

NEW PLATYGASTERIDAE FROM THE MARQUESAS*

By

ROBERT FOUTS

UNIVERSITY OF CALIFORNIA

The material described in this paper was collected in 1929 by E. P. Mumford and A. M. Adamson of the Pacific Entomological Survey. As far as I am aware no species of Platygasteridae has hitherto been described from these islands, so it was not surprising that all material examined proved to be new. Five new species are described, one in *Synopeas*, two in *Prosactogaster*, and two in *Platygaster*. Type specimens are deposited in Bernice P. Bishop Museum.

Synopeas levis, new species (fig. 1, *a*, *b*).

Female

Length 0.93 mm. Head 1.85 times as wide as long, broadly elliptical viewed from above, slightly convex in front and behind, a little wider than the thorax, with a dense reticulate sculpture; lateral ocelli about twice their diameter distant from the eye margin; vertex separated from the occiput by a rounded ridge; antenna (fig. 1, *a*) with a 4-jointed club, the club joints apparently without colorless spines near apex but with elongated sense organs as in *S. daucicola* Kieffer; thorax 1.51 times as long as wide, 1.30 times as long as high, strongly convex above; mesonotum and pronotum, except pronotum below, finely reticulate; parapsidal furrows sharply indicated posteriorly, more faintly indicated anteriorly, meeting in a point in front of the scutellum, not quite reaching the front margin of the mesonotum; scutellum convex, about as wide as long, with a rather short, blunt, slightly curved projection apically; abdomen 1.68 times as long as wide, a little longer than the thorax, about as wide as the thorax, shaped as in *S. acuminatus* Kieffer except that the second segment is widest just before the apex; petiole very short, without pubescence above; second tergite as wide as long, without sculpture, without pubescence medially at front margin, with a row of very fine short white hairs across apical fifth; tergites 3, 4, and 5 broadly transverse, increasing in length in order named, with a faint reticulate sculpture; last tergite about as long as the three preceding combined, pointed apically, without distinct sculpture; propodeum, petiole laterally and ventrally, and base of second segment above and below (except medially above) with dense silvery pubescence; wings hyaline, with short cilia along costal and apical margins; black; scape except at apex, and legs, including coxae, reddish-brown; scape at apex and rest of antenna dark brown.

Male

Length 0.79 mm. Similar to the female; antenna as in fig. 1, *b*; thorax 1.28 times as wide as the abdomen, 1.25 times as long as the abdomen; abdomen subacute apically, the second tergite shaped as in the female.

Eiao: above Vaituha, altitude 1,100 feet, September 28, 1929, type, Adamson.

Hivaoa: Matauuna, altitude 3,700 feet, March 4, 1930, beating on *Sclerotheca* species, allotype and female holotype, Mumford and Adamson.

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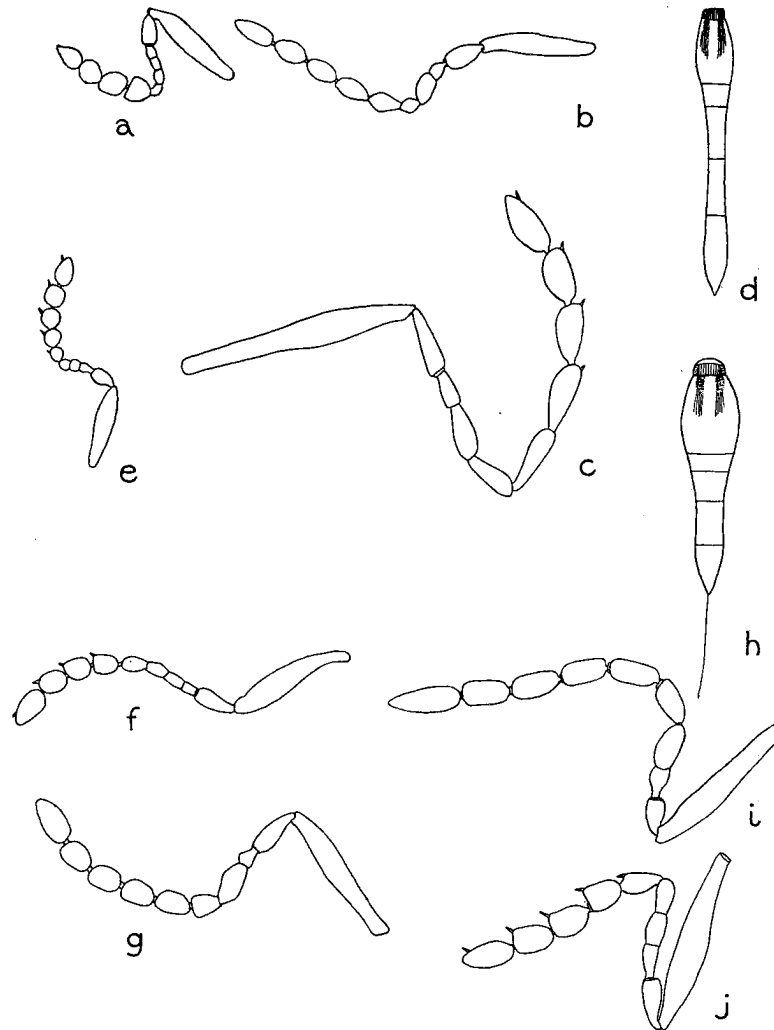


FIGURE 1.—Features of Marquesan Platygasteridae: a, antenna of *Synopeas levis* Fouts (female); b, antenna of *Synopeas levis* Fouts (male); c, antenna of *Prosactogaster insularis* Fouts; d, abdomen (dorsal aspect) of *Prosactogaster insularis* Fouts; e, antenna of *Platygaster compressus* Fouts; f, antenna of *Prosactogaster venustus* Fouts (female); g, antenna of *Prosactogaster venustus* Fouts (male); h, abdomen (dorsal aspect) of *Prosactogaster venustus* Fouts (female); i, antenna of *Platygaster mumfordi* Fouts (male); j, antenna of *Platygaster mumfordi* Fouts (female).

Prosactogaster insularis, new species (fig. 1, *c, d*).

Female

Length 3.39 mm. Head twice as wide as long, a little wider than the thorax, 1.37 times as wide as the abdomen, convex in front, slightly excavated behind, the cheeks moderately full; frons without sculpture, smooth and shining, except a few fine transverse striae below; malar space likewise with a few transverse striae; cheeks without sculpture; vertex separated from the occiput by a sharp carina; occiput faintly aciculate; lateral ocelli separated from eye margin by about 1.5 times their diameters; antenna shown in fig. 1, *c*; club not differentiated; each of last four joints with a short colorless spine near apex; thorax 1.5 times as long as wide, 1.27 times as high as wide, 1.40 times as wide as the abdomen, strongly convex above; mesonotum finely reticulate on anterior half, without sculpture posteriorly; parapsidal furrows short, converging posteriorly, their junction forming a narrow lobe which projects over the scutellar fovea touching the scutellum; scutellum pillow-shaped, pubescent, especially laterally; figure 1, *d*, shows the dorsal view of the abdomen of one of the paratypes; in the type the abdomen is 4.2 times as long as the thorax, 8.1 times as long as wide; lengths of the tergites in the type are as follows: 12, 53, 18, 36, 64, 52; widths of the same: 18, 29, 24, 17, 14, 17; basal foveae as shown in figure, the striae extending about to apical fifth; tergites 3-6 inclusive with scattered punctures laterally; sheaths of ovipositor forming a thin round tube, protrude 0.7 times the length of the abdomen past the abdomen's apex; black; flagellum piceous; coxae black; legs dark brown, the tibiae and tarsi somewhat lighter; wings hyaline, reaching about to the apex of the fourth segment of the abdomen.

Hivaoa: Mount Temetiu, altitude 3,620 feet, July 24, 1929, type, 1 paratype; Matauuna, altitude 3,760 feet, March 1, 1929, beating on *Crossostylus biflora*, 3 paratypes; Kopaafaa, altitude 2,770 feet, August 2, 1929, beating on *Crossostylus biflora*, 1 paratype; Mumford and Adamson.

The specimen from Kopaafaa is somewhat smaller than the others, being only 2.27 mm. in length.

Prosactogaster venustus, new species (fig. 1, *f-h*).

Female

Length 1.32 mm. Head twice as wide as long, a little wider than the thorax, 1.5 times as wide as the abdomen, shaped and sculptured as in *P. insularis* except that the malar space is not striate; antenna (fig. 1, *f*) without a well-defined club; pubescence on joints short; joints 7 to 10 each with a short spine on outer apical angle, apparently without elongate sense organs; thorax 1.56 times as long as wide, 1.21 times as high as wide, 1.27 times as wide as the abdomen, strongly convex above, without sculpture, smooth and shining; parapsidal furrows not present; the median lobe, however, is indicated by a broadly truncated and slightly swollen lobe which extends across the scutellar fovea and touches the scutellum; the structure is very similar to that found in *P. insularis* except that in that species the median lobe is narrower and is not swollen; abdomen shown in figure 1, *h*, very similar in form and structure to that of *P. insularis*, segments 3 to 6 (the sixth only basally) having scattered punctures; 2d sternite with a few short faint striae laterally just before middle; 3d sternite with a row of punctures across the base; 4th sternite with a few scattered punctures except along a median line; 5th and 6th sternites with a few extremely small scattered punctures, much smaller than those on the two sternites preceding; abdomen 2.1 times as long as the thorax, 4.2 times as long as wide; wings hyaline, extending a little way past the apex of the fifth abdominal segment; black; legs and antennae black to very dark brown, the trochanters and tarsi somewhat lighter.

Male

Length 1.25 mm. Similar to the female; head 1.3 times as wide as the thorax, 1.4 times as wide as the abdomen; antenna shown in figure 1, *g*; thorax 1.21 times as wide as the abdomen; abdomen 2.25 times as long as wide, somewhat elliptical in outline as seen from above, widest at apex of the second segment; 1.2 times as long as the thorax; second tergite 1.29 times as long as wide, widest apically, with basal foveae on anterior half, the striae not distinct; tergites 3, 4, and 5 transverse, subequal in length, each with a row of punctures across it; 6th tergite shorter, also with a row of punctures; 7th tergite as long as 6th, triangular, without sculpture; segments 3 to 7 combined 0.55 times as long as the second; wings extending more than a third the length of the abdomen past its apex.

Eiao: above Vaituha, altitude 1,080 feet, October 2, 1929, on *Dodonea viscosa*, 2 females, 9 males, Adamson.

Platygaster mumfordi, new species (fig. 1, *i, j*).

Female

Length 1.45 mm. Head about twice as wide as long, 1.1 times as wide as the thorax, elliptical in outline as seen from above, subconvex in front and behind, slightly emarginate medially behind; frons without sculpture, smooth and shining; vertex with a fine aciculate sculpture; occiput separated from vertex by an inconspicuous carina, transversely finely striate; lateral ocelli as far from eye margin as from anterior ocellus; antennae shown in figure 1, *j*; joints 6 to 10 with a colorless spine near apex; thorax 1.64 times as long as wide, 1.23 times as high as wide, as wide as the abdomen, strongly convex above; pronotum above and mesonotum except on median lobe posteriorly with a faint reticulate sculpture; parapsidal furrows not indicated; median lobe projecting as a broad, flat, truncated lobe over the scutellar fovea and touching the scutellum; scutellum circular, highly convex, without sculpture, thickly pubescent except medially and anteriorly; abdomen elliptical seen from above, 2.16 times as long as wide, widest at apex of second segment, sharply pointed apically, the segments 3 to 6 becoming gradually narrower in order named, their sides oblique; petiole 1.36 times as wide as long, its surface sloping upward on anterior half, flat on posterior half, a median area twice as long as wide elevated and with three low ridges on it; second tergite 1.19 times as long as wide, widest apically, its sides slightly curved, with foveae on basal third, the usual striae extremely short and faint; second tergite 3.36 times as long as the first, 1.95 times as long as the following segments combined; tergites 3 to 6 increasing gradually in length, the third to fifth broadly transverse, the sixth about 1.75 times as long as wide, triangular, acute at apex; 3d, 4th, and 5th tergites each with a row of punctures across it; 4th tergite faintly reticulate, the others without sculpture except as indicated above; black; antennae dark brown; legs reddish-brown, the coxae and femora darker; wings brownish, extending about 0.4 the length of the abdomen past its apex.

Male

Length 1.30 mm. Similar to the female. Antenna shown in figure 1, *i*; abdomen 1.9 times as long as wide, obovate, 1.2 times as long as the thorax; second tergite 1.14 times as long as wide, 2.2 times as long as the following segments combined; tergites following the second gradually decreasing in length, broadly transverse, all except the last one with a transverse row of small punctures; wings extending about a third the length of the abdomen past its apex.

Seven females and one male labeled as follows:

Hivaoa: Kopaafaa, altitude 2,770 feet, July 2, 1929, beaten from *Crossostylus biflora*, type, allotype, and 3 paratypes, Mumford and Adamson;

Matauuna, altitude 3,760 feet, August 1, 1929, beaten from *Crossostylus biflora*, 3 paratypes, Mumford and Adamson.

Several paratypes are slightly less than 1 millimeter in length.

Platygaster compressus, new species (fig. 1, *e*).

Female

Length 1.01 mm. Head 1.5 times as wide as long, 1.24 times as wide as the thorax, as wide as the abdomen, viewed from above strongly convex in front, broadly emarginate behind, full above and behind the eyes, without sculpture of any kind, smooth and shining; lateral ocelli as far from eye margin as from the anterior ocellus; antenna (figure 1, *e*) 10-jointed, without a well-defined club; thorax twice as long as wide, widest at tegulae, as wide as the abdomen, 1.24 times as high as wide, very highly convex above, appearing compressed laterally, without sculpture of any kind except a small faintly reticulate area anteriorly on the mesonotum; parapsidal grooves about as long as the scutellum, parallel; median lobe truncated posteriorly, touching the scutellum, flattened; scutellum convex, semicircular, pubescent laterally; abdomen 2.24 times as long as wide, elliptical in outline, pointed apically; 1.38 times as long as the thorax; petiole twice as wide as long, with numerous fine longitudinal grooves; second tergite 1.62 times as long as wide, widest at apex, 2.40 times as long as the petiole, 1.33 times as long as the segments following it combined, with two faintly striated foveae on basal fourth, the striae scarcely extending past their apices; tergites 3 to 6 subequal in length, gradually narrowing posteriorly, the sixth triangular, pointed at apex; black; antennae and legs dark brown, the tarsi somewhat lighter; wings tinged with brown, extending slightly past the apex of the abdomen.

Hivaoa: Matauuna, altitude 3,760 feet, August 1, 1929, beating on *Crossostylus biflora*, 2 specimens, Mumford and Adamson.

This species is remarkable because of its compressed thorax and almost entire lack of surface sculpture.