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A MEXICAN SUBSPECIES OF *CROTALUS MOLOSSUS*  
BAIRD AND GIRARD<sup>1</sup>

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BECAUSE of the limited number and relatively poor condition of specimens available for study, great confusion has long existed in the systematics of the rattlesnakes of the Mexican Table-land. This condition was especially true in connection with *Crotalus molossus* Baird and Girard and *Crotalus basiliscus* Cope. Recent collections from the states of San Luis Potosi and Zacatecas, especially those made by Dr. E. H. Taylor, Hobart M. Smith, and David Dunkle of the University of Kansas in 1933 and 1934, have been of considerable help in clearing up a portion of this perplexing situation.<sup>2</sup>

<sup>1</sup> Contribution from the Zoological Laboratory of the University of Michigan.

<sup>2</sup> For the privilege of studying this material soon after its acquisition, I am extremely grateful to these friends and former colleagues. I also wish to express my thanks for the loan of specimens used in this study to Mr. Karl P. Schmidt, Field Museum of Natural History; Dr. Thomas Barbour, Museum of Comparative Zoology; Dr. G. K. Noble, American Museum of Natural History; Mrs. Helen T. Gaige, University of Michigan Museum of Zoology; Dr. Leonhard Stejneger and Dr. Doris M. Cochran, U. S. National Museum; Mr. M. Graham Netting, Carnegie Museum; Dr. A. H. Wright, Cornell University; and Mr. L. M. Klauber, San Diego, California.

A comparison of this material with a large series of *molossus* and a considerable number of specimens of *basiliscus*, including the type specimens of both species, has led to the conclusion that *C. basiliscus* is a valid form, restricted according to present knowledge to the west coast of Mexico, and that *C. molossus* is represented on the Mexican Plateau by an undescribed race which may be known as

***Crotalus molossus nigrescens*, new subspecies**

DIAGNOSIS.—This subspecies may be distinguished from *Crotalus molossus molossus* by its smaller number of scale rows (usually 25), its lower range of ventral scutes (168–186; males average 174; females 177), and distinctive coloration. The mid-dorsal blotches are for the most part closed off at the sides, not connecting with those of the lateral series to form transverse bands as in *molossus*. The general coloration is much darker, the brownish black ground color often obscuring all but the light borders of the blotches.

TYPE SPECIMEN.—University of Michigan Museum of Zoology, No. 77833, adult male, collected 4 miles west of La Colorado, Zacatecas, Mexico, July 10, 1934, by Hobart M. Smith and David Dunkle. Paratypes, U.M.M.Z. 77834 and 77835, both females, same locality.

DESCRIPTION OF TYPE SPECIMEN.—Head with 8 large plates arranged symmetrically as follows: a pair of internasals, a pair of canthals (prefrontals) followed by a pair of medium-sized plates in the anterior frontal region, and a pair of supraoculars. Smaller scales in irregular arrangement occupy the posterior frontal and parietal regions, a larger one on each side overlapping the median posterior edges of each supraocular. Rostral slightly wider than high, acutely truncate above, and in direct contact with both prenasals. Anterior nasals somewhat square, twice the width of posterior nasals; nostril in suture between them. Loreals 2 on each side, the upper partially divided, probably representing a fusion with the posterior canthal. Preoculars 2 on each side. Lachrymals 1 on each side; postoculars 6 on the left and 5 on the right. Three rows of scales between

supralabials and orbit. Upper temporals keeled, the 4 lowest rows smooth. Prenasals anteriorly in direct contact with the first supralabials but posteriorly separated from them by a small scale on each side. Maxillary pit bordered above by the inferior loreal and lower preocular and in contact with the fourth supralabial below; the triangular space anterior to the pit between nasals and labials filled by 8 small scales on the left side and 9 on the right. Supralabials 16 on each side; infralabials 16 on left and 17 on right; first infralabials not divided, in contact at median line behind mental. One pair of enlarged chin shields about twice as long as wide, followed by 8 irregular pairs of median gulars. Between first ventral scute and angle of mouth, 9 or 10 oblique rows of lateral gulars.

Dorsal scale rows 29-25-19, all keeled except the 2 lowest rows on each side. Ventral scutes 174, subcaudal scales 25, the distal 2 divided. Anal plate not divided.

Length of head 51 mm.; total length 990 mm.; length of tail 78 mm. Rattle consists of 6 segments, the distal portion missing.

The dorsal ground color is light brownish olive, paler on the sides and obscured posteriorly by brownish black pigment which gradually increases in intensity becoming completely black toward the tail. Each scale is nearly unicolor and there are no minute dark punctations. The body pattern consists of a median series of large diamond-shaped rhombs about 20 of which are discernible anterior to the black of the posterior body and tail. Within the borders of the rhombs are a few lighter scales on each side of the midline. Each blotch is outlined with a conspicuous border of yellowish gray scales. The light borders are in contact at the midline between the blotches and, on the posterior half of the body, extend down the sides to connect with small lateral brown blotches which are absent anteriorly. Some of the posterior rhombs are not closed at their lateral points but form, with the lateral blotches, crossbands which extend to the ventrals as in *C. m. molossus*.

The top of the head is largely black with a few light colored scales in the occipital region but has no definite pattern. A

brownish black stripe, 3 scales wide at the posterior edge of the orbit, extends backward with diminishing width toward the commissure but becomes obsolete before reaching it. In front of this is an oblique light streak which extends posteriorly from the orbit to the upper labials. The rostral, sides of the muzzle, and upper edges of the supraoculars are brownish olive; the lower edges of the labials are cream. The entire ventral side of the head is cream slightly clouded with gray in the chin region.

The cream colored ventral surface is indistinctly clouded with gray laterally, the dark pigment increasing toward the tail. The tail and basal segment of the rattle are black.

Paratype No. 77835 is similar to the type specimen in scutellation but has internasals divided at the inner posterior corners, scales between supraoculars irregular (3 + 3), canthals 2 on each side, loreals 3 on the left and 2 on the right, postoculars 4-4, supralabials 16-15, infralabials 17-16, scale rows 29-25-20, ventrals 181, caudals 19, last four divided. This specimen is generally darker in color with a pattern of 32 rhomboid blotches on the body and 5 indistinct dark crossbands on the tail. The inner borders of the blotches are black, the outer borders and lighter scales within are pale brown. On the posterior third of the body the dorsal blotches extend down to the ventrals in narrow, irregular crossbands. The ventral surface is heavily blotched with gray.

In paratype No. 77834 the scales between the supraoculars are irregular (2 + 4), canthals 2-2, loreals 2-2, postoculars 4-4, supralabials 16-13, infralabials 16-18; scale rows 29-25-19, ventrals, 182, caudals 20, last 5 divided. The pattern of this specimen is especially well defined. The muzzle and crown are black; the posterior part of the head is marked with 3 pairs of wide black bands extending backward and outward, the first from the orbit, the second from the parietal region, and the third from the occiput. The dorsal blotches are black with a few light brown scales on each side of the midline and with borders of light yellowish brown. The more posterior blotches are extended downward as narrow crossbands on the sides and

are much obscured by the general black color on the posterior fourth of the body and the tail.

RANGE.—Throughout the Mexican highlands from southern Chihuahua south to northern Oaxaca. Specimens from southern Chihuahua and northern Durango are intermediate between this form and *Crotalus molossus molossus* Baird and Girard.

A detailed discussion of the variations and relationships of this form is reserved for a subsequent paper.





