

PROCEEDINGS

OF THE

ZOOLOGICAL SOCIETY *6.*

OF LONDON,

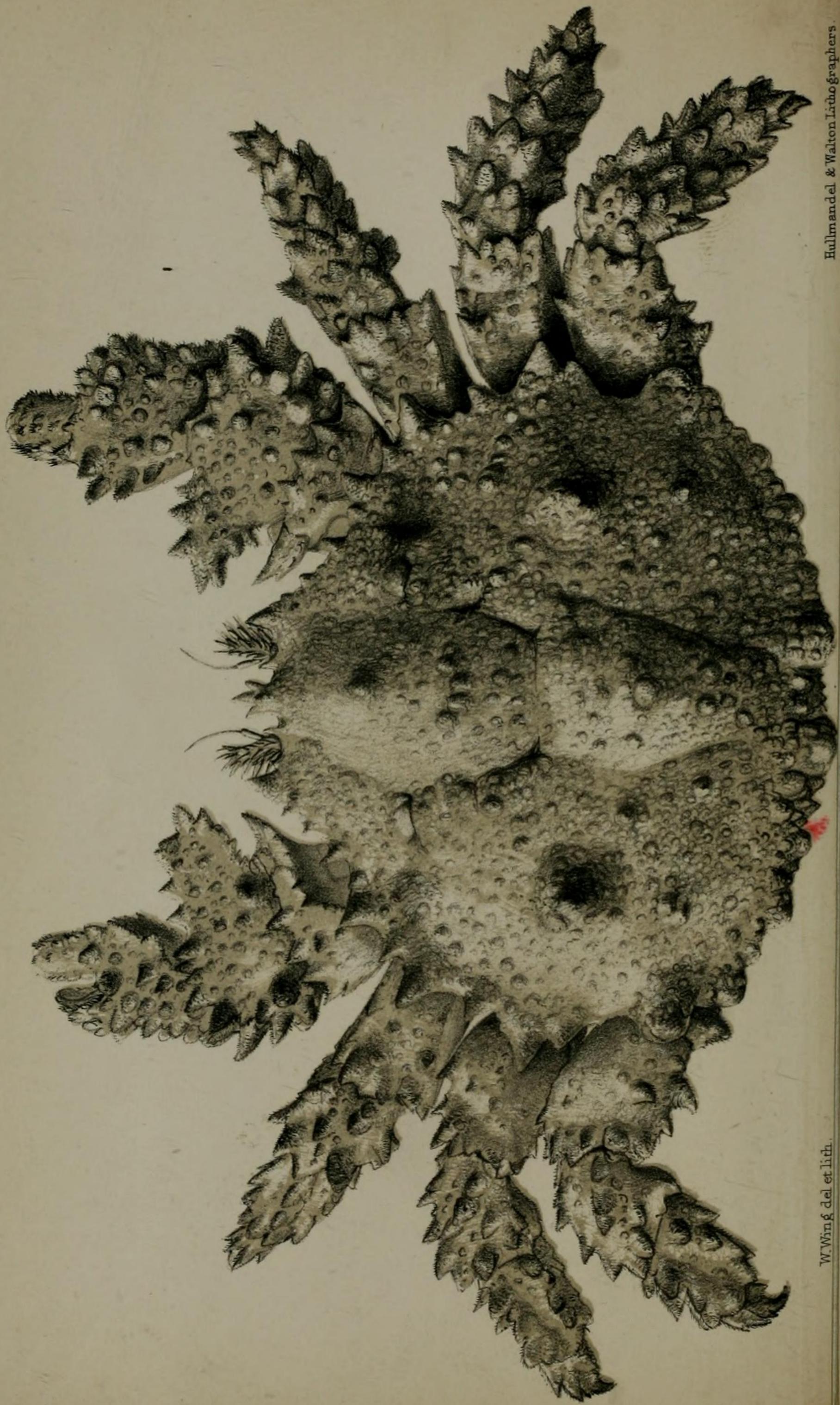
WITH ILLUSTRATIONS.



1848.

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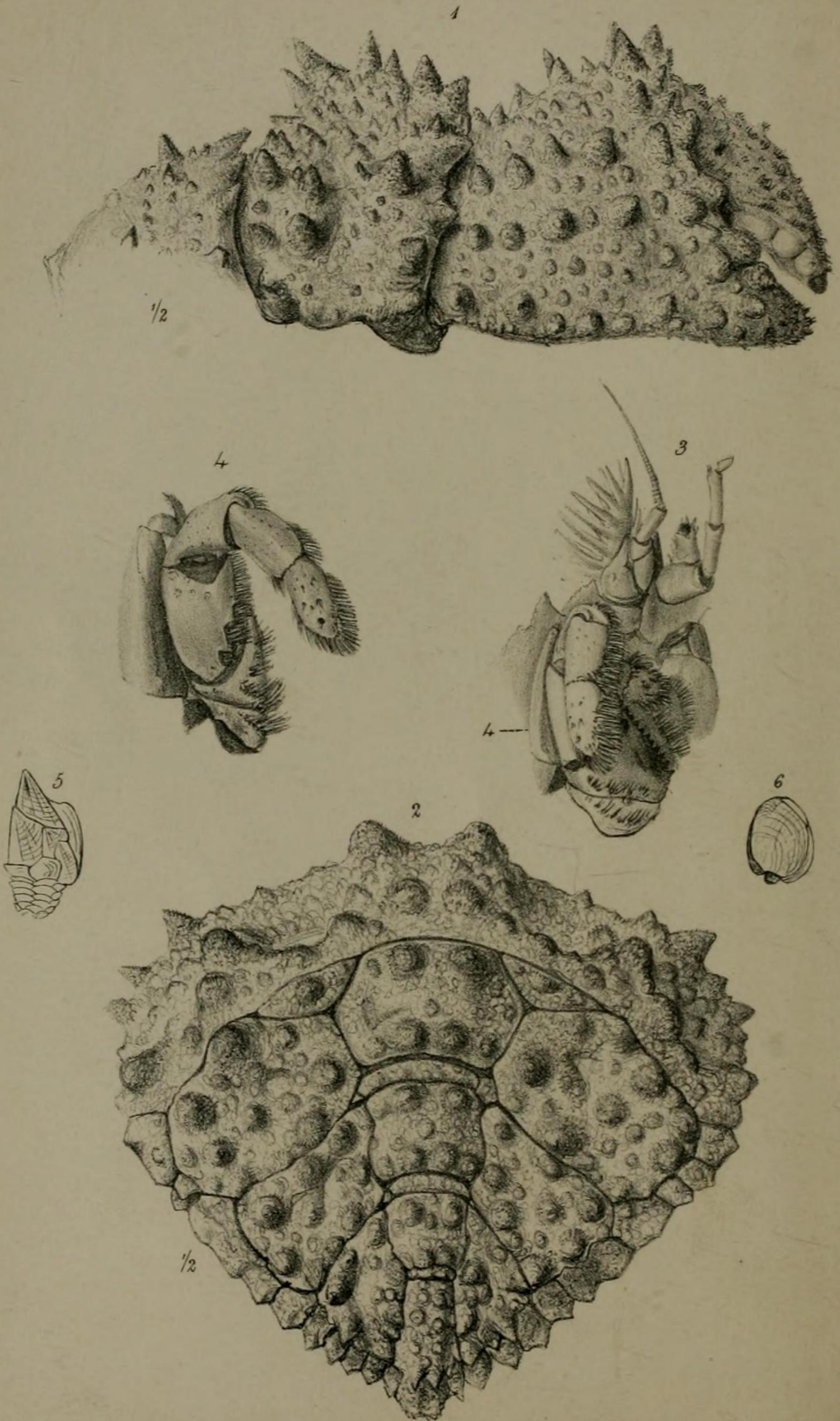




W. Wing del et lith.

Hullmandel & Walton Lithographers.





William Wong del et lith.

Printed by Hallmandel & Walton.

1 to 4. Details of ECHIDNOCERUS CIBARIUS. White.
5. SCALPELLUM ORNATUM. 6. ANATIFA OVALIS.

Posterior wings pale fuscous, with two rounded fuscous spots in the cell; several scattered lituræ of the same colour before the middle of the wing, then two transverse bands also fuscous, followed by a series of seven black spots pupilled with white, the last bipupillate, the second spot the largest: between these spots and the margin a third fuscous band.

Head, thorax and abdomen black.

The beautiful butterfly which I have drawn is I believe unique in my own collection. It was taken by my friend Mr. Empson many years ago in South America, and was one of a very few things—all at that time very rare—which were saved from the shipwreck of a large collection.

Mr. E. Doubleday, whose experience gives him great facility, has kindly supplied me with the generic characters.

2. DESCRIPTION OF *ECHINOCERUS CIBARIUS*, A NEW SPECIES AND SUBGENUS OF CRUSTACEA. BY ADAM WHITE, F.L.S. ETC.

(Annulosa, pl. 2, 3.)

Amongst the Decapod Crustacea there are several genera of doubtful situation which belong to neither of the great divisions *Brachyura* and *Macroura*. Professor Milne-Edwards first brought them together as a section, under the name of *Anomoura*; but, as he remarks, they do not form a very natural group, the principal advantage derived from its formation being the opportunity which it gives the systematist to withdraw all the aberrant species from the two very natural sections specified above. Not a year passes but new species are added to this group, and occasionally a new form is found; in course of time these discoveries will serve to link genera which seem at present to be distant from each other, if at all related. The species described below is close to the genus *Lithodes*, some of the species of which have considerable resemblance to it. The generic name describes the peculiarity of the spined appendage to the outer antennæ, while the specific name is given in allusion to its excellence as an article of food.

In one of the two specimens in the British Museum, the legs, carapace and abdomen are covered with numerous barnacles, and on taking off the old carapace, which had commenced to split, the still coriaceous envelope, which would have formed the new carapace, may be found beneath it. On this are very plainly indicated the crowded warts, the scattered knobs, and lateral projecting spines, which are so prominent on the outer surface of the old carapace. The different regions of the carapace are also clearly distinguished: the body of this new carapace is coriaceous; the warts are more calcareous, and consist for the most part of small irregularly-shaped plates, arranged circularly round a small group of calcareous scales. These groups are of different sizes, from that of the head of a small pin to the space occupied by the top of a tolerably large nail. On a small portion of the carapace, on each side of the middle knob, and

see plates

in two lines directed towards the front, there are distinct portions of calcareous matter already formed, while on the abdominal plates there are still more extensive calcareous portions formed in the corium; the various groups of plates are distinctly visible, most of the scales are perforated, and through the holes in many cases a short hair or bristle protrudes. This new skin is only visible on the carapace and on the abdominal plates.

ECHINOCERUS (LITHODES) CIBARIUS.

Carapace considerably wider than long, subtriangular, very irregular above; the front sinuated, with a large projecting pointed beak springing from the middle, and armed above with three or four spines arising from one knob; the sinus on each side has three spines, the outer one very large and projecting; edge of the carapace more or less spined all round, the spines on the latero-anterior ridges being sharp, those on the latero-posterior and posterior edges being blunt; the latero-anterior and latero-posterior edges separated by a deep notch; general surface of carapace closely covered with tubercles, which are perforated, and furnished with bristles springing from the holes; on the stomachal region there is a high conical projection, the sides of which are comparatively smooth; near the base of this on each side is a smooth somewhat oval wart, with an impressed line behind it; on each branchial region a high conical projection, and another behind the middle of a straight line drawn between the branchial tubercles; the posterior edge of the carapace with two rather large tubercles separated by a slight sinus.

Chelæ with the end of the fingers hollowed out somewhat like a spoon, the edges granulated, the hands with numerous large bristly pointed tubercles on the outside, three of these being on the upper edge; the wrist with a large triangular expansion on the inside, which is spined and tubercled above; second, third and fourth pairs of legs nearly as long as the first pair, and very similar in appearance, but not so thick; the third joint from the tarsus flat on the sides; the upper surface of the legs with large conical bristly tubercles or spines; the spines on the tibial joint arranged in three longitudinal lines; the tarsus spined, particularly on the lower edge; fifth pair of legs quite concealed within the branchial cavities.

Outer antennæ with a large appendage at the base; this appendage is smooth below, and has four longitudinal rows of spines on its upper portion, the lateral rows having the longest spines.

Inner antennæ situated beneath and to the outside of the eyes; the first joint very thick, particularly at the base, subcylindrical; second and third joints cylindrical, nearly equal in length, thickest at the tips.

Eyes close together, placed under the frontal spine; the peduncle is much shorter than, and not nearly so thick as, the basal joint of inner antennæ; the upper side covered with small spines.

Outer jaw-feet resemble those of *Lithodes*, especially in *L. brevipes*.

Abdomen very wide, rounded at the base, triangular at the end, formed of many plates of different sizes, which are close together;

the basal segment is crescent-shaped, and within its sinus are included the other plates, which are arranged in four longitudinal series; the outer series narrow, the other three wide; the plates of different sizes and shapes, with two supplemental plates, one on each side of the central row, and at its base; the plates with rough and bristly tubercles; the first joint of abdomen with two round depressions, the base of each being coriaceous-like, and furnished with only a few small scattered calcareous tubercles; the middle of the hind-edge with four tubercles placed in pairs.

Hab. North America, mouth of the Columbia River; Sir George Simpson. In Mus. Brit.

3. DESCRIPTIONS OF NEW SPECIES OF TURBO, CHIEFLY FROM THE COLLECTION OF HUGH CUMING, ESQ., F.L.S. BY LOVELL REEVE, F.L.S. ETC.

TURBO NATALENSIS. *Turb. testá vix imperforatá, orbiculari, depressiusculá, anfractibus spiraliter sulcatis, sulcis regulariter concavis latiusculis; olivaceo-viridescente, rufo radiatim maculatá et punctatá, intùs argenteá; operculo testaceo, cristato.*

Hab. Port Natal; Wahlberg.

The operculum of this beautiful species is a tufted mass, like that of the *T. sarmaticus*.

TURBO SAXOSUS. *Turb. testá imperforatá, ovatá, spiræ suturis subprofundè impressis; anfractibus supernè concavo-declivibus, medio angulatis, transversim obscurè liratis, tuberculis juxta suturas coronatis, infrà nunc muticis, nunc tuberculis bi-tri-seriatim armatis, laminis subtilibus, longitudinaliter obliquis, peculiariter exsculptis; viridi albimaculatá, intùs argenteá; operculo testaceo, crasso.*

Hab. West Columbia; Cuming.

Having observed this species in a private collection, under the name *saxosus*, in manuscript, I adopt it, though not a very appropriate one, lest it may have been published and escaped my observation. The rows of tubercles are extremely variable, being even more prominently developed in specimens of smaller growth than is here represented.

TURBO LAMINIFERUS. *Turb. testá umbilicatá, ovatá, spiræ suturis canaliculatis; anfractibus subtubulosis, spiraliter costatis, costis distantibus, et, cum interstitiis, pulcherrimè concentricè laminatis, aperturá rotundá; viridi, nigro longitudinaliter undatá, intùs argenteá.*

Hab. Mouth of the Victoria river, New Holland.

A very beautifully sculptured species, allied to the *T. Ticaonicus*, but perfectly distinguished from it, in being of uniformly smaller size, more distinctly and remotely ribbed, and in being concentrically frilled throughout with a close succession of delicate laminae.

TURBO MURREUS. *Turb. testá minutá, suborbiculari, vix umbilicatá, lævigatá, politá, albá, roseo nitidè maculatá.*

Hab. —?

A minute, delicately coloured, porcelain shell.

2.12.48