

NOTE ON A CLUBIONID SPIDER ASSOCIATED WITH ATTINE ANTS

E. Simon reported an unidentified spider associated with the characteristic turrets, or nest entrances, of *Acromyrmex landolti* Forel (Hymenoptera: Formicidae), an abundant grass-cutting ant of the savannas of Venezuela (Emery 1890, Ann. Soc. Ent. France, 10:55-76). Since this initial record, no additional reports have appeared to establish the identity of this spider, or its relationship with the ants. Mann (1916, Bull. Mus. Comp. Zool., 60:399-490), however, did conduct a search for this spider at Natal and Baixa Verde, Brazil, but did not find inquilines of any type.

During 1975 and 1976, *Corinna vertebrata* Mello-Leitão (Clubionidae) was found commonly associated with the nest turrets of *Acromyrmex landolti fracticornis* (Forel) near Asuncion, Paraguay. Both sexes were found throughout the year, but the spider was more abundant during the spring, when females were more numerous. These spiders took refuge in the nest tumuli of the ants, often entering abandoned turret entrances. It was not established, however, if the ants abandoned the turrets due to the presence of the spiders.

Spiders walked with a slow gait while raising their legs high and deliberately above the substrate, much like the gait of *A. landolti* workers. As both the ants and spiders were active outside the nest at night, and as the spider resembled the worker ant, both in size and form, it was often difficult to distinguish one from the other at a distance. In winter (July), individual spiders were observed in the foraging columns of ants. On 11 occasions, spiders were seen to move away from the foraging column and to pounce on solitary foraging ants. The ant was then dragged a short distance from the foraging column and consumed.

Corinna vertebrata is an apparent myrmecomorph, living in the nests of *A. landolti*, is a myrmecophage, and also a myrmecomorph. Its body plan closely resembles that of an ant, due to the constricted and extended opisthosoma, as well as a resemblance between the cephalothorax and the thorax and head of the ant. The similarity of the gait of *C. vertebrata* and *A. landolti* suggests that the relationship may be one of mimesis (Rettenmeyer, 1963, Ann. Rev. Entomol., 10:43-74). When touched by an ant in the foraging column, the spider momentarily accelerates, and then resumes normal gait. No evidence of alarm on the part of the ants was observed during chance encounters.

In December, 1982, I had the opportunity to visit the site where the initial observations were made. *A. l. fracticornis* had been replaced by *A. l. balzani* (Emery). Of the 39 colonies examined, only one colony was found to have an associated female of *C. vertebrata*.

Simon's observations (Emery 1890) were undoubtedly correct. It is not certain, however, if *C. vertebrata* or another spider was that observed by Simon. However, one *C. vertebrata* was found along the raiding trails of the army ant *Labidus praedator* (Smith) in Paraguay, but was not observed to capture any ants. Also, *Corinna bicalcarata* (Simon) has been found to be associated with ants (Gertsch, personal conservation), and this same species has been dug out of *Pogonomyrmex* nests in the sand dunes of Winterhaven, Imperial Co., California (Roth, personal communication) and collected on the mounds of *Pogonomyrmex* in Las Cruces, New Mexico, by myself. Further collections and studies of myrmecophilous spiders associated with *A. landolti* are necessary to untangle this relationship, and additional studies are needed to examine the relationship between species of the genus *Corinna* with ants in general.

I thank J. Reiskind for the identification of *C. vertebrata*, and for his interest. I also thank V. Roth and W. Peck for their comments on the manuscript.

Harold G. Fowler, Department of Entomology and Nematology, University of Florida, Gainesville, Florida 32611.

Manuscript received February 1983, revised April 1983.