Case 3688

CHARINIDAE Gray 1849 (Reptilia, Squamata, Serpentes): proposed suppression

Diomedes Quintero A.
Museo de Invertebrados G.B. Fairchild, Estafeta Universitaria Aptdo. 00017, Universidad de Panama, Panama 0824, Panama
(e-mail: DQUINTER666@gmail.com)

William A. Shear
Trinkle Professor of Biology, Hampden-Sydney College, Virginia 23901 U.S.A.
(e-mail: wshear@hsc.edu)

Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to suppress the little-used senior homonym CHARINIDAE Gray, 1849 in order to conserve the family-group name CHARINIDAE Quintero, 1986. CHARINIDAE Quintero, 1986 is a well-established name for the most speciose group of Amblypygi, while CHARINIDAE (originally CHARININI) Gray, 1849 has been little used since its original proposal; to resurrect this name would be disruptive to both arachnid and snake taxonomy. The suppression of CHARINIDAE Gray 1849 will help to conserve its widely used junior synonym UNGALIOPHEINAE McDowell, 1987. The name CHARINIDAE Cope, 1886 is declared nomen oblitum under Article 23.9.2 of the Code. The family-group name CHARINUSIDAE Pyron, Reynolds & Burbrink, 2014 (Arachnida) proposed to replace the family-group name CHARINIDAE Quintero, 1986 is unavailable and unnecessary.

Keywords. Nomenclature; taxonomy; Arachnida; Serpentes; CHARINIDAE; CHARINUSIDAE; UNGALIOPHEINAE; *Charinus; Charina*; *Ungaliophius*; whip-spiders; boid snakes.

---

1. Gray (1849, p. 84) used CHARININA as a new taxon name of unspecified rank based on the snake genus name *Charina* Gray, 1849. *Charina bottae* (Blainville, 1835) is the type species of *Charina* Gray by monotypy. Because CHARININA is clearly a taxon above the generic level, it has the status of a family.

2. CHARININA Gray, 1849 was listed among the synonyms of the subfamily BOINAE Gray, 1825 by Boulenger (1893, p. 93).

3. Cope (1886, p. 294) introduced CHARINIDAE, based again on *Charina* Gray, 1849, stating that he was creating a new family, but did not mention the name CHARININA Gray, 1849. CHARINIDAE Cope, 1886 is a junior objective synonym of CHARINIDAE Gray, 1849, besides being a homonym of the same.

4. The names CHARINIDAE Gray, 1849 and CHARINIDAE, Cope 1886 have been seldom used since their original proposals (Pyron, Reynolds & Burbrink, 2014; Solís et al., 2014). As CHARINIDAE Cope, 1886, the family name was used in two listings of family names of snakes: in Noguchi (1909, p. 3, under 'System Cope') and in Gilmore (1938, p. 7).

5. Quintero (1986) introduced the name CHARINIDAE (type genus *Charinus* Simon, 1892) for a family in the order Amblypygi (Arachnida).

6. McDowell (1987, p. 25) established the name UNGALIOPHEINAE as a subfamily of TROPIDOPHEIDAE Brongersma, 1951 to include two genera, *Ungaliophis* Müller, 1880 and *Exiliboa* Bogert, 1968. These two genera were considered to belong to UNGALIOPHEIDAE McDowell, 1987 by Zaher (1994, pp. 471–478), Savage (2002, pp. 569–570) and Noonan & Chippindale (2006, pp. 347–358). Previous to 2014, different authors (for example, Pyron, et al., 2013, p. 47) have considered UNGALIOPHEINAE as a subfamily of BOIDAE Gray, 1825. The name is widely used (e.g. McDowell, 1987; Smith & Preston, 1987; Villa & Wilson, 1990; Zaher,1994; Savage, 2002; Noonan & Chippindale, 2006; Pyron, Reynolds & Burbrink, 2013, 2014; Hoser, 2013; Wallach et al., 2014; Reynolds et al., 2014; The Reptile Database, 1995–2016, etc.). Smith & Preston (1987) explained the correct spelling of the name UNGALIOPHEINAE. Oguiura, Terrarezzi & Batistic, 2009 used CHARININAE only in passing but did not include it in Table 1, p. 129 (Higher classification of snakes used herein), but instead used the following subfamilies of BOIDAE: ERYCINAE, BOINAE and UNGLIOPHIINAE [sic]. Pyron, Reynolds & Wiens, 2013 did not include CHARININAE in their BOIDAE classification.

7. CHARINIDAE Quintero, 1986, type genus *Charinus* Simon, 1892, is the most diverse and largest family in the order Amblypygi (Arachnida), and this family-group name has been used in at least 25 works, published by at least 10 authors over a span of not less than 10 years (Article 3.9.1.2) (e.g. Kovarik, & Vlasta, 1996; Weygoldt, 2000, 2002, 2005, 2006, 2008, 2009, 2010; Baptista & Giupponi, 2002; 2003; Giupponi & Kury, 2002; El-Hennawy, 2002; Giupponi & Baptista, 2003; Harvey, 2003; Armas, 2005, 2006, 2010, 2013; Armas et al., 2009, 2012; Teruel, et al., 2009; Rahmadi, & Kojima, 2010; Rahmadi et al., 2010; Villareal, 2010; Miranda & Giupponi, 2011; Prendini, 2011; Giupponi & Miranda, 2012; Jocqué & Giupponi, 2012; Seiter, & Hörweg, 2013; Seiter & Wolff, 2014; Vasconcelos et al., 2014).

8. Pyron, Reynolds & Burbrink (2014, p. 249) revived CHARININA as CHARINIDAE Gray, 1849 to include the following two subfamilies, UNGALIOPHEINAE (including the genera *Ungaliophis* Müller, 1880 and *Exiliboa*, Bogert 1968) and CHARININAE Gray, 1849 (including the genera *Charina* Gray, 1849 and *Lichanura* Cope, 1861). In the same work (2014, p. 250), CHARINUSIDAE (incorrectly spelled as CHARINUSIIDAE) was conditionally proposed as a replacement name for CHARINIDAE Quintero, 1986 to avoid the recognized homonymy with CHARINIDAE Gray, 1849. This proposal disregards usage of a widely accepted name CHARINIDAE Quintero, 1986. However, CHARINUSIDAE Pyron, Reynolds & Burbrink, 2014 is not an available name, for three reasons: (1) it was proposed conditionally, so it fails Article 15.1 of the Code; (2) it was not explicitly proposed as new, so it fails Article 16.1 of the Code; (3) the only way Pyron, Reynolds & Burbrink, 2014) could propose CHARINUSIIDAE as a new replacement name themselves is if they prove CHARINIDAE Gray, 1849 is a nomen oblitum (Article 55.3.1.1 of the Code), which they did not do.

9. The name CHARINIDAE Quintero, 1986 is a junior homonym of CHARINIDAE Gray, 1849. We argue that the two cited usages of CHARINIDAE Cope, 1886 are mere listings (Article 23.9.6) and hereby declare it a nomen oblitum under Article 23.9.2 of the Code. The list of usages of the name CHARINIDAE Quintero, 1986 held by the Commission secretariat meets the conditions of Article 23.9.1.2 of the Code. However, the name CHARINIDAE Gray has been used as valid by Pyron, Reynolds & Burbrink (2014) after 1899, and therefore Article 23.9.2 cannot be applied.

10. The placement of the long accepted and much used name UNGALIOPHEINAE McDowell 1987 in the synonymy of CHARINIDAE Gray, 1849 is an unnecessary disruption

of nomenclature in the boioid snakes. We propose that CHARINIDAE Gray, 1849 should not take precedence over UNGALIOPHEINAE McDowell, 1987 whenever the two are considered synonyms, based on the extensive usage of the latter name and the almost forgotten status of the former. The clade CHARININAE, as used by Pyron, Reynolds & Burbrink (2014) would be left without a valid family-group name once the Commission accepts the present proposal. We propose CHARINAINAE as a replacement name for this clade.

11. The International Commission on Zoological Nomenclature is accordingly asked:
(1) to use its plenary power to suppress the name CHARINIDAE Gray, 1849 for the purposes of both the Principle of Priority and the Principle of Homonymy;
(2) to place on the Official List of Family-Group Names in Zoology the following names:
  (a) CHARINIDAE Quintero, 1986 (type genus *Charinus* Simon, 1892);
  (b) UNGALIOPHEINAE McDowell, 1987 (type genus *Ungaliophis* Müller, 1880);
(3) to place on the Official List of Generic Names in Zoology the following names:
  (a) *Charinus* Simon, 1892, the type genus of the family CHARINIDAE Quintero, 1986;
  (b) *Ungaliophis* Müller, 1880, the type genus of the family UNGALIOPHEINAE McDowell, 1987;
(4) to place on the Official Index of the Invalid and Rejected Names in Zoology the following names:
  (a) CHARINIDAE Gray, 1849, as suppressed in (1) above;
  (b) CHARINIDAE Cope, 1886, as a nomen oblitum.

References

Armas, L.F. 2005. Notas sobre la biología reproductiva del amblipígido partenogenético *Charinus acosta* (Quintero, 1983) (Amblypygi: Charinidae). *Boletin Sociedad Entomológica Aragonesa*, **36**: 271–273.

Armas, L.F. 2006. Nueva especie de *Charinus* Simon, 1892 (Amblypygi: Charinidae) de Cuba central. *Revista Ibérica de Arcnología*, **13**: 167–170.

Armas, L.F. 2010. Nuevos arácnidos de Puerto Rico (Arachnida: Amblypygi, Araneae, Opiliones, Parasitiformes, Schizomida, Scorpiones). *Boletín de la Sociedad Entomológica Aragonesa*, **47**: 55–64.

Armas, L.F. 2013. Los amblipigios cavernícolas de Cuba (Arachnida: Amblypygi). *Revista Ibérica de Aracnología*, **22**: 15–19.

Armas, L.F. 2013. Pedipalpi (Arachnida: Amblypygi, Schizomida, Thelyphonida) de Cuba occidental. *Revista Ibérica de Aracnología*, **22**: 91–94.

Armas, L.F., Alayón García, G. & Ramos Hernández, J.M. 2009. Aracnofauna (excepto Acari) del Macizo Guamuhaya, Cuba Central. Primera aproximación. *Boletín de la Sociedad Entomológica Aragonesa*, **45**: 135–146.

Armas, L.F., Chirivi Joya, D., Botero-Trujillo, R., Camacho Cortés, G. & García, S. 2012. Presencia en Colombia de la familia Charinidae (Arachnida: Amblypygi). *Boletín de la Sociedad Entomológica Aragonesa*, **50**: 321–322.

Baptista, R.L.C. & Giupponi, A.P.L. 2002. A new troglomorphic *Charinus* from Brazil (Arachnida: Amblypygi: Charinidae). *Revista Ibérica de Aracnología*, **6**: 105–110.

Baptista, R.L.C. & Giupponi, A.P.L. 2003. A new troglomorphic *Charinus* from Minas Gerais State, Brazil (Arachnida: Amblypygi: Charinidae). *Revista Ibérica de Aracnología*, **7**: 79–84.

Cope, E.D. 1886. Three problematical genera of Mexican boaeform snakes. *The American Naturalist*, **20**: 293–294.

El-Hennawy, H. 2002. The first record of Amblypygi from Egypt. *Journal of Arachnology*, **30**: 452–453.

Gilmore, C.W. 1938. Fossil Snakes of North America. *Geological Society of America, Special Papers*, **9**: 1–96.

Giupponi, A.P.L. & Baptista, R.L.C. 2003. A case of homonymy in *Charinus* Simon, 1892 (Amblypygi: Charinidae). *Revista Ibérica de Aracnología*, **7**: 173–174.

Giupponi, A.P.L. & Kury, A.B. 2002. A new species of *Charinus* from Northeastern Brazil (Arachnida: Amblypygi: Charinidae). *Boletim do Museum Nacional, Zoologia*, **477**: 1–7.

Giupponi, A.P.L. & Miranda, G.S. 2012. A new species of *Sarax* Simon, 1892 from the Philippines (Arachnida: Amblypygi: Charinidae). *Annais da Academia Brasileira de Ciências*, **84**(1): 165–173.

Gray, J.E. 1849. *Catalogue of the Specimens of Snakes in the Collection of the British Museum*. 125 pp. Newman, London.

Harvey, M.S. 2003. Order Amblypygi. Pp. 1–58 *in*: *Catalogue of the smaller arachnid orders of the world*. CSIRO Publishing, Collingwood, Vic.

Hoser, R.T. 2013. A reassessment of the Tropidophiidae, including the creation of two new tribes and the division of *Tropidophis* Bibron, 1840 into six genera, and a revisitation of the Ungaliophiinae to create two subspecies within *Ungaliophis panamensis* Schmidt, 1933. *Australasian Journal of Herpetology*, **17**: 22–34.

Jocqué, M. & Giupponi, A.P.L. 2012. *Chrinus bromeliaea* sp.n. (Amblypygi: Charinidae), a new species of bromeliad inhabiting whip spider from French Guyana. *Zootaxa*, **3158**: 53–59.

Kovarik, F. & Vlasta, D. 1996. First report of Amblypygi (Charinidae: *Charinus ioanniticus*) from Turkey. *Klapalekiana*, **32**: 57–58.

McDowell, S.B. 1987. Systematics. Pp. 3–50 *in* Seigel, R.A., Collins, J.T. & Novak, S.S. (Eds.), *Snakes. Ecology and Evolutionary Biology*. Macmillan, New York, London.

Miranda, G.S. & Giupponi, A.P.L. 2011. A new synonthropic species of *Charinus* Simon, 1892 from Brazilian Amazônia and notes on the genus (Arachnida: Amblypygi: Charinidae). *Zootaxa*, **2980**: 61–68.

Müller, F. 1880. Erster Nachtrag zum Katalog der herpetologischen Sammlung des Basler Museums. *Verhandlungen der Naturforschende Gesellschaft in Basel*, **7**: 120–165.

Noguchi, H. 1909. Snake Venoms. An investigation of venomous snakes with special reference to the phenomena of their venoms. *Carnegie Institution of Washington*, **111**: 1–315.

Noonan, B.P. & Chippindale, P.T. 2006. Dispersal and vicariance: The complex evolutionary history of boid snakes. *Molecular Phylogenetics and Evolution*, **40**(2): 347–358.

Oguiura, N., Ferrarezzi, H. & Batistic, R.F. 2009. Cytogenetics and molecular data in snakes: a phylogenetic approach. *Cytogenetic and Genome Research*, **127**: 128–142.

Prendini, L. 2011. Order Amblypygi Thorell, 1883. *In*: Zhang, Z.Q. (Ed.), Animal Biodiversity: An outline of higher-level classification and survey of taxonomic richness. *Zootaxa*, **3148**: 154.

Pyron, R.A., Burbrink, F.T. & Wiens, J.J. 2013. A phylogeny and revised classification of Squamata, including 4161 species of lizards and snakes. *BMC Evolutionary Biology*, **April 29**: 13–93.

Pyron, R.A., Reynolds, R.G. & Burbrink, F.T. 2014. A Taxonomic Revision of Boas (Serpentes: Boidae). *Zootaxa*, **3846**(2): 249–260.

Quintero, D. 1986. Revisión de la clasificación de amblypygidos pulvinados: creación de sub-órdenes, una nueva familia y un nuevo género con tres nuevas especies (Arachnida: Amblypygi). Pp. 203–212 *in* Eberhard, W.G., Lubin, Y.D. & Robinson, B.C. (Eds.), *Proceedings of the 9th International Congress of Arachnology (Panama 1983)*. Smithsonian Institution Press, Washington, D.C.

Rahmadi, C. & Kojima, J. 2010. Whip spiders of the genus *Sarax* in the Papauan region, with description of two new species (Amblypygi: Charinidae). *Journal of Arachnology*, **38**(3): 475–484.

Rahmadi, C., Harvey, M.S. & Kojima, J. 2010. Whip spiders of the genus *Sarax* Simon, 1892 (Amblypygi: Charinidae) from Borneo Island. *Zootaxa*, **2612**: 1–21.

Reynolds, R.G., Niemiller, M.L. & Revell, L.J. 2014. Toward a Tree-of-life for the boas and pythons: Multilocus species-level phylogeny with unprecedented taxon sampling. *Molecular Phylogenetics and Evolution*, **71**: 201–213.

Savage, J. M. 2002. *The Amphibians and Reptiles of Costa Rica*. 934 pp. University of Chicago Press, Chicago, London.

Seiter, M. & Hörweg, C. 2013. The whip spider collection (Arachnida, Amblypygi) held in the Natural History Museum Vienna, Austria. *Arachnologische Mitteilungen*, **46**: 47–53.

Seiter, M. & Wolff, J. 2014. Description of *Sarax buxtoni* (Gravely 1915) (Arachnida: Amblypygi: Charinidae) and a new case of parthenogenesis in Amblypygi from Singapore. *Journal of Arachnology*, **42**(3): 233–239.

Simon, E. 1892. Arachnides. *In* Raffray, A., Bolivar, I. & Simon, E. (Eds.), *Etude sur les Arthropodes cavernicoles de île Luzon, Voyage de M.E. Simon aux îles Philippines (Mars et avril 1890). Annales de la Société Entomologique de France*, **61**: 35–52.

Smith, H.M. & Preston, M.J. 1987. The stem for formation of family-group names from the Greek word *ophis*. *Bulletin of the Maryland Herpetological Society*, **23**(3): 128–129.

Solís, J.M, Wilson, L.D. & Townsend, J.H. 2014. An updated list of the amphibians and reptiles of Honduras, with comments on their nomenclature. *Mesoamerican Herpetology*, **1**: 123–144.

Teruel, R., Armas, L.F., & Rodríguez, T.M. 2009. Nuevos datos sobre la distribución geográfica y ecología de los amblipígidos de Cuba (Arachnida: Amblypygi). *Boletín de la Sociedad Entomológica Aragonesa*, **44**: 201–211.

The Reptile Database (www.reptile-database.org). Ungaliophiinae, simple search: *Exiliboa placata* and *Ungaliophis continantalis* Müller, 1880 and *Ungaliophis panamensis* Schmidt, 1933.

Vasconcelos, A.C.O., Giupponi, A.P.L. & Ferrier, R.L. 2014. A new species of *Charinus* from Minas Gerais State, Brazil, with comments on its sexual dimorphism (Arachnida: Amblypygi: Charinidae). *Journal of Arachnology*, **42**: 155–162.

Villa, J.D. & Wilson, L.D. 1990. *Ungaliophis* Müller. Central American Dwarf Boas. *Catalogue of American Amphibians and Reptiles*. Open access files at http://www.zenscientist.com/index.php/pdflibrary1/Open-Access-Journals/caar: 480.1–480.4.

Villareal, M. 2010. Los pedipalpi en el norte de Suramérica. Pp. 139–140 *Memorias Sociedad Colombiana de Entomología, Congreso 37*, Bogotá, Colombia, 30 de junio–2 julio. Pontificia Universidad Javeriana. Bogotá.

Wallach, V., Williams, K.L. & Boundy, J. 2014. *Snakes of the World: A Catalogue of Living and Extinct Species*. 1237 pp. Boca Raton, CRC Press, London.

Weygoldt, P. 2000. *Whip Spiders (Chelicerata: Amblypygi). Their Biology, Morphology and Systematics*. 163 pp. Apolo Books, Stenstrup.

Weygoldt, P. 2002. 4.2. Amblypygi. Pp. 293–302 *in* Adis, J. (Ed.), *Amazonian Arachnida and Myriapoda*. 590 pp. Pensoft Publishers, Sofia.

Weygoldt, P. 2005. Biogeography, systematic position, and reproduction of *Charinus ioanniticus* (Kritscher, 1959) with the description of a new species from Pakistan (Chelicerata, Amblypygi, Charinidae). *Senckenbergiana Biologica*, **85** (1): 1–14.

Weygoldt, P. 2006. Courtship and sperm transfer in *Charinus neocaledonicus* Kraepelin, 1895 and *Charinus australianus* (L. Koch, 1867) (Arachnida, Amblypygi, Charinidae). *Zoologischer Anzeiger*, **244**: 239–247.

Weygoldt, P. 2008. Spermatophore, female genitalia, and courtship behaviour of two whip spiders species, *Charinus africanus* and *Damon tibialis* (Chelicerata: Amblypygi). *Zoologischer Anzeiger*, **247**: 223–232.

Weygoldt, P. 2009. Evolutionary morphology of whip spiders: towards a phylogenetic system (Chelicerata: Arachnida: Amblypygi). *Journal of Zoological Systematics and Evolutionary Research*, **34**(4): 185–202.

Weygoldt, P. 2010. Order Amblypygi Thorell, 1882. Pp. 307–312 *in* Gerlach, J. & Marusik, Y. (Eds.), *Arachnida and Myriapoda of the Seychelles Islands*. Siri Scientific Press, Manchester.

Zaher, H. 1994. Les Tropidopheoidea (Serpentes: Alethinophidia) sont-ils réellement monophylétiques? Arguments en faveur de leur polyphylétisme. *Comptes rendus de l'Académie des sciences*, (3)**317**(5): 471–478.

Acknowledgement of receipt of this application was published in BZN **72**: 108.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to I.C.Z.N., Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).