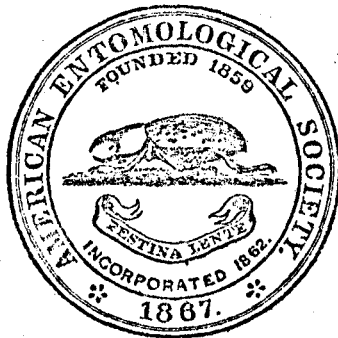


MEMOIRS
OF THE
AMERICAN ENTOMOLOGICAL SOCIETY
NUMBER 1

THE CRESSON TYPES
OF
HYMENOPTERA

BY
EZRA TOWNSEND CRESSON



PUBLISHED BY THE AMERICAN ENTOMOLOGICAL SOCIETY
AT THE ACADEMY OF NATURAL SCIENCES
PHILADELPHIA
1916

MEMOIRS
OF THE
AMERICAN ENTOMOLOGICAL SOCIETY
NUMBER I

THE CRESSON TYPES OF HYMENOPTERA

BY EZRA TOWNSEND CRESSON

This paper contains a complete list of the species of Hymenoptera described by the author, arranged alphabetically under each family, with reference to the original description, sex, number of the type-specimen, as recorded in the catalogue of types in the collection of the American Entomological Society, locality and condition of the specimens as found during the winter of 1913-14; and as the collections are carefully looked after, there is likely no change in their condition at the time of the publication of this paper.

In selecting the single type the author has been governed by the present condition of the original material, and has always selected the perfect, or more nearly perfect specimen.

No notice has been taken of synonymy; the genera, given in parenthesis, after the species, being those under which they were originally described.

Unless otherwise stated, the type-specimens are in the Collection of the American Entomological Society, at the Academy of Natural Sciences, Philadelphia, Pa.

The Belfrage Collection is in the United States National Museum, Washington, D. C., and the author is greatly indebted to Mr. J. C. Crawford and Mr. S. A. Rohwer for data as to type numbers, and condition of the specimens as found by them in August, 1914.

It is the firm recollection of the author that after all the unique specimens had been described and returned to Mr. Belfrage, as he requested they should be, that gentleman, finding a duplicate in his collection of what he considered to be the same species, very generously returned the type-specimen to the Society, after the publication of "Hymenoptera Texana." There are only nine in this category, and reference thereto is made under each of the species in its proper place in this catalogue. The same may be said of Mr. Gundlach, after the publication of "The Hymenoptera of Cuba" in 1865.

The Gundlach Collection of Hymenoptera is in the Museum of the "Instituto de Segunda Enseñanza de la Habana," Obispo Street, Havana, Cuba. Dr. Henry Skinner, Curator of the American Entomological Society, who visited the Museum in 1913, found the collection arranged in thirteen hermetically sealed, glass-top boxes. The specimens appeared to be in good condition, but that of the type-specimens themselves could not be accurately ascertained, although an effort was made to obtain the information.

The Boll Collection is in the Museum of Comparative Zoology, Cambridge, Mass., and Dr. Samuel Henshaw very kindly furnished recent data regarding the types in that collection.

The type-specimens described from the Norton Collection appear to be lost, except a few now in the collection at the Academy of Natural Sciences, Philadelphia, Pa.

In conclusion, the author desires to express his thanks to Dr. Henry Skinner and Mr. E. T. Cresson, Jr., in charge of the Entomological collections at said Academy, for valuable aid given in the preparation of this catalogue.

Types of 2737 species are given in the following list.

At the end of this paper, immediately before the Index, is appended a list of the entomological writings of the author, arranged in chronological order and numbered consecutively, to enable the student to locate the papers in which the types are described. As a further guide the numbers of the papers follow the families in the Index.

- lauta** (Chrysis), Proc. Ent. Soc. Phil., iv, 310, ♀.
1839. Colorado. In good condition.
- oblonga** (Chrysis), Proc. Ent. Soc. Phil., iv, 106, ♀.
2787. Cuba. In fair condition; inside more or less eaten.
- perpulchra** (Chrysis), Proc. Ent. Soc. Phil., iv, 308, ♀.
1849. Colorado. In good condition.
- prasinus** (Chrysis), Proc. Ent. Soc. Phil., iv, 310, ♀.
1841. Colorado. In good condition.
- pulcherrima** (Chrysis), Proc. Ent. Soc. Phil., iv, 311, ♂.
1840. Colorado. In good condition.
- purpurata** (Cleptes), Proc. Ent. Soc. A. N. S., 1879, x, ♀.
1830. Vancouver Island, British Columbia. In good condition.
- purpuriventris** (Chrysis), Proc. Ent. Soc. Phil., iv, 107, ♂.
Cuba. In Gundlach Collection.
- scitula** (Chrysis), Proc. Ent. Soc. Phil., iv, 308, ♀.
1843. Colorado. Wings in poor condition.
- subvividis** (Chrysis), Proc. Ent. Soc. Phil., iv, 109, ♂.
1846. Cuba. In good condition. The type specimen was returned by Gundlach.
- superba** (Chrysis), Proc. Ent. Soc. Phil., iv, 106, ♂.
Cuba. In Gundlach Collection.
- venusta** (Chrysis), Proc. Ent. Soc. Phil., iv, 311, ♂.
1842. Colorado. In good condition.
- vernale** (Hedychrum), Proc. Ent. Soc. Phil., iv, 104, ♂.
1835. Cuba. In good condition.
- virens** (Chrysis), Proc. Ent. Soc. Phil., iv, 309, ♀.
1851. Colorado. In good condition.
- viride** (Hedychrum), Proc. Ent. Soc. Phil., iv, 306.
1834. Colorado. In good condition.
- viridis** (Elampus), Proc. Ent. Soc. Phil., iv, 103, ♂?
2682. Cuba. Condition poor; head and left wings off.
- wiltii** (Hedychrum), Proc. Ent. Soc. Phil., iv, 305.
1837. Colorado. In good condition.

FORMICIDAE

- aterrima** (Formica), Proc. Ent. Soc. Phil., iv, 426, ♂.
1853. Colorado. In good condition.

DORYLIDAE

- minor** (Labidus), Trans. Am. Ent. Soc., iv, 195, ♂.
1854. Texas. In good condition.
- nigrescens** (Labidus), Trans. Am. Ent. Soc., iv, 194, ♂.
1855. Texas. In good condition. Type returned by Belfrage.

MYRMICIDAE

- occidentalis** (*Myrmica*), Proc. Ent. Soc. Phil., iv, 426, ♀ ♂.
2722 ♀. Colorado. In good condition.
- seminigra** (*Myrmica*), Proc. Ent. Soc. Phil., iv, 427, ♂.
2721. Colorado. In good condition.

MUTILLIDAE

- abadia** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 64, ♂.
Santarem, Brazil. Type in Carnegie Museum, Pittsburgh, Pa.
- acara** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 79, ♂.
Chapada, Brazil. Carnegie Museum.
- aegina** (*Mutilla*), Proc. Ent. Soc. Phil., iv, 435, ♀.
1870. Colorado. In good condition.
- aemulata** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 50, ♀.
Chapada, Brazil. Carnegie Museum.
- alagoa** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 68, ♂.
Chapada, Brazil. Carnegie Museum.
- albipes** (*Agama*), Trans. Am. Ent. Soc., v, 99; Rep. Wheeler Expl., pl. 33, fig. 2; ♂.
1888. Nevada. In good condition.
- almada** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 74, ♂.
Brazil. Carnegie Museum.
- andrei** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 55, ♀.
Chapada, Brazil. Carnegie Museum.
- araxa** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 34, ♀.
Brazil. Carnegie Museum.
- arota** (*Mutilla*), Trans. Am. Ent. Soc., v, 120, ♀.
1873. San Diego, California. In good condition.
- asopus** (*Mutilla*), Proc. Ent. Soc. Phil., iv, 435, ♂.
1860. Colorado. In good condition.
- aureola** (*Mutilla*), Proc. Ent. Soc. Phil., iv, 386, ♀.
1879. California. Right posterior tibia and tarsus off.
- auroplaga** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 32, ♀.
Chapada, Brazil. Carnegie Museum.
- auxiliaris** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 53, ♀.
Chapada, Brazil. Carnegie Museum.
- barboza** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 67, ♂.
Chapada, Brazil. Carnegie Museum.
- barra** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 75, ♂.
Chapada, Brazil. Carnegie Museum.
- beatula** (*Mutilla*), Trans. Am. Ent. Soc., xxviii, 23, ♀.
Santarem, Brazil. Carnegie Museum.

THE ENTOMOLOGICAL WRITINGS OF EZRA TOWNSEND CRESSON
(1861-1911)

1861. Catalogue of the CICINDELIDAE of North America. Proc. Ent. Soc. Phil., I, 7-20.
- (1) Catalogue of the described species of TENTHREDINIDAE and UROCERIDAE, inhabiting North America. Proc. Ent. Soc. Phil., I, 33-39.
- (2) A Catalogue of the described species of several families of HYMENOPTERA inhabiting North America. Proc. Ent. Soc. Phil., I, 202-211, 227-238, 316-344.
1863. (3) Description of a new species of MASARIS from the Rocky Mountains. Proc. Ent. Soc. Phil., II, 69-74, pl. iv.
- (4) List of the North American species of BOMBUS and APATHUS. Proc. Ent. Soc. Phil., II, 83-116.
- (5) [A communication on some BOMBUS with description of a new species.] Proc. Ent. Soc. Phil., II, 164-166.
- (6) On the North American species of the genus NOMADA. Proc. Ent. Soc. Phil., II, 280-312.
1864. (7) On the North American species of several genera of APIDAE. Proc. Ent. Soc. Phil., II, 373-411.
- (8) On the North American species of the genus OSMIA. Proc. Ent. Soc. Phil., III, 17-38.
- (9) Descriptions of several new species of North American APIDAE. Proc. Ent. Soc. Phil., III, 38-43.
- (10) Descriptions of North American HYMENOPTERA in the collection of the Entomological Society of Philadelphia. Proc. Ent. Soc. Phil., III, 131-196, 257-321.
- (11) Descriptions of two new genera of North American ICHNEUMONIDAE. Proc. Ent. Soc. Phil., III, 397-402.
- (12) Descriptions of two new species of MASARIS. Proc. Ent. Soc. Phil., III, 672-678.

1865. (13) On the HYMENOPTERA of Cuba. Proc. Ent. Soc. Phil., IV, 1-200.
- (14) Catalogue of HYMENOPTERA in the collection of the Entomological Society of Philadelphia from Colorado Territory. Proc. Ent. Soc. Phil., IV, 242-313, 426-488.
- (15) Descriptions of some new species of MUTILLA from California. Proc. Ent. Soc. Phil., IV, 385-390.
- (16) Monograph of the PHILANTHIDAE of North America. Proc. Ent. Soc. Phil., V, 85-132.
1867. (17) Descriptions of two new species of TRIGONALYS. Proc. Ent. Soc. Phil., VI, 351-352.
- (18) Notes on the POMPILIDAE of North America, with descriptions of new species. Trans. Am. Ent. Soc., I, 85-150.
- (19) A list of the ICHNEUMONIDAE of North America, with descriptions of new species Parts I-II. Trans. Am. Ent. Soc., I, 289-312; II, 89-114.
1868. (20) Catalogue of a small collection of HYMENOPTERA made in New Mexico during the summer of 1867. Trans. Am. Ent. Soc., I, 375-388.
- (21) Descriptions of new Canadian ICHNEUMONIDAE. Can. Ent., I, 33-38.
- (22) Catalogue of a collection of HYMENOPTERA made by Prof. F. Sumichrast near Cordova, Mexico. Trans. Am. Soc. Ent. II, 1-38.
- (23) Descriptions of North American Bees. Nos. 1-2. Proc. Boston. Soc. Nat. Hist., XII, 165-171, 269-273.
1869. (24) Descriptions of four new species of Canadian HYMENOPTERA. Can. Ent., I, 103-105.
- (25) Descriptions of two new species of AROTES. Trans. Am. Ent. Soc., II, 260.
- (26) A list of the North American species of the genus ANTHOPHORA, with descriptions of new species. Trans. Am. Ent. Soc., II, 289-293.
- (27) Notes on Cuban HYMENOPTERA, with descriptions of new species. Trans. Am. Ent. Soc., II, 293-298.

1869. (28) List of the North American species of the genus *ALEIODES*, Wesmael. Trans. Am. Ent. Soc., II, 377-382.
- (29) Notes on Mexican POMPILIDAE, with descriptions of new species. Proc. Boston Soc. Nat. Hist., XII, 366-380.
1870. (30) Descriptions of new species belonging to the sub-family PIMPLARIAE found in America north of Mexico. Trans. Am. Ent. Soc., III, 143-172.
1871. (31) Descriptions of two new species of *MASARIS*. Trans. Am. Ent. Soc., III, 348.
1872. (32) Synopsis of the North American species belonging to the Genera *LEUCOSPIS*, *SMICRA* and *CHALCIS*. Trans. Am. Ent. Soc., IV, 29-60.
- (33) Description of a new species of *MASARIS* from California. Trans. Am. Ent. Soc., IV, 87-88.
- (34) Hymenoptera Texana. Trans. Am. Ent. Soc., IV, 153-292.
- (35) Descriptions of North American HYMENOPTERA. Nos. 1-7. Can. Ent., IV, 21-24, 61-64, 81-84, 226-231; V, 51-54, 66-69, 82-85.
1873. (36) [Notes on "Descriptions of North American Hymenoptera by Benj. D. Walsh."] Trans. St. Louis Acad. Sci., III, 65-166.
- (37) Descriptions of Mexican ICHNEUMONIDAE. Proc. Acad. Nat. Sci. Phil., XXV, 104-176, 374-413.
1874. (38) Descriptions of New HYMENOPTERA. Trans. Am. Ent. Soc., V, 99-102.
1875. (39) Descriptions of New Species of *MUTILLA*. Trans. Am. Ent. Soc., V, 119-120.
- (40) Report upon the collections of HYMENOPTERA made in portions of Nevada, Utah, Colorado, New Mexico and Arizona during the years 1872, 1873 and 1874. Rept. Wheeler Expl. (Eng. Dept. U. S. Army), Zool., V, Chap. vii, 707-728, pls. 33-34.

876. (41) List of HYMENOPTERA collected by J. Duncan Putnam, of Davenport, Iowa, with descriptions of two new Species. Proc. Davenp. Acad. Sci., I, 206-211, pl. xxxv.
877. (42) Notes on the species belonging to the subfamily ICHNEUMONIDAE found in America north of Mexico. Trans. Am. Ent. Soc., VI, 129-212.
878. (43) Descriptions of new ICHNEUMONIDAE. Can. Ent., X, 205-210.
- (44) Descriptions of new species of North American Bees. Proc. Acad. Nat. Sci. Phil., 1878, 181-221.
- (45) Descriptions of ICHNEUMONIDAE chiefly from the Pacific slope of the United States and British North America. Proc. Acad. Nat. Sci. Phil., 1878, 348-381.
- (46) Parasite on *Magdalis* (*Calyptus magdalis* Cresson). Psyche, II, 189.
- (47) Hymenopterous Insect from Stems of the Black Raspberry (*Dimorus zabriskii* Cresson). Psyche, II, 189.
- (48) Descriptions of new North American HYMENOPTERA in the collection of the American Entomological Society. (Family APIDAE.) Trans. Am. Ent. Soc., VII, 61-136, 201-214.
1879. (49) Catalogue of North American APIDAE. Trans. Am. Ent. Soc., VII, 215-232.
- (50) [Description of a new species, *Euchroeus Edwardsii*.] Proc. Ent. Sec. A. N. S. P., 1879, p. iv. (Trans. VII.)
- (51) [Descriptions of new species of *Eupargia* and *Trigonalis*.] Proc. Ent. Sec. A. N. S. P., 1879, p. vi-vii. (Trans., VII.)
- (52) [Descriptions of new species of *Oryssus* and *Cleptes*.] Proc. Ent. Sec. A. N. S. P., 1879, p. ix-x. (Trans., VII.)
- (53) Descriptions of new North American HYMENOPTERA in the collection of the American Entomological Society. (EVANIIDAE.) Trans. Am. Ent. Soc., VII, 255-256.

1879. (54) [Descriptions of new species of *Ibalia*, *Aulacus* and *Pterochilus*.] Proc. Ent. Sec., A. N. S. P., 1879, p. xvii-xix. (Trans., VII.)
- (55) [Descriptions of five new species of *Eucerceris*.] Proc. Ent. Sec. A. N. S. P., 1879, p. xxiii-xxiv. (Trans., VII.)
- (56) [Descriptions of ten new species of *Metopius*.] Proc. Ent. Sec. A. N. S. P., 1879, p. xxvii-xxix. (Trans., VII.)
- (57) [Descriptions of seven new species of *Philanthus*.] Proc. Ent. Sec. A. N. S. P., 1879, p. xxxii-xxxiv. (Trans., VII.)
1880. (58) Descriptions of new North American HYMENOPTERA in the collection of the American Entomological Society. Families TENTHREDINIDAE and UROCERIDAE. Trans. Am. Ent. Soc., VIII, 1-52.
- (59) Catalogue of the TENTHREDINIDAE and UROCERIDAE of North America. Trans. Am. Ent. Soc., VIII, 53-68.
- (60) [Descriptions of three new species of *Aulacus*.] Proc. Ent. Sec. A. N. S. P., 1880, p. v-vi. (Trans., VIII.)
- (61) [Descriptions of new species of *Rhitigaster*, *Stephanus* and *Gorytes*.] Proc. Ent. Sec. A. N. S. P., 1880, p. xvii-xviii. (Trans., VIII.)
- (62) [Synoptic tables of the species of *Sapyga*, including new species.] Proc. Ent. Sec. A. N. S. P., 1880, p. xx-xxi. (Trans., VIII.)
1881. (63) [Descriptions of new species of *Liris* and *Astata*.] Proc. Ent. Sec. A. N. S. P., 1881, p. iii-vi. (Trans., IX.)
- (64) [Descriptions of two new species of *Eucerceris* and *Mellinus*.] Proc. Ent. Sec. A. N. S. P., 1881, p. xxxviii-xxxix. (Trans., IX.)
- (65) Descriptions of the species belonging to the genus *Nysson* inhabiting North America. Trans. Am. Ent. Soc., IX, 273-284.

1882. (66) [Synoptic table of the species of *Eucerceris*, with description of a new species.] Proc. Ent. Sec. A. N. S. P., 1882, p. v-viii. (Trans., X.)
1887. (67) Synopsis of the Families and Genera of the HYMENOPTERA of America north of Mexico [together with a Catalogue of the described species, and Bibliography]. Trans. Am. Ent. Soc., Suppl. Vol., 1-350.
1902. (68) Descriptions of some MUTILLA from Brazil. Trans. Am. Ent. Soc., XXVIII, 1-82.
1911. A History of the American Entomological Society, Philadelphia, 1859-1909. Prepared by request of the Society, 60 pp. Published separately by the Society.