

from the coast. In general they are characterised by great uniformity, corresponding to the constancy of the conditions under which they are laid down; they may be divided into three categories, the true Radiolarian ooze (§ 237), Globigerina ooze (§ 238), and red clay (§ 239). Of these three most important deep-sea formations the first is by far the richest in Radiolaria, although the other two contain often very many siliceous shells.

The marvellous discoveries of the Challenger have thrown upon the nature of marine deposits an entirely new light, which justifies most important conclusions regarding the geographical distribution and geological significance of the Radiolaria. Since Dr. John Murray and the Abbé Renard will treat fully of these interesting relations in a forthcoming volume of the Challenger series (Report on the Deep-Sea Deposits), it will be sufficient here to refer to their preliminary publication already published (Narrative of the Cruise of H.M.S. Challenger, 1885, vol. ii. part ii. pp. 915-926); see also the earlier communications by John Murray (1876, L. N. 27, pp. 518-537), and by Sir Wyville Thomson (The Atlantic, L. N. 31, vol. i. pp. 206-246). In the Narrative (*loc. cit.*, p. 916) the following table of marine deposits is given:—

Terrigenous deposits.	{ Shore formations, Blue mud, Green mud and sand, Red mud,	} Found in inland seas and along the shores of continents.
	{ Volcanic mud and sand, Coral mud and sand, Coralline mud and sand,	
Abysmal deposits.	{ Globigerina ooze, Pteropod ooze, Diatom ooze, Radiolarian ooze, Red clay,	} Found in the abysmal regions of the ocean basins.

237. *Radiolarian Ooze*.—By Radiolarian ooze, in the strict sense of the term, are understood those oceanic deposits, the greater part of which (often more than three-quarters) is composed of the siliceous skeletons of this class. Such *pure* Radiolarian ooze has only been found in limited areas of the Pacific and Indian Oceans. It is most conspicuous in the Central Pacific, between lat. 12° N. and 8° S., long. 148° W. to 152° W., the depth being everywhere between 2000 and 3000 fathoms (Stations 266 to 268 and 272 to 274). In the deepest of the Challenger soundings (Station 225, 4475 fathoms) the bottom is composed of pure Radiolarian ooze, as well as at the next Station in the Western Tropical Pacific (Station 226, 2300 fathoms), the latitude varying from 12° N. to 15° N., and the longitude from 142° E. to 144° E. In the Indian Ocean also, pure Radiolarian ooze was found in the year 1859 between Zanzibar and the Seychelles, this being the first known example of it (§ 230). On the other hand, it has not yet been found in the bed of the Atlantic; but the Tertiary formations of Barbados (Antilles, § 231) like those of the Nicobar Islands (Further India), are to be regarded as pure Radiolarian