

A New Genus and Species of Encyrtidae Parasitic in the Pineapple Mealybug, *Pseudococcus brevipes* (Ckll.)¹

BY HAROLD COMPERÉ

Research Associate in Entomology, University of California
Citrus Experiment Station, Riverside, California

(Presented by Dr. Carter at the meeting of November 7, 1935)

At the request of Dr. Walter Carter, Hawaiian Pineapple Growers' Experiment Station, Honolulu, T. H., an effort was made by the writer while in Brazil to ascertain whether any effective parasites of the pineapple mealybug, *Pseudococcus brevipes* (Ckll.), occur there. The species described in this paper was obtained from Edson J. Hambleton, Institute Biologico, São Paulo, Brazil. In a letter accompanying the specimens, Hambleton wrote:

"Under separate cover I am sending you four vials containing an interesting parasite bred from *Pseudococcus brevipes* on pineapples. . . . The pseudococcids were collected at Araras, São Paulo, July 10, 1935. The parasites began emerging on the 24th and continued to do so until today. From the mummified mealybugs you may judge that the species is an effective one. Few, if any, *P. brevipes* escaped attack."

The mummified mealybugs sent by Hambleton contain from one to four larvae, pupae, or adults in each. The parasite is undoubtedly a primary species and may be of value if introduced into Hawaii and established there as a parasite of the pineapple mealybug.

This is the third species of Encyrtidae now known to attack *Pseudococcus brevipes* in Brazil. A few specimens of an undetermined *Anagyrus* were reared by the writer from *Pseudococcus brevipes*, collected on pineapples in the markets of Rio de Janeiro, December, 1934. Samples of an encyrtid genus unknown to the writer were exhibited by Adolph Hempel, who obtained them from *Pseudococcus brevipes* infesting pineapples. These were collected at São Jose Dos Campos, Estado São Paulo, in November or December, 1934, by Lepage, who sent them to Hempel.

¹ Paper No. 336, University of California Citrus Experiment Station and Graduate School of Tropical Agriculture, Riverside, California.

Proc. Haw. Ent. Soc., IX, No. 2, April, 1936.

Hambletonia new genus. (Fig. 1.)

This large, robust form is most closely related to *Tropidophryne* Compere. It is distinguished from the latter by having the funicle six-jointed instead of four or five jointed; the scape is without a dorsal fold; the pedicel is circular in cross section instead of triangular; the marginal vein is almost as long as the postmarginal vein instead of absent; the anterior margin of the head, in dorsal view, is slightly convex instead of concave, etc.

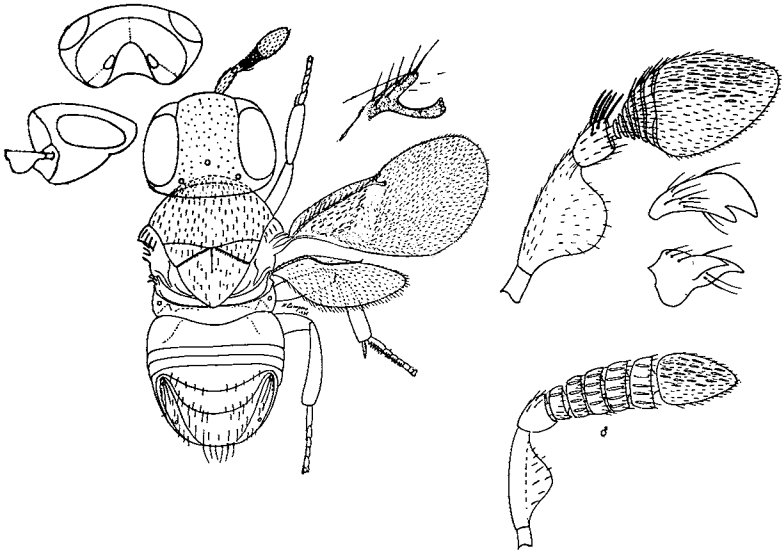


Figure 1. *Hambletonia pseudococcina*

Female. Head large, horizontal, elongate, and flattened. Face deeply inflexed, semicircular, abruptly meeting the frons in a carinated angle; occiput strongly concave, sharply angled at the vertex. Head, in dorsal view, one and one-half times as long as wide, the anterior and posterior margins slightly convex if the long axis of the head is horizontal. Eyes elongate, oval, mostly dorsal, occupying one-half the width of the head; inner orbits parallel for the most part; a faint suture extends anteriorly from the anterior inner corners of the eyes. Frontovortex longer than wide (7:5) and produced anteriorly in front of the eyes. Ocelli small, in a strongly obtuse triangle. Head, in frontal view, transversely oval, almost twice as wide as high. The scrobes not differentiated from the deep facial depression. The entire antennae can be retracted in the facial depression. Antennal sockets moderately far apart, placed below the middle of the face and separated by a median prominence which projects beyond the facial line. Head, in lateral view, subtriangular, the facial line short, slightly inclined ventro-caudad.

Antennae composed of nine joints. Club solid, massive, cordate. Funicle six-jointed, the first and second joints short and strongly transverse, the following joints greatly increasing in size and laminately expanded. Pedicel large, circular in cross section and with long, coarse, flattened setae on the dorsal margin at apex. Scape widely expanded below and without a dorsal fold. Mandibles bidentate, acute, the outer dorsal tooth much the largest. Maxillary palpi four-jointed; labial palpi three-jointed.

Fore wings partly infuscated, the ciliation basad of the speculum rather sparse and coarse. Marginal vein hardly much longer than wide, slightly shorter than the postmarginal vein; stigmal vein about as long as the marginal and postmarginal veins united.

Form compact, robust; thorax of shallow depth, depressed. When the long axis of the head is horizontal, the posterior part of the head overlaps the pronotum and the anterior portion of the mesoscutum. Pronotum short, transverse. Mesoscutum twice as wide as long. Axillae moderately large, very narrowly separated at inner tips. Scutellum slightly wider than long, as long as the mesoscutum. Abdomen as wide and slightly shorter than the thorax, almost truncate posteriorly. Only six tergites discernible, the fourth and fifth or fifth and sixth tergites may be fused. Ovipositor not protruded. Legs short and comparatively thick.

Male. The male is unlike the female, the head is vertical, convex above; thorax convex, not depressed; antennae eight-jointed, short and thick; general color black, opaque, and shining.

Head normal in size; convex above. Face inflexed but not as much as in the female, meeting the frons in a sharp angle; the scrobes and face not differentiated; the broad raised prominence between the antennae relatively larger than in the female. Head, in dorsal view, slightly concave anteriorly and posteriorly if viewed with the frontovertex in the horizontal plane; frontovertex as wide as long, occupying one-half the width of the head and produced narrowly anterior to the eyes. Head, in lateral view, vertical, subtriangular, the broad high prominence between the antennae jutting out from the face. Ocelli in an obtuse triangle, the posterior pair less than their own diameter from the eye and occipital margins. Antennae composed of eight joints, scape, pedicel, five funicle joints, and solid club. Scape expanded below; pedicel about as wide as long; funicle joints short and wide, increasing in size distad so that the fifth joint is about one and one-half times as large as the first funicle joint; club solid, as wide as the preceding joint and about as long as the three preceding joints.

Fore wings hyaline; the ciliation and venation about as in the female.

Thorax convex; scutellum as long as the mesoscutum; axillae meeting. Abdomen as wide and much shorter than the thorax.

Genotype: *Hambletonia pseudococcina* n. sp.

Hambletonia pseudococcina n. sp. (Figure 1.)

Female. General color brown, translucent. Scape and club blackish. Ventral sides of all coxae and the posterior one-third of the abdomen more

or less fuscous. Frontoververtex brown with iridescent reflections. Head apparently destitute of setae; the frontoververtex with small widely scattered punctures. Mesoscutum, scutellum, and axillae furnished with short, fine setae; the sculpture of these parts is exceedingly faint and close. Length, 1.8 mm.

Male. General color black, opaque, the mesonotum slightly shining metallic; the sides and venter of the thorax fading to brown. Legs dominantly black to brown, the ends of the femora, tibiae, and tarsi with a variable amount of brown. Antennae light brown or partly fuscous, the scape translucent, brown. Frontoververtex finely and closely reticulated and with shallow, faint punctation; the mesoscutum, axillae, and scutellum about as coarsely reticulated but without or with fainter punctation. Dorsum of thorax and head with fine, short setae. Length, 1.2 mm.

Described from 18 females and 7 males, reared from *Pseudococcus brevipes* (Ckll.), Araras, São Paulo, Brazil, by E. J. Hambleton, July, 1935.

Types to be deposited in the United States National Museum.