

A deep-water variety, distinguished with difficulty from several allied and collateral forms. The test is small and neatly constructed; the superior face exhibits fully three convolutions, the segmentation of which is marked externally by nearly straight, radial, non-limbate sutures. It is isomorphous with *Truncatulina tenera*.

Pulvinulina umbonata is not a pelagic species. More or less characteristic specimens have been found in bottom-dredgings from five Stations in the North Atlantic, depth 435 to 2750 fathoms; from five in the South Atlantic, 675 to 2475 fathoms; from twelve in the South Pacific, 37 to 2350 fathoms; from three in the North Pacific, 345 to 3125 fathoms; and from one in the Southern Ocean, 1375 fathoms.

It occurs in the Septaria-clays and other formations of early and middle Tertiary age in various parts of Central and Southern Europe (Reuss, Hantken, Seguenza, &c.).

Pulvinulina exigua, n. sp. (Pl. CIII. figs. 13, 14).

Test free, Rotaliform; both faces convex, the inferior less so than the superior, periphery acute, lobulated; composed of three convolutions, of which the outermost has usually five segments. Sutures non-limbate; marked on the superior face by thickened lines of opaque-white shell-substance; on the inferior by slight depressions. Diameter, $\frac{1}{8}$ th inch (0.4 mm.), or less.

This is a deep-water variety, nearly related to *Pulvinulina partschiana* and *Pulvinulina umbonata*, from which forms it may be distinguished by its comparatively minute size, the smaller number of segments in each whorl, and their inflated contour, and the lobulated outline of the test.

The record of its distribution is as follows:—twelve Stations in the North Atlantic, the depths ranging from 64 fathoms to 2740 fathoms; four in the South Atlantic, 1025 fathoms to 2475 fathoms; three in the Southern Ocean, 1300 fathoms to 2600 fathoms; ten in the South Pacific, 129 fathoms to 2350 fathoms; and five in the North Pacific, 15 fathoms to 2300 fathoms. Of the thirty-four Stations enumerated, twenty-five have depths exceeding 1000 fathoms and fourteen exceeding 2000 fathoms.

Pulvinulina pauperata, Parker and Jones (Pl. CIV. figs. 3–11).

Pulvinulina repanda, var. *menardii*, subvar. *pauperata*, Parker and Jones, 1865, Phil. Trans., vol. clv. p. 395, pl. xvi. figs. 50, 51.

This striking and interesting species is figured by Parker and Jones in their "North Atlantic" memoir (*loc. cit.*); but no descriptive characters are furnished, beyond the passing remark that "it presents a feeble, and, as it were, accidental condition, in which the thin film of sarcode surrounding the few feebly marked chambers has been calcified beyond their verge."