

PSEUDOCUCUMIS ACICULA. (Plate XVI. fig. 5.)

A single specimen of this rather rare species, the spicules of which I have had figured, as their representation seems to be more satisfactory than those of Prof. Semper.

MUELLERIA MILIARIS.

Some of the specimens which I associate under this name differ from *M. lecanora* in that the region of the anus is not lighter than the rest of the dorsal surface; on the other hand, the sharp distinction between the dark brown of the bivial and the light colour of the trivial surface is an indication of affinity to *M. lecanora*. Considering the closeness of the resemblances and the slightness of the differences between *M. miliaris* and *M. lecanora*, I feel inclined to suggest that the species should be united. One specimen is of a uniform chocolate-brown colour.

HOLOTHURIA ALBIDA. (Plate XVI. fig. 6.)

Body elongated, tapering somewhat at either end; tentacles darker (? twenty); suckers sparse, scattered. Body-wall thin; œsophageal ring very feeble; Polian vesicle double; lungs poorly developed. The specimen examined had no genital tubes.

The largest specimen was 180 millim. long, had a greatest width of 35 millim., and was 18 millim. wide in the region of the anus.

The flat plates are very irregular in form; the turriform bodies have a single connecting bar, and are knobbed at the narrower end, or where the bar is developed; at the wider end there are also knobs, and these are surrounded by rather coarse spines (Plate XVI. fig. 6).

The position of this species in the keys of Lampert cannot as yet be exactly determined, owing to the retracted condition of the tentacles; it clearly belongs to the group of "Aspidochirote Formen mit Stühlchen und glatten Schnallen," and those in which the Schnallen are irregular. Like *H. immobilis*, it has two Polian vesicles; but it differs in colour, in the arrangement of its suckers, and the form of its spicules. Like *H. pardalis*, it has a number of regular plates, but it wants the characteristic marking of that species, and is of much larger size than any known examples.

HOLOTHURIA CADELLI. (Plate XVI. fig. 7.)

Body rounded, tapering posteriorly, dark above, lighter below; prickly papillæ, not so numerous or prominent as in *H. squamifera*, frequently but not always with a white circular base. Body-wall thin.

Tentacles (retracted); œsophageal ring small and inconspicuous, the anterior region so contracted that the disposition of the Polian vesicles cannot be certainly made out. Cuvierian organs in the form of rather numerous stout cæcal tubes from half to one inch in length. Lungs well developed. Genital tubes numerous and extensive.

The flattened spicules are (Plate XVI. fig. 7) of the type of those found in *H. albiventer*, but the knobs are more numerous, and

there are more than three pairs of holes; from that species it is to be at once distinguished by the absence of the remarkably modified turciform spicules. On the whole, it stands nearest to *H. scabra*, but is distinguished by its speckled and less dense integument, and the absence of the median ventral groove. A specimen 160 millim. long has the greatest circumference 40; one 140 millim. is only 10 millim. round at the anus.

Three smaller specimens differ from the more matured, two by a larger amount of orange in their coloration, and the third by the greater stiffness of the skin.

HOLOTHURIA MARMORATA.

I have had great difficulty in coming to a definite conclusion as to the name to be given to the specimens now associated as *H. marmorata*; the complete absence of a circular disposition of the pigmentation prevents their association with *H. argus*; on the other hand, the comparatively small size of the œsophageal ring is against their affinity with *H. marmorata*. I believe the fact of the matter is that Dr. Théel is justified in his supposition that these two species and some others are but varieties or various stages of a variable and widely distributed species which grows to a great size.

HOLOTHURIA PAPILLATA. (Plate XVI. fig. 8.)

Twenty tentacles. Body elongated, may be wider in its hinder than in its two anterior thirds; prominent scattered dorsal papillæ, which are larger and more closely packed anteriorly than posteriorly; five or more small papillæ around the anus.

Suckers on central surface only, arranged in two irregular rows, which unite posteriorly; each sucker is placed on a yellowish papilliform process. Colour dark slate-grey above, lighter below.

Body-wall thin, the parts of the œsophageal ring are small, the ampullæ long; one large Polian vesicle. Genital tubes short and numerous. Apparently no Cuvierian organs. The only calcareous deposits are in the form of stools (Plate XVI. fig. 8).

Notwithstanding these numerous negative characters, the large size and well-developed papillæ must make this a very conspicuous species.

It may be 280, 320 long, and 60, 80 millim. broad.

EXPLANATION OF PLATE XVI.

Figs. 1-3. *Moiria stygia*, $\times 1\frac{1}{2}$.

Fig. 1. With spines, and from the side.

2. Test denuded, to show the arrangement of the plates.

3. Test from above, to show the disposition of the ambulacra.

4. Spicules of *Haplodactyla andamanensis*.

5. Spicule of *Pseudocucumis acicula*.

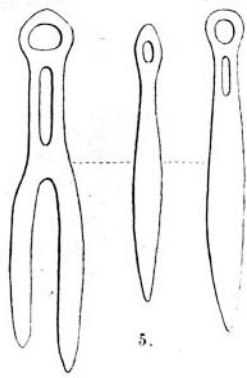
6. Spicules of *Holothuria albida*.

7. Spicules of *Holothuria cadelli*.

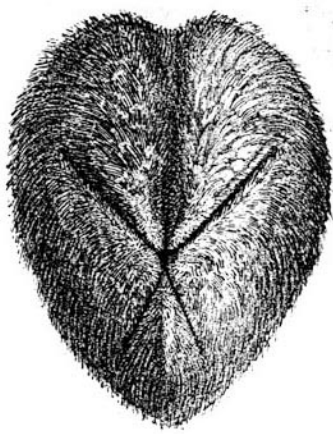
8. Spicules of *Holothuria papillata*.

Figs. 4-8 $\times 500$.

1.



5.



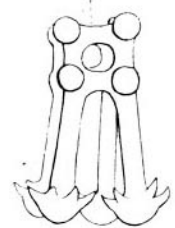
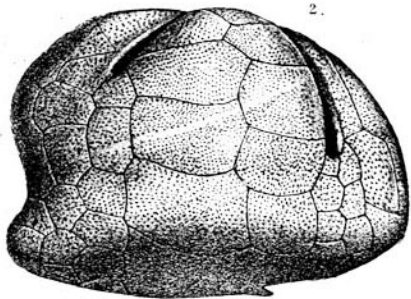
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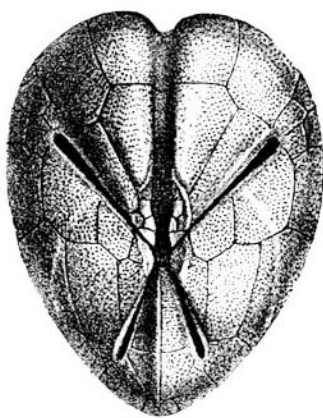
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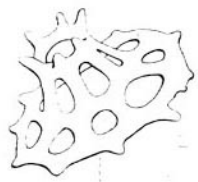
2.



6.



3.



8.

