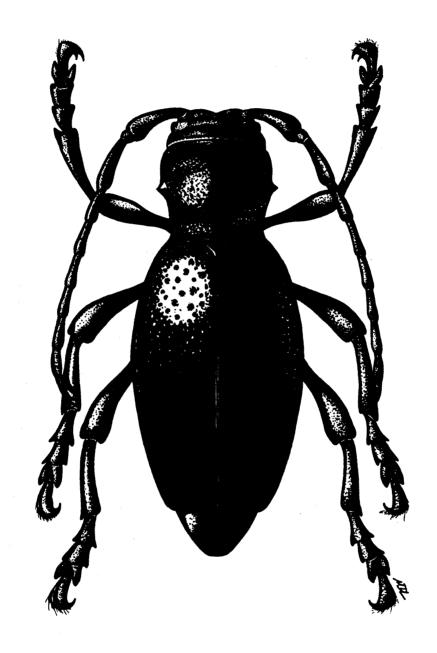
INSECTS OF WESTERN NORTH AMERICA

1. A Survey of the Cerambycidae (Coleoptera), or Longhorned Beetles of Colorado



Contributions of the
C.P. Gillette Museum of Arthropod Diversity
Department of Bioagricultural Sciences and Pest Management
Colorado State University

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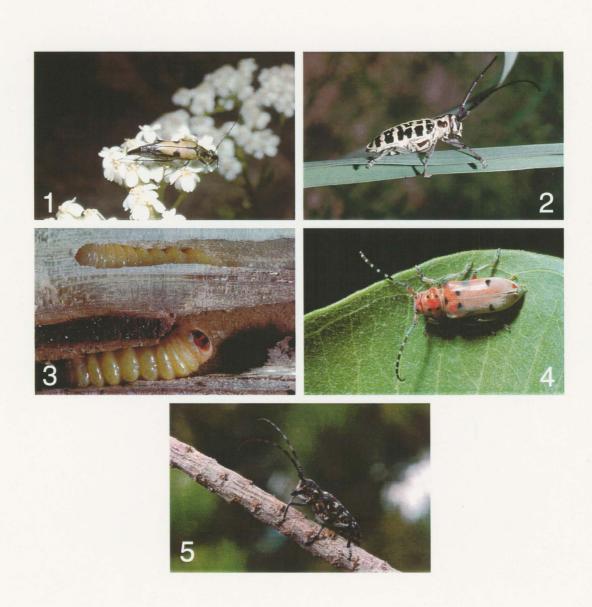
1. A Survey of the Cerambycidae (Coleoptera), or Longhorned Beetles, of Colorado

by

Daniel J. Heffern 10531 Goldfield Lane Houston, Texas 77064

1998

Figures 1-5. 1. Leptura propinqua Bland, Larimer Co., P.A. Opler; 2. Plectrodera scalator (Fabricius), Prowers Co., P.A. Opler; 3. Megacyllene robiniae (Forster), larvae, Larimer Co., S. Krieg; 4. Tetraopes femoratus (LeConte), Larimer Co., P.A. Opler; 5. Monochamus c. clamator (LeConte), Larimer Co., D. Leatherman.



A Survey of the Cerambycidae (Coleoptera), or Longhorned Beetles of Colorado

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Abstract

The purpose of this publication is to provide an account of the longhorned beetles of Colorado, to present new distributional records and to bring pertinent literature records together. One hundred ninety-three species and subspecies in 88 genera are listed, including thirty-eight new state records. The overall species distributions and host plants are included to provide an understanding of the zoogeography and possible origins of the species in the state. All available county records are included from the major institutional collections in Colorado, literature records, and numerous private collections. Previous literature citations for species not occurring or unlikely to occur in Colorado are discussed. Hyperplatys montana Casey is considered a valid species and removed from synonymy with H. aspersa (Say). Neoclytus ascendens LeConte is considered a synonym of N. leucozonus leucozonus (Castelnau & Gory).

Introduction

With an area of 26,998,930 ha (103,922 sq. mi.), Colorado is the eighth largest state and includes three-quarters of the nation's land above 3,048 m (10,000 ft). Colorado can be divided into three distinct natural or physiographic regions (Chronic and Chronic, 1972): the western extension of the Great Plains that encompasses approximately the eastern 40 percent of Colorado; the Mountain Region that rises abruptly from the Plains, and the Plateau Region that gradually tapers from the mountains to the Utah border. From the Kansas and Nebraska borders at an elevation of approximately 1,066 m (3,500 ft), the Plains Region slopes gently upward to the Rocky Mountains. This area was once comprised primarily of shortgrass prairie, but has more recently been converted to other uses by humans. The northern Plains Region is used for heavy agricultural production, whereas the central to southern portion is used for rangeland. Most of Colorado's largest cities and population occupy the western plains along the Front Range of the Rocky Mountains. Along the Front Range, the grasslands blend with ponderosa pine and pinyon pine-juniper woodlands or shrublands at the base of the mountains. The Rocky Mountains west of the Continental Divide descend to broad tablelands and mesas covered with big sagebrush and other species. The Colorado River and its tributaries dissect the Plateau Region into numerous rocky canyons and arid valleys. The higher elevations are capped with pinyon pinejuniper woodlands.

Colorado, with its three physiographic regions, includes typical midwestern or eastern species reaching their westernmost range extension in the east and species typical of the Great Basin or Southwest reaching their easternmost or northernmost range extensions, respectively. Numerous boreal species attain their southernmost range extensions in the Mountain Region of Colorado, and sometimes farther south.

Other than the Cicindelidae (Kippenhan, 1990), the Coleoptera of Colorado have not received any attention since Wickham (1902) published a list for the state. Wickham's list was based on earlier accounts and collections made by some of the first entomologists to visit Colorado, such as himself, F. H. Snow, C. P. Gillette, P. R. Uhler, F. C.

Bowditch, T. D. A. Cockerell and others. All species of Cerambycidae known from Colorado, including thirty-eight species or subspecies not previously recorded, are presented here.

Methods and Materials

This paper is the result of the examination of Cerambycidae in institutional collections in Colorado, numerous private collections and extraction of records from literature. The author examined and identified all of the species that were not previously recorded from Colorado. Colorado specimens of approximately 80% of the species recorded from the state in this paper were examined by the author. Most of these specimens are from the two major entomological museums in Colorado: the C. P. Museum of Arthropod Diversity, Colorado State University [CSUC], Fort Collins and the University of Colorado Museum [UCMC], Boulder. Unless otherwise noted, all records and label data are from specimens in these two museums. Collection codens are included for records which are not from either of these museums. The collection codens, or acronyms, are based upon the system of Arnett et al. (1993), including the following not listed in that work:

DNMC: Dinosaur National Monument Collection, Dinosaur, CO

GSDC: Great Sand Dunes National Monument Collection, Great Sand Dunes National Monument, CO

DJHC: Daniel J. Heffern Collection, Houston, TX JDBC: Josef D. Beierl Collection, North Hollywood, CA

LGBC: Larry G. Bezark Collection, Sacramento, CA

MGKC: Michael G. Kippenhan Collection, Portland, OR

RMGC: Robert M. Gemmill Collection, Englewood, CO

SWLC: Steve W. Lingafelter Collection, Derwood, MD

Additional records are from the Denver Museum of Natural History [DNHC]; the Colorado National Monument Collection [CNMC], Fruita; the Mesa Verde National Park Collection [MVNP]; the Essig Museum of Entomology, [EMEC], Berkeley, CA; the Museum of Comparative Zoology, [MCZC], Cambridge, MA; the United States National Museum,

[USNM], Washington, D. C.; the Snow Entomological Museum, University of Kansas [SEMC], Lawrence, KS; and the Department of Entomology Insect Collection, Texas A & M University [TAMU], College Station, TX. D. A. Leatherman [DAL] of Colorado State University also provided records based on his field experience.

The subfamilies are listed according to Lawrence and Newton (1995). Genera and species are listed according to the catalog of Monné and Giesbert (1995), except where noted. The tribe Lepturini, needing a revision on a worldwide basis, is broken into two groups corresponding to the latest treatments of the North American forms (Linsley and Chemsak, 1972, 1976). For each taxon, the following may be included: the type locality if in Colorado, larval host records, a brief discussion of habits or taxonomic problems, general distribution by state, province and country, and county distribution within Colorado. In order to understand the distribution of cerambycid species within Colorado, it is important to present the overall known distribution of that species. Few host plant records were found for Colorado specimens and most were from firewood or building lumber. Because of this void in knowledge of the hosts utilized in Colorado, larval host plants cited in this work represent records from all of North America. Comprehensive, modern checklists exist for very few states or regions and none which are adjacent to Colorado. The state and Canadian provincial distributions presented here are based on literature records and specimens which the author has examined. Records for the District of Columbia are included with Maryland. Older literature records are occasionally not explicit and unreliable, the result of misidentifications or erroneous labeling. Records from the 1800's occasionally cite a territory such as Missouri or Kansas which encompassed a much greater region than presently and at that time included part of present day Colorado.

The following sources were used for compiling distributions and host records: Abdullah and Abdullah (1966), Alexander (1958), Barr and Penrose (1969), Bayer and Shenefelt (1969), Blatchley (1910), Bousquet (1991), Brimley (1938), Britton (1920, 1938), Canova (1936), Chemsak (1963, 1996), Chemsak and Linsley (1973, 1982), Cope (1984), Craighead (1923,

1950), Deyrup (1977), Dillon (1956), Dillon and Dillon (1941), Downie and Arnett (1996), Fall and Cockerell (1907), Felt and Joutel (1904), Furniss and Carolin (1977), Galileo (1987), Gardiner (1970), Garnett (1918), Giesbert and Chemsak (1993), Gosling and Gosling (1974, 1977) Hatch (1971), Hicks (1962), Hoffman (1988), G. R. Hopping (1932, 1937), R. Hopping (1937, 1940), Hopping and Hopping (1947), Hovore (1979, 1983), Hovore and Giesbert (1976), Hovore and Turnbow (1984), Hovore et al. (1987), H. Kirk and Knull (1926), V. Kirk (1969, 1970), V. Kirk and Balsbaugh (1975), Knull (1946), Kumar et al. (1976), Leng (1886, 1890), Leng and Hamilton (1896), Leonard (1926), Lewis (1986), Lingafelter and Horner (1993), Linsley (1962a, 1962b, 1963, 1964), Linsley and Chemsak (1961, 1972, 1976, 1985, 1995, 1997), Linsley et al. (1961), Löding (1945), MacKay et al. (1987), MacRae (1993), Morse (1909), Nicolay (1917a. 1917b), Peck and Thomas (1998), Penrose and Westcott (1974), Perry (1975, 1977), Psota (1930), Raske (1973a, 1973b), Rice (1981, 1985, 1988), Rice and Enns (1981), Rice et al. (1985), Schiefer (1998), Skiles (1985), Staines (1987), Stein and Tagestad (1976), Swaine and Hopping (1928), Thomas and Werner (1981), Turnbow and Franklin (1980), Turnbow and Wappes (1978, 1981), Tyson (1970, 1982), Ulke (1902), Waters and Hyche (1984), Wickham (1902) and Wray (1967).

For brevity, records from Wickham's publication are indicated by his initials in parentheses: (HFW). Wickham's records are only included when there are no other voucher specimens or published records from a particular county. It was beyond the scope of this paper to locate and examine questionable specimens that were reported in previous papers. Included in the species discussion are comments which try to reconcile the differences between the following Cerambycidae and the records of list of Cerambycidae in Wickham's paper, particularly since many new species have been described.

The abbreviations for the states and provinces are listed in Table 1.

Table 2 is a list of all Colorado counties and their reference numbers. Refer to the map (Figure 6) for the locations of the counties.

Table 1. List of States and Provinces.

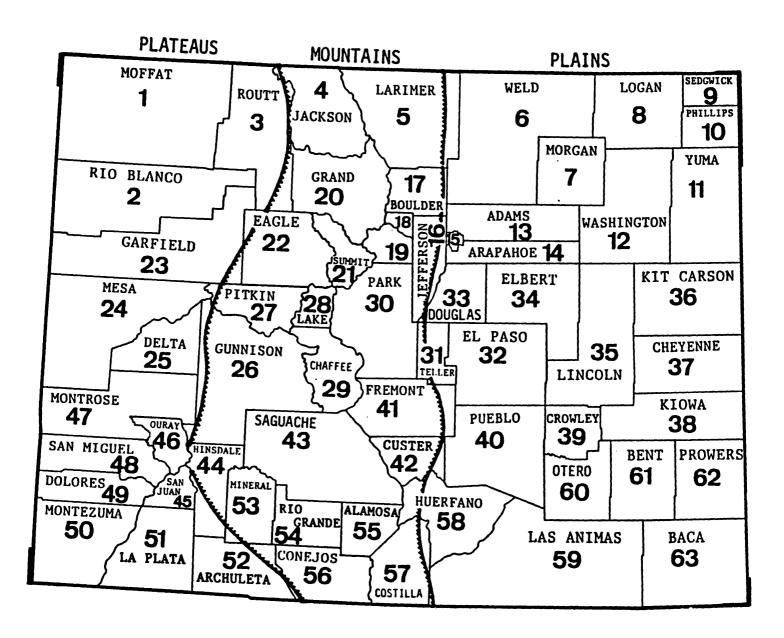
AK Alaska	LA Louisiana	NY New York	WY Wyoming
AL Alabama	MA Massachusetts	OH Ohio	AB Alberta
AR Arkansas	MD Maryland	OK Oklahoma	BC Brit. Columbia
AZ Arizona	ME Maine	OR Oregon	LB Labrador
CA California	MI Michigan	PA Pennsylvania	MB Manitoba
CO Colorado	MN Minnesota	RI Rhode Island	NB New Brunswick
CT Connecticut	MO Missouri	SC South Carolina	NF Newfoundland
DE Delaware	MS Mississippi	SD South Dakota	NS Nova Scotia
FL Florida	MT Montana	TN Tennessee	NT Northwest Terr.
GA Georgia	NC North Carolina	TX Texas	ON Ontario
IA Iowa	ND North Dakota	UT Utah	PE Prince Edward I.
ID Idaho	NE Nebraska	VA Virginia	PQ Quebec
IL Illinois	NH New Hampshire	VT Vermont	SK Saskatchewan
IN Indiana	NJ New Jersey	WA Washington	YK Yukon Territory
KS Kansas	NM New Mexico	WI Wisconsin	
KY Kentucky	NV Nevada	WV West Virginia	

Table 2. List of the Counties of Colorado.

1 Moffat	17 Boulder	33 Douglas	49 Dolores
2 Rio Blanco	18 Gilpin	34 Elbert	50 Montezuma
3 Routt	19 Clear Creek	35 Lincoln	51 La Plata
4 Jackson	20 Grand	36 Kit Carson	52 Archuleta
5 Larimer	21 Summit	37 Cheyenne	53 Mineral
6 Weld	22 Eagle	38 Kiowa	54 Rio Grande
7 Morgan	23 Garfield	39 Crowley	55 Alamosa
8 Logan	24 Mesa	40 Pueblo	56 Conejos
9 Sedgwick	25 Delta	41 Fremont	57 Costilla
10 Phillips	26 Gunnison	42 Custer	58 Huerfano
11 Yuma	27 Lake	43 Saguache	59 Las Animas
12 Washington	28 Pitkin	44 Hinsdale	60 Otero
13 Adams	29 Chaffee	45 San Juan	61 Bent
14 Arapahoe	30 Park	46 Ouray	62 Prowers
15 Denver	31 Teller	47 Montrose	63 Baca
16 Jefferson	32 El Paso	48 San Miguel	

Figure 6. Map of Colorado indicating counties and physiographic regions. Denver County -15; Gilpin County -18; Clear Creek County -19.

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Longhorned Beetles of Colorado Family Cerambycidae

Subfamily Parandrinae

Tribe Parandrini

Parandra (Neandra) brunnea (Fabricius)

Hosts: Quercus, Populus, Castanea pumila, C. dentata, Acer spp. including A. rubrum, A. saccharinum, Tilia americana, Liriodendron tulipifera, Pyrus, Ulmus americana, Paulownia.

Discussion: Adults are found in and on dead trunks and logs and are attracted to lights in summer. Chemsak (1996) does not recognize subspecies for *P. brunnea*.

Distribution: AL, AR, CO, CT, DE, FL, GA, IA, ID, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MS, NC, ND, NE, NJ, NY, OH, OK, PA, SC, SD, TN, TX, VA, VT, WI, WV, WY, NB, ON, PO.

Counties: 5, 6, 7, 8(DAL), 13, 15, 17, 32, 51(HFW), 59, 60(DAL), 63.

Subfamily Prioninae

Tribe Callipogonini

Ergates spiculatus neomexicanus Casey

Hosts: Pinus chihuahuana, P. latifolia, P. ponderosa.

Discussion: Adults are active in summer and fly to lights. On average, this is the largest cerambycid in Colorado.

Distribution: AZ, CO, NM, SD, UT, WY, Mexico.

Counties: 5, 16(DNHC), 17, 29(DAL), 32(MGKC), 33, 34, 40, 41(DAL), 51, 52.

Tribe Prionini

Prionus (Prionus) californicus Motschulsky

Hosts: Quercus, Juglans, Castanea, Prunus, Malus, Pyrus, Vitis, Populus, Salix, Eucalyptus, Arbutus menziesii, Citrus, Amelanchier, Rhus, Pinus, Abies, Pseudotsuga menziesii.

Discussion: Larvae are root feeders, occasionally attacking logs and stumps.

Distribution: AK, AZ, CA, CO, ID, MT, ND, NE, NM, NV, OR, SD, TX, UT, WA, WY, BC, Mexico.

Counties: 1, 2, 5, 6, 15(DNHC), 16, 17, 23, 24, 25, 29, 32, 34, 48, 50, 51, 52, 55, 58, 59, 62, 63.

Prionus (Prionus) heroicus Semenov

Hosts: Quercus.

Discussion: Hovore and Giesbert (1976) found females at the bases of oak stumps in AZ. This species was first recorded from Colorado, without specific location, by Linsley (1962a). It appears confined to the southern Rocky Mountain region. Occasionally it is confused with *P. californicus*.

Distribution: AZ, CO, NM.

Counties: 1.

Prionus (Antennalia) fissicornis Haldeman

Discussion: This species is a root feeder in grasslands. Swenk (1922) reports damage to maize by the larvae.

Distribution: AR, CO, IA, KS, MN, MO, MT, ND, NE, OK, SC, SD, TX, WY, ON.

Counties: 5, 6, 11, 12, 17, 33(DNHC).

Prionus (Homaesthesis) emarginatus Say

Type locality: "Arkansas River near the Mountains".

Hosts: Oryzopsis. Craighead (1923) reports larvae being associated with grasses.

Discussion: Gwynne and Hostetler (1978) describe a mass emergence of this species in the Great Sand Dunes National Monument. Its life cycle apparently requires three years.

Distribution: AZ, CO, ID, NE, NM, WY.

Counties: 5, 6, 16, 17, 32(MGKC), 33, 38, 47, 50(MVNP), 52, 53, 55.

Prionus (Homaesthesis) integer LeConte

Type locality: "Near Pike's Peak, Colorado".

Hosts: Barr and Penrose (1969) state that the larvae have been associated with the roots of *Artemisia tridentata* and *Chrysothamnus viscidiflorus*.

Discussion: Uncommon, but occasionally collected at lights.

Distribution: CO, ID, KS, NM, NV, OR, UT.

Counties: 5, 15(HFW), 17, 40, 51, 55, 58, 59(HFW), 60.

Prionus (Homaesthesis) palparis Say

Type locality: "Upper Arkansas River".

Discussion: This uncommon species is probably a root feeder. No specific plant hosts are known.

Distribution: AZ, CO, KS, NE, NM, OK, UT.

Counties: 5, 6, 8, 17, 25, 37, 40, 59(DNHC).

Prionus (Homaesthesis) rhodocerus Linsley

Discussion: Apparently a root feeder, not common. No known hosts.

Distribution: AZ, CO, KS, NE, NM, UT, WY.

Counties: 1, 25, 47, 57.

Prionus (Neopolyarthron) imbricornis (Linnaeus)

Hosts: Quercus, Castanea, Pyrus, Vitis, maize.

Discussion: Larvae are root feeders.

Distribution: AL, AR, CO, CT, GA, FL, IA, IL, IN, KS, KY, LA, MD, MN, MO, MS, MT, NC, ND, NE, NH, NY, OH, OK, PA, SC, SD, TN, TX, VA, WV, ON.

Counties: 6 (DNHC), 17.

Tribe Meroscelisini

Tragosoma chiricahuae Linsley

Hosts: Pinus chihuahuana.

Discussion: Galileo (1987) recorded one specimen from Durango, Horse Canyon, 7000 ft, VII-21-1968. Another specimen was examined from Mesa Co., Upper Northgate Canyon, VII-12-1997.

Distribution: AZ, CO, NM. Counties: 24, 51 (Galileo, 1987).

Tragosoma depsarium (Linnaeus)

Hosts: Pinus contorta, P. monophylla, P. ponderosa, P. strobus, Pseudotsuga menziesii.

Discussion: Larvae feed in sapwood of decaying logs. Wickham listed this species as T. harrisii LeConte.

Distribution: AZ, CA, CO, CT, ID, ME, MI, MN, MT, NE, NH, NJ, NM, NV, NY, OR, PA, SD, UT, VT, WA, WI, WY, AB, BC, MB, NB, NF, NS, NT, ON, PQ, SK, Mexico, and coniferous forests of Eurasia.

Counties: 4, 5, 6, 16, 17, 18, 20, 22, 28, 29(HFW), 30, 42(HFW), 43(HFW), 50(MVNP), 51(HFW), 52, 54(HFW), 59(SWLC).

Subfamily Spondylidinae

Tribe Spondylidini

Spondylis upiformis Mannerheim

Hosts: Pinus contorta, P. ponderosa.

Discussion: Adults are active in late spring and early summer. Distribution: AK, AZ, CA, CO, ID, MI, MT, NE, NM, NV, OR,

PA, SD, UT, WA, WY, AB, BC, ON, PQ, Mexico.

Counties: 5, 16, 17, 18, 20, 31, 33.

Tribe Asemini

Arhopalus asperatus (LeConte)

Type locality: "Kansas". When this species was described, Kansas was a territory which roughly included the eastern half of Colorado. This species does not occur in Kansas.

Hosts: Abies magnificica, A. concolor, Pseudotsuga menziesii, Picea, Pinus.

Discussion: Larvae feed in dead and dying trees. This species is closely related to A. foveicollis (Haldeman) and difficult to separate. Wickham listed this species in the genus Criocephalus.

Distribution: AK, AZ, CA, CO, ID, MT, ND, NE, NM, NV, OR, SD, TX, UT, WA, WY, AB, BC, NT, SK, Mexico, Honduras. Counties: 1(DNMC), 5, 8, 17, 25, 47, 50, 58.

Arhopalus foveicollis (Haldeman)

Hosts: Pinus rigida, P. strobus, Picea.

Discussion: Larvae feed in the bases of dead trees. Wickham's Crtocephalus agrestis Kirby is probably this species, but those records could include some misidentified A. asperatus (LeConte). Distribution: AK, AZ, CO, CT, FL, IA, IL, IN, MA, MD, ME, MI, MN, MO, MT, ND, NH, NJ, NM?, NY, OH, PA, SD, UT, WI, WY, AB, BC, LB, MB, NB, NF, NS, NT, ON, PQ, SK, YK.

Counties: 5, 15(HFW), 28(HFW), 33, 41(HFW), 52(HFW).

Arhopalus productus (LeConte)

Hosts: Pinus, Abies, Pseudotsuga menziesii.

Discussion: Larvae feed in the sapwood and heartwood of recently dead or dying trees. Wickham listed this species in the genus Criocephalus.

Distribution: AZ, CA, CO, ID, MT, NM, NV, OR, SD, UT, WA, WY, AB, BC, MB, SK, Mexico, Honduras.

Counties: 17, 24, 28(HFW), 50, 52, 54(HFW), 57(HFW).

Arhopalus rusticus montanus (LeConte)

Type locality: Colorado (no further data).

Hosts: Pinus chihuahuana, P. ponderosa, Pinus spp.

Discussion: The larvae usually occur in roots of dead trees and stumps. In Wickham's list, this species was listed as *Criocephalus montanus* LeConte. Wickham's *C. obsoletus* Randall records are being included here.

Distribution: AZ, CA, CO, NE, NM, NV, SD, TX, UT, WY,

Counties: 1, 5, 16, 17(HFW), 24, 28(HFW), 31, 32(MGKC), 50(MVNP), 51, 55(GSDC).

Asemum striatum (Linnaeus)

Hosts: Picea, Larix, Abies, Pinus including P. virginiana, Pseudotsuga menziesii.

Discussion: Larvae feed in the trunks of dead trees. Wickham listed two synonyms of this species in his list: A. atrum Eschscholz and A. moestum Haldeman.

Distribution: AL, AR, AZ, CA, CO, CT, FL, GA, IA, ID, IL, IN, LA, MA, MD, ME, MI, MN, MO, MS, MT, NC, NE, NH, NJ, NM, NV, NY, OH, OK, OR, PA, SC, SD, TN, TX, UT, VA, VT, WA, WI, WY, AB, BC, MB, NB, NF, NT, ON, PQ, SK, YK, and coniferous forests of Eurasia.

Counties: 4, 5, 16, 17, 18, 20, 22, 28(HFW), 31, 33, 42, 54(HFW), 57(HFW), 59.

Megasemum asperum (LeConte)

Hosts: Abies, Pseudotsuga menziesii.

Discussion: Larvae bore in the heartwood. Wickham listed this species in the genus *Nothorhina*.

Distribution: AZ, CA, CO, ID, MT, NM, OR, UT, WA, WY, AB, BC, NT, SK, Mexico.

Counties: 5, 16, 23, 31, 50.

Tetropium cinnamopterum parvulum Casey

Hosts: Picea glauca, P. engelmannii.

Discussion: Chemsak (1996) treats parvulum as a subspecies.

Previously, Raske (1973a) elevated it to full species due to differences he saw in the larval form and host plant preference.

Wickham's record of *T. cinnamopterum* probably belongs here.

Distribution: AK, CO, IN, MI, MN, MT, NM?, OR, WA, AB, BC, LB, MB, NF, NT, ON, PQ, SK, YK.

Counties: 19(HFW), 22 or 23 (from Linsley, 1962a).

Tetropium parallelum Casey

Hosts: Unknown.

Discussion: Adults have been collected on freshly cut logs of *Abies lasiocarpa* in Graham County, Arizona (J. D. Beierl, pers. comm.).

Distribution: AZ, CO, NM. Counties: 5, 32, 50.

Tetropium velutinum LeConte

Hosts: Larix occidentalis, Tsuga heterophylla, Pseudotsuga menziesii, Abies, Picea, Pinus.

Discussion: Larvae feed in living trees and may cause extensive damage.

Distribution: AZ, CA, CO, ID, MI, MN, MT, NM, OR, UT, WA, AB, BC.

Counties: 5, 20.

Tribe Atimiini

Atimia confusa confusa (Say)

Hosts: Cupressus, Juniperus spp. including J. virginiana, Thuja, Chamaecyparis, Taxodium distichum.

Discussion: Larvae feed in dead trees under the bark, later pupating in the sapwood. Besides Wickham's records, only one specimen was examined: Larimer Co., Phantom Canyon, IX-30-1993.

Distribution: CO, CT, FL, GA, IA, IN, KS, KY, MA, MD, ME, MI, MO, MS, NC, NH, NJ, NM, NY, OH, OK, PA, SC, TX, TN, VA, VT, WV, ON, PQ.

Counties: 5, 17(HFW), 57(HFW).

Atimia huachucae Champlain and Knull

Hosts: Cupressus arizonica, Juniperus deppeana.

Discussion: Numerous specimens were examined. It has been reared from both the branches and trunks of "upright" ornamental junipers (D. Leatherman, pers. comm.).

Distribution: AZ, CO, NM, NV, TX, Mexico.

Counties: 5, 14, 15, 16(DAL), 24.

Subfamily Necydalinae

Tribe Necydalini

Necydalis diversicollis diversicollis Schaeffer Hosts: Amelanchier, Quercus, Salix, Alnus.

Discussion: New state record: Montezuma Co., 1.6 mi E
Mancos, Hwy 160, VII-25-1993, and Rio Blanco Co., 4 mi
NE Meeker, VII-7-1996. The species in this holarctic
genus are excellent wasp mimics.

Distribution: CA, CO, OR, MT, UT, WA, BC.

Counties: 2, 50.

Subfamily Lepturinae

Tribe Lepturini (group 1)

Most species in this group are diurnal. Refer to Linsley and Chemsak (1976) for flower association records.

Acmaeops proteus proteus (Kirby)

Hosts: Pinus, Abies, Tsuga, Picea.

Discussion: This species is quite variable and frequently collected

Distribution: AK, AZ, CA, CO, CT, ID, ME, MI, MT, NC, NM, NY, OR, PA, VA, WA, WY, AB, BC, LB, MB, NB, NF, NT, ON, PO, SK, YK.

Counties: 4, 5, 15(HFW), 17(HFW), 19(HFW), 21(HFW), 26(HFW), 28(HFW), 29(HFW), 41, 42(HFW), 49(HFW), 52(HFW), 53, 56(HFW), 57(HFW).

Brachysomida atra (LeConte)

Hosts: Unknown.

Discussion: This species was listed by Wickham in the genus Acmaeops.

Distribution: CO, ID, MT, OR, WA, AB, BC

Counties: 4(Casey, 1913), 5(HFW), 19(DNHC), 21(HFW), 24(HFW).

Brachysomida californica (LeConte)

Hosts: Unknown.

Discussion: The type locality for *B. lanatula* Casey, a synonym of *B. californica* (LeConte), is "Colorado". No other specimens are known from Colorado. Its occurrence in Colorado needs to be verified.

Distribution: CA, CO?, OR.
Counties: No county records located.

Brachysomida rugicollis Linsley and Chemsak

Hosts: Unknown.

Discussion: New state record. Three specimens were examined with identical data: Rio Blanco Co., Rt. 139, mile post 59, VI-2-1991.

Distribution: CO, ID, MT, UT, WY.

Counties: 2.

Centrodera minima Linsley and Chemsak

Type locality: "Mesa Verde National Park, Colorado".

Hosts: Unknown.

Discussion: The holotype male and two male paratypes were collected at the type locality on VI-7-1955. Members of this genus are nocturnal and frequently attracted to lights.

Distribution: CO, UT. Counties: 50(type).

Cortodera coniferae Hopping and Hopping

Hosts: Picea, Pinus.

Discussion: Hopping and Hopping (1947) reported examining a single specimen of this species from Colorado (no further data). No specimens have been examined by the author.

Distribution: CO, MT, OR, BC.
Counties: No county records located.

Cortodera longicornis (Kirby)

Hosts: Unknown.

Discussion: This extremely variable, common, wide-ranging species was listed by Wickham in the genus Acmaeops, along with two synonyms: A. vincta LeConte and A. ligata LeConte. Species in this genus are usually difficult to identify, but nearly all of the Colorado specimens of Cortodera that were examined are this species.

Distribution: CA, CO, ID, MT, ND, NE, NM, NV, OR, SD, UT, WA, AB, BC, SK.

Counties: 1, 3, 4, 5, 15, 16, 17, 19(HFW), 20, 22, 23, 24, 26, 31, 32(HFW), 33, 34, 42, 46(HFW), 50, 51(HFW), 54(HFW), 55, 56(HFW), 57(HFW), 58, 59.

Cortodera spuria (LeConte)

Hosts: Unknown.

Discussion: Hopping and Hopping (1947) reported examining one specimen of this rare species from Colorado (no further data). No specimens have been examined by the author.

Distribution: AZ, CO, ID, OR. Counties: No county records located.

Cortodera sp.

Hosts: Unknown.

Discussion: Three black specimens were examined which apparently represent an undescribed species. The shape of the hind trochanter distinguishes it from *C. longicornis*.

Specimens have white pubescence on the scutellum.

Distribution: CO.

Counties: 5, 17, 34(DJHC).

Gnathacmaeops pratensis (Laicharting)

Hosts: Pinus, Picea.

Discussion: This appeared in Wickham's list in the genus Acmaeops. This species occurs throughout the northern hemisphere in boreal forests.

Distribution: AK, AZ, CA, CO, GA, ID, IN, ME, MI, MT, NC, NM, NY, OH, OR, PA, SC, SD, UT, VA, WA, WY, AB, BC, LB, NB, NF, NT, ON, PQ, SK, YK, Europe, Asia.

Counties: 3(HFW), 4, 5, 15(HFW), 17, 18, 19(HFW), 21(HFW), 26, 28(HFW), 29(LGBC), 31, 32(HFW), 42(HFW), 43, 46(HFW), 48, 49(HFW), 50, 51(HFW), 53, 54(HFW), 56(HFW), 57(HFW).

Neanthophylax mirificus (Bland)

Type locality: "Colorado Territory".

Hosts: Abies, Picea, Pinus spp. including P. ponderosa, Pseudotsuga.

Discussion: This is an uncommon, sexually dimorphic, wideranging species. Only several specimens from Colorado were examined. One specimen was labeled: "Monument Gulch east of Pingree Park, VI-15-1992". This species was listed by Wickham in the genus Anthophilax.

Distribution: CA, CO, ID, MT, OR, UT, AB, BC, Mexico, Costa

Counties: 2(Nicolay, 1917b), 5.

Neanthophylax subvittatus (Casey)

Type locality: "Colorado?".

Hosts: Unknown.

Discussion: Wickham listed this species in the genus Anthophilax. One specimen was located with the following data: Telluride, VI-10-1955 [EMEC]. R. Hopping (1937) states: "Except the colour, there do not seem to be any characters to separate it from tenebrosus LeC."

Distribution: CO, MT.

Counties: 45.

Neanthophylax tenebrosus orientalis Linsley & Chemsak Hosts: Unknown. (for N. t. tenebrosus (LeConte): Abies magnifica, Tsuga mertensiana, Pinus monticola).

Discussion: New state record. One specimen was examined: Custer Co., near Lake Isabel, SW of Beulah, VIII-20-1983.

Distribution: CO, ID, OR, UT.

Counties: 42.

Pachyta lamed liturata Kirby

Hosts: Abies, Picea, Pinus, Pseudotsuga.

Discussion: This is a wide-ranging boreal species. The nominate form occurs in northern Eurasia.

Distribution: AK, AZ, CA, CO, ID, MI, MT, NM, NV, OR, PA, SD, UT, WA, WY, AB, BC, LB, MB, NF, NT, ON, PQ, YK. Counties: 3(HFW), 4, 5, 17, 18, 19(HFW), 21(HFW),

22(LGBC), 23, 25, 27(HFW), 28(HFW), 29, 32(HFW), 42(HFW), 48(HFW), 54(HFW), 55.

Pseudogaurotina cressoni cressoni (Bland)

Type locality: "Rocky Mts., Colorado Territory".

Hosts: Abies, Pseudotsuga.

Discussion: This species was in the genus *Gaurotes* in Wickham's list.

Distribution: CO, ID, MT, OR, UT, WA, AB, BC.

Counties: 5, 15(HFW), 18, 20, 26, 46(HFW), 56(HFW), 57(HFW).

Rhagium inquisitor inquisitor (Linnaeus)

Hosts: Abies spp. including A. concolor, A. lasiocarpa, A. magnifica, Larix occidentalis, Pseudotsuga menziesii, Tsuga, Picea engelmannii, P. sitchensis, Pinus spp. including Pinus contorta, P. jeffreyi, P. monticola, P. ponderosa, P.

sabiniana, P. radiata, P. strobus, P. rigida, P. murrayana, P. virginiana, P. palustris, P. strobiformis.

Discussion: Wickham recorded this wide-ranging, variable species as R. lineatum Oliv.

Distribution: AK, AL, AZ, CA, CO, CT, FL, GA, ID, IN, MA, MD, ME, MI, MS, MT, NC, NJ, NM, NY, OH, OK, OR, PA, SC, SD, TX, UT, WA, WI, AB, BC, MB, NB, NF, NT, ON, PQ, SK, YK, Mexico, Europe, Asia.

Counties: 5, 6, 16(HFW), 17, 18, 19(DAL), 26(HFW), 29(DAL), 30(DAL), 32(HFW), 42(HFW), 47, 48, 50, 54(HFW), 57(HFW), 59.

Stenocorus obtusus (LeConte)

Hosts: Unknown.

Discussion: Wickham (in the genus *Toxotus*) recorded this species from Colorado without locality.

Distribution: CO, ID, MT, NV, OR, UT, WA, WY, AB, BC, SK Counties: 3(from map, Linsley and Chemsak, 1972), 21.

Stenocorus trivittatus (Say)

Hosts: Unknown.

Discussion: New state record. Two Colorado records both from Eagle Co.: Edwards, VII-29-1980, on Rhus trilobata and 1 mi W Colorado River on Deep Creek, VII-1963 [TAMU]. This species is not well represented in collections. Wickham recorded Toxotus virgatus LeConte from Placerville, Huerfano County. Linsley and Chemsak (1980) list this as a synonym of S. vestitus Haldeman. R. Hopping (1937) lists it as a synonym of S. trivittatus (Say). It is unclear as to what species Wickham actually had.

Distribution: CO, MT, ND, WY, AB, MB, SK.

Counties: 22.

Tribe Lepturini (group 2)

Nearly all species in this group are diurnal. Refer to Linsley and Chemsak (1976) for flower association records.

Anastrangalia haldemani (Casey)

Hosts: Pinus chihuahuana.

Discussion: New state record. Several specimens of this sexually dimorphic species were examined. Adults have been collected in June.

Distribution: AZ, CO, NM, Mexico.

Counties: 5, 17, 32, 34.

Anastrangalia sanguinea (LeConte)

Hosts: Pinus.

Discussion: Wickham listed this species as a Leptura.

Distribution: AK, AZ, CA, CO, ID, MI, MN, MT, NH, NM, NV, NY, OR, PA, SD, UT, WA, WI, WY, AB, BC, MB, NB, ON, PO. SK. YK.

Counties: 5, 17, 19(HFW), 26, 28(HFW), 32(HFW), 33, 54(HFW), 57(HFW).

Brachyleptura circumdata (Olivier)

Hosts: Picea.

Discussion: The type locality for *B. subquadrata* Casey, a synonym, is "Colo". Linsley and Chemsak (1976) state that the status of *B. subquadrata* may change if more material is available for study.

Distribution: AL, CO?, GA, IN, MA, MD, MI, MS, NC, NJ, NY, OH, PA, SC, VA, WI.

Counties: No county records located.

Cosmosalia chrysocoma (Kirby)

Hosts: Alnus, Picea, Pinus, Populus.

Discussion: Wickham listed this species in the genus *Leptura*. Distribution: AZ, CA, CO, ID, ME, MI, MN, MT, NH, NM, NV, NY, OR, RI, SD, UT, WA, WI, WY, AB, BC, MB, NB, NF, NS, NT, ON, PE, PQ, SK, YK, Mexico.

Counties: 5, 16, 17, 18, 19(HFW), 21(HFW), 26, 32, 34, 42(HFW), 46(HFW), 49(HFW), 50, 54(HFW).

Cosmosalia nigrolineata nigrolineata (Bland)

Type locality: "Colorado Territory".

Hosts: Unknown.

Discussion: This species was listed as a species of Leptura in Wickham's list.

Distribution: CO, ID, NM, OR.

Counties: 4, 5, 15(HFW), 17, 18, 19, 21, 22, 26, 28(HFW), 46(HFW), 47, 52(HFW), 54(HFW).

Grammoptera subargentata (Kirby)

Hosts: Lithocarpus, Populus, Quercus, Rhus spp. including R. glabra.

Discussion: This species appeared in the genus *Leptura* in Wickham's list. Craighead's (1923) report of larvae of *G. exigua* (Newman) from Colorado may apply to this species.

Distribution: AK, AL, CA, CO, GA, ID, IN, MA, MD, ME, MI, MT, NC, NH, NM, NV, NY, OH, OR, PA, SD, UT, VA, VT, WA, WY, AB, BC, MB, NB, NF, NT, ON, PQ, SK, YK.

Counties: 4, 5, 16, 17, 18, 19(HFW), 25, 26, 29(HFW), 32(HFW), 42(HFW), 43, 44, 46(HFW), 47, 51(HFW), 52, 55, 57(HFW), 59.

Judolia instabilis (Haldeman)

Hosts: Pinus.

Discussion: This species was listed by Wickham in the genus *Leptura*.

Distribution: AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA, WY, AB, BC, MB, SK, YK, Mexico.

Counties: 2, 4, 5, 16, 17, 20, 22, 23, 24, 26, 30, 45(HFW), 47, 50, 51(HFW), 52, 53, 54(HFW), 56(HFW), 58.

Judolia montivagans montivagans (Couper)

Hosts: Abies, Picea, Pinus, Populus, Pseudotsuga, Salix.

Discussion: This appeared in Wickham's list as Leptura sexmaculata Linnaeus, which is actually a similar Palaearctic species now also placed in *Judolia*. This species prefers high altitudes in Colorado.

Distribution: AK, CA, CO, ID, MA, MI, MN, MT, NH, NM, NY, OR, SD, WA, WI, AB, BC, LB, MB, NB, NS, NT, ON, PO, SK, YK.

Counties: 4, 5, 17, 18, 19, 20(HFW), 21, 22, 26(LGBC), 28(HFW), 30, 46(HFW), 53, 54.

Judolia quadrata (LeConte)

Hosts: Unknown.

Discussion: According to Swaine and Hopping (1928), there is a specimen in the U. S. National Museum from Colorado.

Distribution: CO, BC, MB, NT, ON, PQ, SK, YK.

Counties: No county records located.

Leptura (Leptura) obliterata obliterata (Haldeman)

Hosts: Abies, Picea, Pinus, Pseudotsuga, Sequoia, Tsuga.

Discussion: Wickham's *Leptura soror* record may belong here and Linsley and Chemsak (1976) state that its range extends to Colorado, although no state records are known to me.

Distribution: CA, CO, ID, MT, NV, OR, WA, BC.

Counties: No county records located.

Leptura (Leptura) propinqua Bland

Type locality: "Colorado Territory".

Hosts: Picea engelmannii, Pinus spp. including P. jeffreyi, P. monticola, P. murrayana, P. ponderosa.

Discussion: This species is frequently abundant on flowers.

Distribution: AK, AZ, CA, CO, ID, MT, NM, NV, OR, UT, WA,

Counties: 1(HFW), 5, 16, 17, 18, 19(HFW), 24, 31, 32, 42, 46(HFW), 53, 54(HFW).

Pygoleptura nigrella nigrella (Say)

Hosts: Abies, Larix, Picea, Pinus, Pseudotsuga.

Discussion: This species appears in the genus *Leptura* in Wickham's list. Frequently all black, some specimens have reddish or testaceus elytra with a narrow, marginal, longitudinal black band on the apical third of the elytra.

Distribution: AK, CO, GA, ID, ME, MI, MT, NM, NV, NY, OR, PA, WA, WI, AB, BC, LB, MB, NB, NF, NS, NT, ON, PQ, SK

Counties: 5, 31, 54(HFW).

Stictoleptura canadensis cribripennis (LeConte)

Hosts: Pinus, Picea, Pseudotsuga, Tsuga, Quercus spp. including Q. garryana, Populus tremuloides.

Discussion: This species is listed by Wickham as Leptura canadensis Fabricius.

Distribution: CO, ID, MT, NM, OR, SD, UT, WA, AB, BC, MB,

Counties: 2, 5, 16, 17, 18, 22, 26(HFW), 30(DNHC), 31, 32(HFW), 33, 42(HFW), 43, 50, 51, 52, 53, 54, 55(GSDC).

Strangalia sexnotata Haldeman

Hosts: Unknown.

Discussion: One specimen examined: Otero Co.: Vogel Canyon, VI-18-1996. This specimen would be assignable to S. montana Casey if it were recognized as a valid species or subspecies. The western form occurs in the mountains of western Texas, New Mexico and southeastern Arizona. Hopping (1937) recorded this species from Colorado without further information.

Distribution: AL, AR, AZ, CO, FL, GA, KS, LA, MO, MS, NC, NM, OK, SC, TX.

Counties: 60.

Strophiona nitens (Forster)

Hosts: Carya, Castanea, Fagus, Juglans, Quercus.

Discussion: The type locality for S. bellina Casey, a synonym, is "Colorado". Only one specimen was examined.

Distribution: AL, CO, CT, FL, GA, IA, IL, IN, KS, MA, MD, MI, MO, MS, NC, NJ, NY, OH, PA, RI, SC, TN, TX, VA, WI, WV, MB, ON, PQ, NS.

Counties: 5.

Trachysida aspera aspera (LeConte)

Hosts: Betula, Picea, Pinus, Populus, Pseudotsuga, Salix.

Discussion: Wickham lists this species in the genus Leptura.

Distribution: AK, CO, ID, MT, NM, OR, WA, AB, BC, NT, YK.

Counties: 4, 5, 21, 32(Craighead, 1923), 17, 41, 46(HFW), 53, 57.

Trigonarthris atrata (LeConte)

Hosts: Unknown.

Discussion: New state record. Two specimens in DNHC were among a recent donation of specimens supposedly from Colorado. The labels bear "County 14". There are no other notes or records to determine their origin. A population in this state would be over 600 km west of any records known to the author.

Distribution: AL, CO?, FL, GA, IL, KS, MO, MS, OK, TX.

Typocerus balteatus Horn

Type locality: "Colorado".

Hosts: Unknown.

Discussion: Found on flowers of *Chrysothamnus* spp. in August and September.

Distribution: AZ, CA, CO, ID, MT, NM, NV, UT, WY, AB, NT. Counties: 1, 4, 5, 20, 24, 51, 54, 55, 56, 57.

Typocerus confluens Casey

Hosts: Unknown.

Discussion: This is an extremely variable species and frequently confused with *T. octonotatus* with which it sometimes occurs.

Distribution: AZ, CO, IN, KS, MO, ND, NM, SD, MB.

Counties: 6, 11, 12, 17, 38, 59, 60, 61.

Typocerus gloriosus Hopping

Hosts: Unknown.

Discussion: This species is the least known member of the genus, with only a few records existing. Linsley and Chemsak (1976) list this species as occurring in the Colorado Plateau of Arizona, Colorado, New Mexico and Utah. This species has been collected in early June.

Distribution: AZ, CO, NM, UT. Counties: No county records located.

Typocerus octonotatus (Haldeman)

Hosts: Agropyron smithii, Andropogon scoparius, Sorghastrum nutans, Sporobolus airoides.

Discussion: This is a widespread species, occasionally abundant on flowers.

Distribution: AL, AR, CO, CT, DE, FL, GA, IA, IL, IN, KS, LA, MA, MD, MI, MN, MO, MS, ND, NE, NM, OH, OK, PA, SC, SD, TN, TX, VA, WY, ON.

Counties: 5, 6, 11, 16, 17, 61, 62, 63.

Typocerus serraticornis Linsley and Chemsak

Hosts: Oryzopsis hymenoides.

Discussion: This species is frequently localized in sandy habitats.

Distribution: CO, ID, NM, NV, UT. Counties: 2, 23, 24, 31, 46.

Typocerus sinuatus (Newman)

Hosts: Unknown.

Discussion: T. brunnicornis LeConte, listed by Wickham, is a synonym. Older literature records of this species from the eastern states may actually be for T. octonotatus, and this species is probably misidentified in many collections.

Distribution: AL, CO, FL, GA, MI, NC?, ND, NM, , SC?, SD,

Counties: 5, 6, 7, 11, 16, 17, 32, 33, 41(DJHC), 59, 61.

Xestoleptura cockerelli (Fall)

Hosts: Pinus.

Discussion: Swaine and Hopping (1928) state that Wickham's records for *Leptura carbonata* LeConte are actually for this species.

Distribution: AZ, CO, NM, UT.

Counties: 5, 17, 26, 41(LGBC), 42 ?(HFW), 46(HFW), 51(HFW).

Xestoleptura crassipes (LeConte)

Hosts: Larix, Thuja, Tsuga, Pseudotsuga, Pinus, Umbellularia, Eucalyptus.

Discussion: Swaine and Hopping (1928) recorded this species from Colorado without further data. One specimen was examined from Moffat Co., Dinosaur NM, Harper Corner, VII-20-1998.

Distribution: CA, CO, ID, MT, NV, OR, SD, UT, WA, BC. Counties: 1.

Subfamily Cerambycinae

Tribe Oemini

Oeme costata costata LeConte

Hosts: Pinus spp. including P. monophylla, P. contorta, P. edulis, P. ponderosa.

Discussion: New state record. One specimen was examined from Larimer Co., Endo Valley, Rocky Mt. Nat. Pk., VII-14-1990. Distribution: AZ, CA, CO, ID, MT, NM, NV, OR, TX, UT, WY. Counties: 5, 26(RMGC), 43(RMGC).

Oeme rigida deserta Casey

Hosts: Cupressus arizonica, Juniperus spp. Discussion: This species is attracted to lights. Distribution: AZ, CO, NM, TX, UT.

Counties: 15, 63.

Tribe Methiini

Methia mormona Linell

Hosts: Juniperus deppeana, Juglans major, Salix, Berberis harrisoniana.

Discussion: This small, fragile species is attracted to lights. Distribution: AZ, CA, CO, NM, NV, TX, UT, Mexico. Counties: 24, 50(MVNP).

Tribe Hesperophanini

Brothylus gemmulatus LeConte

Hosts: Quercus agrifolia, Q. kelloggii.

Discussion: Craighead (1923) recorded larvae of this species from Colorado. Only one adult has been examined: "Mesa Co., Upper Red Canyon, V-31-1997, UV trap".

Distribution: CA, CO, OR, UT, WA, Mexico.

Counties: 24.

Eucrossus villicornis LeConte

Hosts: Pinus spp. including P. monophylla, P. torreyana, P. jeffreyi, P. muricata, P. ponderosa, P. sabiniana.

Discussion: New state record. This species is attracted to lights.

Distribution: AZ, CA, CO, NM, NV, Mexico.

Counties: 24, 41, 50, 58.

Haplidus testaceus LeConte

Hosts: Pinus spp. including P. ponderosa, P. contorta, P. monophylla, P. jeffreyi.

Discussion: This species is attracted to lights. Distribution: CA, CO, NM, OR, WA. Counties: 1(DNMC), 17, 24, 50(MVNP).

Malobidion brunneum Schaeffer

Hosts: Fraxinus anomala, Rhus trilobata, Amelanchier utahensis, Berberis harrisiana.

Discussion: Only a few specimens are known from CO. A specimen from Montezuma Co. has the data: Mesa Verde National Park, VII-20-1978. This species is attracted to lights.

Distribution: AZ, CO, UT, Mexico.

Counties: 24, 50.

Xeranoplium tricallosum (Knull)

Hosts: Unknown.

Discussion: Recorded by Linsley and Chemsak (1982) as occurring in Colorado. This may be a labeling error. Its presence in Colorado requires verification.

Distribution: AZ, CO?

Counties: No county records located.

Tribe Elaphidiini

Aneflomorpha parowana Casey

Hosts: Unknown.

Discussion: New state record. Members of this genus are attracted to lights. The twenty North American species in this genus are frequently difficult to identify.

Distribution: CA, CO, NM, OR, UT.

Counties: 24, 50.

Aneflomorpha rectilinea rectilinea Casey

Hosts: Quercus, Baccharis?

Discussion: New state record. One specimen from Colorado was examined. It was reared from an unidentified pruned branch, VII-6-1995, Carrizo Creek Canyon, Baca County (RMGC).

Distribution: AZ, CO, NM, TX, Mexico.

Counties: 63.

Anelaphus moestus moestus (LeConte)

Hosts: Celtis, Juglans, Pithecellobium flexicaule, Quercus, Rhus, Sophora secundifolia, Zanthoxylum clava-hercules.

Discussion: New state record. The range of this species just extends into the state. It is common farther south and is attracted to lights. One specimen examined: Picture Canyon, Baca County, reared from Celtis, (RMGC).

Distribution: AZ, CO, KS, MO, NM, OK, TX, Mexico. Counties: 63.

Anelaphus villosus (Fabricius)

Hosts: Acer, Carya, Castanea, Celastrus scandens, Celtis, Cercis, Cladrastis, Citrus, Elaeagnus angustifolia (new host record), Gleditsia triacanthos, Hamamelis, Juglans, Maclura, Malus, Prunus, Quercus, Rhus, Sassafras, Tilia, Toxicodendron radicans, Ulmus, Vitis, Wisteria.

Discussion: New state record. This is a widely scattered eastern species. One specimen examined: Logan Co: adult cut out of branch of Russian olive (Elaeagnus angustifolia).

Distribution: AL, AZ, CO, FL, GA, IN, KS, MA, MD, MI, MO, MS, NC, ND, NJ, NY, OH, OK, PA, SC, SD, TX, WI, MB, ON, PQ.

Counties: 8.

Enaphalodes atomarius (Drury)

Hosts: Quercus spp., Castanea, Celtis, Juglans, Carya, Chamaerops palmetto.

Discussion: This is a wide-ranging species. It is very common in the southeastern USA and extends its range to the southern Rocky Mountains.

Distribution: AL, AR, AZ, CO, CT, FL, GA, IA, IL, IN, KS, LA, MD, MI, MO, MS, NC, NJ, NY, OH, OK, PA, RI, SC, TN, TX, WI, ON, Mexico, Honduras.

Counties: 53(SEMC).

Parelaphidion incertum (Newman)

Hosts: Baccharis neglecta, Carya glabra, Celtis, Morus rubra, Prosopis glandulosa, Quercus prinus.

Discussion: New state record. A series of specimens were examined from Mesa County: Grand Junction, VII-12-1990, "on boxelder". Another single specimen was examined from Denver.

Distribution: AL, AR, CO, FL, GA, IA, IL, IN, LA, MD, MS, NC, ND, NJ, NY, OK, PA, RI, SC, TX, WI, ON.

Counties: 15(RMGC), 24.

Tribe Eumichthini

Poecilobrium chalybeum (LeConte)

Hosts: Acer, Rhus, Quercus, Prunus emarginata, Amelanchier, Ceanothus spp. including C. thrysiflorus.

Discussion: Adults have been collected on *Ceanothus*, *Rhus* and *Cercocarpus*. Linsley (1963) recorded this species from Colorado without specific locality.

Distribution: CA, CO, ID, MT, NM, OR, WA, BC, Mexico.

Counties: 57(HFW).

Tribe Molorchini

Molorchus bimaculatus Say

Discussion: There are currently six subspecies recognized. The nominate subspecies and three other subspecies occur from Texas to Canada and the Atlantic coast. Two subspecies have been described from California. No attempt was made to assign the Colorado specimens to a subspecific level because only few specimens were available for study. Additionally, one specimen is in the author's collection from extreme north-central New Mexico.

Counties: 17.

Molorchus longicollis LeConte

Hosts: Rhus, Quercus, Rhamnus, and Ceanothus,

Discussion: New state record. Two specimens were examined with the same data: Larimer Co.: Big Thompson Canyon, Round Mt. Trail, V-22-1996.

Distribution: CA, CO, MT, OR, WA, BC.

Counties: 5.

Tribe Callidiini

Callidium antennatum hesperum Casey

Hosts: Pinus spp. including P. monophylla, P. ponderosa, P. jeffreyi, P. flexilis, P. aristata, Tsuga mertensiana, Pseudotsuga menziesii.

Discussion: This is a widespread species, frequently encountered on fresh-cut host limbs.

Distribution: CA, CO, NM, OR, UT, WA, BC.Counties: 5(DNHC), 7(DNHC), 14, 15, 16(DAL), 17, 20(RMGC), 24, 29(HFW), 32(DAL), 33(DAL), 34(DAL), 35, 43.

Callidium cicatricosum Mannerheim

Hosts: Abies grandis, Pseudotsuga menziesii.

Discussion: Wickham's record for this species in Colorado requires verification. No specimens from the state have been examined. Its known distribution is farther north and west. Distribution: AK, CO?, ID, MT, OR, WA, AB, BC, YK. Counties: 17(HFW).

Callidium juniperi Fisher

Hosts: Juniperus.

Discussion: New state record: Montrose, VI-16-1925, identified by J. Knull. This species may prove to be only a synonym of C. texanum Schaeffer.

Distribution: CO, NM, OK, UT.

Counties: 47.

Callidium texanum Schaeffer

Hosts: Juniperus spp. including J. osteosperma, J. virginiana. Discussion: This is a common species on fresh-cut juniper.

Distribution: AZ, CA, CO, FL, GA, IN, MS, NV, UT, TX, VA, WY.

Counties: 3, 5, 14, 15, 22(DAL), 40, 62.

Elatotrypes hoferi Fisher

Type locality: Ute Pass, El Paso County, Colorado.

Hosts: Pinus flexilis, P. ponderosa, Juniperus californica.

Discussion: This species is uncommon in collections. Most known specimens have been reared. Craighead (1923) described the larva and larval habits of this species but considered it to be a species of *Xylocrius* at that time.

Distribution: CO, ID. Counties: 32(type).

Meriellum proteus (Kirby)

Hosts: Picea, Abies, Pinus.

Discussion: Wickham listed this species in the genus Merium.

This boreal species was reared from Pinus contorta, Rainbow Lodge, Grand Lake, in Grand County (RMGC).

Distribution: AK, CO, CT, ID, IN, ME, MI, MN, NJ, NY, OR, WI, AB, BC, MB, NT, ON, PQ, SK, YK.

Counties: 20(RMGC).

Phymatodes blandus blandus (LeConte)

Hosts: Salix.

Discussion: New state record. A single specimen was examined from Mesa Co., Fruita, suction trap, 1988, and identified by F. T. Hovore. This considerably extends the range of this species. The specimen fits the description of the nominate subspecies from the Sierra Nevada Mountains of California, although other subspecies are recognized from California.

Distribution: CA, CO, OR, WA.

Counties: 24.

Phymatodes dimidiatus (Kirby)

Hosts: Larix, Picea, Tsuga, Pseudotsuga menziesii.

Distribution: AK, CA, CO, CT, ID, MA, MT, NC, NJ, NM, NY, OH, OR, PA, UT, VA, WA, WI, AB, BC, MB, NB, ON, PQ, SK, YK.

Counties: 3, 5, 17, 26(DJHC), 28(HFW), 46(HFW), 57(HFW).

Phymatodes hirtellus densipennis Casey

Hosts: Pinus spp. including P. aristata, P. edulis, P. ponderosa.

Discussion: This species appeared under the name Callidium

hirtellum LeConte in Wickham's list.

Distribution: AZ, CA, CO, NM, SD, WA, AB, BC.

Counties: 5, 28(HFW), 32, 34.

Phymatodes maculicollis LeConte

Hosts: Abies bracteata, A. lasiocarpa, A. venusta, Picea engelmannii.

Discussion: This species has been reported from Colorado only by Wickham. No specimens were examined by the author. Its presence in the state needs verification.

Distribution: CA, CO?, ID, MI, MT, NY, OR, UT, WA, AB, BC, NB, PQ, YK.

Counties: 46(HFW), 57(HFW).

Phymatodes varius (Fabricius)

Hosts: Vitis, Quercus alba, Q. emoryi, Carya.

Discussion: Wickham listed this species as P. variabilis
Fabricius

Distribution: AR, AZ, CO, CT, GA, IA, IL, IN, KS, MA, MD, ME, MI, MN, MO, MS, NC, NJ, NM, NY, OH, OK, PA, RI, SC, UT, TX, VA, WI, ON, PQ.

Counties: 32, 33(RMGC), 46(HFW), 51.

Phymatodes sp.

Hosts: Unknown.

Discussion: A single, male specimen of an apparently undescribed species was collected near Colorado Springs. Kippenhan (pers. comm.) states that it was collected on a pile of firewood. The body is completely brown and medium-sized for species in this genus, with the antennae slightly exceeding the apex of the elytra. It keys out (Linsley, 1964) to *P. infuscatus* (LeConte) from California.

Distribution: CO.
Counties: 32(DJHC).

Pronocera collaris collaris (Kirby)

Hosts: Picea, Pinus.

Discussion: In Wickham's list this species is in the genus

Gonocallus.

Distribution: AK, CO, ID, ME, MI, MN, MT, NC, NH, NM, NY, OH, OR, PA, VT, WA, WY, AB, BC, MB, NB, NF, NT, ON, PQ, SK, YK.

Counties: 4, 20, 46(HFW).

Semanotus juniperi (Fisher)

Hosts: Juniperus spp., including J. osteosperma.

Discussion: New state record. Larvae feed just under the bark of live trees and adults emerge in spring. This species is widely distributed but rarely encountered. Its relatively large emergence holes in the trunk or larger branches may help to locate it.

Distribution: AZ, CA, CO, ID, NM, TX.

Counties: 24, 50.

Semanotus ligneus parvicollis (Casey)

Hosts: Juniperus osteosperma.

Discussion: This was listed by Wickham as Hylotrupes ligneus
Fabricius. Only one subspecies is being listed for Colorado,
although the nominate subspecies is recorded by Linsley
(1964) as occurring in northern New Mexico. S. l. conformis
Casey is a synonym of this subspecies.

Distribution: AZ, CO, ID, UT.

Counties: 5(HFW), 17(HFW), 23, 26, 40, 50(MVNP), 51.

Semanotus litigiosus (Casey)

Hosts: Abies spp. including A. bracteata, A. concolor, A. magnifica, A. grandis, A. lasiocarpa, Tsuga, Pseudotsuga menziesii, P. mucronata, Picea sitchensis.

Distribution: CA, CO, ID, ME, MI, MN, MT, NH, NM, NY, OR, UT, VT, WA, WI, AB, BC, MB, NB, NT, ON, PQ, SK. Counties: 5, 15, 51.

Xylocrius agassizi (LeConte)

Hosts: Ribes.

Discussion: New state record: near Boulder, 6700 ft. elev., V-28-1971

Distribution: CA, CO, ID, MT, NM, OR, UT, WA, BC Counties: 17

Tribe Clytini

Calloides nobilis mormonus Schaeffer

Hosts: Unknown.

Discussion: The larvae probably feed in moist dead stumps or dying trunks of *Quercus* or other hardwoods similar to *C. n. nobilis* (Harris) of eastern North America, or *C. lorquini* Buquet of California as described by Cope (1984). Two specimens from Colorado were examined: Paonia, VIII-11-1933 and North Cheyenne Canyon, Colorado Springs, VI-17-1972 (JDBC).

Distribution: AZ, CO, NM, UT, Mexico.

Counties: 14(RMGC), 25, 32(JDBC), 33(RMGC).

Clytoleptus albofasciatus (Castelnau and Gory)

Hosts: Vitis, Carya.

Discussion: Wickham's unique record is the only basis for inclusion. The specimen was noted as a "variety of Clytanthus albofasciatus Lap.". Its presence in Colorado needs verification

Distribution: AL, CO?, CT, FL, GA, IL, IN, KS, MD, MI, MO, NJ, NY, OH, OK, PA, VA, ON, PQ.

Counties: 57(HFW).

Clytus canadensis Hopping

Hosts: Abies concolor.

Discussion: This is a rather uncommon species throughout the central Rocky Mountain region.

Distribution: CO, ID, MT, NM, OR, WA, AB, BC.

Counties: 23(DJHC), 53, 57.

Megacheuma brevipennis brevipennis (LeConte)

Hosts: Sarcobatus vermiculatus, Atriplex nuttallii, and A. confertifolia.

Discussion: New state record. One specimen: Dinosaur National Monument, VII-28-1978. Larvae feed in the roots of their host plants.

Distribution: CO, ID, NV, OR, UT, WY.

Counties: 1.

Megacyllene angulifera (Casey)

Hosts: Unknown.

Discussion: New state record. Two specimens from Colorado were examined: Fort Collins, VII-30-1902 and County Hwy 90 (Larimer County), IX-27-1995. Dalea candida may possibly be a host plant. Craighead (1923) reported rearings of Megacyllene infausta LeConte, a synonym of M. decora (Olivier), from D. candida at Aweme, Manitoba. G. Hopping (1937) stated collectors misidentified M. angulifera as M. infausta. This species is very uncommon in collections.

Distribution: CO, KS, ND, SD, AB, MB, SK.

Counties: 5.

Megacyllene caryae (Gahan)

Hosts: Carya, Celtis, Fraxinus, Gleditsia triacanthos, Juglans, Maclura, Morus, Prosopis glandulosa, Prunus, Quercus, Ulmus, Vitis.

Discussion: This species is not yet known to be established in Colorado. Several specimens have been examined that were associated with firewood imported from eastern states. The species oviposits on recently dead or cut wood.

Distribution: AR, CT, GA, IA, IL, IN, KS, MA, MD, MI, MN, MO, MS, OH, OK, NC, NE, NJ, NY, PA, SC, TX, WV, ON, Mexico.

Counties: 14.

Megacyllene decora (Olivier)

Host: Amorpha fruticosa.

Discussion: Two old specimens were examined from Colorado.

This attractive black and yellow species has an extremely variable elytral pattern. Wickham listed this species in the genus Cyllene. The larvae feed in the living root crown of the host (Rice, 1988). Adults of this and many Megacyllene species are attracted to Solidago (goldenrod) blossoms.

Distribution: AL, CO, FL, GA, IA, IL, IN, KS, MN, MO, MS, NC, NE, NM, NY, OH, OK, SC, SD, TX, VA, AB, MB Counties: 16, 17(HFW).

Megacyllene lutosa (LeConte)

Type locality: "Kansas, near the Rocky Mts." This species was described in 1861 and perhaps was collected when the Kansas Territory included the eastern half of Colorado.

Hosts: Unknown. Most larvae of this genus occur in Fabaceae (Leguminosae).

Discussion: An extremely rare species, apparently active in June.

No recent records are known from any state.

Distribution: CO?, IA, KS.

Counties: No county records located.

Megacyllene robiniae (Forster)

Hosts: Robinia pseudacacia.

Discussion: This eastern USA species has been introduced and established for quite some time.

Distribution: AL, CO, CT, FL, GA, IA, ID, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MS, NE, NH, NJ, NY, OH, PA, SC, SD, VA, WA, WI, ON, PQ.

Counties: 5, 6, 8, 9(DAL), 13, 15, 16, 17, 24, 32, 38(DAL).

Megacyllene snowi snowi (Casey)

Hosts: Robinia.

Discussion: Tyson (1982) recorded a single specimen: Colorado Springs, VIII-1950. This specimen was not examined nor were any others from the state. It seems much more probable that the eastern subspecies *M. s. zuniana* (Casey) would be found in the south-central part of the state as I have examined it from Bernalillo Co. NM. Besides the one record for CO, the nominate subspecies is only known from the west side of the Continental Divide.

Distribution: AZ, CO?, NM. Counties: 32(from Tyson, 1982).

Neoclytus acuminatus hesperus Linsley

Type locality: North Cheyenne Canyon, Colorado.

Hosts: Quercus, Pithecellobium pallens, Citrus, Zanthoxylum fagara, Baccharis angustifolia, Prosopis glandulosa, Eleagnus angustifolia (new host record).

Discussion: The nominate subspecies infests the dead wood of numerous hardwoods and occurs from Texas and the Great Plains across the eastern half of the USA and southern Canada. As there are no natural boundaries separating the subspecies, intergrades are common. The chief difference between the subspecies is coloration.

Distribution: CO, NM, TX, Mexico.

Counties: 5, 6, 15(DAL), 24, 40, 41, 60, 63.

Neoclytus approximatus (LeConte)

Hosts: Unknown.

Discussion: This species is rare in collections. Two old records are known from Colorado: Fort Collins, VI-28-1900 (2 specimens), and Wickham's record "Morrison, August, Oslar coll.".

Distribution: CO, KS, MO, OK, TX.

Counties: 5, 16(HFW).

Neoclytus caprea (Say)

Hosts: Celtis reticulata, Eucalyptus, Fraxinus, Carya, Ulmus, Quercus, Prosopis, Vitis, Juglans.

Discussion: This is a wide-ranging species that heavily infests fresh-cut firewood and lumber.

Distribution: AL, AR, AZ, CO, CT, GA, IA, IL, IN, KS, MD, MI, MO, MS, NC, NJ, NM, NV, NY, OH, OK, PA, SC, SD, TX, UT, WY, ON, PQ.

Counties: 3, 5, 17, 24, 29(DAL), 41, 50, 51, 60.

Neoclytus leucozonus leucozonus (Castelnau and Gory)

Hosts: Picea, Larix.

Discussion: Wickham recorded this species as N. muricatulus Kirby but that name was synonymized with N. leucozonus by Hoffman (1988). Regarding N. ascendens LeConte, Hopping (1932) states "It is possibly a variation of muricatulus, but until more material is available, the markings are distinctive enough to retain it as a distinct species. ... The specimen before me was taken with a series of muricatulus on telegraph poles at Edmonton, Alberta." The author examined the holotype of N. ascendens LeConte [MCZC] from "Leavenworth Valley, ab. Georgetown, Colo. 9,000 to 10,000 ft.". A distinguishing feature of the holotype are the unbroken subbasal elytral fasciae which extends from the suture to the elytral margins and curves upwards toward the humeri. All other pubescent fasciae and features of the holotype are identical to most specimens of N. leucozonus. Variations in the width of the subapical elytral fasciae are not uncommon in specimens of N. leucozonus from Colorado. The author considers N. ascendens LeConte to be conspecific with N. leucozonus leucozonus (new synonymy).

Distribution: AK, CO, CT, ID, IN, ME, MI, MN, MT, ND, NE, NH, NM, NY, OR, SD, NY, UT, VA, WA, WI, WY, AB, BC, LB, MB, NB, NF, NS, NT, ON, PE, PQ, SK, YK.

Counties: 1, 5, 16(RMGC), 17, 18, 19(HFW), 20, 26(RMGC), 28(HFW), 29, 30(RMGC), 32(HFW), 33, 36, 43, 46(HFW), 49(HFW), 52.

Neoclytus magnus Schaeffer Hosts: Adenostoma fasciculatum. Discussion: There is only one record of this species from Colorado. All other records of this species are from Southern California and northwest Mexico.

Distribution: CA, CO, Mexico. Counties: 23(from Cope, 1984).

Neoclytus mucronatus vogti Linsley

Hosts: Prosopis glandulosa, Celtis laevigata, C. occidentalis, Bumelia lanuginosa, Ulmus crassifolia, Parkinsonia aculenta

Discussion: New state record. Specimens of this subspecies have been taken in Picture Canyon, Baca County. One was collected on Sapindus drummondi and some have been reared from Celtis.

Distribution: AZ, CO, TX, Mexico.

Counties: 63.

Some of the Xylotrechus from Colorado, as well as other mountain states are difficult to identify using existing taxonomic treatments due to variations in the size and shape of the elytral markings.

Xylotrechus annosus emotus Brown

Hosts: Populus tremuloides, P. trichocarpa.

Distribution: CA, CO, ID, MT, NV, OR, UT, WA, BC. Counties: 22, 23, 24, 26, 43(HFW), 46(HFW), 51(HFW), 52,

57(HFW).

Xylotrechus bowditchi bowditchi Hopping

Type locality: Florissant, Colorado elev. 8,000 ft.

Hosts: Picea..

Distribution: AZ, CO, UT.

Counties: 31(type).

Xylotrechus bowditchi hoppingi Linsley

Hosts: Abies, Picea, Pinus. Distribution: CO, NM. Counties: 5, 16(RMGC).

Xylotrechus colonus (Fabricius)

Hosts: Acer, Carya, Castanea, Fagus, Fraxinus, Juglans, Quercus alba, Q. nigra, Pinus virginiana, Tsuga canadensis, Ulmus.

Discussion: New state record. One specimen was examined from Larimer Co., Ft. Collins, X-19-1962. This species is very common in eastern North America.

Distribution: AL, AR, CO, CT, DE, FL, GA, IA, IL, IN, KS, LA, MA, MD, ME, MI, MN, MO, MS, NC, ND, NE, NH, NJ, NY, OH, OK, PA, RI, SC, SD, TN, TX, VA, VT, WI, WV, MB, NB, ON, PO.

Counties: 5.

Xylotrechus longitarsis Casey Hosts: Pseudotsuga menziesii. Discussion: Specimens reported by Wickham as X. undulatus (Say) are presumably this species. Available series of specimens from Colorado show considerable variation in the markings on the elytra, including specimens where the subbasal elytral fasciae are band-like and do not curve upward along the elytral suture. Specimens with these band-like markings key out (Linsley, 1964) to X. robustus Hopping or X. gemellus Casey.

Distribution: CA, CO, ID, MT, OR, SD, WA, WY, AB, BC, NT. Counties: 5, 17, 29(HFW), 30, 31(HFW), 32, 55(GSDC).

Xylotrechus obliteratus LeConte

Type locality: "Colorado". Hosts: Populus tremuloides.

Discussion: The larvae feed in the lower trunk and roots. R. Gemmill (pers. comm.) states that he found this species to be active in June and July where wind or snow has toppled infested trees on steep south-facing slopes. Hopping (1932) incorrectly reported X. mormonus LeConte as occurring in CO, NM, and UT and X. obliteratus LeConte as occurring in CO and the Pacific Northwest area.

Distribution: CO, NM.

Counties: 5, 20(RMGC), 26(RMGC), 40, 45(RMGC), 53(RMGC), 58.

Xylotrechus robustus Hopping

Type locality: "Griffith Mill, Estes Park, Colorado, 7,800 ft."

Hosts: Picea First host record.

Discussion: A specimen was taken in Gunnison Co: "Soap Creek N of Blue Mesa Reservoir, VII-12-1992, emerged from spruce" [RMGC]. R. Gemmill (pers. comm.) states that he found adults on the sun-scarred bark of living Engelmann spruce, lodgepole pine and sub-alpine fir in August and September. Two specimens from a short series collected by Gemmill have the subbasal elytral fasciae curving upwards along the suture as in X. longitarsis. The author examined two syntypes of X. gemellus Casey [USNM]. One is labeled "Ind." (for Indiana) and the other is unlabelled. These syntypes are very similar to some specimens of X. robustus and X. longitarsis that have band-like subbasal elytral fasciae. There is a reasonable chance that the type locality of X. gemellus is incorrect since it has not been recollected since it was described.

Distribution: AZ, CO.

Counties: 5, 20(RMGC), 26(RMGC), 29, 46(EMEC).

Xylotrechus sagittatus sagittatus (Germar)

Hosts: Pinus spp. including P. virginiana, Abies, Picea.

Distribution: AL, AR, CO, CT, FL, GA, IN, LA, MA, MD, ME, MI, MN, MO, MS, NC, NJ, NM, NY, OH, OK, PA, SC, TN, TX, VA, WI, MB, ON, PQ.

Counties: 5.

Tribe Rhopalophorini

Rhopalophora meeskei Casey

Hosts: Pinus.

Discussion: This was formerly considered a subspecies of R. longipes (Say). Wickham's records for R. longipes are assumed to belong here because the two species are allopatric.

Distribution: AZ, CO, NM, SD, TX, UT, Mexico, Guatemala. Counties: 5, 15(HFW), 17, 30, 31, 32, 42(DNHC), 50(MVNP), 51(HFW), 52.

Rhopalophora rugicollis rugicollis LeConte

Hosts: Ptelea angustifolia, Zanthoxylum clava-hercules, Pithecellobium pallens, Salix.

Discussion: Wickham's record of this species taken in the "Upper San Juan" (Archuleta Co.?) is possible considering the wide range of this species.

Distribution: AZ, CO, NM, TX, Mexico.

Counties: 52 ?(HFW).

Tribe Trachyderini

Amannus vittiger LeConte

Hosts: Atriplex spp., probably including A. canescens and A. confertifolia.

Discussion: New state record. Adults have been taken on the blossoms of Sphaeralcea. This species is active in June or earlier.

Distribution: AZ, CO, ID, NM, TX, UT. Counties: 41(DNHC), 47(DJHC).

Batyle ignicollis ignicollis (Say)

Hosts: Pinus, Hypericum spathulatum, Rhus aromatica.

Discussion: This species is frequently collected on flowers.

Distribution: AL, AR, CO, KS, LA, MO, MT, NC, ND, NM, OH, OK, SC, SD, TX, UT, AB, Mexico.

Counties: 5, 6, 11, 16, 17, 22, 29, 40, 47, 52, 55, 58, 60, 61, 62.

Batyle suturalis infuscatus Linsley

Type locality: "Paonia, Delta County, Colorado".

Hosts: Unknown.

Discussion: No specimens of this subspecies were available, however B. s. pearsalli (Bland) was also seen from Delta County. Linsley (1962b) states that some subspecies may eventually be given specific rank upon further study.

Distribution: CO. Counties: 25.

Batyle suturalis pearsalli (Bland)

Hosts: Unknown. B. s. suturalis (Say), from the eastern USA has been reared from Carya, Quercus, and Castanea.

Discussion: This species is commonly collected on flowers.

Distribution: CO, KS, MT, NE, NM, SD, WY, AB, MB, SK.

Counties: 5, 6, 7, 13, 14, 15, 16, 23, 24, 25, 28, 29, 32, 33, 38, 40, 41, 42, 43, 47, 50, 51, 52, 55, 56, 57, 58, 59, 61, 62, 63.

Batyle sp.

Hosts: Unknown.

Discussion: This form is distinguished from other Batyle species by its black pronotum and red elytra. Specimens have been taken in the Great Sand Dunes National Monument area in early August on flowers. Further study is required to determine its taxonomic status.

Distribution: CO. Counties: 43, 55.

The genus *Crossidius* is represented by five species in Colorado. Adults are active in late summer and early autumn where they congregate on their host plants, usually on the flowers. The larvae feed in the living root crowns.

Crossidius ater LeConte

Hosts: Artemisia tridentata, Chrysothamnus viscidiflorus, C. nauseosus, Haplopappus suffruticosa, H. bloomeri.
Distribution: AZ, CA, CO, ID, MT, NV, OR, UT, WA, WY.
Counties: 1(DNMC), 3(Linsley and Chemsak, 1961), 25, 50, 51.

Crossidius coralinus (LeConte)

Hosts: Unknown.

Discussion: This species has 13 described subspecies. According to Linsley and Chemsak (1961), the nominate subspecies is found in extreme southwestern Colorado and the adjacent region of New Mexico.

Distribution: CO, NM. Counties: 50, 52.

Crossidius coralinus fulgidus Chemsak and Linsley

Hosts: Chrysothamnus nauseous.

Discussion: New state record. Linsley and Chemsak (1961) list the range for this subspecies as Duchesne and Uintah Counties, UT. A series of specimens were examined from Moffat Co., 3 mi. W Dinosaur, VIII-8-1986.

Distribution: CO, UT.

Counties: 1.

Crossidius coralinus jocosus (Horn)

Type locality: "Colorado".

Hosts: Unknown.

Discussion: This appeared in Wickham's list as Oxoplus jocosus

Horn. Linsley and Chemsak (1961) list this subspecies as
occurring in the south-central region of the state.

Distribution: CO.

Counties: 26(Linsley and Chemsak, 1961), 41(RMGC), 43(Linsley and Chemsak, 1961), 54, 55, 56(Linsley and Chemsak, 1961), 57.

Crossidius coralinus ssp.

Discussion: It is beyond the scope of this paper to refer all specimens of *C. coralinus* to a particular subspecies because many intermediate populations exist.

Counties: 2, 5, 6, 24, 25, 47.

Crossidius discoideus blandi Casey

Hosts: Xanthocephalum sarothrae, Gutierrezia spp. including G. californica, G. lucida, G. microcephala, Haplopappus spp. including H. gracile, H. spinulosus, H. scabrellus, H. hartwegi, H. venetus, Chrysopis.

Discussion: New state record. One specimen was examined from Durango, CO.

Distribution: AZ, CA, CO, ID, NM, NV, TX, UT, AB, Mexico.
Counties: 51.

Crossidius discoideus sayi Casey

Hosts: Unknown.

Discussion: This common subspecies occurs throughout eastern

Colorado.

Distribution: CO, KS, NM, WY.

Counties: 5, 6, 15(HFW), 16, 17, 23, 24, 32, 34, 41(HFW),

42(HFW), 57(HFW), 63.

Crossidius hirtipes allgewahri LeConte

Hosts: Unknown.

Discussion: New state record. Distribution: CO, ID, UT, WY.

Counties: 1, 23, 47.

Crossidius hirtipes wickhami Casey

Hosts: Unknown.

Discussion: New state record. Assignment of specimens to this subspecies is tentative due to lack of comparative material.

Distribution: AZ, CO, NV, UT.

Counties: 55, 57.

Crossidius pulchellus LeConte

Hosts: Xanthocephalum spp including X. sarothrae, X. lucida, X. microcephala, X. longifolia, X. microphylla, Haplopappus spp. including H. hartwegi.

Distribution: AZ, CA, CO, ID, KS, MO, MT, ND, NE, NM, SD, TX, UT, AB, Mexico.

Counties: 1, 5, 6, 15(HFW), 17, 23, 24, 25, 31(LGBC), 32, 43, 51(Linsley and Chemsak, 1961), 55, 57(HFW), 59, 62.

Tragidion coquus (Linnaeus)

Hosts: Quercus, Acacia.

Discussion: This large handsome species is sometimes found on roadside flowers in late summer and autumn. Two specimens from Routt County were notably smaller than average. The elytra of this species are usually brownish-orange, however specimens with all black elytra or black with a single brownish-orange spot on each elytron are not unusual.

Distribution: AL, AR, AZ, CO, FL, GA, IA, IL, IN, KS, KY, LA, MD, MO, MS, NC, NJ, NM, NY, OH, OK, PA, SC, SD, TN, TX, UT, VA.

Counties: 3, 5, 11, 12, 17, 23, 32, 33(RMGC), 50, 53, 54(HFW), 61.

Subfamily Lamiinae

Tribe Moneilemini

Moneilema feed on cactus, Opuntia spp., as larvae and adults. Adults are active in summer and may be found on cacti at night or during the cooler or overcast periods of the day. Being flightless and restricted to one food source, species of Moneilema are generally localized. Four species, all black, with a great deal of variation in punctation and relative size, are currently recognized in Colorado.

Moneilema annulatum Sav

Hosts: Opuntia phaeacantha, O. polycantha.

Distribution: CO, KS, MT, ND, NE, NM, OK, SD, WA, AB, SK.

Counties: 5, 6, 17, 32, 40, 41(HFW), 58, 59(DNHC), 60.

Moneilema appressum LeConte

Hosts: Opuntia spp. including O. arbuscula, O. imbricata, O.

spinosior, O. versicolor.

Distribution: AZ, CO, NM, TX, Mexico.

Counties: 43, 54, 55, 56, 57.

Moneilema armatum LeConte

Hosts: Opuntia spp., including O. violacea, O. arbuscula, O. imbricata, O. robusta, O. spinosior and probably O. arborescence, O. engelmanni, O. macrocentra.

Discussion: Moneilema laevigatum Bland, included by Wickham, is a synonym of this species.

Distribution: AZ, CO, KS, NM, OK, TX, Mexico.

Counties: 5, 15(DNHC), 32, 40, 41(Psota, 1930), 50, 58, 59, 60, 61, 63.

Moneilema semipunctatum LeConte

Hosts: Opuntia spp. including O. acanthocarpa, O. basalaris, O. echinocarpa, O. erinaceae, O. parryi, O. whipplei.

Distribution: AZ, CA, CO, ID, NM, NV, UT, Mexico.

Counties: 1, 50.

Tribe Lamiini

Goes tesselatus (Haldeman)

Hosts: Quercus, Castanea, Ulmus, Amelanchier.

Discussion: The type locality for Hammoderus amplipennis
Casey, a synonym of G. tesselatus (Haldeman) is "Colorado"
(no further data). This species is wide-ranging, but not
commonly collected. It is attracted to lights. No other records
for Colorado exist and its presence in the state requires
verification.

Distribution: AL, AR, CO?, FL, GA, IA, IL, IN, KS, LA, MA, MD, MI, MN, MO, MS, NC, NE, NJ, NY, OH, OK, PA, SC, TN, TX, VA, WI, WV.

Counties: No county records located.

Monochamus clamator clamator (LeConte)

Hosts: Pinus, Pseudotsuga.

Discussion: This species appeared in Wickham's list as

Monohammus maculosus Horn.

Distribution: AZ, CO, NM, SD, TX, UT.

Counties: 1(DNMC), 4, 5, 15, 16(DNHC), 18, 17, 24, 29, 30, 31, 32, 34, 38(DAL), 42 ?(HFW), 47, 50, 52, 55, 58.

Monochamus scutellatus scutellatus (Say)

Hosts: Pinus spp. including P. virginiana, P. ponderosae and others, Pseudotsuga, Abies, Picea.

Discussion: Linsley and Chemsak (1985) show a locality in northern Colorado for the subspecies M. s. oregonensis

LeConte. However this locality is surrounded by records of the nominate subspecies.

Distribution: AK, AZ, CO, CT, FL, GA, ID, IN, MA, MD, ME, MI, MN, MT, NC, ND, NH, NJ, NM, NV, NY, OH, RI, SC, TN, UT, VA, VT, WI, WY, AB, BC, LB, MB, NB, NF, NS, NT, ON, PE, PO, SK, YK.

Counties: 1(DNMC), 3(DAL), 4, 5, 17, 18, 19(DNHC), 20(DNHC), 23(HFW), 26, 28(HFW), 29, 30, 32, 33(DNHC), 46(HFW), 47, 51(HFW), 52, 53, 54(HFW), 55(GSDC).

Plectrodera scalator (Fabricius)

Hosts: Populus spp. especially P. deltoides, Salix.

Discussion: This wide-ranging species is common in the southern and central Great Plains. It is diurnal and found on live trunks of its hosts from middle to late summer.

Distribution: AL, AR, CO, FL, GA, IA, IL, IN, KS, LA, MD, MI, MO, MS, MT, ND, NE, NJ, NM, NY, OH, OK, PA, SC, SD, TN, TX, Mexico.

Counties: 5, 12, 15(DNHC), 33(DNHC), 60, 61(DAL), 62(DAL).

Tribe Dorcaschematini

Dorcaschema alternatum (Say)

Hosts: Maclura pomifera, Morus.

Discussion: New state record. Otero Co., Rocky Ford, CSU Res. Stn. on mulberry, 20-VI-1995. The larvae of this eastern species feed in dead limbs of the host plant. Adults come to lights.

Distribution: AL, AR, CO, FL, GA, IA, IL, IN, KS, KY, MA, MD, MI, MN, MO, MS, NC, NJ, NY, OH, OK, PA, SC, SD, TN. TX, VA.

Counties: 60.

Tribe Apomecynini

Adetus brousi (Horn)

Hosts: Curcurbita foetidissima.

Discussion: New state record. This species is active from May to July and is always associated with *Curcurbita*.

Distribution: CO, KS, NM, TX, Mexico.

Counties: 11, 61, 63.

Tribe Pteropliini

Ataxia hubbardi Fisher

Hosts: Ambrosia, Apocynum, Cirsium, Erigeron, Gossypium, Ipomoea leptophylla, Helianthus, Silphium, Smilax, Thurberia, Verbesina, Vernonia, Xanthium.

Discussion: This species is readily attracted to lights.

Distribution: AR, AZ, CO, KS, MO, NE, NM, OK, TX, Mexico

Counties: 35, 60, 61, 62, 63.

Tribe Pogonocherini

Pogonocherus (Pogonocherus) penicillatus LeConte

Hosts: Picea.

Distribution: AK, CO, ME, MI, NH, NY, AB, BC, NB, NF, NS,

NT, ON, PE, PQ. Counties: 20(RMGC).

Pogonocherus (Eupogonocherus) mixtus Haldeman

Hosts: Larix, Pinus, Picea, Pyrus, Salix.

Discussion: P. simplex LeConte, a synonym of P. mixtus
Haldeman, appeared on Wickham's list. No specimens of P.
mixtus have been examined from Colorado.

Distribution: CO, CT, FL, GA, ID, IL, IN, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NH, NJ, NM, NY, OH, PA, SC, SD, VA, VT, WA, WI, WV, AB, BC, MB, NB, NT, ON, PQ, YK.

Counties: 5(HFW), 7(HFW), 17(HFW), and additional localities in the center and southwestern corner of Colorado are shown on a map (Linsley and Chemsak, 1985).

Pogonocherus (Eupogonocherus) parvulus LeConte Hosts: Salix.

Distribution: CO, MA, MI, ND, NJ, NY, PA, SD, UT, AB, MB, ON, PO, SK.

Counties: 5, 32(Craighead, 1923).

Pogonocherus (Eupogonocherus) pictus (Fall)

Type locality: Telluride, Colorado.

Hosts: Pinus ponderosa, Larix occidentalis, Populus trichocarpa, P. tremuloides.

Discussion: P. mixtus Haldeman on Wickham's list might be this species, which was undescribed at the time.

Distribution: AZ, CA, CO, MT, NM, NV, OR, SD, UT, WY, AB, BC, NT.

Counties: 4, 5, 17(DJHC), 18, 19(HFW), 21(HFW), 24, 28(HFW), 32, 46(HFW), 48(type locality), 57(HFW).

Pogonocherus (Eupogonocherus) propinquus (Fall)

Hosts: Pinus contorta, P. monticola, P. ponderosa, Picea.

Discussion: Linsley and Chemsak (1985) state that the range of this species extends to Colorado. No specimens have been located so far.

Distribution: CA, CO?, ID, MT, NV, OR, WA, BC.

Poliaenus oregonus (LeConte)

Hosts: Abies concolor, A. magnifica, A. grandis, Pseodotsuga.

Discussion: There are no recent records for this species in

Colorado.

Distribution: AZ, CA, CO, ID, MT, NV, OR, UT, WA, WY, BC Counties: 43(HFW), 52 ?(HFW).

Tribe Desmiphorini

Psenocerus supernotatus (Say)

Hosts: Carya, Castanea, Cornus, Ribes, Quercus, Celastrus, Liquidambar, Rhus, Salix, Parthenocissus, Lonicera, Euonymus, Ulmus, Liriodendron, Memispernum, Malus, Vitis.

Discussion: New state record. Only two specimens from Colorado were examined of this widespread eastern species. *P. tristis* Casey, a synonym, was described from one specimen questionably from New Mexico.

Distribution: AR, CO, CT, DE, GA, IA, IL, IN, KS, KY, MA, MD, ME, MI, MN, MO, MS, NC, ND, NE, NH, NJ, NM?, NY, OH, OK, PA, RI, SC, SD, TN, TX, PA, VA, VT, WI, WV, MB, NB, ON, PQ.

Counties: 5.

Tribe Acanthocinini

Acanthocinus leechi Dillon

Hosts: Pinus monophylla.

Discussion: New state record. One specimen examined: Colorado National Monument, VII-30-1962.

Distribution: AZ, CO.

Counties: 24.

Acanthocinus obliquus (LeConte)

Hosts: Pinus ponderosa, P. scopulorum, P. murrayana, P. chihuahuana, P. contorta, P. flexilis, P. jeffreyi, P. edulis, P. leiophylla, P. sabinia, P. strobiformis, P. coulteri, Picea.

Discussion: This is the smallest member of the genus in Colorado and it is rather common.

Distribution: AZ, CA, CO, ID, MT, NM, NV, OR, SD, UT, WA, AB, BC, Mexico.

Counties: 2, 5, 17, 18, 24, 29, 32, 46, 52, 58.

Acanthocinus spectabilis (LeConte)

Hosts: Pinus ponderosa, P. scopulorum, P. chihuahuana.

Discussion: Females of the genus typically lay their eggs on recently dead or dying pine. They are easily recognized by the long antennae which are 2.5 to 4 times the body length in males and somewhat shorter in females.

Distribution: AZ, CO, MT, NM, SD, UT, Mexico.

Counties: 5, 17, 32.

Dectes texanus LeConte

Hosts: Ambrosia, Baccharis, Baileya, Curcurbita, Gaillardia, Glycine, Gossypium, Haplopappus, Helenium, Helianthus, Heterotheca, Kallstroemia, Lepidium, Physalis, Solanum, Solidago, Sphaeralcea, Verbesina, Xanthium, Zalazonia. Discussion: Wickham's records of D. spinosus Say are probably this species.

Distribution: AL, AR, AZ, CO, CT, FL, GA, IA, IL, IN, KS, KY, MD, MI, MN, MO, MS, MT, NC, ND, NE, NJ, NM, NY, OH, PA, SC, SD, TN, TX, VA, WV, WY, Mexico.

Counties: 5(HFW), 6, 15(DNHC), 16(HFW), 17, 32(HFW), 40(HFW), 41, 59, 60(HFW), 63.

Eutrichillus pini Schaeffer

Hosts: Pinus edulis, P. ponderosa.

Discussion: This is a small species that is not uncommon in the

southern part of its range.

Distribution: AZ, CO, NM, Mexico.

Counties: 32.

Hyperplatys aspersa (Say)

Hosts: Acer spp. including A. grandidentatum, Alnus,
Amelanchier, Carya, Castanea, Celastrus, Celtis,
Cercocarpus, Cornus, Fraxinus, Juglans, Lindera,
Liriodendron, Malus, Populus, Prunus spp. including P.
melanocarpa, Rhus, Ribes, Robinia, Salix, Tilia, Ulmus.

Discussion: Since Wickham's records predate the description of H. montana Casey, his records are not certain. R. Gemmill (pers. comm.) collected a long series of this species by beating Alnus.

Distribution: CO, CT, GA, IA, IN, MA, MD, ME, MI, MN, MO, MS, MT, NC, ND, NE, NJ, NY, OH, PA, SC, SD, VA, WI, AB, BC, MB, NB, NF, NS, ON, PQ, SK.

Counties: 16(RMGC), 43 ?(HFW), 46 ?(HFW), 52 ?(HFW).

Hyperplatys montana Casey status revalidated

Hosts: Acer rubrum, Prunus.

Type locality: Boulder, Colorado.

Discussion: Linsley and Chemsak (1995) synonymized H.

montana Casey with H. aspersa (Say). However, the lateral
elytra carinae are prominent on H. aspersa. On H. montana,
they are subobsolete (Dillon, 1956). Examination of a series
of H. montana reared from Prunus (RMGC) does not have
any specimens with prominent lateral elytra carinae. A series
of H. aspersa taken on Alnus (RMGC) has all specimens with
prominent lateral elytral carinae. J. Cope (pers. comm.) states
that among numerous H. aspersa which he has collected in
Montana, there have not been any specimens of the H.
montana phenotype.

Distribution: AZ, CA, CO, NM, UT. Counties: 5, 6, 17, 32(RMGC), 34, 58.

Liopinus alpha (Say)

Hosts: Acer spp. including A. negundo, Alnus, Amelanchier, Carya, Castanea, Celastrus, Celtis, Citrus, Diospyros, Ficus, Gleditsia, Juglans, Malus, Morus, Platanus, Quercus, Rhus spp. including R. glabra, R. hytra, R. copallina, R. typhina, Robinia, Ulmus, Wisteria, Zanthoxylum. Discussion: Wickham listed this species in the genus *Liopus*.

Linsley and Chemsak (1995) moved all the *Sternidius* species into this new genus, *Liopinus*. Species in this genus are small, variable and generally difficult to identify.

Distribution: AL, AZ, CA, CO, CT, FL, GA, ID, IL, IN, MD, MI, MN, MO, MS, MT, ND, NJ, NM, NY, OH, PA, SC, SD, VA, TX, WI, ON, PQ.

Counties: 16(RMGC), 32 (Dillon, 1956).

Liopinus imitans (Knull)

Hosts: Unknown.

Discussion: New state record. One specimen was examined from Montezuma Co., VII-18-1990. It was identified by F. T. Hovore. Adults have been collected on foliage of *Quercus*, which is probably the host.

Distribution: AZ, CO, TX.

Counties: 50.

Sternidius variegatus (Haldeman)

Hosts: Acer, Aesculus glabra, Ampelopsis, Caragana,
Castanea, Celastris, Celtis occidentalis, Citrus, Gaylussacia,
Gleditsia, Juglans, Morus, Parthenocissus, Pinus, Populus,
Rhus, Robinia, Salix, Toxicodendron, Ulmus.

Discussion: New state record. This is a small, widespread species which utilizes a great variety of hosts.

Distribution: AL, AZ, CO, CT, FL, GA, IA, IL, IN, LA, MA, MD, MI, MN, MO, MS, NC, ND, NJ, NY, OH, PA, SC, SD, TX, UT, VA, WI, AB, MB, NB, ON, PQ, SK.

Counties: 5, 11, 15, 16(DNHC).

Tribe Saperdini

Saperda calcarata Say

Hosts: Populus spp. including deltoides, P. nigra, P. tremuloides, Salix.

Discussion: The larvae of this species can cause extensive damage to infested trees.

Distribution: AL, CA, CO, CT, GA, IA, ID, IL, IN, KS, MA, MD, ME, MI, MO, MS, MT, ND, NE, NJ, NM, NV, NY, OH, OK, OR, PA, RI, SC, SD, TX, UT, VT, WA, WI, WY, AB, BC, LB, MB, ON, PE, PQ, SK.

Counties: 3, 5, 16(DAL), 17(DAL), 20(RMGC), 40(HFW), 51, 55(DNHC), 58(DAL), 59(DAL), 61.

Saperda inornata Say

Hosts: Populus, Salix longifolia, S. concolor, S. exigua.
 Discussion: Included here is Wickham's record for Mecas inornata Say. Saperda concolor LeConte is a synonym of this species.

Distribution: AL, AZ, CO, CT, IA, ID, IN, MA, MI, MO, MT, NC, ND, NJ, NM, NY, OH, PA, RI, SD, TX, WI, AB, MB, NB, NF, NS, ON, PQ, SK.

Counties: 5, 6, 11, 17, 26(HFW), 35, 58.

Saperda lateralis Fabricius

Hosts: Acer, Alnus, Carpinus, Carya, Fraxinus, Prunus, Quercus, Rhus, Sambucus, Tilia, Ulmus.

Discussion: New state record. One specimen examined: Yuma Co., Laird, VI-12-1994.

Distribution: AL, CO, CT, FL, GA, IA, IL, IN, KS, MA, MD, MI, MS, NC, ND, NE, NJ, NY, OH, OK, PA, RI, SC, SD, TX, VA, VT, WI, WV, MB, NB, NS, ON, PQ.

Counties: 11.

Saperda populnea moesta LeConte

Hosts: Populus spp. including P. balsamifera, Salix.

Discussion: Specimens identified as this species in CSUC by

Wickham are S. inornata Say. One old specimen of S.

populnea moesta with only "Colo" on the label was examined.

Distribution: CO, CT, IA, ID, IL, IN, MI, MT, NY, OH, PA, WI, WY, AB, BC, LB, MB, NT, ON, PQ, SK, YK.

Counties: No county records located. Wickham's records for 5, 46, and 52 are possibly this species or S. inornata Say.

Saperda tridentata Olivier

Discussion: New state record.

Hosts: Ulmus spp. including U. americana and U. rubra.

Distribution: AL, AR, CO, CT, FL, GA, IA, IL, IN, KS, KY,
MA, MD, ME, MI, MN, MO, MS, NC, NE, NH, NJ, NY,
OH, OK, PA, RI, SC, SD, TN, TX, VT, WI, WV, MB, ON,
PO, SK

Counties: 5, 6(DAL), 7, 8(DAL), 15, 16(DNHC).

Tribe Phytoeciini

Mecas (Mecas) bicallosa Martin

Hosts: Artemisia tridentata.

Discussion: Adults have been collected on foliage of Artemisia tridentata, A. tripartita, and A. arbuscula, during midsummer.

Distribution: CA, CO, ID, NV, OR, UT, WA, BC, Mexico. Counties: 50.

Mecas (Mecas) cana saturnina (LeConte)

Hosts: Ambrosia, Gaillarda, Helianthus spp. including H. maximiliana, Iva, Parthenium, Xanthium.

Discussion: New state record. M. c. saturnina is separated from M. bicallosa by the longer antennae, using the generic key (Linsley and Chemsak, 1995). Based on the current records and available specimens, it appears that M. bicallosa is found only west of the Continental Divide, and M. cana saturnina is found on the east side. But all specimens from eastern Colorado have shorter antennae than normal for this subspecies.

Distribution: AL, CO, GA, KS, MO, MS, SD, TX, Mexico. Counties: 6(DNHC), 11, 38, 59, 60, 61, 63.

Mecas (Mecas) cineracea Casey

Hosts: Helenium microcephalum, Baileya multiradiata.

Distribution: AZ, CO, FL, GA, MO, MS, ND, NM, OH, SC, TX. Counties: 34.

Mecas (Mecas) marginella LeConte

Hosts: Unknown.

Discussion: New state record. Rice (1985) reported collecting a large series of mating pairs on *Thelesperma* in northwest

Distribution: AL, AR, CO, MS, NC, NM, SC, TX.

Mecas (Mecas) pergrata (Say)

Hosts: Aster, Helianthus.

Discussion: Typically, this species has gray elytra, but several specimens examined have reddish-gray elytra.

Distribution: CO, GA, IA, IL, IN, KS, MI, MO, MS, ND, NE, NM, OH, OK, SC, SD, TX, Mexico.

Counties: 5, 15(HFW), 16, 17, 32(HFW), 34, 52, 60, 62.

Oberea oculaticollis (Say)

Hosts: Unknown.

Discussion: Horn (1878) recorded this distinctive *Oberea* from Colorado. None have been seen since. Its presence in Colorado requires verification.

Distribution: AL, CO?, IL, IN, MN, MO, TN, TX, MB, ON. Counties: No county records located.

Oberea perspicillata Haldeman

Hosts: Rosa, Rubus.

Discussion: This widespread species has usually been referred to as O. bimaculata (Olivier).

Distribution: AL, CO, CT, FL, GA, IA, IN, MD, MI, MO, MS, NC, ND, NJ, NY, OH, PA, SC, TN, TX, UT, WI, MB, ON, PO.

Counties: 5, 11, 16, 17, 24, 52, 59.

Oberea quadricallosa LeConte

Hosts: Populus, Salix.

Distribution: CA, CO, ID, MT, ND, NV, OR, WA, AB, BC, SK Counties: 39, 42 ?(HFW).

Oberea schaumi LeConte

Hosts: Populus deltoides, Salix.

Distribution: CO, CT, GA, IA, IL, IN, KS, LA, MD, MI, MO, NJ, NY, OH, OK, PA, SD, TX, AB, BC, MB, NB, ON, PQ, SK.

Counties: 5, 6, 11, 14, 39.

Oberea tripunctata (Swederus)

Hosts: Amygdalus, Azalea, Carya, Cornus, Cydonia, Hamamelis, Kalmia, Malus, Oxydendrum, Populus, Prunus, Rhus, Ribes, Ulmus, Viburnum.

Discussion: This is a wide-ranging eastern species. Rice (1988) reported this species to be common on non-blooming Solidago

in northeastern Kansas. One Colorado specimen examined: Larimer Co., Skin Gulch, V-31-1993.

Distribution: AL, CO, CT, FL, GA, IN, KS, MD, MI, MO, MS, NC, ND, NJ, NY, OH, OK, PA, SC, SD, TX, WI, MB, NB, ON, PQ.

Counties: 5, 32(HFW).

Tribe Tetraopini

Phaea canescens (LeConte)

Discussion: Alnus, the only host plant listed by Linsley and Chemsak (1995), does not occur in the habitat of this species which is grassland. A specimen examined from extreme western Oklahoma was collected on Ipomoea (Convolvulaceae). In the eastern USA, the larvae of P. monostigma (Haldeman) feed in living stems of Ipomoea. In Wickham's list, this species was in the genus Tetrops.

Distribution: CO, KS, NM, OK, TX.

Counties: 6, 31, 59(HFW).

Tetraopes annulatus LeConte

Hosts: Asclepias spp. including A. tuberosus, A. subverticillata, A. verticillata, A. viridiflorus var. lanceolatus, A. speciosa and probably A. sullivantii.

Discussion: Some of the *Tetraopes canescens* LeC. records of Wickham belong here, although a few might be for *T. pilosus* Chemsak. This species is common.

Distribution: AZ, CO, ID, KS, MT, ND, NE, NM, SD, TX, UT, WY, AB, MB.

Counties: 1, 4, 5, 6, 7, 11, 12, 23, 24(CNMC), 25, 32, 37, 51, 52, 55, 59, 60, 61, 63. Chemsak (1963) also lists: 15, 29, 39, 50, 54, 56, 57.

Tetraopes discoideus LeConte

Hosts: Asclepias spp. including A. subverticillata, A. auriculata, A. curassavica, A. glaucescens, A. linaria and probably A. verticillata.

Discussion: This is one of the smaller species in the genus and not common in Colorado.

Distribution: AZ, CA, CO, KS, NM, TX, Mexico, Guatemala, El Salvador.

Counties: 5, 12, 51, 60(Chemsak, 1963), 61, 63.

Tetraopes femoratus LeConte

Type locality: "toward the Arkansas River near the mountains".

Hosts: Asclepias spp. including A. syriaca, A. latifolia, A. viridis,
A. lemmonii, A. fascicularis, A. hallii, A. speciosa, A. hirtella.

Discussion: Wickham listed T. collaris Horn, a synonym, from Colorado.

Distribution: AZ, CA, CO, IA, ID, IL, IN, KS, MI, MN, MO, MS, MT, ND, NE, NM, NV, OH, OK, OR, SD, TX, UT, WA, WI, WY, AB, BC, MB, ON, SK, Mexico.

Counties: 1(DNMC), 3, 5, 6, 7, 11, 12, 13, 14, 15, 16, 17, 19(HFW), 23, 24, 25, 32, 38(LGBC), 39, 40(DNHC), 41(Chemsak, 1963), 42, 43(Chemsak, 1963), 47(Chemsak, 1963), 50, 51, 52, 53, 54, 58, 59, 60, 61, 63.

Tetraopes mandibularis Chemsak

Hosts: Asclepias latifolia.

Discussion: New state record. This species is uncommon in Colorado.

Distribution: CO, OK, TX. Counties: 8, 17, 47, 53.

Tetraopes pilosus Chemsak

Hosts: Asclepias arenaria, A. tuberosus.

Discussion: This *Tetraopes* is densely covered with whitish pubescence.

Distribution: CO, KS, NE, OK, TX. Counties: 6, 8, 10, 58, 60, 63.

Tetraopes tetrophthalmus (Forster)

Hosts: Asclepias spp. including A. syriaca, A. incarnatum, A. perennis and probably A. speciosa, Apocynum cannabinum, Acerates viridiflora.

Discussion: This is a very common eastern *Tetraopes* which ranges only as far west as Colorado.

Distribution: AL, CO, CT, GA, IA, IL, IN, KS, MA, MD, MI, MN, MO, NC, ND, NE, NH, NJ, NY, OH, OK, SC, SD, TX, VA, VT, WI, MB, ON, PQ.

Counties: 5, 6, 8, 16, 17, 36, 60, 61.

EXCLUDED RECORDS

Parandra polita Say

Discussion: Monné and Giesbert (1995) list this species as occurring in Colorado. This inclusion is possibly based on a labeling error. This species is known from southeastern USA, southern Mexico and Central America.

Strangalia bicolor (Swederus)

Discussion: Casey (1913) described Ophistomus simulans, a synonym, from a series of four specimens with only a "Colo." label from the Levette Collection. Casey's own comments regarding Levette unlabelled material was that it may have came from Colorado, Indiana or Florida. It is probable that these specimens were simply mislabeled.

The following species were listed from Colorado by Wickham (1902). They represent misidentifications or labeling errors.

Brachysomida bivittata (Say)

Discussion: Wickham recorded this as Acmaeops bivittata Say, without giving any locality. It is a northeastern species and there is no further reason to retain it in the Colorado fauna.

Cortodera cubitalis (LeConte)

Discussion: Wickham recorded Leptura cubitalis LeConte from Colorado. It is easy to misidentify species in this genus, and C. cubitalis appears restricted to California.

Brachyleptura rubrica (Say)

Discussion: Wickham recorded *Leptura rubrica* Say, an eastern species, from two localities. The specimens may be females of *Anastrangalia haldemani* (Casey).

Leptura plagifera (LeConte)

Discussion: Wickham recorded this species from Colorado without specific locality. No other specimens have been located from Colorado. Its known hosts are *Pinus ponderosa* and *Picea*. The published records for this species include: CA, ID, MT, NV, OR, WA and BC.

Callidium violaceum (Linnaeus)

Discussion: Wickham recorded Callidium janthinum LeConte, a synonym, from Colorado. The closest record of this species to Colorado is Wisconsin.

Clytus planifrons (LeConte)

Discussion: Wickham listed "Xylotrechus planifrons LeConte in variety" from Custer County but no other Colorado records exist for this species. Clytus canadensis Hopping, a confirmed species from Colorado, was still undescribed at that time and may have been the species to which he referred.

Xylotrechus undulatus (Say)

Discussion: Wickham listed this species from several places in Colorado but now they would probably be assigned to X. longitarsis Casey, which was undescribed at that time.

Amannus pectoralis LeConte

Discussion: This was likely a misidentification of A. vittiger

LeConte or a labeling error. Amannus pectoralis is
southwestern in distribution, being known from AZ, CA, NV,
and Mexico.

Crossidius testaceus (LeConte)

Discussion: This is a well-known species recorded only from California.

Deltaspis cruentus (LeConte) [Trachyderini]

Discussion: This species superficially resembles *Crossidius* coralinus (LeConte) but occurs in Baja California.

Plionoma suturalis (LeConte) [Trachyderini]

Discussion: This species occurs in northern Mexico, and in the southern areas of Texas, New Mexico, and Arizona.

Wickham's record for Canon City (Fremont County) is undoubtedly an error.

Stenaspis solitaria (Say) [Trachyderini]

Discussion: Leng (1886) erroneously cited this species from Colorado and Arkansas. Wickham included this species based on Leng's list. This species occurs in northern Mexico, and in southern Texas, New Mexico and Arizona. Oberea ruficollis Fabricius

Discussion: Wickham recorded this species from Larimer County, Colorado, but no other records have been located. Its presence in Colorado is rather unlikely. The range of this species is from east of the Great Plains to the eastern and southern states.

Tetraopes texanus Horn

Discussion: Wickham recorded "T. quinquemaculatus Hald. var. texanus Horn". This specimen was possibly the more recently described T. mandibularis Chemsak. The known distributions of T. quinquemaculatus Haldeman and T. texanus Horn do not extend to the western half of the Great Plains.

SUMMARY

Of the 193 species and subspecies in 88 genera which are listed, at least 10 species are of somewhat uncertain status due to a lack of verifiable specimens or reliable records. Sixteen species recorded from Colorado, mostly by Wickham (1902), are excluded based on the current knowledge of their distribution or host plants. Many species are known from Colorado by a relatively small number of specimens. This appears to be due to a lack of intensive or specific collecting efforts rather than rarity. Also, the records indicate that the known ranges for many species barely extend to Colorado, which would lessen their chance of capture. No described species appear to be endemic, although two subspecies, Batyle suturalis infuscatus and Crossidius coralinus jocosus, are so far only known from Colorado. The apparently undescribed species of Cortodera and Phymatodes are only known from Colorado. The population of Batyle suturalis or closely related species, known from the Great Sand Dunes area, requires further study.

The overall cerambycid fauna for Colorado corresponds closely with its physiographic regions. Over 40% of the species are northern or northwestern in general distribution and many are associated with conifers. The Lepturini and Clytini are most prominent in this group. Over 20% of species are southwestern in distribution, being associated with a variety of plants including cactus, hardwoods, small shrubs and conifers. The Moneilema, Hesperophanini, Crossidius and Acanthocinini are typical of this group and are generally more common in the western and southern areas of the state. Approximately 20% of the species are associated with grasslands and perennial plants scattered throughout the state.

These tend to be root and stem feeders and include *Prionus*, *Mecas*, *Tetraopes* and *Typocerus*. The remaining 20% of the species are associated with the woodlands of the eastern or southeastern United States and generally reach no farther than the Front Range of the Rocky Mountains. In order to get around or through the Great Plains, this last group of species reached Colorado by a northerly forested route, via the gallery forests resulting from extreme stream regulation, or were introduced with lumber or live trees used in landscape planting.

List of Species in Colorado

Subfamily Parandrinae Tribe Parandrini

Parandra (Neandra) brunnea (Fabricius)

Subfamily Prioninae Tribe Callipogonini

Ergates spiculatus neomexicanus Casey

Tribe Prionini

Prionus (Prionus) californicus Motschulsky

Prionus (Prionus) heroicus Semenov

Prionus (Antennalia) fissicornis Haldeman

Prionus (Homaesthesis) emarginatus Say

Prionus (Homaesthesis) integer LeConte

Prionus (Homaesthesis) palparis Say

Prionus (Homaesthesis) rhodocerus Linsley

Prionus (Neopolyarthron) imbricornis (Linnaeus)

Tribe Meroscelisini

Tragosoma chiricahuae Linsley

Tragosoma depsarium (Linnaeus)

Subfamily Spondylidinae Tribe Spondylidini

Spondylis upiformis Mannerheim

Tribe Asemini

Arhopalus asperatus (LeConte)

Arhopalus foveicollis (Haldeman)

Arhopalus productus (LeConte)

Arhopalus rusticus montanus (LeConte)

Asemum striatum (Linnaeus)

Megasemum asperum (LeConte)

Tetropium cinnamopterum parvulum Casey

Tetropium parallelum Casey

Tetropium velutinum LeConte

Tribe Atimiini

Atimia confusa confusa (Say)

Atimia huachucae Champlain and Knull

Subfamily Necydalinae Tribe Necydalini

Necydalis diversicollis diversicollis Schaeffer

Subfamily Lepturinae Tribe Lepturini (group 1)

Acmaeops proteus proteus (Kirby)

Brachysomida atra (LeConte)

? Brachysomida californica (LeConte)

Brachysomida rugicollis Linsley and Chemsak

Centrodera minima Linsley and Chemsak

Cortodera coniferae Hopping and Hopping

Cortodera longicornis (Kirby)

Cortodera spuria (LeConte)

Cortodera sp.

Gnathacmaeops pratensis (Laicharting)

Neanthophylax mirificus (Bland)

Neanthophylax subvittatus (Casey)

Neanthophylax tenebrosus orientalis Linsley & Chemsak

Pachyta lamed liturata Kirby

Pseudogaurotina cressoni cressoni (Bland)

Rhagium inquisitor inquisitor (Linnaeus)

Stenocorus obtusus (LeConte)

Stenocorus trivittatus (Say)

Tribe Lepturini (group 2)

Anastrangalia haldemani (Casey)

Anastrangalia sanguinea (LeConte)

? Brachyleptura circumdata (Olivier)

Cosmosalia chrysocoma (Kirby)

Cosmosalia nigrolineata nigrolineata (Bland)

Grammoptera subargentata (Kirby)

Judolia instabilis (Haldeman)

Judolia montivagans montivagans (Couper)

Judolia quadrata (LeConte)

Leptura (Leptura) obliterata obliterata (Haldeman)

Leptura (Leptura) propinqua Bland

Pygoleptura nigrella nigrella (Say)

Stictoleptura canadensis cribripennis (LeConte)

Strangalia sexnotata Haldeman

Strophiona nitens (Forster)

Trachysida aspera aspera (LeConte)

? Trigonarthris atrata (LeConte)

Typocerus balteatus Horn

Typocerus confluens Casey

Typocerus gloriosus Hopping

Typocerus octonotatus (Haldeman)

Typocerus serraticornis Linsley and Chemsak

Typocerus sinuatus (Newman)

Xestoleptura cockerelli (Fall)

Xestoleptura crassipes (LeConte)

Subfamily Cerambycinae Tribe Oemini

Oeme costata costata LeConte

Oeme rigida deserta Casey

Tribe Methiini

Methia mormona Linell

Tribe Hesperophanini

Brothylus gemmulatus LeConte

Eucrossus villicornis LeConte

Haplidus testaceus LeConte

Malobidion brunneum Schaeffer

? Xeranoplium tricallosum (Knull)

Tribe Elaphidiini

Aneflomorpha parowana Casey

Aneflomorpha rectilinea rectilinea Cascy

Anelaphus moestus moestus (LeConte)

Anelaphus villosus (Fabricius)

Enaphalodes atomarius (Drury)

Parelaphidion incertum (Newman)

Tribe Eumichthini

Poecilobrium chalybeum (LeConte)

Tribe Molorchini

Molorchus bimaculatus Sav

Molorchus longicollis LeConte

Tribe Callidiini

Callidium antennatum hesperum Casey

? Callidium cicatricosum Mannerheim

Callidium juniperi Fisher

Callidium texanum Schaeffer

Elatotrypes hoferi Fisher

Meriellum proteus (Kirby)

Phymatodes blandus blandus (LeConte)

Phymatodes dimidiatus (Kirby)

Phymatodes hirtellus densipennis Casey

? Phymatodes maculicollis LeConte

Phymatodes varius (Fabricius)

Phymatodes sp.

Pronocera collaris collaris (Kirby)

Semanotus juniperi (Fisher)

Semanotus ligneus parvicollis (Casey)

Semanotus litigiosus (Casey)

Xylocrius agassizi (LeConte)

Tribe Clytini

Calloides nobilis mormonus Schaeffer

? Clytoleptus albofasciatus (Castelnau and Gory)

Clytus canadensis Hopping

Megacheuma brevipennis brevipennis (LeConte)

Megacyllene angulifera (Casey)

Megacyllene caryae (Gahan) [not established]

Megacyllene decora (Olivier)

? Megacyllene lutosa (LeConte)

Megacyllene robiniae (Forster)

? Megacyllene snowi snowi (Casey)

Neoclytus acuminatus hesperus Linsley

Neoclytus approximatus (LeConte)

Neoclytus caprea (Say)

Neoclytus leucozonus leucozonus (Castelnau and Gory)

Neoclytus magnus Schaeffer

Neoclytus mucronatus vogti Linsley

Xylotrechus annosus emotus Brown

Xylotrechus bowditchi bowditchi Hopping

Xylotrechus bowditchi hoppingi Linsley

Xylotrechus colonus (Fabricius)

Xylotrechus longitarsis Casey

Xylotrechus obliteratus LeConte

Xylotrechus robustus Hopping

Xylotrechus sagittatus sagittatus (Germar)

Tribe Rhopalophorini

Rhopalophora meeskei Casey

Rhopalophora rugicollis rugicollis LeConte

Tribe Trachyderini

Amannus vittiger LeConte

Batyle ignicollis ignicollis (Say)

Batyle suturalis infuscatus Linsley

Batyle suturalis pearsalli (Bland)

Batyle sp.

Crossidius ater LeConte

Crossidius coralinus coralinus (LeConte)

Crossidius coralinus fulgidus Chemsak and Linsley

Crossidius coralinus jocosus (Horn)

Crossidius discoideus blandi Casey

Crossidius discoideus sayi Casey

Crossidius hirtipes allgewahri LeConte

Crossidius hirtipes wickhami Casey Crossidius pulchellus LeConte

Crossiaius puicneiius LeConte

Tragidion coquus (Linnaeus)

Subfamily Lamiinae Tribe Moneilemini

Moneilema annulatum Say

Moneilema appressum LeConte

Moneilema armatum LeConte

Moneilema semipunctatum LeConte

Tribe Lamiini

? Goes tesselatus (Haldeman)

Monochamus clamator clamator (LeConte)

Monochamus scutellatus scutellatus (Say)

Plectrodera scalator (Fabricius)

Tribe Dorcaschematini

Dorcaschema alternatum (Say)

Tribe Apomecynini

Adetus brousi (Horn)

Tribe Pteropliini

Ataxia hubbardi Fisher

Tribe Pogonocherini

Pogonocherus (Pogonocherus) penicillatus LeConte Pogonocherus (Eupogonocherus) mixtus Haldeman Pogonocherus (Eupogonocherus) parvulus LeConte Pogonocherus (Eupogonocherus) pictus (Fall) Pogonocherus (Eupogonocherus) propinquus (Fall) Poliaenus oregonus (LeConte)

Tribe Desmiphorini

Psenocerus supernotatus (Say)

Tribe Acanthocinini

Acanthocinus leechi Dillon
Acanthocinus obliquus (LeConte)
Acanthocinus spectabilis (LeConte)
Dectes texanus LeConte
Eutrichillus pini Schaeffer
Hyperplatys aspersa (Say)
Hyperplatys montana Casey
Liopinus alpha (Say)
Liopinus imitans (Knull)
Sternidius variegatus (Haldeman)

Tribe Saperdini

Saperda calcarata Say Saperda inornata Say Saperda lateralis Fabricius Saperda populnea moesta LeConte Saperda tridentata Olivier

Tribe Phytoeciini

Mecas (Mecas) bicallosa Martin
Mecas (Mecas) cana saturnina (LeConte)
Mecas (Mecas) cineracea Casey
Mecas (Mecas) marginella LeConte
Mecas (Mecas) pergrata (Say)
? Oberea oculaticollis (Say)
Oberea perspicillata Haldeman
Oberea quadricallosa LeConte
Oberea schaumi LeConte
Oberea tripunctata (Swederus)

Tribe Tetraopini

Phaea canescens (LeConte)
Tetraopes annulatus LeConte
Tetraopes discoideus LeConte
Tetraopes femoratus LeConte
Tetraopes mandibularis Chemsak
Tetraopes pilosus Chemsak
Tetraopes tetrophthalmus (Forster)

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LITERATURE CITED

- ABDULLAH, M. and A. ABDULLAH, 1966. Saperda Fabricius, 1775 = Eutetrapha Bates, 1884, syn. n. (Coleoptera: Cerambycidae, Lamiinae), with a catalogue, new records, colour variation and a key to the species. Proc. Royal Ent. Soc. London, Series B, Taxonomy 35:87-94.
- ALEXANDER, D. R. 1958. A preliminary survey of the cerambycids of Oklahoma. Proc. Okla. Acad. Sci. 38:43-52.
- ARNETT, R. H. Jr., G. A. SAMUELSON, and G. M. NISHIDA. 1993. The Insect and Spider Collections of the World (2nd ed.). Flora and Fauna Handbook No. 11. Sandhill Crane Press, Inc., Gainesville, Florida, 310 pp.
- BARR, W. F. and R. L. PENROSE. 1969. Notes on the distribution and bionomics of some Idaho Cerambycidae (Coleoptera). Great Basin Nat. 29(2): 88-95.
- BAYER, L. J. and R. D. SHENEFELT. 1969. Wisconsin Cerambycidae in the University of Wisconsin Insectarium. Research Bull. 275. Univ. of Wisconsin College of Agric. and Life Sci. pp. 1-48, 41 fig.

- BLATCHLEY, W. S. 1910. An illustrated descriptive catalogue of the Coleoptera, or beetles (exclusive of the Rhynchophora), known to occur in Indiana with bibliography and descriptions of new species. Indiana Dep. Geol. Nat. Resources Bull., 1:1-1386.
- BOUSQUET, Y. (Editor). 1991. Checklist of beetles of Canada and Alaska. Agriculture Canada Publ. 1861/E. vi-430.
- BRIMLEY, C. S. 1938. Insects of North Carolina. North Carolina Dept. Agric., pp. 1-560.
- BRITTON, W. E. 1920. Check-list of the insects of Connecticut.

 State of Conn. State Geol. Nat. Hist. Survey Bull. No. 31. pp.
 1-397
- BRITTON, W. E. 1938. Additions to the check-list of the insects of Connecticut (First Supplement to Bulletin No. 31). State of Conn. State Geol. Nat. Hist. Survey Bull. No. 60. pp. 1-201
- CANOVA, M. F. 1936. An annotated list of the Lepturini of Oregon. Pan. Pac. Ent. 12:126-132.
- CASEY, T. L. 1913. Further studies among the American Longicornia. Memoirs on the Coleoptera 4:193-400.
- CHEMSAK, J. A. 1963. Taxonomy and bionomics of the genus *Tetraopes*. Univ. Calif. Publ. Entomol. 30(1): 1-90.
- CHEMSAK, J. A. 1996. Illustrated Revision of the Cerambycidae of North America, Volume I, Parandrinae, Spondylidinae, Aseminae, Prioninae. Wolfsgarden Books. Burbank. 149pp, 154 ill, 71 maps, 10 color tables.
- CHEMSAK, J. A. and E. G. LINSLEY. 1973. The genus *Mecas* LeConte (Coleoptera: Cerambycidae). Proc. Cal. Acad. Sci. 39(12):141-184.
- CHEMSAK, J. A. and E. G. LINSLEY. 1982. Checklist of the Cerambycidae and Disteniidae of North America, Central America and the West Indies (Coleoptera). Plexus Publ. Inc., Medford, New Jersey. 138 pp.
- CHRONIC, J. and H. CHRONIC. 1972. Prairie, peak and plateau. A guide to the geology of Colorado. Colorado Geol. Surv. Bull. 32. 126 pp.
- COPE, J. S. 1984. Notes on the ecology of western Cerambycidae. Coleop. Bull. 38(1):27-36.
- CRAIGHEAD, F. C. 1923. North American cerambycid larvae. A classification and the biology of North American cerambycid larvae. Canada Dep. Agric. Tech. Bull. 27:1-239, 44 pl.
- CRAIGHEAD, F. C. 1950. Insect enemies of eastern forests. Misc. Publ. 657. US Department of Agriculture, Forest Service. Washington, DC. 679 pp.
- DEYRUP, M. 1977. Notes on habitats and parasitoids of some Cerambycidae of western Washington. Coleop. Bull. 31(2):181-182.
- DILLON, L. S. 1956. The Nearctic components of the tribe Acanthocinini Pts. 1, 2, and 3. Ann. Entomol. Soc. Am. 49:134-167, 207-235, 332-355.
- DILLON, L. S. and E. S. DILLON. 1941. The tribe Monochamini in the western hemisphere. Reading Public Mus. and Art Gallery, Sci. Publ. 1:1-135.

- DOWNIE, N. M. and R. H. ARNETT. 1996. The Beetles of Northeastern North America, Volume II: Series Bostrichiformia through Curculionoidea. Sandhill Crane Press, Gainesville, Florida. pp. i-x, 891-1721.
- FALL, H. C. and T. D. A. COCKERELL. 1907. The Coleoptera of New Mexico. Trans. Amer. Ent. Soc. 33:145-272.
- FELT, E. P. and L. H. JOUTEL. 1904. Monograph of the genus Saperda. Bull. 74, N. Y. State Mus. pp. 1-86. 7 fig. 14 pl.
- FURNISS, R. L. and V. M. CAROLIN. 1977. Western forest insects. Misc. Publ. 1339. USDAFS. 654 pp.
- GALILEO, M. H. M. 1987. Sistemática das tribos Meroscelisini e Anacolini (Coleoptera, Cerambycidae, Prioninae) nas Américas. I. Meroscelisini. Revta Bras. Ent. 31(2): 141-367.
- GARDINER, L. M. 1970. Biological notes on some Nearctic Lepturinae (Coleoptera: Cerambycidae). Pan. Pac. Ent. 46(4):284-288.
- GARNETT, R. T. 1918. An annotated list of the Cerambycidae of California. (Col.) Can. Entomol., 50:172-177, 205-213, 248-252, 281-284.
- GIESBERT, E. F. and J. A. CHEMSAK. 1993. A review of the Rhopalophorini (Coleoptera: Cerambycidae) of North and Central America. Insecta Mundi. 7(1-2):27-64. 12 fig.
- GOSLING, D. C. L. 1974. An annotated list of the Cerambycidae of Michigan (Coleoptera) Part I, introduction and the subfamilies Parandrinae, Prioninae, Spondylinae, Aseminae, and Cerambycinae. Great Lakes Entomol. 6(3):65-84.
- GOSLING, D. C. L. and N. M. Gosling. 1977. An annotated list of the Cerambycidae of Michigan (Coleoptera) Part II, the subfamilies Lepturinae and Lamiinae. Great Lakes Entomol. 10(1):1-37.
- GWYNNE, D. T. and B. B. HOSTETLER. 1978. Mass emergence of *Prionus emarginatus* (Say) (Coleoptera: Cerambycidae). Coleop. Bull. 32(4):347-348.
- HATCH, M. H. 1971. The beetles of the Pacific Northwest. Part V. Rhipiceroidea, Sternoxi, Phytophaga, Rhynchophora, and Lamellicornia. Univ. Wash. Publ. Biol., Seattle, 16:1-662, 55 pls.
- HICKS, S. D. 1962. The genus Oberea Mulsant (Coleoptera, Cerambycidae), with notes on the taxonomy, variation and host-affinities of many of the species. Coleop. Bull. 16:5-12
- HOFFMAN, R. L. 1988. The status of the names Clytus horridus LeConte and Clytus leucozonus Castelnau & Gory (Coleoptera: Cerambycidae). Insecta Mundi. 2(1):66-75.
- HOPPING, G. R. 1932. A revision of the Clytini of boreal America (Cerambycidae, Coleoptera). Part I. Ann. Ent. Soc. Amer. 25:529-577, 5 pls.
- HOPPING, G. R. 1937. A revision of the Clytini of boreal America (Cerambycidae, Coleoptera). Part II. Ann. Ent. Soc. Amer. 30:438-457, 3 pls.
- HOPPING, R. 1937. The Lepturini of America, north of Mexico, Part II. Bull. Natn. Mus. Canada. 5(1):1-42, 6 pls.
- HOPPING, R. 1940. New Lepturini (Coleoptera, Cerambycidae).Pan. Pac. Ent. 16(1):32-34.

- HOPPING, R. and G. R. HOPPING. 1947. The Lepturini of America, north of Mexico. Part III. Cortodera. Scient. Agric., Ottawa, 27:220-236, 6 figs.
- HOVORE, F. T. 1979. A new subspecies of Megacheuma brevipennis (LeConte) from southeastern California (Coleoptera: Cerambycidae). Coleop. Bull. 33(4):459-463.
- HOVORE, F. T. 1983. Taxonomic and biological observations on southwestern Cerambycidae (Coleoptera). Coleop. Bull. 37(4):379-387.
- HOVORE, F. T. and E. F. GIESBERT. 1976. Notes on the ecology and distribution of western Cerambycidae (Coleoptera). Coleop. Bull. 30(4):349-360.
- HOVORE, F. T. and R. H. TURNBOW. 1984. A new species of Prionus (Homaesthesis) from the Monahans Sandhills of western Texas. Ent. News. 95(1):1-4.
- HOVORE, F. T., R. L. PENROSE and R. W. NECK. 1987. The Cerambycidae or longhorned beetles of Southern Texas: a faunal survey (Coleoptera). Proc.Calif. Acad. Sci. 44(13):283-334, 20 figs.
- KIPPENHAN, M. G. 1990. A survey of the tiger beetles (Coleoptera: Cicindelidae) of Colorado. Ent. News. 101(5):307-315.
- KIRK, H. B. and J. N. KNULL. 1926. Annotated list of the Cerambycidae of Pennsylvania (Coleoptera). Can. Entomol., 58:21-46.
- KIRK, V. M. 1969. A list of beetles of South Carolina, Part I. Northern Coastal Plain Technical Bull. 1033. South Carolina Agr. Exp. Sta., Clemson Univ., 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 Agric. Exp. Station Tech. Bull. 1038:1-117.
- KIRK, V. M. and E. U. BALSBAUGH Jr.. 1975. A list of the beetles of South Dakota. South Dakota St. Univ. Agric. Exp. Station Tech. Bull. 42. pp. 1-139.
- KNULL, J. N. 1946. The long-horned beetles of Ohio (Coleoptera: Cerambycidae). Ohio Biol. Survey. Bull. 39:133-354, 29 pls.
- KUMAR, R., R. J. LaVIGNE, J. E. LLOYD and R. E. PFADT. 1976. Insects of the Central Plains Experiment Range, Pawnee National Grassland. Univ. Wyo. Agric. Exp. Sta, Science Monograph 32, 74pp.
- LAWRENCE, J. F. and A. F. NEWTON, Jr. 1995. Families and Subfamilies of Coleoptera (with selected genera, notes, references and data on family-group names). In Pakaluk, J. and S. A. Slipinski. Biology, Phylogeny, and Classification of Coleoptera. Papers Celebrating the 80th Birthday of Roy A. Crowson. Volume Two. Muzeum I Instytut Zoologii PAN, Warszawa. pp. 779-1006.
- LENG, C. W. 1886. Synopses of the Cerambycidae (cont.). Entomol. Am. 2:27:32.
- LENG, C. W. 1890. Synopses of the Cerambycidae (cont.). Entomol.. Am. 6:9-13.

- LENG, C. W. and J. HAMILTON. 1896. Synopsis of the Cerambycidae of North America, Pt. III, the Lamiinae. Trans. Am. Entomol. Soc. 23:101:178.
- LEONARD, M. D. 1926. A list of the insects of New York with a list of spiders and certain other allied groups. Cornell Univ. Agr. Exp. Sta. Mem., 101:1-1121.
- LEWIS, A. E. 1986. The Sternidius of America North of Mexico (Coleoptera: Cerambycidae). Pan. Pac. Ent. 62(3):171-202.
- LINGAFELTER, S. W. and S. V. HORNER. 1993. The Cerambycidae of north-central Texas. Coleop. Bull. 47(2): 159-191, 7 figs.
- LINSLEY, E. G. 1962a. The Cerambycidae of North America, Pt. 2, Taxonomy and classification of the Parandrinae, Prioninae, Spondylinae and Aseminae. Univ. Calif. Publ. Entomol. 19:1-102, 1 pl, 34 figs.
- LINSLEY, E. G. 1962b. The Cerambycidae of North America, Pt. 3, Taxonomy and classification of the subfamily Cerambycinae, tribes Opsimini through Megaderini. Univ. Calif. Publ. Entomol. 20:1-188, 56 figs.
- LINSLEY, E. G. 1963. The Cerambycidae of North America, Pt. 4, Taxonomy and classification of the subfamily Cerambycinae, tribes Elaphidionini through Rhinotragini. Univ. Calif. Publ. Entomol. 21:1-165, 52 figs.
- LINSLEY, E. G. 1964. The Cerambycidae of North America, Pt. 5, Taxonomy and classification of the subfamily Cerambycinae, tribes Callichromini through Ancylocerini. Univ. Calif. Publ. Entomol. 22:1-197, 1 pl, 60 figs.
- LINSLEY, E. G. and J. A. CHEMSAK. 1961. A distributional and taxonomic study of the genus *Crossidius* (Coleoptera, Cerambycidae). Misc. Publ. Entomol. Soc. Am., 3(2):25-64, 3 pls.
- LINSLEY, E. G. and J. A. CHEMSAK. 1972. The Cerambycidae of North America, Pt. 6, No. 1, Taxonomy and classification of the subfamily Lepturinae. Univ. Calif. Publ. Entomol. 69:1-138, 2 pl, 41 figs.
- LINSLEY, E. G. and J. A. CHEMSAK. 1976. The Cerambycidae of North America, Pt. 6, No. 2, Taxonomy and classification of the subfamily Lepturinae. Univ. Calif. Publ. Entomol. 80:1-186. 50 figs.
- LINSLEY, E. G. and J. A. CHEMSAK. 1985. The Cerambycidae of North America, Pt. 7, No. 1, Taxonomy and classification of the subfamily Lamiinae, tribes Parmenini through Acanthoderini. Univ. Calif. Publ. Entomol. 102:1-258, 57 figs.
- LINSLEY, E. G. and J. A. CHEMSAK. 1995. The Cerambycidae of North America, Pt. 7, No. 2, Taxonomy and classification of the subfamily Lamiinae, tribes Acanthocinini through Hemilophini. Univ. Calif. Publ. Entomol. 114:1-292, 55 figs.
- LINSLEY, E. G. and J. A. CHEMSAK. 1997. The Cerambycidae of North America, Pt. 8, Bibliography, Index, and Host Plant Index. Univ. Calif. Publ. Entomol. 117:1-534.
- LINSLEY, E. G., J. N. KNULL and M. STATHAM. 1961. A list of Cerambycidae from the Chiricahua Mountain area,

- Cochise County, Arizona (Coleoptera). Amer. Mus. Novit. 2050:1-34, 24 figs.
- LÖDING, H. P. 1945. Catalogue of the beetles of Alabama. Monograph II. Geological Survey of Alabama. 172 pp.
- MacKAY, W. P., J. C. ZAK and F. T. HOVORE. 1987. Cerambycid beetles (Coleoptera, Cerambycidae) of the northern Chihuahuan Desert (south central New Mexico). Coleop. Bull. 41(4):361-369.
- MacRAE, T. C. 1993. Annotated checklist of the longhorned beetles (Cerambycidae and Disteniidae) occurring in Missouri. Insecta Mundi. 7(4):223-252.
- MONNÉ, M. A. and E. F. GIESBERT. 1995. Checklist of the Cerambycidae and Disteniidae (Coleoptera) of the Western Hemisphere. 1995 Edition. Wolfsgarden Books. Burbank. 420 pp.
- MORSE, S. R. 1909. Annual report of the New Jersey State
 Museum including a report of the insects of New Jersey.
 MacCrellish & Quigley, Trenton. 888 pp. 340 fig.
- NICOLAY, A. S. 1917a. Buprestidae and Cerambycidae from Maine. Bull. Brooklyn Ent. Soc. 12: 92-94.
- NICOLAY, A. S. 1917b. Synopsis of the Anthophilax of North America. Journ. N. Y. Ent. Soc. 25:38-44.
- PECK, S. B. and M. C. THOMAS. 1998. A distributional checklist of the beetles (Coleoptera) of Florida. Arhropods of Florida and Neighboring Land Areas. 16: 1-180.
- PENROSE, R. L. and R. L. WESTCOTT. 1974. Notes on the distribution, hosts, and bionomics of some Pacific Northwest Cerambycidae (Coleoptera). Coleop. Bull. 28(4):233-236.
- PERRY, R. H. 1975. Notes on the long-horned beetles of Virginia, Part III (Coleoptera: Cerambycidae). Coleop. Bull. 29(1):59
- PERRY, R. H. 1977. Notes on the long-horned beetles of Virginia, Part IV (Coleoptera: Cerambycidae). Coleop. Bull. 31(1):97-99.
- PSOTA, F. 1930. The *Moneilema* of North America and Mexico. Coleop. Contr., Chicago, 1(2):111-141, 24 pls.
- RASKE, A. G. 1973a. Tetropium parvulum elevated to species rank and contrasted to T. cinnamopterum in morphology and host preference (Coleoptera, Cerambycidae). Can. Ent. 105:745-755, 14 figs.
- RASKE, A. G. 1973b. Taxonomic relationship between Monochamus scutellaris and Monochamus oregonensis (Coleoptera, Cerambycidae). Can. Ent. 105:795-806, 33 figs.
- RICE, M. E. 1981. Notes on Cerambycidae from Missouri. Coleop. Bull. 35(4):459-462.
- RICE, M. E. 1985. New host associations for Cerambycidae (Coleoptera) from selected species of Leguminosae and Rutaceae. J. New York Entomol. Soc. 93(4):1223-1225.
- RICE, M. E. 1988. Natural history observations on *Tetraopes* and other Cerambycidae (Coleoptera) from the Great Plains ecosystem. Journ. Kans. Ent. Soc. 61(4):412-419.
- RICE, M. E. and W. R. ENNS. 1981. The longhorn beetle subfamily Lamiinae (Col., Ceramb.) in Missouri. Trans. Missouri. Acad. Sci., St. Louis, 15: 89-109.

- RICE, M. E., R. H. TURNBOW, and F.T. HOVORE. 1985. Biological and distributional observations on Cerambycidae from the southwestern United States (Coleoptera). Coleop. Bull. 39(1):18-24.
- SCHIEFER, T. L. 1998. A preliminary list of the Cerambycidae and Disteniidae (Coleoptera) of Mississippi. Trans. Amer. Ent. Soc. 124(2):113-131.
- SKILES, D. D. 1985. New genera and species of elaphididionine Cerambycidae (Coleoptera) from North America and the West Indies. Coleop. Bull. 39(4):305-320.
- STAINES, C. L. Jr. 1987. An annotated checklist of the Cerambycidae (Coleoptera) of Maryland. Maryland Ent. 3(1):1-10.
- STEIN, J. D. and A. D. TAGESTAD. 1976. The Long-Horned Wood-Boring Beetles of North Dakota. U.S.D.A. For. Serv. Res. Pap. RM-171, Ft. Collins, CO. 58 pp.
- SWAINE, J. M. and R. HOPPING. 1928. The Lepturini of America north of Mexico. Part I. Bull. Natn. Mus., Canada, Ottawa (Biol. Serv.) (14)52:1-97, 13 pls.
- SWENK, M. H. 1922. Prionus grubs (Prionus fissicornis Hald.) Insect Pest Surv. Bull. 2:200.
- THOMAS, D. B. and F. G. WERNER. 1981. Grass feeding insects of the Western Ranges: An annotated checklist. Univ. of Arizona Agricultural Experiment Station Technical Bulletin. 243:1-50
- TURNBOW, R. H. Jr. and R. T. FRANKLIN. 1980. An annotated checklist of the Cerambycidae of Georgia (Coleoptera). J. Georgia Entomol. Soc. 15(3):337-349.
- TURNBOW R. H. Jr. and J. E. WAPPES. 1978. Notes on Texas Cerambycidae (Coleoptera). Coleop. Bull. 32(4):367-372.
- TURNBOW R. H. Jr. and J. E. WAPPES. 1981. New host and distributional records for Texas Cerambycidae (Coleoptera). Southwestern Ent. 6(2):75-80.
- TYSON, W. H. 1970. The Cerambycidae of the Panamint Mountains, California. Pan. Pac. Ent. 46(4):296-299.
- TYSON, W. H. 1982. The status of *Cyllene zuniana* Casey (Coleoptera: Cerambycidae). Coleop. Bull. 36(2):441-444.
- ULKE, H. 1902. A list of the beetles of the District of Columbia. Proc. United States National Museum. 25:1-57.
- WATERS, D. J. and L. L. HYCHE. 1984. Notes on Cerambycidae (Coleoptera) collected on dead or stressed deciduous trees in east central Alabama. 38(3):283-287.
- WICKHAM, H. F. 1902. A Catalogue of the Coleoptera of Colorado. Univ. Iowa Bull. Nat. Lab. 5: 217-310.
- WRAY, D. L. 1967. Insects of North Carolina. Third supplement. North Carolina Dept. Agric., pp. 1-180.

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