

Report of the Biological Survey of Mutsu Bay.  
6. Calcareous of Mutsu Bay.<sup>1)</sup>

By

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(With Plate I.)

The Calcareous fauna of Mutsu Bay seems to be very poor, considering the result of the biological survey of this bay. It is represented by only two species, namely *Leucosolenia laxa* KIRK and *Leucosolenia mutsu*, n. sp.

In the present paper I shall deal with these species.

***Leucosolenia mutsu*, n. sp.**

(Pl. I., Figs. 1-3)

There are many specimens of this new species in the collection. They were all taken at Futagojima near the Marine Biological Station of Asamushi, being found attached to the base of *Sargassum thumbergii* (O'KUNTZE).

The sponge forms irregular, spreading masses consisting of a loose network of Ascon-tubes with varying closeness of its meshes in different specimens and in different parts of the same colony. The oscula are found as small round apertures distributed here and there on the surface of the Ascon-tubes (Pl. I., Fig. 1). The sponge is rather small and attains the height of 5-12 mm. The diameter of Ascon-tubes varies a good deal in different parts of the same colony, measuring about 0.15-0.6 mm.

The colour of the sponge is brownish white when preserved in alcohol.

Structure.—the canal system is of DENDY's type *A*.<sup>2)</sup>

The skeleton is composed of triradiates arranged in a few confused layers in the walls of Ascon-tubes (Pl. I., Fig. 2). In addition to the

<sup>1)</sup> A contribution from the Marine Biological Station, Asamushi, Aomori-Ken.

<sup>2)</sup> DENDY, A. Trans. Roy. Soc. Victoria, Vol III 1891 P. 26.



triradiates above mentioned I have met with a few quadriradiates, which do not seem, however, to be characteristic but only occasional.

Spicules. (Pl. I., Fig. 3)—Triradiates regular. Rays straight, conical, and gradually sharp-pointed, measuring 60–150 $\mu$  in length and 8–14 $\mu$  in thickness of base.

Locality. — Futagojima.

Remarks. — This new species closely resembles *Leucosolenia dubia* DENDY<sup>1)</sup> and *Leucosolenia multiformis* BREITFUSS<sup>2)</sup> in general form and canal system, the latter two species differ from the former, however, in spiculation.

### *Leucosolenia laxa* KIRK.

(Pl. I., Figs. 4 and 5)

*Leucosolenia laxa*, KIRK, Trans. New Zealand Instit., Vol. XXVIII, 1895. p. 208, Pl. IV., fig. 1.

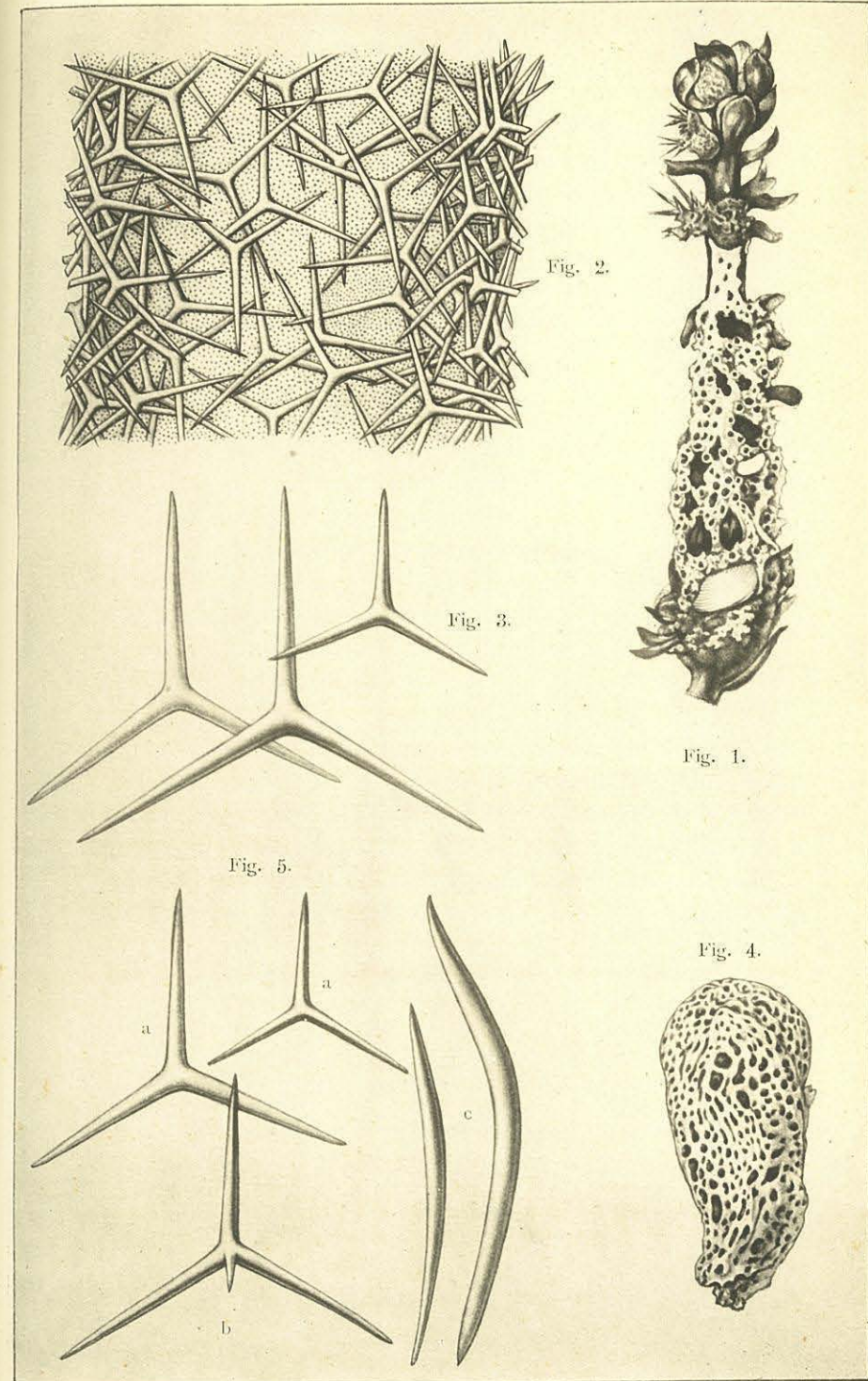
This species is represented in the collection by several specimens obtained at different stations in the bay. I have here chosen a specimen, which was taken by Messrs. TAKATSUKI and SATO off Tairadate by means of a dredge, on which to base further records.

The sponge (Pl. I., Fig. 4) forms an oval shape being broadest at the upper end and narrowed towards the attachment base. It consists of a massive assemblage of reticulating Ascon-tubes. The reticulation of Ascon-tubes is fairly dense on the outer part and is rather loose in the inner. It is devoid of either an osculum or pseudosculum. Total length about 21 mm; greatest breadth about 10 mm; thickness is about 7 mm. as measured in the thickest part. The pseudopores which are distributed on the sponge surface and which are formed by the anastomosing Ascon-tubes vary in both size and shape, measuring from 0.5 mm. upto about 2 mm. in the greatest breadth. The Ascon-tubes measure 0.2–0.4 mm. in calibre.

The colour of the sponge in alcohol is white with a slight brownish tint.

<sup>1)</sup> *Leucosolenia dubia* DENDY. Trans. Roy. Soc. Victoria. Vol. III, 1891, p. 50, Pl. I. Fig. 3; Pl. IX, Fig. 3).

<sup>2)</sup> *Leucosolenia multiformis* BREITFUSS. Mémoires de l'Acad. Impér. des Sciences, St. Pétersbourg (Ser. 8) Vol. VI, No. 2 P. 15. Taf. 1. Fig. 2; Taf. IV. Fig. 26.



B. SAKUMA del.