

parts of the bottom from there to Cape Bear (Prince Edward I.), and to the north of Pictou Island, and got back to Pictou on the 16th of August.

From Pictou to Port Hood and along the west side of Cape Breton, the sea bottom consists of red clayey mud, in which annelids are remarkably numerous and often of large size. At almost every cast of the dredge, tangled masses of tubicolous annelids (inhabiting tubes of from the  $\frac{1}{16}$ th to a quarter of an inch or more in diameter, and from one or one and a half inches to nearly eight inches in length came up in handfulls. These, together with large naked species, are so abundant as to form more than two-thirds of the whole number of specimens taken. One specimen of †*Diastylis quadrispinosus* G. O. Sars, was dredged off Pictou Island. Hydrozoa and Polyzoa are tolerably abundant, and sometimes very fine, in the red mud; these have not yet been examined, but among them are *Sertularia argentea* of unusually large size, and a bushy species of *Gemellaria*. *Alcyonium carneum* Ag., is one of the characteristic species of the eastern part of this area, as is also an apparently undescribed species of *Priapulus*, very distinct from *P. caudatus*. Tunicates are not unfrequent in the red mud; the commonest of which are *Peloniaia arenifera* and *Eugyra pilularis*, while \**Glandula fibrosa* St., occurred more rarely. With these, about sixteen species of shells were collected; they are all characteristic Acadian species. The temperature of the mud seems to range from 40° to 42° Fahr. Off Port Hood, two large specimens of a Holothurian were taken, which exactly agree with the drawing and description of the *Cucumaria pentactes* of O. F. Müller, as given by E. Forbes in his British Starfishes.

Off the east point of Prince Edward Island the bottom is sandy, and as the depth where we dredged does not exceed fifteen or twenty fathoms, the summer temperature is high, being affected by surface conditions. Three small specimens of *Echinocucumis typica*? M. Sars were collected here, as well as examples of \**Molgula papillosa* V. and \**M. producta* St. On the Milne Bank we dredged quantities of the common *Echinarachnius*; an abundance of fine Hydroids and Polyzoa; a few shells; and some small algæ.

Between Cape Bear and Pictou Island the bottom is sandy, with shells and a few small stones. Three kinds of sponges were collected here, many hydroids, echinoderms (all common forms), annelids, crustacea, and tunicates. Among the latter are specimens of \**Molgula littoralis* V. Shells were particularly abundant, among them are *Pecten tenuicostatus*, *Modiola modiolus*, *Crenella nigra*, *Astarte undata* Gould, *Cyprina Islandica*, *Callista convexa*, *Pandora trilineata*?, *Crepidula fornicata*, *Lunatia triseriata*, *Mamma immaculata*, and several species of *Bela*.