

*Pulvinulina dispansa*, n. sp. (Pl. CXV. fig. 3, a.b.).

Test adherent (or free?), spreading, outline irregularly lobulated; composed of numerous segments of various sizes and shapes, arranged in an obscure, depressed, irregular, Rotaliform spire. Superior surface beset with minute exogenous beads or tubercles; inferior smooth, coarsely perforated. Aperture indistinct. Diameter,  $\frac{1}{6}$ th inch (4 mm.), or more.

I am indebted to Mr. James Yate Johnson for specimens of this fine species, which were taken from a coral (*Dendrophylla cornigera*) dredged by him on the coast of Madeira. Its nearest ally is *Pulvinulina punctulata*, of which it is perhaps a wild-growing modification; but the mode of growth suggests affinity also to *Pulvinulina vermiculata*.

The figured specimen is from Madeira. Mr. Murray has somewhat similar but less irregular examples from Station 24, off Culebra Island, West Indies, 390 fathoms.

*Pulvinulina vermiculata*, d'Orbigny, sp. (Pl. CXV. fig. 2, a.b.).

"*Placentula*," Soldani, 1795, Testaceographia, vol. i. pt. 3, p. 237, pl. clxi. figs. A.B.C.

*Planorbulina vermiculata*, d'Orbigny, 1826, Ann. Sci. Nat., vol. vii. p. 280, No. 3.

*Rotalia vermiculata*, Jones and Parker, 1860, Quart. Journ. Geol. Soc., vol. xvi. p. 305, No. 116.

*Pulvinulina vermiculata*, Carpenter, 1862, Introd. Foram., p. 211, pl. xiii. figs. 4-6.

" " Parker, Jones, and Brady, 1871, Ann. and Mag. Nat. Hist., ser. 4, vol. viii. p. 178, pl. xii. fig. 146.

*Planorbulina eocæna*, Terquem, 1882, Mém. Soc. géol. France, sér. 3, vol. ii. p. 90, pl. ix. fig. 15, a.b.

*Pulvinulina vermiculata* has a thin outspread shell, normally adherent. The earlier chambers are small and are arranged in a more or less distinct depressed spire; but the principal part of the test consists of a *Spirillina*-like tube of uneven width, subdivided at very irregular intervals. Sometimes the spire is broken up and the chambers form irregular annuli. The free surface of the test (fig. 2, a) is finely porous, whilst on the attached face (fig. 2, b) the perforations are less numerous but of comparatively large size. The true affinity of this species is by no means apparent at first sight, but its connection with the more typical *Pulvinulina* is established by intermediate gradational forms.

*Pulvinulina vermiculata* is not uncommon in the shallow-water margins of the Mediterranean. Soldani has the following note as to its occurrence:—"Reperiuntur in fundo maris ad Portum Ferrar[ium] et Liburn[ensem], et quidem copiosè, ut patet ex hoc vasculo, in quo 1662 continentur sub pondere granorum sex," *loc. cit.*