

## Fistulose form (Pl. LXXIII. fig. 17).

- Polymorphina lactea*, var. *fistulosa*, Williamson, 1858, Rec. For. Gt. Br., p. 72, pl. vi. fig. 150.  
 „ „ var. *tubulosa*, Parker and Jones, 1862, Introd. Foram., App., p. 311.  
 „ *orbignii* (pars), Brady, Parker, and Jones, 1870, Trans. Linn. Soc. Lond., vol. xxvii.  
 p. 244, pl. xlii. fig. 38, *d.*

The test of this species is irregularly oval or oblong and much compressed, but it varies a good deal as to proportionate length and breadth. The segments are disposed in two, generally unequal, alternating series, and are marked externally by excavated sutures. The surface of the shell is smooth, in rare cases exhibiting a few faint longitudinal striæ near the initial end. It sometimes attains a length of  $\frac{1}{8}$ th inch (3.15 mm.) or even more.

In general terms *Polymorphina compressa* may be said to include the less regularly Textulariform varieties of the genus, its nearest allies being *Polymorphina complanata*, d'Orbigny, *Polymorphina frondiformis*, S. V. Wood, and *Polymorphina cylindroides*, Roemer. Of these the first is distinguished by the exceedingly regular and equilateral *Textularia*-like disposition of the segments, and *Polymorphina frondiformis* by its even larger dimensions and its surface-ornament of interrupted costæ or tubercles; whilst *Polymorphina cylindroides* has a long tapering test, less compressed than that of the present species and composed of a small number of nearly erect segments.

*Polymorphina compressa* is a cosmopolitan form, especially common in temperate latitudes; nevertheless, it has been found as far north as lat. 79° 35' N., in Smith Sound, and at lat. 73° N. or thereabouts, on the shores of Novaya Zemlya. It is abundant in the temperate portion of the North Atlantic, preferring shallow-water margins, but extending sometimes to a depth of 400 or even 600 fathoms. In the tropical South Atlantic, and in the North and South Pacific, it is less frequent.

It has been recognised as a fossil in the Lower and Middle Lias of the west and north of England (Brady, Blake); in the Lower Oolite, the Upper Oxford Clay, and the Kimmeridge Clay of England (Parker and Jones), in the Cretaceous system of England, France, Germany, and North America, and generally in the Tertiary and Post-tertiary formations of Europe.

*Polymorphina elegantissima*, Parker and Jones (Pl. LXXII. figs. 12-15).

- Polymorphina elegantissima*, Parker and Jones, 1865, Phil. Trans., vol. clv. p. 438.  
 „ „ Brady, Parker, and Jones, 1870, Trans. Linn. Soc. Lond., vol. xxvii.  
 p. 231, pl. xl. fig. 15, *a-c.*

The typical *Polymorphina elegantissima* differs from its congeners chiefly in the arrangement of the segments, the general plan of which is regularly biserial, but the alternation is inequilateral. The test consists of two alternating series of chambers, set obliquely to each other, in such a way that on each face of the shell one series is hidden by the overlap of its