

ting filaments, or, as in *Chondrus*, *Gymnogongrus* and *Phyllophora Stiridia* (*l. c.* t. 16. fig. 5 *d* and 5 *e*), derive their origin from the metamorphosis of the endochromes of these filaments; 3. a form of fructification which may possibly be merely a modification of the former, in which the endochrome, suffering a normal hypertrophy, is not divided as a tetraspore, and presents an analogy to what one meets with in certain conceptacula. However this may be, one must allow that the organs in question are true spores, since they are exactly like those of the species with which I have compared them as regards their mode of reproduction. I ought to add, that Mr. Harvey has seen something like this in the nemathecium of *Phyllophora Brodiaei*, but he does not say whether it is in the same nemathecium which incloses the tetraspores, which would make a great difference.

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XIX.—*Note on the genus Atya of Leach, with descriptions of four apparently new Species, in the Cabinets of the British Museum.* By G. NEWPORT, F.R.S. &c.

[With a Plate.]

Fam. MACROURA, *Latr.*, *Leach.*

Gen. *Atya*, *Leach.*

WHEN Dr. Leach described this genus of Macrourous Crustaceans, he was acquainted with only one species. There are four specimens of this in the cabinets of the British Museum, but nothing whatever is known of their habits, or from whence they were obtained. M. Milne Edwards, in his work on Crustacea, states that *Atya scabra* is from the coasts of Mexico. A species described in Wiegmann's 'Archives' for 1836, *Atya mexicana*, is from the same country. Whether this is identical with Dr. Leach's species is not ascertained. Two new species have since been added to the collection in the British Museum, one from Jamaica and the other from the Philippine Islands. I have myself received two others, presented to me by my friend Dr. M'William, R.N., the indefatigable officer of the Niger Expedition, to whose kindness I am also indebted for other valuable specimens of natural history. These *Atyas* are now in our national collection. One of them, a small species, is from New Zealand. This is a female with an abundance of ova attached, and near the period of hatching: it was found in brackish water at Apia, Upoln, nine miles inland. The other species is of the size of Dr. Leach's *A. scabra* and very closely resembles it, so that it may prove to be only a variety of it; but it seems to differ from Dr. Leach's species in having the legs slightly sulcated, and the middle plate

of the tail has a deep triangular sulcus, and the antennæ are not more than one-half the length of the body. It was captured by Dr. M'William in fresh water, 300 feet above the level of the sea, at San Nicolao, Cape Verd Islands. This fact, and that of the New Zealand species inhabiting brackish water, seem to show a natural affinity in habits as well as in structure with the genus *Astacus*, as well as with *Crangon*; the latter being a truly marine genus, while the former includes both freshwater and marine species.

Genus *ATYA*, Leach.

1. *A. scabra*, Leach, Linn. Trans. vol. xi. p. 345; Zool. Misc. iii. p. 29. Feb. 1831.

2. *A. mexicana*, Wieg. Archiv, 1836, 145.

3. *A. sulcatipes*? Newport. Pl. VIII. fig. 1.

Body compressed, deep; thorax slightly pubescent, with the rostrum short, trifid; third pair of legs very strong, and, together with the fourth and fifth, covered with obtuse elongated tubercles, armed with short stiff hairs; the femoral joints rounded, subclavate, with an oblique sulcus on the anterior lateral surface of each extended to the front of the tarsal joint; middle plate of the tail with a deep triangular sulcus. Length in recent state 3 inches.

*Hab.* in fresh water, San Nicolao, Cape Verd Islands. In the collection at the British Museum.

4. *A. occidentalis*, Newp.

Thorax, abdomen and first two pairs of feet smooth; rostrum conical, with its sides subangulated; third pair of legs the largest, but somewhat slender, and with the fourth and fifth pair covered with smooth obsolete tubercles without hairs, tarsal tubercles slightly elongated. Length  $1\frac{3}{4}$  inch.

*Hab.* West India Islands.

There are four specimens of this distinct species in the British Museum; they were taken by Mr. Gosse in Jamaica. The species seems to be common to the West India Islands, and appears to be that which is figured and described, but not named, by Gronovius, tab. 17. fig. 6. p. 231. No. 988 of 'Zoolophylacii Gronoviani,' fasc. secund. Lugd. Batav. fol. 1764, in which it is said—"Habitat in Oceano Americano ad Martinicam."

5. *A. spinipes*, Newp.

Thorax and body smooth; rostrum conical, simple, with an acute median ridge; third pair of legs with the femoral joints almost smooth, slightly elongated, with an oblique furrow on the anterior external surface, and armed in front with a long acute spine, and with a second smaller one more posteriorly; tibial and

tarsal joints equal in length with minute tufts of hairs. Length  $1\frac{3}{4}$  inch.

*Hab.* Philippine Islands. One specimen in the British Museum, from the collection of Mr. Cuming.

6. *Atya pilipes*, Newp.

Body smooth; rostrum simple, triangular, very short, with a slight median ridge; fourth and fifth pairs of legs nearly equal; femoral joint with an oblique sulcus on the external surface, fringed with a margin of dense fine hairs. Length  $1\frac{1}{2}$  inch.

*Hab.* Apia, Upoln, New Zealand. One specimen in the British Museum cabinet. I have been unable to derive characters for this species from the third pair of legs, both these being absent.

XX.—*Notes on a Dredging Excursion off the coast of Durham; with descriptions of the Ova-Capsules of Fusus Norvegicus and F. Turtoni.* By Mr. RICHARD HOWSE.

[With a Plate.]

ON the 29th of last June I sailed from Staithes, a fishing hamlet on the Yorkshire coast, in one of the fishing luggers which during the summer months visit the inner or western edge of the Dogger-bank. I made this marine excursion for the purpose of examining the Invertebrata of that much-frequented fishing-ground, and therefore went prepared with a dredge and the other necessary apparatus for collecting.

Unfortunately the weather was most unfavourable, the wind blowing a gale from the west. We were driven about from Monday, the day on which we sailed, till Wednesday morning without being able to use the dredge; during the latter day, however, we had three hauls with it, but had no other opportunity of putting it down. The wind freshening towards evening we were obliged to leave off dredging, and on the following morning steered for the shore, which we reached in the afternoon.

The little dredging we had was in sixty fathoms water, on a fine, gray, sandy bottom, about fifty miles east of the coast of Durham, and about the same distance from the western edge of the Bank. The result, though small, was more satisfactory than under such unfavourable circumstances I had any reason to expect.

The following mollusks were taken: a few specimens each of *Fusus antiquus* and *F. Islandicus*; a beautiful specimen nearly an inch in length of *Fusus Barvicensis*; one of *F. ? lineatus*; speci-

Remoue to p 146.

