

grounded and belong under *Hyalolithus*, (*Camerothera*, *Diplothera*, Matt. *Pharetrella* Hall); others probably have no relation to *Hyalolithus* (*Coleoprion*, Sandb. *Coleolus*, Hall and *Clathrocælia* Hall); still others are grounded on objects whose structure has been misapprehended (as *Hemiceras*,¹ Eichw., and *Hyalithellus* Bill.)²

HYALITHIDÆ

Holmes describes the genus *Hyalolithus*³ very fully, as follows:

Shell bilaterally, symmetrical, pyramidal, or conical, more or less elongated, straight or slightly bent in a symmetrical plane, rarely towards one of the sides. Cross section usually sub-triangular, but also circular, elliptical or lenticular. Dorsal and ventral sides usually distinguishable.⁴ Dorsal side slightly arched, flat or gutter-shaped. Ventral side strongly arched, generally more or less angulated along the middle. Mouth angulated or straight; in the first case with dorsal side semicircularly arched; in the latter, on the other hand, cut off straight or oblique against the dorsal or ventral side. The sculpture consists of growth lines parallel to the orifice, occasionally besides of longitudinal elevated lines or mouldings, whereby more or less complicated sculptured surfaces can arise. Diaphragms are often observed in the apex of the shell; they are entire, not perforated by any siphon. The operculum completely closed the mouth, no matter whether the same was angulated or straight; sometimes it was slightly conical, with the nucleus nearest the ventral side, and with concentric growth lines.

¹"*Hemiceras* is evidently grounded on the interior of siphons of *Eodoceras*, as plainly appears from Eichwald's figures of all three species."

²Speaking of the family *Hyalithellidæ* of Walcott, Holm says "The name is quite inapplicable * * * since the genus *Hyalithellus* Bill. is grounded chiefly on a *Brachiopod* previously described by Hall under the generic name *Discinella* which Billings and Walcott wrongly declared to be the operculum of a form nearly related to *Hyalolithus*. This was, by the last named author, placed together with some shining tubular form, whose nature is hard to determine."

³He adopts this spelling as the correct form of the name, though the originator of it, Eichwald, wrote *Hyalithes*.

⁴"Opinions have changed as to which side should be regarded as the dorsal, and which the ventral. In the simplest forms both sides are quite obscurely differentiated, but with the more highly developed genus (subgenus *Hyalolithus* sens. strict), the separation on the other hand is plain. With the latter two opposite sides can always be distinguished, they are shown by a more or less sharp edge. One of these sides is longer and has the edge of the orifice strongly arched forwards, and this is considered the dorsal side; the other whose mouth-edge is transverse, as the ventral. Same conception has been entertained by Salter, Matthew, and from 1886 by Walcott. But Hall, Billings and Walcott, before 1886, have held the contrary view. Barrande avoided distinctly determining this point by applying the terms "La grande face," (dorsal side) and "Les petites faces (ventral side). Novak named them "Die Hinterflache," and "Die Vorderflache. By following the development from the higher stages backward to the lower, one can decide even in the earliest form which side is dorsal and which ventral in the sub-genus *Hyalolithus* sens. str."