

REPTILIA: SQUAMATA: SERPENTES: COLUBRIDAE

DARLINGTONIA
D. HAETIANA

Catalogue of American Amphibians and Reptiles.

SCHWARTZ, ALBERT. 1986. *Darlingtonia, D. haetiana*.*Darlingtonia* Cochran*Darlingtonia* Cochran, 1935:374; type-species, *Darlingtonia haetiana* Cochran, 1935, by monotypy.

• CONTENT. One species (*haetiana*), with three subspecies (*haetiana*, *perfector*, *vaticinata*).

• DEFINITION. *Darlingtonia* are small snakes (maximum SVL [snout-vent length] 281 mm in males, 305 mm in females), with short tails (T[ail]/SVL ratio 25.7-31.9 in males, 23.7-31.9 in females). The dorsum varies from tan to dark brown and may be virtually patternless, strongly lineate, or with scattered paramedian dorsal pale dots (each encompassing 3-4 dorsal scales), outlined with dark brown or black. The venter is ontogenetically variable, from orange in juveniles to black in full adults; intermediate stages have intermediate conditions (Schwartz and Thomas, 1965). The dorsal scale row formula is usually 19-19-17; the dorsal scales lack apical pits. The maxillary teeth are 18-19, pterygoid teeth 22-25, palatine teeth 11, and dentary teeth 20-24 (Maglio, 1970). The head is short and blunt, and the eye is relatively large. The loreal scale is absent. Supralabials are usually 7, infralabials usually 8. Preoculars are usually 1/1, postoculars usually 2/2, and temporals 1 + 2 (usually) or 1 + 1. The postnasal is very large, the nostril entering it from the upper posterior border of the anterior nasal. The posterior chin shields are longer than the anterior and only partially in contact on the midline. Hypapophyses are absent on the posterior vertebrae, the lower surfaces of which have a low keel (Cochran, 1935). The ventral scales vary between 132 and 144 in both sexes; the paired subcaudal scales vary between 45 and 54 in males, and between 40 and 51 in females. Total underbody scales (ventrals + subcaudals) are 178-193 in males, 174-191 in females. The anal scale is single.

• DESCRIPTIONS, ILLUSTRATIONS, FOSSIL RECORD, PERTINENT LITERATURE. See species account.

• DISTRIBUTION. *D. haetiana* occurs only on the south island (*sensu* Williams, 1961) of Hispaniola, in both Haiti and the República Dominicana, at elevations between 1000 ft (305 m) and 5600 ft (1710 m), in the Massif de la Hotte, Massif de la Selle, and the Sierra de Baoruco.

• ETYMOLOGY. The genus is named in honor of P. J. Darlington, Jr., noted entomologist and zoogeographer, who collected the holotype. The gender is feminine.

Darlingtonia haetiana Cochran

Darlingtonia haetiana Cochran, 1935:374. Type-locality: "Roche Croix, northeast foothills, Massif de la Hotte, about 5000 feet altitude, [Dépt. du Sud,] Haiti"; the type-locality in actuality lies on the northeast foothills of Pic Macaya, the culminating peak of the Massif de la Hotte. Holotype, MCZ (Mus. Comp. Zool., Harvard Univ.) 38252, an adult female, taken by P. J. Darlington, Jr., in October 1934 (examined by author).

• CONTENT. Three subspecies are recognized: *D. h. haetiana*, *D. h. perfector*, and *D. h. vaticinata*.

• DEFINITION. See generic account.

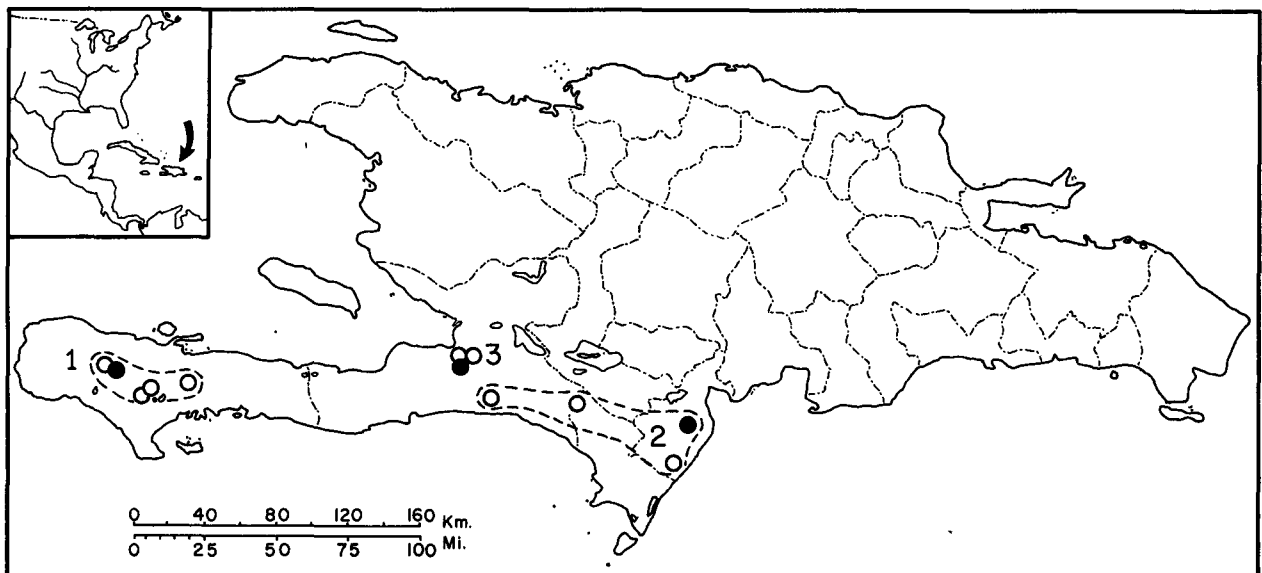
• DESCRIPTIONS. Cochran (1935) gave a thorough definition of both the genus and species, and these were repeated by her (1941) without addition since no new material had been taken in the interim. Schwartz and Thomas (1965) and Schwartz (1970) described the two additional subspecies and gave comparisons in meristic and other characters between them and the nominate subspecies. Schwartz and Thomas (1965) also described the hemipenis and ontogenetic change in ventral coloration, as well as pattern variation between and within populations. Maglio (1970) gave details of skeletal anatomy and placed the genus in a West Indian xenodontine schema, including the genus in his *funereus* assemblage, which otherwise includes only snakes assigned to *Arrhyton* (a genus that is widespread on the Greater Antilles but is absent from Hispaniola).

• ILLUSTRATIONS. Cochran (1941) has two photographs of the holotype (preserved, contorted, and showing no details of pattern). Henderson and Schwartz (1984) have a photograph of a live individual from Furcy, Haiti, which shows the pattern of *D. h. vaticinata*. Schwartz and Thomas (1965) showed midbody and head patterns of *D. h. vaticinata* (as *D. h. haetiana*) and *D. h. perfector* and also illustrated the hemipenis from a specimen of *D. h. vaticinata*.

• DISTRIBUTION. See generic account.

• FOSSIL RECORD. None.

• PERTINENT LITERATURE. Other than the references above, Schwartz and Thomas (1975) and Schwartz et al. (1978) gave detailed distributions of the three subspecies. Henderson (1984) gave some details of dietary habits of *D. haetiana*. The species was included in identification guides to Hispaniolan amphibians and reptiles (Henderson and Schwartz, 1984; Henderson et al., 1984), and in Barbour's (1937) West Indian check-list. Schwartz (1978) mentioned the south island affinities of *Darlingtonia* and later (1980) placed the genus as a south island endemic in the Hispaniolan herpetofauna.



MAP. Map of Hispaniola, showing ranges of subspecies of *D. h. haetiana* (1), *D. h. perfector* (2), and *D. h. vaticinata* (3). Solid circles indicate type-localities; open circles represent other localities.

● **REMARKS.** *D. haetiana* is an upland snake on the three south island mountain ranges (La Hotte, La Selle, Baoruco) on Hispaniola. These snakes have not been encountered abroad either during the day or night; specimens are regularly taken beneath surface objects (rocks, trash piles) in or adjacent to upland *caféières* and *cafetales*; one was taken within a well-rotted log in a boggy meadow (Los Arroyos, República Dominicana). The low elevation record is from Camp Perrin in the Massif de la Hotte, the high from the Montagne Noire, both in Haiti.

● **ETYMOLOGY.** The name *haetiana* is a Latinized adjectival form derived from the name of the country of Haiti, wherein the type-locality lies. The name *perfector* is from Latin for "completer, finisher," in allusion to the fact that, with specimens from the Sierra de Baoruco, the species was then known from all south island ranges. The name *vaticinata* is likewise Latin for "prophesied," in allusion to the fact that Schwartz and Thomas (1965) had suggested that material from the northern versant of the Massif de la Selle (=Montagne Noire) was not identical with topotypical material from the Massif de la Hotte (*D. h. haetiana*).

1. *Darlingtonia haetiana haetiana* Cochran

Darlingtonia haetiana Cochran, 1935:374. See species account.
Darlingtonia haetiana haetiana: Schwartz and Thomas, 1965:3.

● **DEFINITION.** A subspecies of *D. haetiana* characterized by: low number (137 in male, 133–138 in females) of ventral scales, long tail and high number of subcaudal scales (54 in male, 49–51 in females), a low tail/total length (T/SVL) ratio (31.9 in males, 23.7–27.8 in females), ventrals plus subcaudals high (191 in male, 184–191 in females), and ventrals minus subcaudals high (83 in male, 82–89 in females). Dorsal pattern weakly lineate and without a buffy nuchal collar.

● **REMARKS.** *D. h. haetiana* is known from the Massif de la Hotte (type-locality, Camp Perrin, Castillon, Zapoti, Saut Mathurine, 20.6 km N Cavailon) on north and south versants. Elevational distribution between 1000 ft (305 m) and 5000 ft (1525 m) (Schwartz et al., 1978).

2. *Darlingtonia haetiana perfector* Schwartz and Thomas

Darlingtonia haetiana perfector Schwartz and Thomas, 1965:3.
Type-locality: "24 km SW Barahona, 3700 ft. (1221 m), Barahona Province, República Dominicana." Holotype, MCZ 77217, adult female, taken by David C. Leber on 6 July 1964 (examined by author).

● **DEFINITION.** A subspecies of *D. haetiana* characterized by: low number (132–136 in both sexes) of ventral scales, short tail and low number (45–47 in males, 40–42 in females) of subcaudal scales, a moderate T/SVL ratio (26.7–29.2 in males, 24.4–24.7 in females), ventrals plus subcaudals low (178–183 in males, 174–176 in females), ventrals minus subcaudals low (83 in male, 82–89 in females). Dorsal pattern distinctly lineate and with a wide buffy collar.

● **REMARKS.** *D. h. perfector* occurs on the south versant of the Massif de la Selle in southeastern Haiti (Seguin) and the República Dominicana (Los Arroyos), and on both slopes of the Sierra de Baoruco in the República Dominicana (Polo, Enriquillo). Elevational distribution between 2600 ft (793 m) and 4400 ft (1342 m) (Schwartz et al., 1978).

3. *Darlingtonia haetiana vaticinata* Schwartz

Darlingtonia haetiana vaticinata Schwartz, 1970:327. Type-locality: "Peneau, Bassin Bleu, 5000 ft. (1525 m), Département

de l'Ouest, Haiti." Holotype, MCZ 92099, adult male, taken by Elie Cyphale on 8 July 1962 (examined by author).

● **DEFINITION.** A subspecies of *D. haetiana* characterized by: moderate number (132–144 in both sexes) of ventral scales, short tail and moderate number (46–51 in males, 41–50 in females) of subcaudal scales, a high T/SVL ratio (25.7–29.9 in males, 25.8–31.9 in females), ventrals plus subcaudals high (185–193 in males, 183–191 in females), ventrals minus subcaudals high (87–97 in males, 87–102 in females). Dorsal pattern lineate and pale nuchal collar absent.

● **REMARKS.** *D. h. vaticinata* is known from only a rather circumscribed region on the northern front range (Montagne Noire) of the Massif de la Selle in extreme southern Haiti. Elevational distribution from 5000 ft (1525 m) to 5600 ft (1708 m) (Schwartz and Thomas, 1975). The subspecies is presumably more widely distributed in this area and on the north versant of the Massif de la Selle itself, but much of this area has been severely disturbed by human activities.

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