

“Valorous” dredgings in Baffin’s Bay (lat.  $62^{\circ} 6' N.$ , depth 1350 fathoms, bottom temperature  $34^{\circ} 6$  Fahr.), as well as at two Stations in the North Atlantic, both in the parallel of  $56^{\circ}$ ,—No. 12, depth 1450 fathoms, and No. 13, depth 690 fathoms.<sup>1</sup> It has been only once brought up in the Challenger expedition, viz., at Station 44, off Cape Hatteras, on a bottom of 1700 fathoms, over which creeps (there is strong reason to believe) an under-flow of cold water from the Arctic basin. It has since, I understand, been found plentifully in a dredging taken by the “Travailleur,” in the Bay of Biscay (Fosse de Cape Breton), at a depth of 1200 fathoms.—It would seem, therefore, that *Orbitolites tenuissima* has its proper home on the sea-bottom of the deeper parts of the North Atlantic, where the temperature ranges from  $37^{\circ}$  Fahr. downwards; but that it is also capable of living, not only in much shallower, but also in much warmer waters. For the temperature of the Mediterranean and Ægean, even at depths below 100 fathoms, is never less than  $54^{\circ}$ ; whilst on the shallow bottom of Setubal Bay, and the shore-slope near Carthage, the summer temperature must be considerably higher.

Looking to the singular retention, in this beautiful Orbitoline, of the Milioline type, its derivation from which may now be confidently affirmed, and also to that elongated form of its chamberlets which seems to mark it out as more nearly related than either of the other “simple” types to *Peneroplis*, the probability seems strong that it was a very early form; and although no specimens of it have yet been met with in the fossil state, its absence from the Geological Record may be considered as sufficiently accounted for by its extreme fragility. I need scarcely point out how completely the idea of its antiquity is borne out by its persistence in the abyssal depths of the North Atlantic,—the home of so many other early types of animal life.

2. *Orbitolites marginalis*, Lamarck (Pl. III. figs. 1–7, Pl. IV. figs. 1–5)..

*Orbitolites marginalis*, Lamarck, Syst. des Anim. sans Vertèbres [1801].

*Sorites orbiculus*, Ehrenberg, Familien und Gattungen der Polythalamien. Abhandl. der könig. Akad. der Wissenschaften zu Berlin, 1839.

*Orbiculina complanata*, Williamson, Trans. Micr. Soc., vol. iii., 1852, p. 115.

This species was established by Lamarck on the basis of specimens discovered by M. Sionest of Lyon, attached to corallines, fuci, &c., in the Mediterranean; and was the only recent type of the genus then known. Lamarck’s description of it—*utrinque plana, margine poroso*—is quite insufficient to differentiate it either from the preceding or from the species I shall have subsequently to describe; but as no other Orbitolite is known to inhabit the Mediterranean or Ægean, there is no difficulty in specifically identifying the Lamarckian type with the more highly developed examples of it which are found in the Red Sea, on the coast of Australia, in the Philippine Sea, and on the Fiji reef. The

<sup>1</sup> *Proc. Roy. Soc.*, June 15, 1876.