

forming a kind of sole; in the space between the anus and the truncated end of the sole there are papillæ instead of pedicels. The dorsal papillæ, not so closely placed as the pedicels, are situated, apparently, on low wart-like bases. A single Polian vesicle and madreporic canal. Numerous Cuvierian tubes. The dorsal papillæ have curved spinous rods and larger irregularly rounded or oval, bilateral plates, while the pedicels are devoid of rods.

*Mülleria excellens*, Ludwig, 1875.

Deposits—tables and buttons. The short spire terminates in a rounded top with innumerable minute teeth; the oval buttons have six to eight holes and are finely spinose, especially round the margin.

*Habitat.*—Navigator Islands (Ludwig).

*Mülleria parvula*, Selenka, 1867. *Actinopyga parvula*, Verrill, 1867 to 1871.

Deposits—tables and buttons, the former with the truncated apex terminating in numerous teeth, the latter smooth and pierced with about six holes. Colour uniformly auburn.

*Habitat.*—Florida (Selenka).

As will be understood from the above descriptions, *Mülleria parvula* is distinguished from *Mülleria flavo-castanea* by the colour, by the number of holes in the buttons, by the absence of Cuvierian organs, &c. Notwithstanding this, further investigations may possibly show the former to be the young of the latter. *Mülleria excellens* differs from *Mülleria parvula* mainly in the rounded, very spinous apex of the tables as well as by the spinous buttons. Among the collections of Holothurians in the Zoological State Museum at Stockholm a small *Mülleria*, 30 mm. long, is preserved from the Navigator Islands. At first one may be inclined to refer it to *Mülleria excellens*, which lives at the same locality, but it is distinguished by the smooth buttons and in having a great part of the tables, like those in *Mülleria parvula*, provided with fewer spines in the truncated end of the spire, the rest of the tables bearing a nearer resemblance to those in *Mülleria excellens*. Either the two species of *Mülleria* are not distinct, or *Mülleria parvula* lives both in the Pacific and Atlantic Oceans—or the above-mentioned form is new to science, which seems less probable.

2. *Deposits*—comparatively large  $\times$ -shaped, slender, branched spicules, with the straight arms slightly dichotomous.

*Mülleria formosa*, Selenka, 1867.

The very slender  $\times$ -shaped bodies have the arms rather straight, narrow, tapered and often provided with a few spines, and aggregations of minute roundish grains. Ventral pedicels very numerous; dorsal papillæ on crowded warts.

*Habitat.*—Macassar (Selenka), Mauritius (Haacke).