

habitat. Rhizopoda are more or less abundant in all seas, but the genus *Globigerina* may be regarded as essentially belonging to the deep sea, for it is found in all latitudes and at all depths; the point of its maximum development is in the greatest depths, where deposits made up of its dead remains stretch out for hundreds of square miles, forming probably deep beds. He endeavours to trace a connection between the *Globigerina* Ooze and the Gulf Stream, pointing out that the shells are abundant in the deposits between the Faroe Islands and the east coast of Greenland, and in a large portion of the direct line between Cape Farewell and Rockall, but are absent or rare in the deposits between Greenland and Labrador. In the southern hemisphere calcareous deposits had been found on the Agulhas Bank at a depth of 90 fathoms, in which the *Globigerina* shells made up 75 per cent. of the sediment; he suggested that the area covered by this deposit depended on the current flowing round the Cape from the east. The only difference between the deposit in this and in other parts of the Atlantic is that the shells are more delicate in form, perhaps because the water is not so deep. He was unable to find in a tow-net dragged through nearly 700 fathoms of water a single *Globigerina* shell, and therefore concludes that they live on the upper surface of the deposit at the bottom.

DISCOVERY OF
HIGHER ORGAN-
ISMS IN GREAT
DEPTHS.

Wallich attaches great importance to the discovery of members of the higher groups living at a depth of 1260 fathoms, about half-way between Cape Farewell and the north-west coast of Ireland. On examining the visceral cavity in a specimen of *Ophiocoma*, he noticed a number of *Globigerina* more or less broken, amorphous particles, a few yellow oil globules, and several ova. In three deep soundings he found Annelid tubes composed almost entirely of small *Globigerina* shells, and in another case composed of minute calcareous debris and Sponge spicules in equal proportions. *Ophiocoma granulata*, found off the British and Scandinavian coasts in 10 to 50 fathoms, and off the coast of Greenland in 200 fathoms, was obtained from a depth of 1260 fathoms, without presenting any sensible modification, while the well-known littoral species, *Serpula vitrea* and *Spirorbis nautiloides*, were brought up from a depth of 680 fathoms. Wallich asks the questions: Whence did these creatures originate? are we to regard the localities in which they were found as their genetic centres, or only as isolated colonies tenanted by species whose genetic centres are to be looked for elsewhere? and in answering them he adopts the ideas of Forbes on the great changes which have taken place in the distribution of land and water during geological periods, supposing the submergence of a large tract in high latitudes of the North Atlantic. He says: "No proof of subsidence could be more complete, no proof of the truth of the doctrine of single specific centres more convincing, than the detection under such circumstances of a colony of acclimatized Star-fishes, belonging to a species typical of the Boreal province, well known to range from the confines of the Arctic circle to our own shores, and already shown to have accommodated themselves to a depth of 200 fathoms without variation; whilst the fact of subsidence being general throughout the whole area is rendered probable by the discovery of sessile Annelids, also belonging to