

5. *Lithobotryis sphærothorax*, n. sp. (Pl. 96, fig. 15).

Cephalis trilobate, with two divergent cylindrical tubes, an ascending apical tube in the apex of the ovate occipital lobe, and a descending sternal or nasal tube in the campanulate frontal lobe; between the two lobes a smaller central lobe. Thorax spherical, twice as long as the latter. Pores very small, numerous.

*Dimensions*.—Length of the shell 0·08, breadth 0·06.

*Habitat*.—Western Tropical Pacific, Station 225, depth 4575 fathoms.

6. *Lithobotryis mascula*, n. sp. (Pl. 96, fig. 16).

Cephalis sexlobate, with two divergent cylindrical tubes, an ascending apical tube in the apex of the helmet-shaped occipital lobe and a descending sternal tube on the base, between the two kidney-shaped frontal lobes. The latter are half as large as the odd occipital lobe and of about the same size as the two inflated lateral buccal lobes, which are separated by a small odd nasal lobe.

*Dimensions*.—Length of the shell 0·13, breadth 0·08.

*Habitat*.—Central Pacific, Station 274, depth 2750 fathoms.

7. *Lithobotryis orchidea*, n. sp. (Pl. 96, fig. 17).

Cephalis sexlobate, similar to the preceding species, but with five divergent and curved cylindrical tubes, which correspond to the five spines of *Stephanium*; an apical tube on the apex of the occipital lobe, a caudal tube on its base, a sternal tube between the two frontal lobes, and two paired pectoral tubes between the latter and the lateral buccal lobes. Pores small and scarce.

*Dimensions*.—Length of the shell 0·12, breadth 0·06.

*Habitat*.—Central Pacific, Station 271, depth 2425 fathoms.

Family LVIII. PYLOBOTRYIDA, Haeckel (*sensu emendato*).

*Pylobotryida*, Haeckel, 1881, Prodrömus, p. 440.

*Definition*.—Botryodea trithalamia, the shell of which is composed of a lobate cephalis, a thorax, and an abdomen.

The family Pylobotryida comprises those Botryodea in which the shell exhibits two parallel transverse annular constrictions, and is divided by these into three successive joints, corresponding to the cephalis, the thorax, and the abdomen of the Tricyrtida. As in the latter, the abdomen is here also a later production, arising from the terminal mouth of the thorax; therefore the Pylobotryida must be derived phylogenetically from the Lithobotryida.

Two genera of Pylobotryida were incompletely described in 1860 by Ehrenberg, *Botryocyrtis* and *Botryocampe*. We retain them here, with a stricter definition, however. Two other genera were added in my Prodrömus—*Pylobotryis* and *Phormobotryis*.