



Cistuda Carolina.

2.

CISTUDA.—*Fleming, Gray, Dumeril et Bibron.*

Genus CISTUDA.—CHARACTERS. Shell gibbous, strong; marginal plates twenty-five; sternum oval, covered with twelve plates, bivalve, both valves movable on the same axis, and joined to each other, and to the shell by ligamento-elastic tissue; anterior extremities with five, posterior with four nails.

CISTUDA CAROLINA.—*Edwards.*

Plate II.

CHARACTERS. Head elongated, narrow; upper jaw with a broad hook in front; shell gibbous, carinate, entire; sternum with an entire margin, oval, bivalvular, the two valves joined to each other and to the shell by a ligamento-elastic tissue, and movable on the same axis.

SYNONYMES. Land tortoise from Carolina, *Edwards*, Glean. Nat. Hist., p. 205.

Testudo carolina, *Linnæus*, Syst. Nat., ed. x., vol. i. p. 198.

Testudo carolina, *Linnæus*, Syst. Nat., ed. xii., vol. i. p. 352.

Dösen schildkröte, *Bloch*, Schrift. der Berl. Natürl., fr. vii. p. 131.

Checkered tortoise, *Pennant*, Arct. Zool. suppl., p. 79.

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

Testudo carolina, *Gmelin*, Syst. Nat., Lin., tom. i. pars iii. p. 1041.

Testudo clausa, *Schoepff*, Hist. Test., p. 32, tab. vii.

Testudo clausa, *Latreille*, Hist. Nat. Rept., tom. i. p. 139.

- Testudo carolina*, *Latreille*, Hist. Nat. Rept., tom. i. p. 127.
Testudo virgulata, *Latreille*, Hist. Nat. Rep., tom. i. p. 100.
Testudo virgulata, *Daudin*, Hist. Nat. des Rept., tom. ii. p. 201.
Testudo carolina, *Daudin*, Hist. Nat. des Rept., tom. ii. p. 207.
Testudo clausa, *Daudin*, Hist. Nat. des Rept., tom. ii. p. 207.
Testudo clausa, *Shaw*, Gen. Zool., vol. iii. part i. p. 36, pl. 7.
Terrapene clausa, *Merrem*, Versuch. eines Syst. der Amphib., p. 28.
Emys clausa, *Schweigger*, Prod. Arch. Königsb., vol. i. p. 315.
Emys virgulata, *Schweigger*, Loc. Cit., p. 316.
Emys Schneiderii, *Schweigger*, Loc. Cit., p. 317.
Emys clausa, *Wagler*, Natürlich. Syst. der Amphib., p. 138.
Cistuda clausa, *Say*, Jour. Acad. Nat. Scien. Philad., vol. iv. p. 214.
Testudo clausa, *Leconte*, Ann. Lyc. Nat. Hist. N. Y., vol. iii. p. 124.
Terrapene carolina, *Bell*, Zool. Jour., vol. ii. p. 309.
Terrapene maculata, et *nebulosa*, *Bell*, Loc. Cit., p. 309-310.
Cistuda carolina, *Gray*, Synop. Rept., p. 19.
Cistuda clausa, *Harlan*, Med. and Phys. Res., p. 149.
Cistuda carolina, *Dumeril et Bibron*, Hist. Nat. des Rept., tom. ii. p. 210.
Box tortoise, *Vulgo*.

DESCRIPTION. The shell is extremely gibbous, nearly hemispherical, carinated, and slightly oval, the narrowest part in front. Of the five vertebral plates, the anterior is slightly urceolate and pentagonal, with two of its borders directed forward and outwards; the second, third and fourth are all hexagonal, with their anterior margins a little angular and projecting, and their posterior slightly concave; the fifth vertebral plate is pentagonal, smaller above, larger below, and joined to four marginal. The anterior lateral plate is trigonal, narrow above, broader and rounded below; the second and third are hexagonal; the fourth is quadrilateral and much smaller; sometimes all these plates, vertebral as well as lateral, are marked with concentric striæ. There are twenty-five marginal plates, forming an entire border; the nuchal or intermediate is very small, oblong and narrow, often projecting beyond the rest. The first marginal plate is irregularly pentagonal; the others are all quadrilateral, those over the thighs being broadest;

frequently the eighth, ninth, tenth and eleventh marginal plates, and sometimes the twelfth, are revolute, and form a gutter.

The sternum is oval, with an entire margin, and consists of two sections, of which the posterior is larger. These sections are joined to the shell and to each other by a ligamento-elastic structure, so that both valves are movable on the same axis, and can be brought in contact with the carapace, and thus conceal the head, neck, extremities and tail of the animal. The gular plates are triangular, with their bases forwards; the brachial and thoracic are quadrilateral, the former the more regularly so; the abdominal are quadrilateral and large; the femoral and sub-caudal plates are triangular, the former with their apices truncate.

The head is small; the nostrils anterior and closely approximated. The eyes are large; the pupil black, the iris varying from golden to red or grey. The upper jaw has a broad hook, and the lower is furnished with a small one in front.

The anterior extremities are short, rounded, and covered with large scales in front and smaller behind; there are five fingers, slightly palmated, and each furnished with a short, thick, curved nail. The posterior extremities are rounded above, but flattened at the tarsus, and covered with small scales, having only a few large ones behind; there are five toes, semi-palmated, four only of which are furnished with nails. The tail is very short and thick.

COLOUR. In no other tortoise is there such a great variety in the colour and markings of the shell. I have seen more than one hundred living specimens together, and could not select two precisely alike. Perhaps the most ordinary colour of the shell is yellowish-brown, with spots or stripes of bright yellow; sometimes these are sub-radiating, or even radiating; at others they are disposed without order; occasionally there is an entire vertebral line of bright yellow, but most frequently it is interrupted with black. This arrangement of the colours often gives to the carapace the appearance of tortoise shell.

The sternum varies quite as much as the carapace in colour; sometimes it is nearly black; most commonly, however, it is yellowish, with blotches of black or dusky brown.

The head is dark brown above, and marked with yellow spots or lines. The jaws are horn colour, dotted with yellow spots or traversed by yellow lines. The neck above is dusky, below it is dirty yellow, with a few red or yellow spots or stripes.

The anterior extremities are dusky in front, with several large yellow scales; behind they are clouded-yellow. The posterior extremities are coloured like the anterior, but have fewer yellow spots in front, and are frequently entirely yellow behind. The tail is dusky above, and marked with yellow spots or stripes; beneath it is clouded-yellow or reddish-brown.

DIMENSIONS. Length of shell, $6\frac{1}{2}$ inches; breadth of shell, $4\frac{1}{2}$ inches; elevation, $2\frac{3}{4}$ inches; length of sternum, 5 inches 10 lines.

HABITS. The *Cistuda carolina* is entirely a land animal; indeed, it is so bad a swimmer, that it will drown at the end of a few days if thrown into water. In the southern states it is always found in dry places, and is very numerous in the immense pine forests of that country, and is hence frequently called pine-barren terrapin, or *cooter*, by the negroes—a word probably of African origin, and applied to some similar animal. It feeds on insects, crickets, &c., and according to Leconte, on fungous plants, as the *Clavaria*, &c. When in confinement, and it can easily be domesticated, it eats readily whatever is offered, as bread, potatoes, apples, &c. It may well be doubted whether it destroys mice or serpents for its food, as was believed by Bosc and Muhlenberg; yet it is not impossible that an unwary snake or mouse might, by approaching too near the animal, be accidentally caught and held between the sternum and carapace, as the animal will close itself upon anything that annoys it. We must not suppose, however, that objects thus caught are its natural food.

GEOGRAPHICAL DISTRIBUTION. The *Cistuda carolina* is found from one extremity of the Union to the other. I have seen it in all the Atlantic states, even as far north as Maine, and have received specimens from Florida, Alabama and Louisiana. Dr. Pickering observed it in Ohio, and Say as far west as Engineer cantonment on the Missouri river.

GENERAL REMARKS. The first notice of this animal is to be found in the "Gleanings of Natural History," by George Edwards; who has given a very good figure of it, done from a living specimen sent him by Alexander Light, Esq., of South Carolina. He observes that the sternum is "divided in two at the middle of the belly;" and that "these two pieces are attached to the shell by a skin, strong, tough, and flexible," which gives to the animal "the power to close itself as firmly as an oyster." The figure of Edwards is only faulty in being drawn without a tail; although in his description he speaks of a tail "very short, with the vent opening near the extremity." Linnæus next gave it a place in the tenth edition of his *Systema Naturæ*, under the name *Testudo carolina*; of this there can be no doubt, as his only reference is to the *Testudo tessellata carolina*, &c. of Edwards.

Gmelin did great harm to the science of Herpetology by receiving, in his edition of the *Systema Naturæ*, as a new species, under the name *Testudo clausa*, the tortoise described by Bloch,* which is certainly the *Testudo carolina* of Linnæus. He has thus unnecessarily increased the catalogue of synonymes, by describing the same animal twice under different names. Schoepff is still more to blame for adopting this name of *clausa*; the more so, as he was fully aware, as may be seen by his own remarks and references, of the identity of the *Testudo carolina* of Linnæus, and the *Testudo clausa* of Gmelin. Thus, he gives as references, in the description of the *Testudo clausa* of his work, the *Testudo carolina* of the tenth edition of the *Systema Naturæ* of Linnæus; and furthermore, he excludes the references to Gronovius and Seba, given in the twelfth edition.

* Schrift. der Berl. Natürlf., fr. 7, p. 131, tab. i.

After all, the name of *clausa* is no more characteristic than that of *carolina*, though apparently so at first sight; for the power of closing the shell as firmly, belongs equally to the *Cistuda amboinensis* and *Cistuda trifasciata* of Gray, as to the *Cistuda clausa* (*Testudo carolina* of Gmelin); yet from Schoepff's high authority as a Herpetologist, most authors have in this followed his example. I am glad, however, to see lately such excellent Herpetologists as Gray and Bell in England, and Dumeril and Bibron of Paris, adhere to the old specific name "*carolina*" for this animal.

Although the form of the *Cistuda carolina*, as well as the colour and markings of its shell, differ so much, as has been said above, yet they can all be arranged under certain varieties. Leconte has them as follows:

"*α*. Very dark brown, obscurely spotted with yellow, with a few radiating lines of the same; sternum very dark brown, with a few blotches of yellow; top of the head yellow; jaws varied with yellow and black; neck yellowish-cinereous, spotted with yellow.

"*β*. With larger and more distinct spots of yellow, some of them confluent and sub-radiating. Sternum yellow; jaws yellow, striped with black; top of the head mostly yellow; sides of the neck black, striped with yellow; throat yellow, varied with black.

"*γ*. Shell brown, the plates marked with concentric striæ, and with numerous round and oblong spots of yellow; keel yellow; sternum yellow, unspotted; head and neck black, spotted above, and varied on the sides with orange; chin and throat yellow; jaws yellow, the upper one slightly marked with brown. This is the *Testudo virgulata* of Daudin.

"*δ*. Smooth, yellowish-brown, with a few indistinct spots of dark brown; sternum yellow, unspotted; skin cinereous-brown; fore legs darker; top of the head yellowish; jaws orange, the lower one marked with one or two dusky spots,

sometimes unspotted; chin and throat yellowish, rarely marked with a few spots of dusky; hind legs and tail unspotted.

“ε Shell and sternum entirely very dark brown, without spots; plates deeply marked with concentric striæ.”

Though Fleming first separated the genus *Cistuda* from *Emys*, yet he united in it several animals that have no affinity with each other, as *Sternothærus odoratus*, *Kinosternon pennsylvanicum*, &c. To Mr. Gray, a celebrated Herpetologist of London, is due the merit of having restricted this genus within its present limits.



Holbrook, John Edwards. 1842. "Cistuda carolina – Edwards." *North American herpetology; or, A description of the reptiles inhabiting the United States* 1, 31–37.
<https://doi.org/10.5962/p.326748>.

View This Item Online: <https://www.biodiversitylibrary.org/item/24567>

DOI: <https://doi.org/10.5962/p.326748>

Permalink: <https://www.biodiversitylibrary.org/partpdf/326748>

Holding Institution

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Sponsored by

Harvard University, Museum of Comparative Zoology, Ernst Mayr Library

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.