

and *Acromyrmex subterraneus brunneus* in Minas Gerais, Brasil. Like *A. insinuator*, it produces workers and appears to be closely related to its hosts.

## Material and methods

In October 6, 2003, we excavated two colonies of the leaf-cutting ant *Acromyrmex subterraneus brunneus* Forel in Paraopeba, Minas Gerais State (MG), Brazil (19° 17'S; 44° 29'W). In one of these nests, we found one smaller queen together with the host queen. The other nest contained several male and queen alates later identified as parasite species, and these coexisted with the host queen. Both nests had an abundant number of workers. In another field expedition, in the same area, on April 20, 2004, we collected four additional nests of *A. subterraneus brunneus* and eight of *A. subterraneus subterraneus*, all of them parasitized by the same social parasite. Approximately 70% of the nests were parasitized in the study area, a eucalyptus stand. The separation of males and queens of the parasite and host was easy, since the former were much smaller than the latter. Specimens of the studied material were deposited at the Myrmecology Laboratory in CEPLAC, Bahia State; at the Zoology Museum of University of São Paulo (MZUSP) and at the Regional Museum of Entomology in Viçosa, MG, Brazil.

### Specimens examined

The *Acromyrmex* genus is in need of a complete revision. Particularly, there are several names associated with *subterraneus*, the host species. Since the parasitism seems widespread in this genus it is possible that one of the early papers on taxonomy has already named this particular species. Thus, specimens of the five current host subspecies associated with *subterraneus*, according to Gonçalves (1961), were consulted. *Acromyrmex subterraneus subterraneus* (Forel, 1893), *A. subterraneus brunneus* (Forel, 1912), both collected in Paraopeba, MG, Brazil; *A. subterraneus molestans* (Santschi, 1925) from Viçosa, MG, Brazil; and *A. subterraneus peruvianus* (Borgmeier, 1940), types from Cartavio, Peru, deposited in the collection of MZUSP, São Paulo, Brazil. The comparison with *A. subterraneus ogloblini* (Santschi, 1933) was based only on the original description. All original descriptions and revisions of the involved species also were consulted for comparisons (Forel, 1901, 1912; Santschi, 1925, 1933, 1937; Borgmeier, 1940; Gonçalves, 1961; Schultz *et al.*, 1998). We employed the same procedure to distinguish the new species from *A. insinuator*, the attini parasite from *A. echinator*.

## Measurements

The following measurements were taken under a stereoscopic microscope (Leica DC300):

HL – Head length: maximum length of the cephalic capsule measured from the anterior margin of the clypeus to the midpoint of a line drawn across the posterior cephalic margin;

HW – Head width: maximum width of the head, excluding the eyes;

ML – Mandible length: straight-line length of a mandible (always the right), measured from the base at the insertion into the head capsule, to the apex;

SL – Scape length: length of the first antennal segment, excluding the neck and the basal condyle;

ED – Maximal diameter of the compound eye;

WL – Weber's length of the mesosoma (alitrunk): diagonal length, measured in lateral view, from the anterior margin of the pronotum (excluding the collar) to the posterior extremity of the metapleural lobe.

### Identification of the parasite workers

It was not easy to distinguish between parasite and host minor workers, although the parasite workers have more abundant and dense pilosity on the gaster than do host minor workers. We distinguished host and parasite workers the same way Sumner *et al.* (2003) separated *A. echinator* and *A. insinuator* workers based on the bulla of the metapleural gland in the parasite workers being smaller and further from the spiracle than in host workers. Thus, 300 minor workers ( $\leq 5$  mm) were randomly selected from three host colonies of *A. subterraneus subterraneus* for morphometric analysis. The measurements were taken using a Euromex binocular microscope computer, a Nikon Coolpix 4500 camera and the computer package Image Pro-Express to measure: (i) the shortest distance from the bulla edge to the nearest spiracle; and (ii) the width of pronotum.

## Results

*Acromyrmex ameliae* sp.n. (Figs. 1, 3, 5, 7, 9–14)

**Types** Holotype queen labeled 'Brazil: Paraopeba MG/06 Oct 2003/ D. J. Souza' (MZUSP). Measurements (in mm): HL = 1.5; HW = 1.4; ML = 0.7; WL = 2.6; SL = 1.5; ED = 0.4.

**Derivation of specific name** This species is named after Amélia Maria de Souza, mother of the first author of this work.