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## The Species of *Pseudometagea* Ashmead (Hymenoptera, Eucharitidae)

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*Pseudometagea* Ashmead is a small genus of minute eucharitid chalcids occurring only in North America. Specimens of *Pseudometagea* look very much like ants, and they often are collected in sweeping vegetation. No specimens have yet been reared, but Ashmead once stated that his specimens of *P. schwarzii* (Ashmead) had come from ant nests.<sup>1</sup> It is likely that, in agreement with other members of the Eucharitidae for which the habits are known, the species of *Pseudometagea* parasitize ants, and their eggs are imbedded in the tissues of vegetation growing near the nests of their hosts. The planidiform larvae, when found, certainly will be extremely minute.

*P. schwarzii* has long been known from the eastern and mid-western states, but I recently received for identification a specimen of *Pseudometagea* from Wyoming that was clearly different from *schwarzii*. This prompted a search through the U. S. National Museum collection for other specimens of the western form. A long series of it that had been collected 66 years ago in Colorado was found. In this paper I describe the western species, redescribe *schwarzii*, and give one new synonym of *schwarzii*.

### Genus PSEUDOMETAGEA Ashmead

*Pseudometagea* Ashmead, 1897, Proc. Ent. Soc. Wash., 4: 239  
 [no species included]; Ashmead, 1904, Mem. Carnegie Mus.,

<sup>1</sup> Wheeler, 1907, Bul. Amer. Mus. Nat. Hist. v. 23, p. 17.

1: 267, 386 [*Metagea schwarzii* Ashmead designated type]; Peck in Muesebeck *et al.*, 1951, U. S. Dept. Agr. Monog. 2, p. 515; Burks in Krombein *et al.*, 1958, U. S. Dept. Agr. Monog. 2, Suppl., p. 72.

Generic diagnosis.—Mandibles sickle-shaped, left mandible with 2 teeth, right with 3. Antennae inserted at level of ventral margins of compound eyes; scape short, shorter than pedicel, much shorter than first funicle segment, the latter always the longest segment in antenna; no ring segments present; flagellum filiform in both sexes; funiculus with 6 or 7 segments in female, 7 segments in male; club unsegmented, not broader than funiculus,  $1\frac{1}{2}$  times as long in male as in female; apical 2 funicle segments and club in female may be partly fused, and the variation in number of funicle segments in the female may occur in the same individual. Vertex depressed between posterior ocelli.

Parapsidal furrows varying from complete and deep to almost or quite wanting. Fore wing with submarginal vein well developed, but marginal, stigmal, and postmarginal veins vague, hardly discernible. Mid and hind tibia each with one slender, apical spur; each basal tarsal segment twice as long as second segment.

Petiole enlarged and nodose in the middle, anterior two-thirds of petiole sculptured, posterior third smooth; gaster compressed, first gastral tergum occupying most or all of the dorsal extent of the gaster.

Ashmead originally described *schwarzii* in the Australian genus *Metagea* Kirby, but subsequently he decided that it was sufficiently distinct to require a different generic name. As a matter of fact, *Metagea* and *Pseudometagea* are not closely related. *Metagea* is a genus of moderate to large-sized species having the scape longer than the first funicle segment, the first tarsal segment as long as the following 4 segments combined, and the petiole not enlarged and nodose in the middle.

#### KEY TO SPECIES

- Scutellum with a longitudinal, median furrow.....  
 .....*schwarzii* (Ashmead)  
 Scutellum with several longitudinal carinae.. *bakeri*, new species

*Pseudometagea schwarzii* (Ashmead)

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

*Pseudometagia schwarzi* (!) (Ashmead), Wheeler, 1907, Bul. Amer. Mus. Nat. Hist. 23: 17.

*Pseudometagea schwarzii* (Ashmead), Peck in Muesebeck *et al.*, 1951, U. S. Dept. Agr. Monog. 2, p. 515; Burks in Krombein *et al.*, 1958, U. S. Dept. Agr. Monog. 2, Suppl. p. 72.

*Pseudometagea hillmeadia* Girault, 1916, Bul. Brooklyn Ent. Soc. 11: 113; Peck in Muesebeck *et al.* 1951, U. S. Dept. Agr. Monog. 2, p. 515. New synonymy.

Female.—Length 1.8–2.2 mm. Dark chestnut-brown to black, with faint metallic blue or green sheen sometimes visible on head and thorax; antennae, apices of femora, tibiae, and tarsi tan to light-brown; fore wing with faint brown shading along paths of obsolete veins Cu and M, this shading also extending as a vague cloud across wing from stigmal vein.

Clypeus, para- and supraclypeal areas, and space adjacent to anterior margin of compound eye smooth and shining; genae, parascrobal spaces, and vertex with irregular, rugose sculpture; length of malar space and height of compound eye equal; width of ocellular space twice as great as diameter of lateral ocellus. Antennal scape  $\frac{3}{4}$  as long as pedicel, first funicle segment  $1\frac{1}{4}$  times as long as pedicel.

Mesoscutum with alveolate sculpture anteriorly, smooth and shining posteriorly; parapsidal furrows usually complete, occasionally wanting; axillae smooth; scutellum smooth, with a median, longitudinal groove, this sometimes obscure near posterior margin; apex of scutellum produced as a minute, flat shelf; meso- and metapleura with closely set, parallel, longitudinal rugae; hind coxa shagreened, hind femur shining except at base, where it is shagreened. Hind wing with venation distinct, usually 4 hamuli present, sometimes with only 3.

Propodeum with large-alveolate sculpture; petiole slightly shorter than hind coxa, enlarged in middle to  $1\frac{1}{2}$  times width of hind coxa. Gaster smooth; first tergum usually occupying entire dorsal length of gaster, following terga vertical; each cercus bearing 5 bristles; apex of first gastral sternum a slightly

upturned point that bear 6-8 long bristles; apex of ovipositor normally not quite reaching apex of abdomen, but specimens collected apparently in the act of ovipositing have the ovipositor exerted a distance  $\frac{1}{3}$  the length of the gaster.

Male.—Length 1.8-2.0 mm. Height of compound eye  $\frac{9}{10}$  as great as length of malar space. Petiole twice as long as hind coxa, slender basal portion with a dorsal, longitudinal groove, enlarged portion twice as wide as hind coxa. First gastral tergum occupying entire dorsal extent of gaster, following terga normally telescoped beneath it, so that genitalia usually are extruded at about the middle of gaster; posterior margin of apical gastral sternum  $\cap$ -shaped, finely and minutely hirsute.

*Types*.—U. S. N. M. No. 2140. Described originally from 4 ♀, 2 ♂ cotypes from Washington, D. C., Oakland, Md., and Frederickstown, Md. Lectotype ♀, Washington, D. C., specimens labeled "♀ Type" by Ashmead.

*Distribution*.—Quebec, south to Maryland and District of Columbia, west to Wisconsin, Iowa, and Nebraska. Often collected in cultivated fields of forage crops.

### *Pseudometagea bakeri*, new species

Female.—Length 2.0-2.2 mm. Dark brown to black, head and thorax often with faint metallic blue or green sheen; antennae, apices of femora, tibiae, and tarsi tan to brown; fore wing usually with faint brown shading along paths of obsolete veins Cu and M, this shading also extending as a vague cloud across wing from stigmal vein, but occasional specimens with wings entirely hyaline.

Clypeus smooth, shining, para- and supraclypeal areas smooth; genae, postocular area, and vertex with irregular, alveolate sculpture; length of malar space  $1\frac{1}{3}$  times as great as height of compound eye; width of ocellocular space  $1\frac{1}{2}$  times as great as diameter of lateral ocellus. Antennal scape  $\frac{9}{10}$  as long as pedicel, first funicle segment  $1\frac{1}{3}$  times as long as scape.

Mesoscutum strongly sculptured anteriorly, weakly so posteriorly; parapsidal furrows usually vaguely impressed anteriorly and wanting posteriorly, sometimes complete; axillae faintly

sculptured, almost smooth; scutellum with strong, parallel, longitudinal ridges, apex of scutellum produced as a minute shelf with its posterior edge slightly upturned; meso- and metapleura with closely set, parallel, longitudinal rugae; hind coxa with minute, alveolate sculpture, all femora minutely shagreened and dull. Hind wing virtually without venation, but vestigial submarginal vein faintly visible; 3 hamuli present.

Propodeum with irregular, large-alveolate sculpture. Petiole as long as hind coxa, enlarged in middle to twice width of hind coxa. Gaster smooth, first tergum normally occupying  $\frac{1}{3}$  of dorsal length of gaster, terga 2-6 almost vertical, projecting slightly farther posteriorly than seventh tergum; each cercus bearing 5 bristles; apex of first gastral sternum produced on meson as a small, hirsute point; apex of ovipositor normally projecting slightly beyond level of sixth tergum.

Male.—Length 1.9-2.1 mm. Length of malar space and height of compound eye equal. Petiole twice as long as hind coxa. First gastral tergum occupying entire dorsal length of gaster, second and third terga normally hidden beneath first, terga 4-7 not projecting so far posteriorly as apex of first tergum; posterior margin of apical gastral sternum forming a blunt, glabrous point that closes the genital aperture when the genitalia are retracted.

Type locality.—Ft. Collins, Colo.

Types.—U. S. N. M. No. 65750.

Described from 12 ♀ and 37 ♂ specimens, as follows: *Type*, ♀, *allotype*, ♂, Ft. Collins, Colo., sweeping, June 13, 1895, C. F. Baker. *Paratypes*: 7 ♀, 15 ♂, same data as the type; 4 ♂, same data, but sweeping *Carex*, June 20, 1895; 4 ♂, June 28, 1895; 2 ♀, 4 ♂, July 3, 1895; 1 ♂, Aug. 1, 1895; 5 ♂, Aug. 4, 1895; 1 ♀, Campton's, Colo., July 21, 1895, C. F. Baker; 1 ♂, Centennial, Wyo., July 12, 1960, R. J. Lavigne. A single male labeled Iowa, July 1895, and another from Chamber's Lake, Colo., sweeping, July 18, 1895, C. F. Baker, are in poor condition and are not included in the type series.