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NEW RECORDS OF THE HOLOTHURIANS THYONE SERRIFERA OESTERGREN (DENDROCHIROTIDA) AND LEPTOSYNAPTA BERGENSIS (OESTERGREN) (APODIDA)

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With 6 text-figures

Thyone serrifera Østergren, 1898

During a student trip to the Trondheimsfjord (Norway) in August and September, 1967, eight specimens of this species were dredged off Kivnæbnes (63° 32′ N, 9° 51′ E), from a depth of 50 to 200 m, bottom clay with shells. The calcareous ossicles in the body wall are exactly like the illustrations in Østergren (1898) and Mortensen (1924: 235). Figures 1 to 3 show copies of figures by Østergren and Mortensen, and a drawing made from one of my preparations.

Thyone serrifera seems to have been found only once before (pers. comm. Brun, Panning) viz., by Østergren, the author of the species, who dredged it in the Trondheimsfjord near Rødberg (appr. 63° 28′ N, 10° E). Mortensen (1924) cited this record with addition of the depth range 200-500 m, of which the origin is unclear.

This new record confirms the occurrence of the species in the Trondheimsfjord and it would be interesting to know whether or not it is endemic to the fjord.

Leptosynapta bergensis (Østergren, 1905)

Five anterior parts and one posterior part of this holothurian were dredged off Plymouth in September 1968, from mud banks, depth 40 m, 3.2 km WSW of Rame Head (50° 18′ N, 4° 16′ W). On 3 July 1970 Mr. Gibbs of the Plymouth Laboratory was so kind as to collect another sample of about 12 parts of various specimens at the same place. An anchor dredge

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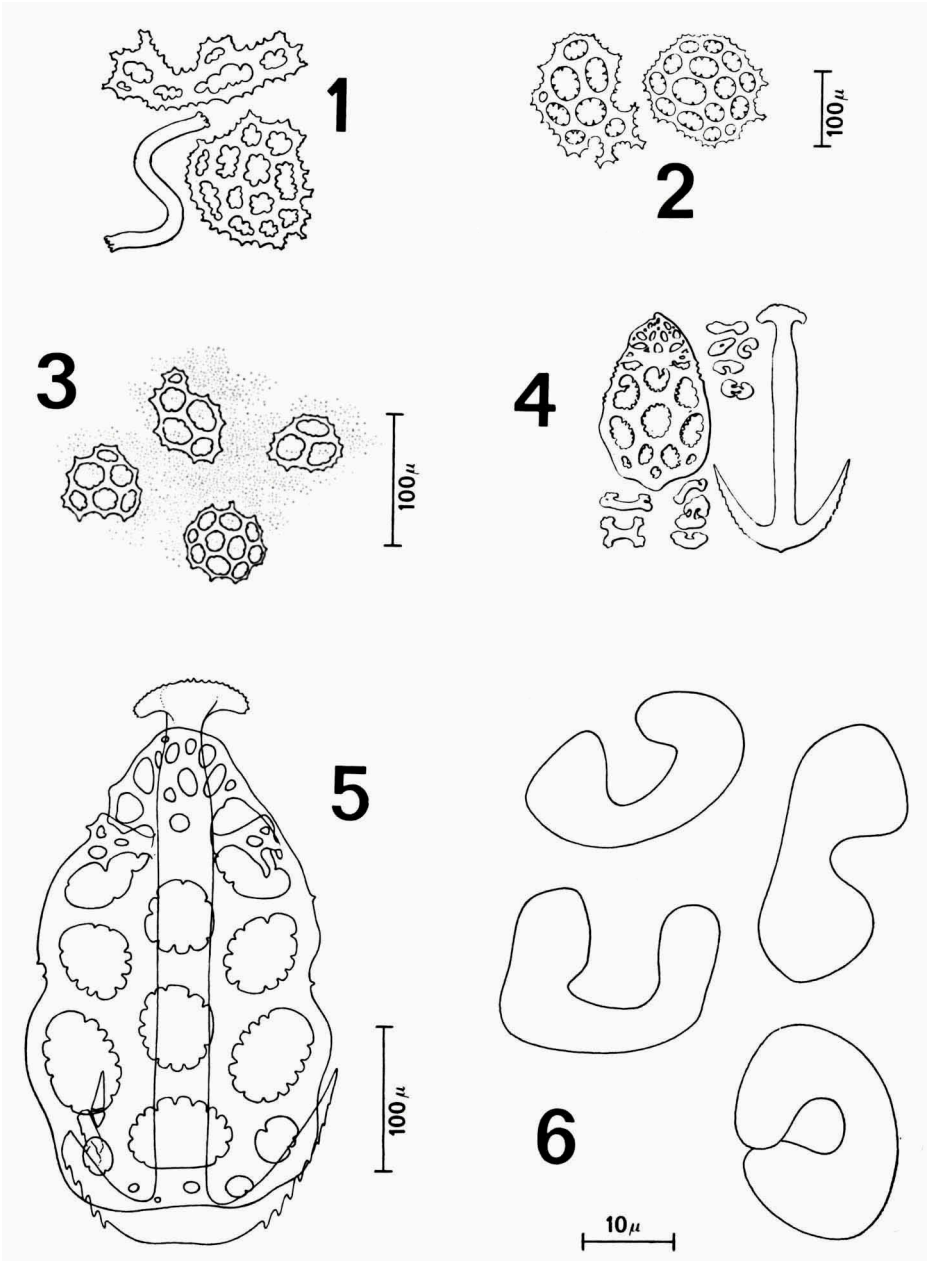

Fig. 1-3. *Thyone serrifera*, calcareous ossicles. 1, after Østergren (1898); 2, after Mortensen (1924); 3, from one of our specimens.
Fig. 4-6. *Leptosynapta bergensis*. 4, anchor plate and ossicles, after Østergren (1905); 5, anchor plate, specimen from Plymouth; 6, ossicles from longitudinal muscles, specimen from Plymouth.

was used in both cases. In this area only *Leptosynapta inhaerens* (O. F. Müller, 1776) was said to occur; the latter species was not found, however. Possibly the whole population of *Leptosynapta* in this locality will turn out to be *L. bergensis*; *L. inhaerens* usually lives in coarse sand and not in mud.

Dr. G. Cherbonnier (Paris) kindly examined some specimens of the first sample and confirmed our opinion that they belong to *L. bergensis*. The shape of the calcareous ring and of the tentacles, the number of digits (7-11), the spiculae of the tentacles and radial bands, all are typical for the species; as is also the occurrence of an intestinal loop. Only the anchor plates in our material are sometimes slightly different from those in Norwegian forms and more like those of *L. inhaerens*. Figure 4 shows the anchor plates as seen by Østergren (1905) in specimens from Bergen (Norway) and in fig. 5 a plate of a Channel specimen from the 1970 sample is figured.

More figures are given by Cherbonnier (1963). In six preparations of the anterior part of the skin of specimens from the 1970 sample one showed no dentation at the inner edge of the holes of the anchor plates and three had no dentation at the outer edge.

Leptosynapta bergensis was previously known from the Scandinavian coast, Helgoland, the Far Øer, the Hebrides (Cherbonnier, 1963) and from the Northumberland coast (Buchanan, 1966).

On the specimens of *L. bergensis* both the rotifer *Zelinkiella synaptae* (Zelinka, 1887) and the copepod *Synaptiphilus luteus* Canu & Cuénot, 1892 were found. In the gut of one specimen an undescribed Umagillid was moving around. All of these associates are also known from other species of *Leptosynapta* (cf. Barel & Kramers, 1970).

Specimens of both species of holothurians discussed here are deposited in the Rijksmuseum van Natuurlijke Historie, Leiden. I am most indebted to Mr. H. Heyn for preparing the figures.

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