DET KONGELIGE NORSKE VIDENSKABERS SELSKAB
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Sponges from the Trondheimsfjord and Adjacent Waters I.

By

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(Fremlagt i Fellesmøtet 10de mai 1937 av herr Dons).

In the collections brought home by Professor L. A. Jägerskiöld from his investigations of the coral-fauna of the Swedish and Norwegian coasts I have found some sponges worth recording. The sponges dealt with in this part I-II have been dredged up in the Trondheimsfjord and its surroundings on board the M/Y «Gunnerus» under the direction of mr. Carl Dons, director of the Biological Station of Trondheim.

The sponges mentioned here and in subsequent communications have not hitherto been recorded from the Norwegian coast, and four of them seem to be new to science.

Order *Triaxonida*

Rosella Mortenseni, BURTON 1928. — Occurrence: One small fragment from Trondheimsfjord, Røberg. Depth: 350 m. Further distribution: S. of Iceland; between Iceland and the Faroes. Depth: 475-957 m.

Order *Cornacuspongida,* Sub-order *Poikilorhabdina*

Hymedesmia planca, LUNDBECK 1910. — Occurrence: Off Trondheimsfjord, N. of Storfosen. Depth: 180-210 m. Remarks: The colour of the sponge was blue in the living state. Further distribution: East of the Faroes, Denmark Strait, Davis Strait. Depth: 415-1050 m.

Hymedesmia Donsi n. sp. — Holotype: In Trondheim Museum. Occurrence: Trondheimsfjord, Røberg. Depth: 350 m.

Diagnosis: Sponge thin, encrusting: surface slightly

uneven, made shaggy by protruding spicules: Colour in spirit grayish white. The main skeleton consists of upright acanthostyli of two sizes, echinating the substratum. The dermal skeleton consists of bundles of tornota, running more or less obliquely to the surface. Microsclera chelae arcuatae. The large acanthostyli are slightly curved and have a more or less distinct head. The basal half-part of the shaft is spined with small, reclined spines. The spines of the head are rather strong and straight, with the outermost tip abruptly bent. Size: 170-215 μ by 8-9 μ. The small acanthostyli are straight and club-like and have no distinct head. The shaft is set with rather strong, reclined spines in all its length. The head is spined in the same manner as that of the large ones. Size: 75-95 μ by 4-5 μ. The tornota are straight and very slightly fusiform and polytylote. The ends, which are somewhat unequal, are rather sharply pointed and have mucros, which may be very smal or lacking. Size: 180-210 μ by 3-4 μ. The isochelae arcuatae have a thin, evenly curved shaft and smal end parts. Size: 20-24 μ chord.

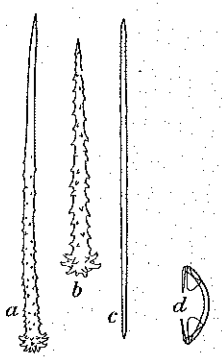

Fig. 1. Hymedesmia Donsi: a, and b, acanthostyli, large and smail c, tornotum, d, chela arcuata.

Remarks: This species seems to be easily distinguished from other Hymedesmiae with spicula of such small sizes, by the fact that the large acanthostyli are spined only in the basal half-part.

Hymedesmia ebria n. sp. — Holotype: In Trondheim Museum. Occurrence: Off Trondheimsfiord, N. of Storfosen. Depth: 180-210 m.

Diagnosis: Sponge thin, encrusting; surface even; dermal membrane a thin, easily separable film. Colour in spirit grayish white The main skeleton consists of upright acanthostyli of two sizes, echinating the substratum. The dermal skeleton consists of bundles of tornota, running more or less obliquely to the surface. The microsclera are isochelae of three sizes and sigmata of two sizes. The large acanthostyli are slightly, sometimes irregularly curved and have no distinct head. They are spined in all their length with small, reclined spines, but the spines are very few in number. Size: 350-425 μ by 14-16 μ. The small acanthostyli are straight and somewhat club-like and have

no distinct head. They are spined in all their length with comparaticly strong spines. Size: 125-145 μ by 9-10 μ. The tornota are straight or slightly curved and have unequal ends; one end is abruptly pointed, and is provided with a mucro, the other one tapers more evenly, but has also a mucro. Size: 220-250 μ by 4-5 μ. The large chelae are of the ordinary arcuata-type with evenly curved shaft with distinctly recurved ends. The tooth is elliptical and the same length as the alae. Size: 55-75 μ chord. The chelae of the medium size are of a similar shape, but the ends are not or only very little recurved and the alae manubrii a little broader. Size: 20-30 μ chord. The small chelae have the rather short free part of the shaft nearly straight and the curvatures rather abrupt. The tooth is narrow and elliptical, but the alae manubrii are broad and palmate. Size: 9-15 μ chord. The sigmata are of the ordinary contorted type; the large ones measure 55-75 μ chord, the small ones 20-30 μ.

Remarks: This species is very easily distinguished from all its relatives by the presence of microsclera of five sorts. As the reduction of spicula is a rather common feature in the genus Hymedesmia, this species can be considered to have a central position among its relatives.

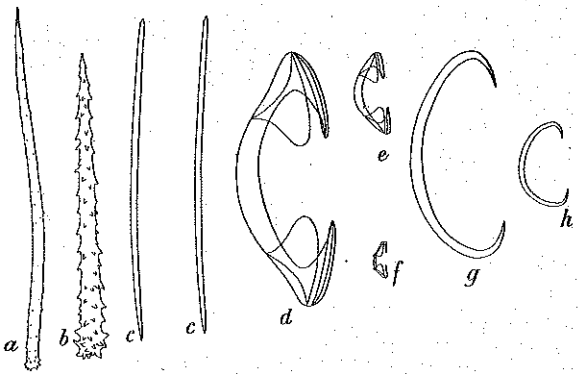

Fig. 2. Hymedesmia ebria: a and b, acanthostyli, large and small c, tornota d, e and f, chelae of 3 sizes; g and h. Sigmata of two sizes.

Hymenancora tenuisclera, LUNDBECK 1910. — New for the Norwegian Fauna. Occurence: Trondheimsfjord, Røberg. Depth 350 m. Further distribution: Koster, Sweden; between Norway, the Faroes and Iceland, Greenland. Depth: 85-582 m.

Trykt 17de august 1937
i Kommission hos F. Bruns Bokhandel
Aktietrykkeriet i Trondhjem