

## New Species of Hymenoptera

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It is desired to describe as new the following species of Hymenoptera which either have lain in local collections for years with doubt as to their identity, or have recently been discovered.

### BRACONIDAE

#### ***Blacus cremastobombyciae***, new species

Female. Two mm. long, dark ochraceous, legs and abdomen basally lighter. Head transverse, as wide as the thorax, length about two-thirds the width. Eyes fairly large, convex, black; ocelli small, also black, situated in the middle of vertex, arranged in form of an isosceles triangle, less than one diameter apart, about four diameters from inner margin of the eye and two from occipital margin. Antennae attached at upper margin of the face on slight protuberances, concolorous but darker outwardly, slender, almost as long as body; scape and pedicel a little thicker, flagellum 13-segmented. Occiput concave and smooth, shining, head otherwise coriaceous, dull, clothed with short silvery fuzz. Temples wide, convex; face fairly flat, declivous or lying in a different plane from the front; clypeus distinct, clypeo-ocular groove short but cheeks fairly wide.

Thorax and abdomen of about equal length. Prothorax triangular, narrowing anteriorly; mesonotum a little wider than long, slightly convex, declivous laterally behind, parapsidal grooves distinct but extending caudally only two-thirds the length of the mesonotum and not meeting posteriorly. Scutellum triangular, longer than wide at base, declivous at the sides; prescutellar sulcus wide and deep, divided by costae to form six fossae; there are also two small, smooth pits posteriorly on the scutellum somewhat in advance of the apex. Surface of the thoracic tergites to the propodeum is coriaceous and dull like the head; the mesopleura, however, are smooth, shining, and divided by a vertical groove. The propodeum is slightly convex and sloping caudally, with a median longitudinal carina and completely areolated, surface more or less rugose; there are lateral concavities at the base and the sides are declivous. The wings are fairly long and narrow, the stigma triangular, its width one-half its length, lying at about middle of wing; 1st cubital cell and discoidal cell separated, not confluent; recurrent nervure joins cubitus in advance of 1st cubital cross-vein; radius and cubitus short beyond 1st cubital cross-vein

and fading out beyond, no second cubital cross-vein; nervus parallelus meets nervellus and anal vein at about middle. Legs long and slender.

The abdomen is elongate oval, the 1st tergite ligulate and more or less perpendicular to the plane of the following tergites, which are convex, smooth and shining, declivous at the sides. The ovipositor, which is black, is exerted about one-fourth the length of the abdomen.

Described from one female specimen (marked type) reared from *Cremastobombycia lantanella* Busck in Honolulu, Hawaii, in 1955 by Miss Mabel Chong. Type deposited in collection of the Hawaiian Entomological Society.

### **Orgilus swezeyi**, new species

Female. Four mm. long, black, mostly dull but temples and occiput, mesopleura, abdomen dorsally shining; antennae distad of scape for three-fourths of its length, mandibles, clypeus, legs (except front tarsi and basal trochanter), also ovipositor (but not the valves) yellowish to reddish brown; wings subhyaline, faintly tinged with fuscus, the stigma and veins mostly light brown.

Head as wide as the thorax, the occiput slightly concave; vertex, face and genae appearing smooth and shining but under high magnification actually microscopically punctate. Eyes oval and convex, posterior orbits prominent, almost as broad as the width of the eye; ocelli in a compact triangle medially on fronto-vertex and slightly raised. Face bulging to some extent. Front hollowed some for the insertion of the antennae, which are not especially slender and have a tendency to curl apically; the scape and pedicel several times thicker than the flagellum, which is 26-segmented, 1-13 longer than broad, the first three times as long as broad, the second twice, apical segments except last quadrate.

Mesoscutum fairly closely and shallowly punctate and clothed with silvery hairs; parapsidal grooves foveolate, converging posteriorly and joining in front of the posterior margin. Scutellum slightly convex, smooth and shining, prescutellar sulcus almost effaced; propleura strongly rugulose, mesopleura smooth and polished with the sternauli foveolate. Propodeum without carinae, mostly rugulose, with the base before the spiracles smoother and with an apical depression on each side of the middle which is mostly smooth; propodeum sparsely punctate on the sides, strongly punctate along the apical margin, and smooth and polished in the anterior dorsal area. Hind coxae sparsely punctate; longest hind tibial spur half the length of the 1st tarsal segment. Inter-cubitus and 2nd abscissa of the radius forming a nearly straight line, stub of the cubitus beyond the inter-cubitus slightly longer than the 2nd abscissa of the cubitus.

Abdomen slightly longer and a little narrower than the thorax; 1st tergite entirely and the 2nd for the most part finely rugulose punctate, the base, apex and lateral margins of the 2nd narrowly smooth, tergites beyond the 2nd polished. Ovipositor about 2.5 mm. long, valves slender and black.

Male. Four mm. long, black, more shining than female; only anterior margin of the clypeus, legs (except trochanters, tarsi in part and hind coxae basally) brown; antennae with 30 segments in flagellum; propodeum rugose; prescutellar sulcus conspicuous, wide and deep and divided into four sections by weak costae; metanotum a transverse band with front and hind margins carinate and a medially divided furrow lying between, the latter with rather weak costae; abdomen dorsally smooth and shining except for lateral wings of the 1st tergite, which are longitudinally striate.

Described from one female (type), Koko Head, Oahu, March 17, 1934, O. H. Swezey; one male (allotype), Koko Head, Oahu, reared from *Opogona*, February 13, 1934, O. H. Swezey; one female (paratype), Koko Head, Oahu, February 5, 1911, D. T. Fullaway; one male (paratype), Waialua, Oahu, January, 1944, D. T. Fullaway. Type, allotype, and one paratype deposited in the collection of the Hawaiian Entomological Society, one paratype in that of the Board of Agriculture and Forestry.

#### *Phanerotoma myeloisae*, new species

Female. Four mm. long; brownish yellow, the eyes, ocelli, a spot in the depression on each side of the postscutellum, irregular-shaped maculae on abdominal tergites black or blackish, the propodeum more or less infuscate; wings hyaline, costae brown, stigma and internal veins paler; second cubital cell quadrate, radius with three abscissae, 1st and 2nd almost continuous in a straight line, the former one-third the length of the latter, the two together at right angles with third.

Sculpture of vertex coarsely reticulate, the face, mesonotum and pleura finely shagreened, propodeum and abdominal tergites rugulose, 1st and 2nd abdominal tergites longitudinally striate. Antennae inserted on front of head at median level of eyes, which are subcircular, convex and somewhat bulging, antennae 20-segmented, about as long as body, scape broader than pedicel and flagellum and four times as long as wide. Ocelli arranged in a close triangle in middle of vertex, one and one-half diameters removed from occipital margin, which is deeply inflexed, three from ocular margin. Clypeus wide and semicircular in shape. Genae and temples broad. Occiput deeply eroded.

Propodeum sloping behind. Hind femora and tibiae somewhat swollen.

Abdomen sessile, depressed anteriorly where joined to thorax. Ovipositor protruding slightly.

Described from one female (type) and two males (allotype and paratype) collected in Honolulu by E. M. Ehrhorn (type) and D. T. Fullaway (others), date of collection not noted. Type and allotype in the collection of the Hawaiian Entomological Society, paratype in that of the Board of Agriculture and Forestry. This is the insect referred to by Swezey (PROC. HAW. ENT. SOC.

3:108, 1915) as *Phanerotoma* sp., from *Myelois ceratoniae* Zeller infesting the pods of *Acacia farnesiana* (L.) Willdenow (klu).

## EULOPHIDAE

**Tetrastichus (Epitetrastichus) beardsleyi**, new species

Female. One and one-half mm. long, ochreous to dark ochreous. Head transverse and rather thin; smooth and shining with sparse needlepoint punctuations. Eyes comparatively small and red; ocelli red also, centrally arranged on vertex in almost a straight line transversely, about one diameter apart, one and one-half diameters from laterals to eye margin. Antennae concolorous, attached at middle of face above the level of an imaginary line joining the lower corners of eyes and fairly widely separated at base; consisting of scape, pedicel, three-jointed funicle and three-jointed club. The ring joints are leaf-like and four in number; the scape is elongate but not reaching top of head, expanded inwardly so that width at widest part in the middle equals about one-fourth length; pedicel obconic, less than one-half length of scape. Funicle joints subequal in length, slightly longer than wide but individually shorter than pedicel, club expanded more than the scape, 2nd and 3rd segments indistinctly separated, the individual segments nearly subequal in length, combined not quite as long as the combined funicular segments, ultimate segment pointed and terminating in a style; all the flagellar segments beset with follicular hairs. Face slightly convex, the anterior margin of the clypeus notched slightly with a pair of tooth-like projections; clypeoocular groove distinct.

Thorax and abdomen elongate and robust, the latter considerably longer than the former, which with the head is considerably darker; the thorax is a little deeper than wide, the prothorax more or less conically produced. The mesonotum is scutate between the parapsides, the shield a little longer than wide, but including the lateral wings the mesonotum is about quadrate and slightly convex, with two bristles on each lateral margin, one near caudal end; the scutellum is about the same, the longitudinal grooves distinct; there are also two bristles on each lateral margin. The pleura are divided by vertical carinae; the metanotum is narrow and transverse; the propodeum is short and declivous, with spiracles large and conspicuous. The legs are fairly stout, concolorous but a somewhat paler shade. The wings are as long as the body and fairly wide, the discal setae short and close-set, clothing entire wing save for a small basal area and a narrow basal caudal strip where a single line of three or four setae is present; the marginal setae are fine and fairly long, especially outwardly where they reach about one-fourth the width of the wing. The marginal vein is somewhat longer than the submarginal, the stigmal diverging at a 30° angle and about one-third the length of the marginal with three or four pustules at apex; the marginal vein bears nine bristles, the submarginal three.

The abdomen is more or less oval in shape, deeper than the thorax and pointed apically; the ovipositor extends considerably beyond its apex, the cerci and spiracles of 8th segment lateral in position.

Male. Similar except for sexual differences, e.g., the antennal scape in the male has a long carina on anterior inner side almost its entire length bearing a long seta, also an elongate oval vesicular sensorium on the inner margin about one-fourth its length, and all the segments of the flagellum except the pedicel have long setae mostly arranged in fascicles and more or less whorled.

Described from six female and four male specimens collected on manienie grass (*Cynodon dactylon* (L.) Persoon) at Waipio, Oahu, in July, 1955, by J. W. Beardsley, and mounted on a common slide; type female and allotype ringed with asphaltum. Types in collection of the Hawaiian Entomological Society.