



9-30-1974

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Recommended Citation

Powers, Arnold L. and Banta, Benjamin H. (1974) "Description of a *Phyllorhynchus* from Cerralvo Island, Gulf of California, Mexico," *Great Basin Naturalist*: Vol. 34 : No. 3 , Article 11.

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DESCRIPTION OF A *PHYLLORHYNCHUS* FROM CERRALVO ISLAND, GULF OF CALIFORNIA, MEXICO

Arnold L. Powers¹ and Benjamin H. Banta²

ABSTRACT.— *Phyllorhynchus decurtatus porelli* ssp. nov. is described from a single specimen from Cerralvo Island, Gulf of California, Mexico, and is regarded as different from *P. d. decurtatus* on the basis of an increased number of dorsal blotches (41 as compared to 18-33) and an increased number of supralabials (7 as compared to 6), combined with geographical isolation and the high degree of endemism found in other reptiles on Cerralvo Island.

Among the herpetological specimens secured from Cerralvo Island, Gulf of California, Mexico, in January 1973 is an example of *Phyllorhynchus decurtatus* (Cope). It constitutes the first record of this species for Cerralvo Island. The specimen resembles a specimen of *P. decurtatus* (SDSNH 44682) reported by Soulé and Sloan (1966) from San José Island, located approximately 90 kilometers to the northwest (Fig. 1). When compared with the published meristic and morphological data provided by Klauber (1940) and Smith and Langebartel (1951), a number of distinctive features were found (Table 1). These data combined with the geographical isolation from the most similar populations on the Baja California peninsula and the high degree of endemism found in other reptiles occurring on Cerralvo Island merit the recognition of a distinct geographic race.

TABLE 1. Summary of selected morphometric and meristic characteristics of nominal forms of *Phyllorhynchus* adapted from Klauber (1935, 1940); Soulé and Sloan (1966); Savage and Cliff (1954); Smith and Langebartel (1951).

Species	Ventrals	Sub-caudals	Supra-labials	Dorsal blotches
<i>decurtatus</i>	157-167	33-36	6	18-33
<i>decurtatus</i> *	153	33	6	28
<i>porelli</i>	160	33	7	41
<i>arenicola</i>	164	39	6	30-32
<i>norrisi</i>	151-156	31-34	6	28-48
<i>perkinsi</i>	168-182	32-41	6	26-57

*from San José Island

Phyllorhynchus decurtatus porelli, ssp. nov.

HOLOTYPE.— Subadult male; Natural History Society of Maryland number R1800 NHSM collected by Ismael Avilés from southwest Cerralvo Island, Gulf of California, 15 January 1973.

DIAGNOSIS.— A new geographic race of *Phyllorhynchus decurtatus* closely related to peninsula populations of *P. decurtatus* in

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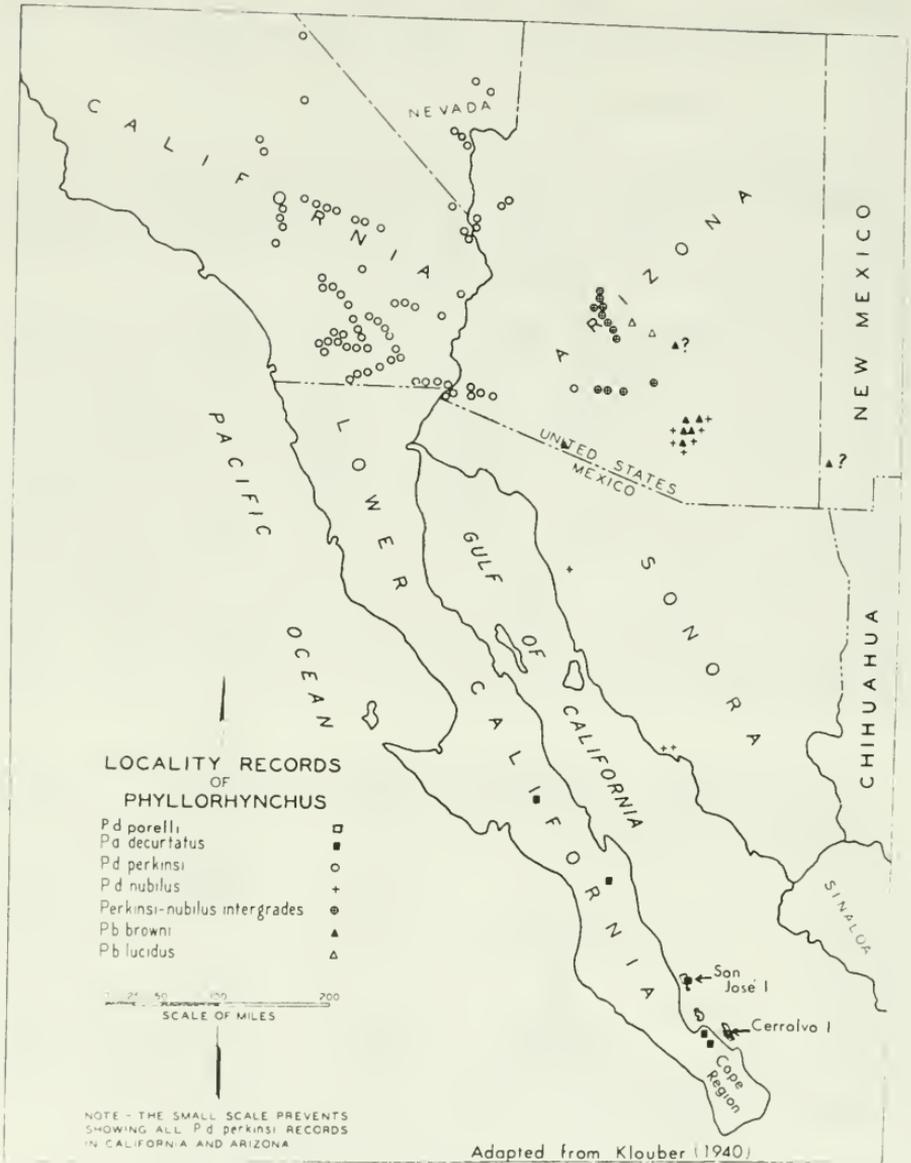


Fig. 1. Distribution of the genus *Phyllorhynchus*.

having an increased number of dorsal blotches (41 as compared to 18-33) and an increased number of supralabials (7 as compared to 6, Table 1).

DESCRIPTION.— Rostral large, truncate in dorsal profile, edges protruding and striated; internasals triangular, separated by rostral, in contact with upper loreal and both sections of nasal. Body moderately stout, slightly flattened below but cylindrical. Tail relatively

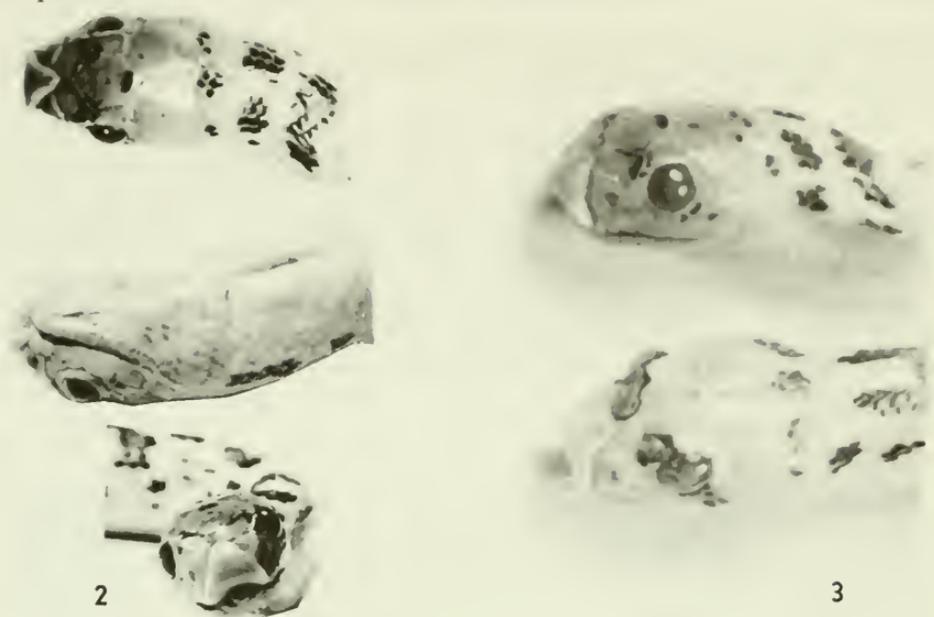


Fig. 2. Head of *P. d. porelli*, dorsal (a), ventral (b), and anterior (c) views.

Fig. 3. Head views of *P. d. porelli* from Cerralvo Island (top) and *P. d. decurtatus* from San José Island (bottom).

short, decreasing rapidly in girth posteriorly. Head only slightly distinct from body, short with a blunt snout; not as broad at trunk as at mid-body. Scale rows 21-19-16; apical scale pits single; ventrals 160; anal single; subcaudals 33, all paired. The primary dorsal pattern is a series of 41 irregular brown blotches with a cream-white



Fig. 4. Dorsal views of *P. d. decurtatus* from San José Island and *P. d. porelli* from Cerralvo Island.

background. On the sides are auxiliary series of spots, irregular in form (Figs. 1-3).

REMARKS.— Geographically, *porelli* is most closely related to *decurtatus*, which occurs on the adjacent Cape Region to midcentral Baja California. A relationship of *porelli*, as with the San José specimen of *decurtatus*, can also be deduced with the western Mexico mainland *norrisi*, found approximately 500 kilometers northward across the Gulf of California in Sonora. The Monserrate Island species *arenicola*, can also be readily related to *porelli* based on comparable ventral counts. A better appraisal of the systematic status of this insular form can be obtained only if and when additional material becomes available for study.

ACKNOWLEDGMENTS

The expedition was partially sponsored by the Natural History Society of Maryland, Inc., through the generousities of Mr. Herbert S. Harris, Jr., and Dr. Robert S. Simmons. Mr. Clark R. Mahrtdt, San Diego Society of Natural History (SDSNH) provided access to the society's extensive collections. Dr. Hobart M. Smith, EPO Biology Department, University of Colorado, provided editorial suggestions. Photographs were provided by Mr. Roy Porello, for whom the new race is named in appreciation of his many photographic contributions to the authors.

LITERATURE CITED

- KLAUBER, L. M. 1940. Two new subspecies of *Phyllorhynchus*, the leaf-nosed snake, with notes on the genus. *Trans. San Diego Soc. Nat. Hist.* 9 (20): 195-214, plates 8, map.
- . 1935. *Phyllorhynchus*, the leaf-nosed snake. *Bull. Zool. Soc. San Diego* 12:4-31, figs. 1-4, map.
- SAVAGE, J. M., AND F. S. CLIFF. 1954. A new snake, *Phyllorhynchus arenicola* from the Gulf of California, Mexico. *Proc. Biol. Soc. Washington* 67:69-76, figs. 1-2.
- SMITH, H. M., AND D. A. LANGEBARTEL. 1951. A new geographic race of leaf-nosed snake from Sonora, Mexico. *Herpetologica* 7(4):181-184.
- SOULÉ, M., AND A. J. SLOAN. 1966. Biogeography and distribution of the reptiles and amphibians on islands in the Gulf of California, Mexico. *Trans. San Diego Soc. Nat. Hist.* 14(11):137-156, figs. 1-4.