by forms more or less nearly allied to *Astropecten*, *Astrogonium*, *Archaster*, *Pteraster*, and *Hymenaster*, abounded at all more moderate depths; and the singular aberrant genus *Brisinga* was found universally from the coast of Labrador to the Antarctic ice-barrier, at all depths, from 400 to 3000 fathoms, the trawl rarely coming up from deep water without some fragments of its fragile arms.

The novel forms of sea-urchins, regular and irregular, are numerous and highly interesting, especially in their paleontological aspect. Species of the genera *Porocidaris* and *Salenia* occur not unfrequently, and the curious flexible Echinothuridæ have assumed the proportions of an important family. Among the irregular urchins the relation between the modern abyssal fauna and the fauna of the later Mesozoic beds is even more marked. A number of genera hitherto undescribed associate themselves with the chalk genus *Infulaster*, while others find their nearest allies in *Micraster* and *Ananchytes*.

The Holothuridea are very generally distributed down to the greatest depths; and are represented in deep water by a peculiar series allied to *Psolus*, with a very distinct ambulatory disk, very frequently a great development of calcified tissue in the perisom, and frequently symmetrical series of long tubular appendages along the back and sides. These *Holothuriæ*, which are among the most characteristic of the abyssal forms, have not yet been critically examined.

Polyzoa were found at all depths: some extremely beautiful and delicate forms, referred principally to the Bicellariadæ and to the Salicornariadæ, occurred at depths between 2000 and 3000 fathoms in sterile regions where other animal life was scarce.

The Gephyrea yielded a few interesting undescribed forms. Annelids were not abundant at great depths; but on one or two occasions—as, for example, at Station XIX., on the section between Teneriffe and Sombrero—their occurrence was of spe-