

I. Tentacles twenty-five.

Synapta kefersteinii, Selenka, 1867 ; Semper, 1868.

Tentacles with thirty to eighty digits. A broad cartilaginous ring present. Numerous Polian vesicles. A single madreporic canal. Anchor-arms smooth. Anchor-plates with six larger dentate holes, and three larger and some small smooth ones at the handle. Miliary granules—small irregular rods or incomplete rosettes.

Habitat.—Sandwich Islands (Sel.) and Navigators' Islands (Semp.).

Among the Holothurians preserved in the State Zoological Museum in Stockholm I have found the anterior portion of a *Synapta* obtained from Navigators' Islands. It has twenty tentacles, two or three of which are slightly smaller, each furnished with as many as twenty-five digits on each side. The calcareous deposits, the numerous Polian vesicles, the cartilaginous ring, the single madreporic canal, &c., completely agree with those of *Synapta kefersteinii*. On account of the number of tentacles, I at first believed the animal in question to be a specimen of *Synapta tenuis*, but on closer examination it became apparent that it presented in many respects the most obvious resemblance to *Synapta kefersteinii*. So far as is known for the present, the number of tentacles is the only difference existing between the two species just mentioned, but, as a matter of fact, several species of *Synapta* are capable of variation in this very respect. There seems to be but little doubt that *Synapta kefersteinii* and *Synapta tenuis* are identical forms.

II. Tentacles twenty or twenty-one.

Synapta tenuis (*Fistularia*), Quoy and Gaimard, 1833 ; Selenka, 1867.

Tentacles with fourteen to sixteen digits. Unsatisfactorily known.

Habitat.—New Ireland (Quoy and Gaimard).

III. Tentacles fifteen.

1. *Anchor-plates asymmetrical, elongate, subrectangular, nearly twice as long as broad, with numerous holes with smooth margins. Madreporic canal branched.*

Synapta beselii, Jæger, 1833 ; J. Müller, 1850 and 1854 ; Held, 1857 ; Semper, 1868. *Oncinolabes fuscescens*, Brandt, 1835 (according to Ludwig 1881). *Synapta astrolabi*, Held, 1857. *Synapta agassizii*, Selenka, 1867.

Tentacles with numerous digits. Cartilaginous ring with fifteen holes posteriorly.

Numerous Polian vesicles. Madreporic canal single, dorsal, branched. When living, the animal is characterised by five longitudinal double rows of numerous large, round protuberances. Anchor-arms smooth. Rosette-shaped miliary granules present.