

Additions to the Swedish Sponge-fauna.

Preliminary note.

By

HARALD ALANDER.

With 1 Figure in the Text.

Communicated June 5th 1935 by E. LÖNNBERG.

While the Sponge-fauna of Norway is rather well known, no special attention has been paid to the Swedish marine sponges, since FRISTEDT carried out his investigations about 50 years ago, and as he had very little material from the northern parts of Bohuslän, it is obvious, that a revision of the Swedish Sponge-fauna is needed. During some years I have been at work upon the sponges of the Swedish west-coast, and I have made collections of sponges on investigation-trips, made from the Zoological Station of Kristineberg to different parts of the Archipelago of Bohuslän. Furthermore I have had some sponges, belonging to the Zoological Museum of Uppsala, for determination.

The sponges dealt with in the following lines are collected from the Kosterfjord, Säcken and the Singlefjord. The sponge-fauna of these localities, and especially that of the »reef» of *Lophohelia prolifera* in Säcken, is very rich and differs rather much from that of the other parts of the Swedish west-coast, but shows a striking resemblance to the Norwegian sponge-fauna.

Order: **Tetraxonida.**Sub-order: **Sigmatophora.**Family: **Tetillidae.**

Tetilla cranium (MÜLLER). Säcken, depth 85 m. One specimen.

Further distribution: Norway: Stavanger, Bergen, Korsfjord, Trondheim, Vigten. Arctic, Atlantic, Mediterranean. Depth: 30—1 000 m.

Suborder: **Astrophora.**Family: **Stellettidae.**

Dragmastra normani (SOLLAS). Säcken, depth 85 m., Several specimens. Kosterfjord, E. of Ramsö, 200 m. Rather common.

Further distribution: Norway: Korsfjord, Trondheim, Vadsø. N. E. coast of N. America. Depth: 180—2280 m.

Stryphnus ponderosus (BOWERBANK var. *rudis* SOLLAS. Kosterfjord, E. of Ramsö, depth 200 m. Very common.

Further distribution: Norway: Stavanger, Trondheim. Depth: 180—275 m.

Family: **Geodiidae.**

Isops phlegraei SOLLAS. Säcken, depth 85 m. 3 specimens. Kosterfjord, E. of Ramsö, depth 200 m. Very common.

Further distribution: Norway: Korsfjord, Stavanger, Trondheim, Hammerfest. N. Atlantic. Depth: 216—900 m.

Sub-order: **Astromonaxonellina.**Family: **Donatiidae.**

Tethya lynceurium (L.) Kosterfjord, S. E. of Felgdholm, depth 60—90 m. One specimen.

Further distribution: Norway: Stavanger, Bergen, Trondheim, Lofoten, Bear Isl. Arctic, Atlantic, Mediterranean, Pacific. Depth: Low water to 400 m.

Family: **Polymastiidae.**

Quasillina brevis (BOWERBANK). Säcken, depth 85 m. One specimen.

Further distribution: Norway: Stavanger, Bergen, Trondheim, Tromsø. Arctic, N. Atlantic, Mediterranean. Depth: 30—700 m.

Quasillina richardi TOPSENT. Säcken, depth 85 m. 4 specimens. Their outer shape agrees rather well with that of *Qu. brevis*.

Further distribution: Between Norway and Bear Isl. Depth: 360 m.

Family: **Suberitidae.**

Suberites carnosus (JOHNSTON) Kosterfjord. E. of Ramsö, depth 200 m. 2 specimens.

Further distribution: Norway, Arctic, Atlantic, Mediterranean. Depth: Low-water to 800 m.

Pseudosuberites hyalinus (RIDLEY & DENDY). Säcken, depth 80 m. Common. Kosterfjord, E. of Ramsö, depth 200 m. 3 specimens.

Further distribution: Norway: Stavanger, Bergen, Trondheim, Bear Isl. N. Atlantic, Mediterranean, Antarctic. Depth: 80—970 m.

Family: **Clionidae.**

Alectona millari CARTER. Säcken, depth 85 m. Boring in nearly all the dead branches of *Lophohelia*.

Further distribution: Norway: Oslofjord, Bergen, Lervig. N. Atlantic, Mediterranean. Depth: 450—1190.

Order: **Cornacuspongida.**Sub-order: **Protorhabdiua.**Family: **Biemnidae.**

Hamacantha falcula (BOWERBANK). Säcken, depth 85 m. One specimen.

Further distribution: Norway: Lervig, Bergen?. N. Atlantic. Depth: 144—2280 m.

Suborder: Poikilorhabdina.

Family: Myxillidae.

Stylopus aceratus (TOPSENT). Säcken, depth 85 m. 2 specimens, Kosterfjord, E. of Ramsö, depth 200 m. One specimen. Further distribution: Azores, depth: 880—2 252 m.

Hymedesmia curvichela LUNDB. Kosterfjord. E. of Ramsö, depth 200 m. 5 specimens on worm-tubes.

Further distribution: Faröes, Denmark-strait. Depth: 274—604 m.

Hymedesmia minuta n. sp. Sponge very thin, encrusting; surface somewhat uneven, rendered minutely hispid by protruding spicules. Colour in spirit grey. The spicules are entirely spined acanthostyli, divided into two groups, tylota and chelae arcuatae. The large acanthostyli are slightly curved and closely set with small recurved spines. The spines of the head are strong and blunt. Size of the large acanthostyli: 150—210 μ by 10—12 μ . The small acanthostyli are straight and have reclined, comparatively strong spines. The spines of the head are blunt and recurved towards the apex. Size of the small acanthostyli: 70—90 μ by 6—7 μ . The tylota are straight, slightly polytylote and have oval, somewhat unequal ends. Size: 160—215 μ by 2—3 μ . The chelae arcuatae have a slender, slightly curved shaft with somewhat recurved end-parts. The teeth are directed a little inwards. Length of chelae: 20—22 μ . This species seems to be distinguished from other *Hymedesmia* with two sorts of acanthostyli by the small dimensions of the needles.

Fig. 1. a & b. Acanthostyli, large and small. c. Tylotum. d. Chela arcuata.
Hymedesmia minuta.

Säcken, depth 85 m. One specimen on a piece of *Lophohelia*.

Hymedesmia paupertas (BOWERBANK). Säcken, depth 85 m, common. Kosterfjord, E. of Ramsö, depth 200 m. Rather common.

Further distribution: Norway: Stavanger. Arctic, N. Atlantic, Mediterranean. Depth: 40—400 m.

Hymedesmia similis LUNDB. Säcken, depth 85 m. Rather common.

Further distribution: Norway: Stavanger, Trondheim, Arctic, N. Atlantic. Depth: 135—1 418 m.

Hymedesmia primitiva LUNDB. Säcken, depth 85 m. 3 specimens. Singlefjord, depth 100—135 m. One specimen.

Further distribution: E. of the Faröes, between the Faröes and Iceland, Greenland. Depth: 99—768 m.

Hymenancora tenuisclera LUNDB. Säcken, depth 85 m. One specimen in the material belonging to Uppsala Museum.

Further distribution: Between Norway, Faröes and Iceland. Greenland. Depth: 165—582 m.

Family: Dendoricellidae.

Melonanchora elliptica CARTER. Säcken, depth 85 m. 3 specimens.

Further distribution: Norway: Stavanger, Bergen, Trondheim, Vigten. N. Atlantic. Depth: 90—1 300 m.

Family: Bubaridae.

Plocamionida microcionides (CARTER). Säcken, depth 85 m. Common.

Further distribution: Off European west-coast. Depth: 675—1 300 m.

Sub-order: Aporhabdina.

Family: Spongiidae.

Spongia carteri BURTON. Singlefjord, depth 100—135 m. One specimen. Säcken, depth 85 m. 8 specimens. Kosterfjord, E. of Sneholm, depth 50—70 m. One damaged skeleton. E. of Ramsö, depth 200 m. 3 specimens.

Further distribution: Norway: Stavanger, Trondheim. Depth: 5½—180 m.

Order: **Dendroceratida.**Family: **Darwinellidae.**

Aplysilla sulphurea F. E. SCHULZE. Säcken, depth 70—90 m. Several specimens. Kosterfjord, E. of Ramsö, depth 200 m. 3 specimens.

Further distribution: Atlantic, Mediterranean, Australia.
Depth: Low-water to 320 m.

List of Literature.

- Arndt, W.** 1935. Porifera. Die Tierwelt der Nord- und Ostsee. III a₁. — **Burton, M.** 1930. Norwegian Sponges from the Norman Collection. Proc. Zool. Soc. London. — **Fristedt, K.** 1885. Bidrag till kännedomen om de vid Sveriges västra kust levande Spongiae. Kongl. Sv. Vetenskaps-Akad. Handl. XXI. — 1887. Meddelanden om Bohuslänska Spongior. Öfvers. Kgl. Vet.-Akad. Förhandl. XLIV. — **Hentschel, E.** 1929. Die Kiesel- und Hornschwämme des Nördlichen Eismeers. Fauna Arctica, Jena. V. — **Lundbeck, W.** 1902. Porifera. — Part I. Homorrhaphidae and Heterorrhaphidae. Danish »Ingolf»-Exp. VI. — 1905. Porifera. — Part II. Desmacidonidae (Pars) Danish »Ingolf»-Exp. VI. — 1910. Porifera. — Part III. Desmacidonidae (pars) Danish »Ingolf»-Exp. VI. — **Stephens, J.** 1921. Sponges of the coast of Ireland. Fish. Ireland Sci. Invest. London II. — **Topsent, E.** 1904. Spongiaires des Açores. Res. Camp. Sci. Albert de Monaco. Fasc. XXV. — 1913. Spongiaires provenant de camp. scient. de la »Princesse Alice» dans les mers du Nord. Res. Camp. sci. Albert de Monaco. Fasc. XLV. — 1928. Spongiaires de l'Atlantique et de la Méditerranée, etc. Rés. Camp. sci. Albert de Monaco. Fasc. LXXIV.

Tryckt den 23 juli 1935.