

Prodromus, comprises those *Cyrtoida* in which the lattice-shell is quite simple, without transverse constriction, and without radial apophyses. The two subfamilies differ in the shape of the basal mouth, which in the *Archicorida* is a simple wide opening, but in the *Archicapsida* is closed by a lattice-plate.

Only a few species of this family were formerly known. Ehrenberg, in 1838, founded upon these the genus *Cornutella*, one of the three oldest genera of *Polycystina* (*Cornutella*, *Lithocampe*, *Haliomma*). In 1862 I described some living forms, with a central capsule, as *Cyrtocalpis*. The Challenger collection contains a large number of new genera and species.

Probably the family *Cyrtocalpida* is an artificial group, comprising two or more different subfamilies of very different origin. The *Cornutellida* (*Cornutella*, *Cornutanna*) have probably been derived from the *Sethocorida* by loss of the cephalis, so that their conical shell represents a thorax alone. The *Mitrocalpida* on the other hand (genera 528–531) may be originally simple ovate shells (like *Gromia* and *Lecythium*), arising independently from the *Nassellida*. The *Archicapsida* (*Halicapsa*, *Archicapsa*) are probably derived from the *Zygospyrida* (*Dictyospyris*, *Circospyris*) by loss of the sagittal ring and constriction. This is nearly certain, when the three or four typical cortinar pores appear in their basal plate. Some forms of *Halicapsa* may be easily confounded with some forms of *Prunoidea* (*Lithapium*).

Those *Cyrtocalpida*, which possess a central capsule with three or four lobes, are probably derived from *Tripocyrtida* by loss of the three feet, or from *Sethocyrtida* by loss of the cephalis, since the lobes indicate the original presence of cortinar pores and of a cephalis. Those *Cyrtocalpida*, however, in which a simple ovate shell encloses a simple central capsule without lobes, may be original "*Monocyrtida eradiata*," without relation to any radial ancestral forms.

### Synopsis of the Genera of *Cyrtocalpida*.

I. Subfamily <i>Archicorida</i> . Basal mouth of the shell a simple wide opening.	Shell with simple lattice-work (not double or spongy).	Shell conical, gradu- ally dilated to wards the mouth.	{ With horn, . . . . . 526. <i>Cornutella</i> .
			{ No horn, . . . . . 527. <i>Cornutanna</i> .
	Shell not simply latticed.	Shell ovate or urceo- late, with con- stricted mouth.	{ With horn, . . . . . 528. <i>Archicorys</i> .
			{ No horn, . . . . . 529. <i>Cyrtocalpis</i> .
II. Subfamily <i>Archicapsida</i> . Mouth closed by a lat- tice plate.	Shell with an apical horn, . . . . .	Shell ovate, double, with an external mantle, . . . . .	530. <i>Mitrocalpis</i> .
		Shell without horn on the apex, . . . . .	531. <i>Spongocyrtis</i> .
		Shell with an apical horn, . . . . .	532. <i>Halicapsa</i> .
		Shell without horn on the apex, . . . . .	533. <i>Archicapsa</i> .