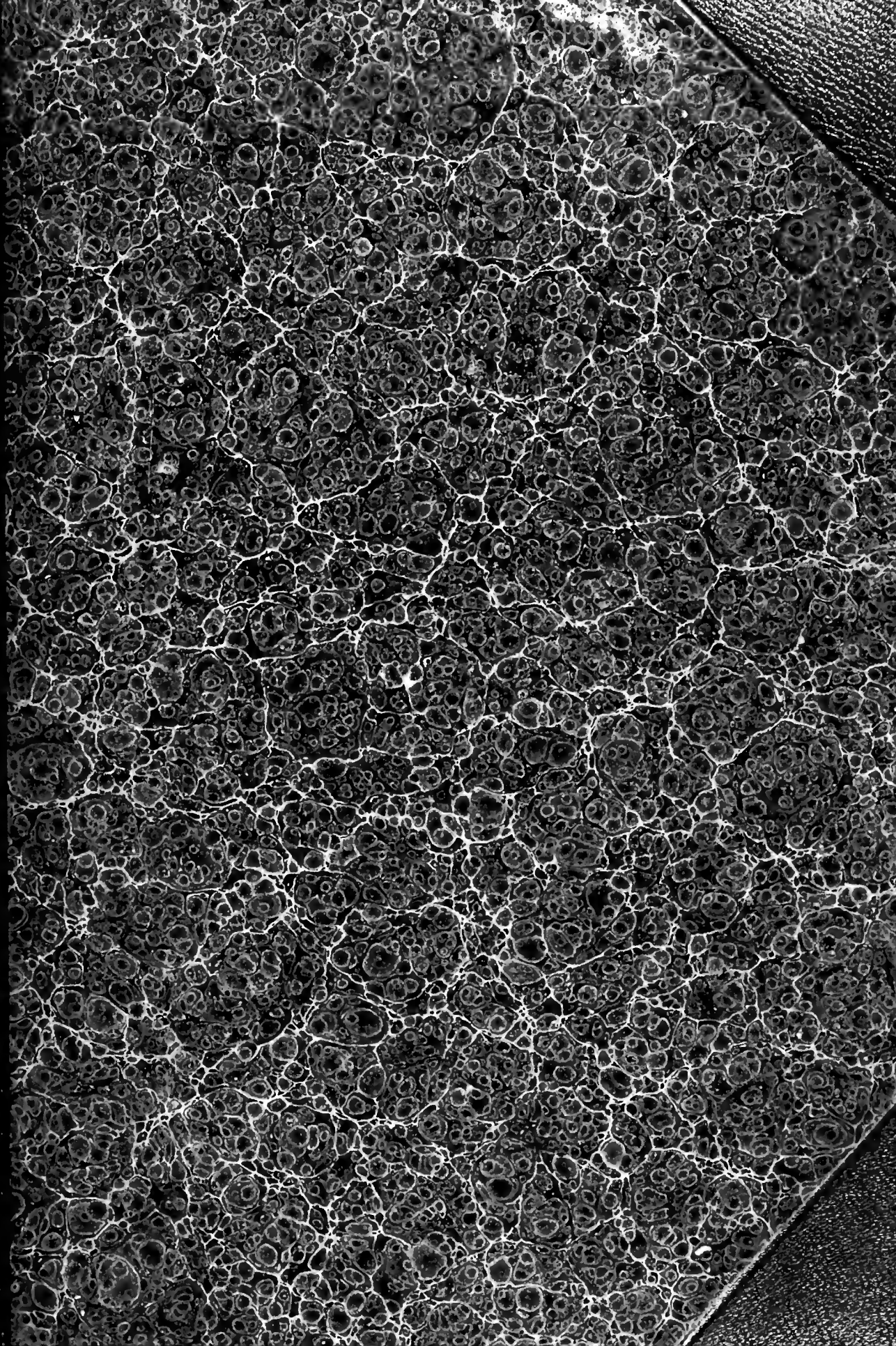

Susanna L Walcott

Pittsfield Street

Bath

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.

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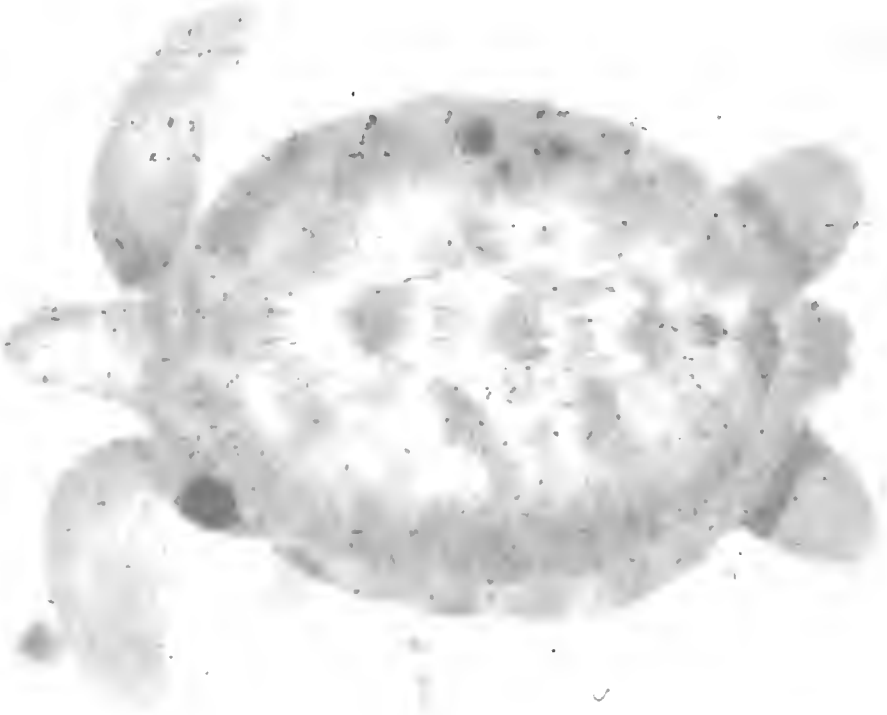
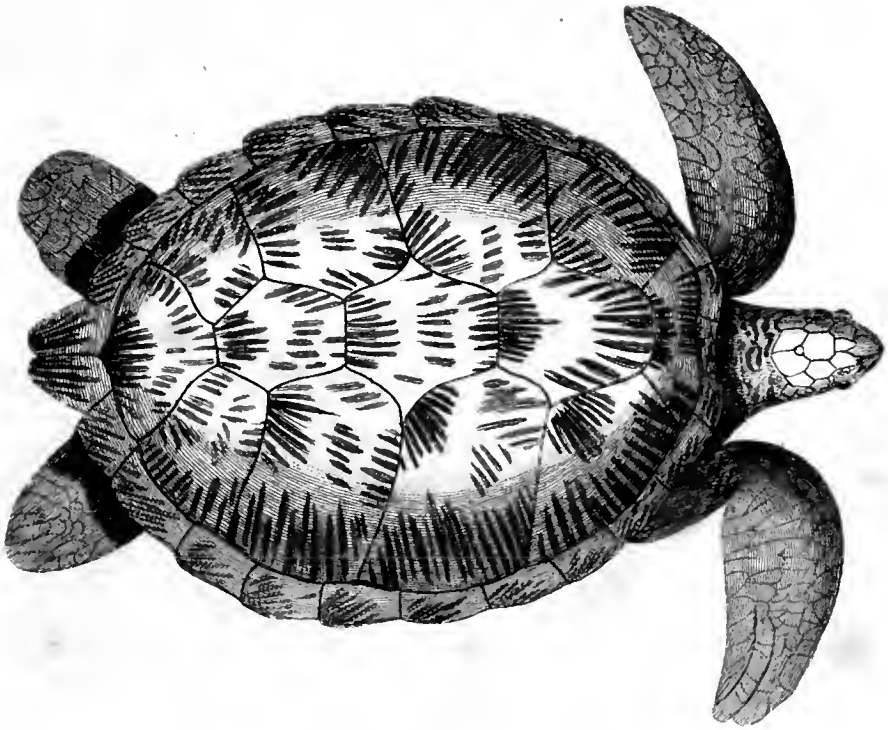
M,DCC,LXXXVIII.

PREFACE.

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 graſs; are taken either in nets, ſtruck with a ſmall kind of harpoon, or ſurpriſed when going aſhore to lay.

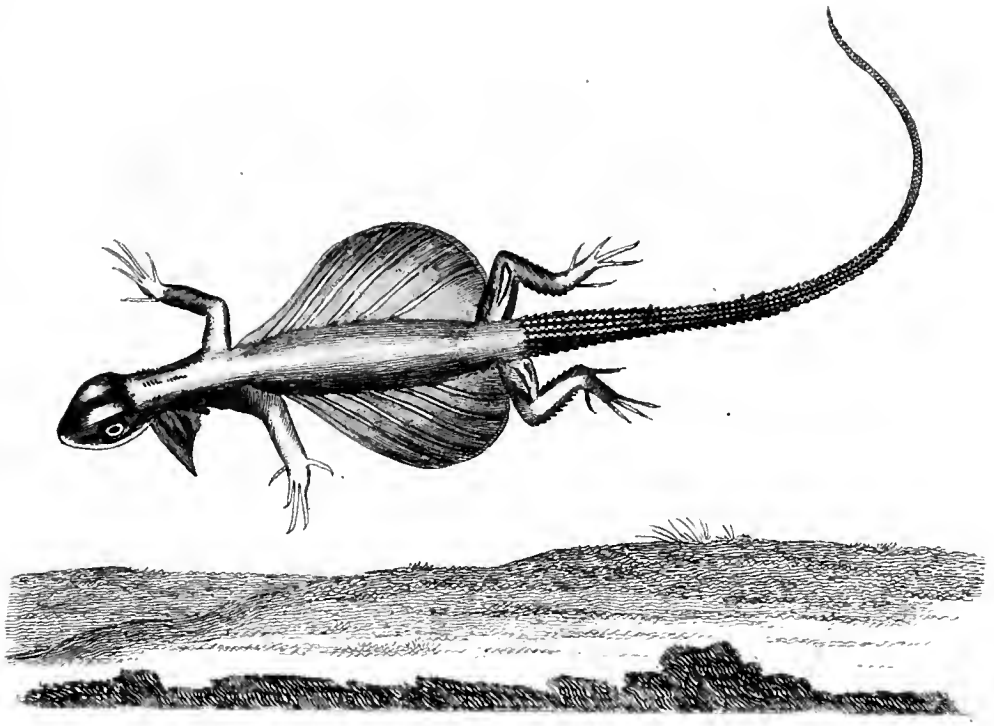
RANA arborea. *European Tree Frog.* Back ſmooth; of a fine green colour, bound near the ſides with yellow: belly a pale yellow; and covered with warts: from the noſtrils along the head, and ſides, a duſky ſtripe: four unwebbed toes to the fore feet; five ſemipalmated to the hind; ends of all the toes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

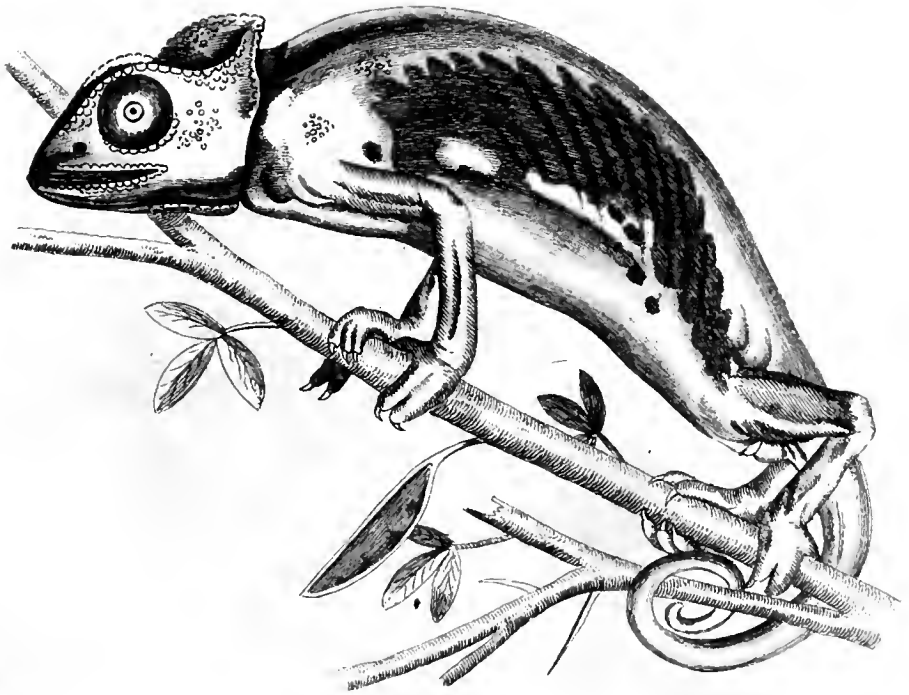
RANA. ..... *Brown and White Tree Frog.* Upper parts ſmooth: brown regularly blotched or ſpotted with ſilvery white: belly yellow and covered with ſmall warts: four unwebbed toes to the fore feet, five ſemipalmated to the hind: the above figure is the natural ſize.

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



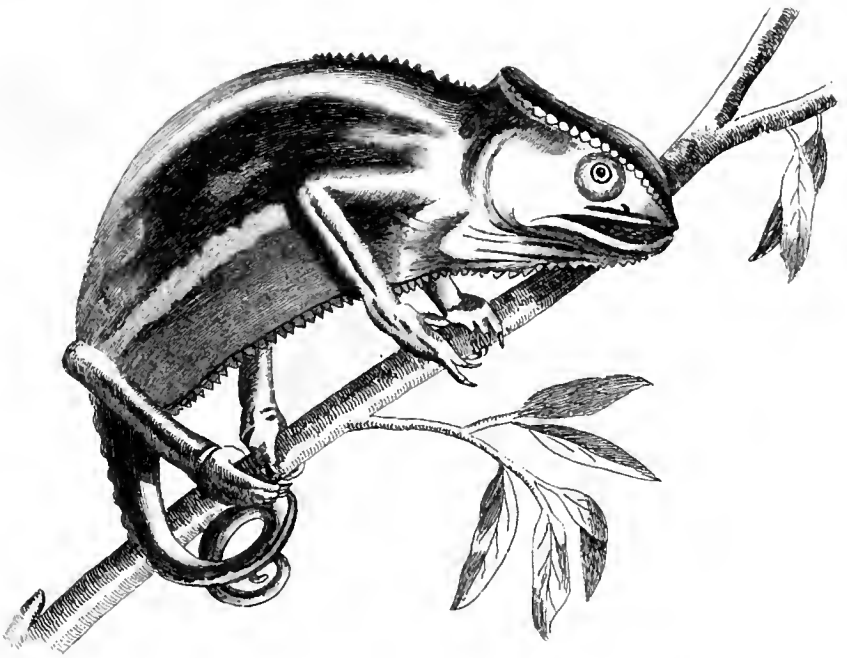
DRACO volans. *Flying Lizard.* Head ſmall and convex: three pointed ſkins hang from the throat, the middle one the longeſt: body ſlender: from each ſide extends a broad rounded ſkin, detached from the legs, and ſtrengthened by ſix pliable rays: tail long and ſlender: five toes to each foot.

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 oviperous.



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 depreſſure 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*, climing 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 *Haſſelgueſt*, a diſciple of *Linnæus*, 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.

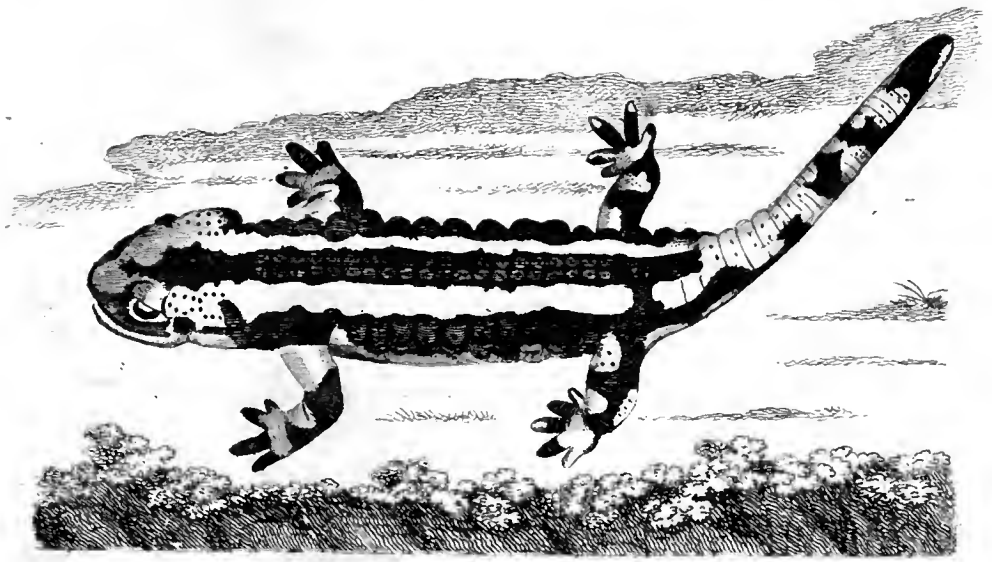
Camelions, like some species of monkies, twist the end of their tails round branches of trees, to assist them in climbing: take insects, which is their only food, by darting their tongue at them; which in this species is four inches long; and that of the *Egyptian* ten, and covered at the end with a 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 *Taitah* and *Bouiah*.

LACERTA Iguana. *Guana.* A pouch under the throat, ſerrated 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 ſerrated: 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 ſerrated, and wants the black bands on the tail: length of the head and body ſix inches: tail nearly one foot and an half.

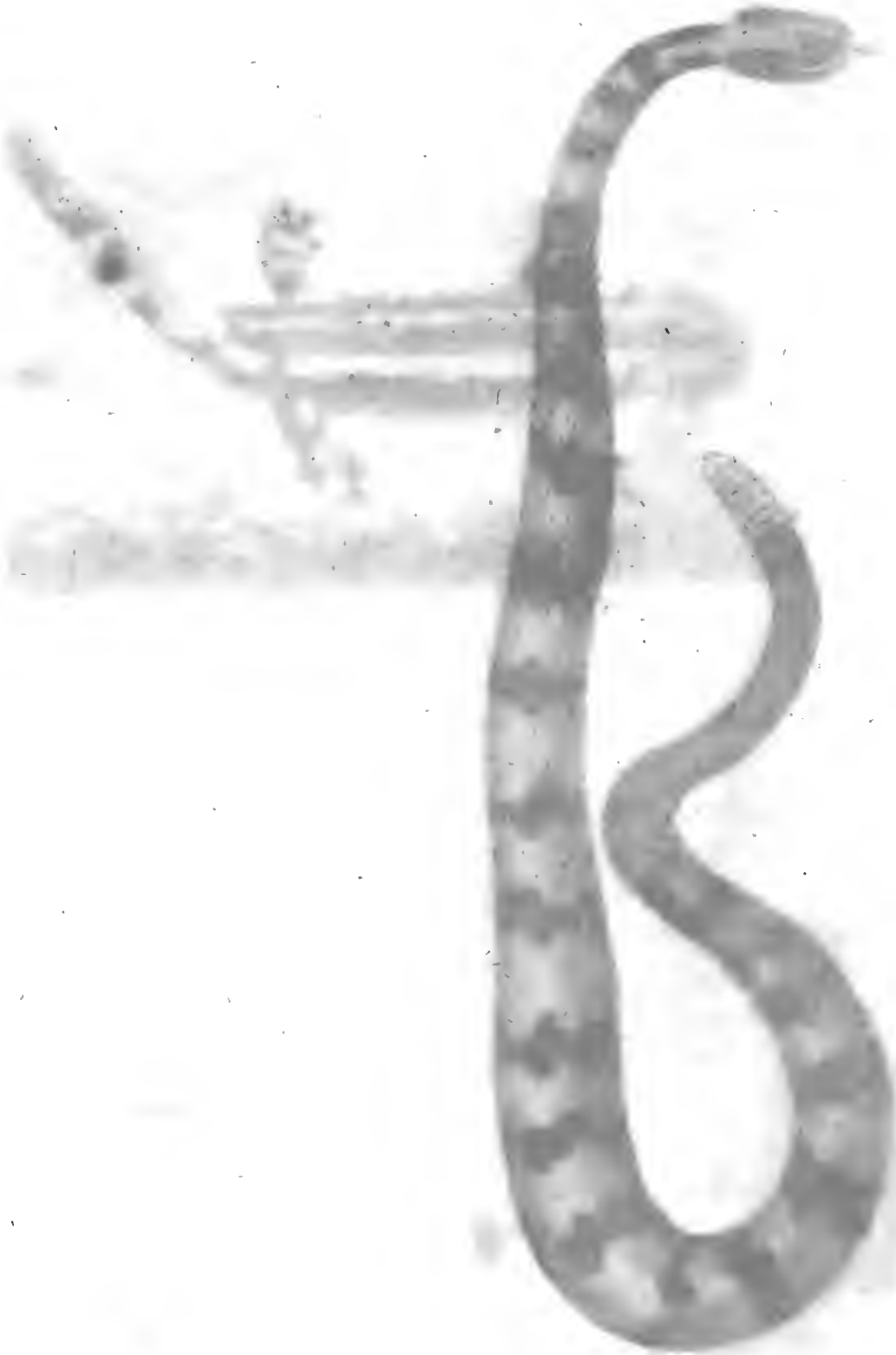
The *Guana* inhabits the rocks on the coaſt of moſt of the Weſt India iſlands, where they are taken by dogs trained for the purpoſe: the fleſh affords a favourite diſh to the natives, either freſh or cured with ſalt: it feeds on vegetables: moves ſlow: buries its eggs, which are numerous and covered 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 voluntary emits through the pores of its skin—and that it is deadly in its bite.



CROTALUS horridus. *Great Rattlesnake.* Head flatted: 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 viviperous, 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 facinate 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 reddiſh 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 compares, 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.

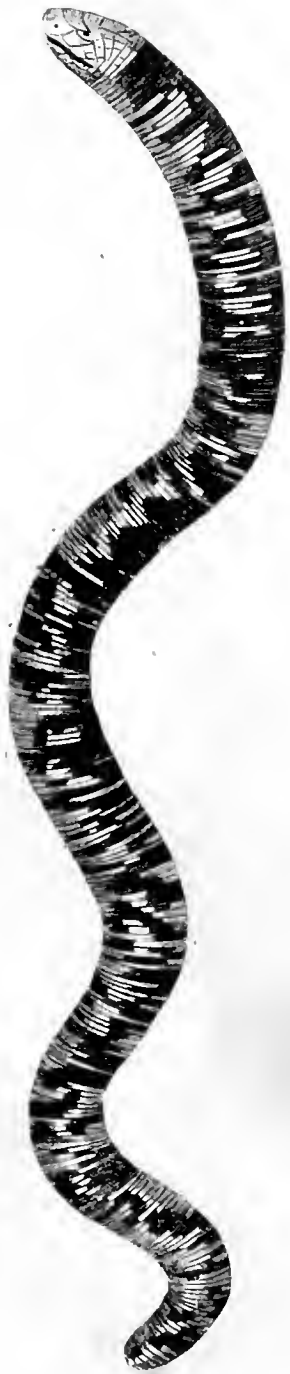
COLUBER.

SCUTA 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.

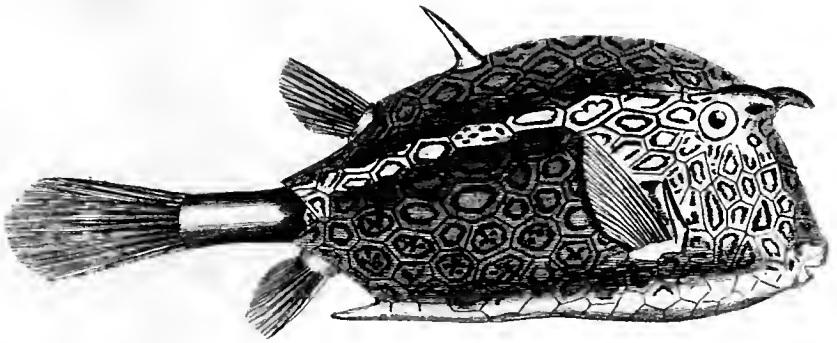
The ſpecies forming this genus being very numerous, it would aſſiſt us greatly in diſtinguiſhing them, were they arranged under two heads; viz. *Vipers* and *Snakes*; the former have a broad flat head, move ſlowly, are viviperous, and their bite is attended with bad conſequences. The latter, have their 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 oviviperous. 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.

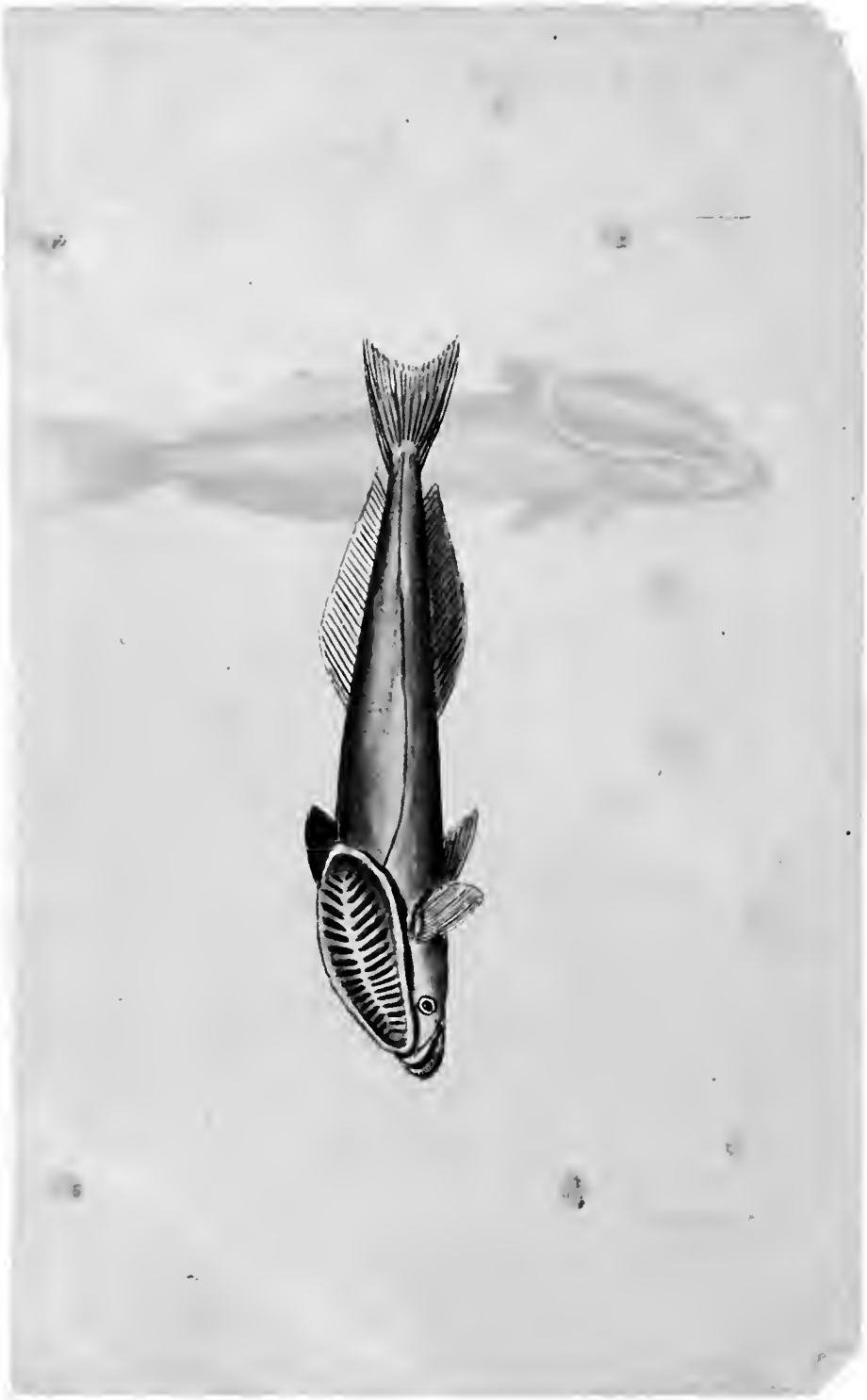
The one here figured, inhabits the warmest part of America: lives under ground: moves slowly: feeds on insects: and its poison is deemed incurable.

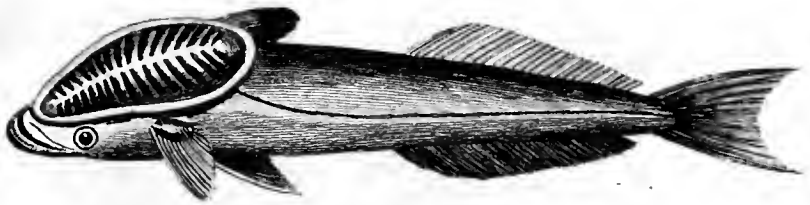


OSTRACION. ..... *Five-ſpined Coney-fiſh.* Body triangular, and reticulated by ſunk lines into hexangular and heptangular meſhes, each bound a little within the line by a black ſtrip: before each eye a ſtrong ſhort ſpine; a third on the middle of the back; and one on each ſide the belly near the vent: 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.

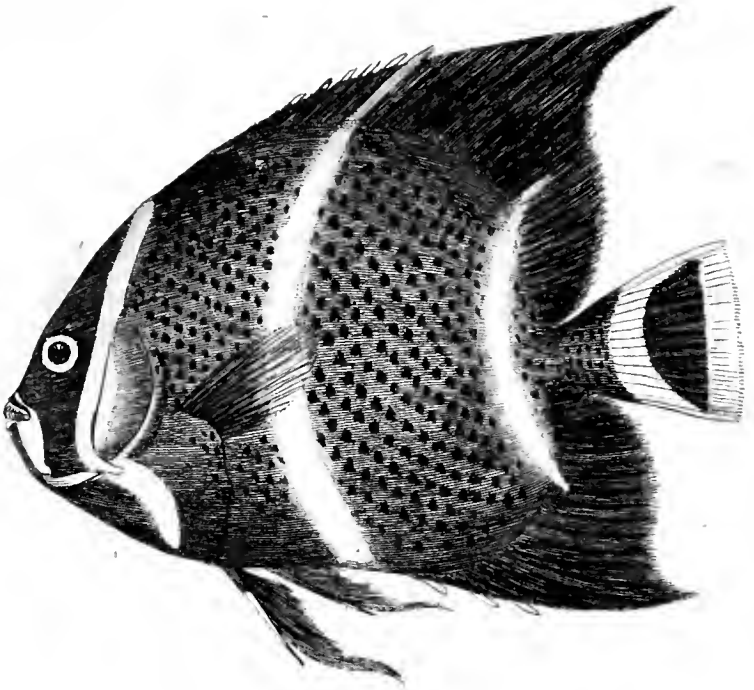
It is probable that this genus has the power of drawing the defenceleſs parts under the bony coat of the body, at the approach of danger. It ſeems neceſſary that the parts of the body to which the fins are attached, ſhould be covered with a pliable ſkin; eſpecially that part of the body near the tail; as fiſh move forward leſs 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.





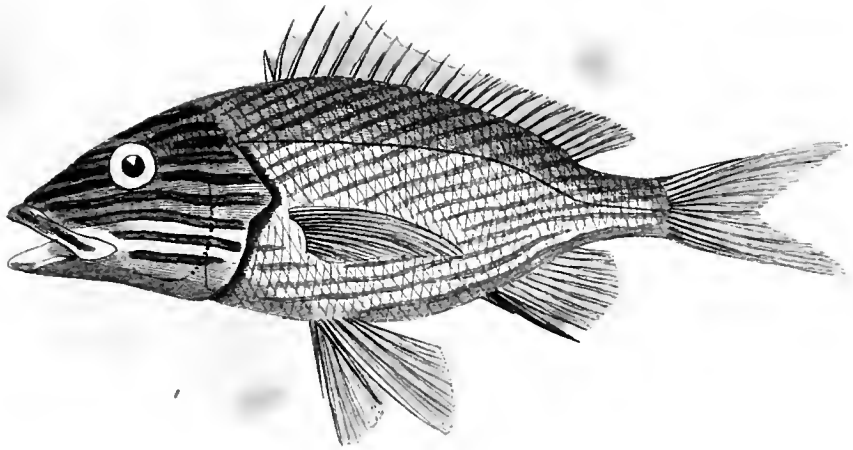
ECHENEIS Remora. *Fork-tailed Remora.* Head broad and depreſſed: lower jaw longeſt: on the top of the head and beginning of the back an oblong ſhield, cut tranſverſly by 16, 17, 18, or 19 furrows; and the whole divided down the middle: body ſmooth; ſlender; round near the head, but compreſſed towards 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.



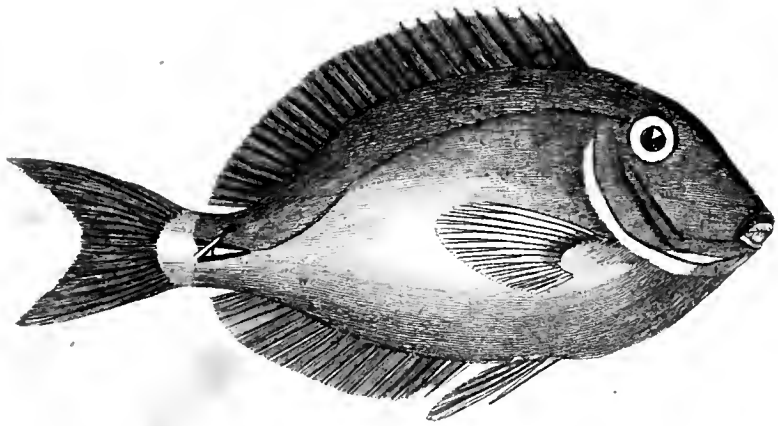
CHÆTODON ..... *White-ſtriped Chætodon.* Edge of the upper gill cover armed with a ſtrong ſpine: body very deep and compreſſed: colour duſky; the head ſtriped down the forehead, and behind the mouth and eyes with white: body ſpotted with black, and marked tranſverſly with two white ſtripes: tail white, marked in the middle with a large ſemicircular duſky ſpot: tail round at the end. D. $\frac{9}{34}$. P. 18. V. $\frac{1}{5}$. A. $\frac{3}{22}$.

Linnæus appears not to have known this ſpecies, which is taken among the Caribee iſlands.



PERCA formosa. *Grunt.* Corners of the mouth yellow: head yellow; striped lengthways with pale blue, bound with purple: body white, striped transversly with yellow: sides compressed: lateral line nearly parallel to the arch of the back: tail forked: length one foot. D. $\frac{12}{17}$. 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. *Doctor.* Teeth ſerrated: 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 grove 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.

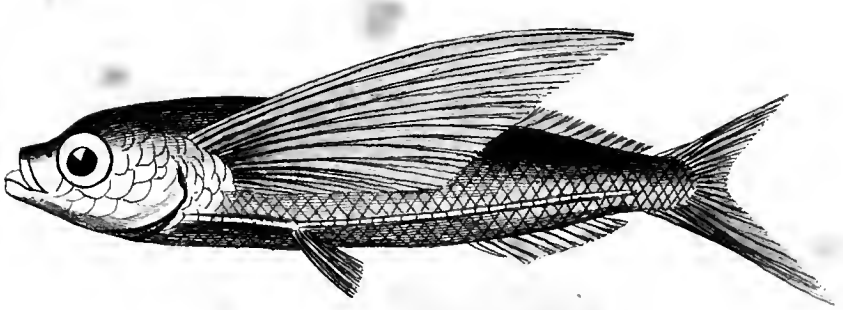
As fiſh, and likewiſe ſea birds, ſwallow fiſh with their heads downward, that the ſpiny rays of the fins may fall, and not injure them; the ſide ſpines of this fiſh, muſt therefore be a great defence to it; as its enemies cannot guard againſt them.

EXOCOETUS.

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

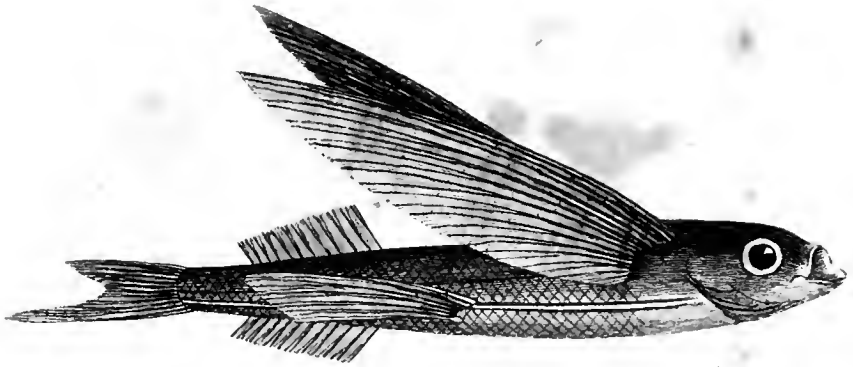
Branchioſtegous rays X.

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



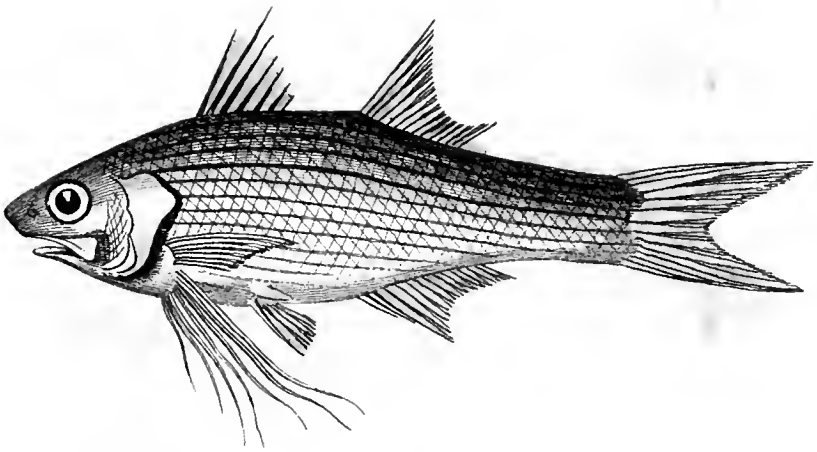
EXOCETUS volitans. *Common Flying Fish.* Head ſhort and thick: eyes very large: body thick and rather ſhort: back broad, and of a dark colour: ſides and belly ſilvery white: ſcales pretty large: a ridge on each ſide the belly: under fork of the tail much longer than the upper. D. 13. P. 17. V. 6. A. 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 Trophic-bird, Boby, Man of War-bird, &c. and when ſpent, frequently fall on the decks of veſſels.



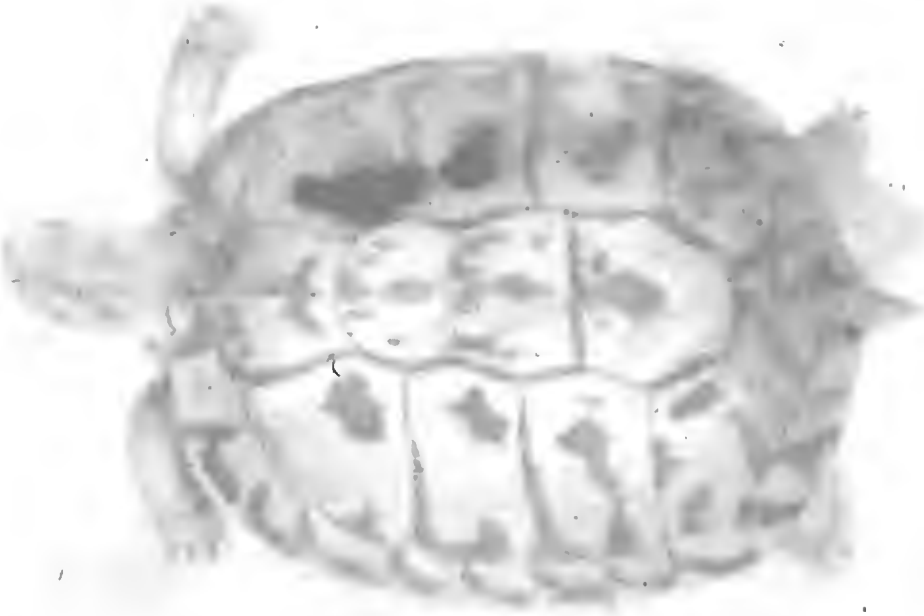
EXOCOETUS. ..... *Slender Flying Fiſh.* This agrees with the former, in having the ſides of the belly ridged; from which, however, it may be diſtinguiſhed at firſt ſight, by the ſlenderneſs of the body, and great length of the ventral fins. D. 12. P. 14. V. 6. A. 13.

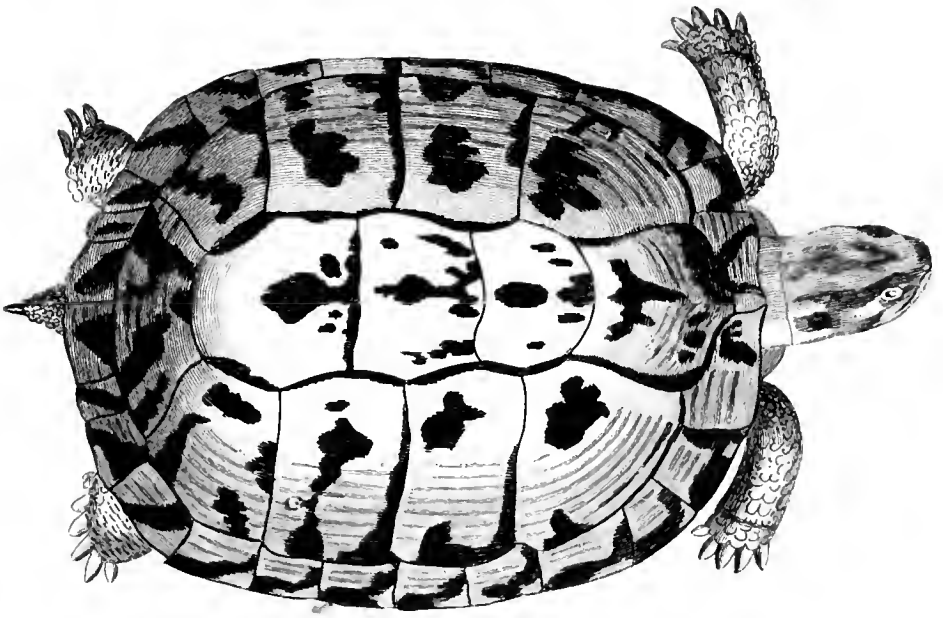
Till now this ſpecies appears to have been confounded with the laſt, or wholly overlooked. I regret, no part of its hiſtory can be gained from voyagers; who do but mention their ſeeing Flying Fiſh, without adding any character, by which the kind might be known: and of courſe we ſtill remain ignorant,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



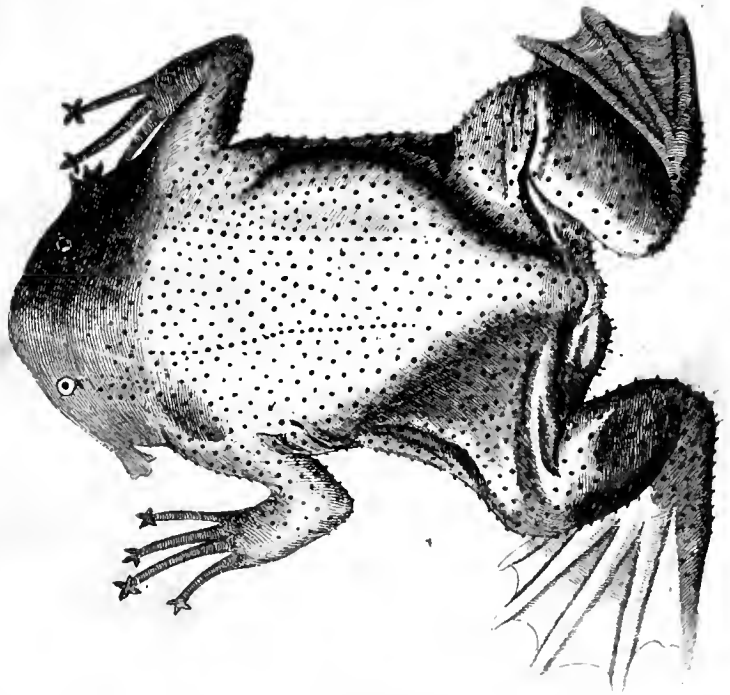


TESTUDO græca. *African Tortoiſe.* Shell a greeniſh yellow; the ſcales on the back marked irregularly in the diſk and edge, and the ſide ones obliquely with black; down the belly are two broad black ſtripes: tail ſhort: no toes; five claws to the fore feet, four to the hind.

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.

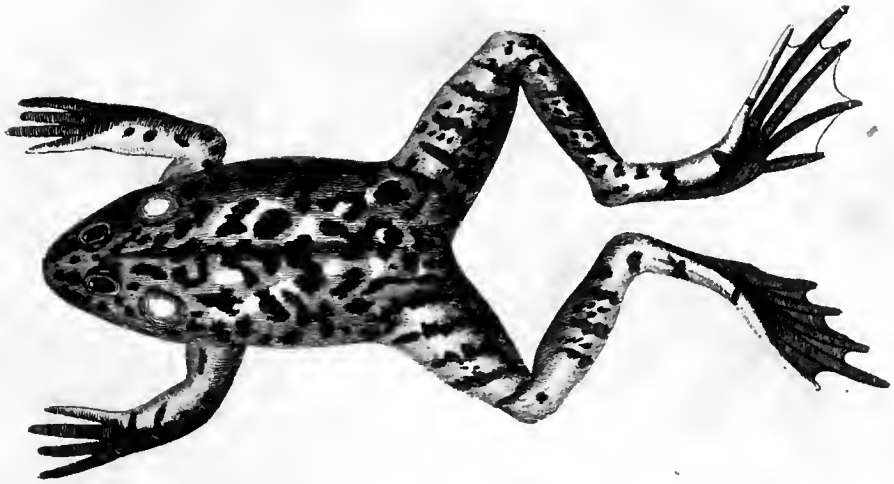
R A N A.

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



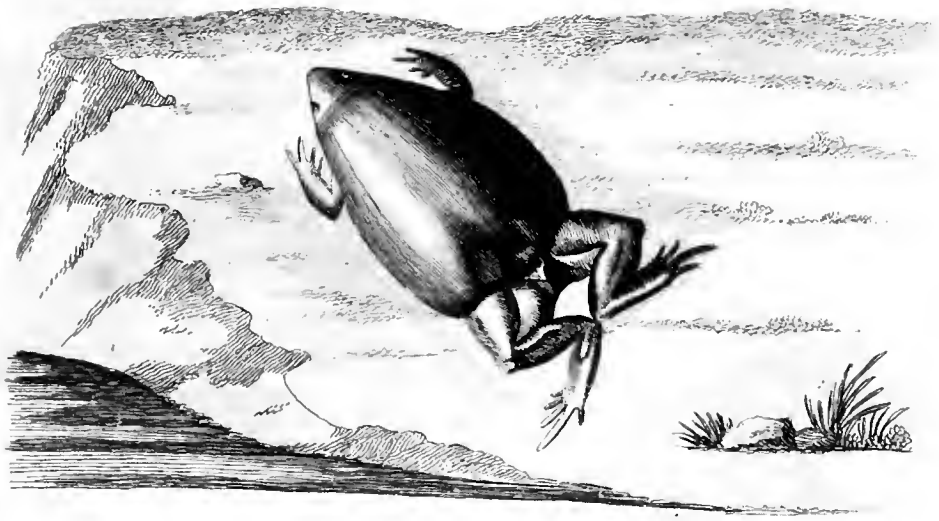
RANA Pipa. *Surinam Toad.* Head very broad, and ſhort: at each corner of the mouth a ſmall projected piece of ſkin: upper parts duſky, covered with numerous minute black pimples: under parts a dirty yellow, the belly marked down the middle with a duſky ſtripe: four long unwebbed toes to the fore feet, 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 goſlins. It is edible, and affords as much meat as a pullet.

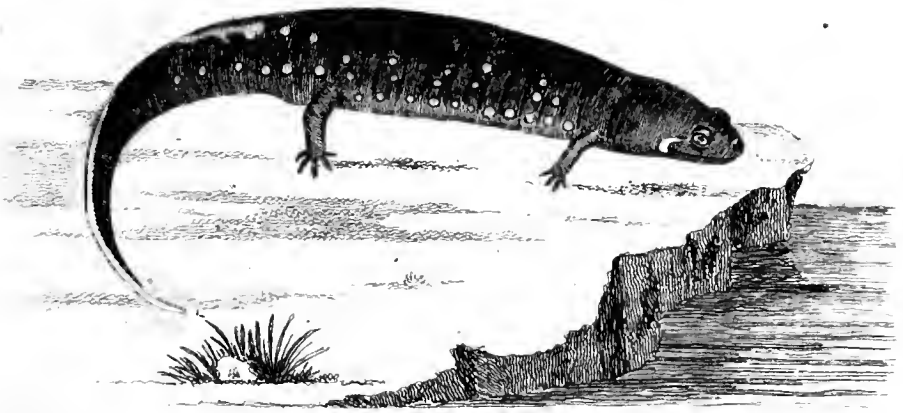


RANA. ..... *Small-headed Toad.* Head very ſmall and pointed: body ſwollen: ſkin ſmooth; of a purpliſh brown colour, lighteſt on the belly: legs ſhort: four unwebbed toes to the fore feet; five unwebbed to the hind: ſides ſlightly margined: the figure is its natural ſize.

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 verticilated.

Inhabits Carolina.



LACERTA punctata. *Spotted Eft.* Body and tail dufky, belly lighteft; fides marked with two or three rows of fpots, in fome white, in others yellowifh; and the tail with a fingle row of the fame: tail compreffed: four unwebbed toes to the fore feet; five to the hind.

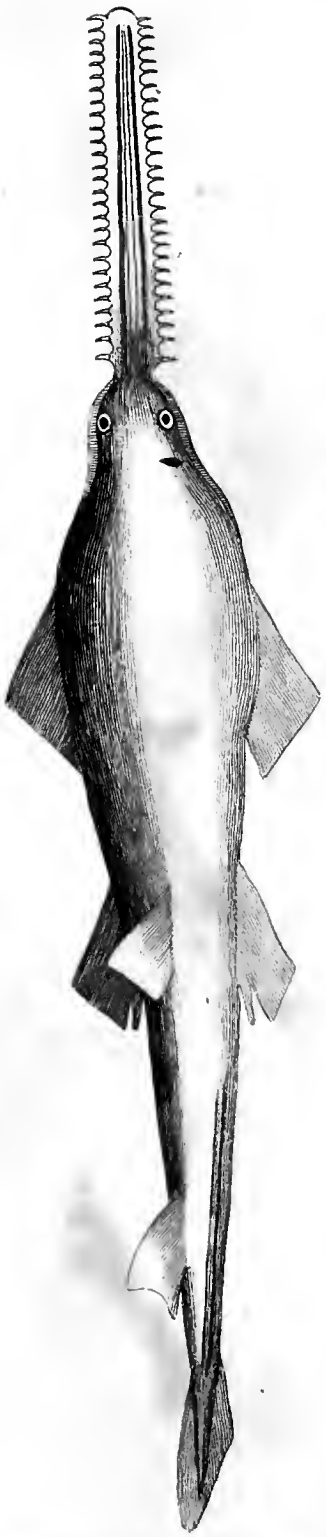
Inhabits marfhy places in Carolina and Virgina. Swims by means of an undulated motion of the tail, keeping its legs clofe to the body.

COLUBER Fulvius. *Tawny Snake.* Head broadiſh, and round at the muzzel: 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.*

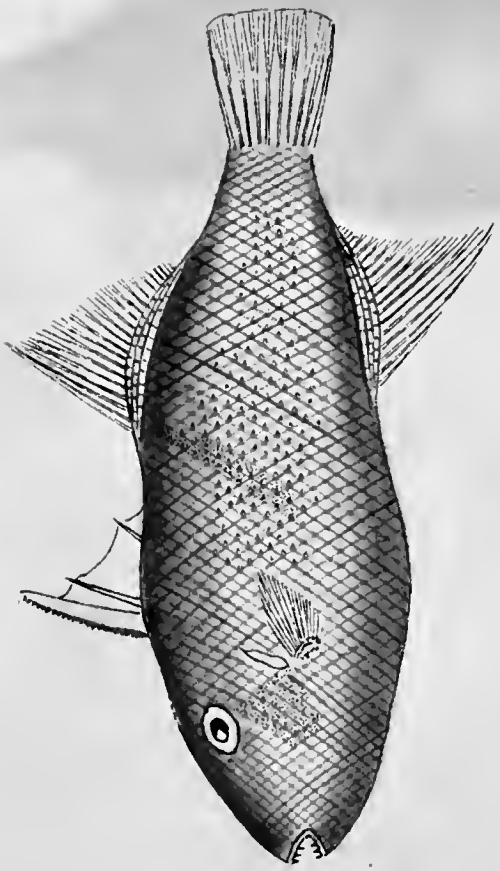
COLUBER. ..... *Penſacola Snake.* Head narrow; the ſcales on the top black edged with white: a narrow white ſtripe down the middle of the back, from head to tail; on each ſide a broad one of black; this bound by another of white; and beneath that another of black, dentated on the edges: belly white; 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.

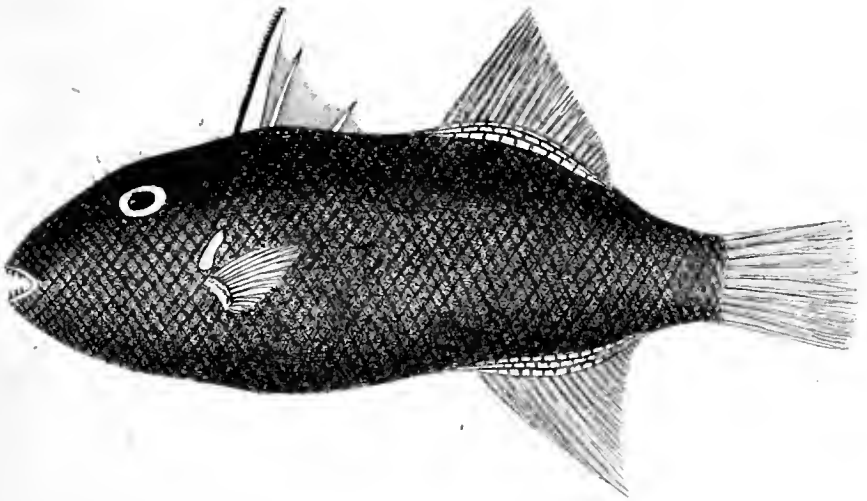
Inhabits *Penſacola.*



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 upwards of twenty feet.

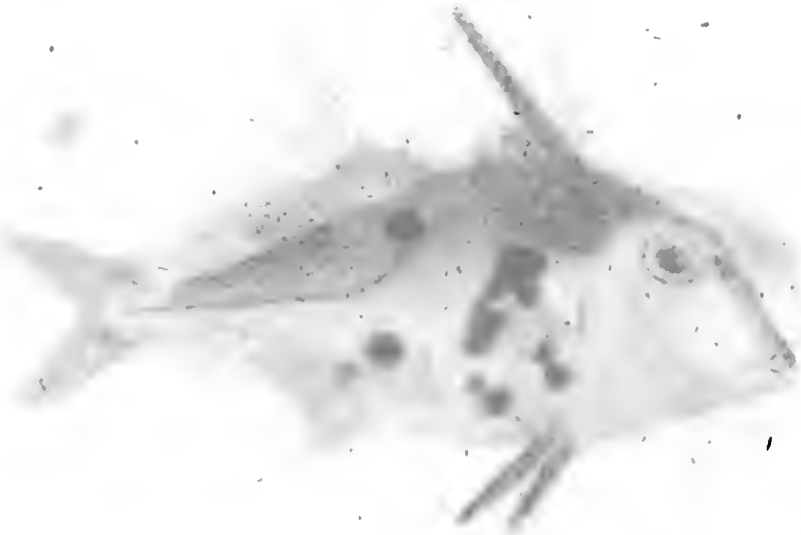
Inhabits all ſeas, from Greenland to thoſe of the Braſils: is found in thoſe of Africa, and of the Eaſt Indies: is frequently miſnamed the *Sword-fiſh.* Crantz, Anderſon, and other writers on the Nat. Hiſt. of Greenland, and Iceland, make it the enemy of ſeals and whales; and aſſert, that it eats only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

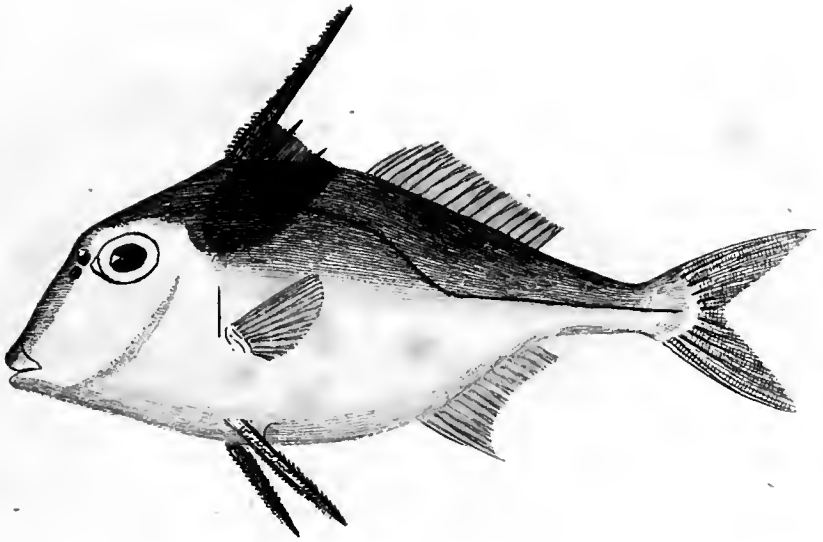




BALISTES ..... *Long File-fish.* Body not very deep; the ſkin divided by ſmooth furrows into ſmall rough ſcale-like ſpaces: each of theſe on the ſides have a ſmall ſpine pointing towards the tail: the firſt dorſal fin has three ſpines; the firſt of which is very large and rough in front like a file; (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.

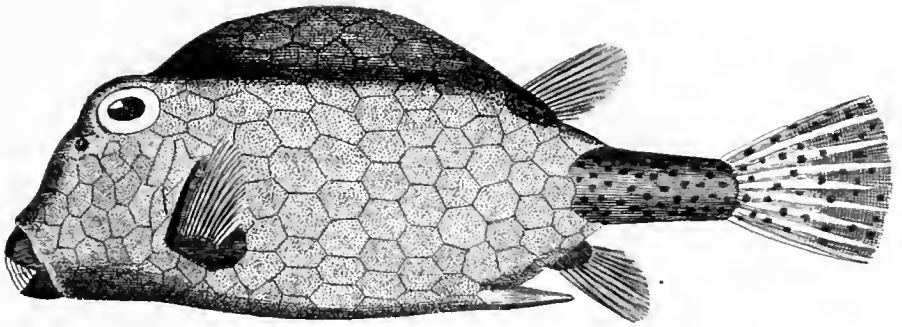
This genus takes its name from a ſingular property of the firſt dorſal fin of ſeveral of the ſpecies; viz. no force can depreſs the firſt ſpine; but if the laſt be depreſſed, in ever ſo gentle a manner, the other two immediately fall down with it; and as inſtantaneouſly as when a croſs-bow is let off 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.

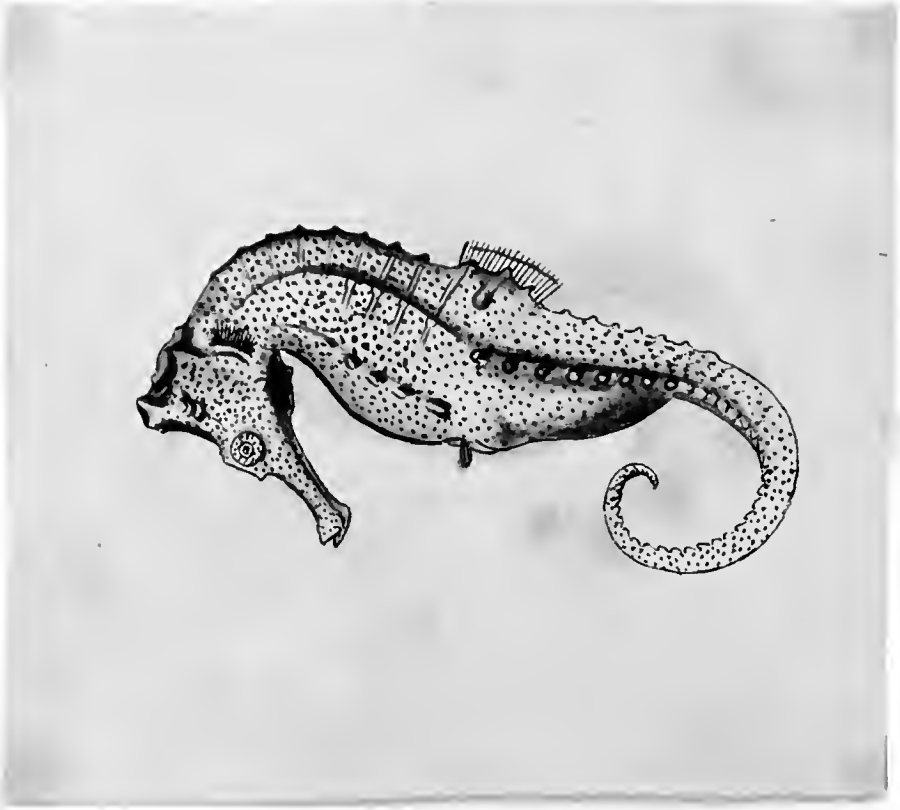
Inhabits .....

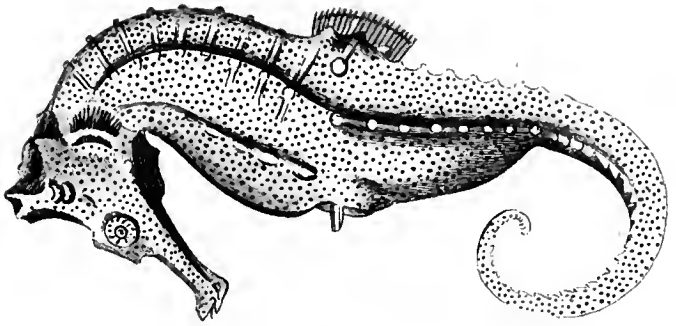


OSTRACION bicaudalis. *Old Wife.* Body triangular: back ſharp: the boney coat, on the head and body, divided by ſtriæ, into many hexangular meſhes: the areas rough with numerous granule, ranged in concentric lines: the ſkinny cover of the body near the tail, and the tail-fin, marked with largiſh ſpots: 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.

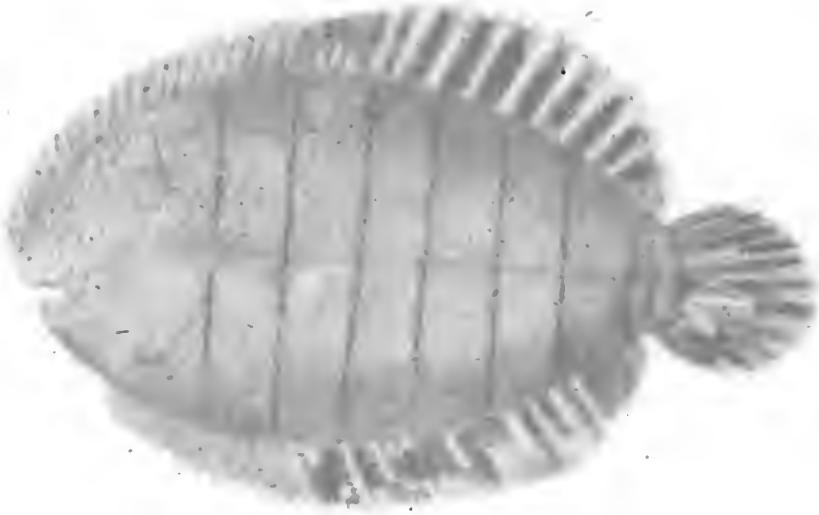
Grew in his account of the Rarities preſerved in Greſham-college mentions a fiſh apparently the ſame as the above, excepting an oval cruſt it has upon the tail.

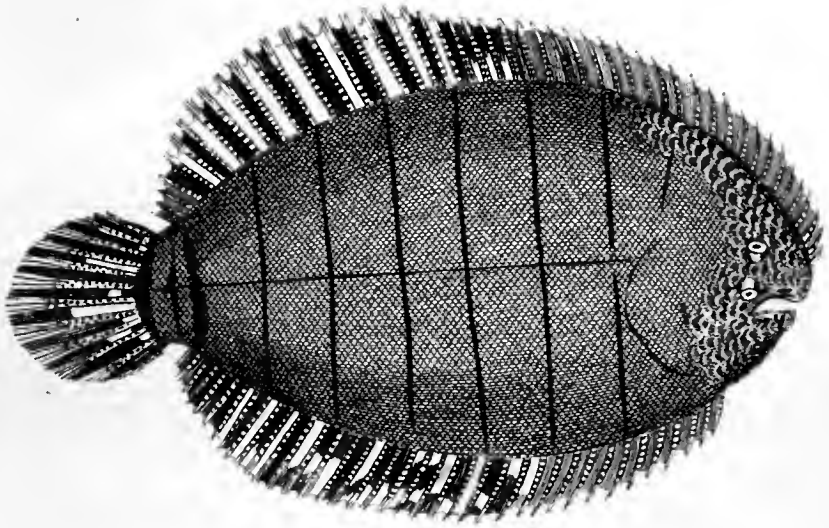




SYNGNATHUS Hippocampus. *Sea Horſe.* Head bent down towards the belly: body as far as the vent heptangular; the belly edged with a narrow black web: from thence to the tail are four angles; the belly being ſwollen and rounded: tail quadrangular; and generally curled downwards: along the ridges a row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

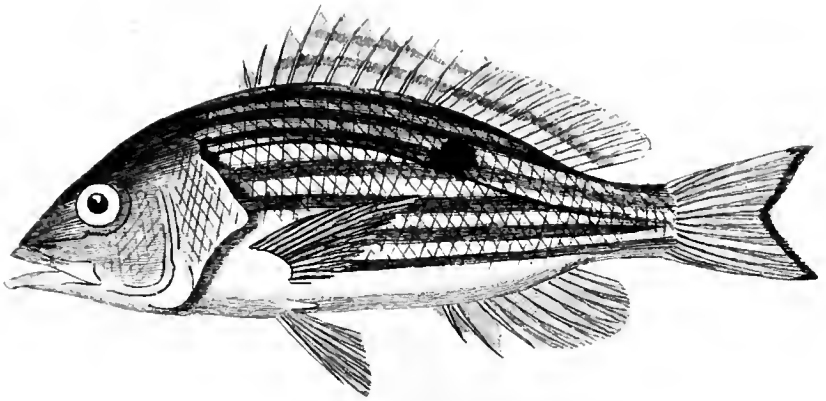
Beſides the above animal, whoſe native place I am ignorant of, there are two other kinds: one is common in the Mediterranean ſea and Weſtern ocean; and in the place of tubercles of the above has ſhort ſpines: the other is ſmooth and without ſpots, and is found in the Streights of Sunda in the Eaſt Indies.





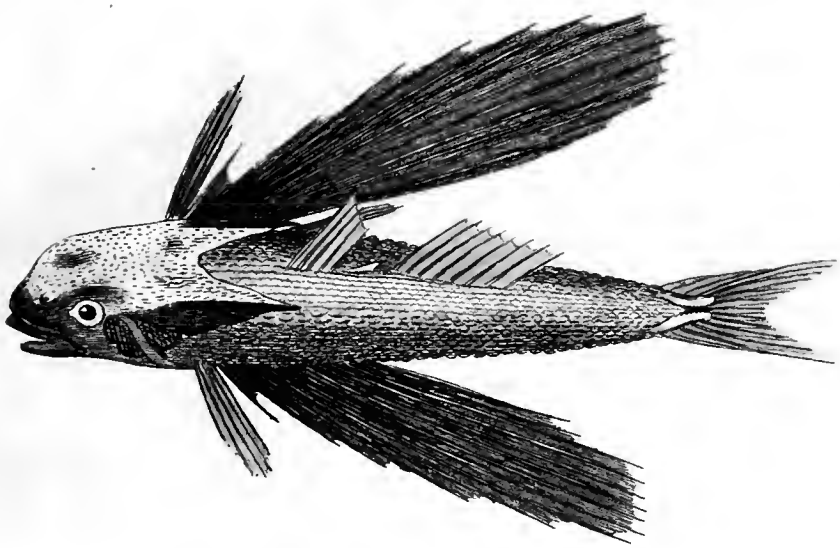
PLEURONECTES lineatus. *Lineated Flounder.* Of an oblong ſhape: ſcales on the head large, on the body ſmall; all ſpiny on the edge: no pectoral fins: the outer ventral fin united to the anal: colour of the body duſky, marked tranſverſly with ſeven or eight black lines: rays of the fins ſcaly; end of 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. $\frac{3}{8}$.

Found among the Caribbee iſlands.

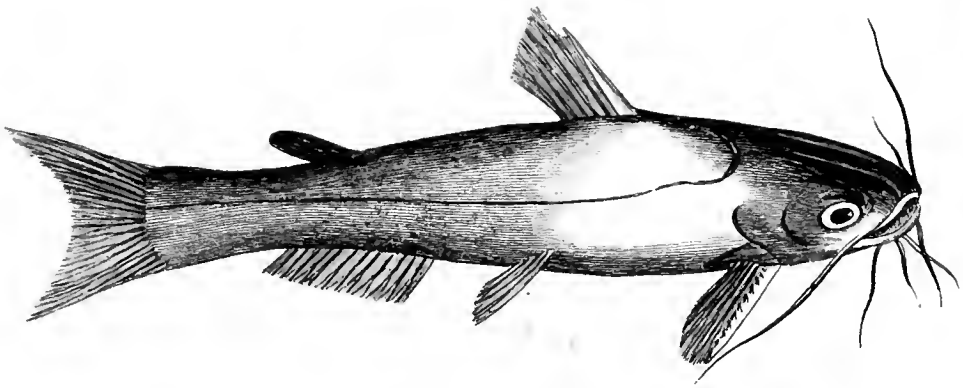


TRIGLA volitans. *Kite-fish.* Head ſquare; two ſtrong ſpines at the hinder part: gill cover ending in a long ſtrong ſpine: body roundiſh and ſlender: on the ſcales run lengthwiſe a ſcalloped thin ridge: between the dorſal fins a ſingle ſhort ſpine: ventral fins very large, reaching to the tail: four 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.

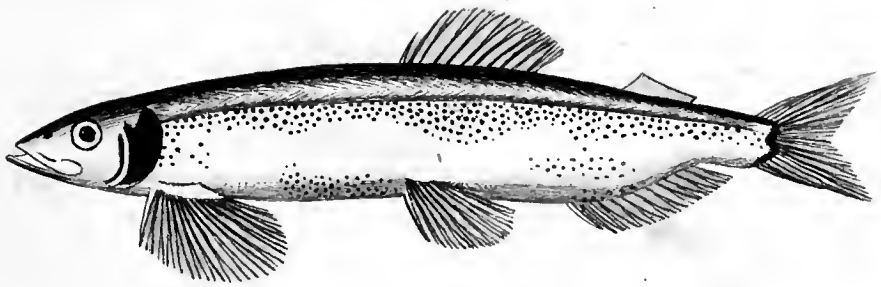
S I L U R U S.

Head naked. Several beards about the mouth.
Branchioſtegous rays IV,----XIV.
Firſt ray of the dorſal or pectoral fin ſpiny, dentated backward.



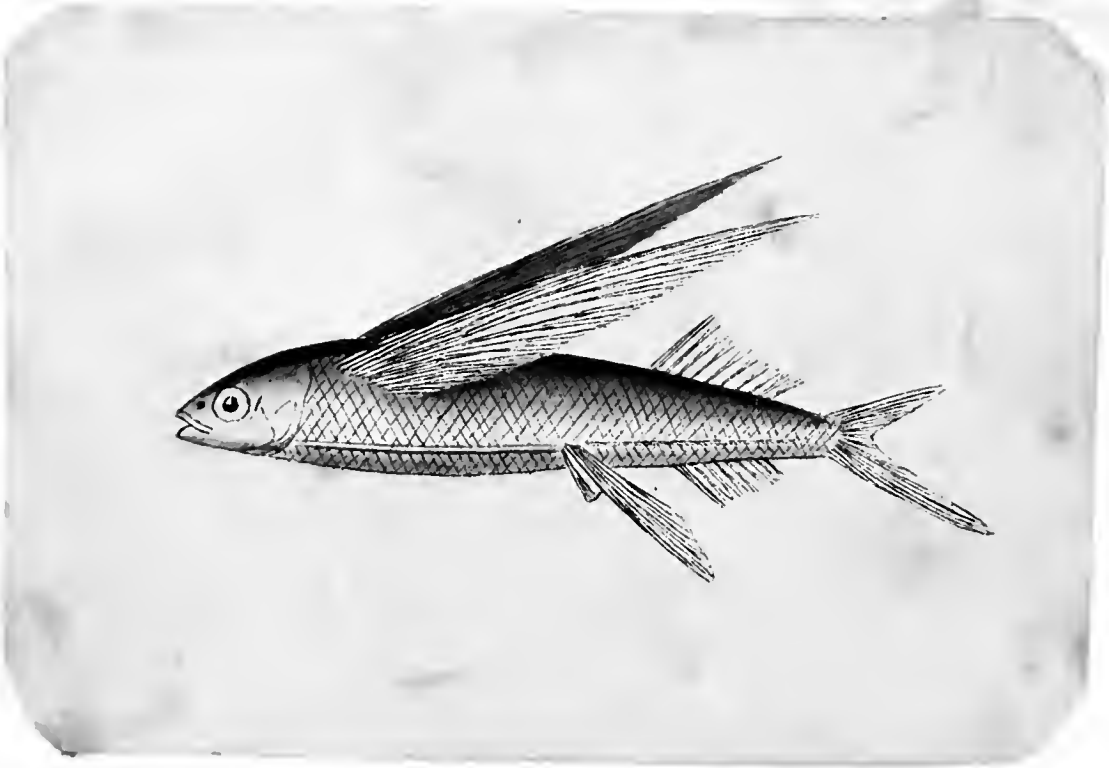
SILURE Catus. *Cat-fish.* Head broad and depressed: to each nostril hangs a beard; one to each corner of the mouth; and four under the chin: body compressed: skin smooth, upper part of the body dusky; lower pale flesh colour: second dorsal fin raylefs and fleshy: inner side of the first ray of the pectoral fins strongly serrated: tail forked: length two feet. D. $\frac{1}{6}$. P. $\frac{1}{8}$. V. 8. A. 22.

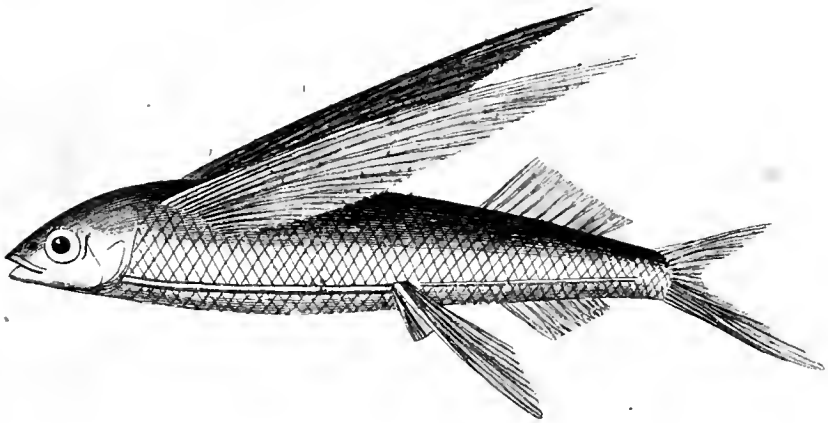
This fish inhabits the sea coast, and also the fresh water rivers of N. America: feeds on fish, even those of its own species: swims slowly: its taste is like that of an eel, and much admired.



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*, *Loduą*—and in *Greenland*, *Angmarſet*; where they dry them on the rocks, and ſupply the place of bread in winter.

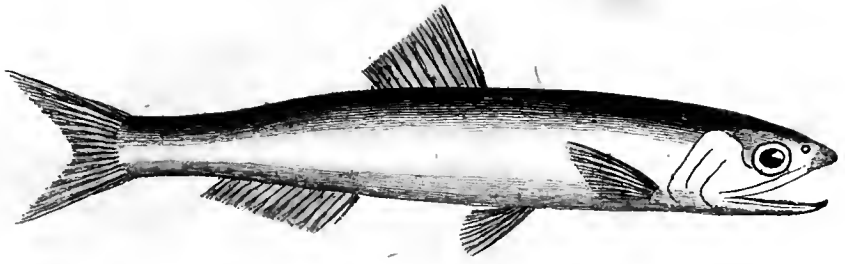




EXOCOETUS ..... *Great Flying-fish.* This fish agrees with the *Slender Flying-fish* (already figured) in the great length of its ventral fins, but differs from it, in having a thicker body: the pectoral fins also reach beyond the end of the ventral, when both lay close to the body; whereas the pectoral 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.

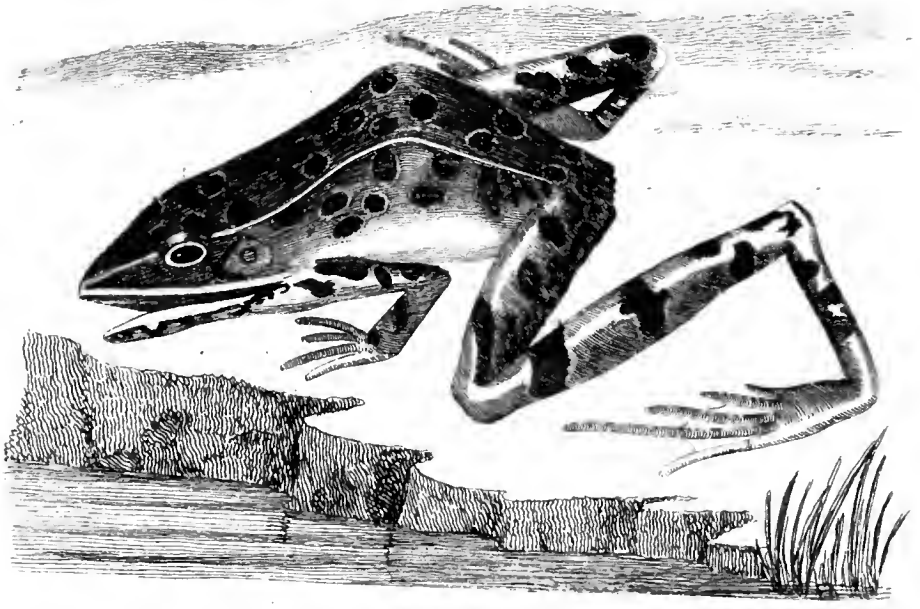
I have denominated this the *Great Flying-fish,* from having seen it near two feet long; whereas the *Common Flying-fish* at least those in my possession, are not more than eight inches; nor the *Slender Flying-fish* more than six.

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.



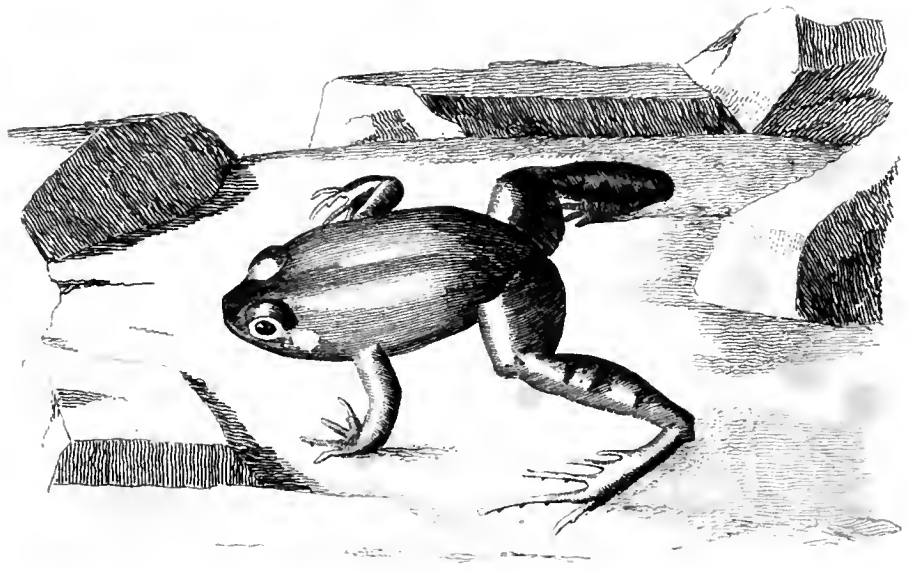
CLUPEA Encrasicolus. *Anchovy.* Nose pointed: edge of the jaws finely serrated: eyes large: body round and slender: the back of a dusky green colour; the sides and belly of a silvery white: between the ventral fins a long pointed scale: tail forked: length six inches and an half. D. 15. P. 15. V. 7.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

At different seasons it frequents the Atlantic ocean and the Mediterranean sea; passing through the Streights 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.



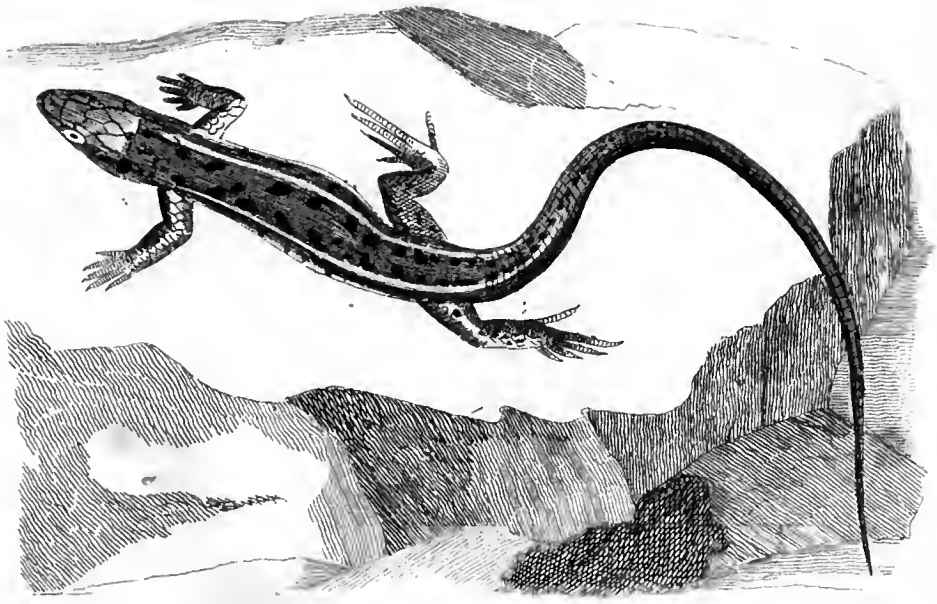
RANA ..... *Long-legged Frog.* Auricles covered with a thin circular ſkin: upper parts of the head, body, and limbs, of a duſky green, ſpotted with black; under part yellow: from the noſe beneath the eyes and ears is a white line: and a yellow line runs from the noſe over each eye and along the ſides 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.



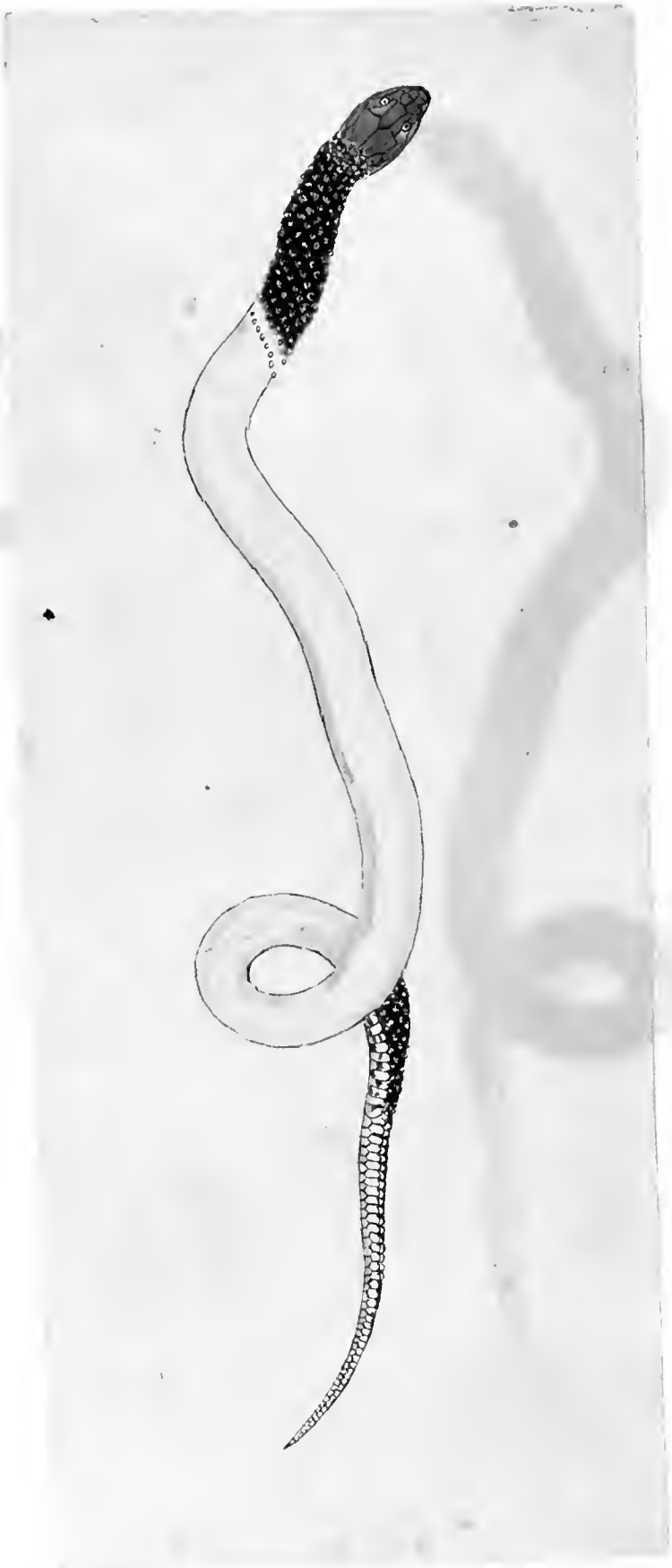
RANA. ..... *Cloven-foot Frog.* Auricles covered with a thin ſkin: four unwebbed toes to the fore feet: five to the hind: a tubercle under each joint of the toes.

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.



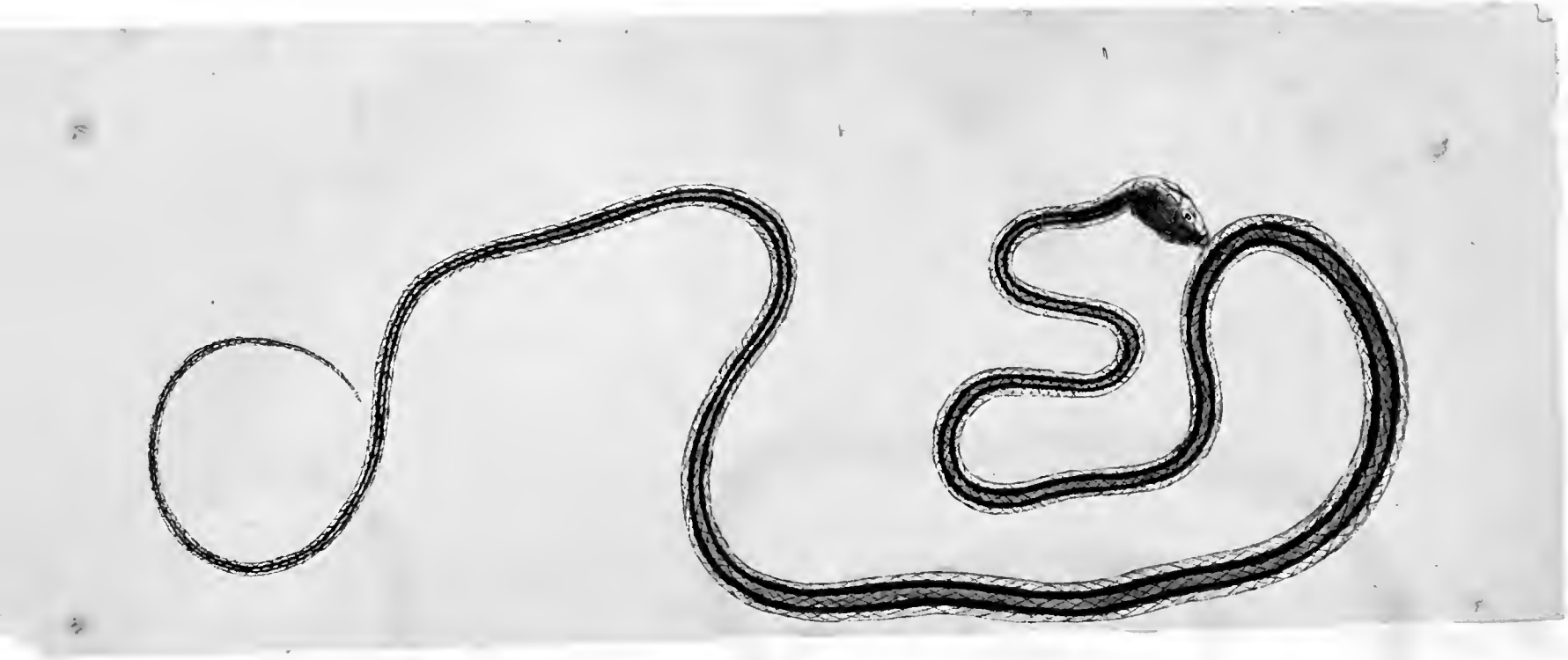
COLUBER miliaris .....

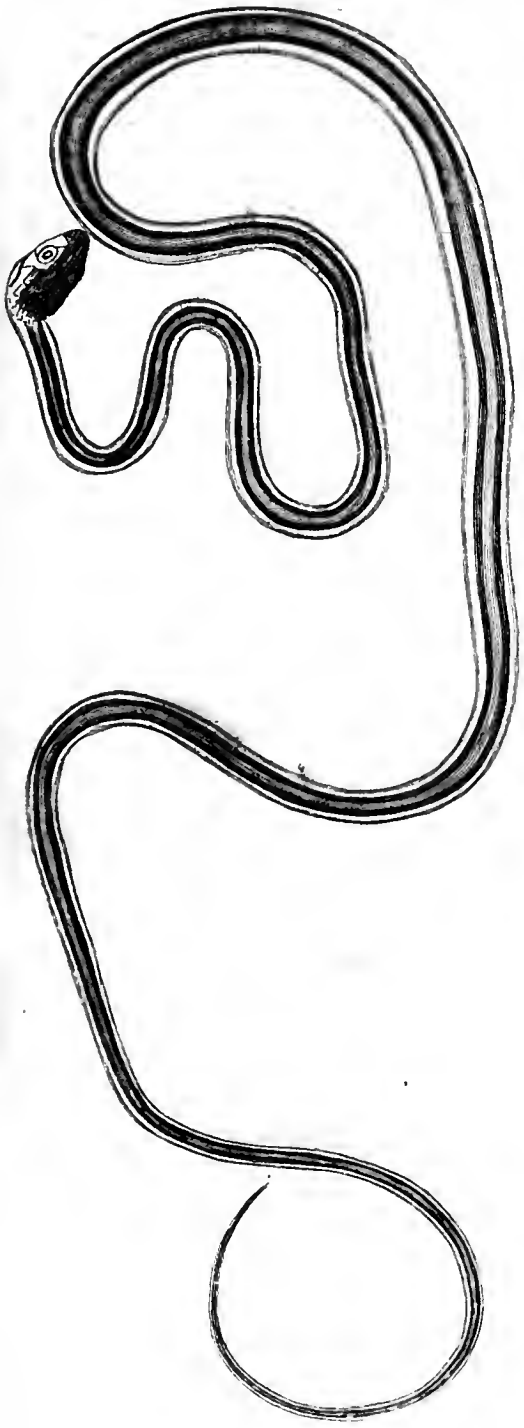
Head narrow: back dufky, each ſcale marked with a round white ſpot; thoſe on the ſides largeſt: belly white: marked here and there with ſhort dufky ſtripes or ſpots: end of the tail ſharp and horney: ſcuta 160: ſcales 55.

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.

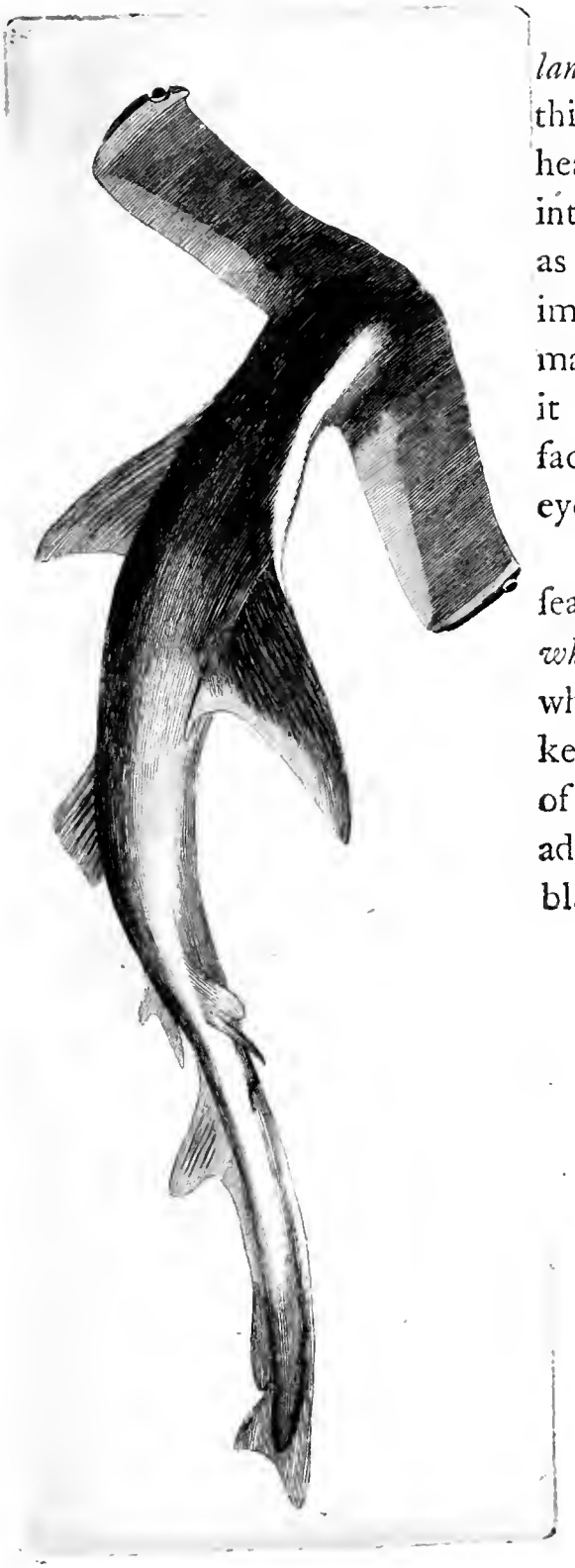
Were it not for the great difference between this viper and the *ſimus* of Linnæus, in the number of the ſcuta; I ſhould be inclined to think them the ſame ſpecies.





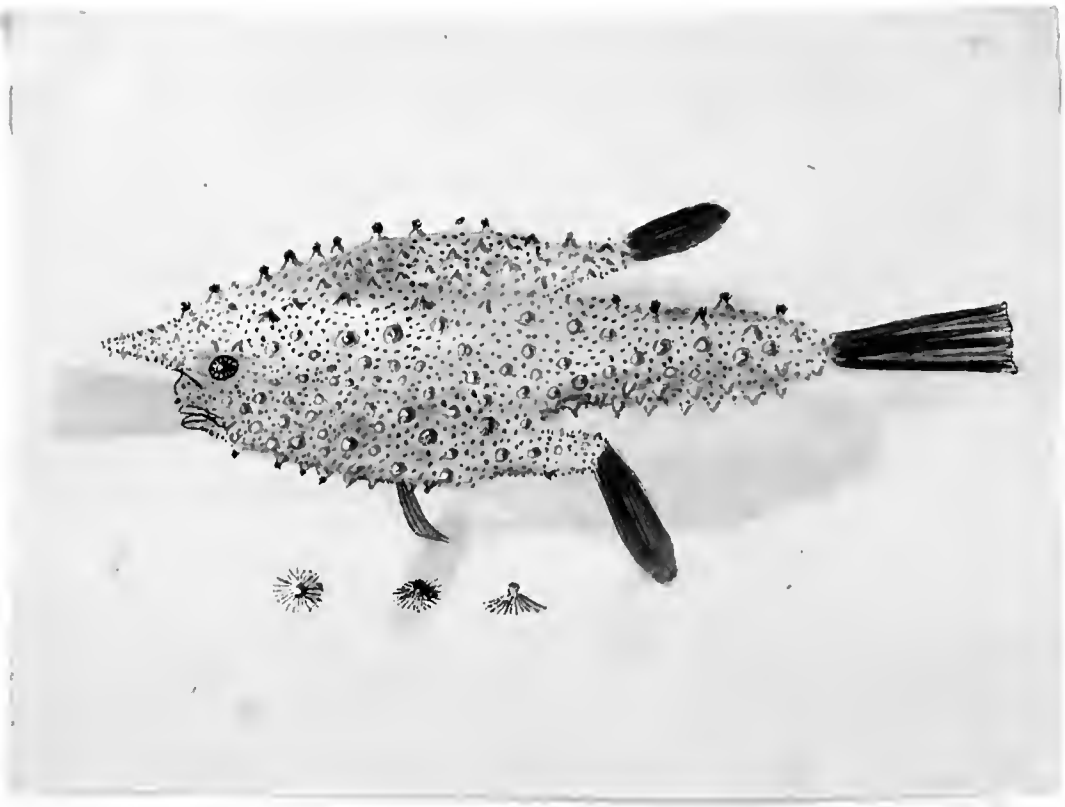
COLUBER ..... *Blue-ſtriped Ribband Snake.* Head narrow and flatted: body very long and ſlender: down the back are two deep blue ſtripes: reſt of the body a bluiſh white: in ſome parts, where the old ſkin remains, the back is browniſh; and the belly of a light coppery colour: Scuta 168: ſcales 175.

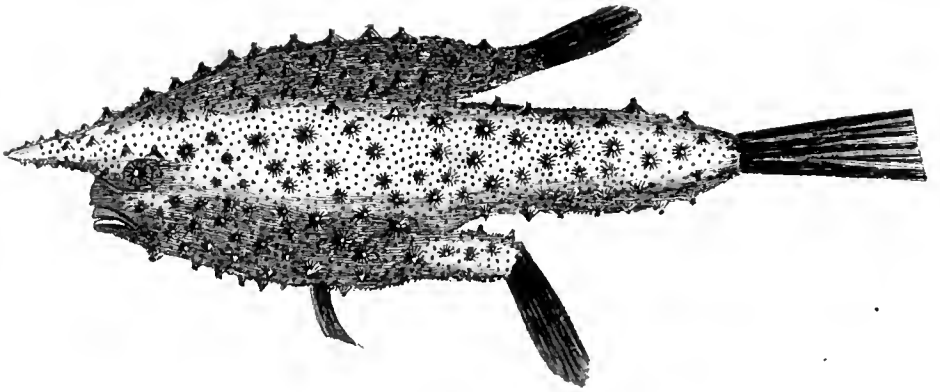
This Snake is probably a variety of the Coluber ſirtalis.



SQUALUS Zygœna. *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.

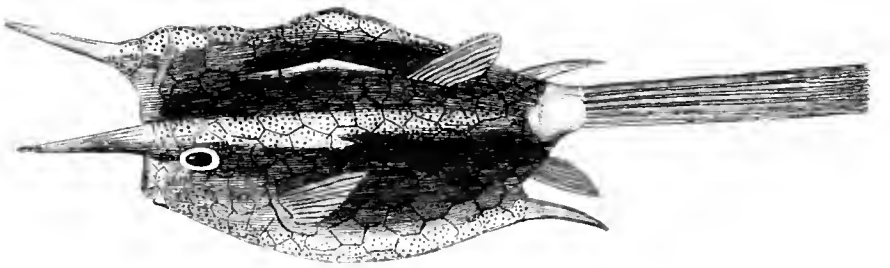
Inhabits the Mediterranean ſea. Said to approach the *whale* in ſize: the one from whence the above figure was taken is about two feet long; and of an uniform yellow colour: the adults have the upper parts black, the lower white.





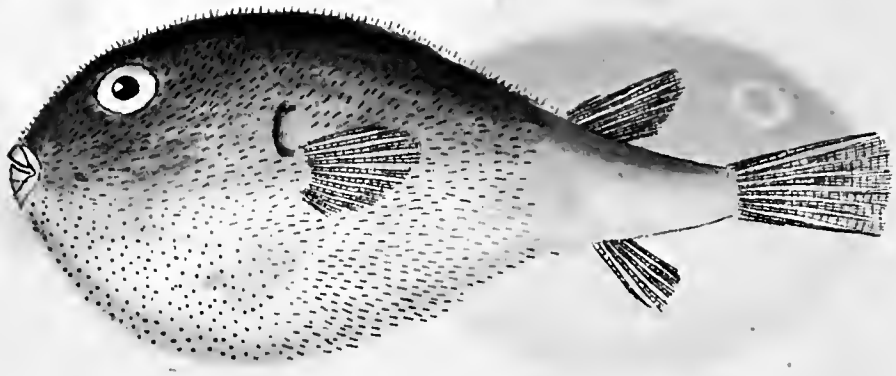
LOPHIUS Vespertilio. *Sea Bat.* Forehead projecting into a long conic shape: body as far as the vent broad, and somewhat depressed; from the vent to the tail narrow and rounded: the skin, except on the belly, covered with rough tubercles.

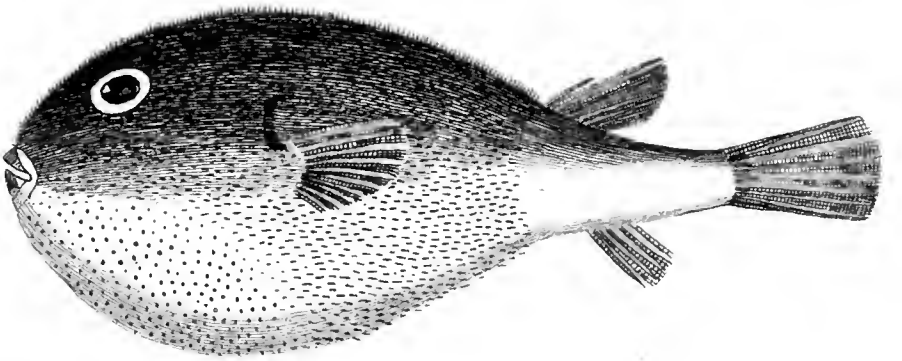
Inhabits the Caribean sea.



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.

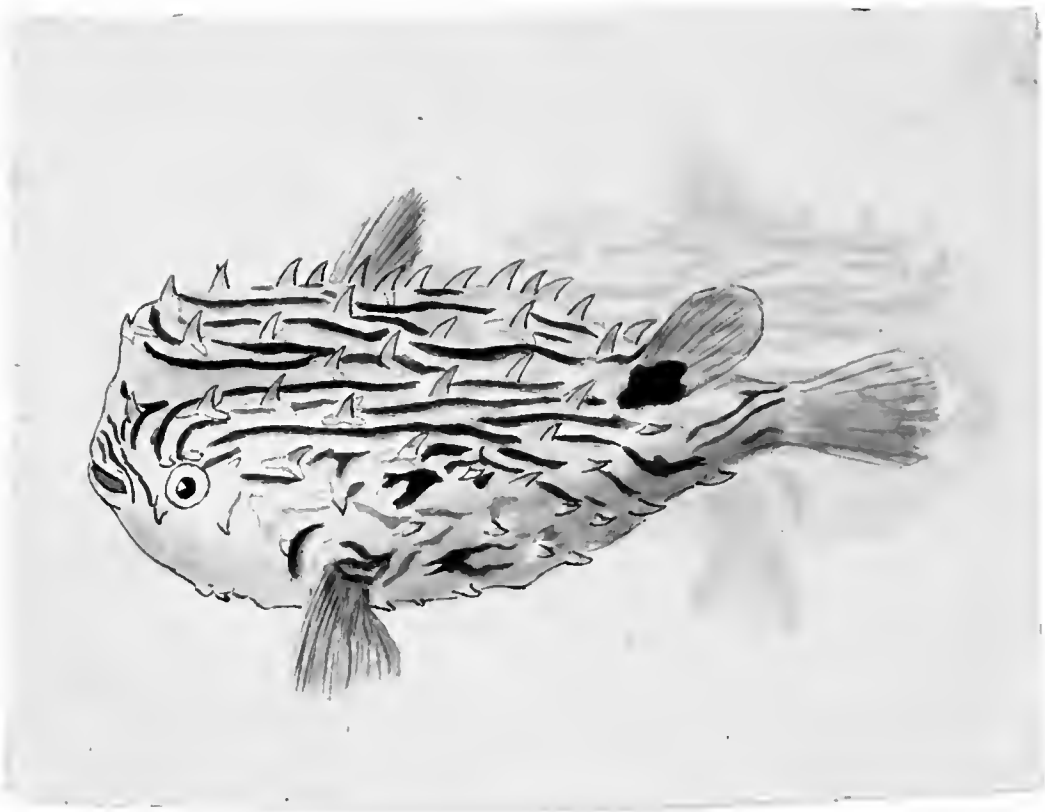
Found in the Indian ocean.

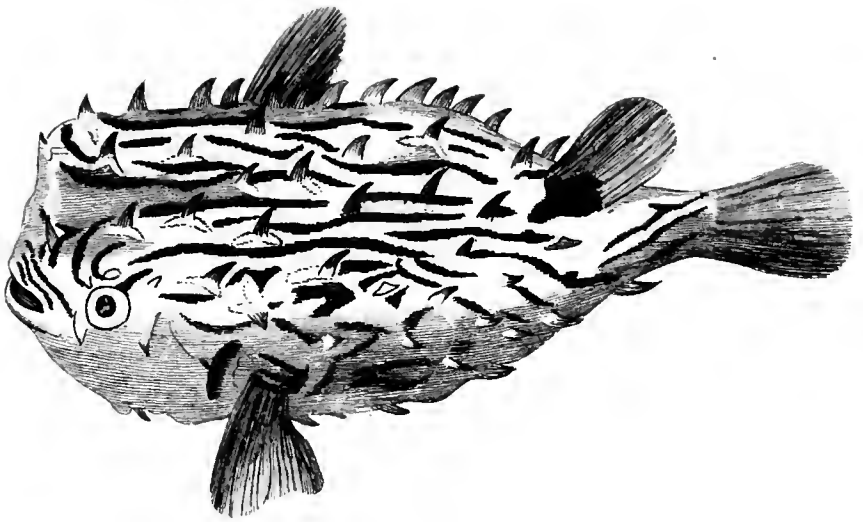




TETRAODON hiſpidus . . . . . Head and body, as far as the dorſal fin and the vent, covered with numerous ſmall ſpines; thoſe of the belly retractile: belly inflated: tail even at the end. D. 8. P. 27. V. 6.

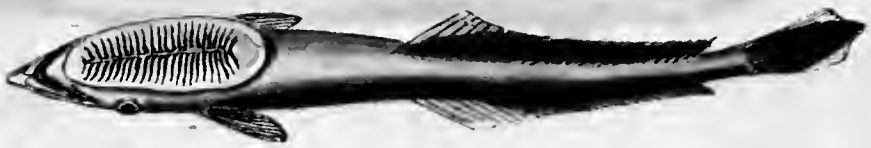
Inhabits the Indian ocean and the Mediterranean ſea. From the figure of this fiſh, in Rondeletius and other writers, it appears to have the power of inflating its belly conſiderably more than the one from which the above drawing is taken; and which had probably ſhrunk in the ſpirits in which it is preſerved.





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, trifid at the baſe. D. 11. P. 22. A. 11.

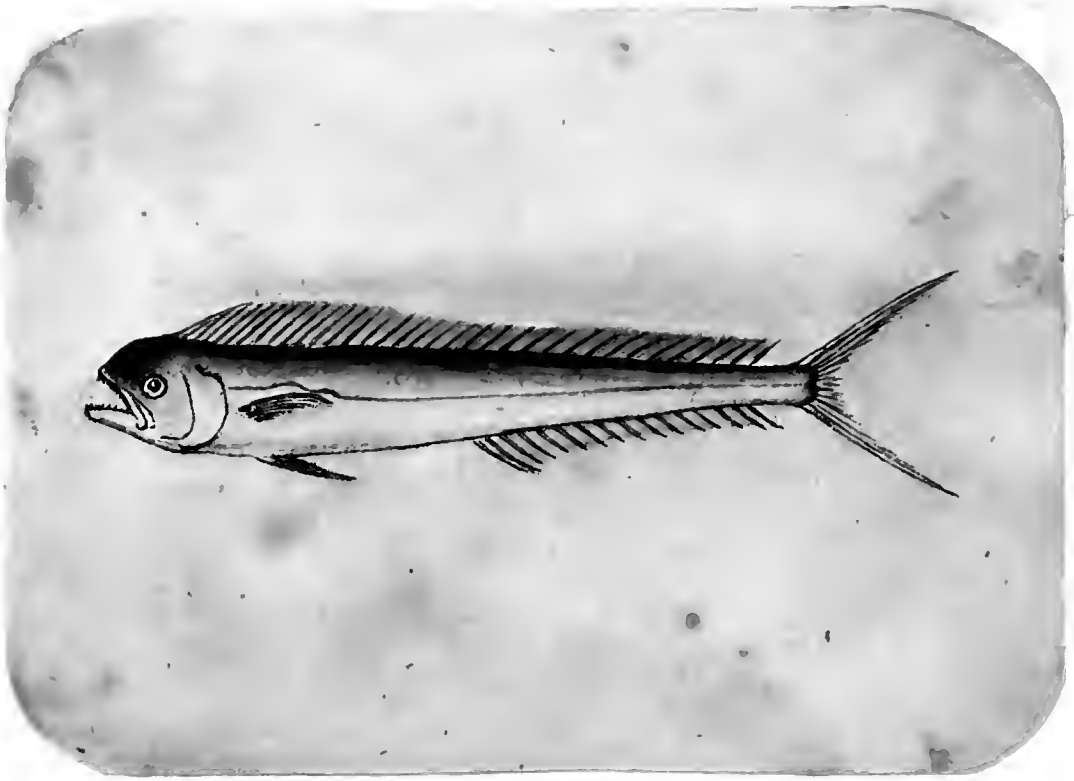
This fiſh which is omitted by Linnæus, is deſcribed by Ray p. 42. No. 3. who gives as ſynomia *Orbis ſpinoſus* Cluſ. and *Guamaicu atinga* Maregr. Petiver has given a figure of it Tab. LXIX. fig. 1. which he copied from Sir Walter Rawleigh's paintings with this inſcription, "A ſwelling fiſh eight inches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

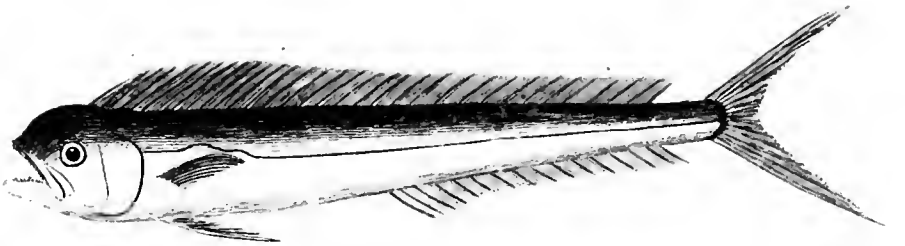


ECHENEIS Neucrates. *Round-tailed Remora.* Jaws ſlender, the lower longeſt: ſhield divided down the middle, and cut tranſverſally by 24 furrows; body very long, ſlender, and round: a few of the ſide rays of the tail of an equal length: the reſt gradually increaſe in length, and make the middle round.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

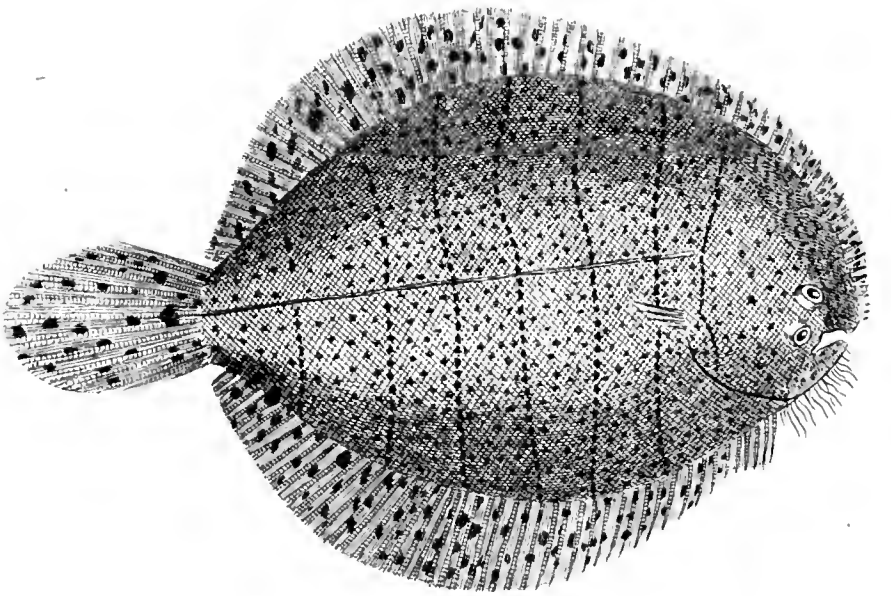
I find among the ſynonyma of this ſpecies, a reference to one figured in Petiver's works, Vol. I. Tab. XLIV. Fig. 12. which if faithfully copied from nature, differs ſpecifically from it. Among other characters, which might be produced, to prove it a diſtinct ſpecies, is that particularly of its not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

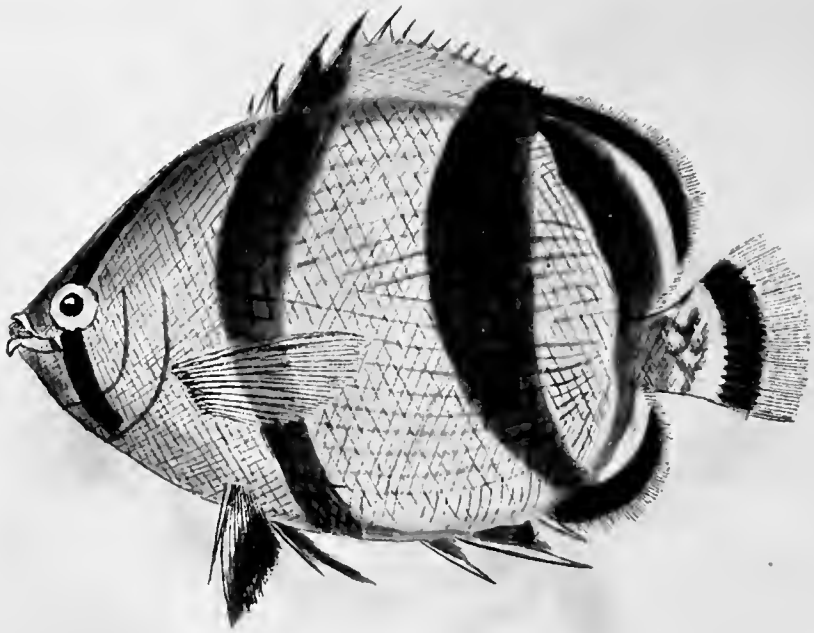
This fiſh is met with by navigators between the tropics, both in the Atlantic and Pacific ocean; and ſhould have been placed among the enemies of the *flying-fiſh:* ſwims ſwiftly: is good eating: the bait uſed by ſeamen to take it, is an artificial flying-fiſh made of tin or wood; with fins of briſtles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



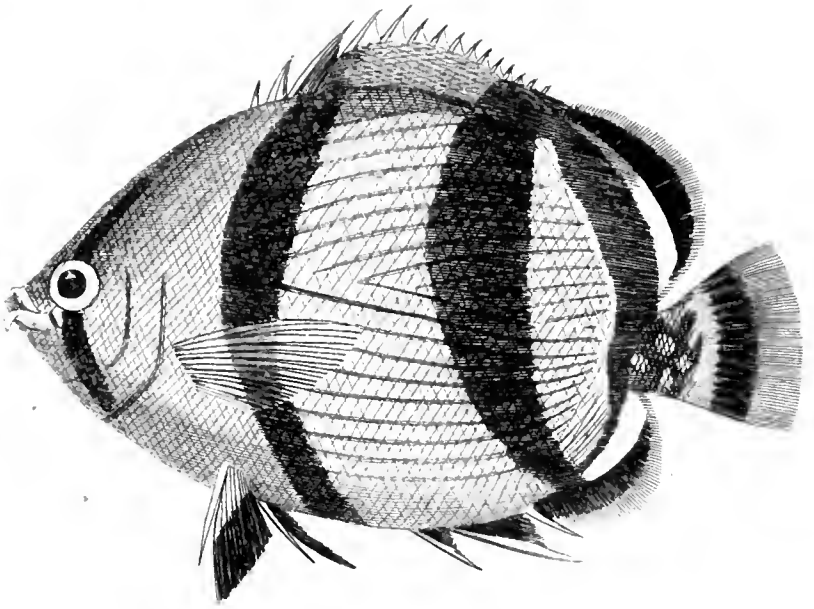
PLEURONECTES . . . . . Body of an oval ſhape: back a bluiſh grey, ſpeckled with black; ſome of which are ranged in 7 or 8 tranſverſe lines: edge of the ſcales ſpiny: pectoral fins very ſmall: tail round at the end. D. 55. P. 5. V. 5. A. 43.

Taken among the Weſt India Iſlands.

Agrees in many particulars with the Lineated Flounders.



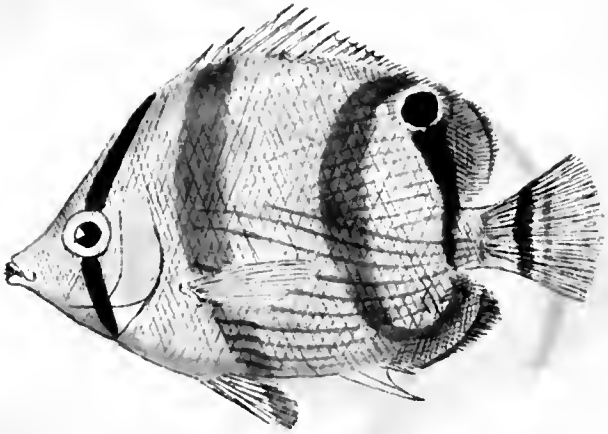
The scales to be engraved very faintly

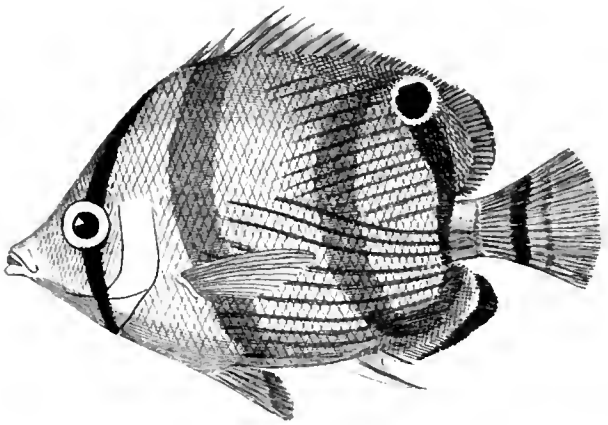


CHÆTODON ſtriatus ..... A duſky ſtripe down the head and through the eyes; three more down the body; and a fifth near the edge of the dorſal and anal fin, which is likewiſe continued acroſs the tail: ground colour white: ſides ſtriated: tail round at the end. D. $\frac{12}{21}$. P. 15. V. $\frac{1}{5}$. A. $\frac{3}{17}$.

This fiſh is taken among the Weſt India Iſlands.

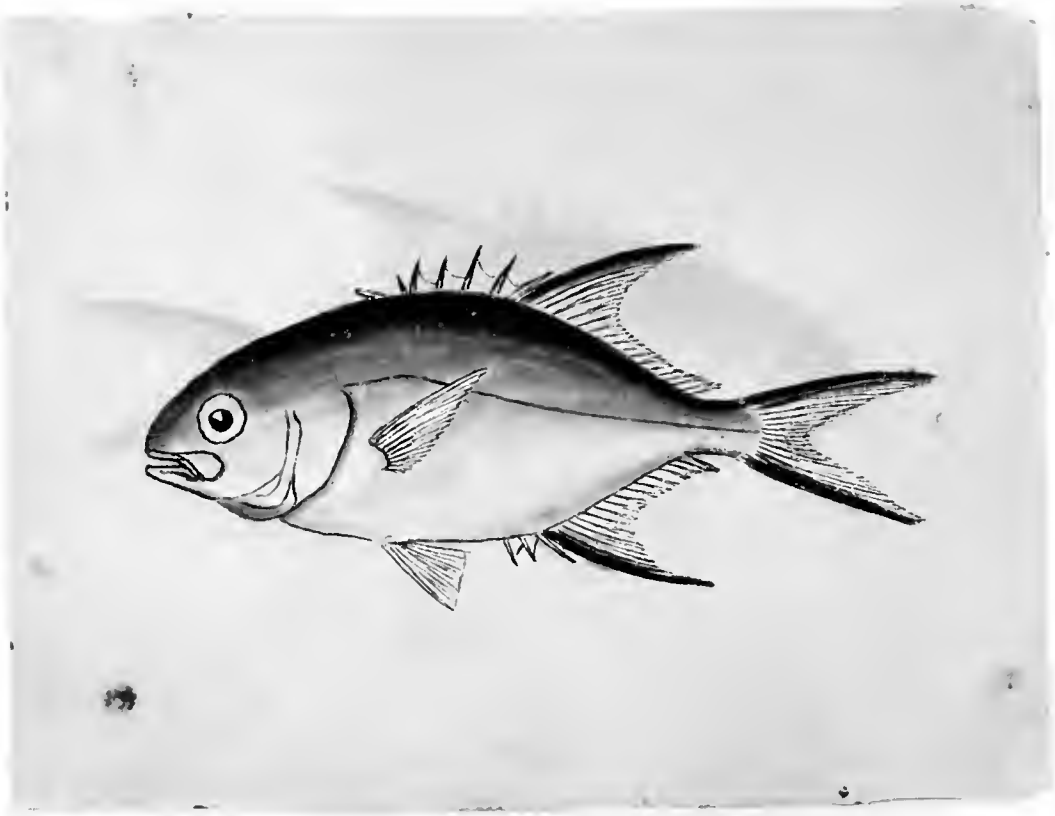
The principal character uſed by Linnæus, to diſtinguiſh the ſpecies of this genus, is the number of ſpiny rays in the dorſal fin. Concluding therefore, that the number was conſtant, I was lead to ſuppoſe him unacquainted with the *White-ſtriped Chætodon*, already figured in this work; but have ſince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

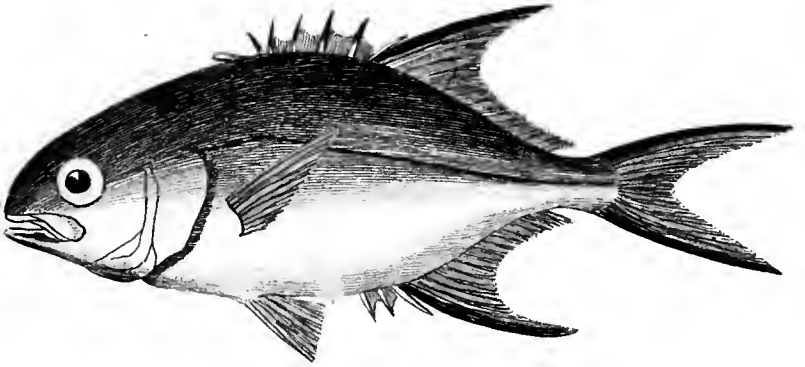




CHÆTODON capiſtratus . . . . . Mouth projecting: colour of the whole fiſh a bluiſh white, marked as follows; a duſky ſtripe down the ſides of the head through the eyes: three fainter ſtripes mark the body tranſverſely, and a fourth, rather darker, paſſes the tail: a large round ſpot on the dorſal fin near the tail, with a light coloured iris: ſides ſtriated: tail round at the end. D. $\frac{12}{22}$. P. 14. V. $\frac{1}{5}$. A. $\frac{3}{17}$.

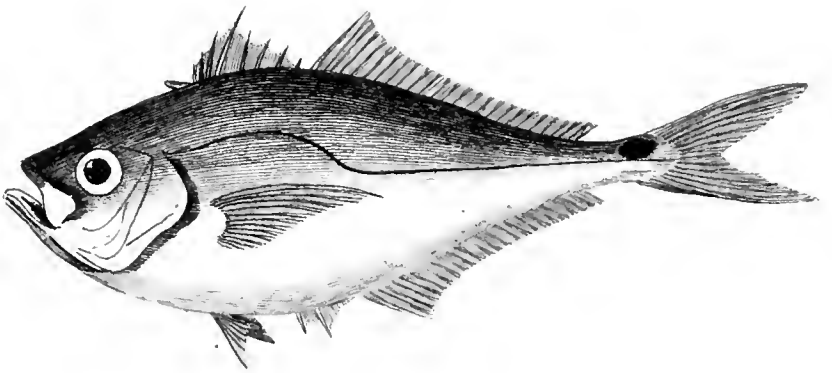
Inhabits the Indian ocean.





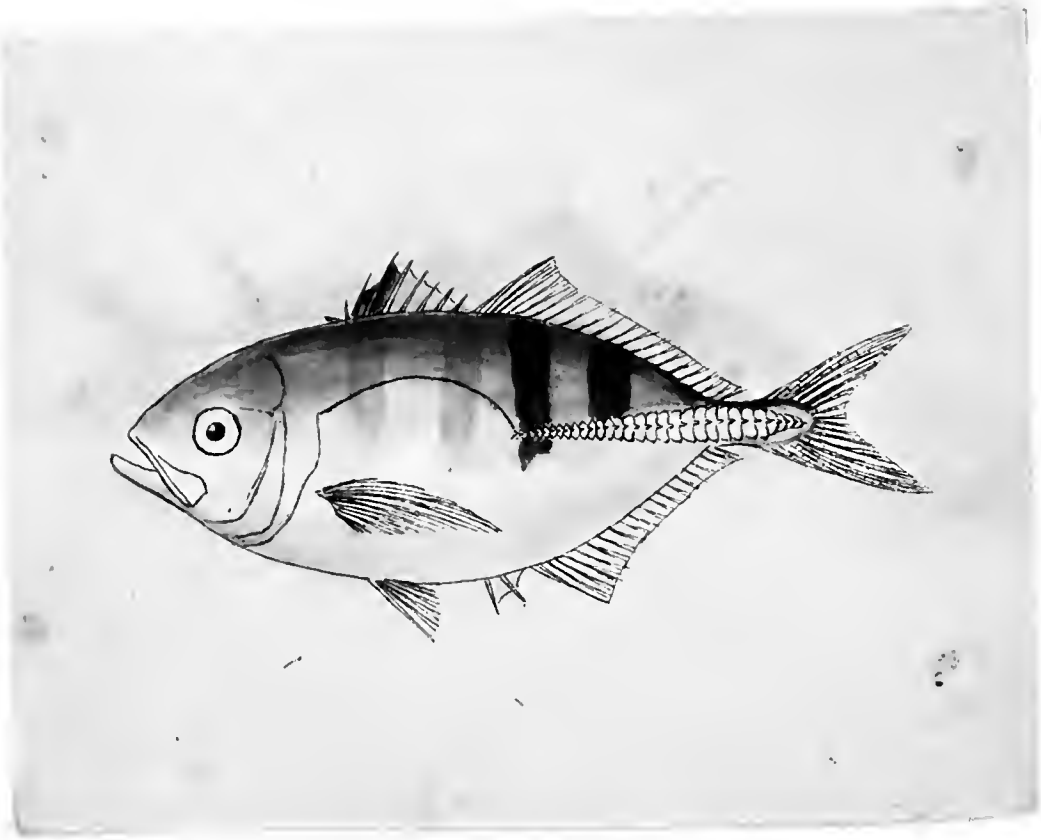
SCOMBER Glaucus ? . . . . . Body compreſſed: before the dorſal fin a recumbent ſhort ſpine, pointing towards the head, and two ſimilar ones before it, concealed under the ſkin: a few of the firſt rays of the ſpurious dorſal, and anal fins, three times as long as thoſe towards the tail, and black: tail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

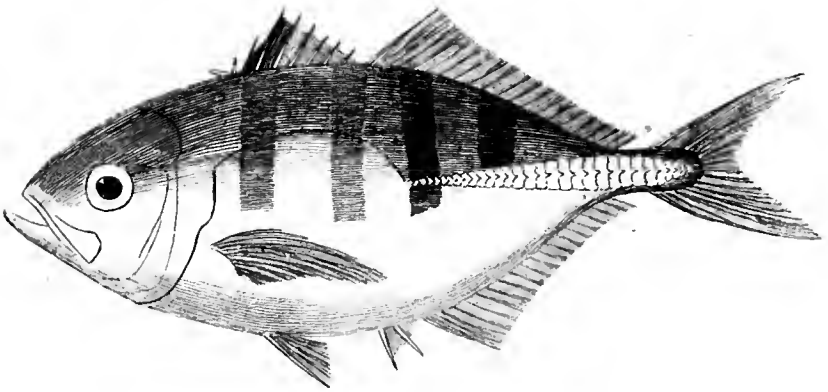
Common to the Atlantic ocean; and the Mediterranean ſea.



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. $\frac{1}{28}$. P. 18. V. 5. A. 2. $\frac{1}{28}$.

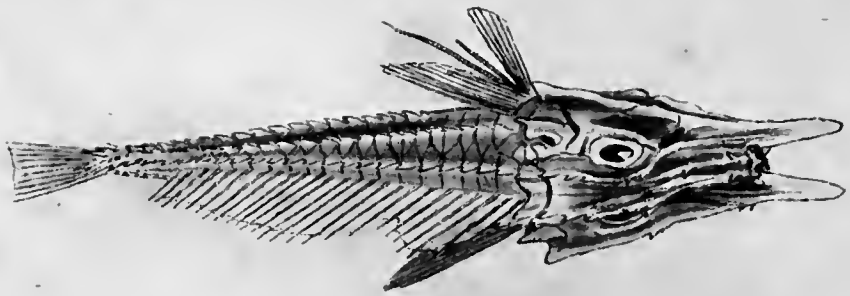
Taken amongſt the Caribee Iſlands.

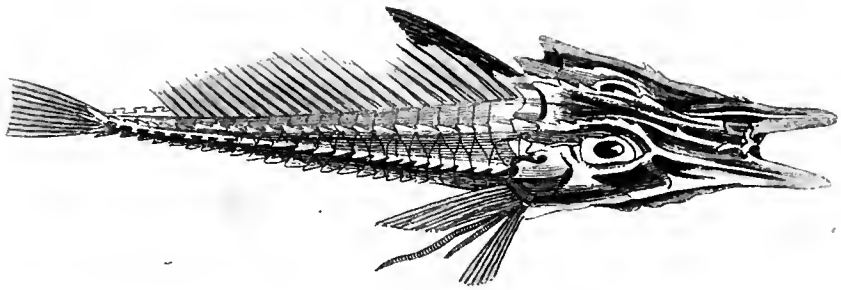




SCOMBER ..... Body pretty deep and compreſſed, and marked with broad duſky tranſverſe bands: a ſhort ſpine before the dorſal fin, pointing towards the head: lateral line curved for half its length, the remainder ſtraight and covered with large tranſverſe ſcaley plates, furniſhed in the middle with a ſpine: tail forked. D. 8. $\frac{1}{22}$. P. 14. V. 5. A. 2. $\frac{1}{17}$.

Taken among the Caribee Iſlands.





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

Inhabits the Mediterranean seas.

8
Rebound
½ 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 *oviperous*.
EXOCOETUS volitans.	1.	for EXOCETUS read EXOCOETUS.
——— ———	7.	for *This* read *These*.

8
Rebind
½ Leather.