



*Phrynosoma cornuta.*

*P. S. Duval Lith. Phila. 9*

PHRYNOSOMA CORNUTA.—*Harlan*.*Plate XI.*

CHARACTERS. Head short, thick, triangular, rounded in front, with a range of long spines on each side of the lower jaw; nostrils open within the internal margin of the superciliary ridge; body short, flattened, rounded, covered with trihedral tubercles, intermixed with small imbricated scales; abdomen flattened, and covered with rhomboidal, carinated scales; femoral pores, but not well developed.

SYNONYMES. *Lacerta tapayaxin*, *Barton*, Med. and Phys. Journ., vol. iii. part ii. p. 68.

*Agama cornuta*, *Harlan*, Journ. Acad. Nat. Scien. Philad., vol. iv. p. 299, pl. xx.

*Tapaya orbicularis*, *Cuvier*, Reg. An., tom. ii. p. 37.

*Phrynosoma cornuta*, *Gray*, in Griff. An. King., vol. ix. p. 45.

*Phrynosoma Harlani*, *Wiegmann*, Herp. Mex., pars i. p. 54.

*Phrynosoma Harlani*, *Dumeril et Bibron*, Hist. Nat. des Rept., tom. iv. p. 314.

*Agama cornuta*, *Harlan*, Med. and Phys. Res., p. 141.

Horned Toad, *Vulgo*.

DESCRIPTION. The head has nearly the form of an equilateral triangle, rounded at the snout, and covered on the vertex with small polygonal scales, all nearly of the same size; the occipital plate is small and sub-round; the remaining parts of the occipital space is covered with small scales and small conical pointed tubercles, sometimes grooved. The rostral plate is small, pentagonal, and rounded above. The nasal plates are single on each side, circular, narrow, surrounded by five or six small polygonal scales, with the opening for the nares nearly in the middle.

The nostrils are very near the snout, latero-superior, and open almost vertically within the internal margin of the superciliary ridge. The eyes are small and sunken, with the pupil black and the iris dark grey. The margin of the upper jaw is covered with about twelve small, quadrilateral, labial plates, all nearly of the same size; the three or four posterior being rather smaller. The upper margin of the lower jaw is covered with about as many labial plates, and of nearly the same size and form; its inferior margin presents a series of six horny points on each side, placed horizontally, and increasing in size from the anterior to the posterior, and give a serrated appearance to the inferior and lateral margin of the lower jaw. Above these points, but below the labial range of plates, are two series of small scales.

At the posterior border of the occiput is a transverse row of prominent spines, nine in number, extending from near the front of one external meatus of the ear to the other; two of these spines are very long, and occupy the posterior border of the occipital region; three are placed externally to these on each side, and decrease gradually in size from above downwards; the ninth spine, which is smallest of all, is situated between the two central or longest: these spines are nearly conical, but are flattened at their bases. The external meatus of the ear is large and oval, most extensive in the vertical direction; this opening is granulated posteriorly, and is a little prominent in front, where there are three or four tubercles, with projecting points.

The neck is very short, which gives the head the appearance of being attached to the shoulders, like the toad. The chin is covered below with small rhomboidal scales; besides these there are two rows of larger and pointed scales running to the neck, within and parallel to the rows of spines that margin the lower jaw, but separated from them by three or four series of small scales. The skin of the neck is slightly folded transversely, but on the sides are larger folds that cover depressions; the most remarkable is placed in front of the shoulder. The borders of these folds are frequently armed with short spines.

The body is short, flattened, ecarinate, rounded at the sides, and covered with trihedral pointed tubercles, intermingled with small, rhomboidal, carinated and imbricated scales. The vertebral line is covered with about four rows of small, nearly equal sized scales, and appears flattened by reason of the absence of the carinated scales and tubercles found in other parts. On each side the vertebral line, and irregularly disposed in rows of four or five each, are seen large pointed trihedral tubercles, surrounded by others of similar form, but smaller. The flanks are arched outward, and present, from the shoulder to the thigh, two series of spines, of which the upper is larger, leaving a groove between them covered with granulations; these spines give a serrated appearance to the flanks. The thorax is covered with large rhomboidal scales, strongly carinated; the scales of the abdomen are also rhomboidal and carinated, but less distinctly, and of smaller size.

The tail is broad and flattened at its root, but soon becomes smaller and terminates in a point, and is covered above with large rhomboidal, imbricated and strongly carinated scales, with a few small spines about its basis; and below with smooth scales. The vent is transverse, and has small scales both before and behind.

The anterior extremities are large, and protected in front and above by large rhomboidal, carinated scales, each carina terminating in a spine, and below they are covered with smooth and smaller scales; the fingers are five, distinct, slender, and furnished each with a small, short and curved nail. The posterior extremities are but little longer than the anterior, and are covered in a similar manner, with the exception of having a few large trihedral spines scattered about the superior and posterior part of the thigh and leg; there are five toes, distinct, long, slender, each armed with a short and curved nail. There are six or eight pores on the inferior surface of the thigh, but not well developed.

COLOUR. The head above is ash coloured, with a dark bar across the vertex; the forehead is dusky, and the margin of the upper jaw pepper-and-salt grey.

The border between the spines, in which the superciliary ridges terminate posteriorly, is margined with black; from the inferior and anterior part of the orbit descends, perpendicularly, a narrow dusky bar; another bar of the same colour, but broader, runs from the inferior and posterior margin of the orbit downwards and backwards to the root of the two anterior and inferior spines of the range surrounding the occiput. These two spines are dirty white, the inferior one margined below with dusky; the two central occipital spines are dark chestnut at their bases, and black at their apices. The chin and throat are silver-white.

The ground colour of the neck and body above is ash, with a line of yellowish-white along the vertebral column, reaching from the head nearly to the extremity of the tail; on each side of this line at the neck is an oblong dark blotch, which extends to the anterior extremities, larger before and smaller behind. The body above is marked with three transverse dark coloured blotches or bands, not however crossing the vertebral line; the anterior is only a dark oblong spot, in the centre of which is a long spine; the basis of this, as well as most of the spines, is surrounded by an irregular circular border of chestnut, with an occasional tinge of yellow; the spines themselves are a darker chestnut; the central and posterior bars are most extensive, but even they only reach the margin of the vertebral line. The thorax and abdomen are silver-white, with small dusky spots, sometimes round, sometimes oval, each including a portion of three or four scales. The tail is coloured above like the back, and is completely banded towards the tip—below it is silver-grey. The anterior and posterior extremities are ash colour above, marked with transverse dusky bars, and silver-grey beneath.

**DIMENSIONS.** Length of head to root of occipital spines, 7 lines; length of body, from head to vent,  $2\frac{1}{4}$  inches; of tail, beyond the vent,  $1\frac{3}{4}$  inches; of thigh, 9 lines; of leg, 9 lines; of tarsus and toes, 9 lines; total length, 4 inches 7 lines.

**HABITS.** The *Phrynosoma cornuta* inhabits the prairies of the west; it moves, according to the accounts of those who have seen them in the wild state, with

great rapidity from place to place, either in search of its prey or to escape its enemies, but never climbs. In confinement, however, its movements are sluggish; it remains for hours in the same posture, without making any attempt to escape. The individual from which the accompanying plate was taken, was brought by Mr. Gregg from the neighbourhood of Santa Fe, near the confines of the United States, and remained in possession of Dr. T. M'Euen, of Philadelphia, for several months. It was perfectly quiet and gentle, never attempting to bite, or even to resist, when taken in the hand, and far from having the activity attributed to it in its native condition; it was not easy to make it shift its position, even by touching it; nor would it seek shelter from rain, or from the intense heat of the sun, though the temperature in the shade was above 90°. Dr. M'Euen further informed me, that it would feed on a small species of red ant, taking them slowly and at long intervals; but he could never entice it to eat other insects, though many different kinds were offered it.

**GEOGRAPHICAL DISTRIBUTION.** The *Phrynosoma cornuta* is found in the western country, from the Missouri to Texas, and is very abundant about the sources of Red river.

**GENERAL REMARKS.** A good deal of difficulty has hitherto existed as to the history of the *Phrynosoma cornuta*. The first animal of this species ever seen by our naturalists was brought alive by Lewis and Clark, and given to Mr. Jefferson, who deposited it in the Museum of the Philosophical Society of Philadelphia, where it is still kept in perfect preservation; this I have more than once examined, through the kindness of my esteemed friend, John Vaughan, Esq., librarian to that institution.

Dr. B. S. Barton was, however, the first naturalist who published any notice of the *Phrynosoma cornuta*,\* and proposed calling it *Lacerta tapayaxin*—a name that cannot be received, as it is applied to the orbicular lizard of Hernandez.

\* Med. and Phys. Journ., vol. iii. part ii. p. 68.

Harlan next described this animal as a new species of *Agama*, under the specific name *cornuta*, which must be retained. His description was taken after comparing three specimens in Peale's Museum, also brought from Missouri, all of which I have ascertained, from frequent examination, to be perfectly similar: they all have carinated scales on the abdomen, and all have the nostrils opening within the superciliary ridge.

Wiegmann did wrong in changing the specific name of *cornuta* first given to this animal by Dr. Harlan, for that of *Harlani*; especially as he was aware, as may be seen by his reference, that the animal had previously been described as the *Agama cornuta*. If it were meant for a compliment to our herpetologist, however well he may deserve it, it is badly timed, and is paid at the expense of science; it is taking away a name well applied and significant, and replacing it by another that cannot be continued, but must in the end give way to that first imposed.

Dumeril and Bibron are equally wrong in adopting Wiegmann's specific name, instead of that given by Harlan, which has the undoubted right of priority.



Holbrook, John Edwards. 1842. "Phrynosoma cormuta – Harlan." *North American herpetology; or, A description of the reptiles inhabiting the United States* 2, 87–92. <https://doi.org/10.5962/p.326782>.

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