

a rather thick integument, containing numerous small, irregular, reticulate cups and spheres, the latter barrel-shaped, sparsely provided with bars, so that the meshes become large; the former made up of a much closer network with smaller, more irregular meshes, and with the spinous opening closed by spinous bars. The sole seems mostly to have cups or rather flattened hollow bodies made up of an irregular network, and with spines in the outwardly directed surface. Only a few of the large dorsal scales have distinct pores, which possibly are in communication with the ambulacral system (?), and, if it be so, we have an example in a *Psolus* with dorsal papillæ. The retractor muscles are united to the longitudinal muscular bands by a muscular membrane just as is described by Selenka in *Psolus cataphractus*.

The following two species are very incompletely described and impossible to identify:—

Psolus appendiculatus (*Holothuria*), Blainville, 1821 ; Jæger, 1833.

Habitat.—Mauritius (Blainville, Hoffman).

Psolus forbesii, Couch, Peach, 1845.

Habitat.—British Islands (Peach).

The great conformity in internal and external organisation makes it impossible, for the present, to point out any true characters distinguishing the greater part of the species of this genus. It represents a very interesting group of Holothurians on account of the numerous transitional forms which unite the extremes. One may question whether all the forms characterised by the possession of only two lateral series of pedicels are anything else than varieties of one species.

Subfamily 3. SPORADIPODA.

Ambulacral appendages, almost without exception, in the shape of pedicels, scattered all over the body; seldom an arrangement of them in rows distinguishable. Tentacles ten to twenty. Calcareous ring of ten pieces, which are simple or compounded of smaller parts; the five radial pieces often prolonged and bifurcate posteriorly.

Genus 9. *Thyone*, Oken, 1815 ; Semper, 1868.

Tentacles ten, two ventral smaller. Pedicels more or less crowded all over the body; very seldom an arrangement of them in rows along the ambulacra discernible.