## BRITISH ZOOLOGY.

VOL. IV.

GHENCIES STYPILES

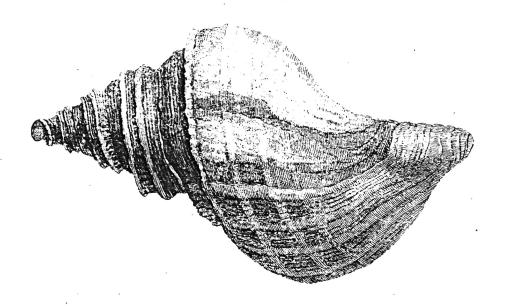
CRUSTACEA. MOLLUSCA

TESTACEA.

O MARE, O LITTUS, verum fecretumque

M&\sigma ev.' quam multa invenitis, quam multa

dictatis!



LONDON.

Printed for Benj White

MD C CLXXVII.

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O. F.

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# BRITISH ZOOLOGY.

# CLASS V.

CRUSTACEOUS ANIMALS.

CHENCIAS A PEURALER

With eight feet, or ten; rarely fix.

Two of the feet clawed.

Two eyes, remote; for the most part fixed on a stalk, moveable. Tail foliated, and short, lodged in a groove in the body.

C. Lin. Syst. 1039.

CANCER. CRAB.

Pisum.
1. Pea.

With a tail of the fize of the body, which commonly is of the bulk of a pea.

Inhabits the mussel, and unjustly has acquired the repute of being poisonous. The swelling after eating of mussels is wholly constitutional; for one that is affected by it, hundreds remain uninjured.

 $\mathbf{B}$ 

CRABS,

CRABS, either of this kind, or allied to them, the antients believed to have been the consentaneous inmates of the pinnæ, and other bivalves; which being too stupid to perceive the approach of their prey, were warned of it by their vigilant friend. Oppiantells the fable prettily \*.

Οσρακον αυ βυζιας, &c.

In clouded deeps below the Pinna hides, And thro' the filent paths obscurely glides; A stupid wretch, and void of thoughtful care, He forms no bait, nor lays the tempting fnare. But the dull fluggard boafts a Crab his friend, Whose busy eyes the coming prey attend. One room contains them, and the partners dwell Beneath the convex of one floping shell; Deep in the wat'ry vast the comrades rove, And mutual int'rest binds their constant love; That wifer friend the lucky juncture tells, When in the circuit of his gaping shells Fish wand'ring enter; then the bearded guide Warns the dull mate, and pricks his tender side; He knows the hint, nor at the treatment grieves, But hugs th' advantage, and the pain forgives: His closing shells the Pinna sudden joins, And 'twixt the pressing sides his prey confines; Thus fed by mutual aid, the friendly pair Divide their gains, and all the plunder share.

<sup>\*</sup> Halieut. lib. ii. He calls the crab Πινιοφυλαξ, custos Pinnæ.

C. Lin. Syst. 1040. Gronow. Zooph. No. 962. Baster, ii. p. 26. tab. iv. s. 1. 2.

Minutus.
2. MINUTE.

CR. with a smooth and somewhat square thorax; the edges sharp; horns short; less than the last.

Inhabits our shores among Alga.

C. Lin. Syst. 1040. Gronov. Zooph. No. 968. Baster, ii. p. 26. tab. iv. s. 3.

Longicornis.
3. LongHORNED.

CR. with a round smooth thorax; with large claws; very long horns; size of the last.

Inhabits our shores.

Cancer latipes. Rondel, 565. Gronow. Zooph. No. 954. Cancer latipes parvus oblongus variegatus. Plancus, 34. tab. iii. fig. 7.

Latipes.
4. BROAD-FOOT.

CR. with a sub-cordated body; short feelers; angular claws; five small teeth on each side; the hind legs ovated.

C. Lin. Syst. 1043. Baster, ii. tab. ii. f. 1. Faun. Suec. No. 2026. Gronow. Zooph. 955.

Mænas.
5. Common.

CR. with three notches on the front; five ferrated teeth on each fide; claws ovated; next joint, toothed; hind feet subulated; dirty green color; red when boiled.

Inhabits all our shores; and lurks under the Alga, or burrows under the sand. Is sold; and eaten by the poor of our capital.

Depurator.
6. CLEANSER.

C. Lin. Syst. 1043. No. 23. Seb. Mus. iii. tab. xviii. sig. 9.

CR. with a sub-cordated body; thorax on each side quinquedentated; front indented; claws angulated; second joint spined; hind legs have the two last joints ovated and ciliated.

A. vi. Variety with a tuberculated furface. Vide tab. iv.

Inhabits generally the deeps; feeds on dead fish: hence called the purifier or cleanser, as causing the removal of putrid bodies.

Pagurus. 7. Blackclawed. C. Lin. Syst. 1044. Gronov. Zooph. No. 967.
Belon. aquat. 368. Rondel. pisc. 560. Faun. Suec. No. 2028. Merret's Pinax.

CR. with a crenated thorax; smooth body; quinque dentated front; smooth claws with black tips; hind feet subulated.

Inhabits the rocky coasts; the most delicious meat of any; casts its shell between Christmas and Easter.

The tips of the claws of this species are used in medicine; intended to absorb acidities in the stomach and bowels.

Velutinus. 8. VELVET. CR. with the thorax quinque-dentated; body covered with short brown velvet-like pile; claws covered with minute tubercles; small spines round the top of the second joint; hind legs broadly ovated. This is among the species taken notice of by Aristotle \* on account of the broad feet, which, he says, assist them in swimming: as web-seet do the water-sowl.

Inhabits the western coasts of Anglesea.

\* De Part. Apim. lib. iv. c. 8.

CR. with the thorax quinque-dentated; ferrated; body wrinkled Corrugatus. transversely; claws furnished with a single spine on the first and fecond joint; fangs ferrated; last pair of legs ovated.

Found on the shores of Skie, opposite to Loch Jurn.

CR. with a rectangular body; the thorax armed near the corner Angulatus. with two spines; the claws very long; the upper fangs black; LAR. legs slender and subulated.

Weymouth. From the Portland cabinet.

C. Lin. Syst. 1045. Faun. Suec. No. 2029. Cancer hirsutus. Rondel. 568.

Hirtellus. II.BRISTLY.

CR. with a hairy thorax; on both sides slightly quinque-dentated; claws ovated, flightly echinated, and hairy; feet, briftly and fubulated. A small species; of a reddish color.

Found beneath stones.

CR. with a tridentated front; thorax entire; claws of a large fize; Platy-cheles. depressed, and greatly ciliated on the outside; only three subulated legs on each fide; body little bigger than a horse-bean, and almost round: Antennæ very long and turning back, when not in use.

Inhabits the Alga on the coast of Anglesea and the Hebrides.

CR. with bifurcated front; a spine at the corner of each eye; Cassivelaunus. another on each fide of the thorax towards the tail; body ovated CLAWED. and smooth; Antennæ of the length of the body; the claws above;

#### R A B S.

6

as long again as the body; feet subulated. The supposed female; of the same form; only the claws not half so long.

Inhabits the deep near Holyhead and Red-Wharf Anglesea. Dredged up.

Horridus. Cancer. Lin. Syst. 1047.
14. Horrido. C. spinosus. Seb. Mus. iii. tab. xxii. f. 1. Gronow. Zooph. No. 976. Fans, Trold Crabber. Pontop. Norway ii. 176. tab. p. 177.

> CR. with a projecting bifurcated fnout, the end diverging; body heart-shaped; and with the claws and legs covered with long and very sharp spines. A large species.

> Inhabits the rocks on the eastern coast of Scotland. Common to Norway and Scotland, as many of the marine animals and birds

Tetra-odon. 15. Four-FORKED.

CR. with a quadri-furcated fnout; the two middle spines the longest; thorax spiny; body heart-shaped and uneven; claws long; legs slender.

Inhabits the Isle of Wight.

Araneus. Cancer. Lin. Syst. 1044.
16. Spider. Faun. Suec. No. 2030. Jonston Exang. tab. v. fig. 13.

CR. with a bifid fnout; briftly thorax; body, heart-shaped, and tuberculated; claws long and oblongly ovated; legs tlender, long and subulated.

Inhabits our shores. Often covered with a byssus, as in specimen xvi. A.

CR. with

CR. with a bifid fnout; heart-shaped, small tuberculated body; Phalangium. long claws; legs of a vast length, very slender, and hairy.

Inhabits the depths on the coasts of Anglesea.

CR. with a cordated body, rugged and bent, with a few spines; Dorsettensis. very thick, and long claws; and very slender legs, the first pair MOUTH. much longer than the rest.

Weymouth. From the Portland cabinet.

CR. with a tuberous, fmooth back; fmall claws, and short legs; Tuberofus.

19.UNEVEN-

From the same cabinet.

CR. with a cordated body; bifid fnout; legs and claws short; Asper. those and the body rough and spiny.

From the same cabinet.

ASTACUS. LOBSTER.

Cylindric body. Long antennæ. Long tail.

Gammarus. Cancer. Lin. Syst. 1050. No. 21. VULGAR. Astacus. Rondel. 538.

L. WITH a smooth thorax; short serrated snout; very long antennæ; and between them two shorter, bisid; claws and fangs, large, the greater tuberculated, the lesser serrated on the inner edge; sour pair of legs; six joints in the tail; caudal sins rounded.

Inhabits all the rocky shores of our island; but chiefly where there is a depth of water. In Llyn, in Caernarvonshire, a certain small lobster, nothing different except in size, burrows in the sand.

Brought in vast quantities from the Orkney isles, and many parts of the eastern coast of Scotland, to the London markets. Sixty or seventy thousand are annually brought, in well-boats, from the neighborhood of Montrose alone \*.

Lobsters fear thunder; and are apt to cast their claws on a great clap. I am told they will do the same on siring a great gun; and that when men of war meet a lobster-boat, a jocular threat is used, That, if the master does not sell them good lobsters, they will salute bim.

The habitation of this species is in the clearest water; at the foot of rocks that impend over the sea. This has given opportunity of examining more closely into the natural history of the animal, than many others who live in an element that prohibits most of the human researches, and limits the inquiries of the most inquisitive. Lobsters are found on most of the rocky coasts of Great Britain. Some are taken by the hand; but the greater quantity in pots, a sort of trap formed of twigs, and baited with garbage; they are formed like a wire mouse-trap, so that when the lobster gets in, there is no return. These are fastened to a cord sunk into the sea, and their place marked by a buoy.

They begin to breed in the fpring, and continue breeding most part of the summer. They propagate more bumano; and are extremely prolific. Doctor Baster says he counted 12,444 eggs under the tail, besides those that remained in the body, unprotruded. They deposit these eggs in the sand, where they are soon hatched.

Lobsters change their crust annually. Previous to their putting off their old one, they appear sick, languid, and restless. They totally acquire a new coat in a sew days; but during the time that they remain defenceless they seek some very lonely place, for sear of being attacked and devoured by such of their brethren that are not in the same weak situation.

It is also remarkable, that Lobsters and Crabs will renew their claws, if by accident they are torn off; and it is certain they will grow again in a few weeks.

They are very voracious animals, and feed on fea-weeds, on garbage, and on all forts of dead bodies.

Additional to this, I beg leave to give an accurate account of the natural history of this animal, communicated to me by the ingenious Mr. Travis, furgeon, at Scarborough.

## Scarborough, 25th Oct. 1768.

#### SIR,

- WE have vast numbers of fine Lobsters on the rocks, 'near our coast. The large ones are in general in their best season from the middle of October till the beginning of May. Many of the small ones, and some few of the larger fort are good all the fummer. If they be four inches and a half long or upwards, from the tip of the head to the end of the back shell, they are called fizeable Lobsters. If only four inches, they are esteemed 'half size; and when sold, two of them are reckon'd for one of ' size. If they be under four inches, they are called pawks, and are not faleable to the carriers, though, in reality, they are inthe fummer months superior to the large ones in goodness. 'pincers of one of the lobsters large claws are furnished with 'knobs, and those of the other claw are always serrated. With the ' former it keeps firm hold of the stalks of submarine plants, and with the latter it cuts and minces its food very dextroully. knobbed or numb claw, as the Fishermen call it, is sometimes on the right and fometimes on the left, indifferently. It is more 'dangerous to be feized by them with the cutting claw than the other; but in either case, the quickest way to get disengaged from the creature is to pluck off its claw. It feems peculiar to the Lobster and Crab, when their claws are pulled off, that 'they will grow again, but never fo large as at first.
- 'The Female or Hen Lobster does not cast her shell the same 'year that she deposits her ova, or, in the common phrase, is in 'berry.

berry. When the ova first appear under her tail, they are very ' fmall and extremely black; but they become in fuccession al-· most as large as ripe elder-berries before they be deposited, and turn of a dark brown color, especially towards the end of the time of her depositing them. They continue full and depositing the ova in constant succession, as long as any of that black subftance can be found in their body, which, when boiled, turns of a beautiful red color, and is called their coral. Hen Lobsters are found in berry at all times of the year, but chiefly in winter. 'It is a common mistake, that a berried Hen is always in perfection for the table. When her berries appear large and brownish, she ' will always be found exhausted, watery, and poor. ova be cast at all times of the year, they seem only to come to ' life during the warm fummer months of July and August. Great numbers of them may then be found, under the appearance of tad-poles, fwimming about the little pools left by the tides among the rocks, and many also under their proper form, from half an inch to four inches in length.

In casting their shells, it is hard to conceive how the Lobster is able to draw the fish of their large claws out, leaving the shells entire and attached to the shell of their body; in which state they are constantly found. The sishermen say the Lobster pines before casting, till the sish in its large claw is no thicker than the quill of a goose, which enables it to draw its parts through the joints and narrow passage near the trunk. The new shell is quite membraneous at first, but hardens by degrees. Lobsters only grow in size while their shells are in their soft state. They are chosen for the table, by their being heavy in proportion to their size; and by the hardness of their shells on their sides, which, when in perfection, will not yield to

CLASS V.

· moderate pressure. Barnacles and other small shell-fish adhering to them are esteemed certain marks of superior goodness. Cock-Lobsters are in general better than the Hens in winter; they are distinguished by the narrowness of their tails, and by their having a strong spine upon the center of each of the transverse processes beneath the tail, which support the four middle plates of their tails. The fish of a Lobster's claw is more tender, delicate, and easy of digestion than that of the tail. Lobsters are not taken here ' in pots, as is usual where the water is deeper and more still than it is upon our coast. Our fishermen use a bag-net fixed to an iron hoop, about two feet in diameter, and suspended by three lines ' like a scale. The bait is commonly fish-guts tied to the bottom and ' middle of the net. They can take none in the day-time, except when the water is thick and opake; they are commonly caught 'in the night, but even then it is not possible to take any when the fea has that luminous appearance which is supposed to proceed from the nereis notifica. In summer, the Lobsters are found e near the shore, and thence to about six fathoms depth of water; in winter, they are feldom taken in less than twelve or fifteen 'fathoms. Like other insects, they are much more active and alert in warm weather than in cold. In the water they can run ' nimbly upon their legs or small claws, and if alarmed can spring tail-foremost, to a surprising distance, as swift as a bird can fly. 'The fishermen can see them pass about thirty feet, and by the 's swiftness of their motion, suppose they may go much farther. ' Athenaus remarks this circumstance, and says, that the incurvated Lobsters will spring with the activity of dolphins. Their eyes are ' raised upon moveable bases, which enables them to see readily every way. When frightened, they will fpring from a confider-'able

- sable distance to their hold, in the rock; and what is not less sur-
- 'prising than true, will throw themselves into their hold in that manner, through an entrance barely sufficient for their bodies to
- pass; as is frequently seen by the people who endeavor to take
- them at Filey Bridge. In frosty weather, if any happen to be
- found near the shore, they are quite torpid and benumbed. A
- fizeable Lobster is commonly from one pound to two in weight.
- · There was one taken here this summer which weighed above four,
- and the fishermen fay they have feen some which were of fix
- 'pounds, but these are very rare.

· I am, Sir, &c.'

I conclude with faying, that the Lobster was well known to the ancients, and that it is well described by Aristotle, under the name of Asaxos\*; that it is found as far as the Hellespont, and is called, at Constantinople, + Liczuda, and Lichuda.

Cancer. Lin. Syst. 1053. Locusta. la Langouste. Rondel. pisc. 535. Homarus. . 22. Sping.

L. with a front broad, armed with two large spines, and between them a smaller, guards to the eyes, which are prominent; Antennæ longer than body and tail; spiny at their origin; beneath them two lesser; claws short, small, smooth; fangs small, single, hinged; legs slender and smooth; body and thorax horrid with spines; tail longer than that of the common Lobster; on each part, above, is a white spot, the bottoms are crooked and serrated; the tail-fin, partly membranaceous, partly crustaceous.

<sup>\*</sup> Hist. An. lib. iv. c. 2.

<sup>+</sup> Belon Hift. Poissons. 357.

Inhabits our rocky coasts; often taken about the promontory of  $Ll_y^{\alpha}n$ , and Bardsey isle.

The French name of this species has been barbarously translated into the Long-oyster.

Arcus. 23. Broad: C. Lin. Syft. 1053. No. 75. Faun. Suec. No. 2040. Squilla lata. Rondel. 545.

L. with two broad serrated plates before the eyes; short furcated antennæ; body and tail flat and broad.

Size of the spiny Lobster.

Found by Doctor Borlase on Careg Killas, in Mounts-Bay. Is common to the four quarters of the world.

Norwegicus. 24. Nor-WAY. Cancer Norvegicus. Lin. Syst. 1053. Sundfiord. Pontop. Norway. ii. 175. tab. p. 177.

L. with a long spiny snout; thorax slightly spiny; body marked with three ridges; claws very long, angular, and (along the angles) spiny; antennæ long; legs slender, clawed; tail long; elegantly marked with smooth and short-haired spaces, placed alternately.

Common length, from tip of the claws to the end of the tail near nine inches.

Bamfius. 25. Long-CLAWED. Leo. Rondel. 542.

L. with a smooth thorax, with three sharp slender spines in front; claws six inches and a half long, slender and rough; fangs strait; legs weak, bristly; antennæ slender, two inches and a half long; tail and body about five inches.

Taken

### CLASS V. L O B S T E R S.

Taken near Bamff. Communicated to me by the Reverend Mr. Cordiner, and engraven from his beautiful drawing.

Cancer. Lin. Syst. 1052.

Strigofus. 26. PLATED.

L. with a pyramidal spiny snout; thorax elegantly plated; each plate marked near its junction with short striæ; claws much longer than the body, thick, echinated, and tuberculated; the upper fang trisid; only three legs, spiny on their sides; tail broad.

The largest of this species is about six inches long.

Inhabits the coasts of Anglesea; under stones and fuci. Very active. If taken, slaps its tail against the body with much violence and noise.

Cancer. Lin. Syst. 1051.

Astacus. 27. CRAW-

L. with a projecting fnout flightly ferrated on the fides; a smooth thorax; back smooth, with two small spines on each side; claws large, beset with small tubercles; two sirst pair of legs clawed; the two next subulated; tail consists of sive joints; the caudal sins rounded.

Inhabits many of the rivers of *England*; lodged in holes which they form in the clayey banks. *Cardan* fays that this species is a sign of the goodness of water; for in the best water, they are boiled into the reddest color \*.

Squilla Crangon. Rondel. 547.

Serratus. 28. Prawn-

L. with a long ferrated fnout bending upwards; three pair of very long filiform feelers; claws small, furnished with two fangs; smooth

· Quoted by Plot, Hift. Staffords. 185.

thorax;

thorax; five joints to the tail; middle caudal fin subulated; two outmost flat and rounded.

Frequent in several shores, amidst loose stones; sometimes found at sea, and taken on the surface over thirty fathoms depth of water; cinereous when fresh; of a fine red when boiled.

Squilla. 29. WHITE. Cancer Squilla. Lin. Syst. 1051. Faun. Suec. No. 2037. Squilla Batava. Seb. Mus. iii. p. 55. tab. xxi. fig. 9. 10: Squilla susca. Baster ii. 30. tab. iii. fig. 5. Squilla Gibba. Rondel. 549.

L. with a fnout like the prawn, but deeper and thinner; and feelers longer in proportion to the bulk; the sub-caudal fins rather larger; is at full growth not above half the size of the former.

Inhabits the coasts of Kent; is sold in London under the name of the white shrimp, as it assumes that color when boiled.

Crangon.
30. SHRIMP.

Cancer Crangon. Lin. Syst. 1052. Squilla marina Batava. Baster. ii. 27. tab. iii. sig. 1. 11. Reesel insect. iii. tab. Ixiii.

L. with long slender feelers, and between them two thin projecting laminæ; claws with a single-hooked moveable fang; three pair of legs; seven joints in the tail; the middle caudal fin subulated; the four others rounded and fringed; a spine on the exterior side of each of the outmost.

Inhabits the fandy shores of Britain, in vast quantities. The most delicious of the genus.

6

Cancer

Cancer. Lin. Syft. 1056. Lesser garnel or thrimp. Marten's Spitzberg. 115. tab. P. fig. i.

Linearis.
31. LINEAR.

L. with long slender claws, placed very near the head, with a slender body, and six legs on each side; is about half an inch long. Found in the sand, on the shore of Flintshire; is very frequent in Spitzbergen.

. Cancer. Lin. Syst. 1056.

Mirum animalculum in corallinis, &c. Baster. i. 43. tab. iv. fig. 11.

Atomos. 32. Atom.

L. with a stender body; filiform antennæ; three pair of legs near the head; behind which are two pair of oval vesiculæ; beyond, are three pair of legs, and a stender tail between the last pair.

Very minute. The help of the microscope often necessary for its inspection.

C. Lin. Syft. 1055. No. 81.

Pulex. 33. FLEA.

L. with five pair of legs, and two pair of claws imperfect; with twelve joints in the body.

Very common in fountains and rivulets; swims swiftly in an incurvated posture on its back; embraces and protects its young between the legs; does not leap.

L. Lin. Syft. 1055. No. 82. Rosel Insect. iii. tab. 62. Locusta.
34. Locust.

L. with four antennæ; two pair of imperfect claws; the first joint ovated; body consists of fourteen joints, in which it differs from the former.

D

Abounds

Abounds in summer-time on the shores, beneath stones and: alga; leaps about with vast agility.

Salinus. 35. Salt. Cancer. Lin. Syft. 1056.

L. with jointed body; hands without claws; antennæ shorter than the body; ten pair of legs; tail filiform, subulated; very minute. Discovered by Doctor Maty in the salt pans at Limington.

Stagnalis. 36. POND.

Cancer. Lin. Syst. 1056.

L. with jointed body; hands without claws; a bifid tail.

Inhabits the crannies of rocks, in fresh waters; suspected by:

Linnaus to be the larva of an Ephemera.

The two last never fell under my notice.

Mantis.
37.MANTIS.

C. Lin. Syst. 1054. No. 76.

L. with short antenna; short thorax, and two pinnated substances on each side; three pair of claws with hairy ends; the body long; divided by eight segments: two sins on each side of the tail; tail; conoid, with spines on the margin.

From the Portland cabinet. Weymouth.

Bernardus. 38.HERMIT. Cancer. Lin. Syst. 1049.

C. with rough claws; the right claw is the longer; the legs subtracted, and serrated along the upper ridge; the tail naked and tender,

der, and furnished with a hook, by which it secures itself in its lodging.

This species is parasitic, and inhabits the empty cavities of turbinated shells, changing its habitation according to its increase of growth, from the small nerite, to the large whelk. Nature denies it the strong covering behind, which it has bestowed on others of this class, and therefore directs it to take refuge in the deserted cases of other animals.

Aristotle describes it very exactly under the name of Kaçxiviov \*. By the moderns it is called the foldier, from the idea of its dwelling in a tent; or the bermit, from retiring into a cell.

\* Hift. An. lib. iv. c. 4. lib. v. c. 15.

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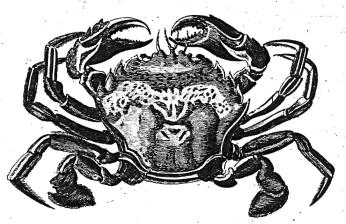
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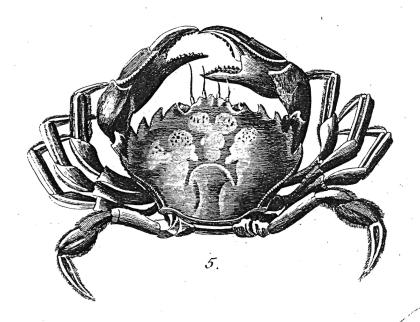


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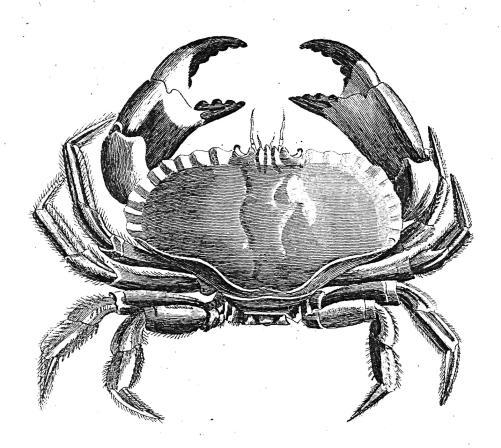


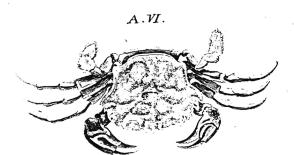


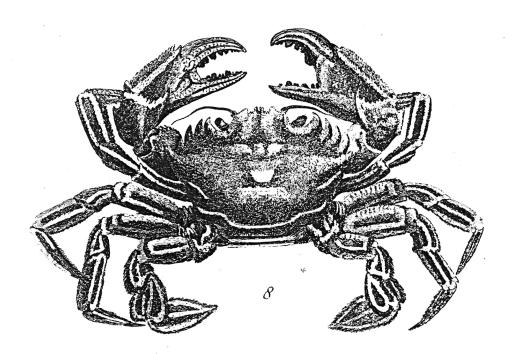




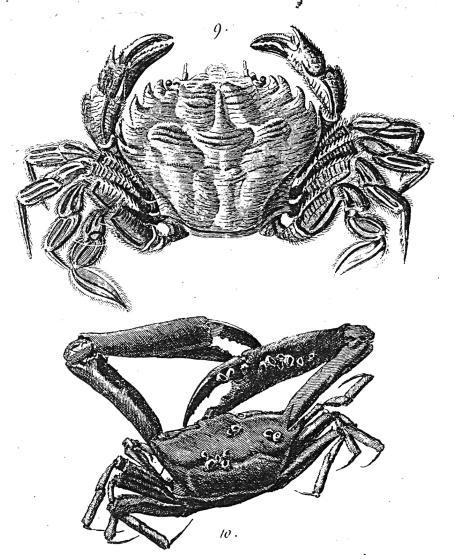
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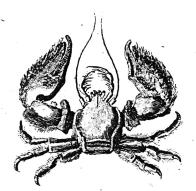


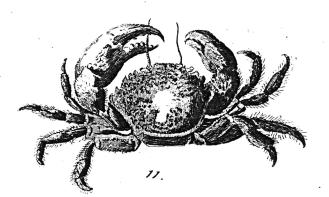


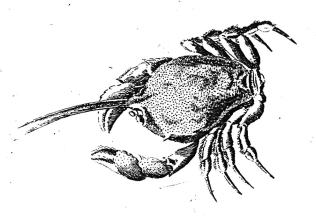


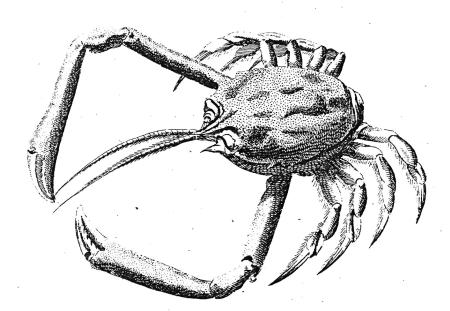




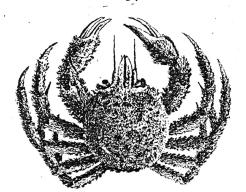


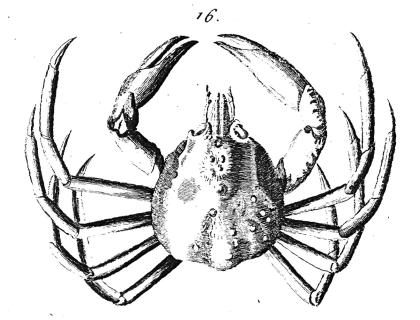


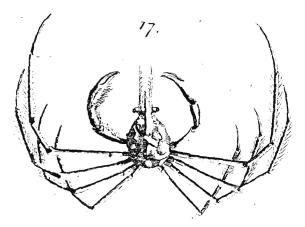




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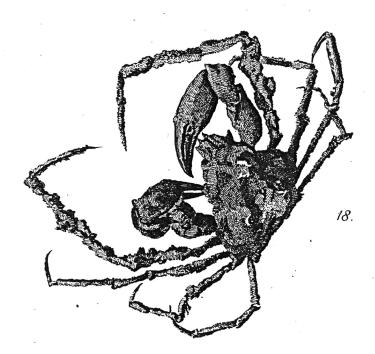






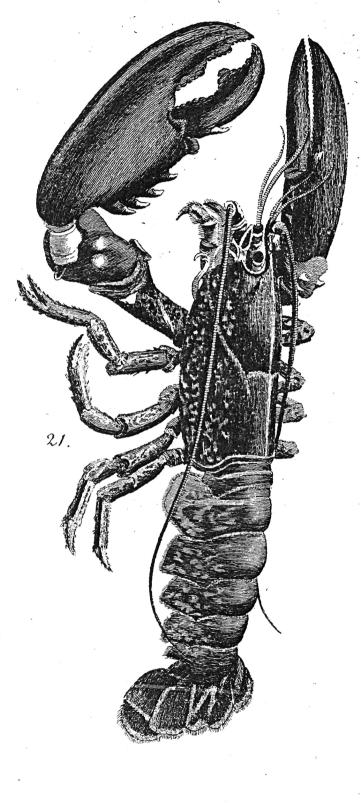


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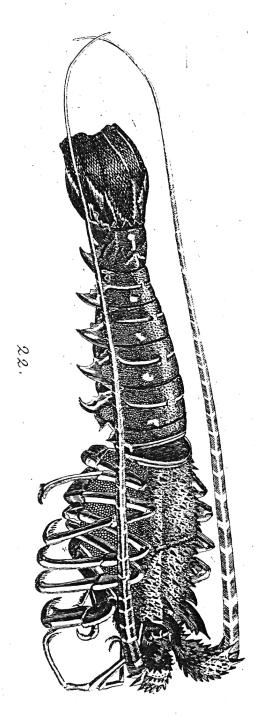




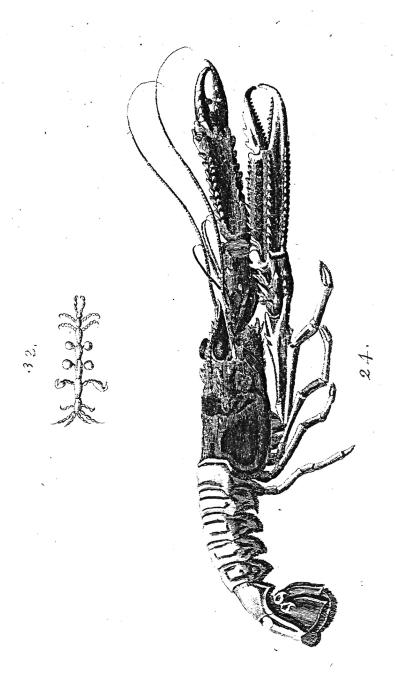




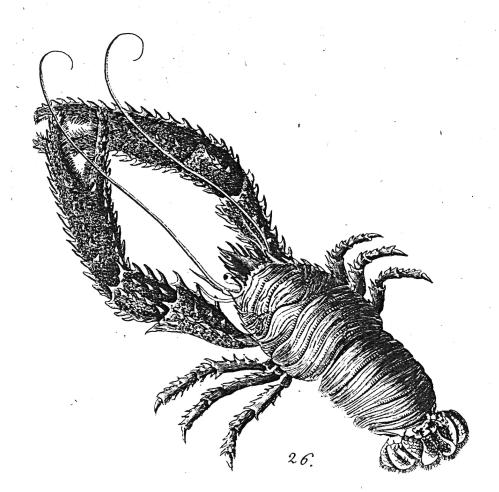








Pl.XII





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