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FIRST RECORD OF THE ANT *RHOPALOTHRIX WEBERI* (HYMENOPTERA: FORMICIDAE: MYRMICINAE) FOR MEXICO

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The genus *Rhopalothrix* Mayr is a member of the monophyletic tribe Basicerotini (Bolton 1998). It is a rare group of ants with 10 known species, 7 of which are distributed across Central and South America and the rest in the Indo-Australian region. The biology of this genus is not well known, but it seems to exhibit the same predatory habits as other members of the tribe; the few basicerotines whose habits are known are predators of small, soft-bodied arthropods (Wilson 1956; Brown & Kempf 1960; Wilson & Brown 1985; Longino 1999).

Ants of this genus have 7-segmented antennae that, when reclined against the head in their normal position, are sustained on the antennal scrobes that run beneath the eyes. Their mandibles are slender and elongate; when completely shut, they remain separated due to a cavity that runs along most of their length and touches only at the tips. These ants are similar to *Eurhopalothrix*, but with thinner, more elongate, triangular jaws.

In this paper we report the first record of *Rhopalothrix weberi* Brown and Kempf for Mexico. Until now, the only known record of the genus in this country was for *R. stannardi* in the state of Chiapas (Brown & Kempf 1960). During a sampling project to study the ant fauna associated with patches of cloud forest in the central part of

the state of Veracruz, 1 worker of this species was collected from a litter sample processed in Winkler bags. Although we processed more than 120 samples of litter from cloud forest and coffee plantations in this zone, only 1 specimen was obtained. The collection of these ants tends to be quite scattered; as in this case, they are generally found as isolated individuals obtained from litter samples processed in Winkler traps or Berlesse funnels (Longino 1999; Brown & Kempf 1960). The *R. weberi* worker was collected near "El Olmo", situated on the road between Teocelo and Ixhuacan de Los Reyes in the municipality of the same name (latitude 19°20'15"N; longitude 97°01'42"W), at an altitude of 1300 m (Aug 12, 2008, J. Valenzuela Col.). It was sampled in a patch of cloud forest of about 8 ha located on hilltops surrounded by coffee plantations.

The ant was identified with keys and descriptions provided by Brown & Kempf (1960) as well as Weber's original description of this species, as *Heptastruma wheeleri* (Weber 1934). The specimen has the following features characteristic of the description of *R. weberi*. The dorsum of head with a pair of well-defined transverse ridges; clypeus without conspicuous subappressed, oval setae; labrum with a deep median cleft or notch that extends inward from its apex nearly to its midlength with rounded lateral lobes (Fig. 1);

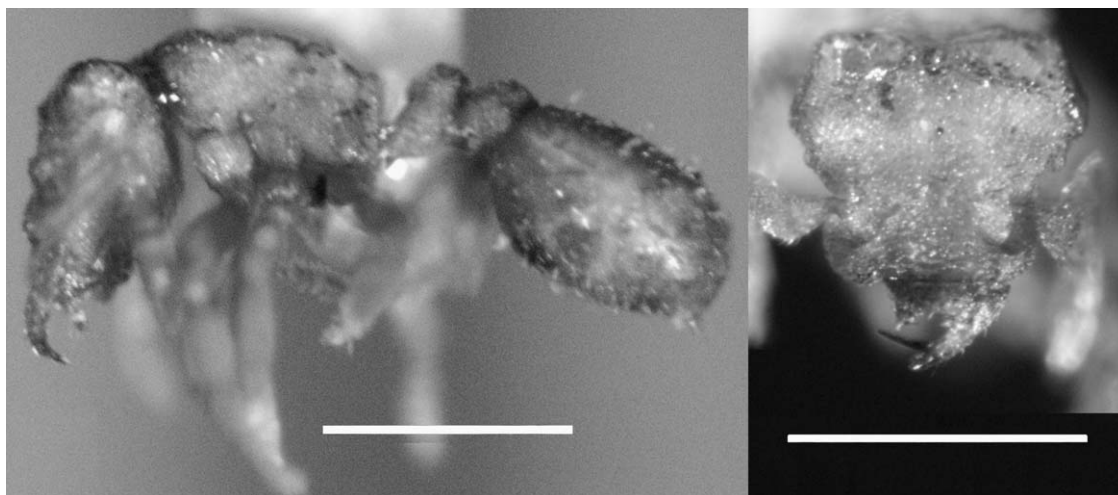


Fig. 1. Side view (left) and face view (right) of the *R. weberi* worker collected. Scale bars equal 0.5 mm.

subapical tooth of spiniform mandible not longer than the basal width of mandible; anterior clypeal margin concave in the middle; posterior half of head lacking erect or spatulate pilosity; the presence of 2 intercalate denticles between apical and subapical teeth; ferruginous red in color.

This species is similar to *R. isthmica*, known from Panama, which also has a labrum with a cleft in the middle, although it is easily distinguished from *R. weberi* because the former lacks transverse ridges on its head, has well-defined propodeal spines, and is larger in size. The only other species of this genus known from Mexico, *R. stannardi*, is easily distinguished from *R. weberi* due to its lack of a deeply notched labrum.

To date, the known distribution for *R. weberi* is Guyana, Costa Rica, and Cuba (Brown & Kempf 1960; Kempf 1972; Longino 1999; Lapolla et al. 2007). With the present record, its distribution is expanded more than 1,500 km toward the north, constituting the most northerly record of *R. weberi* on continental America.

This specimen was deposited in the entomological collection of the Instituto de Ecología in Xalapa, Veracruz, Mexico (IEXA; Reg. SEMARNAT: Ver. IN. 048.0198).

SUMMARY

We present the first record of the presence of *Rhopalothrix weberi* Brown and Kempf in Mexico. A worker was obtained from a litter sample processed

in a Winkler bag. The specimen was collected in a patch of cloud forest located in the mountainous region of central Veracruz (latitude 19°20' 5"N; longitude 97°01'42"W) at an altitude of 1300 m in the municipality of Ixhuacan de Los Reyes. This record increases the distribution of this species by over 1800 km to the north, constituting the most northerly record of this genus in continental America.

REFERENCES CITED

- BOLTON, B. 1998. Monophyly of the dacetonine tribe-group and its component tribes (Hymenoptera: Formicidae). Bull. Nat. Hist. Mus., London 67: 65-78.
- BROWN, JR., W. L., AND KEMPF, W. W. 1960. A world revision of the ant tribe Basicerotini. Studia Entomologica (N.S.) 3: 161-250.
- KEMPF, W. 1972. Catálogo abreviado das formigas da Região Neotropical. Studia Entomologica 16: 3-334.
- LAPOLLA, J., SUMAN, T., SOSA-CALVO, J., AND SCHULTZ, T. 2006. Leaf litter diversity in Guyana. Biodiversity and Conservation 16: 491-510.
- LONGINO, J. 1999. Ants of Costa Rica. <http://academic.evergreen.edu/projects/ants/genera/rhopalothrix/species/weberi/weberi.html>
- WEBER, N. A. 1934. Notes on neotropical ants, including the descriptions of new forms. Rev. Entomol. Rio de Janeiro. 4: 22-59.
- WILSON, E. O. 1956. Feeding behavior in the ant *Rhopalothrix biroi* Szabo. Psyche. 63: 21-23.
- WILSON, E. O., AND BROWN, JR., W. L. 1985 Behavior of the cryptobiotic predaceous ant *Eurhopalothrix heliscata*, n. sp. (Hymenoptera: Formicidae: Basicerotini). Insectes Soc. 31: 408-428.