

**The Types of Proctotrupeidea (Hymenoptera)
in the
United States National Museum**

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There has been increasing activity, in recent years, in the study of the Proctotrupeidea, a very large group of parasitic Hymenoptera, of which the vast majority of species are still undescribed. Several students of the superfamily, particularly in Europe, have been publishing actively on the systematics of the group, and the growing emphasis on biological methods of controlling injurious insects has resulted in an increasing need for reliable identifications. This situation demands a sound understanding of the groundwork that was laid in the past in order that repetition and confusion may be avoided. The publication of a list of the described genera and subgenera of Proctotrupeidea, with citation of their type-species (Muesebeck and Walkley, 1956), has helped to define the genera and subgenera of this group and to bring about uniformity in the application of these names.

Another fundamental and essential step is the establishment of the identity of the described species. The type series of some species consists of two or more different forms, and the original author has often failed to designate a holotype. It has become advisable, therefore, to review the case for each species and, where necessary, to designate a lectotype as the standard for the species. Unfortunately, the types of species described by some authors, notably Kieffer, have become widely scattered or lost, but large type collections of Proctotrupeidea occur in certain institutions, particularly in the British Museum (Natural History) and the United States National Museum. The senior author studied the proctotrupoid types in the British Museum and in the Hope Department of Entomology at Oxford in 1961 and subsequently (Masner, 1965) published a list of these with appropriate lectotype designations where such action was required. Under a grant from the National Institutes of Health, he spent several months of 1964 in study of the types of Proctotrupeidea

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in the U.S. National Museum. Because of certain complexities that developed, this study subsequently became a joint undertaking. The present paper lists all the species, the types of which were deposited in the National Museum, including several whose types have been lost. Authors of the species, the types of which are in the National Museum, are Ashmead, Brues, Cockerell, Crawford, Crawford and Bradley, Dozier, Fitch, Fouts, Fullaway, Gahan, Girault, Howard, Jackson, Kamal, Mann, Morrill, Muesebeck, Myers, Nixon, Priesner, Pschorn-Walcher, Riley, Rohwer, Stelfox, Timberlake, Townes, and Wilcox. Most abundant, and most important because they include the type-species of numerous genera, are the species described by Ashmead. A relatively small number of the type-specimens of Ashmead's species are in other institutions, particularly the British Museum (Natural History) and the Zoological Museum of the Humboldt University in Berlin, but the U.S. National Museum contains most of them; a number of these are the types of forms which have become the type-species of genera that were described by Foerster without originally included species, and some confusion has resulted because of Ashmead's misinterpretation of the Foerster genera. An effort has been made by the senior author to clear up various troublesome problems in the generic taxonomy and nomenclature of the Proctotrupeoidea, and pertinent changes are shown in the second supplement of the catalog of the North American Hymenoptera (Krombein and Burks, 1967, pp. 285-305). The present paper essentially follows the treatment of the superfamily in that work. The genera are considered in alphabetical order under each family, and the species are arranged alphabetically under the genera, with the center heading for each species showing our present view concerning generic placement. Holotypes are recorded where these are considered as having been established in the original descriptions, and lectotypes are designated where such designations have seemed to be required. The pertinent label data of the holotype or lectotype are given for each specimen, as well as the number assigned to each in the Museum's catalog of insect types. There is also a brief indication of the condition of each type-specimen, followed by mention of the number of additional specimens in the type series. Where an author, in connection with his original description of a species, mentioned a National Museum type number and only one specimen bearing this number is marked "Type," he is considered to have designated a holotype, even though he did not expressly say so in his description. Should a question be raised as to the validity of this assumption, that specimen is to be considered as having been selected as lectotype by the authors of this paper. In some instances, notably in the Platygasteridae, lectotype selections had already been made; each such selection is mentioned, together with the literature reference.

The United States National Museum contains the types of 735 species of Proctotrupoidea distributed among the various families as follows: Vanhorniidae, 1; Roproniidae, 2; Proctotrupidae, 23; Diapriidae, 162; Scelionidae, 290; Platygasteridae, 188; Ceraphronidae, 69. They are kept in separate cabinets apart from the regular collection in order to lessen exposure to damage. They are in individual trays in drawers, each tray labeled with the original name, generic and specific, under which the species was described. The collection is grouped by authors; under the individual authors the types are arranged alphabetically by species, and the original or present generic name is ignored. This arrangement assures quick location of any type contained in the collection.

Family Vanhorniidae

Vanhornia eucnemidarum Crawford

Vanhornia eucnemidarum Crawford, 1909, p. 63.

Holotype female, USNM no. 12584; Silver Spring, Md., on *Acer*, Hopkins U.S. no. 8149c, R. W. Van Horn; well preserved. Allotype and 2 paratypes (female and male).

Family Roproniidae

Ropronia brevicornis Townes

Ropronia brevicornis Townes, 1948, p. 88.

Holotype male, USNM no. 18324; Foochow, China, C. R. Kellogg; well preserved. Seven paratypes (females and males).

Ropronia garmani Ashmead

Ropronia [sic] *garmani* Ashmead, 1898a, p. 132

Holotype male, USNM no. 11852; Lexington, Ky., H. Garman; both antennae missing, thorax somewhat damaged by pin. Unique.

Family Proctotrupidae

Codrus canadensis (Ashmead)

Proctotrupes canadensis Ashmead, 1893, pp. 335, 342.

Holotype female, USNM no. 11713; Ottawa, Canada, W. H. Harrington; preserved except that right antenna is missing after 4th segment. Unique.

Codrus carolinensis (Ashmead)

Proctotrupes carolinensis Ashmead, 1893, pp. 335, 341.

Holotype male, USNM no. 2311; North Carolina; well preserved. Unique.

Codrus femoratus (Ashmead)

Proctotrupes femoratus Ashmead, 1893, pp. 335, 344.

Holotype female USNM no. 11717; Wyoming; well preserved. Unique.

Codrus japonicus (Ashmead), new combination

Proctotrypes japonicus Ashmead, 1904d, p. 68.

Holotype male, USNM no. 7114; Sapporo, Japan; both antennae missing after 3d segment. Unique

Codrus longiceps (Ashmead)

Proctotrypes longiceps Ashmead, 1893, pp. 335, 342.

Holotype female, USNM no. 11712; Ottawa, Canada, W. H. Harrington; well preserved except that right antenna has only the first 3 segments remaining. Unique.

Codrus medius (Ashmead)

Proctotrypes medius Ashmead, 1893, pp. 335, 343.

Holotype female, USNM no. 11715; Ottawa, Canada, Harrington no. 220; well preserved except that right antenna is missing. Unique.

Codrus quadriceps (Ashmead)

Proctotrypes quadriceps Ashmead, 1893, pp. 335, 343.

Holotype female, USNM no. 11716; New Jersey; well preserved. Unique.

Codrus simulans (Ashmead)

Proctotrypes simulans Ashmead, 1893, pp. 335, 342.

Holotype female USNM no. 11714; Arlington, Va.; well preserved except that left antenna is missing after 6th segment. Unique.

Codrus texanus (Ashmead)

Proctotrypes texanus Ashmead, 1893, pp. 335, 341.

Holotype male (described as female), USNM no. 2310; Texas; well preserved. Unique.

Cryptoserphus arcuator Stelfox

Cryptoserphus arcuator Stelfox, 1950, p. 314.

Holotype female, USNM no. 69370; Glending, County Wicklow, Ireland, Oct. 9, 1946, A. W. Stelfox; well preserved. Unique.

Cryptoserphus belfragei (Ashmead)

Proctotrypes Belfragei Ashmead, 1893, pp. 335, 340.

Holotype female, USNM no. 2309; Texas; well preserved except that forelegs are missing. Unique.

Cryptoserphus bruesi Muesebeck and Walkley

Disogmus obsoletus Brues, 1905, p. 186. Preoccupied.

Cryptoserphus bruesi Muesebeck and Walkley, 1951, p. 665.

Holotype female, USNM no. 66275; Morris Cove, Conn., May 20, 1904; well preserved. Unique.

Cryptoserphus clypeatus (Ashmead)

Proctotrypes clypeatus Ashmead, 1893, pp. 334, 339.

Holotype female USNM no. 11711; Ithaca, N.Y.; left antenna missing, wings damaged. Unique.

Phaenoserphus nigripes (Ashmead)

Proctotrypes nigripes Ashmead, 1902b, p. 136.

Holotype male, USNM no. 5517; St. Paul Island, Alaska, Aug. 17, 1897, T. Kincaid; left antenna missing after 3d segment, right after 7th, left forewing and right hindwing missing. Unique.

Phaenoserphus obliquus (Ashmead)

Proctotrypes obliquus Ashmead, 1893, pp. 334, 338.

Holotype male, USNM no. 2308; Texas, right antenna with 11 segments remaining, left with only the scape. Unique.

Proctotrupes coloradicus Cockerell

Proctotrypes coloradicus Cockerell, 1905, p. 204.

Holotype female, USNM no. 11718; Boulder Colo., Oct. 1, 1904, T. D. A. Cockerell; well preserved. Unique.

Proctotrupes florissantensis Rohwer

Proctotrypes florissantensis Rohwer, 1909, p. 134.

Lectotype female, USNM no. 13369; Florissant, Colo., June 22, 1908, S. A. Rohwer; well preserved. Two male paralectotypes.

Proctotrupes linellii Ashmead

Proctotrypes Linellii Ashmead, 1893, pp. 334, 337.

Holotype male, USNM no. 11709; Long Island, N. Y.; right antenna missing after 10th segment, left after 7th. Unique.

Proctotrupes longiusculus Brues

Proctotrypes longiusculus Brues, 1909, p. 155.

Holotype male, USNM no. 26581; Harrisburg, Pa., October 2; well preserved except that left antenna is missing after 4th segment. Unique.