

Distribution

Indo-West-Central Pacific Ocean, 0–60 m.

Habitat

Benthic, inshore.

Remarks

The single Mozambique specimen represents the deepest record of the species yet known as Rowe and Gates (1995) record the depth as 0–20 m. There is no reason to doubt its identity as the body form, colouration and spicules are characteristic of the species. This species, previously classified in the subgenus *Mertensiothuria* by Rowe (1969) was transferred to the subgenus *Stauropora*, also by Rowe (in Rowe & Gates 1995).

Subgenus *Thelothuria* Deichmann

***Holothuria (Thelothuria) longicosta* sp. nov.**

Figure 15

Diagnosis

A moderate-sized cylindrical species, holotype 110 mm long. Dorsal surface yellowish brown mottled with black and with a paired series of dark blotches. Podia as scattered tubefeet. Radial plates of calcareous ring prolonged far beyond posterior border of interradial plates, ventral radial plates with rudimentary posterior bifurcations. Tables few, disc squarish to circular, 35–90 µm in diameter, with spinose rim, rarely knobbed or tables modified to fenestrated spheres; spire low, terminating in a ring of few blunt teeth. Buttons numerous, 40–75 µm in length, usually faintly knobbed and with 2–6 pairs of holes, shaft distinct and often characteristically prolonged at both ends, buttons rarely modified to fenestrated ellipsoids.

Etymology

The specific name refers to the central shaft of the buttons that is often prolonged at both ends.

Type

SAM- A27940.

Type locality

UCT Ecological Survey, MOR 228, Linga Linga, Morrumbene, Mozambique, 12 vii 1968.

Material examined

Holotype only.

Description

Specimen badly contracted and partially eviscerated; length 110 mm, breadth in mid-body 42 mm. Dorsal surface conspicuously arched, ventral less so. Colour, in alcohol, dorsally yellowish-brown speckled with black, especially in mid-body, and with a paired series of dark blotches, decreasing in size and intensity both anteriorly and posteriorly, bases of dorsal podia ringed with white. Ventral surface pale greenish-yellow with a slight tinge of black or dark brown. Mouth and anus terminal, collar and anal papillae absent. Tentacles lost. Podia in the form of tiny, highly retractile scattered tubefeet, more numerous ventrally but not forming a “sole”, papilliform dorsally; suckers minute, rust-coloured. Body wall thick (ca. 4.5 mm), leathery, slightly rough to the touch and packed with spicules.

Calcareous ring (Figure 15E) about 6 mm high, radial plates about twice as long as interradial plates, deeply notched anteriorly and prolonged posteriorly beyond posterior border of interradial plates, only ventral radial plates with rudimentary posterior bifurcations; interradial plates triangular and with a slightly concave posterior margin. Tentacle ampullae short (av. 14 mm). Polian vesicle ventral, elongated (25 mm), slightly coiled. Stone canal short, free, coiled; madreporic body pyriform, well calcified (Figure 15D). Right respiratory tree longer. Cuvierian organ as tufts of short, thick unbranched tubules attached to base of right respiratory tree, some emitted tubules, possibly from base of left tree, visible in anus as long threads. Gonad as single tuft of long unbranched tubules attached on left, new tubules added anteriorly. Cloaca short, wide. Longitudinal muscles paired, thicker ventrally, possibly due to stronger contraction.

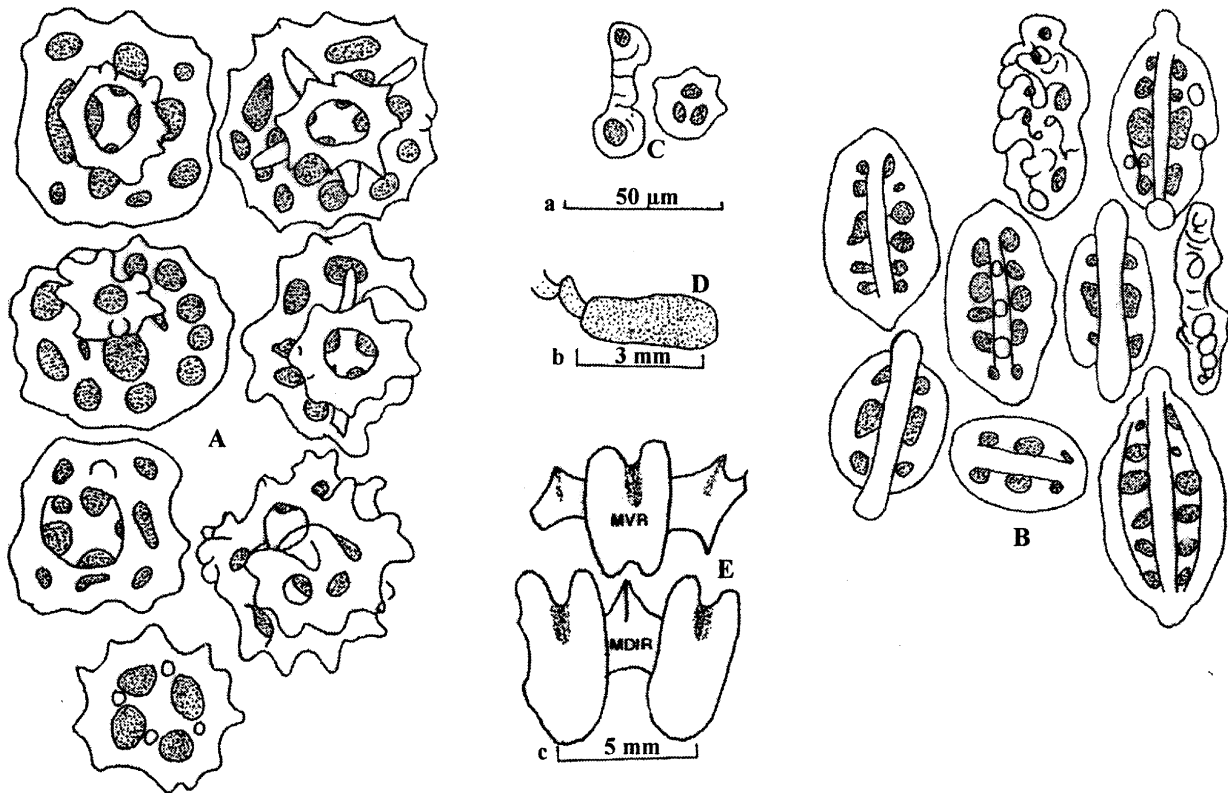


FIGURE 15. *Holothuria (Theelothuria) longicosta* sp. nov. Holotype. SAM-A27940. A. Tables from dorsal body wall; buttons from dorsal body wall; C. tubefeet deposits; D. madreporite; parts of calcareous ring. (A–C scale a; D scale b; E. scale c)

Spicules of body wall comprise tables and buttons. Tables few, disc squarish to circular, 35–90 µm (mean 58 µm) (Figure 15A), pierced by four large central holes and up to 10 smaller marginal holes; rims usually spinose, rarely turned up to give “cup and saucer” effect to table in lateral view; spire low, 25–53 µm, terminating in a ring of few blunt teeth, occasionally disc knobbed or connected to distorted spire to form a fenestrated sphere, rarely table reduced to disc with only four central holes. Buttons (Figure 15B) 40–75 µm (mean 55 µm), numerous, with well defined central shaft that is frequently prolonged at both ends beyond margin of button to give to button a characteristic appearance, holes 2–6 (usually 3) pairs, larger in the middle and decreasing in size at ends; buttons smooth to knobbed with knobs, when present, always few and either developed on central shaft only, or both on shaft and margins, rarely buttons modified into fenestrated ellipsoids. Podial deposits scarce, small, 30–50 µm tables with a reduced spire, smooth to slightly-knobbed buttons, similar to those of body wall, and small (up to 30 µm) spectacle-shaped rods and minute, up to 20 µm plates with 2–4 holes (Figure 15C), end-plates absent.

Distribution

Type locality only.

Habitat

Sandbank or shipwreck nearby (ex collector's note).

Remarks

The new species is here referred to the subgenus *Theelothuria* because its calcareous ring is reminiscent of this subgenus despite the fact that there is only a single type of tables in the body wall and that some tables are developed into fenestrated spheres, and some buttons into fenestrated ellipsoids - all characters of *Cystipus*, to which subgenus the species was initially referred but the description not published (see Thandar 1984). However, both Massin & Samyn (pers. comm.), who examined the holotype agree that the species fits better into *Theelothuria* than *Cystipus*. However, the body wall spicules of the new species strongly resemble those of *H. (Cystipus) turrisimperfecta* described by Cherbonnier (1965b) from the coast of Guinea, to be virtually indistinguishable, differing in its colouration, calcareous ring, tables with frequently knobbed discs, different kind of podial deposits and the absence of end-plates. The new species also comes close to several other species, notably *H. notabilis*, but the new species differs in having spired tables, a different kind of central shaft to the buttons and some fenestrated tables; *H. klunzingeri*, differing in the prolonged central shaft of the buttons; *H. maculosa*, differing in the form of the calcareous ring, tables and buttons; *H. hamata*, differing in the absence of distinct papillae; *H. inhabilis*, differing in the spires of tables and the form of buttons and *H. sucosa*, differing in having tables with spinose discs and prolonged button shafts.

***Holothuria (Theelothuria) maculosa* Pearson, 1913**

Figure 16

Holothuria maculosa Pearson, 1913:53, pl.6, fig.3.

Holothuria (Theelothuria) maculosa Rowe, 1969:158 (passim); Clark and Rowe, 1971:178 (dist.); Cherbonnier & Féral, 1984:619, fig. 14; Cherbonnier, 1988:139, fig.57.

Type

Perhaps in the Colombo Museum, Sri Lanka.

Type locality

Aldabra, Seychelles.

Previous southern African record

Inhaca Island, Mozambique (see Cherbonnier 1988).

Material examined

UW Ecological Survey, Inhaca Island, west shore, in *Cymodocea rotundata* on mudflats near P. Rasa (other information not legible), July 1958, 1 spec. (identified as *H. impatiens*); SAM-A27941, UCT Ecological Survey, MOR 228, Linga Linga, Morrumbene, Mozambique, 12 vii 1968, 1 spec.

Description

Length 80mm. Colour, in alcohol, a mottled dull greyish to yellowish brown with eight pairs of dark blotches on dorsum and six series of black specks throughout body length; whitish areas around bases of podia. Tentacles and anal papillae minute; collar not evident. Podia papilliform, scattered. Body wall thin (1–