

tened, terminating without any caudal fin whatever, although dead and dried specimens may wrinkle so as to resemble rays at the tip of the tail.

It is difficult to account for the difference in Montagu's statement of thirty-six plates in the tail, Dr. Kaup stating sixty-eight to seventy, and our specimen numbering quite sixty-six. However, in other respects Montagu's description agrees very correctly:—in the number of plates from the gills to the vent (thirty); in the colour and markings,—transverse pale lines and dark margins, one on each joint and one other down the middle of each plate, giving it the appearance of possessing double the number of joints on the body that it really has; the markings also, as in Montagu's species, cease at the tail, or, at all events, become so much fainter as to be almost undistinguishable. The dimensions, proportions of the head, body, and tail, are also the same as Montagu's.

The introduction of a plant of *Halidrys siliquosus* was suggested by our Curator, from the circumstance of a common Pipefish (*Syngnathus acus*) having been not unfrequently found lurking amongst the tufts of this species of Alga.

Yarrell's figure conveys so imperfect an idea, that I am induced to give a coloured drawing of our specimen taken from life (Pl. XII.).

XLIII.—*On the Chylaqueous Fluid of the Actiniæ*.

By G. H. LEWES, Esq.

To the Editors of the Annals of Natural History.

GENTLEMEN,

Richmond, Nov. 6, 1858.

Absence from England has prevented me from earlier seeing the very interesting communication made by Mr. Gosse in your March Number, p. 172, respecting the so-called "chylaqueous fluid" of the Actiniæ.

In my 'Sea-side Studies,' pp. 257 *et seq.*, I recorded the results of numerous observations which showed that in the peritoneal fluid of the Actiniæ albumen was *not* a constant, necessary ingredient, because treating it with nitric acid did not produce that milky aspect which would reveal the presence of albumen; and, further, that there were *no* constant morphotic elements, such as could pass for the early form of blood-disks. These observations were confirmed by Mr. Couch, who ingeniously devised the precaution of first emptying the fluid from the Actiniæ, and then placing them in *filtered* sea-water. The value of this experiment seems to me considerable, inasmuch as it excludes the chance of albumen, or albuminous corpuscles, in

the water passing thence into the cavity of the Actinia, and assures us that whatever is then found in the Actinia will have been *formed* in it.

Mr. Gosse's observations are directly contradictory of ours. He found the fluid always presenting a milky reaction, except once, and always presenting definite morphotic elements. I regret that he did not also employ Mr. Couch's precaution of filtering the water; it would have given more weight to his objections. Nevertheless, as the matter now stands, a glaring contradiction needs to be reconciled. Mr. Gosse, justly enough, places entire reliance on his results; but he cannot object if I still place reliance on the negatives reached by Mr. Couch and myself, until they are satisfactorily explained. Perhaps some of your readers may feel interested enough in the question to examine it carefully and furnish materials for a decision. I am at present too busily engaged in other researches to repeat the observations with the requisite caution.

The problem to be solved is this:—Can albumen be detected as a *constant* ingredient? Are there any *constant*, definite morphotic elements capable of being received as incipient blood-disks, or chyle-corpuscles?

The mere *presence* of albumen, or of corpuscles, is what *à priori* would be expected: but this proves nothing; for animalculæ are equally present, and various other substances. It is the *constancy* of albumen and corpuscles—and this alone—which can have any physiological import in the present question.

Mr. Gosse very properly criticises an expression of mine respecting the yellow spheres "which make *solid* the tentacles of the *Anthea*,"—an unhappy word, certainly; but it was meant to convey an idea of the greater consistence of the tentacles in *Anthea*, in consequence of which, as I conceive, the tentacles are but slightly retractile. Inasmuch as I had elsewhere described the tentacles as "tubes," it is clear that by calling those of the *Anthea* "solid" I used an inaccurate expression, but could scarcely have meant more than that the spherules lined the tubes.

I remain, Gentlemen,

Yours truly,

G. H. LEWES.

XLIV.—*Descriptions of new Ceylon Coleoptera.*

By JOHN NIETNER, Colombo, Ceylon.

[Continued from page 183.]

AMONGST the 300 species of *Bembidiidæ* which have been described from almost all parts of the world, with the exception



Lewes, G H. 1858. "XLIII.—On the chylaqueous fluid of the Actiniæ." *The Annals and magazine of natural history; zoology, botany, and geology* 2, 417–418.

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