



Fig. 1. World distribution of *Acropyga* subgenera (from Emery, 1925; Menozzi, 1936; Weber, 1944; Prins, 1982; Terayama, 1985; Williams, 1998).

*affer* (Formicinae), passively transfer the trophobiont to a new host plant via phoresis (Gaume et al., 2000). Young gynes of the Southeast Asian ant *Tetraponera* sp. near *attenuata* F. Smith (Pseudomyrmecinae) and of *Acropyga* (Formicinae), on the other hand, carry a trophobiont in their mandibles while swarming and bring it to the new nest site, a behavior that appears cognate to the transfer of symbiotic fungus by young gynes establishing colonies in the fungus-growing Attini of the New World (Weber, 1972). The gynes of *Tetraponera* sp. near *attenuata* F. Smith, which lives within the large hollow internodes of certain giant bamboo species (Klein et al., 1994), transport their trophobionts to empty bamboo internodes that had been excavated previously by stem-feeding pyralid caterpillars. *Tetraponera* gynes have been observed holding a mealybug for as long as 32 hours (Klein et al., 1992)!

Although rare in the species-rich, arboricolous pseudomyrmecine genus *Tetraponera*, the carrying of mealybugs by swarming gynes is widespread among the ground-dwelling, formicine genus *Acropyga* Roger. Colonies of *Acropyga* species that tend pseudococcids in South and Central America are found in mature tropical forests (Weber, 1944); in cacao, coffee, and banana plantations (Bünzli, 1935; Weber, 1944); and in grassy pastures (Weber, 1944; Eberhard, 1978). The colonies tend to be large and often surround the roots of many of these cul-

tivated plants as well as some of the native plants on which the pseudococcids feed (Bünzli, 1935). There are two kinds of galleries, or chambers, in *Acropyga* ant nests (Bünzli, 1935; Weber, 1944; Delabie et al., 1991). The "blind" alley, where the mealybugs feed and are tended or "milked" by the ants, is a chamber that extends along the roots of the plants; the other chamber is used for rearing both ant and mealybug broods. The mealybugs rely on the workers to carry them through the galleries, and the ants appear to regulate honeydew production by adding or removing the mealybugs from the roots (Flanders, 1957). This network of underground tunnels may also be used to transport the mealybugs from nest site to nest site. *Acropyga* workers rarely, if ever, emerge from underground and, not surprisingly, have minute eyes and little cuticular sclerotization and coloration.

Currently, four subgenera of *Acropyga* are recognized (*Acropyga* sensu stricto, *Atopodon* Forel, *Malacomyrma* Emery, and *Rhizomyrma* Forel [Emery, 1925]) and each has a relatively well-defined geographic distribution (see fig. 1 for world distribution). *Acropyga* (*Rhizomyrma*) *paramaribensis* Borgmeier and *A. (R.) rutgersi* Bünzli are obligatory coccidophiles that tend Pseudococcidae from a total of four genera. *Acropyga paramaribensis* tends five species of pseudococcids, one of which has also been found in nests of *A. rutgersi*, in the genera *Rhizoe-*