
THE CROCODILIANS, LIZARDS, AND SNAKES
OF NORTH AMERICA.

BY

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band generally present, which descends to the edge of the mouth anterior to its angle, or canthus.

This species presents greater variations than any other known, and its subspecies have been regarded as species. I find transition from one to the other of these forms, however, and they forbid recognition of more than one species. This form ranges from the Atlantic to the Pacific in the warmer parts of North America, and descends to Chi-huahua and Cape St. Lucas to the southward in Mexico. This is the largest and most formidable species of the genus, examples eight feet in length having been reported to me from the Gulf coast of Florida by Admiral McCauley, U. S. N.

The subspecies differ as follows:

Entire top of head covered with irregular flat scuta larger than the usual scales; body colors paler than tail bands; dorsal rhombs with truncated angles one; loreal plate *C. a. scutulatus*
 Top of head with large plates on canthus rostralis, but scales elsewhere; two loreal plates; dorsal rhombs complete, not paler than caudal bands; last caudal band a broad ring *C. a. adamanteus*.
 Top of head with plates on canthus and scales between; generally one loreal plate; dorsal rhombs paler than bands of tail, which is not black at end..... *C. a. atrox*.

CROTALUS ADAMANTEUS SCUTULATUS Kennicott.

Crotalus adamanteus scutulatus COPE, Check-list N. Amer. Batr. Rept., 1875, p. 33; Proc. Amer. Phil. Soc., XXIII, 1886, p. 287; Report U. S. Geog. Survey W. of 100th Mer., V, 1875, p. 607.

Caudisona scutulata KENNICOTT, Proc. Acad. Nat. Sci. Phila., 1861, p. 207.—COPE, Proc. Acad. Nat. Sci. Phila., 1866, pp. 307-309.

Crotalus scutulatus BOULENGER, Cat. Snakes Brit. Mus., 2d. ed., III, 1896, p. 575.

Crotalus salvini GÜNTHER, Biol. C. Amer., Rept., 1895, p. 193, pl. LIX, fig. A (according to Boulenger).

Rostral triangular, nearly as wide as high. Two rather small inter-nasal plates in contact; four prefrontals, the external the larger. Space between superciliaries narrow, filled with large flat plates. Scales on the occiput large and frequently representing parts of parietal plates. One loreal. Dorsal rows of scales twenty-five, the external nearly smooth. Labials sixteen above, sixteen below. Three rows of scales between the suborbitals and labials. Light stripe from angle of eye to canthus rostralis above the labials, and another from before the eye to the labials, as in *C. a. atrox*, but the rostral and space in front of the pit and nostril not lighter than the crown. On the middle third of the body a dorsal series of distinct rhomboids, margined with whitish and with the lateral angles acute, much as in *C. a. atrox* or *C. a. adamanteus*; the longitudinal angles sometimes perfect, at others truncate or emarginate. Nineteen brown half rings, posteriorly narrow and separated by wider light intervals than in *C. a. lucifer*. Rings on the tail narrow, irregular, and quite black.

This subspecies so closely resembles *C. atrox* that a description of it must be comparative to some extent. The head is longer and nar-

rower posteriorly than in *C. lucifer*, and the nose is much more depressed, the rostral being triangular and as wide as high, while in *C. lucifer* it is a third higher than wide. There are two small subtriangular or sub-circular internasals in contact, and behind these is a row of four scales, the outer and largest one lying directly over the nostril; posterior to these is a third row of five or six scales connecting the anterior extremities of the superciliaries, the external scale of which row is a little in advance of the rest; behind this row two very large scales connect the superciliaries, behind which the crown is covered with plates much larger than in *C. lucifer*. The space between the superciliaries is narrower than in *C. lucifer*, and is occupied in front by but two longitudinal rows of scales, while there are six to eight in the former species. The rattle is more slender than in any other species excepting *C. cerastes*.

The markings on the body of this species are much as in *C. atrox* and

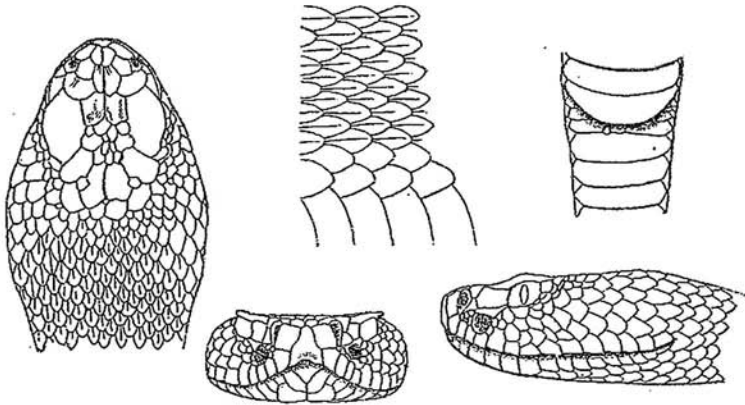


Fig. 332.

CROTALUS ADAMANTEUS SCUTULATUS KENNICOTT.

= 1.

Fort Buchanan, (Tucson) Arizona.

Cat. No. 5091, U.S.N.M.

quite unlike those of *C. lucifer*. The ground color is light yellowish or brownish ash; on the middle third of the body there is a dorsal series of rhomboidal blotches more or less truncated before and behind; anteriorly they become elongated longitudinally, and not only truncated, but sometimes emarginate on the longitudinal angles, while the lateral angles are rounded, leaving the blotches subcircular. Posteriorly the dorsal blotches continue to have the lateral angles acute and perfect till they become confluent with a lateral series, and form nineteen half rings; six of which are on the tail. In the middle third of the body the dorsal blotches are included in eleven or twelve dorsal rows and are four to four and a half scales in longitudinal extent; anteriorly they become longer longitudinally, and only nine to ten scales in transverse diameter. The dorsal blotches are light brown, bordered for the width of one scale with darker. They are separated along the backs by a line of the ground color one and a half to two scales in width, and imme-

diately bordered by a narrow line lighter than the ground color, as in *C. confluentus*, *C. a. atrox*, and *C. a. adamanteus*, this line being about a half scale in width. Posteriorly the light intervals between the rings widen to three or three and a half scales, while the rings themselves become much narrower, being only two to three scales wide. On the middle third of the body below, and opposite to the dorsal series, is another row of small rhomboidal or sometimes triangular brown blotches on each side. They involve four to six scales and extend from the second to the fifth lateral row of scales, and are bordered by light lines like the dorsal series, from which they are separated by a single scale. Indications are seen of another series of small blotches resting directly upon the abdominal scutellæ, alternating with and a little lower than the first lateral series. The abdomen is whitish yellow without distinct blotches. A light line from posterior angle of superciliary and orbit to angle of jaw above labials, and another from before the eye to labials. The markings of the head of this species seem to be very nearly the same as in *C. lucifer*. There is, however, indications of a light border to the external edge of the superciliary, and the rostral and entire space in front of the nostril and pit, as well as a little posterior to these, is as dark as the crown, while in *C. lucifer* they are distinctly lighter.

Though this subspecies so closely resembles *C. adamanteus atrox*, it will be readily distinguished by the large plates of the head and by the dorsal rhombs being more imperfect in their outlines anteriorly and posteriorly. The type specimen (Cat. No. 5021), and another (Cat. No. 8669), might be properly referred to Section I of the genus with the *C. molossus*, since the anterior head scuta are quite identical with those of that group, but Cat. Nos. 14225 and 14278 show division of these plates. The tendency to form parietal scuta is peculiar to this subspecies. Like the *C. molossus*, its habitat is on either side of the United States and Mexican boundary, where it is not uncommon. I have not seen specimens from south of the city of Chihuahua. Dr. Boulenger¹ records it from Huamautla.

Cat. Nos.	Scales.	Upper labials.	Gastrosteges.	Urostegcs.	Length, mm.	Tail, mm.	Rattle, mm.
5021.....	25.	14.	176.	23.			
14225.....	25.	15.	171.	20.			
14278.....	25.	15.	171.	22.	986.	114.	48.

Crotalus adamanteus scutulatus Kennicott.

Catalogue No.	Number of specimens.	Locality.	From whom received.	Nature of specimen.
5321	1	Fort Buchanan, Arizona.....	Dr. B. J. D. Irwin, U. S. A.....	Alcoholic.
8669	2	Mohave Desert, Arizona.....	Dr. O. Loew.....	do.
285	1	Gila River Bottom.....	A. Schott.....	do.
14225	1	Chihuahua City.....	E. Wilkinson.....	do.
14278	1	.....do.....	.....do.....	do.
16759	.....	Camp Grant, Arizona.....	E. Palmer.....	do.
19670-1	.....	Fort Huachuca, Arizona.....	Dr. T. E. Wilcox.....	do.
21109	.....	.....do.....	.....do.....	do.

¹ Catalogue of the Snakes of the British Museum, III, p. 575.