*rotundatis, supra planulatis, in medio cingulâ bituberculatâ, infernè cingulis nodulosis ornatis; aperturâ rotundâ; labio purpureo tincto, labro intus lævigato; umbilico profundo, callo columellari subobtecto.*

*Hab.* ad Fretum Mosambicum. (Mus. Cuming.)

6. Modulus duplicatus, A. Adams. *M. testâ orbiculato-conicâ, umbilicatâ, cærulescenti, fusco variegatâ, spirâ prominulâ, acutâ; anfractibus planulatis, transversim sulcatis, ad peripheriam cingulis duabus tuberculorum compressorum ornatis, tuberculis rufo-fusco maculatis, infimâ fasciâ convexâ, concentricè sulcatâ; aperturâ intus violascenti; labro margine angulato, intus lirato; umbilico mediocri.*

*Hab.* ——? (Mus. Cuming.)

7. Modulus obliquus, A. Adams. *M. testâ orbiculato-conicâ, perobliquâ, albâ, umbilicatâ, spirâ depressâ; anfractibus subplanulatis, liris transversis, elevatis, supra radiatim nodoso-plicatis, ultimo in medio angulato, carinâ prominulâ instructo, infra cingulis transversis elevatis numerosis ornato; aperturâ rotundâ; columellâ roseo tinctâ; labro intus lirato.*

*Hab.* Mare Rubrum. (Mus. Cuming.)

Eglisia Cumingii, A. Adams. *E. testâ turritâ, solidâ, albidâ, longitudinaliter fusco-flammulatâ; anfractibus rotundatis, cingulis acutis, transversis (in anfractu ultimo sex), lineisque elevatis, transversis, interpositis, ornatis, interstitiis longitudinaliter tenuissimè striatis, varicibus tenuibus, longitudinalibus, inæquidistantibus, instructis; aperturâ rotundatâ, peristomate continuo, labio incrassato, anticè producto, calloso, et reflexo; labro simplici, acuto.*

*Hab.* Japonia. (Mus. Cuming.)

The obscure longitudinal varices show the true position of this genus to be between *Turritella* and *Scalaria*.

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## MISCELLANEOUS.

### *A Description of some of the Objects which cause the Luminosity of the Sea.* By Charles William Peach, of Peterhead, N.B.*

[With a Plate.]

There is pleasure in knowing, even when far distant from a spot where so many bright days of our existence have been spent, and where so many valued friends reside, that institutions with which we are connected are still in existence, and to feel that a link of that chain which has so long held us together is still in our possession, and that the time is fast approaching when those kindred spirits will be assembled at one of their annual gatherings, to whom that link,

* Communicated by the Author; having been read at the last Annual Meeting of the Royal Institution of Cornwall in 1850.

though ever so small, will prove acceptable. Impressed with that belief and under such feelings, I have resolved to give you the last of the observations I was enabled to make, on the luminous objects which presented themselves to my notice before I left Fowey for this distant spot: I have only to regret that they are so few, still I trust they will not be altogether uninteresting. I shall first continue my journal-like form.

| Date 1849. | Sea. | Animals, &c. | Weather, &c. |
|---|---|---|---|
| Nov. 8th & 14th. | Luminous. Very ditto. | Sagitta ——. Thaumantias octona. T. inconspicua. Mysis, and other crustaceans; very abundant indeed. | Very unsettled indeed; at times cold, then hot; now wet, then dry; in fact, very unstable. Herrings the whole time plentiful in the harbour. |
| Nov. 30th, 11 P.M. | Luminous. | Some few crustaceans which twinkled in the shade of the boat and vessels. | *Full Moon.* — Bright, clear, with occasional black clouds and showers. A most splendid lunar rainbow, colours bright. I never saw one so brilliant, although I have seen many, both from fog and rain, when I was a night-wanderer. |

The objects figured in the accompanying sketches I observed at different times when the sea was luminous, and the whole of them added their twinkle to the illuminations. I am not aware that any have been noticed before as occurring in Cornwall.

Plate XVII. figs. 1–3.—A Sagitta, very glass-like and perfectly transparent, and consequently most difficult to see; it moves by jerks; the head has two fin-like appendages, one on each side; the eyes small, black and square, scolloped on the outer edges. I could distinctly see the working of the jaws.

Fig. 4.—One of the same kind. I obtained it in a small quantity of sea-water, which Mr. Forbes, artist, of Invernettie, near Peterhead, N.B., took up for the sake of the exuviæ of a Balanus. It was a trifle larger than the Cornish ones, and had two rounded pieces in front of the tail-fin, one on each side. As well, I was able to see the double circulation going on in the tail—(see the direction of the arrows in the sketch)—the circulating medium was granular, slightly coloured brown, and passed upwards in a narrow stream, on the outer sides of the tail, until reaching the body, then turned down again on each side of a line in the centre of the tail, until again joining the mass from whence it started. The granules left the lower part at first by one or two at a time, but soon got into a dense stream. I understand this animal has been fully described in the 'Magazine of Natural History.'

Figs. 5 & 6.—Has occurred to me twice, and is probably the early state of an Annelide; it was very active, nearly transparent, divided

into eighteen segments, with a yellowish line down the centre of the whole and which was much darker towards the tail; on each segment were two dark spots; and long fine pointed hairs extended the whole length of the animal beyond the tail. The head had much the appearance of a cat, and my youngest boy, with child-like simplicity, called it "the little sea-cat," and would not let me rest until I had sketched it. The head was divided into three parts, the centre one being raised; on each side of this raised part were the crescent-shaped dark eyes, large in proportion to the animal; between the eyes three small dark spots; on each side of the snout were whisker-like appendages, spoon-shaped at the end; on each cheek a fan tipped with pointed hairs, which with the whiskers moved at times rapidly; at the hind part of the head two hoop-like ears—these also moved freely. It had, as well, short hairs on the tail, broadest at the outer end; these, as well as those on the head, were in rapid motion whenever the animal moved about, but quiet when it was at rest.

Figs. 7–9.—*Thaumantias lucifera*, which by some means had got into contact with a Sagitta. Whether it had employed the Sagitta to remove a bone which it had in its throat, after one of its delicate repasts, as the wolf did the crane, or not, I am unable to say: if so, he was not so honourable as the wolf; for despite of all the exertions of the Sagitta to free itself, and although the swallower's stomach was turned outwards in the struggle, he still refused to let him go; and the only difference that I could see was, the lips were pressed tighter round the head of his mouthful than before; for I frequently saw him, previously to the turn-out, smacking his lips, as if like the smoker of the present day he was enjoying his cigar: no doubt the dread of separation rendered this tight embrace necessary, having met with a very rough customer. This appears to me to be a proof positive that the Medusæ prey upon other animals, and hesitate not to attack those of large size, if they fall in their way; for I cannot believe this intrusion into the stomach of the Medusa arose from any Paul-Pry accident on the part of the Sagitta. It was a fearful struggle, maintained with great obstinacy on both sides, and which I watched for a quarter of an hour. I left them still locked, at 2 A.M., hoping at daylight to see the result of the affair, but found the vanquisher and the vanquished had vanished, and left only a very minute granular wreck behind. This rapid destruction is not uncommon among the minute objects which swarm in the sea; for as soon as the least weakness or sign of decay takes place, the still smaller scavengers fall upon them, and in a very short time all trace of them is lost—so abundant and so voracious are these sweepers.

## TIME OF SPAWNING OF BRITISH CRUSTACEA.

*To the Editors of the Annals of Natural History.*

GENTLEMEN, Weymouth, Nov. 3, 1851.

I INCLOSE you a table of data which may probably assist in determining the times of spawning of twenty-four species of Crustacea taken at Weymouth. I have taken many other species, and many other specimens of the species of which I now inclose the list, but not one