

Sponges from the Trondheimsfjord
and Adjacent Waters. II.

By

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Hymoxenia n. gen. — Genotype: *Hymoxenia inflata* n. sp.

Diagnosis of the genus: Myxillidae with a main skeleton of upright acanthostyli, echinating the substratum, and an accessory skeleton of acanthoxea in the interstices. The dermal skeleton consists of bundles of smooth needles. Microsclerae chelae arcuatae.

Remarks: This genus shows in its skeleton arrangement a close relation to the genus *Hymedesmia*. The chief difference lies in the presence of acanthoxea, which points to a relationship to the genus *Chaetodoryx* Topsent 1927 p. 11. The latter genus has the skeleton-arrangement of the genus *Ectydoryx*, but has slender acanthoxea (called «oxychètes» by Topsent) scattered in the interstices. Thus, we can say that *Hymoxenia* is related to *Hymedesmia* in the same manner as *Chaetodoryx* to *Ectydoryx*. Possibly we can find other relations founded on the presence of similar spined needles in the sponges. Here I will mention the spined raphides of the genus *Tedania*. Perhaps also the dermal acanthostyli and acanthoxea of the *Crellidae* are of the same origin. In fact, we have some species of the genus *Hymedesmia*, e.g. *Hymedesmia crelloides* BURTON & RAO, in which the main skeleton of acanthostyli is weak, and its functions partly taken over by vertical bundles of dermal needles, which very closely reminds one of the *Crella* - skeleton. If the bundles of smooth needles are still more confined in the vertical direction, it is possible that the spined accessory needles form a horizontal layer. Thus, *Chaetodoryx* and *Hymoxenia* among the *Myxillidae* would be intermediates to the upright, viz. encrusting *Crellidae*. On the other hand, a concentration of the spined

accessory needles to the basal parts of the sponge would give a skeletal arrangement, reminiscent of that of *Plocamia* sensu lat.

Hymoxenia inflata n. sp. — Holotype: In Trondheim Museum. Occurrence: Trondheimsfjord, Røberg, Depth: 100 m.

Diagnosis: Sponge encrusting; surface slightly uneven, strongly hispid by protruding spicules; colour in spirit grayish white; the main skeleton consists of upright acanthostyli of two sizes, echinating the substratum. In its interstices an accessory skeleton of scattered acanthoxea. The dermal skeleton consists of bundles of tylota, placed more or less obliquely to the surface. The microsclera are chelae arcuatae. The large acanthostyli, which protrude with almost half their length over the surface, are evenly curved and have a globular head. The head and a little part of the shaft are spined; the rest is smooth. Size: 650-1400 μ by 20-25 μ . The head is 25-35 μ in diameter. The small acanthostyli are straight and club-like and have a rather distinct head. The shaft is set with reclined spines in all its length; the head has straight spines. Size: 150-200 μ by 8-10 μ . The diameter of the head is 12-15 μ . The acanthoxea are straight or slightly bent and have a conspicuous inflation in the middle. They are densely set with spines, reclined towards the inflation. The inflation itself bears strong, straight spines. Size: 290-400 μ by 8-10 μ . The diameter of the inflation is 11-13 μ without spines. The dermal tylota are straight and slightly polytylote; the ends are a little unequal. Size: 320-385 μ by 3-5 μ . The chelae arcuatae are strongly, nearly semicircularly curved: the end-parts are recurved. The shaft is oval in section, measuring 50-60 μ chord and about 6 μ in thickness and 12 μ in breadth.

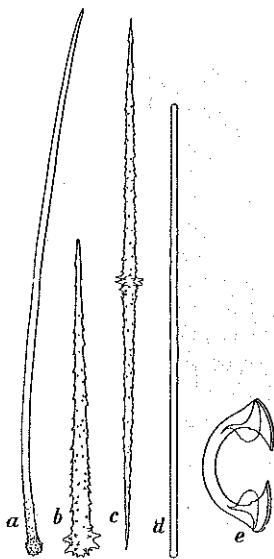


Fig. 1. *Hymoxenia inflata*: a and b, Acanthostyli, large and small, c, acanthoxeum, d, tylotum, e, chela arcuata.

Remarks: The holotype forms a crust on a piece of dead *Lophohelia*, broken into two pieces; a little piece is in the care of the Gothenburg Museum of Natural History.

Crella Jaegerskiöldi n. sp. — Holo-

type: In Trondheim Museum. Occurrence: Frøyfjord, S. of Titran. Depth: 170-200 m.

Diagnosis: Sponge encrusting but somewhat massive; surface with small papillae; dermal membrane a thin, firm and easily separable film. Colour blue in the living state, grayish white in spirit. The skeleton is built up of acanthostyli of two sizes, strongyula or strongylotornota, and isochelae arcuatae. The main skeleton is built up by bundles of strongyula associated with acanthostyli. In the interstices scattered acanthostyli. The dermal skeleton consists of a thin layer of small acanthostyli, over which are placed a large amount of chelae. The large acanthostyli are slightly curved and have no distinct heads. They are set in all their length with very small spines. Size: 250-350 μ by 7-8 μ . The small acanthostyli are more strongly curved, but have no heads. They are set with rather strong, straight or reclined spines in all their length. Size: 120-140 μ by 4-5 μ . The dermal needles are strongyula, sometimes tending to strongylotornota. They are straight and very slightly fusiform and polytylote. Size: 325-375 μ by 5-7 μ . The chelae arcuatae have an evenly curved shaft with rather small alae at the ends. The tooth is small and elliptical. The shaft, which is oval, measuring 5 μ by μ in section, is 35-40 μ chord.

Remarks: Among the small acanthostyli acanthoxea occur to a small amount. They are gently curved and in all their length set with spines, reclined towards the middle. This fact supports my opinion that we have a connection between *Hymedsmia* and *Crella* in the genus *Hymoxenia*. The species described above seems to have its nearest relative in *Crella basispinosa* BURTON. These two species are easily distinguished from other *Crellidae* in having acanthostyli of two sizes. *Crella Jaegerskiöldi* is distinctly separated from *C. basispinosa* in having megasclera of much smaller sizes, but microsclera of a larger size.

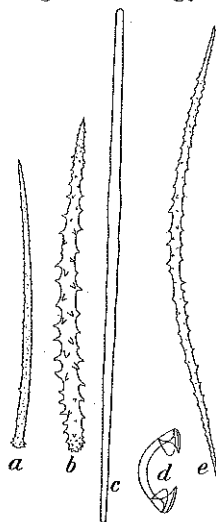


Fig. 2. *Crella Jaegerskiöldi*: a and b, acanthostyli, large and small, c, strongyulum, d, chela arcuata, e, acanthoxeum.

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I Kommission hos F. Bruns Bokhandel
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