

Designation of a Neotype for *Conopsis nasus* (Serpentes: Colubridae)

IRENE GOYENECHEA AND OSCAR FLORES-VILLELA

The designation of a neotype for *Conopsis nasus* is necessary because the type specimen is apparently lost, the original description is ambiguous and can be applied to more than one valid taxon, and there are inconsistencies with the previous designation of type locality. The neotype is chosen from the herpetological collections at the British Museum of Natural History and shows the typical characters as defined in the original description as well as the diagnostic characters for the species defined in a recent study.

REVISIONARY work on the colubrid genus *Conopsis* and the related genus *Toluca* (unpubl. data) led us to taxonomic and nomenclatural problems, because there have been inconsistencies since both were named. Günther (1858) described *Conopsis* based on the type species *C. nasus*, from the type locality “California.” The species was stated to have only one pair of frontal scales, one nasal, no loreal, smooth dorsal scales in 17 rows, and divided anal and subcaudal scales. Günther also mentioned that *C. nasus* had a uniform dark olive dorsal coloration with small black spots on the anterior region and a pale belly with dark spots. The type locality was later determined to be in error (Taylor and Smith, 1942). A year after Günther’s description, Kennicott (*in* Baird, 1859) described *Toluca*, based on the type species *T. lineata*. His description and that of *C. nasus* by Günther are very similar; nevertheless, Kennicott did not see Günther’s work, so he was unaware of the existence of the genus *Conopsis*.

These two species and several others later described in *Conopsis* and *Toluca* have been assigned to various other genera such as *Ficimia* Gray 1849, *Contia* Girard 1853, *Chionactis* Cope 1860, *Oxyrhina* Jan 1862, *Achirrhina* Jan 1862, *Exorhina* Jan 1862, *Epirrhina* Jan 1862, *Pseudoficimia* Bocourt 1883, and *Ogmis* Cope 1887 (Taylor and Smith, 1942).

Boulenger (1894) redescribed the species (as *C. nasus*) and considered individuals of *T. lineata* Kennicott to be aberrant specimens of *C. nasus*. Dugès (1896) stated that *Conopsis* and *Toluca* were part of the same taxonomic unit. Since their description, the validity of *Conopsis* and *Toluca* has been debated; some workers recognized only one (e.g., Dugès, 1896; Bogert and Oliver, 1945; Goyenechea, 1995), whereas other authors defended the existence of two genera (e.g., Boulenger, 1894; Duellman, 1961). Taylor and Smith (1942) reviewed these genera and concluded that they constitute different taxonomic entities. Unfortunately, these authors did

not personally examine the holotype of *C. nasus* at the British Museum of Natural History (BMNH); instead they relied on the description and figures provided by Günther (1858, 1893).

To examine the type specimen of *C. nasus*, one of us (OFV) visited the herpetological collections at the BMNH, where the holotype was housed. All *C. nasus* (sensu Taylor and Smith, 1942) collected by the time Günther became the herpetology curator were examined to find a specimen that matched Günther’s description. None was found, although we did find a specimen labeled *C. nasus*, Bridges Coll. California, in the general collection. Our examination of this specimen (BMNH RR 1963.1003) led us to conclude that this was not the same specimen described by Günther (1858); there are four characters that do not match his description. This specimen has 126 ventral scales, whereas Günther’s specimen exhibited 118; the total length is 9.3 inches (236.2 mm) and the tail length 1.14 inches (28.95 mm), whereas Günther’s measurements were 10 inches (254 mm) and 2 inches (5.08 mm), respectively. The specimen has a beige dorsal ground coloration with a tessellated pattern of dark spots along the body, whereas Günther stated that the dorsal coloration was “. . .nearly uniform dark olive; on the anterior part of back some obsolete black spots. . .” Furthermore, Taylor and Smith (1942) noted inconsistencies in the number of ventral and caudal scales, because Boulenger (1894) checked the type and reported 131 and 35, respectively. They stated that Boulenger’s counts were probably erroneous but did not base this on their own examination of the type specimen, instead relying on the figures in Günther (1893).

Because (1) the type specimen is apparently lost and the original description of this taxon applies to more than one taxon in the genus, (2) the type locality “California” is erroneous (e.g., Taylor and Smith, 1942), (3) the restriction of the type locality to Guanajuato by Smith

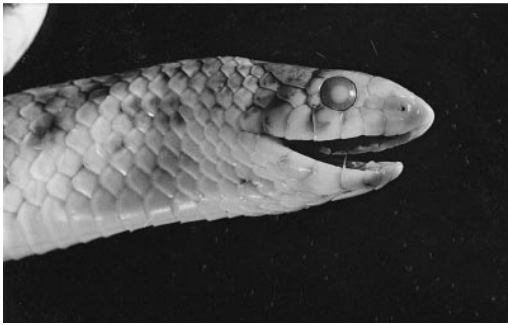
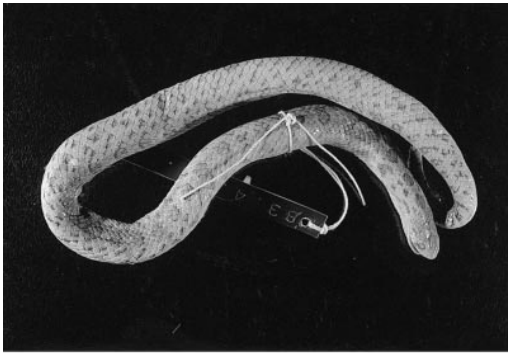


Fig. 1. Neotype of *Conopsis nasus* (BMNH 83.4.16.38). Top: dorsal view. Bottom: lateral view of the head.

and Taylor (1950) is arbitrary, and (4) as many as three taxa to which the name *C. nasus* may apply are recognized in recent years (e.g., Taylor and Smith, 1942), we consider the designation of a neotype advisable at this time, in accordance with Article 75(b)(ii) of the International Code of Zoological Nomenclature (ITZN, 1985).

Conopsis nasus Günther, 1858

Neotype.—BMNH 83.4.16.38, adult male from Milpas, Durango, Mexico, collected on 16 April 1883 by A. Forrer (Fig. 1). We chose this specimen because it has the typical characters defined by Günther (1858) and Taylor and Smith (1942), as well as the characters defined in our study of a large series of *C. nasus* (Goyenechea, 1995), and because this is one of the best preserved specimens of this taxon in the BMNH.

Description of the neotype.—An adult male with prefrontal and internasal scales fused; a loreal scale present on either side; rostral scale pointed; nasal scales pierced by the nostril; frontal scale nearly hexagonal in shape; one anterior

ocular and two posterior ocular scales; temporal formula 1 + 2; upper and lower labials seven on either side; two pairs of genial shields, second one separated by one scale; scales smooth, each with a single, indistinct apical pit; scales in 17-17-17 rows; ventral scales 128, subcaudal scales 37; anal divided.

Measurements.—SVL 245 mm; tail length 50 mm; total length 295 mm; diameter at the middle of the body 10.56 mm; head width 6.59 mm; diameter of the eye 1.87 mm.

Color in preservative.—Top of head with a faint brown blotch, darker than dorsal ground color, extending from rostral to parietals; tip of snout and upper and lower labials beige; dark brown spot on fourth upper labial, below eye, on either side; sutures between second and third, third and fourth, fourth and fifth, and fifth and sixth lower labials marked with dark lines. Dorsal ground color beige; with a medial row of hexagonal brown spots, and two paravertebral lines of smaller brown spots; venter cream, with alternating, quadrangular brown spots, usually as long as a ventral scale; anteriormost one fourth of venter immaculate cream; a narrow, brown medial line on subcaudals.

Material examined.—Twenty-five specimens of *C. nasus* housed at the British Museum of Natural History: 59.9.20.10 no locality; 64.1.15.9-10 no locality; 64.1.15.16-17 a and b no locality; 83.4.16.38 Milpas, Dgo; 90.4.24.38-39 Omiltemi, Gro.; 90.4.24.41-41 a Omiltemi, Gro.; 90.11.20.1-2 Puebla; 92.10.31.51-60 La Cumbre de los Arastrados, Jal.; RR 1963.1003 California.

ACKNOWLEDGMENTS

This report was part of a graduate thesis submitted by the senior author to Facultad de Ciencias, UNAM. We want to acknowledge C. McCarthy and L. Rico for their valuable help and facilities, and H. M. Smith, J. J. Morrone, and A. Nieto Montes de Oca for reviewing a draft copy of the manuscript and making helpful suggestions. Financial support was provided by a scholarship to IG from Dirección General de Asuntos del Personal Académico DGAPA, UNAM, and grants from PAEP UNAM (2329), the Comisión Nacional para el Estudio y Conocimiento de la Biodiversidad CONABIO (H-127), Theodore Roosevelt Memorial Fund and Collections Grants (AMNH) to IG; the Comisión Nacional para el Estudio y Conocimiento de la Biodiversidad CONABIO (A-014) to OFV; the British Council, and Dirección General de

Asuntos del Personal Académico DGAPA, UNAM DGAPA (IN 203493) to the Museo de Zoología, UNAM. We thank A. Hernández for the photographs.

LITERATURE CITED

- BAIRD, S. F. 1859. Reptiles of the Boundary, with notes by the naturalists of the Survey, p. 1–35. *In*: Report on the United States and Mexican Boundary Survey, made under the direction of the Secretary of the Interior. William H. Emory. 34th Cong., 1st Sess., Sen. Exec. Doc. (108), Vol. II, Part II.
- BOGERT, C. M., AND J. A. OLIVER. 1945. A preliminary analysis of the herpetofauna of Sonora. *Bull. Am. Mus. Nat. Hist.* 83:297–426.
- BOULENGER, G. A. 1894. Catalogue of the snakes in the British Museum (Natural History). Vol. II. Trustees of the British Museum, London.
- DUCELLMAN, W. E. 1961. The amphibians and reptiles of Michoacán, México. *Univ. Kans. Publ. Mus. Nat. Hist.* 15:1–148.
- DUGÈS, A. 1896. Calamarídeos del grupo de *Conopsis* de México. *Mem. Rev. Soc. Cient. "Antonio Alzate"* 9:409–413.
- GOYENECHEA, I. 1995. Revisión taxonómica de los géneros *Conopsis* Günther y *Toluca* Kennicott (Reptilia: Colubridae). Unpubl. master's thesis. F. Ciencias. UNAM. Mexico.
- GÜNTHER, A. 1858. Catalogue of colubrine snakes in the collection of the British Museum. Trustees of the British Museum, London.
- . 1893. Reptilia and Batrachia, p. 97–104. *In*: *Biologia Centrali-Americana: zoology*. F. D. Godman and O. Salvin (eds.). Dulau and Co., London.
- INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE. 1985. International Code of Zoological Nomenclature. 3d ed. International Trust for Zoological Nomenclature and British Museum of Natural History, London.
- SMITH, H. M., AND E. H. TAYLOR. 1950. Type localities of Mexican reptiles and amphibians. *Univ. Kans. Sci. Bull.* 33:313–380.
- TAYLOR, E. H., AND H. M. SMITH. 1942. The snake genera *Conopsis* and *Toluca*. *Ibid.* 28:325–363.
- MUSEO DE ZOOLOGÍA "ALFONSO L. HERRERA" FAC. CIENCIAS UNAM. A.P. 70-399 C.P. 04510 MEXICO D.F. PRESENT ADDRESS: (IG) CENTRO DE INVESTIGACIONES BIOLÓGICAS, UNIVERSIDAD AUTÓNOMA DEL ESTADO DE HIDALGO, KM 4.5 CARR. PACHUCA-TULANCINGO, PACHUCA, HIDALGO, MÉXICO C.P. 42184. E-mail: (IG) ireneg@cevide.reduaeh.mx; and (OF-V) ofv@hp.fciencias.unam.mx. Send reprint requests to (OF-V). Submitted: 14 Dec. 1998. Accepted: 9 June 1999. Section editor: A. H. Price.