

Pulvinulina procera, H. B. Brady (Pl. CV. fig. 7, a.b.c.).

Pulvinulina procera, Brady, 1881, Quart. Journ. Micr. Sci., vol. xxi., N. S., p. 66.

Test trochoid; forming an elevated cone with rounded apex and flat or truncate inferior face; composed of numerous convolutions, the last of which consists of about six segments; segmentation very oblique, indistinct on the superior face, especially near the centre; sutures and periphery more or less limbate on the inferior side; aperture an arched slit at the margin of the final segment, near the umbilicus. Diameter, $\frac{1}{2}$ nd inch (1.1 mm.).

This species finds its nearest ally in *Pulvinulina schreibersii*, to which in many respects it bears a close resemblance; the tall conical outline of the test, however, is sufficiently distinctive.

Pulvinulina procera occurs in coral-sands dredged off Kandavu, Fiji Islands, 210 fathoms; and at two points in Torres Strait—off Raine Island, 155 fathoms, and off Cape York, 3 to 11 fathoms.

Pulvinulina karsteni, Reuss, sp. (Pl. CV. figs. 8, 9).

Rotalia karsteni, Reuss, 1855, Zeitschr. d. deutsch. geol. Gesellsch., vol. vii. p. 273, pl. ix. fig. 6.

Pulvinulina karsteni, Brady, 1864, Trans. Linn. Soc. Lond., vol. xxiv. p. 470, pl. xlvi. fig. 15.

„ *repanda*, var. *karsteni*, Parker and Jones, 1865, Phil. Trans., vol. clv. p. 396,
pl. xiv. figs. 14, 15, 17; pl. xvi. figs. 38-40.

The test of *Pulvinulina karsteni*, in well-developed specimens, is nearly round and very regularly built, convex on both faces, and with obtuse subangular periphery. It is composed of from three to four convolutions, the final circuit having about seven chambers; the sutures, which are marked by fine lines on the superior face, are somewhat depressed on the inferior; and the margin of the test on the inferior side has a limbate border.

Pulvinulina karsteni is not a pelagic species. It is most at home and attains its best dimensions in the bottom-mud of the arctic seas, and is entirely wanting within the tropics. It was found in twenty-one out of the twenty-four samples of the sea-bottom, procured from depths of 13 to 220 fathoms, in Baffin's Bay and Smith Sound, on the last British North-Polar Expedition, the most northerly being at lat. $83^{\circ} 19'$ N.; and it was present in all the soundings, seventeen in number, taken on the shores of Novaya Zemlya and Franz-Josef Land, at depths of 70 to 145 fathoms, during the Austro-Hungarian Expedition. It has been dredged off Shetland, in Dublin Bay, and at two "Porcupine" Stations and one Challenger Station in the North Atlantic, the latter, in lat. $38^{\circ} 34'$ N., representing its southern limit in the northern hemisphere. In the southern hemisphere the species is less common, and the specimens as a rule of smaller size; nevertheless, characteristic examples have been obtained in Challenger material from