

## **Life strategies and function of dissepiments in rugose coral *Catactotoechus instabilis* from the Lower Devonian of Morocco**

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This study focuses on the life strategies of small, dissepimented rugose coral *Catactotoechus instabilis* (representative of *Cyathaxonia* fauna) from the Emsian argillaceous deposits of mud mounds of Hamar Laghdad (Anti-Atlas, Morocco). Numerous constrictions and rejuvenescence phenomena as well as frequent deflections of growth directions among the studied specimens suggest unfavourable bottom conditions resulted from sliding down of the soft sediment on the mound slopes. Dissepimental structures observed on well-preserved calices and thin sections played an important role in the life of the coral, supporting their successful recovery after temporary burial within unstable soft sediment. The development of lonsdaleoid dissepiments, apart from being biologically controlled, was also strongly influenced by environmental factors. Such modifications in lonsdaleoid dissepiments growth were observed in phases of constrictions, rejuvenescence and deflections of growth, when their development was significantly increased in comparison to phases of their stable growth. Dissepiment morphology suggests that the process of formation of lonsdaleoid dissepiments in *Catactotoechus instabilis* is consistent with the hydraulic model.

**Key words:** Rugosa, corals, dissepiments, life strategies, Devonian, Hamar Laghdad, Morocco.

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