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A new species of sea cucumber, *Holothuria* (*Vaneyothuria*) *serishae* sp. nov., from southern Mozambique and two new southern African records (Echinodermata: Holothuroidea: Holothuriida: Holothuriidae)

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Abstract

Thandar (2007) described two sea cucumber specimens taken from off the coast of southern Mozambique as *Holothuria* (*Vaneyothuria*) *integra* Koehler & Vaney, 1908. He suspected that these might represent a new species or subspecies but hesitated to describe them as such. Now, on more careful examination of that material and literature, it is clear that the Mozambique material is sufficiently distinct from that described from other parts of the Indo-Pacific Ocean to warrant the establishment of a new species, herein named *Holothuria* (*Vaneyothuria*) *serishae* **sp. nov.** It is based collectively on the multiplicity of the Polian vesicles and stone canals, the prominent posteriorly displaced water ring, and the absence of Cuvierian tubules. In addition, two new southern African records and two others, overlooked by Thandar (2022) in his extensive monograph, are here briefly included to add to the total composition of the southern African holothuroid fauna, south of the tropic of Capricorn. The new records are A*ctinopyga crassa* Panning, 1944 and *Holothuria* (*Stauropora*) cf. *hawaiiensis* Fisher, 1907, while the two overlooked by Thandar (2022) are *Actinopyga obesa* Selenka, 1867 and *Holothuria* (*Stichothuria*) *coronopertusa* Cherbonnier & Feral, 1981. The latter species, taken from Sodwana Bay, in northern KwaZulu-Natal, South Africa, by Dr. Yves Samyn and his team, is still in the process of re-description and re-classification, but is here included to add to the total composition of the southern Africa sea cucumber fauna. These increase the number of southern African holothuroids recorded by Thandar (2022) from 171 to 175 nominal species and that of South Africa alone from 152 to 156 nominal species.

Key words: Holothuriidae, sea cucumbers, new species, new records, southern Africa, South Africa

Introduction

As part of his contributions to the holothuroid fauna of southern Africa, Thandar (2007) assigned some material from Mozambique, received from the Iziko South African Museum (SAM), to the tropical Indo-West Pacific species, *Holothuria (Vaneyothuria) integra* Koehler & Vaney, 1908, which is known to occur from shallow waters to the continental shelf, between 60–306 m (Rowe & Gates, 1995). This species has not been encountered very often since its first description from the Indian Ocean [(Koehler & Vaney, 1908, (reiterated by Panning 1935)], exact location not specified. Other Indian Ocean records include Deichmann (1958) from the Bay of Bengal and Mukhopadhyay & Samanta (1983) from Lakshadweep. It has also been reported from New Zealand (as *H.* (*Vaneyothuria*) *neozelanica* Mortensen, 1925) and by Dawbin (1950), Deichmann (1958), Pawson (1970), Rowe & Gates (1995), from Queensland and north and south Australia by Rowe & Gates (1995) and the Philippine Islands by Cherbonnier & Feral (1981). The southern African material that was attributed to this species was taken off the coast of Inhambane in southern Mozambique, at 164–180 m. It initially comprised two specimens which, on closer and more critical examination suggest, as was suspected by the writer in 2007, that they are sufficiently distinct to warrant the description of a new species here named *Holothuria (Vaneyothuria) serishae* **sp. nov.** Since the southern African material was fully described, it is here only diagnosed but remarked upon in some detail. It was also included in the writer's comprehensive monograph of the southern African sea cucumbers (Thandar 2022). The new species differs from *H. (V.) integra* by the multiplicity of the Polian vesicles and stone canals, a

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clear posteriorly displaced water ring and the absence of Cuvierian tubules. It must here be noted that the subgenus *Stauropora* was diagnosed by Deichmann (1958) as possessing Cuvierian tubules). In addition to the two specimens originally described, another specimen was later received from the SAM which, judging from the label, was part of the original collection. It is therefore here briefly described as Paratype 1 as it bears the same catalogue no. The two new southern African records included in this study are *Holothuria* (*Stauropora*) cf. *hawaiiensis* Fisher, 1907 and *Actinopyga crassa* Panning, 1944, while the two overlooked by Thandar (2022) are *Holothuria* (*Stichothuria*) *coronopertusa* Cherbonnier & Feral, 1981 and *Actinopyga obesa* (Selenka, 1867). These originate from various sources, as indicated in their description/diagnosis. All materials are deposited in the South African Museum with SAM-A collection numbers.

Materials and methods

Materials for this study were obtained from various sources indicated under each species included. All specimens were examined both macroscopically and microscopically. Ossicles for light microscopy were prepared as follows: small pieces of excised tissue/organ were placed in household bleach until the soft tissue was dissolved and the ossicles separated. The fluid was decanted and the remaining tissue discarded. The sediment containing the ossicles was then washed in at least three changes of distilled water. Wet preparations were made and the ossicles viewed under the compound microscope and, where necessary, illustrated by line-drawings using the camera lucida. For scanning electron microscopy, ossicles were rinsed in 2–3 changes of 70% ethanol and then 2 changes of absolute alcohol. They were then transferred onto clean specimen stubs and allowed to dry for about 30 minutes, causing the ossicles to adhere to the stubs. The stubs were then coated in gold for 5–15 minutes using a Polaron SC500 Sputter Coater and viewed and photographed using the Jeol LEO SEM.

Taxonomic account

Order Holothuriida Miller, Kerr, Paulay, Reich, Wilson, Carvajal & Rouse, 2017.

Family Holothuriidae Burmeister, 1837

Genus *Holothuria* Linnaeus, 1767

Holothuria (*Vaneyothuria*) *serishae* sp. nov.

Figure 1

Holothuria (*Vaneyothuria*) *integra* Thandar, 2007: 46, text-figs. 21 & 22; Thandar, 2022: 238, fig. 126.

Diagnosis. A medium-sized to large species of *Holothuria* (*Vaneyothuria*), up to 230 mm along dorsal surface; preserved colouration an add-mixture of grey and browns or white with dark patches anteriorly, paler ventrally, dark rings around dorsal podia. Podia generally scattered, minute, more abundant in the ventro-lateral radii than elsewhere; dorsal podia papilliform, borne on whitish wart-like prominences. Mouth ventral, 'collar' absent. Anus terminal, encircled by radial clusters of podia similar to those of body wall. Anal teeth absent. Tentacles 18–20, greyish-green to greyish-brown. Body wall leathery, slightly rough to the touch, only 2 mm thick. Calcareous ring sculptured, small in relation to body size. Water-vascular ring situated far behind the calcareous ring (12 mm in holotype, 25 mm in paratype 3). Polian vesicles numerous, of various sizes (largest about 8 mm long) but of regular form, sometimes very tiny and positioned all around the water ring; stone canals also multiplied, situated in clusters around the water ring or attached directly to water ring without a canal (at least in paratype 2), sometimes a single madreporite supplied by three stone canals. Cuvierian tubules absent. Body wall tables with spinose disc (55–74 μm), perforated by four large central holes and a varying number of peripheral ones in a single series, disc often reduced; spire low to moderate (36–48 μm), of four pillars terminating in a perforated crown bearing numerous teeth (about 12), often arranged as a 'Maltese' cross at the distal end of spire. Buttons (45–71 μm) usually smooth, oval, quite regular, with 3–7 pairs of holes. Dorsal and ventral podial deposits as rods (148–152 μm), expanded

and perforated in the middle and at ends, plus narrow, elongate plates (68–161 μm), with irregular margins and 2–3 series of holes. Tentacles with curved, spinulated rods (19–526 μm). No ossicles detected in longitudinal muscles.

Etymology. The new species is named after my intern, Serisha Gangaram, in appreciation of her tireless assistance during the preparation of my intensive taxonomic monograph of the southern African sea cucumbers (see Thandar 2022).

Material examined. The larger of the two specimens described in 2007 is chosen as the holotype. and the other is here designated Paratype 2. A third specimen, later received from the SAM, judging from the data on the label, is part of the same collection and here briefly described as Paratype 1.

Holotype: SAM-A27945, off Inhambane, Mozambique, 23° 08' S, 35° 42' E, R.V. 'Algoa', Mozambique, SCAD survey St. C 00815-014-012-2144, 12.vi.1994, 180 m.

Paratype 1: SAM-A27945, same data as holotype

Paratype 2: SAM-A27946, south of Inhambane, 24° 52' S, 35° 20' E, R.V. 'Algoa', Mozambique

SCAD Survey St. C, 00809-014-007-2164, 11.vi.1994, 164 m**.**

Descriptions of Paratypes. Paratype 1: SAM-A27945: Length about 200 mm; width of mid-body about 40 mm. Specimen to large extent macerated, perhaps due to previous dissection or evisceration - gut, gonad and one respiratory tree lying free in preservative. Colour, in preservative, uniformly whitish grey, slightly darker anteriorly, but with no distinct markings, blotches or bands. Dorsal tube feet papillose, borne on minute knobs/tubercles. Ventral surface smooth, almost naked, mostly without podia - apparently an abnormality or due to poor relaxation before preservation. Calcareous ring in normal position, water ring not particularly situated far behind calcareous ring. Multiplicity of Polian vesicles discernable but clarity obscure. Stone canals not observed. Cuvierian tubules absent.

Paratype 2: SAM-A27946: Length 165 mm, width in mid-body 30 mm, dark yellowish-brown dorsally, paler ventrally, papillae on wart-like prominences; tentacles 20, greyish-green to greyish-brown in colour; calcareous ring not particularly sculptured, water ring situated 25 mm behind calcareous ring, Polian vesicles mostly sacciform, situated all round ring; stone canals 17, six on left and 11 on right; with at least three madreporic bodies on right side arising directly from water ring and another terminating in two madreporic bodies, a single madreporic body on right side served by three stone canals; tables with mostly smooth disc and a more pronounced 'Maltese' cross; podial rods more perforated at the extremities than those of the holotype. Specimen preserved with pearlfish contained in a separate vial.

Type locality. Off Inhambane, Mozambique, 23° 08' S, 35° 42' E.

Distribution. Southern Mozambique, continental slope, 164–180 m.

Remarks. *Holothuria* (*Vaneyothuria*) *integra* is well described by Koehler & Vaney (1908) and more recently by Cherbonnier & Féral (1981), and its synonym *H. neozelanica* by Mortensen (1925). All these descriptions record the presence of Cuvierian tubules, a single Polian vesicle and multiple stone canals. The southern African specimens, which hardly differ from *Holothuria integra* in both external features and ossicles, have in contrast, not only multiple stone canals but also multiple Polian vesicles, no Cuvierian tubules, and a distantly displaced water ring. These features in combination warrant the description of a new species. It may be argued that the distantly removed southern African population perhaps deserve a subspecies status but, judging from the number of morphological variations, especially the absence of Cuvierian tubules and multiplicity of Polian vesicles, a new species is here justified. A similar case exists in the tropical Indo-Pacific sympatrics *H.* (*Halodeima*) *atra* Jaeger, 1833 and *H.* (*H.*) *pulla* Selenka, 1867, separated by the presence of Cuvierian tubules in the latter and their absence in the former. It is here noted with interest that Cherbonnier & Feral (1981) also described a distantly displaced water ring, 30 mm behind the calcareous ring.

The new species also comes quite close to *H.* (*V.*) *uncia* Rowe, 1989, which is described as having tube feet in three bands ventrally and scattered dorsally; table discs as smooth, squarish to roundish, spire with one or two cross-bars and some buttons bearing knobs. It's a pity Rowe (1989) does not mention the number of Polian vesicles and stone canals nor the absence or presence of Cuvierian tubules. But judging from the form of the table disc and spire it appears to be a distinct species. From amongst its consubgenerics, the new species comes quite close to the north-east Atlantic *H.* (*V.*) *suspecta* Cherbonnier, 1958, which also has multiple stone canals but a very distinctly spinose rim to the tables, heavily dentate crowns and tentacle deposits often perforated by a few terminal holes. *H.* (*V.*) *sinefibula* Cherbonnier, 1963, also from the north-east Atlantic, is poorly described and not illustrated. It also appears to come quite close to the new species but Rowe (1969) is of the opinion that it may be a juvenile of *H.*

suspecta. The distinctive features of the new species are the absence of Cuvierian tubules, the presence of multiple Polian vesicles, the fact that the water ring is situated far behind the level of the calcareous ring and distinctly serrate tables with a 12-toothed crown.

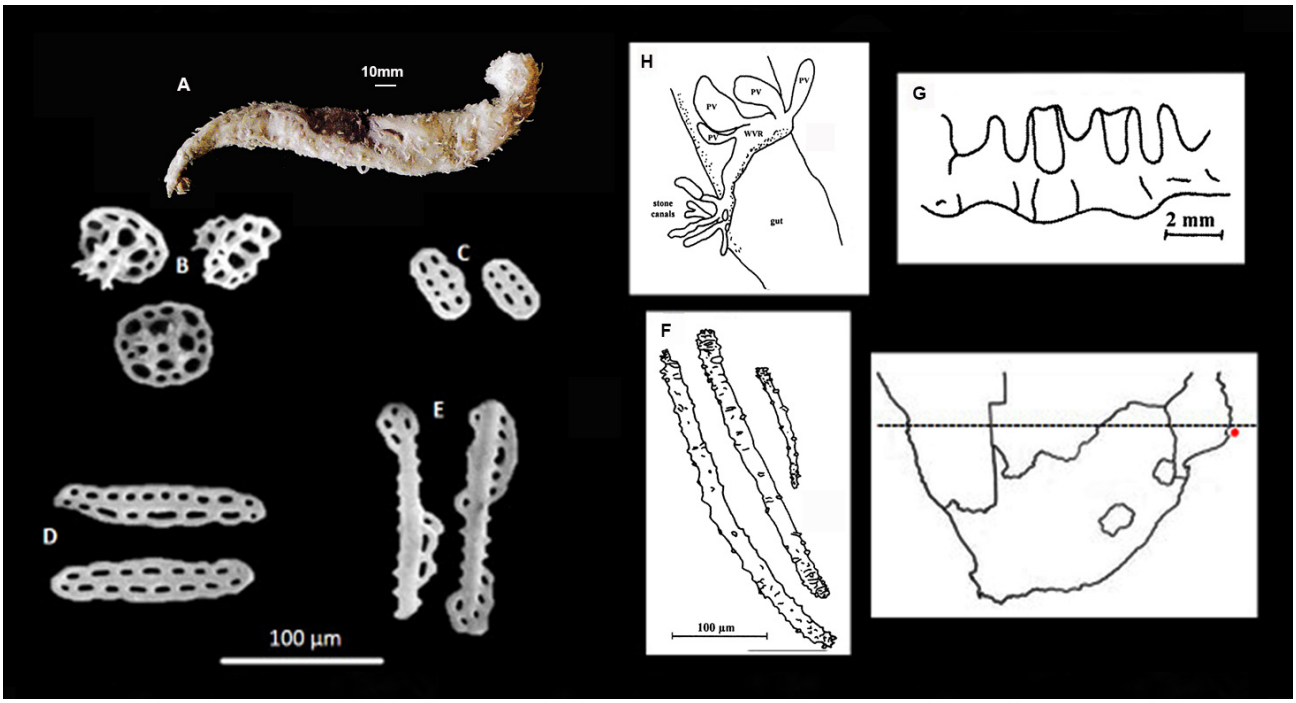

FIGURE 1. *Holothuria* (*Vaneyothuria*) *serishae* n. sp. Holotype SAM-A27945. A. Specimen (entire); B. Tables from body wall; C. Buttons from body wall; D. Plates from tube feet; E. Rods from tube feet; F. Rods from tentacles; G. Part of calcareous ring (a single dorsal radial and adjoining interradial plates); H. Water vascular ring and associated structures. (PV=Polian vesicle, WVR=water vascular ring). (F–H from Thandar 2007, by courtesy of *Zootaxa*).

Holothuria (*Stauropora*) cf. *hawaiiensis* Fisher, 1907

Figure 2

Holothuria hawaiiensis Fisher, 1907; 668, pl. 68, fig. 4 a–g.
Holothuria (*Holothuria*) *hawaiiensis;* Panning, 1935: 92, fig. 78a–n.
Holothuria (*Stauropora*) *hawaiiensis*; Rowe, 1969: 14 (passim); Cherbonnier, 1988: 77, fig.30 A–N.
Holothuria (*Lessonothuria*) *hawaiiensis*; Massin, 1996: 158, figs 7A–H, 8A–H; Massin, 1999: 22, figs. 15-A–J, 16, 17, 110e; Samyn, 2003: 39, 45; Samyn & Tallon, 2005: supplementary material; Samyn *et al.*, 2006: 68–69, fig. 59.

Description. Specimen small, length about 55 mm, breadth in mid-body about 7 mm; tentacles 20. Colour in alcohol, yellowish white. Podia scattered, ventral podia with small sucking discs; dorsal ones better developed, arising from tiny wart like prominences. Calcareous ring with high radial plates and much smaller interradial plates. Tables of body wall of two types: with circular disc and tall spires provided with a single cross bar; or with two or more cross-bars; bottom of disc often with large circular or cruciform hole; spire tall, ending in numerous, fairly well-developed teeth. Buttons smooth, never rugose, quite irregular with three or more series of holes, but not forming plates; sometimes regular, sometimes slightly twisted. Tube feet ossicles in the form of curved rods, perforated at ends.

Material examined. Park Rynie, southern KwaZulu-Natal, South Africa, 1 spec.

Remarks. It is with some hesitation that this unique example is determined as *H. hawaiiensis*. It differs in the lower number of tentacles than the holotype and other reasonably well described materials by Massin (1996 & 1999) and Samyn *et al* (2006). However, Cherbonnier (1988) also reported 20 tentacles in his material from Madagascar. The specimen in hand also varies slightly in colouration from the type - perhaps the original colour is lost due to long preservation. Tables with a bottom cruciform hole were not often detected but those with a large central hole were quite common. The cross-bridges of the spire varied from 1 to 4. The buttons and tables strongly resemble

those illustrated for the species by Fisher (1907) and Cherbonnier (1988). Rowe (1969) comments that cruciform holes are only present at bottom of the shorter tables and round holes at the bottom of the taller tables. Samyn (pers. comm.) is of the opinion that podial deposits of this species may suggest that it belongs to the subgenus *Lessonothuria*. In fact, Massin (1996 & 1999) also classifies his materials in *Lessonothuria* but the elaborate podial deposits he illustrates are absent in the southern African form as well as Cherbonier's (1988) Madagascar material. Hence the species is left to stand in *Stauropora*. It is possible that both the South African and Madagascar materials belong to another as yet undescribed species.

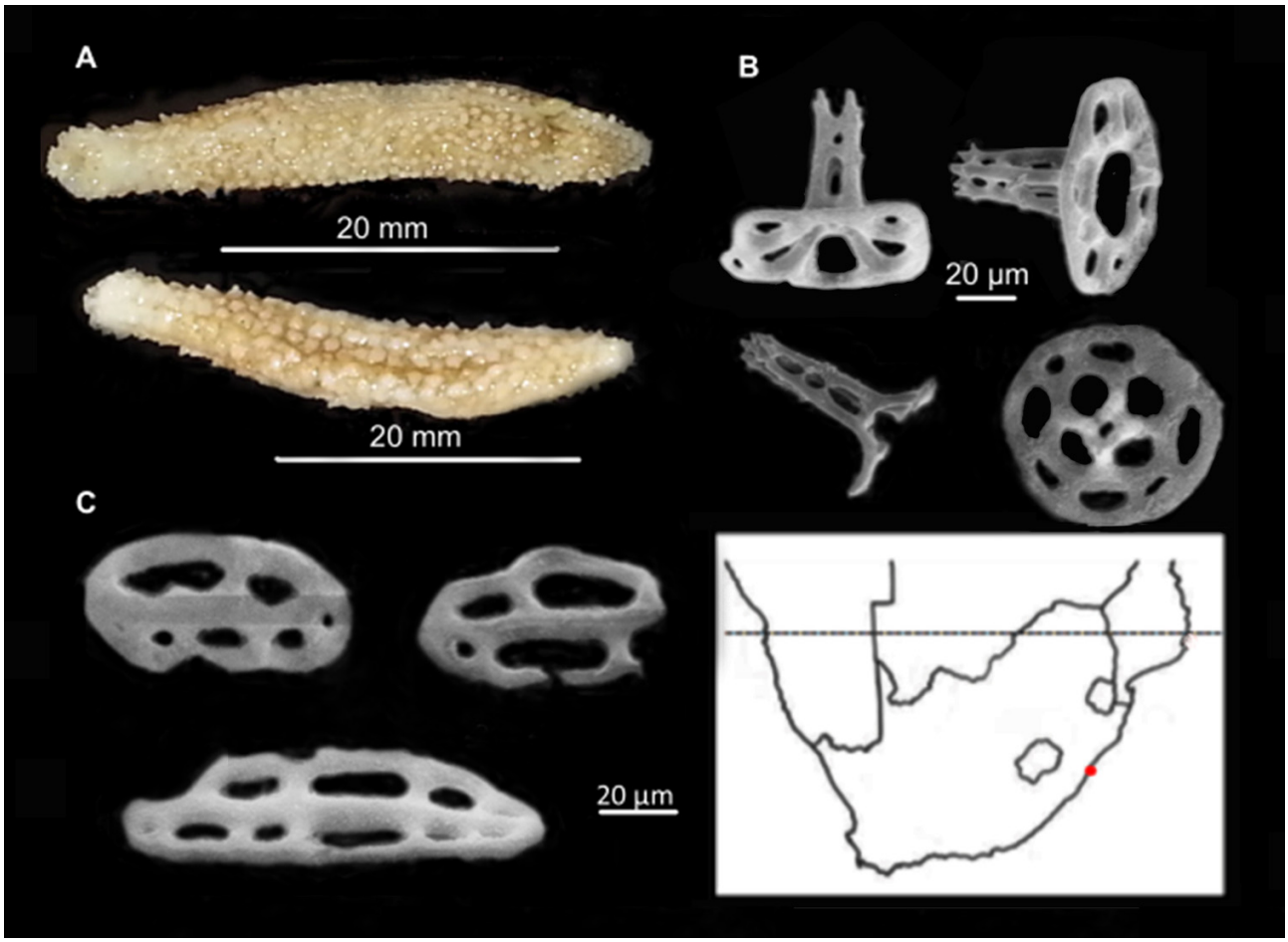

FIGURE 2. *Holothuria* (*Stauropora*) cf. *hawaiiensis* Fisher, 1907. A. Specimen image (dorsal and ventral); B. Tables of body wall; C. Buttons of body wall.

Holothuria (*Stichothuria*) *coronopertusa* Chebonnier, 1981

Cherbonnier, 1980: 639, fig. 13 A–R, pl.1 B.

Type locality: New Caledonia

Material examined: None

Remarks. This species, first recorded from New Caledonia by Cherbonnier (1980), now needs to be added to the southern African holothuroid fauna as a result of its collection from Sodwana Bay, South Africa, by Dr Y. Samyn and his team. This discovery was presented as a poster by Samyn *et al.* at the 14th IEC in Brussels in 2012 but has not yet been formally described. Since it was overlooked by Thandar (2022) in his analysis of the southern African holothuroid biodiversity it is here included to update the number of species now known from southern Africa. Samyn (pers. com) states that its description is in progress and the species, based also on molecular evidence, is perhaps referable to the subgenus *Mertensiothuria*.

Genus *Actinopyga* Bronn, 1860

Actinopyga obesa (Selenka, 1867)

Figure 3

Mülleria obesa Selenka, 1867:312.
Actinopyga obesa Fisher, 1907: 647, pl 67, fig. 8; Cherbonnier, 1988: 20, fig.3; Rowe & Gates, 1995:287. Thandar & Samyn, 2004: 255; Samyn & Tallon, 2005 (supplementary material).
Holothuria (*Actinopyga*) *obesa* Panning, 1929: 129, fig.13.

Diagnosis (summarised from Selenka, 1867; Fisher, 1907; Cherbonnier, 1988)

Robust, chocolate brown species, often exceeding 200 mm in length. Tentacles 20, broadly peltate. Tube feet crowded, more numerous ventrally. Anal teeth white, strong. Cuvierian tubules present, minute. Dorsal and ventral body wall ossicles similar, exclusively slightly curved, sometimes X-shaped rods, but no rosette-like bodies; rods finely spinulated/granulated, sometimes branched and perforated terminally; up to 120 µm long but usually around 80 µ.

Material examined. Bassas Island (French protect.), about 350 km east coast of Mozambique, collected by the Oceanogaphic Research Institute, Durban, 06 July 1991; Sodwana Bay, Kwazulu-Natal, South Africa, collected by Samyn et al, January 2006.

Habitat. Coral, up to 20 m.

Distribution. Tropical Indo-West Pacific, up to 20 m.

Remarks. This is the second record of this characteristic Indo-West Pacific species from the western part of the Indian Ocean. It satisfies the diagnosis of the species given above. The species is well characterized by its spinulated or finely granulated, slightly curved rods which may or may not be terminally perforated but sometimes Y-shaped. The illustration below (Figure 3) is based on the specimen from Bassas Island, just south of the tropic of Capricorn, off the east coast of southern Mozambique. More recent material originates from Sodwana Bay, on the east coast of South Africa, collected by Dr Yves Samyn and his team on their South African expedition. This specimen measures about 235 mm in length and about 30 mm in width in mid-body. Its colouration is also a very dark chocolate brown, almost similar to that of the Bassas specimen. The body wall ossicles are identical to the Bassas material.

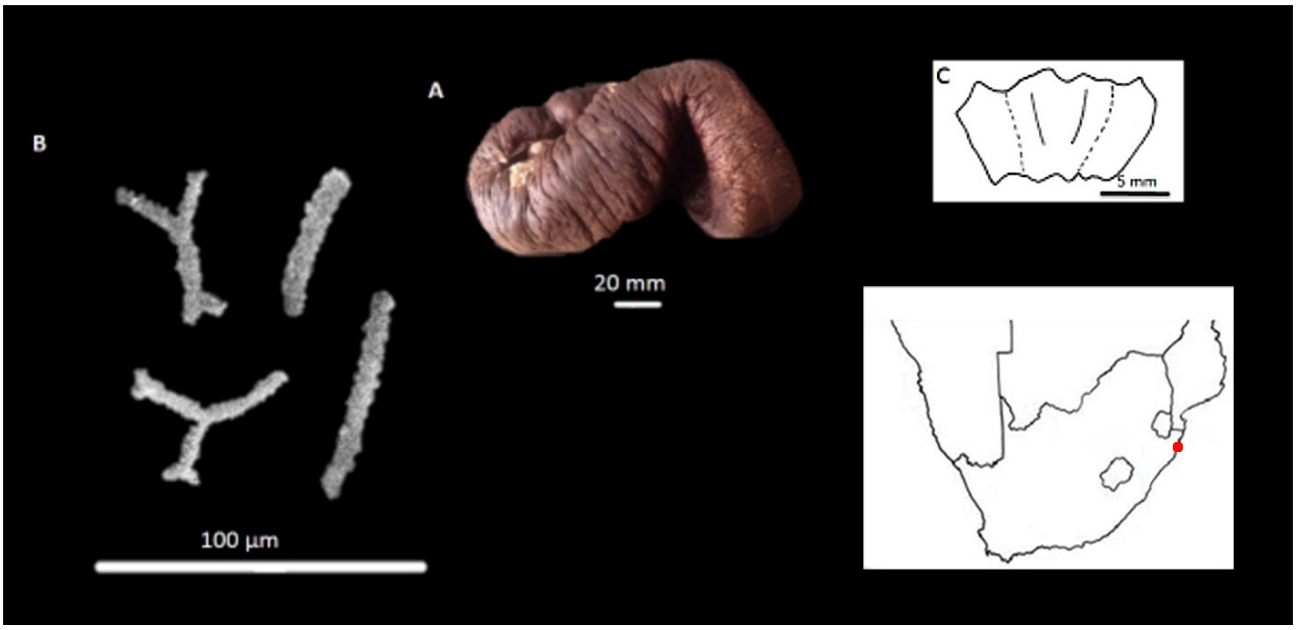

FIGURE 3. *Actinopyga obesa* (Selenka, 1867). A. Specimen (entire); B. Spinous rods from dorsal body wall; C. Part of calcareous ring (dorsal).

Actinopyga crassa Panning, 1944

Figure 4

Actinopyga echinites crassa Panning, 1944: 51, text-fig. 19 ; Rowe & Gates, 1995 : 286 (cited as a synonym of *A. echinites* (Jaeger, 1833).

Actinopyga crassa Rowe, 1969: 131 (passim); Clark & Rowe, 1971: 176 (dist.); Cherbonnier, 1988 : 24, fig. 6A–Q; Samyn & Tallon, 2005 (distribution).

Diagnosis (after Panning 1944). A medium-sized species of *Actinopyga* up to 145 mm long. Colour yellow to greyish brown, darker in the middle. Tube feet in three distinct bands ventrally, a few also in the interambulacra; papillae scattered dorsally. Dorsal body wall with minute, elongate, branched, rosette-like, X-shaped, dichotomously branched rods (up to 46 µm long); ventral body wall with rosette-like rods (up to 62 µm long), aggregated into heaps, amongst thick, curved, elongate rods (up to 95 µm long), branched only at ends.

Material examined. Park Rynie, KwaZulu-Natal, South Africa, intertidal, rocky shore, 1 spec.

General distribution. Red Sea, Querimba Archipelago (northern Mozambique), KwaZulu-Natal (South Africa); Madagascar, New Guinea, New Caledonia,

Remarks. The first record of this species from southern Africa is that of Panning (1944) but from Querimba Archipelago, off northern Mozambique. The specimen here illustrated originates from Park Rynie in southern KwaZulu-Natal, South Africa and is thus the first record of the species from south of the tropic of Capricorn. Its dorsal ossicles, according to Panning (1944), are similar to those of *A. echinites*. However, it differs from the latter species and others in the genus by its characteristically curved ventral rods with complicated terminal ramifications and the absence of any spiny rosettes of the type found in *A. echinites* (see Thandar 2022).

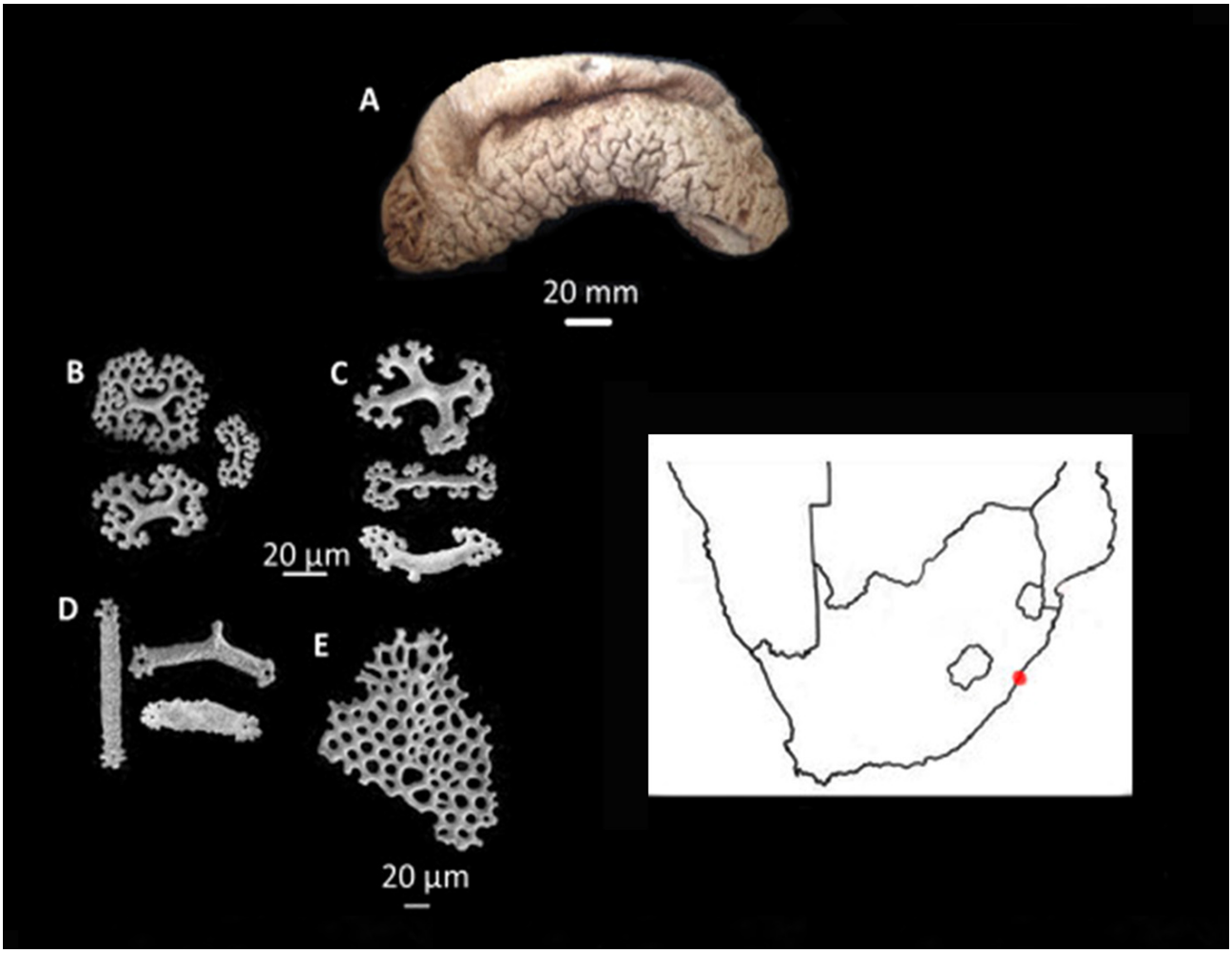

FIGURE 4. *Actinopyga crassa* Panning, 1944. A. Specimen (entire); B. Rosettes of dorsal body wall; C. Rods of ventral body wall; D. Rods of tube feet; E. part of tube foot endplate.

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References

Cherbonnier, G. (1988) Echinodermes: Holothurides. *Faune de Madagascar*, 70, 1–292.

Cherbonnier, G. & Feral, J.P. (1981) Echinodermes: Holothuries. Résultats des Campagnes Musorstom I Philippines (18–28 Mars 1976). *Collection Mémoires Office de la Recherche Scientifique et Technique Outre-Mer*, 91, 357.

Deichmann, E. (1958) The Holothuroidea collected by the Velero III and IV during the years 1932 to 1954. Part II. Aspidochirotida. *Allan Hancock Pacific Expedition*, 11 (2), 239–349, pls. 1–9.

Fisher, W.K. (1907) The holothurians of the Hawaiian Islands. *Proceedings of the United States National Museum*, 32 (1555), 637–744, pls. 66–82.
https://doi.org/10.5479/si.00963801.32-1555.637

Koehler, R. & Vaney, C. (1908) *Holothuries recueillies par l'Investigator dans l' Ocean Indien. II Les Holothuries littorales*. Echinoderma of the Indian Museum, Calcutta, 54 pp.

Massin, C. (1996) The holothurians of Easter Island. *Bulletin de l'Institut royal des Sciences naturelles de Belgique*, 66, 151–178.

Massin, C. (1999) Reef-dwelling Holothuroidea (Echinodermata) of the Spermonde Archipelago (South-West Sulawesi, Indonesia). *Zoologische Verhandelingen*, 307, 1–144.

Mortensen, T.H. (1925) Papers from Dr. Th. Mortensen's Pacific Expedition 1914–16. XXIX Echinoderms of New Zealand and the Aukland-Campbell Islands. *IV.Holothurioidea. Sœrtryk af Vidensk. Medd. Fra Dansk naturh Foren*, 79, 322–386.

Mukhopadhay, S.K. & Samanta, T.K. (1983) On a collection of shallow-water holothurians from the Lakshadweep. *Records Zoological Survey. India*, 81 (1–2), 299–314.
https://doi.org/10.26515/rzsi/v81/i1-2/1983/161270

Panning, A. (1935) Die Gattung *Holothuria* (3). *Mitteilungen aus dem Zoologischen Staatinstitut und Zoologischen Museum, Hamburg*, 3, 72, fig. 51.

Panning, A. (1944) Die Trepangfisherei. *Mitteilungen aus dem Hamburgischen ZoologicheMuseum und Institut*, 49, 2–76.

Pawson, D.L. (1970) The Marine Fauna of New Zealand: Sea Cucumbers (Echinodermata: Holothuroidea). *Bulletin of the New Zealand Deprtment of Scientific and Industrial Research*, 201, 9–65.

Pearson, J. (1910) Littoral Marine Fauna: Kerimba Archipelago, Portuguese East Africa. Holothurioidea. *Proceedings of the Zoological Society of London*, 7, 167–182.
https://doi.org/10.1111/j.1096-3642.1910.tb01890.x

Rowe, F.W.E. (1969) A review of the family Holothuriidae (Holothuroidea: Aspidochirotida). *Bulletin of the British Museum of Natural History*, Zoology, 18 (4), 119–170.
https://doi.org/10.5962/bhl.part.18419

Rowe, F.W.E. (1989) Nine new deep-water species of Echinodermata from Norfolk Island and Wanganella Bank, northeastern Tasman Sea, with a checklist of the Echinoderm Fauna. *Proceedings of the Linnean Society of New South Wales*, 111 (4), 257.

Rowe, F.W.E. & Gates, J. (1995) Echinodermata. *In*: Wells, A. (Ed.), *Zoological Catalogue of Australia. Vol. 33*. CSIRO Australia, Melbourne, pp. 263–337.

Samyn, Y. & Tallon, I (2005) Zoogeography of the shallo-water holothuroids of the Western Indian Ocean. *Journal of Biogeography*, 32, 1523–1538. [with appendix on http://www.blackwellpublishing.com/products/journals/suppmat/JBI/JBI1295/JBI129]
https://doi.org/10.1111/j.1365-2699.2005.01295.x

Samyn, Y., VandenSpiegel, D. & Massin, C. (2006) Taxonomie des holothuries des Comores. *Abc Taxa*, 1, i–iii + 1.

Thandar, A.S. (2007) Additions to the aspidochirotid, molpadid and apodid holothuroids (Echinodermata: Holothuroidea) from the east coast of southern Africa, with descriptions of new species. *Zootaxa*, 1414 (1), 1–62.
https://doi.org/10.11646/zootaxa.1414.1.1

Thandar, A.S. (2022) *A taxonomic monograph of the sea cucumbers of southern Africa (Echinodermata: Holothuroidea) Suricata 9*. South African National Biodiversity Institute, Pretoria, 352 pp.