

demonstrated by Bütschli (1882, *loc. cit.*, p. 519). Some other species united by Ehrenberg with *Lithobotryis* belong to other genera. The number of Lithobotryida found in the "Radiolarian ooze" of the Challenger collection, is far greater than that of the Cannobotryida and Pylobotryida. But only a small part of them could be thoroughly examined and described here, so that their number may be greatly augmented by further accurate researches. We here arrange those forms in four genera, representing two different subfamilies. The terminal mouth of the thorax remains open in the Botryopylida, whilst it becomes closed by a lattice-plate in the Botryocellida. In each group there are shells with and without porous tubes. The number of these tubes, and also the number of lobes of the cephalis, is very variable, and may in future serve for the distinction of more genera.

*Synopsis of the Genera of Lithobotryida.*

I. Subfamily	{	Cephalis without porous tubes, . . . . .	488. <i>Botryopyle</i> .
Botryopylida.			
Mouth of the thorax open.		Cephalis with a variable number of porous tubes, . . . . .	489. <i>Acrobotryis</i> .
II. Subfamily	{	Cephalis without porous tubes, . . . . .	490. <i>Botryocella</i> .
Botryocellida.			
Mouth of the thorax closed by a lattice-plate.		Cephalis with a variable number of porous tubes, . . . . .	491. <i>Lithobotryis</i> .

Genus 488. *Botryopyle*, Haeckel, 1881, Prodrömus, p. 440.

*Definition.*—Lithobotryida without tubes on the cephalis, and with the mouth of the thorax open.

The genus *Botryopyle* comprises the simplest forms of Lithobotryida, the lobate cephalis bearing no tubes and the basal mouth of the thorax remaining open. It may be derived either from *Dictyocephalus* or from *Desmospyris*, by development of lobes on the cephalis and of an internal frontal septum, separating the larger occipital lobe from the smaller frontal half of the shell. The latter may be divided again into anterior frontal lobes, lateral buccal lobes, &c.

1. *Botryopyle sethocorys*, n. sp. (Pl. 96, fig. 7).

Cephalis trilobate, separated by a deep collar constriction from the hemispherical thorax, which is twice as broad. Occipital lobe helmet-shaped, little longer than the two hemispherical frontal lobes. Surface spiny. Pores irregular, roundish, of very different size.

*Dimensions.*—Length of the shell 0·1, breadth 0·07.

*Habitat.*—Western Tropical Pacific, Station 225, depth 4475 fathoms.