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THE BRITISH MUSEUM.

PART I.

TESTUDINATA (TORTOISES).

BY

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slightly nicked in front, with only five pair of broad shields; the pectoral shields being short, subtriangular, only occupying the angle between the outer edge of the humeral and abdominal shields; axillary shields small, inguinal larger; the areola of the discal shield central.

The depressed form and divided caudal plate induce me to place this genus in *Emyda*. It most resembles *Testudo Gopher* in appearance, but is at once known from that species and all the other genera of *Testudinidae*, *Emyda* and *Chelyda* by the peculiar form of the pectoral plates, which at first sight might be mistaken for a very large inguinal plate, if that plate were not also present. In this respect it somewhat resembles the genus *Kinosternon*, but there the plate is only narrow at the inner end and reaches nearly to the centre of the sternum.

The various genera of *Testudinidae* have the pectoral plates much smaller than the others, and perhaps the small size of the plate in this genus shows its affinity among the *Emydinae* to that family; and were it not for the regular division of the caudal and the form of the pectoral plates, it might be regarded as nearly allied to the very variable *Testudo Indica*.

1. *Manouria fusca*. BROWN MANOURIA. TAB. III.

Pale brown, nearly uniform. Discal shield concentrically grooved, with a central areola; the anterior and posterior lateral margins acute, slightly sinuated and rather bent up; the humeral and abdominal plates longer than broad, the abdominal very large; gular produced, narrowed in front.

Geoemyda spinosa, adult, *Cantor, Rept. Malay. Penins.* 1. *Manouria fusca*, *Gray, Proc. Zool. Soc.* 1852, 133; *Ann. & Mag. Nat. Hist.* 1855, xv. 68.

Hab. Pinang.

a. Shell only, in bad state, wanting many of the horny discal shields; front of the sternum acutely notched. Pinang. From the Zoological Society.

b. Shell only: adult. In a bad state; front of the sternum deformed and worn nearly round. Pinang Hills. From Dr. Cantor's Collection. Presented by the Hon. East India Company.

"*Geoemyda spinosa*, *Cantor*."

"Found on the great hill at Pinang at a distance from water."—*Cantor*.

Dr. Cantor's description of the animal is copied from the generic character of the genus *Geoemyda* in this Catalogue, and therefore has no special relation to the animal of this genus.

** *Pectoral plates broad, square, close together, side by side.*

† *Toes strong, free, not webbed, covered with a series of plates above.*

2. GEOEMYDA.

Head covered with a thin hard skin, oblong; forehead rather convex. Eyes subsuperior. Branches of the lower jaw narrow, rounded, covered with the beak. Chin not bearded. Legs strong, not fringed behind, covered with large triangular scales. Toes strong, short, free to the base, covered above by a series of shields; claws 5.4, short, curved. Hind foot with a distinct rudimentary clawless fifth toe. Tail tapering. Shell depressed, keeled; areola of dorsal shields posterior, marginal; hinder edge strongly toothed. Sternum solid, broad, truncated before, nicked behind; shields six pair, subequal; pectoral shields broad; gular plate linear, band-like, small; axillary and inguinal plates small. The sternum is often concave, like *Testudo*.

This genus differs from *Emys* in the toes being quite free.

Geoemyda, *Gray, Proc. Zool. Soc.* 1834; *Cat. Tort. B.M.* 14. *Geoemys*, "*Gray*," *Bonap. Tab. Analyt.* 7 (1836).

Emys, sp., *Gray, Syn. Rept.* 20.

Dum. & Bib. Erp. Gén.; *Cat. Méth. R.*

Testudo, sp., *Müller, Verhand.*

Dum. & Bib. MSS.; *Cat. Méth. R.* 4.

Chelonura, sp., *Bonap. Obs. Cuv. R. A.* 171 (1836).

1. *Geoemyda spinosa*. The SPINOSE LAND EMTS.

Shell oblong, subquadrate, keeled, flattened above, chestnut-brown, front and hinder edge strongly serrated; vertebral plates broad, first suburceolate; costal plates with a posterior, subsuperior areola, with a slight subconic tubercle; beneath yellow, brown-rayed. Young depressed, pale brown, bluntly keeled, with a distinct spine in the areola of each discal plate.

Geoemyda spinosa, *Gray, Proc. Zool. Soc.* 1834; *Illustr. Ind. Zool. t.* . f. 2; *Cat. Tort. B.M.* 14.

Emys spinosa, *Gray, Syn.* 20; *Illustr. Ind. Zool. t.* . f. 1 (young).

Bell, Test. t. 1, young.

Dum. & Bib. Erp. Gén. ii. 327; *Cat. Méth. R.* 15.

"*E. bispinosa*," *Schlegel*.

Testudo Emys, *G. Müller, Verh. Rept.* 34. t. 4? (1844); (vertebral plates not keeled).

T. Emydoides, *Dum. & Bib. MSS.*; *Cat. Méth. R.* 4.

Hab. Pinang (*Cantor*); Sumatra (*Müller*); Java (*Duméril*).

a. Adult (stuffed); 8 inches. Sumatra. River Auch.

b. Young (in spirits). Sumatra. From the Leyden Museum.

"*Testudo Emys*, *G. Müller*."

c and d. Young and adult (stuffed). Pinang, Singapore. Mr. Wallace's Collection.

Young. Head and neck brown, with a large irregular yellow spot on each side of the nape. Costal shield with a small spine in the hinder edge of each areola.

The forehead covered with large, the occiput and the hinder part of the branches of the lower jaw with smaller, flat, symmetrical plates, which are more distinct in the younger specimens.

†† Toes short, strong, covered above with transverse shields, united by a scaly web to the claws; claws curved.

3. NICORIA.

Head covered with a thin horny skin; forehead narrow. Eyes very large, rather close, subsuperior. Upper beak very strong, acute. Legs strong, not fringed behind, covered with thick triangular scales, forming a series on the outer side of the front. Toes very short, united, free just at the end, covered above with band-like shields. Hind foot narrow, with a very obscure rudiment of a fifth toe, only to be seen in the skeleton or in the dry contracted state. Claws 5·4, curved. Shell depressed, three-keeled; areola of dorsal shield posterior, marginal; hinder edge strongly toothed. Sternum solid, broad, truncated before, nicked behind; shields six pair, subequal; pectoral shields broad, square; gular small; axillary and inguinal plates rudimentary or wanting. Africa.

1. Nicoria Spengleri. SPENGLER'S NICORIA.

Shell oblong, depressed, pale brown, three-keeled; keels continuous, distant, black-edged; hinder edge deeply serrated; vertebral shields quadrate; sternum black, yellow-edged. Animal olive, red dotted, with a white streak on each side of the neck.

Testudo Spengleri, Walb. *Berlin Naturf.* vi. 122. t. 3.

Gmel. Syst. Nat. i. 1043.

Emys Spengleri, Daud. *R.* ii. 103.

Schweig. Prod. 310.

Merrem, Amph. 23.

Gray, Syn. 21.

Dum. & Bib. Erp. Gén. ii. 308; *Cat. Méth. R.* 15.

Geoemyda Spengleri, Gray, *Proc. Zool. Soc.* 1834; *Cat. Tort. B.M.* 14.

Testudo serrata, Shaw, *Zool.* iii. 50. t. 9.

T. serpentina, var., Latr. *Rept.* i. 163.

T. tricarinata, Bory, *Foy. Isl. Afric. Atlas*, t. 37. f. 1.

Chelonura serpentina (part.), Bonap. *Obs. Cuv. R. A.* 171.

Hab. Africa? China.

a. Adult; animal dry (shell lost two scales); 3½ inches. China. Presented by John Russell Reeves, Esq.

c. Adult (in spirits). From the Zoological Society.

OSTEOLOGY:—

b. Half-grown shell; the ossification incomplete on the entire circumference. Africa.

Schlegel, in the *Fauna Japonica*, confounds *Emys crassicolis*, *E. Thurgi*, *E. Reevesii* and *Cistudo dentata* with this species, but they do not even belong to the same natural genus. It appears to be rare on the Continent, as it is wanting in the Paris and Leyden Museums.

Latreille and Prince Bonaparte confound this species with *Chelonura serpentina*.

4. GEOCLEMYS.

Head moderate, covered with a thin hard skin; forehead flat; cheeks perpendicular. Eyes lateral. Chin not bearded. Fore-legs covered with broad lunate scales. Toes short, strong, covered with transverse shields above, slightly webbed. Claws 5·4. Tail moderate. Shell depressed. Sternum solid, broad, truncated before, nicked behind; affixed to the thorax by a bony symphysis, covered by the ends of the pectoral and abdominal plates; axillary and inguinal plates moderate, distinct. Asiatic and American.

Emys, sp., Brongniart and others.

This genus contains the more terrestrial and solid-shelled Terrapens with webbed feet; their head is more square and flat-topped than in their more aquatic congeners; and they have the eyes on the side of the face. The skull is square, with a broad flat forehead; the orbits being placed quite on the side of the head and not interrupting the outline of the forehead, as in the more aquatic *Emydes*.

These animals are essentially aquatic, but often leave the water for months together. They are very active and restless.

* Back three-keeled; keels interrupted, nodose.

** Back three-keeled; keels continued.

*** Back one-keeled; shields radiate, concentrically grooved.

**** Back not keeled, depressed; shields thin, spotted.

* Back three-keeled, spotted; areolæ rugose, each with a very broad nodose longitudinal ridge; hinder edge entire or subdentate. Asiatic.

1. Geoclemys Hamiltonii. HAMILTON'S EMYS.

Shell oblong, convex, solid, with three interrupted keels, slightly toothed behind, black, yellow-rayed; shield convex, areola rugose, with a large irregular central keel;

- Testudo Europæa*, Shaw, *Zool.* iii. t. 8.
Schoepff. Test. t. 1.
Bojanus, Anat. t.
Sturm, Fauna, t. a, b, c.
Wagler, Amph. t. 5. f. 8, 9.
T. flava, Lacep. *Q. O.* 135. t. 6.
T. punctata, Gottw. *Schildk.* t. k. f. 12.
T. orbicularis, Linn. *Syst. Nat.* i. 351.
Wulff, Boruss. 3.
T. lutraria, Rondel. *Pisc.* ii. 170.
Gesner, Q. O. ii. 113. f. 5.
Aldrov. 710.
Brünn. Adriat. 91.
T. pulchella, *Schoepff.* t. 26, young.
T. Meleagris, Shaw, *Nat. Misc.* iv. 144 (shell polished).
Emys Hellenica, Valenc. *Voy. Morea*, t. 8. f. 2.
E. antiquorum, Valenc. *Voy. Morea*, t. 8. f. 1.
? E. capensis, Fitz. *Syst. Schildk.*
E. Hofmanni, Fitz. *Syst. Schildk.*
E. orbicularis, Valenc.
E. Europæa, Valenc. *Zool. Morea*, t. 8. f. 1.
Fitz. Syst. Rept. 29 (1843).
E. a. Europea, *Wagler, Syst.* 138. t. 5. f. 8, 9.
E. (Emys) lutraria, Bonap. *Obs. Cuv. R. A.* 164.
Hab. Europe; France; Sicily; Morea; North Asia;
 North Africa; Algeria; ? Japan. Mus. Leyden.
- f.* Young (in spirits). Shell black, yellow spotted on edge of shields. Europe. Mr. Brandt's Collection.
b. Shell and dry animal. Brown, yellow-dotted; $6\frac{1}{2}$ inches. Europe.
c. Young. Hinder half only, with dry animal. Brown, paler rayed. Presented by Thomas Bell, Esq.
Testudo pulchella, *Schoepff.*
d. Young (in spirits). Animal white dotted; shell pale brown, brown-rayed. Albania. Presented by W. W. Saunders, Esq.
g. Adult (stuffed). Europe. From the Haslar Hospital Museum.
i. Adult (in spirits). Europe. From the Zoological Society.
k. Adult. Dorsal shell. Shield only; carious, covered with a thick rough coat. Presented by H.R.H. Prince Bonaparte (Charles Lucien).

OSTEOLOGY:—

- Bojanus, Anat. Test. Europ.* t. 1, 31.
Cuv. Oss. Foss. v. 184. t. 11. f. 13–16, skull; t. 12. f. 2, clavicle.
Emys Europæa, *Wagler, Syst.* t. 5. f. 20–28.
a. Adult (shell only). Black, yellow radiately dotted. South Europe.
e. Adult (shell only). Back convex; plate black, yellow-lined. Europe. Mus. Zool. Soc.
h. Skeleton. Europe.

The areola of the young specimen is marked with dark-edged sinuous lines on the discal shields, and a subcentral

ring on the marginal ones; these marks are sometimes to be seen on the areola of the plates of the adult. The other parts of the shields are destitute of any rings, and generally radiately spotted and streaked.

†† *Legs with thin band-like shields in front. Toes broadly webbed, with small scales above.*

12. CUORA.

Head covered with a thin skin, rhombic; forehead flat; cheeks flat. Eyes lateral. Legs strong, covered with broad, band-like, transverse shields. Toes strong, covered with distinct band-like shields above, widely webbed to the toes. Claws 5·4, strong, curved, acute. Tail moderate. Shell convex, very solid, three-keeled, at least when young. Sternum broad, rounded behind and before, completely closing the cavity of the thorax; the front lobe large, affixed behind, with the cross suture nearly in the middle of the bony sterno-costal symphysis; anterior lobe large, with the hinder part enclosed in the symphysis; sternal shields 12; axillary and inguinal shields small, distinct; marginal plates 25; nuchal plate small. Asia.

Shell convex, like *Cistudo*. The legs and feet are those of an Asiatic *Emys*.

1. Cuora Amboinensis. The CUORO.

Shell hemispherical, slightly three-keeled, blackish; margin broad, expanded; nuchal shield linear; sternum black and yellow varied. Animal blackish, yellow-varied; head dark, with two broad yellow streaks on the side from the nose.

Cistudo Amboinensis, Gray, *Syn.* 19; *Cat. Tort. B.M.* 30; *Illust. Ind. Zool.* t.

Dum. & Bib. Erp. Gén. ii. 215. t. 15. f. 2; *Cat. Méth. R.* 7.

Testudo amboinensis, Daud. *Rept.* ii. 309.

T. Couro, Leschen. *Mus. Par.*

Emys Amboinensis and *E. Coura*, Schweig. *Prodr.* i. 214, 315.

Terrapene bicolor, Bell, *Zool. Journ.* ii. t. 16.

Emys Couro, var., Schlegel, *F. Japon.* 64.

E. (Pyxidemys) Couro, Fitz. *Syst. Schildk.* 122.

Terrapene Couro, Fitz.

Emys clausa (part.), Bonap.

E. β. Couro, Wagler, *Syst.* 138.

Cistuda Amboinensis β. Leveriana, Gray, *Syn.* 29.

Hab. Amboina; Batavia; Sumatra; Manilla; China? Soohog; Java. Called *Couro* (Leschenault).

a. Adult (stuffed). Shell rather elongate; $6\frac{1}{2}$ inches. India. Presented by Thomas Bell, Esq., F.R.S.

b. Young. Head and feet dry; shell broad, three-keeled; $2\frac{2}{3}$ inches. *Illust. Ind. Zool.* t. 6. Presented by Dr. J. E. Gray.

- c. Very young (in spirits). With granular shields, and the costal shields with a keel rather above the centre. Philippine Islands. From Mr. Cuming's Collection.
- d. Half-grown (in spirits). Granular areola posterior, marginal. Philippine Islands. From Mr. Cuming's Collection.
- e. Half-grown (stuffed). Singapore.
- f. Adult (in spirits). Amboina. From the Leyden Museum.
- g. Half-grown (stuffed). Asiatic Islands. Mr. Warwick's Collection.
- h. Adult (stuffed). Shell ventricose, high. Malacca. Presented by Commander John Ince, R.N.
- k. Very young (dry). Slightly three-keeled.

OSTEOLOGY:—

- i. Skeleton of adult. Amboina. From the Leyden Museum.

Cuora Amboinensis is called "*Baning*" by the Malays of the Peninsula; it is numerous in the ponds, rivulets and paddy-fields in the valley of Pinang. The dorsal keels become obsolete with age, and the margins of the shell, particularly the hinder part, become revolute.—*Cantor*.

Schlegel regards *Emys castanea*, *E. subniger*, *Terrapene bicolor*, *Sternotherus trifasciatus* and *St. Leachianus* as varieties of this species.

Leconte most erroneously confounds this with *Cistudo Carolina*.

2. *Cuora trifasciata*. The THREE-STREAKED COURA.

Shell subovate, hemispherical, solid, keeled, dull yellow, red and black varied, with three blackish dorsal streaks. Sternum bifid behind. Head yellow, with two horizontal black streaks on the side of the head and neck, upper wider, with a triangular paler spot in front and two larger oval ones behind.

Cistudo trifasciata, *Gray, Syn.* 19; *Cat. Tort. B.M.* 31; *Illust. Ind. Zool.* t.

Dum. & Bib. Erp. Gén. ii. 219; *Cat. Méth. R.* 7.

Sternotherus trifasciatus, *Bell, Zool. Journ.* ii. 299. t. 13.

Wagler, Syst. 137.

Emys Couro, var., *Schlegel, F. Japon.* 64.

E. (Pyxidemyx) trifasciata, *Fitz. Syst. Schildk.* 123.

E. trifasciata, *Voigt*.

Hab. China.

- a. Adult (stuffed). Shell subovate. China. Presented by J. Reeves, Esq.

- e. Very old (stuffed). Shell oblong, like a. China. Mus. Zool. Soc.

- c. Adult (dry). Shell elevated, thick, worn on the surface. China. Presented by J. Reeves, Esq.

OSTEOLOGY:—

- d. Upper shell only. Like a. China.
- b. Very old; deformed. Shell much depressed and expanded. China. Presented by J. Reeves, Esq.

13. CYCLEMYS.

Head ovate, covered, with a thin skin; forehead rather convex. Eyes subsuperior. Legs strong, covered in front with thin, broad, band-like, transverse shields. Toes strong, covered with small scales above, webbed to the claws; claws 5·4, short, curved, acute. Tail moderate. Shell convex, solid, edge-toothed behind. Sternum rounded in front, truncated behind, narrower than the cavity, not covering the legs when contracted, with a distinct process on each side to form the symphysis. The cross suture between the anterior and posterior lobe in the middle of the long sternal suture, so that both lobes are equally attached to the thorax. Asiatic.

This genus has the same shield-like and well-webbed toes as *Emys* and *Cuora*, but differs from the latter in the sternal lobes being narrower than the opening of the thorax, so that, as in *Emys*, it does not cover the legs when they are contracted. This similarity has induced naturalists to place the species in the genus *Emys*, overlooking the fact of the lobes being mobile.

Cyclemys, *Bell, Proc. Zool. Soc.* 1842, 17.

Fitz. Syst. Rept. 29 (1843).

Les Baillantes (part.), *Dum. & Bib. Erp. Gén.* ii. 221.

1. *Cyclemys dentata*. The DHOR. TAB. XIX.

Shell suborbicular; back flattened, keeled, hinder edge toothed; sternal shields yellow, brown-rayed.

Cistuda dentata, *Gray, Cat. Tort. B.M.* 32.

Emys dentata, *Gray, Illust. Ind. Zool.* t. , lower fig., young.

E. Dhor or *E. dentata*, *Gray, Syn.* 20. t. 8, 9.

E. Hasseltii, *Boie, Mus. Leyd.*, young.

E. Spengleri, var., *Schlegel, F. Japon.* 51.

Cyclemys orbiculata, *Bell, Proc. Zool. Soc.* 1824, 17, adult.

Fitz. Syst. Rept. 29.

Cistuda Diardi, *Dum. & Bib. Erp. Gén.* ii. 227; *Cat. Méth.*

R. 8.

"*Testudo Diardii*," *Mus. Leyden*.

Tetraonyx affinis, *Cantor, Cat. Rept. Malac.* 6?

Hab. Java; Batavia; Borneo; Pinang (*Cantor*).

Var. 1. Sternum raised on the sides.

Bell, Testudinidae, viii. t. 3, lower figure.

a. Young (in spirits). Suborbicular, depressed, brown, black-dotted, bluntly keeled, edge acutely toothed; vertebral plates square, as broad as long; sides of neck and throat yellow-lined; feet yellow-spotted. Java. Presented by Thomas Bell, Esq.

b. Young (in spirits). Java. From the Leyden Museum.

d. Half-grown (skeleton). Front dorsal plate broader; plates rugose, radiated. Java. TAB. XIX.

Var. 2. Sternum nearly flat, the lobes rather broad, somewhat like a *Cuora*.

Bell, *Testudinidæ*, viii. t. 3, upper figure.

OSTEOLOGY:—

c. Adult (skeleton). First dorsal narrow, urceolate; plates worn. Java. From the Leyden Collection.

Dr. Cantor describes three very young specimens of a Tortoise (the largest being only $2\frac{1}{2}$ inches long), which were taken on the sea-shore of Pinang, under the name of *Tetraonyx affinis*. The Malays assert that this Tortoise also inhabits estuaries and rivers in the Peninsula, and that it grows to a considerable size. The outline of the shell and its composing shields strikingly resemble the young of *Cyclemys orbiculata*, Bell!—*Cat. Rept. Penins.* 6.

There can be little doubt that the above were the young of this species, which often has only 4 claws on the feet.

2. *Cyclemys platynota*. The FLAT-BACKED EMYS.

Shell ovate, convex, yellow-dotted, with the centre of the back quite flat, as if truncated; shields striated; areola of discal shield central, of costal superior; vertebral shields broader than long, 6-sided, 5th keeled; the front and hinder margin strongly toothed. Sternum flat, truncated before and slightly nicked behind. Tail moderate, tapering.

Emys platynota, Gray, *Proc. Zool. Soc.* 1834; *Illustr. Ind. Zool.* t. ; *Cat. Tort. B.M.* 16.

Cantor, *Rept. Malay. Penins.* 3.

E. Reevesii, adult?, Dum. *Cat. Méth. R.* 15?

Hab. Sumatra (Müller); Pinang (Cantor, *Cat.* 3); Cochinchina (Diard).

a. Adult (stuffed). Sumatra?

b, c, d. Adult, and half-grown (stuffed). Head yellow, varied with a broad yellow streak on each side of the nape; throat yellow-streaked. Singapore. Mr. Wallace's Collection.

e. Young. Shell only, with the ribs about half closed; vertebral plate with two costal plates, with one raised black spot on the middle of the hinder edge of the nucleus. Singapore. Mr. Wallace's Collection.

f. Very young. Shell very thin, with the black spot only very indistinctly marked.

They are called "Katong" by the Malays in the Peninsula. The head and neck, shell, tail and feet of the adult living animal are dirty yellowish or greenish brown, which becomes paler on the sternum. The nuclei of the vertebral shields are slightly raised; the costal shields are depressed, their sides sloping towards the nuclei, thus forming as it were a very shallow hexagonal basis. The front and hind margins are broadly revolute, their toothed appearance worn off. The sternum is slightly concave in the centre. They inhabit the valleys of Pinang, and in confinement they refused to eat, and were never observed to enter a tank.—Cantor.

c. Sternum divided by two cross sutures; central lobe attached to the thorax by a bony symphysis, covered by the end of the abdominal shields only; sternal plates 11 or 8; the axillary and inguinal plates large.

Emydidæ § *a, c*, Gray, *Cat. Tort. B.M.* 13.

Terrapenina, Gray, *Ann. Phil.* x. 211 (1825).

Terrapene (part.), Merrem, *Tent.* 27.

Cistuda §, Fleming, *Phil. Zool.* ii. 270.

Emydidæ a, Bell, *Zool. Journ.* iii. 514.

Cinosternon, Spix.

Wiegmann & Ruthe, *Handb.* 166.

Kinosternon, Bonap. *Obs. Cuv. R. A.* 266 (1836).

Les Tortues à boîtes (part.), Daud. *Rept.*

Cuv. R. A. ii. 11; ed. 2. ii. 12.

Terrapene, sp., Merrem, *Tent.*

Staurotypus et *Cinosternon*, Wagler, *Syst.* 137.

Dum. & Bib. *Erp. Gén.* ii. 356, 363; *Cat. Méth. R.* 16, 17.

14. KINOSTERNON.

Head moderate, subquadrangular, pyramidal, covered with a hard thin skin. Chin bearded. Feet and tail nearly naked, with a few scattered scales. Claws 5.4, rarely 4.4. Tail of male elongate, clawed. Shell ovate, three-keeled, especially when young. Sternum rounded in front, entire or two-lobed behind; middle lobe covered by the abdominal plates, fixed by a bony symphysis to the thorax; front and hinder lobes more or less free, articulated to the middle lobe: sternal shields 11; gular pair united into a triangular shield; the pectoral shields triangular, narrow on the inner edges. Axillary and especially the inguinal plates very large, covering the suture. America.

Terrapene, sp., Merrem.

Sternotherus, Bell.

Gray, *Ann. Phil.* x. 211 (1825).

Sternotherus, sp., Bell, *Zool. Journ.* ii. 304.

Fitz. *Syst. Rept.* 29 (1843).

Kinosternon, Spix, Braz.

Bell, *Zool. Journ.* ii. 302; iii. 515.

Kinosternon, Bonap. Obs. Cur. R. A. 166.

Gray, Ann. Phil. x. 211 (1825); Syn. Rept. 24; Cat. Tort. B.M. 32.

Cistudo, sp., Say, Journ. Acad. Nat. Sci. Philad. iv. 266.

Tortues à boîtes § **, Cuv. R. A.

Cistuda § 2, Flem. Phil. Zool. ii. 270 (1822).

Cinosternon, Wagler, Syst. 137.

Fitz. Syst. Rept. 29.

Wiegman & Ruthe, Handb. 166.

Duméril and Bibron, Erp. Gén. ii. 363; Cat. Méth. R. 16.

Cyclemys, sp., Wagler, Syst. 137.

a. Sterno-costal suture elongate, narrow; sternal lobes as broad as the opening. Swanka.

β. Sterno-costal suture short, broad; sternal lobes narrower than the opening. Kinosternon.

α. Sterno-costal suture elongate, narrow; sternal lobes as broad as the opening; abdominal shield longer than the front lobe of sternum. Swanka.

Swanka, Gray, Cat. Tort. B.M. 32 (1844).

Cinosternon, Fitz. Syst. 29.

1. Kinosternon scorpioides. The SWANKA.

Shell oblong, rather compressed, with three continuous keels; dorsal shields longly six-sided, slightly imbricate; sternum as broad and large as the opening; anterior lobe entire, broad, longer than the middle lobe; gular plate long, triangular; symphysis narrow, as long as the abdominal shields.

Kinosternon scorpioides, Gray, Syn. Rept. 24; Cat. Tort. B.M. 32.

Bell, Test. t. . f.

Cinosternon scorpioides, Wagler, Syst. 137. t. 5. f. 31-43.

Duméril and Bibron, Erp. Gén. ii. 365; Cat. Méth. R. 16.

Kinosternon Shavianum, Bell, Zool. Journ. ii. 304.

Cinosternon scorpioideum, Wagler, Syst. t. 5. f. 44.

Fitz. Syst. Rept. 29.

Kinosternon longicaudatum, Spix, Bras. t. 12.

Gray, Ann. Phil. x. 211 (1825).

Bell, Zool. Journ. ii. 304.

Chersine scorpoidea, Merrem, Amph. 33.

Cyclemys tricarinata, Wagler, Syst. 137.

Kinosternon brevicaudatum, Spix, Bras. 13.

Testudo scorpioides, Linn. Syst. Nat. i. 152.

Emys scorpoidea, Schweig. Prod. i. 312.

Testudo Pennsylvanica, var., Shaw, Zool. iii. t. 15, young.

T. tricarinata, Daud. Rept. ii. 178.

Schoepff, Test. t. 2.

Shaw, Zool. ii. t. 11.

T. Retzii, Daud. Rept. ii. 174.

Emys Retzii, Schweig. Prod. 312.

Terrapene tricarinata, Merrem, Tent. 28.

Hab. Central America; Brazils; Cayenne; Honduras.

Var. 1. Hinder part of sternum entire.

b. Stuffed (not in good state; wants dorsal plates; no appearance of keels). Central America.

c. Animal dry (shell wants dorsal plates; no appearance of keels). Central America.

Kinosternon scorpioides, var. acuta, Gray, Syn. 14. t. 7. f. 1.

d. Adult (animal and shell, in spirits). Back very convex, rounded, distinctly three-keeled; sternum rather convex; tail very short; spine very small. Female? Tropical America. Presented by Thomas Bell, Esq.

e. Adult (animal and shell, in spirits). Back convex, rounded, distinctly three-keeled; sternum flat; tail elongate; claws very strong. Male? Tropical America.

g. Adult (stuffed). Dorsal keels very distinct, vertebral plates small; tail elongate. Mexico.

h. Adult (animal, stuffed). Discal plates very irregular; dorsal keel indistinct. Mexico.

OSTEOLOGY:—

Cinosternon scorpioides, Wagler, Syst. Amph. t. 5. f. 31-43.

a. Shell only, swollen and convex, wanting some plates. Dorsal keels only marked by very obscure lines. Central America. Presented by Dr. J. E. Gray.

i. Adult. Back rounded; dorsal keel only marked by a very slight line.

Var. 2. Hinder part of sternum notched. Males.

l. Adult (animal, dry). Dorsal keels regular, distinct. Head very large, broad; sternum concave; tail elongate; claws large. Male?

m. Adult (stuffed). Dorsal keels regular, distinct; sternum concave, truncated behind; tail elongate; claws large. Cayenne. M. Verreaux's Collection.

k. Adult (shell). Dorsal keels regular, distinct. South America. Mus. Zool. Soc.

Var. 3. Back depressed.

Cinosternon scorpioides, var., Dum. Cat. Méth. R. 16.

Hab. Bolivia; Santa Cruze de la Sierra (D'Orbigny).

2. Kinosternon cruentatum. BLOOD-SPOTTED SWANKA.

Carapace swollen, oval, suddenly inclined behind, three-keeled, red-brown; sternum not nicked behind, yellow-brown. Head yellowish-green, darker above; head, neck and limbs with small blood-red lines.

Cinosternon cruentatum, Dum. & Bib. MSS.

Dum. Cat. Rept. Mus. H. Nat. 16.

Hab. North America (Duméril).