encrusting sponge which we met with frequently sticking to stones in the 'cold area.' The form of the spicules was nearly though not quite the same, and their arrangement was very similar. It appeared as if the two forms placed in intermediate circumstances might have approached one another very closely.

In the warm area, as in the cold at these great depths, there is a singular absence of Hydrozoa. A few species of *Sertularia* and *Plumularia*, and one or two allied forms occurred, and they are now in the skilful hands of Dr. Allman for determination; but their small number and insignificance is remarkable.

Neither are the true corals represented by numerous species, although in some places individuals are enormously abundant. During the 'Porcupine' cruises of 1869 twelve species of Madreporaria were procured which have been determined by Professor Martin Duncan. None of these belong to 'reef-building' genera, but to a group which are recognized as deep-sea corals, a group which appears to have had numerous representatives during all the later geological periods. In a band somewhat restricted in depth, extending downwards from the 100-fathom line, we met in some places with very large numbers of many varieties of *Caryophyllia borealis*, FLEMING (Fig. 4); and at depths of 300 to 600 fathoms the handsome branching *Lophohelia prolifera*, PALLAS (Fig 30), forms stony copses covering the bottom for many miles, the clefts of its branches affording fully appreciated shelter to multitudes of *Arca nodulosa*, *Psolus squamatus*, *Ophiopholis aculeata*, and other indolent 'commensals.'