

not well established. The last taxonomic revision was by Santschi (1923). Perhaps further taxonomic work on *Brachymyrmex* has been discouraged by Creighton's (1950) remark about the "miserable little genus" prone to taxonomic difficulties, with seemingly impossible morphological complexes of species. Emery (1925) placed *Brachymyrmex* in the tribe Brachymyrmecini and there have since been several changes in the tribal classification. Hölldobler and Wilson (1990) considered *Brachymyrmex* part of an expanded Myrmelachistini that included *Aphomyrmex* Emery, *Brachymyrmex*, *Cladomyrma* Wheeler, W.M., *Myrmelachista* Roger, *Petalomyrmex* Snelling, and *Pseudaphomyrmex* Wheeler, W.M. Bolton (1995) considered a Brachymyrmecini that excluded *Myrmelachista*, returning *Myrmelachista* to its own tribe. More recently, however, Bolton (2003) synonymized both the Brachymyrmecini and the Myrmelachistini into a vastly expanded Plagiolenini. The Plagiolenini coupled with the Lasiini and Myrmoteratini form the lasiine tribe group (Bolton 2003).

Here we describe a new *Brachymyrmex* from Costa Rica. In the course of discovering this new species, its exact generic assignment came into question, for this peculiar species has morphological characteristics of both *Brachymyrmex* and *Myrmelachista*. The size and shape of the mesosoma is very similar to *Myrmelachista zeledoni* Emery, a common species found sympatrically with the new *Brachymyrmex*, and the visual similarity in the field to *Crematogaster* Lund is shared with several montane *Myrmelachista* species. Nonetheless, the antennae are 9-segmented and there is no antennal club, characters that suggested placement within *Brachymyrmex*. We therefore examine the generic definitions of both *Brachymyrmex* and *Myrmelachista* and provide notes on their phylogenetic relationship to each other and to other genera within the lasiine tribe group.

MATERIALS AND METHODS

Specimens were examined from a number of research collections and below follows the list of the institutions and individuals' collections that contributed to this study.

- BMNH: The Natural History Museum, London, United Kingdom.
- INBC: Instituto Nacional de Biodiversidad, Santo Domingo de Heredia, Costa Rica.
- JTLC: J.T. Longino Collection, Evergreen State College, Olympia, WA, USA.
- LACM: Natural History Museum of Los Angeles County, Los Angeles, CA, USA.
- MCZC: Museum of Comparative Zoology, Harvard University, Cambridge, MA, USA.
- NHMB: Naturhistorisches Museum Basel, Basel, Switzerland.
- USNM: National Museum of Natural History, Smithsonian Institution, Washington DC, USA.

Examination and measurement of specimens were completed at various magnifications using a light microscope (Leica Wild M10) and were recorded to the nearest 0.001 mm. All measurements are given in millimeters. Specimens were photographed using a JVC KY-F70B video camera mounted on a Leica M420 microscope and attached to an IBM Intellistation M Pro computer, on which composite images were assembled using Auto-Montage Version 3.04 software (Synoptics Ltd. 2003). Morphological terminology employed throughout follows Bolton (1994), with modifications where noted. Anatomical abbreviations are elaborated here:

- HW Total Length: HL+ML+GL.
- HL Head length: the length of the head proper, excluding the mandibles; measured in full-face view from the midpoint of the anterior clypeal margin to a line drawn across the posterior mar-