

volcanic minerals. In this view I am now inclined to agree with him, though I still believe that a large amount of the molecular inorganic matter which is abundant in the red clay deposits must be due to the silicates of alumina and iron which we know exist in appreciable quantity both in the hard and soft parts of marine animals. The greatest extent of the "red clay" area is probably in the Pacific, where the average depth of the ocean basin is considerably greater than it is in the Atlantic or the Indian Ocean.

The red clay is not so favourable to the development of animal life as the globigerina-ooze, and a large proportion of the animals living on a red clay bottom belong to groups which secrete but little calcic carbonate in their tests or other hard parts, such as the arenaceous Foraminifera, Hexactinellid Sponges, Holothurideans, and tube-forming Annelids.

*The Uniformity of the Abyssal Fauna.*—The CHALLENGER during her long cruise passed over an extended area under very varied surface conditions. From the circumstances of her voyage it was impossible to examine any one locality fully, but enough was done to enable us to gain a sufficient idea of the general distribution of the more conspicuous animals living on the bottom of the sea, to justify the con-



FIG. 20.—*Aërope rostrata*, Wv. T. One of the abyssal irregular urohins.

clusion that, at depths below 500 to 600 fathoms, a fauna exists of extreme uniformity, which it is impossible as yet to break up into regions or provinces on zoological grounds. Apparently all the classes and most of the leading orders of marine invertebrata are fully represented, but their representation is not in the same relative proportions as in the lesser depths with which we have been hitherto acquainted.