

Globigerina sacculifera, H. B. Brady (Pl. LXXX. figs. 11-17 ; Pl. LXXXII. fig. 4).

Globigerina helicina, Carpenter, 1862, Introd. Foram., pl. xii. fig. 11.

„ *sacculifera*, Brady, 1877, Geol. Mag., Dec. II., vol. iv. p. 535.

„ „ Id. 1879, Quart. Journ. Micr. Sci., vol. xix., N. S., p. 73.

Test oblong, compressed, Rotaliform ; segments few, usually five to seven in number, of which four generally compose the final convolution ; earlier chambers small and sub-globular ; the ultimate segment, and sometimes also the penultimate, elongated radially and more or less pointed at the peripheral extremity. Aperture variable ; consisting of a single large opening at the inferior umbilical margin of the terminal segment, and one or sometimes several rounded orifices in the sutural depressions of the superior face. Pelagic specimens spinous externally. Longer diameter $\frac{1}{5}$ th inch (1 mm.) more or less.

Globigerina sacculifera is an exceedingly well-marked variety, originally described in a note on the Foraminifera of a white friable limestone from New Britain (Geol. Mag., *loc. cit.*). It belongs to the “*rubra*” section of the genus, and is characterised by its large outspread test, of which the terminal chamber or chambers are pouch-shaped or pointed. The apertures on the superior surface are numerous and that of the final segment is sometimes directly over the inferior orifice, making a passage, as it were, right through the shell. The test is thick and strongly built, resembling that of *Globigerina conglobata*. The tubulation of the walls is likewise coarse and conspicuous, the individual pores frequently showing a diameter of $\frac{1}{2500}$ th inch (0.01 mm.) or more. In rare instances, notably in specimens from the West Indies (Station 24), the shells exhibit a certain amount of pink coloration. The pelagic examples collected on the Challenger Expedition were mostly in the young condition and spinous externally.

The general contour of the shell is not unlike that of the smaller specimens of *Globigerina digitata*, from which species, however, it may always be distinguished by the apertures on the superior face, and by the smaller number of segments ; and generally also by its much larger dimensions.

The geographical distribution of *Globigerina sacculifera* is almost identical with that of its near ally *Globigerina conglobata*, and includes an area stretching from about 40 degrees north to 35 degrees south of the equator. Like the latter species it is most abundant in the South Pacific and least common in the North Pacific.

Some uncertainty exists as to its occurrence in the fossil state. The specimens first described were from a piece of calcareous rock supposed to be Chalk, but which on examination revealed a microzoic fauna exactly analogous to the *Globigerina* ooze of the tropical region of the Pacific, just south of the equator. It appears probable, therefore, that the rock in question was a compact fragment from a recent sea-bottom which had been disturbed by volcanic or other agency.