

**Description** The measurements obtained from 20 queens are presented in Table 1. This new species has a palpal formula of 4, 2 and 11 antennal segments as is typical for attine ants. *Acromyrmex ameliae* queens have large and convex eyes and the inferior pronotal spines are straight and forward-positioned as in the host species. The color of the analyzed parasite queens vary from brownish to brownish-black and this is not associated with the subspecies of host ants since one can find queens of the parasite of either color in a single nest. Worker color is the only character that is presently used to separate the two host subspecies: *A. subterraneus subterraneus* and *A. subterraneus brunneus*. The latter has a brownish-black color whereas the former is light brown to yellow (Gonçalves, 1961). The queens of *A. ameliae* are much smaller than those of its hosts, with a WL ~ 0.6 as great (Table 1). *Acromyrmex ameliae* further has a more abundant pilosity with thicker and longer hairs on the gaster, on the dorsal portion of the alitrunk and on the anterior portion of the head, in comparison to that on the host subspecies. The parasite queen also has prominent ridges on the head (Figs. 1 and 2) and on the first segment of the gaster and expansions on the anteroventral margin of the post-petiole that are not seen on the host subspecies (Figs. 5 and 6). The tubercles on the gaster of *A. ameliae* are more or less ordinated in four longitudinal lines similar to the host species. However, these tubercles are very much reduced

**Table 1** Head length (HL), head width (HW) and Weber's length (WL) for the social parasite *A. ameliae* and its hosts *A. subterraneus subterraneus* and *A. subterraneus brunneus*. All measurements are in mm.

	HL	HW	WL
<b>Queens</b>			
<i>A. subterraneus subterraneus</i> ( <i>n</i> = 9, 6 nests)	2.1 ± 0.1	2.2 ± 0.2	4.0 ± 0.1
<i>A. subterraneus brunneus</i> ( <i>n</i> = 8, 8 nests)	2.0 ± 0.1	2.1 ± 0.1	4.0 ± 0.1
<i>A. ameliae</i> ( <i>n</i> = 20, 4 nests)	1.3 ± 0.1	1.3 ± 0.1	2.4 ± 0.1
<b>Males</b>			
<i>A. subterraneus subterraneus</i> ( <i>n</i> = 8, 7 nests)	1.3 ± 0.1	1.6 ± 0.1	3.1 ± 0.2
<i>A. ameliae</i> ( <i>n</i> = 15, 4 nests)	1.0 ± 0.1	1.2 ± 0.1	2.3 ± 0.7
<b>Workers</b>			
<i>A. subterraneus subterraneus</i> (only minor workers) ( <i>n</i> = 16, 3 nests)	0.9 ± 0.1	1.1 ± 0.1	1.5 ± 0.1
<i>A. ameliae</i> ( <i>n</i> = 30, 3 nests)	0.9 ± 0.3	1.1 ± 0.3	1.5 ± 0.1

and less prominent when compared to those of the hosts.

Paratype male labeled 'Brazil: Paraopeba MG/ 06 Oct 2003/ D. J. Souza' (MZUSP). Measurements (in mm): HL = 1.0; HW = 0.9; ML = 0.6; WL = 2.2; SL = 1.3; ED = 0.4.

**Description** The measurements of 15 males are presented in Table 1. The males of *A. ameliae* have 13 antennal segments. This characteristic was not constant since five individuals seemed to have 12 segments as a consequence of the fusion of segments 4 and 5 of the antennal funiculus like in the host males (compare Figs. 3 and 4). This fact was also observed by Schultz *et al.* (1998) in *A. insinuator*. Males of *A. ameliae* are visually smaller than the males of the studied host species (about 1.2 times). The antenna has a color gradient which ranges from dark brown to dark yellow when going from tip to base. The color of the males as well as of the queens is close to that of the host subspecies *A. subterraneus subterraneus*, that is, very dark brown independent of the parasitized subspecies. However, as pointed out by Gonçalves (1961), the character color shows variation even inside the same nest. Newly emerged males and queens of *A. ameliae* of a lighter color were observed by the authors in the nests, but they became dark brown after a few days had elapsed. Their mandibles have a terminal tooth greater than the other teeth, which vary from 5 to 7 (Fig. 3). The ventral portion of the post-petiole of the parasite has irregular projections that are not seen in the host whose petiole margin is more regular and presents a concavity not observed on the parasite (Figs. 7 and 8). Ridges and tubercles can be observed on the gaster of *A. ameliae* males, but these are missing in the host species whose gaster is smooth and shiny.

Paratype worker labeled 'Brazil: Paraopeba MG/ 06 Oct 2003/ D. J. Souza' (MZUSP). Measurements (in mm): HL = 0.6; HW = 0.7; ML = 0.3; WL = 0.9; SL = 0.8; ED = 0.1.

**Description** We verified that the distance from spiracle to bulla relative to pronotum width differed significantly among the minor workers of host and parasite ( $F_{1,298} = 551.36$ ,  $P < 0.01$ ). Two groups are clearly shown in Figure 15: one had a small number ( $n = 25$ ) of parasite workers and another formed by a large number of host minor workers ( $n = 275$ ). The fact that the workers sorted into two groups, as well as morphological differences between the groups, is highly suggestive. We found some *A. ameliae* workers are larger than host minors but this is because larger host minors were not sampled. Preliminary genetic analysis by RAPD (Random amplified polymorphic DNA) markers clearly shows differences between the two groups, confirming these results. As in *A. insinuator*, the workers of *A. ameliae* have a significantly smaller distance from their spiracle to bulla than their host minor workers of same pronotum width (Figs. 16 and 17). These results are almost identical to those obtained by Sumner *et al.* (2003) for *A. insinuator*.

**Comments on biology** There are previous reports on