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THE LARVA OF THE ANT GENUS DACETINOPS BROWN AND WILSON

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Genus DACETINOPS Brown and Wilson

LARVA

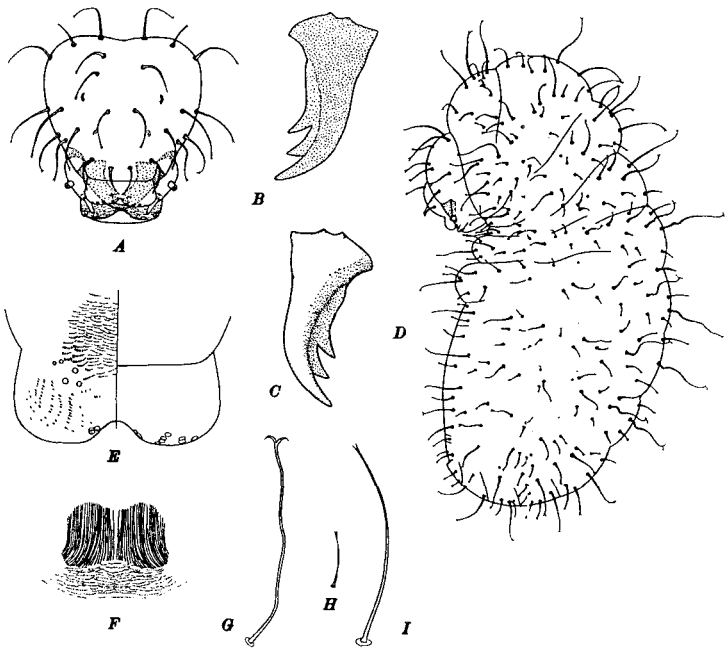
Body hairs sparse, of two types: (1) with short-bifid tip and (2) anchor-tipped, with sinuate shaft. Cranium subcordate. Antennae minute. Head hairs few (about 26), with short-bifid tip. Posterior surface of labrum with numerous spinules. Mandibles long and slender; apex forming a long sharp-pointed tooth which is curved medially; with a narrow blade projecting medially from the anterior surface and bearing two long coarse medial teeth. Maxillae small, with the apex paraboloidal; palp a stout peg; galea digitiform. Anterior surface of labium with numerous spinules. Hypopharynx spinulose and with numerous longitudinal ridges near the pharynx.

DACETINOPS CIBDELA Brown and Wilson

(Text figure 1)

Immature Larva. Length through spiracles about 1.25 mm. Short and stout; prothorax directed ventrally; head ventral; anterior end formed from the dorsum of the mesothorax; dorsal profile C-shaped; abdominal somites II and III produced ven-

trally into rounded transverse welts. Anus ventral, with a small posterior lip. Spiracles small, mesothoracic slightly larger than the rest. Integument apparently without spinules. Body hairs sparse and uniformly distributed, of two types: (1) 0.036-0.15 mm. long, slightly curved, with short-bifid tip, some on each somite, longest on the thorax and ventral surface; (2) anchor-tipped, with sinuate shaft, about 0.16 mm. long, four in a row across the dorsum of each abdominal somite II-V. Cranium subcordate in anterior view, clypeus bulging. Antennae minute,



Text figure 1. *Dacetinops cibdela* Brown and Wilson, larva. A, head in anterior view, X93; B, left mandible in anterior view (stippled to show thickness), X271; C, left mandible in posterior view (shaded to show contours), X271; D, immature larva in side view, X54; E, labrum (left half of drawing in posterior view, right half in anterior view), X271; F, hypopharynx in anterior view, X271; G, anchor-tipped body hair, X185; H and I, two bifid-tipped body hairs, X185.

each with three sensilla, each of which bears a minute spinule. Head hairs few, 0.036-0.09 mm. long, slightly curved, with short-bifid tip. Labrum short, wide and bilobed; each lobe with about 13 sensilla on and near the ventral border; posterior surface of each lobe with a central cluster of 4 or 5 sensilla, lateral to which the spinules are large, isolated and sparse, but medially and dorsally the spinules are much more numerous, smaller and arranged in short transverse rows which are grouped into longer rows. Mandibles heavily sclerotized, rather narrow and elongate, subtriangular in anterior view; with one large apical tooth which is curved medially and posteriorly; with a median blade arising from the anterior surface and bearing two large medial teeth. Maxillae small, apex with a few short encircling rows of minute spinules; palp a stout peg with five apical sensilla (three minute and bearing a spinule each, two larger and encapsulated); galea digitiform, with two apical sensilla. Anterior surface of labium spinulose, the spinules numerous and in short arcuate rows, the rows arranged in a longer subtransverse pattern, the spinules longer ventrally; palp a low knob with five apical sensilla (three minute and bearing a spinule each, two larger and encapsulated); opening of sericteries in a wide depression on the anteroventral surface of the labium. Hypopharynx spinulose, the spinules numerous, minute and arranged in subtransverse rows; numerous longitudinal ridges near the pharynx. (Material studied: one damaged larva from New Guinea, collected by E. O. Wilson; courtesy of W. L. Brown.)

A single damaged immature larva is a frail foundation on which to base the taxonomic relationships of a genus. Nevertheless we must hazard a few guesses, for that is all the material we have. Such guesses are the more difficult because of the nearly diagrammatic structure of this larva. If only it had a few (or even one) striking peculiarity — something overdeveloped or something lacking. If we extrapolate the mature body shape, enlarge the antennae to normal size, inflate the bases of the mandibles a little and reduce somewhat the size of the medial mandibular teeth, the result might be considered the synthetic type for the subfamily Myrmicinae.

We are now in the process of synthesizing our studies of the larvae of the Myrmicinae. Consequently we do not yet have clear

ideas as to what characters are phylogenetically basic. However, we do feel that a few provisional opinions about the relationships are not out of order.

The larva of *Dacetinops* resembles the larva of *Rogeria* so closely that the same generic description would apply to either — *except* for the hairs: *Rogeria* lacks the anchor-tipped hairs which we suspect will prove to be of basic phylogenetic importance. The larva of *Dacetinops* also resembles the larvae of the tribe Basicerotini but differs in having anchor-tipped hairs and by lacking spinules on the mandibles. The worker of *Dacetinops* is convergently similar to the Dacetini, but its larva is not. In fact, the larva of *Dacetinops* shows no close affinity with any known genus.