

Catalogue of American Amphibians and Reptiles.

Thomas, R. and R. Powell. 1994. *Typhlops sulcatus*.

Typhlops sulcatus Cope

Typhlops sulcatus Cope, 1868:128. Type-locality, "Navassa Island."

Type-specimen, U.S. National Museum (USNM) 12371 (recatalogued from an obliterated tag, original number unknown), an adult, sex unknown, collected by W.J. Rasin, date of collection unknown (catalogued 19 December 1881) (examined by RT).

Typhlops baitianus Richmond, 1964:5. Type-locality, "Manneville, Haiti." Type-specimen, Museum of Comparative Zoology (MCZ) 62635, an adult (sex unknown), collected by A.S. Rand and J. Lazell on 10 August 1960 (examined by RT).

Typhlops sulcata: Thomas, 1966a:73. See Comment.

• **Content.** No subspecies are recognized.

• **Definition.** *Typhlops sulcatus* is a blind snake characterized by (see Thomas, 1976 and 1989, for complete explanations of characters): (1) head rounded; (2) rostral in dorsal aspect moderate (RW/RL 0.48-0.60), oval (mode) to parallel, often somewhat asymmetrical, without apical flare, labial flare category 1; (3) preocular angled (65-95°), apex angled, lower portion contacting only 3rd of upper labials; (4) ocular length about 1/2 height, sinuosity 0.37-0.21; (5) postnasal pattern divergent; (6) postocular single (strong mode), but 2 often present (on at least one side in 40% of specimens); (7) 1st parietal expanded laterally and blade-like, spanning > 2 scale rows; (8) 2nd parietal present and slightly narrower than the 1st; (9) TL to 319 mm; (10) TL/tail length in males 36-52, females 40-60; (11) TL/midbody diameter 37-44; (12) middorsal scales 371-447; (13) scale rows 20-20, very rarely 20-18 with reduction occurring shortly anterior to vent; (14) coloration bicolor with dorsal pigmentation pale to dark brown with dark scale centers in less heavily pigmented specimens producing a lineate pattern, pigmentation fading over a narrow midlateral zone to an unpigmented venter or extending well onto venter, but leaving irregular midventral areas of unpigmented scales (transition abrupt or gradual); (15) rectal caecum present; (16) hemipenes attenuate; (17) cranium broad, width across prefrontals 91-100% of width across prootics; (18) premaxilla broad, about 47-51% of width across prefrontals, slightly convex anteriorly, not protuberant, posteroventral edges transverse, making a right-angle juncture with blade; (19) nasals without lateral angles; (20) septomaxilla with hook,

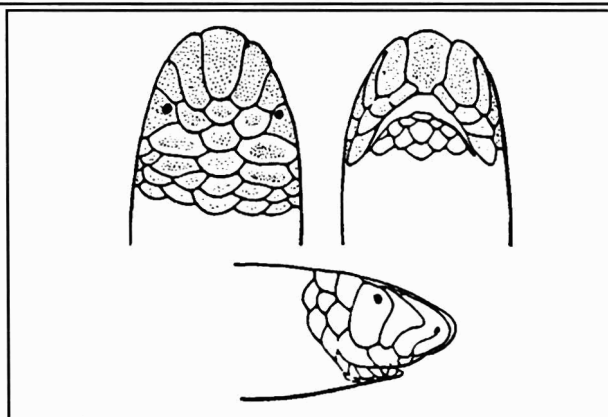
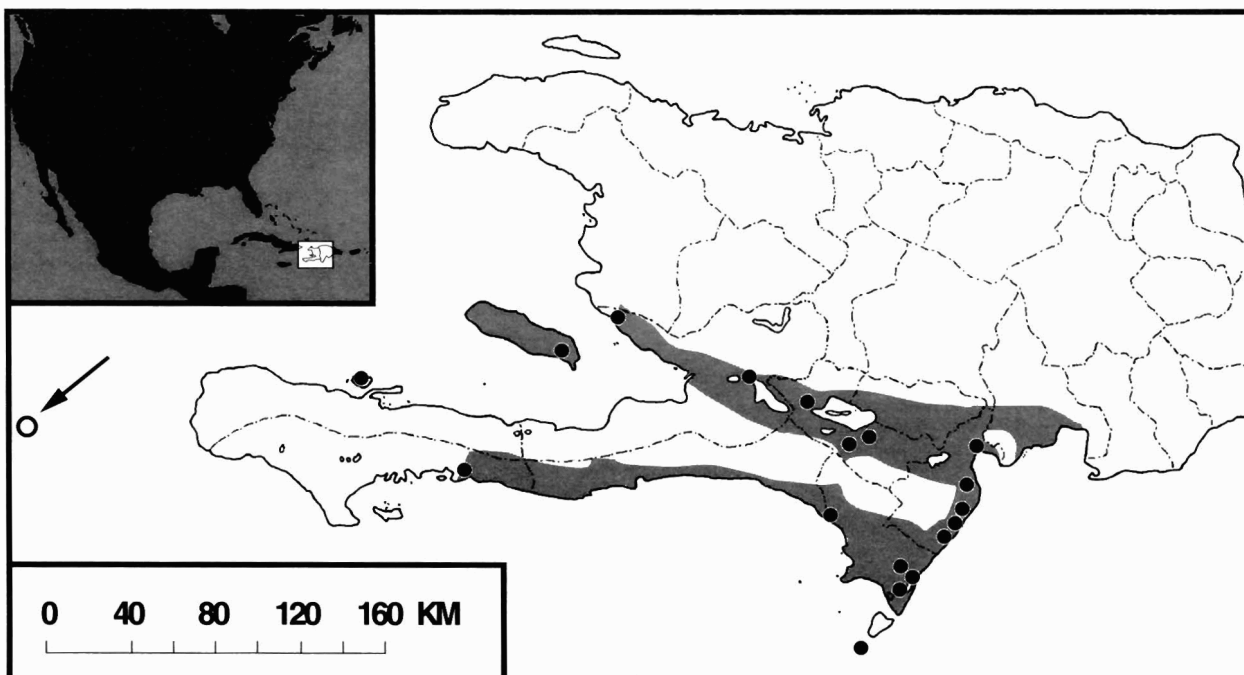


Figure. The head of the holotype of *Typhlops sulcatus* (USNM 12371) (from Cochran, 1941).

anterior portion tapered; (21) frontal-parietal suture transverse, slightly sinuous; (22) frontal with anterior ventral blade-like process; (23) optic foramen slit-like; (24) postorbital process of parietal moderate; (25) parietal without temporal ridges; (26) lappet of prootic fused with tongue, tongue reaching nearly to parietal, small secondary foramen isolated; (27) supraoccipitals unfused, in broad median contact; (28) exoccipitals not fused with prootics; (29) angular not sliver-like; (30) dorsal process of quadrate prominent, not hooked; (31) atlantal hypapophysis intermediate, elongate, tablike, 4-5 total hypapophyses; (32) hyoid with Y-shaped cartilagenous basihyal and rodlike ceratobranchials; (33) pelvis prominent, triradiate.

• **Diagnosis.** The combination of high middorsal scale counts (371-447), 20 scale rows with no posterior reduction, an oval rostral with a divergent rostronasal pattern, a hooked and tapered septomaxilla, an unfused anterior ventral blade of the frontal, a triradiate pelvis, and an attenuate hemipenis distinguish this species from Hispaniolan congeners. *Typhlops sulcatus* is a very elongate species and in the field readily can be distinguished from *T. capitulatus*, the only other comparably elongate and sympatric species, by its broader head and bicolor rather than completely pigmented pattern.

• **Descriptions.** In addition to the original description of Cope



Map. Distribution of *Typhlops sulcatus* (modified from Schwartz and Henderson, 1991). The large open circle marks the type-locality, solid circles indicate other records.

(1868) and the systematic treatise by Thomas (1976), Cochran (1941), Richmond (1964, as *T. bairtiensis*), and Schwartz and Henderson (1991) provided descriptions of the species.

• **Illustrations.** Line drawings of the head are in Cochran (1941), Richmond (1964, as *T. bairtiensis*), and Thomas (1976); the latter also figured the septomaxilla and cranium. Thomas (1965) illustrated a flattened rostral (as *T. bairtiensis*).

• **Distribution.** This xerophilic species is found in southwestern Hispaniola, including portions of the Tiburon and Barahona peninsulas and Cul de Sac-Valle de Neiba plains, and on Isla Alto Velo, Île de la Gonâve, Île Grande Cayemite, and Navassa Island. The range appears to exclude much of the Tiburon Peninsula, especially the interior, which is too mesic, but extends north of the Cul de Sac Plain of Haiti to the vicinity of Archaie.

• **Fossil Record.** None.

• **Pertinent Literature.** In addition to the original description of Cope (1868) and the systematic treatise of Thomas (1976), the species is included in checklists and guides by Schwartz and Thomas (1975), Hahn (1980), Henderson and Schwartz (1984), Henderson et al. (1984), and Schwartz and Henderson (1985, 1988). Cochran (1924, 1941), Richmond (1964), and Thomas (1966a) discussed the status of the species. Ruthven and Gaige (1935) compared *T. sulcatus* to *T. granti*, and Thomas (1966b) to *T. monastus*. Legler (1959) compared *T. sulcatus* to *T. silus* because of the shedding-induced anomalies of the head scales of both holotypes (see Etymology). Thomas (1989) discussed relationships with Antillean congeners and provided a key. SEA/DVS (1990) provided an index of habitats in the Dominican Republic. Schwartz and Henderson (1991) provided a summary of natural history.

• **Remark.** Thomas (1966a) noted that *T. sulcatus* had not been collected in "recent years" on Navassa Island, the type-locality.

• **Etymology.** The name *sulcatus* is from the Latin *sulcus* (= groove) and refers to the grooved appearance of the head scales of the holotype, which is a shedding specimen. In typhlopids the scales of the head, most notably the rostral, anterior and posterior nasals, and preoculars, become swollen and distended from one another immediately prior to shedding, resulting in grooves along the sutures between these scales (Richmond, 1961). This condition may also cause the suture between the anterior and posterior nasals to appear incomplete (in some species this suture is incomplete in non-shedding specimens).

• **Comment.** The feminine form "*sulcata*" was used by Thomas (1966a), Schwartz and Thomas (1975), Henderson and Schwartz (1984), Henderson et al. (1984), and Schwartz and Henderson (1985, 1988, 1991) because the Greek *οψ* (= *ops*, voice, face, or possibly eye) is feminine or at least is considered so by some lexicons. However, the second and third editions of the International Code of Zoological Nomenclature (Fifteenth International Congress of Zoology, 1961:31; Twentieth General Assembly of the International Union of Biological Sciences, 1985:31) have been emphatic that names ending in *-ops* are to be treated as masculine.

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Primary editor for this account, Larry David Wilson.

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