Holothuria conica[1] sp. nov.

Length 80 mm.; diameter about 18 mm. Specimen strongly contracted, with bodywall collapsed and much wrinkled; skin thick and very rough with the spires of the innumerable and densely crowded tables. Tentacles small, strongly contracted and apparently damaged; their number is doubtful but presumably 20. Pedicels surprisingly few and papilla-like; on the ventral surface they are most like pedicels and seem to have disks but on the dorsal surface the tips are very small and hardly disk-like; even ventrally they are set on papilla-like bases. Calcareous ring low but fairly stout; the radial pieces have broad, truncate but rounded projections anteriorly to which the muscles are attached; the much smaller interradial pieces end anteriorly in a low sharp point. Polian vessel, single. Madreporic body, single and very small. Cuvier's organs well developed.

Calcareous particles extremely abundant, an outer layer of tables and a dense inner layer of buttons. Tables (fig. 55a) of moderate size, with the smooth-margined disks about 80–90μ in diameter and the spires 75–100μ in height; lower surface of disk more or less convex, often very slightly so but often markedly; disk irregularly perforated with holes of very diverse size; even the marginal series is not often regular; spires with 3–6 crosspieces and more or less numerous, small, sharp pointed teeth at the tip and often for some distance down on the corners;

[1] *conicus* = like a cone, in reference to the shape of the calcareous tables.

owing to the small size of the tip and the divergence of its supporting pillars basally, the tables have a more or less conical shape; when the disk is large and the spires high, as in many tables in the walls of the pedicels, this appearance is lacking but in the average table with a lower spire and a smaller disk it is rather marked. Buttons (fig. 55b), with 3–5 pairs of holes, usually with 3, sometimes with fewer, mostly short and wide, 50–60μ in length and 35–40μ in width; few,

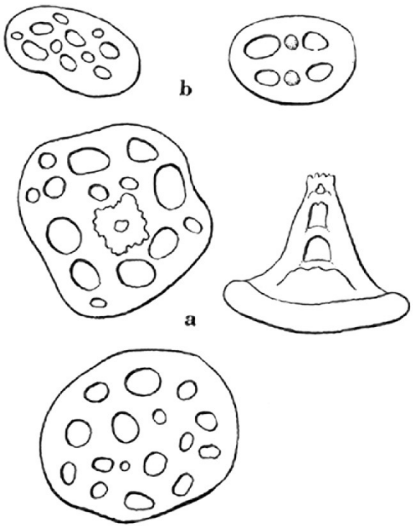

Fig. 55. Holothuria conica. Calcareous particles. x 425. a. Tables. b. Buttons.

if any, are perfectly smooth, but the number and size of the knobs on the surface show great diversity; in the simplest cases there are 2 knobs on the median area, then knobs appear on the lateral areas, and in the most developed buttons there may be 4 or 5 knobs on the median and half a dozen on each of the lateral areas. Supporting rods in pedicels short, wide and stout, more or less perforated either near middle or towards one end or both. So far as I can see, there are no end-plates present even in the best developed pedicels. Around the anus, there are 5 groups of about 5 papillae each, more or less calcified.

Color in life, variegated purplish-gray and whitish; tentacles pure cream

white. The preserved specimen is dirty whitish finely variegated with brown; dorsal side quite brown; posteriorly and ventrally lighter; tentacles dusky.

Holotype, M. C. Z. no. 1547, from Quail Island, 35 miles west of Darwin, Northern Territory, July 8, 1929.

Taken with the holotype is a much smaller and even more contracted specimen in which the pedicels seem to be relatively larger and more conspicuous. But the difference is insignificant and probably due to its being less mature. These two specimens were found in sandy mud under rocks in a tide-pool at Quail Island. The larger was nearly 150 mm. long in life, the smaller about half as large. It seems odd that we did not find this species elsewhere but what is even more strange is the fact that a third specimen is at hand, the property of the South Australian Museum at Adelaide, which is labelled as having been taken at Semaphore, Le Fevre Peninsula, South Australia. This specimen is about 90 mm. long by 18 in diameter, with the body wall collapsed and much wrinkled. The color is creamy white, with a distinct brownish tinge on the back; it has probably been bleached by the alcohol. In no essential does this specimen differ from those taken at Quail Island across the continent, and it seems to me that there must be some mistake in the label. The relationships of the species are obscure and more material is much to be desired.