Rhizogeton ezoense n.sp., a New Hydroid from Hokkaido, Japan[1)]

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(*With 1 Text-figure*)

Although the species of *Clava* or alied genera are rather common ones of marine hydroids in the European and American coasts, they are very rare in Japan and an only record of them from Japan is a provisional record of a *Clava*-like species which was reported as *Clava* sp. by the author from Muroran, Hokkaido, on the specimens attached on the surface of a crab (Yamada 1946). At that time the exact identification was impossible because of the scanty material. Since then the author has tried to find again this species and in these years he has succeeded to find some additional specimens. In examination of them it has been revealed that it is a new species of the genus *Rhizogeton*. The following is the description of the new species.

Rhizogeton ezoense n. sp.

Trophosome. The colony grows on rocks and stones, or on the shells of barnacles on the rocks. The hydrorhiza is consisted of a branched stolon which creeps on the surface of the substratum forming an irregular network. The stolon is comparatively thick, about 0.07–0.12 mm in diameter, and irregularly undulated. It is invested by a thin but distinct membrane of perisarc. The stolons are sometimes buried in diatom shells or other organic or inorganic particles. From the stolon polyps and gonophores stand singly. These are not grouped in clusters, but distributed at intervals upon the stolon. The polyps are up to 4 mm, usually less, in height, unbranched, cylindrical in form slightly tapering toward the base. The hydranths are not clearly separated from hydrocaulus and occupy about distal third to a fourth of the whole length of the polyp. The hypostome is conical and a mouth opens at the summit. The tentacles are 20–22 in number, filiform, slender, and are scattered over the hydranth surface. Of these tentacles some lower ones are usually shorter than the others and are directed slightly downward. The polyps are light pink in color and the gastral interior of the hydranths often

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shows light brownish orange owing to the nutritive particles.

Gonosome. The gonophores with stalk grow singly here and there between the polyps directly from the hydrorhiza. The sexes are separated for colony and are easily distinguishable each other except for very young immature gonophores. They are sporosacs not producing free medusae. The female gonophores are oval in shape and are supported on a stalk. The stalk is unbranched and is of different length within about a third of polyp. It is rather slender than polyp slightly tapering downward. The female gonophores contain 10–13 spherical eggs around spadix. No tentacles and no radial and ring canals are present. The

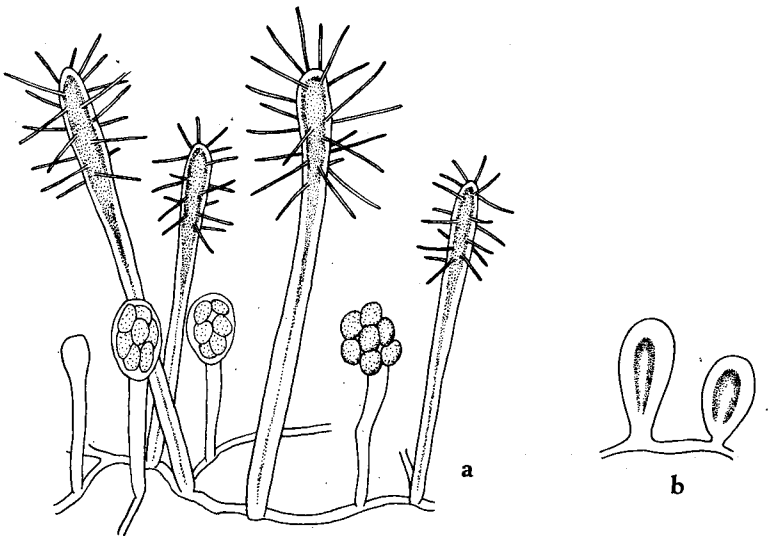

Fig. 1. *Rhizogeton ezoense* n. sp. a. A part of colony with female gonophores. ×15. b. Male gonophores. ×15.

eggs seem to be fertilized within the gonophores. Some female gonophores show advanced developmental stages of various degree. In some ones several planulae developed from eggs are found on the surface of spadix, and in others all these planulae are already absent there leaving behind a bald spadix. The male gonophores also grow directly from the hydrorhiza. They are oval or elongated oval in shape and bear a very short stalk, in this respect showing a clear difference from the female ones. In the male gonophores a spadix occupies the center and around the spadix a spermatic mass is present. No tentacles and no canals are present in the male gonophores.

Habitat and locality. This hydroid occurs on rocks, stones, or barnacle shells, and is very rare cases it may be found on crab or on other benthos animals.

It was found in the shallow water between tide-marks in Muroran, Hokkaido, in April-July, and gonophores occurred in May and June. The species is not rare in Muroran, but its known locality is limited to Muroran at present. Similar colonies have been found from other coasts of Hokkaido but they were always sterile, remaining their exact identification impossible.

Remarks. The clavid-type polyps and the gonophores which grow directly from the stolon clearly indicate that this species belongs to the genus *Rhizogeton* of L. Agassiz. This species resembles *Rhizogeton fusiformis* L. Agassiz which has been known from the New England coast of North America, but differs from it in the following points. The polyps are shorter in legnth than *R. fusiformis*. In the new species the tentacles of polyps are slender and 20–22 in number, while in *R. fusiformis* they are less slender and the number is 10–12. Of the male gonophores this species is also distinguishable from *R. fusiformis*: they are more oval in shape in this species than in *R. fusiformis*. The female gonophores of *R. fusiformis* has never been reported.

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