

A new species of the ant genus *Pachycondyla* F. SMITH, 1858 from Ecuador (Hymenoptera: Formicidae)

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Abstract

Pachycondyla schoedli sp.n. from Ecuador is described, based on workers. The worker is most similar to *P. carbonaria* (F. SMITH, 1858), but differs in that it lacks the strong, bluish and greenish reflections, and is less sculptured than *P. carbonaria*. The anepisternum lacks the obliquely horizontal striae that are present on the worker of *P. carbonaria*. It could be confused with *P. aenescens* MAYR, 1870, but can be separated, as the mesopleuron is mostly smooth and glossy, not sculptured and dull as in *P. aenescens*. It lacks the dense, golden pubescence that covers all surfaces of *P. eleonorae* (FOREL, 1921), and has a straight anterior petiolar face, which is convex in *P. eleonorae*. This new species is dedicated to the memory of Dr. Stefan Schödl, friend and fellow myrmecologist.

Key words: *Pachycondyla schoedli*, *P. carbonaria*, *P. aenescens*, *P. eleonorae*, Neotropics, Ecuador, South America, new species.

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Introduction

The New World ants of the genus *Pachycondyla* F. SMITH, 1858 are currently in a state of taxonomic confusion (W.P. Mackay & E.E. Mackay, unpubl., see <http://www.utep.edu/leb/antgenera.htm> for a key to the species, including this new species). The genus was described by SMITH (1858), which was followed by the descriptions of a number of related genera, most of which were tentatively considered to be synonyms by BROWN (1973). The species of *Pachycondyla* in Paraguay were recently reviewed by WILD (2002), members of the *P. apicalis* (LATREILLE, 1802) species complex by WILD (2005), and the species related to *P. villosa* (FABRICIUS, 1804) by LUCAS & al. (2002).

Most species of *Pachycondyla* are found in tropical forests, nesting in rotten wood or twigs (personal observations). They are predaceous ants, and the larger species inflict a painful sting (personal observations).

We have recently begun a review of these conspicuous and ecologically important ants, and have discovered this interesting new species. This new species belongs to a group of ants related to *P. aenescens* MAYR, 1870, which are usually found in montane tropical forests. Four of the five closely related species (*P. aenescens*, *P. carbonaria* (F. SMITH, 1858), *P. fauveli* EMERY, 1896, and *P. schoedli* sp.n.) occur in the same state of Ecuador, Pichincha, although not at the same specific localities, and the fifth (*P. eleonorae* (FOREL, 1921)) occurs in the nearby state of Tungurahua, Ecuador. The close proximity of the distributions of the five species suggests that they are all reproductively isolated.

Methods and Materials

Measurements were made using a Zeiss microscope with a micrometer, at 64 \times . Measurements made include:

Eye length: Greatest diameter of compound eye, including all ommatidia.

Head length: Measured from medial point of anterior margin of clypeus to medial posterior margin of head, as seen in full face view.

Head width: Widest measurement of head (excluding eyes).

Scape length: Straight line measured from proximal base (excluding neck and condyle) to distalmost edge.

Total length: Measured from anteriormost edge of head, with head in vertical position, to tip of gaster.

All of the specimens in the type series were originally deposited in the collection of the California Academy of Sciences.

Results and Discussion

This new species is a member of the *P. aenescens* species complex, the worker of which can be characterized in having the medial margin of the clypeus concave (in most species), and in lacking the preocular carina. The antennal scape is long, extending approximately $\frac{1}{3}$ length past the posterior lateral corner of the head, and has few or no erect hairs along the shaft. The mesosoma is depressed at the metanotal suture (seen in lateral view). The propodeal spiracle is elongated and slit-shaped. The stridulatory file is well developed on the second acrotergite.

***Pachycondyla schoedli* sp.n.** (Figs. 1 - 3)

Type material: Holotype worker: Ecuador, Pichincha, Bellavista Reserve, 2150 m, 12 km S Nanegalito (00° 00' 32" S, 78° 41' 08" W and 0° 0' 54" S, 78° 40' 56" W), 30.X. 1999, leg. R. Anderson (California Academy of Sciences). Paratypes: 10 workers, same data as holotype (Naturhistorisches Museum Wien, California Academy of Sciences, Collection of William and Emma Mackay, Instituto Humboldt de Colombia, Museum of Comparative Zoology, Museo de Zoologia da Universidade de São Paulo, Pontificia Universidad Católica del Ecuador).