

Suborder II. BOTRYODEA, Haeckel, 1881 (Pl. 96).

Polycyrtida, Haeckel, 1862, Monogr. d. Radiol., p. 341.

Polycyrtida, Bütschli, 1882, Zeitschr. f. wiss. Zool., vol. xxxvi. p. 519.

Botryodea (= *Botrida* vel *Botryida*), Haeckel, 1881, Prodrusus, p. 439.

Definition.—NASSELLARIA with a complete lattice-shell, exhibiting constantly a lobate and multilocular cephalis, with three to five or more separated lobes, and two to three or more constrictions.

The suborder *Botryodea* differs from the other *Cyrtellaria* in the multilocular and lobate shape of the cephalis, which is composed of at least three or four, often five or six, and sometimes even a greater number of lobes, which are separated by constrictions and partly also by internal septa. This characteristic shape is found neither in the *Spyroidea* (with bilocular cephalis) nor in the *Cyrtoidea* (with simple cephalis). The affinities of the former group to the two latter form a very complicated problem, which is not yet solved; the morphology of the *Botryodea* is the most difficult part in the system of NASSELLARIA, and what we can here give, are incomplete and unsatisfactory beginnings only.

Up to the year 1860 only a single genus of the *Botryodea* was known, *Lithobotrys*, one of the oldest genera of "*Polycystina*," and described by Ehrenberg in 1844 (Monatsber. d. k. preuss. Akad. d. Wiss. Berlin, p. 74). He gave the following definition:—"Loricæ siliceæ articuli in adulto non in seriem, sed in uvæ brevis formam, id est in loculos plus minus discretos nonnullos contiguos dispositi. Proxime ad Lithocampem accedit." In his first System (1847) *Lithobotrys* is placed with *Lithocampe* among his family Lithochytrina. Afterwards (1860) Ehrenberg added two new genera, under the names *Botryocampe* and *Botryocyrtis* and figured some species of these incompletely in his last works (1872, 1875).

In my Monograph I founded for these three genera the separate subfamily of *Polycyrtida*, added as a fourth genus *Spyridobotrys*, and gave to the group the following definition (1862, *loc. cit.*, p. 341):—"Lattice-shell divided by two or more annular strictures, partly longitudinally, partly transversely, into three or more unequal chambers, which are placed in different planes and have a different relation to the poles of the shell-axis."

The new and remarkable forms of *Botryodea*, which I subsequently found in the Challenger collection, demonstrated that the *Botryodea* differ from the other *Cyrtellaria* (the *Cyrtoidea* as well as the *Spyroidea*) in a far higher degree than I formerly had supposed. A synopsis of the figures in Pl. 96 will give sufficient evidence of this view. Therefore in my Prodrusus (1881, p. 439)