

Most species nest in the soil, in rotten logs and stumps, or in hollow dead twigs. This genus also nests under bark, under moss, and within epiphytic pseudobulbs (Snelling and Longino 1992). Colonies are small, probably not exceeding 500 workers (Snelling and Longino 1992). All *Cyphomyrmex* species cultivate basidiomycete fungi in the tribe Leucocoprineae. In the *C. rimosus* group, these fungi grow in a yeast form (small masses of unicellular fungal cells) rather than in the multicellular mycelial form typical for all other attine ant gardens (Schultz et al. 2002; Schultz and Brady 2008).

Workers of the *strigatus* complex can be recognized by the closed antennal scrobe (sometimes with poorly defined margins), mandibles with six or more teeth, and with a single medial pronotal tubercle (apparently a fusion of two tubercles). The species of the *strigatus* complex were previously considered to be primarily southern South American in distribution, although *C. faunulus* occurs as far north as Venezuela (Mayhé Nunes and Jaffé 1998). An unidentified species is found in Colombia (Fernández and Palacio 1995) and an apparently new species was found in Ecuador (Tiputini) by Kari Ryder Wilkie (<http://people.bu.edu/karitr/genus/cyphomyrmex.html>).

In comparison, the workers of the *rimosus* complex have an open antennal scrobe (anteriorly), with the preocular carina curved mesially in front of the eye, and not directed to the posterior corner of the head, the mandibles have five teeth, and the pronotum lacks medial tubercles, or has a pair of tubercles. The species of the *rimosus* complex are widely distributed from the United States to South America.

Two new species of the *strigatus* species complex were found in Costa Rica and Panamá. These new species will be included in a key to the species of *Cyphomyrmex* that can be found at <http://www.utep.edu/leb/antgenera.htm>.

## METHODS AND MATERIALS

The specimens were examined with a Zeiss stereoscope, at 64X, and were measured with an ocular micrometer. The abbreviations are as follows:

HL	Head length, measured in full frontal view, from anterior margin of medial lobe of clypeus to medial posterior margin of frons
HW	Head width, measured in full frontal view, maximum width excluding eyes (Measured near posterior point of head)
SL	Scape length, excluding condyle
EL	Eye length, maximum diameter of eye
EW	Eye width, maximum width of eye, perpendicular to EL
WL	Weber's length, a diagonal line from the top of the anterior edge of the pronotum to the posterior edge of the posteropropodeal lobes.
CI	Cephalic index, $HW/HL \times 100$
SI	Scape index, $SL/HL \times 100$
OI	Ocular index, $EW/EL \times 100$
MCZC	Museum of Comparative Zoology, Harvard University
CWEM	Collection of William and Emma Mackay, University of Texas at El Paso

Terms followed by an asterisk are defined at the end of this paper and explained in the glossary of Serna and Mackay (2010).

## RESULTS

### *Cyphomyrmex andersoni* new species (Figs 1–6)

**Diagnosis.**—The worker is a small (total length about 2.5 mm,  $n=2$ ) reddish-brown ant. The mandibles have six teeth, the frontal carinae do not reach the dorsad occular suture, the frontovertexal\* corners