

A new wood-nesting *Neocorynura* (Hymenoptera: Halictidae: Augochlorini) from Costa Rica, with notes on its biology

BERRY J. BROSI^{1*}, ALLAN SMITH-PARDO² & VICTOR H. GONZALEZ²

¹Center for Conservation Biology, Dept. of Biological Sciences, Stanford University, Stanford, CA 94305 USA.
E-mail: bbrosi@stanford.edu; telephone: 650.724.6355; fax: 650.723.5920

²Entomology Program, Department of Ecology and Evolutionary Biology, Snow Hall, 1460 Jayhawk Boulevard, University of Kansas, Lawrence, Kansas 66045-7523, USA. E-mail: ahsmith@ku.edu and vhgonga@ku.edu

*Corresponding author.

Abstract

We report here on a new species of *Neocorynura* from southern Costa Rica, only the third in this large (~150 spp.), primarily ground-nesting genus known to nest in wood. We describe the male, female, pupa, and nest of *Neocorynura tica* Smith-Pardo **sp. nov.** and provide information on its nest architecture and natural enemies. *Neocorynura tica* are small (~7 mm long), dark green bees with metallic greenish-yellow highlights and can be distinguished from most other *Neocorynura* by their small size and lack of metatibial spine, and especially from the allopatric *N. rhytis* (Vachal) by the lack of sculpturing on the mesoscutum and mesoscutellum. We found the cleptoparasitic phorid fly *Megaselia* sp. and a larva of a putative mutillid wasp attacking brood provisions of *N. tica*. Adults of *N. tica* were caught only in fragments of moist tropical forest, despite intensive sampling in nearby agricultural countryside, suggesting that this species may be forest-limited. We review existing information on nesting, social behavior, and parasitism in the genus, and briefly discuss the evolution of wood nesting behavior in the genus *Neocorynura*.

Key words: *Neocorynura*, nesting biology, Halictidae, Phoridae

Introduction

Most of the known nests of the large, neotropical, widely distributed augochlorine bee genus *Neocorynura* are in the ground, although two species have previously been found nesting in rotten wood [*N. colombiana* (Eickwort) and *N. erinnys* (Schrottky)], Table 1. Wood-nesting behavior in the Augochlorini also occurs in the genera *Augochlora* and *Megalopta* (Engel 2000). Females of all these wood-dwelling species share certain