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THE ANT LARVAE OF THE MYRMICINE TRIBE MYRMECININI
(HYMENOPTERA)

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THE ANT LARVAE OF THE MYRMICINE TRIBE MYRMECININI

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The tribe Myrmecinini comprises about a hundred species

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in sixteen genera. All genera are paleotropical and—with the exception of a few species—exclusively so. The exceptions are in *Pristomyrmex* (one species in the southern Palearctic) and *Myrmecina* (two Palearctic and two Nearctic species). The tribe is little known, even to myrmecologists—apparently not abundant anywhere, of little economic importance, and with no unusually interesting habits or structures.

This is one of the myrmicine tribes which Wheeler² characterized as “very unsatisfactorily defined.” After a study of the larvae we heartily concur, for they are certainly a heterogeneous lot. In fact, each of the five genera studied might as well be in a different tribe. To be sure, *Myrmecina* and *Pristomyrmex* both have the head extremely elongate—a most unusual and bizarre character, but they have little else in common. We have not been able to find any significant characters common to all the genera; hence we have not even attempted a characterization of the tribe.

Genus *Podomyrma* F. Smith

Prothorax and mesothorax bent ventrally about 90° to form a short, stout neck; rest of body straight and paunchy. Body hairs numerous and uniformly distributed (except sparse at the posterior end); of two types; mostly very short, simple and spike-like; anchor-tipped hairs present. Head small; cranium subrectangular in anterior view, a fourth broader than long. Head hairs numerous, short, simple and spike-like. Posterior surface of labrum densely spinulose. Mandibles narrowly subtriangular, with three stout, blunt teeth. Maxillary palp a skewed peg; galea a tall frustum. Labium with exceedingly minute spinules in short rows; palp an irregular knob.

Podomyrma adelaidae (F. Smith)

Pl. I, figs. 8-13

Prothorax and mesothorax bent ventrally about 90° to form a short, stout neck; rest of body straight and paunchy; posterior end narrowly rounded. Anus ventral. Segmentation distinct on the anterior half; indistinct posteriorly. Integument of ventral surface of thorax with rather numerous, conspicuous rows of spinules, rest of venter and dorsal surface of posterior somites with minute spinules in short rows. Body hairs numerous and uniformly distributed, except sparse at the posterior end. Of two types: (1) long (about 0.36 mm.) anchor-tipped hairs, with tortuous shaft, 4-9 in a row across the dorsum of each abdominal somite I-V; (2) all other hairs very short (0.027-0.036 mm.), simple and spike-like, mostly without alveolus and articular membrane. Head small, cranium subrectangular (but with the corners rounded); breadth about a fourth greater than the length. Antennae each with three sensilla, each of which

²Bull. Amer. Mus. Nat. Hist. 45:659, 1922.

bears a spinule. Head bristling with numerous short (0.027-0.063 mm.), spike-like hairs. Labrum bilobed, narrowed dorsally; anterior surface of each lobe with three hairs, 8-9 sensilla and a few minute spinules in short rows; ventral border of each lobe with two contiguous and 1-2 isolated sensilla and a few short rows of minute spinules; posterior surface of each half with a cluster of three (or two clusters of two) contiguous and 4-5 isolated sensilla; posterior surface with numerous short, arcuate rows of minute spinules. Mandibles heavily sclerotized; narrowly subtriangular in anterior view, with three stout, blunt teeth, one apical (which is curved medially) and two subapical and medial. Maxillae with the apex lobose; palp a tall, skewed peg, with one lateral, two subapical and two apical sensilla; galea a tall frustum with two apical sensilla. Anterior surface of the labium with exceedingly minute spinules in short rows; palp an irregular knob with five sensilla (one of which bears a spinule); an isolated sensillum between each palp and the opening of the sericteries; the latter a transverse slit. (Material studied: a single larva from Victoria (Australia), courtesy of W. L. Brown.)

Genus *Dilobocondyla* Santschi

Prothorax inclined ventrally to about 45°; rest of body straight and elongate-subovoidal. Body hairs numerous and uniformly distributed; mostly very short; of four types, including anchor-tipped hairs. Cranium as long as broad; occipital border broadly rounded; genae bulging below the antennal level. Head hairs numerous; minute to long; of two types; a cluster of four long hairs on each genal bulge. Labrum extremely broad; posterior surface apparently without spinules. Mandibles narrowly subtriangular in anterior view; apical tooth sharp and scarcely curved medially; anterior surface with a medial blade bearing a blunt medial tooth; posterior surface with a narrow, medial blade. Maxillary palp a slight elevation bearing five sensilla; galea minute represented only by the two sensillae. Labial palp small, represented only by a cluster of five sensilla.

Dilobocondyla chapmani Wheeler

Pl. I, figs. 1-7

Prothorax inclined ventrally to about 45°; rest of body straight and elongate-subovoidal; posterior end rounded. Anus ventral. Segmentation indistinct. Leg and wing vestiges present. Mesothoracic spiracle rather large, others decreasing in size posteriorly. Integument apparently without spinules. Body hairs numerous and uniformly distributed. Of four types: (1) on the ventral surface of the thorax, many very short (0.036-0.054 mm.), simple, flexible; grading laterally into (2) stout, short (0.027-0.063 mm.), denticulate hairs, the most abundant type occurring everywhere except on the thoracic venter; (3) a few moderately long (0.09-0.22 mm.), with denticulate tip, on the dorsum of each thoracic somite and abdominal somites VII-VIII and on the lateral surfaces of abdominal

somites I-VI; (4) long (about 0.4 mm.), anchor-tipped, with tortuous shaft, 1-5 in a row across the dorsum of each abdominal somite I-V or I-VI. Head moderately large; occipital border broadly rounded; genae bulging below the antennal level; cranium with maximum breadth equal to length. Antennae each with three sensilla, each of which bears a spinule. Head hairs numerous, of two types: (1) minute to short (0.009-0.054 mm.), simple, abundant; (2) long (0.072-0.126 mm.) with denticulate tip, a cluster of four on each genal bulge and three on either side of the clypeus. Labrum large, extremely broad in proportion to the head (breadth 3X length), subtrapezoidal, narrowed dorsally, ventral corners rounded; ventral border feebly concave; anterior surface of each half with 10-13 sensilla and/or minute hairs; posterior surface of each half with a cluster of 2-3 sensilla near the ventral border and 5-6 isolated sensilla dorsally. Mandibles narrowly subtriangular in anterior view; apical tooth sharp and scarcely curved medially; anterior surface with a medial blade bearing a blunt, medial tooth; posterior surface with a narrow, medial blade. Maxillae lobose; palp small, a slight elevation bearing five sensilla; galea minute, represented only by the two sensilla. Labial palp small, represented only by a cluster of five sensilla; an isolated sensillum between each palp and the opening of the sericteries; the latter a transverse slit. (Material studied: several damaged larvae from the Philippine Islands.)

Wheeler, G. C., 1938, Pl. 16, fig. 11: anterior end of a larva in ventral view.

Genus *Atopula* Emery

Atopula hortensis Bernard

Bernard, 1948: "Quant aux larves elles semblent primitives par leur tête, plus évoluées par le reste du corps. La tête serait assez bien celle d'une larve d'*Aphaenogaster*, avec antennes et mandibules présentes, palpes figurés par de courts mamelons. L'abdomen est incomplètement segmenté (3 sutures visibles au lieu de 6 à 8 chez *Aphaenogaster*) et plutôt obèse. Les larves sont couvertes de longs poils bruns en pinceau mêlés de grands poils fourchus (à double crosse terminale). Ces poils existent souvent chez *Leptothorax* (notamment *L. arenarius*, dont Santschi prétend que les poils en crosse retiennent l'animal au sable et l'empêchent de tomber sur le fond trop humide du terrier). *Aphaenogaster*, et tous les Myrmecins primitifs, paraissent avoir des larves sans poils crochus ni poils en pinceau. . . Sculpture et poils des adultes et des larves . . . placeraient *Atopula* dans le genre *Leptothorax*. . . Je propose donc de placer ce genre à la base de la tribu des Leptothoracins, sans l'inclure pour le moment aux genres voisins" (pp. 179-180). Fig. 10 on p. 178: *a*, head of mature worker larva in anterior view; *b*, larva in profile; also hair tips enlarged.

Genus *Myrmecina* Curtis

Body strongly curved ventrally at both ends so that the anus ^{is} ~~in~~ ventral

and the head is directed posteriorly; dorsal profile long and C-shaped, ventral short and J-shaped; diameter greatest at the fourth abdominal somite, diminishing gradually to the anterior end of the prothorax (which has the same diameter as the head) and rapidly to the posterior end. Body hairs moderately numerous and uniformly distributed; short to moderately long; of only one type—simple and flexible. Head small, thickest at the base of the mouth parts; extremely long and narrow; genae bulging slightly just below the antennal level; occipital border narrowly rounded. Head hairs few, long, simple and flexible. Posterior surface of labrum spinulose. Mandibles narrowly subtriangular in anterior view; apex forming a very long, slender, sharp-pointed tooth, which is curved medially; with two widely separated, medial teeth; anterior and medial surfaces with short, arcuate ridges bearing spinules. Maxillary palp a skewed peg; galea digitiform. Anterior surface of labium densely spinulose; palps lateral, each an irregular knob.

Myrmecina americana Emery

Pl. II, figs. 17-21

Body strongly curved ventrally at both ends so that the anus is ventral and the head is directed posteriorly; dorsal profile long and C-shaped, ventral short and J-shaped; diameter greatest at abdominal somite IV, diminishing gradually to the anterior end of the prothorax (which has the same diameter as the head) and rapidly to the posterior end. Leg and wing vestiges present. Segmentation distinct on the anterior half. Mesothoracic spiracle the largest, the others diminishing gradually and slightly toward the posterior end. Integument of ventral surface of thorax and first abdominal somite with a few short, transverse rows of minute spinules; integumentary structures of unknown nature and function in the intersomitic furrows on the dorsal and ventral surfaces. Body hairs moderately numerous and uniformly distributed; short to moderately long (0.072-0.3 mm.), simple and flexible; alveolus and articular membrane lacking. Head small; thickest at the base of the mouth parts; extremely long and narrow; genae bulging slightly just below the antennal level; occipital border narrowly rounded and slightly impressed at the middle; breadth of cranium about half the length. Antennae each with three sensilla, each of which bears a spinule. Head hairs few, long (0.054-0.09 mm.), simple and flexible. Labrum short and wide (width 2X length); ventral border slightly curved, ventral corners rounded; anterior surface of each half with one sensillum; ventral border of each half with 3-4 sensilla; posterior surface spinulose, the spinules in numerous, transverse, arcuate rows; posterior surface with four isolated sensilla. Mandibles heavily sclerotized; narrowly subtriangular in anterior view; apex forming a very long slender sharp-pointed tooth, which is curved medially; with two widely separated medial teeth, the distal being the larger; anterior and medial surfaces with short arcuate ridges bearing spinules. Maxillae narrowly conoidal; palp a skewed peg with five sensilla—one basal, one lateral and three apical; galea finger-like with two apical sen-

silla. Labium hemispherical with the anterior surface spinulose, the spinules minute and in numerous, transverse rows; palp concealed behind maxilla, a low irregular knob with four sensilla (three of which bear a spinule each); opening of sericteries a short, transverse slit on the ventral surface. Hypopharynx with numerous, subtransverse ridges. (Material studied: numerous larvae from Connecticut, Massachusetts and Mississippi.)

***Myrmecina graminicola* (Latreille)**

Donisthorpe, 1915: "Mandibles thin and pointed, reddish; head long and narrow, bent over with three thoracic somites, and the first abdominal, posteriorly towards the ventral surface; the mesothoracic somite is prominent, projecting more forward than the other two somites. Abdomen pyriform, the first somite very prominent. The whole body is clothed with long thin curved hairs, mixed with shorter ones; when young the larva is white, and the somites are not well defined posteriorly, but the full grown larva is distinctly yellowish and all the somites are distinct" (p. 77 = 1927, p. 81). Pl. I, photograph of small and full-grown larvae (= 1927, Pl. I). "The ants pass the winter in the larval state and are piled on each other in a heap by the workers. The latter feed the larvae by mouth, but also place cut-up bits of insects and other food on their bodies for them to eat" (p. 80 = 1927, p. 85).

Eidmann, 1943, p. 226: Small larvae were found in the nest in winter.

Genus *Pristomyrmex* Mayr

Body hairs numerous. Head extremely long and narrow. Gula spinulose. Head hairs few; short to moderately long. Posterior surface of labrum spinulose. Mandibles narrowly subtriangular in anterior view. Anterior surface of labium densely spinulose; palps lateral.

Subgenus *Pristomyrmex* Mayr

Stout; prothorax bent ventrally to 90°, its anterior half narrowed abruptly to form a short neck; rest of body elongate-subovoid; dorsal profile long and C-shaped, ventral short and S-shaped; diameter greatest at abdominal somites IV and V. Body hairs uniformly distributed; of four types, including anchor-tipped. Head widest just below the antennal level. Antennae small. Head hairs simple. Mandibles with the apical tooth long, slender, sharp, slightly curved medially; one small medial tooth; basal half of medial surface conspicuously denticulate. Maxillary palp a skewed peg; galea a tall frustum. Posterior (as well as anterior) surface of labium spinulose; palp represented only by a cluster of five sensillae.

***Pristomyrmex pungens* Mayr**

Pl. I, fig. 21; Pl. II, figs. 1-7

Mature.—Length about 2.5 mm. Stout; prothorax bent ventrally to 90°, its anterior half narrowed abruptly to form a short neck; rest of body

elongate-subovoid; dorsal profile long and C-shaped; ventral profile short and S-shaped; diameter greatest at abdominal somites IV and V. Anus posteroventral. Leg, wing and gonopod vestiges present. Segmentation indistinct. Mesothoracic spiracle rather large, the others decreasing posteriorly. Integument of the ventral surface of abdominal somites I-IV, metathorax, mesothorax and posterior portion of the prothorax spinulose, the spinules scattered and rather coarse. Body hairs numerous, short to moderately long, uniformly distributed. Of four types: (1) short (0.035-0.105 mm.), bifid, with the branches finely denticulate, on all somites, the most abundant type; (2) short to moderately long (0.054-0.18 mm.), simple, few, on neck and ventrolateral surfaces of mesothorax, metathorax and first four abdominal somites; (3) moderately long (0.105-0.23 mm.), with short, bifid tip, a few in a row across the dorsum of mesothorax, metathorax and abdominal somites V-VIII; (4) long (about 0.25 mm.), anchor-tipped, with tortuous shaft, in a row of 6-8 across the dorsal surface of each abdominal somite I-IV. Head moderately large; extremely long and narrow; gula spinulose; cranium elongate-suboval in anterior view, but with a conspicuous genal bulge just below the antennal level; maximum width $2/3$ the length. Antennae small, drumlin-shaped, each with three sensilla, each of which bears a spinule. Head hairs few, short to moderately long (0.018-0.063 mm.), simple. Labrum small, short (width $2\frac{2}{3}X$ length), ventral and lateral borders feebly convex; anterior surface with two sensilla; ventral border with two clusters of four sensilla each; posterior surface with numerous short, transverse rows of minute spinules and ten scattered sensilla. Mandibles narrowly subtriangular in anterior view; apex forming a long, slender, sharp tooth which is slightly curved medially; with one small medial tooth; basal half of medial surface conspicuously denticulate. Maxillae with apex conoidal; palp a skewed peg with five sensilla (one basal with spinule and four apical); galea a tall frustum with two apical sensilla. Labium with the anterior and posterior surfaces densely spinulose, the spinules minute and in short transverse rows; palp represented by a lateral cluster of five sensilla (three of which bear a spinule each); an isolated sensillum between each palp and the opening of the sericteries; the latter a short transverse slit.

Young.—Length about 1.1 mm. Slender; thorax curved ventrally. Segmentation distinct. Anchor-tipped hairs on the dorsal surface of the mesothorax, metathorax and abdominal somites I-VII, about eight in a row across each somite. Head relatively very large, otherwise similar to the mature larva.

Material studied: two dozen larvae from the Philippine Islands.

***Pristomyrmex japonicus* Forel**

Young.—Length 0.87-1.71 mm. Generally similar to the young of *pungens*. (Material studied: a dozen larvae from Japan.)

Subgenus *Odontomyrmex* Forel

Anterior portion of prothorax forming a small, short neck of about the

same diameter as the head; diameter of body increasing rapidly to the middle of the mesothorax, decreasing to abdominal somite I, increasing again to IV, then decreasing rapidly to the posterior end which is round. Body hairs uniformly distributed except on conspicuous, naked, intersomatic zones on the thorax; dorsal surface of neck and mid-ventral surfaces of mesothorax, metathorax and first four abdominal somites practically naked. Body hairs of five or six types, including anchor-tipped. Head thickest at the base of the mouth parts and widest just above the antennal level. Antennae minute. Head hairs simple or with short-bifid tip. Mandibles with the apical tooth short, hook-like, curved medially; with a deep notch at the distal third, in which a slender, medial tooth is set; anterior, medial and posterior surfaces with a few coarse denticles. Apex of maxillae spinulose; palp and galea digitiform. Labial palp a low knob bearing four sensilla.

Pristomyrmex (Odontomyrmex) sp.

Pl. I, fig. 22; Pl. II, figs. 8-16

Mature.—Length about 3 mm. Anterior portion of prothorax forming a small, short neck of about the same diameter as the head; diameter of body increasing rapidly to the middle of the mesothorax, decreasing to abdominal somite I, increasing again to IV, then decreasing rapidly to the posterior end, which is round; thorax swollen and curved ventrally; abdomen straight. Anus posteroventral, surrounded by a cluster of hairs (type 5). Leg and wing vestiges present. Segmentation distinct on the anterior half. Mesothoracic spiracle the largest, the others diminishing gradually and slightly toward the posterior end. Integument of ventral surface of metathorax, mesothorax, posterior portion of prothorax and first four abdominal somites with short, scattered, transverse rows of minute spinules; the spinulose areas on the abdominal somites are slightly raised. Body hairs numerous, short to moderately long. Thorax with conspicuously naked intersomatic zones; dorsal surface of neck practically naked; midventral surface of mesothorax, metathorax and abdominal somites I-IV also practically naked; elsewhere the hairs are rather uniformly distributed. Body hairs of six types: (1) on the ventral surface of the neck, few, simple, short (about 0.036 mm.); (2) on the ventral surface of the posterior portion of the prothorax, of the mesothorax and metathorax and of the first four abdominal somites, few, minute (about 0.009 mm. long), simple; (3) on the dorsal surface of the prothorax and on the ventrolateral surfaces of the mesothorax, metathorax and first four abdominal somites, few, simple, long (0.15-0.23 mm.), occasionally with the tip flattened; (4) across the dorsal surface of each abdominal somite II-IV, a row of four long (about 0.25 mm.), anchor-tipped hairs, with the shaft mostly straight but contorted and kinked near the base; (5) on each somite, few, moderately long (0.108-0.162 mm.), with short bifid tip; (6) on the dorsal surface of the prothorax, on the dorsal and lateral surfaces of mesothorax, metathorax and abdominal somites I-IV and on all surfaces of abdominal somites V-IX, numerous, short (0.054-

0.09 mm.), bifid, the branches roughened with fine denticles; types 5 and 6 lack alveolus and articular membrane. Head moderately large; thickest at the base of the mouth parts; extremely long and narrow; gula spinulose. Cranium subpyriform in anterior view; width about half the length; widest just above antennal level; occipital outline broadly rounded. Antennae minute, each with three sensilla, each of which bears a spinule. Head hairs few, very short to moderately long (0.009-0.045 mm.), simple or with short-bifid tip. Labrum feebly bilobed, narrowed dorsally; anterior surface of each lobe with four sensilla; ventral border of each lobe with a cluster of 3-4 sensillae and a few minute spinules; posterior surface with ten scattered sensilla and with short, transverse, arcuate rows of short spinules. Mandibles heavily sclerotized; narrowly subtriangular in anterior view; apical tooth short, hook-like, curved medially; with a deep notch at the distal third, in which a slender medial tooth is set; anterior, medial and posterior surfaces with a few coarse denticles. Maxillae with the apex conoidal and spinulose (the spinules exceedingly minute); palp digitiform with two apical and three lateral sensilla (four bearing a spinule each); galea digitiform and bearing two apical sensilla. Labium hemispherical with the anterior surface densely spinulose, the spinules exceedingly minute and in short, arcuate, transverse rows; palps lateral, each a low knob with four sensilla (three bearing a spinule each); opening of sericteries a short transverse slit on the apex. Hypopharynx spinulose, the spinules in short, transverse, arcuate rows.

Submature.—Length about 3 mm. Thorax more slender, its somites more distinct. The spinulose areas on the ventral surface of the abdomen form distinct bosses. Otherwise as in the mature larva.

Young.—Length about 0.5 mm. Ventral profile straight; meeting the posterior profile at an angle at the apex of which is the anus. Otherwise as in the mature larva.

Material studied: a dozen larvae from Malanda, N. Queensland, XI-50, collected by W. L. Brown, who considers this to be a new species.

Pristomyrmex (Odontomyrmex) sp.

Mature.—Length about 4.25 mm. Similar to *P. (O.)* sp. from Queensland except in the following details: Body hairs of five types: (1) on the ventral surface of the neck, few, simple, short (about 0.036 mm.); (2) on the rest of the venter of the thorax and of abdominal somites I-IV, few, simple, minute (0.009-0.018 mm.); (3) on the dorsal surface of the prothorax, and on the ventrolateral surfaces of the mesothorax, metathorax and first four abdominal somites, few, simple, long (0.225-0.45 mm.); (4) across the dorsal surface of each abdominal somite II-IV a row of 5-8 long (about 0.45 mm.), anchor-tipped hairs, with the shaft mostly straight but contorted and kinked near the base; (5) on the dorsal surface of the prothorax; on the dorsal and lateral surfaces of the mesothorax, metathorax and abdominal somites I-IV and on all surfaces of abdominal somites V-IX, numerous, short (0.054-0.108 mm.), bifid, the branches smooth and flexible. Anterior surface of each lobe of the labrum with two sensilla. (Material studied: ten larvae from the Philippine Islands.)

Genus *Dacryon* Forel

Body straight, except for the anterior end (prothorax and mesothorax) which is directed ventrally at a right angle; thorax quite stout, abdomen only a trifle stouter; diameter greatest at abdominal somite IV. Body hairs numerous; uniformly distributed except sparser at the posterior end and denser on the prothorax; minute to moderately long; of four types, including anchor-tipped. Antennae minute. Head hairs few. Mandibles subtriangular in anterior view; apical tooth short and nearly straight; two stout, blunt medial teeth arising from the anterior surface; the medial surface may also bear 1-4 rounded denticles. Maxillary palp an irregular knob; galea a short frustum. Labial palp represented only by a cluster of 4-5 sensilla.

Dacryon rugosum (Clark)

Pl. I, figs. 14-20

Body straight except for the anterior end (prothorax and mesothorax) which is directed ventrally at a right angle; thorax quite stout, abdomen only a trifle stouter; diameter greatest at abdominal somite IV. Anus ventral. Leg and wing vestiges present. Segmentation distinct. Mesothoracic spiracle somewhat larger than the metathoracic and first abdominal (which are equal) and twice as large as the remainder. Integument of the dorsal surface and of the ventral surface of the thorax with a few transverse rows of minute spinules. Body hairs numerous, uniformly distributed, except sparser at the posterior end and denser on the prothorax, minute to moderately long. Of four types: (1) on all somites, except abdominal somites IX-X, few, exceedingly minute (about 0.006 mm.); (2) on each somite, few, moderately long (0.054-0.22 mm.), with denticulate tip; (3) across the dorsal surface of each abdominal somites I-IV, a row of 4-5, long (about 0.31 mm.), anchor-tipped hairs, with tortuous shaft; (4) on all somites, except the ninth and tenth abdominal; short (0.026-0.16 mm.), with the distal third denticulate, without alveolus and articular membrane. Cranium subnongonal, slightly longer than broad. Antennae minute, each with 3-4 sensilla, each of which bears a spinule. Head hairs few, short (0.027-0.054 mm.), simple or with a few denticles near the tip, asymmetrically arranged. Labrum feebly bilobed, breadth twice the length; anterior surface of each lobe with 6-7 sensilla; ventral border with a few spinules and, on each half, 2-3 isolated and a cluster of 2-3 sensilla; posterior surface of each lobe with four isolated and a cluster of 2-3 sensilla scattered among a few isolated spinules. Mandibles heavily sclerotized and rather stout, subtriangular in anterior view, apical tooth short and nearly straight; two stout, blunt, medial teeth arising from the anterior surface; the medial surface may also bear 1-4 rounded denticles. Maxillae with the apex small and conoidal; palp an irregular knob bearing five sensilla, two encapsulated and three with a spinule each; galea a short frustum bearing two apical sensilla. Labium somewhat narrow; palp represented by a cluster of 4-5 sensilla; an isolated sensillum

between each palp and the opening of the sericteries; the latter a short slit. (Material studied: a dozen larvae from Victoria, Australia, courtesy of W. L. Brown.)

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EXPLANATION OF PLATES

PLATE I. LARVAE OF MYRMECINI

Dilobocondyla chapmani Wheeler, figs. 1-7—1, head in anterior view, X53; 2, left mandible in anterior view, shaded to show medial blades, X95; 3-6, four types of body hairs, X185; 7, larva in side view (reconstruction), X11. *Podomyrma adelaidae* (F. Smith), figs. 8-13—8, larva in side view, X12; 9, head in anterior view, X56; 10, left mandible in anterior view, X93; 11-13, three body hairs, X190. *Dacryon rugosum* (Clark), figs. 14-20—14-17, four types of body hairs, X95; 18, head in anterior view, X76; 19, left mandible in anterior view, X118; 20, larva in side view, X20. *Pristomyrmex pungens* Mayr, fig. 21, young larva in side view, X32. *Pristomyrmex* (*Odontomyrmex*) sp. from Queensland, fig. 22, left maxilla in anterior view, X370.

PLATE II. LARVAE OF MYRMECINI

Pristomyrmex pungens Mayr, figs. 1-7—1, head in anterior view, X121; 2-5, four types of body hairs, X190; 6, left mandible in anterior view, X235; 7, larva in side view, X32. *Pristomyrmex* (*Odontomyrmex*) sp. from Queensland, figs. 8-16—8, head in anterior view, X121; 9, left mandible in anterior view, X242; 10, bifid body hair, X185; 10a, branch of same enlarged to show denticles, X340; 11 and 12, two simple short body hairs, X185; 13, anchor-tipped body hair, X185; 14, long simple body hair, X185; 14a, enlargement of flattened tip, which may occur on long simple hair, X340; 15, body hair with short bifid tip, X185; 16, larva in side view, X24. *Myrmecina americana* Emery figs. 17-21—17, head in anterior view, X121; 18, left mandible in anterior view, shaded to show blade, X170; 19 and 20, two body hairs, X93; 21, larva in side view, X20.

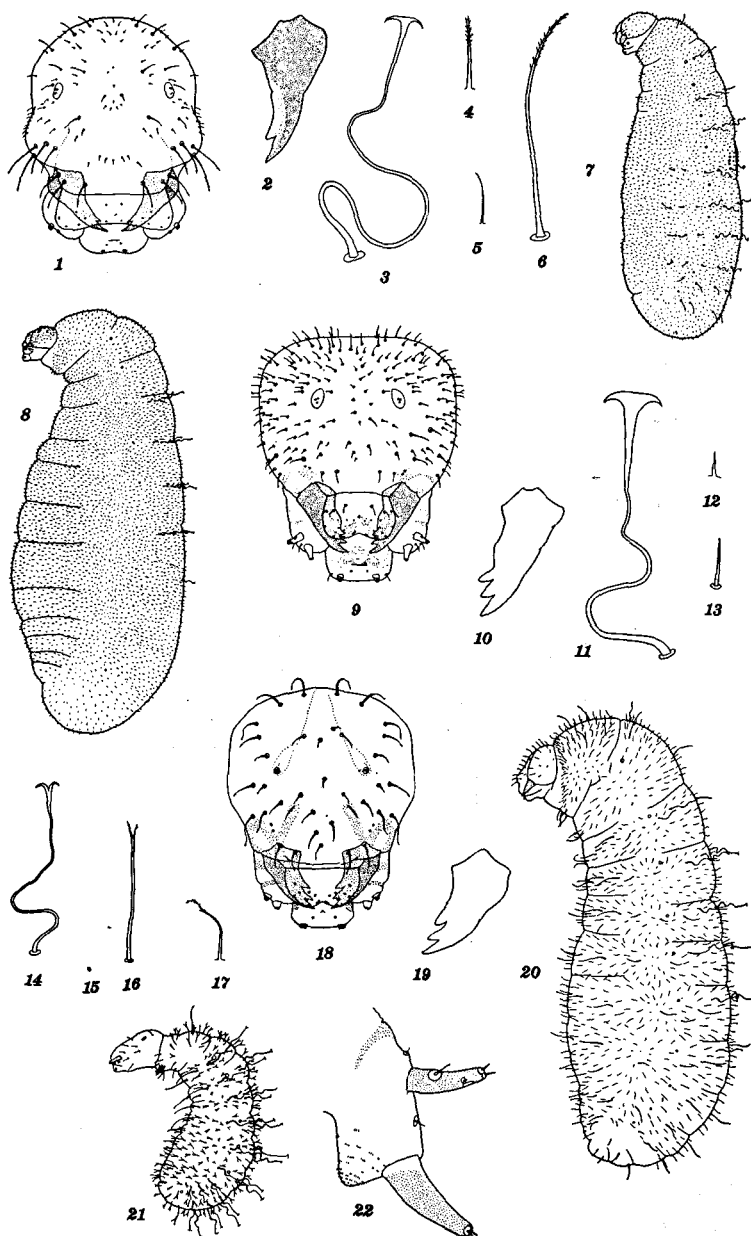


PLATE I. LARVAE OF MYRMECININI

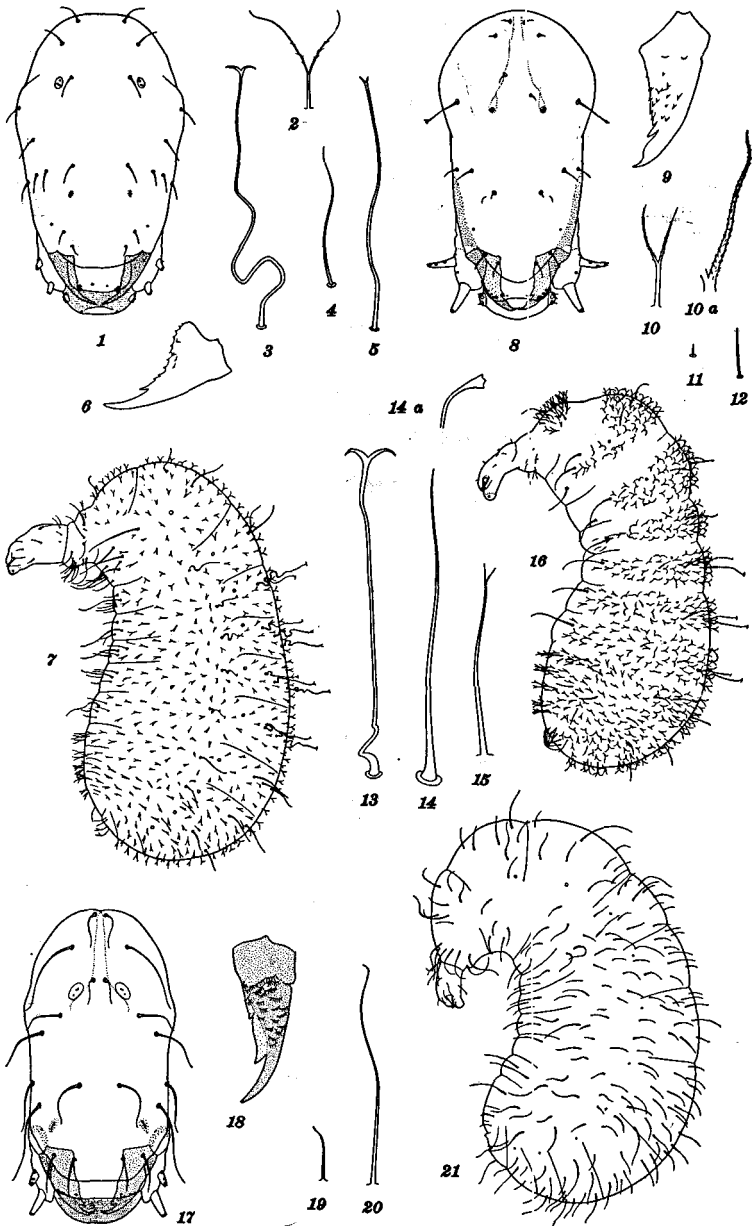


PLATE II. LARVAE OF MYRMECININI