



Emys cumberlandensis.

On Stone by J. H. Richard.

F. S. Duval, Lith. Phil^a.

EMYS CUMBERLANDENSIS.—*Holbrook.**Plate XVIII.*

CHARACTERS. Head of moderate size; upper jaw slightly emarginate; lower jaw furnished with a small hook in front; shell sub-round, indistinctly carinate, slightly notched anteriorly, and beautifully serrated posteriorly; sternum full, entire in front, truncated behind.

DESCRIPTION. The shell is much flattened and sub-round in form, having a distinct though slightly elevated carina throughout its whole extent; the anterior margin is slightly notched, while its posterior is beautifully serrated. The first vertebral plate is hexagonal, elevated into a small prominence at the centre of its posterior part, where the carina begins; its greatest extent is in the antero-posterior direction, with its posterior margin projecting at the centre, and its anterior marked by three small articulating facets; the second vertebral plate is also hexagonal, with acute lateral angles, its anterior margin concave, to receive the first vertebral; its posterior straight, and with its greatest extent in the transverse direction; the third vertebral is nearly of the same form, but has a small pike on its posterior margin, to be received in the fourth vertebral plate, which is also hexagonal, but shorter, and has a notch both on its anterior and posterior margins. These plates are smooth, except the first and fifth, which are marked near the marginal plates with a few slight, concentric striæ. The first lateral plate is nearly an equilateral triangle, with its basis downwards and forwards, and joined to five marginal; the second is pentagonal, with three facets on its lower and larger border; the third is irregularly hexagonal, and the fourth quadrilateral. These plates are also slightly marked with five or six longitudinal, concentric striæ near their junction with the marginal. There are twenty-five

marginal plates; the intermediate, or nuchal, is an oblong square, a little rounded and projecting anteriorly; the first marginal is pentagonal, dentated in front, its external point most prominent, reaching beyond the second; these three plates give the notched appearance to the anterior margin of the shell; the second marginal is quadrilateral, and broadest in front; the remaining plates are all quadrilateral; the fourth, fifth, sixth and seventh regularly so, with their external margins slightly revolute; the eighth, ninth, tenth, eleventh and twelfth are all notched in the centre of their outer borders; the eighth least, and the twelfth most deeply; these notches, as well as the projection of the posterior and external angle of each plate, give the beautiful serrated margin already mentioned. The marginal plates are slightly marked near their upper border with two or three concentric lines; all these lines on the marginal, as well as on the vertebral and lateral plates, disappear with age, and the shell becomes perfectly smooth.

The sternum is large, full, entire, and rounded in front, and truncated behind; the gular plates are regularly triangular, with their bases before and their apices behind; at their anterior and external angles is a remarkable tooth or process, extending forwards and upwards; the brachial plates are also triangular, with their bases outwards, and their apices inwards and truncated; the thoracic are oblong-quadrilateral, and the abdominal pentagonal and broad; the femoral plates are irregularly quadrilateral, rounded and large without, narrow and straight within; the sub-caudal are triangular, with rounded bases directed posteriorly; the supplemental plates are two in number on each side; the axillary is triangular and large, with its basis forwards; the inguinal is also large, oblong, round behind and before.

The head is of moderate size; the snout short and rather pointed; the nostrils are anterior and closely approximated; the upper jaw has a thin cutting border, slightly emarginate in front, and the lower is furnished with a small hook; the eyes are bright; the pupil black; the iris pale golden, with a black spot before and behind the pupil; the neck is rather long and slender.

The anterior extremities are short, covered with a warty skin, and furnished with large scales placed transversely both above and below; a remarkable range of large scales extends along the ulnar border of the fore-arm to the fingers, which are five in number, webbed, and each furnished with a long delicate, and nearly straight nail. The posterior extremities are large, well developed and flattened at the tarsus, covered like the anterior, and sustain five fully palmated toes, four only of which are furnished with nails. The tail is of moderate size, thick at its root, but soon becomes conical and pointed.

COLOUR. The plates of the shell are brown, more or less dark, each being beautifully marked with a waving blotch, or with radiating lines of yellow or fawn colour.

The sternum is yellow in the centre, each plate being marked with a dusky oblong blotch, placed nearest the outer margin.

The head above is dusky; the jaws are horn-colour, with dusky bars; from the mouth to the neck run some small longitudinal yellow lines, the central one most distinct; a long lemon-coloured spot begins behind the superior part of the orbit, and runs horizontally for half an inch along the neck, increasing in size, and finally sends off one branch which continues in the same direction, and another that descends along the side of the neck; a second line, of similar colour, and of the same size at its commencement, though it does not increase like the last, descends from the posterior and inferior part of the orbit of the eye to the posterior extremity of the lower jaw, where it terminates in a blotch, with a line nearly of the same size that begins midway between the angle of the mouth and chin; finally another line of equal size begins at the chin, and soon subdivides in two others, between which is placed an intermediate line; all these are continued on the throat, which is dusky, and has some indistinct smaller lines of yellow.

The anterior extremities are dusky above, with a brown longitudinal lemon-coloured line reaching even to the nails; in front and behind are similar lines, but

smaller; below the limb is dusky, with a line or two and some blotches of yellow, especially near the carpus; the web between the fingers is yellow; the posterior extremities are banded transversely with lemon-colour and black alternately at the nates and posterior part of the thighs; the legs and tarsus are very dark, with a few yellow lines, and below blotched with yellow; the webs between the toes are yellow; the tail is dusky above, with a lateral line along the borders of the upper margin; these lines unite towards the top, and run along its centre; the tail beneath is dusky yellow.

DIMENSIONS. Length of head, 1 inch; of shell, $5\frac{1}{2}$ inches; sternum, $4\frac{1}{2}$ inches; length of tail beyond the vent, 1 inch.

HABITS. This animal, so far as I know, does not differ in its habits from the *Emydes* in general.

GEOGRAPHICAL DISTRIBUTION. Tennessee is the only state in which this animal has been observed, though it doubtless inhabits many others of our western country.

GENERAL REMARKS. It is again to Professor Troost that I must return my thanks for having procured me a living specimen of this beautiful *Emys*; which he says is the most abundant of all in Cumberland river.



Holbrook, John Edwards. 1842. "Emys cumberlandensis – Holbrook." *North American herpetology; or, A description of the reptiles inhabiting the United States* 1, 115–118. <https://doi.org/10.5962/p.326764>.

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