

the figures in Pl. XLVI., in some of which the aperture is a simple marginal fissure, like that of *Textularia* (proper), in others a bordered slit, either close to the margin or removed some distance from it, whilst in a few it appears as a bordered or tubulated orifice, still further displaced so as to be nearly central. In the present state of our knowledge there is little to be gained, either in precision or convenience, by placing in a separate genus the few variable and comparatively unimportant forms which present, in a greater or less degree, the latter peculiarity.

The minute structure of the test in *Gaudryina* exhibits nearly the same range of characters as that of the typical *Textulariæ*. The walls are seldom really hyaline or distinctly perforated, though in some species they are thin, homogeneous, and quite smooth; whilst in others they are thick, opaque, and calcareous, and in the remainder, more or less coarsely arenaceous, and rough externally.

The geographical distribution of the genus is world-wide. Its geological history commences with the Cretaceous period, when it was tolerably abundant, and is continued in various Tertiary formations down to recent times.

*Gaudryina pupoides*, d'Orbigny (Pl. XLVI. figs. 1-4).

*Gaudryina pupoides*, d'Orbigny, 1840, Mém. Soc. géol. France, vol. iv. p. 44, pl. iv. figs. 22-24.

„ „ Id. 1846, For. Foss. Vien., p. 197, pl. xxi. figs. 34-36.

„ *subglabra*, Gümbel, 1868, Abh. d. k. bayer Akad. Wiss., II. Cl., vol. x. p. 602, pl. i. fig. 4.

*Gaudryina pupoides* is an easily recognised species. Its dimorphous mode of growth is generally very apparent, and its variability is limited to such features as the number of segments, the relative length and breadth of the test, and the degree of lateral compression. In recent shells the walls are thin and calcareous, smooth externally, and almost invariably of a greyish hue; fossil specimens sometimes exhibit a slightly rough exterior. In form and position the aperture resembles that of the typical *Textulariæ*, but it is often surrounded by a raised lip or border.

*Gaudryina pupoides* is a common deep-water Foraminifer. The list of localities at which it has been found includes fourteen Stations in the North Atlantic, the most northerly being in about lat. 60° N., the depths ranging from 173 to 1780 fathoms; five Stations in the South Atlantic, 350 to 2350 fathoms; sixteen in the South Pacific, 129 to 2425 fathoms; and two in the North Pacific, 1850 fathoms and 2050 fathoms respectively.

In the fossil condition it is chiefly known as a Cretaceous species. The localities originally given by d'Orbigny were the Chalk of Meudon, Sens, St. Germain, and England; and to these Reuss has added various districts situated on the Chalk and Gault of North Germany. The *Gaudryina subglabra* of Gümbel, which may be referred to the same species, occurs in the Eocene formation of the Bavarian Alps.