

2659

W. L. BROWN
1946c

M. R. Smith - C1

VV

"Ants of the Genus

Psychomyrmex

Wheeler"

(Hym: Formicidae)

Rev. de Ent. Vol 17: 468-473
(1946)

Ants of the Genus *Apsychomyrmex* Wheeler (Hymenoptera: Formicidae).

By Marion R. Smith,

Bureau of Entomology and Plant Quarantine, Agricultural Research Administration, United States Department of Agriculture

The genus *Apsychomyrmex* includes some of the rarest American ants. Wheeler described the first species, *myops*, in 1910 from a worker collected in Guatemala, and designated it as the genotype. No additional species were known until 1931, when Menozzi described *silvestrii* and *tristani* from Costa Rican specimens. Although specimens of *Apsychomyrmex* are recorded only from Guatemala, Honduras, Costa Rica, and the Canal Zone, the genus may be expected to occur in both Mexico and South America. The males and females are unknown, and there is little information concerning the biology of the species.

This article furnishes all the known facts concerning these ants, including a key, descriptions, literature citations, and distributional and biological records.

Apsychomyrmex Wheeler

Apsychomyrmex Wheeler, 1910, Amer. Mus. Nat. Hist. Bul. 28: 261, *worker* (fig. 2a, worker; b, head; c, antenna).
Apsychomyrmex Emery, 1922, in Wytzman, Genera Insectorum, fasc. 174c: 268, *worker*.

Genotype, *Apsychomyrmex myops* Wheeler (monobasic).

Worker. — Small species closely allied to *Rogeria*. Antenna 12-segmented as in *Rogeria*, but differing in having a 2-segmented instead of a 3-segmented club; also differing in the shape of the clypeus which is very short and elevated in the middle as a narrow, bidentate plate, the plate being fused with the frontal carinae. Frontal carinae well-developed, rather closely approximated, between them an elongated, impressed, frontal area, which extends forward as a narrow groove to the apex of the clypeal plate. Each side of clypeus with a tooth below the clypeal plate, which is in close apposition to another tooth on the superior border of the mandible near its base.

Head, exclusive of mandibles, almost as broad as long when measured through its greatest diameter, posterior corners rounded; head compressed in such a way that the median region is usually higher than the sides. Eye unusually small, with 5-15 facets,

situated slightly anterior to the middle of the head. Mandible with 4-7 teeth. Thorax short, robust, with rounded humeri and rounded inferior pronotal angles. Promesonotum convex, without a promesonotal suture. Mesoepinotal impression apparently always present although sometimes weakly developed. Epinotum with a pair of spines of variable size and form. Legs moderately stout, each middle and hind tibia without a spur. Petiolar and postpetiolar nodes well-developed, varying in shape according to the species; ventral surface of postpetiole usually with transverse rugulae which appear in profile as toothlike projections. Gaster oval, with or without basal emargination and humeri. Body subopaque; gaster, appendages, and several minor regions of the body smooth and shining. Hairs simple, sometimes long and flexuous.

Key to Species

1. Postpetiolar node, in profile, extended posteriorly over the base of the gaster as a blunt point; gaster distinctly emarginate at base and with definite humeral angles; head, pronotum and mesonotum largely longitudinally rugulose *silvestrii* Menozzi
 — At least one character not as described above. 2
2. Head, pronotum and mesonotum coarsely reticulate-rugose; the bidentate clypeal plate subopaque. *myops* Wheeler
 — Head, pronotum and mesonotum longitudinally rugulose; the bidentate clypeal plate strongly shining. *tristani* Menozzi

Apsycho myrmex silvestrii Menozzi

Apsycho myrmex silvestrii Menozzi, 1931, Portici R. Scuola Super. di Agr. Lab. Zool. Gen. e Agr. Bol. 25: 270, worker (fig. 6, No. 2, worker in profile, exclusive of head).

Apsycho myrmex silvestrii Borgmeier, 1937, Inst. de Biol. Veg. Arq. (Rio de Janeiro) 3: 240, worker.

Worker. — Length 1.86 mm.

Posterior border of head distinctly but not strongly emarginate, sides feebly convex; head not strongly compressed as in *myops*. Eye with less than 10 facets. Antennal scape stout, curved at the base, short, its apex approximately one-third the length of the scape from the posterior border of the head; last segment of funicular club approximately three and one-half times the length of the preceding segment. Mandible with 5 teeth, the superior border apparently without a tooth near the base. Mesoepinotal impression weaker dorsally and laterally than in *myops*. Epinotal spines, from above, acute, their apices almost

twice as far apart as the length of each spine. Petiolar node, in profile, high but stout, with rounded superior border and an apparently concave posterior surface against which the postpetiolar node rests; ventral surface of postpetiole with a strong transverse ridge which in profile appears as a well-developed tooth. From above, postpetiolar node extending posteriorly over the base of the gaster as a blunt point. Gaster oval, with distinctly emarginate base and definite humeral angles.

Dorsal surface of head, pronotum and mesonotum with coarse, longitudinal rugulae. Sides of petiolar and postpetiolar nodes also with longitudinal rugulae. Mandibles, clypeal plate, legs, epinotal declivity, dorsal surface of petiolar and postpetiolar nodes, and gaster shining.

Pilosity similar to *myops* but the hairs apparently paler and sparser; color also similar.

Redescription based on the single specimen from Guatemala mentioned below. This specimen does not seem to differ from the description of *silvestrii* by Menozzi except in a few minor points. Menozzi described *silvestrii* as 1.8-2 mm. long, reddish brown, and having only 4 mandibular teeth.

The shape of the postpetiolar node and gaster and the nature of the sculpturing and pilosity distinguish this species from other *Apsychohyrmex*.

Type locality. — San José, Costa Rica, F. I. Tristan.

Cotypes presumably in the Museo Civico, Genoa, Italy.

Other localities. — Guatemala, precise locality not known, intercepted in a shipment of orchids; Hamburg Farm, San José, Costa Rica, F. Neverman (in collection of Thomaz Borgmeier).

Apsychohyrmex myops Wheeler

- Apsychohyrmex myops* Wheeler, 1910, Amer. Mus. Nat. Hist. Bul. 28: 261, *worker* (fig. 2, a, *worker*; b, head; c, antenna).
Apsychohyrmex myops Emery, 1922, in Wytzman, Genera Insectorum, fasc. 174c: 268, *worker*.
Apsychohyrmex myops Mann, 1922, U. S. Natl. Mus. Proc. 61 (art. 13): 33, *worker*.
Apsychohyrmex myops Menozzi, 1931, Portici R. Scuola Super. di Agr. Lab. Zool. Gen. e Agr. Bol., 25: 269, *worker*.

Worker. — Length 2.3 mm.

Posterior border of head and posterior corners rounded, sides convex; head compressed in such a way that the median

region is much higher than the sides. Eye with less than 10 facets. Antennal scape stout, curved at the base, short, its apex almost two-fifths the length of the scape from the posterior border of the head; last segment of funicular club at least three times the length of the preceding segment; funicular segments 2-9 clearly broader than long. Mandible with 7 teeth, the superior border with the usual tooth near the base. Mesoepinotal impression distinct both laterally and dorsally. Epinotum sloping, with a pair of short but acutely tipped spines, the points of which are directed upwards, outward and backward. Petiolar node, in profile, high, with a slightly concave anterior surface, rounded superior border, and short, convex posterior surface; ventral surface of petiole concave, with a number of transverse rugulae. Postpetiolar node, in profile, approximately as high as the petiolar node and also with rounded superior border; ventral surface of postpetiole with a transverse ridge, which in profile appears toothlike. Gaster oval, without distinct basal emargination or definite humeral angles.

Head, pronotum and mesonotum coarsely reticulate-rugose, the rugulae with a longitudinal trend on the front of the head and on the sides of the thorax; transverse rugulae between the epinotal spines and on the petiolar and postpetiolar nodes. Mandibles, legs, epinotal declivity, and gaster smooth and shining; rest of body subopaque.

Hairs yellowish; long and flexuous, suberect or erect on body, more appressed and shorter on legs.

Body black; mandibles, clypeus, funiculi, legs, and apex of gaster reddish brown; each femur and tibia, except near base and apex, darker than the other segments of the legs.

Redescription based on the genotype specimen. Specimens from Barro Colorado Island, Canal Zone, referred to *myops* by the author are smaller (1.6-1.8 mm.) than the type, are dark brown, and have the epinotal spines more nearly horizontal and the sides of the petiolar and postpetiolar nodes longitudinally rugulose. Specimens from Honduras are almost identical with the type.

Type locality. — Livingston, Guatemala, E. A. Schwarz and H. S. Barber.

Holotype worker in the United States National Museum recorded under U. S. N. M. No. 13198.

Other localities. — San Juan Pueblo, and Lombardia, Honduras, W. M. Mann; San José, Costa Rica, F. I. Tristan; Barro Colorado Island, Canal Zone, James Zetek.

Mann found the Honduran specimens occurring in small colonies beneath stones, the colonies resembling those of *Rogeria*.

Apsychoformex tristani Menozzi

Apsychoformex tristani Menozzi, 1931, Portici R. Scuola Super. di Agr. Lab. Zool. Gen. e Agr. Bol., 25: 269, *worker* (fig. 6, No. 1, worker in profile, exclusive of head).

Apsychoformex tristani Borgmeier, 1937, Inst. de Biol. Veg. Arq. (Rio de Janeiro) 3: 240, *worker*.

Worker. — Length 2 mm.

Posterior border of head weakly emarginate, sides convex; head not strongly compressed as in *myops*. Eye with less than 10 facets. Antennal scape stout, curved at the base, short, its apex one-fifth the length of the scape from the posterior border of the head; last segment of funicular club approximately four times the length of the preceding segment; each of funicular segments 2-9 broader than long. Mandible with 5 teeth, superior border with a distinct tooth near the base. The convex promesonotum separated from the epinotum by a distinct mesoepinotal impression. Epinotal spines short, subtriangular, scarcely as long as the basal width. Petiolar node, in profile, with almost vertical anterior surface, rounded superior border, and short, slightly concave, posterior surface; ventral surface of petiole with a number of small, transverse rugulae. Postpetiolar node, in profile, with a rounded superior border which is higher posterodorsally than anterodorsally; ventral surface of postpetiole with at least one prominent, transverse ridge which in profile appears toothlike. From above, postpetiolar node wider than the petiolar node, wider anteriorly than posteriorly, with the appearance of being somewhat extended posterodorsally. Gaster oval, without perceptible basal emargination and definite humeri.

Dorsal surface of head, pronotum and mesonotum with prominent, longitudinal rugulae. Epinotal declivity with several coarse, transverse rugulae. Rugulae on sides and much of the

posterior surface of each petiolar and postpetiolar node. Clypeal plate and gaster smooth and shining.

Hairs yellowish, suberect to erect on body, more abundant and also more reclinate on head, shorter and more appressed on appendages.

Body black; mandibles, clypeus, antennae, and legs reddish brown.

Redescription based on the single specimen from Guatemala mentioned below. This specimen differs from the description of *tristani* in only a few minor respects, such as the number of the teeth on the mandible, number of facets in the eye, color, and sculpture of certain regions of the body. Menozzi stated in his original description that the workers varied in length from 2-2.8 mm., and that the eye was composed of as many as 13-15 facets in the larger workers and 5-7 facets in the smaller workers.

This species can be distinguished from other members of the genus by the nature of the sculpturing, the shape of the petiolar and postpetiolar nodes, the small epinotal spines, and the smooth, shining, clypeal plate. The gaster lacks the distinct basal emargination and definite humeri of *silvestrii*.

Type locality. — La Palma, Costa Rica, F. Tristan.

Cotypes presumably in the Museo Civico, Genoa, Italy.

Other localities. — Hamburg Farm, San José, Costa Rica, F. Nevermann (in collection of Thomaz Borgmeier); Guatemala, precise locality not known, intercepted in a shipment of orchids.