

sunk, and usually marked by a number of conspicuously large perforations, sometimes by a few exogenous warts or tubercles. It is one of the largest of Rotaliform Foraminifera, specimens often attaining a diameter of $\frac{1}{8}$ th inch (4 mm.), or even more.

With the exception of a single point on the west coast of Patagonia, at which one or two small examples have been obtained, the known geographical distribution of *Pulvinulina punctulata* is limited to the North Atlantic, the Mediterranean, and the Adriatic. The large shell figured in Pl. CIV. is from Station 24, off Culebra Island, West Indies, 390 fathoms. The species has been collected off the Canaries, and at the "Porcupine" Station No. 25 (1869), depth 164 fathoms; and it is tolerably abundant off the coast of Norway, at depths of 60 to 200 fathoms.

Fine examples have been found in the Crag of Sutton, near Colchester (Jones, Parker, and Brady), in the Pliocene of Southern Italy (Seguenza), and in the Post-tertiary beds of Norway (Crosskey and Robertson).

Pulvinulina concentrica, Parker and Jones (Pl. CV. fig. 1, *a.b.c.*).

"*Hammonia subconica tuberculata seu tuberosa*," Soldani, 1789, *Testaceographia*, vol. i. pt. 1, p. 56, pl. xxxvii. fig. B.

Pulvinulina concentrica (P. & J., Ms.), Brady, 1864, *Trans. Linn. Soc. Lond.*, vol. xxiv. p. 470, pl. xlvi. fig. 14.

" " Parker and Jones, 1865, *Phil. Trans.*, vol. clv. p. 393.

Discorbina vestita, Seguenza, 1880, *Mem. R. Accad. dei Lincei*, ser. 3, vol. vi. p. 148, pl. xiii. fig. 39.

So far as I am aware, there is no published description of the present species, except a brief note by myself on some specimens dredged off Shetland (*loc. cit.*); but the manuscript name applied by Parker and Jones to one of Soldani's figures has been generally accepted.

The test of *Pulvinulina concentrica* resembles that of *Pulvinulina punctulata* in its depressed contour and in the form of the segments, its peculiar and very characteristic feature being a broad band of clear exogenous shell-substance bordering the chambers and concealing, to greater or less extent, their lateral faces.

Pulvinulina concentrica occurs at two Challenger Stations in the North Atlantic, namely, off Bermuda, 435 fathoms, and west of the Azores, 1000 fathoms; also, off Shetland, 75 to 90 fathoms; in the Farøe Channel, 155 fathoms; and off the coast of Norway, 15 to 40 fathoms; in the Bay of Biscay, and in the Mediterranean. The South Atlantic has furnished specimens from off Tristan d'Acunha, 100 to 150 fathoms; and the South Pacific, from off Kandavu, 210 fathoms; and off Raine Island, 155 fathoms.

Under the name *Discorbina vestita*, Seguenza has figured an unmistakable specimen of this species, obtained from the Miocene formation of Southern Italy.