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NOTES ON CUBAN ANTS OF THE GENUS *MACROMISCHA*  
(HYMENOPTERA: FORMICIDAE).

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Mr. William S. Creighton, a student of the Bussey Institution, Harvard University, has recently very kindly turned over to me for study the ants of the genus *Macromischa* which he collected in Cuba. In addition to finding a distinct new species, *M. creightoni*, from the Isle of Pines, the collector rediscovered *M. porphyrites* and *M. versicolor*, and found also *M. pastinifera* Emery, the last making an interesting addition to the list of Cuban species.

The carton-making habit apparently varies a great deal in the different species in this group. Some make none at all, while others, such as *M. sallei* and its subspecies *haytiana* of the mountains of Haiti, construct large and beautiful nests entirely of this material.

Mr. Creighton's notes on the habits of certain species are included with the descriptions.

The accompanying drawings were made by Miss Eleanor Armstrong.

***Macromischa (Macromischa) pastinifera* Emery.**

*Female*.—Length 4 mm. Resembling the worker in color and sculpture except for a black ocellar spot and broad black borders to the sides of pronotum and on the posterior portion of scutellum. Head is much shorter and broader than in the worker and the occipital border nearly straight. The antennae slightly surpass the occipital corners. The striae on the pro- and mesonotum are irregular and very distinct. Hairs erect and stiff, moderately abundant on head, thorax and abdomen; finer and semi-recumbent on appendages. The wings are hyaline.

*Male*.—Length 2 mm. Head a little longer than broad, rounded behind; eyes large and prominent; mandibles well developed, stout; scapes distinctly less than one-half as long as funiculi, with well-developed 4-jointed club; joints 1, 2 and 3 elongate very slightly increasing in size toward apex, apical joint three times as long as broad and about as long as the two preceding joints together. Mesonotum with distinct Mayrian furrows; epinotum unarmed; petiole in profile two times as long as high; the node sub-globose; postpetiole sub-campanulate and two and one-half times as broad as petiole; legs long and slender, the femora feebly incrassate.

Sub-opaque. Head and thorax densely punctate. Petiole, post-petiole and gaster very finely punctate and moderately shining. Hair whitish, rather sparse, sub-erect.

Color dark brown to black. Legs and antennal scapes yellowish white, wings hyaline.

Soledad, Cuba.

I am unable to distinguish any characters in the specimen before me that would distinguish the Cuban form from Emery's description of the typical *pastinifera*. The workers of the Cuban species agree closely with those which I took some years ago on Andros Island in the Bahamas.

**Macromischa (Macromischa) porphyritis** Roger.

*Female (deälated).*—Length 7 mm. Head slightly longer than broad, rounded at sides; occipital border nearly straight; mandibles with 5 distinct teeth; clypeus longitudinally carinate at middle; antennal scapes surpassing the occipital corners by about one-fourth their length; mesonotum rather feebly margined at posterior half of sides; scutellum twice as broad as long; petiolar spines slightly longer than the distance apart at base, feebly curved; middle of peduncular node with strong triangular projections at sides.

Moderately shining. Head rugosely striate longitudinally, finely and densely punctate; mesothorax and scutellum and base of epinotum irregularly longitudinally striate. Hairs whitish and moderately abundant throughout. Apical half of petiole with sparse longitudinal rugae.

Scutellum, petiolar node, post-petiole, gaster and legs excluding tips of trochanters black with violaceous reflections; the remainder red brown with faint violaceous reflections.

Soledad, Cuba.

Numerous workers were taken (Fig. 1); the specimens agree closely with Roger's description except that he describes the

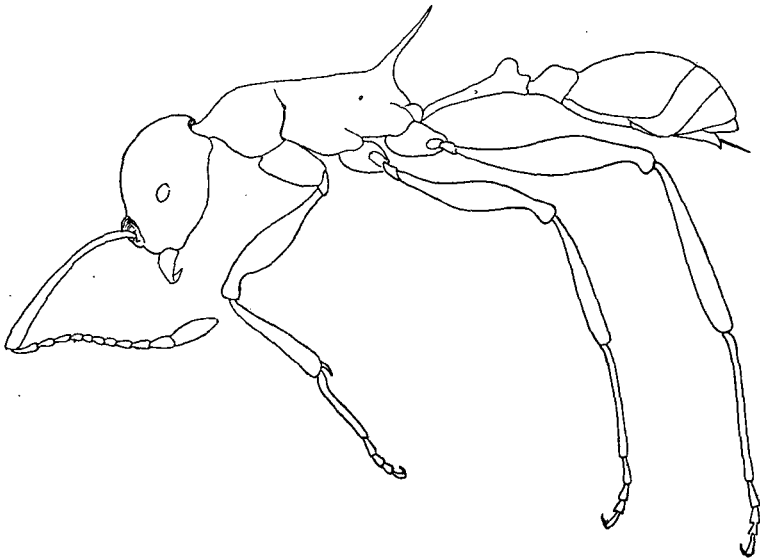


Fig. 1.

petiole and legs shining yellowish brown, whereas all of the workers taken by Creighton have the legs as well as the antennae postpetiole and gaster black with rather faint violaceous reflections. Possibly the single worker that Roger had before him was a callow. In the workers before me the femora appear finely tuberculate, a character common to several species in the genus.

*Creighton notes.*

"Altogether I found four nests. Each of these was in a crevice in the limestone and the entrance of each was surrounded by a carton of silk and bits of vegetable detritus. In three of the four the entrance of the nest was simply a circular hole near the center of the carton. In the fourth nest, however, the carton around the entrance had been built into a tube about half an inch in diameter and three-quarters of an inch long. Queens were secured from three of these nests but no males or virgin queens were seen during the time I was in Cuba (October 29th to December 13th). When walking about on the rocks *porphyritis* elevates the abdomen so that the gaster is considerably above the thorax. This gives them a curious appearance somewhat reminiscent of a person carrying a parasol."

**Macromischa (Macromischa) creightoni, n. sp.**

*Worker*.—Length 3.75 mm. (fig. 2). Head oval, about one-fourth longer than broad; sides and occipital corners broadly rounded; occipital border very

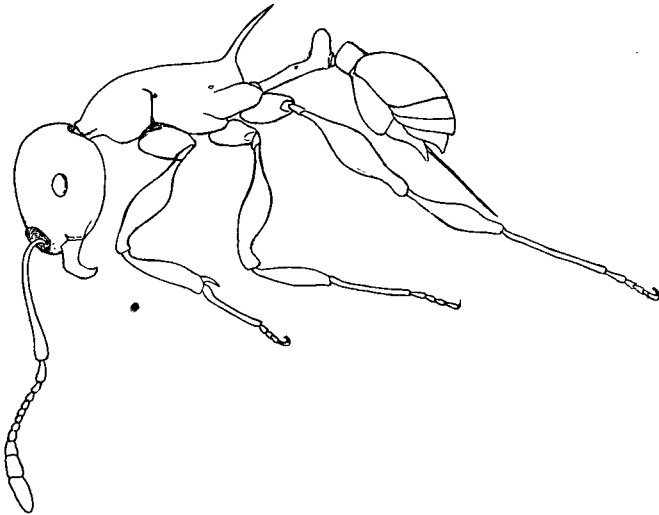


Fig. 2.

broadly rounded; mandibles stout, with five distinct teeth. Surface of clypeus broadly convex, anterior border straight, median surface with a distinct though narrow longitudinal carina on anterior half; frontal carinae short, sub-parallel. Antennae moderately stout, their scapes rather strongly curved at base, slightly surpassing the occipital corners; first funicular joint about as long as the two succeeding joints together; club well defined, its terminal joint a little shorter than the two preceding joints together. Eyes oval, situated nearly at middle of sides of head.

Thorax robust. Prothorax broadly convex above, with rounded humeral angles; anteriorly with a moderate neck. Thoracic sutures not discernible. Epinotal spines three times as long as their distance apart at base, slender, divergent, curved outward and downward. Peduncle of petiole long and slender, one and one-fourth times longer than epinotal spines; node in profile two times as high as long and less than one-third as long as the petiole; anterior surface moderately concave, posterior nearly flat; from above two and one-half times as broad as long; anterior border broadly arcuate, posterior borders straight and converging to an angle. Post-petiole in profile one and one-half times as long as the petiolar node, anterior surface nearly straight and broadly rounding into the moderately convex superior border; from above sub-campanulate, a little broader than the petiolar node and about one and one-half times as broad as long. Gaster with first segment one and one-third times longer than broad, feebly convex at sides. Legs stout, femora and tibiae strongly incrassate. Sting slender but well developed.

Body and appendages shining. Mandibles, clypeus and head coarsely and irregularly longitudinally striate, thorax with similar but transverse striae, petiole, post-petiole, gaster and legs minutely punctate and shining.

Hairs whitish, rather stiff, sub-erect, abundant on head, thorax and appendages, longest on thorax. Head and thorax violaceous; anterior portion of head and the petiolar spines greenish; base of antennal scapes, base of femora, tips of tarsi and the petiolar node brown; the remainder of legs, petiolar node, post-petiole and gaster black.

*Female (decalated).*—Length 5.5 mm. Head, exclusive of mandibles, a little longer than broad, slightly broadest behind eyes; with rounded occipital corners and nearly straight border; clypeus with median carina for entire length. Eyes situated at middle of sides of head; ocelli well developed; antennal scapes slightly surpassing occipital corners; first funicular joint as long as the second and third together; club moderately developed with a terminal joint distinctly shorter than the two preceding joints together. Thorax robust; mesothorax one and one-third times as long as broad; scutellum one and two-thirds times as broad as long; epinotal spines nearly straight, a little shorter than their distance apart at tips, rather stout basally. Peduncle of petiole twice as long as node; node in profile less than two times as high as broad; narrowly rounded above, its anterior surface sloping, the posterior flat; from above twice as broad as long, sub-angulate at sides. Post-petiole twice as broad as long, rounded above and at sides; legs as in worker.

Shining throughout. Mandibles and head irregularly and coarsely striate longitudinally; clypeus very finely punctate; pronotum transversely, mesonotum and scutellum irregularly striate longitudinally; petiole, post-petiole and

gaster minutely punctate; femora with scattered foveolate punctures, the margins of punctures slightly elevated.

Hairs fine, whitish, abundant on head, thorax, and appendages. Head and thorax violaceous with greenish reflections; basal half of petiolar peduncle, tips of coxae, trochanters, and base of femora yellowish; the remainder black with violaceous reflections strongest on the femora.

Isle of Pines, Neuva Gerona, December, 1927.

Cotype no. 42746, U. S. National Museum.

This beautiful species is the second to be recorded from the Isle of Pines. It is most closely related to *Macromischa squamifera* Roger but distinct from it in the more robust thorax, more curved spinotal spines, in color and in sculpture.

I take pleasure in dedicating this species to Mr. J. S. Creighton, who writes of it:

"The first day I took only strays. It seems to be fairly abundant on the higher portions of the hills for I could usually turn up a few under any pile of fallen leaves which happened to be near the foot of a ledge. They are strictly confined to the northern and eastern slopes of the hills and seem to prefer heavily shaded nest sites. Their movements are slow even when disturbed and they frequently spend long intervals when they appear to be 'just sittin'.'"

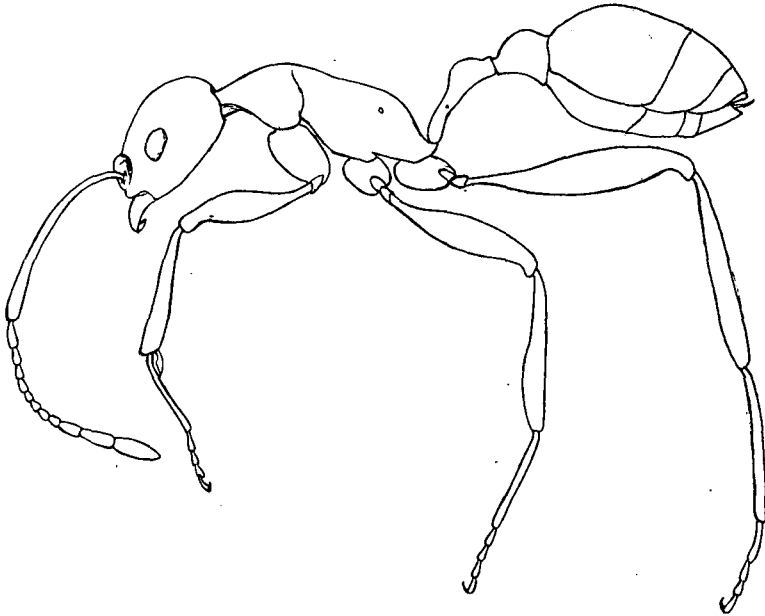


Fig. 3.

**Macromischa (Croesomyrmex) versicolor** Roger.

*Female (deälated).*—Length 6 mm. Head excluding mandibles nearly one-third longer than broad; slightly broader behind eyes; sides of cheeks nearly straight and sub-parallel; sides behind eyes and occipital corners broadly rounded; border nearly straight; mandibles with 5 distinct teeth; eyes and ocelli large; antennal scapes surpassing occipital corners by nearly one-third their length; scutellum twice as broad as long; epinotum broadly convex in profile; petiole about as long as epinotum; peduncle less than two times as long as the low rounded node, which from above is scarcely broader than the peduncle and about one-third as broad as the post-petiole; femora moderately incrassate apically.

Feebly shining. Mandibles rugosely striate longitudinally; head densely punctate and with rugose longitudinal striae, but with an area between the frontal carinae and the eye free from striae; clypeus finely and densely punctate and longitudinally striate; pronotum anteriorly densely striate, posteriorly at its sides with separated longitudinal irregular striae; meso-thorax and scutellum densely punctate and longitudinally striate, the striae sparser on the scutellum. Epinotum transversely striate; petiole, post-petiole and gaster and appendages very finely and densely punctulate. Hairs whitish, abundant on head, thorax and appendages.

Color dark reddish brown to black with very faint violaceous reflections; scutellum, epinotum and petiole, except apex of node lighter than the rest.

Isle of Pines, Nueva Gerona, December 10, 1927.

Described from a single deälated female found by Creighton.

Many workers from the same locality agree well with Roger's description. This is one of the more elongate species and very strikingly sculptured and colored with its black head, post-petiole and legs, and rich reddish-brown thorax and petiole and a black tip to the petiolar node.

*Creighton notes:*

"This ant is abundant on the ledges of the hills to the west of Neuva Gerona. It is also present, though in lesser numbers, in the hills across the river. A great many stravs were collected but only two nests were definitely located. Both were in passageways in the rock and each was enclosed at the entrance by carton. These cartons are much inferior to those constructed by *porphyritis*. They are darker in color, looser in texture and the detritus used is coarser. *Versicolor* is by far the most active *Macromischa* that I have seen. Despite their large size they are quite hard to pick up, since they run rapidly when disturbed. In the first nest taken were a few males but no virgin queens. The second nest contained no sexual forms."

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