

species or whether *Epizoanthus papillosus* and *Epizoanthus cancrisocius* are identical with *Epizoanthus parasiticus*.

Family SPHENOPIDÆ.

Solitary Zoantheæ with the posterior end of the body rounded.

Sphenopus, Steenstrup.

Sphenopidæ with thick wall, the uppermost layers of which are encrusted with sand granules; with strong mesodermal sphincter.

Gray, in his system of the Zoantheæ (Proc. Zool. Soc., 1867, p. 236), has erected several genera, in which the individual polyps remain solitary, and are either firmly attached to the bottom or stick in the sand by means of the rounded body-end, viz., the genera *Isaurus*, *Pales*, *Orinia*, and *Sphenopus*. As no thorough anatomical studies have been made as yet of all these forms, it is doubtful in the meantime whether they ought to be placed among the Zoantheæ or not. *Sphenopus* is the only one of which I can affirm that it belongs to the Zoantheæ, as the macrosepta and microsepta are visible in regular order, and the œsophagus has only one œsophageal groove.

Sphenopus arenaceus, n. sp. (Pl. II. fig. 10, Pl. XIV. fig. 8).

The greater part of the wall is encrusted with sand granules, and so transformed into a kind of carapace; tentacles small and pointed, about sixty in number, distributed in two rows; thirty macrosepta and the same number of microsepta.

Habitat.—Cape York. (? The title of the label enclosed with the preparation was nearly entirely destroyed by the rough surface of the animal, and could not be exactly made out.) One specimen.

Dimensions.—Length, 4.5 cm.; breadth, 2.8 cm.

Colour.—(Determined from the spirit specimen) brown-red.

The wall of *Sphenopus arenaceus*, a new species, which I erect here from a single specimen among the Challenger material, is encrusted with foreign bodies to a degree which I have never found in any other Zoanthea; it forms a firm unyielding capsule, in which the soft parts are completely concealed when the animal is strongly contracted. The form of the *Sphenopus* then becomes irregularly oval, rather smaller at the rounded posterior end of the body than at the anterior. The wall is inverted a little way at the anterior end, though its nature does not undergo any change.

The surface is regularly rough like shagreen, as the sand granules are nearly all of equal size. The granules force their way so deeply into the wall that only a thin layer of soft tissue remains on the endodermal side; it is broadest in the front, and becomes narrower as it runs backwards, till the wall at the aboral body-pole consists almost entirely of