Because all workers were collected in pristine forest, or at least forest with little disturbance, and all are new species, we can assumed they are native to the Neotropics. The discovery of the presence in America of a genus previously known only from the Old World can be explained by their minute size (*Paedalgus* is one of the ant genera with the smallest species in the World) and the collection system (Winkler bags), implemented relatively recently for soil ants. The Brazilian and Peruvian ants were misidentified as *Carebara* Westwood.

Paedalgus and *Carebara* share several traits: minute size, reduction in antennal segments, antennal club of two segments, formula palpal 2,2, eyes reduced to a few ommatidia or absent and propodeum unarmed (Bolton and Belshaw 1993). The female and males are quite larger; the major worker caste probably was dropped in the evolution of both genera (Wilson 1971). The two genera are differentiated by weak characters (e.g. eyes absent in *Carebara*, reduced in *Paedalgus*; reduced propodeum in *Paedalgus*), so both taxa could be congeneric (Bolton and Belshaw 1993). The closeness between both genera can explain why all samples from Brazil and Peru were labeled as "*Carebara*".

What are the possible biogeographical implications?. If *Paedalgus* is known only from South America, continental Africa and Sri Lanka, we may hypotethize that the ancestor of the genus lived in Gondwana before the split of Africa and South America. If the distribution of *Paedalgus* is a product of vicariance, these ants (and Myrmicinae as well) could be a very ancient group, living in the Southern Hemisphere during early Cretaceous, at or before the time of the oldest known ants (Grimaldi and Agosti 2000).

The biogeographic implications of the presence of *Paedalgus* in America are currently analysed by the author in a study of the systematics and phylogeny of the pheidologetonine genera.

Acknowledgements

Thanks to F. Gast (Instituto Humboldt), the people of the National Parks Office of the Ministerio del Medio Ambiente de Colombia, the Kofan community (Putumayo), Carlos Brandão (MZSP) and Roy Snelling (LACM). Two anonymous referees made useful corrections.

References

AGOSTI D, MAJER JD, ALONSO LE & SCHULZ TR (EDS). 2000. Ants: Standard methods for measuring and monitoring biodiversity. Washington (DC): Smithsonian Institution. 280 p.

BOLTON B. 1995. A New General Catalogue of the Ants of the World. Harvard University. 504 p.

BOLTON B, BELSHAW R. 1993. Taxonomy and biology of the supposedly lestobiotic ant genus *Paedalgus*. Syst Entomol 18:181-189.

GRIMALDI D, AGOSTI D. 2000. A formicine in New Jersey Cretaceous amber (Hymenoptera: Formicidae) and early evolution of the ants. Proc Natl Acad Sci (USA) 97(25):13678-13683.

WILSON EO. 1971. The Insect Societies. Harvard University. 548 pp.