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DESCRIPTION OF A NEW SPECIES OF SNAKE OF THE COLUBRID GENUS *GYALOPION* FROM THE STATE OF ZACATECAS, MEXICO

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The Mexican Plateau region of north central Mexico, especially that area designated as the Chihuahua Desert Province by Moore (1945, map) is poorly known. Recent investigations, especially in the State of Chihuahua by Tanner and Anderson, are beginning to fill in gaps, but much remains to be done, particularly in the states of Durango, Zacatecas, and Aguascalientes. Incidental collections have been made in these states, and it is not infrequent that new and unexpected animals are brought to light. A most recent example of this forms the basis of the present paper.

During August of 1960 Dr. Edward S. Ross, Mr. Paul Arnaud, and Mr. David Rentz, of the Department of Entomology of the California Academy of Sciences, visited several of the northern states of Mexico, including Zacatecas. In the course of their entomological activities, they secured a number of amphibians and reptiles including three specimens of snakes referable to the genus *Gyalopion,* but quite distinct from the three described species included in that group. The absence of an upturned rostral shield, presence of

a loreal, and other characters suggest this unrecorded species may be a relict from whose progenitor the species *G. canus, G. desertorum,* and *G. quadrangularis* were derived.

Gyalopion atavus Leviton and Banta, new species.
(Figures 1-3.)

Holotype. California Academy of Sciences 89765, female, collected 12 miles southeast of Zacatecas, State of Zacatecas, Mexico, by Dr. Edward S. Ross, Paul Arnaud, and David Rentz, August 20, 1960.

Paratypes. CAS 89766 and 89772; same data as holotype.

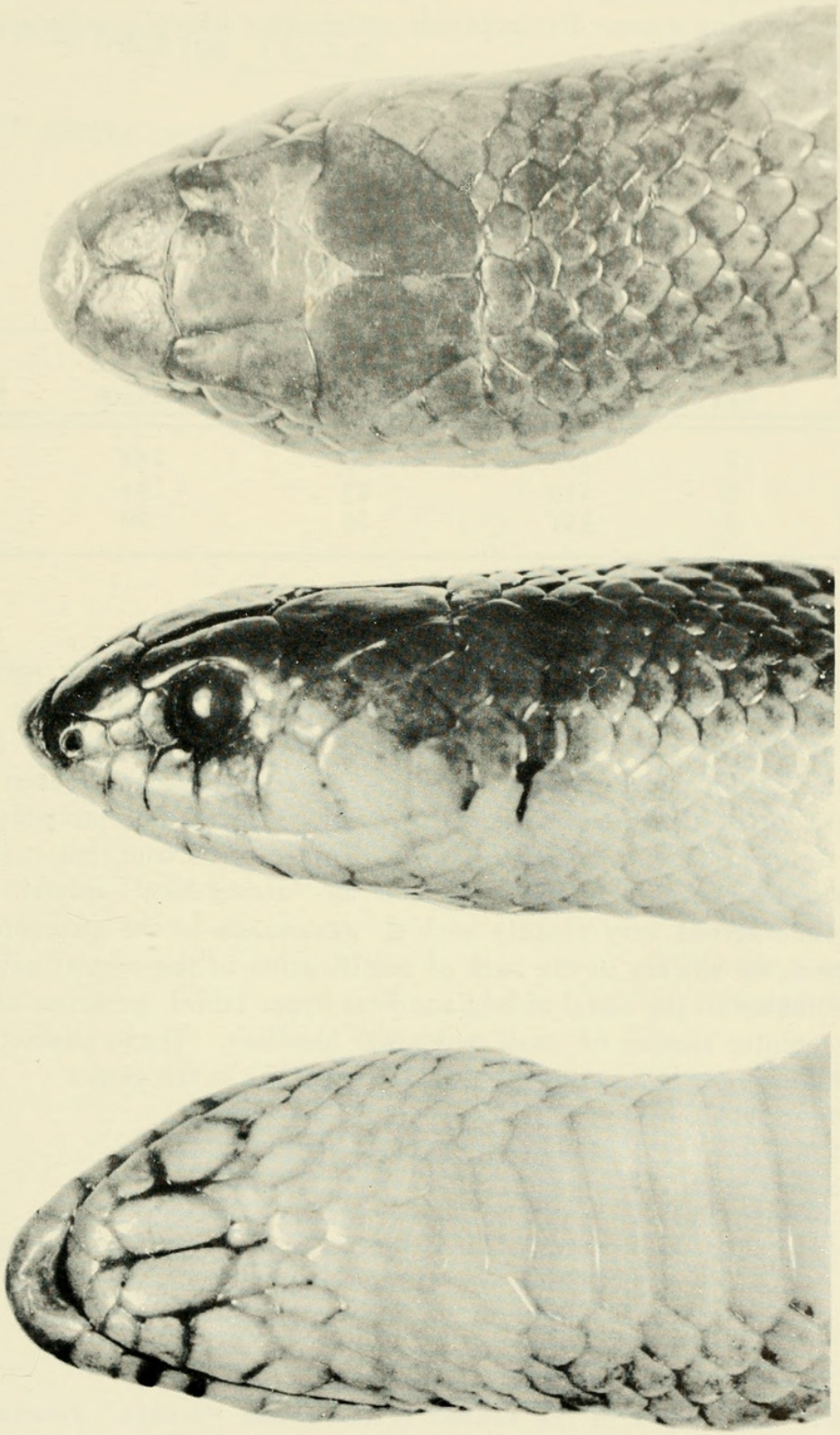
Diagnosis. Rostral large, not turned up, separated from frontal by prefrontals; loreal present; nasal not fused to upper labial; anal plate divided; about 50 small dark blotches present along middorsal line.

Description. Maxillary teeth 12, subequal; rostral broader than deep, not modified and turned up, broadly rounded, not in contact with frontal; internasals absent; prefrontals present, in contact at midline, about two-thirds as long as frontal, not in contact with upper labials; frontal 1.5 times as long as broad, 1.3 times as broad as supraocular, very slightly longer than parietals; nasal shield undivided, not fused to upper labials; nostril small, in center of nasal; loreal small, square, in contact with second upper labial (also first upper labial on right side); one preocular, about twice as high as loreal; two postoculars; temporals 1 + 2; seven upper labials, sixth the largest, third and fourth border eye; seven lower labials, seventh very small, first pair in contact at midline behind mental; anterior chin shields twice as large as posterior pair, the latter separated by a small intergenial scale; three rows of gular scales separate posterior chin shields from ventrals; dorsal scales in 17 longitudinal rows throughout; ventrals 125; subcaudals 28; anal plate divided.

Color (in alcohol) medium brown, with evidences of a series of 50 small middorsal blotches present; lateral scales below each middorsal blotch have small amounts of black pigment along their upper edges giving appearance of a fine, zigzag vertical line extending from dorsal blotch to first or second scale row; no distinct markings on head; below uniform cream.

Hemipenes (after CAS 89766) extend to ninth subcaudal plate, unforked; sulcus unforked; distal end with a few irregular calyces; small spines present at level of eighth subcaudal plate, increasing in size proximally and terminating in three large spines at level of third subcaudal plate; basal portion with ridges, these beset with very small spines at level of second and third subcaudal plates.

Measurements (in mm.) and proportions. Standard (snout-vent) length 248; tail length 42.6; head length 11.7; diameter of eye 2.3; tail length/ standard length .172.



Figs. 1-3. Dorsal, lateral, and ventral view of head of holotype.

Paratypes. The paratypes agree closely with the holotype in scale characteristics, differing in ventral and subcaudal counts, in size (table 1), and in possessing a more distinct color pattern (but which is otherwise similar to that of holotype).

Table 1

Measurements (in mm.) and counts for specimens of Gyalopion atavus

CAS Number	Sex	Ventrals	Subcaudals	Standard Length	Tail Length
89765	♀	125	28	248	43
89766	♂	119	33	134	26
89772	♀	131	26	90	13

Remarks. Readily distinguishable from *G. canus* and other species included in the genus *Gyalopion* by the lack of modification of the rostral, *G. atavus* seems to be the least specialized species in the genus. In 1941, Smith and Taylor expressed the view that *G. desertorum*, by reason of possessing a loreal shield and a generalized color pattern, was probably ancestral to *G. canus* and *G. quadrangularis*. This may be true, but it is likely *G. desertorum* probably was derived from an "*atavus*-like" animal. *Gyalopion atavus* agrees very closely with *G. desertorum* in the structure of the hemipenes, but differs in the lack of modification of the rostral shield, absence of fusion of the nasal shield and first upper labial, presence of loreal, and the greater number of small middorsal blotches. These characteristics suggest *G. atavus* to be the most primitive species in the genus.

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