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NOTES ON THE DISTRIBUTION AND BIONOMICS OF SOME IDAHO CERAMBYCIDAE (COLEOPTERA)¹

William F. Barr and Richard L. Penrose²

Distributional and bionomical information concerning some species of Idaho Cerambycidae, especially those associated with rangeland shrubs, has been accumulated over the past several years primarily during the course of field studies. Although fragmentary in scope, the more pertinent of this information is presented at this time for use by other workers. Representatives of each species treated in this paper are deposited in the University of Idaho insect collections.

Thanks is given to J. A. Chemsak and E. G. Linsley, University of California, and J. N. Knull, Ohio State University, for their assistance in the determination of some specimens.

Ammanus vittigera LeConte

Linsley (1962) recorded the known northern limits of the distributional range of this southwestern species as southern Utah. Two specimens have been taken in southwestern Idaho. One was associated with a stand of *Atriplex canescens* (Pursh) Nutt. four miles southeast of Grandview, Owyhee County, June 20, 1959 (W. F. Barr), and the other was collected from the foliage of *A. confertifolia* (Torr. & Frem.) Wats. eight miles northwest of Walters Ferry, Canyon County, June 15, 1961 (J. E. Henry).

Asemum caseyi Linsley

This species known previously from the Pacific Coast region is recorded from Idaho for the first time on the basis of specimens collected at Hot Springs, nine miles north of Mountain Home, Elmore County, June 16, 1957 (W. F. Barr) and Pollock, Idaho County, June 7, 1956 (R. W. Portman).

Asemum nitidum LeConte

This common Pacific Coast species has not been recorded previously from Idaho. Collection records from the state are: Craters of the Moon National Monument, Butte County, July 15, 1964 (D.S. Horning, Jr.), on *Pinus flexilis* James, Moscow, Latah County, August 28, 1954 (W. F. Barr); and Troy, Latah County, August 30, 1954 (R. H. Abbott).

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Atimia dorsalis LeConte

A specimen from Wallace, July 9, 1925 (O. Heullemann) and a specimen labeled "west central Idaho" collected by W. E. Ferguson in June 1963 represent new distributional records for the state.

Crossidius ater LeConte

Although this species has been reported from Idaho (Linsley and Chemsak, 1961), its known distributional range within the state now can be expanded. New collection sites are: six miles south of Hailey, Blaine County, August 7, 1966 (M. A. Brusven); three miles north and three miles northwest of Malta, Cassia County, September 12, 1965 (E. J. Allen, W. F. Barr, R. L. Penrose); Craters of the Moon National Monument, Butte County, September 6, 1964 (D. S. Horning, Jr.); 1.5 miles west of Dayton, Franklin County, September 13, 1965 (W. F. Barr); 1.5 miles northeast of Baker, Lemhi County, September 2, 1965 (R. L. Westcott); Haynes Creek, 4.5 miles north of Tendoy, Lemhi County, August 28, 1962 (W. F. Barr); 19 miles north of Shoshone, Lincoln County, September 2, 1965 (R. L. Westcott); and 10 miles southwest of Midvale, Washington County, September 12, 1948 (W. F. Barr).

Adults have been taken on flowers of *Chrysothamnus nauseosus* (Pall.) Britt., *C. viscidiflorus typicus* (Hall & Clem.) Cron., *C. v. latifolius* (D. C. Eat.) Rydb., *C. v. lanceolatus* Nutt. and *Gutierrezia sarothrae* (Pursh) Britt. and Rusby in the state. In the Malta area larvae and a teneral adult have been found in the roots of *Artemisia tridentata* Nutt.

Crossidius discoideus blandi Casey

Idaho collection records of adults, pupae, and larvae are available for this subspecies indicating that it ranges into the more southeasterly portions of the state. Collection sites are: two miles north of Swan Lake, Bannock County, July 25, 1967 (R. L. Penrose) (larvae and pupae); one mile east of Basin, Cassia County, June 15, 1967 (W. F. Barr, S. M. Hogue, R. L. Penrose) (larvae); three miles northwest of Malta, Cassia County, September 11 and 12, 1965 (E. J. Allen, W. F. Barr, R. L. Penrose) (adults); 2.5 miles north of Dayton, Franklin County, September 13, 1965 (W. F. Barr, R. L. Penrose) (adults); Register Rocks, Power County, January 28, 1967 (R. L. Penrose) (Larvae); 9.1 miles south of Rockland, Power County, July 25, 1967 (R. L. Penrose) (larvae and pupae). Adults have been found mainly on the flowers of *Gutierrezia sarothrae* (Pursh) Britt. and Rusby and occasionally on the flowers of *Chrysothamnus viscidiflorus* (Hook.) Nutt. Larvae and pupae have been found only in the roots of *G. sarothrae*. Examination of this plant where it occurs in southwestern and central Idaho has thus far failed to disclose the presence of *C. d. blandi*.

Crossidius pulchellus LeConte

The occurrence of this species in Idaho is based on a collection record from Riverdale, Franklin County (Linsley and Chemsak, 1961). Additional collections have been made from three miles west of Dayton, Franklin County, September 13, 1965 (R. L. Penrose); 2.5 miles north of Dayton, Franklin County, September 13, 1965 (W. F. Barr); and Bannock Pass, Lemhi County, August 30, 1962 (W. F. Barr). Adults were taken on the flowers of *Chrysothamnus viscidiflorus* (Hook.) Nutt., *C. nauseosus* (Pall.) Britt., and *Gutierrezia sarothrae* (Pursh) Britt. and Rusby.

Elatotrypes hoferi Fisher

Two small series of specimens were reared from dead wood of *Pinus flexilis* James at the Craters of the Moon National Monument, Butte County, Idaho, by D. S. Horning, Jr., during the summers of 1964 and 1965. These collections establish the occurrence of this species in the state for the first time.

Evodinus vancouveri Casey

This species, not previously recorded from the state, has been collected only at one northern Idaho location. Specimens were taken at Laird Park, Latah County, May 14, 1962 (W. F. Barr and S. D. Smith) and May 20, 1967 (R. L. Westcott). In both instances adults were found on the flowers of *Trillium ovatum* Pursh growing in a dense or partially open coniferous forest comprised mostly of *Abies grandis* Lindl., *Pseudotsuga menziesii* (Murb.) Franco, and *Pinus monticola* Dougl.

Mecas bicallosa Martin

This species is widely distributed in southern Idaho. It has been taken in several different habitats present in foothill areas, in mountain valleys, on a mountain pass, and on the Snake River Plains at elevations that range from approximately 3100 feet to 8752 feet. Collection records include: Galena Summit, Blaine County, July 22, 1961 (W. F. Barr, R. B. Hawkes), July 30, 1967 (S. M. Hogue); 5.5 miles southwest of Almo, Cassia County, June 11, 1962 (W. F. Barr); Bear Creek Camp, Custer County, July 21, 1964 (R. L. Westcott); Bonanza, Custer County, July 22, 1965 (W. F. Barr); Weston Canyon, Franklin County, July 11, 1964 (O. O. Fillmore); six miles southwest of Sweet, Gem County, June 19, 1959 (J. E. Henry); ten miles northeast of Richfield, Lincoln County, June 25, 1959 (W. F. Barr); three miles south of Driggs, Teton County, July 11, 1965 (O. O. Fillmore); and nine miles southwest of Rogerson, Twin Falls County, June 18, 1961 (W. F. Barr). These collections have been associated with *Artemisia tridentata* Nutt., *A. t.* var. *vesseyana* (Rydb.), *A. tripartita* Rydb. and *A. arbuscula* Nutt.

Megacheuma brevipennis (LeConte)

This attractive species is known to have a rather broad but discontinuous distributional range in the western United States. However, it appears to occur most abundantly in the more northern portions of the Great Basin and adjoining areas.

The host plants of this species in Idaho have been established as *Sarcobatus vermiculatus* (Hook.) Torr., *Atriplex nuttallii* S. Wats., and *A. confertifolia* (Torr.) Wats. However, this cerambycid has not been found throughout the distributional ranges of these host plants in the state. Collection records are as follows: three miles east of Howe, Butte County, June 22, 1966 (W. F. Barr) (larvae in *A. nuttallii*), August 7, 1955 (W. F. Barr) (adult in pupal cell in *A. nuttallii*); ten miles north of Howe, Butte County, April 11, 1958 (W. F. Barr) (larvae in *A. nuttallii*), June 22, 1967 (W. F. Barr) (larvae in *A. confertifolia*), August 20, 1966 (R. L. Penrose) (larvae in *A. nuttallii*), August 31, 1960 (J. E. Henry) (adults); 18 miles north-east of Howe, Butte County, June 14, 1955 (W. F. Barr) (larvae in *A. nuttallii*), July 14, 1956 (W. F. Barr) (pupae in *A. nuttallii*); five miles north of Malta, Cassia County, July 23, 1957 (R. A. Mackie) (adults); six miles southeast of Malta, Cassia County, May 31, 1958 (W. F. Barr) (larvae and pupae in *S. vermiculatus*), September 6 and 15, 1955 (W. F. Barr and R. A. Mackie) (adults); seven miles southeast of Malta, Cassia County, April 30, 1954 (W. F. Barr) (larvae in *A. nuttallii*); four miles east of Idahoe, Cassia County, June 1, 1958 (W. F. Barr) (larvae and pupae in *S. vermiculatus*), August 9, 1955 (W. F. Barr) (larvae and adults in *S. vermiculatus*); five miles northwest of Oakley, Cassia County, June 2, 1958 (W. F. Barr) (larvae in *A. confertifolia*), August 16, 1957 (W. F. Barr) (larvae and adults in *A. nuttallii*), October 15, 1956 (W. F. Barr) (larvae in *A. confertifolia*); six miles south of Challis, Custer County, September 17, 1965 (W. F. Barr and R. L. Penrose) (larvae in *A. confertifolia*); 12 miles west of Mountain Home, Elmore County, April 15 and August 11, 1953 (W. F. Barr) (larvae in *A. nuttallii*), June 16 and November 16, 1955 (W. F. Barr) (larvae in *A. nuttallii*); 12 miles northwest of Terreton, Jefferson County, July 14, 1956 (W. F. Barr) (larvae and pupae in *A. nuttallii*), August 30, 1962 (W. F. Barr) (adults); 20 miles northwest of Terreton, Jefferson County, March 27, 1967 (W. F. Barr) (larvae in *A. confertifolia*); one mile north of Murphy, Owyhee County, March 25, 1955 (W. F. Barr) (larvae in *S. vermiculatus*); nine miles northwest of Grandview, Owyhee County, May 27, 1958 (W. F. Barr) (larvae in *A. nuttallii*), August 10, 1953 (W. F. Barr) (larvae and pupae in *A. nuttallii*), August 21, 1966 (E. J. Allen) (adults), September 14, 1955 (W. F. Barr and A. R. Gittins) (adults).

Observations and rearings indicate that the larva of the clerid beetle, *Enoclerus acerbus* Wolcott, preys on larvae and pupae of *M. brevipennis* in the roots of the three host plant species.

Megacyllene robinae (Forst.)

This well-known species apparently has become established in several areas of southern Idaho. Collection records are available from Pocatello, Bannock County, September 28 and October 4, 1965; Gooding, Gooding County, in mid-September (E. Koster); and Idaho Falls, Bonneville County, October 16, 1967. It has also been taken at Spokane, Washington, August 5, 1963 (S. M. Hogue) where it was found on apple wood.

Meriellum proteus (Kirby)

The expected occurrence of this species in the state is confirmed by a single specimen from Moscow Mountain, Latah County, August 1, 1953 (R. H. Abbott).

Monochamus notatus morgani Hopping

A single Idaho collection record is now available for this subspecies from Elk River, Clearwater County, August 30, 1963 (R. Hoff). An adjacent state record is Swan Lake, Lake County, Montana, July 18, 1963 (M. M. Furniss) on *Pinus monticola* Dougl.

Neoclytus balteatus LeConte

This species has been taken at three widely separated localities in southern Idaho. They are: Juniper Mountain, Owyhee County, August 15, 1963 (M. M. Furniss); Smith Prairie, Elmore County, August 14, 1963 (R. E. Miller); and St. Anthony, Fremont County, July 25, 1963 (R. E. Miller). The altitudinal range of these locations is from 4700 feet to 6800 feet.

It may be of interest to note that no species of *Ceanothus*, the recorded host plant genus of *N. balteatus*, occurs in the St. Anthony area, thus suggesting a broader host range than is presently known for this cerambycid.

Prionus (Homaesthis) integer LeConte

This species has been recorded previously from southcentral and southeastern Idaho (Linsley, 1962). A collection from Parma, Canyon County, July 10, 1953, now establishes its distributional range across the southern portion of the state. A specimen from Moscow, Latah County, September 30, 1931, in northern Idaho must be regarded as suspected mislabeling.

Adults of *P. integer* are most commonly taken at lights. Larvae have been associated with the roots of *Artemisia tridentata* Nutt. and *Chrysothamnus viscidiflorus* (Hook.) Nutt. On one occasion larvae were found damaging newly planted bean seeds in a field near Burley, Cassia County, and in another instance, cutting underground

stems of potato plants in a field near American Falls, Power County. In both cases the fields had been recently cleared for cultivation.

Rosalia funebris Motschusky

This attractive species, previously unreported from Idaho, is uncommon but widely distributed in the state. It has been collected at Rocky Point, Benewah County, July 25, 1964 (R. W. Portman); Sandpoint, Bonner County, July 26, 1932 (W. Virgin); Moscow, Latah County, September 5, 1965 (H. C. Manis), August 1951 (W. F. Barr), June 1950 (H. C. Manis), June 23, 1961 (C. M. Ott), July 28, 1961 (H. C. Manis); Culdesac, Nez Perce County, July 28, 1934 (C. Wakeland); and Twin Falls, Twin Falls County, July 24, 1960 (R. L. Williamson) and August 18, 1953 (A. R. Gittins).

Specimens from Twin Falls have been reared from the wood of box elder *Acer negundo* Linn. and some specimens from Moscow are labeled "apple."

Semanotus juniperi (Fisher)

A significant extension of the distributional range of *S. juniperi* is based on a collection from the west slope of Black Pine Mountains, Cassia County, Idaho, June 10, 1954 (W. F. Barr). A single specimen was dug from the wood of *Juniperus osteosperma* (Torr.) Little. This species was reported by Linsley (1964) as occurring in the "mountains of southern Arizona."

Semanotus ligneus amplus (Casey)

Specimens from northern Idaho localities can be referred to either *S. l. amplus* or *S. l. basalis* (Casey) on the basis of elytral markings. The known host plants of the former subspecies do not occur in this area whereas the host of the latter subspecies does. From the standpoint of distribution as given by Linsley (1964), these Idaho collections would best constitute an extension of the range of *S. l. amplus*.

Because of the distinct possibility of these two forms being synonymous it is perhaps best to consider the Idaho material as *S. l. amplus*. The collection records are: seven miles east of Laird Park, Latah County, April 17, 1962 (S. D. Smith); Moscow Mountain, Latah County, May 10, 1957 (G. N. Knopf); and St. Joe River, Shoshone County, May 21, 1941 (O. Huellenmann).

Semanotus ligneus conformis (Casey)

Dead specimens assignable to this subspecies were dug from dead wood of *Juniperus osteosperma* (Torr.) Little five miles southwest of Oakley, Cassia County, June 15, 1967 (R. L. Penrose). Its occurrence in Idaho is not unexpected, inasmuch as Linsley (1964) recorded this subspecies from northern Utah.

Toxotus obtusus LeConte

This dimorphic species is known from several states and Canadian provinces of the Pacific Northwest and northern Rocky Mountains (Hopping, 1937), but has not been recorded from Idaho. Present records for the state include: Targhee Pass, Fremont County, July 15, 1965 (R. L. Westcott); two miles southwest of Bannock Pass, Lemhi County, July 23, 1965 (R. L. Westcott); and two miles south of Troy, Latah County, June 11, 1965 (A. P. Gupta). The Bannock Pass specimens were found crawling on the soil surface and on the stems of *Lupinus* sp.

Typocerus balteatus Horn

In Idaho this species appears to be confined to the broad areas of the southcentral and southeastern portions of the state at elevations ranging from 4800 to 6000 feet. Collections have been made at Elba-Basin Pass, Cassia County, August 23, 1958 (W. F. Barr). August 25, 1959 (J. E. Henry) and September 10, 1965 (W. F. Barr and R. L. Penrose); five miles southwest of St. Anthony, Fremont County, September 6, 1967 (W. F. Barr and J. M. Gillespie) and September 14, 1965 (W. F. Barr); four miles east of Menan, Jefferson County, August 31, 1965 (R. L. Westcott); Register Rocks, Power County, August 15, 1966 (R. L. Penrose); three miles west of Teton, Teton County, August 11, 1966 (L. S. Hawkins); Rock Creek Ranger Station, Twin Falls County, July 8, 1965; and Rogerson, Twin Falls County, September 8, 1955 (R. A. Mackie). Most specimens were taken on the flowers of *Chrysothamnus viscidiflorus* (Hook.) Nutt. and a few on the flowers of *C. nauseosus* (Pall.) Britt.

A specimen from the Teton collection exhibits a considerable reduction in elytra markings. The subbasal fascia is reduced to a pair of small discal spots, the median fascia to a pair of transverse spots, and the post median fascia is absent. Other specimens from this collection exhibit a tendency towards this extreme condition.

Ulochaetes leoninus LeConte

The occurrence of this distinctive species in Idaho is based on several collections from the following localities in the northern part of the state: Flat Creek, Latah County, June 1952 (T. F. McGill); south slope of Moscow Mountain, Latah County, August 22, 1964 (R. L. Westcott); and Troy, Latah County, August 6 and September 8, 1954 (R. H. Abbott). Linsley (1940) recorded it previously from British Columbia, Washington, Oregon, California and Nevada.

Xylotrechus mormonus (LeConte)

Only four specimens of this northern species are in the University of Idaho collection. They were collected at the Craters of the Moon National Monument, Butte County, July 11, 1964 (D. S. Horn-

ing); Basin, Cassia County, June 14, 1953 (P. Ashlock); Murphy Hot Springs, Owyhee County, June 20, 1965 (W. F. Barr); and Donnelly, Valley County, July 18, 1961 (W. F. Barr). No host information is available for these Idaho specimens which constitute the first records for the state.

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