

STICHOPUS VARIEGATUS

Erwe, 1868. *Holothurien*, p. 73.

There are 14 specimens at hand which I am referring to this common *Stichopus* and owing to their diversity they may best be discussed in geographical sequence.

Two are from Lord Howe Island, the southernmost point yet known for the species. One taken at Neds Beach, April 20, 1932, is now a somewhat purplish-brown and is 155 mm. long by 55 mm. wide (artificially flattened) but in life it was 250 mm. long, "deep flesh color with the huge lateral tubercles nearly white-tipped." The other taken at Neds Beach, April 6, 1932, was much bigger, measuring when living about 350 mm. long, 60 mm. wide and 50 mm. high; even now it is 250 x 45 mm. The color in life was "light brown with a pinkish tinge (many big papillae lighter still) variegated with lighter and darker shades; many big papillae lighter; lower surface crowded with pedicels, dull pinkish with a lavender cast, tentacles nearly white. Not handsome." At present this large specimen is dull brown, variegated in various shades; the tentacle branches are dark but the stalks are dull whitish. Both the Lord Howe specimens were taken on patches of sand, among living corals, and appear to be typical examples of *variegatus*.

There are 2 specimens from Norwest Islet, Capricorn group, Queensland, taken in July 1929 by Boardman and Ward of the Australian Museum; the larger, 150 x 50 mm. is dull brown while the smaller, 110 x 35 mm., is a darker blackish-brown. These also seem to be typical *variegatus*.

No *Stichopus* was found at Darwin but there are 2 specimens from Augustus Island, Northwestern Australia, taken in October, 1933, by Captain Bardwell. They are small individuals, only 75 x 25 mm. and 100 x 40 but in form and general appearance, and in the calcareous deposits they agree well with young *variegatus*. The general color is indefinitely variegated light brown and neither pedicels nor tips of papillae are noticeably different.

Seven specimens of *Stichopus* from Broome cannot be distinguished by their calcareous deposits from typical *variegatus* but nevertheless appear to be a different form; and if *variegatus* were not known from west of Cape Leveque, I should not hesitate to recognize these small western specimens by a varietal name. They are distinguished by their small size (80-140 mm.) and the dark tips to the pedicels and papillae, which stand out in sharp contrast to the lighter brown of the body wall. Since Erwe (1913, p. 386) however records a specimen of *variegatus* definitely from Shark Bay, 2 others from Western Australia and 1

from southwestern Australia, and particularly states that the pedicels and the papillae were not essentially different from the general coloration. It is better not to give a varietal name to the specimens from Broome. It is mentioned however that Erwe's specimens were also small, only 80-90 mm. long.

A single *Stichopus* (M. C. Z. no. 1559) dredged by Mr. Livingstone on November 20, 1929, "about 20 miles south from Cape Jaubert, 5 miles from shore, 10 fms., muddy sand and weed," has been a source of much perplexity. In life the coloration, according to Livingstone's field notes, was "almost equal sized patches of whitish-gray, wisteria mauve and pale ochre yellow; ventral side, somewhat parent grey-white." The preserved specimen, which measures about 135 x 20 mm. is dirty whitish with some irregular, more or less faint, blotches of yellowish brown dorsally. The pedicels are relatively few and are almost wanting in the mid-ventral area; their tips are quite brown in sharp contrast to the almost white ventral surface. When I first examined this specimen, I had no doubt that it was a new species of *Stichopus* but I can find no distinctive characters in the calcareous spicules. They seem to be exactly like those of *variegatus*. Under the circumstances therefore, until more material is available, it seems best to designate this rather striking *Stichopus* as simply a variety of *variegatus* which we may appropriately call *pallidus*.

*STICHOPUS ELLIPES*¹ sp. nov.

Length 163 mm.; width in its present much flattened condition 27-30 mm. in life, this individual was probably about 190 mm. long and 35 mm. in diameter. Contrast between dorsal and ventral surfaces, very marked, but the papillae of the dorsal side are small and scattered so that no definite longitudinal series are now visible and there are no tubercles or conspicuous papillae along the margin of the ventral surface. Pedicels rather small, fairly abundant on the ventral surface in three irregular and ill-defined longitudinal series; around the oral area there is a very definite close-set circle of papillae which must have formed a rather conspicuous collar in life. Tentacles 20, of moderate size and normal appearance. Calcareous ring not very stout, the anterior prolongation short and the posterior marginal concavities shallow. Genital organs in two distinct tufts of about equal size, one on each side of the dorsal mesentery. Vessel and madreporic body, each single.

¹ ἑλλείψις = wanting, deficient, in reference to the absence of rosettes and C-shaped particles.