

Hyoliths and small shelly fossils from the Lower Cambrian of North-East Greenland

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The hyolith assemblage from the Lower Cambrian Bastion Formation of North-East Greenland is significant in that it contains several hyolith taxa that possess traits of both orders Hyolithida and Orthothecida. They possess morphological traits that seem to be characteristic of the ancestral forms of both groups. In addition, many hyolith taxa from this interval are globally distributed, supporting the notion that these fossils have potential as stratigraphic indicators. This assemblage contains genera and/or species seen in Australia, North America, the Siberian Platform, and South China. Hyoliths identified include the hyolithids *Parkula bounites*, *Hyptiotheca karraculum*, *Microcornus eximius*, *M. petilus*, *Paracornus poulsenii* gen. et sp. nov., as well as *Similotheca similis*?, *S. bastionensis* sp. nov., and *S. groenlandica* sp. nov.; two opercula remain in open nomenclature. Orthothecids from this assemblage are one unnamed species each of *Contitheca* and *Gracilitheca*. Large, macro-sized hyoliths from the same formation described by Poulsen (1932) are mostly unidentifiable, although an operculum formerly identified as *Hyolithes* (*Orthotheca*) *communis* is reassigned to *Hyptiotheca*. Problematic organisms of uncertain affinity include *Cupitheca holocyclata*, *Conotheca australiensis*, an unnamed species of *Coleolus*, and the cap-shaped *Cassitella baculata* gen. et sp. nov. that may be an operculum of some as yet unknown organism. Missarzhevsky (1969) used *Hyolithes* (*Orthotheca*) *bayonet* var. *groelandicus* and *H. (O.) bayonet* var. *longus* as the basis for *Lenatheca*, but the specimens on which that genus is based are too poorly known for a proper diagnosis of *Lenatheca*.


Key words: Hyolitha, Hyolithida, Orthothecida, Botomian, Lower Cambrian, Bastion Formation, Greenland.

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