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Fourteen new generic and ten new specific synonymies in Pholcidae (Araneae), and transfer of *Mystes* Bristowe to Filistatidae

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Abstract

Between 1998 and 2011, the Venezuelan arachnologist Manuel Ángel González-Sponga (GS) published a series of taxonomic papers devoted to the Pholcidae of Venezuela. Of his 22 new genera, 20 were monotypic when described, suggesting a high percentage of synonyms. We studied his descriptions and as far as accessible his type specimens and propose the following new generic synonymies: *Autana* GS, 2011 = *Mesabolivar* GS, 1998; *Ayomania* GS, 2005 and *Venezuela* Koçak & Kemal, 2008 (new replacement names for *Falconia* GS, 2003) = *Mecolaesthus* Simon, 1893; *Carbonaria* GS, 2009 = *Mecolaesthus* Simon, 1893; *Caruaya* GS, 2011 = *Mesabolivar* GS, 1998; *Coroia* GS, 2005 = *Artema* Walckenaer, 1837; *Maimire* GS, 2009 = *Mecolaesthus* Simon, 1893; *Moraia* GS, 2011 = *Mecolaesthus* Simon, 1893; *Nasuta* GS, 2009 = *Mecolaesthus* Simon, 1893; *Portena* GS, 2011 = *Metagonia* Simon, 1893; *Rioparaguanus* GS, 2005 = *Mesabolivar* GS, 1998; *Tonoro* GS, 2009 = *Litoporus* Simon, 1893; *Sanluisi* GS, 2003 = *Mecolaesthus* Simon, 1893. Three of the type species are also specific synonyms: *Autana autanensis* GS, 2011 = *Mesabolivar aurantiacus* (Mello-Leitão, 1930); *Coroia magna* GS, 2005 = *Artema atlanta* Walckenaer, 1837; *Tonoro multispinae* GS, 2009 = *Litoporus uncatus* (Simon, 1893). Six species that González-Sponga described under *Blechroscelis* (a genus previously synonymized with *Priscula* Simon, 1893) are all synonyms of *Mesabolivar eberhardi* Huber, 2000 (*B. acuoso* GS, 2011; *B. araguanus* GS, 2011; *B. blechroscelis* GS, 2011; *B. copeyensis* GS, 2011; *B. cordillerano* GS, 2011; *B. andinensis* GS, 2011). In addition, and unrelated to González-Sponga's work, we synonymize the Central Asian monotypic genus *Ceratopholcus* Spassky, 1934 with *Crossopriza* Simon, 1893; we synonymize the Chinese species *Pholcus acerosus* Peng & Zhang, 2011 with *Pholcus fragillimus* Strand, 1907 and remove the Malaysian monotypic genus *Mystes* Bristowe, 1938, previously thought to be the only East Asian representative of the subfamily Ninetinae, to the family Filistatidae.

Key words: Pholcidae, taxonomy, synonymies, Venezuela

Introduction

Pholcid spiders are highly diverse in tropical and subtropical forests around the world. Collections over large megatransects in Brazil, the Caribbean, and tropical Africa have shown that the current number of 1400 described species amounts to probably just around 20% of the actual diversity (Huber 2014). The New World stands out both with respect to total regional diversity and single-locality diversity. With about 37 genera, the Neotropics count more than Africa and Asia combined (about 30 genera). Of the 14 localities currently known to contain more than ten species of Pholcidae, twelve are Neotropical (Huber & Rheims 2011; B.A. Huber, unpublished). Many species seem to be restricted to small geographic areas, resulting in high species turnover among localities and consequently in large numbers of undescribed species in poorly explored regions.

At the level of genera, a first revision of New World pholcids was published in 2000 (Huber 2000), and most new species can now be assigned to existing genera with some confidence. However, with about 80% undescribed species it is also clear that generic limits will have to be reconsidered as new species are described. New genera are

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Pagden [probably 1929–1931]) should be deposited in the Natural History Museum, London, but it is probably lost. The description and drawings provided by Bristowe (1938) clearly indicate that this is a filistatid rather than a pholcid: strong palpal claw; flat oval carapace with narrow pronounced clypeus and compact ocular area; large labium fused to the sternum with a constriction between the endites; and dark, elongate tooth opposing the cheliceral fang. The small size of the female indicates that it is probably a member of the subfamily Prithinae, although the characteristic calamistrum in three rows is not reported in the original description. Several genera of Prithinae occur in Southeast Asia, and *Mystes* may well be a synonym of one of them. This problem will have to be solved by a future reviser of Filistatidae.

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References

Astrin, J.J., Huber, B.A., Misof, B. & Klütsch, C.F.C. (2006) Molecular taxonomy in pholcid spiders (Pholcidae, Araneae): evaluation of species identification methods using CO1 and 16S rRNA. *Zoologica Scripta*, 35, 441–457. http://dx.doi.org/10.1111/j.1463-6409.2006.00239.x

Astrin, J.J., Misof, B. & Huber, B.A. (2007) The pitfalls of exaggeration: molecular and morphological evidence suggests *Kaliana* is a synonym of *Mesabolivar* (Araneae: Pholcidae). *Zootaxa*, 1646, 17–30.

Blackwall, J. (1858) Characters of a new genus and descriptions of three recently discovered species of Araneidea. *Annals and Magazine of Natural History*, Series 3, 2, 331–335.

Brignoli, P.M. (1981) Studies on the Pholcidae, I. Notes on the genera *Artema* and *Physocyclus* (Araneae). *Bulletin of the American Museum of Natural History*, 170 (1), 90–100.

Bristowe, W.S. (1938) The classification of spiders. *Proceedings of the Zoological Society,* Series B (1938), 285–321.

Chrysanthus, O.F.M. (1967) Spiders from South New Guinea IX. *Tijdschrift voor Entomologie*, 110 (5), 89–105.

Doleschall, C.L. (1857) Bijdrage tot de Kennis der Arachniden van den Indischen Archipel. *Natuurkundig tijdschrift voor Nederlandsch-Indië*, 13, 339–434.

Franganillo Balboa, P. (1926) Arácnidos nuevos o poco conocidos de la Isla de Cuba. *Boletin de la Sociedad Entomológica de España*, Marzo-Abril 1926, 42–68.

Gertsch, W.J. (1986) The spider genus *Metagonia* (Araneae: Pholcidae) in North America, Central America, and the West Indies. *Texas Memorial Museum, Speleological Monographs*, 1, 39–62.

González-Sponga, M.A. (1998) Arácnidos de Venezuela. Cuatro nuevos géneros y cuatro nuevas especies de la familia Pholcidae Koch, 1850 (Araneae). *Memoria, Sociedad de Ciencias Naturales La Salle*, 57 (148), 17–31.

González-Sponga, M.A. (1999) Arácnidos de Venezuela. Ocho especies nuevas del género *Priscula* y descripción de *Priscula venezuelana* Simon, 1893 (Arachnida: Araneae: Pholcidae). *Boletino de la Academia de Ciencias Fisicas y Naturales*, 54, 123–168.

González-Sponga, M.A. (2003) Arácnidos de Venezuela. Cuatro géneros y cuatro especies nuevas de la familia Pholcidae. *Memoria de la Fundación La Salle de Ciencias Naturales*, 155, 91–104.

González-Sponga, M.A. (2004) Arácnidos de Venezuela. Un nuevo género y nuevas especies de la familia Pholcidae (Araneae). *Aula y Ambiente*, 8, 63–76.

González-Sponga, M.A. (2005) Arácnidos de Venezuela. Tres nuevos géneros y cuatro nuevas especies de la familia Pholcidae (Araneae). *Saber, Universidad de Oriente*, 17, 99–109.

González-Sponga, M.A. (2006) Arácnidos de Venezuela. Un nuevo género y cinco nuevas especies de la familia Pholcidae (Araneae). *Sapiens, Revista Universitaria de Investigación*, 7 (1), 9–28.

González-Sponga, M.A. (2007) Biodiversidad. Arácnidos de Venezuela. Descripción de cinco nuevas especies del género *Physocyclus* (Araneae, Pholcidae). *Sapiens, Revista Universitaria de Investigación*, 8 (1), 53–69.

González-Sponga, M.A. (2009) Arácnidos de Venezuela. Cuatro nuevos géneros y cinco especies nuevas de la familia Pholcidae (Araneae). *Anartia*, 21, 1–16.

González-Sponga, M.A. (2011a) Descripción de seis nuevas especies del género *Blechroscelis* (Araneae: Pholcidae). *Acta Biologica Venezuelana*, 28 (2), 23–38.

González-Sponga, M.A. (2011b) Biodiversidad de Venezuela. Arácnidos. Descripción de cinco nuevos géneros y cinco nuevas

especies de la familia Pholcidae Koch, 1850. *Acta Biologica Venezuelana*, 28 (2), 39–51.
Huber, B.A. (1997) Redescriptions of Eugène Simon's neotropical pholcids (Araneae, Pholcidae). *Zoosystema*, 19 (4), 573–612.
Huber, B.A. (2000) New World pholcid spiders (Araneae: Pholcidae): a revision at generic level. *Bulletin of the American Museum of Natural History*, 254, 1–348.
http://dx.doi.org/10.1206/0003-0090(2000)254<0001:NWPSAP>2.0.CO;2
Huber, B.A. (2001) The pholcids of Australia (Araneae; Pholcidae): taxonomy, biogeography, and relationships. *Bulletin of the American Museum of Natural History*, 260, 1–144.
http://dx.doi.org/10.1206/0003-0090(2001)260<0001:tpoaap>2.0.co;2
Huber, B.A. (2009) Four new generic and 14 new specific synonymies in Pholcidae, and transfer of *Pholcoides* Roewer to Filistatidae (Araneae). *Zootaxa*, 1970: 64–68, 1977: 68. [erratum]
Huber, B.A. (2011a) Revision and cladistic analysis of *Pholcus* and closely related taxa (Araneae, Pholcidae). *Bonner zoologische Monographien*, 58, 1–509.
Huber, B.A. (2011b) Phylogeny and classification of Pholcidae (Araneae): an update. *Journal of Arachnology*, 39, 211–222.
http://dx.doi.org/10.1636/ca10-57.1
Huber, B.A. (2014) Progress and prospects in taxonomy: what is our goal and are we ever going to reach it? *Journal of Arachnology*. [in press]
Huber, B.A. & Rheims, C.A. (2011) Diversity and endemism of pholcid spiders in Brazil's Atlantic Forest, with descriptions of four new species of the Atlantic Forest endemic genus *Tupigea* (Araneae: Pholcidae). *Journal of Natural History*, 45, 275–301.
http://dx.doi.org/10.1080/00222933.2010.524319
Huber, B.A., Rheims, C.A. & Brescovit, A.D. (2005) Two new species of litter-dwelling *Metagonia* spiders (Araneae, Pholcidae) document both rapid and slow genital evolution. *Acta Zoologica (Stockholm)*, 86, 33–40.
http://dx.doi.org/10.1111/j.0001-7272.2005.00184.x
Irie, T. (2002) Two new species of the genera *Pholcus* and *Spermophora* (Araneae: Pholcidae) from the Nansei Islands, Japan. *Acta arachnologica*, 51 (2), 141–144.
http://dx.doi.org/10.2476/asjaa.51.141
Irie, T. (2009) Pholcidae. *In*: Ono, H. (Ed.), *The Spiders of Japan, with Keys to the Families and Genera and Illustrations of the Species*. Tokai Univ. Press, Kanagawa, pp. 106–111, pls. 4–5.
Karsch, F. (1879) Sieben neue Arachniden von St. Martha. *Entomologische Zeitung, Stettin*, 40 (1–3), 106–109.
Koçak, A.Ö. & Kemal, M. (2008) New synonyms and replacement names in the genus group taxa of Araneida. *Centre for Entomological Studies Ankara, Miscellaneous Papers,* 139–140, 1–4.
Mello-Leitão, C. de (1930) Aranhas do Cuminá. *Archivos do Museu Nacional, Rio de Janeiro*, 32, 51–74, pls. 1–47.
Mello-Leitão, C. de (1947) Some new pholcids of the British Museum. *Anais da Academia Brasileira de Ciências*, 19 (2), 159–164.
Millot, J. (1946) Les pholcides de Madagascar (Aranéides). *Mémoires du Muséum National d'Histoire Naturelle*, New Series, 22 (3), 127–158.
Peng, Y. & Zhang, F. (2011) A new species of the genus *Pholcus* Walckenaer, 1805 (Araneae, Pholcidae) from Hainan Island, China. *ISRN Zoology*, 2011, 1–3. [Article ID 345606]
http://dx.doi.org/10.5402/2011/345606
Pérez González, A. (1996) Sobre la ausencia del género *Crossopriza* (Araneae: Pholcidae) en Cuba, con una nueva sinonimia para *Artema atlanta* Walkenaer, 1837. *Caribbean Journal of Science*, 32 (4), 431–432.
Petrunkevitch, A. (1929) The spiders of Porto Rico. *Transactions of the Connecticut Academy of Arts and Sciences*, 30, 1–158.
Pickard-Cambridge, F.O. (1902) Arachnida - Araneidea and Opiliones. In *Biologia Centrali-Americana, Zoology*, 2, 313–424.
Roewer, C.F. (1951) Neue Namen einiger Araneen-Arten. *Abhandlungen. Naturwissenschaftlicher Verein zu Bremen*, 32 (2), 437–456.
Saaristo, M.I. (2001) Pholcid spiders of the granitic Seychelles (Araneae, Pholcidae). *Phelsuma*, 9, 9–28.
Simon, E. (1885) Matériaux pour servir à la faune arachnologique de l'Asie méridionale. I. Arachnides recueillis à Wagra-Karoor près Gundacul, district de Bellary par M. M. Chaper. *Bulletin de la Société zoologique de France*, 10, 1–39.
Simon, E. (1893a) Descriptions d'espèces et de genres nouveaux de l'ordre des Araneae. *Annales de la Société Entomologique de France*, 62, 299–330.
Simon, E. (1893b) *Histoire Naturelle des Araignées. 1 (2). 2nd Edition*. Paris, 233 pp. [pp. 256–488]
Spassky, S. (1934) Araneae palaearticae novae. Fam. Pholcidae I. *Bulletin du Muséum d'histoire naturelle de Paris*, Series 2, 6 (4), 361–372.
Strand, E. (1907) Süd- und ostasiatische Spinnen. *Abhandlungen der naturforschenden Gesellschaft Görlitz*, 25, 107–215, pls. 1–21.
Vinson, A. (1863) *Aranéides des îles de la Réunion, Maurice et Madagascar*. Paris, i–cxx, 1–337.
Walckenaer, C.A. (1805) *Tableau des aranéides ou caractères essentiels des tribus, genres, familles et races que renferme le genre Aranea de Linné, avec la désignation des espèces comprises dans chacune de ces divisions*. Paris, 88 pp.
Walckenaer, C.A. (1837) *Histoire naturelle des insectes. Aptères*. *Vol. 1.* Libraire Encylopédique de Roret, Paris, 682 pp.
Zhang, F. & Zhu, M.S. (2009) A review of the genus *Pholcus* (Araneae: Pholcidae) from China. *Zootaxa*, 2037, 1–114.