

Cnemidocarpa rhizopus (Redikorzew)

See REDIKORZEW, (1908, p. 32 as *Styela rhizopus*, and 1916, p. 271) and HUNTSMAN (1922) for description and literature.

Station 13 b, 4 specimens.

The four specimens in the collection are all very small, being only from 3 to 3.5 mm. in diameter. Each possesses a single long, much-branched root, which is as much as 5 mm. long. In shape they are approximately spherical and their surface is entirely covered with sand grains. They correspond in external characters with small specimens of this species obtained in Hudson bay.

In the single specimen dissected the following characters were determined.

Musculature much reduced, scarcely extending beyond siphons.

Tentacles short and about 24 in number. Formula for pharyngeal folds—

Right, Dors. 0 (1) 0 (1) 0 (3) 0 (1) 0

Left. " 0 (3) 0 (1) 0 (3) 0 (1) 0

Dorsal lamina with smooth undulatory margin. Stomach short, with about 12 folds. Anus with about 10 somewhat reflexed rounded lobes. Gonads oval, oblong, or almost globular in shape, directed towards atrium, three on the right side and two on the left.

The small numbers of tentacles, longitudinal bars, or pharyngeal folds, gastric folds, and anal lobe, as compared with previous accounts for the species, may be referred to the small size of the individual. In the number of the gonads there is agreement with Hudson bay specimens (Huntsman, 1922).

The records of this species, though few, indicate a circumpolar distribution with little extension into the subarctic. The species has been known from the Siberian arctic coast, Novaya Zemlya, the Murman coast, north-east Greenland, and Hudson bay.

Goniocarpa lovenii (Kor. et Dan.)

See VAN NAME (1912, p. 560 as *Tethyum coriaceum*) and REDIKORZEW (1916, p. 244, as *Goniocarpa coriacea*) for description and literature.

Station 23, 4 specimens. — Cape Lisburne, Alaska, 5-10 fathoms, sand and gravel, coll. W. H. Dall, U. S. Nat. Mus. No. 6647, 1 specimen.

Elsewhere (Huntsman, 1922) I have expressed an opinion on the distinctness of certain of the forms that have been united with this species by Redikorzew (1916) and Hartmeyer (1915). They are indeed nearly related and the majority have not yet been clearly shown to be distinct. There is certainly very considerable individual variation in both external and internal characters. The arctic specimens listed above do not differ essentially, so far as examined, from specimens taken along the Canadian Atlantic and Pacific coasts, for which I have used the names *G. placenta* and *G. coccodes* respectively. The specific name of *lovenii*, given by Koren and Danielssen I use as being the proper one for this species on the authority of Hartmeyer (1915, p. 326 as *Styela lovenii*).

This species is circumpolar and extends in distribution well into the subarctic on all coasts.