end. It does not completely traverse the mesoglæa, but leaves free on either side a homogeneous layer, which in its turn is bounded by a stripe reaching to the commencement of the oral disc, and carrying the usual hard deposits."

Sphenopus arenaceus, R. Hertwig.

Habitat.—Station 187, Torres Strait, Australia, September 9, 1874; 6 fathoms. Two specimens.

Sphenopus marsupialis, Steenstrup.

Habitat.—(a) Station 188, in the Arafura Sea, September 10, 1874; 28 fathoms. One specimen. (b) Station 208, Philippine Islands, January 17, 1875; 18 fathoms. One specimen.

In the Challenger material I have found four further examples of the genus Sphenopus; two of these I have determined as Sphenopus arenaceus on account of their rusty red tint, and other two as Sphenopus marsupialis, in consequence of the earthy-grey colour and the absence of a stalk. It seems to me, however, desirable that, with an opportunity of more abundant and fresh material, a renewed study should be undertaken to decide whether the received specific characters are variable, and whether all three species should not be united in the single Sphenopus marsupialis.

## APPENDIX TO THE ZOANTHEÆ.

Genus Stephanidium, n. gen.

Among the Zoantheæ I include with some reserve a genus which is represented by a single species, and has thus been insufficiently investigated. It differs from the characteristic forms of Zoantheæ in the absence of incrustations, and the non-formation of a colony. Both characteristics, however, may be absent in true Zoantheæ, e.g. the soft-skinned Zoanthus and the solitary Sphenopidæ. Of more importance is the fact that, in spite of careful study, I have not yet been so fortunate as to demonstrate beyond all doubt the decisive characteristic of Zoantheæ, namely, the regular distribution of microand macro-mesenteries. I consequently omit to give separate diagnoses of the species and genus.

Stephanidium schulzii, n. sp. (Pl. I. fig. 14; Pl. III. figs. 1, 7).

Habitat.—Station 209, off Zebu, Philippine Islands, January 22, 1875; 95 fathoms. Dimensions.—Breadth, 1.5-2.2 mm.; height, about 1.0 mm.

Some Actiniæ were forwarded to me by Prof. F. E. Schulze, found among the Hexactinellidæ entrusted to him for description; they were mainly small, insufficiently characterised forms, which I did not care to investigate; but among them occurred five