL – Type depository: MCZC 2126 (♂) (Lectotype designation: Fisher 1928a:58).

misidentification: *otiosus* of authors (in part), not Say.

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Knull 1925: plate 1, fig. 22 (metaleg); Fisher 1928a:56 (♂, ♀), fig. 11 (♂ genitalia).

Ecology: Fisher 1928a; Knull 1947b; Nelson 1965; Hespeneheide 1974 (biol.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Davies 1991 (distr.); MacRae 1991; Solomon 1995 (biol., distr.); Nelson, *et al.* 1996.

Distribution: **Canada:** MB, ON, PQ, SK; **USA:** AL, AR, CT, DC, GA, IA, IL, IN, KS, MA, MI, MN, MO, MS, MT, ND, NE, NH, NJ, NY, OH, PA, SC, SD, TX, VA, VT, WI

Host(s): larvae in *Acer negundo* L., *A. platanoides* L., *A. rubrum* L., *A. saccharum* Marsh., *Aesculus glabra* Willd., *Cercis canadensis* L. and *Gleditsia triacanthos* L.; adults also on *Carya tomentosa* Nutt., *Gymnocladus dioica* (L.) K. Koch, *Rhus aromatica* Ait. and *Quercus velutina* Lam.

mercurius Wickham 1903 [syn. of *gibbicollis*]

mimosae Fisher 1928a:241.

Type locality: TX, Devil's River – Type depository: USNM 41007 (♀).

Taxonomy: Fisher 1928a.

Redescription: Knull 1944a:82 (♂), plate 3, fig. 13 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Knull 1970; Nelson, *et al.* 1981; Westcott, *et al.* 1990 (distr.); MacRae & Nelson 2003 (biol.).

Distribution: **USA:** AZ, TX; also recorded from Mexico.

Host(s): adults on *Acacia greggii* Gray, *Calliandra humilis* Benth., *Mimosa borealis* Gray and ♂ *grahamii* Gray.

mixcoati Fisher 1938 [syn. of *delicatulus*]

mojavei Knull 1952 [ssp. of *granulatus*]

montosae Barr 2008:33 (♂, ♀), figs. 1, 4 (adult ♂, ♂ genitalia).

Type locality: Montosa Cyn., 13 km E Amado, Santa Cruz Co. Ariz. – Type depository: CASC 18345 (♂).

Taxonomy: Barr 2008.

Ecology: Barr 2008 (biol., distr.).

Distribution: **USA:** AZ

Host(s): adults on *Prosopis* sp.

muticus LeConte 1858:70.

Type locality: TX – Type depository: MCZC 2133 (♀).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:302 (♂, ♀), fig. 82 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.).

Distribution: **USA:** KS, OK, TX

Host(s): adults on *Callirhoe involucrata* (T. & G.) Gray.

neabditus Knull 1935b:190 (♂, ♀).

Type locality: AZ, Base of Pinal Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1935b.

Redescription: Knull 1944a: plate 3, fig. 19 (♂ genitalia).

Distribution: **USA:** AZ

Host(s): unknown.

neoprosopidis Knull 1938a:99.

Type locality: TX, Brownsville – Type depository: FMNH (♂).

Taxonomy: Knull 1938a.

Redescription: Knull 1944a:83 (♀), plate 3, fig. 22 (♂ genitalia).

Ecology: Vogt 1949b; Manley 1977 (biol.); Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): larvae in *Leucaena pulverulenta* (Schlecht.) Benth.

nevadensis Horn 1891b:303.

Type locality: W NV – Type depository: MCZC 33821 (♀).

Taxonomy: Horn 1891b; Fisher 1928a; Carlson & Knight 1969; Nelson 1980a.

Redescription: Fisher 1928a:20 (♀); Nelson 1980a:84 (♂), fig. 1 (♂ genitalia).

Ecology: Nelson 1980a (distr.); Westcott 1991 (biol., distr.).

Distribution: **USA:** CA, NV, OR

Host(s): larvae in *Salix lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr.

nigricans Gory 1841:257, plate 43, fig. 250 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN (♂) (Lectotype designation: Nelson 1980a:85).

synonym: *auricomus* Frost 1912:250 – Synonymy: Nelson 1980a:85.

Type locality: MA, Framingham – Type depository: MCZC 32403 (♂).

Taxonomy: Fisher 1928a (as *auricomus*); Nelson 1980a.

Redescription: Fisher 1928a:130 (♂ & ♀ as *auricomus*).

Ecology: Fisher 1928a (as *auricomus*) (biol., distr.); Bright 1987; Davies 1991; MacRae 1991; Nelson, *et al.* 1996 (distr.).

Distribution: **Canada:** ON; **USA:** CT, MA, MO, NY, OK, PA

Host(s): adults on *Quercus rubra* L.

niveiventris Horn 1891 [ssp. of *quadriguttatus*]

BUPRESTIDAE: Agrilinae: Agrilini

obliquus LeConte 1860 [syn. of *arcuatus*]

oblongus Fisher 1928a:333.

Type locality: MD, Chesapeake Beach – Type depository: USNM 41017 (♂).

Taxonomy: Fisher 1928a; Manley 1977.

Redescription: Manley 1977:80 (♀).

Ecology: Nelson & Westcott 1976; Manley 1977; Hespeneide 1979b; Nelson 1987a; Westcott 1991; MacRae 1991; Nelson, *et al.* 1996; Peck & Thomas 1998; MacRae & Nelson 2003 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AR, FL, GA, LA, MD, MO, MS, NC, TN, TX, VA

Host(s): larvae in *Vitis* sp.; adults also on *Celtis occidentalis* L.

obolinus LeConte 1860:248.

Type locality: KS – Type depository: MCZC 2132 (♀).

synonym: *knausi* Schaeffer 1909:376 – Synonymy: Fall 1910b:138.

Type locality: KS, Belvidere – Type depository: USNM 42650 (♂).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:191 (♂, ♀), fig. 44 (♂ genitalia).

Ecology: Fisher 1928a; Knull 1944a (biol., distr.); Boldt & Robbins 1990 (biol.); Westcott, *et al.* 1990; Nelson & MacRae 1990; MacRae & Nelson 2003; Westcott & Hespeneide 2006 (distr.).

Distribution: **USA:** CO, KS, MO, TX; also recorded from Mexico.

Host(s): larvae in *Baccharis salicifolia* (Ruiz & Pavon) Pers.; adults also on *Celtis laevigata* Willd. var. *reticulata* (Torr.) Benson and *Ulmus* sp.

obscurilineatus Vogt 1949a:52 (♂, ♀), fig. 9 (♂ genitalia).

Type locality: TX, Starr Co., 6.5 mi SE Rio Grande City, hwy to Mission – Type depository: USNM 58839 (♂).

synonym: *chisosanus* Knull 1956:47 – Synonymy: Knull 1970:263.

Type locality: TX, Brewster Co., Chisos Mtns. – Type depository: FMNH (♀).

Taxonomy: Vogt 1949a; Knull 1970.

Ecology: Vogt 1949b; Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.); Westcott & Hespeneide 2006 (distr.).

Distribution: **USA:** AZ, TX; also recorded from Mexico.

Host(s): adults on *Acacia greggii* Gray, *A. rigidula* Benth. and *Juniperus flaccida* Schlecht.

obsoletoguttatus Gory 1841:256, plate 43, fig. 249 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN (♂) (Lectotype not designated).

synonym: *interruptus* LeConte 1860:246 – Synonymy: Horn 1891b:335.

Type locality: Southern states – Type depository: MCZC 2138.

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Horn 1891b: plate 8 (parts); Fisher 1928a:200 (♂, ♀), fig. 47 (♂ genitalia).

Ecology: Fisher 1928a; Knull 1944a; Bright 1987; Nelson & Westcott 1976; Nelson, *et al.* 1981; Davies 1991; MacRae 1991; Peck & Thomas 1998 (distr.); MacRae & Nelson 2003 (biol.); MacRae 2006 (distr., biol.).

Distribution: **Canada:** ON, PQ; **USA:** AL, AR, CO, CT, DC, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, NC, NE, NH, NJ, NM, NY, OH, OK, PA, SC, SD, TX, VA, WI, WV

Host(s): larvae in *Aesculus glabra* Willd., *A. pavia* L., *Betula lenta* L., *Carpinus caroliniana* Walt., *Carya* sp., *Fagus sylvatica* L., *Gleditsia triacanthos* L., *Ostrya virginiana* (Mill.) K. Koch, *Quercus prinoides* Willd. and *Q. rubra* L.; adults also on a wide variety of trees.

obtusus Horn 1891b:288.

Type locality: TX, probably near lower Rio Grande – Type depository: MCZC 33816 (♂) (Lectotype designation: Fisher 1928a:39).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:37 (♂), fig. 6 (♂ genitalia); Nelson 1967a:26 (♀).

Ecology: Manley 1977; Nelson, *et al.* 1981 (biol.); Westcott & Hespeneide 2006 (distr.).

Distribution: **USA:** NM, TX; also recorded from Mexico.

Host(s): larvae in *Senna lindheimeriana* (Scheele) Irwin & Barneby; adults also on *S. roemeriana* (Scheele) Irwin & Barneby.

occidentalis Uhler 1855 [syn. of *difficilis*]

- ohioensis** Knull 1951:89, figs. 8, 9 (♂ genitalia).
 Type locality: OH, Delaware Co. – Type depository: FMNH (♂).
 Taxonomy: Knull 1951; MacRae 2003.
 Redescription: Nelson, *et al.* 1996:185 (♀).
 Ecology: Nelson, *et al.* 1981; Nelson & MacRae 1990; Wellso & Jackman 2006 (biol., distr.).
 Distribution: **USA:** GA, MO, NC, OH, WI
 Host(s): larvae in *Carpinus caroliniana* Walt.; adults also on *Ulmus alata* Michx.
- olentangyi** Champlain & Knull 1925:469.
 Type locality: TX – Type depository: MCZC 35041 (♂).
 Taxonomy: Fisher 1928a.
 Redescription: Fisher 1928a:239 (♂, ♀), fig. 59 (♂ genitalia).
 Ecology: Fisher 1928a; Nelson & Westcott 1976; Hespeneide 1979b; Nelson, *et al.* 1981; Nelson 1987a; Westcott, *et al.* 1990 (distr.); MacRae 2006 (biol., distr.).
 Distribution: **USA:** AL, AR, GA, IL, IN, KS, LA, MI, MO, MS, NM, OH, OK, SC, TN, TX
 Host(s): larvae in *Rhus glabra* L.; adults also on *Celtis laevigata* Willd., *C. occidentalis* L., *C. tenuifolia* Nutt. and *Quercus* sp.
- olivaceoniger** Fisher 1928a:124 (♂, ♀).
 Type locality: MA, probably Tyngsboro – Type depository: USNM 40995 (♂).
 Taxonomy: Fisher 1928a.
 Ecology: Fisher 1928a; Hespeneide 1979b (biol., distr.); Nelson, *et al.* 1981 (distr.).
 Distribution: **USA:** CT, FL, MA, MO, NH, NJ, PA, WI
 Host(s): adults on *Betula lenta* L. and *Quercus ilicifolia* Wangenh.
- ometauhtli** Fisher 1938:138.
 Type locality: Mexico: Durango, Durango – Type depository: USNM 51568 (♂).
 synonym: *patagoniensis* Knull 1941d:384, plate 1, fig. 4 (♂ genitalia) – Synonymy: Nelson 1987b:67.
 Type locality: AZ, Patagonia Mtns. – Type depository: FMNH (♂).
 Taxonomy: Nelson 1987b:67.
 Redescription: Knull 1941d:384 (♂, ♀), fig. 4 (♂ genitalia).
 Ecology: Westcott, *et al.* 1990; Westcott & Hespeneide 2006 (distr.).
 Distribution: **USA:** AZ; also recorded from Mexico.
 Host(s): unknown.
- opacus* Kerremans 1897 [syn. of *flohri*]
- ornatulus** Horn 1891b:319, plate 8, fig. 4 (elytra).
 Type locality: SW TX – Type depository: MCZC 2139 (♀) (Lectotype designation: Fisher 1928a:207).
 Taxonomy: Horn 1891b; Fisher 1928a.
 Redescription: Fisher 1928a:205 (♂, ♀), fig. 49 (♂ genitalia).
 Ecology: Fisher 1928a; Vogt 1949b; Nelson & Westcott 1976 (distr.); Manley 1977 (biol.); MacRae 2006 (biol., distr.).
 Distribution: **USA:** KS, TX
 Host(s): larvae in *Sapindus saponaria* L. var *drummondii* (H. & A.) L. Benson and *Forestiera reticulata* Torr.
- osburni** Knull 1937b:38.
 Type locality: OH, Put-in-Bay – Type depository: FMNH (♂).
 Taxonomy: Knull 1937b; MacRae 2003.
 Redescription: Knull 1944a: plate 3, fig. 17 (♂ genitalia); Nelson, *et al.* 1996 (♀).
 Ecology: Hespeneide 1974; Nelson & Westcott 1976 (distr.); MacRae 2006 (biol., distr.).
 Distribution: **USA:** CT, GA, MI, MO, OH
 Host(s): larvae in *Quercus phellos* L.; adults also on *Ostrya virginiana* (Mill.) K. Koch.
- otiosus** Say 1833:68 (*atiosus*, *lapsus calami*).
 Type locality: IN – Type depository: USNM (♂) (original type destroyed; Neotype, from Kanawha WV, Station, designation: Fisher 1928a:84).
 misidentification: *egenus* of authors (in part), not *egenus* Gory 1841.
 synonym: *virens* Gory 1841:259, plate 43, fig. 252 (adult) – Synonymy: Chamberlin 1926:74.
 Type locality: “Amer. Bor.” – Type depository: MNHN.
 Taxonomy: Horn 1891b; Fisher 1928a; MacRae 2003.
 Redescription: Knull 1925: plate 1, fig. 21 (metaleg); Fisher 1928a:83 (♂, ♀) fig. 17 (♂ genitalia).

BUPRESTIDAE: Agrilinae: Agrilini

Ecology: Blackman & Stage 1924; Fisher 1928a; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; MacRae 1990 (biol.); Davies 1991 (distr.); MacRae 1991; Solomon 1995; MacRae 2006 (biol., distr.).

Distribution: **Canada:** MB, ON, PQ; **USA:** AL, AR, CT, DC, GA, IA, IL, IN, KS, KY, MA, MD, MI, MN, MO, MS, NC, NH, NJ, NY, OH, PA, VA, WI, WV; also recorded from Mexico.

Host(s): larvae in *Carya cordiformis* (Wangenh.) Manhattan, *C. laciniosa* (Michx. f.) G. Don, *C. illinoensis* (Wangenh.) K. Koch, *C. ovata* (Mill.) K. Koch, *C. tomentosa* Nutt., *Diospyros virginiana* L., *Juglans cinerea* L., *J. nigra* L. and *Sassafras albidum* (Nutt.) Nees.

palmerlei Knull 1944a:76, plate 1, fig. 3 (♂ genitalia).

Type locality: AZ, Huachuca Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1944a.

Redescription: Nelson 1980a:85 (♀).

Ecology: Knull 1970 (biol.).

Distribution: **USA:** AZ

Host(s): adults on *Quercus hypoleucoides* Camus.

parabductus Knull 1954a:28 (♂, ♀) Figs, 4, 5 (♂ genitalia).

Type locality: TX, Lake Corpus Christi. – Type depository: FMNH (♂).

Taxonomy: Knull 1954a.

Ecology: Nelson & Westcott 1976 (biol.); Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): adults on *Acacia* sp.

paracelti Knull 1972a:113 (♂, ♀), figs. 1, 2 (♂ genitalia).

Type locality: OH, Greene Co., John Bryan State Park – Type depository: FMNH (♂).

misidentification: *celti* of authors (in part), not *celti* Knull 1920.

Taxonomy: Knull 1972a.

Ecology: Hespenheide 1974; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a (distr.); MacRae 1991 (biol.); 2006 (biol., distr.).

Distribution: **USA:** CO, GA, KS, KY, MD, MI, MO, ND, NE, NJ, NY, OH, OK, PA, SD, TN, TX, VA

Host(s): larvae in *Celtis laevigata* Willd., *C. occidentalis* L., *C. tenuifolia* Nutt.; adults also on *Carya* sp., *Celtis l.* var. *reticulata* (Torr.) L. Benson, *Gymnocladus dioica* (L.) K. Koch, *Quercus marilandica* (L.) Muenchh. and *Ulmus rubra* Muhl.

parafloridanus Knull 1929 [syn. of *floridanus*]

paraimpexus Hespenheide 2007:59 (♂, ♀), fig. 2 (♂ genitalia).

Type locality: Arizona: Pima Co., Mt. Lemmon – Type depository: USNM (♂).

Taxonomy: Hespenheide 2007:59.

Ecology (as *impexus*): Fisher 1928a; Nelson, *et al.* 1981 (biol., distr.); Walters & Bellamy 1990 (distr.); Westcott, *et al.* 1990; Nelson, *et al.* 1996 (biol., distr.); Hespenheide 2007 (biol., distr.).

Distribution: **USA:** AZ, CA, NM; also recorded from Mexico and Central America.

Host(s): larvae in *Ditaxis brandegeei* (Millsp.) Rose & Standl. and *Hoffmanseggia jamesii* Torrey & Gray; adults also on *Acacia angustissima* (Mill.) Kuntze, *A. farnesiana* (L.) Willd., *A. greggii* Gray, *Calliandra californica* Benth., *C. humilis* Benth., *Cercidium microphyllum* (Torr.) Rose & Standl., *Inga* sp., *Mimosa albida* Humb. & Bonpl. ex Willd., *M. biuncifera* Benth., *M. dysocarpa* Benth., *M. xantii* Gray, *Olneya tesota* Gray, *Pithecellobium dulce* (Roxb.) Benth. and *Prosopis glandulosa* var. *torreyana* (L. D. Benson) M.C. Johnst. and *P. juliflora* (Sw.) DC.

paramasculinus Champlain & Knull 1923c:274 (♂, ♀).

Type locality: KS, T. B. A. – Type depository: USNM 40007 (♂).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:61 (♂, ♀), fig. 12 (♂ genitalia).

Ecology: Nelson & Westcott 1976 (biol., distr.); Nelson 1987a (distr.).

Distribution: **USA:** IA, KS, MO

Host(s): larvae in *Gymnocladus dioica* (L.) K. Koch.

parapubescens Knull 1934 [syn. of *pubescens*]

parkeri Knull 1935b:189 (♂, ♀).

Type locality: AZ, Chiricahua Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1935b.

Redescription: Knull 1944a: plate 3, fig. 14 (♂ genitalia).

Ecology: Nelson & Westcott 1976 (biol.); Westcott & Hespenheide 2006 (distr.).

Distribution: **USA**: AZ; also recorded from Mexico.

Host(s): larvae in *Quercus arizonica* Sarg., *Q. emoryi* Torr. and *Q. hypoleucoides* Camus.

parputillus Knull 1960 [ssp. of *putillus*]

parvus californicus Westcott & Nelson 2000:308 (♂, ♀).

Type locality: CA, Riverside Co., E. of Hemet, Jct. San Jacinto R. & Hwy. 74 – Type depository: CASC 17818 (♂).

Taxonomy: Westcott & Nelson 2000.

Ecology: Westcott & Nelson 2000 (biol., distr.).

Distribution: **USA**: CA; also recorded from Mexico.

Host(s): adults on *Amorpha fruticosa* L.

parvus parvus Saunders 1870:26 (replacement name for *pusillus* Say 1825).

synonym: *pusillus* Say 1825:252 (preoccupied: *pusillus* Olivier 1790).

Type locality: on the Missouri – Type depository: USNM (♂) (original type destroyed; Neotype, from Kerrville, TX, designation: Fisher 1928a:319).

Taxonomy: Saunders 1871; Horn 1891b; Fisher 1928a; Bright 1987; Westcott & Nelson 2000.

Redescription: Fisher 1928a:318 (♂, ♀), fig. 87 (♂ genitalia).

Ecology: Fisher 1928a (as *pusillus*); Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987 (biol., distr.); Nelson 1987a (all as *pusillus*); Nelson & MacRae 1990; Davies 1991; Nelson, *et al.* 1996; Westcott & Nelson 2000; Westcott 2001b (distr.).

Distribution: **Canada**: MB; **USA**: AL, CO, FL, GA, IA, IL, KS, MI, MN, MO, MS, NC, ND, NE, NH, NJ, NY, OH, OK, PA, SD, TX, WI, WY

Host(s): adults on *Amorpha fruticosa* L.

patagoniensis Knull 1941 [syn. of *ometauhtli*]

pectoralis Waterhouse 1889:85.

Type locality: Mexico: N. Sonora – Type depository: BMNH (Lectotype designation: Hespenheide 1984:306).

synonym: *palmacollis* Horn 1891b:326 – Synonymy: Hespenheide 1984:306.

Type locality: S. AZ – Type depository: MCZC 2245 (♀) (Lectotype designation: Fisher 1928a:274).

misspelling: *palmaticollis* (*lapsus calami*).

Taxonomy: Horn 1891b; Fisher 1928a (as *palmacollis*); Hespenheide 1984.

Redescription: Horn 1891b:326 (♂, ♀); Fisher 1928a:272 (♂, ♀), fig. 70 (♂ genitalia).

Ecology: Fisher 1928a; Vogt 1949b (biol.); Nelson, *et al.* 1981; Westcott, *et al.* 1990; MacRae 2006 (biol., distr.); Westcott & Hespenheide 2006 (distr.).

Distribution: **USA**: AZ, CA, NM, TX; also recorded from Mexico.

Host(s): larvae in *Acacia farnesiana* (L.) Willd., *Ebenopsis ebano* (Berl.) Barneby & Grimes, *Parkinsonia aculeata* L. and *Prosopis glandulosa* Torr.

pensus Horn 1891b:305.

Type locality: MA – Type depository: MCZC 2129 (♂) (Lectotype designation: Fisher 1928a:157).

synonym: *betulae* Fisher 1928a:153 (♂, ♀) – Synonymy: Carlson 1969:2930–B.

Type locality: MD, Plummer Island, near Washington, DC – Type depository: USNM 40998 (♂).

Taxonomy: Horn 1891b; Fisher 1928a; Carlson & Knight 1969; Bright 1987; Davies 1991.

Redescription: Fisher 1928a:155 (♂, ♀); Carlson & Knight 1969: figs. 4c, 8 (♂ genitalia)

Ecology: Carlson & Knight 1969 (biol.); Westcott 1991 (distr.); Solomon 1995; MacRae & Nelson 2003 (biol., distr.).

Distribution: Canada AB, NB, NS, ON, PE, PQ, SK; **USA**: MA, MD, ME, MO, MN, NH, NJ, PA, VA

Host(s): larvae in *Betula nigra* L.; adults also on *Alnus incana* (L.) Moench, *A. viridis* (Chaix) DC. ssp. *crispa* (Ait.) Turrill and *Ostrya virginiana* (Mill.) K. Koch.

pilosicollis Fisher 1928a:111.

Type locality: KS, Garden City – Type depository: USNM 40993 (♀).

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a (distr.).

Distribution: **USA**: KS

Host(s): unknown.

pilosovittatus Saunders 1873:515.

Type locality: Japan (Old World, accidentally introduced into No. Amer.) – Type depository: BMNH

BUPRESTIDAE: Agrilinae: Agrilini

(Lectotype designation: Jendek 1995:138).

synonym: *zemani* Obenberger 1925:34 – Synonymy: Obenberger 1936a:1022.

Type locality: Japan, Kobe – Type depository: NMPC .

Redescription: Hespenheide 1968:77 (♂, ♀), figs. 1, 2 (♂ genitalia).

Ecology: Hespenheide 1968 (biol., distr.); Nelson, *et al.* 1981 (distr.).

Distribution: **USA**: MD, NC, NJ, NY, PA; also recorded from Japan

Host(s): larvae in *Wisteria sinensis* (Sims) DC.

planipennis Fairmaire 1888:12.

Type locality: China: Beijing “Pekin” (Old World, accidentally introduced into No. Amer.). – Type depository: MNHN (♀).

synonym: *marcopoli* Obenberger 1930b:108 – Synonymy: Jendek 1994:21.

Type locality: Mongol. or Chanheou – Type depository: NMPC (♂) (Lectotype designation: Jendek 1994:21).

unavailable name: *molco-poli* Mina & Chûjô 1940:74 (unjustified emendation).

synonym: *feretrius* Obenberger 1936b:37–38 – Synonymy: Jendek 1994:21.

Type locality: Formosa, *teretrius* (sic) – Type depository: NMPC (♀) (Lectotype designation: Jendek 1994:21).

synonym: *ulmi* Kurosawa 1956:40–41 (as subspecies of *marcopoli*) – Synonymy: Jendek 1994:21.

Type locality: JAPAN Sapporo, Hokkaido – Type depository: NSMT (♂).

Taxonomy: Jendek 1944; Alexeev 1998.

Redescription: Kurosawa, *et al.* 1985: plate 5, fig. 2 (*marcopoli* ssp. *ulmi*); Jendek 1994: fig. 9 (*planipennis*, lectotype); Akiyama & Ohmomo 2000: fig. 1773 (*marcopoli* ssp. *ulmi*); Haack, *et al.* 2002: figs. (adult & larval damage) Liu, *et al.* 2003, 1 (distr., USA), 2 (distr., Asia), 3, 4 (parasitoids); McCullough & Katovich, 2004, 1 (adult), 2 (2nd, 3rd, 4th instar larvae), 3, 4 (larval workings).

Ecology: Jendek 1994; Akiyama & Ohmomo 1997; Haack, *et al.* 2002; Liu, *et al.* 2003; Muhle 2003 (distr.); McCullough & Katovich 2004 (biol., distr.).

Distribution: **Canada**: ON; **USA**: IN, MD, MI, OH, VA; also recorded from China, Japan, Mongolia, North & South Korea and the Russian Far East

Host(s): larvae in *Fraxinus americana* L., *F. chinensis* Roxb., *F. mandshurica* Rupr. var. *japonica* Maxim., *F. nigra* Marsh., *F. pennsylvanica* Marsh., *F. rhychophylla* Hance, *Juglans mandshurica* Maxim. var. *sieboldiana* (Maxim.) C.K. Schneid, *J. mandshurica* var. *sachaliensis* (Miyabe et Kudo) Kitamu, *Pterocarya rhoifolia* Sied. ex Zucc. and *Ulmus davidiana* Planch. var. *japonica* (Rehd.) Nakai.

plumbeus LeConte 1860 [syn. of *politus*]

politus (Say) 1825:251 (*Buprestis*).

Type locality: Bank of Mississippi River – Type depository: USNM (♂) (original type destroyed; Neotype, from IL, designation: Fisher 1928a:216).

misidentification: *corylus* of authors (in part), not Horn.

synonym: *plumbeus* LeConte 1860:247 – Synonymy: Horn 1891b:335.

Type locality: Lake Superior – Type depository: MCZC 2136 (Lectotype not designated).

synonym: *cupreolus* LeConte 1860:248 – Synonymy: Horn 1891b:335.

Type locality: KS – Type depository: MCZC 2135 (♀).

synonym: *desertus* LeConte 1860:249 (preoccupied: *desertus* Klug 1829) – Synonymy: Horn 1891b:335.

Type locality: CA, Junction of Colorado & Gila Rivers – Type depository: MCZC 2137 (♀)

misidentification: *niveiventris* of authors, not *niveiventris* Horn 1891.

synonym: *solitarius* Harold 1869:124 (replacement name for *desertus* LeConte 1860).

synonym: *canadensis* Obenberger 1917:181 – Synonymy: Fisher 1928a:214.

Type locality: Canada. Type depository: NMPC 25021.

Immature stages: Bøving & Craighead 1931: plate 80, fig. E (larva).

Taxonomy: Fisher 1928a.

Redescription: Knull 1925: plate 1, fig.9 (♀ antenna; Fisher 1928a:214 (♂, ♀) fig. 52 (♂ genitalia); Barr 1971: plate 8, fig. 7 (adult).

Ecology: Hutchings 1923; Fisher 1928a; Dearborn & Donahue 1933 (biol.); Maser & Beer 1971; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Davies 1991; Solomon 1995 (biol., distr.); Nelson, *et al.* 1996; Westcott & Hespenheide 2006 (distr.).

Distribution: **Canada:** AB, BC, MB, NS NT, ON, PQ, SK, YT; **USA:** AK, AR, AZ, CA, CO, CT, DC, DE, GA, IA, ID, IL, IN, KS, KY, LA, MA, MD, ME, MI, MO, MS, MT, NC, ND, NE, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VA, VT, WA, WI, WV, WY; also recorded from Mexico.

Host(s): larvae in *Acer glabrum* Torr., *A. pennsylvanicum* L., *Salix babylonica* L., *S. lasiolepis* Benth., *S. lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr. and, *S. scouleriana* Hook; adults also on *Picea* sp. and *Thuja occidentalis* L.

populi Fisher 1928 [ssp. of *granulatus*]

prionurus Chevrolat 1838:95.

Type locality: "Mexicum" – Type depository: BMNH.

Taxonomy: Waterhouse 1889:115.

Ecology: Wellso & Jackman 2006:265 (biol., distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): adults and larvae from *Sapindus drummondii* Hook & Arnold.

prosopidis Fisher 1928a:275 (♂, ♀), fig. 71 (♂ genitalia).

Type locality: TX, Brownsville – Type depository: USNM 41009 (♂).

misidentification: *palmacollis* of authors (in part), not *palmacollis* Horn 1891.

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a; Vogt 1949b; Nelson, *et al.* 1981; Nelson 1987a; Westcott, *et al.* 1990; MacRae & Nelson 2003 (biol.); MacRae 2006 (biol., distr.); Westcott & Hespeneheide 2006 (distr.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): larvae in *Celtis ehrenbergiana* (Klot.) Liebm., *C. laevigata* Willd., *Leucaena pulverulenta* (Schlecht.) Benth., *Parkinsonia aculeata* L., *Prosopis glandulosa* Torr. and *Zanthoxylum fagara* (L.) Sarg.; adults also on *Acacia farnesiana* (L.) Willd. and *Ebenopsis ebano* (Berl.) Barneby & Grimes.

pseudocoryli Fisher 1928a:218 (♂, ♀) (as subspecies of *politus*).

Type locality: CT, Lyme – Type depository: USNM 41002 (♂).

misidentification: *coryli* of authors, not *coryli* Horn 1891.

misidentification: *politus* var. *corylus* of authors (in part), not *coryli* Horn 1891.

Taxonomy: Fisher 1928a; Nelson & Hespeneheide 1998.

Ecology: Fisher 1928a; Bright 1987 (biol., distr.); Davies 1991 (distr.); Dearborn & Donahue 1993 (biol.).

Distribution: **Canada:** MB, ON; **USA:** CT, GA, IA, IL, KS, MA, ME, MI, NE, PA, SC, SD, VA, WV

Host(s): larvae in *Corylus americana* Walt. and *C. cornuta* Marsh.; adults also on *Abies* sp.

pseudofallax Frost 1923:279.

Type locality: PA, Allegheny – Type depository: MCZC 32208 (♂).

misidentification: *addendus* of authors, not *addendus* Crotch 1873.

misidentification: *impexus* of authors, not *impexus* Horn 1891.

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:284 (♂, ♀), fig. 75 (♂ genitalia).

Ecology: Fisher 1928a; Knull 1944a; Wellso 1974; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a; Westcott 2001b (distr.); Wellso & Jackman 2006 (biol., distr.).

Distribution: **USA:** AL, AR, GA, IL, IN, LA, MI, MO, MS, OH, OK, PA, TX, WI

Host(s): larvae in *Gleditsia triacanthos* L.; adults also on *Quercus* sp.

pubescens Fisher 1928a:315 (♂, ♀).

Type locality: AZ, Tanque Verde – Type depository: USNM 41015 (♂).

synonym: *parapubescens* Knull 1934b:68 – Synonymy: Barr 2008:35.

Type locality: AZ Wilcox – Type depository: FMNH (♂).

misidentification: *wenzeli* of authors, not *wenzeli* Knull 1924.

Taxonomy: Fisher 1928a; Knull 1934b (*parapubescens*); Barr 2008.

Redescription: Knull 1944a: plate 2, fig. 11 (♂ genitalia); Barr 2008: fig. 3 (adult).

Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976 (biol.); MacRae & Nelson 2003 (distr.).

Distribution: **USA:** AZ, NE, SD, TX

Host(s): larvae in *Acacia greggii* Gray; adults on *Acacia greggii* Gray and *Prosopis glandulosa* Torr.

pubifrons Fisher 1928a:237 (♀).

Type locality: ID, Pocatello – Type depository: USNM 41004 (♀).

BUPRESTIDAE: Agrilinae: Agrilini

Taxonomy: Fisher 1928a.

Redescription: Nelson, *et al.* 1996:185 (♂), fig. 1 (erroneously labeled “*pubiventris*”) (♂ genitalia).

Ecology: Fisher 1928a; Barr 1969a (biol., distr.); Nelson & Westcott 1976 (distr.).

Distribution: **USA:** CA, ID, NV, OR, UT

Host(s): larvae in roots of *Chrysothamnus viscidiflorus* (Hook.) Nutt.; adults also on *Artemisia* sp.,
Chrysothamnus parryi (Gray) Greene and *Grayia spinosa* (Hook.) Moq.

pubiventris Crotch 1873 [syn. of *lacustris*]

puncticeps LeConte 1860:249.

Type locality: S STATES – Type depository: MCZC (♀).

Taxonomy: Fisher 1928a (as ? synonym of *A. juglandis*).

Redescription: Fisher 1928a:96 (♀).

Distribution: **USA:** S. STATES

Host(s): unknown.

pusillus Say 1825 [syn. of *parvus parvus*]

putillus parputillus Knull 1960b:321 (♂, ♀).

Type locality: TX, Brewster Co., Big Bend National Park, Chisos Mtns., Pine Cyn. – Type depository:
USNM (♂).

Taxonomy: Knull 1960b.

Ecology: Knull 1960b (biol., distr.).

Distribution: **USA:** TX

Host(s): larvae in *Acer grandidentatum* Nutt.

putillus putillus Say 1833:67.

Type locality: IN – Type depository: USNM (♂) (original type destroyed; Neotype, from Detroit, MI,
designation: Fisher 1928a:333).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:331 (♂, ♀), fig. 92 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Knull 1960b; Hespenheide 1974 (biol.); Nelson, *et al.* 1981;
Davies 1991 (distr.); Nelson, *et al.* 1996.

Distribution: **Canada:** ON, PQ; **USA:** AL, AR, GA, IL, IN, MA, MI, MO, NJ, NY, OH, OK, PA, VT

Host(s): larvae in *Acer platanoides* L., *A. saccharum* Marsh and *Gleditsia triacanthos* L.

quadriguttatus fulminans Fisher 1928a:148 (♂, ♀), fig. 33 (♂ genitalia) (as species).

Type locality: CA, Placerville – Type locality: USNM 40996 (♂).

Taxonomy: Fisher 1928a; Carlson 1969; Carlson & Knight 1969.

Ecology: Fisher 1928a; Nelson & Westcott 1976 (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** CA, NV, OR

Host(s): adults on *Salix goodingii* Ball, *S. lucida* Muhl. ssp. *lasiandra* Benth. and *S. lasiolepis* Benth.

quadriguttatus niveiventris Horn 1891b:304 (as species).

Type locality: CA, Los Angeles – Type depository: MCZC 2128 (♀) (Lectotype designation: Fisher
1928a:147).

Taxonomy: Fisher 1928a; Carlson 1969; Carlson & Knight 1969.

Redescription: Fisher 1928a:145 (♂, ♀), fig. 32 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.).

Distribution: **USA:** AZ, CA, NV, UT

Host(s): larvae in *Salix lucida* Muhl. ssp. *lasiandra* (Benth.) E. Murr.; adults also on *S. lasiolepis*
Benth.

quadriguttatus quadriguttatus Gory 1841:228, pl.38, fig. 219 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN (♂).

misidentification: *granulatus* of authors (in part), not *granulatus* Say 1823.

Taxonomy: Fisher 1928a; Carlson & Knight 1969.

Redescription: Fisher 1928a:142 (♂, ♀), fig. 31 (♂ genitalia).

Ecology: Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; MacRae 1991; Westcott 1991;
Nelson, *et al.* 1996; Peck & Thomas 1998; Westcott 2001b (distr.); MacRae 2006 (biol., distr.).

Distribution: **USA:** AR, CO, DC, FL, GA, IA, IL, IN, KS, MD, MI, MO, MT, NC, ND, OH, OK, PA,
SC, SD, TX, VA

Host(s): larvae in *Alnus* sp., *Salix nigra* Marsh. and *Salix* sp.; adults also on *Populus nigra* L., *Salix*
exigua Nutt. and *S. interior* Rowlee.

quadriimpressus Ziegler 1845:267.

Type locality: GA – Type depository: MCZC.

misidentification: *acutipennis* of authors (in part), not *acutipennis* Mannerheim 1837.

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:133 (♂, ♀).

Ecology: Fisher 1928a (biol., distr.); Nelson, *et al.* 1981; Nelson & MacRae 1990; MacRae 1991 (biol.); Nelson, *et al.* 1996 (distr.).

Distribution: USA: CT, DC, GA, KY, MA, MI, MO, NY, OH, OK, TN, VA, WV

Host(s): larvae in *Quercus* sp.; adults also on *Carya tomentosa* Nutt., *Quercus stellata* Wangenh. and *Q. velutina* Lam.

quercicola Fisher 1928a:120 (♂, ♀), fig. 28 (♂ genitalia).

Type locality: CO, N. Cheyenne Cyn. – Type depository: USNM 40994 (♂).

misidentification: *acutipennis* of authors (in part), not *acutipennis* Mannerheim 1837.

Taxonomy: Fisher 1928a.

Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976 (distr.).

Distribution: USA: AZ, CO, NM, TX, UT

Host(s): larvae in *Quercus gambelii* Nutt.

quercus Schaeffer 1905b:150.

Type locality: AZ, Huachuca Mtns., Palmerlee – Type depository: USNM 42648 (♂) (Lectotype designation: Nelson 1985a:89).

Taxonomy: Fisher 1928a; Nelson 1985a.

Redescription: Fisher 1928a:270 (♂, ♀), fig. 69 (♂ genitalia); Nelson 1985a (elytra, ♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976 (biol.); Nelson 1987a; Westcott, *et al.* 1990; Westcott & Hespeneide 2006 (distr.).

Distribution: USA: AZ; also recorded from Mexico.

Host(s): adults on *Quercus arizonica* Sarg. and *Q. hypoleuroides* Camus.

restrictus Waterhouse 1889:119, plate 7, figs. 7, 7a (adult, abdominal segment).

Type locality: Mexico: Chihuahua, Pinos Altos – Type depository: BMNH (♂) (Lectotype designation: Nelson 1985b:134).

Taxonomy: Waterhouse 1889; Fisher 1928a.

Redescription: Fisher 1928a:174 (♂, ♀), fig. 40 (♂ genitalia).

Ecology: Waterhouse 1889; Fisher 1928a; Nelson 1965 (biol.); Bellamy 2003b (biol., distr.); Westcott & Hespeneide 2006 (distr.).

Distribution: USA: AZ; also recorded from Mexico.

Host(s): adults on *Quercus emoryi* Torr. and *Rhus virens* Lindenheimer ex Gray var. *choriophylla* (Woot. & Standl.) L. Benson.

rubicola Abiella 1897 [syn. of *cuprescens*]**rubroniger** Hespeneide 1979b:479 (based on descriptions of Fisher 1928a:42 (♂, ♀), fig. 8 (♂ genitalia) (as *cupricollis* Gory).

Type locality: FL – Type depository: USNM (♂).

misidentification: *arcuatus* of authors (in part), not *arcuatus* Say 1825.

misidentification: *cupricollis* Fisher, not *cupricollis* Gory 1841.

Taxonomy: Horn 1891b; Fisher 1928a (as *cupricollis* Gory); Hespeneide 1979b.

Ecology: Fisher 1928a; Wellso 1973; Manley 1977 (as *cupricollis* Gory); Hespeneide 1979b (biol., distr.); Westcott 2007b (biol.).

Distribution: USA: AL, FL, GA, MO, SC, TX

Host(s): adults on huckleberry, other low shrubs, *Quercus laevis* Walt. and *Q. laurifolia* Michx.

ruficollis (Fabricius) 1787:184 (*Buprestis*).

Type locality: Amer. – Type depository: GUHC (Lectotype not designated).

synonym: *cupricollis* Gory 1841:240, plate 40, fig. 232 (adult) – Synonymy: Hespeneide 1979b:479.

Type locality: FL – Type depository: MNHN (♂).

synonym: *impressiceps* Pic 1918:2 – Synonymy: Jendek 2001:174.

Type locality: GERMANY Allemagne – Type depository: MNHN (Lectotype designation: Jendek 2001:174).

Taxonomy: Fisher 1928a; Hespeneide 1979b.

Redescription: Fisher 1928a:31 (♂, ♀), fig. 4 (♂ genitalia).

BUPRESTIDAE: Agrilinae: Agrilini

Ecology: Hutchings 1923 (biol.); Fisher 1928a (as *cupricollis* Gory); Wellso 1974; Nelson, *et al.* 1981; Bright 1987; Davies 1991 (distr.); Solomon 1995 (biol., distr.).

Distribution: **Canada:** MB, ON, PQ; **USA:** AL, AR, CA, CT, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, ME, MI, MN, MO, MS, NC, NE, NH, NJ, NY, OH, OK, PA, RI, SC, TN, TX, VA, VT, WI, WV; also recorded from Germany

Host(s): larvae in domestic and wild *Rubus* spp.

salviaphilos Manley 1979:327 (♂, ♀), figs. 1, 2 (♂ genitalia, adult ♂).

Type locality: TX, Frio Co., 3 mi S Moore – Type depository: USNM (♂).

Taxonomy: Manley 1979.

Ecology: Manley 1979 (biol., distr.).

Distribution: **USA:** TX

Host(s): adults on *Salvia ballotiflora* Benth.

santaritae Knull 1937 [syn. of *latifrons*]

sapindi Knull 1938c:139, plate 1, fig. 4 (♂ genitalia).

Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1938c.

Redescription: Nelson & Westcott 1976:283 (♀).

Ecology: Nelson & Westcott 1976 (biol., distr.); Nelson, *et al.* 1981 (distr.).

Distribution: **USA:** KS, NM, TX

Host(s): adults on *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson.

sapindicola Vogt 1949 [syn. of *taeniatus*]

sayi Saunders 1870:19 (replacement name for *lateralis* Say 1823).

synonym: *lateralis* (Say) 1823:160 (*Buprestis*) (preoccupied: *lateralis* Oliver 1790).

Type locality: MO – Type depository: USNM (♂) (original type destroyed; Neotype, from CT, Lyme designation: Fisher 1928a:36).

synonym: *browni* Carlson & Knight 1969:5 (unjustified new name, based on neotype of *lateralis*).

Taxonomy: Fisher 1928a (as *lateralis*); Carlson & Knight 1969 (as *browni*); Bright 1981; 1987.

Redescription: Fisher 1928a:34 (♂, ♀) (as *lateralis*); Bright 1987:233.

Ecology: Fisher 1928a (as *lateralis*); Nelson, *et al.* 1981 (as *browni*); Bright 1987; Davies 1991; Solomon 1995 (biol., distr.); Wellso & Jackman 2006 (distr.).

Distribution: **Canada:** NB, NS, ON, PQ; **USA:** CT, FL, IL, MA, ME, MI, MO, NH, NJ, NY, PA, RI

Host(s): larvae in living stems of *Myrica carolinensis* (Mill.) Small.; adults also on *Comptonia peregrina* (L.) Coult.

scitulus Horn 1891b:318.

Type locality: TX, probably Waco – Type depository: MCZC 33824 (♂).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:196 (♂, ♀), fig. 46 (♂ genitalia).

Ecology: Fisher 1928a; Nelson & Westcott 1976; Manley 1977 (biol., distr.); Nelson, *et al.* 1981 (distr.).

Distribution: **USA:** KS, OK, TX

Host(s): larvae in *Sapindus saponaria* L. var. *drummondii* (H. & A.) L. Benson.

shoemakeri Knull 1938a:99.

Type locality: AZ, Santa Cruz Co., Nogales – Type depository: FMNH (♂).

Taxonomy: Knull 1938a.

Redescription: Knull 1944a: plate 3, fig. 21 (♂ genitalia); Nelson 1965:40 (♀).

Ecology: Westcott, *et al.* 1990 (distr.).

Distribution: **USA:** AZ; also recorded from Mexico.

Host(s): unknown.

sierrae Van Dyke 1923:40 (♂, ♀).

Type locality: CA, Mariposa Co. – Type depository: CASC 3322 (♂).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:253 (♂)

Distribution: **USA:** CA

Host(s): unknown.

sinuatus (Olivier) 1790:74 (*Buprestis*), plate 10, fig. 111.

Type locality: France, Provence (Old World, accidentally introduced into No. Amer.) – Type depository: MNHN, BMNH (Lectotype not designated).

misidentification: *acutipennis* of authors, not *acutipennis* Mannerheim 1837.

misidentification: *anxius* of authors, not *anxius* Gory 1841.

synonym: *chryseis* Curtis 1825: No. 67, plate 67 (adult) – Synonymy: Obenberger 1936a:1047.

Type locality: (England), Hampshire, between Brockenhurst & Bottomsley – Type depository: unknown.

Taxonomy: Fisher 1928a.

Redescription: Knull 1925: plate 1, fig. 23 (prosternal lobe); Fisher 1928a:221 (♂, ♀), fig. 53 (♂ genitalia).

Ecology: Mutchler & Weiss 1922 (biol.); Fisher 1928a; Solomon 1995; Bílý 2002 (biol., distr.).

Distribution: **USA**: CT, NJ, NY; also widely recorded from Palaearctic region.

Host(s): larvae in *Pyrus communis* L. and *Crataegus* sp.

snowi Fall 1905b:270.

Type locality: AZ, “Bill Williams Fork” – Type depository: SEMC (♂).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:180 (♂, ♀); Knull 1944a: plate 1, fig. 1 (♂ genitalia).

Ecology: Fisher 1928a (distr.); Knull 1944a (biol.).

Distribution: **USA**: AZ

Host(s): adults on *Cercidium floridum* Gray and *C. microphyllum* (Torr.) Rose & Johnston.

solitarius Harold 1869 [syn. of *politus*]

strigicollis Fall 1912 [syn. of *arizonicus*]

subcinctus Gory 1841:252, plate 42, fig. 245 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN.

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:300 (♂, ♀), fig. 81 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Knull 1932 (biol.); Hespenheide 1974; Nelson and Westcott 1976; Wellso, *et al.* 1976; Bright 1987; Nelson 1987a; Davies 1991; Nelson, *et al.* 1996 (distr.).

Distribution: **Canada**: ON; **USA**: AR, DC, DE, FL, GA, IL, IN, KS, LA, MI, MO, NC, NE, NJ, NM, NY, OH, OK, PA, TX, VA

Host(s): larvae in *Fraxinus pennsylvanica* Marsh.; adults also on *Carya* sp., *Fraxinus americana* L., *Gymnocladus dioica* (L.) K. Koch, *Ligustrum* spp. and *Toxicodendron pubescens* Mill.

subfasciatus LeConte 1860 [syn. of *lecontei lecontei*]

subrobustus Saunders 1873:516.

Type locality: Nagasaki – Type depository: BMNH (lectotype designated: Jendek 1995:139).

Taxonomy: Jendek 1995:139; Akiyama & Ohmomo 1997:40; Jendek 2006:402 (five Asian synonyms listed).

Redescription: Jendek 1995:139; Akiyama & Ohmomo 2000: fig. 1789–1, 1789–2.

Ecology: Westcott 2007a (biol., distr.).

Distribution: **USA**: GA; also recorded from China, Japan, North Korea, South Korea

Host(s): *Albizia julibrissin* Durazzini; on oaks.

subtropicus Schaeffer 1905a:131.

Type locality: TX, Brownsville, Esperanza Ranch – Type depository: USNM 42656 (♂) (Lectotype designation: Bellamy & Nelson 1990:291).

Taxonomy: Schaeffer 1905a; Fisher 1928a.

Redescription: Fisher 1928a:22 (♂, ♀), fig. 2 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Knull 1937b (biol.); Westcott, *et al.* 1990; Westcott & Hespenheide 2006 (distr.).

Distribution: **USA**: TX; also recorded from Mexico.

Host(s): adults on *Celtis ehrenbergiana* (Klot.) Liebm. and *Diospyros texana* Scheele.

sulcaticeps Abeille de Perrin 1869 [syn. of *cyanescens*]

taeniatus Chevrolat 1835: No. 140.

Type locality: Mexique, Alvarado – Type depository: BMNH (♂).

synonym: *sapindicola* Vogt 1949a:50 (♂, ♀), fig. 8 (♂ genitalia) – Synonymy: Hespenheide 1979a:109.

Type locality: TX, SW Hidalgo Co., 1 mi S Granjeno – Type depository: USNM (♂).

Taxonomy: Waterhouse 1889; Vogt 1949a (as *sapindicola*); Hespenheide 1979a.

BUPRESTIDAE: Agrilinae: Agrilini

Redescription: Vogt 1949a:50 (♂, ♀), fig. 8 (♂ genitalia as *sapindicola*).

Ecology: Vogt 1949a; 1949b (distr. & biol. as *sapindicola*).

Distribution: USA: TX; also recorded from Mexico.

Host(s): adults on *Sapindus saponaria* L. var *drummondii* (H. & A.) L. Benson.

tarahumarae Cazier 1951 [syn. of *fisherellus*]

texanus Crotch 1873 [syn. of *cavatus*]

teuqualoi Fisher 1938 [syn. of *cercidii*]

torpidus LeConte 1860 [syn. of *anxius*]

torquatus LeConte 1860:243.

Type locality: KY – Type depository: MCZC 2123 (♂) (Type, No. 1 in *arcuatus* series according to Fisher 1928a:70).

Taxonomy: Fisher 1928a; Nelson & Hespenheide 1998.

Redescription: Ruggles 1918: plate 1, fig. 2 (adult); Fisher 1928a:69 (♂, ♀).

Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; Nelson & MacRae 1990 (distr.); MacRae 1991; Solomon 1995 (biol.).

Distribution: USA: CT, IL, IN, KY, MA, MD, MI, MO, MS, NY, OK, PA, RI, VA, WV

Host(s): larvae in *Carya illinoensis* (Wangenh.) K. Koch. and *C. ovata* (Mill.) K. Koch.; adults also on *Ostrya virginiana* (Mill.) K. Koch.

townsendi Fall 1907:234.

Type locality: NM, White Mtns., Rio Ruidoso, about 6500' – Type depository: MCZC 24451 (♀).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:48 (♂, ♀); Knull 1944a: plate 1, fig. 4 (♂ genitalia).

Ecology: Fisher 1928a; Cazier 1951b (distr.); Nelson & Westcott 1976 (biol.); MacRae 2006 (biol., distr.).

Distribution: USA: AZ, NM; also recorded from Mexico.

Host(s): adults on *Quercus arizonica* Sarg., *Q. emoryi* Torr., *Q. gambelii* Nutt. and *Q. hypoleucoides* Camus.

toxotes Obenberger 1935b:137.

Type locality: Mexico – Type depository: NMPC 24556 (♀).

Taxonomy: Nelson 1987b.

Redescription: Nelson 1987b:69 (♂, ♀), figs. 4–6 (elytra & ♂ genitalia).

Ecology: Nelson 1987b (biol., distr.).

Distribution: USA: TX; also recorded from Mexico.

Host(s): adults on *Malpighia glabra* L.

transimpressus Fall 1925:181.

Type locality: AR. Hope – Type depository: MCZC 24452 (♂).

Taxonomy: Fisher 1928a; MacRae 2003.

Redescription: Fisher 1928a:88 (♂, ♀), fig. 19 (♂ genitalia).

Ecology: Fisher 1928a (biol., distr.); Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson & MacRae 1990 (distr.).

Distribution: USA: AR, IN, KS, MD, MI, MN, MO, MS, NC, NJ, OH, SC, TN, VA, WV

Host(s): larvae in *Juglans nigra* L.; adults also on *Carya* sp.

trichocarpae Chamberlin 1929 [syn. of *granulatus populi*]

turnbowi Nelson 1990:374 (♂, ♀), fig. 1 (♂ genitalia).

Type locality: TX, Bexar Co., San Antonio, Ft. Sam Houston – Type depository: USNM (♂).

Taxonomy: Nelson 1990.

Ecology: Nelson 1990 (biol., distr.).

Distribution: USA: TX

Host(s): larvae in *Phoradendron tomentosum* (DC.) Engelm. ex Gray.

ulmi Kurosawa 1956 [syn. of *planipennis*]

ventralis Horn 1891b:320, plate 8, figs. 21, 22 (abdomen).

Type locality: NM – Type depository: MCZC 33825.

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:188; Knull 1944a: plate 3, fig. 15 (♂ genit).

Ecology: Nelson & Westcott 1976 (biol., distr.); Hespenheide 1979b; MacRae & Nelson 2003; Wellso & Jackman 2006 (distr.); Walters & Bellamy 1990 (biol.).

Distribution: **USA:** AZ, CA, NE, NM, NV, TX, UT

Host(s): adults on *Acacia greggii* Gray, *Encelia actoni* Elmer, *Prosopis glandulosa* Torr. and *Salix* sp.

virens Gory 1841 [syn. of *otiosus*]

virens Schilski 1888 [syn. of *cyanescens*]

viridescens Knull 1935a:97 (♂, ♀).

Type locality: TX, Brownsville – Type depository: FMNH (♂).

Taxonomy: Knull 1935a.

Redescription: Knull 1944a: plate 3, fig.18 (♂ genitalia).

Ecology: Westcott, *et al.* 1990; Westcott & Hespeneide 2006 (distr.); Nelson, *et al.* 1981 (biol.).

Distribution: **USA:** TX; also recorded from Mexico.

Host(s): larvae in *Prosopis glandulosa* Torr.

vittaticollis (Randall) 1838:38 (*Buprestis*).

Type locality: MA Cambridge – Type depository: type lost.

synonym: *frenatus* Gory 1841:239, plate 40, fig. 231 (adult) – Synonymy: LeConte 1863a:43.

Type locality: “Amer. Bor.” – Type depository: MNHN (Lectotype not designated).

Taxonomy: Horn 1891b; Fisher 1928a.

Redescription: Fisher 1928a:104 (♂, ♀), fig. 24 (♂ genitalia).

Ecology: Mutchler & Weiss 1922 (biol.); Fisher 1928a; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Davies 1991; Solomon 1995; Westcott 2001b (distr.); Wellso & Jackman 2006 (biol., distr.).

Distribution: **Canada:** BC, ON, PQ; **USA:** AL, CA, CT, DE, FL, GA, IA, ID, IL, MA, MD, ME, MI, MO, MS, MT, NC, ND, NH, NJ, NV, NY, OK, OR, PA, RI, SC, TX, UT, VA, WA, WI, WV

Host(s): larvae in *Amelanchier canadensis* (L.) Medik., *Crataegus* sp., *Malus* spp. and *Pyrus* spp.; adults also on *Amelanchier arborea* (Michx. f.) Fern.

walsinghamsi Crotch 1873:95.

Type locality: OR, CA – Type depository: MCZC, ANSP (Type series contains both ♂ & ♀, lectotype not designated).

Taxonomy: Fisher 1928a.

Redescription: Fisher 1928a:176 (♂, ♀), fig. 39 (♂ genitalia); Barr 1971: plate 8, fig. 6 (adult).

Ecology: Fisher 1928a; Barr 1971 (biol.); Nelson & MacRae 1990; Davies 1991 (distr.).

Distribution: **Canada:** BC; **USA:** AZ, CA, CO, ID, NM, NV, OR, UT, WA

Host(s): adults on *Chrysothamnus nauseosus* (Pall.) Britt. and *Salix* sp.

waltersi Nelson 1985a:89 (♂, ♀), figs. 1, 3 (elytra, ♂ genitalia).

Type locality: AZ, Santa Cruz Co., Peña Blanca Campground – Type depository: USNM (♂).

Taxonomy: Nelson 1985a.

Ecology: Nelson 1985a (biol.).

Distribution: **USA:** AZ

Host(s): adults on *Quercus arizonica* Sarg. and *Q. emoryi* Torr.

wenzeli Knull 1934d:333 (♂, ♀).

Type locality: AZ, Huachuca Mtns. – Type depository: FMNH (♂).

Taxonomy: Knull 1934d.

Redescription: Knull 1944a: plate 2, fig. 8 (♂ genitalia).

Distribution: **USA:** AZ

Host(s): unknown.

zamani Obenberger 1925 [syn. of *pilosovittatus*]

zemes Gory 1841 [syn. of *fallax*]

subgenus *Agrilus* (*Engyaulus*) Waterhouse 1889

Engyaulus Waterhouse 1889:50.

Type species: *Agrilus pulchellus* Bland 1865 (fixed by subsequent designation: Chamberlin 1926:200).

Taxonomy: Horn 1891b; Nelson & Westcott 1991; Bellamy 1995b; Bellamy & Nelson 2002.

Key(s): Nelson & Westcott 1991.

chalcogaster Van Dyke 1946 [ssp. of *inhabilis*]

cuprinus Nelson 1991 [ssp. of *inhabilis*]

BUPRESTIDAE: Agrilinae: Agrilini, Aphanisticini, Trachyini

- hespenheidei** Nelson *in* Nelson & Westcott 1991:133 (♀), figs. 10, 16, 20, 23 (lateral adult, ovipositor, ♂ genitalia, distr. map).
Type locality: NM, Eddy Co., 31° 19.4' N, 103° 44.4' W (site 8) – Type depository: USNM (♂).
Taxonomy: Nelson & Westcott 1991.
Ecology: Nelson & Westcott 1991 (distr. & biol.); MacRae & Nelson 2003 (biol.).
Distribution: USA: NM, TX
Host(s): adults on *Andropogon hallii* Hack., *Prosopis glandulosa* Torr. and *Quercus havardii* Rydb.
- inhabilis chalcogaster** Van Dyke 1946:83 (as species, erroneously described as ♀).
Type locality: CA, San Bernardino Co., Cajon Pass – Type depository: CASC 5512 (♂).
Taxonomy: Nelson 1968a; Nelson & Westcott 1991; Bellamy 1995b.
Redescription: Nelson & Westcott 1991:138 (♂, ♀), figs. 11, 21, 24 (lateral adult, ♂ genitalia, distr. map).
Ecology: Nelson & Westcott 1991 (biol., distr.); Nelson 1962; Walters 1975; 1978 (as *inhabilis*) (biol.).
Distribution: USA: CA
Host(s): adults on *Baccharis sergiloides* Gray, *Gutierrezia californica* (DC.) T. & G., *Hymenoclea salsola* Gray, *Senna armata* (S.Wats.) Irwin & Barneby and *Thamnosma montana* Torr. & Frem.
- inhabilis cuprinus** Nelson *in* Nelson & Westcott 1991:140, figs. 12, 22, 24 (lateral adult, ♂ genitalia, distr. map).
Type locality: CA, Inyo Co., Antelope Spring, 7 mi E Westgard Pass – Type depository: USNM (♂).
Taxonomy: Nelson & Westcott 1991; Bellamy 1995b.
Ecology: Nelson & Westcott 1991 (biol., distr.).
Distribution: USA: CA
Host(s): adults on *Chrysothamnus nauseosus* (Pall.) Britt. and *Gutierrezia* sp.
- inhabilis inhabilis** Kerremans 1900:341 (replacement name for *ineptus* Horn 1894).
synonym: *ineptus* Horn 1894:378 (preoccupied: *ineptus* Kerremans 1892).
Type locality: Mexico: Baja CA, Coral de Piedra, Sierra El Taste & Pescadero – Type depository: CASC 29 (♀).
Taxonomy: Fisher 1928a; Nelson 1968a; Nelson & Westcott 1991; Bellamy 1995b.
Redescription: Fisher 1928a:179 (♀); Nelson & Westcott 1991:136 (♂, ♀) figs. 13, 24 (antennae, Distr map).
Ecology: Nelson & Westcott 1991 (biol., distr.).
Distribution: Not in USA; also recorded from Mexico.
Host(s): adults swept from grasses, forbs and *Hymenoclea monogyra* Gray.
- martini* Obenberger 1943 [syn. of *pulchellus*]
pinalicus Wickham 1903 [syn. of *pulchellus*]
pulchellus Bland 1865:382.
Type locality: Colorado Territory – Type depository: ANSP 3294 (♀).
synonym: *martini* Obenberger 1943:86 (as variety of *pulchellus*) – Synonymy: Nelson & Westcott 1991:130.
Type locality: TX, Austin – Type depository: NMPC.
synonym: *pinalicus* Wickham 1903:69 – Synonymy: Fisher 1928a:101.
Type locality: NM, E. side Organ Mtns., Parkers Well – Type depository: USNM 51937 (♀).
Taxonomy: Horn 1891b; Fisher 1928a; Nelson & Westcott 1991; Bellamy 1995b.
Redescription: Good 1925: plate 11, fig. 39 (ala); Fisher 1928a:101 (♂, ♀), fig. 23 (♂ genitalia); Nelson & Westcott 1991.
Ecology: Fisher 1928a; Nelson & Westcott 1976; 1991 (biol., distr.); Westcott 2001 (distr.); Wellso 1974 (biol.); Westcott 2007b (distr.).
Distribution: USA: AZ, CO, ND, NM, OK, SD, TX, UT; also recorded from Mexico.
Host(s): larvae in roots of *Erigeron* sp.; adults also on *Allionia incarnata* L., *Boerhavia* sp., *Celtis ehrenbergiana* (Klot.) Liebm., *Chrysothamnus nauseosus* (Pall.) Britt., *Quercus arizonica* Sarg. and *Sphaeralcea* sp.
- rubrovittatus* Dugès 1891 [syn. of *rubrovittatus*]
rubrovittatus Waterhouse 1889:50.

Type locality: Mexico: Guanajuato – Type depository: BMNH (♀)
 synonym: *rubrovittatus* Dugès 1891:28 – Synonymy: Nelson & Westcott 1991:128.

Type locality: Mexico: Guanajuato, Tupataro – Type depository: type lost.
 Taxonomy: Waterhouse 1889; Nelson & Westcott 1981; Bellamy 1995b.
 Ecology: Nelson & Westcott 1976 (biol., distr.); Nelson, *et al.* 1981 (distr.).
 Distribution: **USA**: AZ, TX; also recorded from Mexico.
 Host(s): adults on *Muhlenbergia longiligula* Hitchc.

utahensis Westcott *in* Nelson & Westcott 1991:123 (♂, ♀).

Type locality: UT, Emery Co., 4800', Dugout Spring, 2.5 air mi NE Big Flat Top – Type depository: USNM (♂).
 Taxonomy: Nelson & Westcott 1991; Bellamy 1995b.
 Ecology: Nelson & Westcott 1991 (biol., distr.).
 Distribution: **USA**: AZ, UT
 Host(s): unknown.

Tribe Aphanisticini Jacquelin du Val 1863

Aphanisticites Jacquelin du Val 1863:104.

Type genus: *Aphanisticus* Latreille 1829.

Classification: Bellamy 1985; Holyński 1993; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Holyński 1993:33 (subtribes); Bellamy & Nelson 2002:105.

Genus *Aphanisticus* Latreille 1829

Aphanisticus Latreille 1829:448.

Type species: *Aphanisticus pusillus* Gyllenhal 1808 (= *Buprestis pusilla* Olivier 1790) (fixed by subsequent designation: Westwood 1838:25).

Goniophthalma Chevrolat 1837:106.

Type species: *Goniophthalma mitrata* Chevrolat (fixed by monotypy).

Taxonomy: Bellamy & Nelson 2002; Bellamy 2003a.

cochinchinae seminulum Obenberger 1929:111.

Type locality: Singapore (Old World, accidentally introduced into No. Amer.) – Type depository: NMPC (♀) (Lectotype not designated).

Redescription: Wellso & Jackman 1995, fig. 1 (adult).

Ecology: Wellso & Jackman 1995 (distr.); Peck & Thomas 1998; MacRae & Nelson 2003 (biol., distr.); Bellamy 2007 (biol., distr.).

Distribution: **USA**: FL, TX; also recorded from Central America, Fiji, Hawai'i and Southeast Asia.

Host(s): larvae in *Saccharum officinarum* L. and *Tripsacum dactyloides* (L.) L.; adults also on “grass” and *Paspalum lividum* Trin.

Tribe Trachyini Laporte 1835

“Trachisites, Trachisidae” (sic) Laporte 1835:166.

Type genus: *Trachys* Fabricius 1801.

Scutellatae Section 9 Schönherr 1817.

Trachysites Gory & Laporte 1839 (part).

Phytoteradae Gistel 1856 (part).

Type genus: *Phytodera* Gistel 1856.

Trachydes Lacordaire 1857 (part).

Aphanisticites Jacquelin du Val 1863 (part).

Trachytes Jacquelin du Val 1863 (part).

Braches LeConte 1861 (part).

Trachiina C. G. Thomson 1864 (part).

Agrilini Schioedte 1865 (part).

Trachynini Kraatz 1869 (part).

Trachinini Oliveira 1884 (part).

Aphanisticinae E. Perrier 1893 (part)

Trachyni Kerremans 1893 (part).

BUPRESTIDAE: Agrilinae: Trachyini

Aphanisticii Acloque 1896 (part).

Trachites Kerremans 1903 (part).

Trachydini Reitter 1911 (part).

Aphanisticini Reitter 1911 (part).

Trachina Jakobson 1913 (part).

Trachinae Fleischer 1930 (part).

Trachyderinae Portevin 1931 (part).

Trachydinae Portevin 1931 (part).

Pachyschelinae Bøving & Craighead 1931 (part).

Classification: LeConte 1861; LeConte & Horn 1883; Kerremans 1893; 1903; Arnett 1962; Cobos 1979a; Nelson 1982; Bellamy 1985; Hołyński 1993; Kolibác 2001; Bellamy & Nelson 2002; Bellamy 2002b; 2003a.

Key(s): Arnett 1962:485 (genera); Cobos 1979a:416 (tribes & genera); Hołyński 1993 (subtribes); Bílý 1999a (European genera); Bellamy & Nelson 2002:105 (subtribes & genera).

Subtribe Trachyina Gory & Laporte 1839

Trachydina: Hołyński 1993:15.

Classification: Bellamy 2003a:95.

Genus *Trachys* Fabricius 1801

Trachys Fabricius 1801:218.

Type species: *Buprestis minuta* Linnaeus 1758 (fixed by subsequent designation: Westwood 1838:25).

Phytotera Gistel 1856:366 – Synonymy: Obenberger 1937:1354.

Type species: *Buprestis minuta* Linnaeus 1758 (fixed by subsequent designation: Bellamy 2003a:11).

Taxonomy: Bellamy & Nelson 2002; Bellamy 2003a.

troglodytiformis Obenberger 1918:54, 66 (as variety of *pygmaea*).

Type locality: “Südtalien, Frankreich; Algier: Oran” (Old World, accidentally introduced into No. Amer.) – Type depository: NMPC.

synonym: *pygmaea* (Fabricius) 1787:183 (*Buprestis*) (preoccupied: *pygmaea* (DeGeer 1774)).

Type locality: “Barbariae” – Type depository: unknown.

synonym: *coruscus* (Ponza) 1805:53 (*Buprestis*) – Synonymy: Kubáň 2006:421.

Type locality: “Salutiensia” (Old World) – Type depository: unknown.

synonym: *fabricii* Schaefer 1949:472 (replacement name for *pygmaea* (Fabricius 1787)) – Synonymy: Cobos 1986:320.

Immature stages: Weiss 1954 (life cycle as *pygmaea*).

Taxonomy: Kubáň 2006:421.

Redescription: Downie & Arnett 1996:774 (as *pygmaea*); Akiyama & Ohmomo 2000: fig. 1871.

Ecology: Linsley 1948; Weiss 1954 (biol., distr., as *pygmaea*).

Distribution: USA: NJ; also recorded from the Palearctic region.

Host(s): larvae in *Althaea rosea* L. and other Malvaceae (Europe).

Subtribe Brachyina Cobos 1979

Brachyina Cobos 1979a:424.

Type genus: *Brachys* Dejean 1833.

Trachysites Gory & Laporte 1839 (part).

Braches LeConte 1861 (part).

Trachyni Kerremans 1893 (part).

Trachites Kerremans 1903 (part).

Pachyschelinae Bøving & Craighead 1931 (part).

Agrilini Arnett 1962 (part).

Brachyini Cobos 1979a.

Classification Cobos 1979a; Nelson 1982; Bellamy 1985; Hołyński 1993; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Cobos 1979a:417; Bellamy & Nelson 2002:105 (genera).

Genus *Brachys* Dejean 1833*Brachys* Dejean 1833:83.Type species: *Trachys tessellata* Fabricius 1801 (fixed by monotypy).Immature stages: Nicolay & Weiss 1923:61 (eggs, larvae), parasitoid *Closterocerus cinctipennis* Ash.

Taxonomy: Nicolay & Weiss 1923 (revision).

Redescription: Nicolay & Weiss 1923:59; Bright 1987:304.

Ecology: Nicolay & Weiss 1923:60.

Key(s): Nicolay & Weiss 1923:61 (No. Amer. N of Mex.); Wellso, *et al.* 1976:20 (MI); MacRae 1991:122 (MO).**aerosus** (Melsheimer) 1845:148 (*Trachys*).

Type locality: PA – Type depository: MCZC (Lectotype not designated).

synonym: *rufescens* Nicolay & Weiss 1923:72 (as variety of *aerosus*).

Type locality: IA, Iowa City – Type depository: USNM.

misidentification: *tesselatus* of authors, not *tesselatus* Fabricius 1801.

Immature stages: Burke 1917a: plate 6, fig. 3 (larva); Weiss & Nicolay 1919 (egg, larva).

Taxonomy: Nicolay & Weiss 1923.

Redescription: Nicolay & Weiss 1923:71, plate 11, fig. 7 (adult); Barr 1971: plate 8, fig. 8 (adult).

Ecology: Nicolay & Weiss 1923; Nelson & Westcott 1976; Nelson, *et al.* 1981; Bright 1987 (biol., distr.); Nelson, *et al.* 1996; Nelson & MacRae 1990; Davies 1991; MacRae 1991; Dearborn & Donahue 1993 (biol.); Peck & Thomas 1998; MacRae & Nelson 2003 (distr.); Westcott 2005.Distribution: **Canada:** AB, BC, MB, NB, ON, PQ, SK; **USA:** AL, AR, AZ, CT, FL, GA, IA, IL, IN, MA, MD, ME, MI, MO, MT, NC, ND, NH, NJ, NY, OH, OK, PA, RI, SC, SD, TX, VA, VT, WA, WI, WVHost(s): larvae in *Quercus rubra* L. var. *ambigua* (Gray) Fern; adults also on *Acer* sp., *Castanea pumila* (L.) Mill., *Corylus cornuta* Marsh., *C. columbiana* Howell *Crataegus punctata* Jacq., *Pinus banksiana* Lamb., *Populus tremuloides* Michx., *Quercus alba* L., *Q. gambelii* Nutt., *Q. imbricaria* Michx., *Q. macrocarpa* Michx., *Q. rubra* L., *Q. stellata* Wangenh., *Q. velutina* Lam., *Ulmus alata* Michx., *U. americana* L. and *U. rubra* Muhl.**aeruginosus** Gory 1841:335, plate 56, fig. 329 (adult).

Type locality: “Amer. Bor.” – Type depository: MNHN.

Taxonomy: Nicolay & Weiss 1923.

Redescription: Nicolay & Weiss 1923:73, plate 11, fig. 8 (adult).

Ecology: Nicolay & Weiss 1923; Nelson & Westcott 1976; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Davies 1991; MacRae 1991 (biol.); Peck & Thomas 1998 (distr.); MacRae 2006 (biol., distr.).

Distribution: **Canada:** ON, PQ; **USA:** AL, CT, DE, FL, GA, IA, IN, KS, MA, ME, MI, MO, NC, NH, NJ, NY, OK, SC, SD, TN, VA, WVHost(s): adults on *Carya* sp., *Quercus alba* L., *Q. falcata* Michx., *Q. marilandica* (L.) Muenchh., *Q. stellata* Wangenh., *Q. velutina* Lam. and *Sassafras albidum* (Nutt.) Nees.**apachei** Knull 1952c:359.

Type locality: AZ, Chiricahua Mtns. – Type depository: FMNH (♀).

Taxonomy: Knull 1952c.

Redescription: Nelson 1980a:86 (♂), fig. 2 (♂ genitalia).

Ecology: Knull 1952c (biol.); Westcott & Hespeneheide 2006 (distr.).

Distribution: **USA:** AZ; also recorded from Mexico.Host(s): adults on *Quercus hypoleucooides* Camus.*aurulenta* (Kirby 1837) [syn. of *ovatus*]**barberi** Fisher 1924:12 (♂, ♀).

Type locality: AZ, Williams – Type depository: USNM 26778 (♂).

Taxonomy: Fisher 1924.

Ecology: Fisher 1924 (distr.).

Distribution: **USA:** AZ, NM, TXHost(s): adults on *Quercus gambelii* Nutt.*bellporti* Nicolay & Weiss 1923 [syn. of *ovatus*]*blatchleyi* Nicolay & Weiss 1923 [syn. of *floricola*]

BUPRESTIDAE: Agrilinae: Trachyini

cephalicus Schaeffer 1909:377.

Type locality: AZ, Huachuca Mtns. – Type depository: USNM 42651 (♀).

Taxonomy: Nicolay & Weiss 1923.

Redescription: Nicolay & Weiss 1923: plate 11, fig. 2 (adult); Nelson 1980a: fig. 3 (♂ genitalia).

Ecology: Walters & Bellamy 1982 (biol.); Westcott & Hespenheide 2006 (distr.).

Distribution: USA: AZ; also recorded from Mexico.

Host(s): adults on *Quercus arizonicus* Sarg., *Q. emoryi* Torr., *Q. gambelii* Nutt. and *Q. hypoleuroides* Camus.

cuprescens Blatchley 1913 [syn. of *floricola*]

fasciferus Schwarz 1878:363.

Type locality: FL – Type depository: USNM 4517 (♂) (Lectotype designation: Bellamy & Nelson 1990:291).

Taxonomy: Nicolay & Weiss 1923.

Redescription: Nicolay & Weiss 1923: plate 11, fig. 3 (adult).

Ecology: Nicolay & Weiss 1923 (biol., distr.).

Distribution: USA: FL, GA

Host(s): adults on *Quercus virginiana* Mill.

floccosus Mannerheim 1837:118.

Type locality: Mexico: Oaxaca – Type depository: UZMH (Lectotype designation: Nelson 1976:168).
synonym: *heroica* Obenberger 1923:121 – Synonymy: Hespenheide 1979a:110.

Type locality: Mexico – Type depository: NMPC.

Taxonomy: Nicolay & Weiss 1923; Hespenheide 1979a.

Redescription: Nicolay & Weiss 1923:63, plate 11, fig. 1 (adult).

Ecology: Westcott & Hespenheide, 2006 (distr.); Knull 1970 (biol.).

Distribution: USA: AZ; also recorded from Mexico.

Host(s): adults on *Quercus hypoleuroides* Camus.

floricola Kerremans 1900:347.

Type locality: FL – Type depository: BMNH (Lectotype not designated).

synonym: *blatchleyi* Nicolay & Weiss 1923:67 (♂ & ♀ as variety of *floricola*).

Type locality: FL, Dunedin – Type depository: USNM 50466 (♂).

synonym: *cuprescens* Blatchley 1913:23 – Synonymy: Nicolay & Weiss 1923:66.

Type locality: FL, near Sanford – Type depository: PURC (Lectotype designation: Blatchley 1930:38).

Taxonomy: Nicolay & Weiss 1923.

Redescription: Nicolay & Weiss 1923:67, plate 11, fig. 4 (adult).

Ecology: Nicolay & Weiss 1923; Nelson, *et al.* 1981 (distr.).

Distribution: USA: AL, FL, GA, MS, NC, SC

Host(s): adults on *Quercus laevis* Walt., *Q. margarettiae* Ashe ex Small and *Vaccinium arboreum* Marsh.

heroica Obenberger 1923 [syn. of *floccosus*]

horni Kerremans 1896 [syn. of *ovatus*]

laevicauda LeConte 1860 [syn. of *ovatus*]

lugubris LeConte 1860 [syn. of *tesselatus*]

molestus Gory 1841 [syn. of *ovatus*]

ovatus (Weber) 1801:76 (*Buprestis*).

Type locality: Amer. – Type depository: type lost.

synonym: *aurulenta* (Kirby) 1837:162 (*Trachys*) – Synonymy: LeConte 1860:251.

Type locality: Canada – Type depository: BMNH (Lectotype not designated).

synonym: *terminans* Gory & Laporte 1840:3 – Synonymy: Nicolay & Weiss 1923:68.

Type locality: “Amer. Bor.” – Type depository: MNHN (Lectotype not designated).

synonym: *molestus* Gory 1841:332 – Synonymy: Nicolay & Weiss 1923:68.

Type locality: “Amer. Bor.” – Type depository: MNHN (Lectotype not designated).

synonym: *laevicauda* LeConte 1860:252 – Synonymy: Crotch 1873:96.

Type locality: PA – Type depository: MCZC 2741.

synonym: *horni* Kerremans 1896:324 – Synonymy: Nicolay & Weiss 1923:68.

Type locality: KS – Type depository: BMNH (Lectotype not designated).

synonym: *bellporti* Nicolay & Weiss 1923:70 (as variety of *ovatus*).

Type locality: MA, Bellport – Type depository: USNM 50467.

misidentification: *tesselatus* of authors (in part), not *tesselatus* Fabricius 1801.

Immature stages: Weiss & Nicolay 1919 (egg, larva, pupa); Bøving & Craighead 1931: plate 80, figs. A–D (larva).

Taxonomy: Nicolay & Weiss 1923.

Redescription: Nicolay & Weiss 1923:69, plate 11, fig. 5 (adult); Akiyama & Ohmomo 2000: fig. 1839.

Ecology: Nicolay & Weiss 1923; Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a (distr.); MacRae 1991; Dearborn & Donahue 1993 (biol.); Nelson, *et al.* 1996.

Distribution: **Canada:** ON, PQ; **USA:** AL, AR, AZ, CO, CT, DC, DE, FL, GA, IA, IL, IN, KS, LA, MA, ME, MI, MO, MS, MT, NC, NE, NH, NJ, NM, NY, OH, OK, PA, SC, TX, VA, VT, WI, WV; also recorded from Mexico.

Host(s): larvae in *Quercus rubra* L. var. *ambigua* (Gray) Fern; adults also on *Quercus alba* L., *Q. falcata* Michx., *Q. imbricaria* Michx., *Q. laevis* Walt., *Q. marilandica* (L.) Muenchh., *Q. rubra* L., *Q. shumardii* Buckl., *Q. stellata* Wangenh. and *Q. velutina* Lam.

querci Knull 1952c:358 (♂, ♀), figs. 1, 2 (♂ genitalia).

Type locality: TX, Davis Mtns. – Type depository: FMNH (♂).

Ecology: Knull 1952c (biol., distr.); Nelson, *et al.* 1981; Westcott, *et al.* 1990 (distr.).

Distribution: **USA:** NM, TX

Host(s): adults on *Quercus* sp.

rufescens Nicolay & Weiss 1923 [syn. of *aerosus*]

terminans Gory & Laporte 1840 [syn. of *ovatus*]

tesselatus (Fabricius) 1801:218 (*Trachys*).

Type locality: Carolina – Type depository: type lost.

synonym: *lugubris* LeConte 1860:251 – Synonymy: Crotch 1873:96.

Type locality: Middle States – Type depository: MCZC 2742.

Taxonomy: Nicolay & Weiss 1923.

Redescription: Nicolay & Weiss 1923:65, plate 11, fig. 6 (adult); Good 1925: plate 10 (wing); Akiyama & Ohmomo 2000: fig. 1837.

Ecology: Nicolay & Weiss 1923; Nelson, *et al.* 1981 (distr.); Turnbow & Franklin 1981 (life cycle & parasitoids).

Distribution: **USA:** AL, FL, IN, MS, NC, SC, TX

Host(s): larvae in *Quercus laevis* Walt.

Genus *Taphrocerus* Solier 1833

Taphrocerus Solier 1833:314.

Type species: *Brachys alboguttatus* Mannerheim 1837 (= *gracilis* (Say 1825)) (fixed by monotypy).

Immature stages: Chapman 1923; Story, *et al.* 1979.

Taxonomy: Nicolay & Weiss 1920 (revision of USA sp.); Obenberger 1934 (revision); Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Bright 1987:309.

Ecology: Nicolay & Weiss 1920 (biol., distr.).

Key(s): Nicolay & Weiss 1920:143 (USA); Obenberger 1934:7; Wellso, *et al.* 1976:20 (MI); MacRae 1991:122 (MO); Downie & Arnett 1996:773 (NE No. Amer.).

agriloides Crotch 1873:96.

Type locality: TX – Type depository: MCZC 8286.

synonym: *texanus* Kerremans 1896:312 – Synonymy: Hespenheide 1979a:118.

Type locality: TX, not given – Type depository: BMNH.

Taxonomy: Nicolay & Weiss 1920; Hespenheide 1979a.

Redescription: Nicolay & Weiss 1920: plate 6, fig. C (adult).

Ecology: Vogt 1949b; Kissinger 1955; Nelson 1987a (distr.); Nelson & MacRae 1990 (biol., distr.); MacRae 1991 (biol.).

Distribution: **USA:** AL, FL, GA, KS, MO, NC, OH, OK, SC, TX

Host(s): adults on *Cladium* sp., *Eleocharis* sp. and *Nemastylis geminiflora* Nutt.

BUPRESTIDAE: Agrilinae: Trachyini

albodistinctus Knull 1954a:30 (♂, ♀), figs. 3, 7, 8 (adult, ♂ genitalia).

Type locality: FL, Lake City – Type depository: FMNH (♂).

Ecology: Nelson, *et al.* 1981; Nelson 1987a (distr.).

Distribution: **USA:** FL, GA, LA, MS

Host(s): unknown.

alboguttatus (Mannerheim) 1837 [syn. of *gracilis*]

albonotatus Blatchley 1919 [syn. of *cylindricollis*]

chevrolati Obenberger 1924:71.

Type locality: Mexico: San Durango – Type depository: NMPC.

synonym: *huachucanus* Knull 1944b:90 (♂, ♀), figs. 3, 4 (adult, ♂ genitalia) – Synonymy: Hespeneide 1979a:118.

Type locality: AZ, Huachuca Mtns. – Type depository: FMNH (♂).

Taxonomy: Hespeneide 1979a.

Redescription: Knull 1944b (♂, ♀), figs. 3, 4 (adult & ♂ genitalia as *huachucanus*).

Ecology: Nelson, *et al.* 1981; Nelson 1987a; Westcott, *et al.* 1990; Nelson & MacRae 1990; Westcott & Hespeneide 2006 (distr.); Westcott 2007b (distr.).

Distribution: **Canada:** AB; **USA:** AZ, CO, KS, MT, ND, NE, NM, OK, SD, TX, UT; also recorded from Mexico.

Host(s): unknown.

cylindricollis Kerremans 1896:312.

Type locality: PA, Philadelphia – Type depository: BMNH (Lectotype not designated).

synonym: *albonotatus* Blatchley 1919:29 – Synonymy: Hespeneide 1979a:119.

Type locality: FL, Dunedin – Type depository: PURC (Lectotype designation: Blatchley 1930:43).

Taxonomy: Nicolay & Weiss 1920 (as *albonotatus*); Hespeneide 1979a.

Redescription: Nicolay & Weiss 1920: plate 6, fig. F (adult as *albonotatus*).

Ecology: Nelson & Westcott 1976 (as *albonotatus*); Nelson, *et al.* 1981; Nelson 1987a; Nelson & MacRae 1990; MacRae 1991 (distr.); MacRae & Nelson 2003 (biol.).

Distribution: **USA:** AL, FL, GA, LA, MO, MS, NC, NJ, OK, PA, SC

Host(s): unknown.

floridanus Obenberger 1934b:48.

Type locality: FL, Lakeland – Type depository: NMPC.

Distribution: **USA:** FL

Host(s): unknown.

gracilis (Say) 1825:253 (*Trachys*).

Type locality: IN, Senipuxten Isld – Type depository: type destroyed.

synonym: *alboguttatus* (Mannerheim) 1837:120 (*Brachys*) – Synonymy: LeConte 1860:251.

Type locality: PA – Type depository: UZMH (Lectotype designation: Nelson 1976:168).

synonym: *grossus* Obenberger 1924:75 – Synonymy: Hespeneide 1979a:119.

Type locality: Amer. Mer. – Type depository: NMPC.

Immature stages: Chapman 1923: plate 1 (egg, larva), plate 2 (pupa).

Taxonomy: Nicolay & Weiss 1920; Hespeneide 1979a.

Redescription: Nicolay & Weiss 1920: plate 6, fig. E (adult); Good 1925: plate 11, fig. 44 (wing); Knull 1944b: fig. 2 (♂ genitalia); Wellso, *et al.* 1976: fig. 11 (pronotal sculpture); Akiyama & Ohmomo 2000: fig. 1845.

Ecology: Chapman 1923 (life cycle & parasitoid); Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Downie & Arnett 1996 (distr.); MacRae 2004 (biol., distr.).

Distribution: **Canada:** AB, MB, ON, PQ, SK; **USA:** AL, AR, AZ, CT, DC, FL, GA, IA, IL, IN, LA, MA, MD, ME, MI, MN, MO, NC, NH, NJ, NM, NY, OK, PA, SC, SD, TX, VA

Host(s): larvae in *Rhynchospora corniculata* (Lam.) Gray and *Schoenoplectus fluviatilis* (Torr.) Strong; adults also on *Carex hyalinolepus* Steud., *Cephalanthus occidentalis* L. and *Rumex verticillatus* L.

grossus Obenberger 1924 [syn. of *gracilis*]

howardi Obenberger 1934b:42.

Type locality: FL, Osceola Co. – Type depository: NMPC.

Redescription: Knull 1944b: fig. 5 (♂ genitalia).

Ecology: Nelson & Westcott 1976; Nelson, *et al.* 1981; Nelson 1987a; Nelson & MacRae 1990 (distr.); MacRae & Nelson 2003 (biol., distr.).

Distribution: **USA:** AR, FL, IL, KY, LA, MO, OK, SC, TX, WV

Host(s): adults on *Fimbristylis puberula* (Michx.) Vahl and *Scirpus* sp.

huachucanus Knull 1944 [syn. of *chevrolati*]

laevicollis LeConte 1878:403.

Type locality: FL, Enterprise – Type depository: MCZC 2740.

Taxonomy: Nicolay & Weiss 1920.

Redescription: Nicolay & Weiss 1920: plate 6: fig. D (adult).

Ecology: Nelson & Westcott 1976; Nelson 1987a (distr.).

Distribution: **USA:** AL, FL, LA, MO, MS

Host(s): unknown.

mercedensis White 1947:181 (♂, ♀), figs. 1, 2 (♂ genitalia).

Type locality: CA, Merced Co., 2 mi E Cressey – Type depository: CASC 8104 (♂).

Redescription: Helfer 1970:93 fig. (adult).

Ecology: Nelson, *et al.* 1981 (biol., distr.).

Distribution: **USA:** CA

Host(s): adults on *Carex densa* L. Bailey, *C. praegracilis* W. Boott. and *Juncus balticus* Willd.

nicolayi Obenberger 1924:72.

Type locality: NY – Type depository: NMPC (Lectotype not designated, both ♂ & ♀ in syntypes).

misidentification: *gracilis* of authors (in part), not *gracilis* Say 1825.

Ecology: Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Nelson & MacRae 1990; Nelson, *et al.* 1996 (distr.); MacRae & Nelson 2003 (biol.).

Distribution: **Canada:** ON; **USA:** AL, DC, FL, GA, IA, IL, IN, KY, LA, MA, MD, ME, MI, MO, NE, NH, NY, OH, OK, SC, SD, TX, VA, WV

Host(s): adults on *Carex emoryi* Dewey, *C. hyalinolepis* Steud. and *C. vulpinoidea* Michx.

puncticollis Schwarz 1878:363.

Type locality: FL, Cedar Keys – Type depository: MCZC 2250, USNM 4516.

Taxonomy: Nicolay & Weiss 1920.

Redescription: Nicolay & Weiss 1920: plate 6, fig. A (adult).

Ecology: Nicolay & Weiss 1970 (distr.).

Distribution: **USA:** AL, FL, TX

Host(s): unknown.

schaefferi Nicolay & Weiss 1920:144, plate 6, fig. B (adult).

Type locality: TX, Brownsville – Type depository: USNM 50465.

Immature stages: Story, *et al.* 1979:94 (egg & larva), figs. 6–12 (larvae).

Redescription: Knull 1944b: fig. 6 (♂ genitalia).

Ecology: Vogt 1949b (biol.); Nelson & Westcott 1976; Bright 1987 (distr.); Nelson, *et al.* 1981; Nelson 1987a; MacRae & Nelson 2003 (biol., distr.).

Distribution: **Canada:** AB, ON, SK; **USA:** AZ, CO, DE, FL, IA, IL, IN, LA, MD, MI, MO, MS, NY, OH, OK, PA, TX, VA, WV

Host(s): larvae in “nutsedge” and *Cyperus esculentus* L.; adults also on *Carex vulpinoidea* Michx.

sulcifrons Fisher 1922:67.

Type locality: Panama, Canal Zone, Juan Mina – Type depository: USNM 25121 (♂).

Ecology: Westcott 1991 (distr.).

Distribution: **USA:** AZ, TX; also recorded from PANAMA.

Host(s): unknown.

texanus Kerremans 1896 [syn. of *agrilloides*]

Subtribe *Leiopleurina* Hołyński 1993

Leiopleurina Hołyński 1993:15, 32.

Type genus: *Leiopleura* Deyrolle 1864.

Classification: Hołyński 1993; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Bellamy & Nelson 2002:105.

Genus *Leiopleura* Deyrolle 1864

Leiopleura Deyrolle 1864:219.

Type species: *Brachys concinna* Gory 1841 (fixed by original designation).

BUPRESTIDAE: Agrilinae: Trachyini

Leiopleurella Fisher 1922:91 – Synonymy: Cobos 1978b:63.

Type species: *Leiopleurella splendida* Fisher 1922 (fixed by original designation).

Enbrachys Fisher 1935:51 – Synonymy: Cobos 1978b:61.

Type species: *Enbrachys otero* Fisher 1935 (fixed by original designation).

Taxonomy: Cobos 1978b; Bellamy & Nelson 2002; Bellamy 2003a.

carbonata (LeConte) 1860:252 (*Brachys*).

Type locality: LA – Type probably mislabeled, occurrence in No. Amer. should be verified (Hespenheide 1984; 2003) – Type depository: MCZC 2744.

Taxonomy: Nicolay & Weiss 1920; Hespenheide 1984; 2003.

Distribution: USA: LA

Host(s): unknown.

otero (Fisher) 1935:52 (*Enbrachys*).

Type locality: Cuba: province of Havana, Santiago de las Vegas – Type depository: USNM 50961

Taxonomy: Cobos 1978b.

Redescription: Nelson, *et al.* 1981: figs. 1, 2 (adult, ♂ genitalia).

Ecology: Nelson, *et al.* 1981 (biol., distr.).

Distribution: USA: FL also recorded from Cuba

Host(s): adults on *Ficus* sp.

Subtribe Pachyschelina Bøving & Craighead 1931

Pachyschelina Bøving & Craighead 1931:49.

Type genus: *Pachyschelus* Solier 1833.

Trachysites Gory & Laporte 1839 (part).

Braches LeConte 1861 (part).

Trachyni Kerremans 1893 (part).

Trachites Kerremans 1903 (part).

Pachyschelinae Bøving & Craighead 1931 (part).

Agrilini Arnett 1962 (part).

Pachyschelina Cobos 1979a.

Classification: Cobos 1979a; Nelson 1982; Bellamy 1985; Hofsnyński 1993; Bellamy & Nelson 2002; Bellamy 2003a.

Key(s): Cobos 1979a:416; Bellamy & Nelson 2002:105 (genera).

Genus Pachyschelus Solier 1833

Pachyschelus Solier 1833:313.

Type species: *Pachyschelus scutellatus* Solier 1833 (fixed by monotypy).

Metonius Say 1833:68 – Synonymy: Saunders 1871:134.

Type species: *Metonius purpureus* Say 1833 (fixed by subsequent designation: Kubáň 2006:40).

Lius Chevrolat 1838:104; name suppressed (Opinion 2112, ICZN 2005b:104).

Type species: *Lius deplanatus* Chevrolat 1838 (fixed by monotypy).

Taxonomy: Nicolay & Weiss 1920 (revision); Hespenheide 2003; Bellamy & Nelson 2002; Bellamy 2003a.

Redescription: Bright 1987:298; Hespenheide 2003:459.

Ecology: Hespenheide 2003 (biol., distr.); Burke 1917a (biol.).

Key(s): Nicolay & Weiss 1920:138 (USA); Wellso, *et al.* 1976:17 (MI); Bright 1987:299 (Canada & AK); MacRae 1991:121 (MO) Hespenheide 2003:460 (USA & Canada).

americanus (Gory 1841) [syn. of *purpureus purpureus*]

biimpressus (Motschulsky 1860) [syn. of *purpureus purpureus*]

caeruleus Schwarz 1878 [syn. of *schwarzi*]

chapuisi (Dugès 1891) [syn. of *secedens*]

confusus Wellso, Manley & Jackman 1976:17 (♂, ♀), figs. 9B, D, 10 (♂ genitalia, adult, parts).

Type locality: MI, Shiawassee Co., T5N R1E Sec. 21 – Type depository: MSUC (♂).

Taxonomy: Hespenheide 2003.

Ecology: Wellso, *et al.* 1976; Bright 1987; Wellso & Jackman 2006 (biol., distr.).

Distribution: **Canada:** ON; **USA:** MI, MN, WI

Host(s): adults on *Lespedeza capitata* Michx.

dugesi Théry 1923 [syn. of *secedens*]

fisheri Vogt 1949a:53 (♂, ♀), fig. 10 (♀ last abd. ventrite).

Type locality: TX, SW Cameron Co., 3 mi E Santa Maria – Type depository: USNM (♀).

Ecology: Vogt 1949a; 1949b (biol., distr.).

Distribution: **USA:** TX

Host(s): larvae in *Bernardia myricifolia* (Scheele) S. Wats.

laevigatus (Say) 1833:69 (*Trachys*) (replacement name for *ovatus* Say 1825).

synonym: *ovatus* (Say) 1825:252 (*Trachys*) (preoccupied: *ovatus* Weber 1801).

Type locality: NY (Type locality given in 1839 paper) – Type depository: type destroyed.

synonym: *oblongus* (Motschulsky) 1860:54 (*Metonius*) – Synonymy: Nelson 1980a:93.

Type locality: TN – Type depository: ZMUM.

synonym: *punctata* (Gory) 1841:347 (*Brachys*) – Synonymy: LeConte 1857a:10.

Type locality: “Amer. Bor.” – Type depository: MNHN (Lectotype not designated).

synonym: *politus* Kerremans 1896:322 – Synonymy: Nicolay & Weiss 1920:139.

Type locality: No. Amer. – Type depository: BMNH (Lectotype not designated).

Taxonomy: Nicolay & Weiss 1920; Nelson 1980a; Hespeneheide 2003.

Redescription: Knull 1925: plate 7, fig. 4 (adult), plate 8, fig. 2 (pupal cell); Wellso, *et al.* 1976: fig. 9C (♂ genitalia).

Ecology: Knull 1920; Nelson, *et al.* 1981; Bright 1987; Nelson 1987a; Davies 1991; MacRae 1991 (biol.); MacRae & Nelson 2003 (distr.).

Distribution: **Canada:** ON, PQ; **USA:** AL, AR, CT, DC, DE, FL, GA, IA, IL, IN, KS, KY, LA, MA, MD, MI, MO, MS, NC, NH, NJ, NY, OK, PA, RI, SC, SD, TN, VA, WV

Host(s): larvae in *Desmodium ciliare* (Muhl. ex Willd.) DC., *D. viridiflorum* (L.) DC. and *Lespedeza* sp.; adults also on *Desmodium canescens* (L.) DC., *D. cuspidatum* (Muhl. ex Willd.) DC. ex Loud., *D. glutinosum* (Muhl. ex Willd.) Wood, *D. paniculatum* (L.) DC. and *D. perplexum* Schub.

nicolayi Obenberger 1925:103 (as variety of *schwarzi*).

Type locality: “South West AK” – Type depository: NMPC (♂).

Taxonomy: Obenberger 1925; Hespeneheide 2003.

Redescription: Hespeneheide 2003:463 (♂ ♀), figs. 4–6 (habitus, ♂ genitalia, ♀ last abd. ventrite).

Ecology: Hespeneheide 2003; (biol., distr.): MacRae 2006 (distr.).

Distribution: **USA:** AR, DE, FL, KS, KY, LA, MS, MO, NC, ND, OK, SC, TN, TX, WV

Host(s): larvae in *Apios americana* Medik. and *Wisteria frutescens* (L.) Poir.

oblongus (Motschulsky 1860) [syn. of *laevigatus*]

oculatus Schaeffer 1909 [syn. of *secedens*]

ovatus (Say 1825) [syn. of *laevigatus*]

politus Kerremans 1896 [syn. of *laevigatus*]

punctata (Gory 1841) [syn. of *laevigatus*]

purpureus purpureus (Say) 1833:69 (*Metonius*).

Type locality: IN – Type depository: type destroyed.

synonym: *americanus* (Gory) 1841:346 (*Brachys*) – Synonymy: LeConte 1857a:10.

Type locality: “Amer. Bor.” – Type depository: MNHN (Lectotype not designated).

synonym: *biimpressus* (Motschulsky) 1860:54 (*Metonius*) – Synonymy: Nelson 1980a:94.

Type locality: none given – Type depository: ZMUM.

Taxonomy: Nicolay & Weiss 1920; Hespeneheide 1974b; Nelson 1980a; Hespeneheide 2003.

Redescription: Good 1925: plate 10 (wing); Wellso, *et al.* 1976: fig. 9A (♂ genitalia).

Ecology: Knull 1948; Bright 1987 (biol., distr.); Nelson 1987a; Westcott 1991; MacRae & Nelson 2003 (distr.); MacRae 1991; Hespeneheide 2003 (biol.).

Distribution: **Canada:** AB, ON; **USA:** AL, AR, AZ, CT, IA, IL, IN, LA, MA, MI, MN, MO, NC, NJ, NM, NY, OH, OK, PA, RI, TN, TX, WI

Host(s): larvae in *Geranium maculatum* L. and *Lespedeza* sp.; adults also on *Carya* sp., *Fraxinus americana* L., *Juglans nigra* L. and *Toxicodendron pubescens* Mill.

purpureus uvaldei Knull 1941d:387 (sexes reversed in original description).

Type locality: TX, Uvalde Co. – Type depository: FMNH (♀).

Taxonomy: Knull 1948; Hespeneheide 1974b; 2003.

BUPRESTIDAE: Agrilinae: Trachyini

Ecology: Knull 1948 (biol.).

Distribution: USA: TX

Host(s): adults on *Acalypha hederacea* Torr.

schwartzi Kerremans 1892:298 (replacement name for *caeruleus* Schwarz 1878).

synonym: *caeruleus* Schwarz 1878:364 (preoccupied: *caeruleus* Gory 1841).

Type locality: FL – Type depository: USNM 25102 (♂) (Lectotype designation: Bellamy & Nelson 1990:295).

misspelling: *schwartzi* (*lapsus calami*).

Immature stages: Burke 1917a: plate 6, fig. 4 (larva).

Taxonomy: Nicolay & Weiss 1920; Obenberger 1937; Hespenheide 1979.

Redescription; Hespenheide 2003:465 (♂, ♀), figs. 7–9 (habitus, ♂ genitalia, last abd. ventrite).

Ecology: Nelson & MacRae 1990; MacRae 1991; Hespenheide 2003 (distr., biol.); Nelson, *et al.* 1981 (distr.).

Distribution: USA: FL, GA

Host(s): unknown.

secedens Waterhouse 1889:145.

Type locality: Mexico: Guanajuato Tupátaro – Type depository: BMNH (♀) (Lectotype designation: Hespenheide 1974b:105).

synonym: *chapuisi* (Dugès) 1891:36 (*Brachys*) – Synonymy: Hespenheide 1974b:105.

Type locality: Mexico: Guanajuato, Tupátaro – Type depository: unknown.

synonym: *oculatus* Schaeffer 1909:377 (as variety of *schwarzi*) – Synonymy: Hespenheide 1979a:116.

Type locality: AZ, Nogales – Type depository: USNM 42652.

synonym: *dugesi* Théry 1923:113 – Synonymy: Hespenheide 1979a:116.

Type locality: Mexico: Guanajuato – Type depository: MNHN (Lectotype not designated).

Taxonomy: Nicolay & Weiss 1920 (as *oculatus*); Hespenheide 1974b; 1979a.

Ecology: Knull 1948; 1970 (biol. as *oculatus*); Hespenheide 1974b; 1979a; Nelson, *et al.* 1981; Hespenheide 2003; Westcott & Hespenheide 2006 (distr.).

Distribution: USA: AZ, CO; also recorded from Mexico.

Host(s): larvae in *Desmodium batocaulon* Gray.

uvaldei Knull 1941 [ssp. of *purpureus*]

vogti Hespenheide 2003:461 (♂, ♀), figs. 1, habitus, 2, ♂ genitalia, 3, ♀ last abd. ventrite.

Type locality: FL, Putman Co., Crescent City – Type depository: USNM (♂).

Taxonomy: Hespenheide 2003.

Ecology: Hespenheide (biol., distr.).

Distribution: USA: FL, GA, SC, TX

Host(s): adults on *Desmodium obtusum* (Muhl. ex Willd.) DC., *Lespedeza copitata* Michx. and *Psoralea* sp.



Appendix 1
Classification of the Superfamily Buprestoidea Leach 1815
in the United States and Canada

Family Schizopodidae LeConte 1859

Subfamily Schizopodinae LeConte 1859

- Tribe Schizopodini LeConte 1859
 - Schizopus* LeConte 1858
- Tribe Dystaxiini Théry 1929
 - Dystaxia* LeConte 1866
 - Glyptoscelimorpha* Horn 1893
 - subg. *Dystaxiella* Knull 1940
 - subg. *Glyptoscelimorpha*

Family Buprestidae Leach 1815

Subfamily Polycestinae Lacordaire 1857

- Tribe Haplostethini LeConte 1861
 - Mastogenius* Solier 1849
 - Trigonogya* Schaeffer 1919
 - Micrasta* Kerremans 1893
- Tribe Acmaeoderini Kerremans 1893
 - Subtribe Acmaeoderoidina Cobos 1955
 - Acmaeoderoides* Van Dyke 1942
 - Subtribe Acmaeoderina Kerremans 1893
 - Acmaeodera* Eschscholtz 1829
 - subg. *Acmaeodera*
 - subg. *Squamodera* Nelson 1996
 - Acmaeoderopsis* Barr 1974
 - Anambodera* Barr 1974
- Tribe Ptosimini Kerremans 1902
 - Ptosima* Dejean 1833
- Tribe Thrincopygini LeConte 1861
 - Thrincopyge* LeConte 1858
 - Chrysophana* generic group
 - Beerellus* Nelson 1982
 - Chrysophana* LeConte 1860
- Tribe Polycestini Lacordaire 1857
 - Polycesta* Dejean 1833
 - subg. *Polycesta*
 - subg. *Arizonica* Cobos 1981
 - subg. *Nelsonella* Cobos 1981
 - subg. *Tularensia* Nelson 1997
- Tribe Tyndarini Cobos 1955
 - Paratyndaris* Fisher 1919
 - subg. *Knuliella* Cobos 1980
 - subg. *Paratyndaris*
 - subg. *Waltersia* Nelson & Bellamy 2004

Subfamily Chrysochroinae Laporte 1835

- Tribe Chrysochroini Laporte 1835
 - Nanularia* generic group
 - Ampheremus* Fall 1917

- Nanularia* Casey 1909
- Texania* generic group
- Texania* Casey 1909
- Subtribe Chalcophorina Lacordaire 1857
 - Chalcophora* Dejean 1833
- Tribe Poecilnotini Jakobson 1911
 - Poecilnota* Eschscholtz 1829
- Tribe Sphenopterini Lacordaire 1857
 - Sphenoptera* Dejean 1833
 - subg. *Chilostetha* Jakovlev 1889
- Tribe Dicerini Gistel 1848
 - Subtribe Hippomelanina Hołyński 1993
 - Barrellus* Nelson & Bellamy 1996
 - Gyascutus* LeConte 1858
 - subg. *Gyascutus*
 - subg. *Stictocera* Casey 1909
 - Hippomelas* Laporte & Gory 1837
 - Prasinalia* Casey 1909
 - Subtribe Dicerina Gistel 1848
 - Lampetis* generic group
 - Lampetis* Dejean 1833
 - subg. *Spinthoptera* Casey 1909
 - Dicerca* generic group
 - Dicerca* Eschscholtz 1829
 - subg. *Dicerca*
 - subg. *Neoargante* Nelson 2006

Subfamily Buprestinae Leach 1815

- Tribe Buprestini Leach 1815
 - Subtribe Trachykelina Hołyński 1988
 - Trachykele* Marseul 1865
 - Subtribe Buprestina Leach 1815
 - Buprestis* Linnaeus 1758
 - subg. *Buprestis*
 - subg. *Cypriacis* Casey 1909
 - subg. *Knuliobuprestis* Kurosawa 1988
 - subg. *Nelsonocheira* Kurosawa 1988
 - subg. *Stereosa* Casey 1909
- Subtribe Agaocerina Nelson 1982
 - Agaocera* Saunders 1871
 - Spectralia* generic group
- Tribe Phrixiini Cobos 1975
 - Spectralia* Casey 1909
- Tribe Anthaxiini Gory & Laporte 1839
 - Subtribe Anthaxiina Gory & Laporte 1839
 - Agrilaxia* Kerremans 1903
 - Anthaxia* Eschscholtz 1829
 - subg. *Anthaxia*

Appendix 1

- subg. *Haplanthaxia* Reitter 1911
- subg. *Melanthaxia* Richter 1944
- Tribe Xenorhipidini Cobos 1986
 - Subtribe Xenorhipidina Cobos 1986
 - Hesperorhipis* Fall 1930
 - Xenorhipis* LeConte 1866
 - Subtribe Trichinorhipidina Bellamy 2006
 - Trichinorhipis* Barr 1948
- Tribe Melanophilini Bedel 1921
 - Melanophila* Eschscholtz 1829
 - Phaenops* Dejean 1833
 - Xenomelanophila* Sloop 1937
 - Juniperella* Knull 1947
- Tribe Actenodini Kerremans 1890
 - Actenodes* Dejean 1833
- Tribe Chrysobothrini Gory & Laporte 1838
 - Chrysobothris* Eschscholtz 1829
 - Knowltonia* Fisher 1935
 - Sphaerobothris* Seminov-Tian-Shanskij & Richter 1934

Subfamily Agrilinae Laporte 1835

- Tribe Coraebini Bedel 1921
 - Eupristocerus* Deyrolle 1864
- Tribe Agrilini Laporte 1835
 - Lepismadora* Velten 1987
 - Subtribe Rhaeboscelidina Cobos 1976
 - Paragrilus* Saunders 1871
 - Subtribe Agrilina Laporte 1835
 - Agrilus* Curtis 1825
 - subg. *Agrilus*
 - subg. *Engyaulus* Waterhouse 1889
- Tribe Aphanisticini Jacquelin du Val 1863
 - Aphanisticus* Latreille 1829
- Tribe Trachyini Laporte 1835
 - Subtribe Trachyina Gory & Laporte 1839
 - Trachys* Fabricius 1801
 - Subtribe Brachyina Cobos 1979
 - Brachys* Dejean 1833
 - Taphrocerus* Solier 1833
 - Subtribe Leiopleurina Hołyński 1993
 - Leiopleura* Deyrolle 1864
 - Subtribe Pachyschelina Bøving & Craighead 1931
 - Pachyschelus* Solier 1833

Appendix 2. Summary of Constituents by Genus

<i>Genus</i>	sp.	ssp.	syn.	*unvn.		<i>Genus</i>	sp.	ssp.	syn.	*unvn.
SCHIZOPODIDAE						BUPRESTIDAE <i>cont.</i>				
Schizopodinae						Buprestinae				
<i>Schizopus</i>	2	1	1			<i>Trachykele</i>	6	2		
<i>Dystaxia</i>	2		2			<i>Buprestis</i>	26		82	
<i>Glyptoscelimorpha</i>	3	1				<i>Agaeocera</i>	2		1	
BUPRESTIDAE						<i>Spectralia</i>	6		4	
Polycestinae						<i>Anthaxia</i>	43	3	15	
<i>Mastogenius</i>	7		2			<i>Agrilaxia</i>	2		5	
<i>Trigonogya</i>	1					<i>Xenorhipis</i>	3		1	
<i>Micrasta</i>	1					<i>Hesperorhipis</i>	4	2		
<i>Acmaeoderoides</i>	12		1			<i>Trichinorhipis</i>	1			
<i>Acmaeodera</i>	145	7	40			<i>Juniperella</i>	1			
<i>Acmaeoderopsis</i>	11		2			<i>Melanophila</i>	5		11	8
<i>Anambodera</i>	6					<i>Phaenops</i>	15	1	8	15
<i>Ptosima</i>	4		2			<i>Xenomelanophila</i>	1			
<i>Thrinopyge</i>	2		2			<i>Actenodes</i>	9		6	
<i>Chrysophana</i>	3		2	1		<i>Chrysobothris</i>	141	3	55	5
<i>Beerellus</i>	1					<i>Knowltonia</i>	4			
<i>Polycesta</i>	12		11			<i>Sphaerobothris</i>	2		1	
<i>Paratyndaris</i>	15					Agrilinae				
Chrysochroinae						<i>Eupristocerus</i>	1		2	
<i>Nanularia</i>	7					<i>Lepismadora</i>	1			
<i>Ampheremus</i>	1		1			<i>Paragrilus</i>	3		2	
<i>Texania</i>	3		5			<i>Agrilus</i>	180	10	77	1
<i>Chalcophora</i>	5		20			<i>Aphanisticus</i>	1			
<i>Poecilonota</i>	9		9			<i>Trachys</i>	1		3	
<i>Sphenoptera</i>	1					<i>Brachys</i>	11		11	
<i>Hippomelas</i>	4		4			<i>Taphrocerus</i>	13		5	
<i>Gyascutus</i>	8	2	19			<i>Leiopleura</i>	2			
<i>Prasinalia</i>	2		2			<i>Pachyschelus</i>	8	1	10	
<i>Barrellus</i>	1					TOTALS	787	36	499	30
<i>Lampetis</i>	3		7			(*unvn. = unavailable name)				
<i>Dicerca</i>	24	3	68							



Bibliography

The list of references presented below is far more than the finite number of papers that are used within the catalog. These references were assembled with the thought that they collectively present the great majority of publications, from short notes and annual state agriculture reports to revisions, monographs and works in which significant higher classification proposals were made. In summary, this bibliography presents an entire suite of previous work and historical precedent on which the current classification of the North American Buprestidae is based from the foundation of Linnaeus (1758) to the most recent papers of 2008.

- Abeille de Perrin, E. 1869.** Nouveaux Coléoptères Français. *Petites Nouvelles Entomologiques* 11:79–80.
- Abeille de Perrin, E. 1897.** Notes sur les Buprestides paléarctiques. *Revue d'Entomologie* 16:1–33.
- Akiyama, K. & S. Ohmomo. 1997.** A check list of the Japanese Buprestidae. Gekkan–Mushi, Supplement 1, 67 pp.
- Akiyama, K. & S. Ohmomo. 2000.** *The buprestid beetles of the world*. Iconographic Series of Insects. Gekkan–Mushi Co., Ltd., Tokyo, Japan. 341 pp., 120 color plates.
- Alcock, J. 1976.** Courtship and mating in *Hippomelas planicosta* (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 30(4):343–348, figs. 1, 2.
- Alexeev, A. V. 1989.** 39. Sem. Buprestidae – Zlatki. [39. Fam. Buprestidae]. pp. 463–489. In: P. A. Ler (Ed.). *Opredelitel nasekomykh Dalnego Vostoka SSSR*. Tom 3. Zhestkokrylye, ili zhuki. Chast 1. [Keys to the identification of insects of the Russian Far East. Volume 1. Coleoptera or beetles. Part. 1]. Leningrad, “Nauka” pp. 1–572. [in Russian]
- Alexeev, A. V. 1990.** Some aspects of similarity between the Palaearctic and Nearctic faunas of *Agrilus* (Coleoptera, Buprestidae). [translated by M.G. Volkovitch]. *Proceedings of the X Congress of the All-Union Entomological Society*, 11–15 September 1989:8–9.
- Alexeev, A. V. 1998.** K podrodovoi klassifikatsii zlatok roda *Agrilus* Curtis (Coleoptera, Buprestidae) fauny Palearktiki. [On the subgeneric classification of buprestids of the genus *Agrilus* Curtis (Coleoptera, Buprestidae) of Palaearctic fauna]. *Entomologicheskoe Obozrenie* 77(2):367–383. [in Russian with English summary] [English translation: *Entomological Review* 78(4):423–436, figs. 1–17.]
- Alexeev, A. V. & M. P. Bebka. 1970a.** K voprosu o sistematike zlatok podsemeistva Buprestinae. [On the problem of systematics of buprestid beetles of the subfamily Buprestinae]. *Uchenye zapiski Moskovskogo oblastnogo Pedagogicheskogo instituta imeni N.K. Krupskoi*, Moskva 273(8):3–6. [in Russian]
- Alten, R. L. 2005.** Observations and field notes on the life history of *Juniperella mirabilis* Knull, 1947 (Coleoptera Buprestidae). *The Pan-Pacific Entomologist* 81(1–2):54–58, figs. 1–3.
- Anderson, R. F. 1944.** The relation between host condition and attacks by bronzed birch borer. *Journal of Economic Entomology* 37:588–596.
- Angell, G. W. J. 1891.** Larva of *Polycesta elata* LeC. *Entomological News* 2(6):106–107.
- Arnett, R. H. 1960.** *The Beetles of the United States* (A Manual for Identification). The Catholic University of America Press, Washington, D. C. 1112 pp. [Fasc. 43:1–10, Buprestidae, pp. 481–490, with 11 figs.]
- Arnett, R. H. 1971.** *The Beetles of the United States* (A Manual for Identification). The American Entomological Institute, Ann Arbor, Michigan D. C. 1112 pp. [Fasc. 43:1–10, Buprestidae, pp. 481–490, with 11 figs.]
- Arnett, R. H., G. A. Samuelson & G. M. Nishida. 1993.** *The insect and spider collections of the world*. Sandhill Crane Press, Gainesville, Florida, 310 pp.
- Balch, R. E. 1935.** Cultural practices and forest insects. *65th Annual Report of the Entomological Society of Ontario for 1934*:43–49.
- Barr, W. F. 1941a.** Distributional notes and new records of *Acmaeodera* (Coleoptera, Buprestidae). *The Pan-Pacific Entomologist* 17(2):62–69.
- Barr, W. F. 1941b.** New distributional records of *Paratyndaris* (Coleoptera, Buprestidae). *Bulletin of the Brooklyn Entomological Society* 36(4):168–169.
- Barr, W. F. 1942.** A new species of *Acmaeodera* from southern California (Coleoptera, Buprestidae). *The Pan-Pacific Entomologist* 18(3):113–114.
- Barr, W. F. 1948.** A new genus and species of Buprestidae from Southern California (Coleoptera). *Entomological News* 59(3):69–72.
- Barr, W. F. 1949.** A revision of the species of the genus *Polycesta* occurring in the United States (Coleoptera, Buprestidae). *American Museum Novitates* 1432:1–42.

Bibliography

- Barr, W. F. 1969a.** The Buprestidae and Cleridae of the Nevada Test Site (Coleoptera). *Great Basin Naturalist* 29(1):11–19.
- Barr, W. F. 1969b.** New species of *Chrysobothris* from the Pacific Northwest (Coleoptera: Buprestidae). *Proceedings of the Entomological Society of Washington* 71(2):117–132, figs. 1–7.
- Barr, W. F. 1969c.** New species of *Hippomelas* and *Acmaeodera* from Western North America (Coleoptera: Buprestidae). *Journal of the Kansas Entomological Society* 42(3):321–335, figs. 1,2.
- Barr, W. F. 1970.** The subgenera of *Nanularia* and *Hippomelas* (Coleoptera: Buprestidae). *Occasional Papers, Biological Society of Nevada* 25:1–9.
- Barr, W. F. 1971.** Buprestidae. In M. H. Hatch (Ed.). *The Beetles of the Pacific Northwest*, Part V, pp. 55–89, plates VI–VIII, University of Washington Press, Seattle and London.
- Barr, W. F. 1972a.** New species of *Ancylotela* from Mexico and the United States with a key to the known species. *Journal of the Kansas Entomological Society* 45(1):92–110, figs. 1–2.
- Barr, W. F. 1972b.** New species of North American *Acmaeodera* (Coleoptera: Buprestidae). *Arquivos do Museu Boçage 2.a Série* 3(7):145–202, figs. 1–24.
- Barr, W. F. 1972c.** New synonymy and a change of name in North American *Buprestis* (Coleoptera: Buprestidae). *Proceedings of the Entomological Society of Washington* 74(3):343.
- Barr, W. F. 1974.** New genera and species of North American Buprestidae (Coleoptera). *Occasional Papers, Biological Society of Nevada* 39:1–13.
- Barr, W. F. 1975.** Taxonomic notes and new synonymies of some North American *Acmaeodera* (Coleoptera: Buprestidae). *Journal of the Kansas Entomological Society* 48(3):411–421.
- Barr, W. F. 1988.** An overview of the Mexican Buprestidae with a listing of *Chrysobothris* species (Coleoptera). Secretaria de Agricultura y Recursos Hidraulicos, Memoria de los Simposia Nacionales de Parastiologia Forestal II y III, Publicación Especial No. 46(1985):69–75.
- Barr, W. F. 1992.** New species of Mexican *Acmaeodera* with lectotype designations and synonymical notes (Coleoptera: Buprestidae). *Melandria* 48:69–83, figs. 1–12.
- Barr, W. F. 2008.** Two new species of *Agrilus* Curtis 1825 from Arizona and Texas, with a new synonymy in *Agrilus* (Coleoptera: Buprestidae). *Zootaxa* 1681:31–36.
- Barr, W. F. & E. G. Linsley. 1947.** Distributional and biological notes on the species of the subgenus *Melanophila* occurring in Western North America (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 23(4):162–166.
- Barr, W. F. & R. L. Westcott. 1976.** Taxonomic, biological and distributional notes of North American *Chrysobothris*, with the description of a new species from California (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 52(2):138–153, figs. 1–6.
- Barrett, R. E. 1932.** An annotated list of the insects and arachnids affecting the various species of walnuts or members of the genus *Juglans* Linn. *University of California Publications in Entomology* 5(15):275–309.
- Barter, G. W. 1957.** Studies of the bronze birch borer, *Agrilus anxius* Gory in New Brunswick. *The Canadian Entomologist* 89(1):12–36, figs. 1–10.
- Barter, G. W. 1965.** Survival and development of the bronze poplar borer, *Agrilus liragus* Barter & Brown (Coleoptera: Buprestidae). *The Canadian Entomologist* 97(10):1063–1068, fig. 1.
- Barter, G. W. & W. J. Brown. 1949.** On the identity of *Agrilus anxius* Gory and some allied species (Coleoptera: Buprestidae). *The Canadian Entomologist* 81(10):245–249, fig. 1.
- Beaulne, J. I. 1936.** The insect fauna of the raspberry plantations of the Province of Quebec. *66th Annual Report of the Entomological Society of Ontario* for 1935:36–37.
- Beavis, I. C. 1995.** *Agrilus sinuatus* (Ol.) (Col:Buprestidae). at Tunbridge Wells, Kent. *Entomologist's Record and Journal of Variation* 107(7–8):203.
- Bechtel, R. C., L. M. Hanks & R. W. Rust. 1983.** Coleoptera of Sand Mountain and Blow Sand Mountains, Nevada. *Southwestern Naturalist* 28(4):473–478.
- Bechtel, R. C. & R. W. Rust. 1985.** Corrections and Additions to the Coleoptera of Sand Mountain and Blow Sand Mountains Nevada (Coleoptera:Buprestidae, Curculionidae, Dermestidae and Hydrophilidae). *The Coleopterists Bulletin* 39(2):130.
- Bedard, W. D. 1938.** An annotated list of the insects fauna of Douglas Fir (*Pseudotsuga mucronata* Rafinesque) in the northern Rocky Mountain region. *The Canadian Entomologist* 70:188–197.
- Bedel, L. 1921.** Faune des Coléoptères du Bassin de la Seine. Tome IV, Deuxième Fascicule, Serricornia. pp. 165–232, *Société entomologique de France* (Paris).
- Beer, F. M. 1940.** Notes on some Buprestidae of Southwestern Oregon (Coleoptera). *The Pan-Pacific Entomologist* 16(1):13–16.

- Beer, F. M. 1944.** Notes on the hosts, habits and distribution of Oregon *Acmaeodera* (Coleoptera, Buprestidae). *The Pan-Pacific Entomologist* 20(3):105–109.
- Beer, F. M. 1949.** The rearing of Buprestidae and delayed emergence of their larvae. *The Coleopterists Bulletin* 3(6):81–84.
- Beer, F. M. 1967.** A new western *Chrysobothris* (Coleoptera, Buprestidae). *The Pan-Pacific Entomologist* 43(1):18–21.
- Beer, F. M. 1970.** Notes and observations on the Buprestidae (Coleoptera). *The Coleopterists Bulletin* 24(2):39–41.
- Beer, F. M. 1974.** New Buprestidae (Coleoptera). *The Coleopterists Bulletin* 28(1):49–50.
- Beer, F. M. & M. H. Hatch. 1941.** The Coleoptera of Washington: Buprestidae. *University of Washington Publications in Biology* 10(3):93–144, plates 19–25.
- Bellamy, C. L. 1982.** Observations on the biology and distribution of several species of Buprestidae (Coleoptera) of North America. *The Coleopterists Bulletin* 36(2):358–361.
- Bellamy, C. L. 1985.** A catalogue of the higher taxa of the family Buprestidae (Coleoptera). *Navorsinge van die Nasionale Museum, Bloemfontein* 4(15):405–472.
- Bellamy, C. L. 1986.** A new species of *Halecia* from Cocos Island, Costa Rica, with a review of the Neotropical genera of the tribe Chalcophorini (Coleoptera, Buprestidae, Chalcophorinae). *The Coleopterists Bulletin* 40(4):381–387.
- Bellamy, C. L. 1987a.** A new species of *Ankareus* from South Africa with notes on the Mastogeniinae (Coleoptera, Buprestidae). *Journal of the Entomological Society of Southern Africa* 50(1):203–207.
- Bellamy, C. L. 1987b.** A revision of the genera *Nanularia* and *Ampheremus* (Coleoptera, Buprestidae). *Contributions in Science, Los Angeles County Museum of Natural History* 387:1–20, figs. 1–40.
- Bellamy, C. L. 1991a.** Three new species of Buprestidae from the Neotropics, (Coleoptera). *The Coleopterists Bulletin* 45(1):21–30.
- Bellamy, C. L. 1991b.** Studies in the Mastogeniinae (Coleoptera: Buprestidae) III. New species, combinations and a world catalogue. *Giornale Italiano di Entomologia* 5(1990):109–128, figs. 1–30.
- Bellamy, C. L. 1991c.** Notes on the G. B. Vogt collection, part I: South Texas (Coleoptera and Hemiptera). *Proceedings of the Entomological Society of Washington* 93(3):733–736.
- Bellamy, C. L. 1994.** A list of the primary types of Buprestidae (Coleoptera) in the U. S. National Museum of Natural History. *Giornale Italiano di Entomologia* 6(1993):357–378.
- Bellamy, C. L. 1996a.** Further consideration of the subtribe Thomassetiina Bellamy: a new species, new records and placement in the contemporary classification (Coleoptera: Buprestidae). *Annals of the Transvaal Museum* 36:215–222, figs. 1–5.
- Bellamy, C. L. 1996b.** Comments on the genus *Agrilus* Curtis, 1825: where do we go now and do we go together? (Coleoptera: Buprestidae: Agrilinae). *Elytron* 9(1995):77–86.
- Bellamy, C. L. 1997a.** Clarification of authorship of certain generic names of Buprestidae (Coleoptera). *African Entomology* 5(2):217–224.
- Bellamy, C. L. 1997b.** Phylogenetic relationships of *Xyroscelis* (Coleoptera: Buprestidae). *Invertebrate Taxonomy* 11:569–574, figs. 1–5.
- Bellamy, C. L. 1998a.** The genus *Lamesis* Westwood, family placement and synonymy (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 52(1):97.
- Bellamy, C. L. 1998b.** A clarification of authorship of buprestid genera originally defined in the catalogues of P. F. M. A. Dejean (Coleoptera, Buprestidae). *Fragmenta Entomologica* 29(2)(1997):365–382.
- Bellamy, C. L. 1999.** Nomenclatural notes in Buprestidae (Coleoptera). *Folia Heyrovskyana* 7(1):1–11.
- Bellamy, C. L. 2002a.** The *Mastogenius* Solier, 1849 of North America (Coleoptera: Buprestidae: Polycestinae: Haplostethini). *Zootaxa* 110:1–12, figs. 1–6.
- Bellamy, C. L. 2002b.** Coleoptera: Buprestoidea. In: W.W.K. Houston (Ed.) *Zoological Catalogue of Australia*. Vol. 29.5. Melbourne: CSIRO Publishing, Australia, xii + 492 pp., 4 color plates.
- Bellamy, C. L. 2003a.** An illustrated summary of the higher classification of the superfamily Buprestoidea (Coleoptera). *Folia Heyrovskyana Supplementum* 10:197 pp., 44 plates.
- Bellamy, C. L. 2003b.** Nomenclatural and taxonomic changes, new distribution and biological records for jewel beetles (Coleoptera: Buprestidae). *Insecta Mundi* 16(1–3)(2002):57–63.
- Bellamy, C. L. 2006.** A new subtribe for *Trichinorhipis* Barr, 1948 (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 82(2):139–143, figs. 1–10.
- Bellamy, C. L. 2007.** The genera *Aphanisticus* Latreille and *Endelus* Deyrolle in Fiji (Coleoptera: Buprestidae: Aphanisticini). In: N. L. Evenhuis & D. J. Bickle (Eds.): Fiji Arthropods VIII, *Bishop Museum Occasional Papers* 93:13–25.

Bibliography

- Bellamy, C. L. 2008.** Delayed, or prolonged, emergence of three uncommon California Buprestidae (Coleoptera). *The Pan-Pacific Entomologist* 83(4):366-368.
- Bellamy, C. L. & S. Bílý. 1997.** Phylogenetic relationships and tribal placement of *Odettea* Baudon (Coleoptera: Buprestidae). *Oriental Insects* 31:409-418.
- Bellamy, C. L. & A. Descarpentries. 1990.** A bibliography of the entomological papers of Andre Théry. *Giornale Italiano di Entomologia* 4(1989):173-182.
- Bellamy, C. L. & G. H. Nelson. 1990.** Lectotype designations in the Buprestidae collections of the National Museum of Natural History (Coleoptera). *Insecta Mundi* 3(4)(1989):289-297.
- Bellamy, C. L. & G. H. Nelson. 2002.** Chapter 41. Buprestidae Leach 1815, pp. 98-112. In: R. H. Arnett, Jr., M. C. Thomas, P. E. Skelley & J. H. Frank (Eds.). *American Beetles*, Volume 2, CRC Press.
- Bellamy, C. L. & M. G. Volkovitsh. 2003.** Case 3258. *Acmaeodera* Eschscholtz, 1829 and *Acmaeodera* Cobos, 1955 (Insecta, Coleoptera): proposed conservation. *Bulletin of Zoological Nomenclature* 60(1):31-33.
- Bellamy, C. L. & M. G. Volkovitsh. 1997.** The chrysobothrine genus *Sphaerobothris* Semenov-Tian-Shankij and Rikhter, new status, with new combinations from North America and North Africa (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 51(1):59-70, figs. 1-13.
- Bellamy, C. L. & M. G. Volkovitsh. 2005.** Chapter 17. Buprestoidea Crowson, 1955, pp. 461-468. In: R. G. Beutel & R. A. B. Leschen (Eds.). *Handbuch der Zoologie/Handbook of Zoology*, Volume IV, Arthropoda: Insecta, Part 38, Coleoptera, Beetles, Volume 1: Morphology and Systematics. W. de Gruyter, Berlin, New York, 567 pp.
- Bellamy, C. L. & R. L. Westcott. 1996.** The phylogenetic placement of two new genera and species of Buprestidae (Coleoptera) from Mexico. *Journal of Natural History* 30:229-245.
- Bellamy, C. L. & R. L. Westcott. 2003a.** Correction to the Buprestidae and Schizopodidae (Coleoptera) listings from Nomina Insecta Nearctica (1996). *Zootaxa* 147:1-20.
- Bellamy, C. L. & R. L. Westcott. 2003b.** Case 3257. *Acmaeodera oaxacae* Fisher, 1949 and *Polycesta deserticola* Barr, 1974 (Insecta, Coleoptera): proposed precedence of the specific names over those of *Acmaeodera philippinensis* Obenberger, 1923 and *Polycesta aruensis* Obenberger, 1924 respectively. *Bulletin of Zoological Nomenclature* 60(2):124-126.
- Bellamy, C. L. & G. A. Williams. 1985.** A revision of the genus *Maoraxia* with a new synonym in *Acmaeodera* (Coleoptera, Buprestidae). *International Journal of Entomology* 27(1-2):147-161, figs. 1-18.
- Bellamy, C. L. & G. A. Williams. 1995.** The first Australian *Paratrachys* (Coleoptera: Buprestidae), with comments on the higher classification of the genus. *Invertebrate Taxonomy* 9:1265-1276, figs. 1-6.
- Benoit, P. 1963.** Note sur les caractères distinctifs et la distribution du *Chalcophora angulicollis* (LeC.) (Coleoptera: Buprestidae). *Annales de la Société entomologique du Québec* 8:108-111, figs. 1, 2.
- Benoit, P. 1964.** Comparative morphology of some *Chrysobothris* larvae (Coleoptera: Buprestidae) of eastern Canada. *The Canadian Entomologist* 96(8):1107-1117, figs. 1-25.
- Benoit, P. 1965a.** Morphologie larvaire des *Agrilus liragus* Barter et Brown et *Agrilus anxius* Gory (Coleoptera: Buprestidae). *The Canadian Entomologist* 97(7):768-773, figs. 1-3.
- Benoit, P. 1965b.** *Melanophila acuminata* DeGeer (Coleoptera: Buprestidae) in a one-year-old burn in Quebec. *Canada Department of Forestry, Bi-monthly Progress Report* 21(4):1.
- Benoit, P. 1966a.** Descriptions of some *Chrysobothris* larvae (Coleoptera: Buprestidae) occurring in the United States and Mexico. *The Canadian Entomologist* 98(3):324-330, figs. 1-6.
- Benoit, P. 1966b.** Description de la larve du *Melanophila acuminata* DeGeer et de quelques caractères distinctifs du *Melanophila fulvoguttata* (Harris) (Coleoptera: Buprestidae). *The Canadian Entomologist* 98(11):1208-1211, figs. 1-16.
- Bethune, C. J. S. 1871a.** Insects of the northern part of British America; from Kirby's Fauna Boreali-Americana: Insecta. *The Canadian Entomologist* 3: 227-233.
- Bethune, C. J. S. 1871b.** Insects affecting the apple. *First Annual Report of the Entomological Society of Ontario* p. 6.
- Bethune, C. J. S. 1872.** Insects of the northern part of British America; from Kirby's Fauna Boreali-Americana: Insecta. *The Canadian Entomologist* 4:31-36, 51-57.
- Bethune, C. J. S. 1873.** Noxious Insects. *The Canadian Entomologist* 5:140.
- Bethune, C. J. S. 1875.** The Flatheaded apple tree borer. *5th Report of the Entomological Society of Ontario*, pp. 13-14.
- Bethune, C. J. S. 1877a.** A few common wood-boring beetles. *The Canadian Entomologist* 9:221-226.
- Bethune, C. J. S. 1877b.** A few common wood-boring beetles. *7th Report of the Entomological Society of Ontario*, pp. 22-30.

- Bethune, C. J. S. 1877c.** Remedies for noxious insects. *7th Report of the Entomological Society of Ontario*, p. 57.
- Bethune, C. J. S. 1887.** Remedies for noxious insects. *17th Annual Report of the Entomological Society of Ontario*, pp. 55–64.
- Bethune, C. J. S. 1908.** Injurious insects in Ontario, 1907. *38th Report of the Entomological Society of Ontario*, pp. 95–99.
- Billberg, G. J. 1820.** Novae Insectorum Species Descriptae. *Mémoires de l'Académie Impériale des Sciences de St.-Pétersbourg* 7:381–395.
- Bílý, S. 1974.** Zur Biologie einheimischer Käferfamilien 13. Buprestidae. *Entomologische Berichten* 1974:67–79.
- Bílý, S. 1981.** New synonyms in Buprestidae (Coleoptera). *Acta Entomologica Bohemoslovaca* 78:348–350.
- Bílý, S. 1982.** The Buprestidae of Fennoscandia and Denmark. *Fauna Entomologica Scandinavica* 10:111 pp., 2 color plates, figs. 1–108.
- Bílý, S. 1984a.** Taxonomic notes on *Anthaxia*, with descriptions of new taxa (Coleoptera, Buprestidae). *Acta Entomologica Bohemoslovaca* 81:212–222, figs. 1–17.
- Bílý, S. 1991.** Taxonomical notes on *Anthaxia* with descriptions of new taxa (Coleoptera, Buprestidae). *Acta Entomologica Bohemoslovaca* 88:121–137, figs. 1–28.
- Bílý, S. 1995.** Taxonomical and nomenclatorial notes on *Anthaxia* (Coleoptera, Buprestidae). *Folia Heyrovskyana* 3(4):40–56, figs. 1–33.
- Bílý, S. 1997a.** World catalogue of the genus *Anthaxia* Eschscholtz, 1829 (Coleoptera: Buprestidae). *Folia Heyrovskyana, Supplementum* 2, 190 pp.
- Bílý, S. 1999a.** Larvy krasč (Coleoptera: Buprestidae) střední Evropy. Larvae of buprestid beetles (Coleoptera: Buprestidae) of Central Europe. *Acta Entomologica Musaei Nationalis Pragae, Supplementum* 9, 45 pp., 33 plates. [in Czech and English]
- Bílý, S. 1999b.** Supplement to the “World Catalogue of the Genus *Anthaxia* (Coleoptera: Buprestidae).” *Folia Heyrovskyana* 7(5):229–242.
- Bílý, S. 2000a.** Case 3118. *Anthaxia* Eschscholtz, 1829 (Insecta, Coleoptera):proposed designation of *Buprestis nitida* Rossi, 1792 (currently *A. fulgurans* (Schrank, 1789)) as the type species. *Bulletin of Zoological Nomenclature* 57(2):97–99.
- Bílý, S. 2000b.** A new concept of Anthaxiini (Coleoptera: Buprestidae). *Folia Heyrovskyana* 8(2):109–114.
- Bílý, S. 2006c.** New nomenclatorial and taxonomic acts, and comments. Buprestidae: Anthaxiini. pp. 58–60. Catalogue. Buprestidae: Chrysochroinae: Paratassini. p. 350; Buprestinae: Anthaxiini. pp. 369–381. In: I. Löbl & A. Smetana (Eds): *Catalogue of Palaearctic Coleoptera*. Volume 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea. Apollo Books, Stenstrup, 690 pp.
- Bílý, S. 2002.** Summary of the bionomy of the Buprestid beetles of Central Europe (Coleoptera: Buprestidae). *Acta Entomologica Musei Nationalis Pragae, Supplementum* 10, 104 pp., 16 color plates.
- Bílý, S. & C. L. Bellamy. 1995.** Comment on the proposed conservation of usage of the generic names *Melanophila* Eschscholtz, 1829 and *Phaenops* Dejean, 1833 (Insecta, Coleoptera). *Bulletin of Zoological Nomenclature* 52(1):70.
- Bílý, S. & C. L. Bellamy. 1996.** New synonymy in North American *Polycesta* Solier. *The Coleopterists Bulletin* 50(2):182.
- Bílý, S. & C. L. Bellamy. 1999.** The genus *Agrilaxia* and description of a new genus from Africa (Coleoptera: Buprestidae). *Folia Heyrovskyana* 7(2):91–98, figs. 1–5.
- Bílý, S. & M. G. Volkovitsh. 1996.** Revision, reclassification and larval morphology of the genus *Paratassa* (Coleoptera: Buprestidae: Paratassini tribus n.). *Acta Societatis Zoologicae Bohemicae* 60:325–346, figs. 1–53.
- Blackman, M. W. 1918.** II. On the Insect Visitors to the Blossoms of Wild Blackberry and Wild Spiraea – A Study in Seasonal Distribution. *Technical Publication No. 10 of The New York State College of Forestry at Syracuse University* 18(4):119–140.
- Blackman, M.W. & W. O. Ellis. 1918.** Some Insect Enemies of Shade Trees and Ornamental Shrubs. *Bulletin of the New York State College of Forestry at Syracuse University* 16(26):1–123.
- Blackman, M. W. & H. H. Stage. 1918.** I. Notes on insects bred from the bark and wood of the American Larch. *Technical Publication No. 10 of The New York State College of Forestry at Syracuse University* 18(4):1–115.
- Blackman, M. W. & H. H. Stage. 1924.** On the succession of insects living in the bark and wood of dying, dead and decaying hickory. *Technical Publication No. 17 of The New York State College of Forestry at*

Bibliography

- Syracuse University* 24(22):1–269.
- Blackwelder, R. E. 1939.** *The Leng Catalogue of Coleoptera of America, North of Mexico*. 4th Supplement 1933 – 1938, 146 pp., Mount Vernon, N. Y.
- Blackwelder, R. E. 1944.** Checklist of the coleopterous insects of Mexico, Central America, The West Indies, and South America, Part 2. *United States National Museum, Bulletin* 185:iv + pp. 189–341.
- Blackwelder, R. E. 1949a.** Studies on the dates of books on Coleoptera. I. *The Coleopterists Bulletin* 3(3):42–46.
- Blackwelder, R. E. 1949b.** Studies on the dates of books on Coleoptera. II. *The Coleopterists Bulletin* 3(5):76.
- Blackwelder, R. E. 1949c.** Studies on the dates of books on Coleoptera. III. *The Coleopterists Bulletin* 3(6):92–94.
- Blackwelder, R. E. 1957.** Checklist of the Coleopterous Insects of Mexico, Central America, The West Indies, and South America, Part 6. *United States National Museum, Bulletin* 185:927–1492.
- Blackwelder, R. E. & R. M. Blackwelder. 1948.** *The Leng Catalogue of Coleoptera of America, North of Mexico*. 5th Supplement 1939 – 1947, 87 pp., Mount Vernon, N. Y.
- Blaisdell, F. E., Sr. 1892.** Notes on the habits of some species of Coleoptera observed in San Diego County, California. *Insect Life* 5:33–36.
- Blaisdell, F. E., Sr. 1917.** Note on collecting Coleoptera in California. In report of the 62nd meeting of the Society. *Proceedings of the Pacific Coast Entomological Society* [1:3].
- Blanchard, F. 1889.** A list of the Buprestidae of New England. *Entomologica Americana* 5(2):29–33.
- Bland, J. H. B. 1864.** Descriptions of several new species of North American Coleoptera. *Proceedings of the Entomological Society of Philadelphia* 3:65–72.
- Bland, J. H. B. 1865.** Descriptions of new North American Coleoptera. *Proceedings of the Entomological Society of Philadelphia* 4:381–384.
- Blatchley, W. S. 1910.** On the Coleoptera known to occur in Indiana. *Indiana Department of Geology and Natural Resources, Bulletin No. 1*:1–1386 [Buprestidae, pp. 776–807].
- Blatchley, W. S. 1913.** On some apparently new Coleoptera from Indiana and Florida. *The Canadian Entomologist* 45:21–24.
- Blatchley, W. S. 1914.** Notes on the winter and early spring Coleoptera of Florida, with descriptions of new species. *The Canadian Entomologist* 46:88–92.
- Blatchley, W. S. 1917.** On some new or noteworthy Coleoptera from the West Coast of Florida—II. *The Canadian Entomologist* 49:236–240.
- Blatchley, W. S. 1919.** Some new or scarce Coleoptera from western or southern Florida. *The Canadian Entomologist* 51:28–32.
- Blatchley, W. S. 1920a.** Winter Coleoptera of Florida. *The Canadian Entomologist* 52(2):42–46.
- Blatchley, W. S. 1920b.** Notes on some Coleoptera taken in the vicinity of Dunedin, Florida, in the spring of 1920, with descriptions of new species. *The Canadian Entomologist* 52(2):259–264.
- Blatchley, W. S. 1923.** Notes on the Coleoptera of southern Florida with descriptions of new species. *The Canadian Entomologist* 55:13–21.
- Blatchley, W. S. 1930.** *Blatchleyana*. The Nature Publishing Co., Indianapolis, p. 77.
- Boisduval, J. B. A. D de. & J. T. Lacordaire. 1835.** Faune entomologique des environs de Paris:ou species général des insectes qui se trouvent dans un rayon de Quinze a Vingt lieues aux alentours de Paris. Tome premier. Paris, Méquignon–Marvis, 17 & cii & 696 pp, 3 plates.
- Boldt, P. E. & T. O. Robbins. 1990.** Phytophagous and flower visiting insect fauna of *Baccharis salicifolia* (Asteraceae) in the southwestern United States and northern Mexico. *Environmental Entomology* 19(3):515–523.
- Bousquet, Y. 1993.** On Thomas Say's entomological publications printed in New Harmony, Indiana. *Entomological News* 104(1):1–14.
- Bøving, A. G. & F. C. Craighead. 1931.** An illustrated synopsis of the principal larval forms of the order Coleoptera. *Entomologica Americana* (n. ser.) 11(1):1–351, 125 plates.
- Bowditch, F. C. 1882.** Notes on certain Coleoptera. *Journal of the Boston Zoological Society* 1:27–28.
- Bowditch, F. C. 1896a.** *Chrysobothris femorata* and *Clerus 4-guttatus*. *Psyche* 7:387–388.
- Bowditch, F. C. 1896b.** List of Mt. Washington Coleoptera. *Psyche* 7(Supplement):1–11.
- Bright, D. 1981.** A new synonym of *Agrilus sayi* (Coleoptera: Buprestidae). *The Canadian Entomologist* 113:871.
- Bright, D. 1987.** The metallic wood-boring beetles of Canada and Alaska. Coleoptera. Buprestidae. *The Insects and Arachnids of Canada*, Part 15:1–335, figs. 1–264.

- Brimley, C. S. 1938.** *The Insects of North Carolina*. Raleigh, p. 560.
- Brimley, C. S. 1942.** *Supplement to insects of North Carolina*. North Carolina Department of Agriculture, Raleigh, p. 39.
- Britton, W. E. 1908.** 7th Annual Report of the State Entomologist of Connecticut, p. 333.
- Britton, W. E. 1911.** Vacation notes in the Adirondacks. *Journal of Economic Entomology* 4:544–545.
- Britton, W. E. 1912.** A gall-making beetle of the Hop Hornbeam. *11th Connecticut Agriculture Experiment Station Report* 291.
- Britton, W. E. 1913.** *12th Connecticut Agriculture Experiment Station Report* 291, plate 16, fig. c
- Britton, W. E. 1914.** 13th Report, Connecticut State Entomologist for 1913:250–251, plate 12, fig. b.
- Britton, W. E. 1916a.** Current Notes. *Journal of Economic Entomology* 9:450.
- Britton, W. E. 1916b.** Current Notes. *Journal of Economic Entomology* 9:576.
- Britton, W. E. 1918a.** *Proceedings of the 27th Annual Meeting of the Connecticut Pomological Society*, p. 47.
- Britton, W. E. 1918b.** Sinuate Pear Borer. *17th Annual Report of Entomologist, Bulletin* 203:361.
- Britton, W. E. 1918c.** *Connecticut Agriculture Experiment Station, Bulletin* 208:107.
- Britton, W. E. 1920.** Checklist of the Insects of Connecticut. *State Geological and Natural History Survey, Bulletin*, 31:243–245.
- Britton, W. E. 1921.** The Sinuate Pear Borer. *Connecticut Agriculture Experiment Station, Bulletin* 226:193–196.
- Britton, W. E. 1923.** *Connecticut Agriculture Experiment Station, Bulletin* 247:269–381.
- Britton, W. E. 1924.** *Connecticut Agriculture Experiment Station, Bulletin* 263:164.
- Britton, W. E. 1927.** *Connecticut Agriculture Experiment Station, Bulletin* 285:168.
- Britton, W. E. & M. P. Zappe. 1927.** Some insect pests of nursery stock in Connecticut. *Connecticut Agriculture Experiment Station, Bulletin* 292:147–148.
- Brodie, P. B. 1888.** List of Coleoptera collected in the Rocky Mountains. *Proceedings of the Canadian Institute, Toronto* 3(5):213–215.
- Brown, A. W. A. 1940.** The Canada forest insect survey in 1939. *70th Annual Report of the Entomological Society of Ontario for 1939*, pp. 95–113.
- Brown, L. R. & C. O. Eads. 1965.** A technical study of insects affecting the oak tree in southern California. *California Agricultural Experiment Station Bulletin* 810:1–105.
- Brown, L. R. & C. O. Eads. 1967.** Insects affecting ornamental conifers in southern California. *California Agricultural Experiment Station Bulletin* 834:1–72.
- Brown, W. J. 1930.** The entomological record, 1929. *60th Annual Report of the Entomological Society of Ontario for 1929*:146–157.
- Brown, W. J. 1931.** The entomological record, 1930. *61st Annual Report of the Entomological Society of Ontario for 1930*:86–95.
- Brues, C. T. & A. L. Melander 1932.** Classification of Insects. *Bulletin of the Museum of Comparative Zoology*, 73:1–672, illus.
- Bureau of Entomology. 1909.** The principal injurious insects of the year 1908. *Yearbook of the United States Department of Agriculture* 1908:567–580.
- Burgess, A. F. 1914.** The Gipsy Moth and the Brown-tail Moth, with suggestions for their control. *United States Department of Agriculture, Farmers' Bulletin* 564:24.
- Burgess, A. F. 1915.** *U. S. Department of Agriculture, Bulletin* 204:19.
- Burgess, A. F. 1917.** The Gipsy Moth and the Brown-tail Moth and their control. *United States Department of Agriculture, Farmers' Bulletin* 845:19.
- Burke, H. E. 1908.** A new buprestid enemy of *Pinus edulis* (*Melanophila pini-edulis*, n. sp.). *Proceedings of the Entomological Society of Washington* 9:117–118.
- Burke, H. E. 1910.** Injuries to forest trees by flat-headed borers. *United States Department of Agriculture, Agriculture Yearbook for 1909*:399–415.
- Burke, H. E. 1917a.** Flat-headed borers affecting forest trees in the United States. *United States Department of Agriculture Bulletin* No. 437:1–8, 8 plates.
- Burke, H. E. 1917b.** Notes on some western Buprestidae. *Journal of Economic Entomology* 10(3):325–332.
- Burke, H. E. 1917c.** *Oryssus* is parasitic. *Proceedings of the Entomological Society of Washington* 19(1):87–89.
- Burke, H. E. 1917d.** A buprestid household insect (*Chrysophana placida* Lec.). *Journal of Economic Entomology* 10, (4):406–407
- Burke, H. E. 1918a.** Notes on some southwestern Buprestidae. *Journal of Economic Entomology* 11(2):209–211.

Bibliography

- Burke, H. E. 1918b.** Biological notes on some flatheaded woodborers of the genus *Buprestis*. *Journal of Economic Entomology* 11(3):334–338.
- Burke, H. E. 1919a.** Biological notes on some flatheaded barkborers of the genus *Melanophila*. *Journal of Economic Entomology* 12(1):105–108.
- Burke, H. E. 1919b.** Biological notes on the flatheaded apple tree borer (*Chrysobothris femorata* Fab.) and the Pacific flatheaded apple tree borer (*Chrysobothris mali* Horn). *Journal of Economic Entomology* 12(4):326–330.
- Burke, H. E. 1920a.** Collecting some little known Buprestidae (Coleopt.). *Proceedings of the Entomological Society of Washington* 22(4):72–76.
- Burke, H. E. 1920b.** Some notes on the genus *Trachykele* with a description of a new species (Buprestidae, Coleoptera). *Proceedings of the Entomological Society of Washington* 22(7):168–170.
- Burke, H. E. 1920c.** The Pacific oak twig-girdler. *Journal of Economic Entomology* 13(5):379–384.
- Burke, H. E. 1924a.** “Why an Entomologist.” In Report of the 87th meeting of the Society. *Proceedings of the Pacific Coast Entomological Society* 2(2):21–24.
- Burke, H. E. 1924b.** Notes on the genus *Buprestis* with description of one new species (Coleoptera, Buprestidae). *Proceedings of the Entomological Society of Washington* 26(3):70–72.
- Burke, H. E. 1924c.** Notes on collecting at Chico, California and vicinity. In report of the 90th meeting of the Society. *Proceedings of the Pacific Coast Entomological Society*, 2(3):35–37.
- Burke, H. E. 1925.** Western cedar pole borer. *Timberman* 26(10):96.
- Burke, H. E. 1928a.** The western Cedar Pole borer or powder worm. *United States Department of Agriculture Technical Bulletin* 48:1–15, figs. 1–9.
- Burke, H. E. 1928b.** Should insect varieties receive a scientific name? *Proceedings of the Pacific Coast Entomological Society* 2(7):110–111.
- Burke, H. E. 1929.** Work of the Pacific oak twig girdler conspicuous in the Yosemite Valley. *The Pan-Pacific Entomologist* 6(1):42.
- Burke, H. E. 1930.** A buprestid new to the Yosemite. *The Pan-Pacific Entomologist* 6(3):138.
- Burke, H. E. & A. G. Bøving. 1929.** The Pacific Flathead Borer. *United States Department of Agriculture Technical Bulletin* 83:1–36, figs. 1–9.
- Burrill, T. J. 1883.** The Lombardy Poplar borer, *Agrilus granulatus* Say. *12th Report, State Entomologist of Illinois*, pp. 121–122.
- Butterick, P. L. 1913a.** Notes on insect destruction of fire-killed timber in the Black Hills of South Dakota. *Journal of Economic Entomology* 5:456–464.
- Butterick, P. L. 1913b.** Reprinted in *Forest Quarterly* 11:363.
- Butz, G. C. 1898.** Apples in Pennsylvania—Insect Enemies. *Pennsylvania Experiment Station, Bulletin* 43:13–17.
- Caesar, L. 1912.** Insects of the season in Ontario. *42th Report of the Entomological Society of Ontario for 1911*, pp. 28–36.
- Caesar, L. 1915a.** Insects of the season in Ontario. *42th Report, Entomological Society of Ontario* pp. 28–36.
- Caesar, L. 1915b.** Forest and shade tree insects. *45th Report, Entomological Society of Ontario* pp. 42–49.
- Caesar, L. 1917.** Notes on some insects of the season. *47th Report, Entomological Society of Ontario* pp. 106–110.
- Caesar, L. & W. A. Ross 1933.** Insects of the season 1932 in Ontario. *63rd Annual Report of the Entomological Society of Ontario for 1932*, pp.13–20.
- Capelonto, R. 1949.** Notes on the Florida Buprestidae. *The Florida Entomologist* 32(3):109–114.
- Carlson, R. W. 1969.** Biology, taxonomy, and evolution of four sympatric *Agrilus* beetles (Coleoptera: Buprestidae). *Dissertation Abstracts* 29:2930–B.
- Carlson, R. W. & F. B. Knight. 1969.** Biology, taxonomy, and evolution of four sympatric *Agrilus* beetles (Coleoptera: Buprestidae). *Contributions of the American Entomological Institute* 4(3), iv + 105 pp., figs. 1–47.
- Carr, F. S. 1920.** An annotated list of the Coleoptera of Northern Alberta. *Proceedings of the Alberta Natural History Society* pp. 1–8.
- Cartwright, O. L. 1931.** Digger wasps and Buprestidae (Hym.:Cerceridae, Coleop.:Buprestidae). *Entomological News* 42(10):269–270.
- Casey, T. L. 1884.** *Contributions to the descriptive and systematic Coleopterology of North America* 2:61–198.
- Casey, T. L. 1909.** Studies in the American Buprestidae. *Proceedings of the Washington Academy of*

- Science* 11(2):47–178.
- Casey, T. L. 1910.** Synonymical and other notes on Coleoptera. *The Canadian Entomologist* 42:105–144.
- Casey, T. L. 1911.** II. Notes on the Coccinellidae with some general remarks and synonymy. *Memoirs on the Coleoptera* 2:246–254.
- Casey, T. L. 1914.** Miscellaneous notes and new species. *Memoirs on the Coleoptera* 5:355–378.
- Castelnau** [see F. L. Laporte de Castelnau]
- Castle, D. M. & P. Laurent. 1896.** April collecting in Georgia and Florida. *Entomological News* 7:300–305.
- Castle, D. M. & P. Laurent 1897.** April collecting in Georgia and Florida. *Entomological News* 8(1):7–9.
- Caulfield, F. B. 1886.** A note on *Dicerca divaricata*. *The Canadian Entomologist* 18:196.
- Caulfield, F. B. 1890.** Insects injurious to oak. *20th Report, Entomological Society of Ontario* (1889):55–56.
- Caveney, S. 1986.** The phylogenetic significance of ommatidium structure in the compound eyes of polyphagan beetles. *Canadian Journal of Zoology* 64(9):1787–1819.
- Cazier, M. A. 1937.** Four new California Coleoptera (Buprestidae, Scarabaeidae, and Cicindelidae). *The Pan-Pacific Entomologist* 13(3):115–118.
- Cazier, M. A. 1938a.** New *Acmaeodera* and *Chrysobothris* from the Southwest (Coleoptera–Buprestidae). *Bulletin of the Southern California Academy of Science* 37(1):12–17.
- Cazier, M. A. 1938b.** Two new California *Acmaeodera* (Coleoptera–Buprestidae). *Bulletin of the Southern California Academy of Sciences* 37(3):137–140.
- Cazier, M. A. 1939a.** Notes on the genus *Schizopus* with a key to the species (Coleoptera, Buprestidae). *The Pan-Pacific Entomologist* 15(2):85–86.
- Cazier, M. A. 1939b.** *Glyptoscelimorpha viridis* Chamberlin (Coleoptera–Buprestidae). *Bulletin of the Brooklyn Entomological Society* 34(4):214.
- Cazier, M. A. 1940a.** New North American *Acmaeodera* with synonymical and miscellaneous notes on other species (Coleoptera: Buprestidae). *The Wasmann Collector* 4(1):17–29.
- Cazier, M. A. 1940b.** New species and new synonymy in Californian *Acmaeodera* (Coleoptera: Buprestidae). *The Wasmann Collector* 4(2):57–59.
- Cazier, M. A. 1941.** New synonymy in the Schizopini (Coleoptera, Buprestidae). *Bulletin of the Brooklyn Entomological Society* 36(1):31–33.
- Cazier, M. A. 1951a.** The Buprestidae of the Bahama Islands, British West Indies (Coleoptera, Buprestidae). *American Museum Novitates* 1517:1–9.
- Cazier, M. A. 1951b.** The Buprestidae of North Central Mexico (Coleoptera). *American Museum Novitates* 1526:1–56, figs. 1–51.
- Cazier, M. A. 1952.** Additions to the buprestid fauna of the Bahama Islands (Coleoptera, Buprestidae). *American Museum Novitates* 1562:1–10, figs. 1–5.
- Chagnon, C. 1917.** A preliminary list of the insects of the Province of Quebec, Part 3, Coleoptera. A supplement to the 9th Report, *Quebec Society for Protection of Plants*:159–277.
- Chagnon, G. & O. Fournier 1940.** A preliminary list of the insects collected in the Laurentide Provincial Park, Montmorency County, Quebec. *70th Annual Report of the Entomological Society of Ontario for 1939*:83–87.
- Chagnon, G. & A. Robert 1962.** *Principaux Coléoptères de la Province de Québec*, 2ième edition. Les Presses de l'Université de Montréal, Qué, 440 pp.
- Chamberlin, J. 1900.** A new insect pest. *Scientific American* 82:42.
- Chamberlin, W. J. 1917a.** Notes on some Buprestidae of Northern California (Col.). *Entomological News* 28:129–139, 166–169.
- Chamberlin, W. J. 1917b.** A correction on *Trachykele*. *Entomological News* 28:234.
- Chamberlin, W. J. 1920a.** Notes on two little-known wood-boring beetles, *Chysobothris sylvania* Fall and *Melasis rufipennis* Horn (Buprestidae, Elateridae.). *Journal of the New York Entomological Society* 28(2):151–157.
- Chamberlin, W. J. 1920b.** Description of one new buprestid with notes on other little known species (Coleop.). *Entomological News* 31:241–244, figs. 1–6.
- Chamberlin, W. J. 1921a.** Third Crop Pest and Horticultural Report (1915–1920). Flat-headed borers which attack orchard trees and cane fruits in Oregon. Oregon Agriculture College Experiment Station, Corvallis, pp. 103–108.
- Chamberlin, W. J. 1921b.** Flat-headed borers which attack orchard trees and cane fruits in Oregon. *Review of Applied Entomology* (Series A) 9:165.
- Chamberlin, W. J. 1922.** A review of the genus *Poecilonota* as found in America north of Mexico (Coleoptera, family Buprestidae) with descriptions of new species. *Journal of the New York Entomo-*

Bibliography

- logical Society* 30(1):52–66, 2 plates.
- Chamberlin, W. J. 1925a.** Notes on the Buprestidae of Oregon with descriptions of new species. *Journal of the New York Entomological Society* 32(1924):185–194.
- Chamberlin, W. J. 1925b.** A new species of *Poecilnota* from California Coleoptera Family Buprestidae. *The Pan-Pacific Entomologist* 1(4):186–187.
- Chamberlin, W. J. 1926.** *Catalogue of the Buprestidae of North America north of Mexico*. W. J. Chamberlin, Corvallis, Oregon, 289 pp. + 1 page index.
- Chamberlin, W. J. 1928.** Remarks on the Buprestidae (Coleoptera) of the north Pacific Coast region with descriptions of new species. *The Pan-Pacific Entomologist* 5(2):93–95.
- Chamberlin, W. J. 1929.** Remarks on the Buprestidae (Coleoptera) of the north Pacific Coast region with descriptions of new species. *The Pan-Pacific Entomologist* 5(3):109–116, figs. 1–5.
- Chamberlin, W. J. 1931.** A new species of Buprestidae from California. *The Pan-Pacific Entomologist* 8(1):47–48.
- Chamberlin, W. J. 1932.** Notes on the synonymy, hosts and distribution of some Buprestidae (Coleoptera). *Journal of Economic Entomology* 25(4):833–836, 1 fig.
- Chamberlin, W. J. 1933.** A synopsis of the genus *Polycesta* Solier with the description of one new species. *Journal of the New York Entomological Society* 41:37–46, 1 plate.
- Chamberlin, W. J. 1934.** New species of the genus *Chrysobothris*, with a key to the species of Horn's Group IV (Coleoptera, Buprestidae). *The Pan-Pacific Entomologist* 10(1):35–42.
- Chamberlin, W. J. 1938a.** Six new species of *Chrysobothris* (Buprestidae) from the western United States. *The Pan-Pacific Entomologist* 14(1):10–16, figs. 1–19.
- Chamberlin, W. J. 1938b.** New Buprestidae from California. *Journal of the New York Entomological Society* 46:445–447.
- Chamberlin, W. J. 1947.** The golden buprestid (flat-headed borer in early stages) as a household pest. *Oregon Agricultural Experiment Station Circular of Information* 417:3.
- Chamberlin, W. J. 1949a.** A South American species of Buprestidae taken in California (Coleoptera). *The Pan-Pacific Entomologist* 25(4):150.
- Chamberlin, W. J. 1949b.** Insects affecting forest products and other materials; a consideration of the damage inflicted by insects and their near relatives to timber and timber products both raw and finished, in storage or in final placement, together with a brief discussion of similar damage to metals and concrete. O.S.C. Cooperative Association, Corvallis, Oregon.
- Chamberlin, W. J. 1953.** Insects affecting forest products and other materials. Oregon State College Cooperative Association, Corvallis, Oregon, 159 pp.
- Chambers, V. T. 1872.** On some leaf-mining Coleoptera. *The Canadian Entomologist* 4:123–125.
- Chamblis, C. E. 1893.** Some injurious insects of the apple, *C. femorata*. *Tennessee Bulletin* 6(1):8–9.
- Champlain, A. B. & J. N. Knull. 1922a.** Miscellaneous notes on Coleoptera. *The Canadian Entomologist* 54:102–104.
- Champlain, A. B. & J. N. Knull. 1922b.** New North American Coleoptera. *Entomological News* 33:144–149.
- Champlain, A. B. & J. N. Knull. 1923a.** A new species of *Agrilus*. *Entomological News* 34:84–85, figs. 1–3.
- Champlain, A. B. & J. N. Knull. 1923b.** A new variety of *Melanophila drummondi* Kirby. *The Canadian Entomologist* 55(5):105.
- Champlain, A. B. & J. N. Knull. 1923c.** A new species of *Agrilus* from Kansas (Buprestidae, Coleop.). *Entomological News* 34:274.
- Champlain, A. B. & J. N. Knull. 1925a.** Notes on Coleoptera. *The Canadian Entomologist* 57:112–115.
- Champlain, A. B. & J. N. Knull. 1925b.** Two new North American Coleoptera. *Annals of the Entomological Society of America* 18(4):469–470.
- Chantal, C. 1981.** *Taphrocerus nicolayi* Obenb. (Coleoptera: Buprestidae) hibernerait à l'état adulte. *Faberies* 7(3):50.
- Chapin, E. A. 1925.** Food habits of vireos. *United States Department of Agriculture Bulletin* No. 1355:1–43.
- Chapman, R. N. 1915.** Observations on the life history of *Agrilus bilineatus*. *Journal of Agricultural Research* 3(4):283–293.
- Chapman, R. N. 1920.** The life cycle of the Coleoptera (Including the Strepsiptera). *Annals of the Entomological Society of America* 13:174–180.
- Chapman, R. N. 1923.** Observations on the life history of *Taphrocerus gracilis* (Say) (Beetle, Family Buprestidae). *Cornell University Agricultural Experiment Station Memoir* 67:13.
- Chase, W. W. 1919.** Apple Tree Borers. *Georgia State Board of Entomology, Bulletin* 54:26, 28.

- Chevrolat, L. A. A. 1833.** *Coléoptères du Mexique*, Fascicle 1, [25 pp.], Janvier/June 1833. Strasbourg.
- Chevrolat, L. A. A. 1834.** *Coléoptères du Mexique*, Fascicle 3, [48 pp.], Octobre/Novembre 1834. Strasbourg.
- Chevrolat, L. A. A. 1835.** *Coléoptères du Mexique*, Fascicle 4, [70 pp.], Novembre 1834/Janvier 1835; Fascicle 5, [50 pp.], Janvier 1835; Fascicle 6, [48 pp.], Juin 1835; Fascicle 8, [68 pp.], Septembre 1835. Strasbourg.
- Chevrolat, L. A. A. 1838.** Centurie de Buprestides. *Revue Entomologique* 5(1837):41–110.
- Chevrolat, L. A. A. 1853.** Description d'une nouvelle espèce de Buprestide. *Revue et Magasin de Zoologie* 5(2):308–309. [*Chalcophora langeri* No. 7 instead of (2) 6]
- Chevrolat, L. A. A. 1867.** Coléoptères de l'Île de Cuba. (Suite) Notes, synonymies et descriptions d'espèces nouvelles. Septième mémoire. Famille des Buprestides, Throscides, Eucnémides et Élatérides. *Annales de la Société entomologique de France* 7(4):571–616.
- Chiles, L. 1914.** Oak pests—the oak twig girdler. (*Agrilus politus* Say.) Order—Coleoptera. Family—Buprestidae. *The Monthly Bulletin, State Commission of Horticulture, California* 3(3):150–155, figs. 54–56.
- Chittenden, F. H. 1889.** Notes on the habits of Buprestidae. *Entomologia Americana* 5:217–221.
- Chittenden, F. H. 1894.** Insects noticed in the Forestry building. *Insect Life* 7:226–227.
- Chittenden, F. H. 1895.** Some coleopterous enemies of the grape vine. *Insect Life* 7:384–387.
- Chittenden, F. H. 1897a.** Insect injury to chestnut and pine trees in Virginia and neighboring states. *United States Department of Agriculture, Division of Entomology Bulletin* 7(N.S.):67–71.
- Chittenden, F. H. 1897b.** The two lined Chestnut borer. *Agrilus bilineatus*. *United States Department of Agriculture, Division of Entomology Circular* 24(2nd series):1–8.
- Chittenden, F. H. 1898.** A destructive borer enemy of birch trees, with notes on related species. *United States Department of Agriculture, Division of Entomology Bulletin* 18(N.S.):44–51.
- Chittenden, F. H. 1900.** Food plants and injury of North American species of *Agrilus*. *Division of Entomology Bulletin, United States Department of Agriculture* 22(N.S.):64–68.
- Chittenden, F. H. 1903.** Principal injurious insect in 1902. *United States Department of Agriculture Yearbook*, pp. 726–732.
- Chittenden, F. H. 1904.** *United States Department of Agriculture, Bureau of Forestry, Bulletin* 46:67–68.
- Chittenden, F. H. 1907.** The larger apple tree borers. *United States Department of Agriculture, Division of Entomology Circular* 32(N.S.):1–11.
- Chittenden, F. H. 1922.** The red-necked raspberry cane borer. *United States Department of Agriculture, Farmers Bulletin* 1286:1–5, figs. 1–5.
- Chrystal, R. N. 1917.** The western cedar borer, *Trachykele* sp. *Agriculture Gazette of Canada* 4:946–949.
- Clark, T. C. 1890.** Maple Tree Borers. *Insect Life* 3:161.
- Clement, G. E. 1917.** Control of the Gipsy Moth by forest management. *United States Department of Agriculture, Bulletin* 484:54.
- Clementi, V. 1870.** Captures at North Douro. *The Canadian Entomologist* 2(5):67–68.
- Clementi, V. 1872.** Captures at North Douro, County of Peterboro, Ontario. *The Canadian Entomologist* 4:37–38.
- Close, C. P. 1900.** The flat-headed apple tree borer. *Utah Bulletin* 65:84.
- Cobos, A. 1955.** Estudio sobre los Ptosimites de Ch. Kerremans (Coleoptera, Buprestidae). *Bulletin de l'Institut Royal des Sciences Naturelle de Belgique* 31(13):1–24, figs. 1–24.
- Cobos, A. 1956a.** Sexta nota sobre Buprestidos (Ins. Coleoptera) Neotropicales. Los *Mastogenius* Sol., de Sudamérica. *Revista Brasileira de Entomología* 5:203–218, figs. 1–13.
- Cobos, A. 1956b.** Ensayo monográfico sobre las *Anthaxia* Eschs. (Coleoptera, Buprestidae) de América. Primera parte: Subgéneros *Cylindrophora* Sol. y *Paracuris* Obenb. *Archivos de Instituto del Aclimatación* 5:103–165, 16 plates.
- Cobos, A. 1957a.** Un género y dos nuevas especies de Buprestidae de Nueva Guinea. *The Coleopterists Bulletin* 10(6):91–96, figs. 1–5.
- Cobos, A. 1957b.** Séptima nota sobre Buprestidos neotropicales. Sobre los Chalcophorini Kerremans, de América meridional, con descripción de un nuevo género y dos nuevas especies. *Archivos de Instituto del Aclimatación* 6:191–198, figs. 1–7.
- Cobos, A. 1958a.** Ensayo monográfico sobre las *Anthaxia* Eschs. (Coleoptera, Buprestidae) de América. Segunda parte: Subgénero *Haplanthaxia* Reitter y *Anthaxia* s. str. *Archivos de Instituto del Aclimatación* 7:69–126, 9 plates.
- Cobos, A. 1958b.** Revisión de los Acmaeoderini de Marruecos (Col. Buprestidae). *EOS, Revista Española de Entomología* 34:221–268, figs. 1–46.
- Cobos, A. 1964.** Extensión del género “*Xenorhipis*” a la fauna neotropical (Coleoptera, Buprestidae).

Bibliography

- Revista Brasileira de Biología* 24(1):77–82, figs. 1–4.
- Cobos, A. 1972.** Ensayo monográfico sobre las *Anthaxia* Eschs. (Coleoptera, Buprestidae) de América. Tercera parte: Subgénero *Agrilaxia* Kerremans. *Archivos de Instituto del Aclimatación* 16(1971):5–235, 16 plates.
- Cobos, A. 1976.** Estudio sobre *Rhaeboscelis* Chevrolat, 1837 y géneros afines (Col. Buprestidae). *EOS, Revista Española de Entomología* 50(1974):19–40, figs. 1–20.
- Cobos, A. 1978.** Estudios sobre la subfamilia Trachyinae (Coleoptera, Buprestidae). *Nouvelle Revue d'Entomologie* 8(1):59–68, figs. 1–12.
- Cobos, A. 1979a.** Revisión de la subfamilia Trachyinae a niveles supraespecíficos (Coleoptera, Buprestidae). *Acta Entomologica Bohemoslovaca* 76:414–430, figs. 1–27.
- Cobos, A. 1979b.** Rectificaciones sinonímicas de Buprestidos (Col.) a niveles supraespecíficos Cinyrini nov. nom. (=Paraleptodomini Cobos, nom. nudum). *Boletín de la Asociación Española de Entomología* 3:226.
- Cobos, A. 1980.** Ensayo sobre los géneros de la subfamilia Polycestinae (Coleoptera, Buprestidae) (Parte I). *EOS, Revista Española de Entomología* 54(1978):15–94, figs. 1–54.
- Cobos, A. 1981.** Ensayo sobre los géneros de la subfamilia Polycestinae [sic] (Coleoptera, Buprestidae) (Parte II). *EOS, Revista Española de Entomología* 55-56(1979–1980):23–94, figs. 55–146.
- Cobos, A. 1986.** *Fauna Iberica de Coleopteros Buprestidae*. Consejo Superior de Investigaciones Científicas, Madrid, pp. 1–364. 60 plates.
- Cobos, A. 1987.** Ensayo monográfico sobre las *Melanophila* Eschscholtz sensu lato (Coleoptera: Buprestidae). 1 Parte: *Melanophila* Eschs., sensu novo; *Trachypteris* Kirby; *Xenomelanophila* Sloop. *EOS, Revista Española de Entomología* 62(1986):45–90, figs. 1–48.
- Cockerell, T. D. A. 1888a.** *Dicerca* a poplar feeder. *Insect Life* 1:58.
- Cockerell, T. D. A. 1888b.** *Dicerca* a poplar feeder. *The Canadian Entomologist* 5:178.
- Cockerell, T. D. A. 1893.** The entomology of the mid-alpine zone of Custer County, Colorado. *Transactions of the Entomological Society of America* 20:305–370.
- Cockerell, T. D. A. 1897.** Biological notes on some Coleoptera from New Mexico. *Journal of the New York Entomological Society* 5:149–150.
- Cockerell, T. D. A. 1898.** Life zones in New Mexico. II. The zonal distribution of Coleoptera. *New Mexico Experiment Station, Bulletin* 28:137–179.
- Cockerell, T. D. A. 1902a.** Records of the habits of New Mexico Coleoptera. *Psyche* 9:378–380.
- Cockerell, T. D. A. 1902b.** Notes from New Mexico and Arizona. *U. S. Department of Agriculture, Division of Entomology, Bulletin* No. 37(N.S.):107–109.
- Cockerell, T. D. A. 1910.** Some insects collected in northwestern Colorado in 1909. *The University of Colorado Studies* 7(2):126–130.
- Comstock, J. H. 1923.** *A Manual of the Study of Insects*. 17th Edition, Comstock Publishing Company, Ithaca, New York. [Buprestidae, pp. 548–550]
- Comstock, J. H. 1925.** *An Introduction to Entomology*. Comstock Publishing Company. [Buprestidae, pp. 502–503]
- Comstock, J. H. & A. B. Comstock. 1895.** *A Manual of the Study of Insects*. 1st Edition. Comstock Publishing Company, Ithaca, New York. [Buprestidae, pp. 548–550]
- Connor, E. F. 1988.** Cohort and death assemblage estimates of survival rates and causes of mortality in *Brachys ovatus* (Weber) (Coleoptera: Buprestidae). *American Midland Naturalist* 120(1):150–155.
- Cook, A. J. 1873.** *Report, Michigan State Board of Agriculture*, pp. 22–23.
- Cook, A. J. 1874.** Insects injurious to farm, garden and orchard. *Report, Michigan State Board of Agriculture*, pp. 1–47.
- Cook, A. J. 1886.** Untitled letter on *Brachys* to the editor. *Entomologia Americana* 3:59.
- Cook, A. J. 1890.** The willow buprestid (*Agrilus torpidus*). *29th Report, Michigan Board of Agriculture*, pp. 118–119.
- Cook, A. J. 1896a.** *The California Cultivator* 10:362–363.
- Cook, A. J. 1896b.** *The Rural Californian* 19:66.
- Cooley, R. A. 1900.** Injurious fruit insects (*C. femorata*). *Montana Experiment Station, Bulletin* 23:77–78.
- Cooley, R. A. 1903.** The flat-headed apple tree borer. *Montana Experiment Station, Bulletin* 51:224–227.
- Cooper, K. W. 1933.** *Xenorhipis brendeli* Lec. from Long Island. (Coleoptera–Buprestidae). *Bulletin of the Brooklyn Entomological Society* 28:115.
- Coquillett, D. W. 1892.** Notes on the habits of some California Coleoptera. *Insect Life* 4:260–262.
- Cordley, A. B. 1897.** Insects Of The Prune. *Oregon Experiment Station, Bulletin* 45:99–127.

- Cordo, H. A. & C. J. Deloach. 1987.** Insects that attack mesquite (*Prosopis* spp.) in Argentina and Paraguay: their possible use for biological control in the United States. *U. S. Department Of Agriculture, Agricultural Research Service, ARS-62*, 32 pp.
- Corona, A. Ma. 2005.** Revision of the subgenus *Lampetis* (Spinthoptera) (Coleoptera: Buprestidae) of North and Central American, and the West Indies. *European Journal of Entomology* 102:737–776.
- Cote, W. A., III & D. C. Allen. 1980.** Biology of two-lined chestnut borer, *Agrilus bilineatus*, in Pennsylvania and New York. *Annals of the Entomological Society of America* 73(4):409–413.
- Couper, W. 1874.** Anticosti Coleoptera. *The Canadian Entomologist* 6:137–138.
- Cox, D. G. 1901.** Notes on insects of the year 1900. *31st Annual Report, Entomological Society of Ontario*, pp. 39–40.
- Craighead, F. C. 1915.** Current Notes. *Journal of Economic Entomology* 8:440.
- Craighead, F. C. 1917.** Current Notes. *Journal of Economic Entomology* 10:568.
- Craighead, F. C. 1950.** Insect Enemies of Eastern Forests. *United States Department of Agriculture, Miscellaneous Publication* No. 657, 679 pp.
- Craighead, F. C. & G. Hofer. 1921.** Protection of mesquite cordwood and posts from borers. *United States Department of Agriculture, Farmers' Bulletin* 1197:12.
- Craighead, F. C. & W. Middleton. 1930.** An annotated list of the important North American forest insects. *United States Department of Agriculture, Miscellaneous Publications* No. 74:1–30.
- Creutzer, C. 1799.** *Entomologische Versuche*. Wien, Schaumburg, 8:142.
- Criddle, N. 1921.** *51st Annual Report of the Entomological Society of Ontario for 1920* 51:72–90.
- Criddle, N. 1922.** *52nd Annual Report of the Entomological Society of Ontario for 1921* 52:57–70.
- Criddle, N. 1925.** *55th Annual Report of the Entomological Society of Ontario for 1924* 55:89–106.
- Criddle, N. 1926.** *Annual Report of the Entomological Society of Ontario for 1925* 56:97.
- Criddle, N. 1927.** *Annual Report of the Entomological Society of Ontario for 1926* 57:54.
- Criddle, N. 1928.** *58th Annual Report of the Entomological Society of Ontario for 1927* 58:92–103.
- Criddle, N. 1929.** *59th Annual Report of the Entomological Society of Ontario for 1928* 59:110–124.
- Criddle, N. & C. H. Curran 1923.** *53rd Annual Report of the Entomological Society of Ontario for 1922* 53:76–90.
- Criddle, N., C. H. Curran, H. L. Viereck & E. R. Buckell 1924.** *54th Annual Report of the Entomological Society of Ontario for 1923* 54:87–102.
- Crotch, G. R. 1871.** *Check list of the Coleoptera of America, north of Mexico*, Salem, Mass., 136 pp.
- Crotch, G. R. 1873.** Notes on the species of Buprestidae found in the United States. *Proceedings of the Academy of Natural Sciences*, Philadelphia 25:84–96.
- Crow, L. 1897.** *California Tree Grower* 1:4.
- Crowson, R. A. 1955.** *The natural classification of the families of Coleoptera*, E. W. Classey, London, 214 pp. (reprint 1967).
- Crowson, R. A. 1960.** The phylogeny of Coleoptera. *Annual Review of Entomology* 5:111–134.
- Crowson, R. A. 1975.** The evolutionary history of Coleoptera, as documented by fossil and comparative evidence. *Atti del X Congresso Nazionale Italiano di Entomologia*, Sassari, 20–25 Maggio 1974:47–90.
- Crowson, R. A. 1981.** *The Biology of the Coleoptera*. Academic Press, London, xii + 802 pp.
- Crowson, R. A. 1982.** On the dryopoid affinities of Buprestidae. *The Coleopterists Bulletin* 36(1):22–25.
- Csiki, E. 1905.** Coleoptera nova ex Hungaria. *Annales Historico-Naturales Musei Nationalis Hungarici* 3:575–582.
- Curtis, J. 1825.** *British Entomology*; being illustrations and descriptions of the genera of insects found in Great Britain and Ireland:containing coloured figures from nature of the most rare and beautiful species, and in many instances of the plants upon which they are found. London, Printed for the author, Volume 2, plates 51–98 with text, not paginated.
- Cushman, H. G., C. F. W. Muesebeck & G. B. Vogt. 1972.** Warren Samuel Fisher 1878–1971. *Proceedings of the Entomological Society of Washington* 74(3):344–352.
- Daggett, F. 1895.** Notes on collecting Coleoptera. *Entomological News* 6:311–314.
- Davidson, J. M. 2003.** Mexican *Acmaeodera* Eschscholtz, 1829: A new species and checklist, with miscellaneous taxonomic and biological notes on other North American Buprestidae (Coleoptera). *Zootaxa* 201:1–18, figs. 1–5.
- Davidson, J. M. 2006.** A new species from California and taxonomic change in *Acmaeoderopsis* (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 82 (2):213–222, figs. 1–12.
- Davidson, J. M. & C. L. Bellamy. 2002.** The entomological contributions of Josef Nissley Knull (1891–1975). *Zootaxa* 37:1–24.

Bibliography

- Davidson, J. M. & J. P. Davidson. 2005.** Notes and comments on hosts, temporal distribution and behavior of Buprestidae from a sand dune environment in west Texas (Coleoptera). *The Pan-Pacific Entomologist* 81(1-2):34-40, figs. 1-5.
- Davidson, R. H. 1975.** Josef Nissley Knull 1891-1975. *Journal of Economic Entomology* 68(4):566.
- Davies, A. 1991.** Family Buprestidae, pp. 160-168. In Y. Bousquet (Ed.). *Checklist of Beetles of Canada and Alaska*. Agriculture Canada, Publication 1861, E Ottawa.
- Davis, A. C. 1931.** California collecting notes II. *Bulletin of the Brooklyn Entomological Society*, p. 187.
- Davis, D. W. 1963.** The control of the rose stem girdler on raspberries in Utah. *Journal of Economic Entomology* 56(5):674-677.
- Davis, D. W. & N. N. Raghuvir. 1964.** The biology of the rose stem girdler, *Agrilus rubicola communis* on raspberries in Utah (Coleoptera: Buprestidae). *Annals of the Entomological Society of America* 57(2):154-159.
- Davis, G. C. 1891.** Notes on a few borers. *Insect Life* 4:64-67.
- Davis, G. C. 1892.** Notes on a few borers. *Annual Report of the Entomological Society of Ontario for 1891* 22:80-82.
- Davis, G. C. 1894.** Borers the horticulturist must fight. *Proceedings of the Michigan Horticultural Society*, pp. 78-83.
- Davis, G. C. 1895.** The pests of orchard and garden. *Michigan Bulletin* 121:80.
- Davis, J. J. 1910.** Insect notes from Illinois for 1909. *Journal of Economic Entomology* 3:180-187.
- Davis, W. T. 1912.** Notes on *Brachys ovata*. *Journal of the New York Entomological Society* 20:305.
- Davis, W. T. 1919.** Notes on *Brachys*. *Journal of the New York Entomological Society* 27:112.
- Davis, W. T. & C. W. Leng. 1912.** Insects on a recently felled tree (Cleveland, Fla.). *Journal of the New York Entomological Society* 20:119-121.
- Davis, W. T. & C. W. Leng. 1914.** Notes on spring collecting in North Carolina. *Journal of the New York Entomological Society* 22:267.
- Dearborn, R. G. & C. P. Donahue. 1993.** An annotated list of insects collected and recorded by the Maine Forest Service, order Coleoptera, beetles. *Maine Forest Service, Insect and Disease Division, Technical Report* No. 32:xiv + 102.
- DeGeer, C. 1774.** *Mémoires pour servir à l'histoire des Insectes*. Pierre Hesselberg, Stockholm, Volume 4:1-456.
- DeGeer, C. 1778.** *Mémoires pour servir à l'histoire des insectes*. Volume 7:1-950.
- Dejean, P. F. M. A. 1821.** *Catalogue de la collection de Coléoptères de M. le Baron Dejean*. pp. viii + 136 + [ii]. Crevot, Libraire, Paris.
- Dejean, P. F. M. A. 1833.** *Catalogue des Coléoptères de la collection de M. le comte Dejean*, livraison 1:1-96, Méquignon-Marvis, Father & Sons, Paris.
- Dejean, P. F. M. A. 1836.** *Catalogue des Coléoptères de la collection de M. le comte Dejean*. Troisième édition, revue, corrigée, et augmentée, livraisons 1-4:1-384, Méquignon-Marvis, Father & Sons, Paris.
- DeLeon, D. 1952.** Insects associated with *Sequoia sempervirens* and *Sequoia gigantea* in California. *The Pan-Pacific Entomologist* 28(2):75-91.
- Desai, A. E., B. M. Deuray, R. U. Ladhe & J. T. Pagar. 1997.** Histo-morphology and biochemical studies of the gut of *Chalcophora virginica* (Coleoptera-Buprestidae). *Journal of Animal Morphology and Physiology* 44(2):95-99.
- Desmarest, E. 1860.** Coléoptères. In: J. C. Chenu (Ed.). *Encyclopédie d'histoire naturelle ou traité complet de cette science*. Volume III Marescq et Compagne, Paris, 360 pp., 6 plates, + figs.
- Deyrolle, H. 1864.** Description des Buprestides de la Malaisie recueillis par M. Wallace. *Annales de la Société entomologique de Belgique* 8:1-312, 1 plate. [English summary including keys in *Zoological Record* for 1865]
- Doane, R. W. 1912.** Some insect pests of the California live oaks. *Journal of Economic Entomology* 5:346-348.
- Doane, R. W., E. C. Van Dyke, W. J. Chamberlin & H. E. Burke. 1936.** *Forest insects*. McGraw-Hill Book Co., New York.
- Dobson, R. C. & J. G. Watts. 1956.** Adult buprestid causes crop damage. *Journal of Economic Entomology* 49(3):391.
- Dodds, K. J. & D. W. Ross. 2002.** Relative and seasonal abundance of wood borers (Buprestidae, Cerambycidae) and Cucujidae trapped in Douglas-Fir beetle pheromone-baited traps in northern Idaho. *The Pan-Pacific Entomologist* 78(2):120-131.
- Domínguez Rubio, C. Y. 1969.** Introducción al estudio del género *Chrysobothris* (Coleoptera Buprestidae)

- en México. *Boletín Técnico Instituto Nacional de Investigaciones Forestales*, México 30:vi + 1–62, figs. 1–32.
- Domínguez Rubio, C. Y. & C. Márquez Mayaudon. 1971.** Cuatro especies nuevas del género *Chrysobothris* Linné (Coleoptera Buprestidae) de México. *Anales del Instituto de Biología, Universidad Autónoma de México*, Serie Zoológica, 40(2)(1969):205–226, figs. 1–7.
- Douglas, B. W. 1909.** 2nd Annual Report, *Indiana Entomologist*, p. 78.
- Douglas, B. W. 1911.** Injurious insects. 4th Annual Report, *Indiana Entomologist*, pp. 105–143.
- Douglas, B. W. 1912.** Flat-headed borer. 5th Annual Report, *Indiana Entomologist*, pp. 59–60.
- Downie, N. M. 1958.** Records of Indiana Coleoptera, II. *Indiana Academy of Science* 68:155–158.
- Downie, N. M. 1972.** An introduced buprestid in New Jersey. *The Coleopterists Bulletin* 26(2):72.
- Downie, N. M. & R. H. Arnett, Jr., 1996.** *The Beetles of Northeastern North America*, vol. 1. The Sandhill Crane Press, Gainesville, FL xiv + 880 pp. Buprestidae, pp. 737–775, figs. 1–14.
- Dozier, B. K. 1955.** A new *Chrysobothris* from eastern Red Cedar, *Juniperus virginiana* (Coleoptera, Buprestidae). *Proceedings of the Entomological Society of Washington* 57(2):75–77, figs.
- Dozier, H. L. 1918.** An annotated list of Gainesville, Florida, Coleoptera. *Entomological News* 29(9):331–335.
- Dozier, H. L. 1920.** An ecological study of hammock and piney woods insects in Florida. *Annals of the Entomological Society of America* 13(4):325–380.
- Drury, D. 1770.** *Illustrations of Natural History of Exotic Insects* 1:30–130, 50 color plates.
- Drury, D. 1838.** *Illustrations of Natural History of Exotic Insects* 1:31, plate 30, fig. 3.
- Dugès, D. E. 1891.** Descripción de coléopteros indígenas de la familia de los Buprestidos. *La Naturaleza* (Serie 2) 2:1–38, plates 1 & 2.
- Dunbar, D. M. & G. R. Stephens. 1974.** Two-lined chestnut borer: effects of storage conditions, processing, and insecticides on its survival in oak logs. *Journal of Economic Entomology* 67(3):427–429.
- Duncan, D. K. 1934a.** Random notes of an Arizona Field Collector. *Bulletin of the Brooklyn Entomological Society* 28(1933):229–231.
- Duncan, D. K. 1934b.** *Acmaeodera papagonis* Duncan. *Bulletin of the Brooklyn Entomological Society* 29:64.
- Duncan, R. W. 1992.** The golden buprestid: a wood-boring beetle. *Forestry Canada, Forest Pest Leaflet* 68, 3 pp.
- Duncan, R. W. 1995.** Western cedar borer. *Canadian Forest Service, Victoria, Forest Pest Leaflet* 66:1–4, 4 figs.
- Dunn, J. P., T. W. Kimmerer & G. L. Nordin. 1986a.** The role of host tree condition in attack of white oaks by the twolined chestnut borer, *Agrilus bilineatus* (Weber) (Coleoptera: Buprestidae). *Oecologia* 70(4):596–600.
- Dunn, J. P., T. W. Kimmerer & G. L. Nordin. 1986b.** Attraction of the twolined chestnut borer, *Agrilus bilineatus* (Weber) (Coleoptera: Buprestidae), and associated borers to volatiles of stressed white oak. *The Canadian Entomologist* 118(6):503–509.
- Dunn, J. P., T. W. Kimmerer & D. A. Potter. 1987.** Winter starch reserves of white oak as a predictor of attack by the twolined chestnut borer, *Agrilus bilineatus* (Weber) (Coleoptera: Buprestidae). *Oecologia* 74(3):352–355.
- Dunn, J. P. & D. A. Potter. 1988.** Evidence for sexual attraction by the twolined chestnut borer, *Agrilus bilineatus* (Weber) (Coleoptera: Buprestidae). *The Canadian Entomologist* 120(11):1037–1039.
- Dunn, J. P., D. A. Potter & T. W. Kimmerer. 1990.** Attraction of the twolined chestnut borer (Coleoptera: Buprestidae) to scarlet oaks infected with chestnut blight fungus. *Environmental Entomology* 19(2):239–243.
- Dunn, M. B. 1936.** The function of wood-boring insects in the development of the forest. 66th Annual Report of the Entomological Society of Ontario for 1935 66:8–11.
- Dury, C. 1879.** List of the Coleoptera observed in the vicinity of Cincinnati. *Journal of the Cincinnati Society of Natural History*:1–17.
- Dury, C. 1902.** A revised list of the Coleoptera observed near Cincinnati, Ohio with notes on localities, bibliographic references and description of new species. *Journal of the Cincinnati Society of Natural History* 20(3):107–196.
- Dury, C. 1908.** An interesting new *Agrilus* from Cincinnati, Ohio. *Entomological News* 19:368.
- Dustan A. G. 1935.** The influence of cultural practices on garden and vegetable insects. 65th Annual Report of the Entomological Society of Ontario for 1934 65:28–36.
- Dyer, E. D. A. 1959.** The western cedar borer in coastal British Columbia. *Canadian Forest Service, Victoria, Pest Leaflet* 4 pp.

Bibliography

- Easton, N. S. 1909.** A list of Coleoptera collected within ten miles of Fall River, Massachusetts. *Psyche* 16:35–42, 49–57.
- Eberhard, W. G. 1990.** Genitalic courtship in *Acmaeodera impluviata* (Coleoptera: Buprestidae). *Journal of the Kansas Entomological Society* 63(2):340–342.
- Elliott, L. R. 1870.** Flat-headed borer, in soft maple. *American Entomologist and Botanist* 2:309.
- Engelhardt, G. E. 1912.** Early spring collecting. *Journal of the New York Entomological Society* 20:221.
- Erwin, T. L. 1965.** *Trachykele opulenta* Fall (Buprestidae) emerging from furniture. Proceedings of the 290th meeting Pacific Coast Entomological Society. *The Pan-Pacific Entomologist* 41(1):68.
- Eschscholtz, J. F. 1829.** *Zoologischer Atlas*, Abbildungen und Beschreibungen neuer Theierarten, während des Flottcapitains v. Kotzebue zweiter Reise um die Welt, auf der Russisch-Kaiserlichen Kriegsschiff Predpriaetië in den Jahren 1823–1826. G. Reimer, Berlin, Erstes Heft, 17 pp.
- Essig, E. O. 1915.** *Injurious and Beneficial Insects of California*, Second Edition, Buprestidae, pp. 233–236, figs. 223–224.
- Essig, E. O. 1926.** *Insects of Western North America*. MacMillan Co., New York, 1035 pp. Buprestidae, pp. 395–403, figs. 274–279].
- Evans, D. 1957.** Revision of the genus *Poecilonota* of America North of Mexico (Coleoptera: Buprestidae). *Annals of the Entomological Society of America* 50(1):21–37, figs. 1–18.
- Evans, D. 1983.** Annotated checklist of insects associated with native pines in British Columbia. *Canadian Forestry Service, Pacific Forest Research Centre Information Report BC-X-244* 115 pp.
- Evans, H. E. 1971.** Observations on the nesting behavior of wasps of the tribe Cercerini. *Journal of the Kansas Entomological Society* 44:500–523.
- Evans, H. E. & W. L. Rubink. 1978.** Observations on the prey and nests of seven species of *Cerceris* (Hymenoptera:Specidae). *Great Basin Naturalist* 38(1):59–63.
- Evans, J. D. 1895.** The insect fauna of the Sudbury District, Ontario. *The Canadian Entomologist* 27:141–146.
- Evans, J. D. 1899.** List of Coleoptera from Halifax, N.S. *The Canadian Entomologist* 31:320–321.
- Evans, J. D. 1903.** List of Canadian Coleoptera. *The Canadian Entomologist* 35:239–243, 288–292, 317–320.
- Evans, J. D. 1906.** List of Coleoptera in the collection of J. D. Evans, Trenton, Ont., which have not heretofore been recorded as having been taken in Canada. *The Canadian Entomologist* 38:96–100.
- Evans, W. G. 1962.** Notes on the biology and dispersal of *Melanophila* (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 38(1):59–62.
- Evans, W. G. 1964.** Infra-red receptors in *Melanophila acuminata* DeGeer. *Nature* 202:211.
- Evans, W. G. 1965.** The orientation of *Melanophila acuminata* DeGeer (Coleoptera: Buprestidae) to fires. *Proceedings of the XII International Congress of Entomology* p. 286.
- Evans, W. G. 1966a.** Perception of infra-red radiation from forest fires by *Melanophila acuminata* De Geer (Buprestidae, Coleoptera). *Ecology* 47:1061–1065.
- Evans, W. G. 1966b.** Morphology of the infrared sense organs of *Melanophila acuminata* (Buprestidae: Coleoptera). *Annals of the Entomological Society of America* 59(5):873–877.
- Evans, W. G. 1971.** The attraction of insects to forest fires. *Proceedings of the Tall Timbers Conference on Ecological Animal Control by Habitat Management*, Feb. 25–27, 1971.
- Evans, W. G. 1975.** Wax secretion in the infrared sensory pit of *Melanophila acuminata* (Coleoptera: Buprestidae). *Quaestiones Entomologicae* 11:587–589.
- Evans, W. G. & J. E. Kuster. 1980.** The infrared receptive fields of *Melanophila acuminata* (Coleoptera: Buprestidae). *The Canadian Entomologist* 112(2):211–216.
- Everson, P. 1978.** Buprestidae of southern Vancouver Island. *Journal of the Entomological Society of British Columbia* 75:38–40.
- Fabricius, J. C. 1775.** *Systema entomologiae*, Sistens Insectorum Classes, Ordines, Genera, Species, Adiectis Synonymis, Locis, Descriptionibus, Observationibus. Libraria Kortii, Flensburg, xxx + 832 pp.
- Fabricius, J. C. 1776.** *Genera insectorum*, xiv + 310 pp., Chilonii, Bartsch.
- Fabricius, J. C. 1781.** *Species insectorum*, exhibentes eorum differentias specificas, synonyma auctorum, loca natalia, metamorphosin, adiectis observationibus, descriptionibus Volume 1, 552 pp., Hamburgi et Kilonii, Carol-Ernst Bohnii.
- Fabricius, J. C. 1787.** *Mantissa insectorum sistens eorum species nuper detectas adiectis characteribus genericis, differentiis specificis, emendationibus, observationibus*. C. G. Proft, Hafniae, Volume 1, 382 pp.
- Fabricius, J. C. 1792.** *Entomologia systematica emendata et aucta*, Classes, Ordines, Genera, Species adjectis; Synonymis, locis, observationibus, descriptionibus. C. G. Proft, Hafniae, Volume 1, 538 pp.

- Fabricius, J. C. 1801.** *Systema Eleutheratorum*, ordines, genera, species:adiectis synonymis, locis, observationibus, descriptionibus., Bibliopolii Academici Novi, Kiliae, Volume 2, 672 pp.
- Faeth, S. H., E. F. Connor & D. Simberloff. 1981.** Early leaf abscission:a neglected source of mortality for folivores. *American Naturalist* 117(3):409–415.
- Faeth, S. H., S. Mopper & D. Simberloff. 1981.** Abundances and diversity of leaf–mining insects on three oak host species:effects of host–plant phenology and nitrogen content of leaves. *Oikos* 37(2):238–251.
- Faeth, S. H. & D. Simberloff. 1981.** Experimental isolation of oak host plants:effects on mortality, survivorship, and abundances of leaf–mining insects. *Ecology* 62(3):625–635.
- Fairmaire, L. M. H. 1888.** Notes sur les Coleopteres des environs de Pékin (2^e Partie). *Revue d'Entomologie* 7:111–160.
- Fall, H. C. 1893.** California notes. *Entomological News* 4(7):235.
- Fall, H. C. 1894.** Collecting in the Sierras of S. California. *Entomological News* 5(4):97–101.
- Fall, H. C. 1897.** List of the Coleoptera of the southern California Islands, with notes and descriptions of new species. *The Canadian Entomologist* 29:233–244.
- Fall, H. C. 1899.** Synopsis of the species of *Acmaeodera* of America North of Mexico. *Journal of the New York Entomological Society* 7(1):1–37.
- Fall, H. C. 1900.** List of a small collection of Coleoptera from Arctic Alaska. *Entomological News* 11:459–460.
- Fall, H. C. 1901a.** List of the Coleoptera of Southern California, notes, habits and distribution and descriptions of new species. *Occasional Papers of the California Academy of Sciences* 7:1–282.
- Fall, H. C. 1901b.** Notes on *Dichelonycha* and *Cantharis*, with descriptions of new species in other genera. *Transactions of the American Entomological Society* 27:277–310.
- Fall, H. C. 1905a.** Notes on some Californian Buprestidae. *Entomological News* 16:71–74.
- Fall, H. C. 1905b.** New species of Coleoptera, chiefly from the Southwest. *The Canadian Entomologist* 37(8):270–276.
- Fall, H. C. 1906.** On the genus *Trachykele*, with notes and descriptions of other North American Buprestidae. *Entomological News* 17:160–168.
- Fall, H. C. 1907a.** New Coleoptera from the Southwest. III. *The Canadian Entomologist* 39(7):235–243.
- Fall, H. C. 1907b.** Coleopterological notes, synonymical and descriptive. *Entomological News* 18:174–177.
- Fall, H. C. 1910a.** On *Chrysobothris californica* and allies. *Journal of the New York Entomological Society* 18(1):45–52.
- Fall, H. C. 1910b.** Miscellaneous notes and descriptions of North American Coleoptera. *Transactions of the American Entomological Society* 36(2):89–197.
- Fall, H. C. 1912.** New Coleoptera chiefly from the Southwest. V. *The Canadian Entomologist* 44(2):40–48.
- Fall, H. C. 1917.** A new genus and species of Buprestidae (Col.). *Entomological News* 28:68–70.
- Fall, H. C. 1922.** New species of North American Acmaeoderae. *Bulletin of the Brooklyn Entomological Society* 17:88–90.
- Fall, H. C. 1925.** New species of Coleoptera or recent discovery. *Bulletin of the Brooklyn Entomological Society* 20:180–183.
- Fall, H. C. 1926a.** A list of the Coleoptera taken in Alaska and adjacent parts of the Yukon Territory in the summer of 1924. *The Pan-Pacific Entomologist* 2(4):191–208.
- Fall, H. C. 1926b.** Two new names and a correction in synonymy. *Bulletin of the Brooklyn Entomological Society* 21:125.
- Fall, H. C. 1930.** A new *Aphodius* and a new genus and species of Buprestidae from California. *The Pan-Pacific Entomologist* 7(2):73–76.
- Fall, H. C. 1932.** Four new Buprestidae from Arizona. *The Pan-Pacific Entomologist* 8(2)(1931) :81–84.
- Fall, H. C. 1934a.** A new buprestid from the Florida Keys (Coleoptera). *Entomological News* 45:193–195.
- Fall, H. C. 1934b.** A new name and other miscellaneous notes. *The Pan-Pacific Entomologist* 10(4):171–174.
- Fall, H. C. & T. D. A. Cockerell.** 1907. The Coleoptera of New Mexico. *Transactions of the American Entomological Society* 33:145–272.
- Felt, E. P. 1898.** A destructive borer (*A. anxius*). *Country Gentleman*, Dec. 15, 63:993.
- Felt, E. P. 1899.** *Country Gentleman*, Nov. 9, 64:917.
- Felt, E. P. 1900a.** Insects reported. *15th Report of the State Entomologist* pp. 556–605.
- Felt, E. P. 1900b.** Injurious and beneficial insects (*A. anxius*). *New York State Museum Bulletin* 8(7):24
- Felt, E. P. 1901.** 16th Report of the State Entomologist, 1900. *Bulletin of the New York State Museum* Volume 7 (36).

Bibliography

- Felt, E. P. 1902.** 17th Report of the State Entomologist, 1901. *Bulletin 53, New York State Museum*, Buprestidae, pp. 792, 834, 839, 859, 874.
- Felt, E. P. 1903a.** Recently introduced species (*Agrilus sinuatus*). *18th Report of the State Entomologist for 1902*, p. 122.
- Felt, E. P. 1903b.** *Proceedings of the 24th Annual Meeting of the Society for the Promotion of Agricultural Science*, pp. 39–48.
- Felt, E. P. 1903c.** A note on *Chalcophora virginensis*. *19th Report, New York State Entomologist*, p. 215.
- Felt, E. P. 1904a.** Insects affecting forest trees. *7th Report, New York Fish and Game Commission*, pp. 449–531.
- Felt, E. P. 1904b.** Synopsis of the last. *20th Report, New York State Entomologist*, p. 419.
- Felt, E. P. 1905a.** Plate 2, work of *Agrilus anxius*. *20th Report, New York State Entomologist*.
- Felt, E. P. 1905b.** Insects affecting park and woodlands trees. Volume 1, Buprestidae. *New York State Museum Memoir 8*:1–332; a333–a459.
- Felt, E. P. 1906.** Insects affecting park and woodland trees. Volume 2. *New York State Museum Memoir 8*:333–877.
- Felt, E. P. 1909.** Shade tree pests. *New York State Museum Bulletin 141*:98, 106.
- Felt, E. P. 1910.** *25th Report, New York State Entomologist for 1909*, pp. 98–106.
- Felt, E. P. 1911.** Insects (*A. anxius*). *Country Gentleman*, May 25, 76:502.
- Felt, E. P. 1912a.** *27th Report, New York State Entomologist for 1911*:113–114, 131.
- Felt, E. P. 1912b.** Bronze birch borer. *Garden Magazine 15*(1):36.
- Felt, E. P. 1913.** *28th Report, New York State Entomologist for 1912*:101.
- Felt, E. P. 1914.** Notes on forest insects. *Journal of Economic Entomology 7*:373–375.
- Felt, E. P. 1915a.** *29th Report New York State Entomologist for 1913*:9, 73.
- Felt, E. P. 1915b.** *3rd Annual Report of the New York State Entomologist*, p. 78.
- Felt, E. P. 1915c.** *New York State Museum Bulletin 175*:26–30.
- Felt, E. P. 1916a.** Additions to the collections, October 16, 1913–October 15, 1914. *New York State Museum, Bulletin 180*:114–126.
- Felt, E. P. 1916b.** *New York State Museum, Bulletin 186*:11, 95.
- Felt, E. P. 1916c.** Injurious and other insects of New York. *31st Report New York State Entomologist for 1915*, Bulletin 186:71, 78, 87.
- Felt, E. P. 1916d.** *Country Life in America 29*(5):74–76
- Felt, E. P. 1917.** Key to American insect galls. *New York State Museum, Bulletin 200*:135.
- Felt, E. P. 1918.** *New York State Museum, Bulletin 200*:134, 142, 149.
- Felt, E. P. 1923.** Bronze birch borer, pp. 78–79, common flat-headed borer, p. 88, *Agrilus viridis*, pp. 90, 118. *35th Report New York State Entomologist for 1921*.
- Felt, E. P. 1924.** *Manual of Tree & Shrub Insects*, MacMillan Co., pp. 1–381.
- Fenton, F. A. 1942.** The flatheaded apple tree borer (*Chrysobothris femorata* (Olivier)). *Oklahoma Agriculture Experiment Station Bulletin B-259*:1–31.
- Fernald, H.T. 1912a.** Insects of the year (1911) in Massachusetts. *Journal of Economic Entomology 5*:245–248.
- Fernald, H.T. 1912b.** *24th Annual Report, State Entomologist, Massachusetts*, p. 83.
- Fernald, H.T. 1913.** *25th Report, Massachusetts Agriculture Experiment Station*, part 2:85.
- Fernald, H.T. 1921.** *Applied Entomology*, McGraw–Hill Co.
- Figg–Hoblyn, J. P. 1953.** A new species of *Acmaeodera* from Western Nevada (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist 29*(4):219–221, 1 fig.
- Fisher, W. S. 1917.** A new species of *Agrilus* from California. *The Canadian Entomologist 49*:287–288.
- Fisher, W. S. 1918a.** A new species of *Agrilus* from Florida. *Proceedings of the Entomological Society of Washington 20*(4):67–68.
- Fisher, W. S. 1918b.** *Chrysobothris tranquebarica* Gmel. versus *impressa* Fabr. *Proceedings of the Entomological Society of Washington 20*(8):173–177.
- Fisher, W. S. 1919.** Descriptions of a new genus and species of Buprestidae from Arizona (Col.). *Proceedings of the Entomological Society of Washington 21*(4):91–93.
- Fisher, W. S. 1922a.** The leaf and twig mining buprestid beetles of Mexico and Central America. *Proceedings of the United States National Museum*, No. 2454, 62(8):1–95.
- Fisher, W. S. 1922b.** Notes on *Agrilus lateralis* Say (Coleop.). *Proceedings of the Entomological Society of Washington 24*(5):124–125.
- Fisher, W. S. 1924a.** A change of name in Buprestidae. *Proceedings of the Entomological Society of Wash-*

- ington 25(1923):190.
- Fisher, W. S. 1924b.** A new species of *Brachys* from Arizona. *Proceedings of the Entomological Society of Washington* 26(1):12–13.
- Fisher, W. S. 1925a.** A revision of the West Indian Coleoptera of the family Buprestidae. *Proceedings of the United States National Museum*, No. 2522, 65(9):1–207.
- Fisher, W. S. 1925b.** A change of name in Buprestidae (Coleoptera). *Proceedings of the Entomological Society of Washington* 27:144.
- Fisher, W. S. 1926.** A new *Acmaeodera* from Nevada infesting *Purshia* (Col.:Buprestidae). *Entomological News* 37:114–115.
- Fisher, W. S. 1928a.** A revision of the North American species of buprestid beetles belonging to the genus *Agrilus*. *United States National Museum Bulletin* 145:1–347, 8 plates.
- Fisher, W. S. 1928b.** New species of Jamaican Buprestidae and Cerambycidae. In: C. G. Gowdey. Catalogus insectorum jamaicensis. *Entomological Bulletin, Department of Agriculture, Jamaica*, No. 4 (3 Pt) 16–18.
- Fisher, W. S. 1930a.** New West Indian Buprestidae and Cerambycidae (Coleoptera). *The Canadian Entomologist* 62:7–11.
- Fisher, W. S. 1930b.** New West Indian Buprestidae (Coleoptera). *Proceedings of the Entomological Society of Washington* 32(7):125–129.
- Fisher, W. S. 1930c.** A new species of *Chrysobothris* infesting strawberry plants. *Proceedings of the Entomological Society of Washington* 32(8):149–152.
- Fisher, W. S. 1933.** New species of buprestid beetles from Mexico and Central America. *Proceedings of the United States National Museum*, No. 2968, 82(27):1–47.
- Fisher, W. S. 1935a.** Two new buprestid beetles from Puerto Rico. *Proceedings of the Entomological Society of Washington* 37(2):30–32.
- Fisher, W. S. 1935b.** A new buprestid beetle from Cuba. *Memorias de la Sociedad Cubana de Historia Natural “Felipe Poey”* 9(1):51–53.
- Fisher, W. S. 1935c.** A new genus of Buprestidae from Utah (Coleoptera). *Proceedings of the Entomological Society of Washington* 37(6):117–118.
- Fisher, W. S. 1936a.** New cerambycid and buprestid beetles from Cuba. *Memorias de la Sociedad Cubana de Historia Natural “Felipe Poey”* 9(4):271–273.
- Fisher, W. S. 1936b.** New buprestid and cerambycid beetles from Cuba. *Memorias de la Sociedad Cubana de Historia Natural “Felipe Poey”* 10(5):343–348.
- Fisher, W. S. 1938.** New neotropical Buprestidae. *Acta Entomologica Musei Nationalis Pragae Cechoslovakensis* 16(158):111–145.
- Fisher, W. S. 1940a.** New West Indian buprestid beetles. *Psyche* 46(4)(1939):156–166.
- Fisher, W. S. 1940b.** A new species of *Actenodes* (Buprestidae). *Proceedings of the Entomological Society of Washington* 42(8):176.
- Fisher, W. S. 1942a.** A revision of the North American species of buprestid beetles belonging to the tribe Chrysobothrini. *United States Department of Agriculture, Miscellaneous Publications*, No. 470:1–275, figs. 110–126.
- Fisher, W. S. 1943a.** New species of buprestid beetles of the genus *Agrilus* from Trinidad. *Proceedings of the United States National Museum*, No. 3167, 93:375–380.
- Fisher, W. S. 1943b.** Two new Buprestidae (Coleoptera). *Proceedings of the Entomological Society of Washington* 45(8):201–203.
- Fisher, W. S. 1944.** New species of buprestid beetles from Trinidad. *Proceedings of the United States National Museum*, No. 3183, 95:397–409.
- Fisher, W. S. 1948.** A change of name in Buprestidae. *Proceedings of the Entomological Society of Washington* 50(2):40.
- Fisher, W. S. & A. S. Nicolay. 1920.** A Mexican species of *Agrilus* found in Arizona (Coleoptera). *Entomological News* 21(4):100–102.
- Fiske, W. F. 1902.** Flat-headed borers in Pecan. *Proceedings of the 26th Annual Meeting of the Georgia State Horticultural Society* pp. 68–75, fig. 7.
- Fitch, A. 1855.** Insects affecting fruit trees, pp. 1–138; infesting hickory, pp. 147–166; infesting forest trees, pp. 167–169. *1st Report, Insects of New York*.
- Fitch, A. 1856a.** Insects infesting fruit trees, pp. 322–386; 1st and 2nd Report of noxious and beneficial insects of New York, pp. 25–31. *3rd Report, Insects of New York*.
- Fitch, A. 1856b.** Noxious insects of New York. *Transactions of the New York State Agricultural Society*

Bibliography

- 14:705–880.
- Fitch, A. 1856c.** *The Cultivator* 4:240–251.
- Fitch, A. 1856d.** *The Country Gentleman* 8, July 10.
- Fitch, A. 1857a.** Report on the noxious and other insects of the State of New York. Insects infesting evergreen forest trees. *Transactions of the New York Agriculture Society* 4(4):697–707.
- Fitch, A. 1857b.** The tooth-legged buprestid. *5th Annual Report of the New York Agriculture Society*, pp. 793–794.
- Fitch, A. 1858a** Insects infesting evergreen trees. *4th Report, Noxious and other insects of New York*, pp. 688–780. [Report on the noxious, beneficial and other insects of the state of New York. *Transactions, New York Agriculture Society* 17(1857):687–814]
- Fitch, A. 1858b.** Insects infesting deciduous forest trees. *5th Annual Report of the New York Agriculture Society*, pp. 782–854.
- Fletcher, J. 1879.** An outline sketch of the Canadian Buprestidae. *9th Report, Entomological Society of Ontario* (1878–1879), pp. 46–64.
- Fletcher, J. 1884.** A note on *B. fasciata*. *14th Report, Entomological Society of Ontario*, p. 16.
- Fletcher, J. 1886a.** A note on *P. cyanipes*. *16th Report, Entomological Society of Ontario*, p. 10.
- Fletcher, J. 1886b.** *Farmers Advocate of Ontario*, p. 187.
- Fletcher, J. 1901.** *Canadian Department of Agriculture, Report of Entomologist and Botanist*, p. 240.
- Fletcher, J. 1902a.** Fruit pests. *Annual Report of the Experimental Farms of Canada*, pp. 197, 237–249.
- Fletcher, J. 1902b.** Notes of captures, Coleoptera. *32th Annual Report, Entomological Society of Ontario for 1901*, pp. 99–107.
- Fletcher, J. 1903.** Notes of captures of Coleoptera. *33rd Annual Report, Entomological Society of Ontario for 1902*, pp. 87–98.
- Fletcher, J. 1904.** Notes of captures, Coleoptera. *34th Annual Report, Entomological Society of Ontario for 1903*, pp. 85–99.
- Fletcher, J. 1906.** Notes of captures, Coleoptera. *36th Annual Report, Entomological Society of Ontario for 1905*, pp. 90–105.
- Fletcher, J. 1907.** Notes of captures, Coleoptera. *37th Annual Report, Entomological Society of Ontario for 1906*, pp. 86–104.
- Fletcher, J. & A. Gibson 1908.** Notes of captures of Coleoptera. *38th Annual Report of the Entomological Society of Ontario for 1907*, pp. 113–133.
- Fletcher, J. & A. Gibson 1909.** Notes of captures of Coleoptera. *39th Annual Report of the Entomological Society of Ontario for 1908*, pp. 99–116.
- Fluke, C. L. 1920.** Raspberry and blackberry insects. *Journal of the Wisconsin Horticultural Society* 10:186.
- Forbes, S. A. 1890.** The American plum borer. *Psyche* 5:295.
- Forbes, S. A. 1911a.** 26th Report, State Entomologist of Illinois, pp. 53–55.
- Forbes, S. A. 1911b.** Illinois Agriculture Experiment Station, Bulletin 151:515–517.
- Forbes, W. T. M. 1922.** The wing-venation of the Coleoptera. *Annals of the Entomological Society of America* 15(4):328–345.
- Forbes, W. T. M. 1926.** The wing folding patterns of the Coleoptera. *Journal of the New York Entomological Society* 34:42–68, figs. 1, 2, 91–139, plates 7–18.
- Forbes, W. T. M. 1942a.** The wing of the Schizopini. *Entomological News* 53:101–102, 1 fig.
- Forbes, W. T. M. 1942b.** The wing of *Mastogenius*. *Journal of the New York Entomological Society* 50:193–194.
- Fowler, W. W. 1912.** *The Fauna of British India, including Ceylon and Burma*. Coleoptera. General Introduction and Cicindelidae and Paussidae. London, Taylor & Francis, p. 529.
- Fox, C. W., K. J. Waddell, K. D. White, S. H. Faeth & T. A. Mousseau. 1995.** Suppression of leafminer (Coleoptera: Buprestidae) populations on turkey oak (Fagaceae) using implants of acephate. *Environmental Entomology* 24(6):1548–1556.
- Franklin, R. T. & H. O. Lund. 1956.** The Buprestidae of Georgia. *Georgia Agricultural Experiment Station, Technical Bulletin* (N.S.) 3, 48 pp., 5 plates.
- Frost, C. A. 1909.** Coleoptera taken at Framingham, Mass. *Psyche* 16:67–68.
- Frost, C. A. 1910.** A new species of *Chrysobothris* from Maine. *Journal of the New York Entomological Society* 18(1):43–45.
- Frost, C. A. 1912.** New species of Coleoptera of the genus *Agrilus*. *The Canadian Entomologist* 44:245–252.
- Frost, C. A. 1915a.** June collecting in Maine. *The Canadian Entomologist* 47:141–145.

- Frost, C. A. 1915b.** List of Coleoptera collected from Tanglefoot. *Entomological News* 26:269–270.
- Frost, C. A. 1916.** Collecting notes and random observations on the Maine Coleoptera. *The Canadian Entomologist* 48:381–390.
- Frost, C. A. 1920a.** A day's beating. *The Canadian Entomologist* 52:25–29.
- Frost, C. A. 1920b.** Notes on the Coleoptera with descriptions of new species. *The Canadian Entomologist* 52:229–232, 249–253.
- Frost, C. A. 1922.** Occurrence of *Agrilus coeruleus* Rossi in America. *The Canadian Entomologist* 54:96.
- Frost, C. A. 1923.** New species of Buprestidae from the United States (Coleoptera). *The Canadian Entomologist* 55:279–281.
- Frost, C. A. 1924a.** *Agrilus viridis* in Massachusetts. *Bulletin of the Brooklyn Entomological Society* 19:27.
- Frost, C. A. 1924b.** *Chrysobothris verdigripennis* in Canada. *Bulletin of the Brooklyn Entomological Society* 19:34.
- Frost, C. A. 1928.** Notes of the Coleoptera of 1925. *Bulletin of the Brooklyn Entomological Society* 23:133–136.
- Frost, C. A. & H. B. Weiss. 1920a.** A bibliography of the literature on the described transformations and food plants of North American species of *Agrilus* (Col.). *The Canadian Entomologist* 52(6):204–210, 220–223.
- Frost, C. A. & H. B. Weiss. 1920b.** An addition to bibliography on *Agrilus*. *The Canadian Entomologist* 52(6):247.
- Frost, C. A. & H. B. Weiss. 1921.** Additions to *Agrilus* bibliography. *The Canadian Entomologist* 53:72.
- Frost, S. W. 1924.** The leaf mining habit in the Coleoptera. Part I. *Annals of the Entomological Society of America* 17:456–467.
- Frost, S. W. 1925.** Convergent development in leaf-mining insects. *Entomological News* 36:299–305.
- Frost, S. W. 1928.** Chapter XII. Order Coleoptera. In: C. A. Frost. *Leaf-mining Insects*, pp. 181–209.
- Frost, S. W. & H. Dietrich 1929.** Coleoptera taken from bait-traps. *Annals of the Entomological Society of America* 22:427–437.
- Fuente, J. M. de la. 1931.** Catálogo sistemático-geográfico de los coleópteros observados en la Península Ibérica, Pirineos y Baleares. *Boletín de la Sociedad Entomológica de España* 14(1–2):21–25.
- Fuller, A. S. 1880.** The insect enemies and diseases of our small fruits. *American Entomologist* 3:61–63, 91–93.
- Furniss, M. M. 1972.** A preliminary list of insects and mites that infest some important browse plants of western big game. *USDA Forest Service Research Note INT-155*, 16 pp.
- Furniss, M. M. & W. F. Barr. 1975.** Insects affecting important native shrubs of northwestern United States. *USDA Forest Service General Technical Report INT-19*, 64 pp., figs. 1–17.
- Furniss, R. L. 1938.** Insects attacking forest products and shade trees in Washington and Oregon in 1937. *Proceedings of the Entomological Society of British Columbia* 35:5–8.
- Furniss, R. L. & V. M. Carolin. 1977.** Western forest insects. *United States Department of Agriculture Miscellaneous Publication* 1339:1–654 + vii., figs. 1–275.
- Fyles, T. W. 1896.** How the forest in the District of Bedford was swept away. *26th Annual Report of the Entomological Society of Ontario for 1895*, pp. 21–25.
- Fyles, T. W. 1906.** Forest insects. *36th Report, Entomological Society of Ontario*, pp. 56–61.
- Ganglbauer, L. 1889b.** Insecta, a cl. G. N. Potanin in China et in Mongolia novissime lecta. VII. Buprestidae, Oedemeridae, Cerambycidae. *Horae Societatis Entomologicae Rossicae* 24(1–2):21–85.
- Garcia, C. M. & J. J. Morrell. 1999.** Fungal associates of *Buprestis aurulenta* in western Oregon. *Canadian Journal of Forest Research* 29(4):517–520.
- Garcia, F. 1918.** Injurious insects. *New Mexico Bulletin* 68:48.
- Gardiner, F. 1879.** Coleoptera of the White Mountains. *Psyche* 2(58):211–213.
- Garlic, W. G. 1940.** Notes on the rose stem girdler, *Agrilus communis rubicola* AB. *The Canadian Entomologist* 72(2):21–23.
- Garman, H. 1908.** Apple orchard pests of Kentucky. *Kentucky Agriculture Experiment Station Bulletin* 133:14–62.
- Garman, H. 1915.** *Kentucky State Forests, 2nd Biennial Report*, pp. 32–63.
- Garman, H. 1916.** The locust borer and other enemies of black locust. *Kentucky Agriculture Experiment Station Bulletin* 200:101–135.
- Garnett, R. T. 1918a.** Notes on the genus *Buprestis* Linné in California. *Annals of the Entomological Society of America* 11:90–92.
- Garnett, R. T. 1918b.** Beetle, *Hippomelas sphenicus*, prey of wasp (Col.). *Entomological News* 29:142.

Bibliography

- Garnett, R. T. 1918c.** Notes on collecting Coleoptera in the Colorado and Mojave Deserts of California. *In* Report of the 65th meeting of the Society. *Proceedings of the Pacific Coast Entomological Society* 1:3.
- Garnett, R. T. 1920.** Variations of *Buprestis viridisuturalis* Nicolay & Weiss. *The Canadian Entomologist* 52:17–18.
- Garnett, R. T. 1922.** Tableau des espèces du genre *Buprestis* L. appartenant à la faune de l’Amérique du Nord et description d’une variété nouvelle [Col. Buprestidae]. *Bulletin de la Société entomologique de France* 1922:9–13.
- Gemminger, M. & E. Von Harold. 1869.** *Catalogus coleopterorum hucusque descriptorum synonymicus et systematicus*. Volume 5, pp. 1347–1608, Monachii, London. (Buprestidae, Trixagidae, Monommiidae, Eucnemidae, Elateridae, Cebrionidae).
- Germain, F. 1916.** Buprestidae known to occur in the Ottawa District. *Ottawa Naturalist* 5:129–130.
- Germar, E. F. 1824.** *Insectorum species novae aut minus cognitae, descriptionibus illustratae*, Coleoptera. Halae, Hendel, 624 pp.
- Gibson, A. 1904.** Basswood, or linden insects. *34th Report, Entomological Society of Ontario*, pp. 50–61.
- Gibson, A. 1907.** Basswood, or linden insects. *37th Report, Entomological Society of Ontario*, pp. 78–80.
- Gibson, A. 1908.** Notes on capture, Buprestidae. *38th Report, Entomological Society of Ontario*, pp. 125–126.
- Gibson, A. 1909.** Report of captures, Coleoptera. *39th Report, Entomological Society of Ontario*, pp. 107–109.
- Gibson, A. 1910.** Report on the insects of the year. *40th Report, Entomological Society of Ontario for 1909*, pp. 9–14, 110–128.
- Gibson, A. 1911a.** *The Entomological Record – Canada, Buprestidae*, p. 12.
- Gibson, A. 1911b.** Notes on captures, Buprestidae. *41st Report, Entomological Society of Ontario for 1910*, pp. 101–120.
- Gibson, A. 1911c.** Forest insects. *Annual Report, Entomologist and Botanist of Canada*, p. 246.
- Gibson, A. 1912a.** Notes of captures, Buprestidae. *42nd Report, Entomological Society of Ontario for 1911*, pp. 89–112.
- Gibson, A. 1912b.** *The Entomological Record – Canada, Buprestidae* p. 14.
- Gibson, A. 1913a.** Captures of the year, Coleoptera. *43rd Report, Entomological Society of Ontario for 1912*, pp. 113–140.
- Gibson, A. 1913b.** *The Entomological Record – Canada, Buprestidae*, p. 11.
- Gibson, A. 1914.** Notes of captures. *44th Report, Entomological Society of Ontario for 1913*, pp. 106–129.
- Gibson, A. 1915.** Notes of captures. *45th Report, Entomological Society of Ontario for 1914*, pp. 123–150.
- Gibson, A. 1916.** Notes of captures. *46th Annual Report of the Entomological Society of Ontario for 1915*, pp. 194–230.
- Gibson, A. 1917.** Notes of captures. *47th Report, Entomological Society of Ontario for 1916*, pp. 137–171.
- Gibson, A. 1918.** Notes of captures. *48th Report, Entomological Society of Ontario for 1917*, pp. 99–127.
- Gibson, A. 1919.** Notes of captures. *48th Report, Entomological Society of Ontario for 1918*, pp. 97–123.
- Gibson, A. 1923.** Report, Entomologist of Canada for 1919–1920, p. 18.
- Gill, J. B. 1924.** Important pecan insects. *United States Farmers Bulletin* 1364:1–48.
- Gillette, C. P. 1887.** *Brachys aerosa* and *Brachys ovata*. *The Canadian Entomologist* 19:138–139.
- Gillette, C. P. 1889.** Important injurious insects “borers”. *Iowa Bulletin* 5:177–178.
- Gillette, C. P. 1902.** Insects and insecticides “*C. femorata*”. *Colorado Bulletin* 71:10–40.
- Gillette, C. P. & G. M. List. 1921.** Bronze birch borer. *12th Annual Report, State Entomologist of Colorado for 1920*, 34:23.
- Gillette, C. P. & G. M. List. 1923.** Notes on insect pests. *13th Annual Report, State Entomologist of Colorado for 1920*, 36:14–26.
- Gilliatt, F. C. 1932.** Insects of the season 1931 in Nova Scotia. *62nd Annual Report of the Entomological Society of Ontario for 1931*, pp. 14–17.
- Gistel, J. N. F. X. 1834.** *Die Insecten-Doubletten aus der Sammlung des Grafen Rudolph von Jenison Walworth, Käfer*. George Jaquet, München, 36 pp.
- Gistel, J. N. F. X. 1848a.** *Naturgeschichte des Thierreichs für höhere Schulen*, Stuttgart, 216 pp., 32 plates.
- Gistel, J. N. F. X. 1848b.** *Faunula monacensis cantharologica*. (Fortsetzung) is the title on p. [2] and ends in p. [4]. Isis von Oken, 1848 (7), Umschlag (cover): 1–3 (unpaginated).
- Gistel, J. N. F. X. 1856.** *Die Mysterien der europäischen Insectenwelt*. Kempten, Dannheimer, 12 + 532 pp.
- Glasgow, H. 1934.** The feeding habits of the sinuate pear borer in relation to control practices. *New York State Agricultural Experiment Station Bulletin* 648:3–31.

- Glick, P. A. 1922.** Insects injurious to Arizona crops. *14th Annual Report, Arizona Commissioner of Agriculture and Horticulture*, pp. 55–68.
- Glover, T. 1869.** Food habits of beetles. *U. S. Department of Agriculture Report for 1868*. [Buprestidae pp. 91–92]
- Glover, T. 1871.** *U. S. Department of Agriculture Report for 1870 and report of the U.S. Entomologist and Curator of the Museum*, pp. 65–75.
- Glover, T. 1878.** Illustrations of North American Entomology (no text), Volume I, Coleoptera, plates 10, 11, 14, 20, 33, 34, 36, 38, 40, 41, 43, 44, 45, 100.
- Gmelin, J. F. 1790.** In: Linné's *Systema Naturae*, Edition 13, Volume 1(Part 4):1517–2224.
- Godfrey, A. R. 1987.** *Agrilus pannonicus* (Pill. & Mitt.) (Col., Buprestidae) in Windsor. *Entomologist's Monthly Magazine* 123:40.
- Goeden, R. D. & J. A. Teernik. 1993.** Phytophagous insect faunas of *Dicoria canescens* and *Iva axillaris*, native relatives of ragweeds, Ambrosia spp., in southern California, with analyses of insect associates of Ambrosiinae. *Annals of the Entomological Society of America* 86(1):37–50.
- Goeze, J. A. E. 1777.** Entomologische Beiträge zu des Ritter Linné 12. Ausgabe des Natursystems. Volume 1:736 pp., Weidmann, Leipzig.
- Good, H. G. 1925.** Wing venation of the Buprestidae. *Annals of the Entomological Society of America* 18:251–276, plates 8–11.
- Gory, H. L. 1840.** *Histoire naturelle et iconographie des insectes Coléoptères*. Supplement aux Buprestides. P. Duménil, Paris. Volume 4, livraisons 36–42, pp. 1–72, genera: *Sternocera*, *Julodis*, *Acmaeodera*, *Chrysochroa*, *Chrysodema*, *Ptosima*, *Coeculus* (pp. 79–80), *Buprestis* (pp. 81–106; 112–125), *Polycesta*.
- Gory, H. L. 1841.** *Histoire naturelle et iconographie des insectes Coléoptères*. Supplement aux Buprestides. P. Duménil, Paris. Volume 4, livraisons 43–52, genera: *Melanophila* (pp. 73–77), *Buprestis* (pp. 107–111, 126), pp. 127–356, *Stigmodera*, *Colobogaster*, *Chrysobothris*, *Belionota*, *Castalia*, *Poecilonota*, *Zemina*, *Stenogaster*, *Agrilus*, *Amorphosoma*, *Eumerus*, *Coraebus*, *Anthaxia*, *Evagora*, *Sphenoptera*, *Sponsor*, *Brachys*, *Trachys*, *Aphanisticus*.
- Gory, H. L. & F. L. N. Caumont de Laporte [de Castelnau]. 1837.** *Histoire naturelle et iconographie des insectes Coléoptères*. Monographie des buprestides. P. Duménil, Paris. Volume 2, livraisons 12–16, genera: *Colobogaster*, *Chrysobothris*, *Agrilus* (genera paged separately). [see Laporte & Gory for Volume 1]
- Gory, H. L. & F. L. N. Caumont de Laporte [de Castelnau]. 1838.** *Histoire naturelle et iconographie des insectes Coléoptères*. Monographie des buprestides. P. Duménil, Paris. (genera paged separately). Volume 2, livraisons 17–24, genera: *Stigmodera*, *Polycesta*, *Belionota*, *Eurybia* (genera paged separately). [see Laporte & Gory for Volume 1]
- Gory, H. L. & F. L. N. Caumont de Laporte [de Castelnau]. 1839.** *Histoire naturelle et iconographie des insectes Coléoptères*. Monographie des buprestides. P. Duménil, Paris. (genera paged separately). Volume 2, livraisons 25–35, genera: *Anthaxia*, *Evagora*, *Sphenoptera*, *Cratomerus*, *Sponsor*, *Cisseis*, *Castalia*, *Poecilonota*, *Zemina*, *Stenogaster*, *Pseudagrilus*, *Amorphosoma*, *Eumerus*, *Coraebus*, *Ethon*, *Brachys* (pp. 1–3) (genera paged separately). [see Laporte & Gory for Volume 1]
- Gory, H. L. & F. L. N. Caumont de Laporte [de Castelnau]. 1840.** *Histoire naturelle et iconographie des insectes Coléoptères*. Monographie des buprestides. P. Duménil, Paris. Volume 2, livraisons 36–42, genera: *Brachys* (pp. 4–9), *Trachys*, *Aphanisticus* (genera paged separately). [see Laporte & Gory for Volume 1]
- Gossard, H. A. 1905.** Winter manual of Economic Zoology. *Ohio Bulletin*, pp. 1–35.
- Gossard, H. A. 1911a.** Entomological review of the year 1910. *Journal of Economic Entomology* 4:203–209.
- Gossard, H. A. 1911b.** *Ohio Bulletin* 233:146.
- Gossard, H. A. 1922.** Bronze birch borer. *United States Department of Agriculture Bulletin of Insect Pest Survey* 2:24.
- Gozis, M. P. des. 1886.** *Recherche de l'espèce typique de quelques anciens genres, rectifications synonymiques et notes diverses*. Imprimerie Herbin, Montluçon, p. 36.
- Graham, S. A. 1918.** *Minnesota Experiment Station Circular* No. 50:5.
- Graham, S. A. 1922.** A study of the wing venation of the Coleoptera. *Annals of the Entomological Society of America* 15:191–200.
- Grant, C. E. 1915.** Insects of Orilla District. *45th Report, Entomological Society of Ontario*, p. 16.
- Gray, G. R. 1832.** Notes of new genera and species. In: E. Griffith & E. Pidgeon. The class Insecta ar-

Bibliography

- ranged by the Baron Cuvier, with supplementary additions to each order. Volume 1:570 pp., Whittaker, Treachers and Co., London.
- Griffin, F. J. 1932a.** On the dates of publication and contents of the parts of Westwood (J. O.). Introduction to the modern classification of insects, 1838–1840. *The Proceedings of the Royal Entomological Society of London, ser. A*, 6(3):83–84.
- Griffin, F. J. 1932b.** On the 'Catalogues' of the collection of Coleoptera of Dejean. *The Annals and Magazine of Natural History* 9(Series 10):177–178.
- Griffith, H. G. 1900.** Coleopterous fauna of Phoenix, Arizona, and surrounding regions. *Entomological News* 11(8):561–570.
- Grossbeck, J. A. 1912.** *Habits of Cerckeris fumipennis*. *Journal of the New York Entomological Society* 20:135.
- Guignard, J. A., 1886.** Insects and orchids. *16th Annual Report of the Entomological Society of Ontario*, pp. 39–48.
- Guppy, R. 1950.** Remarks on the occurrence of buprestid larvae in sawn lumber. *The Coleopterists Bulletin* 4(1):3–6.
- Gyllenhal, L. 1808.** *Insecta Suecica descripta*. Classis I. Coleoptera sive Eleutherata. 1:12 + 572.
- Haack, R. A. 1985.** Management prescriptions for the twolined chestnut borer, pp. 43–54, *In* J. Johnson (Ed.). *Proceedings of Challenges in oak management and utilization*. Cooperative Extension Service, University of Wisconsin, Madison.
- Haack, R. A. 1996a.** Will global warming alter paper birch susceptibility to bronze birch borer attack? pp. 234–247, *In* W. J. Mattson, P. Niemelä & M. Rousi (Eds.). *Dynamics of forest herbivory: quest for pattern and principle*. *USDA Forest Service General Technical Report NC-183*.
- Haack, R. A. 1996b.** Patterns of forest invertebrates along an acidic deposition gradient in the midwestern United States. pp. 245–257. *In* R. Cox, K. Percy, K. Jensen & C. Simpson (Eds.). *Air pollution and multiple stresses*. Canadian Forest Service–Atlantic Centre, Fredericton, New Brunswick.
- Haack, R. A. & D. M. Benjamin. 1982.** The biology and ecology of the twolined chestnut borer, *Agrilus bilineatus* (Coleoptera: Buprestidae), on oaks, *Quercus* spp., in Wisconsin. *The Canadian Entomologist* 114(5):385–396.
- Haack, R. A., D. M. Benjamin & B. A. Schuh. 1981.** Observations on the biology of *Phasgonophora sulcata* (Hymenoptera: Chalcididae), a larval parasitoid of the two-lined chestnut borer, *Agrilus bilineatus* (Coleoptera: Buprestidae), in Wisconsin. *Great Lakes Entomologist* 14(2):113–116.
- Haack, R. A., D. M. Benjamin & K. D. Haack. 1983.** Buprestidae, Cerambycidae, and Scolytidae associated with successive stages of *Agrilus bilineatus* (Coleoptera: Buprestidae) infestation of oaks in Wisconsin. *Great Lakes Entomologist* 16(2):47–55.
- Haack, R. A. & R. W. Blank. 1991.** Incidence of two-lined chestnut borer and *Hypoxylon atropunctatum* dead oaks along an acidic deposition gradient from Arkansas to Ohio, pp. 373–387. *In: Proceedings 8th Central Hardwood Forest Conference*. *USDA Forest Service General Technical Report NE-148*.
- Haack, R. A., E. Jendek, H. Liu, K. R. Marchant, T. R. Petrice & H. Ye. 2002.** The emerald ash borer: a new exotic pest in North America. *Newsletter of the Michigan Entomological Society* 47(3&4):1–5.
- Hagenin, J. C. 1915.** An observation on a buprestid. *Entomological News* 26:364.
- Haldeman, S. S. 1846a.** *Agrilus ruficollis*. *Quarterly Journal of Agriculture and Science* 4:300.
- Haldeman, S. S. 1846b.** The *Agrilus ruficollis*. *Transactions of the New York Agricultural Society* 6:374, 1 fig.
- Halstead, J. A. & R. D. Haines. 1985.** On the biology of *Acanthochalcis nigricans* Cameron and *Acanthochalcis unispinosa* Girault (Hymenoptera: Chalcididae). *The Pan-Pacific Entomologist* 61(3):227–228.
- Halstead, J. A. & R. D. Haines. 1987.** Flume collecting: A rediscovered insect collecting method, with notes on insect extracting techniques. *The Pan-Pacific Entomologist* 63(4):383–388.
- Hamilton, J. 1886.** Natural history notes on certain Coleoptera (No. 1). *The Canadian Entomologist* 18(1):26–30.
- Hamilton, J. 1888.** Natural history notes on Coleoptera (No. 4). *The Canadian Entomologist* 20:61–67, 120.
- Hamilton, J. 1889a.** Catalogue of the Coleoptera common to North America, Northern Asia and Europe, with distributional and bibliography. *Transactions of the American Entomological Society* 16:87–162.
- Hamilton, J. 1889b.** A correction, *D. prolongata*. *The Canadian Entomologist* 21:105.
- Hamilton, J. 1891.** Comment, on the 5th Report of the United States Entomology Commission. *Insect Life* 4:129–132.
- Hamilton, J. 1893.** List of the Coleoptera taken at Sparrow Lake, Ontario. *The Canadian Entomologist* 25:272–279.

- Hamilton, J. 1894a.** Catalogue of the Coleoptera of Alaska with synonymy and distribution. *Transactions of the American Entomological Society* 21:1–38, 345–416.
- Hamilton, J. 1894b.** Coleoptera taken at Lake Worth, Florida. *The Canadian Entomologist* 26:250–256.
- Hamilton, J. 1895a.** Catalogue of the Coleoptera of Southwestern Pennsylvania, with notes and descriptions. *Transactions of the American Entomological Society* 22:317–381.
- Hamilton, J. 1895b.** Coleoptera taken at Lake Worth, Florida—No. II. *The Canadian Entomologist* 27:317–319.
- Hamilton, J. 1896a.** Random notes on Coleoptera. *Entomological News* 7:291–293.
- Hamilton, J. 1896b.** Notes on Coleoptera – No. XII. *The Canadian Entomologist* 28:261–265.
- Hamilton, J. 1897.** 27th Report, Entomological Society of Ontario for 1896, p. 71.
- Hammond, H. E. J. 1997.** Arthropod biodiversity from *Populus* coarse woody material in North–Central Alberta: a review of taxa and collection methods. *The Canadian Entomologist* 129:1009–1033.
- Hansen, J. F. 1886.** Note on *Dicerca obscura*. *The Canadian Entomologist* 18:78.
- Hardy, G. A. 1927.** Buprestidae of Vancouver Island. *Report of the Provincial Museum of Natural History and Anthropology, Province of British Columbia*, p. 33
- Hardy, G. A. 1942.** Notes on some wood–boring beetles of Saanich, Vancouver Island, B.C. (Coleoptera, Cerambycidae & Buprestidae). *Proceedings of the Entomological Society of British Columbia* 39:9–13.
- Harold, E. Von. 1869.** Berichtigungen und Zusätze zum Catalogus Coleopterorum synonymicus et systematicus. *Coleopterologische Hefte* 5:112–119, 122–125.
- Harrington, F. M. 1920.** *Transactions of the Iowa Horticultural Society* 55:174.
- Harrington, W. H. 1879a.** Report, Entomological Society of Ontario, pp. 35, 52.
- Harrington, W. H. 1879b.** Correspondence. *The Canadian Entomologist* 11(6):119–120.
- Harrington, W. H. 1881.** On some Coleoptera injurious to our pines. *Transactions of the Ottawa Field Naturalists Club* No. 2:28–33.
- Harrington, W. H. 1882a.** Field notes, 1881. 12th Report, Entomological Society of Ontario, p. 25.
- Harrington, W. H. 1882b.** Field notes. *The Canadian Entomologist* 14:7.
- Harrington, W. H. 1883a.** [Two notes]. *The Canadian Entomologist* 15(4):60, 79–80.
- Harrington, W. H. 1883b.** List of Ottawa Coleoptera. *Ottawa Field Naturalist's Club* 2:23.
- Harrington, W. H. 1884a.** Insects collected in 1882 at Ottawa. 14th Annual Report of the Entomological Society of Ontario for 1883, pp. 35–38.
- Harrington, W. H. 1884b.** Injurious insects infesting the hickory. 14th Annual Report of the Entomological Society of Ontario 1883, pp. 42–52.
- Harrington, W. H. 1884c.** Additions to Canadian lists of Coleoptera. *The Canadian Entomologist* 16(6):70–73, 101–102; A note:218.
- Harrington, W. H. 1885.** Notes of a June ramble. 15th Annual Report of the Entomological Society of Ontario for 1884, pp. 30–32.
- Harrington, W. H. 1887.** Insects infesting maple trees. 17th Annual Report of the Entomological Society of Ontario, pp. 22–33.
- Harrington, W. H. 1890a.** On the list of Coleoptera, published by the Geological Survey of Canada, Buprestidae. *The Canadian Entomologist* 22:159.
- Harrington, W. H. 1890b.** Insects infesting willows, Buprestidae, pp. 51. 20th Annual Report of the Entomological Society of Ontario for 1889.
- Harrington, W. H. 1891.** Hymenoptera Parasiticia. 21st Annual Report of the Entomological Society of Ontario for 1890, pp. 64–73.
- Harrington, W. H. 1894a.** An entomological trip to Cooper Cliff, Ontario. *The Canadian Entomologist* 26:9–16.
- Harrington, W. H. 1895.** Notes on a few Canadian Coleoptera. 25th Annual Report of the Entomological Society of Ontario for 1894, p. 47.
- Harrington, W. H. 1897.** Some beetles occurring upon beech (Ottawa). 27th Annual Report of the Entomological Society of Ontario for 1896, pp. 69–76.
- Harrington, W. H. 1903.** Note on insects injurious to pines. 33rd Annual Report of the Entomological Society of Ontario for 1902, pp. 114–166.
- Harrington, W. H. 1907.** 37th Annual Report of the Entomological Society of Ontario for 1906, pp. 70–71.
- Harris, P., D Peschken & J. Milroy. 1969.** The status of biological control of the weed *Hypericum perforatum* in British Columbia. *The Canadian Entomologist* 101(1):1–15.
- Harris, P. & J. D. Shorthouse. 1996.** Effectiveness of gall inducers in weed biological control. *The Canadian Entomologist* 128(6):1021–1055.

Bibliography

- Harris, T. C. 1890.** A curious case. *Insect Life* 2:369.
- Harris, T. W. 1829.** Contributions to entomology, No. VII. *New England Farmer, and Horticulture Journal* (Weekly) 8(1):2–3.
- Harris, T. W. 1833.** List of the insects of Massachusetts. *In Hitchcock's Report on the Geology, etc. Mass.* Amherst, pp. 566–595.
- Harris, T. W. 1835.** List of the insects of Massachusetts. *In Hitchcock's Report on the Geology, etc. Mass.* 2nd Edition, Amherst, pp. 553–601.
- Harris, T. W. 1842.** A treatise on some of the insects of New England, which are injurious to vegetation. 1st Edition, new printing, John Owen, Cambridge, 459 pp.
- Harris, T. W. 1852.** A treatise on some of the insects of New England, which are injurious to vegetation. 2nd Edition, White, Boston, 513 pp.
- Harris, T. W. 1862.** A treatise on some of the insects of New England, which are injurious to vegetation. 2nd Edition, White, Boston, 3rd Edition, 640 pp.
- Harris, T. W. 1869.** Entomological correspondence of T. W. Harris. *Boston Society of Natural History* 1:36, 224–225, 357–359.
- Harris, T. W. 1899.** Manuscript notes by the late T. W. Harris on Say's insects and papers—II. *Psyche* 8:411–414.
- Harvey, F. G. 1906.** *Bulletin of the British Columbia Entomological Society*, No. 4.
- Harvey, F. L. 1888.** *Report, Maine Experiment Station*, pp. 155–157.
- Harvey, F. L. 1899.** Apples insects of Maine (*C. femorata*). *Maine Bulletin* 56:109.
- Harvey, F. L. & O. W. Knight. 1897.** Insects collected at Jackman, Maine. *Psyche* 8:77–79.
- Haseman, L. 1920.** Nursery and orchard pests. *Missouri Bulletin* 176:1–35.
- Hatch, M. H. 1924.** A list of Coleoptera from Charlevoix Co., Michigan. *Papers of the Michigan Academy of Science, Art. & Letters* 4:543–586.
- Hatch, M. H. 1929.** Records and new species of Coleoptera from Oklahoma and western Arkansas, with subsidiary studies. *Publications of the University of Oklahoma Biological Survey* 2(1):15–26.
- Hatch, M. H. 1938.** A bibliographical catalogue of the injurious arachnids and insects of Washington. *University of Washington Publications in Biology* 1:163–224.
- Hatch, M. H. & F. M. Beer. 1938.** A new species of *Dicerca* (Buprestidae) from Washington. *The Pan-Pacific Entomologist* 19(4):151–152.
- Hatch, M. H. & T. Kincaid. 1958.** A list of Coleoptera from the vicinity of Willapa Bay, Washington. *The Calliostoma Company*, pp. 1–21.
- Hatch, M. H. & A. I. Ortenburger. 1927.** Records and new species of Coleoptera from Oklahoma. *Publications of the University of Oklahoma Biological Survey* 2(1):7–14.
- Hausen, J. F. 1892.** List of Coleoptera from vicinity of St. Jerome, Quebec. *The Canadian Record of Science* 5:41–63.
- Hausmann, J. F. L. 1799.** *Entomologische Bemerkungen* [no. 1]. Braunschweig, p. 64.
- Hayward, R. 1883.** A note on *Acmaeodera culta*. *Quarterly Journal, Boston Zoological Society* 2:56.
- Headlee, T. J., M. T. Cook & H. B. Weiss. 1919.** Report of the Inspection Service. *State of New Jersey Department of Agriculture, Bulletin* 21:98–123.
- Headlight, T. J. 1914.** A Buprestidae on *Rosa rugosa*. *Report of the Entomology Department, New Jersey Board of Agriculture for 1913*:657.
- Helfer, J. R. 1939.** The male of *Buprestis connexa*. *The Pan-Pacific Entomologist* 15(2):60.
- Helfer, J. R. 1941.** A revision of the genus *Buprestis* of North America, North of Mexico (Coleoptera, Buprestidae). *Entomologica Americana* 21(N.S.)(3):123–185, 7 plates.
- Helfer, J. R. 1946.** A new subspecies of *Buprestis* (Coleoptera, Buprestidae). *The Pan-Pacific Entomologist* 22(3):100–102.
- Helfer, J. R. 1947.** Notes on three Buprestidae. *Bulletin of the Brooklyn Entomological Society* 42(4):140–141.
- Helfer, J. R. 1952.** A new synonym in *Xenorhipis* (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 28(4):188–191.
- Helfer, J. R. 1953a.** Two new *Hippomelas* (Coleoptera–Buprestidae). *The Pan-Pacific Entomologist* 29(1):34–36.
- Helfer, J. R. 1953b.** A new subspecies of *Trachykele blondeli*. *The Pan-Pacific Entomologist* 29(3):176–178.
- Helfer, J. R. 1954.** A new *Hippomelas* from California (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 30(2):117–118.
- Helfer, J. R. 1955.** A change of name in *Chrysobothris* (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 31(1):14.

- Helfer, J. R. 1970.** *The Natural History of Mendicino*. Published by the author, 159 pp.
- Henshaw, S. 1874.** List of Coleoptera collected in the vicinity of Cliftondale, Mass., June 12, 1873. *Psyche* 1(5):17–18.
- Henshaw, S. 1885a.** List of the Coleoptera of America, north of Mexico. Philadelphia, 161, Supplement No. 1(2).
- Henshaw, S. 1885b.** Determination of the 36 Coleoptera described by D. Ziegler. *The Canadian Entomologist* 17:131–132.
- Henshaw, S. 1895.** Third supplement, Coleoptera of America, north of Mexico. Philadelphia, 62 pp.
- Hentz, N. M. 1827.** Description of some new species of North American Insects. *Journal of the Academy of Natural Sciences of Philadelphia* 5:373–375.
- Henz, M. W. & F. G. Werner. 1979.** Insects associated with roots of some rangeland Compositae in southern Arizona. *Southwestern Entomologist* 4:285–288.
- Herbert, F. B. 1919.** Insect problems of western shade trees. *Journal of Economic Entomology* 12:333–337.
- Herbert, F. B. 1920a.** Western twig pruners. *Journal of Economic Entomology* 13:360–363.
- Herbert, F. B. 1920b.** Cypress bark scale. *United States Department of Agriculture Bulletin* 838:1–22.
- Herbst, J. F. W. 1785.** *Buprestis*. Kritisches Verzeichniss meiner Insecten–Sammlung. In: J. C. Fießly. *Archiv der Insectengeschichte* 4&5(1784–1785):1–151, plates 19–30.
- Herbst, J. F. W. 1801.** Natursystem aller bekännten in–und ausländischen Insecten, als eine Fortsetzung der Büssonschen Naturgeschichte. *Der Käfer neunter Theil* 9:1–344, illustrated.
- Herms, D. A., D. G. Nielsen & T. D. Sydnor. 1987.** Impact of honeylocust plant bug (Heteroptera:Miridae) on ornamental honeylocust and associated adult buprestids. *Environmental Entomology* 16(4):996–1000.
- Hespenheide, H. A. 1968.** An immigrant *Agrilus* (Coleoptera: Buprestidae). *Entomological News* 79(3):76–80, figs. 1, 2.
- Hespenheide, H. A. 1969.** Larval feeding site of species of *Agrilus* (Coleoptera) using a common host plant. *Oikos* 20:558–561.
- Hespenheide, H. A. 1973.** A novel mimicry complex:beetles and flies. *Journal of Entomology:Series A:General Entomology* 48(1):49–56, figs. 1–4.
- Hespenheide, H. A. 1974a.** Notes on the ecology, distribution, and taxonomy of certain Buprestidae. *The Coleopterists Bulletin* 27(4)(1973):183–186.
- Hespenheide, H. A. 1974b.** Nomenclatural notes on the Agrilinae (Coleoptera, Buprestidae):II *Agrilus*. *Entomological News* 85(3):48–53.
- Hespenheide, H. A. 1974c.** Nomenclatural notes on the Agrilinae (Coleoptera: Buprestidae):III *Pachyschelus* and *Hylaeogena*. *Entomological News* 85(4):102–107.
- Hespenheide, H. A. 1974d.** An *Agrilus* new to the United States (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 28(2):73–75, fig. 1.
- Hespenheide, H. A. 1976a.** Patterns in the use of single plant hosts by wood–boring beetles. *Oikos* 27:161–164, figs. 1,2.
- Hespenheide, H. A. 1976b.** Reversed sex–limited mimicry in a beetle. *Evolution* 29(4):780–783, 1 fig.
- Hespenheide, H. A. 1979a.** Nomenclatural notes on the Agrilinae (Buprestidae). IV. *The Coleopterists Bulletin* 33(1):105–120.
- Hespenheide, H. A. 1979b.** A new name and distribution records for *Agrilus* (Coleoptera, Buprestidae). *The Coleopterists Bulletin* 33(4):479–480.
- Hespenheide, H. A. 1984.** Nomenclatural notes on the Buprestidae (Coleoptera). *The Coleopterists Bulletin* 37(4)(1983):306.
- Hespenheide, H. A. 1991.** Bionomics of leaf–mining insects. *Annual Review of Entomology* 36:535–560, 1 fig.
- Hespenheide, H. A. 1996a.** Chapter 26, Buprestidae (Coleoptera), pp. 411–421. In J. Llorente B., A. N. García A. & E. González S. (Eds.). *Biodiversidad, taxonomía y biogeografía de artrópodos de México: Hacia una síntesis de su conocimiento*, Universidad Nacional Autónoma de México, Instituto de Biología, xii + 660 pp.
- Hespenheide, H. A. 1996b.** Chrysomelidae of the subfamily Clytrinae as models for mimicry complexes. In P. H. A. Jolivet & M. L. Cox (Eds.). *Chrysomelidae Biology* 2(Ecological Studies):227–239, SPB Academic Publishing, Amsterdam, The Netherlands.
- Hespenheide, H. A. 1996c.** Chapter 6. The role of plants in structuring communities of mimetic insects, pp. 109–126. In A. C. Gibson (Ed.). *Neotropical Biodiversity and Conservation*, University of California.
- Hespenheide, H. A. 2001.** Beetles, pp. 351–358. In: *Encyclopedia of Biodiversity*. Volume 1. Academic Press.

Bibliography

- Hespenheide, H. A. 2002.** A review of North and Central American *Paragrilus* Saunders, 1871 (Coleoptera: Buprestidae: Agrilinae). *Zootaxa* 43:1–28.
- Hespenheide, H. A. 2003.** A reconsideration of *Pachyschelus schwarzi* Kerremans and review of American *Pachyschelus* north of Mexico (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 57(4):459–468, figs. 1–9.
- Hespenheide, H. A. 2007.** The identity of *Agrilus impexus* Horn, a new species, and taxonomic notes and records for other *Agrilus* Curtis species (Coleoptera: Buprestidae). *Zootaxa* 1617:57–66.
- Hewitt, G. 1910.** *Report, Entomologist of Canada*, p. 246.
- Hewitt, G. 1912.** *Canadian Department of Agriculture, Experimental Farm, Bulletin* 12 (Ser. 2):17.
- Hewitt, G. 1915.** *Report, Entomologist of Canada*, p. 30.
- Hewitt, G. 1920.** *Report, Canadian Entomology and Zoology for 1917–18*, p. 15.
- Heyden, L. F. J. D. Von. 1890.** Europäisch–nordamerikanische Coleopteren – Synonyma. *Wiener Entomologische Zeitung* 9:131–132.
- Heyden, L. E. Reitter & J. Weise. 1906.** *Catalogus Coleopterorum Europae, Caucasiae et Armeniae Rossicae*. Berlin, iv + 774 pp.
- Heyne, A. & O. Taschenberg. 1907.** *Die exotischen Käfer in Wort and Bild*. Lief. 23/24, pp. 195–218, plates 38, 39; 25/26, pp. 219–262, G. Reusche, Leipzig [buprestids only].
- Hicks, S. D. 1971.** Comments on certain Coleoptera from extreme southern Ontario and Ottawa district. *The Coleopterists Bulletin* 25(3):103–106.
- Hitchings, E. F. 1907.** Insects collected from under burlap, p. 13. Principal insects of the orchard, pp. 94–102. *3rd Report, Maine Entomologist*.
- Hitchings, E. F. 1910.** *Maine Entomologist Report No. 5*, p. 4.
- Hoebeke E. R. 1980.** A buprestid beetle, *Agrilus derasofasciatus*, detected in New York. *USDA Cooperative Plant Pest Report* 5(33):627.
- Hofer, G. 1921.** The aspen borer and how to control it. *United States Department of Agriculture, Farmers' Bulletin* 1154(1920):9–10.
- Holland, W. J. 1888.** Captures made while traveling from Winnipeg to Victoria, B. C. *The Canadian Entomologist* 20:89–92.
- Holland, W. J. 1900.** Alaska insects. *Entomological News* 11(4):416–423.
- Hollister, W. O. 1920.** Distribution of shade tree insects in 1919. *Journal of Economic Entomology* 13:143–146.
- Holm, E. 1978.** Monograph of the genus *Acmaeodera* Eschscholtz (Coleoptera: Buprestidae) of Africa south of the Sahara. *Department of Agricultural Technical Services Republic of South Africa Entomology Memoir* No. 47, 210 pp., 34 plates.
- Holm, E. 1982.** Revision of the Polycestini (Coleoptera: Buprestidae) of Africa. *Department of Agriculture Republic of South Africa Entomology Memoir* No. 56:29, figs. 1–60.
- Holm, E. 1986.** A new genus of Acmaeoderinae (Coleoptera: Buprestidae) from South West Africa and its significance for the tribal classification of the subfamily. *Cimbebasia*, ser. A, 7(9):133–139, figs. 1–16.
- Holthuis, L. B. 1992.** Comments on the proposed conservation of *Schizopus* Le Conte, 1858 (Insecta, Coleoptera). *Bulletin of Zoological Nomenclature* 49(3):232.
- Holyński, R. 1984.** On the Oriental Notogaean Mastogeniini LeC. Horn (Coleoptera, Buprestidae). *Bulletin Entomologique de Pologne* 54:105–114.
- Holyński, R. 1988.** Remarks on the general classification of Buprestidae Leach as applied to Maoraxiina Hol. *Folia Entomologica Hungarica* 49:49–54.
- Holyński, R. 1993.** A reassessment of the internal classification of the Buprestidae Leach (Coleoptera). *Crystal*, series Zoologica, No. 1, pp. 1–42.
- Holyński, R. 2002.** Kolibáč (2000), basic principles of scientific work, and phylogeny of the Buprestidae Leach (Coleoptera). *Jewel Beetles* 11:5–12.
- Homan, H. W. 1975.** Rose stem girdler (*Agrilus aurichalceus*) IDAHO. *United States Department of Agriculture, Cooperative Economic Insect Report* 25(21):415.
- Homan, H. W. & W. F. Barr. 1981.** The Pacific flatheaded borer. *University of Idaho Agricultural Experiment Station Current Information Series* 567.
- Hook, A. W. 1987.** Nesting behaviour of Texas *Cerceris* digger wasps with emphasis on nest reutilization and nest sharing (Hymenoptera: Sphecidae). *Sociobiology* 13:93–118.
- Hook, A. W. & H. E. Evans. 1991.** Prey and parasites of *Cerceris fumipennis* (Hymenoptera: Sphecidae) from central Texas, with description of the larva of *Dasymutilla scaevola* (Hymenoptera: Mutillidae). *Journal of the Kansas Entomological Society* 64(3):257–264.

- Hopkins, A. D. 1890a.** The raspberry gouty-gall beetle. *3rd Annual, West Virginia Report*, pp. 160–163, fig. 1.
- Hopkins, A. D. 1890b.** A parasite of *Agrilus*. The lady-bird parasite. *Insect Life* 3, p. 19.
- Hopkins, A. D. 1891a.** Entomological work in West Virginia. *Insect Life* 3, p. 435.
- Hopkins, A. D. 1891b.** The raspberry gouty-gall beetle *A. ruficollis*. *West Virginia Bulletin* 15, pp. 81–84.
- Hopkins, A. D. 1891c.** Reprint of the above as a circular, pp. 1–6.
- Hopkins, A. D. 1892.** Some bred West Virginia Braconidae. *Insect Life* 4:256–259.
- Hopkins, A. D. 1893.** Catalogue of West Virginia Forest and Shade Tree Insects. *West Virginia Agriculture Experiment Station, Bulletin No. 32*, pp. 171–251.
- Hopkins, A. D. 1894a.** Notes on some discoveries and observations of the year in West Virginia. *Insect Life* 7:145–153, 198.
- Hopkins, A. D. 1894b.** “Notes on some discoveries and observations of the year in West Virginia”. In: J. B. Smith (Ed.). Meeting of the Association of Economic Entomologists. *Entomological News* 5:249–252.
- Hopkins, A. D. 1895.** Untitled note. *Proceedings of the Entomological Society of Washington* 3:82–83.
- Hopkins, A. D. 1896a.** Some notes on insect enemies of trees. *The Canadian Entomologist* 28:243–250.
- Hopkins, A. D. 1896b.** “Insect Enemies of Trees” In J. B. Smith (Ed.). Proceedings of the Association of Economic Entomologists. *Entomological News* 7:307–310.
- Hopkins, A. D. 1897.** *9th Report, West Virginia Agriculture Experiment Station for 1896*, p. 130.
- Hopkins, A. D. 1898a.** Buprestid beetles breeding in seasonal hickory, p. 46. Buprestid larva destructive to living white pine timber, pp. 47–48. *United States Department of Agriculture, Division of Entomology Bulletin*, No. 17 (N.S.).
- Hopkins, A. D. 1898b.** *Proceedings of the 19th Annual Meeting of the Society*, Promo. Agriculture Society, pp. 105–106.
- Hopkins, A. D. 1899a.** Report on investigations to determine the cause of unhealthy conditions of the spruce and pine from 1880–1893. *West Virginia Agriculture Experiment Station, Bulletin* 56, pp. 1–461.
- Hopkins, A. D. 1899b.** Preliminary report on the insect enemies of forests in the Northwest. *United States Department of Agriculture, Bulletin No. 21* (N.S.), 27 pp.
- Hopkins, A. D. 1902.** Insect enemies of pine in the Black Hills Forest Reserve. *Bureau of Entomology Bulletin* No. 32 (N.S.), 1–24.
- Hopkins, A. D. 1903.** Insects injurious to hardwood forest trees. *United States Department of Agriculture Yearbook*, pp. 313–328.
- Hopkins, A. D. 1904a.** Catalogue of exhibits of insect enemies of forest and forest product. *U. S. Department of Agriculture, Division of Entomology, Bulletin* 48, 56 pp.
- Hopkins, A. D. 1904b.** *U. S. Department of Agriculture Yearbook for 1903*, pp. 320–322, plate 39, figure 1.
- Hopkins, A. D. 1907.** Untitled note. *Proceedings of the Entomological Society of Washington* 8:99.
- Hopkins, A. D. 1909.** *B. apricans*. *Bureau of Entomology Bulletin* No. 58(5):62.
- Hopkins, A. D. 1916.** Current Notes. *Journal of Economic Entomology* 9:323.
- Hopping, G. R. 1927.** Studies in the life history of *Trachykele blondeli* Mars. (Coleoptera). *The Canadian Entomologist* 59(9):201–204.
- Hopping, G. R. 1928.** The Western Cedar Borer (*Trachykele blondeli* Mars.). The life-history, distribution and means of control, with a report on the strength of infested poles. *Canada Department of Agriculture Pamphlet* No. 94(N.S.), 17 pp., 10 plates.
- Hopping, G. R. 1932.** Studies in the life history of *Trachykele blondeli* Marseul. *The Canadian Entomologist* 64(8):189–191.
- Hopping, R. 1902.** Notes on *Acmaeodera maricopa*. *Entomological News* 13:202.
- Hopping, R. 1916.** Notes on collecting Coleoptera in California. In Report of the 58th meeting of the Society. *Proceedings of the Pacific Coast Entomological Society* [1:1].
- Hopping, R. 1933.** A new buprestid from British Columbia, with notes on the genus *Buprestis*. *The Pan-Pacific Entomologist* 9(2):84–88.
- Hopping, R. 1934.** A change of name. *The Pan-Pacific Entomologist* 10(4):174.
- Horn, G. H. 1867.** Notes on the habits of a few California Coleoptera. *Proceedings of the Entomological Society of Philadelphia* 6:289–293.
- Horn, G. H. 1868a.** Catalogue of Coleoptera from South West Virginia. *Transactions of the American Entomological Society* 2:123–128.
- Horn, G. H. 1868b.** New species of Coleoptera from the Pacific District of the United States. *Transactions of the American Entomological Society* 2:129–140.
- Horn, G. H. 1870.** Contributions to the coleopterology of the United States. *Transactions of the American Entomological Society* 3:69–97.

Bibliography

- Horn, G. H. 1873.** Coleoptera. In Hayden's comprehensive geological and biological coverage of Yellowstone Park. *Report of the U.S. Geological Survey for 1872, 1873*, p. 717.
- Horn, G. H. 1875.** Synonymical notes and description of new species of North American Coleoptera. *Transactions of the American Entomological Society* 5:126–156.
- Horn, G. H. 1878.** Revision of the species of *Acmaeodera* of the United States. *Transactions of the American Entomological Society* 7(1,2):2–27, 1 plate.
- Horn, G. H. 1880.** Contributions to the coleopterology of the United States, No. 3. *Transactions of the American Entomological Society* 8:139–154.
- Horn, G. H. 1883a.** Revision of the species of some genera of Buprestidae. *Transactions of the American Entomological Society* 10(1882–3):101–112; 163, Plate IV.
- Horn, G. H. 1883b.** Miscellaneous notes and short studies of North American Coleoptera. *Transactions of the American Entomological Society* 10:269–302.
- Horn, G. H. 1884.** Synonymical notes. *The Canadian Entomologist* 16:147–148.
- Horn, G. H. 1885.** Contributions to the coleopterology of the United States. (No. 4). *Transactions of the American Entomological Society* 12:128–162, Plate IV.
- Horn, G. H. 1886a.** A monograph of the species of *Chrysobothris* inhabiting the United States. *Transactions of the American Entomological Society* 13:65–124, plates ii–vii.
- Horn, G. H. 1886b.** Review of the species described by Olivier in the "Entomologie". *Transactions of the American Entomological Society* 13:135–144.
- Horn, G. H. 1887.** Some additional synonymy. *Entomologia Americana* 3(8):145.
- Horn, G. H. 1889.** Synonymical notes. *Entomologia Americana* 5:198–199.
- Horn, G. H. 1891a.** New species and miscellaneous notes. *Transactions of the American Entomological Society* 18:32–48.
- Horn, G. H. 1891b.** The species of *Agrilus* of Boreal America. *Transactions of the American Entomological Society* 18:277–336, 1 plate.
- Horn, G. H. 1891c.** Untitled discussion in meeting of the Entomology Section, Academy of Natural Sciences. In H. Skinner (Ed.). Doings of Societies. *Entomological News* 2:146–147.
- Horn, G. H. 1891d.** A good collection of *Agrilus* at the National Museum. *Insect Life* 4:137.
- Horn, G. H. 1893.** Miscellaneous coleopterous studies. *Transactions of the American Entomological Society* 20:136–144.
- Horn, G. H. 1894.** The Coleoptera of Baja California [Buprestidae]. *Proceedings of the California Academy of Sciences* 4:302–379, plates vii & viii.
- Horn, G. H. 1896.** A note on *Buprestid* synonymy. *Entomological News* 7:247.
- Horn, W. & I. Kahle.** 1935–1937. Über entomologische Sammlungen, Entomologie & Entomo-Museologie (Ein Beitrag zur Geschichte der Entomologie). Sonderdruck aus Entomologische Beihefte (Berlin) 2 (Dez. 1935), 3 (Okt. 1936); 4 (Aug. 1937). pp. 540, plates i – xxxviii.
- Horn, W. & S. Schenkling.** 1928–1929. *Index Literaturae Entomologicae*. Serie II: Die Welt-Literatur über die gesamte Entomologie bis inklusive 1863. 4 volumes. Selbstverlag von W. Horn, Berlin-Dahlem.
- Horne, W. T., E. O. Essig & W. B. Herms.** 1923. Plant disease and pest control; pests of apple. *University of California Station Circular* 265, pp. 4–7.
- Horning, D. S. & W. F. Barr.** 1970. Insects of Craters of the Moon National Monument, Idaho. *University of Idaho, College of Agriculture, Miscellaneous Series* 8:1–118.
- Houghton, C. O. 1905.** A list of Coleoptera. *Entomological News* 16:50–51.
- Houghton, C. O. 1908.** Some Coleoptera affecting the honey locust. *The Canadian Entomologist* 40:160–163.
- Houlbert, C. V. 1922.** *Les Coléoptères d'Europe, France et Régions Voisines*. Paris. 1, pp. xii & 332, 104 text figures.
- Houser, J. S. 1918.** Destructive insects affecting Ohio shade and forest trees. *Ohio Agriculture Experiment Station, Bulletin* 332, 487 pp.
- Houston, D. R. 1979.** Spreading tree diseases: the hand of man. *Ecologist* 9(4–5):120–124.
- Howard, L. O. 1895.** A new pear insect. *Insect Life* 7:258–261.
- Howard, L. O. 1901.** Notes from correspondence (*Melanophila*). *Bureau of Entomology Bulletin* 30, p. 97.
- Howard, L. O. 1914.** U. S. Department of Agriculture, *Entomology Report*, pp. 11–12.
- Howard, L. O. 1916.** A note on *C. impressa*. *Journal of Economic Entomology* 9:452.
- Howard, W. L. 1923.** *C. femorata*. *California Circular* 238, pp. 42–43.
- Howden, H. F. & G. B. Vogt.** 1951. Insect communities of standing dead pine (*Pinus virginiana* Mill.). *Annals of the Entomological Society of America* 44(4):581–595.

- Hubbard, H. G. 1877.** Beetles which infest elm trees. *Psyche* 2(37–38):40.
- Hubbard, H. G. & E. A. Schwarz. 1878.** Coleoptera of Michigan: Part 2, List of Coleoptera found in the Lake Superior Region; Part 3, List of Coleoptera of the Lower Peninsula of Michigan. *Proceedings of the American Philosophical Society* 17:627–669.
- Huguenin, J. C. 1915.** An observation on a buprestid. *Entomological News* 26:364–365.
- Hurd, P. D., Jr. & E. G. Linsley. 1975.** Some insects other than bees associated with *Larrea tridentata* in the southwestern United States. *Proceedings of the Entomological Society of Washington* 77(1):100–120.
- Hussain, A. & R. D. Shenefelt. 1959.** The hemlock borer. *Wisconsin Conservation Department Technical Bulletin* 19:3–6.
- Hutchings, C. B. 1917.** Two destructive shade tree borers. *9th Annual Report, Quebec Society for the Protection of Plants*, pp. 65–70.
- Hutchings, C. B. 1923a.** Some biological observations on the bronze birch borer. *25th Annual Report, Quebec Society for the Protection of Plants*, pp. 89–92.
- Hutchings, C. B. 1923b.** Some notes on the biology of two buprestids infesting blackberry and hazel. *53rd Annual Report, Entomological Society of Ontario No. 36*, pp. 43–46.
- ICZN. 1963.** Opinion 686. Amyot, *Méthode Mononymique*: placed on the official index of rejected and invalid works in Zoological Nomenclature. *Bulletin of Zoological Nomenclature* 20(6):423.
- ICZN. 1985.** *International Code of Zoological Nomenclature*. Third Edition. International Trust for Zoological Nomenclature, 338 pp.
- ICZN. 1993.** Opinion 1727. *Schizopus* LeConte, 1858 (Insecta, Coleoptera): placed on the Official List of Generic Names. *Bulletin of Zoological Nomenclature* 50(2):174–175.
- ICZN. 1994.** Opinion 1784. *Buprestis* Linnaeus, 1758 and *Chrysobothris* Eschscholtz, 1829 (Insecta, Coleoptera): conserved by the designation of *Buprestis octoguttata* Linnaeus, 1758 as the type species of *Buprestis*, and *Chrysobothris* and *Dicerca* Eschscholtz, 1829: conserved as the correct original spellings. *Bulletin of Zoological Nomenclature* 51(3):280–282.
- ICZN. 1996a.** Opinion 1825. *Poecilnota* Eschscholtz, 1829, *Palmar* Schaefer, 1949 and *Scintillatrix* Obenberger, 1956 (Insecta, Coleoptera): conserved by the designation of *Buprestis variolosa* Paykull, [1799] as the type species of *Poecilnota* and *B. rutilans* Fabricius, [1777] as the type species of *Scintillatrix*. *Bulletin of Zoological Nomenclature* 53(1):57–59.
- ICZN. 1996b.** Opinion 1826. *Melanophila* Eschscholtz, 1829 and *Phaenops* Dejean, 1833 (Insecta, Coleoptera): conserved by the designation of *Buprestis acuminata* De Geer, 1774 as the type species of *Melanophila*. *Bulletin of Zoological Nomenclature* 53(1):60–61.
- ICZN. 1999.** *International Code of Zoological Nomenclature*. Fourth Edition. International Trust for Zoological Nomenclature, 306 pp.
- ICZN. 2002.** Opinion 2008 (Case 3149). 30 species–group names originally published as junior primary homonyms in *Buprestis* Linnaeus, 1758 (Insecta, Coleoptera): conserved. *Bulletin of Zoological Nomenclature* 59(3):211–216.
- ICZN. 2005a.** Opinion 2100 (Case 3258). *Acmaeodera* Eschscholtz, 1829 and *Acmaeoderella* Cobos, 1955 (Insecta, Coleoptera): usage conserved by designation of *Buprestis cylindrica* Fabricius, 1775 as the type species of *Acmaeodera*. *Bulletin of Zoological Nomenclature* 62(1):47–48.
- ICZN. 2005b.** Opinion 2112 (Case 3194). *Lius* Deyrolle, 1865 (Insecta, Coleoptera): conserved. *Bulletin of Zoological Nomenclature* 62(2):104–105.
- ICZN. 2007.** Opinion 2174 (Case 3302). *Buprestis sexsignata* Say, 1839 (Insecta, Coleoptera): given precedence over *Chrysobothris ignipes* Gory & Laporte, 1838 and *Chrysobothris germari* Gory & Laporte, 1838. *Bulletin of Zoological Nomenclature* 64(2):135–136.
- Illiger, J. C. W. 1800.** Vierzig neue Insecten aus der Hellwigschen Sammlung. *Wiegmann, Archiv für Zoologie* 1(2):103–150, 2 color plates; 1801, 2:229–230.
- Jack, J. G. 1894.** Notes on some injurious insects. *Transactions of the Massachusetts Horticulture Society*, Part 1, pp. 133–150.
- Jackman, J. A. & S. G. Wellso. 1978.** Development of a computerized catalog of the Buprestidae (Coleoptera) of North America. *Bulletin of the Entomological Society of America* 24(3):367–369.
- Jacquelin du Val, P. N. C. 1857.** Insectes. Ordre des Coléoptères. In: Ramon de la Sagra, *Histoire fisica, politica y natural de la Isla de Cuba* 7:1–136.
- Jacquelin du Val, P. N. C. 1863.** Manuel entomologique. Genera des Coléoptères d'Europe comprenant leur classification en familles naturelles, la description de tous les genres, des Tableaux synoptiques destinés ... faciliter l'étude, le Catalogue de toutes les espèces, de nombreux dessins au trait de caractères. Tome troisième (1859–1863), Paris, A. Deyrolle, 463 pp. 100 color plates.

Bibliography

- Jakobson, G. G. 1913.** Zhuki Rosij i zapadnoi Evropy II (Die Käfer Russlands und Westeuropas. Ein Handbuch zum Bestimmen der Käfer.) (The beetles of Russia and Western Europe). A. F. Devrien, St. Peterburg, Lief ix, 1 + 641–864.
- Jakovlev, B. E. 1889.** Insecta a cl. G. N. Potanin in China et in Mongolia novissime lecta. III. Genus *Sphenoptera* Sol. *Horae Societatis Entomologicae Rossicae* 23:83–87.
- Jakovlev, B. E. 1899.** Étude sur les espèces du genre *Sphenoptera* Sol. Sous-genre *Deudora* Jak. *Horae Societatis Entomologicae Rossicae* 32:325–335.
- Jarvis, T. D. 1907.** Insect galls of Ontario. *37th Report, Entomological Society of Ontario for 1906*, pp. 56–72.
- Jelinek, J. 1977.** Bibliography of scientific papers of Prof. Dr. Jan Obenberger. *Acta Entomologica Musei Nationalis Pragae Cechoslovakensis* 39:5–27.
- Jendek, E. 1994.** Studies in the East Palaearctic species of the genus *Agrilus* Dahl, 1823 (Coleoptera: Buprestidae) Part I. *Entomological Problems* 25 (1):9–25, fig. 9 (lectotype).
- Jendek, E. 1995.** Studies in the East Palaearctic species of the genus *Agrilus* Dahl, 1823 (Coleoptera: Buprestidae). Part II. *Entomological Problems* 25(2):137–150.
- Jendek, E. 1998.** Lectotype designations in the Palaearctic and Oriental *Agrilus* species (Coleoptera: Buprestidae) of the Oberthur's collection in the Museum national d'Histoire naturelle, Paris. *Acta Societatis Zoologicae Bohemicae* 62:315–333.
- Jendek, E. 2001a.** Comparative study of the abdomen of the family Buprestidae. *Acta Musei Moraviae, Scientiae biologicae* 86:1–41.
- Jendek, E. 2001b.** Studies in the Palearctic and Oriental *Agrilus* (Coleoptera, Buprestidae). II. *Biologia, Bratislava* 56(2):171–174.
- Jendek, E. 2002.** Nomenclatural and taxonomic notes on *Agrilus cyanescens* (Ratzeburg, 1837), *A. pratensis* (Ratzeburg, 1837) and *A. convexicollis* Redtenbacher, 1849 (Coleoptera: Buprestidae: Agrilinae). *Zootaxa* 77:1–11.
- Jendek, E. 2003.** Revision of *Agrilus cuprescens* (Ménétriés, 1832) and related species (Coleoptera: Buprestidae). *Zootaxa* 317:1–22.
- Jendek, E. 2006.** New nomenclatorial and taxonomic acts, and comments. Buprestidae: *Agrilus*. p. 60. Catalogue. Buprestidae: Agrilinae: Agrilini: Agrilina: *Agrilus*. pp. 388–403. In: I. Löbl & A. Smetana (Eds): *Catalogue of Palaearctic Coleoptera*. Volume 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea. Apollo Books, Stenstrup, 690 pp.
- Johnson, D. T. & R. L. Mayes. 1989.** Biology and control of the rednecked cane borer, *Agrilus ruficollis* (F.) (Coleoptera: Buprestidae), on blackberries in Arkansas. *Journal of Entomological Science* 24(2):204–208.
- Johnson, H. L. 1901.** *C. femorata*. *American Agriculturist*, Sept. 7, p. 220.
- Johnson, H. L. 1915.** Coleoptera found in the vicinity of Meriden, Connecticut. *Entomological News* 26:307–319.
- Johnson, H. L. 1916.** Additions to the Coleoptera of Meriden, Connecticut. *Entomological News* 27:112–124.
- Jones, J. M. 1870.** Contributions to the Natural History of Nova Scotia, Insects Coleoptera, part 1, 15 pp.
- Jones, L. K. 1920.** Disease and insects injurious to cane fruits. *Wisconsin State Department of Agriculture, Bi-Annual Report (1919–1920)*, pp. 149–157.
- Kajihiro, E. S. & D. D. Millspaugh. 1950.** A preliminary list of the Buprestidae (Coleoptera) known to occur in Iowa. *Proceedings of the Iowa Academy of Science* 57:541–543.
- Kalashian, M. Y. 1983.** On the morphology of the terminalia and genitalia of some Armenian buprestid-beetles (Coleoptera, Buprestidae). *Zoological Papers of the Academy of Sciences of Armenian SSR Institute of Zoology* 19:162–210.
- Kalmbach, E. R. & I. N. Gabrielson. 1921.** Economic value of the starling in the United States. *U. S. Department of Agriculture, Bulletin* No. 868, p. 61.
- Kasap, H. & R. A. Crowson. 1975.** A comparative anatomical study of Elateriformia and Dascilloidea (Coleoptera). *Transactions of the Royal Entomological Society of London* 126(4):441–495.
- Keen, F. P. 1929.** Insect enemies of California pines. *California State Bulletin* 7:58–62.
- Keen, F. P. 1938.** Insect enemies of western forests. *United States Department of Agriculture, Miscellaneous Publication* 273.
- Keen, F. P. 1949.** Notes on some forest insects of Baja California. *The Pan-Pacific Entomologist* 25(2):92–93.
- Keen, F. P. 1952.** Insect enemies of western forests. *United States Department of Agriculture, Miscella-*

- neous Publication 273, 280 pp.
- Keen, F. P. 1958.** Cone and Seed Insects of Western Forest Trees. *United States Department of Agriculture, Technical Bulletin* No. 1169, pp. 1–169, figs. 1–57.
- Kellogg, V. L. 1905.** *American Insects*. New York, 674 pp.
- Kendall, K. H., C. G. Wright & H. B. Moore. 1995.** Observations of the activity of *Buprestis lineata* (Coleoptera: Buprestidae) adults. *Journal of the Elisha Mitchell Scientific Society* 110(1):13–16.
- Kerremans, C. 1890.** Note sur les Chrysobothrides. Bulletin ou *Comptes-Rendus de la Séance de la Société entomologique de Belgique*[Annales] 34:cxviii–cxl.
- Kerremans, C. 1892.** Catalogue synonymique des Buprestides décrits de 1758 à 1890. *Mémoires de la Société entomologique de Belgique* 1:1–304.
- Kerremans, C. 1893.** Essai de groupement des Buprestides. *Annales de la Société entomologique de Belgique* 37:94–122, 3 figures.
- Kerremans, C. 1894.** Étude sur la répartition géographique des Buprestides. *Annales de la Société entomologique de Belgique* 38:97–121.
- Kerremans, C. 1896.** Trachydes nouveaux. *Annales de la Société entomologique de Belgique* 40:306–333.
- Kerremans, C. 1897.** Contribution à l'étude de la faune intertropicale Américaine. Voyages de M. E. Gounelle au Brésil. Buprestides. *Mémoires de la Société entomologique de Belgique* 6:1–146.
- Kerremans, C. 1899b.** Contribution à l'étude de la faune intertropicale Américaine. Fascicule II. *Annales de la Société entomologique de Belgique* 43:329–367.
- Kerremans, C. 1900.** Buprestides nouveaux et remarques synonymiques. *Annales de la Société entomologique de Belgique* 44:282–351.
- Kerremans, C. 1902.** Coleoptera Serricornia, Fam. Buprestidae. In: P. Wytzman (Ed.). *Genera Insectorum*, Fasc. 12a. Verteneuil & Desmet, Bruxelles, pp. 1–48.
- Kerremans, C. 1903.** Coleoptera Serricornia, Fam. Buprestidae. In: P. Wytzman (Ed.). *Genera Insectorum*, Fasc. 12b; 12c; 12d. Verteneuil & Desmet, Bruxelles, pp. 49–338.
- Kerremans, C. 1904.** *Monographie des buprestides*, Volume 1, livraison 1, pp. 1–32; livraison 2, pp. 33–64, J. Janssens, Bruxelles.
- Kerremans, C. 1905.** *Monographie des buprestides*, Volume 1, livraison 3, pp. 65–96; livraison 4, pp. 97–128; livraison 5, pp. 129–160; livraison 6, pp. 161–192; livraison 7, pp. 193–224; livraison 8, pp. 225–256; livraison 9, pp. 257–288; livraison 10, pp. 289–320; livraison 11, pp. 321–352; livraison 12, pp. 353–384; livraison 13, pp. 385–416; livraison 14, pp. 417–448; color plates 1–10, J. Janssens, Bruxelles.
- Kerremans, C. 1906.** *Monographie des buprestides*, Volume 1, livraison 15, pp. 449–489; livraison 16, pp. 481–512; livraison 17, pp. 513–528; livraison 18, pp. 529–534; color plates 1–10, J. Janssens, Bruxelles. Volume 2, livraison 1, pp. 1–32; livraison 2, pp. 33–64; livraison 3, pp. 65–96; livraison 4, pp. 97–128; livraison 5, pp. 129–160; livraison 6, pp. 161–192; livraison 7, pp. 193–224; livraison 8, pp. 225–256; color plates 11–16, Dulau & Co., London; Author, Bruxelles; R. Friedländer & Son, Berlin.
- Kerremans, C. 1907.** *Monographie des buprestides*, Volume 2, livraison 9, pp. 257–288; livraison 10, pp. 289–320; livraison 11, pp. 321–352; livraison 12, pp. 353–384; livraison 13, pp. 385–416; livraison 14, pp. 417–448; livraison 15, pp. 449–480; livraison 16, pp. 481–512; livraison 17, pp. 513–544; livr. 18, pp. 545–576; livraison 19, pp. 577–608; livraison 20, pp. 609–620; color plates 11–16, Dulau & Co., London; Author, Bruxelles; R. Friedländer & Son, Berlin.
- Kerremans, C. 1908.** *Monographie des buprestides*, Volume 3, livraison 1, pp. 1–32; livraison 2, pp. 33–64; livraison 3, pp. 65–96; livraison 4, pp. 97–128; livraison 5, pp. 129–160; livraison 6, pp. 161–192; livraison 7, pp. 193–224; livraison 8, pp. 225–256; livraison 9, pp. 257–288; livraison 10, pp. 289–320; livraison 11, pp. 321–352; livraison 12, pp. 353–384; color plates 17–22, Dulau & Co., London; Author, Bruxelles; R. Friedländer & Son, Berlin.
- Kerremans, C. 1909.** *Monographie des buprestides*, Volume 3, livraison 13, pp. 385–416; livraison 14, pp. 417–448; livraison 15, pp. 449–480; livraison 16, pp. 481–512; livraison 17, pp. 513–544; livraison 18, pp. 545–576; livraison 19, pp. 577–603, color plates 17–22. Volume 4, livraison 1, pp. 1–32; livraison 2, pp. 33–64; livraison 3, pp. 65–96; livraison 4, pp. 97–128;
- Kerremans, C. 1910.** *Monographie des buprestides*, Volume 4, livraison 6, pp. 161–192; livraison 7, pp. 193–224; livraison 8, pp. 225–256; livraison 9, pp. 257–284; color plates 23–26. Volume 5, livraison 1, pp. 1–32; livraison 2, pp. 33–64; livraison 3, pp. 65–96; livraison 4, pp. 97–128; livraison 5, pp. 129–160; livraison 6, pp. 161–192; livraison 7, pp. 193–224; livraison 8, pp. 225–256, Dulau & Co., London; Author, Bruxelles; R. Friedländer & Son, Berlin.
- Kerremans, C. 1911.** *Monographie des buprestides*, Volume 5, livraison 9, pp. 257–288; livraison 10, pp.

Bibliography

- 289–320; livraison 11, pp. 321–352; livraison 12, pp. 353–384; livraison 13, pp. 385–416; livraison 14, pp. 417–448; livraison 15, pp. 449–480; livraison 16, pp. 481–512; livraison 17, pp. 513–544; livraison 18, pp. 545–576; livraison 19, pp. 577–608; livraison 20, pp. 609–640, Dulau & Co., London; Author, Bruxelles; R. Friedländer & Son, Berlin.
- Kerremans, C. 1912.** *Monographie des buprestides*, Volume 5, livraison 21, pp. 641–662, color plates 27–32. Volume 6, livraison 1, pp. 1–32; livraison 2, pp. 33–64; livraison 3, pp. 65–96, Dulau & Co., London; Author, Bruxelles; R. Friedländer & Son, Berlin.
- Kerremans, C. 1913a.** *Monographie des buprestides*, Volume 6, livraison 4, pp. 97–128; livraison 5, pp. 129–160; livraison 6, pp. 161–192; livraison 7, pp. 193–224; livraison 8, pp. 225–256; livraison 9, pp. 257–288; livraison 10, pp. 289–320; livraison 11, pp. 321–352; livraison 12, pp. 353–384; livraison 13, pp. 385–416; livraison 14, pp. 417–448; livraison 15, pp. 449–480; livraison 16, pp. 481–512; livraison 17, pp. 513–544; livraison 18, pp. 545–576; livraison 19, pp. 577–594; color plates 33–38. Volume 7, livraison 1, pp. 1–32; livraison 2, pp. 33–64; livraison 3, pp. 65–96; Dulau & Co., London; Author, Bruxelles; R. Friedländer & Son, Berlin.
- Kerremans, C. 1913b.** Note sur divers Coléoptères buprestides des collections du Muséum d'Histoire Naturelle de Paris. *Bulletin du Muséum National d'Histoire Naturelle* 19:575–580.
- Kerremans, C. 1914.** *Monographie des buprestides*, Volume 7, livraison 4, pp. 97–128; livraison 5, pp. 129–160; livraison 6, pp. 161–192; livraison 7, pp. 193–224; livraison 8, p. 255–256; livraison 9, pp. 257–288; livraison 10, pp. 289–320; Dulau & Co., London; Author, Bruxelles; R. Friedländer & Son, Berlin.
- Kilman, A. H. 1894.** Additions to the list of Canadian Coleoptera. *The Canadian Entomologist* 26:48–50.
- Kimmey, J. W. & R. L. Furniss. 1943.** Deterioration of fire-killed Douglas-fir. *United States Department of Agriculture Technical Bulletin* 851, 61 pp.
- Kirby, W. 1837.** The Insects. In: J. Richardson (Ed.). *Fauna Boreali-Americana; or the Zoology of the northern parts of British America: containing descriptions of the objects of natural history collected on the late northern land expeditions, under command of Captain Sir John Franklin, R. N.* Part 4. J. Fletcher, London, 325 pp., plate ii.
- Kirk, H. B. 1922.** Biological notes on Elateridae and Melasidae (Col.). *Entomological News* 33:236–240.
- Kirk, V. M. 1969.** A list of the beetles of South Carolina. Part 1 – Northern Coastal Plain. *South Carolina Agricultural Experiment Station, Clemson University, Technical Bulletin* 1033, pp. 1–124.
- Kirk, V. M. 1970.** A list of the beetles of South Carolina, part 2 – Mountain, Piedmont, and Southern Coastal Plain. *South Carolina Agricultural Experiment Station Technical Bulletin* 1038, pp. 1–117.
- Kirk, V. M & E. U. Balsbaugh, Jr. 1975.** A list of the beetles of South Dakota. *South Dakota State University Agriculture Experiment Station Technical Bulletin* 42:1–139.
- Kissinger, D. G. 1955.** New distribution and habitat records of N. A. Coleoptera. *The Coleopterists Bulletin* 9(1):13–15.
- Knaus, W. 1902.** Notes on collecting Coleoptera in Wyoming and Utah. *Entomological News* 13:147–152.
- Knaus, W. 1903.** Coleoptera of the Sacramento Mountains of New Mexico. *Entomological News* 14(6):172–180.
- Knaus, W. 1905.** Central Texas Coleoptera. *The Canadian Entomologist* 37:348–352.
- Knaus, W. 1908.** Notes on Coleoptera. *The Canadian Entomologist* 40:91–92.
- Knaus, W. 1922.** Notes on a rare *Buprestis*. *Journal of the New York Entomological Society* 30:66–68.
- Knaus, W. 1926.** The Coleoptera of the Sandhill Region of Medora, Reno County Kansas. *Entomological News* 37:262–266.
- Knaus, W. 1929.** The genus *Agrilus* in Kansas. *Journal of the Kansas Entomological Society* 2(3):66–69.
- Knaus, W. 1930.** Notes on Kansas Coleoptera. *Journal of the Kansas Entomological Society* 3(3):79–80.
- Knaus, W. 1932.** Some notes on Coleoptera. *Journal of the Kansas Entomological Society* 5(1):32.
- Knobel, E. 1895.** Beetles of New England and their kind, a guide to know them readily. Bradlee Whidden Publisher, Boston, 48 pp.
- Knowlton, G. F. 1930.** Notes on Utah Coleoptera. *Florida Entomologist* 14(3):36–37, 53–56, 75–77; 15:10.
- Knowlton, G. F. 1934.** Distributional notes on Utah Coleoptera. *Journal of the Kansas Entomological Society* 7(3):79–86.
- Knowlton, G. F. 1957.** Some Utah Coleoptera–1956. *Utah State University Extension Service, Mimeograph Series* 159, pp. 1–23.
- Knowlton, G. F. 1958.** Some Utah Coleoptera–1958, part II. *Utah State University Extension Service, Mimeograph Series* 171–A, pp. 1–27.
- Knowlton, G. F. & T. O. Thatcher. 1936.** Notes on wood-boring insects. *Utah Academy of Sciences, Arts*

and Letters. Bulletin 13:277–281.

- Knowlton, G. F. & W. L. Thomas. 1934.** Some Cache Valley Utah Insects. *Utah Academy of Sciences, Arts and Letters* 11:245–246.
- Knowlton, G. F. & S. L. Wood. 1948.** Utah Buprestidae. *Entomological News* 59:41–43.
- Knull, J. N. 1920.** Notes on Buprestidae with descriptions of new species (Coleop.). *Entomological News* 31:4–12.
- Knull, J. N. 1922.** Annotated list of the Buprestidae of Pennsylvania (Coleoptera). *The Canadian Entomologist* 54(4):79–86.
- Knull, J. N. 1923.** *Agrilus bilineatus* var. *carpini* n.n. for var. *azureus* Knull. *The Canadian Entomologist* 55(5):105.
- Knull, J. N. 1925.** The Buprestidae of Pennsylvania (Coleoptera). *The Ohio State University Studies, Contributions from the Department of Zoology and Entomology*, No. 87, Volume II, no. II, 77 pp. 2(2):71, 10 plates.
- Knull, J. N. 1927.** Descriptions of Coleoptera with notes (Buprestidae and Cerambycidae). *Entomological News* 38:115–118.
- Knull, J. N. 1928.** Descriptions of two new species of *Acmaeodera* (Buprestidae) with notes on other Coleoptera. *Entomological News* 39:314–316.
- Knull, J. N. 1929a.** Additions to the lists of Buprestidae and Cerambycidae of Pennsylvania. *Entomological News* 40:144–145.
- Knull, J. N. 1929b.** Three new species of *Agrilus* (Coleop., Buprestidae). *Entomological News* 40:270–273.
- Knull, J. N. 1930a.** *Agrilus fisherianus* new name (Coleop., Buprestidae). *Entomological News* 41:3.
- Knull, J. N. 1930b.** A new species of *Acmaeodera* and one new subspecies (Coleoptera, Buprestidae). *Entomological News* 41:15–16.
- Knull, J. N. 1930c.** Notes on Coleoptera – No 2. *Entomological News* 41:82–86, 101–102.
- Knull, J. N. 1932.** Notes on Coleoptera – No 3. *Entomological News* 43:42–45, 62–67.
- Knull, J. N. 1934a.** Five new species of Coleoptera (Cleridae, Elateridae, Buprestidae and Cerambycidae). *Entomological News* 45:9–13.
- Knull, J. N. 1934b.** Two new Arizona Coleoptera (Buprestidae and Cerambycidae). *Entomological News* 45:68–70.
- Knull, J. N. 1934c.** New Coleoptera (Buprestidae and Cerambycidae). *Ohio Journal of Science* 34(5):333–336.
- Knull, J. N. 1934d.** Notes on Coleoptera, No 4. *Entomological News* 45:207–212.
- Knull, J. N. 1935a.** Four new Texas Coleoptera (Buprestidae and Cerambycidae). *Entomological News* 46:96–99.
- Knull, J. N. 1935b.** New Coleoptera (Cabrionidae, Buprestidae and Cerambycidae). *Entomological News* 46:189–191.
- Knull, J. N. 1936.** Five new Southwestern Coleoptera (Buprestidae and Cerambycidae). *Entomological News* 47:73–75, 105–108.
- Knull, J. N. 1937a.** Notes on Coleoptera with descriptions of new species (Buprestidae and Cerambycidae). *Entomological News* 48:15–17, 36–42.
- Knull, J. N. 1937b.** New species of *Paratyndaris* with notes on described forms (Coleoptera: Buprestidae). *Annals of the Entomological Society of America* 30:252–257, 1 plate.
- Knull, J. N. 1937c.** New Southwestern Buprestidae and Cerambycidae with notes. *Ohio Journal of Science* 37(5):301–309, 1 plate.
- Knull, J. N. 1938a.** Four new Coleoptera (Elateridae and Buprestidae). *Entomological News* 49:19–22, 1 plate.
- Knull, J. N. 1938b.** Five new species of Coleoptera (Corynetidae, Elateridae and Buprestidae). *Ohio Journal of Science* 38(2):97–100.
- Knull, J. N. 1938c.** New Southwestern Buprestidae and Cerambycidae. *Annals of the Entomological Society of America* 31:135–143, 1 plate.
- Knull, J. N. 1938d.** A new *Acmaeodera* (Coleoptera: Buprestidae). *Entomological News* 49:228.
- Knull, J. N. 1939.** Four new Arizona Coleoptera (Cleridae, Corynetidae and Buprestidae). *Annals of the Entomological Society of America* 32(1):27–31, 1 plate.
- Knull, J. N. 1940a.** A new *Acmaeodera* from the Southwest (Coleoptera: Buprestidae). *Ohio Journal of Science* 40(1):36.
- Knull, J. N. 1940b.** Four new species of western Coleoptera (Cleridae, Buprestidae and Cerambycidae). *Annals of the Entomological Society of America* 33(3):555–559, 1 plate.

Bibliography

- Knoll, J. N. 1940c.** Two new Buprestidae. *Ohio Journal of Science* 40(6):362–363.
- Knoll, J. N. 1941a.** Two new Texas Buprestidae (Coleoptera). *Entomological News* 52:98–100.
- Knoll, J. N. 1941b.** Nine new Coleoptera (Plastoceridae, Buprestidae and Cerambycidae). *Ohio Journal of Science* 41(5):381–388, 1 plate.
- Knoll, J. N. 1941c.** New Coleoptera (Buprestidae and Cerambycidae). *Annals of the Entomological Society of America* 34(4):691–695, 1 plate.
- Knoll, J. N. 1941d.** A new Texas *Agrilus* (Coleoptera: Buprestidae). *Entomological News* 52:283–284.
- Knoll, J. N. 1942.** Two new Buprestidae (Coleoptera). *Annals of the Entomological Society of America* 35:390–392, figs. 1–8.
- Knoll, J. N. 1943a.** A new *Chrysobothris* (Buprestidae: Coleoptera). *Ohio Journal of Science* 43(1):42, figs. 1–5.
- Knoll, J. N. 1943b.** Two new *Chrysobothris* (Buprestidae: Coleoptera). *Annals of the Entomological Society of America* 36:34–36, figs. 1–11.
- Knoll, J. N. 1944a.** New Coleoptera with notes (Buprestidae and Cerambycidae). *Ohio Journal of Science* 44(2):90–93, 1 plate.
- Knoll, J. N. 1944b.** Notes on *Agrilus* with descriptions of two new species (Buprestidae: Coleoptera). *Annals of the Entomological Society of America* 37(1):75–83, 3 plates.
- Knoll, J. N. 1945.** A new species of *Agrilus* from Kentucky (Buprestidae: Coleoptera). *Ohio Journal of Science* 45(2):80–81, 1 plate.
- Knoll, J. N. 1947a.** New North American Coleoptera (Buprestidae, Schizopodidae and Cerambycidae). *Ohio Journal of Science* 47(2):69–73, 1 plate.
- Knoll, J. N. 1947b.** New Buprestidae with notes (Coleoptera). *Ohio Journal of Science* 47(4):174–176, figs. 1–7.
- Knoll, J. N. 1947c.** A new species of *Hippomelas* with notes on two other Buprestidae (Coleoptera). *Entomological News* 58(8):210–212, figs. 1–4.
- Knoll, J. N. 1948.** A new species of *Agrilus* with notes (Buprestidae and Eucnemidae). *Entomological News* 59(3):72–75, figs. 1, 2.
- Knoll, J. N. 1949.** New Coleoptera with notes (Elateridae, Buprestidae and Cerambycidae). *Ohio Journal of Science* 49(3):102–104, 1 plate.
- Knoll, J. N. 1950.** New Coleoptera with notes. II. (Buprestidae and Cerambycidae). *Entomological News* 61(4):89–92.
- Knoll, J. N. 1951.** Two new species and one subspecies of North American Buprestidae (Coleoptera). *Ohio Journal of Science* 51(2):87–89, 1 plate.
- Knoll, J. N. 1952a.** A new species of *Xenorhipis* from Texas (Coleoptera: Buprestidae). *Entomological News* 63(7):177–178.
- Knoll, J. N. 1952b.** New species of North American Buprestidae (Coleoptera). *Ohio Journal of Science* 52(6):349–352, 1 plate.
- Knoll, J. N. 1952c.** Two new species of North American *Brachys* (Coleoptera: Buprestidae). *Ohio Journal of Science* 52(6):358–359, figs. 1, 2.
- Knoll, J. N. 1953.** A new species of *Acmaeodera* from California (Coleoptera: Buprestidae). *Entomological News* 64(6):144–145, fig. 1.
- Knoll, J. N. 1954a.** Five new North American species of Buprestidae. *Ohio Journal of Science* 54(1):27–30, 1 plate.
- Knoll, J. N. 1954b.** Two new North American Buprestidae with note (Coleoptera). *Ohio Journal of Science* 54(5):294–296, figs. 1–4.
- Knoll, J. N. 1956.** A new Texas *Agrilus* with notes on *Chalcophorella* (Coleoptera: Buprestidae). *Entomological News* 67(2):47–48.
- Knoll, J. N. 1957.** A new *Agrilus* from the Chiricahua Mountains of Arizona (Coleoptera: Buprestidae). *Ohio Journal of Science* 57(4):234–235, figs. 1, 2.
- Knoll, J. N. 1958a.** A new subspecies of *Chrysobothris biramosa* (Fisher) (Coleoptera: Buprestidae). *Ohio Journal of Science* 58(2):96.
- Knoll, J. N. 1958b.** Two new North American Buprestidae (Coleoptera). *Ohio Journal of Science* 58(3):153–154, figs. 1–4.
- Knoll, J. N. 1960a.** A new subspecies of *Acmaeodera quadrivittata* Horn (Coleoptera: Buprestidae). *Ohio Journal of Science* 60(1):6–7, fig. 1.
- Knoll, J. N. 1960b.** A new subspecies of *Agrilus* from Texas (Coleoptera: Buprestidae). *Ohio Journal of Science* 60(6):321–322.

- Knoll, J. N. 1960c.** A new California *Acmaeodera* (Coleoptera: Buprestidae). *Ohio Journal of Science* 60(6):322.
- Knoll, J. N. 1961.** A new species of *Acmaeodera* from Arizona (Coleoptera). *Ohio Journal of Science* 61(2):80.
- Knoll, J. N. 1962.** A new Yucca-inhabiting *Acmaeodera* from Arizona. *Ohio Journal of Science* 62(1):2–3, fig.
- Knoll, J. N. 1964.** Two new Buprestidae and distribution records of others (Coleoptera). *Ohio Journal of Science* 64(5):376–378, figs. 1, 2.
- Knoll, J. N. 1966a.** Two new species of *Acmaeodera* from Southeastern Texas (Coleoptera: Buprestidae). *Ohio Journal of Science* 66(3):332–334, figs. 1, 2.
- Knoll, J. N. 1966b.** Description of male *Agrilus bentseni* Knoll and one new species (Coleoptera: Buprestidae). *Entomological News* 77(9):238–241, figs. 1–4.
- Knoll, J. N. 1970.** Notes and synonymy on Buprestidae (Coleoptera). *Entomological News* 81:263–264.
- Knoll, J. N. 1971.** A new species of *Nanularia* (*Nanularia*) from California (Coleoptera: Buprestidae). *Ohio Journal of Science* 71(4):242–244, figs. 1, 2.
- Knoll, J. N. 1972a.** A new species of *Agrilus* from Arizona (Coleoptera: Buprestidae). *Ohio Journal of Science* 72(5):299–300, figs. 1, 2.
- Knoll, J. N. 1972b.** A new species of *Agrilus* from Hackberry (*Celtis occidentalis* Linnaeus) (Coleoptera: Buprestidae). *Entomological News* 83:113–116, figs. 1, 2.
- Knoll, J. N. 1973.** A new species of *Acmaeodera* (Coleoptera: Buprestidae). *Entomological News* 84:299–300, fig. 1.
- Knoll, J. N. 1974.** A new species of *Acmaeodera*, with notes on other species of Buprestidae (Coleoptera). *The Coleopterists Bulletin* 28(3):143–144, fig. 1.
- Kolibáč, J. 2001.** Classification and phylogeny of the Buprestoidea (Insecta: Coleoptera). *Acta Musei Moraviae, Scientiae biologicae* (Brno) 85(2000):113–184, figs. 1–396.
- Kotinsky, J. 1921.** *Agrilus anxius*. *U. S. Department of Agriculture Farmer's Bulletin* 1169, pp. 59–63.
- Kubáň, V. 2006.** New nomenclatorial and taxonomic acts, and comments. Buprestidae: various groups. pp. 40–52. Catalogue. Buprestidae: Chrysochroinae: Chrysochroini, Chalcophorini, Dicercini, Poecil-onotini. pp. 342–352. Buprestinae: Actenodini. p. 369; Buprestini, Chrysobothrini, Coomaniellini, Kisanthobiini, Melanophilini, Thomassetiini. pp. 381–388; Agrilinae: Agrilini: (without genus *Agrilus*), Aphanisticini (& M. Y. Kalashian), Coraebini, Trachysini. pp. 403–421. In I. Löbl & A. Smetana (Eds). *Catalogue of Palaearctic Coleoptera*. Volume 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea. Apollo Books, Stenstrup, 690 pp.
- Kubáň, V., K. Majer & J. Kolibáč. 2001.** Classification of the tribe Coraebini Bedel, 1921 (Coleoptera, Buprestidae, Agrilinae). *Acta Musei Moraviae, Scientiae biologicae* (Brno) 85(2000):185–287, figs. 1–511.
- Kukalová-Peck, J. & J. F. Lawrence. 1993.** Evolution of the hind wing in Coleoptera. *The Canadian Entomologist* 125:181–258, figs. 1–102.
- Kunze, R. E. 1904.** Protective resemblance. *Entomological News* 15:239–244.
- Kurosawa, Y. 1956.** Buprestid-fauna of Eastern Asia (3). *Bulletin of the National Science Museum (Tokyo)*, n. s. 3(1) (No. 38):33–41.
- Kurosawa, Y. 1988.** Reorganization of *Buprestis* and its allies (Coleoptera, Buprestidae). *Kontyû* 56(2):261–279, figs. 1–24.
- Kurosawa, Y. 1989.** A list of the buprestid beetles erroneously described or recorded from Japan. *Kanagawa-Chûhû* 990:187–192.
- Kurosawa, Y. 1993b.** Reorganization of the genus *Psiloptera* (Coleoptera, Buprestidae). *Japanese Journal of Entomology* 61(3):577–583, figs. 1–7.
- Kurosawa, Y., S. Hisamatsu & H. Sasaji. 1985.** The Coleoptera of Japan in Color. Volume 3. Hoikusha Publishing Co., Ltd., Osaka, 500 pp., 72 color plates. [in Japanese]
- Kwiat, A. 1915.** A note. *Entomological News* 26(5):237.
- Lacordaire, J. T. 1857.** *Histoire naturelle des insectes*. Genera des Coléoptères ou exposé méthodique de critique de tous les genres proposés jusqu'ici dans cet ordre d'insectes. Volume 4, pp. 1–579, Roret, Paris. (Contenant les familles des buprestides, throscoïdes, eucnémides, élatérides, cébrionides, cérophytides, rhipicérides, dascyllides, malacodermes, clérides, lyméxylones, cupésides, ptiniores, bostrichides et cissides).
- Lago, P. K. & M. O. Mann. 1987.** Survey of Coleoptera associated with flowers of wild carrot (*Daucus carota* L.) (Apiaceae) in northern Mississippi. *The Coleopterists Bulletin* 41(1):1–8.

Bibliography

- Lago, P. K. & P. R. Miller. 1986.** Notes on the Coleoptera associated with the flowers of *Magnolia grandiflora* in northern Mississippi. *Journal of the Mississippi Academy of Science* 31:141–146.
- Lago, P. K., A. E. Zuccaro, Jr. & S. Testa. III. 2002.** The terrestrial Coleoptera of Point Clear Island and surrounding marshlands, Hancock County, Mississippi. *Journal of the Mississippi Academy of Sciences* 47(4):194–206.
- Lamson, G. H. 1912.** Some insects of Connecticut, *C. femorata*. *Storrs Agriculture Experiment Station, Connecticut, Bulletin* 71, p. 62.
- Lang, R. F., G. L. Piper & E. M. Coombs. 1998.** Establishment and redistribution of *Sphenoptera jugoslavica* Obenberger (Coleoptera: Buprestidae) for biological control of diffuse knapweed (*Centaurea diffusa* Lamarck) in the midwestern and western United States. *The Pan-Pacific Entomologist* 74(1):27–31.
- Lang, R. F., R. D. Richard, P. E. Parker & L. Wendel. 2000.** Release and establishment of diffuse and spotted knapweed biocontrol agent by USDA, APHIS, PPQ, in the United States. *The Pan-Pacific Entomologist* 76(4):197–218.
- Lange, W. H., JR. 1937.** Annotated list of the insects, mostly Coleoptera, associated with Jeffrey pine in Lassen National Park, California. *The Pan-Pacific Entomologist* 13(4):172–175.
- Laporte [de Castelnau], F. L. N. Caumont de. 1840.** *Histoire naturelle des Insectes Coléoptères*. Tome Premier. In: Histoire naturelle des animaux Articulés, Annelidés, Crustacés, Arachnides, Myriapodes et Insectes. Paris, P. Duménil, pp. 1–297, index 299–324, 19 plates.
- Laporte [de Castelnau], F. L. N. Caumont de & H. L. Gory. 1835.** *Histoire naturelle de iconographie des insectes Coléoptères*. Monographie des buprestides. P. Duménil, Paris. Volume 1, livraisons 1–7, genera: *Sternocera*, *Julodis*, *Acmaeodera*, *Chrysochroa*, *Chrysodema*, *Ptosima* (genera paged separately). [see Gory & Laporte for Volume 2 and Gory for Volume 4]
- Laporte [de Castelnau], F. L. N. Caumont de & H. L. Gory. 1836.** *Histoire naturelle de iconographie des insectes Coléoptères*. Monographie des buprestides. P. Duménil, Paris. Volume 1, livraisons 8–11, genera: *Bubastes*, *Aurigena*, *Capnodis*, *Buprestis* (pp. 1–64) (genera paged separately). [see Gory & Laporte for Volume 2 and Gory for Volume 4]
- Laporte [de Castelnau], F. L. N. Caumont de & H. L. Gory. 1837.** *Histoire naturelle de iconographie des insectes Coléoptères*. Monographie des buprestides. P. Duménil, Paris. Volume 1, livraisons 12–16, genera: *Buprestis* (pp. 65–160), *Nascio*, *Acherusia*, *Asthraeus*, *Bulis*, *Acantha*, *Apatura* (genera paged separately). [see Gory & Laporte for Volume 2 and Gory for Volume 4]
- Laporte [de Castelnau], F. L. N. Caumont de & H. L. Gory. 1839.** *Histoire naturelle de iconographie des insectes Coléoptères*. Monographie des buprestides. P. Duménil, Paris. Volume 1, livraisons 25–35, genus: *Coeculus* (genera paged separately). [see Gory & Laporte for Volume 2 and Gory for Volume 4]
- Larsen, J. A. 1902.** Disease of white birch. *3rd Report, Michigan Academy of Science*, pp. 46–49.
- Larsen, L. T. 1916.** Sugar Pine. “Insects”. *United States Department of Agriculture Bulletin* 426, pp. 6–7.
- Latreille, P. A. 1810.** Considérations générales sur l'ordre naturel des animaux composant les classes des crustacés, des arachnides, et des insectes; avec un tableau méthodique de leurs genres, disposés en familles. F. Schoell, Paris. 444 pp.
- Latreille, P. A. 1829.** *Les crustacés, les arachnides et les insectes, distribués en famille naturelles, ouvrage formant les tomes 4 et 5 de celui de M. le Baron Cuvier sur le Règne animal*. Deuxième édition, Volume 1, 584 pp. Paris, Deterville.
- Laurent, P. 1892.** Some of the insects collected at Julesburg, New Jersey, July 4, 1891. *Entomological News* 3:36–38.
- Laurent, P. 1893.** Coleoptera of the mountainous region of North Carolina. *Entomological News* 4:6–7.
- Lawrence, J. F. 1982.** Coleoptera, pp. 482–552. In S. P. Parker (Ed.), *Synopsis and Classification of Living Organisms*, Volume 2, New York, McGraw-Hill.
- Lawrence, J. F. 1987.** Rhinorhipidae, a new beetle family from Australia, with comments on the phylogeny of the Elateriformia. *Invertebrate Taxonomy* 2:1–53.
- Lawrence, J. F. 1991.** Order Coleoptera, pp. 144–658, figs. 1–897. In F. W. Stehr (Ed.). *Immature Insects*, Volume 2, Kendall/Hunt Publishing Co., Dubuque, Iowa, 975 pp.
- Lawrence, J. F., A. M. Hastings, M. J. Dallwitz, T. A. Paine & E. J. Zucher. 1999.** Beetles of the World: A key and information system for families and subfamilies and Beetle Larvae of the World.
- Lawrence, J. F. & A. F. Newton, Jr. 1982.** Evolution and classification of beetles. *Annual Review of Ecology and Systematics* 13:261–290.
- Lawrence, J. F. & A. F. Newton, Jr. 1995.** Families and subfamilies of Coleoptera (with selected genera, notes, references and data on family–group names), pp. 779–1006. In J. Pakaluk & S.A. Slipinski (Eds.). *Biology, Phylogeny, and Classification of Coleoptera*. Papers Celebrating the 80th Birthday of

Roy A. Crowson. Muzeum I Instytut Zoologii PAN, Warszawa.

- Leach, W. E. 1815.** [Articles on entomology]. In: Brewster, *Edinburgh encyclopaedia*, Edinburgh 9(1):57–172.
- Lebaron, W. 1874.** On noxious and beneficial insects of Illinois. *4th Illinois Report*, pp. 94–96 (Buprestidae).
- LeConte, J. L. 1850.** IV. Remarks on the Coleoptera of Lake Superior, pp. 201–242. In: J. L. R. Agassiz & J. E. Cabot. *Lake Superior*, Boston.
- LeConte, J. L. 1852.** Remarks on some Coleopterous Insects collected by S. H. Woodhouse in Missouri Territory and New Mexico. *Proceedings of the Academy of Natural Sciences of Philadelphia* 6:65–68.
- LeConte, J. L. 1854a.** Descriptions of some new Coleoptera from Oregon, collected by Dr. J. G. Cooper of the North Pacific R. R. Expedition, under Gov. J. J. Stevens. *Proceedings of the Academy of Natural Sciences of Philadelphia* 7:16–20.
- LeConte, J. L. 1854b.** Notice of some Coleopterous Insects, from the collections of the Mexican Boundary Commission. *Proceedings of the Academy of Natural Sciences of Philadelphia* 7:79–85.
- LeConte, J. L. 1854c.** Descriptions of new Coleoptera collected by Thos. H. Webb, M.D., in the years 1850 – 51 and 52, while Secretary to U.S. and Mexican Boundary Commission. *Proceedings of the Academy of Natural Sciences of Philadelphia* 7:220–225.
- LeConte, J. L. 1857a.** Index to the Buprestidae of the United States, described in the work of Laporte and Gory, with notes. *Proceedings of the Academy of Natural Sciences of Philadelphia* 9:6–10.
- LeConte, J. L. 1857b.** Report upon the Insects collected on the Survey. In: Reports of explorations and surveys for a railroad route from the Mississippi River to the Pacific Ocean. Volume 12, part 3, pp. 1–72, 2 plates. [see 1860a]
- LeConte, J. L. 1858a.** Catalogue of Coleoptera of the regions adjacent to the boundary line between the United States and Mexico. *Journal of the Academy of Natural Sciences of Philadelphia* (2) 4:9–42, 1 plate.
- LeConte, J. L. 1858b.** Description of new species of Coleoptera, chiefly collected by the United States and Mexican Boundary Commission, under Major W. H. Emory, U.S.A. *Proceedings of the Academy of Natural Sciences of Philadelphia* 10:59–89.
- LeConte, J. L. 1859a.** Descriptions of some genera and species of Coleoptera from the vicinity of the southern boundary of the United States of America. *Arcana Naturae, ou archives d'Histoire Naturelle*. James Thomson, Paris. 3:121–128, 2 plates.
- LeConte, J. L. 1859b.** Catalogue of the Coleoptera of Fort Tejon, California. *Proceedings of the Academy of Natural Sciences of Philadelphia* 11:69–90.
- LeConte, J. L. 1859c.** Additions to the Coleopterous Fauna of northern California and Oregon. *Proceedings of the Academy of Natural Sciences of Philadelphia* 11:281–292.
- LeConte, J. L. 1860a.** Reports of explorations and surveys for a railroad route from the Mississippi River to the Pacific Ocean. 9, Nr. 1: Report upon Insects collected on the Survey. (1857) 72 pp., 2 plates. [see 1857b]
- LeConte, J. L. 1860b.** Revision of the Buprestidae of the United States. *Transactions of the American Philosophical Society* (2) 11(1859):187–258, 1 plate.
- LeConte, J. L. 1860c.** The Coleoptera of Kansas and Eastern New Mexico. *Smithsonian Contributions to Knowledge* 11, vi + 58 pp., 2 plates.
- LeConte, J. L. 1861a.** Classification of the Coleoptera of North America. Prepared for the Smithsonian Institution. Part 1. *Smithsonian Miscellaneous Collections* 3:25+214 pp.; Figures. [pp. 209–214 are an index for this part]
- LeConte, J. L. 1861b.** New species of Coleoptera inhabiting the Pacific district of the United States. *Proceedings of the Academy of Natural Sciences of Philadelphia* 13:338–359.
- LeConte, J. L. 1863a.** List of the Coleoptera of North America. Prepared for the Smithsonian Institution. Part 1. *Smithsonian Miscellaneous Collections* 6(140):1–56. [pp. 50–56 are additions, corrections and an index for this part]
- LeConte, J. L. 1863b.** New species of North American Coleoptera. Prepared for the Smithsonian Institution Part 1. *Smithsonian Miscellaneous Collections* 6(167):1–92. [pp. 87–92 are an index]
- LeConte, J. L. 1866a.** List of the Coleoptera collected near Fort Whipple, Arizona, by Dr. Elliot Coues, U.S.A., in 1864–65. *Proceedings of the Academy of Natural Sciences*, 1866, pp. 348–394.
- LeConte, J. L. 1866b.** Additions to Coleopterous Fauna of United States. No. 1. *Proceedings of the Academy of Natural Sciences of Philadelphia* 18:361–394.
- LeConte, J. L. 1870.** Synonymical notes on North–American Coleoptera. *Annals & Magazine of Natural*

Bibliography

- History* (4) 6:394–404.
- LeConte, J. L. 1873.** Synonymical remarks upon North America Coleoptera. *Proceedings of the Academy of Natural Sciences of Philadelphia* 25:321–336.
- LeConte, J. L. 1878a.** Additional descriptions of new species. In: E. A. Schwarz. The Coleoptera of Florida. *Proceedings of the American Philosophical Society* 17:353–434, 470–472 (Remarks on distribution).
- LeConte, J. L. 1878b.** The Coleoptera of the alpine regions of the Rocky Mountains. *Bulletin of the United States Department of Geological and Geographical Survey* 4(2):447–480.
- LeConte, J. L. 1878c.** Remarks on geographical distribution, pp. 470–471. In: E. A. Schwarz. 1878. The Coleoptera of Florida. *Proceedings of the American Philosophical Society* 17:353–472.
- LeConte, J. L. 1879.** The Coleoptera of the alpine Rocky Mountain regions. Part II. *Bulletin of the United States Geological and Geographical Survey of the Territories* 5(3):499–520.
- LeConte, J. L. 1881.** [The dispersion of Coleoptera in times following the glacial epoch.] *Transactions of the American Entomological Society* 9:xxxv–xxxvi.
- LeConte, J. L. 1882.** Lists of Coleoptera collected in 1881 by Dr. Bell and others, in the Lake Superior Region and in the North–west Territory, east of the 112th meridian and south of the 60th parallel. Geological and Natural History Survey of Canada, Report of Progress for 1880–81–82. Appendix 11 to part c pp. 29c–39c.
- LeConte, J. L. 1883.** The complete writings of Thomas Say on the Entomology of North America, 2 volumes, Boston.
- LeConte, J. L. & G. H. Horn. 1883.** Classification of the Coleoptera of North America. *Smithsonian Miscellaneous Collection* 26(507):38+567 pp., 5 figures.
- Leech, H. B. 1959.** Field notes on some California species of *Anthaxia* and *Melanophila* (Coleoptera: Buprestidae). *Wasmann Journal of Biology* 17(1):157–158.
- Leech, H. B. 1962.** Live *Buprestis aurulenta* in boards of a house built in 1923 (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 38(3):159–161.
- Lehman, R. D. 1986.** *Agrilus difficilis*, a potential pest of honeylocust. Coleoptera:Buprestidae. *Pennsylvania Department of Agriculture Entomology Circular 106, Regulatory Horticulture* 12(2):15–17.
- Lehman, R. D. 1991.** Twolined chestnut borer, *Agrilus bilineatus* (Weber). Coleoptera:Buprestidae. *Pennsylvania Department of Agriculture Entomology Circular 145, Regulatory Horticulture* 17(2):17–19.
- Leng, C. W. 1884.** Untitled North Carolina notes. *Bulletin of the Brooklyn Entomological Society* 7(1):76–77.
- Leng, C. W. 1886.** Untitled note on *Chrysobothris azurea*. *Entomologia Americana* 2(1):231.
- Leng, C. W. 1889.** Buprestidae of Staten Island. *Proceedings of the Natural Science Association of Staten Island* 2:5–6.
- Leng, C. W. 1910.** Notes on Coleoptera collected in Northern Georgia. *Journal of the New York Entomological Society* 18(2):71–82.
- Leng, C. W. 1911.** Notes on Coleoptera collected in Northern Georgia – II. *Journal of the New York Entomological Society* 19(4):209–216.
- Leng, C. W. 1912a.** Larva of *Brachys* in Oak Leaf. *Journal of the New York Entomological Society* 20:193.
- Leng, C. W. 1912b.** Meeting of November 21, 1911. Collecting beetles in Georgia. *Journal of the New York Entomological Society* 20:298.
- Leng, C. W. 1914.** Meeting of April 21, 1914. Note on *Gyascutus carolinensis*. *Journal of the New York Entomological Society* 22(2):183.
- Leng, C. W. 1920.** *Catalogue of the Coleoptera of America, north of Mexico*, John D. Sherman, Jr. Mount Vernon, New York, x +470 pp.
- Leng, C. W. & W. T. Davis. 1924.** List of the Coleoptera of Staten Island, New York. *Proceedings of the Staten Island Institute of Arts and Science* 2(1):1–82.
- Leng, C. W. & A. J. Mutchler. 1914.** A preliminary list of the Coleoptera of the West Indies as recorded to January 1, 1914. *Bulletin of the American Museum of Natural History* 33(30):391–493.
- Leng, C. W. & A. J. Mutchler. 1917.** Supplement to preliminary list of the Coleoptera of the West Indies. *Bulletin of the American Museum of Natural History* 35(5):191–220.
- Leng, C. W. & A. J. Mutchler. 1927.** *Catalogue of the Coleoptera of America, north of Mexico*, Supplement 1919 – 1924 (inclusive), Mount Vernon, N. Y., 78 pp.
- Leng, C. W. & A. J. Mutchler. 1933.** *Catalogue of the Coleoptera of America, north of Mexico*, 2nd and 3rd Supplements 1925 – 1932 (inclusive), Mount Vernon, N. Y., 112 pp.
- Leonard, M. D. 1928.** A list of the Insects of New York, with a list of the spiders and certain other allied groups. *Cornell University Experiment Station, Agriculture Memoirs* 101(1926), 1121 pp.

- Leraut, P. 1983.** Mise à jour de la nomenclature de quelques genres de Buprestides de France [Col. Buprestidae, Dicereini, Melanophila]. *Entomologica Gallica* 1(1):5–8.
- Lewis, G. 1893.** On the Buprestidae of Japan. *The Journal of the Linnaean Society of London, Zoology*. 24(154):327–338.
- Lewis, R., Jr. 1987.** Trunk injury and fungal transport by *Agrilus bilineatus*, *Chrysobothris femorata*, and *Xyloterinus* sp. in oak wiltinfected trees in Texas. *Journal of the Mississippi Academy of Sciences* 32:41–46.
- Lindahl, J. C. 1935.** *Acmaeodera hepburni* var. *latiflava* Fall. *The Pan-Pacific Entomologist* 11(2):61.
- Linnaeus, C. von. 1758.** *Systema naturae sive regna tria naturae systematice proposita per classes, ordines, genera, et species, cum characteribus, differentiis, synonymis, locis*, 10th Edition, Volume 1, 823 pp. Holmiae.
- Linnaeus, C. von. 1767.** *Systema Naturae*, 12th Edition, Volume 1, part 2 pp. 533–1327.
- Linnaeus, C. von. 1771.** *Mantissa Plantarum*, 588 pp. Holmiae. (1767).
- Linsley, E. G. 1933.** Some observations on the swarming of *Melanophila*. *The Pan-Pacific Entomologist* 9(3):138.
- Linsley, E. G. 1936.** A note on the occurrence of *Hesperorhipis albofasciatus* Fall (Buprestidae). *The Pan-Pacific Entomologist* 12(3):110.
- Linsley, E. G. 1942.** Notes on the habits of some beetles from the vicinity of Yosemite National Park. *Bulletin of the Southern California Academy of Science* 41(3):164–166.
- Linsley, E. G. 1943.** Attraction of *Melanophila* beetles by fire and smoke. *Journal of Economic Entomology* 36(2):341–342, fig. 1.
- Linsley, E. G. 1943.** Delayed emergence of *Buprestis aurulenta* from structural timbers. *Journal of Economic Entomology* 36(2):348–349.
- Linsley, E. G. 1944.** Larval longevity in *Buprestis aurulenta* Linnaeus. *The Pan-Pacific Entomologist* 20(2):53.
- Linsley, E. G. 1948.** The genus *Trachys* in the United States. *Journal of the New York Entomological Society* 56:251.
- Linsley, E. G. 1949.** A hollyhock leaf miner new to North America. *Journal of the Entomological Society of America* 41(6):990.
- Linsley, E. G. & P. D. Hurd, Jr. 1957.** *Melanophila* beetles at cement plants in southern California (Coleoptera, Buprestidae). *The Coleopterists Bulletin* 11:9–11.
- Linsley, E. G. & J. W. MacSwain. 1956.** Some observations on the nesting habits and prey of *Cerceris californica* Cresson (Hymenoptera, Sphecidae). *Annals of the Entomological Society of America* 49:71–84, figs. 1–3.
- Linsley, E. G. & C. D. Michener. 1943.** Observations on some Coleoptera from the vicinity of Mt. Lassen, California. *The Pan-Pacific Entomologist* 19(2):75–79.
- Linsley, E. G. & E. S. Ross. 1940.** Records of some Coleoptera from the San Jacinto Mountains, California. *The Pan-Pacific Entomologist* 16(2):75–76.
- Linsley, E. G. & E. S. Ross. 1977.** Plant associations among adult *Hippomelas* (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 52(4)(1976):272–285, figs. 1–2.
- Linsley, E. G. & R. L. Usinger. 1934.** Insect collecting in California. *The Pan-Pacific Entomologist* 10(3):102–106.
- Linsley, E. G. & R. L. Usinger. 1936.** Insect collecting in California II. Foothill regions. *The Pan-Pacific Entomologist* 12(2):49–55.
- Lintner, A. J. 1885.** *The Country Gentleman*, April 1. 45, p. 215.
- Lintner, A. J. 1885a.** 48th Report, *New York State Museum*, p. 407.
- Lintner, A. J. 1885b.** A wash for the apple tree borer. 2nd Report, *New York State Entomologist*. pp. 27–28.
- Lintner, A. J. 1889.** Collecting in Adirondack regions, pp. 283–286. A note on *Agrilus torpidus*, p. 317. 42nd Report, *New York State Museum* (5th Report on Injurious and Other Insects of New York).
- Lintner, A. J. 1890.** 43rd Report, *New York State Museum of Natural History* (6th Report, *New York State Entomologist*), pp. 103–203.
- Lintner, A. J. 1894.** Injurious insects *A. ruficollis*, pp. 406–407. Coleoptera, pp. 526–529. 48th Report, *New York State Museum of Natural History* (10th Report on Injurious and Other Insects of New York).
- Lintner, A. J. 1897.** *Chrysobothris femorata*. *The Country Gentleman* April 1, p. 307.
- Liu, H., L. S. Bauer, R. Gao, T. Zhao, T. R. Petrice & R. A. Haack, 2004.** Exploratory survey for the emerald ash borer, *Agrilus planipennis* (Coleoptera: Buprestidae), and its natural enemies in China. *The Great Lakes Entomologist* 36(3&4)(2003):191–204.

Bibliography

- Lockhead, W. 1902.** Report, Ontario Agriculture College – Experimental Farms.
- Lockhead, W. 1903a.** *28th Report, Ontario Agricultural College and Experimental Farms for 1902*, pp. 22–23.
- Lockhead, W. 1903b.** *33rd Report, Entomological Society of Ontario for 1902*, pp. 68, 101–114.
- Löding, H. P. 1945.** Catalogue of the beetles of Alabama. Monograph 11, Geological Survey of Alabama, pp. 1–172.
- Loerch, C. R. & E. A. Camerson. 1983a.** Determination of larval instars of the bronze birch borer *Agrilus anxius* (Coleoptera, Buprestidae). *Annals of the Entomological Society of America* 76:948–952.
- Loerch, C. R. & E. A. Camerson. 1983b.** Natural enemies of immature stages of the bronze birch borer, *Agrilus anxius* (Coleoptera: Buprestidae), in Pennsylvania. *Environmental Entomology* 12(6):1798–1801.
- Loerch, C. R. & E. A. Camerson. 1984.** Within–tree distributions and seasonality of immature stages of the bronze birch borer, *Agrilus anxius* (Coleoptera: Buprestidae). *The Canadian Entomologist* 116(2):147–152.
- Lord, J. K. 1922.** *Care of Shade Trees*, pp. 39–46.
- Lovell, J. H. 1915a.** The origin of anthophilily among the Coleoptera. *Psyche* 22(3):67–84.
- Lovell, J. H. 1915b.** A preliminary list of the Anthophilous Coleoptera of New England. *Psyche* 22(4):109–117.
- Lovett, A. L. 1923a.** Tree borers and their control. *Oregon Agricultural College Experiment Station Circular* 39, April 1923, 8 pp.
- Lovett, A. L. & H. P. Barss. 1923.** Insect pests and diseases of currants and gooseberries. *Oregon Agricultural Experiment Station, Circular* No. 42, 12 pp.
- Lovett, A. L. & H. P. Barss. 1924.** Review of Applied Entomology A 12:332. [review and abstract of 1923]
- Lovett, A. L. & Fulton. 1920.** *Oregon Agricultural Experiment Station, Circular* No. 22:54–55.
- Lugger, O. 1884.** Food–plants of beetles bred in Maryland. *Psyche* 4(124–125):203–204.
- Lugger, O. 1890.** Insects injurious to small fruits. *Annual Report, Minnesota State Horticulture Society*, pp. 164–170.
- Lugger, O. 1898.** *Michigan Experimental Station, Bulletin* 66, p. 85.
- Lugger, O. 1899a.** Beetles injurious to fruit producing plants. *Minnesota Experiment Station, Bulletin* 66, pp. 85–331.
- Lugger, O. 1899b.** Coleoptera of Minnesota. *5th Annual Report Entomology St. Experiment Station Minnesota*. [Buprestidae pp. 50–61]
- Lyons, R. L. 1970.** California flatheaded borer. *U.S.D.A. Forest Pest Leaflet* 24:1–8.
- MacGillivray, A. & C. O. Houghton. 1902.** A list of insects taken in the Adirondack Mountains, New York. – I. *Entomological News* 13(8):247–253.
- MácNay, C. G. 1948.** A summary of the more important insect infestations and occurrences in Canada in 1947. *78th Annuals Report of the Entomological Society of Ontario for 1947*, pp. 71–89.
- MacRae, T. C. 1991.** The Buprestidae (Coleoptera) of Missouri. *Insecta Mundi* 5(2):101–126.
- MacRae, T. C. 2003.** *Agrilus* (s. str.) *betulanigrae* MacRae (Coleoptera:Buprestidae:Agriolini), a new species from North America, with comments on subgeneric placement and a key to the *otiosus* species–group in North America. *Zootaxa* 380:1–9, figs. 1–3.
- MacRae, T. C. 2004.** Notes on host associations of *Taphrocerus gracilis* (Say) (Coleoptera: Buprestidae) and its life history in Missouri. *The Coleopterists Bulletin* 58(3):388–390.
- MacRae, T. C. 2006.** Distributional and biological notes on North American Buprestidae (Coleoptera), with comments on variation in *Anthaxia* (*Haplantaxia*) *cyanella* Gory and *A. (H.) viridifrons* Gory. *The Pan-Pacific Entomologist* 82(2):166–199.
- MacRae, T. C. & G. H. Nelson. 2003.** Distributional and biological notes on Buprestidae (Coleoptera) in North and Central America and the West Indies, with validation of one species. *The Coleopterists Bulletin* 57(1):57–70.
- Maheux, G. 1921.** Report on injurious insects in Quebec District for 1920. *51st Annual Report of the Entomological Society of Ontario for 1920*, pp. 70–72.
- Maheux, G. 1922.** Some insects injurious to shade trees of Quebec. *14th Report, Quebec Society for the Protection of Plants*, pp. 62–67.
- Mahnert, V. 1992.** Comments on the proposed conservation of *Schizopus* Le Conte, 1858 (Insecta, Coleoptera). *Bulletin of Zoological Nomenclature* 49(3):233.
- Malkin, B. 1941a.** A European buprestid in the United States. *Bulletin of the Brooklyn Entomological Society* 36:132.

- Malkin, B. 1941b.** Additions to the New Jersey state list of Coleoptera. *Journal of the New York Entomological Society* 49:285–291.
- Manee, A. H. 1913.** Observations of Buprestidae at Southern Pines, North Carolina (Coleop.). *Entomological News* 24(4):167–171.
- Manley, G. V. 1977a.** Descriptions of the male of *Agrilus esperanzae* Knull and the female of *Agrilus oblongus* Fisher, and notes on other Buprestidae (Coleoptera). *The Coleopterists Bulletin* 31(1):79–82, figs. 1,2.
- Manley, G. V. 1977b.** A rice feeding buprestid from Malaysia: *Aphanisticus penninsula* Obenb. *Pacific Insects* 17(2–3):265.
- Manley, G. V. 1979.** A new species of *Agrilus* (Coleoptera: Buprestidae) similar to *Agrilus omecatli* occurring on shrubby blue *Salvia* (*Salvia ballotaeiflora* Benth.: Labiatae). *The Coleopterists Bulletin* 33(3):327–330, figs. 1, 2.
- Manley, G. V. 1985.** A new species of *Xenorhipis* from southwest Ecuador (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 39(4):377–379.
- Manley, G. V. 1986.** A new genus and three new species of buprestid beetles (Coleoptera: Buprestidae: Mastogoniini) from northern South America. *The Coleopterists Bulletin* 40(3):232–241, figs. 1–13.
- Manley, G. V. & S. G. Wellso. 1976.** A new species of *Chrysobothris* (Coleoptera: Buprestidae) from American Plum (*Prunus americana* Marsh.). *The Coleopterists Bulletin* 29(4)(1975):317–318, 1 Fig.
- Mannerheim, C. G. von. 1837.** Énumération des Buprestides, et description de quelques nouvelles espèces de cette tribu de la famille des Sternoxes, de la collection de M. Le Comte Mannerheim. *Bulletin de la Société Impériale des Naturalistes de Moscou* 10(8):3–163.
- Mannerheim, C. G. von. 1843.** Beitrag zur Käferfauna der Aleutischen Inseln, der Insel Sitka und New-Californiens. *Bulletin de la Société Impériale des Naturalistes de Moscou* 16(2):175–314.
- Mannerheim, C. G. von. 1853.** Dritter Nachtrag zur Käferfauna der Nord-Amerikanischen Länder der Russischen Reiches. *Bulletin de la Société Impériale des Naturalistes de Moscou* 26(3):95–273.
- Mansfield, G. S. 1947.** Notes on *Hippomelas californicus* (Horn) and *Chrysobothris cyanella* Horn (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 23(1):40–42.
- Marchal, P. 1906.** Observations diverses. *Bulletin de la Société entomologique de France* 1906(12):170–171.
- Marlatt, C. L. 1891.** Note on the food habits of a large, handsome buprestid *Psiloptera drummondi* L. & G.). *Proceedings of the Entomological Society of Washington* 2:43.
- Marquet, C. 1870.** *Melanophila anthaxoides*. Marquet. (Descriptions de Coléoptères nouveaux). *L'Abeille, Mémoires d'Entomologie* 6(2):368.
- Marseul, S.–A. de. 1865.** Monographie des buprestides famille des sternoxes de Latreille. *L'Abeille, Mémoires d'Entomologie* 2:1–396. [English summary including tribal key in *Zoological Record* for 1865]
- Marseul, S.–A. de. 1866.** Monographie des buprestides famille des sternoxes de Latreille. *L'Abeille, Mémoires d'Entomologie* 2:397–540.
- Marseul, S.–A. de. 1867.** Description d'espèces nouvelles de Buprestides et d'un Histéride du genre *Carcinops*. *Annales de la Société entomologique de France* (4) 7:47–56.
- Martin, C. J. 1890.** *Prairie Farmer*, Sept. 6, p. 7.
- Martin, C. J. 1892.** The red necked cane borer. *Prairie Farmer*, Dec. 4, p. 24.
- Maser, C. & F.M. Beer. 1971.** Notes on *Agrilus politus politus* Say and *Agrilus politus burkei* Fisher (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 25(1):35–36.
- Mason, F. R. 1926.** Coleoptera from Nevada and Arizona. *Entomological News* 37(3):84–85.
- Matz, J. (date?)** Diseases and insect pests of the pecan. *Florida Experiment Station Bulletin* 147, pp. 135–162.
- McCarthy, G. 1893.** The diseases and insects affecting fruit trees and plants. Flat-headed borer, pp. 95, 129. *North Carolina Bulletin* 92, part 2.
- McCullough, D. G. & S. A. Katovich, 2004.** Pest Alert, NA–PR–02–04: Emerald ash borer. United States Department of Agriculture Forest Service, Northeastern Area, 2 pp., 6 figs..
- McCullough, D. G. & D. L. Roberts. 2002.** Pest alert. Emerald ash borer. United States Department of Agriculture, Forest Service NA–PR–07–02. 2 pp.
- McClatchie, A. J. 1903.** Combating the flat-headed borer. *Arizona Bulletin* 47, pp. 307–310.
- McIntosh, R. L., P. J. Kathinic, J. D. Allison, J. H. Borden & D. L. Downey. 2001.** Comparative efficacy of five types of traps for woodborers in the Cerambycidae, Buprestidae and Siricidae. *Agricultural and Forest Entomology* 3:113–120.
- McMillan, C. 1888.** Twenty-two common insects of Nebraska. Flat-headed borer, pp. 84–86. *Nebraska Experiment Station Bulletin* 2(1).

Bibliography

- Melsheimer, F. E. 1845.** Description of new species of Coleoptera of United States. *Proceedings of the Academy of Natural Sciences of Philadelphia* 2(1844):134–160.
- Melsheimer, F. E. 1853.** *Catalogue of the Described Coleoptera of the United States*. Washington, 174 pp.
- Melsheimer, F. V. 1806.** *A Catalogue of the Insects of Pennsylvania*, Hanover, York Co, 60 pp.
- Méquignon, A. 1907.** Synonymies de Coléoptères paléarctiques. *Bulletin de la Société entomologique de France* 1907(80):119–120.
- Metcalfe, H. & J. F. Collins. 1911.** The Control of the Chestnut Bark Disease. *United States Department of Agriculture, Farmer's Bulletin* 467.
- Michelbacher, A. E. & J. C. Ortega. 1958.** A technical study of insects and related pests attacking walnuts. California Agricultural Experiment Station Bulletin 764:1–87.
- Middlekauf, W. W. 1983.** A revision of the sawfly family Orussidae for North and Central America (Hymenoptera:Symphyta, Orussidae). *University of California Publications in Entomology* 101:1–46 + ix.
- Milius, S. 2001.** Why fly into a forest fire? *Science News* 159:140–141.
- Miller, S. E. 1983.** Late Quaternary insects of Rancho La Brea and McKittrick, California. *Quaternary Research* 20:90–104.
- Miwa, Y. & M. Chûjô 1935.** Some new buprestids from the Japanese empire. *The Entomological World* 3(17):270–282, colored plate.
- Miwa, Y. & M. Chujo 1940.** An iconography of some new and rare species of Buprestidae from the Japanese empire. *Nipponno Kôchû*, Tokyo 3(2):53–74, 1 color plate. [in Japanese with English summary]
- Moffatt, J. A. 1900.** Notes on the season of 1899. *30th Report, Entomological Society of Ontario for 1899*, pp. 98–100.
- Montgomery, B. E. & J. M. Amos. 1941.** Contributions to a list of the Coleoptera of the Clark County State Forest. *Proceedings of the Indiana Academy of Science* 50:251–258.
- Montgomery, M. E. & P. M. Wargo. 1983.** Ethanol and other host-derived volatiles as attractants to beetles that bore into hardwoods. *Journal of Chemical Ecology* 9(2):181–190.
- Moore, I. 1937.** A list of the beetles of San Diego County, California. *San Diego Society of Natural History, Occasional Papers* 2:1–109.
- Moore Rodriguez, T. 1985.** Aporte al conocimiento de los Buprestidos de Chile (Coleoptera – Buprestidae) Segunda Nota. *Revista Chilena de Entomología* 12:113–139, figs. 1–10.
- Morill, W. A. 1916.** Flat-headed apple tree borer. *Arizona Commissioner of Agriculture, 7th Annual Report*, pp. 28–31.
- Morris, F. J. A. 1908.** Some beetle haunts. *The Canadian Entomologist* 40:441–449.
- Morris, F. J. A. 1909.** Some beetle haunts. *39th Report, Entomological Society of Ontario*, pp. 56–63.
- Morris, F. J. A. 1911.** Beetles found about foliage. *41th Report, Entomological Society of Ontario*, pp. 45–49.
- Morris, F. J. A. 1916.** A note. *46th Report, Entomological Society of Ontario*, p. 19.
- Morris, F. J. A. 1917.** *47th Report, Entomological Society of Ontario for 1916*, p. 15–23.
- Morris, F. J. A. 1919.** Dog days. *The Canadian Entomologist* 51:49–53.
- Morris, F. J. A. 1921.** Report on the insects of the year. *51st Report Entomological Society of Ontario for 1920*, pp. 13–14.
- Morrisette, R. 1979a.** Les Buprestidae du Quebec. *Fabriques* 5(6):101–104.
- Morrisette, R. 1979b.** Les Buprestis (Coleoptera: Buprestidae) du Quebec. *Fabriques* 5(6):104–106.
- Morrisette, R. 1980a.** Le genre *Taphrocercus* Sol. au Quebec (Coleoptera: Buprestidae). *Fabriques* 7(1):6–7.
- Morrisette, R. 1980b.** Le genre *Pachyschelus* Solier (Buprestidae: Coleoptera) au Quebec. *Fabriques* 7(2):37–38.
- Motschulsky, V. I. 1853.** *Etudes Entomologiques*. 1(1852), 80 pp.
- Motschulsky, V. I. 1859a.** *Etudes Entomologiques*. 8, 187 pp., 2 plates.
- Motschulsky, V. I. 1859.** Coléoptères nouveaux de la Californie. *Bulletin de la Société Naturaliste de Moscou* 32(2):122–185; 357–410.
- Motschulsky, V. I. 1860.** Insectes de Indes Orientales, et de contrées analogues. *Etudes Entomologiques* 8(1859):25–118.
- Mühle, H. 1993a.** Case 2837/1. *Poecilonota* Eschscholtz, 1829, *Palmar* Schaefer, 1949 and *Scintillatrix* Obenberger, 1956 (Insecta, Coleoptera): proposed conservation by the designation of *Buprestis variolosa* Paykull, [1799] as the type species of *Poecilonota* and *B. rutilans* Fabricius, [1777] as the type species of *Scintillatrix*. *Bulletin of Zoological Nomenclature* 50(1):27–30.
- Mühle, H. 1993b.** Case 2837/2. *Melanophila* Eschscholtz, 1829 and *Phaenops* Dejean, 1833 (Insecta,

- Coleoptera): proposed conservation of usage by the designation of *Buprestis acuminata* De Geer, 1774 as the type species of *Melanophila*. *Bulletin of Zoological Nomenclature* 50(1):31–34.
- Mühle, H. 2003.** Taiwanese buprestids (Coleoptera, Buprestidae). *Journal of the Zoological Society Wallacea* 1:43–48.
- Mühle, H, R. L. Westcott & G. H. Nelson. 1994.** Comments on the proposed conservation of usage of some generic names in the Buprestidae (Insecta, Coleoptera). *Bulletin of Zoological Nomenclature* 51(1):43–46.
- Mühle, H., P. Brandl & M. Niehuis. 2000.** *Catalogus Faunae Graeciae*, Coleoptera: Buprestidae. 254 pp., 8 color plates. Published by H. Mühle.
- Mundinger, F. G. 1924.** A preliminary list of the Buprestidae and Cerambycidae of the Cranberry Lake region, New York. *Technical Publication No. 17 of New York State College of Forestry at Syracuse University* 24(22):313–320.
- Murraj, X. 1968.** Disa rezultate mbi studimin e rendit të Krahëfortëve (Coleoptera) të vendit tonë. *Bulletin i Universitetit Shtetëror të Tiranës, Seria Shkencat e Natvres* 1:31–46.
- Mutchler, A. J. & H. B. Weiss. 1922.** Wood-boring beetles of the genus *Agrilus* known to occur in New Jersey. *New Jersey Department of Agriculture, Bureau of Statistics & Inspection, Circular* 48:1–20.
- Muttkowski, R. A. 1910.** A new species of *Chalcophora* (Coleoptera–Buprestidae) from Wisconsin. *Milwaukee Bulletin of the Wisconsin Natural History Society* 8(3):135–136.
- Myers, L. 1918.** Coleoptera from the Claremont–Laguna Region. *Journal of Entomology and Zoology*, Department of Zoology of Pomona College, Claremont, California 10, p. 48.
- Nelson, G. H. 1959.** Notes on the Buprestidae. *Bulletin of the Brooklyn Entomological Society* 4(1):21–24.
- Nelson, G. H. 1960a.** A new species Of *Polycesta* (Buprestidae). *The Coleopterists Bulletin* 14:30–32, figs. 1–3.
- Nelson, G. H. 1960b.** Notes on the Buprestidae and Schizopodidae. *Bulletin of the Brooklyn Entomological Society* 55(3):70–74.
- Nelson, G. H. 1962.** Notes on the Buprestidae: part III. *Bulletin of the Brooklyn Entomological Society* 57(2):56–60.
- Nelson, G. H. 1963.** A new species in the genus *Dicerca* (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 17(3):65–69, figs. 1–3.
- Nelson, G. H. 1965.** Notes on the Buprestidae: part IV, with a new synonym in *Chrysobothris*. *Bulletin of the Brooklyn Entomological Society* 59&60:37–41.
- Nelson, G. H. 1967a.** Notes on the Buprestidae (Coleoptera): part V, with descriptions of previously unknown sexes. *The Coleopterists Bulletin* 21(1):23–27, figs. 1–13.
- Nelson, G. H. 1967b.** A new species of *Acmaeodera* (Coleoptera, Buprestidae). *The Coleopterists Bulletin* 21(2):57–58, fig. 1.
- Nelson, G. H. 1968a.** Notes on Buprestidae (Coleoptera): part VI. *The Coleopterists Bulletin* 22(1):28–30, fig. 1.
- Nelson, G. H. 1968b.** A new species of *Xenorhipis* from Mexico with a key to the males (Buprestidae). *The Coleopterists Bulletin* 22(3):95–97, fig. 1.
- Nelson, G. H. 1968c.** A revision of the genus *Acmaeoderoides* (Coleoptera: Buprestidae). *Proceedings of the California Academy of Sciences*, 4th series 36(6):125–146, 2 plates.
- Nelson, G. H. 1970.** Tribal placement of *Acmaeoderoides* and other notes (Buprestidae). *The Coleopterists Bulletin* 24(1):30–31.
- Nelson, G. H. 1971.** A new species of *Cinyra* from Mexico, with notes on other species (Buprestidae). *The Coleopterists Bulletin* 25(2):37–39, figs. 1–3.
- Nelson, G. H. 1975a.** A review of the *basalis* group of the genus *Chrysobothris* (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 29(1):1–30, figs. 1–32.
- Nelson, G. H. 1975b.** A new species of *Polycesta* from Mexico (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 29(3):169–171, figs. 1–6.
- Nelson, G. H. 1975c.** A revision of the genus *Dicerca* in North America (Coleoptera: Buprestidae). *Entomologische Arbeiten aus dem Museum G. Frey* 26:87–180, figs. 1–86.
- Nelson, G. H. 1976.** Lectotype designations in the Mannerheim Collection of Buprestidae at the Universitetets Zoologiska Museum, Helsingfors, Finland. *The Coleopterists Bulletin* 30(2):167–168.
- Nelson, G. H. 1978a.** A new species of *Isophaenus* from the Dominican Republic (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 32(4):319–321, fig. 1.
- Nelson, G. H. 1978b.** A review of the genus *Ptosima* in North America (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 32(4):327–336, figs. 1–8.

Bibliography

- Nelson, G. H. 1979a.** A new species of *Actenodes* from the United States with a key to the species (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 33(1):87–91, figs. 1–4.
- Nelson, G. H. 1979b.** More lectotype designation in the Mannerheim collection of Buprestidae (Coleoptera). *The Coleopterists Bulletin* 33(4):476.
- Nelson, G. H. 1980a.** Nomenclatural changes in the family Buprestidae with descriptions of previously unknown sexes (Coleoptera). *The Pan-Pacific Entomologist* 56(2):81–97, figs. 1–10.
- Nelson, G. H. 1980b.** A new species of *Acmaeodera* (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 56(3):175–180, figs. 1–4.
- Nelson, G. H. 1980c.** A review of the genus *Thrincopyge* LeConte (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 56(4):297–310, figs. 1–13.
- Nelson, G. H. 1982.** A new tribe, genus and species of North American Buprestidae with consideration of subfamilial and tribal categories. *The Coleopterists Bulletin* 35(4)(1981):431–450, figs. 1–52.
- Nelson, G. H. 1985a.** A new species of *Agrilus* from Arizona (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 39(1):89–92, figs. 1–4.
- Nelson, G. H. 1985b.** Clarification of the taxonomic status in various genera of the family Buprestidae (Coleoptera). *The Coleopterists Bulletin* 39(2):133–146.
- Nelson, G. H. 1986.** A review of the genus *Psiloptera* subgenus *Lampetis* Solier in the United States (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 40(3):272–284, figs. 1–10.
- Nelson, G. H. 1987a.** Additional notes on the biology and distribution of Buprestidae in North America, II. *The Coleopterists Bulletin* 41(1):57–65.
- Nelson, G. H. 1987b.** Taxonomic notes on the genera *Agrilus*, *Chrysobothris* and *Paragrillus* (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 41(1):67–72, figs. 1–7.
- Nelson, G. H. 1988.** A new species of *Hippomelas* (*Gyascutus*) from California (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 42(3):279–284, figs. 1–8.
- Nelson, G. H. 1989.** Remarks on genera of Buprestidae affected by the Leraut (1983) and Cobos (1986) papers (Coleoptera). *The Coleopterists Bulletin* 43(4):393–396.
- Nelson, G. H. 1990.** A new species of *Agrilus* reared from mistletoe in Texas (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 44(3):374–376, 1 Fig.
- Nelson, G. H. 1991a.** On the subgeneric placement of *Buprestis confluenta* Say (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 45(2):190.
- Nelson, G. H. 1991b.** Case 2773. *Schizopus* LeConte, 1858 (Insecta, Coleoptera):proposed conservation. *Bulletin of Zoological Nomenclature* 48(4):305–307.
- Nelson, G. H. 1991c.** Correction to the type locality of *Psiloptera woodhousei* LeConte (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 45(3):238.
- Nelson, G. H. 1992.** Case 2772. *Chrysobothris* Eschscholtz, 1829 and *Dicerca* Eschscholtz, 1829 (Insecta, Coleoptera):proposed conservation as the correct original spellings. *Bulletin of Zoological Nomenclature* 49(2):120–121.
- Nelson, G. H. 1993.** Note on *Oxypteris hungarica* (Csiki) and a description of the female of *Xenorhipis mexicana* Nelson (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 47(2):150.
- Nelson, G. H. 1994a.** *Agrilus harenus* Nelson, a new species from southern California, with notes on *A. lacustris* LeConte (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 48(3):261–264, figs. 1–3.
- Nelson, G. H. 1994b.** Six new species of *Acmaeodera* Eschscholtz from Mexico (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 48(3):272–282, figs. 1–14.
- Nelson, G. H. 1996a.** A new genus, *Squamodera* Nelson, for the *vanduzeei* group of *Acmaeodera* Eschscholtz from western North America. *The Coleopterists Bulletin* 50(2):167–175, figs. 1–14.
- Nelson, G. H. 1996b.** A new species of *Acmaeodera* Eschscholtz from the western United States. *The Coleopterists Bulletin* 50(2):176–182, figs. 1–3.
- Nelson, G. H. 1997a.** A new *Poecilnota* from Southern California (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 73(1):1–3, figs. 1–6.
- Nelson, G. H. 1997b.** Designation of type species for subgeneric names proposed by Cobos in the genus *Polycesta* Solier. *The Coleopterists Bulletin* 51(4):318.
- Nelson, G. H. 1999.** A new species and other notes on the genus *Acmaeoderoides* Van Dyke (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 53(4):371–376, fig. 1.
- Nelson, G. H. 2000a.** *Polycesta plana* Nelson, a new species from Baja California Sur, Mexico (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 54(2):263–265, fig. 1.
- Nelson, G. H. 2000b.** A revision of the subtribe Hippomelanina, part II: *Gyascutus* (*Gyascutus*) LeConte (Coleoptera: Buprestidae). *Journal of Natural History* 34:2251–2292, figs. 1–50.

- Nelson, G. H. 2006.** *Neoargante* Nelson, a replacement name for *Argante* Gistel (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 82(2):373.
- Nelson, G. H. & R. L. Alten. 1998.** Notes on the taxonomy and biology of *Dicerca* Eschscholtz, with a description of the male *Dicerca cajonensis* Knull. *The Coleopterists Bulletin* 52(3):233–236, figs. 1–10.
- Nelson, G. H. & W. F. Barr. 1960.** New synonymy in the Buprestidae (Coleoptera). *The Pan-Pacific Entomologist* 36(4):178.
- Nelson, G. H. & W. F. Barr. 1993.** Case 2758. *Buprestis* Linnaeus, 1758 and *Chrysobothris* Eschscholtz, 1829 (Insecta, Coleoptera): proposed conservation by the designation of *Buprestis octoguttata* Linnaeus, 1758 as the type species of *Buprestis*. *Bulletin of Zoological Nomenclature* 50(1):23–26.
- Nelson, G. H. & C. L. Bellamy. 1991.** A revision and phylogenetic re-evaluation of the family Schizopodidae (Coleoptera, Buprestidae). *Journal of Natural History* 25:985–1026, figs. 1–84.
- Nelson, G. H. & C. L. Bellamy. 1994.** A clarification of authors and publication dates for “Histoire naturelle et iconographie des insectes Coléoptères” by F. L. de Laporte & H. L. Gory (Coleoptera: Buprestidae). *Giornale Italiano di Entomologia* 6:297–308.
- Nelson, G. H. & C. L. Bellamy. 1996.** A revision of the subtribe Hippomelanina: *Hippomelas* Laporte and Gory, *Prasinalia* Casey, *Gyascutus* (*Stictocera*) Casey, and *Barrellus*, gen. nov. (Coleoptera: Buprestidae). *Journal of Natural History* 30:861–911, figs. 1–111.
- Nelson, G. H. & C. L. Bellamy. 2002.** Chapter 40. Schizopodidae LeConte 1861, pp. 95–97, figs. 1–58. In R. H. Arnett, Jr., M. C. Thomas, P. E. Skelley & J. H. Frank (Eds.). *American Beetles* Volume 2, CRC Press.
- Nelson, G. H. & H. A. Hespeneide. 1998.** A re-evaluation of some *Agrilus* Curtis species. *The Coleopterists Bulletin* 52(1):31–34.
- Nelson, G. H. & T. C. MacRae. 1990.** Additional notes on the biology and distribution of Buprestidae (Coleoptera) in North America, part III. *The Coleopterists Bulletin* 44(3):349–354.
- Nelson, G. H. & T. C. MacRae. 1994.** *Oaxacanthaxia nigroaenea* Nelson and MacRae, a new species from Mexico (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 48(2):149–152, figs. 1–4.
- Nelson, G. H., D. S. Verity & R. L. Westcott. 1981.** Additional notes on the biology and distribution of Buprestidae (Coleoptera) of North America. *The Coleopterists Bulletin* 35(2):129–151, figs. 1, 2.
- Nelson, G. H. & R. L. Westcott. 1976.** Notes on the distribution, synonymy, and biology of Buprestidae (Coleoptera) of North America. *The Coleopterists Bulletin* 30(3):273–284.
- Nelson, G. H. & R. L. Westcott. 1991.** Review of the *pulchellus* group of *Agrilus* with descriptions of new species (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 45(2):121–142, figs. 1–24.
- Nelson, G. H. & R. L. Westcott. 1995.** Three new species of *Acmaeodera* Eschscholtz from the United States and Mexico. *The Coleopterists Bulletin* 49(1):77–87, figs. 1–12.
- Nelson, G. H., R. L. Westcott & T. C. MacRae. 1996.** Miscellaneous notes on Buprestidae and Schizopodidae occurring in the United States and Canada, including descriptions of previously unknown sexes of six *Agrilus* Curtis. *The Coleopterists Bulletin* 50(2):183–191 figs. 1, 2.
- Newman, E. 1834.** Article 37—Attempted Division of British insects into natural orders. *The Entomological Magazine* 2:379–431.
- Nicholson, J. F. 1905.** *Oklahoma Bulletin* 69, p. 15.
- Nicolay, A. S. 1917a.** Buprestidae and Cerambycidae from Maine. *Bulletin of the Brooklyn Entomological Society* 12:92–95.
- Nicolay, A. S. 1917b.** A note on *Buprestis connexa*. *Journal of the New York Entomological Society* 25:88.
- Nicolay, A. S. 1917c.** A note on *Buprestis striata* and *B. impedita*. *Journal of the New York Entomological Society* 25:136.
- Nicolay, A. S. 1919a.** A list of the Buprestidae and Cerambycidae on Long Island, New York. *Bulletin of the Brooklyn Entomological Society* 14(1):17–20.
- Nicolay, A. S. 1919b.** Additions to the Insects of New Jersey, No. 7. *Entomological News* 30(10):276–279.
- Nicolay, A. S. 1921.** Corrections and additions to the Leng list of Coleoptera. Family Buprestidae I. *Journal of the New York Entomological Society* 29:173–178.
- Nicolay, A. S. & H. B. Weiss. 1918.** A review of the genus *Buprestis* in North America. *Journal of the New York Entomological Society* 26(2):75–109, figs. 1, 2, plates v & vi.
- Nicolay, A. S. & H. B. Weiss. 1919a.** Additions and corrections to the genus *Buprestis* in North America. *Journal of the New York Entomological Society* 27:241.
- Nicolay, A. S. & H. B. Weiss. 1919b.** Notes on the life history and early stages of *Brachys ovatus* Web. and *Brachys aerosus* Mels. *The Canadian Entomologist* 51:85–88.
- Nicolay, A. S. & H. B. Weiss. 1920.** The group Traches in North America, part I. The genera *Pachyschelus*

Bibliography

- and *Taphrocerus*. *Journal of the New York Entomological Society* 28(2):136–150, 1 plate.
- Nicolay, A. S. & H. B. Weiss. 1923.** The group Traches in North America, part II. The genus *Brachys*. *Journal of the New York Entomological Society* 31(2):59–76, 1 plate.
- Nonfried, A. F. 1895.** Coleoptera nova exotica. *Berliner Entomologische Zeitschrift* 40(3):279–312.
- Nord, J. C., F. B. Knight & G. B. Vogt. 1965.** Identity and biology of an Aspen Root Girdler, *Agrilus horni*. *Forest Science* 11(1):33–41.
- Notman, H. 1917.** Collection of Adirondack Buprestidae. *Journal of the New York Entomological Society* 25:145.
- Obenberger, J. 1914.** Drei neue nordamerikanische Anthaxien. *Entomologische Blätter* 10:25–26.
- Obenberger, J. 1917a.** Neue exotische Acmaeoderen (Coleoptera–Buprestidae). *Neue Beiträge zur Systematischen Insektenkunde* 1:53–56.
- Obenberger, J. 1917b.** Neue exotische *Agrilus*arten (Coleoptera Buprestidae). *Entomologische Blätter* 13:178–183.
- Obenberger, J. 1918.** Revision der paläarktischen Trachydinen (Coleoptera–Buprestidae), mit Einschluss einiger Beschreibungen exotischer Arten. *Archiv für Naturgeschichte* 82 (A) (1916), 11:1–74.
- Obenberger, J. 1922.** Studien über die Buprestiden. *Entomologische Blätter* 18:178–188.
- Obenberger, J. 1923.** Studien über die Buprestiden. *Entomologische Blätter* 19(2):114–125.
- Obenberger, J. 1924a.** Kritische studien über die Buprestiden (Col.). *Archiv für Naturgeschichte* 90 (A) 3:1–171.
- Obenberger, J. 1924b.** Révision monographique du genre *Taphrocerus* Solier. (Col. Buprestidae). *Acta Entomologica Musaei Nationalis Pragae* 2:45–83.
- Obenberger, J. 1924c.** De Buprestidarum speciebus novis (Diagnoses praeliminares). Nové druhy celedi krascu. *Acta Entomologica Musaei Nationalis Pragae* 2:93–115.
- Obenberger, J. 1924d.** Symbolae ad specierum regionis Palaearcticae Buprestidarum cognitionem. *Jubelní Sborník Československé Společnosti Entomologické* 1924:6–59.
- Obenberger, J. 1925.** De novis Buprestidarum regionis Palaearcticae speciebus V. *Acta Societatis Entomologicae Cechosloveniae* 22:30–34.
- Obenberger, J. 1926a.** Buprestidae 1. In W. Junk, S. Schlenkling (Eds.). *Coleopterorum Catalogus*, W. Junk, Berlin, 12 Pars 84:1–212.
- Obenberger, J. 1926b.** Čtyři nové rody jihoamerickýh krasců. De quatuor generibus novis Buprestidarum Americae meridionalis. *Acta Societatis Entomologicae Cechosloveniae* 22(1925):95–100.
- Obenberger, J. 1926c.** Das Sphenopterensubgenus *Chilostetha* B. Jak. (Col. Bupr.). *Coleopterologische Centralblatt* 1:183–212.
- Obenberger, J. 1926d.** In: A. Winkler (Ed.). *Catalogus Coleopterorum regionis Palaearcticae*. 6:625–752, Wien.
- Obenberger, J. 1928.** Opuscula Buprestologica I. Beiträge zur Kenntnis der Buprestiden (Col.). *Archiv für Naturgeschichte* 92(A) 9-11(1926):1–350, figs. 1–12, plates i – vii.
- Obenberger, J. 1929.** Insecta Baumiana I. 1. Buprestidae. *Acta Entomologica Musaei Nationalis Pragae* 7(59):107–119, 3 plates.
- Obenberger, J. 1930a.** Buprestidae 2. In W. Junk, S. Schenkling (Eds.). *Coleopterorum Catalogus*, W. Junk, Berlin, 12 Pars 111:213–568.
- Obenberger, J. 1930b.** Buprestidarum supplementa Palaearctica VI. *Acta Societatis Entomologicae Cechosloveniae* 27:102–115.
- Obenberger, J. 1931.** O krascich z rodu *Agrilus* z plibuzenstva afrického druhu *A. variegatus* Klug. Sur les *Agrilus* de l’Afrique de voisinage de l’A. *variegatus* Klug (Col. Bupr.). *Acta Entomologica Musaei Nationalis Pragae* 9(70):84–98.
- Obenberger, J. 1934a.** Buprestidae 3. In W. Junk, S. Schenkling (Eds.). *Coleopterorum Catalogus*, W. Junk, Berlin, 12 Pars 132:569–781.
- Obenberger, J. 1934b.** Monographie du genre *Taphrocerus* Sol. (Col. Bupr.). *Acta Entomologica Musaei Nationalis Pragae* 12:5–62.
- Obenberger, J. 1935a.** Buprestidae 4. In W. Junk, S. Schenkling (Eds.). *Coleopterorum Catalogus*, W. Junk, ‘s-Gravenhage, 12 Pars 143:782–934.
- Obenberger, J. 1935b.** De novis Agrili generis regionis Neotropicae speciebus (Col Bupr.). Nové druhy krasců z rodu *Agrilus* z Neotropické oblasti. *Acta Entomologica Musaei Nationalis Pragae* 13:108–140.
- Obenberger, J. 1935c.** De regionis aethiopicae speciebus generis Agrili novis (Col. Bupr.). Nové druhy krasců z rodu *Agrilus* z aethiopské oblasti. *Acta Entomologica Musaei Nationalis Pragae* 13:149–210.

- Obenberger, J. 1936a.** Buprestidae 5. In W. Junk, S. Schenkling (Eds.). *Coleopterorum Catalogus*, W. Junk, 's-Gravenhage, 13 Pars 152:935–1246.
- Obenberger, J. 1936b.** De novis regionis Orientalis Agrili generis speciebus (Col. Bupr.) II. Nové druhy Orientálných krasců rodu *Agrilus*. *Acta Societatis Entomologicae Cechosloveniae* 33:33–44.
- Obenberger, J. 1936c.** Synonymia Agrilorum (Col. Bupr.) II. *Acta Societatis Entomologicae Cechosloveniae* 33:91–92.
- Obenberger, J. 1936d.** De speciebus novis palaeartictis generis *Agrilus* (Col. Bupr.). Nové palaeartictické druhy rodu *Agrilus* (Col. Bupr.). *Acta Societatis Entomologicae Cechosloveniae* 33:104–118.
- Obenberger, J. 1936e.** Synonymia Agrilorum III. (Exota) (Bupr.). *Acta Societatis Entomologicae Cechosloveniae* 33:139.
- Obenberger, J. 1936f.** Eine Festarbeit zum sechzigjährigen Jubiläum meines Freundes Univ.-Prof. Dr. Embrik Strand. *Festschrift zum 60. Geburtstag von Professor Dr. Embrik Strand* 1:97–145.
- Obenberger, J. 1937.** Buprestidae 6. In W. Junk, S. Schenkling (Eds.). *Coleopterorum Catalogus*, W. Junk, 's-Gravenhage, 13 Pars 157:1247–1714.
- Obenberger, J. 1939a.** Generis *Mastogenius* Sol. Americae borealis specierum revisio (Col. Bupr.). Revise severoamerických druhů rodu *Mastogenius* Sol. (Col. Bupr.). *Acta Societatis Entomologicae Bohemiae* 36:78–80.
- Obenberger, J. 1939b.** Über eine neue Buprestiden-Gattung und Art aus den Sammlungen des Deutschen Entomologischen Instituts nebst einigen Bemerkungen über die Buprestiden-Tribus Schizopini sensu Kerr. *Arbeiten über Morphologische und Taxonomische Entomologie aus Berlin-Dahlem* 6(3):254–265, 1 plate.
- Obenberger, J. 1939c.** The *Xenorhipis* group of the Family Buprestidae with a description of a new North American species (Col. Bupr.). Revise skupiny rodu krascu z příbuzenstvar. *Xenorhipis*, spolu s popisem nového severoamerického druhu (Col. Bupr.). *Vestník Československé Zoologické Společnosti* 6-7(1938–39):330–339, Fig 1.
- Obenberger, J. 1940.** Nové formy rodu *Chrysobothris* Eschsch. (Col. Bupr.). De generis *Chrysobothris* Eschsch. formy novis (Col. Bupr.). *Acta Entomologica Musaei Nationalis Pragae* 18:79–106, 7 figs.
- Obenberger, J. 1941.** Revision der palaearktischen *Buprestis*-Arten. *Mitteilungen der Münchener Entomologischen Gesellschaft* 31:460–554, 13 figs.
- Obenberger, J. 1942a.** De genere *Chalcophorella* Kerr. et generibus vicinis (Col. Bupr.). O rodu *Chalcophorella* Kerr. a rodech příbuzných (Col. Bupr.). *Acta Societatis Entomologicae Bohemiae* 39:2–12, 6 figs.
- Obenberger, J. 1942b.** Trí nové druhy rodu *Anthaxia* ze severní Ameriky (Col. Bupr.). De tribus generis *Anthaxiae* Americae borealis speciebus novis. *Acta Societatis Entomologicae Bohemiae* 39:127–129.
- Obenberger, J. 1943.** *Engyaulus pulchellus* var. *martini* n. var. *Acta Societatis Entomologicae Bohemiae* 40:86.
- Obenberger, J. 1944.** O některých severoamerických družích rodu *Melanophila* Eschsch. De nonnullis Americae borealis generis *Melanophilae* Eschsch. speciebus (Col. Buprestidae). *Acta Entomologica Musaei Nationalis Pragae* 21-22(1943–44):317–322, figs. 1–25.
- Obenberger, J. 1958a.** Une comparaison de la faune des Buprestides (Col.) de la faune paléarctique et néarctique. Srovnání palearktické zvířeny krascu (Col. Buprestidae). *Acta Universitatis Carolinae–Biologica*, 1958(2):153–168.
- Obenberger, J. 1958b.** Sur les relations entre les Buprestides de la région paléarctique et néarctique. *Proceedings of the 10th International Congress of Entomology*, Volume 1 (1956):213–216.
- Ogilvie, L. 1928.** The insect of Bermuda. *Department of Agriculture*, pp. 1–52.
- Ohmomo, S. & K. Akiyama. 1997.** *Jewel Beetles*. Endless Collection Series, Volume 2, 59 pp., Endless Science Information, Tokyo.
- Olivier, A. G. 1790.** *Entomologie, ou histoire naturelle des insectes, avec leurs caractères génériques et spécifiques, leur description, leur synonymie, et leur figure enluminée*. Coléoptères, genera 9–34, 2(32):1)485, 63 plates, Baudouin, Paris.
- Ortenburger, A. I. & M. H. Hatch. 1926.** XX. Notes on Coleoptera from southeastern Oklahoma with a few records from adjacent portions of Texas and Arkansas, including a new species. *Oklahoma Academy of Science* 6:142–148.
- Owada, M. 1986.** A brief biography of Yoshihiko Kurosawa. Publications of Yoshihiko Kurosawa. *Entomological Papers presented to Yoshihiko Kurosawa on the Occasion of his Retirement, March 20, 1986*. Coleopterists' Association of Japan, Tokyo, 16 pp., 1 figure.
- Packard, A. S. 1873.** 3rd Annual Report, Injurious and beneficial insects of Massachusetts. (*20th Annual*

Bibliography

- Report, Massachusetts Board of Agriculture*, pp. 237–265, *The American Naturalist*, Sept. 1873, 7, pp. 524–548.) [*Brachys aeruginosa* and *Metonius leavigatus*, p. 247]
- Packard, A. S. 1877a.** Report on Rocky Mountain Locust, etc. Insects injurious to deciduous trees. *Report, United States Geological Survey* (1875–77), pp. 803–805.
- Packard, A. S. 1877b.** Summary of above. *The American Naturalist* 11, pp. 22–29.
- Packard, A. S. 1878.** *Guide to the Study of Insects*, Buprestidae, pp. 457–459.
- Packard, A. S. 1881.** Insects injurious to forest and shade trees. *United States Entomology Commission Bulletin* 7, p. 275.
- Packard, A. S. 1883.** *Scientific Results*, Chapter 9, Forest insects. 3rd Report, United States Entomology Commission, pp. 251–262.
- Packard, A. S. 1889.** Notes on the epipharynx, and the epipharyngeal organs of taste in mandibulate insects. *Psyche* 5(156):222–228.
- Packard, A. S. 1890.** Insects Injurious to Forest and Shade Trees, 2nd Edition. *5th Report, United States Entomology Committee, House Miscellaneous Document* 41:1–922.
- Parker, F. H. 1947.** A new *Paratyndaris* from Arizona (Coleoptera, Buprestidae). *Bulletin of the Brooklyn Entomological Society* 42:31–33.
- Parrott, P. J. 1916a.** *New York State Department of Agriculture, Bulletin* 79, pp. 1019–1021.
- Parrott, P. J. 1916b.** *New York Geneva Agriculture Experiment Station, Circular* 51, p. 3.
- Parrott, P. J. 1916c.** *Proceedings of the New York State Fruit Growers Association*, p. 197.
- Parrott, P. J. 1916d.** *61st Proceeding of the West New York Horticulture Society*, pp. 120–121.
- Parrott, P. J. 1917.** Some insects attacking the pear, and their control (a reprint of Circular No. 51, 1916). *35th Annual Report of the New York Agriculture Experiment Station (Geneva, Ontario County) for the Year 1916*, pp. 453–470
- Parrott, P. J. 1923.** *New York Department of Farms and Markets, Bulletin* 147, pp. 161–162.
- Parrott, P. J. & H. Glasgow. 1915.** Sinate pear borer. *New York State Agriculture Experiment Station, Circular* 44, pp. 1–4.
- Patch, E. M. & O. A. Johannsen. 1904.** Apple tree insects of maine. *Bulletin, Maine Experiment Station*, pp. 1–67.
- Paulian, R. & P. Viette. 1998.** André Descarpentries (18 novembre 1919 – 25 mai 1998). *L'Entomologiste* 54(6):241–246.
- Paykull, G. Von. 1799.** *Fauna Suecica; Insecta* (Col.). Upsaliae, Edman. 2, 234 pp.
- Peck, S. B. & M. C. Thomas. 1998.** A distributional checklist of the beetles (Coleoptera) of Florida. *Arthropods of Florida and Neighboring Land Areas* 16:i–viii + 1–180.
- Pemberton, C. E. 1939.** Notes and exhibitions (for July 7, 1938): *Buprestis aurulenta*. *Proceedings of the Hawaiian Entomological Society* 10(2):190.
- Penix, S. L. & K. S. Williams. 1994.** Interactions of Pacific peach tree borer larvae, *Aegeria opalescens* (Lepidoptera:Sesiidae) and *Agrilus quadriguttatus niveiventris* larvae (Coleoptera: Buprestidae) on arroyo willow, *Salix lasiolepis*. *Bulletin of the Ecological Society of America* 75(2):178. [meeting abstract]
- Perkins, G. H. 1877.** *Vermont Board of Agriculture, 4th Report*, pp. 128–139.
- Perkins, G. H. 1897.** Insects of the year, pp. 1–16. Apple tree borers, pp. 14–16. *Vermont Experiment Station Bulletin*, No. 60.
- Petch, R. H. 1913.** Insects of Quebec for the year 1912. *43rd Report, Entomological Society of Ontario*, pp. 72–75.
- Petch, R. H. 1915.** Injurious insects of southern Quebec (1914). *45rd Report, Entomological Society of Ontario*, pp. 70–71.
- Peterson, A. 1960.** *Larvae of insects*. Part II, Coleoptera, Diptera, Neuroptera, Siphonaptera, Mecoptera, Trichoptera. Columbus, Ohio, 416 pp.
- Pettit, J. 1870.** Captures at North Duoro, Ontario, and List of Coleoptera, taken at Grimsby, Ontario. *The Canadian Entomologist* 2:102–103.
- Pettit, J. 1900.** Partial list of insects collected in Alger Co., Michigan. *Michigan Experimental Station, Bulletin* No. 186, Buprestidae p. 41.
- Pettit, J. 1904.** Insects injurious to fruits in Michigan. *Michigan Special Bulletin* No. 24, pp. 1–60.
- Pettit, R. H. & R. Hutson 1931.** The insect situation in Michigan. *61st Annual Report of the Entomological Society of Ontario for 1930*, pp. 33–35.
- Peyerimhoff, P. de. 1933a.** Les larves des Coléoptères d'après A. G. Böving et F. C. Craighead, et les grandes critères de l'Ordre. *Annales de la Société entomologique de France* 102:77–106.

- Philippi, R. A. & F. H. E. Philippi. 1864.** Beschreibung einiger neuen Chilenischen Käfer. *Stettiner Entomologische Zeitung* 25(10–12):313–406.
- Pierce, W. D. 1917.** *United States Department of Agriculture, Manual of Dangerous Insects* pp. 1501–51.
- Pierce, W. D. 1918.** A manual of dangerous insects. *United States Department of Agriculture, Office of the Secretary*, pp. 1–256.
- Pierson, H. B. 1923.** Insects attacking forest and shade trees. *Maine Forest Service, Bulletin* 1, pp. 1–56.
- Pierson, H. B. 1927.** *Journal of Forestry* 25:68–72.
- Pinto, J. D. & S. I. Frommer. 1980.** A survey of the arthropods on jojoba (*Simmondsia chinensis*). *Environmental Entomology* 9(1):137–143.
- Pinto, J. D., S. I. Frommer & S. A. Manweiler. 1987.** The insects of jojoba, *Simmondsia chinensis*, in natural stands and plantations in southwestern North America. *Southwestern Entomologist* 12(4):287–298.
- Piper, C. V. 1895.** Insect pests of the farm, garden and orchard. *Washington State Experiment Station Bulletin* 17, pp. 1–64.
- Piper, G. 1980.** A buprestid beetle (*Sphenoptera jugoslavica*)—Washington—NE Spokane, August 8, first release for control of *Centaurea diffusa* (diffuse knapweed). *Cooperative Plant Pest Report* 5(33):628.
- Pochon, H. 1963.** Buprestidenausbeute aus Spanien (Catalonien) und Neubeschreibung zweier *Agrilus*. *Miscelánea Zoológica* 1(5):65–70.
- Pochon, H. 1967.** Beschreibung neuer Bupresiden aus der Sammlung des Naturwissenschaftlichen Museums, Budapest. 2. Teil. *Annales Historico-Naturales Musei Nationalis Hungarici* 59:279–282.
- Ponza, L. 1805.** Coleoptera Salutiensia sive enumeratio methodica Coleopterorum, quae in agro Salutiensi reperiuntur. *Mémorie della Reale Accademia delle Scienze di Torino* 12 [buprestids, pp. 52–53].
- Poole, R. W. & P. Gentili (Eds.). 1996.** *Nomina Insecta Nearctica*, Volume 1: Coleoptera, Stresiptera. Entomological Information Services, Rockville, Maryland, 827 pp.
- Powell, J. A. 1965.** Rearing records for five conifer feeding buprestids in California (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 41(2):133–138, figs. 1–3.
- Powell, R. D. & J. H. Myers. 1988.** The effect of *Sphenoptera jugoslavica* Obenb. (Col., Buprestidae) on its host plant *Centaurea diffusa* Lam. (Compositae). *Journal of Applied Entomology* 106:25–46.
- Proctor, W. 1938.** The insect fauna with references to methods of capture, food plants, the flora and other biological features. Biological Survey of the Mount Desert Region. The Wistar Institute of Anatomy and Biology, Philadelphia, 6, 496 pp.
- Provancher, A. L. 1877a.** Petite Faune Entomologique de Canada, Volume 1, Les Coleopteres. Quebec, 786 pp.
- Provancher, A. L. 1877b.** Additions and corrections a la fauna Coleopterologique de la Proviencie de Quebec. *Le Naturaliste* 9, pp. 312–313.
- Provancher, A. L. 1878.** Additions and corrections a la fauna Coleopterologique de la Proviencie de Quebec. *Le Naturaliste* 10, pp. 375–376.
- Quaintance, A. L. & E. H. Seigler. 1922.** The more important apple insects. *United States Farmers Bulletin* 1270, pp. 1–95.
- Randall, J. W. 1838a.** Descriptions of new species of Coleopterous insects inhabiting the State of Maine. *Boston Journal of Natural History* 2:1–33.
- Randall, J. W. 1838b.** Descriptions of new species of Coleopterous insects inhabiting the State of Massachusetts. *Boston Journal of Natural History* 2:34–52.
- Rasmussen, L. A., G. D. Amman, J. C. Vandygriff, R. D. Oakes, A. S. Munson & K. E. Gibson. 1996.** Bark beetle and wood borer infestation in the Greater Yellowstone Area during four postfire years. *United States Forest Service Research Paper Int* 487:1–10.
- Ratzeburg, J. T. C. 1837.** *Die Forst-Insecten oder Abbildung und Beschreibung der in den Wäldern Preufsens und der Nachbarstaaten als schädlich oder nützlich bekannt gewordenen Insekten*. In systematischer Folge und mit besonderer Rücksicht auf die Vertilgung der Schädlichen. Erster Theil. Die Käfer. Berlin, Nicolai Buchhandlung, Druckerei der Königlichen Akademie der Wissenschaften, x + 202 pp., 20 plates.
- Redtenbacher, L. 1849.** *Fauna Austriaca*. Die Käfer, nach der analytischen methode bearbeitet. Wien, Gerold, xxvii + 883 pp., 2 plates.
- Reed, E. B. 1875.** Entomological contributions. *5th Annual Report of the Entomological Society of Ontario for 1874*, pp. 11–16.
- Rees, B. E. 1941.** First-instar larvae of *Buprestis rusticorum* (Kby.) and *Schizopus sallei* Horn, with notes on the classification of *Schizopus*. *Proceedings of the Entomological Society of Washington* 43(9):210–222, 2 plates.

Bibliography

- Rees, N. E., P. C. Quimby, Jr., G. L. Piper, E. M. Coombs, C. E. Turner, N. R. Spencer & L. V. Knutson (Eds.) 1996. *Biological control of weeds in the West*. Western Society of Weed Science, in cooperation with USDA Agricultural Research Service, Montana Department of Agriculture, Montana State University. Color World Printers, Bozeman, Montana. (no pagination)
- Rees, N. E. & G. B. Hewitt. 1977. Effects of specific cultural practices on immediate rangeland arthropod populations. *Montana Agriculture Experiment Station, Montana State University, Bulletin* 695, pp. 1–38.
- Reitter, E. 1911. *Fauna Germanica*. Die Käfer, des Deutschen Reiches. Nach der analytische Methode bearbeitet. III. Band. K. G. Lutz' Verlag, Stuttgart, 436 pp., 48 color plates.
- Rey, C. 1891. Remarques en passant. Buprestides (Suite). *L'Échange, Revue Linnéenne* 7(73):4–5.
- Richter, A. A. 1945. Zlatki *Anthaxia* Kavkaza. [The Caucasian *Anthaxia* (Coleoptera, Buprestidae)]. *Zoologicheskii sbornik Akademii Nauk Armyanskoi SSR* 3(1944):108–130. [in Russian with English summary]
- Richter, A. A. 1949. Fauna of the USSR, n.ser., no. 37. Coleoptera (Buprestidae) 13(2):1–256, 2 color plates. Moscow – Leningrad. [in Russian]
- Richter, A. A. 1952. Fauna of the USSR, n.ser., no. 51. Coleoptera (Buprestidae) 13(4):1–234, figs. 1–47. Moscow – Leningrad. [in Russian]
- Riley, C. V. 1869a. A letter, p. 120. A note, p. 168. *The American Entomologist* 1.
- Riley, C. V. 1869b. 1st Report on the noxious insects of Missouri apple tree borers, pp. 42–47.
- Riley, C. V. 1870. Galls and their architects. *American Entomology and Botany* 2:103–106.
- Riley, C. V. 1875. Habits and parasites of *Chrysobothris femorata*. 7th Report, Noxious, beneficial and other insects of Missouri, pp. 71–79.
- Riley, C. V. 1880. A note on *A. ruficollis*. *The American Entomologist* 1(N.S.):107.
- Riley, C. V. 1883. Scientific results, chapter IX, forest insects. In: A. S. Packard. 3rd Report, U. S. Entomology Commission, p. 25.
- Riley, C. V. 1893a. Report on insects in The Death Valley Expedition, a biological survey of parts of California, Nevada, Arizona, and Utah. *U.S. Department of Agriculture, North American Fauna*, No. 7, pp. 1–393.
- Riley, C. V. 1893b. Notes from Sunbury. *Proceedings of the Entomological Society of Washington* 3:92.
- Riley, C. V. 1894. Notes from Sunbury. *Insect Life* 6:206.
- Roberts, C. H. 1886. On some species of *Anthaxia*. *Entomologica Americana* 2(1):16–17.
- Robinson, W. 1915. *Dicerca obscura* and *Dicerca lurida*. *Journal of the New York Entomological Society* 23:151–152.
- Rohwer, S. A. 1919a. Descriptions of three parasites of *Agrilus angelicus* (Hym.). *Proceedings of the Entomological Society of Washington* 21:4–8.
- Rohwer, S. A. 1919b. Descriptions of four new parasitic Hymenoptera. *The Canadian Entomologist* 51:1601–62.
- Rohwer, S. A. 1920. North American Ichneumon flies. *Proceedings of the United States National Museum* 57:446, 459, 469. [Buprestidae]
- Rosewall, O. W. 1920. Wood-boring beetles of black locust. *The Canadian Entomologist* 52:203.
- Ross, W. A. & L. Caesar 1932. Insects of the season 1931 in Ontario. 62nd Annual Report of the Entomological Society of Ontario for 1931, pp. 7–14.
- Rossi, P. 1792. *Mantissa Insectorum, exhibens species nuper in Etruria collectas, adjectis faunae Etruscae illustrationibus ac emendationibus*. Pisa, Polloni, (1792–1794), volume 1, 148 + 154 pp., 8 color plates.
- Ruggles, A. G. 1912a. *Minnesota State Entomologist, Circular* 25, p. 2.
- Ruggles, A. G. 1912b. 14th Report, *Minnesota State Entomologist*, pp. 55–57.
- Ruggles, A. G. 1914a. *Minnesota State Entomologist, Circular* 30, pp. 7–8.
- Ruggles, A. G. 1914b. 15th Report, *Minnesota State Entomologist*, pp. 54–55.
- Ruggles, A. G. 1918. 17th Report, *Minnesota State Entomologist*, pp. 15–20, text figs. 1–3, plate 1, figs. 1–4.
- Ruhman, M. H. 1915. Insect-notes from the Okanagan in 1914. *Proceedings of the Entomological Society of British Columbia* 7(N.S.):7–11.
- Ruhman, M. H. 1917. *Review of Applied Entomology* A, 4:25.
- Ruhman, M. H. 1924. *British Columbia Department of Agriculture Bulletin*, No. 68, 2nd Edition, p. 73.
- Rumsey, W. E. & F. E. Brooks. 1909. Flat-headed apple tree borer. *West Virginia Experiment Station Report for 1907-08*, p. 16.

- Ryerson, 1927.** California Agriculture Experiment Station, Bulletin 416, p. 63, 20 figures.
- Ryle, G. B. 1923.** Further notes on the natural history of *Melanophila acuminata* DeGeer. *Entomologists Monthly Magazine* 59:1–3.
- Sanders, J. G. 1912.** Wisconsin nursery and orchard inspection service, 1910. *Wisconsin Agriculture Experiment Station, Bulletin* 227, pp. 1–38.
- Saunders, E. 1870.** *Catalogue of the species contained in the genus Buprestis of Linnaeus, previous to its subdivision by Eschscholtz in 1829, referring each to its present genus.* J. van Voorst, London, 37 pp.
- Saunders, E. 1871.** *Catalogus Buprestidarum Synonymicus et Systematicus.* J. Janson, London, xxiii + 171 pp.
- Saunders, E. 1873.** Descriptions of Buprestidae collected in Japan by George Lewis, Esq. *Journal of Proceedings of the Linnaean Society of London, Zoology* 11:509–523.
- Saunders, W. 1874.** Insects injurious to raspberry. *4th Report, Entomological Society of Ontario for 1873,* pp. 7–17.
- Saunders, W. 1880.** Address of the President (*Chalcophora liberta*, p. 5). *10th Annual Report, Entomological Society of Ontario for 1879,* pp. 4–9.
- Saunders, W. 1883a.** The flat-headed apple tree borer, p. 20. *Dicerca divaricata*, p. 201. *Insects injurious to fruits.*
- Saunders, W. 1883b.** Insects injurious to White Pine (*Pinus strobus*). *Report, Fruit-Growers' Association of Ontario,* pp. 322–329.
- Saunders, W. 1884.** Insects injurious to White Pine (*Pinus strobus*). *14th Report, Entomological Society of Ontario for 1883,* pp. 52–62.
- Say, T. 1823.** Descriptions of Coleopterous Insects collected in the late expedition to the Rocky Mountains performed by order of Mr. Calhoun, Secretary of War, under command of Major Long. *Journal of the Academy of Natural Sciences of Philadelphia* 3(1):9–54, 73–104, 139–216.
- Say, T. 1824.** *American Entomology, or Descriptions of the Insects of North America.* Philadelphia Museum, Mitchell 1, 8 + 112, 18 color plates.
- Say, T. 1825a.** Insects. In: W. H. Keating. *Narrative of an expedition to the source of the St. Peter's River, Lake Winnepeck, Lake of the Woods 1823 under the command of Major Long.* Volume 2, Appendix, pp. 268–378.
- Say, T. 1825b.** Descriptions of new American species of *Buprestis*, *Trachys* and *Elater*. *Annals of the Lyceum of New York* 1:249–269.
- Say, T. 1832.** *New species of North American insects found by Joseph Barabino chiefly in Louisiana.* New Harmony, Indiana, Jan. 1832, 16 pp.
- Say, T. 1830–1834.** Descriptions of new species of North American insects, and observations on some of the species already described. [Buprestidae, 1833]. School Press, New Harmony [Indiana]. 81 pp. (numbered [1] – 73, 73 ½ –80).
- Say, T. 1839.** Description of new North American insects, and observations on some already described. *Transactions of the American Philosophical Society* (2) 6:155–190. [not 1836]
- Schaeffer, L. 1949.** Les Buprestides de France. Tableaux analytiques des Coléoptères de la faune franco-rhénane. *Miscellanea Entomologica, Supplement,* Paris, 511 pp.
- Schaeffer, C. 1904.** Class I, Hexapoda. Order II, Coleoptera. New genera and species of Coleoptera. *Journal of the New York Entomological Society* 12(4):197–236.
- Schaeffer, C. 1905a.** Additions to the Coleoptera of the United with notes on some known species. *The Museum of the Brooklyn Institute of Arts and Sciences, Science Bulletin* 1(6):123–140.
- Schaeffer, C. 1905b.** Some additional new genera and species of Coleoptera found within the limit of the United States. *The Museum of the Brooklyn Institute of Arts and Sciences, Science Bulletin* 1(7):141–179.
- Schaeffer, C. 1906.** Two new *Oncideres*, with notes on some other Coleoptera. *The Canadian Entomologist* 38(1):18–23.
- Schaeffer, C. 1909.** New Coleoptera chiefly from Arizona. *The Museum of the Brooklyn Institute of Arts and Sciences, Science Bulletin* 1(15):375–386.
- Schaeffer, C. 1919a.** Miscellaneous coleopterological notes and descriptions. *Journal of the New York Entomological Society* 26(1918):211–214.
- Schaeffer, C. 1919b.** A note. *Journal of the New York Entomological Society* 26:239.
- Schaeffer, C. 1919c.** A note on *Dicerca asperata*. *Bulletin of the Brooklyn Entomological Society* 14:147.
- Schilsky, J. 1888.** Beitrag zur Kenntniss der deutschen Käferfauna. *Deutsche Entomologische Zeitschrift* 32:177–204.

Bibliography

- Schiödte, J. M. C. 1864.** Danmarks Buprestes og Elateres. *Naturhistorisk Tidsskrift* (3) 3:441–568. [English summary in *Zoological Record* for 1865]
- Schmitz, H. & H. Bleckmann. 1997.** Fine structure and physiology of the infrared receptor of beetles of the genus *Melanophila* (Coleoptera: Buprestidae). *International Journal of Insect Morphology and Embryology* 26(3–4):205–215.
- Schmitz, H. & H. Bleckmann. 1998.** The photomechanic infrared receptor for the detection of forest fires in the beetle *Melanophila acuminata* (Coleoptera: Buprestidae). *Journal of Comparative Physiology A* 182:647–657.
- Schmitz, H., M. Mürtz & H. Bleckmann. 1997.** The photomechanic infrared sensillum of the buprestid beetle *Melanophila acuminata*: a fast detection system for infrared radiation. *Society for Neuroscience Abstracts* 23(1–2):1817.
- Schönherr, C. J. 1817.** *Synonymia Insectorum*, oder Versuch einer Synonymie aller bisher bekannten Insecten nach Fabricii Systema Eleutheratorum geordnet, mit Berichtigungen und Anmerkungen wie auch Beschreibungen neuer Arten und illuminirten Kupfern. Volume 1 (3), *Hispa – Molorchus*, xi + 506 pp., Skara, Lewerentz. (Appendix ad C. J. Schönherr *Synonymia Insectorum*, tom. 1, part 3, sistens descriptiones novarum specierum, pp. 1 – 266, illus. Scaris.)
- Schott, F. M. 1925.** On some Coleoptera in New Jersey. *Journal of the New York Entomological Society* 33:224–225.
- Schrank, F. von Paula. 1789.** Entomologische Beobachtungen (Coleopter.). *Naturforscher Stück* 24, pp. 60–90.
- Schuh, J. & D. C. Mote. 1948.** Insect pests of nursery and ornamental trees and shrubs in Oregon. *Oregon Agricultural Experiment Station Bulletin* 449:1–164.
- Schwarz, E. A. 1878.** The Coleoptera of Florida. *Proceedings of the American Philosophical Society* 17:353–372; 435–469.
- Schwarz, E. A. 1887.** A voice from the wilderness. *Entomologia Americana* 3:39.
- Schwarz, E. A. 1890.** Notes of meeting August 4, 1887. *Proceedings of the Entomological Society of Washington* 1:93.
- Schwarz, E. A. 1891.** Coleoptera on Black Locust. *Proceedings of the Entomological Society of Washington* 2:74–75.
- Schwarz, E. A. 1894.** Some notes on Melsheimer's catalogue of the Coleoptera of Pennsylvania. *Proceedings of the Entomological Society of Washington* 3(1)(1893):134–138.
- Scientific Staff of Cornell University 1926.** A preliminary biological survey of the Lloyd–Cornell Reservation. Bulletin of the Lloyd Library of Botany, Pharmacy & Materia Medica, No. 27, Entomological Series No. 5, ppl 1–247.
- Scott, D. C. & R. I. Gara. 1975.** Antennal sensory organs of two *Melanophila* species (Coleoptera: Buprestidae). *Annals of the Entomological Society of America* 68(5):842–846.
- Scott, D. W. 1974.** Notes on the general biology of the flatheaded fir borer *Melanophila drummondi* Kirby reared from ponderosa pine (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 50(2):204–205.
- Scott, D. W. 1978.** Survival and development of the flat headed firborer in forest residues as affected by host and microclimatic conditions. *Dissertation Abstracts International: B Sciences and Engineering* 39(6):2654.
- Scott, W. S. 1901.** Jarring for the curculis – in Georgia, with list of insects caught. *Bureau of Entomology Bulletin* No. 31, pp. 24–36.
- Scott, W. S. & W. Fiske. 1902.** *United States Department of Agriculture, Division of Entomology Bulletin* (N. S.) 31:28.
- Scullen, H. A. 1965.** Review of the genus *Cerceris* in America north of Mexico (Hymenoptera: Sphecidae). *Proceedings of the United States National Museum* 116(3506):333–547.
- Scullen, H. A. & J. L. Wold. 1969.** Biology of wasps of the tribe Cercerini, with a list of the Coleoptera used as prey. *Annals of the Entomological Society of America* 62(1):209–214.
- Semenov–Tian–Shanskij, A. 1895.** Coleoptera nova Rossiae Europaeae Caucasiae. *Trudy Russkago Èntomologicheskogo obshchestva* 29(1894):242–250, 303–327.
- Semenov–Tian–Shanskij, A. 1935.** Analecta coleopterologica XXI. *Revue Russe d'Entomologie* 25(3–4):271–281.
- Semenov–Tian–Shanskij, A. & A. Richter. 1934.** Notes sure les *Chrysobothris* peu connus de l'Asie paléarctique et description de trois espèces nouvelles [Col. Buprestidae]. *Bulletin de la Société entomologique de France* 39(6):90–96.
- Severin, H. C. 1919.** Flat-headed apple tree borers, *C. femorata*. *10th Annual Report, Entomologist of*

- South Dakota, p. 7.
- Severin, H. C. 1922.** *C. femorata*, pp. 55–60. *13th Annual Report, Entomologist of South Dakota.*
- Severin, H. C. 1923.** Flat-headed borer, pp. 21–23, fig. 13. *14th Annual Report, Entomologist of South Dakota*
- Sharp, D. & F. A. G. Muir. 1912.** The comparative anatomy of the male genital tube in Coleoptera. *Transactions of the Entomological Society of London* 3:477–642, 78 plates.
- Shaw, M. W. 1961.** The golden buprestid *Buprestis aurulenta* L. (Col. Buprestidae) in Britain. *The Entomologist's Monthly Magazine* 98:97–98.
- Shenefelt, R. D. & D. M. Benjamin. 1955.** Insects of Wisconsin Forests. *University of Wisconsin Extension Service-Experiment Station and Wisconsin Conservation Department Circular* 500:1–110.
- Sherman, F. 1903.** Insects and fungus enemies of the apple, pear and quince. *North Carolina Bulletin* 183, pp. 45–82.
- Sherman, F. 1914.** Note on *B. fasciata*. *Journal of the New York Entomological Society* 22:337.
- Sibley, C. K. 1926.** Insects and some other invertebrates, pp. 87–180. *In: A preliminary biological survey of the Lloyd–Cornell Reservation. Bulletin of the Lloyd Library of Botany, Pharmacy & Materia Medica, Bulletin*, No. 27, Entomology Series No. 5, pp. 1–247.
- Silberglied, R. E. & T. Eisner. 1969.** Mimicry of Hymenoptera by beetles with unconventional flight. *Science* 163:486–488.
- Silfverberg, H. 1977.** Nomenclatoric notes on Coleoptera Polyphaga. *Notulae Entomologicae* 57:91–94.
- Skinner, H. 1903a.** Insects of Beulah, New Mexico, Coleoptera. *Transactions of the American Entomological Society* 29(1902):35–41.
- Skinner, H. 1903b.** Notes on Buprestidae (Coleoptera) with descriptions of new species. *Entomological News* 14:236–239, 1 plate.
- Slingerland, M. V. 1899.** *Proceedings of the 44th Annual Meeting of the Western New York Horticultural Society*, pp. 72–73.
- Slingerland, M. V. 1906.** The bronze birch borer: an insect destroying the white birch. *Cornell University, Agricultural Experiment Station of the College of Agriculture, Department of Entomology, Bulletin* 234, pp. 65–78.
- Slingerland, M. V. 1908.** *United States Department of Agriculture Yearbook for 1907*, p. 550.
- Slingerland, M. V. & C. R. Crosby. 1914.** *Manual of Fruit Insects*. First Edition, Macmillan, New York.
- Sloop, K. D. 1937.** A revision of the North American buprestid beetles belonging to the genus *Melanophila* (Coleoptera, Buprestidae). *University of California Publications in Entomology* 7(1):1–20, figs. 1–24.
- Slosson, A. T. 1894.** List of insects taken in the Alpine Reigon of Mt. Washington. *Entomological News* 5(1):1–6.
- Slosson, A. T. 1895.** Additional list of insects taken in alpine region of Mt. Washington. *Entomological News* 6(10):316–321.
- Slosson, A. T. 1897.** Additional list of insects taken in alpine region of Mt. Washington. *Entomological News* 8(10):237–240.
- Slosson, A. T. 1902.** Additional list of insects taken in alpine region of Mt. Washington. *Entomological News* 13(1):4–8 (1–6).
- Smith, D. N. 1962a.** Prolonged larval development in *Buprestis aurulenta* L. (Coleoptera: Buprestidae). A review with new cases. *The Canadian Entomologist* 94(6):586–593.
- Smith, D. N. 1962b.** A note on the longevity and behaviour of adult golden buprestids, *Buprestis aurulenta* L. (Coleoptera: Buprestidae) under artificial conditions. *The Canadian Entomologist* 94(6):672.
- Smith, D. R., C. Beeche & A. Marcos. 1999.** Notes on Chilean Orussidae (Hymenoptera) and a probable new host association. *Proceedings of the Entomological Society of Washington* 101(3):697–698.
- Smith, E. C., E. G. Kelly, G. A. Dean, H. R. Bryson & R. L. Parker. 1943.** Common Insects of Kansas. *Report of the Kansas State Board of Agriculture* 62(255):1–440.
- Smith, G. W. 1891.** A cherry-tree borer in Maine. *Insect Life* 4:422.
- Smith, J. B. 1884.** A note. *Bulletin of the Brooklyn Entomological Society* 7:76.
- Smith, J. B. 1887.** A voice from the wilderness. *Entomological Americana* 3(2):39.
- Smith, J. B. 1891a.** Notes on blackberry borers and gall-makers. *Insect Life* 4:27–30.
- Smith, J. B. 1891b.** Insects injurious to blackberry. *Special Bulletin N, New Jersey Experiment Station*, p. 15.
- Smith, J. B. 1892a.** Insects injurious to the blackberry. *Insect Life* p. 232.
- Smith, J. B. 1892b.** Notes on blackberry borers and gallmakers. *22nd Report, Entomological Society of Ontario*, pp. 52–54.

Bibliography

- Smith, J. B. 1892c.** Reprint of Bulletin N, 1891. *New Jersey Report, 13th Annual Report of the Entomologist.*
- Smith, J. B. 1892d.** *Garden & Forest* 5:456.
- Smith, J. B. 1892e.** Notes of the year in New Jersey. *Insect Life* 5:93–99.
- Smith, J. B. 1893.** *Annual Report, New Jersey State Board of Agriculture for 1893*, pp. 157–176.
- Smith, J. B. 1894a.** A new pear insect. *Insect Life* 7:189, 258–260.
- Smith, J. B. 1894b.** Untitled discussion in meeting of the Feldman Collecting Social. In T. H. Schmitz. (Ed.). Doings of Societies. *Entomological News* 5:311–312, 322–323.
- Smith, J. B. 1894c.** *Garden & Forest* 7:373–374.
- Smith, J. B. 1894d.** *Garden & Forest* 7:448.
- Smith, J. B. 1894e.** Notes of the year in New Jersey. *The Canadian Entomologist* 26(10):272.
- Smith, J. B. 1894f.** Imported pear borer (*A. sinuatus*). *15th Report, New Jersey Entomologist*, pp. 429–430, 550–561.
- Smith, J. B. 1895a.** *American Agriculturist*, Jan. 26, 55:85.
- Smith, J. B. 1895b.** *Entomological News* 6:196.
- Smith, J. B. 1895c.** The sinuate pear borer. *New Jersey Agriculture Experiment Station, Bulletin* 109, pp. 13–24.
- Smith, J. B. 1895d.** *New Jersey Agriculture Experiment Station, Entomology Report for 1894*, pp. 429–431, 550–561.
- Smith, J. B. 1896a.** Seventh annual meeting of the Association of Economic Entomologists. *26th Annual Report of the Entomological Society of Ontario for 1895*, pp. 67–70.
- Smith, J. B. 1896b.** *New Jersey Agriculture Experiment Station, Entomology Report for 1895*, pp. 368–372.
- Smith, J. B. 1900a.** *27th Annual Report, New Jersey State Board of Agriculture for 1899*, Supplement, p. 257.
- Smith, J. B. 1900b.** *Insects of New Jersey*. Supplement to 27th Annual Report of the State Board of Agriculture for 1899. MacCrellish & Quigley, Trenton, 755 pp., 2 maps.
- Smith, J. B. 1900c.** *New Jersey Experiment Station Circular* 314.
- Smith, J. B. 1901.** *New Jersey Agriculture Experiment Station, 21st Annual Entomology Report for 1900*, pp. 482–483 *Agrilus sinuatus*
- Smith, J. B. 1902a.** The entomologist's experiment orchard. Sinuate pear borer. *New Jersey Agriculture Experiment Station, Bulletin* 155, pp. 28–32.
- Smith, J. B. 1902b.** *New Jersey Agriculture Experiment Station, 22nd Annual Entomology Report for 1901*, pp. 484–485.
- Smith, J. B. 1910a.** Annual Report (1909) of the New Jersey State Museum Including a Report of the Insects of New Jersey. MacCrellish & Quigley, Trenton, New Jersey, pp. 290–297.
- Smith, J. B. 1910b.** *The Insects of New Jersey*, 3rd Edition. Annual Report, New Jersey State Museum for 1909. 888 pp.
- Smith, J. B. 1910c.** *New Jersey State Board of Agriculture, Report* 37, p. 188.
- Smith, J. B. 1911.** *Entomologists Report, New Jersey Agriculture Experiment Station for 1910*, p. 348.
- Smith, S. G. 1949.** Evolutionary changes in the sex chromosomes of Coleoptera. I. Wood borers of the genus *Agrilus*. *Evolution* 3(4):344–357.
- Smyth, E. G. 1934.** The gregarious habit of beetles. *Journal of the Kansas Entomological Society* 7(3):102–119.
- Snow, F. H. 1881.** List of the Coleoptera collected in Santa Fe Canon, New Mexico. *Transactions of the Kansas Academy of Science* 7:67–74.
- Snow, F. H. 1883.** List of Lepidoptera and Coleoptera, collected in New Mexico by the Kansas University scientific expeditions of 1881 and 1882. *Transactions of the Kansas Academy of Science* 8:35–58.
- Snow, F. H. 1904.** Lists of Coleoptera, Lepidoptera, Diptera and Hemiptera collected in Arizona by the entomological expeditions of the University of Kansas in 1902 and 1903. *Kansas University Science Bulletin* 2(2):323–350.
- Snow, F. H. 1907a.** Results of the entomological collecting expedition of the University of Kansas to Pima Country, Arizona, in June and July, 1906. *Transactions of the Kansas Academy of Science* 20(2):140–164.
- Snow, F. H. 1907b.** List of Coleoptera collected in New Mexico by the entomological expeditions of the University of Kansas. *Transactions of the Kansas Academy of Science* 20(2):165–189.
- Snyder, T. E. 1917.** Note on *Chrysobothris impressa*. *Journal of the New York Entomological Society* 25:136, 245.
- Snyder, T. E. 1919.** Injury to *Casuarina* trees in southern Florida by the mangrove borer. *Journal of Agri-*

- cultural Research* 16(6):155–163, 21 plates.
- Solier, A. J. J. 1833.** Essai sur les Buprestides. *Annales de la Société entomologique de France* 2:261–316, plates X–XII.
- Solier, A. J. J. 1849.** Orden III. Coleopteros. In C. Gay (Ed.) *Historica fisica y politica de Chile*, Volume 4, pp. 105–380, 414–511. [Pentamera, Heteromera I.]
- Solomon, J. D. 1995.** Guide to insect borers of North American broadleaf trees and shrubs. *Agriculture Handbook* 706, United States Department of Agriculture, Forest Service, Washington, D. C., 735 pp., 244 plates. [Buprestidae pp. 213–283]
- Somes, M. P. 1915.** Fruit tree pests. *Missouri Fruit Experiment Station, Bulletin* 25, pp. 13–14.
- Sowards, L. A., H. Schmitz, D. W. Tomlin, R. R. Naik & M. O. Stone. 2001.** Characterization of beetle *Melanophila acuminata* (Coleoptera: Buprestidae) infrared pit organs by high-performance liquid chromatography/mass spectrometry, scanning electron microscope, and Fourier transform-infrared spectroscopy. *Annals of the Entomological Society of America* 94:686–694.
- Spencer, G. C. 1930.** Insects emerging from perpared lumber in buildings. *Proceedings of the Entomological Society of British Columbia* 1930:6–10.
- Spencer, G. C. 1958.** The insects attacking structural timbers and furniture in homes in coastal British Columbia. *Proceedings of the Entomological Society of British Columbia* 1958:8–13.
- Spicer, A. W. 1923.** *Tree Talk* 5:21.
- Spinola, M. 1837.** Lettre adressé à la *Société entomologique de France*, sur un groupe de Buprestides. *Annales de la Société entomologique de France* (1) 6:101–122.
- Spinola, M. 1838.** Essai sur les espèces des genres *Steraspis* et *Acmaeodera*, famille des Buprestides, ordre des Coléoptères. *Annales de la Société entomologique de France* (1) 7:303–394.
- Sprague, P. S. & E. P. Austin. 1875.** On the species of Coleoptera described by Randall. *Proceedings of the Boston Society of Natural History* 17:373–385.
- Stace Smith, G. 1929.** Coleoptera (of Copper Mountain, British Columbia). *Museum and Art Notes* 4:69–74.
- Staig, R. A. 1940.** *The Fabrician types of Insects in the Hunterian collection at Glasgow University. Coleoptera*, Part II. Cambridge, x + 164 pp.
- Stein, J. P. E. F. 1868.** *Catalogus Coleopterorum Europae. Friderici Nicolai, Berolini.* iv, 149 pp.
- Sternitsky, R. F. 1913.** “Report on two collecting trips to Lake Tahoe. “In Report of the 47th meeting of the Society. *Proceedings of the Pacific Coast Entomological Society*, [1:2].
- Stevenson, C. 1905.** Notes of the season. *Report, Entomological Society of Ontario*, pp. 91–92.
- Stoner, D. 1915.** Notes on two beetles reared from dead *Wistaria* sticks (Col.). *Entomological News* 26:126–127.
- Story, R. N. & W. H. Robinson. 1979.** Biological control potential of *Taphrocerus schaefferi* (Coleoptera: Buprestidae), a leaf miner of yellow nutsedge. *Environmental Entomology* 8(6):1088–1091.
- Story, R. N., W. H. Robinson, R. C. Pienkowski & L. T. Kok. 1979.** The biology and immature stages of *Taphrocerus schaefferi*, a leaf-miner of yellow nutsedge. *Annals of the Entomological Society of America* 71(1):43–98.
- Stromberg, C. W. 1894.** Notes on Coleoptera. *The Canadian Entomologist* 26:36–37.
- Strinson, J. T. 1895.** Insects injurious to fruit and vegetables. The flat-headed borers. *Arkansas Experiment Station Bulletin* 33:71–72.
- Sturm, J. 1826.** *Catalog meiner Insecten - Sammlung.* Erster Theil. Käfer. Nürnberg, VIII, pp, 207 pp, 4 color plates.
- Swaine, J. M. 1911a.** Insect notes from Ste. Annes. *41st Report, Entomological Society of Ontario for 1910*, pp. 88–99.
- Swaine, J. M. 1911b.** An outline for the control of garden and orchard insects of Quebec. *3rd Report, Quebec Society for the Protection of Plants*, p. 91.
- Swaine, J. M. 1913a.** Some insect enemies of shade trees. *5th Report, Quebec Society for the Protection of Plants*, pp. 43–59.
- Swaine, J. M. 1913b.** Notes on some forest insects of 1912. *43rd Report, Entomological Society of Ontario*, pp. 87–91.
- Swaine, J. M. 1914.** Insects and the forest. *6th Report, Quebec Society for the Protection of Plants from Insects and Fungi*, pp. 53–56.
- Swaine, J. M. 1915.** Shade tree insects of Quebec. *7th Report, Quebec Society for the Protection of Plants from Insects and Fungi*, pp. 106–107.
- Swaine, J. M. 1917.** Some features of interest in connection with our studies of forest and shade tree insects. *47th Report, Entomological Society of Ontario for 1916*, pp. 95–107.

Bibliography

- Swaine, J. M. 1918.** A new forest insect enemy of white birch. *Canadian Forestry Journal* 14(10):1928–1929.
- Swaine, J. M. 1919.** 11th Report, Quebec Society for the Protection of Plants from Insects and Fungi (1918–1919), pp. 46–48
- Swaine, J. M. 1919.** Report of Canadian Arctic Expedition 1913–18, Volume 3, part E. Forest Insects, pp. 12E–13E.
- Tanner, V. M. 1927.** A preliminary study of the genitalia of female Coleoptera. *Transactions of the American Entomological Society* 53(2):5–50, plates II–XV.
- Tanner, V. M. 1928.** The Coleoptera of Zion National Park, Utah. *Annals of the Entomological Society of America* 21(2):269–279.
- Tanner, V. M. 1934.** The Coleoptera of Zion National Park. No. II. *Annals of the Entomological Society of America* 27(1):43–49.
- Thatcher, T. O. 1948.** A new locality record of *Xenorhipis osborni* Knull, with notes on host and work (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 24(1):32–33.
- Théry, A. 1914.** Buprestides nouveaux d'Égypte. *Bulletin de la Société Royale entomologique de Egypte* 1914(2) (1912):129–132.
- Théry, A. 1923.** Descriptions de nouvelles espèces de Buprestides. *Annali del Museo Civico di Storia Naturale di Genova* 51:109–113.
- Théry, A. 1926a.** Recherches synonymiques sur les Buprestides et descriptions d'espèces nouvelles. *Bulletin et Annales de la Société entomologique de Belgique* 66(1–2):33–74.
- Théry, A. 1926b.** Recherches synonymiques sur les Buprestides et descriptions d'espèces nouvelles. *Bulletin et Annales de la Société entomologique de Belgique* 66(4):149–182.
- Théry, A. 1929.** Description de buprestides nouveaux de la faune égyptienne et remarques synonymiques. *Bulletin de la Société Royale entomologique d'Égypte, n. ser.*, 13:111–145, illus.
- Théry, A. 1930.** Études sur les Buprestides de l'Afrique du nord. *Mémoires de la Société des Sciences Naturelles du Maroc* 19(1928):1–586.
- Théry, A. 1931.** Quelques considérations sur la repartition géographique des Buprestides. *Compte Rendu. Sommaire des Séances de la Société Biogéographie* 8(68):60–62.
- Théry, A. 1935.** Note sur les Buprestides du Muséum de Leiden. *Zoologische Mededeelingen* 18:241–256, figs. 1–3.
- Théry, A. 1942.** Coléoptères Buprestides. *Faune de France* 41, 223 pp., figs. 1–149.
- Théry, A. 1945.** Notes diverses sur les Buprestidae de la faune française et rectifications synonymiques. *Miscellanea Entomologica* (Supplement)(1943), 83 pp.
- Thomas, C. 1876.** The borers, pp. 33–38. The Buprestidae, pp. 109–114. *6th Report, Illinois Entomologist*.
- Thomson, C. G. 1864.** *Skandinavians Coleoptera*, synoptiski bearbetade, Volume 6, Lundbergiska Boktryckeriet, Lund, 385 pp.
- Thomson, J. 1857a.** Description d'un genre nouveaux de la famille des Buprestides. *Archives Entomologiques* 1:168.
- Thomson, J. 1857b.** Art. 2. Fragment anatomique sur le canal digestif du *Dicerca aenea*. *Archives Entomologiques* 1:377.
- Thomson, J. 1878.** *Typi Buprestidarum Musaei Thomsoniani*. E. Deyrolle, Paris, 103 pp.
- Tilden, J. W. 1946.** An occurrence of *Schizopus* in Monterey County, California. *The Pan-Pacific Entomologist* 22(2):60.
- Tilden, J. W. 1951.** Notes on *Chrysobothris bacchari* Van Dyke (Buprestidae). *The Coleopterists Bulletin* 5(1):1–3.
- Tilden, J. W. 1955.** Collecting *Acmaeodera* in Santa Clara County, California. *The Coleopterists Bulletin* 9(2):23–25.
- Timberlake, P. H. 1939.** Two new species of *Acmaeodera* from California (Coleoptera, Buprestidae). *The Pan-Pacific Entomologist* 15(4):179–182.
- Tinkham, E. R. 1941.** Biological and faunistic notes on the Cicadidae of the Big Bend Region of Trans-Pecos Texas. *Journal of the New York Entomological Society* 49:165–183.
- Townsend, C. H. T. 1885a.** Notes on some Coleoptera taken in South Louisiana. *Psyche* 4(126–129) (1884):219–222.
- Townsend, C. H. T. 1885b.** A list of Coleoptera collected in Louisiana on or south of parallel 30°. *The Canadian Entomologist* 17:66–73.
- Townsend, C. H. T. 1885c.** Notes on *Acmaeodera pulchella*. *The Canadian Entomologist* 17:231–232.
- Townsend, C. H. T. 1889.** Contribution to a list of the Coleoptera of the Lower Peninsula of Michigan.

- Psyche* 5(160–164):231–235.
- Townsend, C. H. T. 1893a.** Biologic Notes on New Mexico Insects. *Insect Life* 5(1892):37–40.
- Townsend, C. H. T. 1893b.** Some notes on Michigan insects, principally Coleoptera, affecting forest trees. *The Canadian Entomologist* 25:201–204.
- Townsend, C. H. T. 1895.** On the Coleoptera of New Mexico and Arizona, including biologic and other notes. *The Canadian Entomologist* 27:39–51.
- Townsend, C. H. T. 1902.** Contribution to a knowledge of the Coleopterous fauna of the lower Rio Grande Valley in Texas and Tamaulipas, with biological notes and special reference to geographical distribution. *Transactions of the Texas Academy of Science* 5:51–101.
- Tôyama, M. 1983.** The buprestid beetles of the subfamily Mastogeninae from the Oriental region (Coleoptera, Buprestidae). *Entomological Review of Japan* 38(1):55–64.
- Tôyama, M. 1986.** The buprestid genus *Chalcophorella* Kerremans and its related genera. *Entomological Papers Presented to Yoshihiko Kurosawa on the Occasion of his Retirement*, March 20, 1986, pp. 188–193.
- Tôyama, M. 1987.** The systematic positions of some buprestid genera (Coleoptera, Buprestidae). *Elytra* 15(1/2):1–11.
- Traet, M. 1889.** Apple tree borer, p. 144; *Agrilus ruficollis*, p. 213. *Injurious insects of Farm and Garden*.
- Tucker, E. S. 1906.** Determinations of some Texas Coleoptera, with records. *Entomological News* 17(1):10–14.
- Turnbow, R. H. & R. T. Franklin. 1981.** Bionomics of *Brachys tessellatus* in coastal plain scrub oak communities. *Annals of the Entomological Society of America* 74(4):351–358, figs. 1–5.
- Twinn, C. R. 1934.** A summary of insect conditions in Canada in 1933. 64th *Annual Report of the Entomological Society of Ontario for 1933*, pp.62–80.
- Twinn, C. R. 1936.** A summary of insect conditions in Canada in 1935. 66th *Annual Report of the Entomological Society of Ontario for 1935*, pp.80–95.
- Twinn, C. R. 1937.** A summary of insect pest situations in Canada in 1936. 67th *Annual Report of the Entomological Society of Ontario for 1936*, pp.73–87.
- Twinn, C. R. 1938.** A summary of insect pest situations in Canada in 1937. 68th *Annual Report of the Entomological Society of Ontario for 1937*, pp.72–86.
- Twinn, C. R. 1939.** A summary of insect pest situation in Canada in 1938. 69th *Annual Report of the Entomological Society of Ontario for 1938*, pp. 121–134.
- Twinn, C. R. 1940.** A summary statement in regards to some of the more important insect pests in Canada in 1939. 70th *Annual Report of the Entomological Society of Ontario for 1939*, pp. 115–125.
- Twinn, C. R. 1941.** A summary statement concerning some of the more important insect pests in Canada in 1940. 71th *Annual Report of the Entomological Society of Ontario for 1940*, pp. 53–61.
- Twinn, C. R. 1943.** A summary of the more important crop pests in Canada in 1942. 73rd *Annual Report of the Entomological Society of Ontario for 1942*, pp. 64–70.
- Uhler, P. R. 1855.** Descriptions of a few species of Coleoptera supposed to be new. *Proceedings of the Academy of Natural Science of Philadelphia* 7:415–418.
- Ulke, H. 1875a.** Report upon the collections of Coleoptera made in portions of Nevada, Utah, California, Colorado, New Mexico, and Arizona during the years 1871, 1872, 1873, and 1874. *In Report upon geographical and geological explorations and survey west of the One hundredth meridian, in charge of First Lieut. Geo. M. Wheeler.* 5(Zoology):811–827, Illus. Washington.
- Ulke, H. 1875b.** List of species of Coleoptera, collected by Lieut. W. L. Carpenter, United States Army, for the United States Geological Survey of Colorado, 1873, pp. 567–570. *In: Carpenter, W. L., Lieut. Reports of the Zoological Collections made in Colorado during the summer of 1873.* Department of the Interior, United States Geological Survey, part III Zoology, Washington, pp. 537–623.
- Ulke, H. 1902.** A list of the Beetles of the District of Columbia. *Proceedings of the United States National Museum* 25(1275):1–57.
- USDA. 1975.** Cooperative Economic Insect Report. Plant Protection and Quarantine Programs, Animal and Plant Health Inspection Service, U. S. Department of Agriculture 25(21):415.
- USDA. 1985.** Insects of eastern forests. *United States Department of Agriculture, Miscellaneous Publications* No. 1426:1–608.
- Valenti, M. A., G. T. Ferrel & A. A. Berryman. 1997.** Insects and related arthropods associated with greenleaf manzanita in montane chaparral communities of northeastern California. *United States Department of Agriculture, Forest Service, General Technical Report* PSW–GTR–167, pp. 1–26.
- Van Duzee, E. P. 1919.** Note on collecting about lumber mills at McCloud, California. *In report of the 69th*

Bibliography

- meeting of the Pacific Coast Entomological Society. *Proceedings of the Pacific Coast Entomological Society* [1:2].
- Van Duzee, E. P. 1923a.** Note on *Trachykele*. *Guide to Nature* 16:44.
- Van Duzee, E. P. 1923b.** An entomological antique. *Science* (N.S.) 57(1470):269.
- Van Duzee, E. P. 1924.** Note on *Trachykele opulenta*. In Report of the 87th meeting of the Society. *Proceedings of the Pacific Coast Entomological Society* 2(2)(1923):21.
- Van Dyke, E. C. 1902a.** Notes upon the Buprestidae of California. *Journal of the New York Entomological Society* 10:172–173.
- Van Dyke, E. C. 1902b.** The faunal areas in California as seen by a field coleopterist. *Entomological News* 13:199–201.
- Van Dyke, E. C. 1916.** New species of Buprestidae (Col.) from the Pacific States with notes concerning a few others. *Entomological News* 27(9):405–412.
- Van Dyke, E. C. 1918a.** New species of Buprestidae (Col.) from the Pacific States—No. 2. *Entomological News* 29(2):53–58.
- Van Dyke, E. C. 1918b.** A note on *Acmaeodera cubaecola*. *Journal of the New York Entomological Society* 26:229.
- Van Dyke, E. C. 1919a.** The distribution of insects in western North America. *Annals of the Entomological Society of America* 12(1):1–12.
- Van Dyke, E. C. 1919b.** New species of Buprestidae (Col.) from western United States with supplementary notes concerning others. *Entomological News* 30(6):151–156.
- Van Dyke, E. C. 1919c.** New species of Buprestidae (Col.) from western United States with supplementary notes concerning others. *Entomological News* 30(7):186–190, 1 plate.
- Van Dyke, E. C. 1923.** New species of Coleoptera from California. *Bulletin of the Brooklyn Entomological Society* 18(2):37–52.
- Van Dyke, E. C. 1924a.** Notes on collecting in Eastern Oregon. In Report of the 86th meeting of the Society. *Proceedings of the Pacific Coast Entomological Society* 2(2):18.
- Van Dyke, E. C. 1924b.** Coleoptera collected by the Kalamai Expedition. *National Geographic Society, Technical Papers* 2(1):1–26.
- Van Dyke, E. C. 1926a.** Habits of *Trachykele nimbosa* Fall. *The Pan-Pacific Entomologist* 2(3):126.
- Van Dyke, E. C. 1926b.** Buprestid swarming. *The Pan-Pacific Entomologist* 3(1):41.
- Van Dyke, E. C. 1926c.** Note on collecting in Oregon and Washington. In Report of the 100th meeting of the Society. *Proceedings of the Pacific Coast Entomological Society* 2(5):70–72.
- Van Dyke, E. C. 1926d.** New Species of Buprestidae (Col.) from the Western United States, with supplementary notes concerning others. *Entomological News* 30:186–190.
- Van Dyke, E. C. 1927.** Uncommon Buprestidae. *The Pan-Pacific Entomologist* 4(2):95.
- Van Dyke, E. C. 1928.** Note on *Melanophila consputa* Lec. *The Pan-Pacific Entomologist* 4(3):113.
- Van Dyke, E. C. 1932.** Peculiarities of the coleopterous fauna of the semiarid southwestern North America. *Proceedings of the Fifth International Congress of Entomology* pp. 471–477.
- Van Dyke, E. C. 1934.** New species of Buprestidae (Coleoptera) with notes concerning others. *Entomological News* 45:61–66; 89–91.
- Van Dyke, E. C. 1937.** Notes and descriptions of North American Buprestidae and Cerambycidae (Coleoptera). *Bulletin of the Brooklyn Entomological Society* 32(3):105–116.
- Van Dyke, E. C. 1939.** An ancient beetle (note). *The Pan-Pacific Entomologist* 15(4):154.
- Van Dyke, E. C. 1942.** Contribution towards a knowledge of the insect fauna of Lower California, no. 3. Coleoptera, Buprestidae. *Proceedings of the California Academy of Sciences* (4th series) 24(3):97–132, plates 6, 7.
- Van Dyke, E. C. 1943.** Additional new species of Western American Coleoptera. *The Pan-Pacific Entomologist* 19(3):101–108.
- Van Dyke, E. C. 1945.** New species of North American Coleoptera. *The Pan-Pacific Entomologist* 21(3):101–109.
- Van Dyke, E. C. 1946.** New Species of North American Coleoptera. *The Pan-Pacific Entomologist* 22(3):81–89.
- Van Dyke, E. C. 1949.** New Species of North American Coleoptera. *The Pan-Pacific Entomologist* 25(2):49–56.
- Van Dyke, E. C. 1953a.** The Coleoptera of the Galapagos Islands. *Occasional Papers of the California Academy of Sciences* 22:1–181.
- Van Dyke, E. C. 1953b.** New Coleoptera from Western North America (Carabidae, Melasidae, Buprestidae).

- dae, Curculionidae). *The Pan-Pacific Entomologist* 29(2):102–107.
- Van Pelt, A. F. 1999.** *Inventory of insects of Big Bend National Park, Texas*. Big Bend Natural History Association, Big Bend National Park, Texas. 119 pp.
- Velten, R. K. & C. L. Bellamy. 1987.** A new genus and species of Corobini Bedel from Southern California with a discussion of its relationships in the tribe (Coleoptera, Buprestidae). *The Coleopterists Bulletin* 41(2):185–192, figs. 1–11.
- Verity, D. S. 1978.** A new species of *Hippomelas* (Coleoptera: Buprestidae) from southeastern California and Baja California. *The Coleopterists Bulletin* 32(2):161–165.
- Villalón, M. L., P. Reyes–Castillo, G. Sánchez–Ramos & L. Hernández Sandoval. 1997.** *Thrincopyge alacris* LeConte, borer of the inflorescences of ponytail palm, *Beaucarnea recuvata* Lem. (Nolinaceae) in Tamaulipas, México. *The Coleopterists Bulletin* 51(1):21.
- Vodran, T., K. H. Apel & H. Schmitz. 1995.** The infrared receptor of *Melanophila acuminata* Degeer. (Coleoptera: Buprestidae): Ultrastructure study of a unique insect thermoreceptor and its possible descent from a hair mechanoreceptor. *Tissue and Cell* 27:645–658.
- Vogt, G. B. 1949a.** Five new species of Buprestidae from southern Texas (Coleoptera). *Annals of the Entomological Society of America* 42(1):48–54, figs. 1–10.
- Vogt, G. B. 1949b.** A biologically annotated list of the Buprestidae of the Lower Rio Grande Valley, Texas. *Annals of the Entomological Society of America* 42(2):191–202, fig. 1.
- Volkovitsh, M. G. 1979.** Obzor palearkticheskikh grupp zlatok tribu Acmaeoderini (Coleoptera, Buprestidae). [A review of Palearctic groups of the tribe Acmaeoderini (Coleoptera, Buprestidae)]. *Entomologicheskoe Obozrenie* 58(2):333–354. [in Russian] [English translation: *Entomological Review* 58(2) (1980):78–99.]
- Volkovitsh, M. G. 1990.** Stroeniye i taksonomicheskoye znacheniye antennal'nykh sensill i sensorykh obrazovaniy zlatok (Coleoptera, Buprestidae). [The structure and taxonomic significance of antennal sensilla and sensory formations in buprestid-beetles (Coleoptera, Buprestidae)]. In G. S. Medvedev & B. A. Korotyaev (Eds.). *Uspekhi entomologii v SSSR: zhestkokrylye nasekomye. Materialy X s"ezda Vsesoyuznogo Entomologicheskogo Obshchestva*, 11–15 sentyabrya 1989, Leningrad pp. 27–30. [in Russian]
- Volkovitsh, M. G. 2001.** The comparative morphology of antennal structures in Buprestidae (Coleoptera): evolutionary trends, taxonomic and phylogenetic implications. Part 1. *Acta Musei Moraviae, Scientiae biologicae* (Brno) 86:43–169.
- Volkovitsh, M. G. 2006.** New nomenclatorial and taxonomic acts, and comments. Buprestidae: Polycestinae and Buprestinae. pp. 56–8; Catalogue. Buprestidae: Polycestinae. pp. 330–342. In: I. Löbl & A. Smetana (Eds): *Catalogue of Palearctic Coleoptera*. Volume 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea. Apollo Books, Stenstrup, 690 pp.
- Volkovitsh, M. G. & T. J. Hawkeswood. 1999.** The larva of *Prospheres aurantiopicta* (Laporte & Gory) with comments on the larval characteristics of polycestoid taxa (Insecta, Coleoptera, Buprestidae). *Mauritiana* (Altenburg) 17(2):295–314, Table.
- Volkovitsh, M. G. & M. Yu. Kalashian. 1998.** A new species of *Sphaerobothris* Semenov & Richter from Armenia (Coleoptera, Buprestidae). *Zoosystematica Rossica* 7(2):307–310.
- Volkovitsh, M. G. & M. Yu. Kalashian. 2002.** Type species designations for *Sphenoptera* Dejean and *Rhaphidochila* Jakovlev (Coleoptera: Buprestidae). *Zoosystematica Rossica* 11(1):166.
- Volkovitsh, M. G. & M. Y. Kalashian. 2006.** New nomenclatorial and taxonomic acts, and comments. Buprestidae: Chrysochroinae: Sphenopterini. pp. 53–56; Catalogue. Buprestidae: Chrysochroinae: Sphenopterini. pp. 352–369. In: I. Löbl & A. Smetana (Eds): *Catalogue of Palearctic Coleoptera*. Volume 3. Scarabaeoidea – Scirtoidea – Dascilloidea – Buprestoidea – Byrrhoidea. Apollo Books, Stenstrup, 690 pp.
- Walker, F. 1866.** In J. K. Lord. *The naturalist in Vancouver Island and British Columbia*, Volume 2, appendix, order Coleoptera. Richard Bentley, London, pp. 312–334.
- Wallace, G. V. 1922.** Note on Coleoptera taken in Marin Co., California. *Proceedings of the Pacific Coast Entomological Society* 2(1):3.
- Wallace, G. V. 1924.** Collecting notes. *Proceedings of the Pacific Coast Entomological Society* 2(2):15.
- Walters, G. C., Jr. 1975.** Notes on the distribution and biology of certain Buprestidae (Coleoptera): part I. *The Coleopterists Bulletin* 29(2):69–70.
- Walters, G. C., Jr. 1978.** Notes on the distribution and biology of certain Buprestidae and Cerambycidae (Coleoptera): part II. *The Coleopterists Bulletin* 32(4):355–356.
- Walters, G. C., Jr. 1982.** A new species of *Anambodera* (Coleoptera: Buprestidae) from southern California.

Bibliography

- The Coleopterists Bulletin* 36(2):180–182.
- Walters, G. C., Jr. & C. L. Bellamy. 1982.** Notes on the distribution and biology of certain Buprestidae (Coleoptera):part III. *The Coleopterists Bulletin* 36(2):218–220.
- Walters, G. C., Jr. & C. L. Bellamy. 1990.** Notes on the distribution and biology of certain southwestern Buprestidae (Coleoptera):part iv. *The Coleopterists Bulletin* 44(1):113–115.
- Walters, G. C. Jr., R. L. Westcott, S. G. Wellso, J. M. Cicero, T. C. MacRae & C. L. Bellamy 2006.** G. H. Nelson (1926–2005) Biography and Memories. *The Pan-Pacific Entomologist* 82(2):116–135.
- Ward, C. R., C. W. O'Brien, L. B. O'Brien, D. E. Foster & E. W. Huddleston. 1977.** Annotated checklist of the New World insects associated with *Prosopis* (mesquite). *United States Department of Agriculture Technical Bulletin* 1557, pp. 1–115.
- Washburn, F. L. 1890.** The flat-headed apple tree borer. *Oregon Experiment Station, Bulletin* No. 5, p. 10.
- Washburn, F. L. 1892.** Insects injurious to young fruit trees. *Oregon Experiment Station, Bulletin* No. 18, p. 10.
- Washburn, F. L. 1895.** Work with a combined fungicide and insecticide. *Oregon Experiment Station, Bulletin* No. 38, pp. 7, 21.
- Washburn, F. L. 1904a.** Injurious insects of 1903. *University of Minnesota Experiment Station Bulletin* No. 84, pp. 55, 82.
- Washburn, F. L. 1904b.** *A. ruficollis*. *University of Minnesota Experiment Station Bulletin* No. 88, p. 51.
- Washburn, F. L. 1906.** *United States Department of Agriculture Yearbook*, p. 515.
- Washburn, F. L. 1907.** *United States Department of Agriculture Yearbook*, p. 550.
- Washburn, F. L. 1908a.** *Minnesota Agriculture Experiment Station, (Press) Bulletin* 33:9–10.
- Washburn, F. L. 1908b.** *12th Report, Minnesota State Entomologist*, pp. 98–99.
- Washburn, F. L. 1908c.** *United States Department of Agriculture Yearbook*, p. 574–578.
- Washburn, F. L. 1912a.** *14th Report, Minnesota State Entomologist*, p. 55, Figures 35–57.
- Washburn, F. L. 1912b.** Untitled note. *Journal of Economic Entomology* 5:180.
- Washburn, F. L. 1914.** *Minnesota Circular* No. 29.
- Washburn, F. L. 1918.** *Injurious Insects and Useful Birds. Successful Control of Farm Pests*. Lippincott Farm Manuals, J.B. Lippincott Company, 453 pp.
- Waterhouse, C. O. 1882.** *Biologia Centrali-Americana*, Insecta, Coleoptera, Buprestidae, Volume 3, part 1, pp. 1–32, plates i–ii.
- Waterhouse, C. O. 1887a.** *Biologia Centrali-Americana*, Insecta, Coleoptera, Buprestidae, Volume 3, part 1, pp. 33–48, plate iii.
- Waterhouse, C. O. 1887b.** New genera and species of Buprestidae. *The Transactions of the Entomological Society of London* 1887(2):177–184.
- Waterhouse, C. O. 1889.** *Biologia Centrali-Americana*, Insecta, Coleoptera, Buprestidae, Volume 3, part 1, pp. 49–166, platesiv–viii and Supplement, pp. 167–193.
- Waterhouse, C. O. 1890a.** *Biologia Centrali-Americana*, Insecta, Coleoptera, Buprestidae, Supplement, Volume 3, part 1, p. 193, plate ix.
- Waterhouse, C. O. 1890b.** Description of two new Central–American Buprestidae. *The Annals and Magazine of Natural History* (6) 5:218–219.
- Waterhouse, C. O. 1897.** *Biologia Centrali-Americana*, Insecta, Coleoptera, Appendix to Buprestidae, Volume 3, pt. 1, pp. 663–670.
- Watson, J. R. 1911.** A contribution to the study of ecological distribution of animal life in New Mexico, with especial attention to insects. *Natural Resources of New Mexico*, pp. 67–117.
- Watson, J. R. 1923.** The pecan and persimmon borer. *Florida Plant Board Quarterly*, Volume 8(1):17–18.
- Watts, J. G., D. R. Liesner & D. L. Lindsey. 1977.** Salt cedar – a potential target for biological control. *New Mexico Agriculture Experiment Station, Bulletin* 650, pp. 1–28.
- Weber, F. 1801.** Observationes entomologicae, continentes novorum quae condidit generum characteres, et nuper detectarum specierum descriptiones. Kiliae, Universit. Buchh. pp. 12 + 116.
- Webster, F. M. 1889.** Apple tree borers. *Ohio Agricultural Experiment Station* 2(1):4.
- Webster, F. M. 1892.** Insects affecting the blackberry and raspberry. *Ohio Agricultural Experiment Station* 45, pp. 191–193.
- Webster, F. M. 1894a.** Insects of the year. *Insect Life* 7:202–207.
- Webster, F. M. 1894b.** *Ohio Agricultural Experiment Station* No. 58, pp. 29–30.
- Webster, F. M. 1894c.** *Ohio Farmer*, May 3, p. 357.
- Webster, F. M. 1897.** The chinch bug and other destructive insects. *Ohio Agricultural Experiment Station, Bulletin* 77, pp. 42–45.

- Webster, F. M. & W. Newell. 1902.** Insects of the year in Ohio. *United States Department of Agriculture, Division of Entomology*, Bulletin No. 31, pp. 84–90.
- Weed, C. M. 1888.** Spring and summer treatment of apple orchards to prevent insect injury. *Ohio Agricultural Experiment Station 3* (2nd Series), pp. 26–38.
- Weiss, H. B. 1914a.** Notes on three imported insects occurring in New Jersey. *Journal of Economic Entomology* 7:250–251.
- Weiss, H. B. 1914b.** *Agrius politus* Say infesting roses. *Journal of Economic Entomology* 7:438–440.
- Weiss, H. B. 1915a.** Some recent insect importations into New Jersey. *Journal of Economic Entomology* 8:133–135.
- Weiss, H. B. 1915b.** Addition to insects of New Jersey. *Entomological News* 26(3):101–107.
- Weiss, H. B. 1916a.** Foreign pests recently established in New Jersey. *Journal of Economic Entomology* 9:212–216.
- Weiss, H. B. 1916b.** Doings of Societies. *Entomological News* 27:287.
- Weiss, H. B. 1916c.** *Agrius viridis* L. in New Jersey (Col.). *Entomological News* 27:426.
- Weiss, H. B. 1918.** Unusual nursery insects. *New Jersey Department of Agriculture, Bureau of Statistics and Inspection, Circular* 24, pp. 5–8.
- Weiss, H. B. 1920a.** Notes on the food habits of *Brachys*. *New Jersey Department of Agriculture, Bureau of Statistics and Inspection, Circular* 31, p. 9.
- Weiss, H. B. 1920b.** Miscellaneous nursery insects. *New Jersey Department of Agriculture, Bureau of Statistics and Inspection, Circular* 31, pp. 1–19.
- Weiss, H. B. 1921a.** A bibliography on fungous insects and their hosts. *Entomological News* 32:45–47.
- Weiss, H. B. 1921b.** A few insects injurious to ornamental plants. *New Jersey Department of Agriculture, Bureau of Statistics and Inspection, Circular* 36, pp. 1–15.
- Weiss, H. B. 1954.** *Trachys pygmaea* (Fab.) the hollyhock leaf miner in New Jersey (Col.:Buprestidae). *Entomological News* 65(9):230–232.
- Weiss, H. B. & E. L. Dickerson. 1919.** Insects of the swamp rose mallow, *Hibiscus moscheutos* L. in New Jersey. *Journal of the New York Entomological Society* 27:39–68, 3 plates (x–xii).
- Weiss, H. B. & A. S. Nicolay. 1918.** Notes on *Closterocerus cinctipennis* Ashm. in New Jersey. *Psyche* 25:128–130.
- Weiss, H. B. & A. S. Nicolay. 1919.** Notes on the life–history and early stages of *Brachys ovatus* and *B. aerosus*. *The Canadian Entomologist* 51:86–88.
- Weiss, H. B. & E. West. 1920.** Fungous insects and their hosts. *Proceedings of the Biological Society of Washington* 33:1–20.
- Weiss, H. B. & E. West. 1922.** Notes on the *Desmodium* leaf miners *Pachyschelus laevigatus* Say. *Entomological News* 3:180–183, fig. 1.
- Wellhouse, W. H. 1922.** The insect fauna of the genus *Crataegus*. *Cornell Agriculture Experiment Station, Memior* 56:1040–1136.
- Wellso, S. G. 1966.** Sexual attraction and biology of *Xenorhipis brendeli* (Coleoptera: Buprestidae). *Journal of the Kansas Entomological Society* 39(2):242–245, fig. 1.
- Wellso, S. G. 1974.** A new species of *Anthaxia* with notes on other buprestids (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 27(4)(1973):165–168, figs. 1–3.
- Wellso, S. G. & J. A. Jackman. 1995.** The first record of *Aphanisticus cochinchinae seminulum* Obenberger (Coleoptera: Buprestidae), a potential sugarcane pest in the Western Hemisphere. *The Coleopterists Bulletin* 49(3):287–288, fig. 1.
- Wellso, S. G. & J. A. Jackman. 2006.** A new species of *Anthaxia* (*Haplantaxia*) Reitter (Coleoptera Buprestidae) and new North American buprestid distributional and host records. *The Pan-Pacific Entomologist* 82(2):262–268, fig. 1.
- Wellso, S. G. & G. V. Manley. 2007.** A revision of the *Chrysobothris femorata* (Olivier, 1790) species group from North America, north of Mexico (Coleoptera: Buprestidae). *Zootaxa* 1652:1–26.
- Wellso, S. G., G. V. Manley & J. A. Jackman. 1976.** Keys and notes on the Buprestidae (Coleoptera) of Michigan. *The Great Lakes Entomologist* 9(1):1–22, figs. 1–11.
- Wenzel, H. W. 1906.** [Notes on Coleoptera on Tybee Island, Georgia]. *Entomological News* 17:38.
- Wenzel, H. W. 1908.** [A note on *B. decora*.] *Entomological News* 19:343.
- Wenzel, H. W. 1909.** [A note on *B. ultramarina*.] *Entomological News* 20(1):45.
- West, A. S., Jr. 1947.** The California flatheaded borer (*Melanophila californica* Van Dyke) in ponderosa pine stands of northeastern California. *Canadian Journal of Research (D)* 25:97–118, figs. 1–10.
- Westcott, R. L. 1971a.** Five new species of *Acmaeodera* (Coleoptera: Buprestidae) from the Southwestern

Bibliography

- United States and Baja California. *Los Angeles County Museum, Contributions in Science* 209:1–19, figs. 1–15.
- Westcott, R. L. 1971b.** A new species of sculptured, conifer-inhabiting *Chrysobothris* from Nevada and California (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 25(4):131–136, figs. 1–5.
- Westcott, R. L. 1983.** Revision of the *areola* group of *Chrysobothris* (Coleoptera: Buprestidae). *Systematic Entomology* 8:339–359, figs. 1–35.
- Westcott, R. L. 1987.** Review of: D. E. Bright. 1987. The metallic wood-boring beetles of Canada and Alaska (Coleoptera: Buprestidae). The insects and arachnids of Canada. Part 15. Agriculture Canada Research Branch Publication 1810:1–335. *The Coleopterists Bulletin* 41(4):404–405.
- Westcott, R. L. 1990a.** Notes on taxonomy, ecology and distribution for some species of *Chrysobothris* Eschscholtz occurring in the United States (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 44(3):323–343.
- Westcott, R. L. 1990b.** A new synonym in *Mastogenius* Solier (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 66(3):256–257.
- Westcott, R. L. 1991.** Distributional, biological, and taxonomic notes on North American Buprestidae. *Insecta Mundi* 4(1–4)(1990):73–89.
- Westcott, R. L. 1993.** Comments on the proposed conservation of usage of *Buprestis* Linnaeus, 1758 and *Chrysobothris* Eschscholtz, 1829 (Insecta, Coleoptera) by the designation of *B. octoguttata* Linnaeus, 1758 as the type species of *Buprestis*. *Bulletin of Zoological Nomenclature* 50(3):231.
- Westcott, R. L. 1995.** Frank M. Beer (1903–1991). *The Coleopterists Bulletin* 49(1):96–97.
- Westcott, R. L. 2000.** Four new species of *Paratyndaris* Fisher from Baja California Sur, Mexico (Coleoptera: Buprestidae). *Giornale Italiano di Entomologia* 9(1998):137–142, figs. 1–7.
- Westcott, R. L. 2001a.** *Acmaeodera pubiventris* Horn (Buprestidae): a polytypic species or a superspecies? *Insecta Mundi* 12(3–4)(1999):173–178, figs. 1–9.
- Westcott, R. L. 2001b.** An interspecific hybrid in the genus *Acmaeodera* Eschscholtz, a taxonomic note on *Chrysobothris kelloggi* Knull, and new distribution and host records for United States and Canadian species in these and other genera (Coleoptera: Buprestidae). *Jewel Beetles* 10:76–81, 1 color plate.
- Westcott, R. L. 2005.** A new species of *Chrysobothris* Eschscholtz from Oregon and Washington, with notes on other Buprestidae (Coleoptera) occurring in the United States and Canada. *Zootaxa* 1044:1–15, figs. 1–7.
- Westcott, R. L. 2007a.** The exotic *Agrilus subrobustus* (Coleoptera: Buprestidae) is found in northern Georgia. *The Coleopterists Bulletin* 61(1):111–112.
- Westcott, R. L. 2007b.** A new species of *Chrysobothris* Eschscholtz feeding on *Dudleya* spp. (Crassulaceae) from California and Baja California, with biological, distributional and taxonomic notes on other North American Buprestidae (Coleoptera). *Zootaxa* 1630:23–37.
- Westcott, R. L. & C. L. Bellamy. 2004.** The rediscovery of *Acmaeodera horni* Fall (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 79(3–4)(2003):250–251, figs 1, 2.
- Westcott, R. L. & R. L. Alten. 2006.** A new species of *Eriogonum*-feeding *Chrysobothris* Eschscholtz, 1829 (Coleoptera Buprestidae) from Utah and California. *The Pan-Pacific Entomologist* 82(2):208–212, figs. 1–6.
- Westcott, R. L., T. Atkinson, H. A. Hespeneide & G. H. Nelson. 1990.** New country and state records, and other notes for Mexican Buprestidae (Coleoptera). *Insecta Mundi* 3(3)(1989):217–232.
- Westcott, R. L. & W. F. Barr. 1998.** A new species of *Acmaeodera* (Coleoptera: Buprestidae) from Big Bend National Park, Texas, with synonymy for other species occurring in the United States. *Insecta Mundi* 12(1&2):53–57, figs. 1–7.
- Westcott, R. L. & W. F. Barr. 2007.** Resurrection and review of the genus *Knowltonia* Fisher, with description of a new subspecies of *Chrysobothris* Eschscholtz and new species of *Acmaeodera* Eschscholtz from North America (Coleoptera: Buprestidae). *Zootaxa* 1481:49–58, color figs. 1–9.
- Westcott, R. L., W. F. Barr, G. H. Nelson & D. S. Verity. 1979.** Distributional and biological notes on North and Central American species of *Acmaeodera* (Coleoptera: Buprestidae). *The Coleopterists Bulletin* 33(2):169–181.
- Westcott, R. L. & S. Bílý. 1992.** Comments on the proposed conservation of *Chrysobothris* and *Dicerca* Eschscholtz, 1829 (Insecta, Coleoptera) as the correct original spellings. *Bulletin of Zoological Nomenclature* 49(4):290.
- Westcott, R. L. & J. M. Davidson. 2001.** A remarkable new species of *Chrysobothris* from Arizona (Coleoptera: Buprestidae). *Jewel Beetles* 10:82–85, 1 color plate.
- Westcott, R. L. & H. A. Hespeneide. 2006.** The description of a new species of *Agrilus* Curtis, with

- distributional records, and taxonomic and biological notes for Agrilinae and Trachyinae (Coleoptera: Buprestidae) of Mexico and Central America. *Zootaxa* 1367:1–35.
- Westcott, R. L. & G. H. Nelson. 2000.** Descriptions of two new species of *Acmaeodera* Eschscholtz, and two new subspecies of *Agrilus* Curtis and *Chrysobothris* Eschscholtz (Coleoptera: Buprestidae) in North America, with detailed notes on others. *The Coleopterists Bulletin* 54(3):300–312, figs. 1–10.
- Westcott, R. L. & D. S. Verity. 1977.** A new species of *Acmaeodera* (Coleoptera: Buprestidae) from Baja California and Southern California. *The Coleopterists Bulletin* 31(2):149–154, figs. 1–8.
- Westwood, J. O. 1838.** *Synopsis of the genera of British insects*, pp. 17–32 (part), published with *An introduction to the modern classification of insects, founded on the natural habits and corresponding organisations of the different families*. Longmans, London, Volume 2(3), 587 pp. [The *Synopsis* was published in 6 parts (pp. 1–154) from 1838–1840]
- Westwood, J. O. 1838–1840.** *An introduction to the modern classification of insects, founded on the natural habits and corresponding organisations of the different families*. Longmans, London, 8 Volumes, 587 pp.
- White, B. E. 1939.** A new species of *Acmaeodera* (Coleoptera, Buprestidae) with biological notes on others from Santa Barbara County, California. *The Pan-Pacific Entomologist* 15(2):69–75, figs. 1–3.
- White, B. E. 1942.** A new species of *Luperodes* with notes on other Coleoptera (Chrysomelidae, Buprestidae). *Bulletin of the Brooklyn Entomological Society* 37(1):31–34.
- White, B. E. 1947.** A new species of *Taphrocerus* (Coleoptera: Buprestidae). *Entomological News* 58:181–184, figs. 1–2.
- White, R. E. 1976.** Josef Nissley Knull 1891–1975. *Proceedings of the Entomological Society of Washington* 78(1):115–116.
- Wickham, H. F. 1888.** A list of the Coleoptera of Iowa City and vicinity. *Bulletin from the Laboratories of Natural History of the State University of Iowa* 1:81–92.
- Wickham, H. F. 1891.** Through the Pinal Mountains, Arizona. *Entomological News* 2:130–133.
- Wickham, H. F. 1893.** Collecting in the Far North. *Entomological News* 4:2.
- Wickham, H. F. 1895.** Supplement to the “List of the Coleoptera of Iowa City and vicinity.” *Bulletin from the Laboratories of Natural History of the State University of Iowa* 3(3):36–40.
- Wickham, H. F. 1896a.** A list of some Coleoptera from Northern New Mexico and Arizona. *Bulletin from the Laboratories of Natural History, State University of Iowa* 3(4):153–171.
- Wickham, H. F. 1896b.** A list of Coleoptera from the southern shore of Lake Superior with remarks on geographical distribution. *Proceedings of the Davenport Academy of Natural Sciences*, Davenport, Iowa, pp. 125–169.
- Wickham, H. F. 1897.** The Coleoptera of the Lower Rio Grande Valley. *Bulletin from the Laboratories of Natural History, State University of Iowa* 4:96–114.
- Wickham, H. F. 1898a.** The Beetles of Southern Arizona. *Bulletin from the Laboratories of Natural History, State University of Iowa* 4:295–312.
- Wickham, H. F. 1898b.** Recollections of old collecting grounds, II. *Entomological News* 9:39–41.
- Wickham, H. F. 1899a.** Recollections of old collecting grounds, IV. *Entomological News* 10:5–8.
- Wickham, H. F. 1899b.** Recollections of old collecting grounds, V. *Entomological News* 10:195–198.
- Wickham, H. F. 1899c.** Recollections of old collecting grounds, VI. *Entomological News* 10:235–238.
- Wickham, H. F. 1902.** A catalogue of the Coleoptera of Colorado. *Bulletin from the Laboratories of Natural History, State University of Iowa* 5(3):217–310.
- Wickham, H. F. 1903a.** New Coleoptera from the western United States. *The Canadian Entomologist* 35:67–74.
- Wickham, H. F. 1903b.** Beetles of an Oregon beach. *The Ottawa Naturalist* 17:49–52.
- Wickham, H. F. 1904.** Protective resemblance in Arizona. *Entomological News* 15:307.
- Wickham, H. F. 1905.** New species of Coleoptera from Southwest United States. *The Canadian Entomologist* 37:165–170.
- Wickham, H. F. 1909a.** A list of the Coleoptera of Iowa. *Bulletin from the Laboratories of Natural History, State University of Iowa* 6:23–24.
- Wickham, H. F. 1909b.** A list of the Van Duzee collection of Florida beetles. *Bulletin of the Buffalo Society of Natural History* 9:399–405.
- Wickham, H. F. 1911.** A list of the Coleoptera of Iowa. *Bulletin from the Laboratories of Natural History, State University of Iowa*. 6(1909):1–40.
- Wickman, B. E. 1964.** Attack habits of *Melanophila consputa* on fire-killed pines (Coleoptera: Buprestidae). *The Pan-Pacific Entomologist* 40(3):183–186.
- Wielandy, J. F. 1870.** Apple tree borers. *American Entomologist* 2:146–148.

Bibliography

- Wilson, H. F. 1914.** Two apple tree borers. *Oregon Experiment Station, Bulletin* No. 15, pp. 1–6.
- Wilson, H. F. 1915.** *Orchard insects pests and methods of control*. Pacific Horticulture Correspondence School, Portland, Oregon, pp. 1–125.
- Wilson, L. F. 1969.** Life history, habits and damage of *Chrysobothris orono* (Col., Buprestidae) on red pine in Michigan. *The Canadian Entomologist* 101(3):291–298, figs. 1–5.
- Wolcott, A. B. 1896.** Coleoptera of Central Illinois, No. II. *Entomological News* 7(8):234–238.
- Wong, H. R. & B. B. Mcleod. 1965.** The host and distribution of *Agrilus criddlei* Frost in Canada. *Canada Department of Forestry, Bi-Monthly Progress Report* 21(4):3.
- Woods, W. 1992.** Phytophagous insects collected from *Parkinsonia aculeata* (Leguminosae: Caesalpinaceae) in the Sonoran desert region of the southwestern United States and Mexico. *Entomophaga* 37:465–474.
- Woodworth, C. W. 1913.** *Guide to California Insects*. Law Press, Berkeley, 360 pp., 132 figs.
- Wray, D. L. 1950.** *Insects of North Carolina, Second supplement*. North Carolina Department of Agriculture, Raleigh. 59 pp.
- Wray, D. L. 1967.** *Insects of North Carolina, Third supplement*. North Carolina Department of Agriculture, Raleigh. 181 pp.
- Wright, J. D. E. & K. R. Coolidge. 1908.** Notes on the Coleoptera of Placer Co., Calif. *Entomological News* pp. 66–69.
- Young, D. B. 1904.** List of Coleoptera taken at Newport, Herkimer Co., New York. *18th Report, New York State Entomologist for 1902* – New York State Museum 56th Annual Report 3(1902):153–161.
- Ziegler, D. 1846.** Descriptions of new North American Coleoptera. *Proceedings of the Academy of Natural Sciences of Philadelphia* 2(1844):43–47, 266–272.

Index

- abbreviata* (Casey 1914), *Spectralia* 94
abditus Horn 1891, *Agrilus* (*Agrilus*) 147
abductus Horn 1891, *Agrilus* (*Agrilus*) 147
abies (Champlain & Knull) 1923, *Phaenops* 109
abjectus Horn 1891, *Agrilus* (*Agrilus*) 148
abrupta Casey 1909, *Dicerca* (*Dicerca*) 72
abstersus Horn 1891, *Agrilus* (*Agrilus*) 148
acaciae Fisher 1928, *Agrilus* (*Agrilus*) 148
acaciae Knull 1936, *Chrysobothris* 116
acaciae Knull 1937, *Paratyndaris* (*Paratyndaris*) 52
acanthicola Barr, *Acmaeodera* (*Acmaeodera*) 17
acerba Casey 1909, *Dicerca* (*Neoargante*) 78
Acmaeodera (*Acmaeodera*) Eschscholtz 1829 17
Acmaeodera (*Squamodera*) Nelson 1996 41
Acmaeodera Eschscholtz 1829 17
Acmaeoderina Kerremans 1893 17
Acmaeoderini Kerremans 1893 14
Acmaeoderoides Van Dyke 1942 15
Acmaeoderoidina Cobos 1955 15
Acmaeoderopsis Barr 1974 42
acomana Casey 1909, *Buprestis* (*Buprestis*) 82
acornis (Say) 1833, *Actenodes* 114
Actenodes Dejean 1833 113
Actenodini Kerremans 1890 113
acuminata (DeGeer) 1774, *Melanophila* 107
acuminata LeConte 1860, *Chrysobothris* 116
acuta (Gmelin 1790), *Melanophila* 108
acuta LeConte 1860, *Acmaeodera* (*Acmaeodera*) 17
acutipennis Chevrolat 1835, *Chrysobothris* 116
acutipennis Mannerheim 1837, *Agrilus* (*Agrilus*) 148
addendus Crotch 1873, *Agrilus* (*Agrilus*) 148
adducta Casey 1909, *Buprestis* (*Buprestis*) 82
adelpha Harold 1869, *Chrysobothris* 117
adenostomae Cazier 1938, *Acmaeodera*
(*Acmaeodera*) 17
adenostomensis Knull 1941, *Acmaeodera*
(*Acmaeodera*) 17
adjecta (LeConte) 1854, *Buprestis* (*Cypriacis*) 86
adonea Casey 1909, *Buprestis* (*Buprestis*) 83
aemula Casey 1909, *Buprestis* (*Cypriacis*) 87
aeneocephalus Fisher 1928, *Agrilus* (*Agrilus*) 149
aeneogaster Gory & Laporte 1839, *Anthaxia*
(*Melanthaxia*) 100
aeneola (Melsheimer) 1845, *Phaenops* 109
aeneola LeConte 1860, *Chrysobothris* 117
aeneoviridis Casey 1909, *Gyascutus* (*Gyascutus*) 65
aenescens Casey 1884, *Anthaxia* (*Melanthaxia*) 100
aerosus (Melsheimer) 1845, *Brachys* 183
aeruginosus Gory 1841, *Brachys* 183
aestiva Casey 1909, *Dicerca* (*Dicerca*) 72
Agaeocera Saunders 1871 93
Agaeocerina Nelson 1982 92
Agrilaxia Kerremans 1903 95
Agrilina Laporte 1835 147
Agrilinae Laporte 1835 145
Agrilini Laporte 1835 145
agriloides Crotch 1873, *Taphrocerus* 185
Agrilus (*Agrilus*) Curtis 1825 147
Agrilus (*Engyaulus*) Waterhouse 1889 179
Agrilus Curtis 1825 147
alacris Horn 1878, *Acmaeodera* (*Acmaeodera*) 17
alacris LeConte 1858, *Thrinopyge* 47
albocomus Fisher 1928, *Agrilus* (*Agrilus*) 149
albodistinctus Knull 1954, *Taphrocerus* 186
albofasciata Fall 1930, *Hesperorhipis* 105
alboguttatus (Mannerheim) 1837, *Taphrocerus* 186
albonotatus Blatchley 1919, *Taphrocerus* 186
albopennis Knull 1951, *Hesperorhipis* 105
algodones Velten 1987, *Lepismadora* 146
alicia Fall 1899, *Acmaeodera* (*Acmaeodera*) 18
alleni (Cazier) 1938, *Knowltonia* 143
allenrolfeae (Verity) 1978, *Gyascutus* (*Gyascutus*) 65
alpina Barr 1972, *Acmaeodera* (*Acmaeodera*) 18
alpina Bellamy 1987, *Nanularia* 56
alternans (LeConte 1860), *Buprestis* (*Buprestis*) 83
amabilis Gory & Laporte 1837, *Agrilus* (*Agrilus*) 149
amabilis Horn 1878, *Acmaeodera* (*Acmaeodera*) 18
amazonica Nonfried 1895, *Acmaeodera*
(*Acmaeodera*) 18
ambiens (LeConte) 1854, *Thrinopyge* 47
amelanchieri Knull 1944, *Agrilus* (*Agrilus*) 149
americanus (Gory 1841), *Pachyschelus* 188
Ampheremus Fall 1917 55
amplexus Rey 1891, *Anthaxia* (*Anthaxia*) 96
ampliata Casey 1909, *Dicerca* (*Dicerca*) 72
amplicollis LeConte 1866, *Acmaeodera*
(*Acmaeodera*) 18
analis LeConte 1860, *Chrysobothris* 117
Anambodera Barr 1974 44
angelica Fall 1899, *Acmaeodera* (*Acmaeodera*) 18
angelicus Horn 1891, *Agrilus* (*Agrilus*) 149
angulicollis (LeConte) 1857, *Chalcophora* 58
angulosa Jacquelin du Val 1856, *Polycesta*
(*Polycesta*) 49
angusta Casey 1909, *Buprestis* (*Nelsonocheira*) 90
angusticauda Casey 1909, *Dicerca* (*Dicerca*) 72
angustus Casey 1909, *Prasinalia* 69
anocheae Westcott 2001, *Acmaeodera*
(*Acmaeodera*) 32
anomalis Knull 1937, *Paratyndaris* (*Paratyndaris*) 53
antennalis Casey 1914, *Chalcophora* 59
antennatus Cazier 1952, *Mastogenius* 13
Anthaxia (*Anthaxia*) Eschscholtz 1829 96
Anthaxia (*Haplanthaxia*) Reitter 1911 97
Anthaxia (*Melanthaxia*) Richter 1944 100
Anthaxia Eschscholtz 1829 96
Anthaxiina Gory & Laporte 1839 95
Anthaxiini Gory & Laporte 1839 95

Index

- anthaxoides* Marquet 1870, *Melanophila* 108
anthobia Obenberger 1924, *Acmaeodera*
(Acmaeodera) 19
anxious Gory 1841, *Agrilus (Agrilus)* 149
apache Westcott & Barr 2007, *Chrysobothris* 117
apachei Knull 1938, *Agrilus (Agrilus)* 150
apachei Knull 1952, *Brachys* 183
Aphanisticini Jacquelin du Val 1863 181
Aphanisticus Latreille 1829 181
apicilla Obenberger 1928, *Poecilonota* 61
appendiculata (Fabricius 1792), *Melanophila* 108
apricans Herbst 1801, *Buprestis (Stereosa)* 92
arbuti Fisher 1928, *Agrilus (Agrilus)* 150
arcuatus (Fall 1932), *Phaenops* 109
arcuatus (Say) 1825, *Agrilus (Agrilus)* 150
aricis Van Dyke 1916, *Chrysobothris* 129
arizonae Chamberlin 1926, *Agrilaxia* 95
arizonae Horn 1878, *Acmaeodera (Acmaeodera)* 19
arizonae Obenberger 1922, *Agrilaxia* 95
arizonica (Casey 1909), *Lampetis (Spinthoptera)* 70
arizonica arizonica Schaeffer 1906, *Polycesta*
(Arizonica) 49
arizonica Chamberlin 1938, *Chrysobothris* 117
arizonicus Bellamy 2002, *Mastogenius* 13
arizonicus Knull 1927, *Actenodes* 114
arizonicus Obenberger 1936, *Agrilus (Agrilus)* 150
arizonus Knull 1934, *Agrilus (Agrilus)* 150
aruensis Obenberger 1924, *Polycesta (Arizonica)* 49
asperata (Laporte & Gory) 1837, *Dicerca*
(Dicerca) 72
asperulus Waterhouse 1889, *Agrilus (Agrilus)* 150
atactospilota Westcott 1971, *Acmaeodera*
(Acmaeodera) 19
atricornis Fisher 1928, *Agrilus (Agrilus)* 151
atريفasciata (LeConte) 1873, *Knowltonia* 143
atriplexae Fisher 1942, *Chrysobothris* 118
atropurpurea (Say) 1823, *Melanophila* 108
audax Horn 1891, *Agrilus (Agrilus)* 151
audreyae Westcott & Barr 2007, *Acmaeodera*
(Amaeodera) 19
aureus Chevrolat 1838, *Agrilus (Agrilus)* 151
aurichalcea Melsheimer 1845, *Dicerca (Dicerca)* 72
aurichalceus Redtenbacher 1849, *Agrilus*
(Agrilus) 151
auricomus Frost 1912, *Agrilus (Agrilus)* 151
aurilaterus Waterhouse 1889, *Agrilus (Agrilus)* 151
auritincta Fall 1922, *Acmaeodera (Acmaeodera)* 19
auroguttatus Schaeffer 1905, *Agrilus (Agrilus)* 151
aurolineatus Gory 1841, *Agrilus (Agrilus)* 151
auronotatus Gory & Laporte 1837, *Actenodes* 114
aurora Fall 1922, *Acmaeodera (Acmaeodera)* 19
aurulenta (Kirby 1837), *Brachys* 183
aurulenta Linnaeus 1767, *Buprestis (Cypriacis)* 87
austera Casey 1909, *Dicerca (Neoargante)* 78
austinii Thomson 1878, *Chrysobothris* 118
axillaris Horn 1886, *Chrysobothris* 118
azurea LeConte 1857, *Chrysobothris* 118
azureus Knull 1922, *Agrilus (Agrilus)* 151
baboquivariae Fisher 1928, *Agrilus (Agrilus)* 151
bacchari Van Dyke 1923, *Chrysobothris* 118
bacchariphaga Westcott & Verity 1977,
Acmaeodera (Acmaeodera) 19
balli (Knull) 1937, *Acmaeoderoides* 15
apachei Knull 1938, *Agrilus (Agrilus)* 150
baltimorensis (Herbst 1801), *Dicerca (Dicerca)* 72
barberi (Skinner) 1903, *Paratyndaris (Waltersia)* 54
barberi Fisher 1924, *Brachys* 183
barberi Fisher 1928, *Agrilus (Agrilus)* 151
Barrellus Nelson & Bellamy 1996 64
barri Bily 1995, *Anthaxia (Melanthaxia)* 101
barri Cazier 1940, *Acmaeodera (Squamodera)* 42
barri Westcott 1971, *Chrysobothris* 118
basalis LeConte 1858, *Chrysobothris* 119
beameri Knull 1954, *Chrysobothris* 119
Beerellus Nelson 1982 47
beeri Barr 1969, *Chrysobothris* 119
bellporti Nicolay & Weiss 1923, *Brachys* 183
bellus LeConte 1860, *Actenodes* 114
benjamini Fisher 1928, *Agrilus (Agrilus)* 151
bentseni Knull 1954, *Agrilus (Agrilus)* 152
bernardensis Obenberger 1924, *Polycesta*
(Tularenisia) 50
bernardino Van Dyke 1937, *Acmaeodera*
(Acmaeodera) 19
bespencus Barr 2007, *Agrilus (Agrilus)* 152
betulae Fisher 1928, *Agrilus (Agrilus)* 152
betulanigrae MacRae 2003, *Agrilus (Agrilus)* 152
beyeri Schaeffer 1904, *Chrysobothris* 119
biangulata Casey 1909, *Dicerca (Dicerca)* 72
bicolor Horn 1894, *Chrysobothris* 119
biedermani Skinner 1903, *Acmaeodera*
(Acmaeodera) 19
bifoveata LeConte 1860, *Dicerca (Neoargante)* 78
biimpressus (Motschulsky, 1860) *Pachyschelus* 188
bilineatus (Weber) 1801, *Agrilus (Agrilus)* 152
bimarginicollis Schaeffer 1905, *Chrysobothris* 119
biramosa Fisher 1935, *Knowltonia* 143
bishopiana Fall 1907, *Acmaeodera (Acmaeodera)* 19
bisinuata Chamberlin 1938, *Chrysobothris* 119
bispinosa Schaeffer 1909, *Chrysobothris* 120
bisseptemguttata Marseul 1867, *Acmaeodera*
(Acmaeodera) 19
bistrinotata Casey 1909, *Buprestis*
(Nelsonocheira) 90
bivittatus Kirby 1837, *Agrilus (Agrilus)* 152
bivulnera Horn 1894, *Acmaeodera (Acmaeodera)* 19
blanchardi Horn 1886, *Chrysobothris* 120
blanchardi Horn 1891, *Agrilus (Agrilus)* 152
blandus Horn 1891, *Agrilus (Agrilus)* 152
blatchleyi Nicolay & Weiss 1923, *Brachys* 183
blondeli blondeli Marseul 1865, *Trachykele* 81
blondeli cupreomarginata Helfer 1953,
Trachykele 81
blondeli juniperi Burke 1928, *Trachykele* 81
boharti Van Dyke 1934, *Chrysobothris* 120
borealis (Laporte & Gory 1836), *Chalcophora* 59
borealis Obenberger 1924, *Agrilaxia* 95
bosci Laporte & Gory 1837, *Buprestis (Stereosa)* 92

- boulderensis* Casey 1909, *Buprestis* (*Buprestis*) . . . 83
bouvieri Kerremans 1906, *Acmaeodera*
 (*Acmaeodera*) 20
bowditchi Fall 1901, *Acmaeodera* (*Acmaeodera*) . . . 20
Brachyina Cobos 1979 182
Brachys Dejean 1833 183
brendeli LeConte 1866, *Xenorhipis* 106
brevicollis Casey 1909, *Chalcophora* 59
breviloba Fall 1910, *Chrysobothris* 120
breviloboides Barr 1969, *Chrysobothris* 120
bridwelli Van Dyke 1918, *Poecilonota* 61
browni Carlson & Knight 1969, *Agrilus* (*Agrilus*) . . . 153
brunneata (Knull) 1947, *Nanularia* 56
bryanti Van Dyke 1953, *Acmaeodera*
 (*Acmaeodera*) 20
BUPRESTIDAE LEACH 1815 12
Buprestina Leach 1815 82
Buprestinae Leach 1815 80
Buprestini Leach 1815 81
Buprestis (*Buprestis*) Linnaeus 1758 82
Buprestis (*Cypriacis*) Casey 1909 86
Buprestis (*Knulliobuprestis*) Kurosawa 1988 88
Buprestis (*Nelsonocheira*) Kurosawa 1988 90
Buprestis (*Stereosa*) Casey 1909 91
Buprestis Linnaeus 1758 82
BUPRESTOIDEA LEACH 1815 9
burkei Chamberlin 1929, *Chrysobothris* 120
burkei Fisher 1917, *Agrilus* (*Agrilus*) 153
burkei Hespeneheide 2002, *Paragrilus* 146
caddo Wellso & Manley 2007, *Chrysobothris* . . . 120
caelatus (LeConte) 1858:67, *Gyascutus*
 (*Stictocera*) 68
caeruleus Rossi 1792, *Agrilus* (*Agrilus*) 153
caeruleus Schwarz 1878, *Pachyschelus* 188
cajonensis Knull 1944, *Dicerca* (*Dicerca*) 72
calcarata Chamberlin 1938, *Chrysobothris* 120
calcarata Melsheimer 1845, *Chrysobothris* 120
calcaratus (Chevrolat) 1835, *Actenodes* 114
calida (Knull) 1958, *Knowltonia* 143
californica (Horn) 1875, *Nanularia* 56
californica (Van Dyke) 1918, *Phaenops* 110
californica Chamberlin 1922, *Poecilonota* 61
californica Crotch 1873, *Dicerca* (*Neoargante*) . . . 78
californica Knull 1947, *Hesperorhipis* 105
californica LeConte 1857, *Polycesta* (*Tularensia*) . . 50
californica LeConte 1860, *Chrysobothris* 120
californica Obenberger 1914, *Anthaxia*
 (*Melanthaxia*) 101
californicus (Motschulsky 1859), *Actenodes* 115
californicus Westcott & Nelson 2000, *Agrilus*
 (*Agrilus*) 153
caliginosa Casey 1909, *Buprestis* (*Buprestis*) 83
callida Casey 1909, *Buprestis* (*Nelsonocheira*) . . . 90
callosa callosa Casey 1909, *Dicerca* (*Dicerca*) . . . 72
callosa frosti Nelson 1963, *Dicerca* (*Dicerca*) . . . 73
campestris (Say) 1823, *Texania* 57
canadensis Casey 1909, *Buprestis* (*Cypriacis*) 87
canadensis Chamberlin 1934, *Chrysobothris* 120
canadensis Obenberger 1917, *Agrilus* (*Agrilus*) . . . 153
carbonata (LeConte) 1860, *Leiopleura* 188
carinipennis LeConte 1878, *Chrysobothris* 120
carlota Fall 1932, *Acmaeodera* (*Acmaeodera*) 20
carmelita Fall 1907, *Chrysobothris* 121
carolina (Manee) 1913, *Phaenops* 110
carolinensis Horn 1883, *Gyascutus* (*Gyascutus*) . . . 65
carolinensis Obenberger 1928, *Anthaxia*
 (*Haplanthaxia*) 97
carpini Knull 1923, *Agrilus* (*Agrilus*) 153
carya Wellso & Jackman 2006, *Anthaxia*
 (*Haplanthaxia*) 97
caseyi (Kerremans 1910), *Lampetis* (*Spinthoptera*) . . 70
caseyi (Obenberger) 1944, *Phaenops* 110
caseyi caseyi Obenberger 1914, *Anthaxia*
 (*Haplanthaxia*) 97
caseyi pseudotsugae Chamberlin 1928, *Anthaxia*
 (*Haplanthaxia*) 98
caseyi santarosae Cobos 1958, *Anthaxia*
 (*Haplanthaxia*) 98
caseyi sublaevis Van Dyke 1916, *Anthaxia*
 (*Haplanthaxia*) 98
castlei Champlain & Knull 1922, *Mastogenius* 13
catalinae Knull 1940, *Agrilus* (*Agrilus*) 153
caudata LeConte 1860, *Dicerca* (*Dicerca*) 73
caurina Horn 1886, *Chrysobothris* 121
cavata LeConte 1858, *Polycesta* (*Tularensia*) 50
cavatus Chevrolat 1838, *Agrilus* (*Agrilus*) 153
cavifrons Waterhouse 1889, *Agrilus* (*Agrilus*) . . . 153
caviventris Théry 1926, *Chrysobothris* 121
cazieri Barr 1949, *Polycesta* (*Tularensia*) 50
cazieri Helfer 1946, *Buprestis* (*Stereosa*) 92
cazieri Knull 1960, *Acmaeodera* (*Acmaeodera*) . . . 20
cazieri Nelson 1968, *Acmaeoderoides* 15
ceanothae Nelson 1967, *Acmaeodera*
 (*Acmaeodera*) 20
celti Knull 1920, *Agrilus* (*Agrilus*) 153
celticola Fisher 1928, *Agrilus* (*Agrilus*) 154
cephalicus LeConte 1860, *Agrilus* (*Agrilus*) 154
cephalicus Schaeffer 1909, *Brachys* 184
cercidii Knull 1937, *Agrilus* (*Agrilus*) 154
cercocarpi Westcott & Nelson 2000,
Chrysobothris 121
chalcogaster Van Dyke 1946, *Agrilus*
 (*Engyaulus*) 179
Chalcophora Dejean 1833 58
Chalcophorina Lacordaire 1857 58
chalcophoroides Horn 1886, *Chrysobothris* 121
chamaeleonis (Skinner) 1903, *Paratyndaris*
 (*Knulliella*) 52
chamberlini Fisher 1942, *Chrysobothris* 121
chamberlini Obenberger 1940, *Chrysobothris* . . . 121
chamberliniana Fisher 1948, *Chrysobothris* 121
champlaini Frost 1912, *Agrilus* (*Agrilus*) 154
chapuisi (Dugès 1891), *Pachyschelus* 188
characteristica Harris 1829, *Chrysobothris* 121
chevrolati Obenberger 1924, *Taphrocerus* 186
chiricahuae Barr 1972, *Acmaeodera*
 (*Acmaeodera*) 20

Index

- chiricahuae** Fisher 1928, *Agrilus* (*Agrilus*) 154
chiricahuae Knull 1937, *Chrysobothris* 121
chisosanus Knull 1956, *Agrilus* (*Agrilus*) 154
chisosensis (Knull) 1952, *Acmaeoderopsis* 42
chlorocephala Gory 1841, *Chrysobothris* 122
chrysea Melsheimer 1845, *Dicerca* (*Neoargante*) 78
Chrysobothrini Gory & Laporte 1838 115
Chrysobothris Eschscholtz 1829 116
chrysochlora (Philippi 1864), *Buprestis* (*Cypriacis*) 87
Chrysochroinae Laporte 1835 55
Chrysochroini Laporte 1835 55
chrysoela (Illiger) 1800, *Chrysobothris* 122
Chrysophana generic group (Tribal level) sensu
Volkovitch 2001 47
Chrysophana LeConte 1860 47
cicatricosa Motschulsky 1852, *Chrysobothris* 122
cincta (Horn) 1885, *Paratyndaris* (*Paratyndaris*) 53
cladrastis Knull 1945, *Agrilus* (*Agrilus*) 154
cliftoni Knull 1941, *Agrilus* (*Agrilus*) 154
cochisei Knull 1948, *Agrilus* (*Agrilus*) 155
cogitans (Weber) 1801, *Eupristocerus* 145
collaris Obenberger 1928, *Poecilnота* 61
columbiana Barr 1969, *Chrysobothris* 122
comanche Wellso & Manley 2007, *Chrysobothris* 122
comata LeConte 1858, *Acmaeodera* (*Acmaeodera*) 20
compactus Casey 1909, *Gyascutus* (*Gyascutus*) 66
concinula LeConte 1860, *Chrysobothris* 122
concinus Horn 1891, *Agrilus* (*Agrilus*) 155
condita Barr 1972, *Acmaeodera* (*Acmaeodera*) 20
confluenta Say 1823, *Buprestis* (*Knullobuprestis*) 89
confusa Barr 1971, *Anthaxia* (*Melanthaxia*) 101
confusa Fisher 1925, *Acmaeodera* (*Acmaeodera*) 21
confusus Nelson 1999, *Acmaeoderoides* 15
confusus Wellso, Manley & Jackman 1976,
Pachyschelus 188
conicicauda Casey 1909, *Buprestis* (*Buprestis*) 83
conicola Van Dyke 1937, *Chrysophana* 47
connexa Horn 1875, *Buprestis* (*Stereosa*) 92
connexa LeConte 1859, *Acmaeodera*
(*Acmaeodera*) 21
conoidea Fall 1899, *Acmaeodera* (*Acmaeodera*) 21
consimilis (Laporte & Gory 1837), *Dicerca*
(*Dicerca*) 73
consobrina Melsheimer 1845, *Dicerca*
(*Neoargante*) 78
consors Horn 1878, *Acmaeodera* (*Acmaeodera*) 21
consputa LeConte 1857, *Melanophila* 108
constricticollis Knull 1937, *Acmaeodera*
(*Squamodera*) 42
constrictinotum Westcott & Nelson 2000,
Acmaeodera (*Acmaeodera*) 21
consularis Gory 1840, *Buprestis* (*Buprestis*) 83
contigua LeConte 1860, *Chrysobothris* 122
contigua LeConte 1860, *Chrysobothris* 123
contorta Casey 1909, *Buprestis* (*Buprestis*) 83
contortae Hopping 1933, *Buprestis* (*Cypriacis*) 87
convexa (Casey 1909), *Lampetis* (*Spinthoptera*) 70
convexa Fall 1907, *Chrysobothris* 122
convicta Fall 1899, *Acmaeodera* (*Acmaeodera*) 21
coquilletti Fall 1899, *Acmaeodera* (*Acmaeodera*) 21
Coraeibini Bedel 1921 144
coryli Horn 1891, *Agrilus* (*Agrilus*) 155
corylicola Fisher 1928, *Agrilus* (*Agrilus*) 155
costicollis (Gory 1841), *Poecilnота* 61
costifrons costifrons Waterhouse 1887,
Chrysobothris 122
costipennis Fisher 1928, *Agrilus* (*Agrilus*) 155
couesii LeConte 1866, *Agrilus* (*Agrilus*) 155
coursetiae Fisher 1919, *Paratyndaris*
(*Paratyndaris*) 53
coxalis Waterhouse 1889, *Agrilus* (*Agrilus*) 155
crandalli Knull 1941, *Paratyndaris* (*Paratyndaris*) 53
crandalli Knull 1943, *Chrysobothris* 123
crassicollis LeConte 1857, *Dicerca* (*Neoargante*) 78
crataegi Frost 1912, *Agrilus* (*Agrilus*) 155
crenata Casey 1909, *Buprestis* (*Nelsonocheira*) 90
crenulatus Knull 1934, *Mastogenius* 13
cribrana Motschulsky 1859, *Polycesta*
(*Tularensia*) 50
cribraria Mannerheim 1837, *Chrysobothris* 123
cribricollis Horn 1894, *Acmaeodera*
(*Acmaeodera*) 22
cribripennis Casey 1909, *Buprestis* (*Stereosa*) 92
criddlei Frost 1920, *Agrilus* (*Agrilus*) 155
crinicornis Horn 1891, *Agrilus* (*Agrilus*) 156
croceosignatus (Laporte & Gory 1837), *Phaenops* 110
croesus (Villiers) 1789, *Anthaxia* (*Anthaxia*) 96
crypta Barr 1949, *Polycesta* (*Tularensia*) 51
culbersonianana Knull 1943, *Chrysobothris* 123
culta (Weber) 1801, *Acmaeodera* (*Acmaeodera*) 22
cuneata (Horn) 1868, *Prasinalia* 69
cuneata Fall 1899, *Acmaeodera* (*Acmaeodera*) 22
cuneiformis Gory 1841, *Anthaxia* (*Haplanthaxia*) 98
cuneus LeConte 1866, *Agrilus* (*Agrilus*) 156
cuprascens LeConte 1860, *Chrysobothris* 123
cuprea Knull 1947, *Dystaxia* 10
cupreoaenea Gory & Laporte 1837, *Chrysobothris* 123
cupreofusca Casey 1909, *Nanularia* 56
cupreohumeralis Van Dyke 1934, *Chrysobothris* 123
cupreola Casey 1909, *Dicerca* (*Dicerca*) 73
cupreola Casey 1914, *Chalcophora* 59
cupreolus LeConte 1860, *Agrilus* (*Agrilus*) 156
cupreomaculata (Goeze 1777), *Chalcophora* 59
cupreomaculatus Dugès 1891, *Agrilus* (*Agrilus*) 156
cupreomarginata Helfer 1953, *Trachykele* 81
cupreonitens Fisher 1928, *Agrilus* (*Agrilus*) 156
cupreopunctata (Schaeffer) 1905, *Lampetis*
(*Spinthoptera*) 70
cuprescens (Knull) 1940, *Spectralia* 94
cuprescens (Ménétries) 1832, *Agrilus* (*Agrilus*) 156
cuprescens Blatchley 1913, *Brachys* 184
cupressicona Barr & Westcott 1976,
Chrysobothris 123
cupricollis Gory 1841, *Agrilus* (*Agrilus*) 156
cuprinus Nelson 1991, *Agrilus* (*Engyaulus*) 179
cupriola Barr 1971, *Anthaxia* (*Melanthaxia*) 101
cupripes Casey 1909, *Poecilnота* 61
curtilata Knull 1941, *Acmaeodera* (*Acmaeodera*) 22

- cyanea* Chamberlin 1933, *Polycesta (Tularensia)* . . . 51
cyanella Gory 1841, *Anthaxia (Haplantaxia)* . . . 98
cyanella Horn 1886, *Chrysobothris* . . . 124
cyaneous Chamberlin 1933, *Polycesta (Tularensia)* . . . 51
cyanescens Ratzeburg 1837, *Agrilus (Agrilus)* . . . 156
cyaneus Lacordaire 1835, *Agrilus (Agrilus)* . . . 157
cyanipennis Hamilton 1895, *Poecilonota* . . . 61
cyanipes (Say) 1823, *Poecilonota* . . . 61
cylindricollis Fall 1917, *Ampheremus* . . . 56
cylindricollis Kerremans 1896, *Taphrocerus* . . . 186
cylindricus Casey 1909, *Hippomelas* . . . 68
cylindrinus Casey 1909, *Gyascutus (Gyascutus)* . . . 66
daggetti Fall 1899, *Acmaeodera (Acmaeodera)* . . . 22
davidi Nelson 1979, *Actenodes* . . . 115
dauidsoni Barr 1972, *Acmaeodera (Acmaeodera)* . . . 22
davisi Knull 1941, *Agrilus (Agrilus)* . . . 157
davisi Nicolay & Weiss 1918, *Buprestis (Buprestis)* . . . 83
debilis Casey 1909, *Gyascutus (Gyascutus)* . . . 66
debilis LeConte 1860, *Chrysobothris* . . . 124
debilis LeConte 1860, *Poecilonota* . . . 62
decipiens LeConte 1866, *Acmaeodera (Acmaeodera)* . . . 22
decoloratus (Laporte & Gory 1837), *Phaenops* . . . 110
decora Fabricius 1775, *Buprestis (Stereosa)* . . . 92
defectus LeConte 1860, *Agrilus (Agrilus)* . . . 157
deficiens Casey 1909, *Buprestis (Buprestis)* . . . 83
deleta LeConte 1860, *Chrysobothris* . . . 124
deleta LeConte 1878, *Anthaxia (Haplantaxia)* . . . 98
delicatulus Waterhouse 1889, *Agrilus (Agrilus)* . . . 157
delumbis Horn 1894, *Acmaeodera (Acmaeodera)* . . . 22
denticulata Gory & Laporte 1837, *Chrysobothris* . . . 124
dentipes (Germar) 1824, *Chrysobothris* . . . 124
depressa Barr 1972, *Acmaeodera (Acmaeodera)* . . . 22
depressa Casey 1909, *Buprestis (Nelsonocheira)* . . . 90
depressus Nelson 1968, *Acmaeoderoides* . . . 15
deserta Horn 1886, *Chrysobothris* . . . 124
desertus LeConte 1860, *Agrilus (Agrilus)* . . . 158
deviata Barr 1972, *Acmaeodera (Acmaeodera)* . . . 23
dianae (Helfer) 1954, *Gyascutus (Gyascutus)* . . . 66
Dicerca (Dicerca) Eschscholtz 1829 . . . 72
Dicerca (Neoargante) Nelson 2006 . . . 78
Dicerca Eschscholtz 1829 . . . 71
Dicerca generic group (Tribal level) sensu Volkovitsh 2001 . . . 71
Dicercina Gistel 1848 . . . 70
Dicercini Gistel 1848 . . . 64
dichroa Bily 1991, *Anthaxia (Haplantaxia)* . . . 99
difficilis Gory 1841, *Agrilus (Agrilus)* . . . 158
difficilis LeConte 1873, *Chrysobothris* . . . 124
diospyroides Knull 1942, *Agrilus (Agrilus)* . . . 158
diruptans Casey 1909, *Buprestis (Buprestis)* . . . 83
discalis Cazier 1940, *Acmaeodera (Acmaeodera)* . . . 23
disjuncta Fall 1899, *Acmaeodera (Acmaeodera)* . . . 23
disjuncta LeConte 1860, *Chrysobothris* . . . 125
dispar Gory 1840, *Acmaeodera (Acmaeodera)* . . . 23
distincta Gory 1841, *Chrysobothris* . . . 125
distincta Kerremans 1902, *Acmaeodera (Acmaeodera)* . . . 23
distinctus Nelson 1968, *Acmaeoderoides* . . . 15
distinguenda (Laporte & Gory 1837), *Dicerca (Neoargante)* . . . 78
divaricata (Say) 1823, *Dicerca (Dicerca)* . . . 73
dohrni Horn 1878, *Acmaeodera (Acmaeodera)* . . . 23
dolata Horn 1886, *Chrysobothris* . . . 125
dolli Schaeffer 1904, *Agrilus (Agrilus)* . . . 158
dolorosa dolorosa Fall 1899, *Acmaeodera (Acmaeodera)* . . . 23
dolorosa liberta Fall 1922, *Acmaeodera (Acmaeodera)* . . . 24
dozieri Fisher 1918, *Agrilus (Agrilus)* . . . 158
drummondi (Laporte & Gory) 1837, *Lampetis (Spinthoptera)* . . . 71
drummondi drummondi (Kirby) 1837, *Phaenops* . . . 110
drummondi nicolayi (Obenberger) 1944, *Phaenops* . . . 111
dubia Melsheimer 1845, *Dicerca (Dicerca)* . . . 74
duboisii Cazier 1938, *Acmaeodera (Acmaeodera)* . . . 24
dudleyaphaga Westcott 2007, *Chrysobothris* . . . 125
dugesii Théry 1923, *Pachyschelus* . . . 189
dumolini (Laporte & Gory) 1837, *Dicerca (Neoargante)* . . . 78
duncani Knull 1929, *Agrilus (Agrilus)* . . . 158
durangana Obenberger, *Acmaeodera (Acmaeodera)* . . . 24
Dystaxia LeConte 1866 . . . 10
Dystaxiini Théry 1929 . . . 10
eburna Van Dyke 1949, *Acmaeodera (Acmaeodera)* . . . 24
edwardsii Horn 1886, *Chrysobothris* . . . 125
egeniformis Champlain & Knull 1923, *Agrilus (Agrilus)* . . . 158
egenus Gory 1841, *Agrilus (Agrilus)* . . . 159
eglecta Fall 1899, *Acmaeodera (Acmaeodera)* . . . 30
elata LeConte 1858, *Polycesta (Tularensia)* . . . 51
eleanorae Fisher 1928, *Agrilus (Agrilus)* . . . 159
elegans Fall 1905, *Dystaxia* . . . 10
elegans Sloop 1937, *Melanophila* . . . 108
elongata Casey 1909, *Buprestis (Knulliobuprestis)* . . . 89
emarginata Barr 1971, *Anthaxia (Melanthaxia)* . . . 101
embrikstrandella Obenberger 1936, *Anthaxia (Melanthaxia)* . . . 101
eminatus (Say) 1823, *Agrilus (Agrilus)* . . . 162
ephedrae Barr 1942, *Acmaeodera (Squamodera)* . . . 42
ephedrae ephedrae Knull 1942, *Chrysobothris* . . . 125
ephedrae vogti Knull 1964, *Chrysobothris* . . . 125
erecta (Gory 1841), *Poecilonota* . . . 62
eriononi Westcott 2005, *Chrysobothris* . . . 125
erosa Casey 1909, *Dicerca (Dicerca)* . . . 74
errans Barr 1972, *Acmaeodera (Acmaeodera)* . . . 24
esperanzae Knull 1935, *Agrilus (Agrilus)* . . . 159
Eupristocerus Deyrolle 1864 . . . 145
exasperans Cobos 1958, *Anthaxia (Melanthaxia)* . . . 101
exesa LeConte 1858, *Chrysobothris* . . . 126
exhuachucae Knull 1937, *Agrilus (Agrilus)* . . . 159
exiguellus Fisher 1928, *Agrilus (Agrilus)* . . . 159
expansa LeConte 1857, *Anthaxia (Melanthaxia)* . . . 101
exsapindi Vogt 1949, *Agrilus (Agrilus)* . . . 159
fabulosa Casey 1909, *Buprestis (Cypriacis)* . . . 87

Index

- fallax** Say 1833, *Agrilus* (*Agrilus*) 159
falli Fisher 1928, *Agrilus* (*Agrilus*) 160
falli Kerremans 1902, *Acmaeodera* (*Acmaeodera*) 24
falli Van Dyke 1918, *Chrysobothris* 126
falsula Obenberger 1928, *Anthaxia* (*Melanthaxia*) 102
fasciata Fabricius 1787, *Buprestis* (*Nelsonocheira*) 90
fasciferus Schwarz 1878, *Brachys* 184
fastidiosa Casey 1909, *Buprestis* (*Nelsonocheira*) 90
fattigi Knull 1953, *Acmaeodera* (*Acmaeodera*) 24
fattigi Knull 1954, *Trachykele* 81
felix Horn 1891, *Agrilus* (*Agrilus*) 160
femorata (Olivier) 1790, *Chrysobothris* 126
femoratus (Knull) 1941, *Barrellus* 64
fenyesi Fall 1899, *Acmaeodera* (*Acmaeodera*) 24
fenyesi Kerremans 1903, *Agaeocera* 93
feretrius Obenberger 1936, *Agrilus* (*Agrilus*) 160
ferrea (Melsheimer) 1845, *Poecilonota* 62
ferrisi Dury 1908, *Agrilus* (*Agrilus*) 160
ferruginis Wellso & Nelson 1968, *Acmaeoderoides* 15
fidelis Casey 1909, *Gyascutus* (*Gyascutus*) 66
filigrana Obenberger 1913, *Chalcophora* 59
filiola Casey 1909, *Dicerca* (*Dicerca*) 74
fisherellus Obenberger 1936, *Agrilus* (*Agrilus*) 160
fisheri Cazier 1940, *Acmaeodera* (*Acmaeodera*) 24
fisheri Knull 1929, *Agrilus* (*Agrilus*) 160
fisheri Obenberger 1928, *Anthaxia* (*Haplanthaxia*) 99
fisheri Vogt 1949, *Pachyschelus* 189
fisherianus Knull 1930, *Agrilus* (*Agrilus*) 160
fiskei Fisher 1942, *Chrysobothris* 127
fissifrons Abeille de Perrin 1897, *Agrilus* (*Agrilus*) 160
flavimana (Gory) 1841, *Agrilaxia* 95
flavinigrapunctata Knull 1928, *Acmaeodera*
(*Acmaeodera*) 24
flavolineatus Mannerheim 1837, *Agrilus* (*Agrilus*) 160
flavomaculata Nelson 1960, *Polycesta* (*Nelsonella*) 50
flavomarginata (Gray) 1832, *Acmaeodera*
(*Acmaeodera*) 24
flavopicta Casey 1909, *Buprestis* (*Buprestis*) 83
flavopicta Waterhouse 1889, *Acmaeodera*
(*Acmaeodera*) 24
flavosignata Gory 1840, *Acmaeodera*
(*Acmaeodera*) 25
flavosticta Waterhouse 1882, *Acmaeodera*
(*Acmaeodera*) 25
flexicaulis Schaeffer 1904, *Actenodes* 115
floccosus Mannerheim 1837, *Brachys* 184
flohri (Waterhouse) 1890, *Agrilus* (*Agrilus*) 161
floricola Gory 1841, *Chrysobothris* 127
floricola Kerremans 1900, *Brachys* 184
floridae Casey 1909, *Dicerca* (*Dicerca*) 74
floridanus Crotch 1873, *Agrilus* (*Agrilus*) 161
floridanus Obenberger 1934, *Taphrocerus* 186
fortis LeConte 1860, *Chalcophora* 59
fortunata Casey 1909, *Buprestis* (*Nelsonocheira*) 90
foveicollis LeConte 1860, *Anthaxia* (*Melanthaxia*) 102
fragariae Fisher 1930, *Chrysobothris* 127
fraseri Chamberlin 1922, *Poecilonota* 62
fremontiae Burke 1924, *Buprestis*
(*Knuliobuprestis*) 89
frenatus Gory 1841, *Agrilus* (*Agrilus*) 161
frisoni Fisher 1943, *Agrilus* (*Agrilus*) 161
frosti Knull 1920, *Agrilus* (*Agrilus*) 161
frosti Nelson 1963, *Dicerca* (*Dicerca*) 74
fulgens Casey 1909, *Buprestis* (*Nelsonocheira*) 90
fulgens LeConte 1860, *Agrilus* (*Agrilus*) 161
fulgidus (Barr) 1969, *Gyascutus* (*Gyascutus*) 66
fulguratus (Mannerheim) 1837, *Actenodes* 115
fulleri (Horn) 1875, *Texania* 58
fulminans Fisher 1928, *Agrilus* (*Agrilus*) 161
fulvoguttata (Harris) 1829, *Phaenops* 111
funestus Gory 1841, *Agrilus* (*Agrilus*) 161
furnissi Barr, *Anthaxia* 102
fusca Casey 1909, *Buprestis* (*Buprestis*) 83
fuscipennis Gory 1841, *Agrilus* (*Agrilus*) 161
fusififormis Casey 1909, *Buprestis* (*Buprestis*) 83
gaudens Casey 1909, *Dicerca* (*Dicerca*) 74
gemina (Horn) 1878, *Anambodera* 44
gemmata LeConte 1858, *Chrysobothris* 127
gentilis (LeConte) 1863, *Phaenops* 111
gentilis gentilis (Horn) 1885, *Agaeocera* 93
georgiana (LeConte) 1857, *Chalcophora* 59
geronimoi Knull 1950, *Agrilus* (*Agrilus*) 162
gibbicollis (Say) 1823, *Ptosima* 45
gibbicollis Fall 1901, *Agrilus* (*Agrilus*) 162
gibbsii (LeConte) 1857, *Buprestis*
(*Knuliobuprestis*) 89
gibbula LeConte 1858, *Acmaeodera* (*Acmaeodera*) 25
gila Knull 1930, *Acmaeodera* (*Acmaeodera*) 25
gillespiensis Knull 1941, *Acmaeodera*
(*Acmaeodera*) 25
gillespiensis Knull 1947, *Agrilus* (*Agrilus*) 162
Glyptoscelimorpha (*Dystaxiella*) Knull 1940 11
Glyptoscelimorpha (*Glyptoscelimorpha*) Horn
1893 11
Glyptoscelimorpha Horn 1893 11
gracilipes (Melsheimer) 1845, *Spectralia* 94
gracilis (Melsheimer 1845), *Agrilaxia* 96
gracilis (Say) 1825, *Taphrocerus* 186
gracilis Casey 1909, *Dicerca* (*Dicerca*) 74
graminea Casey 1909, *Buprestis* (*Nelsonocheira*) 90
granulatus granulatus (Say) 1823, *Agrilus*
(*Agrilus*) 162
granulatus liragus Barter & Brown 1949, *Agrilus*
(*Agrilus*) 162
grassmani Parker 1947, *Paratyndaris*
(*Paratyndaris*) 53
gravidula Casey 1909, *Buprestis* (*Buprestis*) 83
gravis LeConte 1860, *Agrilus* (*Agrilus*) 163
griffithi Fall 1899, *Acmaeodera* (*Acmaeodera*) 25
grindeliae Van Dyke 1937, *Chrysobothris* 127
grossus Casey 1909, *Hippomelas* 68
grossus Obenberger 1924, *Taphrocerus* 186
guttilatus (Mannerheim 1853), *Phaenops* 111
Gyascutus (*Gyascutus*) LeConte 1858 65
Gyascutus (*Stictocera*) Casey 1909 68
Gyascutus LeConte 1858 65
haemorrhhoa LeConte 1858, *Acmaeodera*
(*Acmaeodera*) 25

- hageni** Barr 1949, *Polycesta (Tularensia)* 51
Haplostethini LeConte 1861 13
harenus Nelson 1994, *Agrilus (Agrilus)* 163
harrisi Hentz 1827, *Chrysobothris* 127
hartmani Burke 1920, *Trachykele* 82
hassayampae (Knull) 1961, *Acmaeoderopsis* 43
hatchi Barr 1971, *Anthaxia (Melanthaxia)* 102
hazardi Knull 1966, *Agrilus (Agrilus)* 163
helferi Cobos 1958, *Anthaxia (Melanthaxia)* 102
helferi Fisher 1942, *Chrysobothris* 127
helferiana Bilý 1995, *Anthaxia (Melanthaxia)* 102
hepburnii LeConte 1860, *Acmaeodera*
(Acmaeodera) 25
heroica Obenberger 1923, *Brachys* 184
hespenheidei (Bilý) 1984, *Agrilaxia* 96
hespenheidei Nelson 1991, *Agrilus (Engyaulus)* 180
hesperica Casey 1909, *Dicerca (Neorgante)* 79
hesperoborealis Hatch & Beer 1938, *Dicerca*
(Dicerca) 74
Hesperorhipis Fall 1930 105
heterothecae Knull 1972, *Agrilus (Agrilus)* 163
hidalgoensis Knull 1951, *Chrysobothris* 128
hidalgoensis Knull 1952, *Xenorhipis* 106
hilaris LeConte 1860, *Dicerca (Neorgante)* 79
Hippomelanina Holyński 1993 64
Hippomelas Laporte & Gory 1837 68
hirticollis Rey 1891, *Anthaxia (Anthaxia)* 96
histris Casey 1909, *Buprestis (Buprestis)* 83
holsteni White 1939, *Acmaeodera (Acmaeodera)* 26
horni (Obenberger) 1944, *Phaenops* 111
horni Fall 1899, *Acmaeodera (Acmaeodera)* 26
horni Kerremans 1896, *Brachys* 184
horni Kerremans 1900, *Agrilus (Agrilus)* 163
hornii hornii Crotch 1873, *Dicerca (Dicerca)* 74
hornii nelsoni Beer 1974, *Dicerca (Dicerca)* 74
horningi Barr 1969, *Chrysobothris* 128
howardi Obenberger 1934, *Taphrocerus* 186
howdeni Knull 1957, *Agrilus (Agrilus)* 163
huachucae Schaeffer 190, *Agrilus (Agrilus)* 163
huachucanus Knull 1944, *Taphrocerus* 187
hualpaiana (Knull) 1952, *Acmaeoderopsis* 43
hualpaii Knull 1939, *Agrilus (Agrilus)* 164
hubbardi Fisher 1942, *Chrysobothris* 128
hulli (Knull) 1928, *Acmaeoderopsis* 43
humeralis (Cazier) 1938, *Acmaeoderoides* 16
humilis Horn 1886, *Chrysobothris* 128
hungarica Csiki 1905, *Melanophila* 108
hurdi Cobos 1958, *Anthaxia (Melanthaxia)* 102
hibernata (Fabricius 1801), *Chrysobothris* 128
hyperbola californica Knull 1947, *Hesperorhipis* 105
hyperbola hyperbola Knull 1938, *Hesperorhipis* 105
hyperici Creutzer 1799, *Agrilus (Agrilus)* 164
idahoensis Barr 1969, *Acmaeodera (Acmaeodera)* 26
idahoensis Barr 1969, *Chrysobothris* 128
idolynae Frost 1923, *Ptosima* 46
iffusa Barr 1969, *Acmaeodera (Acmaeodera)* 23
ignicolis Horn 1885, *Chrysobothris* 128
illectus Fall 1901, *Agrilus (Agrilus)* 164
imbellis Crotch 1873, *Agrilus (Agrilus)* 164
immaculata Horn 1878, *Acmaeodera*
(Acmaeodera) 26
immaculata Mannerheim 1837, *Melanophila* 108
impedita Say 1833, *Buprestis (Cypriacis)* 87
imperfecta LeConte 1860, *Anthaxia (Melanthaxia)* 102
imperialis (Barr) 1969, *Prasinalia* 70
impexus Horn 1891, *Agrilus (Agrilus)* 164
impressa (Fabricius 1787), *Chrysobothris* 128
impressiceps Pic 1918, *Agrilus (Agrilus)* 164
impressifrons Melsheimer 1845, *Dicerca (Dicerca)* 74
impressipennis Uhler 1855, *Agrilus (Agrilus)* 164
incisa Casey 1909, *Dicerca (Dicerca)* 74
incolumis Casey 1909, *Buprestis (Nelsonocheira)* 90
inconstans Melsheimer 1845, *Buprestis (Buprestis)* 83
indistincta Melsheimer, *Dicerca (Dicerca)* 75
indurata Casey 1909, *Dicerca (Dicerca)* 75
inflatula Casey 1909, *Dicerca (Dicerca)* 75
ingens Casey 1914, *Chalcophora* 59
inhabilis chalcogaster Van Dyke 1946, *Agrilus*
(Engyaulus) 180
inhabilis cuprinus Nelson 1991, *Agrilus*
(Engyaulus) 180
inhabilis inhabilis Kerremans 1900, *Agrilus*
(Engyaulus) 180
inopinata Barr 1972, *Acmaeodera (Acmaeodera)* 26
inornata (Randall) 1838, *Anthaxia (Melanthaxia)* 102
insignis (Horn) 1894, *Acmaeoderoides* 16
interrupta Kerremans 1897, *Acmaeodera*
(Acmaeodera) 26
interruptus LeConte 1860, *Agrilus (Agrilus)* 164
intricata Casey 1909, *Buprestis (Cypriacis)* 87
intrusa (Horn) 1882, *Phaenops* 112
inyoensis Cazier 1940, *Acmaeodera (Acmaeodera)* 26
iridescens Casey 1909, *Chalcophora* 59
iris Van Dyke 1937, *Chrysobothris* 128
jacobinus Horn 1891, *Agrilus (Agrilus)* 164
jacumbae Knull 1954, *Hesperorhipis* 105
jaguarina (Knull) 1938, *Acmaeoderopsis* 43
jeanae (Nelson) 1988, *Gyascutus (Gyascutus)* 66
jocosa Fall 1899, *Acmaeodera (Acmaeodera)* 27
juglandis Knull 1920, *Agrilus (Agrilus)* 165
jugoslavica Obenberger, *Sphenoptera (Chilostetha)* 64
juncea Knull 1958, *Dicerca (Dicerca)* 75
juniperae juniperae (Knull) 1940,
Glyptoscelimorpha (Dystaxiella) 11
juniperae viridiceps Nelson 1991,
Glyptoscelimorpha (Dystaxiella) 11
Juniperella Knull 1947 113
juniperi Burke 1928, *Trachykele* 82
juniperinus Chamberlin 1925, *Chrysobothris* 129
juniperinus Wickham 1905, *Gyascutus (Gyascutus)* 66
junki (Théry) 1929, *Acmaeoderopsis* 43
kaszabiana Pochon 1967, *Anthaxia (Haplanthaxia)* 99
kelloggi Knull 1937, *Chrysobothris* 129
knausi Schaeffer 1909, *Agrilus (Agrilus)* 165
knowltoni Barr 1969, *Acmaeodera (Acmaeodera)* 27
Knowltonia Fisher 1935 143
knulli (Barr) 1972, *Paratyndaris (Waltersia)* 55
knulli Barr 1948, *Trichinorhipis* 106

Index

- knulli** Nelson 1968, *Acmaeoderoides* 16
knulli Nelson 1975, *Chrysobothris* 129
knulli Nelson 1975, *Dicerca* (*Neoargante*) 79
knulli Obenberger 1928, *Anthaxia* (*Melanthaxia*) 102
knulli Obenberger 1939, *Mastogenius* 13
knullorum Barr 1972, *Acmaeodera* (*Acmaeodera*) 27
kyselyi Obenberger 1924, *Agrilus* (*Agrilus*) 165
labyrinthica Fall 1899, *Acmaeodera* (*Acmaeodera*) 27
lacustris LeConte 1860, *Agrilus* (*Agrilus*) 165
lacustris LeConte 1860, *Chalcophora* 59
lacustris LeConte 1860, *Dicerca* (*Neoargante*) 79
laeta Waterhouse 1882, *Ptosima* 46
laetus LeConte 1858, *Schizopus* 9
laetus LeConte 1858, *Schizopus* 9
laevicauda LeConte 1860, *Brachys* 184
laevicollis LeConte 1878, *Taphrocerus* 187
laevigatus (Say) 1833, *Pachyschelus* 189
laeviventris (LeConte) 1857, *Buprestis* (*Buprestis*) 83
Lampetis (*Spinthoptera*) Casey 1909 70
Lampetis Dejean 1833 70
Lampetis generic group (Tribal level) sensu Volkovitsh 2001 70
lanata Horn 1880, *Acmaeodera* (*Acmaeodera*) 27
langeri (Chevrolat) 1853, *Texania* 58
langii Mannerheim 1843, *Buprestis* (*Nelsonocheira*) 90
larreae Fall 1907, *Acmaeodera* (*Acmaeodera*) 27
lata Kerremans 1899, *Chrysobothris* 129
latebrus Gory & Laporte 1837, *Agrilus* (*Agrilus*) 165
lateralis (Say 1823), *Agrilus* (*Agrilus*) 165
lateralis Casey 1909, *Buprestis* (*Cypriacis*) 88
lateralis Waterhouse 1887, *Chrysobothris* 129
laticollis Kerremans 1902, *Acmaeodera* (*Acmaeodera*) 27
latiflava *latiflava* Fall 1907, *Acmaeodera* (*Acmaeodera*) 27
latiflava *lineipicta* Fall 1932, *Acmaeodera* (*Acmaeodera*) 27
latifrons Waterhouse 1889, *Agrilus* (*Agrilus*) 165
laurentica Casey 1909, *Chalcophora* 59
lauta (LeConte 1854), *Buprestis* (*Cypriacis*) 88
lautuellus Fisher 1928, *Agrilus* (*Agrilus*) 165
lbofasciata Knull 1937, *Paratyndaris* (*Paratyndaris*) 53
lebasi (Gory & Laporte 1837), *Actenodes* 115
lecontei (Gory) 1841, *Trachykele* 82
lecontei (Obenberger) 1928, *Phaenops* 112
lecontei *celticola* Fisher 1928, *Agrilus* (*Agrilus*) 165
lecontei *lecontei* Saunders 1871, *Agrilus* (*Agrilus*) 166
lecontei Obenberger, *Paragrillus* 146
lecontei Saunders 1871, *Buprestis* (*Buprestis*) 83
lecontei Thomson 1879, *Dystaxia* 10
leechi Barr 1974, *Chrysobothris* 129
leechi Cobos 1958, *Anthaxia* (*Melanthaxia*) 102
Leiopleura Deyrolle 1864 187
Leiopleurina Hołyński 1993 187
lepida LeConte 1857, *Dicerca* (*Dicerca*) 75
Lepismadora Velten 1987 146
leporina Casey 1909, *Buprestis* (*Buprestis*) 83
lesnei Garnett 1922, *Buprestis* (*Knulliobuprestis*) 89
levettei Casey 1909, *Dicerca* (*Dicerca*) 75
leviceps Casey 1909, *Buprestis* (*Nelsonocheira*) 91
lherminieri (Chevrolat 1838), *Buprestis* (*Nelsonocheira*) 91
liberta (Germar) 1824, *Chalcophora* 59
liberta (Laporte & Gory) 1836, *Chalcophora* 60
libonoti Horn 1886, *Chrysobothris* 129
ligulata Cazier 1940, *Acmaeodera* (*Acmaeodera*) 28
lilaceous Chamberlin 1925, *Chrysobothris* 130
limpiae Knull 1941, *Agrilus* (*Agrilus*) 166
limula Casey 1909, *Dicerca* (*Dicerca*) 75
lineata Fabricius 1775, *Buprestis* (*Buprestis*) 83
lineatipennis Van Dyke 1916, *Chrysobothris* 130
linsleyi Van Dyke 1943, *Acmaeodera* (*Acmaeodera*) 28
liragus Barter & Brown 1949, *Agrilus* (*Agrilus*) 166
lixa Horn 1886, *Chrysobothris* 130
longicauda Casey, *Dicerca* (*Dicerca*) 75
longipennis Casey, *Dicerca* (*Dicerca*) 75
longipes (Say 1823), *Melanophila* 108
lucana Horn 1894, *Chrysobothris* 130
lucernae (Knull) 1973, *Anambodera* 44
lucia Fall 1901, *Acmaeodera* (*Acmaeodera*) 28
lucksani Walters 1982, *Anambodera* 45
luctuosa Gory 1840, *Ptosima* 46
ludificata Horn 1886, *Chrysobothris* 130
lugubris LeConte 1860, *Brachys* 184
lugubris LeConte 1860, *Dicerca* (*Neoargante*) 79
lupinae Nelson 1996, *Acmaeodera* (*Acmaeodera*) 28
lurida (Fabricius) 1775, *Dicerca* (*Dicerca*) 75
luteosignata Mannerheim 1837, *Melanophila* 108
lyrata Casey 1909, *Buprestis* (*Buprestis*) 84
macer LeConte 1858, *Agrilus* (*Agrilus*) 166
macilenta (Casey 1909), *Spectralia* 94
macra Horn 1878, *Acmaeodera* (*Acmaeodera*) 28
maculativentris Say 1824, *Buprestis* (*Buprestis*) 84
maculifera Horn 1894, *Acmaeodera* (*Acmaeodera*) 28
maculipennis Gory 1840, *Buprestis* (*Buprestis*) 84
mali Horn 1886, *Chrysobothris* 130
malvastri Fisher 1928, *Agrilus* (*Agrilus*) 166
manca LeConte 1860, *Dicerca* (*Neoargante*) 79
manzanitae Chamberlin 1929, *Agrilus* (*Agrilus*) 166
margopoli Obenberger 1930, *Agrilus* (*Agrilus*) 166
marginotata Chevrolat 1867, *Acmaeodera* (*Acmaeodera*) 28
mariposa *dohrni* Horn 1878, *Acmaeodera* (*Acmaeodera*) 29
mariposa *mariposa* Horn 1878, *Acmaeodera* (*Acmaeodera*) 29
marmorata Horn 1893, *Glyptoscelimorpha* (*Glyptoscelimorpha*) 11
martini Nelson 1996, *Hippomelas* 68
martini Obenberger 1943, *Agrilus* (*Engyaulus*) 180
masculinus Horn 1891, *Agrilus* (*Agrilus*) 166
Mastogenius Solier 1849 13
mediocris Casey 1909, *Buprestis* (*Nelsonocheira*) 91
Melanophila Eschscholtz 1829 107
Melanophilini Bedel 1921 106
melanotum Muttkowski 1910, *Chalcophora* 60
mendax Horn 1891, *Actenodes* 115

- mercedensis** White 1947, *Taphrocerus* 187
mercurius Wickham 1903, *Agrilus* (*Agrilus*) 166
merkelii Horn 1886, *Chrysobothris* 131
mescalero Wellso & Manley 2007, *Chrysobothris* 131
metallicus (Melsheimer 1845), *Phaenops* 112
mexicana Kerremans 1900, *Acmaeodera*
 (*Acmaeodera*) 29
Micrasta Kerremans 1893 14
micromorpha Fall 1907, *Chrysobothris* 131
miliaris Horn 1878, *Acmaeodera* (*Acmaeodera*) 29
mimicata Knull 1938, *Acmaeodera* (*Acmaeodera*) 29
mimicus Knull 1964, *Actenodes* 115
mimosae Fisher 1928, *Agrilus* (*Agrilus*) 166
mirabilis albopennis Knull 1951, *Hesperorhipis* 105
mirabilis Knull 1947, *Juniperella* 113
mirabilis mirabilis Knull 1937, *Hesperorhipis* 105
miranda LeConte 1854b, *Xenomelanophila* 113
mixcoati Fisher 1938, *Agrilus* (*Agrilus*) 167
mixta LeConte 1860, *Acmaeodera* (*Acmaeodera*) 29
mojavei Knull 1952, *Agrilus* (*Agrilus*) 167
mojavei Westcott 1971, *Acmaeodera* (*Acmaeodera*) 29
molestus Gory 1841, *Brachys* 184
molitor Melsheimer 1845, *Dicerca* (*Dicerca*) 76
monoensis Bellamy 1987, *Nanularia* 57
montana Casey 1909, *Chalcophora* 61
montana Casey 1909, *Dicerca* (*Neoargante*) 79
montana Chamberlin 1922, *Poecilnota* 62
monticola Fall 1910, *Chrysobothris* 131
montosae Barr 2007, *Agrilus* (*Agrilus*) 167
morbosa Fall 1899, *Acmaeodera* (*Acmaeodera*) 30
morio (Fabricius 1792), *Melanophila* 108
morio Casey 1909, *Dicerca* (*Neoargante*) 79
moronga Van Dyke 1943, *Acmaeodera*
 (*Acmaeodera*) 30
morosa Casey 1909, *Buprestis* (*Buprestis*) 85
murrayanae Hopping 1934, *Buprestis* (*Cypriacis*) 88
murrayi LeConte 1866, *Dystaxia* 10
mutica LeConte 1860, *Dicerca* (*Dicerca*) 76
muticus LeConte 1858, *Agrilus* (*Agrilus*) 167
mystica Casey 1909, *Dicerca* (*Neoargante*) 79
nanbrownae Figg-Hoblyn 1953, *Acmaeodera*
 (*Acmaeodera*) 30
nanula Casey 1884, *Anthaxia* (*Melanthaxia*) 103
Nanularia Casey 1909 56
Nanularia generic group (Tribal level) sensu
 Volkovitsh 2001 55
nautica Van Dyke 1945, *Acmaeodera*
 (*Acmaeodera*) 30
navajo Nelson & Westcott 1995, *Acmaeodera*
 (*Acmaeodera*) 30
neabditus Knull 1935, *Agrilus* (*Agrilus*) 167
nebulosa (Horn) 1894, *Anambodera* 45
nelsoni Barr 1972, *Acmaeodera* (*Acmaeodera*) 30
nelsoni Beer 1974, *Dicerca* (*Dicerca*) 76
nelsoni Westcott & Alten 2006, *Chrysobothris* 132
neofunerula Obenberger 1942, *Anthaxia*
 (*Melanthaxia*) 103
neoneglecta Fisher 1949, *Acmaeodera*
 (*Acmaeodera*) 30
neoprosopidis Knull 1938, *Agrilus* (*Agrilus*) 167
neopusilla Fisher 1942, *Chrysobothris* 132
neotexana B. K. Dozier 1955, *Chrysobothris* 132
nevadensis Horn 1891, *Agrilus* (*Agrilus*) 167
nevadensis Obenberger 1928, *Anthaxia*
 (*Melanthaxia*) 103
nevadica Barr 1972, *Acmaeodera* (*Acmaeodera*) 30
nexa Fall 1922, *Acmaeodera* (*Acmaeodera*) 31
nicolayi (Obenberger) 1944, *Phaenops* 112
nicolayi Obenberger 1924, *Taphrocerus* 187
nicolayi Obenberger 1925, *Pachyschelus* 189
nigra Casey 1909, *Dicerca* (*Dicerca*) 76
nigricans Casey 1909, *Buprestis* (*Buprestis*) 85
nigricans Gory 1841, *Agrilus* (*Agrilus*) 167
nigrovittata Van Dyke 1934, *Acmaeodera*
 (*Acmaeodera*) 31
nimbosa Fall 1906, *Trachykele* 82
niveiventris Horn 1891, *Agrilus* (*Agrilus*) 167
nixa Horn 1886, *Chrysobothris* 132
notata (Laporte & Gory) 1837, *Melanophila* 108
novaeboracensis Fitch 1859, *Chalcophora* 60
nupta Casey 1909, *Buprestis* (*Cypriacis*) 88
nutalli Kirby 1837, *Buprestis* (*Buprestis*) 85
oakleyi Fisher 1935, *Micrasta* 14
obenbergeri (Knull) 1952, *Phaenops* 112
obesa Kerremans 1910, *Acmaeodera*
 (*Acmaeodera*) 31
obesus Casey 1909, *Gyascutus* (*Gyascutus*) 66
obliqua Casey 1909, *Buprestis* (*Nelsonocheira*) 91
obliquus LeConte 1860, *Agrilus* (*Agrilus*) 168
obliterata Casey 1909, *Chalcophora* 60
oblongus (Motschulsky 1860), *Pachyschelus* 189
oblongus Fisher 1928, *Agrilus* (*Agrilus*) 168
obolinus LeConte 1860, *Agrilus* (*Agrilus*) 168
obrienorum Knull 1971, *Nanularia* 57
obscura (Fabricius) 1781, *Dicerca* (*Dicerca*) 76
obscura Casey 1909, *Buprestis* (*Cypriacis*) 88
obscurata Lewis 1893, *Melanophila* 109
obscurilineatus Vogt 1949, *Agrilus* (*Agrilus*) 168
obsoletoguttatus Gory 1841, *Agrilus* (*Agrilus*) 168
obtusa (Horn) 1882, *Phaenops* 112
obtusa Horn 1878, *Acmaeodera* (*Acmaeodera*) 31
obtusus Horn 1891, *Agrilus* (*Agrilus*) 168
occidentalis Obenberger 1928, *Melanophila* 109
occidentalis Uhler 1855, *Agrilus* (*Agrilus*) 168
octocola LeConte 1858, *Chrysobothris* 132
octospilotus (Laporte & Gory 1837), *Phaenops* 112
ocularis (Casey 1909), *Lampetis* (*Spinthoptera*) 71
ocularis (Casey 1914), *Spectralia* 94
oculatus Schaeffer 1909, *Pachyschelus* 189
ohioensis Knull 1951, *Agrilus* (*Agrilus*) 169
olentangyi Champlain & Knull 1925, *Agrilus*
 (*Agrilus*) 169
olivaceoniger Fisher 1928, *Agrilus* (*Agrilus*) 169
olneyae (Skinner) 1903, *Paratyndaris*
 (*Paratyndaris*) 54
ometauhtli Fisher 1938, *Agrilus* (*Agrilus*) 169
opaca LeConte 1860, *Melanophila* 109
opacula LeConte 1858, *Acmaeodera* (*Acmaeodera*) 31

Index

- opacus* Kerremans 1897, *Agrilus* (*Agrilus*) 169
- opulenta* Fall 1906, *Trachykele* 82
- oregona* Casey 1909, *Buprestis* (*Nelsonocheira*) . . . 91
- oregona* Chamberlin 1934, *Chrysobothris* 133
- oregonensis* Fitch 1859, *Chalcophora* 60
- oregonensis* Obenberger 1942, *Anthaxia*
(*Melanthaxia*) 103
- ornata* (Fabricius) 1775, *Acmaeodera*
(*Acmaeodera*) 31
- ornata* Walker 1866, *Buprestis* (*Nelsonocheira*) . . . 91
- ornatoides* Barr 1972, *Acmaeodera*
(*Acmaeodera*) 32
- ornatulus* Horn 1891, *Agrilus* (*Agrilus*) 169
- orono* Frost 1920, *Chrysobothris* 133
- osburni* Knull 1936, *Xenorhipis* 106
- osburni* Knull 1937, *Agrilus* (*Agrilus*) 169
- otero* (Fisher) 1935, *Leiopleura* 188
- otiosus* Say 1833, *Agrilus* (*Agrilus*) 169
- ovatus* (Say 1825), *Pachyschelus* 189
- ovatus* (Weber) 1801, *Brachys* 184
- Pachyschelus* Bøving & Craighead 1931 188
- Pachyschelus* Solier 1833 188
- pacificus* (Chamberlin) 1938, *Gyascutus*
(*Gyascutus*) 66
- paganorum* Kirby 1837, *Buprestis* (*Buprestis*) 85
- pallida* Kerremans 1919, *Chalcophora* 60
- pallidula* Kerremans 1910, *Acmaeodera*
(*Acmaeodera*) 32
- palmarum* (Timberlake) 1939, *Anambodera* 45
- palmerleei* Knull 1944, *Agrilus* (*Agrilus*) 170
- panamintensis* Westcott 1971, *Acmaeodera*
(*Acmaeodera*) 32
- paragonis* Duncan 1934, *Acmaeodera*
(*Acmaeodera*) 32
- parabductus* Knull 1954, *Agrilus* (*Agrilus*) 170
- paracelti* Knull 1972, *Agrilus* (*Agrilus*) 170
- paradisjuncta* Knull 1940, *Acmaeodera*
(*Acmaeodera*) 32
- parafloridanus* Knull 1929, *Agrilus* (*Agrilus*) 170
- Paragrillus* Saunders 1871 146
- paragrindelidae* Knull 1943, *Chrysobothris* 133
- paraimpexus* Hespenheide 2007, *Agrilus*
(*Agrilus*) 170
- paramasculinus* Champlain & Knull 1923, *Agrilus*
(*Agrilus*) 170
- parapiuta* Knull 1938, *Chrysobothris* 133
- parapubescens* Knull 1934, *Agrilus* (*Agrilus*) 170
- Paratyndaris* (*Knulliella*) Cobos 1980 52
- Paratyndaris* (*Paratyndaris*) Fisher 1919 52
- Paratyndaris* (*Waltersia*) Nelson & Bellamy 2004 . . . 54
- Paratyndaris* Fisher 1919 51
- paravaripilis* (Barr) 1972, *Acmaeoderopsis* 44
- parkeri* Cazier 1940, *Acmaeodera* (*Acmaeodera*) . . . 32
- parkeri* Knull 1935b, *Agrilus* (*Agrilus*) 170
- parkeri* Nelson 1996, *Hippomelas* 68
- parmaculativentris* Knull 1958, *Buprestis*
(*Buprestis*) 85
- parputillus* Knull 1960, *Agrilus* (*Agrilus*) 171
- parumpunctata* Melsheimer 1845, *Dicerca* (*Dicerca*) . 76
- parva* (Casey 1909), *Lampetis* (*Spinthoptera*) 71
- parviceps* Casey 1909, *Chalcophora* 60
- parviceps* Casey 1909, *Poecilnota* 62
- parvus californicus* Westcott & Nelson 2000,
Agrilus (*Agrilus*) 171
- parvus parvus* Saunders 1870, *Agrilus* (*Agrilus*) . . 171
- patagoniensis* Knull 1941, *Agrilus* (*Agrilus*) 171
- patruelis* Casey 1909, *Buprestis* (*Nelsonocheira*) . . 91
- pectoralis* Waterhouse 1889, *Agrilus* (*Agrilus*) . . . 171
- pectorosa* LeConte 1857, *Dicerca* (*Dicerca*) 76
- peninsularis peninsularis* Schaeffer 1904,
Chrysobothris 133
- pennsylvanica* Obenberger 1914, *Anthaxia*
(*Haplantaxia*) 99
- pensus* Horn 1891, *Agrilus* (*Agrilus*) 171
- perforata* Cazier 1940, *Acmaeodera* (*Acmaeodera*) . . 32
- perlanosa* Timberlake 1939, *Acmaeodera*
(*Acmaeodera*) 32
- pertinax* Casey 1909, *Dicerca* (*Dicerca*) 76
- Phaenops* Dejean 1833 109
- Phrixini* Cobos 1975 93
- pilosicollis* Fisher 1928, *Agrilus* (*Agrilus*) 171
- pilosovittatus* Saunders 1873, *Agrilus* (*Agrilus*) . . 171
- pimalicus* Casey 1909, *Gyascutus* (*Gyascutus*) 66
- pinalicus* Wickham 1903, *Agrilus* (*Engyaulus*) . . . 180
- pinalorum* Knull 1930, *Acmaeodera*
(*Acmaeodera*) 33
- piniedulis* (Burke) 1908, *Phaenops* 112
- pinorum* Casey 1909, *Dicerca* (*Neoargante*) 79
- pisciformis* Casey 1909, *Dicerca* (*Dicerca*) 76
- pistorius* Casey 1909, *Gyascutus* (*Gyascutus*) 66
- piuta* Wickham 1903, *Chrysobothris* 133
- placida* (LeConte) 1854, *Chrysophana* 48
- plagiaticauda* Horn 1878, *Acmaeodera*
(*Acmaeodera*) 33
- planata* Gory & Laporte 1837, *Chrysobothris* 133
- planicauda* Casey 1909, *Hippomelas* 69
- planicosta cribriceps* Casey 1909, *Gyascutus*
(*Gyascutus*) 66
- planicosta obliterated* (LeConte) 1858, *Gyascutus*
(*Gyascutus*) 67
- planicosta planicosta* (LeConte) 1858, *Gyascutus*
(*Gyascutus*) 67
- planipennis* Fairmaire 1888, *Agrilus* (*Agrilus*) . . . 172
- planomarginata* Chamberlin 1938, *Chrysobothris* . . 133
- platti* (Cazier) 1938, *Sphaerobothris* (*Sphaerobothris*)
Semenov-Tian-Shanskij & Richter 1934 145
- pletura* Barr 1972, *Acmaeodera* (*Acmaeodera*) 33
- plumbeus* LeConte 1860, *Agrilus* (*Agrilus*) 172
- Poecilnota* Eschscholtz 1829 61
- Poecilnotini* Jakobson 1911 61
- politus* (Say) 1825, *Agrilus* (*Agrilus*) 172
- politus* Kerremans 1896, *Pachyschelus* 189
- Polycesta* (*Arizonica*) Cobos 1981 49
- Polycesta* (*Nelsonella*) Cobos 1981 50
- Polycesta* (*Polycesta*) Dejean 1833 48
- Polycesta* (*Tularensia*) Nelson 1997 50
- Polycesta* Dejean 1833 48
- Polycestinae* Lacordaire 1857 12

- Polycestini Lacordaire 1857** 48
populi Fisher 1928, *Agrilus* (*Agrilus*) 173
porcatula Casey 1909, *Dicerca* (*Dicerca*) 77
porella Barr 1974, *Anthaxia* (*Melanthaxia*) 103
postica Fall 1899, *Acmaeodera* (*Acmaeodera*) 33
posticalis Gory & Laporte 1837, *Chrysobothris* 134
potentillae Barr 1969, *Chrysobothris* 134
prasina Horn 1882, *Anthaxia* (*Melanthaxia*) 103
prasina Horn 1886, *Chrysobothris* 134
Prasinalia Casey 1909 69
prasinus (LeConte 1860), *Phaenops* 113
princeps Kerremans 1908, *Acmaeodera*
(*Acmaeodera*) 33
prionurus Chevrolat 1838, *Agrilus* (*Agrilus*) 173
prolongata LeConte 1860, *Dicerca* (*Dicerca*) 77
prominens Casey 1909, *Chalcophora* 60
prorsa Fall 1899, *Acmaeodera* (*Acmaeodera*) 33
prosopidis Fisher 1928, *Agrilus* (*Agrilus*) 173
prosopidis Fisher 1942, *Chrysobothris* 134
prosopis (Skinner) 1903, *Paratyndaris*
(*Paratyndaris*) 54
prosopis Davidson 2006, *Acmaeoderopsis* 44
prospira Casey 1909, *Buprestis* (*Cypriacis*) 88
prosternalis (Schaeffer) 1904, *Spectralia* 94
proxima Kirby 1837, *Chrysobothris* 134
pruinosa (Gory 1841, *Dicerca* (*Dicerca*) 77
pseudacutipennis Obenberger 1940, *Chrysobothris* 134
pseudocoryli Fisher 1928, *Agrilus* (*Agrilus*) 173
pseudofallax Frost 1923, *Agrilus* (*Agrilus*) 173
pseudotsugae Chamberlin 1928, *Anthaxia*
(*Haplantaxia*) 99
pseudotsugae Van Dyke 1916, *Chrysobothris* 134
Ptosima Dejean 1833 45
Ptosimini Kerremans 1902 45
pubescens Fall 1907, *Chrysobothris* 134
pubescens Fisher 1928, *Agrilus* (*Agrilus*) 173
pubifrons Fisher 1928, *Agrilus* (*Agrilus*) 173
pubilineata Vogt 1949, *Chrysobothris* 134
pubiventris Crotch 1873, *Agrilus* (*Agrilus*) 174
pubiventris lanata Horn 1880, *Acmaeodera*
(*Acmaeodera*) 33
pubiventris panocheae Westcott 2001, *Acmaeodera*
(*Acmaeodera*) 34
pubiventris pubiventris Horn 1878, *Acmaeodera*
(*Acmaeodera*) 34
pubiventris yumae Knull 1937, *Acmaeodera*
(*Acmaeodera*) 34
pugetana Casey 1909, *Buprestis* (*Buprestis*) 86
pugionata (Germar) 1824, *Dicerca* (*Dicerca*) 77
pulchella (Herbst) 1801, *Acmaeodera*
(*Acmaeodera*) 34
pulchellus Bland 1865, *Agrilus* (*Engyaulus*) 180
pullata Cazier 1940, *Acmaeodera* (*Acmaeodera*) 34
punctata (Gory 1841), *Pachyschelus* 189
punctatus (Melsheimer 1845), *Actenodes* 115
puncticeps LeConte 1860, *Agrilus* (*Agrilus*) 174
puncticollis Schaeffer 1919, *Mastogenius* 14
puncticollis Schwarz 1878, *Taphrocerus* 187
punctiventris Casey 1909, *Buprestis* (*Buprestis*) 86
punctulata (Schönherr) 1817, *Dicerca*
(*Neoargante*) 79
purpurascens (Schaeffer) 1905, *Spectralia* 94
purpurata Bland 1864, *Chrysobothris* 134
purpureoplagiata Schaeffer 1904, *Chrysobothris* 134
purpureovittata cercocarpi Westcott & Nelson
2000, *Chrysobothris* 135
purpureovittata purpureovittata Horn 1886,
Chrysobothris 135
purpureus purpureus (Say) 1833, *Pachyschelus* 189
purpureus uvaldei Knull 1941, *Pachyschelus* ... 189
purpurifrons Motschulsky 1859, *Chrysobothris* 135
purshiae Fisher 1926, *Acmaeodera* (*Acmaeodera*) 35
pusilla Gory & Laporte 1837, *Chrysobothris* 135
pusillus Say 1825, *Agrilus* (*Agrilus*) 174
putillus parputillus Knull 1960, *Agrilus* (*Agrilus*) 174
putillus putillus Say 1833, *Agrilus* (*Agrilus*) 174
pygmaea (Knull) 1941, *Nanularia* 57
quadriguttatus fulminans Fisher 1928, *Agrilus*
(*Agrilus*) 174
quadriguttatus niveiventris Horn 1891, *Agrilus*
(*Agrilus*) 174
quadriguttatus quadriguttatus Gory 1841, *Agrilus*
(*Agrilus*) 174
quadriimpressa Gory & Laporte 1837,
Chrysobothris 136
quadriimpressus Ziegler 1845, *Agrilus* (*Agrilus*) 175
quadrilineata LeConte 1860, *Chrysobothris* 136
quadrinotata Knull 1938, *Paratyndaris*
(*Paratyndaris*) 54
quadriseriata Fall 1899, *Acmaeodera* (*Acmaeodera*) 35
quadrivittata Horn 1870, *Acmaeodera*
(*Acmaeodera*) 35
quadrivittatoides Nelson & Westcott 1995,
Acmaeodera (*Acmaeodera*) 35
quatuordecimguttata (Fabricius 1801), *Acmaeodera*
(*Acmaeodera*) 35
quatuordecimspilota Obenberger 1917, *Acmaeodera*
(*Acmaeodera*) 35
quercata (Fabricius) 1801, *Anthaxia*
(*Haplantaxia*) 99
querci Knull 1941, *Dicerca* (*Dicerca*) 77
querci Knull 1952, *Brachys* 185
quercicola Fisher 1928, *Agrilus* (*Agrilus*) 175
quercicola Wellso 1974, *Anthaxia*
(*Haplantaxia*) 99
quercus Schaeffer 1905, *Agrilus* (*Agrilus*) 175
radians (LeConte 1854), *Buprestis* (*Cypriacis*) 88
randis Chamberlin 1938, *Chrysobothris* 127
ranulatus mojavei Knull 1952, *Agrilus* (*Agrilus*) 163
ranulatus populi Fisher 1928, *Agrilus* (*Agrilus*) 163
recticollis Fall 1899, *Acmaeodera* (*Acmaeodera*) 35
recticollis Westcott 1971, *Acmaeodera*
(*Acmaeodera*) 36
reducta Casey 1909, *Buprestis* (*Buprestis*) 86
reflexa Barr 1992, *Acmaeodera* (*Acmaeodera*) 36
regularis Casey 1909, *Dicerca* (*Dicerca*) 77
resplendens Van Dyke 1937, *Acmaeodera*
(*Acmaeodera*) 36

Index

- restrictus** Waterhouse 1889, *Agrilus* (*Agrilus*) . . . 175
reticulaticollis (Schaeffer) 1904, *Trigonogya* . . . 14
retifer LeConte 1860, *Anthaxia* (*Melanthaxia*) . . 103
retifera LeConte 1859, *Acmaeodera* (*Acmaeodera*) . 36
Rhaeboscelidina Cobos 1976 146
rigida Casey 1909, *Dicerca* (*Dicerca*) 77
riograndei (Knull 1937), *Spectralia* 94
riograndei Nelson 1980, *Acmaeodera*
(Acmaeodera) 36
robigo Knull 1954, *Acmaeodera* (*Acmaeodera*) . . 36
roburella (Knull) 1941, *Spectralia* 94
robusta (Chamberlin) 1920, *Spectralia* 94
robusta Horn 1878, *Acmaeodera* (*Acmaeodera*) . . 36
robustus Casey 1909, *Hippomelas* 69
robustus Schaeffer 1905, *Mastogenius* 14
rockefelleri (Cazier) 1951, *Acmaeoderopsis* 44
roguensis Beer 1967, *Chrysobothris* 136
rossi (Cazier) 1937, *Acmaeoderoides* 16
rossi Van Dyke 1942, *Chrysobothris* 136
rotundicollis Gory & Laporte 1837, *Chrysobothris* . 136
rubicola Abiella 1897, *Agrilus* (*Agrilus*) 175
rubrocuprea Westcott & Nelson 2000,
Acmaeodera (*Acmaeodera*) 36
rubroniger Hesperheide 1979, *Agrilus* (*Agrilus*) . 175
rubronotans Casey 1909, *Buprestis* (*Buprestis*) . . . 86
rubronotata Laporte & Gory 1835, *Acmaeodera*
(Acmaeodera) 37
rubrosuffusa Fall 1907, *Acmaeodera* (*Acmaeodera*) . 37
rubrovittatus Dugès 1891, *Agrilus* (*Engyaulus*) . . 180
rubrovittatus Waterhouse 1889, *Agrilus*
(Engyaulus) 180
rufescens Nelson 1968, *Acmaeoderoides* 16
rufescens Nicolay & Weiss 1923, *Brachys* 185
ruficollis (Fabricius) 1787, *Agrilus* (*Agrilus*) 175
rufipes Olivier 1790, *Buprestis* (*Knulloibuprestis*) . 89
rugatulus Thomson 1879, *Paragrillus* 146
rugosiceps Melsheimer 1845, *Chrysobothris* 137
rugulosus (Gory 1841), *Actenodes* 115
rustica Casey 1909, *Dicerca* (*Dicerca*) 77
rusticorum Kirby 1837, *Buprestis* (*Buprestis*) 86
sabinae Knull 1937, *Acmaeodera* (*Acmaeodera*) . . 37
sagax Casey 1909, *Dicerca* (*Dicerca*) 77
salicis (Fabricius), *Anthaxia* (*Anthaxia*) 97
salisburyensis Herbst 1801, *Buprestis* (*Stereosa*) . . 92
salixi Chamberlin 1925, *Poecilonota* 63
sallei nigricans Nelson 1991, *Schizopus* 10
sallei sallei Horn 1885, *Schizopus* 10
salviaphilos Manley 1979, *Agrilus* (*Agrilus*) 176
santaritae Knull 1937, *Agrilus* (*Agrilus*) 176
santarosae (Knull 1947), *Sphaerobothris* (*Sphaero-*
bothris) Semenov-Tian-Shanskij & Richter
1934 145
santarosae (Knull) 1960, *Anambodera* 45
santarosae Cobos 1958, *Anthaxia* (*Haplanthaxia*) . . 99
sapindi Knull 1938, *Agrilus* (*Agrilus*) 176
sapindicola Vogt 1949, *Agrilus* (*Agrilus*) 176
saturata Casey 1909, *Buprestis* (*Nelsonocheira*) . . 91
sayi Saunders 1870, *Agrilus* (*Agrilus*) 176
scabra Gory 1841, *Chrysobothris* 137
scabripennis Gory & Laporte 1837, *Chrysobothris* 137
scalaris Mannerheim 1837, *Acmaeodera*
(Acmaeodera) 37
schaefferi Chamberlin, *Ptosima* 46
schaefferi Nicolay & Weiss 1920, *Taphrocerus* . . . 187
schaefferi Obenberger 1934, *Chrysobothris* 137
schistomorion Westcott & Davidson 2001,
Chrysobothris 137
SCHIZOPODIDAE LECONTE 1859 9
Schizopodinae LeConte 1859 9
Schizopodini LeConte 1859 9
Schizopus LeConte 1858 9
schwarzi Kerremans 1892, *Pachyschelus* 189
scintillans Waterhouse 1882, *Agaeocera* 93
scitula Gory 1841, *Chrysobothris* 137
scitulus Horn 1891, *Agrilus* (*Agrilus*) 176
scobina Chevrolat 1838, *Dicerca* (*Neoargante*) . . . 79
scoriacea Melsheimer 1845, *Anthaxia*
(Haplanthaxia) 99
scotti Chamberlin 1938, *Chrysobothris* 138
scripta Casey 1909, *Buprestis* (*Buprestis*) 86
sculpturata Barr 1971, *Anthaxia* (*Melanthaxia*) . . 104
secedens Waterhouse 1889, *Pachyschelus* 189
seeditiosa Casey 1909, *Buprestis* (*Nelsonocheira*) . . 91
seminole Wellso & Manley 2007, *Chrysobothris* . . 138
seminulum cochinchinae Obenberger 1929,
Aphanisticus 181
semisculpta LeConte 1860, *Chrysobothris* 138
semivittata LeConte 1858, *Acmaeodera*
(Acmaeodera) 37
serena Fall 1899, *Acmaeodera* (*Acmaeodera*) 37
seriata Casey 1909, *Dicerca* (*Dicerca*) 77
serripennis Obenberger 193, *Anthaxia*
(Melanthaxia) 104
serripes Schaeffer 1905, *Chrysobothris* 138
serrulatus Casey 1909, *Hippomelas* 69
severa Casey 1909, *Dicerca* (*Dicerca*) 77
sexfasciata Schaeffer 1919, *Chrysobothris* 138
sexguttata Say 1823, *Chrysobothris* 138
sexmaculata Hausmann 1799, *Buprestis*
(Nelsonocheira) 91
sexnotata Laporte & Gory 1837, *Buprestis*
(Buprestis) 86
sexplagiata (LeConte 1860), *Buprestis*
(Nelsonocheira) 91
sexsignata Say 1839, *Chrysobothris* 138
sexualis Crotch 1873, *Dicerca* (*Neoargante*) 79
shawnee Wellso & Manley 2007, *Chrysobothris* . . 139
shoemakeri Knull, *Agrilus* (*Agrilus*) 176
sierrae Van Dyke 1923, *Agrilus* (*Agrilus*) 176
simi Fisher 1940, *Actenodes* 115
simiola Casey 1884, *Anthaxia* (*Melanthaxia*) . . . 104
simulata Van Dyke 1937, *Acmaeodera*
(Acmaeodera) 37
sinuata sexnotata Van Dyke 1919, *Acmaeodera*
(Acmaeodera) 38
sinuata sinuata Van Dyke 1919, *Acmaeodera*
(Acmaeodera) 38
sinuatus (Olivier) 1790, *Agrilus* (*Agrilus*) 176

- sloicola* Manley & Wellso 1976, *Chrysobothris* . . . 139
smaragdula Fall 1907, *Chrysobothris* . . . 139
snowi Casey 1909, *Gyascutus* (*Gyascutus*) . . . 68
snowi Fall 1905, *Agrilus* (*Agrilus*) . . . 177
socialis apache Westcott & Barr 2007,
Chrysobothris . . . 139
solidus Casey 1909, *Gyascutus* (*Gyascutus*) . . . 68
solitaria Kerremans 1897, *Acmaeodera*
(*Acmaeodera*) . . . 38
solitarius Harold 1869, *Agrilus* (*Agrilus*) . . . 177
soror Casey 1909, *Dicerca* (*Dicerca*) . . . 77
soror LeConte 1860, *Chrysobothris* . . . 139
sparsa Horn 1878, *Acmaeodera* (*Acmaeodera*) . . . 38
Spectralia Casey 1909 . . . 93
Spectralia generic group (Tribal level) sensu
Volkovitsh 2001 . . . 93
speculifer Horn 1886, *Chrysobothris* . . . 139
sphaeralceae Barr 1972, *Acmaeodera*
(*Acmaeodera*) . . . 38
Sphaerobothris (*Sphaerobothris*) Semenov-Tian-
Shanskij & Richter 1934 . . . 145
Sphaerobothris Semenov-Tian-Shanskij &
Richter 1934 . . . 143
sphenicus (LeConte) 1854:83, *Hippomelas* . . . 69
Sphenoptera (*Chilostetha*) Jakovlev 1889 . . . 64
Sphenoptera Dejean 1833 . . . 63
Sphenopterini Lacordaire 1857 . . . 63
spretia (Gory) 1841, *Dicerca* (*Dicerca*) . . . 77
squamosa Van Dyke 1919, *Acmaeoderopsis* . . . 44
starrae Knull 1966, *Acmaeodera* (*Acmaeodera*) . . . 38
stolidia Casey 1909, *Dicerca* (*Neoargante*) . . . 79
stramineus Nelson 1968, *Acmaeoderoides* . . . 16
strandtmanni Knull 1947, *Dicerca* (*Dicerca*) . . . 77
strangulata Melsheimer 1845, *Chrysobothris* . . . 140
striata Fabricius 1775, *Buprestis* (*Cypriacis*) . . . 88
strigata LeConte 1859, *Anthaxia* (*Melanthaxia*) . . . 104
strigicollis Fall 1912, *Agrilus* (*Agrilus*) . . . 177
subaenea LeConte 1860, *Anthaxia* (*Haplantaxia*) . . . 99
subaequalis Casey 1909, *Dicerca* (*Dicerca*) . . . 77
subargentea Casey 1909, *Dicerca* (*Dicerca*) . . . 77
subcinctus Gory 1841, *Agrilus* (*Agrilus*) . . . 177
subcuprea Casey 1909, *Dicerca* (*Dicerca*) . . . 77
subcyanea Fall 1899, *Acmaeodera* (*Acmaeodera*) . . . 38
subcyaneus (LeConte) 1860, *Mastogenius* . . . 14
subcylindrica Ménétries 1859, *Chrysobothris* . . . 140
subfasciatus LeConte 1860, *Agrilus* (*Agrilus*) . . . 177
sublaevis Van Dyke 1916, *Anthaxia* (*Haplantaxia*) . . . 99
sublivida Casey 1909, *Buprestis* (*Buprestis*) . . . 86
subopaca Schaeffer 1904, *Chrysobothris* . . . 140
subornata (LeConte) 1860, *Buprestis* (*Buprestis*) . . . 86
subprasina Cobos 1958, *Anthaxia* (*Melanthaxia*) . . . 104
subrobustus Saunders 1873, *Agrilus* (*Agrilus*) . . . 177
subtropicus Schaeffer 1905, *Agrilus* (*Agrilus*) . . . 177
sulcaticeps Abeille de Perrin 1869, *Agrilus*
(*Agrilus*) . . . 177
sulcatula Casey 1909, *Dicerca* (*Dicerca*) . . . 77
sulcicollis (LeConte) 1860, *Buprestis* (*Cypriacis*) . . . 88
sulcifrons Fisher 1922, *Taphrocerus* . . . 187
suturalis Fall 1934, *Paratyndaris* (*Knulliella*) . . . 52
sylvania Fall 1910, *Chrysobothris* . . . 140
taeniatus Chevrolat, *Agrilus* (*Agrilus*) . . . 177
Taphrocerus Solier 1833 . . . 185
tarahumarae Cazier 1951, *Agrilus* (*Agrilus*) . . . 178
tarsalis Barr 1971, *Anthaxia* (*Melanthaxia*) . . . 104
taxodii Nelson 1982, *Beerellus* . . . 47
tenebrica (Kirby) 1837, *Dicerca* (*Dicerca*) . . . 77
tenebricosa Fall 1922, *Acmaeodera*
(*Acmaeodera*) . . . 38
tenebrosa knulli Nelson 1975, *Dicerca*
(*Neoargante*) . . . 79
tenebrosa tenebrosa (Kirby) 1837, *Dicerca*
(*Neoargante*) . . . 80
tenuis (LeConte), *Paragrillus* . . . 147
tenuis Casey 1909, *Gyascutus* (*Gyascutus*) . . . 68
terminans Gory & Laporte 1840, *Brachys* . . . 185
tesselata Casey 1909, *Buprestis* (*Knulliobuprestis*) . . . 89
tesselatus (Fabricius) 1801, *Brachys* . . . 185
teuqualoi Fisher 1938, *Agrilus* (*Agrilus*) . . . 178
texana LeConte 1860, *Acmaeodera* (*Acmaeodera*) . . . 38
texana LeConte 1860, *Chrysobothris* . . . 140
Texania Casey 1909 . . . 57
Texania generic group (Tribal level) sensu
Volkovitsh 2001 . . . 57
texanus (Schaeffer 1904), *Paragrillus* . . . 147
texanus Bellamy 2002, *Mastogenius* . . . 14
texanus Crotch 1873, *Agrilus* (*Agrilus*) . . . 178
texanus Kerremans 1896, *Taphrocerus* . . . 187
thoracata Knull 1974, *Acmaeodera* (*Acmaeodera*) . . . 39
thoracicus Schaeffer 1905, *Chrysobothris* . . . 140
Thrincopyge LeConte 1858 . . . 46
Thrincopygini LeConte 1861 . . . 46
thureura (Say) 1832, *Poecilnota* . . . 63
tildenorum Nelson & Westcott 1995,
Acmaeodera (*Acmaeodera*) . . . 39
tiquilia Westcott & Barr 1998, *Acmaeodera*
(*Acmaeodera*) . . . 39
torpidus LeConte 1860, *Agrilus* (*Agrilus*) . . . 178
torquatus LeConte 1860, *Agrilus* (*Agrilus*) . . . 178
torva Casey 1909, *Buprestis* (*Buprestis*) . . . 86
townsendi Fall 1907, *Agrilus* (*Agrilus*) . . . 178
toxotes Obenberger 1935, *Agrilus* (*Agrilus*) . . . 178
Trachyina Gory & Laporte 1839 . . . 182
Trachyini Laporte 1835 . . . 181
Trachykele Marseul 1865 . . . 81
Trachykelina Hołyński 1988 . . . 81
Trachys . . . 182
tranquebarica (Gmelin) 1788, *Chrysobothris* . . . 140
transimpessus Fall 1925, *Agrilus* (*Agrilus*) . . . 178
transversa (Say 1825), *Dicerca* (*Neoargante*) . . . 80
Trichinorhipidina Bellamy 2006 . . . 106
Trichinorhipis Barr 1948 . . . 106
trichocarpae Chamberlin 1929, *Agrilus* (*Agrilus*) . . . 178
Trigonogya Schaeffer 1919 . . . 14
trinervia Kirby 1837, *Chrysobothris* . . . 141
trogodytiformis Obenberger 1918, *Trachys* . . . 182
truncata Casey 1909, *Dicerca* (*Dicerca*) . . . 78
tuberculata (Laporte & Gory) 1837, *Dicerca*
(*Neoargante*) . . . 80

Index

- tubulus** (Fabricius) 1801, *Acmaeodera* (*Acmaeodera*) 39
- tucsoni** Knull 1938, *Paratyndaris* (*Paratyndaris*) . . 54
- tularensis** Chamberlin 1938, *Polycesta* (*Tularensia*) 51
- turnbowi** Nelson 1990, *Agrilus* (*Agrilus*) 178
- tuta** Horn 1878, *Acmaeodera* (*Acmaeodera*) 40
- Tyndarini** Cobos 1955 51
- ulkei** (LeConte) 1860, *Sphaerobothris* (*Sphaerobothris*) Semenov-Tian-Shanskij & Richter 1934 145
- ulmi** Kurosawa 1956, *Agrilus* (*Agrilus*) 178
- ultramarina** Gory & Laporte 1837, *Chrysobothris* . 141
- ultramarina** Say 1833, *Buprestis* (*Stereosa*) 92
- umbellatarum** (Kirby 1837), *Phaenops* 113
- untiae** Knull 1966, *Acmaeodera* (*Acmaeodera*) . . . 31
- utahensis** Westcott 1991, *Agrilus* (*Engyaulus*) . . . 181
- uttifera** (LeConte) 1859, *Acmaeoderopsis* 43
- uvaldei** Knull 1941, *Pachyschelus* 189
- uvaldensis** Knull 1936, *Acmaeodera* (*Acmaeodera*) . 40
- valens** (LeConte 1858), *Lampetis* (*Spinthoptera*) . . 71
- vancouveri** Casey 1909, *Dicerca* (*Dicerca*) 78
- vanduzeei** Van Dyke 1934, *Acmaeodera* (*Squamodera*) 42
- vandykeana** Obenberger 1936, *Anthaxia* (*Melanthaxia*) 104
- vandykei** (Obenberger) 1944, *Phaenops* 113
- vandykei** Fall 1899, *Acmaeodera* (*Acmaeodera*) . . 40
- variegata** LeConte 1852, *Acmaeodera* (*Acmaeodera*) 40
- vejdovskyi** Obenberger 1939, *Xenorhipis* 106
- ventralis** Horn 1891, *Agrilus* (*Agrilus*) 178
- verdevallis** Fisher 1943, *Chrysobothris* 141
- verdigripennis** Frost 1910, *Chrysobothris* 141
- verecunda** Barr 1972, *Acmaeodera* (*Acmaeodera*) . 40
- verityi** Nelson 1968, *Acmaeoderoides* 16
- verityi** Westcott 1971, *Acmaeodera* (*Acmaeodera*) . 40
- vermiculata** Knull 1947, *Acmaeodera* (*Acmaeodera*) 40
- vernalis** Barr 1972, *Acmaeodera* (*Acmaeodera*) . . 40
- versuta** (Horn 1878), *Acmaeoderopsis* 44
- violescens** Casey 1909, *Buprestis* (*Buprestis*) 86
- virens** Casey 1909, *Buprestis* (*Knulloibuprestis*) . . 89
- virens** Gory 1841, *Agrilus* (*Agrilus*) 179
- virens** Schilski 1888, *Agrilus* (*Agrilus*) 179
- virginica** (Gmelin 1790), *Chalcophora* 60
- virginiensis** (Drury) 1770, *Chalcophora* 60
- viridescens** Knull 1935, *Agrilus* (*Agrilus*) 179
- viridiceps** Melsheimer 1845, *Chrysobothris* 141
- viridicornis** (Say) 1823, *Anthaxia* (*Haplanthaxia*) . 99
- viridicyanea** Horn 1886, *Chrysobothris* 141
- viridicyanea** Nelson 1997, *Poecilnota* 63
- viridifrons** Gory 1841, *Anthaxia* (*Haplanthaxia*) . 100
- viridimicans** Casey 1909, *Buprestis* (*Nelsonocheira*) 91
- viridipunctata** Gory & Laporte 1837, *Chrysobothris* 142
- viridis** Chamberlin 1931, *Glyptoscelimorpha* (*Glyptoscelimorpha*) 12
- viridisuturalis** Nicolay & Weiss 1918, *Buprestis* (*Knulloibuprestis*) 89
- vittaticollis** (Randall) 1838, *Agrilus* (*Agrilus*) . . . 179
- vidua** Knull 1952, *Chrysobothris* 142
- vogti** Hesperheide 2003, *Pachyschelus* 189
- vogti** Knull 1964, *Chrysobothris* 142
- vulcanica** LeConte, *Chrysobothris* 142
- vulturei** Knull 1938, *Acmaeodera* (*Acmaeodera*) . . 41
- wallowae** Obenberger 1942, *Anthaxia* (*Melanthaxia*) 104
- walshii** LeConte 1863, *Ptosima* 46
- walsinghami** Crotch 1873, *Agrilus* (*Agrilus*) 179
- waltersi** Nelson 1985, *Agrilus* (*Agrilus*) 179
- webbii** (LeConte) 1858, *Lampetis* (*Spinthoptera*) . . 71
- wenzeli** Knull 1934, *Agrilus* (*Agrilus*) 179
- wenzeli** Van Dyke 1919, *Acmaeodera* (*Acmaeodera*) 41
- westcotti** (Barr) 1972, *Acmaeoderopsis* 44
- westcotti** Barr 1969, *Chrysobothris* 142
- wheeleri** Van Dyke 1919, *Acmaeodera* (*Acmaeodera*) 41
- wickenburgana** Knull 1939, *Acmaeodera* (*Acmaeodera*) 41
- wickhami** Fisher 1942, *Chrysobothris* 142
- wintu** Wellso & Manley 2007, *Chrysobothris* 142
- woodgatei** Champlain & Knull 1922, *Chrysobothris* 142
- woodhousei** (LeConte 1852), *Lampetis* (*Spinthoptera*) 71
- xanthosticta** Laporte & Gory 1835, *Acmaeodera* (*Acmaeodera*) 41
- Xenomelanophila** Sloop 1937 113
- Xenorhipidina** Cobos 1986 105
- Xenorhipidini** Cobos 1986 105
- Xenorhipis** LeConte 1866 105
- yuccavora** Knull 1962, *Acmaeodera* (*Acmaeodera*) . 41
- yumae** Knull 1937, *Acmaeodera* (*Acmaeodera*) . . . 41
- zemani** Obenberger 1925, *Agrilus* (*Agrilus*) 179
- zemes** Gory 1841, *Agrilus* (*Agrilus*) 179



(FOUNDED 1947 BY ROSS H. ARNETT, JR.)

Special Publications of The Coleopterists Society

This is a fully refereed, irregular series of larger, single subject papers published by The Coleopterists Society (i.e. catalogs, checklists, handbooks). All publication costs paid by the author and all proceeds from sales go to The Coleopterists Society Endowment Fund. Cost of the individual volumes vary. Please contact the *Special Publications* editor for further details. Sales and distribution of the *Special Publications* are independent of membership in the Society or subscription to the *The Coleopterists Bulletin*.

Special Publications currently available:

No. 1. *Catalog of Leaf Beetles of America North of Mexico (Coleoptera: Megalopodidae, Orsodacnidae and Chrysomelidae, excluding Bruchinae)*, 2003, by Ed Riley, Shawn Clark & Terry Seeno; 290 pages. This publication includes a "Search & Sort" CD-ROM. Price: \$50.00 includes shipping in the US (add shipping: Canada & Mexico \$8.00; Overseas \$10.00). (ISBN: 0-9726087-1-0)

No. 2. *Host Plants of Leaf Beetle Species Occuring in the United States and Canada*, 2004, by Shawn Clark, Doug LeDoux, Terry Seeno, Ed Riley, Art Gilbert & James Sullivan; 476 pages. Price: \$65.00 includes shipping in the US (add shipping: Canada & Mexico \$8.00; Overseas \$10.00). (ISBN: 0-9726087-3-7)

(note: both publications sold as a set, in a shelf box. (see photo). Price: \$125.00 includes shipping in the US. Add shipping for Canada & Mexico (\$16.00); overseas surface mail, \$23.00 (for airmail rate, contact Treasurer.)

No. 3. *Illustrated Key to the Longhorned Woodboring Beetles of the Eastern United States*, 2007, by Steven W. Lingafelter; 206 pages, with over 800 habitus and character photographs (most in color). Price \$65.00 plus shipping; for details, see <www.coleopsoc.org/bycidkey.shtml>. (ISBN: 978-0-9726087-7-0)

Instructions for purchase of available volumes are listed at: <<http://www.coleopsoc.org/colenews.shtml>>.

The Coleopterists Society

Membership in The Coleopterists Society is open to anyone. Annual dues of \$40.00 include subscription to *The Coleopterists Bulletin*. Prospective members should send payment and a letter of interest to the Treasurer. **Subscriptions (Institutional):** \$115.00 for 2008. **Payments:** All payments should be made by check or money order (U.S. dollars, payable to The Coleopterists Society, drawn on a U.S. bank) or credit card (VISA or MasterCard only). Payment by credit card is recommended for all members outside the U.S. without a U.S. bank account. Send all payments to the Treasurer (FEIN 23-7319132). **USPS Identification Statement:** *The Coleopterists Bulletin* (ISSN 0010-065X) is published quarterly beginning in March by The Coleopterists Society. The subscription price is included with the annual dues payment of \$40.00 for members and \$80.00 for institutional library subscription. The known **Office of Publication** is: 15703 Quince Orchard Rd., North Potomac, MD 20878-4742. Periodical Postage Paid at Washington, DC 20066-7204 and additional mailing offices. **POSTMASTER:** Send address changes to *The Coleopterists Bulletin*, c/o Norman E. Woodley, 15703 Quince Orchard Rd., North Potomac, MD 20878-4742.

Editors

Editor (Special Publications of The Coleopterists Society): Terry N. Seeno, 2354 Cork Circle., Sacramento, CA 95822, USA; terryseeno@comcast.net

Editor (The Coleopterists Bulletin): Steven W. Lingafelter, Systematic Entomology Lab, USDA, National Museum of Natural History, MRC-168, PO Box 37012, Washington, DC 20013-7012, USA; coleopsoceditor@gmail.com

Review Editors: Michael S. Caterino, Santa Barbara, CA, USA; Paul E. Skelley, Gainesville, FL, USA; Ronald D. Cave, Ft. Pierce, FL, USA

Book Review Editor: Andrew B. T. Smith, Canadian Museum of Nature, PO Box 3443, Station D, Ottawa, ON, K1P 6P4, CANADA; asmith@mus-nature.ca

Editorial Board

Eugene Hall, Boulder CO, USA (2007-2009); Alexander Konstantinov, Washington, DC, USA (2007-2009) Jens Prena, Washington, DC, USA (2007-2009), Eugenio Nearn, Albuquerque, NM, USA (2007-2009)

Special Publications of The Coleopterists Society are printed by:

LECTRA MEDIA, 650 Gold Flat Road, Nevada City, CA 95959 U.S.A.

This paper meets the requirements of ANSI/NISO Z39.48-1992 (Permanence of Paper).

