

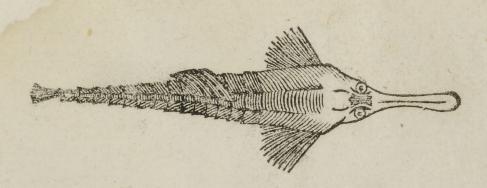


NATURAL HISTORY

OF

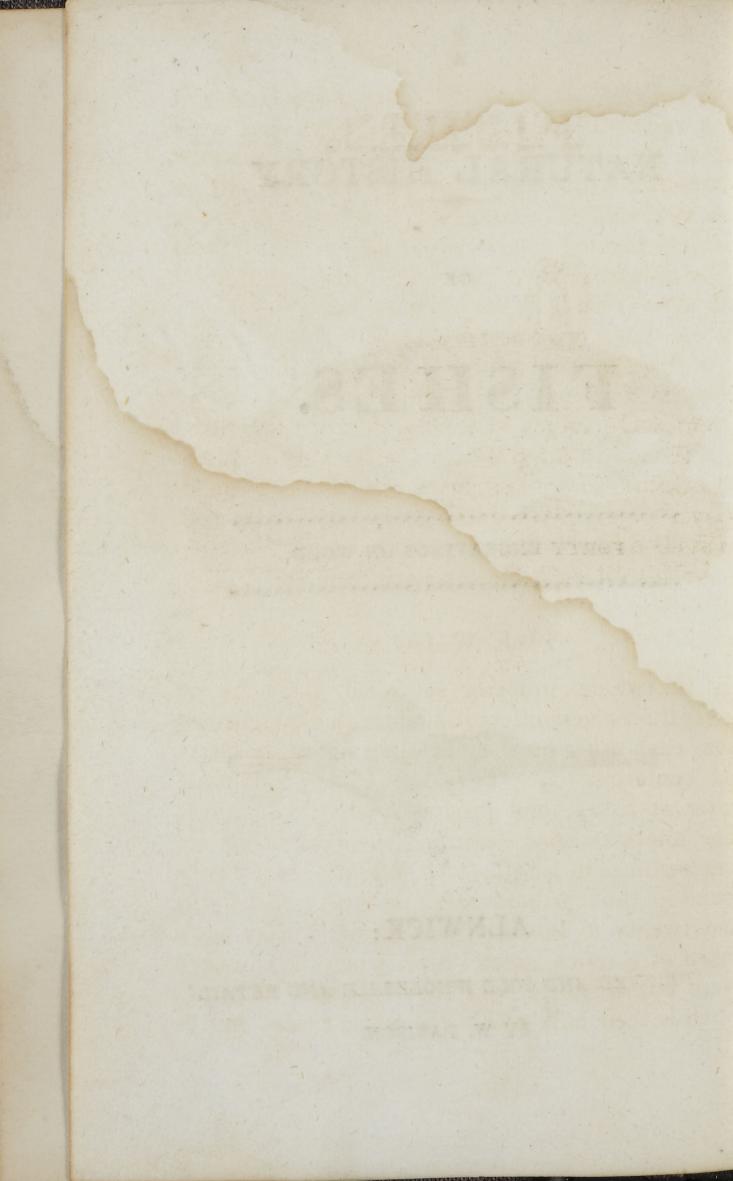
FISHES.

FORTY ENGRAVINGS ON WOOD.

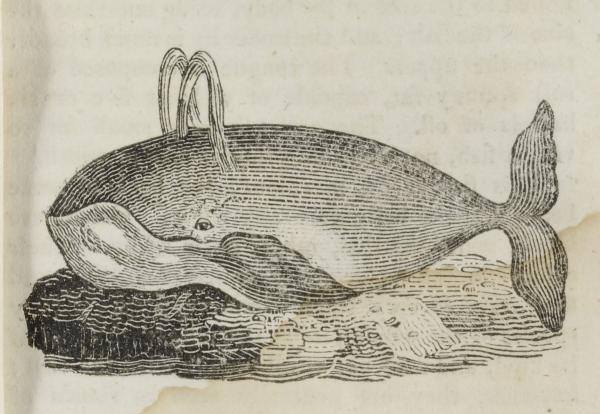


ALNWICK:

PRINTED AND SOLD WHOLESALE AND RETAIL
BY W. DAVISON.



MISHIMS.



THE WHALE.

Or the whale, properly so called, there are no fewer than seven different kinds; all distinguished from each other by their external figure, or internal conformation. They are of the cetaceous order of fishes, and produce their young alive. The ancients have described them as being six hundred feet in length. At present they are only found in the northern seas ninety feet in length, and twenty in breadth; but formerly they were taken of a much greater size, when the captures were less frequent, and they had time to grow. Such is their bulk within the arctic circle; but in

sixty feet long. There are many turnings are windings in this fish's nostrils, and it has no from the back. The head is very much disproportioned to the size of the body, being one-third the size of the fish; and the under lip is much broad than the upper. The tongue is composed of soft spungy fat, capable of yielding five or subarrels of oil. The gullet is very small for wast a fish, not exceeding four inches in width.

This fish varies in colour; the back of sor being red, the belly generally white. Others a black, some mottled, others quite white. The colours in the water are extremely beautiful, at their skin is very smooth and slippery. Eve species of the whale propagates only with those its kind, and does not at all mingle with the reshowever, they are generally seen in shoals different kinds together, and make their migratio in large companies from one ocean to another.

Whales are chiefly taken in the northern search of English send out with every ship six or seven boats; each of these has one harpooner, one mat the rudder, one manager of the line, and for seamen to row it. In each boat there are all two or three harpoons, several lances, and so lines, each one hundred and twenty fathoms long fastened together.

As soon as the whale is struck with the har poon, it darts into the deep, carrying the instrume off in its body; and so rapid is its motion, that he line should entangle, it would either snap like thread, or overset the boat: one man therefore s stationed to attend only to the line, that it may go regularly out, and another is also employed in continually wetting the place it runs against, that he wood may not take fire from the friction. On the whale's return to breathe, the harpooner inflicts fresh wound, till at length, fainting from loss of blood, the men venture the boat quite up to it, and a long steeled lance is thrust into its breast and other parts, which soon puts an end to its existence.

A whale, the longest blade of whose mouth neasures nine or ten feet, will yield about thirty outs of blubber; but some of the largest will yield upwards of seventy. One of the latter is generally worth about one thousand pounds stering; and a full ship of about three hundred tons ourden will produce more than five thousand

ounds from one voyage.

The whale fishery begins in May, and continues through the months of June and July: but whether the ships have had good or bad success, they must get clear of the ice by the end of August.

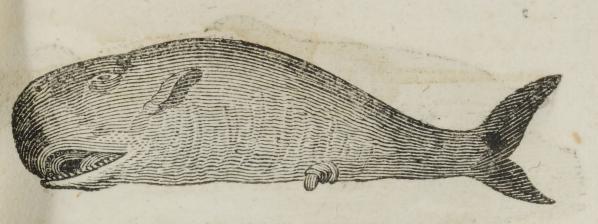
The whale goes with young nine or ten months, and generally produces one at a time. When she suckles her young, she throws herself on one side, and the young one attaches itself to the teat. Whales feed on a black insect of the size of a small bean, which is seen floating in those seas. They pursue no other animal, and are harmless in proportion to their strength to do mischief.

A 3



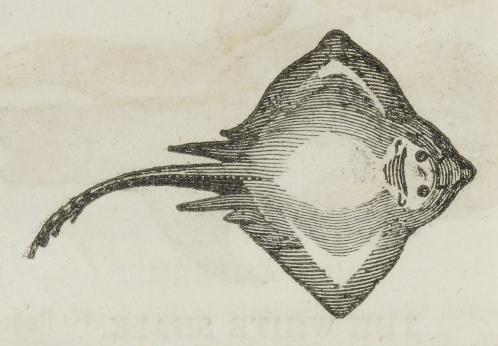
THE NARWHALE.

This fish is smaller than the whale, not bei above sixty feet long. Its body is more slend and its fat not in so great abundance. But t great animal is sufficiently distinguished from others of the deep by its tooth or teeth, whi stand pointing directly forward from the upp jaw, and are from nine to fourteen feet lon The extreme length of these instruments has i duced some to consider them rather as horns the teeth; but they in every respect resemble t tusks of the boar and the elephant. Notwit standing all its appointments for combat, its lon and pointed tusks, amazing strength, and u matchable celerity, the narwhale is one of the most harmless and peaceable inhabitants of t The Greenlanders call the narwhale the forerunner of the whale; for wherever it is see the whale is shortly after sure to follow. The may arise as well from the natural passion for society in these animals, as from both living up the same food. They are always seen in herds several at a time; and whenever they are attaca ed, they crowd together, and are often entangle by their tusks till they are taken.



THE CACHALOT.

THE cachalot, which is generally known by the name of the spermaceti whale, has several teeth in the under jaw, but none in the upper. This tribe is not of such enormous size as the whale, properly so called, not being above sixty feet long, and sixteen feet high. In consequence of their being more slender, they are much more active than the common whale; they remain a longer time at the bottom; and afford a smaller quantity of oil. The tongue of this animal is small, but the throat is very extensive; and with great ease it could swallow an ox. The cachaot is, therefore, as destructive among the smaller 'ry as the whale is harmless; and can at one sulp swallow a shoal of fishes down its enormous ullet. But how formidable soever this fish may e to its fellows of the deep, it is by far the most aluable, and the most sought after by man, as contains two very precious drugs, spermaceti and mbergris. The use of these, either for the urposes of luxury or medicine, is universally nown.



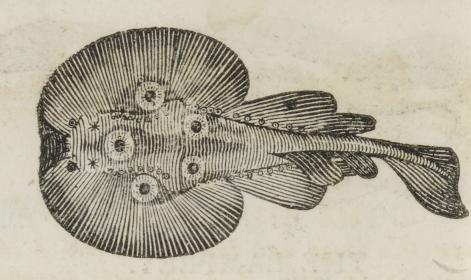
THE RAY.

ALL those of the ray kind are broad, cartilaginou swimming flat on the water, and having spines of different parts of their body, or at the tail. The all have their eyes and mouth placed quite und the body, with apertures for breathing, either about or near them. They all have teeth, or rough bone, which answers the same purpos But they are chiefly distinguished by their spine or prickles, which the several species have on di ferent parts of their body. These prickles in som are comparatively soft and feeble; those of other strong and piercing. Of all the larger fishes of the sea, these are the most numerous; and they ow their numbers to their size. They have bee found in England to weigh above two hundre pounds; but that is nothing to their enormou bulk in other parts. They are found in such part of the sea as have a black muddy bottom.



THE LAMPREY.

THIS animal resembles the eel; but is of a lighter colour, and a clumsier shape. The mouth is ound, and placed rather obliquely below the end of the nose. It has an aperture at the top of the lead, through which it spouts water like the cetaceous fishes. On each side are seven apertures for espiration; and the fins are rather formed by a rolongation of the skin than by any peculiar ones or spines. It possesses the singular proverty of adhering by suction to any substance to which it is applied. It sticks to stones so closely, hat it is with difficulty removed. This power is upposed to arise from the animal's exhausting the ir within its body, while the mouth is so entirely ittached to the object as to exclude any from enering. It usually quits the sea about the beginning of spring, for the purpose of spawning; and, after an absence of a few months, returns to its original abode. Its flesh is esteemed according o the season in which it is caught. In April or May it is thought to be in the greatest perfection.



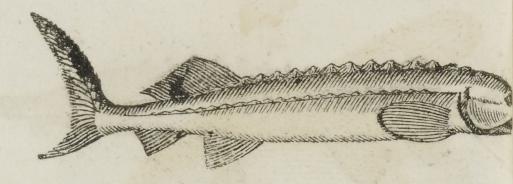
THE TORPEDO.

THE body of this fish is almost circular, and er than others of the ray kind; the skin is smooth, and of a yellowish colour, marked, the kind, with large annular spots; the are very small; the tail tapering to a p and weighs from a quarter to fifteen po To all outward appearance, it has no m formed for particularly great exertions; yet is that unaccountable power it possesses, that instant it is touched, it numbs not only the and arm, but sometimes also the whole The nerves are so affected, that the person s imagines all the bones of his body, and particular those of the limb that received the blow, are ven out of joint. Probably the shock pro from an animal electricity, which this fish some hidden power of storing up, and prod on its most urgent occasions. It is four great numbers on the coasts of France: 1 there in common request as an article of foo



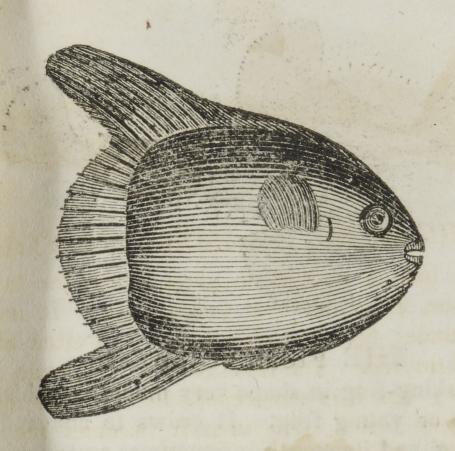
THE STURGEON.

HOUGH this large and fine-tasted fish is of a rm terrible to view, it is perfectly harmless. he body, which is from six to eighteen feet in igth, is pentagonal, armed from head to tail th five rows of large bony tubercles, each of hich ends in a strong recurved tip. The snout long, and obtuse at the end, and has the tendrils ar the tip. The mouth, which is beneath the ad, is somewhat like the opening of a purse. he upper part of the body is of a dirty olive lour, and the under part silvery. Sturgeons bsist principally on insects and marine plants, nich they find at the bottom of the water, where ey mostly resort. They are very timorous, and ide in flocks. They are found in every country Europe at different seasons. They annually cend the largest rivers in winter, in order to awn, and produce their young in prodigious mbers. They are also found in North America. ne flesh of the sturgeon is highly esteemed, parularly in England, where it is often pickled, and then accounted a delicacy.



THE HUSO, OR ISINGLASS FIS

This fish is caught in great quantities in Danube, from October to January. It is dom under fifty pounds weight, and often four hundred. Its flesh is soft, glutinous flabby; but it is sometimes salted, which is it better tasted, and then it becomes red salmon. It is for the commodity it furnished it is chiefly taken. Isinglass is of a whitish stance, inclining to yellow, done up into rolls so exported for use. It is very well know serviceable, not only in medicine, but in arts; and very great sums are yearly exp on this single article of commerce. It is pared in the following manner:-The skin entrails, the fins, and tail, are cut into pieces, and, after being macerated for some in a sufficient quantity of warm water, are over a slow fire till they are dissolved and red to a jelly. This jelly is spread on plates made purpose; and when dry it is rolled up into form in which it appears in the shops. This modity is principally furnished from Russia, they prepare great quantities surprisingly che



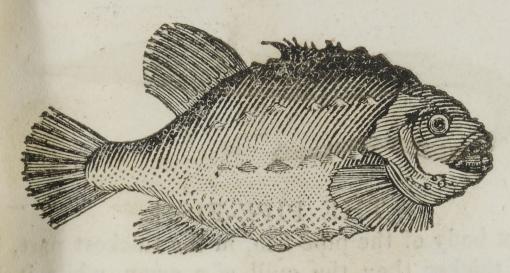
THE SUN-FISH.

nder extremity is terminated by a circular fin, hich supplies the place of a tail. The whole imal appears like the head of a large fish sepated from its body. It is destitute of scales, but vered with a hard rough skin. The back is ack, the belly is white, and the sides are of an termediate colour. The mouth is very small in oportion to the size, and the head has no proction from the rest of the body. The weight metimes amounts to two hundred pounds. The esh of this animal is very soft, and all its bones to gristly and tender. It is caught in the Mediranean, and sometimes in the British seas. here are several species of this fish.



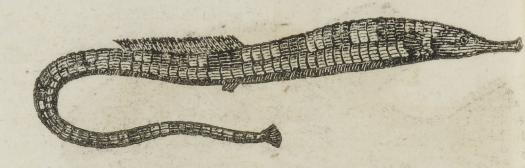
THE FISHING-FROG.

THE fishing-frog in shape very much resemb tadpole or young frog. It grows to above feet long, and its mouth is sometimes a yard v Nothing can exceed its deformity. The hear much larger than the whole body; the under projects beyond the upper, and both are an with rows of slender, sharp teeth: the palate the tongue are furnished with teeth in like n ner; the eyes are placed on the top of the h and are encompassed with prickles: immedia above the nose are two long beards or filame and on the back three others, which seem lines hung out to attract fishes. The fisher entertain a sort of veneration for this ugly conceiving it to be hostile to the dog-fish, the body of that fierce and voracious creat being frequently found in its stomach; on account, when they take the fishing-frog, generally restore it alive to its native element



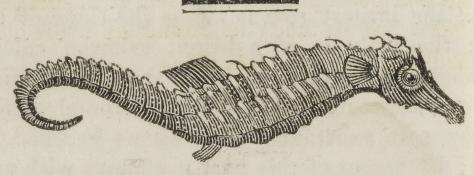
THE LUMP-FISH.

HE lump-fish is sixteen inches in length, and its eight about four pounds. The shape of the ody is deep like that of the bream, and it swims lgeways; the back is sharp and elevated, and the elly is flat; the whole skin is rough, with bony nobs; the largest row is along the ridge of the ack; the belly is of a bright crimson colour. But what makes the chief singularity in this fish, an oval aperture in the belly, surrounded with fleshy soft substance, that seems bearded all ound; by means of this part it adheres with vast orce to any thing it pleases. They are caught n many parts of the British seas, and sometimes aten, but the flesh is flabby and insipid. During pring, they are very common on the northern oasts of Scotland, where they afford subsistence o seals and other predaceous inhabitants of the leep. In the Greenland seas they resort to the hores in vast numbers for spawning, about April and May. The roe is very large, and furnishes delicious dish to the people of that country.



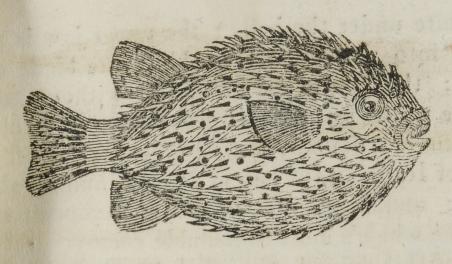
THE PIPE-FISH.

THE body of the pipe-fish, in the thickest part not thicker than the quill of a swan, while is above sixteen inches long. Its general colis an olive brown, marked with numbers of blilines, pointing from the back to the belly. Its pecies is viviparous, and is found in the seat the East and West Indies.



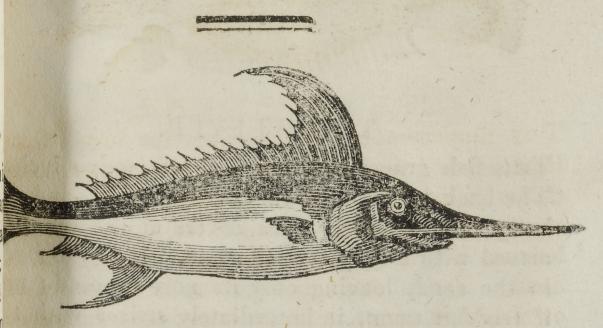
THE HIPPOCAMPUS.

THE hippocampus, which, from the form of head, some call the sea horse, never exceeds inches in length. It as about as thick as a mathematical through the body is said, while alive, to hair on the fore part, which falls off when it dead. The whole body seems to be composed cartilaginous rings, on the intermediate membra of which several small prickles are placed. I found in the Mediterranean; and more resemble a great caterpillar than a fish.



THE SEA ORB.

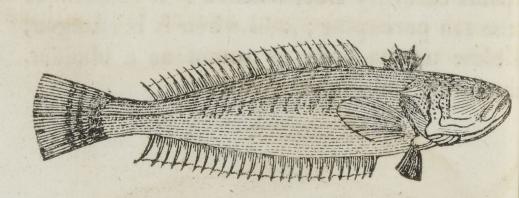
g, and is from seven inches to two feet long. The the porcupine, it is covered with prickles, ich point on every side, whence it is sometimes led the sea porcupine; and when it is enraged, can blow up its body as round as a bladder, is absolutely poisonous if eaten.



THE SWORD-FISH.

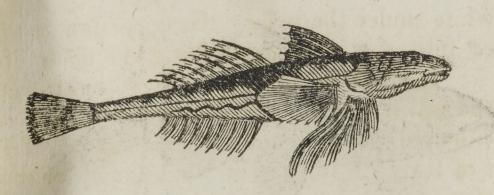
HE sword-fish is about fifteen feet in length. he body is of a conical form, black on the back.

longed into a weapon resembling the blade sword; the mouth is large, but without to and the tail is forked. It generally weighs a one hundred pounds, and is often taken off coast of Italy, in the bay of Naples, and all a Sicily; and sometimes in other European It is the whale's most formidable enemy. A sight of this animal, the whale seems agitate an extraordinary manner, leaping from the was if with affright, and flies from it in the o site direction.



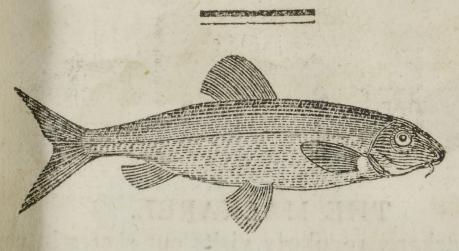
THE WEEVER.

This fish grows to the length of twelve in The back is straight, the sides are flat, and belly is prominent. The covers of the gills armed with a very strong spine. It buries in the sand, leaving only its nose exposed; if trodden upon, it immediately strikes with spines that form its dorsal fins, which are very ous and dangerous. Notwithstanding its not qualities, the flesh is excellent food.



THE DRAGONET.

The dragonet is sometimes found a foot long. The body is slender, round, and smooth; the ead is large, and depressed at the top; and in the hind part are two orifices through which it reathes, and ejects the water in the manner of etaceous fishes. It is found in different latitudes, as far north as Spitzbergen, and as far south as the Mediterranean.



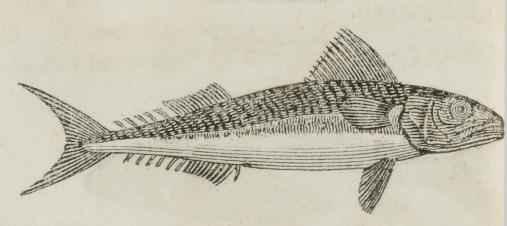
THE GUDGEON.

THE gudgeon is between five and six inches in ength. The back is brown, the belly is white, the sides are tinged with red, and the tail is forked. They spawn three or four times during the summer, and feed upon flies which approach too near the surface of the water.



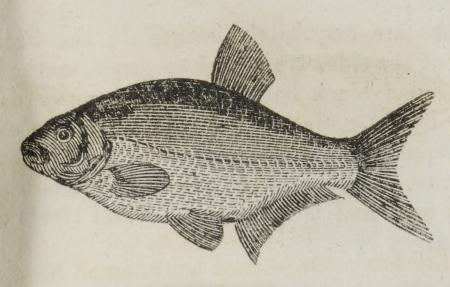
THE DACE.

This fish has a lengthened body, small head, forked tail. It is of a silver colour, except back, which is brownish, and rounded. This is found in the south of Germany, as well as France, Italy, and England.



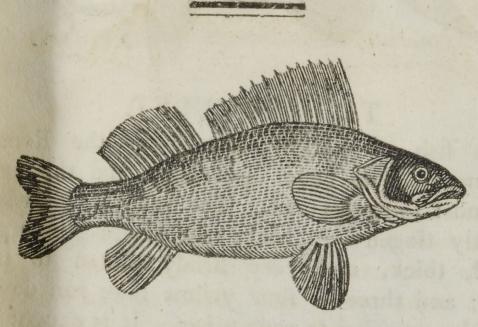
THE MACKAREL.

The mackarel regularly visits our shores in a numerous shoals during summer. They are a delicate fish, but, owing to their tenderness, unfit for long carriage. They are capable, he ever, of being preserved. They are easily the with bait: a piece of scarlet cloth being often ficient for the purpose. They are well known Europe, and were always a favourite dish.



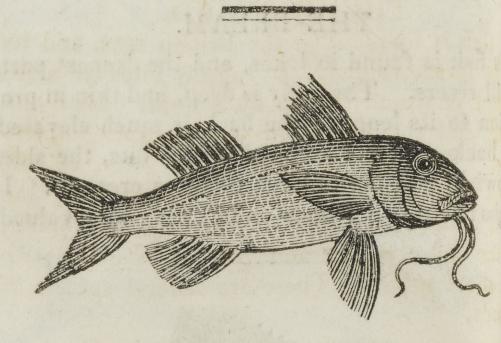
THE BREAM.

HIS fish is found in lakes, and the deepest parts f still rivers. The body is deep, and thin in proortion to its length; the back is much elevated. The back and fins are of a dusky hue, the sides ellowish, and the tail represents a crescent. It reighs about five pounds, and its flesh is not valued.



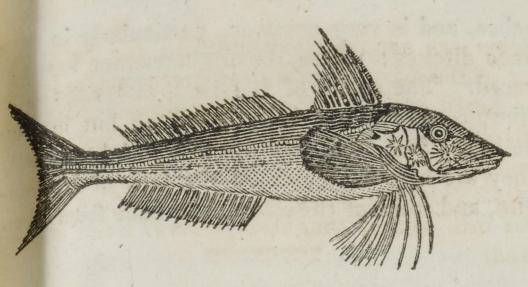
THE PERCH.

HE body of the perch is deep, the scales are exremely rough, and the back is much arched. The colours are exquisitely beautiful; the back part of the sides are of a deep green, marked five broad black bars, pointing downwards belly is white, tinged with red. It seldom exthree pounds in weight; but the flesh is firm delicate, and is greatly esteemed. It is a grious fish, and is caught in several rivers of island.



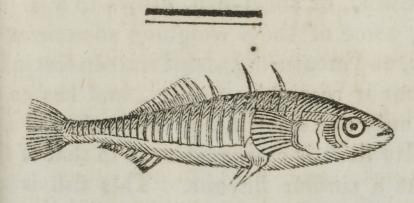
THE SURMULET.

This fish was highly valued by the Rome epicures. The body is slender, and the his almost four-cornered. The fins are yellow slightly tinged with red; the scales are law broad, thick, and very firmly united to flesh; and three or four yellow lines run do the sides, parallel to each other. It is caught the Mediterranean; and in the British seas, escially on the Cornish coast; and is universe esteemed a great delicacy.



THE GURNARD.

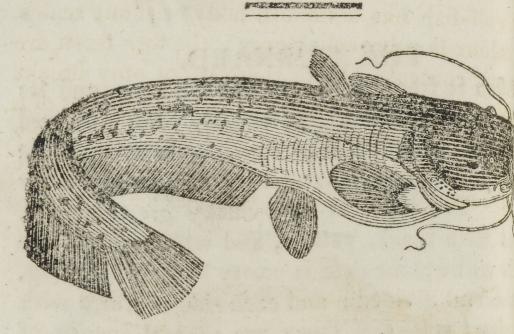
This fish is frequent in the British seas, and its flesh is much valued. It eagerly bites at a red rag, and is usually taken by a hook. Its figure is long and slender, frequently measuring thirty inches. The back is of a dusky green colour, marked with black, yellow, and white spots; the belly is white; the nose is pretty long and sloping, with the end divided; and each side is armed with three short spines. There are several species of gurnards.



THE STICKLEBACK.

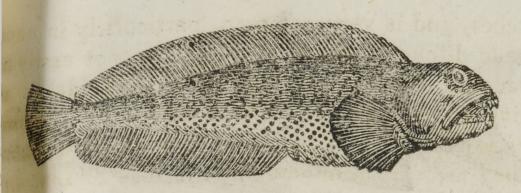
This fish is distinguished by having three spines in its back. It grows to about the length of two

inches, and is very common, particularly in made ditches; where its origin cannot easi traced. The colour of the back and sides olive green, and the belly is white; but in the lower jaw and belly are of a bright crim They are very numerous in the fens of Linshire, and some of the rivers that issue from



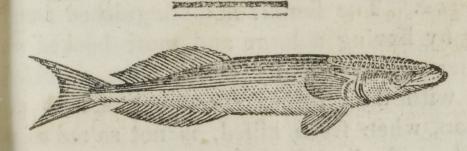
THE SILURUS, OR SHEAT-FISH

THE silurus, or sheat-fish, grows to a large nitude, some of them weighing sometimes a pounds, and measuring about sixteen feet in let In colour it resembles the eel, and has no so It has only one small fin on the back, and a featil. Its flesh is esteemed next to that of the and has a similar flavour. This fish is a depredator, and makes considerable havoc at the smaller inhabitants of the rivers and which it inhabits. They are found in the Dand several other rivers of Germany.



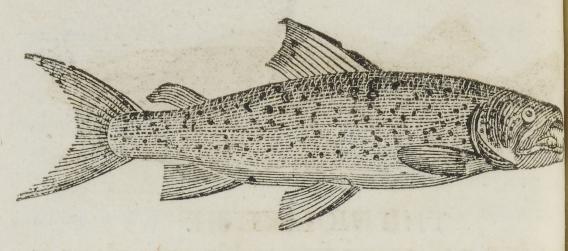
THE WOLF-FISH.

THE wolf-fish has a smooth body without scales. The colour is a brownish grey; the fore teeth are sharp and conical. With these it not only breaks the hardest shells, but gnaws even the anchor of a ship, so as to leave an impression on it. They feed chiefly on shell-fish, and are numerous in the seas of Iceland, Greenland, and Norway.



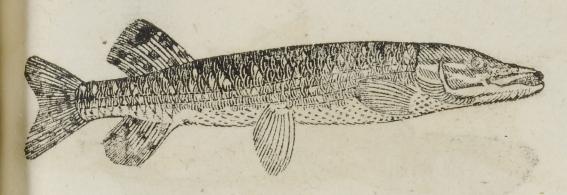
THE REMORA, OR SUCKING-FISH.

The remora, or sucking-fish, is about a foot long. The head is thick, naked, depressed, and marked on the upper side with transverse rough lines, by means of which it attaches itself to any animal or body whatever. The shark has not a greater enemy than the remora; for, by virtue of its adhesive power, it sticks closely to it, and drains away its moisture. They are frequently eaten, and much admired. In taste they resemble fried artichokes.



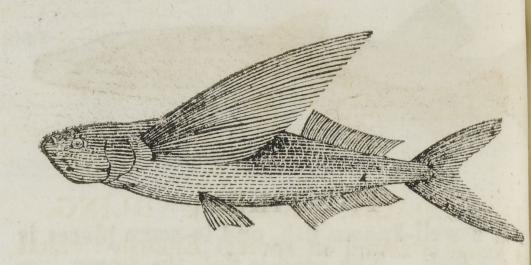
THE SALMON.

THE body of the salmon is longish, and covered with small thin scales; the head is small in proportion to the size, the snout is sharp, and the tall is forked. The back is of a bluish colour; and the other parts are generally white, intermixed with blackish or reddish spots very beautifully arranged. The female is distinguished from the male by having a large and more hooked snout duskier scales, and by being more speckled all over with dark brown spots. The flesh of the salmon, when fresh killed, is not so red as when boiled or salted: it is tender, luscious, and flaked and is generally preferred to that of any other fish The salmon inhabits salt and fresh water alike; quits the sea at certain seasons, in order to deposit its spawn with security in the gravelly beds of rivers, at a distance from their mouths. It unknown in the Mediterranean, but extends & far north as Greenland. There are stationary fisheries of salmon in Iceland, Norway, and the Baltic; at Coleraine, in Ireland; at Berwick upon-Tweed; and various other places.



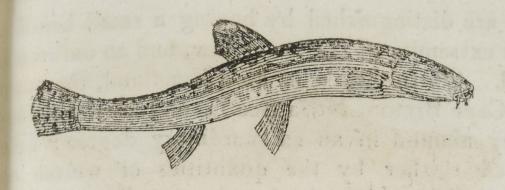
THE PIKE.

THIS is a well-known fish, and in some places is called the jack. The head is flat, the upper jaw is broad, and shorter than the lower, and the teeth are sharp. It has been sometimes caught of the weight of thirty pounds: but this is very rare, its general size being only about six pounds; and the flesh of such as are of the latter description is most esteemed. The pike has been poetically styled the tyrant of the watery plain; and, in fact, in proportion to its strength and celerity, it is the most active and voracious of fresh water fishes. It will attack every fish less than itself, and is sometimes choked by attempting to swallow such as are too large a morsel. Nor does the pike confine itself to feed on fish and frogs, it will draw down the water-rats and the young ducks as they are swimming about. They are common in most of the European lakes and rivers, but the finest are found in Lapland. In that country they are taken in great abundance; and, when dried, form an article of commerce. Pikes spawn in March or April, according to the mildness of the season.



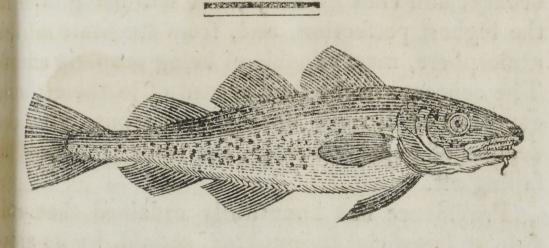
THE FLYING-FISH.

THIS fish is generally about nine inches lo The head is scaly; the belly is angular, and pectoral fins, the instruments of flight, are we When pursued by any other marine mal, it raises itself from the water by means these long fins, and can support itself in the till they become dry, when it again drops into native element. It seems to lead a wretched being constantly pursued by fishes of prey; when it has recourse to flight, it frequently me its fate from the gull or the albatross, or perh drops down again into the mouth of its original pursuer. Between the tropics they are comm and there their enemies are the most numer In those climates they are seen springing on the deep by hundreds; and sometimes the Themselves on board of ships, in order to eso their various assailants. They are of a whi colour, and their flesh is reported to be palate and nourishing.



THE LOACH, OR GROUNDLING.

The loach is found in several English rivulets, particularly near Amesbury, in Wiltshire. It keeps close to the bottom, and seldom exceeds four inches in length. Sportsmen sometimes swallow it, for a whim, in a glass of white wine. The body is smooth and slippery; the colour of the head, back, and sides, is either white or a dirty yellow, elegantly marked with large spots.



THE COD.

This fish is short in proportion to its bulk, and the belly is very large and prominent. The back and sides are cinereous, spotted with yellow, and the belly is white. But the cod varies considerably not only in colour but also in shape; though all are distinguished by having a small beard the extremity of the lower jaw, and an unfurca tail. On the banks of Newfoundland, the coa of Cape Breton, Nova Scotia, and New Engla they abound in an extraordinary degree; be lured thither by the quantities of worms; small fish which the bottom supplies; and vicinity to the polar seas, whither they resort spawn. They are found also in abundance on coasts of Norway, in the Baltic, and in most pa of the British seas; but never farther south the the straits of Gibraltar. The cod-banks of Ne foundland are a sort of submarine mountain and of more real and beneficial value to Gr Britain than the gold-mines of Potosi to Spa The fishing season generally commences in I bruary, and ends in May; the fish being then the highest perfection, and, from the state of atmosphere, most capable of being properly cur The cargoes are chiefly disposed of in the catho countries of Europe during Lent; but, from decline of papal influence, the trade is somew falling off.

Providence has bountifully ordained that this, so beneficial to mankind, should, by its as nishing fecundity, keep pace with the annual predations that are made among its race. By help of a microscope, nine millions three hundrand eighty-four thousand eggs have been countin a cod of only a middling size. They general weigh from fourteen to forty pounds.

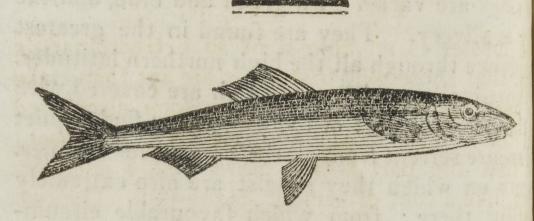


THE HERRING.

HERRINGS differ greatly in size, but the usual length is from nine to twelve inches. The back and sides are varied with green and blue, and the belly is silvery. They are found in the greatest abundance through all the high northern latitudes. In those inaccessible seas, which are covered with ice the greatest part of the year, they find a quiet and secure retreat from all their numerous enemies. Insects on which they subsist are also extremely plentiful there; from which favourable circumstance their increase is beyond conception, which obliges them to migrate in quest of new settlements. The great colony of herrings sets out from the polar seas about the middle of winter, but soon separates into two shoals: one body of which moves westward, and pours along the coasts of America as far as Carolina; while the other directs its course to Europe, and first appears off the Shetland islands in the month of April. From these islands this great army again divides; one squadron taking the western coasts of Britain toward Ireland, and another the eastern toward the Land's End. During their progress, they are

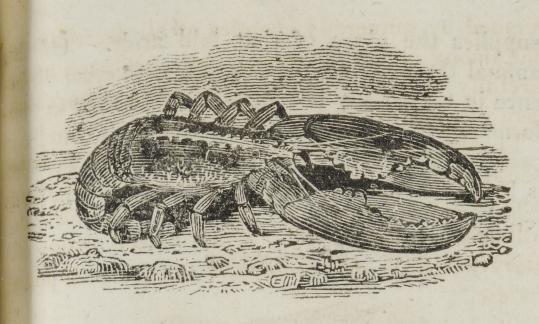
pursued by numerous enemies of all description and among others by man; their approach being carefully watched by the fishermen, who can them in numbers beyond calculation.

The Dutch are most expert in pickling the fishes; but the British fisheries have of late year been well conducted, and meet with consideral national encouragement; which indeed they we deserve, both in an economical and political point of view.



THE ANCHOVY.

The anchovy is a fish about four or five inche long. It has a long slender body with smascales; the whole is nearly transparent; the bad is of a mixture of green and ash colour; the bell of a silvery white, the nose sharp, the eyes large and the tail forked. They are taken on the coasts of Italy and in the Mediterranean, salted preserved in barrels, and so brought to Green Britain, and to all parts of the Continent; when they are esteemed a very agreeable relish in sauch and sallads.



THE LOBSTER.

THE lobster is an animal of so extraordinary a form, that those who first see it are apt to mistake the head for the tail; but it is soon discovered that the animal moves with its claws foremost; and that the part which plays within itself by joints, like a coat of armour, is the tail. The two great claws are the lobster's instruments of provision and defence; these, by opening like a pair of nippers, have great strength, and take a firm hold. It has eight legs, four on each side, and these, with the tail, serve to give the animal its progressive and sidelong motion. The lobster is a hermaphrodite, and is supposed to be self-impregnated. Lobsters cast their shells once a year. This operation is so violent and painful, that many of them die under it; those which survive are feeble, and their naked muscles soft to the touch, being covered with a thin membrane; but in less than two days this membrane hardens in a surprising manner, and a new shell, as impenetrable as the former, supplies the place of that laid aside. Of animal there are many varieties, with some dience in the claws, but little in the habits or formation. These all live in the water, and bear its absence but a few hours. The is black when taken out of the water, but it red by boiling.



THE CRAB.

THE crab is an animal found equally in fresh salt water. In shape it differs very much the lobster, but entirely resembles it in habits conformation. It resembles the lobster in number of its claws, which are two; and its which are eight, four on each side. Like the ster, it is a bold voracious animal, and resemit in every thing but the amazing bulk of its compared to the size of its head, and the length its intestines, which have many convolutions.

FINIS.