

the posterior end of the ovary, while on the right side they are at the anterior end. In four large specimens from the Gulf of St. Lawrence and the Bay of Fundy the position of the testes varies, but in no specimen have I yet found them alongside the ovary or near its posterior end. They are at the anterior end of the ovary or distributed more or less around and under the renal organ on the right side, and into or below the intestinal loop on the left, the extreme condition being similar to the condition figured by Redikorzew for *redikorzewi*. Whether this latter condition is more typical of individuals from more southern waters, as the facts seem to indicate, is a question deserving investigation. It is, however, at least doubtful whether *redikorzewi* is to be considered distinct from *griffithsii* (*crystallina*). In any event the testes in the latter species are to be considered as varying in position and as perhaps normally being more or less separated from the ovary.

MacLeay's genus *Cystingia* antedates the *Molgula* of Forbes. It need not replace the latter, seeing that the form on which it was based is one of a natural group of species including *redikorzewi* and *retortiformis*, that should be separated from the genus *Molgula* as formerly defined (see Huntsman, 1922).

Rhizomolgula globularis (Pallas)

For description and literature references on this species see HUNTSMAN, 1913, p. 137, and REDIKORZEW, 1916, p. 128.

Station 20 b-c, 4 specimens.—Station 20 d, 2 specimens.—Station 21 d, e and g, 1 specimen.—Station 27 d, 32 specimens.—Station 27 s, 1 specimen.—Station 37 e, 24 specimens.—Station 41, 1 specimen.

Redikorzew (1916, p. 128) has considered *R. arenaria* Ritter, *R. ritleri* Hartmeyer, *R. intermedia* Michaelsen, *R. warpachorskii* Redikorzew, and *R. gigantea* Redikorzew, to be synonymous with Pallas' species, and there appears, indeed, to be no sufficient reasons for considering any of them to be distinct, the differences noted being no greater than might be due to age and individual variation.

Material at my disposal comes from Labrador, Hudson bay, James bay, Bernard harbour (Dolphin and Union strait), Collinson point, Cape Lisburne, Grantley harbour, and Bristol bay, the latter four places being in Alaska and at widely separated points from north to south. The material from Bristol bay (*Albatross* sta. 3229) has been identified by Ritter (1913, p. 444) as *R. ritleri*. Of the characters that have been given as distinguishing species in this genus, none seems to be sufficiently definite and invariable to base divisions upon. The amount of sand covering the surface depends upon the nature of the bottom, in some places being entirely absent. The shape varies considerably depending to some extent upon age and state of contraction. The elongation may be parallel or at right angles to a line from the attached to the free end. There may or may not be lateral flattening. The "root" for attachment may be simple and small or much-branched and extensive. The musculature is perhaps relatively more powerful in large individuals and appears heavier in contracted specimens. Its arrangement I have already described (Huntsman, 1913, p. 137). The tentacles vary in number and size. The dorsal tubercle has the aperture between the horns directed from directly anterior to almost directly to the left. The pharyngeal folds are more or less prominent, depending upon the state of contraction and the method of preservation. The number of bars on each longitudinal fold is more variable than is usual in Caesirids, and the small differences claimed as important cannot be considered significant.