

ing the earlier chambers. When this is the case the aperture takes a similar form and position to that of *Globigerina æquilateralis*.

The abnormal and irregular specimens classed by Reuss under the generic or sub-generic term *Rhynchospira*,¹ examples of which are portrayed in Pl. LXXXI. figs. 6, 7, have not been included in the foregoing summary. Such shells are comparatively rare. They consist of acervuline masses of Globigerine chambers arranged without apparent order; and to all appearance they are nothing more than monstrous or wild-growing individuals, though it is difficult to say to which precise variety they are referrible.

Of the species enumerated, all the more important, except *Globigerina pachyderma*, have been found living at the surface of the sea. Some doubt attaches to the occurrence of *Globigerina cretacea* in the recent condition; and *Globigerina digitata*, *Globigerina helicina*, and *Globigerina linnæana* are, under any circumstances, exceedingly rare in comparison with most of the other recent forms. Apart from these, which scarcely affect a general statement, the whole series pertains to the pelagic fauna of mid-ocean.

The geographical distribution of the genus is world-wide. At every latitude, indeed in almost every sea in which the tow-net and the sounding-line have been employed, *Globigerinæ* have been brought to light; and over large areas they exist in a profusion far outweighing in the aggregate all other organisms whatsoever. So far as is known, the earliest appearance of the type is in certain calcareous rocks of Jurassic age, in Switzerland (Hæusler)², but it was neither common nor widely diffused until the latter half of the Cretaceous period. It is represented in the Gault, and abundantly in the Chalk, and reappears at every stage of the Tertiary epoch.

Globigerina bulloides, d'Orbigny (Pls. LXXVII., LXXIX. figs. 3-7).

"Polymorpha Tuberosa et Globulifera," Soldani, 1791, Testaceographia, vol. i. pt. 2, p. 117, pl. cxxiii. figs. H. I. O. P.

"Testæ tuberosæ," &c., Id., 1798, Ibid., vol. ii. p. 20, pl. vi. figs. *dd.*, *ee*.

Globigerina bulloides, d'Orbigny, 1826, Ann. Sci. Nat., vol. vii. p. 277, No. 1.—Modèles, No. 17 (young), and No. 76.

" Id. 1839, Foram. Amér. Mérid., p. 37.

" Id. 1839, Foram. Canaries, p. 132, pl. ii. figs. 1-3, 28.

" *hirsuta*, Id. Ibid. p. 133, pl. ii. figs. 4-6.

" *siphonifera*, Id. 1839, Foram. Cuba, p. 95, pl. iv. figs. 15-18.

" *bulloides*, Id. 1846, For. Foss. Vien., p. 163, pl. ix. figs. 4-6.

" *concinna*, Reuss, 1849, Denkschr. d. k. Akad. Wiss. Wien, vol. i. p. 373, pl. xlvii. fig. 8.

" *diplostoma*, Id. Ibid. p. 373, pl. xlvii. figs. 9, 10.

" *depressa*, Ehrenberg, 1854, Mikrogeologie, pl. xix. fig. 92.

" *foveolata* (pars), Id. Ibid. pl. xxii. fig. 74.

¹ A manuscript name, said to have originated with Ehrenberg; employed by Karrer, on the authority of Reuss, for one of these wild-growing forms, *Globigerina* [*Rhynchospira*] *glomerata*, (Geol. d. K. F.-J. Wasserleitung, p. 387, pl. xvi. b., fig. 53).

² Reuss mentions a fossil resembling *Globigerina triloba*, from the Trias of St. Cassian, but with doubt apparently as to its real affinity.—*Sitzungsab. d. k. Ak. Wiss. Wien*, 1868, vol. lvii. p. 105.