(2) *Bugula leontodon*, n. sp. (Pl. X. fig. 3).

Character.—Zoarium composed of stout, straight, long furcate branches, several inches high. Zoœcia bi- or tri-serial, elongated ovate, constricted at the base, but not tubular. Aperture occupying the entire front. Two or three strong curved tooth-like processes project inwards from one or both sides of the aperture. Avicularia subsessile, subglobose, seated on the apertural membrane near the lower border.

Habitat.—Station 3, lat. 25° 45′ N., long. 20° 14′ W., 1525 fathoms, hard ground.

(3) *Bugula sinuosa*, n. sp. (Pl. X. fig. 2).

Character.—Zoarium several inches high ; branches strong, forked, spreading, straight, bi- or quadri- serial. Zoœcia elongated fusiform (viewed behind), constricted quite at their origin but not tubular. Aperture occupying the whole of the front. A blunt spinous process at the upper angle of each of the zoœcia in the intermediate series, and only on the outer angle in the lateral. Avicularia subsessile, subglobose, situated on the outer side quite at the bottom of the lateral zoœcia only.

Habitat.—Prince Edward Island, 80 to 150 fathoms.

Though closely allied to *Bugula mirabilis*, the differences between the two appear to be quite sufficient to justify their being regarded as specifically distinct. A single specimen only occurs in the collection.

(4) *Bugula mirabilis*, n. sp. (Pl. X. fig. 1).

Character.—Zoarium several inches high, spreading, composed of thick, straight, bifurcating branches. Zoœcia bi -or tri-serial, elongated, narrow, of very uniform breadth, except quite at the bottom. The aperture occupies four-fifths of the length, and is pointed at the bottom; the upper border rounded and quite simple. Avicularia subsessile, pyriform, with a very short peduncle articulated to the front of the zoœcium, immediately below the aperture, and slightly to one side. The fertile zoœcia form an intermediate or median series, in which they alternate with those in the lateral series, which are thus in pairs on the same level.

Habitat.—Station 89, lat. 22° 18′ N., long. 22° 2′ W., 2400 fathoms, Globigerina ooze.

A very remarkable dimorphous form, as it may be termed. The growth commences with a stem, composed of a *fasciculus* of radical fibres, and the zoarium at the lower part is constituted of slender divaricate biserial branches, whilst in the upper portions of the growth the branches are much thicker and triserial.

Whether all the zoœcia in the middle series are fertile is not quite certain, but as it is only in some of these that the oœcia are developed, it may be supposed that all may