



Testudo polyphemus.

On Stone by S. Cichowski

*J.S. Duval, Lith. Phil**

TESTUDO.—*Brongniart, Dumeril et Bibron.*

Genus TESTUDO.—CHARACTERS. Body protected by a horny covering; shell (carapace) solid; sternum (plastron) solid and immovable; jaws without teeth; extremities short, thick, and clavate; toes short, closely joined, and covered by the integuments as far as the nails; anterior extremities with five, posterior with four short strong conical nails; head and extremities retractile within the shell.

TESTUDO POLYPHEMUS.—*Daudin.*

Plate I.

CHARACTERS. Shell subround, entire, depressed, ecarinate; supra-caudal plate single and incurvated below; sternum elongated, projecting beyond the shell in front, and deeply emarginate behind; colour of the shell brown, tinged with obscure yellow, clouded with darker brown; sternum yellow.

SYNONYMES. Gopher, *Bartram*, Travels in the Floridas, Carolinas, &c., p. 182.

Testudo polyphemus, *Daudin*, Hist. Nat. des Rept., tom. ii. p. 256.

La Tortue Gopher, *Bosc*, Nouv. Dict. d'Hist. Nat., tom. xxii. p. 269.

Testudo polyphemus, *Say*, Jour. Acad. Nat. Scien., vol. iv. p. 207.

Testudo carolina, *Leconte*, Lyc. Nat. Hist. N. Y., vol. iii. p. 97.

Testudo polyphemus, *Harlan*, Jour. Acad. Nat. Scien., vol. vi. p. 21.

Testudo depressa, *Cuvier*, Reg. Anim., tom. ii. p. 10.

Testudo polyphemus, *Gray*, Synop. Rept., p. 11.

Testudo polyphemus, *Dumeril et Bibron*, Hist. Nat. des Rept., tom. ii. p. 102.

Gopher and Mungöfa, *Vulgo.*

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DESCRIPTION. The shell is remarkably depressed, nearly flat above, with its margin entire, slightly revolute in front, and incurvated posteriorly. The vertebral plates are five in number; the anterior is pentagonal, presenting an obtuse angle forward; the remaining four are hexagonal, the posterior irregularly so. The first lateral plate is irregularly triangular, with its basis rounded and joined to four marginal plates; the second and third are pentagonal, with an acute angle above, passing in between the vertebral plates; the posterior is irregularly quadrilateral, the longest border directed downwards. The marginal plates are twenty-four in number; the intermediate or nuchal is irregularly quadrilateral, and largest behind, where it joins the first vertebral; the supra-caudal plate is single, very large, having twice the extent in the horizontal that it has in the vertical direction, its lower border is incurvated, which gives this plate a remarkable bulging appearance. The first marginal plate is pentagonal, the second square, the third irregularly quadrilateral, and the fourth pentagonal; the four succeeding plates are quadrilateral, and of greater elevation than breadth, slanting a little backwards; the ninth, tenth, and eleventh are irregularly quadrilateral; the tenth having its posterior and superior angle truncated, where it joins the posterior vertebral plate. All these plates are marked with concentric striæ, which are most remarkable on the lateral and marginal, and are often wanting on the vertebral plates. In many old individuals these disappear entirely, and leave the shell perfectly smooth.

The sternum is thick and firm, prolonged beyond the shell in front, and deeply emarginate behind. The gular plates are quadrilateral, and unite to form a spade-like process, with its anterior extremity generally entire, but occasionally emarginate; the brachial plates are quadrilateral, with their outer and anterior angles rounded, the anterior border shortest and oblique in direction to receive the gular plates; the thoracic are very irregularly pentagonal, narrow, and of great extent in the transverse direction; the abdominal are quadrilateral and very large; the femoral are also irregularly quadrilateral, with the longest border directed forwards; the subcaudal plates represent oblong squares, and are most

extensive in the transverse direction. Of the supplemental plates, the axillary are oblong, and the inguinal, semicircular in shape.

The head is short, thick, obtuse, and covered with small plates on the superior parts, and with larger plates in front, which are disposed in rows; one, between the anterior parts of the orbit, consisting of two very large central plates and two external, smaller. In front of this is a second row of six smaller plates, and still anterior to this row are others of smaller size. The nostrils are small and near together. The eyes are large and open; the iris dark; the pupil almost black; the lower lid more extensive than the upper, and both covered with small plates. The jaws are covered with horny plates, grooved, and having their margins serrated: the grooves allow the jaws to be received reciprocally within each other when the mouth is closed. The neck is short, and the skin granulated.

The anterior extremities are very large, thick, compressed in the antero-posterior direction, and terminating in five fingers, each furnished with a thick and strong nail; along the outer margin of the forearm is a row of projecting horny points, resembling nails, large below, and decreasing gradually in size to the humerus. Another remarkably large horny tubercle exists near the internal and anterior part of the elbow. The anterior surface of the forearm and carpus is covered with large plates; the posterior surface of the carpus and lower portion of the forearm with smaller plates; in other parts, the forearm and arm are granulated.

The posterior extremities are rounded, less compressed, short, thick and clavate, ending in four toes, each furnished with a strong nail. The sole of the foot, the lower and posterior part of the leg, and the posterior part of the thighs, are protected by large plates; two remarkably horny points are placed at the posterior and superior part of the thigh; the other parts of the posterior extremities are granulated, and covered with smaller plates.

COLOURS. The general colour of the shell is brownish-yellow, clouded at times

with a darker brown, which latter colour predominates in some individuals;* the sternum is dirty yellow; the head is darker than the shell, sometimes almost black; the upper jaw is brown, the lower jaw yellowish; the neck and anterior extremities are dusky above, dirty yellow below; the posterior extremities simply dusky in colour.

DIMENSIONS. Length of shell, $14\frac{3}{4}$ inches; sternum, $12\frac{1}{4}$ inches; thigh, $2\frac{1}{2}$ inches; leg, to the centre of the sole of the foot, $2\frac{3}{4}$ inches.

GEOGRAPHICAL DISTRIBUTION. The most northern limit of the Gopher is the western border of South Carolina. They are numerous in Edgefield and Barnwell districts, whence they extend through Georgia, Alabama, and the Floridas. According to Le Sueur, they are brought to the New Orleans market, though probably not from the immediate neighbourhood.

HABITS. They select dry and sandy places, are generally found in troops, and are very abundant in pine barren countries. They are gentle in their habits, living entirely on vegetable substances. They are fond of the sweet potato, (*Convolvulus batatas*,) and at times do much injury to gardens, by destroying melons, as well as bulbous roots, &c. &c. In the wild state they are represented as nocturnal animals, or as seeking their food by night: when domesticated, and I have kept many of them for years, they may be seen grazing at all hours of the day. When first placed in confinement, they chose the lowest part of the garden, where they could most easily burrow; this spot being once overflowed by salt water in a high spring tide, they migrated to the upper part, nearly eighty yards distant, and prepared anew their habitations. They seldom wandered far from their holes, and generally spent part of the day in their burrows. They delighted in the sun in mild weather, but could not support the intense heat of our summer noons; at those hours they retreated to their holes, or sought shelter

* This colour was remarkable in the specimen from which the accompanying drawing was taken.

from the scorching rays of the sun under the shade of broad-leaved plants. A tanyer, (*Arum esculentum*,) that grew near their holes, was a favourite haunt. They could not endure rain, and retreated hastily to their burrows or to other shelter at the coming on of a shower. As winter approached they confined themselves to the immediate neighbourhood of their holes, and basked in the sunshine. As the cold increased, they retired to their burrows, where they became torpid; a few warm days, however, even in winter, would again restore them to life and activity. The adults are remarkably strong, sustaining and moving with a weight of two hundred pounds or more. The female is generally larger than the male, with the sternum convex; the sternum of the male is concave, especially on its posterior part. The eggs are larger than those of a pigeon, round, with a hard calcareous shell: they are much esteemed as an article of food.

GENERAL REMARKS. This is the only species of *Testudo* hitherto observed in the United States; and was first described by Bartram, under the name of Gopher. Daudin subsequently called it *Testudo polyphemus*; which name has since been generally adopted by Naturalists. Leconte has endeavoured to prove this animal to be the *Testudo carolina* of Linnæus; which is considered by most authors as the Box Tortoise. From the very short description of the *Testudo carolina* contained in the twelfth and last edition of the *Systema Naturæ*, by Linnæus himself, it is not so easy at first sight to determine the point; but if we consult the earlier editions, and compare the descriptions with the plates to which he refers, his meaning becomes evident. In the tenth edition he says, "*Testudo pedibus digitatis, testa gibba, cauda nulla*;" and the only reference given is to the figure of the *Testudo tessellata minor caroliniana* of Edwards,* which is certainly the Box Tortoise. Indeed, the figure given by Edwards is so correct and so well coloured, that Shaw afterwards copied it into his *General Zoology*, observing "that there is no particular necessity for any other description than that given by Edwards himself."†

* Edwards, Av. p. 205.

† Shaw, Gen. Zool., vol. iii. part i. plate 7.

In the twelfth edition, Linnæus quotes in addition Gronovius,* "Testudo pedibus digitatis," &c., which description agrees better with the Box Tortoise than with the Gopher; and it is not improbable that Gronovius received it from Clayton, of Virginia, with whom he was in constant correspondence. Why Linnæus should have given an additional reference to Seba,† at the same time retaining the reference to Edwards, is not known; especially as Seba's plate bears no resemblance to that of Edwards, being a larger animal and drawn with a tail.

Gmelin, in his edition of the *Systema Naturæ*, besides retaining the description and reference of Linnæus, adds a longer description of his own; and here, perhaps, Leconte is right, in supposing that he (Gmelin) may have had our animal in view, as the description corresponds more nearly with it, and cannot be applied to the Box Tortoise. Still, however, the name *Carolina* could not be retained, as it has been previously applied by Linnæus to another species.

* Gron. Zooph. 17. n. 17.

† Seba, Mus. i. t. 80. f. 1.



Holbrook, John Edwards. 1842. "Testudo polyphemus – Daudin." *North American herpetology; or, A description of the reptiles inhabiting the United States* 1, 25–30. <https://doi.org/10.5962/p.326747>.

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