

## A REMARKABLE NEW SPECIES OF *PARATRECHINA* (HYMENOPTERA: FORMICIDAE) FROM THE STATE OF COLIMA, MEXICO

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*Abstract.*—Ants of the genus *Paratrechina* are common in the New World. *Paratrechina laevigata* Mackay NEW SPECIES, is unusual in that it lacks coarse, dark hairs on the mesosoma and head, which characterize all other New World species of the genus. Superficially it appears to be a member of *Lasius*, with which it could be easily confused.

*Key Words.*—*Paratrechina*, *Lasius*, Mexico, Ant, Formicidae.

*Resumen.*—Hormigas del género *Paratrechina* son comunes en el Nuevo Mundo. Esta nueva especie, *Paratrechina laevigata*, es rara en que no tiene pelos gruesos y oscuros en el mesosoma ni en la cabeza, como en las otras especies del género en el Nuevo Mundo. Superficialmente, se parece a una especie de *Lasius*, y es muy fácil de confundirlas.

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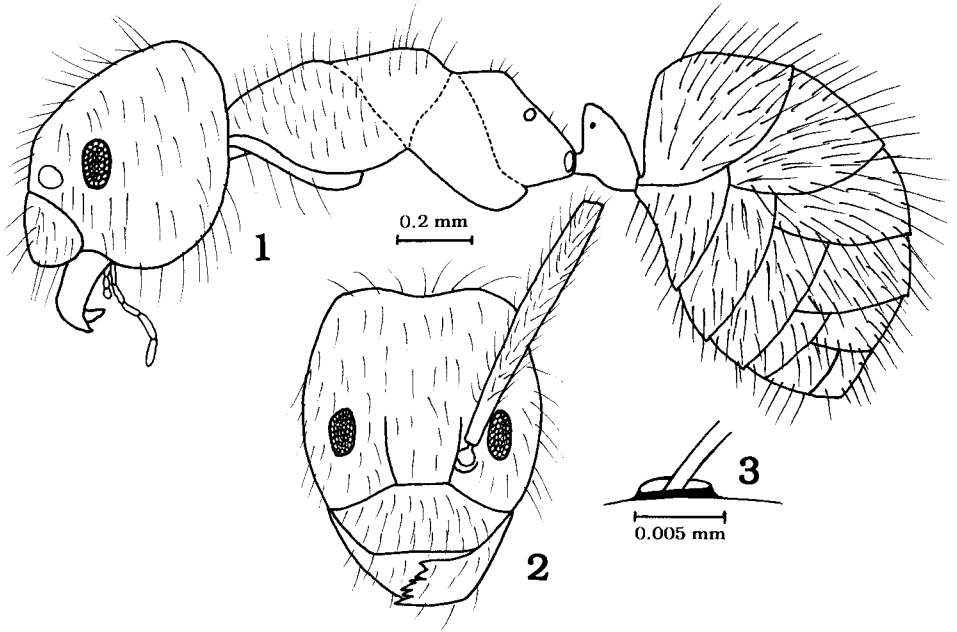
The ant genus *Paratrechina* is one of the common elements in the New World, with species occurring in habitats ranging from deserts to tropical rain forests. Determination is difficult and only species from the United States have been subjected to revision (Trager 1984). Species in this genus are easily recognized as there are paired, coarse, dark hairs located on the dorsum of the mesosoma and on the head. This new species does not have these coarse hairs.

The holotype and two paratypes of this new species were discovered in the United States National Museum misidentified as *Acanthomyops mexicanus* Wheeler. Initially I considered it to be an undescribed species of *Lasius*. Upon careful examination, it was determined to be a species of *Paratrechina* which lacks the coarse hairs of its congeners.

### *PARATRECHINA LAEVIGATA* MACKAY, NEW SPECIES (Figs. 1-3)

*Types.*—Holotype worker and two paratype workers; data: MEXICO. COLIMA (no specific locality), Mar 1923, W. M. Mann, labeled *Acanthomyops mexicanus* Whlr., det. R. R. Snelling '68; deposited: U.S. National Museum of Natural History, Washington, D.C., one paratype in Mackay collection.

*Description of worker.*—Head length 0.70-0.78 mm; head width 0.65-0.74 mm; scape length 0.74-0.83 mm; eye length 0.14-0.15 mm; Weber's length 0.83-0.91 mm. Indices: scape index (SL/HL  $\times$  100) 106; cephalic index (HW/HL  $\times$  100) 93-95. Mandibles with six teeth, subequal in size, with a somewhat larger gap between penultimate and terminal basal tooth (Fig. 2); anterior border of clypeus concave (Fig. 2), surface of clypeus strongly convex; frontal carinae very short, not extending past level of eye; vertex concave; eyes large, with over 50 facets; scape long, extending more than one-half its length past occipital border; maxillary palps with 6 segments, extending about one-half distance to foramen magnum; labial palps with 4 segments, about one-third length of maxillary palps; mesosoma similar to that of *P. arenivaga*; mesopleuron about same width and shape as propodeum, dorsal face short, less than one-half length of posterior face; petiole small and narrow (Fig. 1). Hairs fine, long, erect, covering most surfaces of body; relatively coarse hairs abundant on gaster (Fig. 1); decumbent pubescence essentially absent. Sculpture very weak, entire surface of ant, including gaster, smooth and polished, strongly reflecting light. Color light yellow-brown.



Figures 1–3. *Paratrechina laevigata* Mackay, NEW SPECIES. Figure 1. General habitus. Figure 2. Frontal view of head. Figure 3. Margins of setal socket.

*Female and Male:* Unknown.

*Diagnosis.*—This is a small pale ant, and is easily separated from all other New World species in the genus as it lacks dark, coarse hairs on the mesosoma.

*Distribution.*—Known only from type locality.

*Discussion.*—*Paratrechina laevigata* appears to be most closely related to *P. arenivaga* (Wheeler), as head shape and structure of the mesosoma and gaster of the two species are nearly identical. This new species is clearly a member of *Paratrechina*, and not a member of *Lasius*, based on numerous characters (Table 1). It would key to *Lasius* in Creighton (1950) and with difficulty to *Paratrechina* in Holldobler and Wilson (1990) and Bolton (1994). Although this species su-

Table 1. A comparison of *Paratrechina laevigata* with the genera *Lasius* and *Paratrechina*.

Character	<i>Lasius</i>	<i>Paratrechina</i>	<i>P. laevigata</i>
Distance of eye from base of mandible (diameters)	several	about 1	about 1 (Fig. 1)
Number of mandibular teeth	7+	5–6	6 (Fig. 2)
Placement of eye (section of head)	posterior	anterior	anterior (Fig. 2)
Anterior border of clypeus	convex	concave	concave (Fig. 2)
Coarse hairs on mesosoma	absent	present	absent
Long and coarse gastral hairs	absent	present	present (Fig. 1)
Margins of setal socket	poorly differentiated	raised, dark	raised, darkened (Fig. 3)
Decumbent pubescence	abundant	sparse	nearly absent

perificially resembles ants of the genus *Lasius* it is structurally quite different, and does not appear to be closely related to *Lasius* (compare characters in Table 1).

*Etymology*.—Name based on the smooth, polished integument.

*Material Examined*.—See Types.

#### ACKNOWLEDGMENT

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#### LITERATURE CITED

- Bolton, B. 1994. Identification guide to the ant genera of the world. Harvard University Press, Cambridge.
- Creighton, W. S. 1950. The ants of North America. *Bull. Mus. Comp. Zool.*, 104: 1–585.
- Holldobler, B. and E. O. Wilson. 1990. The ants. Harvard University Press, Cambridge.
- Trager, J. C. 1984. A revision of the genus *Paratrechina* of the continental United States. *Sociobiology*, 9: 51–162.

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