

*Holothuria altimensis*¹ sp. nov.

(Plate 37, Figures 20 to 29.)

Length 20 mm.; diameter about 7 mm.; body somewhat depressed, the distinct ventral surface flattened. Tentacles 20, well extended and somewhat rigid from the abun-

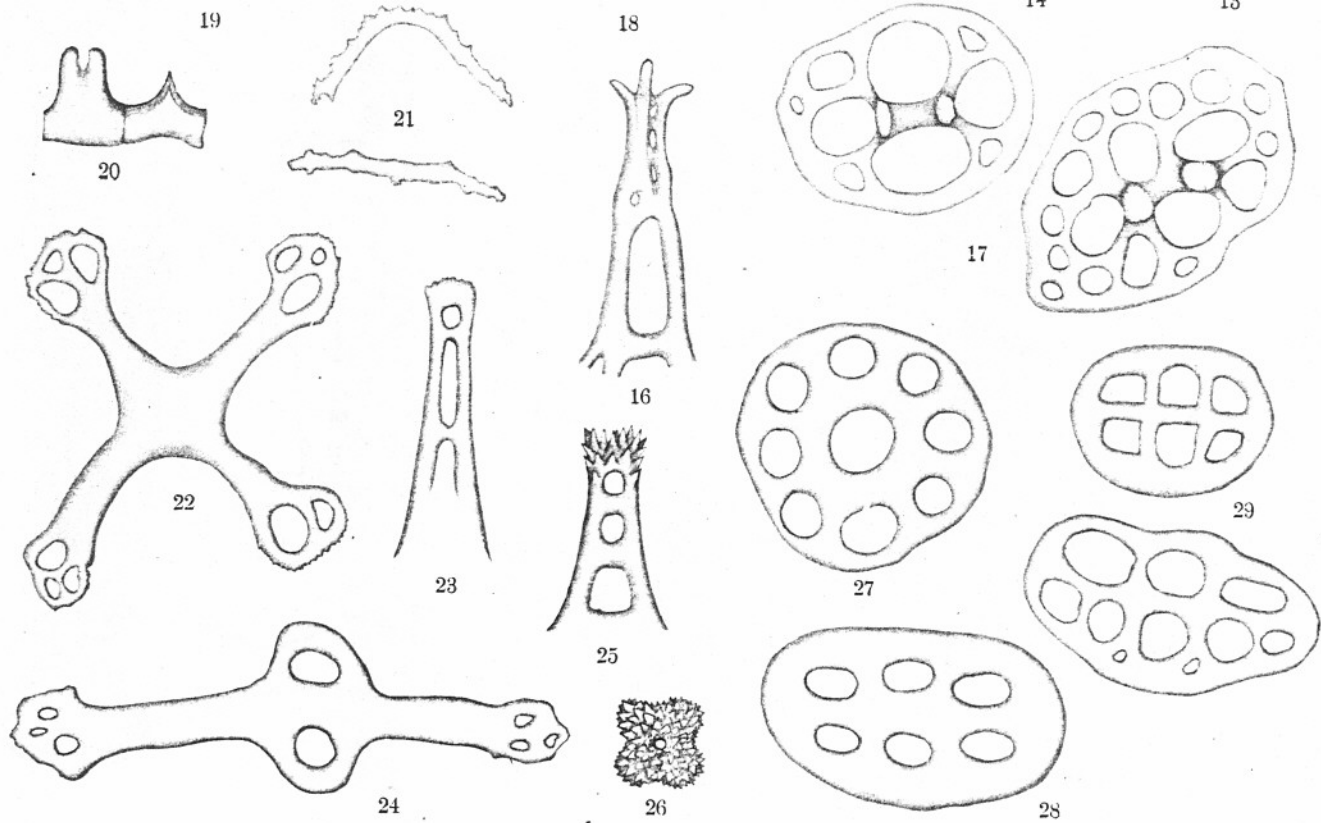
¹ *Altus* = high + *mensa* = a table, in reference to the very high spires with which the tables are provided.

dance of calcareous rods. Pedicels relatively large, not numerous or crowded, confined to ventral surface, but not in distinct series there. Dorsal surface well covered with large (but much contracted) papillæ, not arranged in definite series. Calcareous ring (pl. 37, fig. 20) moderately developed, not peculiar; radial pieces higher than interradial, the anterior prolongation wide and deeply notched; prolongation of interradial pieces triangular, pointed. Polian vessel single, very long, and slender. Madreporic canal single, small, free, more or less coiled, not whitish but purplish. Genital organs quite undeveloped. Anal opening rather large, not guarded by teeth or calcified papillæ. No Cuvier's organs.

Calcareous particles in body-wall so abundant that the epidermis is almost brittle, of two kinds, buttons and tables; the latter again are of two quite distinct sorts. Ordinary tables are abundant, and have the disk (pl. 37, fig. 27) nearly circular, or squarish with rounded corners, 0.050 to 0.075 mm. across, perforated by a central and 8 peripheral holes; the central hole is only a little larger than the others. Spires (pl. 37, fig. 25) about as high as disks are wide, with 2 to 4 cross-beams; the form of the spire shows considerable diversity, ranging from slender and smooth with relatively few small thorns at truncated tip to stout and rough, with numerous thorns covering the rounded distal half (pl. 37, fig. 26). The second type of table is much larger and markedly different; only 3 were seen and these were from the sides of the body; the disk (pl. 37, fig. 22) is about 0.130 mm. across and consists of 4 wide, radiating, flattened rods, lying at right angles to each other, the distal tips expanded and perforated by several well-marked holes; the spire (pl. 37, fig. 23) is equal to only about one-half the disk diameter and is rather slender and smooth, except at tip, where it is finely thorny. Buttons (pl. 37, figs. 28, 29) very numerous, 0.050 to 0.090 mm. long, the width about 0.60 of the length; most of them are about 0.075 by 0.045 mm.; there are commonly three pairs of subequal holes and the calcareous material between them is about as wide as the narrowest hole; some buttons are bigger and have 10 to 12 holes, but they are asymmetrical and obviously abnormal. Pedicels with heavy, wide, more or less strongly curved supporting rods (pl. 37, fig. 24), perforated at both ends and at the expanded middle; they intergrade with the buttons. Terminal plates present. Tentacle rods (pl. 37, fig. 21) very numerous; those in the stalk of the tentacle are large, up to 0.400 mm. long, and nearly straight, while those near the tips of the branches are very much smaller, 0.050 to 0.060 mm. long, and strongly curved; the rods may be smooth or rough, but they are not perforated even at the ends. Color brown; tips of pedicels and branches of tentacles deep yellow.

Holotype: M. C. Z. No. 1009; from under side of a rock-fragment, southeastern reef-flat, Mer, Murray Islands, Torres Strait.

When this little holothurian was collected it was supposed to be a small *Actinopyga parvula*, and hence no particular attention was paid to it at the time. Later examination showed that it is a *Holothuria* and quite different from any of the species (such as *difficilis*, *monacaria*, *leucospilota*) which it superficially resembles. The calcareous particles are sufficiently distinctive to prevent confusion with these or any other species.



ECHINODERMS FROM TORRES STRAITS.