

Case 2850***Phyllophis carinata* Günther, 1864 (currently *Elaphe carinata*; Reptilia, Serpentes): proposed conservation of the specific name**

Hobart M. Smith

*Department of Environmental, Population and Organismic Biology,
University of Colorado, Boulder, Colorado 80309-0334, U.S.A.*

Hidetoshi Ota

*Tropical Biosphere Research Center and Department of Biology,
University of the Ryukyus, Nishihara, Okinawa 903-01, Japan*

Van Wallach

*Museum of Comparative Zoology, Harvard University, Cambridge,
Massachusetts 02138, U.S.A.*

Abstract. The purpose of this application is to conserve the specific name of *Phyllophis carinata* Günther, 1864, which has had long usage in an extensive literature, for a snake occurring in southeastern China, northern Vietnam, Taiwan and southern Japan (Ryukyus). For a very short time (March — October 1891) the species was considered to be congeneric with the Central and South American snake *Coluber carinatus* Linnaeus, 1758, rendering Günther's name a junior secondary homonym. *Coluber phyllophis* Boulenger, 1891 was established as a replacement for *C. carinatus* (Günther, 1864) and the latter is thus formally permanently invalid. However, the name *phyllophis* has rarely been used and has not appeared at all since 1929.

Keywords. Nomenclature; taxonomy; Reptilia; Serpentes; snakes; *Elaphe carinata*; China, Japan.

1. Linnaeus (1758, p. 223) described the Central and South American species of snake *Coluber carinatus*. He referred to the account of the species (1754, p. 31) based on material in the collections described in his *Museum Adolphi Friderici*. Andersson (1899, p. 17) listed and gave measurements for a specimen of *C. carinatus* in the Linnaean collection in the Stockholm museum; this specimen still exists. The species was transferred to the genus *Herpetodryas* Wagler, 1830 by Boulenger ([1 October] 1891, p. 355; ref. 1891b; see Duncan, 1937 for the publication dates of the 1859–1926 volumes of the *Proceedings of the Zoological Society of London*). *C. carinata* has been included in *Chironius* Fitzinger, 1826 since Ruthven's (1922) work appeared.

2. Günther (1864, p. 295, pl. 21, fig. B) described *Phyllophis carinata* as a new genus and species of snake 'said to be from China', based on a specimen in the collections of the Natural History Museum, London (catalogue no. BM(NH) 1946.1.14.58). A second specimen (Günther, 1888, p. 170) from the mountains north

of Kiu Kiang (now Jiujiang Shi, Jiangxi Province) confirmed the origin. In March 1891 Boulenger (p. 281; ref. 1891a) transferred Günther's taxon to the genus *Coluber* Linnaeus, 1758, thereby rendering *C. carinatus* (Günther, 1864) a junior secondary homonym of *C. carinatus* Linnaeus, 1758. Boulenger noted: 'I am compelled to propose a new specific name for this snake, the name *Coluber carinata* [recte *carinatus*] being preoccupied'; he established the replacement name *Coluber phyllophis*. Boulenger redescribed the taxon and referred to 'several specimens' from China; these included an adult specimen described by Günther (1858) as *Elaphis sauromates* Pallas and a young specimen (the holotype) of *Phyllophis carinata* Günther.

3. Günther's (1864) specific name *carinata* was replaced as a junior secondary homonym before 1961 and is therefore permanently invalid (Article 59b of the Code). The valid specific name for the taxon is *phyllophis* Boulenger, 1891 and this was adopted, in combination with *Coluber*, by Müller (1892), Boulenger (1894) and Günther (1896).

4. Stejneger (1898, p. 221) adopted the name *Elaphe* Fitzinger, 1833 and reintroduced the specific name *carinata* Günther, 1864 for the single species he placed in the genus. Stejneger (1907, 1910) assigned further species, formerly placed in *Coluber*, to *Elaphe* and cited (1907, p. 308) *phyllophis* as a junior synonym of *carinata*. A few authors (Wall, 1903; Werner, 1903, 1924, 1929; Stanley, 1915; Steindachner, 1913; Mell, 1922; and Vogt, 1922, 1927) continued to use *phyllophis* Boulenger, 1891 in combination with *Coluber*. Stejneger did not comment on his choice of specific name but Steindachner (1914, p. 337) noted that Stejneger's adoption of *Elaphe* Fitzinger, rather than *Coluber*, for *Phyllophis carinata* Günther meant that there was no homonymy with *Coluber carinatus* Linnaeus and that Günther's specific name could be retained.

5. The combination *Elaphe carinata* (Günther, 1864) has been used for the taxon by most authors since 1907, and without exception since 1929. The more significant recent publications include Pope (1935), Bourret (1936), Smith (1943), Wang & Wang (1956), Coburn (1991), Ota (1991) and Zhao & Adler (1993). The Commission Secretariat holds a list of over 60 further works dating from 1910 to 1991 (45 of which are later than 1945) demonstrating the usage of *Elaphe carinata*. This list could be expanded but suffice it to say that (1) it already far exceeds the minimum required by Article 79c for the usage of the name over the past 50 years (by five different authors in ten publications); (2) many of the works cited are major reviews of broad influence, and some are popular works with wide circulation; (3) in addition to the nominotypical form three subspecies of *E. carinata*, generally recognized as valid, have been described: *E. c. ornithophaga* Bourret, 1936, *E. c. yonaguniensis* Takara, 1962 and *E. c. degenensis* Yang & Su, 1984. This last subspecies was referred to (twice) as *degenensis* in the Chinese text of Yang & Su's paper (p. 160), but appeared (twice) as *deginensis* in the English summary (p. 163). The locality for the type material (now housed in the Kunming Institute of Zoology) was given (a number of times) as Deqin Xian (now Deqen Xian, Yunnan Province). Acting as first revisers we here select *degenensis* as the definitive spelling. This spelling was adopted by Zhao & Adler (1993, p. 236) but they did not meet the requirements of Article 24 for first reviser selection.

6. We conclude that the resurrection of Boulenger's (1891) replacement specific name *phyllophis*, as would be required by application of the automatic provisions of

the Code, would be severely disruptive to nomenclatural stability, and that a *prima facie* case has been made for the maintenance of *Elaphe carinata* (Günther, 1864). We make this application under Articles 59b(i) and 79a.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to rule that the specific name *carinata* Günther, 1864, as published in the binomen *Phyllophis carinata*, is not invalid by reason of having been replaced before 1961 as a junior secondary homonym of *Coluber carinatus* Linnaeus, 1758;
- (2) to place on the Official List of Specific Names in Zoology the name *carinata* Günther, 1864, as published in the binomen *Phyllophis carinata* (not invalid by reason of having been replaced before 1961 as a junior secondary homonym of *Coluber carinatus* Linnaeus, 1758);
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *phyllophis* Boulenger, 1891, as published in the binomen *Coluber phyllophis* (a junior objective synonym of *Phyllophis carinata* Günther, 1864).

References

- Andersson, L.G. 1899. Catalogue of Linnean type-specimens of snakes in the Royal Museum in Stockholm. *Bihang till Kongl. Svenska Vetenskaps-Akademiens Handlingar*, **24**(4, 6): 1–35.
- Boulenger, G.A. 1891a (March). Descriptions of new Oriental reptiles and batrachians. *Annals and Magazine of Natural History*, (6)**7**(39): 279–283.
- Boulenger, G.A. 1891b ([October]). On reptiles, batrachians, and fishes from the Lesser West Indies. *Proceedings of the Zoological Society of London*, **1891**(3): 351–357.
- Boulenger, G.A. 1894. *Catalogue of the snakes in the British Museum (Natural History)*, vol. 2 (Conclusion of the Colubridae Aglyphae). xii, 382 pp., 20 pls. British Museum (Natural History), London.
- Bourret, R. 1936. *Les serpents de l'Indochine*, vol. 2 (Catalogue systématique descriptif). 505 pp., 189 figs. Toulouse.
- Coburn, J. 1991. *Atlas of snakes of the world*. 591 pp. T.F.H. Publications, Neptune City, New Jersey.
- Duncan, F.M. 1937. On the dates of publication of the Society's 'Proceedings', 1859–1926. *Proceedings of the Zoological Society of London*, (A)**107**: 71–84.
- Günther, A.C.L.G. 1864. *The reptiles of British India*. xxvii, 452 pp., 26 pls. Ray Society, London.
- Günther, A.C.L.G. 1888. On a collection of reptiles from China. *Annals and Magazine of Natural History*, (6)**1**(3): 165–172.
- Günther, A.C.L.G. 1896. Report on the collections of reptiles, batrachians and fishes made by Messrs. Potanin and Berezowski in the Chinese provinces Kansu and Sze-chuen. *Annuaire du Musée Zoologique de l'Académie Impériale des Sciences de St Pétersbourg*, **1**: 199–219.
- Linnaeus, C. 1754. *Museum S:ae R:ae M:tis Adolphi Friderici Regis ... Quadrupedia, Aves, Amphibia, Pisces, Insecta, Vermes describuntur et determinantur*. xxx, 96, [8] pp., 33 pls. Holmiae.
- Linnaeus, C. 1758. *Systema Naturae*, Ed. 10, vol. 1. 824 pp. Salvii, Holmiae.
- Mell, R. 1922. Beiträge zur Fauna sinica. 1. Die Vertebraten Südchinas; Feldlisten und Feldnoten der Säuger, Vögel, Reptilien, Batrachier. *Archiv für Naturgeschichte*, **88A**(10): 1–146.
- Müller, F. 1892. Siebenter Nachtrag zum Katalog der herpetologischen Sammlung der Basler Museums. *Verhandlungen der Naturforschenden Gesellschaft in Basel*, **10**(1): 195–215.

- Ota, H. 1991. Systematics and biogeography of terrestrial reptiles of Taiwan. Pp. 47–112 in Lin, Y.-S. & Chang, K.-H. (Eds.), *Proceedings of the First International Symposium on Wildlife Conservation, ROC*. Council of Agriculture, Taipei.
- Pope, C.H. 1935. *The reptiles of China*. lii, 604 pp., 25 pls. American Museum of Natural History, New York.
- Ruthven, A.G. 1922. The amphibians and reptiles of the Sierra Nevada de Santa Marta, Colombia. *Miscellaneous Publications. Museum of Zoology, University of Michigan*, 8: 1–69.
- Smith, M.A. 1943. *The fauna of British India, Ceylon and Burma, including the whole of the Indo-Chinese sub-region. Reptilia and Amphibia*, vol. 3 (Serpentes). xii, 583 pp. Taylor & Francis, London.
- Stanley, A. 1915. The collection of Chinese reptiles in the Shanghai Museum. *Journal of the North-China Branch of the Royal Asiatic Society*, 45: 21–31.
- Steindachner, F. 1913. Bericht über die von Hans Sauter auf Formosa gesammelten Schlangenarten. *Denkschriften der Kaiserlichen Akademie der Wissenschaften. Wien. Mathematisch-Naturwissenschaftliche Klasse*, 90: 319–361. (Published in the journal in 1914 but issued as a separate in 1913).
- Stejneger, L. 1898. On a collection of batrachians and reptiles from Formosa and adjacent islands. *Journal of the College of Science, Imperial University of Tokyo*, 12(3): 215–225.
- Stejneger, L. 1907. Herpetology of Japan and adjacent territory. *Bulletin of the United States National Museum*, 58: 1–577.
- Stejneger, L. 1910. The batrachians and reptiles of Formosa. *Proceedings of the United States National Museum*, 38(1731): 91–114.
- Takara, T. 1962. Studies on the terrestrial snakes in the Ryukyu Archipelago. *Science Bulletin of the College of Agriculture, University of the Ryukyus, Okinawa*, 9: 1–202. [In Japanese, English summary].
- Vogt, T. 1922. Zur Reptilien- und Amphibienfauna Südchinas. *Archiv für Naturgeschichte*, 88A(10): 135–146.
- Vogt, T. 1927. Beitrag zur Reptilien- und Amphibienfauna Südchinas. *Zoologischer Anzeiger*, 69(11–12): 281–288.
- Wall, F. 1903. A prodromus of the snakes hitherto recorded from China, Japan and the Loo Choo Islands; with some notes. *Proceedings of the Zoological Society of London*, 1903(1): 84–102.
- Wang, C.-S. & Wang, Y.-H. 1956. The reptiles of Taiwan. *Quarterly Journal of Taiwan Museum*, 9(1): 1–86.
- Werner, F. 1903. Ueber Reptilien und Batrachier aus Guatemala und China in der zoologischen Staats-Sammlung in München nebst einem Anhang über seltene Formen aus anderen Gegenden. *Abhandlungen der Königlich Bayerischen Akademie der Wissenschaften*, 22(2): 343–384.
- Werner, F. 1924. Über Reptilien und Amphibien aus Südchina. *Denkschriften der Kaiserlichen Akademie der Wissenschaften. Wien. Mathematisch-Naturwissenschaftliche Klasse*, 99: 39–58.
- Werner, F. 1929. Übersicht der Gattungen und Arten der Schlangen aus der Familie Colubridae. III. Teil (Colubrinae). *Zoologische Jahrbücher (Abteilung für Systematik)*, 57(1–2): 1–196.
- Yang, D.-T. & Su, C.-Y. 1984. A preliminary study on the subspecies differentiation of *Elaphe carinata* (Serpentiformes: Colubridae). *Zoological Research*, 5(2): 159–163. [In Chinese, English summary].
- Zhao, E.-M. & Adler, K. 1993. Herpetology of China. *Contributions to Herpetology (Society for the Study of Amphibians and Reptiles)*, 10: 1–522.



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