



Kinosternon Pennsylvanicum.

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KINOSTERNON.—*Spix. Dumeril et Bibron.*

Genus KINOSTERNON.—CHARACTERS. Head sub-triangular, pyramidal, covered with a single plate; jaws hooked, warts at the chin; marginal plates twenty-three; sternum subdivided into three sections, anterior and posterior movable, central fixed; plates of sternum, eleven; supplemental plates very large; tail long.

KINOSTERNON PENNSYLVANICUM.—*Edwards.**Plate XXI.*

CHARACTERS. Head large, upper and lower jaw hooked; shell oval, smooth, ecarinate, entire; vertebral plates depressed, sub-imbricate; sternum of three pieces, anterior and posterior sections movable, central section fixed.

SYNONYMES. Testudo lutaria Pennsylvanica, *Edwards*, Glean. Nat. Hist., part ii. p. 77, tab. cclxxxvi.

Testudo Pennsylvanica, *Gmelin*, Syst. Nat. Lin., tom. i. pars iii. p. 1042.

La tortue rougeâtre, *Lacépède*, Quad. Ovip., tom. i. p. 132.

Mud tortoise, *Pennant*, Arc. Zool., suppl. p. 80.

Testudo Pennsylvanica, *Schoepff*, Hist. Test., p. 107, tab. xxiv. fig. A.

Testudo Pennsylvanica, *Latreille*, Hist. Nat. des Rep., tom. i. p. 133.

Testudo Pennsylvanica, *Daudin*, Hist. Nat. des Rep., tom. ii. p. 182.

Testudo Pennsylvanica, *Shaw*, Gen. Zool., vol. iii. p. 60, pl. xiv. fig. 2.

Terrapene Pennsylvanica, *Merrem*, Versuch. eines Syst. der Amphib., p. 27.

Emys Pennsylvanica, *Schweigger*, Prod. Arch. Königsb., vol. i. p. 436.

- Cistuda Pennsylvanica, *Say*, Jour. Acad. Nat. Scien. Phil., vol. iv. p. 216.
Testudo Pennsylvanica, *Leconte*, Ann. Lyc. Nat. Hist. N. Y., vol. iii. p. 120.
Kinosternon Pennsylvanicum, *Bell*, Zool. Jour., vol. ii. p. 304.
Kinosternon Pennsylvanicum, *Gray*, Synop. Rep., p. 35.
Cinosternon Pennsylvanicum, *Wagler*, Natürlich Syst. der Amphib., p. 137.
Emys Pennsylvanica, *Harlan*, Med. and Phys. Res., p. 155.
Cinosternum Pennsylvanicum, *Dumeril et Bibron*, Hist. Nat. des Rep., tom. ii. p. 367.
Mud tortoise, *Vulgo*.

DESCRIPTION. The shell is oval, gibbous, though a little flattened along the vertebral line, with an entire or slightly notched margin posteriorly. There are five very large vertebral plates; the anterior is long, narrow and triangular, with its basis forward, and its apex truncate and directed backwards, and having a slight prominence in the middle; the second, third and fourth are hexagonal, with their anterior angles rounded and their lateral angles acuminate; the fifth is irregularly quadrilateral, smaller above and larger below, where it joins four marginal plates: all these vertebral plates are more or less imbricate posteriorly. Of the lateral plates, the anterior is irregularly quadrilateral; the second and third are pentagonal and acuminate where they join the vertebral plates; the fourth is pentagonal. The marginal plates are twenty-three in number; the nuchal or intermediate is an oblong square, small and narrow; the first, second and third are quadrilateral, narrow and elongated; the remaining marginal plates are quadrilateral and broader; the tenth with unequal margins.

The sternum is shorter than the carapace; it is oval, rounded, full in front, and emarginate behind. The gular plates are consolidated to form a single plate, which is triangular, with its apex posterior; the brachial are quadrilateral, and sometimes reach the suture that joins the thoracic and abdominal plates; the thoracic are triangular, with their apices turned inwards; these five plates are all united firmly together and form the anterior section of the sternum, which is so joined by ligamento-elastic tissue to the abdominal plates as to form a hinge joint. The abdominal plates are large, quadrilateral, and fixed to the shell; the femoral are triangular and the sub-caudal are quadrilateral: these four latter

plates are united to each other and form the posterior section of the sternum, and are joined to the posterior border of the abdominal plates by a ligamento-elastic tissue, which allows of certain motions. The supplemental plates are triangular; the posterior very large.

The head is large and rather pointed at the snout; the nostrils are anterior. The eyes are large, the pupil dark, the iris dark grey, with a very narrow border of light grey around the pupil. The upper and lower jaws are very strong, and both are furnished with a hook in front. The neck is long, rather slender; the skin above is covered with small warts, and the throat with larger. There are four very remarkable warts about the lower jaw; two of these are placed at the chin, and two under the angle of the mouth.

The anterior extremities are short, rounded, and covered with a warty skin, and have two transverse rows of large scales in front, with several large scales near the tarsus behind; there are five fingers, palmate, each furnished with a short nail. The posterior extremities are elongated, much flattened at the tarsus, and covered with a minute warty skin, and eight or ten large scales near the ankle and tarsus; there are five toes, fully palmate, the four internal ones only are furnished with nails. The tail is very short, thick at the root, pointed and horny at the tip.

COLOUR. The shell is of a universal dusky brown colour above. The sternum varies a good deal; sometimes it is dusky, with a yellowish tinge, and has darker lines at the junction of the plates; at others it almost approaches a dark chestnut colour.

The head is nearly black above, and dusky at the sides, freckled with minute yellowish spots. The jaws are horn colour, with delicate waving dusky lines. The neck is dusky above; the chin and throat are of dirty yellow, with the larger warts of brighter yellow.

The extremities and tail are dusky above, and clouded or dirty yellowish-white below.

DIMENSIONS. Length of shell, $3\frac{1}{2}$ inches; breadth of shell, 2 inches 10 lines; elevation, $1\frac{3}{4}$ inches; length of sternum, 3 inches 2 lines.

HABITS. The *Kinosternon Pennsylvanicum* abounds in ponds or muddy pools, feeding on small fish and such other aquatic animals as it can secure. It takes the hook readily, and is therefore very troublesome to anglers; seizing the bait so cautiously, that it is frequently some minutes before it is fairly hooked, when it struggles violently. The living animal has a slight odour of musk that is not disagreeable.

GEOGRAPHICAL DISTRIBUTION. The *Kinosternon Pennsylvanicum* is found in the Atlantic states from Cape Florida to latitude 41° ; beyond this I have not heard of its existence; and Hitchcock, in his *Geology of Massachusetts*, probably mistook the *Sternotherus odoratus* for the *Kinosternon Pennsylvanicum*. It is also abundant in the west; Troost observed it in Tennessee and Kentucky, and Say saw it high up the Missouri.

GENERAL REMARKS. Edwards first described this animal from a specimen furnished him by John Bartram, of Pennsylvania, and gave of it three figures in his *Gleanings of Natural History*. These figures were done from life; and though not very beautiful, yet they are sufficiently accurate, and have been copied by several Naturalists. Although this may be considered as the earliest notice of the animal, yet the first full and accurate description is in the *Historia Testudinum* of Schoepff, taken from an individual sent him by Muhlenberg.

Naturalists have experienced some difficulty in assigning the *Kinosternon Pennsylvanicum* to its proper place. Brogniart first separated it from the genus *Testudo* and referred it to that of *Emys*, to which it certainly does not belong.

Fleming* next placed it in the genus *Cistuda*, established by himself, with the *Cistuda Carolina*, &c.; but here the anatomical characters are greatly at variance;† for in the *Kinosternon Pennsylvanicum*, as seen above, the sternum consists of three parts, the central section fixed, the anterior and posterior movable; while in the genus *Cistuda* the sternum has but two valves, both equally movable on the same axis.

Spix afterwards established the genus *Kinosternon* upon the characters given above for a South American tortoise, under which the animal here described ranges very well.

* *Philosophy of Zoology*, vol. ii. p. 270.

† See the anatomical part of this work for a full description of the anatomy of this genus.



Holbrook, John Edwards. 1842. "Kinosternon pennsylvanicum – Edwards." *North American herpetology; or, A description of the reptiles inhabiting the United States* 1, 127–131. <https://doi.org/10.5962/p.326767>.

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