

recognize these taxa. It should be pointed out that intranidal variation is much more pronounced than internidal variation. Minor workers of *balzani* have a marked reduction of thoracic spination and cephalic and gastral tuberculation. As such, it is impossible to distinguish minor workers of *balzani* from those of *landolti*. Due to this variation in tuberculation, *multituber* must also be synonymized with *pampanus*.

Discussion: It is intriguing how the taxa *balzani* and *landolti* were synonymized, in spite of the (erroneously) recorded sympatry. It is unlikely that the *landolti* group of species (*landolti*, *balzani*, and *fracticornis*) are just these. Rather, this group probably consists of an array of sibling species, especially if the Pleistocene refugia model can be substantiated (see section of Biogeography). Based upon the variation that I have encountered, it would seem that *balzani* is restricted to the south of the Amazon basin, with the western populations probably constituting a distinct, valid species. However, due to the lack of a large series of material from Bolivia and Peru, I have chosen to follow convention and assign these populations to the subgenus *pampanus*.

Distribution: Figs. 2 and 6.

A. (M.) balzani, due to worker morphology, nest structure and general behavioral patterns is a member of the *landolti* species group.

Acromyrmex (Moellerius) fracticornis (Forel)
(NEW STATUS)

Atta (Moellerius) fracticornis, FOREL¹⁹: 257, ♀; EMERY¹³ (syn.).

Acromyrmex (Moellerius) fracticornis, EMERY¹³; SANTOSCHI⁴⁸; GONÇALVES²⁹ (syn.)

Acromyrmex (Moellerius) fracticornis var. *joergenseni* FOREL²²: 236 ♀; GONÇALVES²⁹ (syn.)

Acromyrmex (Moellerius) landolti fracticornis, GONÇALVES²⁹; FOWLER^{23, 24, 25} (syn.)

TYPE LOCALITY: San Bernadino, Cordillera, Paraguay.

MAJOR WORKERS: (Fig. 2)

Diagnosis: Eyes not salient. Integument devoid of microscopic reticulation. Medial pronotal spines vestigial or absent. Propodeal spines length greater than basal width, and directed posteriorly. Mesonotal spines well developed and erect. In *A. (M.) landolti*, these spines, when present, are directed posteriorly or are poorly developed. Antennal scape with a marked curvature and lobe basally, while other species of the *landolti* species group have scapes of the normal type.

Description: FOREL¹⁹.

Variation: Internidal variation between workers in any local population is generally low. However, on the northern and southern ridges of its range, *A. (M.) fracticornis* does not show a marked curvature and lobe of the scape, but rather a slight curvature, and an almost indistinct lobe. Due to these gradations, GONÇALVES²⁹ considered *fracticornis* to be a subspecies of *landolti*. However, I feel that this character is more characteristic. Earlier I²³ described distinct variations in worker morphology, nest types, nest densities, and habitat, which serve to distinguish *balzani* from *fracticornis*.

Intranidal variation is pronounced due to allomorphic scaling patterns related with worker polymorphism. In the smaller workers, all spines are reduced, but the scape retains its characteristic form. Males are characteristic (Fig. 3).

The male genitalia is distinct from that of *landolti* and *striatus* (Fig. 5). The basic difference lies in the strongly lobed gonostyle (Fig. 5), which is much reduced in the other taxa.