

Catalog of Hymenoptera in America North of Mexico

Prepared cooperatively by
specialists on the various groups of Hymenoptera
under the direction of

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- Leucospis* Burmeister, 1835. Arch. f. Naturgesch. 1 (2): 47. Emend.
Leucopsis Turton, 1802. In Linnaeus Syst. Nat. 3: 503 (error, frequently repeated;
Leucopsis Berthold, 1827, Recognized as valid in Aves).
Leucopsis subg. *Metallopsis* Westwood, 1839. Ztschr. f. Ent. 1: 264.
 Type-species: *Leucopsis (Metallopsis) cayennensis* Westwood. Monotypic.
Exochlaenus Shipp, 1894. Ent. Monthly Mag. 30: 245.
 Type-species: *Leucopsis anthidioides* Westwood. Orig. desig.
Parexoclaenus Girault, 1915. Queensland Mus., Mem. 4: 355.
 Type-species: *Parexoclaenus vespoides* Girault. Orig. desig.
Exoclaenoides Girault, 1915. Queensland Mus., Mem. 4: 356.
 Type-species: *Exoclaenoides uncinatus* Girault. Orig. desig.
- affinis affinis** Say. Widespread in Canada and the U. S. except for S. Fla. and the extreme southwestern Sonoran zone. Host: *Anthidium emarginatum* (Say), *A. maculosum* Cress., *Ashmeadiella meliloti aridula* Ckll., *Dianthidium pudicum consimile* (Ashm.), *Hoplitis producta* (Cress.), *Megachile* sp., *M. brevis* Say, *M. gentilis* Cress., *M. inermis* Prov., *M. montivaga* Cress., *M. relativa* Cress., *Osmia atriventris* Cress., *O. kincaidii* Ckll., *O. pumila* Cress., *O. simillima* Smith, *Stelis* sp., *S. sexmaculata* Ashm. There is an undescribed subspecies of *affinis* in the southwestern Sonoran region.
Leucopsis affinis Say, 1824. In Keating, Narr. Long's 2nd Exped., App. p. 327. ♀, ♂.
Leucopsis subnotata Westwood, 1834. Ent. Mag. 2: 215. ♀.
Leucopsis fraterna Say, 1836. Boston Jour. Nat. Hist. 1: 269. ♀, ♂.
Leucopsis basalis Westwood, 1839. Ztschr. f. Ent. 1: 264. ♂, ♀.
Leucopsis Canadensis Walker, 1860. Jour. Ent. 1: 17. ♂.
- Taxonomy: Burks, 1975. Brit. Mus. (Nat. Hist.) Ent., Bul. 32 (4): 166.
Leucopsis bicincta Viereck, 1906. Amer. Ent. Soc., Trans. 32: 227. ♂.
- Biology: Graenicher, 1906. Wis. Nat. Hist. Soc., Bul. 4: 153-159. — Medler, 1958. Ent. News 69: 21-24. — Medler and Koerber, 1958. Ent. Soc. Amer., Ann. 51: 340-344. — Medler, 1958. Canad. Ent. 90: 326-327. — Medler, 1964. Canad. Ent. 96: 920. — Johansen and Eves, 1966. Wash. Agr. Expt. Sta., Cir. 469: 5. — Parker and Bohart, 1966. Pan-Pacific Ent. 42: 95-97. — Medler, 1967. Ent. Soc. Amer., Ann. 60: 342. — Krombein, 1967. Trap-nesting wasps and bees, pp. 434-436. — Medler and Lussenhop, 1968. Wis. Coll. Agr., Res. Bul. 274: 20-47.
- Morphology: Snodgrass, 1910. U. S. Natl. Mus., Proc. 39: 65, figs. 35-39 (thorax). — Burks, 1938. Ent. Soc. Amer., Ann. 31: 158, fig. 5 (wing venation). — Snodgrass, 1941. Smithsn. Misc. Collect. 99: 36-37 (male genitalia). — Bradley, 1955. Soc. Roy. d'Ent. de Belg., Mem. 27: 134, fig. 6 (wing venation).
- affinis floridana** Cresson. Cent. and S. Fla. Host: *Chalicodoma (Chelostomoides)* sp., *C. (C.) georgica* Cress., *Megachile (Sayapis)* sp.
Leucopsis affinis var. *floridana* Cresson, 1872. Amer. Ent. Soc., Trans. 4: 33. ♀, ♂.
- Taxonomy: Weld, 1922. U. S. Natl. Mus., Proc. 61 (6): 10, 26.
- Biology: Krombein, 1967. Trap-nesting wasps and bees, pp. 436-437.
- birkmani** Brues. Fla., Tex., Ariz.; Mexico.
Leucopsis birkmani Brues, 1925. Psyche 32: 23. ♀.
- robertsoni** Crawford. Fla., Ala.
Leucopsis robertsoni Crawford, 1909. Ent. Soc. Wash., Proc. 11: 51. ♀, ♂.
- slossonae** Weld. Ga., Fla., Ala. Host: *Anthidiellum* sp.
Leucopsis slossonae Weld, 1922. U. S. Natl. Mus., Proc. 61 (6): 11. ♀, ♂.
- texana** Cresson. N. C., Ga., Tex.
Leucopsis texana Cresson, 1872. Amer. Ent. Soc., Trans. 4: 31, 191. ♂.

Family EUCHARITIDAE

By B. D. BURKS

All members of this family are parasitic on ants. They are, like most parasites of ants, highly modified in structure. Ashmead, 1904 (Carnegie Mus., Mem. 1: 267) characterizes them as being,

"the most singular looking and wonderfully shaped chalcids known, the structure of the thorax, and particularly of the scutellum, being most wonderfully and curiously modified and developed; this development, in connection with the brilliant colors of its members, makes the group the most striking and attractive of any in the superfamily." However, disregarding these adaptive differences, but considering the fundamental structure of the thorax, it is clear that the eucharitids are descended from the same ancestral stem that produced the present-day pteromalids.

Revision: Ruschka, 1924. Deut. Ent. Ztschr., 1924: 82-89. — Gahan, 1940. U. S. Natl. Mus., Proc. 88: 425-458.

Biology: Wheeler and Wheeler, 1937. Ent. Soc. Amer., Ann. 30: 163-175. — Clausen, 1940. Wash. Acad. Sci., Jour. 30: 504-516.

SUBFAMILY ORASEMINAE

Genus ORASEMA Cameron

Orasema Cameron, 1884. Biol. Cent.-Amer., Hym. 1, p. 104.

Type-species: *Orasema stramineipes* Cameron. Monotypic. Illustrations accompanying description of *stramineipes* mislabeled *flavipes*.

Semora Cameron, 1909. Amer. Ent. Soc., Trans. 35: 432. Preocc. by Peckham, 1892.

Type-species: *Semora xanthopus* Cameron. Orig. desig.

Semorella Ghesquiere, 1946. Rev. Zool. Bot. Africaines 39: 368. N. name.

Semorata Strand, 1947. Folia Zool. Hydrobiol. 11: 393. N. name.

Revision: Gahan, 1940. U. S. Natl. Mus., Proc. 88: 436-458.

Taxonomy: Kerrich, 1963. Bul. Ent. Res. 54: 366.

aureoviridis Gahan. Tex.

Orasema aureoviridis Gahan, 1940. U. S. Natl. Mus., Proc. 88: 448. ♀, ♂.

bakeri Gahan. Colo., Ariz.

Orasema bakeri Gahan, 1940. U. S. Natl. Mus., Proc. 88: 452. ♀, ♂.

beameri Gahan. Colo.

Orasema beameri Gahan, 1940. U. S. Natl. Mus., Proc. 88: 447. ♀, ♂.

cockerelli Gahan. Iowa, Kans., Colo., N. Mex., Ariz.

Orasema cockerelli Gahan, 1940. U. S. Natl. Mus., Proc. 88: 453. ♀, ♂.

coloradensis Wheeler. Va., Fla., Iowa, La., Kans., Tex., Colo., N. Mex. Host: *Pheidole bicarinata vinelandica* Forel, *Solenopsis molesta* (Say).

Orasema coloradensis Wheeler, 1907. Amer. Mus. Nat. Hist., Bul. 23: 12-14. ♀, ♂.

Biology: Clausen, 1940. Wash. Acad. Sci., Jour. 30: 504-507.

minuta Ashmead. Fla.

Orasema minuta Ashmead, 1888. Ent. Amer. 3: 188. ♂.

neomexicana Gahan. N. Mex.; Mexico.

Orasema neomexicana Gahan, 1940. U. S. Natl. Mus., Proc. 88: 450. ♀.

occidentalis Ashmead. Calif.

Orasema occidentalis Ashmead, 1892. Ent. Soc. Wash., Proc. 2: 355. ♀.

robertsoni Gahan. Fla. Host: *Pheidole dentata* Mayr.

Orasema robertsoni Gahan, 1940. U. S. Natl. Mus., Proc. 88: 451. ♀.

Biology: van Pelt, 1950. Ent. News 61: 161.

simulatrix Gahan. Ariz.

Orasema simulatrix Gahan, 1940. U. S. Natl. Mus., Proc. 88: 450. ♀.

smithi Howard. Va.

Orasema Smithi Howard, 1897. Linn. Soc. London, Jour., Zool. 26: 134. ♀.

texana Gahan. Tex.

Orasema texana Gahan, 1940. U. S. Natl. Mus., Proc. 88: 440. ♀.

tolteca Mann. Ariz.; Mexico. Host: *Pheidole* sp.

Orasema tolteca Mann, 1914. Psyche 21: 183-184. ♀, ♂.

violacea Ashmead. N. C., Fla.

Orasema violacea Ashmead, 1888. Ent. Amer. 3: 187. ♂.

viridis Ashmead. N. C., N. Mex., Ariz.; Mexico.

Orasema viridis Ashmead, 1895. Calif. Acad. Sci., Proc. (2) 5: 553.

Biology: Smith, 1912. U. S. Dept. Agr., Bur. Ent. Tech. Ser. 19: 57-59.

Morphology: Parker, 1924. Soc. Ent. de France, Ann. 93: 270 (larva).

wheeleri Wheeler. Tex., Colo. Host: *Pheidole ceres* Whlr., *P. sciophila* Whlr., *P. tepicana* Pergande.

Orasema wheeleri Wheeler, 1907. Amer. Mus. Nat. Hist., Bul. 23: 14. ♀.

SUBFAMILY EUCHARITINAE

Genus PSEDOCHALCURA Ashmead

Pseudochalcura Ashmead, 1904. Carnegie Mus., Mem. 1: 268, 269, 468.

Type-species: *Eucharis gibbosa* Provancher. Orig. desig.

arizonensis (Crawford). Ariz.

Chalcura arizonensis Crawford, 1914. Ent. Soc. Wash., Proc. 16: 29. ♀.

Biology: Pierce and Morrill, 1914. Ent. Soc. Wash., Proc. 16: 22. —Clausen, 1940. Wash. Acad. Sci., Jour. 30: 505-509.

californica (Ashmead). Oreg., Calif.

Chalcura californica Ashmead, 1892. Ent. Soc. Wash., Proc. 2: 356. ♂.

gibbosa (Provancher). Que., N. H., Mich. Host: *Camponotus novaeboracensis* (Fitch).

Eucharis gibbosa Provancher, 1881. Nat. Canad. 12: 292. ♀.

Taxonomy: Burks, 1964 (1963). Canad. Ent. 95: 1258.

Biology: Wheeler, 1907. Amer. Mus. Nat. Hist., Bul. 23: 16.

Genus STILBULA Spinola

Stilbula Spinola, 1811. Paris Mus. Hist. Nat., Ann. 17: 150.

Type-species: *Ichneumon cyniformis* Rossi. Monotypic.

floridana (Ashmead). Fla.

Lophyrocera floridana Ashmead, 1888. Ent. Amer. 3: 187. ♂.

Taxonomy: Gahan, 1940. U. S. Natl. Mus., Proc. 88: 435-436.

montana Ashmead. Colo.

Stilbula montana Ashmead, 1890. Colo. Biol. Assoc., Bul. 1: 24, 45. ♀.

septentrionalis (Brues). Ariz.

Schizaspidia septentrionalis Brues, 1907. Wis. Nat. Hist. Soc., Bul. 5: 104. ♀.

Genus LOPHYROCERA Cameron

Lophyrocera Cameron, 1884. Biol. Cent.-Amer., Hym. 1, pp. 101, 103.

Type-species: *Lophyrocera stramineipes* Cameron. Desig. by Ashmead, 1904.

apicalis Ashmead. Calif.

Lophyrocera apicalis Ashmead, 1892. Ent. Soc. Wash., Proc. 2: 357. ♀.

nigromaculata Cameron. Ariz.; Cent. Amer.

Lophyrocera nigromaculata Cameron, 1884. Biol. Cent.-Amer., Hym. 1, p. 104.

Genus KAPALA Cameron

Kapala Cameron, 1884. Biol. Cent.-Amer., Hym. 1, p. 102.

Type-species: *Eucharis furcata* Fabricius. Monotypic.

Capala Schulz, 1906. Spolia Hym., p. 150. Emend.

floridana (Ashmead). Fla.

Thoracantha floridana Ashmead, 1885. Ent. Amer. 1: 96. ♂.

Taxonomy: Ashmead, 1885. Amer. Ent. Soc., Trans. 12: Proc. p. xi.

furcata (Fabricius). Ga., Tex.; West Indies, Cent. and South Amer.

Eucharis furcata Fabricius, 1804. Systema Piezatorum, p. 158.

Taxonomy: Brues, 1907. Wis. Nat. Hist. Soc., Bul. 5: 105.

Genus PSEUDOMETAGEA Ashmead

Pseudometagea Ashmead, 1899. Ent. Soc. Wash., Proc. 4: 239, 241. No species — Ashmead, 1904, Carnegie Mus., Mem. 1: 267. One species.

Type-species: *Metagea schwarzii* Ashmead. Desig. by Ashmead, 1904.

Revision: Burks, 1961. Ent. News 72: 253-257.

bakeri Burks. Iowa, Wyo., Colo.

Pseudometagea bakeri Burks, 1961. Ent. News 72: 256. ♀, ♂.

schwarzii (Ashmead). Que. and Ont., s. to Md. and D. C., w. to Wis., Iowa, Nebr. Host: *Lasius neoniger* Emery.

Metagea schwarzii Ashmead, 1892. Ent. Soc. Wash., Proc. 2: 356. ♂, ♀.

Pseudometagea hillmeadia Girault, 1916. Brooklyn Ent. Soc., Bul. 11: 113. ♀.

Biology: Ayre, 1962. Canad. Jour. Zool. 40: 157-164.

Family EUPELMIDAE

By B. D. BURKS

In many classifications the eupelmids are placed in the family Encyrtidae. However, all the eupelmids agree in possessing an array of characters that indicate that they and the encyrtids diverged separately from the evolutionary stem of the chalcidoids at a remote time in the development of the superfamily. Eupelmids may be recognized by having the margin of the prepectus projecting over the margin of the mesepisternum, in having the forecoxae and midcoxae widely separated, and in having the midcoxae so formed that they can be rotated either anteriorly or posteriorly. The encyrtids do not have those characters.

Morphology: Reid, 1941. Roy. Ent. Soc. London, Trans. 91: 433-434.

SUBFAMILY TANAOSTIGMATINAE

This group is primarily Neotropical and Australian, with only a very few Nearctic species. All the species of this subfamily, except one, are known to be gall makers. The one exception is *Tanaostigmodes tychii* Ashmead, which was supposed to be parasitic on a seed weevil, *Tychius*, when it was described. This rearing has not been repeated, and the record may be incorrect.

Genus TANAOSTIGMODES Ashmead

Tanaostigmodes Ashmead, 1896. Ent. Soc. Wash., Proc. 4: 9, 18.

Type-species: *Tanaostigmodes howardii* Ashmead. Orig. desig.

Two of the species of *Tanaostigmodes*, *albiclavus* Girault and *howardii* Ashmead, often have cynipid inquiline in their galls.

Revision: Crawford, 1911. U. S. Natl. Mus., Proc. 40: 442.

albiclavus Girault. Ariz. Ecology: Produce large stem galls on *Acacia greggi*, *Mimosa biuncifera*.

Tanaostigmodes (!) *albiclavus* Girault, 1917. Descr. Stellarum Nov., p. 4. ♀.

howardii Ashmead. Ariz., Calif. Ecology: Produce small, spherical bud galls on *Acacia greggi*, *Mimosa biuncifera*, *Prosopis* sp.

Tanaostigmodes howardii Ashmead, 1896. Ent. Soc. Wash., Proc. 4: 19. ♀.

slossonae Crawford. Fla. Ecology: Produce seed galls on *Galactia striata*, *G. volubilis*.

Tanaostigmodes slossonae Crawford, 1911. U. S. Natl. Mus., Proc. 40: 442. ♀, ♂.

tychii Ashmead. Calif. Host: *Tychius semisquamosus* Lec.

Tanaostigmodes tychii Ashmead, 1896. Ent. Soc. Wash., Proc. 4: 19. ♀.