

**A new species of snake of the genus *Omoadiphas*
(Reptilia: Squamata: Colubridae) from the Cordillera
Nombre de Dios in northern Honduras**

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Abstract.—A new species of *Omoadiphas* is described from the Cerro Texíguat Wildlife Refuge in the Cordillera Nombre de Dios of northern Honduras. The new species differs from the congeneric *O. aurula* in number of subcaudal, supralabial, infralabial, and postocular scales, in color and pattern, and in having the posterior nasal scale in contact with the prefrontal scale. Even though the type-locality is declared a wildlife refuge by the Honduran government, rapid deforestation of the area does not bode well for the continued existence of the species at its type (and only known) locality.

Resumen.—Se describe una nueva especie de *Omoadiphas* del Refugio de Vida Silvestre Texíguat, ubicado en la Cordillera Nombre de Dios en el norte de Honduras. La nueva especie difiere de su congenerico *O. aurula* en el número de escamas subcaudales, supralabiales, infralabiales y postoculares, en color y patrón y en que tiene la escama nasal posterior en contacto con la escama prefrontal. Aunque la localidad tipo ha sido declarada como un Refugio de Vida Silvestre por el gobierno de Honduras, la rápida deforestación que se observa en el área es una amenaza para la nueva especie.

The Cordillera Nombre de Dios of northern Honduras is an area of extremely high endemism among amphibians and reptiles. The Cerro Texíguat Wildlife Refuge, in the western portion of this mountain range, is known to harbor 18 Honduran endemic species of amphibians and reptiles, eight of which have their type-locality within the reserve (McCranie, pers. observ.). In September 2003, we collected a specimen of snake in this reserve that represents an undescribed species of the recently described genus *Omoadiphas* Köhler, Wilson, & McCranie and another endemic for the refuge. Herein we describe this species.

Methods

We follow the format of the description of the holotype in Köhler et al. (2001) in

describing this new taxon. The Dowling (1951) method was used in counting ventral scales. Head and scale measurements were made to the nearest 0.1 mm with dial calipers held under a dissecting microscope. Snout-vent length and tail length measurements were made to the nearest mm alongside a ruler. Measurements are abbreviated to: snout-vent length (SVL); total length (TL); head length (HL); and head width (HW). Scale dimensions were made at the longest or widest points along the longitudinal or breathwise dimensions of the body, respectively. Color (capitalized) and codes (in parentheses) in life follow those of Smith (1975–1981). The term “goo-eaters” is used in the sense given it by Cadle & Greene (1993) and Fernandes (1995). Comparative statements about other snake gen-

era are taken from Köhler et al. (2001) and references cited therein.

Systematics

Omoadiphas texiguatensis, new species

Figs. 1–3

Holotype.—USNM 559599 (National Museum of Natural History), an apparently subadult female from approximately 2.5 airline km NNE of La Fortuna, 15°25'49"N, 87°18'32"W, 1690 m elev., Cerro Texíguat Wildlife Refuge, Departamento de Yoro, Honduras, collected 3 September 2003 by Franklin E. Castañeda & James R. McCranie. Original number LDW 13565.

Diagnosis.—*Omoadiphas texiguatensis* can be distinguished from the holotype of *O. aurula* (SMF 78865; subadult female), the only known specimen of the only other known species in the genus, in having 47 subcaudal scales (24 in *O. aurula*), six supralabials (seven), seven infralabials (eight), one postocular (two), the posterior nasal contacting the prefrontal (posterior nasal separated from prefrontal by loreal), a dorsal pattern of a dark stripe on scale row three on each side (dark stripe only on vertebral row), and dark brown to nearly black ventral surfaces in preservative (pale yellow). The affinities of the two species of *Omoadiphas* appear to lie with a group of six other genera of snakes (see Köhler et al. 2001) that are part of a larger group referred to as “goo-eaters.” *Omoadiphas texiguatensis* differs from the species of these six other genera in the following ways: from *Adelphicos* in having 17 dorsal scale rows (15), 172 ventral scales (120–147), and no anterior temporal (anterior temporal present); from all *Atractus* in having a divided cloacal scute (undivided) and from select species of *Atractus* in lacking an anterior temporal (anterior temporal present in some *Atractus*); from *Chapinophis* in having 172 ventral scales (178–196), 47 subcaudal scales (29–40), no anterior temporal (anterior temporal present), no scale row reduction anteriorly on body (scale row re-

duction present), and a striped body pattern (stripes absent); from *Chersodromus* in having 172 ventral scales (124–142), 47 subcaudal scales (32–43), a divided cloacal scute (undivided), and a striped body pattern (stripes absent); from all *Geophis* in having a divided cloacal scute (undivided) and a striped dorsal pattern (stripes absent) and from select species of *Geophis* in lacking an anterior temporal (anterior temporal present in some *Geophis*); and from *Ninia* in having 172 ventral scales (122–157), no anterior temporal (anterior temporal present), smooth dorsal scales (keeled), a divided cloacal scute (undivided), and a striped body pattern (stripes absent).

Description of holotype.—An apparently subadult female; TL 169 mm; SVL 143 mm; tail length 26 mm (15.4% of TL); HL 8.0 mm from front face of rostral to posterior end of mandible; HW 3.9 mm at broadest point (level of angle of mouth); head barely distinct from neck; snout broadly rounded in dorsal view; eye length 0.8 mm; snout length 1.9 mm, about 2.4 times as long as eye length; pupil circular; rostral about 2.0 times wider than high (0.6 mm × 0.3 mm); internasals about 2.0 times wider than long (0.4 mm × 0.2 mm); prefrontals much larger than internasals, about as wide as long (0.9 mm × 0.9 mm), bordering orbit above loreal and anterior to supraocular; median prefrontal suture (1.0 mm) 0.4 times as long as frontal; frontal broadly rounded anteriorly, strongly V-shaped posteriorly, about 1.6 times longer than wide (2.3 mm × 1.4 mm), much longer than distance from its anterior edge to tip of snout (1.6 mm); parietals about 2.1 times longer than wide (3.4 mm × 1.6 mm), median suture (1.9 mm) shorter than frontal length; supraoculars longer than wide (0.6 mm × 0.4 mm), bordering orbit, contacting postocular, separated from loreal by prefrontal.

Nasal divided, anterior nasal contacting rostral, internasal, and first supralabial, posterior nasal contacting internasal, prefrontal, loreal, and first and second supra-

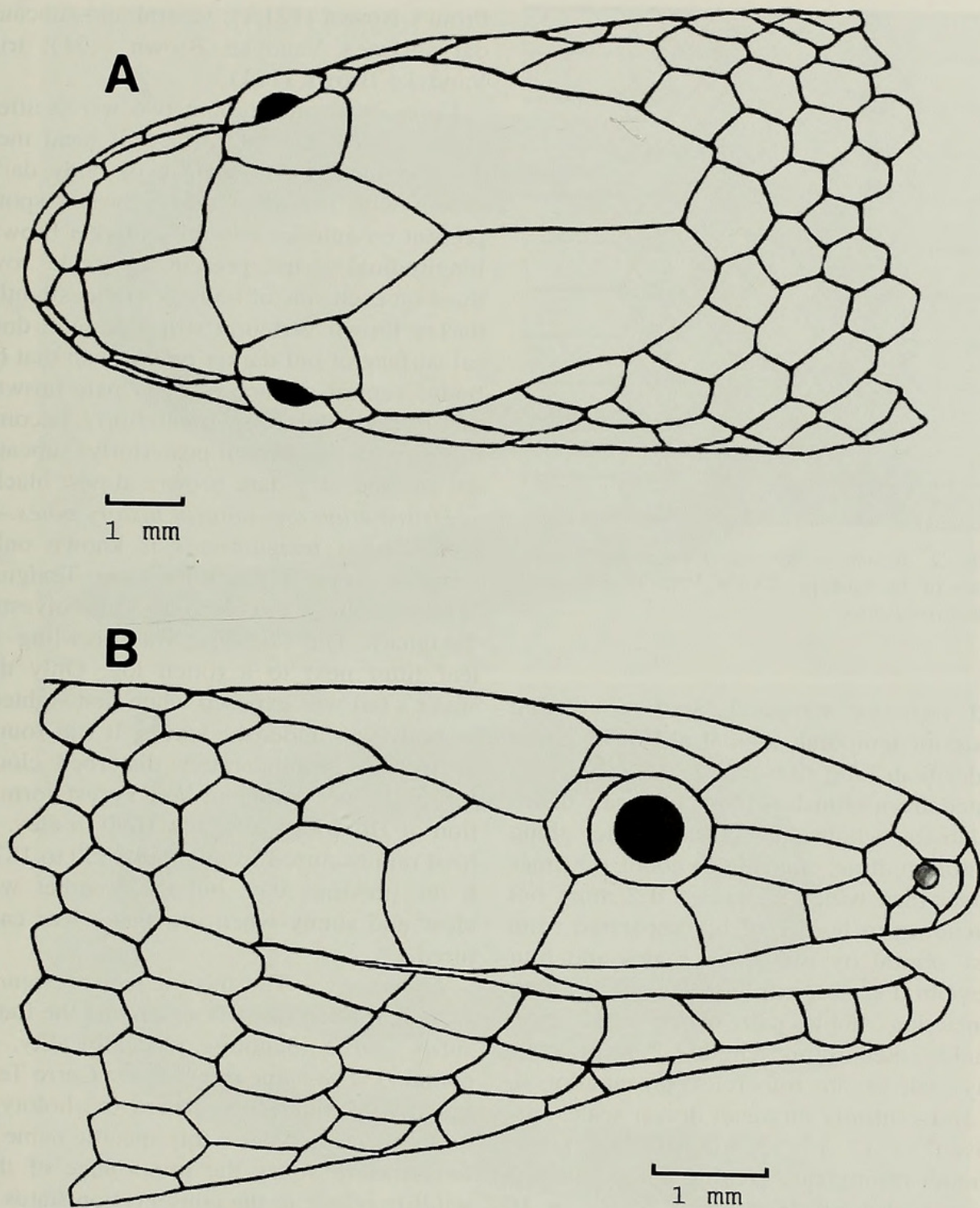


Fig. 1. Drawing of dorsal (A) and lateral (B) surfaces of the head of the holotype (USNM 559599) of *Omoadiphas texiguatensis*.

labials, nostril located in posterior portion of anterior nasal; loreal single, about 3.0 times longer than high (0.9 mm \times 0.3 mm), lower edge contacting second and third supralabials, upper edge contacting prefrontal, loreal bordering orbit (no preocular); post-

ocular single, about 2.0 times higher than long (0.6 mm \times 0.3 mm); no anterior temporal, posterior temporal single, about 1.7 times longer than high (1.0 mm \times 0.6 mm); supralabials 6-6, third and fourth bordering orbit, fifth contacting postocular, parietal,

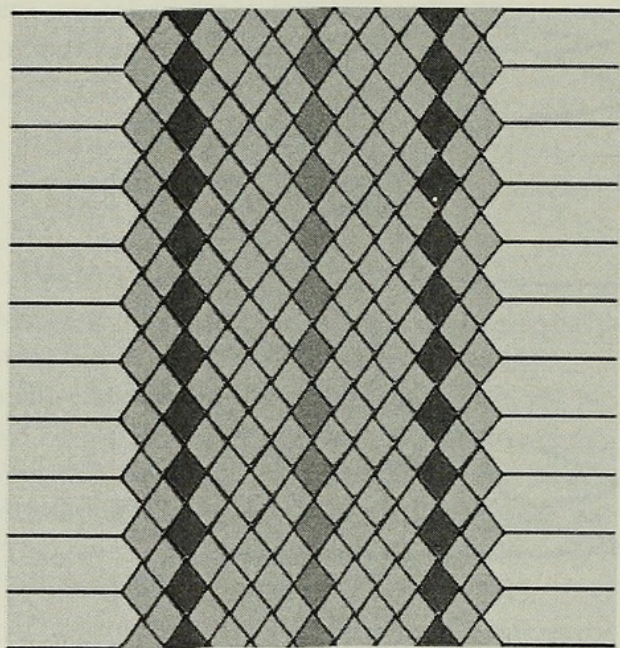


Fig. 2. Schematic drawing of the midbody dorsal pattern of the holotype (USNM 559599) of *Omoadiphas texiguatensis*.

and posterior temporal, sixth contacting posterior temporal; mental about 3.0 times wider than long (0.6 mm \times 0.2 mm), separated from chinshields by first pair of infralabials, which contact each other along ventral midline; chinshields about 1.3 times longer than wide (1.5 mm \times 1.2 mm), not extending to border of lip, separated from first ventral by two gular scales and four preventral scales; infralabials 7–7, first four contacting single pair of enlarged chinshields (their suture length 1.2 mm); a few tiny scale organs (tubercles) present dorsally and ventrally on head; dorsal scales disposed in 17–17–17 longitudinal rows, smooth throughout, lacking apical pits and supra-anal tubercles; dorsal scales in 10 rows at level of tenth subcaudal; ventrals 172; cloacal scute divided; subcaudals 47, paired; tail spine pointed.

Color in life: Dorsal surfaces of head and neck Chestnut (32) with Sepia (119) spots; dorsal surface of body Prout's Brown (121A) with Sepia (119) spots; Sepia (119) dorsolateral stripe present on scale row three on each side, lateral area below stripe Vandyke Brown (121); dorsal surface of tail

Prout's Brown (121A); ventral and subcaudal surfaces Vandyke Brown (121); iris Vandyke Brown (121).

Color in alcohol (about two weeks after preservation): Dorsal surface of head medium brown; dorsal surface of body dark brown with indistinct darker brown spots present on anterior one-third; darker brown longitudinal stripe present on scale row three on each side of body; a vague, slightly darker brown vertebral stripe present; dorsal surface of tail darker brown than that of body; ventral surface of head pale brown, that of body dark brown anteriorly, becoming even darker brown posteriorly; subcaudal surface very dark brown, almost black.

Distribution and natural history notes.—

Omoadiphas texiguatensis is known only from within the limits of the Cerro Texíguat Wildlife Refuge (Refugio de Vida Silvestre Texíguat). The holotype was crawling in leaf litter next to a rotten log. Only the snake's tail was exposed when first sighted; its body was under the leaves. It was found at 1000 h in moderately disturbed cloud forest (Lower Montane Wet Forest formation of Holdridge 1967) at 1690 m elev. A hard rain occurred from about 1850 to 1875 h the previous day, but the weather was clear and sunny when the snake was captured.

Etymology.—The specific name *texiguatensis* is formed from Texíguat and the Latin suffix *-ensis* (denoting place, locality, or country). The name refers to the Cerro Texíguat Wildlife Refuge where the holotype was collected. We use this specific name in an effort to stress the importance of this wildlife refuge to the conservation status of many Honduran endemic species of amphibians and reptiles (but see Discussion).

Discussion

The genus *Omoadiphas* is now known from two apparently subadult females placed in two species, making it one of the most poorly known snake genera in the Neotropics. Köhler et al. (2001) concluded

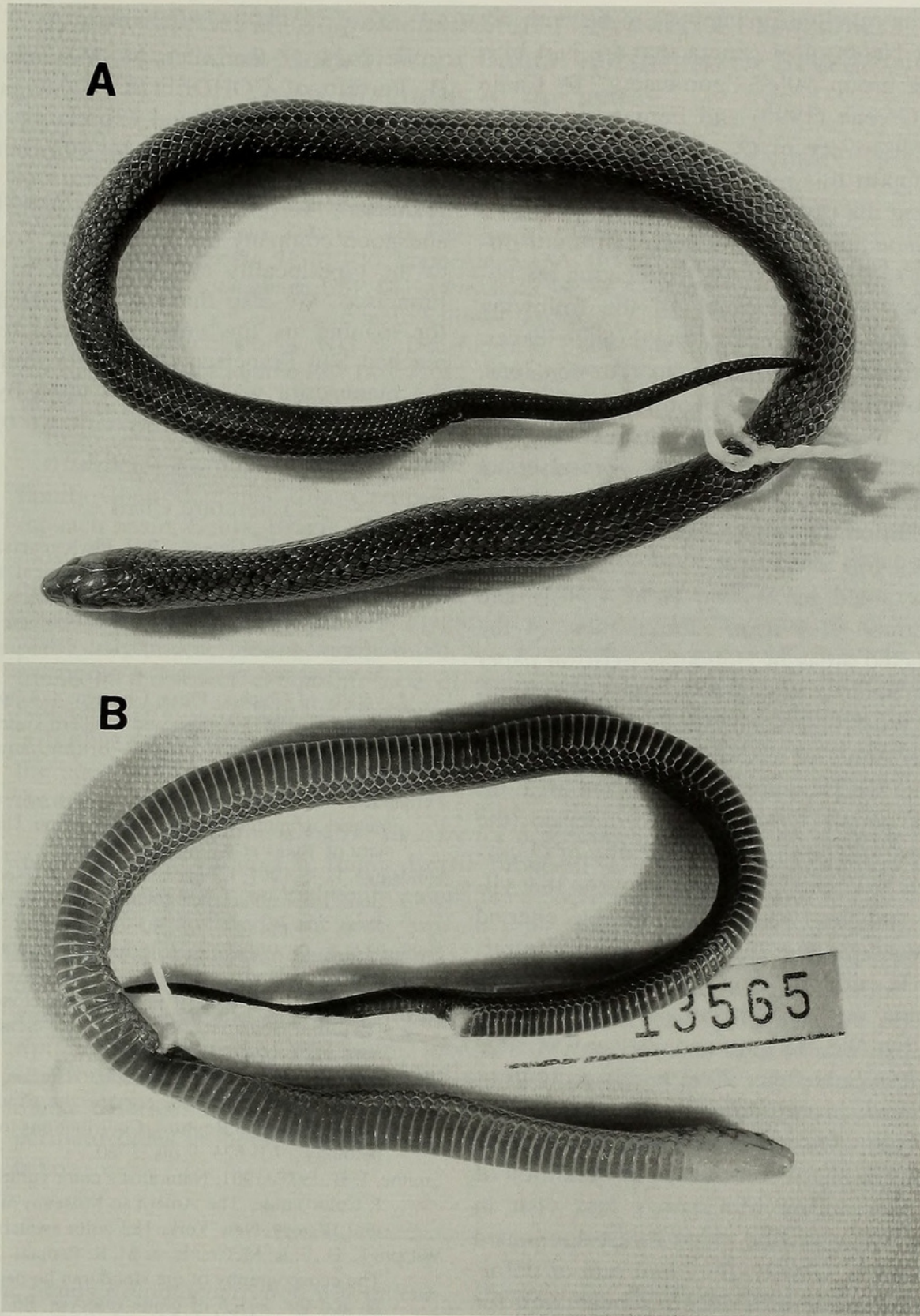


Fig. 3. Dorsal (A) and ventral (B) views of the holotype (USNM 559599) of *Ooadiphas texiguatensis*, total length 169 mm.

that its relationships appear to lie with six other Neotropical genera that are part of a larger group called “goo-eaters” by Cadle and Greene (1993) and Fernandes (1995). The discovery of *O. texiguatensis* appears to support this relationship as well as supporting the distinctiveness of the genus.

Omodiphas texiguatensis is truly a difficult snake to find. After collecting the holotype, we spent much of the following three days in the area raking through leaves, overturning and ripping apart rotten logs, and overturning rocks in an unsuccessful attempt to find more specimens. We also walked through the area for several hours on two nights searching for active snakes. In addition, this was McCranie’s fourth collecting trip to the area.

As noted by Wilson et al. (2001) and McCranie & Wilson (2002), most of the protected areas in Honduras exist on paper only. Such is the case for the Cerro Texiguat Wildlife Refuge. There are no facilities or personnel of any sort or even signage to denote the presence of a protected area. Indeed, people living in San Francisco (the closest village to the type-locality of *O. texiguatensis*) and in the area between that village and the type-locality that we queried are unaware that the area is a wildlife refuge. In addition, crop fields and cleared areas now dominate the area around the type-locality. We did not encounter any pristine forest in September 2003 within an hour or two walk in any direction from where the holotype of *O. texiguatensis* was collected. This is in sharp contrast to the condition of the area during McCranie’s first visit in 1991 when pristine cloud forest dominated the region. Clearly, the rapid rate of deforestation in the area does not bode well for the continued existence of *O. texiguatensis* or any of the other species of amphibians and reptiles found in this region of unusually high endemism.

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