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*On some Actiniaria from the Indian Seas. By A. ALCOCK, M.B.,
C.M.Z.S., Offg. Superintendent of the Indian Museum.*

[Read July 5th.]

In this short paper I propose to notice only the two aberrant Tribes, *Zoanthææ* and *Cerianthineæ*.

I. ZOANTHÆÆ.

The *Zoanthææ* are a tribe of sea-anemones distinguished, according to the limitations of R. Hertwig in his Report on the 'Challenger' *Actiniaria*, where full references are given, by the possession of septa of two kinds—larger septa (*macrosepta*) which alone bear mesenteric filaments and reproductive organs, and smaller septa (*microsepta*) which are sterile.

The *Zoanthææ* include two families—the *Zoanthidæ* which are peculiar among all sea-anemones in forming colonies of which the units are connected together by a canaliculated coenenchyma, and the *Sphenopidæ* which are solitary in the sense that the individuals are not morphologically connected, but appear to be gregarious in habit.

The majority of the *Zoanthææ* are characterized by the possession of a thick test very homogeneously compacted of small grains of sand.

The following genera and species occur in the Indian Seas, and are represented in the collection of the Indian Museum :—

FAMILY Zoanthidæ.

ZOANTHUS, Cuv.

1. *Zoanthus confertus*, Verrill.

This species was dredged by the "Investigator," the exact locality being uncertain, but probably off the Pegu coast.

2. *Zoanthus solanderi*, Lesueur.

This species occurs at Galle.

EPIZOANTHUS, Verrill.

3. *Epizoanthus stellaris*, R. Hertwig.

Two species of *Epizoanthus* very commonly occur in the Andaman Sea, at depths of 200 to 500 fathoms, encrusting the anchor-ropes of the glass-rope sponges (*Hyalonema*): one of them appears to be identical with the above-named species from the Philippine Sea.

FAMILY Sphenopidæ.

SPHENOPUS, Steenstrup.

4. *Sphenopus marsupialis*, (Gmelin).

This species is very common in shallow water all along the eastern coast of India, especially on the soft muddy bottom at the debouchement of the great rivers.

I can never recollect dredging it except in mass, and this seems to point to the conclusion that it is gregarious.

5. *Sphenopus arenaceus*, R. Hertwig.

We have six specimens from the Sandheads.

It is readily distinguished from *S. marsupialis* by the cylindrical body, by the thinner test, by the double row of tentacles, by the less powerful oral sphincter, and by the character of the œsophageal groove which although very distinct is not such a deep-cut channel as it is in *S. marsupialis*.

6. *Sphenopus arenaceus*, var. *barnettii*.

I propose to notice separately a variety in which there is a constant difference in external form, the oral end of the body being inflated, while the lower part forms a long vermiform peduncle. The external appearance, in short, approaches the figure of *Sphenopus pedunculatus*, Erdmann, R. Hertwig, in vol. xxvi of the 'Challenger' Reports Actiniaria, Suppl., Pl. I., fig 11.

The variety comes from the Sandheads, where it was dredged by Mr. Barnett.

II. CERIANTHINEÆ.

The *Cerianthineæ* are distinguished from other sea-anemones (R. Hertwig, 'Challenger,' Reports, vol. VI, p. 123) in having the septa unpaired.

CERIANTHUS, Delle Chiaje.

7. *Cerianthus andamanensis*, n. sp.

The body is loosely encased, up to the outer tentacular crown, in a soft sheath of a dull cinnamon-brown colour, the oral disk between the two crowns of tentacles is of the same colour but lighter, and the tentacles with the central part of the oral disk are creamy white.

The tentacles of the outer crown are very thick-set, and number about 160; those of the inner crown are not nearly so thick-set, and number hardly half as many.

The septa and mesenteric filaments extend to the bottom of the gastral cavity.

The base is perforated centrally.

Three specimens from Port Blair. In the contracted state the shape of the body is beautifully caryophyllaceous, and the length of the largest specimen is a little short of four inches—(99 millim.) This species appears to be very close to *Cerianthus americanus*, Verrill, which it approaches in size, judging from the magnitude of the spirit specimens.

Note on some methods of preparing botanical specimens, communicating Memoranda by MESSRS. C. MARIES, F.L.S., and R. PANTLING.—By D. PRAIN, M.B.

[Read June 5th.]

Usually the preparation of botanical specimens is easy; some natural families, however, give a good deal of trouble. Those who have private herbaria are as interested to hear of improved methods of treating such families, as are those who look after public collections. The writer, therefore, would call general attention to modes of dealing with three troublesome families—*Magnoliaceæ*, *Coniferæ* and *Orchidaceæ*.

I. MAGNOLIACEÆ. The *Champak* family is not troublesome to preserve as to the leaves, but the flowers are apt to go to pieces. If, however, pieces of blotting-paper are carefully insinuated between the petals before the specimen is laid in drying-paper, and if the specimen is then rapidly fire-dried, even adult flowers may be preserved entire. Nothing, however, prevents the shrinkage of the large leathery petals. In this order shrinkage is so excessive and so unequal, that in the case of



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