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THE
Figures, Description, and History,
OF
EXOTIC ANIMALS,
COMPRISED UNDER THE CLASSES
AMPHIBIA AND PISCES
OF
LINNÆUS.

BY JOHN WALCOTT, Esq.

*And GOD saw every Thing that HE had made,
And behold, it was VERY GOOD!*

GEN. i. 31.

L O N D O N:
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P R E F A C E.

THIS work will contain figures copied from nature; of about two hundred exotic animals of the classes AMPHIBIA, and PISCES of LINNÆUS; now in my possession; with a description and history of each: and will be comprised in ten numbers. But as I have a prospect of considerable additions to this collection, I purpose, at some future period, to publish a Second Part; which will contain the remainder of such foreign animals as are known to us.

The plates will be found useful in illustrating such works of Natural History, Travels, and Voyages, as are destitute of them: especially the above-mentioned part of the SYSTEMA NATURÆ. LINNÆUS refers for figures to more books than are perhaps in the library of any one person. His plan indeed would not permit him to give them; but he confesses at the same time, that they are the life of Natural History: and it must be allowed, that a figure gives us a more perfect idea of any subject than the most elaborate description.

TESTUDO Mydas. *Green Turtle*. Fore fins an oblong oval: those of the male furnished with two claws: hind fins broad and round at the end, with one claw: shell convex, smooth, of a reddish brown, broke with yellow, and rayed with a deeper brown or black: sutures of the shell and edges of the side scales waved; belly a pale yellow.

This kind of *Turtle*, whose flesh is well known at our tables, inhabits the sea in the West Indies; and is sometimes found on the coast of North America. In April they for the most part retire to the island of Cuba and the Spanish main, to breed; burying their eggs, which are above eight hundred in number, in the sand, a little above high water mark; leaving them there to be hatched by the heat of the sun: feed on sea grafs; are taken either in nets, struck with a small kind of harpoon, or surpris'd when going ashore to lay.

RANA arborea. *European Tree Frog.* Back smooth; of a fine green colour, bound near the sides with yellow: belly a pale yellow; and covered with warts: from the nostrils along the head, and sides, a dusky stripe: four unwebbed toes to the fore feet; five semipalmated to the hind; ends of all the toes round, and spreading.

This species appears to be common to all parts of Europe; except Great Britain and Ireland: in the spring frequents ditches and puddles to breed: their tadpoles resemble those of the common frog: after casting their spawn ascend trees, where they pass the warm months; the form of the ends of their toes, and a viscid juice that oozes from them, enable them to keep firm, on the smooth surface of the branches and leaves: feeds on insects.

The poisonous qualities attributed to animals of this genus are omitted; as they appear to be groundless.

RANA. *Brown and White Tree Frog.* Upper parts smooth: brown regularly blotched or spotted with silvery white: belly yellow and covered with small warts: four unwebbed toes to the fore feet, five semipalmated to the hind: the above figure is the natural size.

We are not perfectly acquainted with the country from whence this beautiful species came, nor of its manners.

DRACO volans. *Flying Lizard*. Head small and convex: three pointed skins hang from the throat, the middle one the longest: body slender: from each side extends a broad rounded skin, detached from the legs, and strengthened by six pliable rays: tail long and slender: five toes to each foot.

The wings of this Lizard appear to be like those of the *Flying Squirrel*, designed rather to act as sails, in leaping from tree to tree, than to be used as wings. It inhabits the East Indies, where it perches on trees: is oviparous.

LACERTA Chamæleon. *Egyptian Camelion*. Tongue long and open at the end like the proboscis of the *Elephant*: ball of the eye very large and covered with a skin, having only a small hole in the middle for the sight: top of the head as far as the eyes flat; from thence to the hind part of it runs a ridge, formed by an oval depression on each side; giving the animal, when looked at sideways, the appearance of large ears: back arched: whole skin shagreened: each foot is deeply divided; one part has three toes, and the other two, united to pretty near the claws: length 11 inches and an half.

The *Camelion* is common in *Palestine* and *Egypt*, climbing trees and running among stones. This animal does not live on air, as some have thought, nor does it assimilate its colour to whatever it is near. But *Hasselquest*, a disciple of *Linnaeus*, and who saw it in its native country, says, that its natural colour is iron-grey, which it changes to yellow of various shades, sometimes with a tint of green; and is sometimes spotted. It has the power of becoming plump or lean; when plump, it retains its natural colour; but when lean, changes it.

LACERTA β Chamæleon. *Arabian Camelion*. LINNÆUS makes this a variety of the *Egyptian*, from which it differs in having the top of the head flat, where the other rises into a high ridge; and also in having the middle of the throat and belly serrated: it is likewise said, never to exceed six inches in length.

Camelions, like some species of monkeys, twist the end of their tails round branches of trees, to assist them in climbing: take insects, which is their only food, by darting their tongue at them; which in this species is four inches long; and that of the *Egyptian* ten, and covered at the end with a glutinous matter. The manner of moving their eyes deserves particular notice; one being often fixed, whilst the other moves; and one looks downwards at the same time that the other looks upwards.

The above animal derives its name from the country it inhabits, viz. *Arabia*: though it is to be met with in *Egypt*; and also in *Barbary*, where it is called *Taitab* and *Bouiab*.

LACERTA Iguana. *Guana*.
A pouch under the throat, ferrated on the edge near the chin: along the middle of the neck, back, and about one-fourth of the tail, a row of long narrow erect appendages: remainder of the tail ferrated: colour green, tail annulated with black bands: five unwebbed toes: length five feet.

One I have met with, whether the young, or a variety of the above, I am not certain, has the back only ferrated, and wants the black bands on the tail: length of the head and body six inches: tail nearly one foot and an half.

The *Guana* inhabits the rocks on the coast of most of the West India islands, where they are taken by dogs trained for the purpose: the flesh affords a favourite dish to the natives, either fresh or cured with salt: it feeds on vegetables: moves slow: buries its eggs, which are numerous and covered with a skin, in the earth; where they are hatched by the heat of the sun.

LACERTA Salamandra. *Salamander*. Nose blunt: head broad and depressed: colour of the whole animal yellow and black: the former is the ground, and the latter runs in broad stripes down the back and sides, and in an irregular manner on the belly, legs, and tail: tail thick and blunt at the end, and somewhat compressed: four toes to the fore feet, five to the hind; all without claws: pores in the skin behind the eyes, back, sides, and tail.

This animal is found in the southern parts of Europe, in cold shade and marshy places.

The following erroneous accounts are given of the *Salamander*; such as its being spontaneously produced by fire—living in it without detriment—and putting out live coals by a matter that it voluntarily emits through the pores of its skin—and that it is deadly in its bite.

CROTALUS horridus. Great Rattlesnake. Head flattened: body thickest near the middle: colour brown, marked with broad transverse dentated black bands: the rattle at the end of the tail formed by loose horny joints, and varying in number; as 8, 13, 24, 40, and even 70. The one here figured is five feet long, but they are said to grow to more than twice that length. Scuta on the belly 172: under the tail 26.

This *Snake* is common in the hilly uncultivated parts of N. America: moves slow: is viviparous, and brings forth in June, about twelve young ones. When provoked, shakes the rattle at the end of the tail; making a noise with it like that of a spinning wheel. When its bite is in the flesh only, it is cured by cutting out the part, or sucking the wound; but if in a vein or artery, it is immediate death. Its power to fascinate with its eyes both birds and small quadrupedes, causing them to run into its mouth, is universally asserted and believed in America.

BOA: *Spotted Boa.*
Head broad, and marked down
the middle, and on each side with
four brown stripes: body a red-
dish white spotted down the back;
along each side and on the belly
with a deep brown: tail round
and compressed at the end:
length about ten inches. Scuta
on the belly 135: under the tail
29.

As the young of the Rattle-
snake are said to want the rattle,
it is doubtful whether this may
not be the young of some of its
species. Should it however be of
this genus, and a native of North
America, it may be that kind
of Water Snake mentioned by
Bricket in his Nat. Hist. of
North Carolina; which he com-
pares, for colour, to the English
Adder, which this resembles.
He speaks of it as very common
on the sea coast, especially under
the drift sea weed; and adds, that
it is of the mischievous kind.

C O L U B E R.

SCUT A on the belly.

SCALES under the tail.

COLUBER doliatus. *Hooped Snake*. Head small and narrow: back crossed with black stripes, ranged in pairs, and forming rings, by uniting on the sides: sides below the rings irregularly marked: ground colour a yellowish white: belly plain: length one foot eight inches. Scuta 160: scales 40.

Inhabits Carolina, and perhaps other North American provinces.

The species forming this genus being very numerous, it would assist us greatly in distinguishing them, were they arranged under two heads; viz. *Vipers* and *Snakes*; the former have a broad flat head, move slowly, are viviparous, and their bite is attended with bad consequences. The latter, have their head small and narrow, and their bite does not appear to be attended with any very bad effect: are active, and in their mode of breeding oviparous. Another character might doubtless be drawn from their teeth.

AMPHISBÆNA fuliginosa. *Pied Worm Snake*. Head small: body of nearly an equal size throughout: tail blunt and rounded: colour a gloss white, marked on the rings irregularly with brown or copper-coloured stripes: length ten inches.

The animals forming this genus, have been generally supposed to have two heads; from a fancied resemblance the tail bears to the head; which deception is strengthened, by their moving like the Earthworm, backward as well as forward.

The one here figured, inhabits the warmest part of America: lives under ground: moves slowly: feeds on insects: and its poison is deemed incurable.

OSTRACION. *Five-spined Coney-fish*. Body triangular, and reticulated by sunk lines into hexangular and heptangular meshes, each bound a little within the line by a black strip: before each eye a strong short spine; a third on the middle of the back; and one on each side the belly near the vent: body from the vent to the tail covered with a soft smooth skin: tail round at the end; length ten inches. D. 10. P. 12. A. 10.

I have reason to suppose it inhabits the Indian ocean.

It is probable that this genus has the power of drawing the defenceless parts under the bony coat of the body, at the approach of danger. It seems necessary that the parts of the body to which the fins are attached, should be covered with a pliable skin; especially that part of the body near the tail; as fish move forwards with the assistance of their fins, than by the motion of their body sideways; which is exemplified in the common method of impelling a cock boat, by moving sideways an oar at the stern.

ECHENEIS Remora. *Fork-tailed Remora*. Head broad and depressed: lower jaw longest: on the top of the head and beginning of the back an oblong shield, cut transversely by 16, 17, 18, or 19 furrows; and the whole divided down the middle: body smooth; slender; round near the head, but compressed towards the tail: tail forked: length two feet. D. 22. P. 28. V. 5. A. 22.

This fish is frequently taken adhering by the shield on its head, to the bottom of ships, and bodies of large fish: and is esteemed tolerable good eating. Though what *Oppian* and *Pliny* relate of the powers of the *Remora*, in stopping a gally with four hundred rowers and a ship in full sail, merit no credit; yet, like the marvellous accounts of some other creatures, appear not to be wholly without foundation. For Abbe *Fortis* says, that once sailing in a small bark, in the Gulph of Venice, the man at the helm suddenly called to his companion to kill a *Remora*, which had fixed itself to the rudder, and which did then as he had often experienced before, sensibly both retard and alter the course of the vessel. Thus what might have happened to a boat, is by *Oppian* and *Pliny* transferred to a galley or ship.

CHÆTODON *White-striped Chaetodon*. Edge of the upper gill cover armed with a strong spine: body very deep and compressed: colour dusky; the head striped down the forehead, and behind the mouth and eyes with white: body spotted with black, and marked transversely with two white stripes: tail white, marked in the middle with a large semicircular dusky spot: tail round at the end. D. $\frac{2}{3}4$. P. 18. V. $\frac{1}{5}$. A. $\frac{3}{2}$.

Linnaeus appears not to have known this species, which is taken among the Caribbee islands.

PERCA formosa. *Grunt.* Corners of the mouth yellow: head yellow; striped lengthways with pale blue, bound with purple: body white, striped transversely with yellow: sides compressed: lateral line nearly parallel to the arch of the back: tail forked: length one foot. D. $\frac{12}{7}$. P. 15. V. $\frac{1}{5}$. A. $\frac{3}{9}$.

This kind is taken on the coast of North America, and amongst the Bahama and Caribee Islands; where they have a method of taking fish, by intoxicating them with the bark of the roots of *Dog-wood* *Piscidia Erythrina*; LINN. They pound the bark and steep it in water, and then squeeze the juice through their hands into the sea, which makes the fish float motionless on the surface.

TEUTHIS Hepatus. *Doctör.* Teeth ferrated: body very deep and compressed: head and body a dusky purple, to near the tail, where it is white: on each side the body near the tail, a strong spine, pointing towards the head, with a groove for it to lay in: lateral line runs parallel to the arch of the back: tail forked. D. $\frac{8}{24}$. P. 16. V. $\frac{1}{5}$. A. $\frac{2}{22}$.

Taken among the Caribee Islands.

As fish, and likewise sea birds, swallow fish with their heads downward, that the spiny rays of the fins may fall, and not injure them; the side spines of this fish, must therefore be a great defence to it; as its enemies cannot guard against them.

EXOCOETUS.

Head scaly. No teeth: the jaws connected on both sides.

Branchiostegous rays X.

Body whitish. Belly angulated. Pectoral fins very large, volatile, the anterior rays carinated.

EXOCETUS volitans. *Common Flying Fish*. Head short and thick: eyes very large: body thick and rather short: back broad, and of a dark colour: sides and belly silvery white: scales pretty large: a ridge on each side the belly: under fork of the tail much longer than the upper. D. 13. P. 17. V. 6. A. 14.

According to LINNÆUS, this is the species met with all over the ocean, in warm latitudes. This fish being persecuted by the Tunny, Bonnet-fish, Gold-fish, &c. are drove to seek shelter in the air, (an unnatural element for fish); where, by means of their large pectoral fins, they fly as light and swift as a bird, the distance of a gun shot, or as long as the fins continue moist. But here also new enemies await them; for they become the prey of the Tropic-bird, Boby, Man of War-bird, &c. and when spent, frequently fall on the decks of vessels.

EXOCOETUS. *Slender Flying Fish*. This agrees with the former, in having the sides of the belly ridged; from which, however, it may be distinguished at first sight, by the slenderness of the body, and great length of the ventral fins. D. 12. P. 14. V. 6. A. 13.

Till now this species appears to have been confounded with the last, or wholly overlooked. I regret, no part of its history can be gained from voyagers; who do but mention their seeing Flying Fish, without adding any character, by which the kind might be known: and of course we still remain ignorant, what ocean or sea it inhabits. Probably the ventral fins assist it in its flight.

POLYNEMUS parodiscus. *Indian Polyneme*. To each side the throat hang seven thread-like appendages, the longest reach a little beyond the vent: body compressed, and not very deep: a large scale near the base of the ventral fins: lateral line slightly curved; parallel to which run fine raised lines on the body: rays of the first dorsal spiny: tail forked. D. $7 \frac{1}{12}$. P. 15. V. $\frac{1}{5}$. A. $\frac{1}{14}$.

This fish is taken among the Caribee islands, where it is called *Cat-fish*; in lieu of which I have substituted that of *Indian Polyneme*; as the former name is given to almost every fish that has thread-like appendages hanging to the head or throat.

TESTUDO græca. *African Tortoise.* Shell a greenish yellow; the scales on the back marked irregularly in the disk and edge, and the side ones obliquely with black; down the belly are two broad black stripes: tail short: no toes; five claws to the fore feet, four to the hind.

Inhabits Africa: feeds on vegetables: moves slowly, partly owing to the side bend of the fore legs: at the approach of winter buries itself in the earth, where it passes that season in a torpid state: its flesh is reckoned more palatable than the *Turtles* of the Mediterranean.

R A N A.

Four feet, no cover to the body, no tail.

RANA Pipa. *Surinam Toad*. Head very broad, and short: at each corner of the mouth a small projected piece of skin: upper parts dusky, covered with numerous minute black pimples: under parts a dirty yellow, the belly marked down the middle with a dusky stripe: four long unwebbed toes to the fore feet, divided at the end into four parts: five webbed toes to the hind feet.

This extraordinary animal inhabits Guiana, where it is called *Pipa*. The mode by which it propagates its species, is perhaps peculiar to it, the young being bred in the back of the male, where the female deposits her eggs.

RANA ocellata. *Bull Frog.* Head not very broad, irides dusky red surrounded with a yellow ring: the auricles covered with a thin circular skin: upper parts a dusky brown, thick set with large irregular shaped spots; the whole blended with a yellowish green: under jaw brown, mottled with white: belly white: four unwebbed toes to the fore feet, five webbed to the hind.

Inhabits N. and S. America: is not a numerous species: keeps in pairs: frequents ponds, stagnate water, and the mouth of rills; which it is supposed to purify; during winter remains torpid, under mud; in the spring it begins to bellow the noise like that of an enraged bull, and so loud as to be heard, in a still evening, the distance of a mile: will go three yards at a leap: feeds on young ducks and goslings. It is edible, and affords as much meat as a pullet.

RANA. *Small-headed Toad.* Head very small and pointed: body swollen: skin smooth; of a purplish brown colour, lightest on the belly: legs short: four unwebbed toes to the fore feet; five unwebbed to the hind: sides slightly margined: the figure is its natural size.

Inhabits

LACERTA. 6-lineata. *Six-lined Lizard.* Head a reddish brown: a gray line down the middle of the back, bound by a white one; beyond these to the sides three white lines, separated by black stripes: belly white: outer toe of the hind feet attached to the heel, second toe as long again as the rest: tail longer than the body and head: the scales verticillated.

Inhabits Carolina,

LACERTA punctata. *Spotted Eft.* Body and tail dusky, belly lightest; sides marked with two or three rows of spots, in some white, in others yellowish; and the tail with a single row of the same: tail compressed: four unwebbed toes to the fore feet; five to the hind.

Inhabits marshy places in Carolina and Virginia. Swims by means of an undulated motion of the tail, keeping its legs close to the body.

COLUBER Fulvius. *Tawny Snake.* Head broadish, and round at the muzzle: the whole animal is marked with broad black rings, from 19 to 22 in number; on the back they are bound with a yellowish white: the intermediate space tawny, spotted with black: sides and belly between the rings a yellowish white, spotted with black: length about three feet. Scuta 204: scales 40.

Inhabits *Carolina.*

COLUBER. *Pensacola Snake*. Head narrow; the scales on the top black edged with white: a narrow white stripe down the middle of the back, from head to tail; on each side a broad one of black; this bound by another of white; and beneath that another of black, dentated on the edges: belly white; a little way from the head marked with two rows of small brown spots; from thence to the vent with three rows; and again under the tail with only two rows: length nine inches. Scuta 163: scales 44.

Inhabits *Pensacola*,

SQUALUS Pristis. *Saw-fish*.
Nose lengthened into a long flat
gristly body, armed on each side
with from twenty-four to twenty-
seven slender teeth: lips covered
with rough hard tubercles instead
of teeth: an aperture behind each
eye for the discharge of water:
two dorsal fins: a narrow slip cut
half way down the inner side of
the ventral fins: end of the tail
obliquely truncated: length up-
wards of twenty feet.

Inhabits all seas, from Green-
land to those of the **B**rasils: is
found in those of Africa, and
of the East Indies: is frequently
misnamed the *Sword-fish*. Crantz,
Anderson, and other writers on
the Nat. Hist. of Greenland, and
Iceland, make it the enemy of
seals and whales; and assert, that
it eats only the tongue of the
latter, leaving the rest of the
huge carcase a prey to the
Morfes, and Sea-Birds.

BALISTES *Long File-fish*. Body not very deep; the skin divided by smooth furrows into small rough scale-like spaces: each of these on the sides have a small spine pointing towards the tail: the first dorsal fin has three spines; the first of which is very large and rough in front like a file; (hence the English name): the third very short, and situated at a considerable distance from the other two: skin of the back and belly at the base of the dorsal and anal fins drawn out and compressed: pectoral fins small: dorsal and anal fins triangular, and situated nearly opposite each other: tail even at the end. D. 3. 24. P. 14. A. 19.

This genus takes its name from a singular property of the first dorsal fin of several of the species; viz. no force can depress the first spine; but if the last be depressed, in ever so gentle a manner, the other two immediately fall down with it; and as instantaneously as when a cross-bow is let off by pulling the trigger. It is on this account likewise, that one kind taken in the Mediterranean, is called at *Rome*, *Pesce Balestra*; i.e. the *Cross-Bow Fish*, and the genus BALISTES.

BALISTES Body much compressed and deep: rays of the first dorsal fin spiny; the first ray very long and rough; first dorsal fin and the back from its base black; rest of the body and the head a golden yellow: skin rough: in the place of each central fin a long rough spine: tail forked: length five inches. D. 3. 22. P. 13. V. 1. A. 20.

Inhabits

OSTRACION bicaudalis. *Old Wife.* Body triangular: back sharp: the boney coat, on the head and body, divided by striae, into many hexangular meshes: the areas rough with numerous granule, ranged in concentric lines: the skinny cover of the body near the tail, and the tail-fin, marked with largish spots: a strong spine on each side the belly, pointing towards the tail; length one foot. D. 10. P. 12. A. 10.

Inhabits the Indian ocean.

Grew in his account of the Rarities preserved in Gresham-college mentions a fish apparently the same as the above, excepting an oval crust it has upon the tail.

SYNGNATHUS Hippocampus. *Sea Horse*. Head bent down towards the belly: body as far as the vent heptangular; the belly edged with a narrow black web: from thence to the tail are four angles; the belly being swollen and rounded: tail quadrangular; and generally curled downwards: along the ridges a row of tubercles: the whole animal speckled. D. 15. P. 15. A. 4.

Besides the above animal, whose native place I am ignorant of, there are two other kinds: one is common in the Mediterranean sea and Western ocean; and in the place of tubercles of the above has short spines: the other is smooth and without spots, and is found in the Streights of Sunda in the East Indies.

PLEURONECTES lineatus. Lineated Flounder. Of an oblong shape: scales on the head large, on the body small; all spiny on the edge: no pectoral fins: the outer ventral fin united to the anal: colour of the body dusky, marked transversely with seven or eight black lines: rays of the fins scaly; end of the tail round: length near eight inches. D. 51. V. 4. A. 37.

Inhabits the coast of America from New England to Jamaica. Varies like the *common* Flounder, in the situation of the eyes; the one here figured, having them on the right side; that described by Linnæus on the left.

PERCA *Red-striped Perch*. Lower jaw longest: a single dorsal fin: body striped lengthwise, with a light purplish red, on a yellowish ground: a black spot on each side the middle of the back, close to the lateral line: body compressed: tail forked and edged with black. D. $\frac{9}{12}$. P. 16. V. $\frac{1}{5}$. A. $\frac{3}{2}$.

Found among the Caribbee islands,

TRIGLA volitans. *Kite-fish.* Head square; two strong spines at the hinder part: gill cover ending in a long strong spine: body roundish and slender: on the scales run lengthwise a scalloped thin ridge: between the dorsal fins a single short spine: ventral fins very large, reaching to the tail: four appendages under the throat, united by a web: tail forked: length one foot and an half. When fresh taken, the back is either a light or dusky red; the belly white; and the ventral fins prettily spotted. D. 5. 8. P. 6. V. 22. A. 6.

Inhabits the Atlantic and Indian ocean and the Mediterranean sea: when pursued by the Doredo, &c. quits the water; and, by means of its ventral fins, flies in the air about a stone's cast. It is common in the fish markets of Italy, Sicily, and Malta.

S I L U R U S.

Head naked. Several beards about the mouth.

Branchiostegous rays IV,----XIV.

First ray of the dorsal or pectoral fin spiny, dentated backward.

SILURE Catus. *Cat-fish*. Head broad and depressed: to each nostril hangs a beard; one to each corner of the mouth; and four under the chin: body compressed: skin smooth, upper part of the body dusky; lower pale flesh colour: second dorsal fin rayless and fleshy: inner side of the first ray of the pectoral fins strongly serrated: tail forked: length two feet. D. $\frac{1}{2}$. P. $\frac{1}{8}$. V. 8. A. 22.

This fish inhabits the sea coast, and also the fresh water rivers of N. America: feeds on fish, even those of its own species: swims slowly: its taste is like that of an eel, and much admired.

SALMO articus. Capelan. Head small, lower jaw longest: body slender; the lateral line formed by a ridge of short bristles; gill covers black: back a dull green: sides and belly silvery white, dotted with black: the belly often tinged with violet: first dorsal fin is in the middle of the back; the second broad and truncated at top: pectoral fins large and situated very low: tail forked: length six inches. D. 15. P. 20. V. 9. A. 21. The female wants the black on the gill covers; and the lateral line is smooth.

This fish swarms on the coast of *Newfoundland*, *Greenland*, and *Iceland*; lives mostly at sea, and comes into bays only in the months of May, June, and July, to breed. The females enter first, and deposit their roe on the sea plants. The males follow to milt. At this time their number makes the water look black and curled. They are taken by dipping small nets, fastened to a hoop at the end of a pole. When fresh caught, they have the smell of a cucumber. At *Newfoundland* they are called *Capelan*; and are preserved in brine, as baits for the Cod fishery—in *Iceland*, *Loduc*—and in *Greenland*, *Angmarset*; where they dry them on the rocks, and supply the place of bread in winter.

EXOCOETUS *Great Flying-fish*. This fish agrees with the *Slender Flying-fish* (already figured) in the great length of its ventral fins, but differs from it, in having a thicker body: the pectoral fins also reach beyond the end of the ventral, when both lay close to the body; whereas the pectoral fins of the *Slender Flying-fish* scarce reach to the end of them: another character of this is having the first ray of the ventral fins very short and spreading. D. 11. P. 18. V. 6. A. 12.

I have denominated this the *Great Flying-fish*, from having seen it near two feet long; whereas the *Common Flying-fish* at least those in my possession, are not more than eight inches; nor the *Slender Flying-fish* more than six.

Flying-fish are met with in vast shoals between the tropics; but are not confined to them; having been seen, though rarely and few in number, as low as the latitude of 40 degrees on the coast of N. America, and 53 of Europe.

CLUPEA Encrasicolus. *Anchovy*. Nose pointed: edge of the jaws finely serrated: eyes large: body round and slender: the back of a dusky green colour; the sides and belly of a silvery white: between the ventral fins a long pointed scale: tail forked: length six inches and an half. D. 15. P. 15. V. 7. A. 16.

At different seasons it frequents the Atlantic ocean and the Mediterranean sea; passing through the Straights of Gibraltar towards the Levant in the months of May, June, and July. The greatest fishery is at Gorgona, a small isle west of Leghorn; where they are taken at night in nets; into which they are allured by lights fixed to the stern of the vessels: when cured, their heads are cut off; their gall and guts taken out, and then salted and packed in barrels: it scarce needs be mentioned, that being put on the fire, they dissolve almost in any liquor: are well-tasted when fresh.

RANA *Long-legged Frog.* Auricles covered with a thin circular skin: upper parts of the head, body, and limbs, of a dusky green, spotted with black; under part yellow: from the nose beneath the eyes and ears is a white line: and a yellow line runs from the nose over each eye and along the sides to the rump: hind legs very long: four unwebbed toes to the fore feet: five semipalmated to the hind.

. This species of *Frogs* is found in Carolina; where, from its constantly frequenting rivulets and ditches, is called the *Water Frog*. It is said to leap five or six yards at once.

RANA. *Cloven-foot Frog*. Auricles covered with a thin skin: four unwebbed toes to the fore feet: five to the hind: a tubercle under each joint of the toes.

It is probable that those Toads and Frogs which have unwebbed toes, do not frequent water even to breed: at least some species are said to breed in hollow trees.

LACERTA agilis? Back and sides spotted with black: the back bound by a white stripe; and the belly by a broken one: belly a greenish yellow; and covered with *scuta* shaped scales: tail long, the scales verticillated: length about one foot six inches.

Var. β Ground colour of the back and sides a deep blue: the stripe that binds the back broken; belly a pale blue. γ Like the first, but wants the stripe that binds the back and belly.

COLUBER miliaris

Head narrow: back dusky, each scale marked with a round white spot; those on the sides largest: belly white: marked here and there with short dusky stripes or spots: end of the tail sharp and horny: scuta 160: scales 55.

Inhabits the Indies.

COLUBER Head short; broad and convex nose turned up: a dusky stripe crosses the forehead, and passes through each eye to the corner of the mouth: individuals are marked diversely on the crown of the head: back dusky striped transversely, with white bound on the sides by a dusky spot: belly black and white. Scuta 47: scales 48.

Were it not for the great difference between this viper and the *simus* of Linnæus, in the number of the scuta; I should be inclined to think them the same species.

COLUBER *Blue-striped
Ribbon Snake.* Head narrow
and flatted: body very long and
slender: down the back are two
deep blue stripes: rest of the
body a bluish white: in some
parts, where the old skin re-
mains, the back is brownish;
and the belly of a light coppery
colour: Scuta 168: scales 175.

This Snake is probably a va-
riety of the *Coluber firtalis*.

SQUALUS Zygaena. *Balance-fish*. The characteristic of this fish is the formation of its head, spreading on each side into the shape of a balance: or, as some have compared it, not improperly, to the head of a mallet, or hammer, except that it is depressed: at the ends, or faces of which are situated the eyes.

Inhabits the Mediterranean sea. Said to approach the *whale* in size: the one from whence the above figure was taken is about two feet long; and of an uniform yellow colour: the adults have the upper parts black, the lower white.

Lophius Vespertilio. *Sea Bat.* Forehead projecting into a long conic shape: body as far as the vent broad, and somewhat depressed; from the vent to the tail narrow and rounded: the skin, except on the belly, covered with rough tubercles.

Inhabits the Caribbean sea.

OSTRACION cornutus A long spine in front of each eye, and one on each side the vent pointing to the tail: body quadrangular, reticulated with raised line, and rough with granule: tail very long and rounded at the end. D. 9. P. 10. A. 9.

Found in the Indian ocean.

TETRAODON hispidus Head and body, as far as the dorsal fin and the vent, covered with numerous small spines; those of the belly retractile: belly inflated: tail even at the end. D. 8. P. 27. V. 6.

Inhabits the Indian ocean and the Mediterranean sea. From the figure of this fish, in Rondeletius and other writers, it appears to have the power of inflating its belly considerably more than the one from which the above drawing is taken; and which had probably shrunk in the spirits in which it is preserved.

DIODON Colour white, marked lengthwise on the back and sides with brown stripes; and on each side the base of the dorsal fin with a spot of the same: body armed with short compressed spines, trisid at the base. D. 11. P. 22. A. 11.

This fish which is omitted by Linnæus, is described by Ray p. 42. No. 3. who gives as synonymia *Orbis spinosus* Clus. and *Gua-maicu atinga* Maregr. Petiver has given a figure of it Tab. LXIX. fig. 1. which he copied from Sir Walter Rawleigh's paintings with this inscription, "A swelling fish eight inches in length:" and describes the ground colour to be yellow, all the streaks very black, the prickles blueish, sides tawny, fins a redish brown.

ECHENEIS Neucrates. *Round-tailed Remora*. Jaws slender, the lower longest: shield divided down the middle, and cut transversally by 24 furrows; body very long, slender, and round: a few of the side rays of the tail of an equal length: the rest gradually increase in length, and make the middle round. D. 37. P. 21. V. 5. A. 37.

Inhabits the Mediterranean; and consequently should be rather the *Echeneis* of Pliny, &c. than the *Fork-tailed Remora*, which authors in general make it.

I find among the synonyma of this species, a reference to one figured in Petiver's works, Vol. I. Tab. XLIV. Fig. 12. which if faithfully copied from nature, differs specifically from it. Among other characters, which might be produced, to prove it a distinct species, is that particularly of its not having the partition down the middle of the shield.

CORYPHÆNA Hippurus. *Dolphin*. Head compressed: body long and slender: lateral line waved at the beginning; appears when swimming to be shaded with black, blue, and green; but its real colour is greenish spotted with blue: tail much forked: length three or four feet. D. 60. P. 21. V. 6. A. 26.

This fish is met with by navigators between the tropics, both in the Atlantic and Pacific ocean; and should have been placed among the enemies of the *flying-fish*: swims swiftly: is good eating: the bait used by seamen to take it, is an artificial flying-fish made of tin or wood; with fins of bristles or feathers.

PLEURONECTES Body of an oval shape: back a bluish grey, speckled with black; some of which are ranged in 7 or 8 transverse lines: edge of the scales spiny: pectoral fins very small: tail round at the end. D. 55. P. 5. V. 5. A. 43.

Taken among the West India Islands.

Agrees in many particulars with the Lineated Flounders.

The scales to be engraved very faintly

CHÆTODON striatus A dusky stripe down the head and through the eyes; three more down the body; and a fifth near the edge of the dorsal and anal fin, which is likewise continued across the tail: ground colour white: sides striated: tail round at the end. D. $\frac{12}{17}$. P. 15. V. $\frac{1}{3}$. A. $\frac{3}{17}$.

This fish is taken among the West India Islands.

The principal character used by Linnæus, to distinguish the species of this genus, is the number of spiny rays in the dorsal fin. Concluding therefore, that the number was constant, I was led to suppose him unacquainted with the *White-striped Chaetodon*, already figured in this work; but have since found my mistake, in that it is the *arcuatus*; and that the number of spiny rays varies in it, as, 8, 9, 10, 14.

CHÆTODON capistratus Mouth projecting: colour of the whole fish a bluish white, marked as follows; a dusky stripe down the sides of the head through the eyes: three fainter stripes mark the body transversely, and a fourth, rather darker, passes the tail: a large round spot on the dorsal fin near the tail, with a light coloured iris: sides striated: tail round at the end. D. $\frac{12}{23}$. P. 14. V. $\frac{1}{3}$. A. $\frac{3}{17}$.

Inhabits the Indian ocean.

SCOMBER Glaucus? Body compressed: before the dorsal fin a recumbent short spine, pointing towards the head, and two similar ones before it, concealed under the skin: a few of the first rays of the spurious dorsal, and anal fins, three times as long as those towards the tail, and black: tail much forked, the two or three outer rays black. D. 6. 20. P. 20. V. 5. A. 3. 18.

Common to the Atlantic ocean; and the Mediterranean sea.

SCOMBER Body very compressed, and deep towards the head, but narrows very much towards the tail: a short spine before the dorsal fin, pointing towards the head: near the tail a black spot: tail forked. D. 8. $\frac{1}{2}$. P. 18. V. 5. A. 2. $\frac{1}{2}$.

Taken amongst the Caribbee Islands.

SCOMBER Body pretty deep and compressed, and marked with broad dusky transverse bands: a short spine before the dorsal fin, pointing towards the head: lateral line curved for half its length, the remainder straight and covered with large transverse scaly plates, furnished in the middle with a spine: tail forked. D. $8\frac{1}{2}$. P. 14. V. 5. A. $2\frac{1}{7}$.

Taken among the Caribee Islands.

TRIGLA cataphractus Head large, boney and
rugged: nose long and forked: body covered with a boney crust;
slender; octangular; the ridges ferrated: two appendages to the
throat. D. 27. P. 11. V. 6. A. 20.

Inhabits the Mediterranean seas.

8
Rebind
 $\frac{1}{2}$ Leather.

ERRATA.

TESTUDO Mydas. line 4. for *broke* read *broken*.
RANA Arborea. - 3. from the bottom, for *feeds* read *feed*.
COLUBER doliatus. 3. from the bottom, for *oviviperous* read *oviperaus*.
EXOCOETUS volitans. 1. for EXOCETUS read EXOCOETUS.
7. for *This* read *These*.

8
Rebind
 $\frac{1}{2}$ Leather.