

Station 309—Trenton limestone, about fifteen feet above its base, along course of small brook tributary to Bayfield Bay. Lot 1, south, Con. X., Wolfe Island.

DESCRIPTION OF SPECIES.

Phylum MOLLUSCOIDEA.

Class BRYOZOA.

Order TREPOSTOMATA.

Family HALLOPORIDAE.

Genus HALLOPORA Bassler.

HALLOPORA VARIA n. sp.

Plate I, figs. 3-7.

Zoarium composed of subcylindrical branches, 5 to 8 mm. in diameter, bifurcating at frequent intervals; one fragment 22 mm. long has given off five branches. Surface of branches gently undulatory but without conspicuous monticules or maculae. Zoecial apertures angular, about 10 in 3 mm.; walls ridge-like and thin; mesopores very few, generally occurring only in limited areas of the surface.

Tangential sections show the zooecia to be everywhere in contact with each other except in certain spots where small mesopores occupy the angles between zooecia. Vertical sections in the axial region display two sets of tubes, the smaller of which represents mesopores, and the proximal portion of zooecia; in the larger tubes the diaphragms are from 0.2 to 0.5 mm. apart, with an average distance of about 0.35 mm.; this is slightly greater than the diameter of the tubes, which almost invariably falls between 0.28 and 0.33 mm. The smaller tubes contain diaphragms which are only 0.11 to 0.17 mm. distant, generally about as far apart as the diameter of the tube. In the peripheral zone the tubes bend rather abruptly and proceed toward the surface with only slight obliquity; here the diaphragms are from one-third to one-half the diameter apart.

This form is most nearly related to *H. angularis* (Ulrich). The chief differences are the larger size of the branches, the greater distance between diaphragms in the axial portion of zoecial tubes, and the less pronounced crowding of diaphragms near the apertures.

Horizon and locality: Lower Trenton Limestone; Wolfe Island, Ontario, (Stations 226 and 309).

HALLOPORA OBLIQUA n. sp.

Plate I, figs. 8-11.

Zoarium ramose, composed of slender cylindrical branches, 2 to 4 mm. in diameter, bifurcating at comparatively remote intervals; surface of branches slightly undulatory but without conspicuous monticules or maculae. Zoecial apertures polygonal, with thin smooth ridge-like walls, about eleven in 3 mm. Mesopores open at the surface, polygonal in cross-section, about as numerous as the zoecial apertures.