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Four new generic and 14 new specific synonymies in Pholcidae, and transfer of *Pholcoides* Roewer to Filistatidae (Araneae)

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The diversity of Neotropical pholcids is extraordinary, but our knowledge about this diversity is still fragmentary (Huber 2000). This is especially true at the level of species, where many dozens, more probably hundreds, of species remain undescribed. Evidence for this high number comes from regional surveys that yielded dozens of species within relatively limited geographic areas (e.g. Silva 1996; Florez 1996), and from the low degree of species overlap between localities (e.g. in the Brazilian Atlantic Forest, B. A. Huber, unpublished data). Venezuela may well be among the nations with the highest diversity, and the recent increase in genus and species numbers partly reflects this situation.

However, most of South American pholcid diversity is restricted to pristine forests. Primary forests often house a dozen species within a five minutes walk; degraded secondary forests usually contain no more than one to four species; plantations, pastures and similar unnatural habitats are mostly entirely devoid of pholcid spiders. Several pholcids, however, have successfully followed humans around the globe, and some of them are regular inhabitants of houses and other man-made structures in the New World tropics. The most successful of these is probably *Physocyclus globosus* (Taczanowski, 1874), followed by *Micropholcus fauroti* (Simon, 1887), *Modisimus culicinus* (Simon, 1893), *Crossopriza lyoni* (Blackwall, 1867), *Artema atlanta* Walckenaer, 1837, and *Smeringopus pallidus* (Blackwall, 1858). Three further species of the family are widespread in more temperate regions, *Pholcus phalangioides* (Fuesslin, 1775), *Spermophora senoculata* (Dugès, 1836), and *Holocnemus pluchei* (Scopoli, 1763). Current knowledge strongly suggests that none of these genera originated in South America. Thus, any representative of these genera found in South America, especially in human buildings, should by default be suspected to be one of the species listed.

The present paper largely originated from such a default assignment. Three recent publications by González-Sponga (2004, 2006, 2007) give descriptions of two new genera and 14 new species that all immediately seemed to represent three of the synanthropic species listed above (*Physocyclus globosus*, *Micropholcus fauroti*, *Crossopriza lyoni*). Many of the drawings, even though simple and iconographic, clearly show the species-specific characters of one of the three candidates for senior synonym; most specimens were collected in houses, the rest in or close to cities or villages.

However, it would seem utterly improbable that a single species be described under four to five different names in a single paper, with each "species" represented by adult males and females. While there are some cases where species limits are difficult to infer due to unusual genital variation within species or little variation among species, this is certainly not the case with the synanthropics. Human transport has not only facilitated the rapid spread of these species, but at the same time it ensures constant gene flow among populations, effectively impeding speciation and associated morphological divergence. Therefore, it seemed essential to consult the type specimens of González-Sponga's new species. This was not possible. Repeated letters since 1999 (the latest two in May 2008, including an invitation for coauthorship of the present paper) have never resulted in any response, and during a visit to Venezuela in 2002 I was not allowed to see his collection that is deposited in his house. Since I have not been able to see the types, the justifications for the synonymies below are more detailed than usual.

Finally, this note also deals with three monotypic genera described by Roewer (1960) and González-Sponga (2003) that are either synonymized or transferred to another family. In all these cases, the species status remains unclear and must await future taxonomic revisions of the respective genera. For the synanthropic species, only the literature with the most useful drawings is cited. For a complete list, see Platnick (2008).

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