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Zoölogisch Museum
Amsterdam.

Studies on Norwegian Sponges I.

BY

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(Fremlagt i Fellesmøtet 9de november 1931 av herr Dons).

Among the numerous specimens contained in a collection of sponges in the Trondheim Museum, kindly lent me for examination by Mr. CARL DONS, were found 4 which represent new species, and of these 3 belong to new genera. A full list of the species identified, which constitutes a valuable addition to our knowledge of the Sponge-fauna of Norway, will be published later. The new genera and species are described in this paper.

GENUS CRELLA

Crella Donsi n. sp. (Text-fig. 1). Holotype: — in Trondheim Museum. Occurrence: — Røst, June 10th 1928, on a stone at low water.

Diagnosis: — Sponge a thin incrustation on rock, about 1 mm thick; surface smooth, even, minutely-punctate and showing tracings of subdermal canals; colour, in spirit, cream-white; oscules not apparent; skeleton of bundles of oxoote tornota, 0.24 by 0.004 mm, running vertically to surface, with which are associated long acanthostyli, 0.2 by 0.006 mm; dermis filled with tangential layer of small acanthostyli, 0.1 by 0.004 mm, exclusive of spines; microscleres absent. → dozens of chelae found

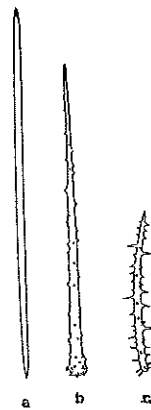


Fig. 1. *Crella Donsi* sp. n. thickness. Its characteristic features are the absence of microscleres, the presence of oxoote tornota.
— a. Tornota, 200:1; b. Large acanthostyle, 200:1; c. Small acanthostyle, 200:1.

The tornota are cylindrical, narrowing slightly from the middle outwards and coming to an abrupt point at each end. The larger acanthostyli are only sparingly spined.

There are many features in common between this species and *Hymedesmia Stephensi* BURTON, and it is possible, when

more and better material is available for examination, that that also may prove to belong to the genus *Crella*.

Halichondria
HALICHONDRIELLA n. gen.

Genotype: — *Halichondriella corticata* n. sp. **Diagnosis:** — Haploscleridae with skeleton of oxea of one size only; main skeleton composed of long, slender fibres running vertically to surface and merging into a subdermal palisade of oxea, with scattered spicules between fibres; dermal skeleton a delicate tangential reticulation of oxea.

Halichondriella corticata n. gen. n. sp. (Text-fig. 2). **Holotype.** — in Trondheim Museum. **Occurrence.** — on the wall of the aquarium of the biological station.

Diagnosis: — Sponge cushion-shaped, flattened dorso-ventrally; corticate (?); surface undulating, minutely mammillate, faintly reticulate and non-hispid; texture tough, fleshy; oscules not seen; colour, in spirit, of surface, white, of interior, pale-brown; main skeleton composed of vertical fibres of oxea, with separate spicules scattered between, ending in a loose,

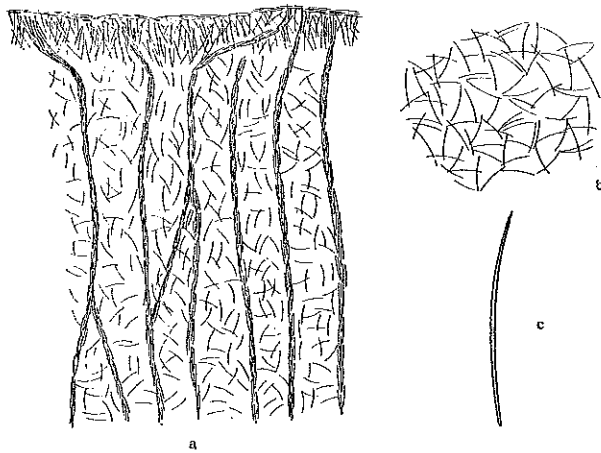


Fig. 2. — *Halichondriella corticata* sp. n. — a. Section at right angles to surface; b. Dermal skeleton, seen from above; c. Oxeote, 100:1.

sub-dermal palisade of similar spicules; dermal skeleton a loose unispicular reticulation; spicules oxea, variable in size, 0.16 to 0.3 mm by 0.001 to 0.004 mm.

Remarks: — The holotype, an incomplete specimen, takes the form of a low cushion-shaped mass, of tough, fleshy consistency. The surface is minutely and irregularly mammillated and shows, under a low power binocular, a faintly reticulate appearance. It is smooth, non-hispid and undulating. Oscules are not to be seen. The main skeleton consists of fibres, containing 6–8 oxea, running vertically to the surface, with a tendency to branch and anastomose. Scattered between the bundles are numerous loose spicules lying without order. Just beneath the surface is a sub-dermal (or cortical?) palisade of oxea set approximately at right angles to the surface and supporting the delicate tangential network of the dermal skeleton. The spicules are oxea varying in length from 0.16 to 0.3 mm. There is no visible spongin, and microscleres are absent. A cortex appears to be present but is feebly developed and coincides with the sub-dermal palisade.

The species shows an affinity with *Halichondria* in having oxea of variable length, and in the presence of a tangential reticulation, but here the resemblance ceases. The vertical fibres of the main skeleton, the sub-dermal palisade and the isolated spicules scattered between the fibres are characters found in no other genus.

It is probable that *Amorphina renieroides* FRISTEDT and *A. fibrosa* FRISTEDT are congeneric with this species; but our knowledge of them is not sufficient to settle this point without re-examination of the original material.

Genus *TRACHYOPSILLA* n. gen. = *Halichondria*

Genotype: — *T. glaberrima* n. sp. **Diagnosis:** — Haploscleridae with skeleton of oxea only, of variable size; main skeleton halichondroid, with loose fibres running vertically to surface and ending in dermal brushes, and with a loose tangential layer of spicules associated with outer ends of these brushes.

Remarks: — The genus is intermediate between *Halichondria* and *Trachyopsis*, and has much in common with *Halichondriella*. It differs from the latter mainly in the regularity of the dermal brushes and in the fact that the tangential layer does not overlie these brushes but is associated with their distal parts and is situated below the surface.

Trachyopsilla glaberrima n. sp. (figs. 3, 4). Holotype. — in Trondheim Museum. Occurrence. — Eidsbotn, Levanger, 4th October 1911, 4 m.

Diagnosis: — Sponge cushion-shaped; oscules not apparent; surface smooth, even; texture friable; colour, in spirit, brown; main skeleton halichondroid with ill-defined fibres running vertically to surface to end in close-set brushes of spicules; dermis further supported by a loose tangential layer of spicules associated with outer ends of dermal brushes; oxea measuring 0.24 to 0.34 by 0.004 to 0.008 mm; microscleres absent.

Remarks: — The species is represented by three specimens agreeing closely in all respects. The holotype is a cushion-shaped mass, of rounded outline, measuring 3 cm long by 2 cm across by 2 high (fig. 4). The surface is smooth and gives the impression of being supported by a regular tangential reticulation as in *Halichondria*. This is not the case, however, the dermal skeleton consisting of a palisade of densely-packed brushes of oxea with tangentially-arranged spicules associated with their outer ends. Each of the fibres running vertically to the surface probably ends in a dermal brush, but as they twist slightly a radial section does not always show this connection clearly. The spicules are of the type which may be conveniently described as "halichondroid-oxea". That is to say, they are slender, slightly curved and taper gradually to a point at each end. They are somewhat variable in size, but not to the same extent as the spicules of *Halichondria panicea* (PALLAS).

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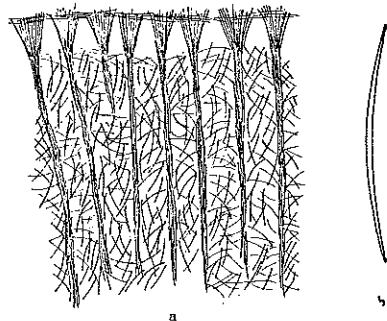


Fig. 3. — *Trachyopsilla glaberrima* sp. n. — a. Section at right angles to surface; b. Oxeote, 75:1.



Fig. 4. — *Trachyopsilla glaberrima* sp. n. The holotype, 1:1.