

The Phænocalpida are probably an artificial family, composed of three or four (or perhaps more) different groups, which have a quite different origin. The Litharachnida (genera 511–515) and the Haliphormida (genera 516–518) are probably derived from the Sethophormida by loss of the cephalis, the retrograde metamorphosis of which may be observed in all its different stages. The Halicalyptrida (genera 519–521) are perhaps independent of the other Phænocalpida, and may be Archicorida which have produced a corona of teeth around the mouth, without relation to lost radial ribs. The Phænoscenida (*Phænocalpis*, *Phænoscenium*) may be derived from the Euscenida (genera 504–507) by interpolation of interrarial feet between the three primary ones, or directly from the Plectoidea. The Calpophænida, on the other hand (*Calpophæna*, *Archiphæna*), may have arisen from the Zygospyrida (*Petalospyris*, *Gorgospyris*) by loss of the sagittal ring and the longitudinal constriction. The phylogeny of the Phænocalpida is therefore a very complicated problem, as yet unsolved.

*Synopsis of the Genera of Phænocalpida.*

I. Subfamily Archiphormida. Basal mouth of the shell a simple wide opening.	Radial ribs enclosed in the wall of the shell, usually pro- longed into free terminal feet.	Shell slender, pyramidal (without horn).	Shell simple, with simple net- work, . . . . .	511. <i>Bathropyramis</i> .	
			Shell simple, with double network, . . . . .	512. <i>Cinclopyramis</i> .	
			Shell double, with an outer mantle, . . . . .	513. <i>Peripyramis</i> .	
		Shell flatly campanulate or discoidal (with- out horn).	Radial ribs simple, . . . . .	514. <i>Litharachnium</i> .	
			Radial ribs branched, . . . . .	515. <i>Cladarachnium</i> .	
		Shell ovate, urceolate or campanulate.	Mouth smooth, constricted (no horn), . . . . .	516. <i>Cyrtophormis</i> .	
			Mouth with a corona of feet. {	With horn, . . . . .	517. <i>Haliphormis</i> .
				No horn, . . . . .	518. <i>Archiphormis</i> .
		No radial ribs in the wall of the shell. Mouth surround- ed by a corona of free ter- minal feet.	Shell simple without mantle. {	With horn, . . . . .	519. <i>Halicalyptra</i> .
				No horn, . . . . .	520. <i>Carpocanistrum</i> .
Shell double, with an exter- nal mantle (no horn), . . . . .	521. <i>Arachnocarpis</i> .				
II. Subfamily Archiphænida. Basal mouth closed by a lattice-plate.	In the axis of the shell-cavity a free columella.	Columella simple, . . . . .	522. <i>Phænocalpis</i> .		
		Columella branched, . . . . .	523. <i>Phænoscenium</i> .		
	Shell-cavity simple, without axial columella.	Apex with a horn, . . . . .	524. <i>Calpophæna</i> .		
		No apical horn, . . . . .	525. <i>Archiphæna</i> .		