

LIFE HISTORY STRATEGIES OF A SPECIES OF *CATENIPORA* (TABULATA; UPPER ORDOVICIAN; SOUTHERN MANITOBA, CANADA)

Boo-Young BAE*, Dong-Jin LEE* & Robert J. ELIAS**

* Andong National University, Andong 760-749, Korea

** University of Manitoba, Winnipeg, Manitoba R3T 2N2, Canada

The life history strategies (survival and growth characteristics) in response to different physical environments are determined and evaluated for colonies of *Catenipora* cf. *foerstei* Nelson, 1963 from the Selkirk Member, Red River Formation, in southern Manitoba.

The change of tabularium area of corallites within colonies is documented through serial transverse thin sections. Fluctuations of tabularium area occur in cycles over vertical intervals ranging from 3.2 to 7.8 mm. Each cycle is considered to represent annual growth.

The growth rate of colonies is higher in association with episodes of sediment influx, probably generated by storms. Commonly, partial mortality due to sediment influx was followed by specific types of axial and/or lateral increase.

In contrast, during periods of relatively low growth rate in colonies, growth was not interrupted by sediment influx and was characterized by different types of axial and/or lateral increase. The new offsets tend to be concentrated in dense cyclomorphic bands, when tabularium area of corallites is reduced.

Some colonies have extraordinarily high rates of offsetting by normal, undamaged corallites. Simultaneous formation of two offsets by lateral increases between two adjacent corallites, followed by additional lateral increases and rarely axial increase, resulted in agglutinated patches within colonies.

In conclusion, in storm-dominant environments, partial mortalities due to sediment influx occurred commonly, and offsetting usually accompanied rejuvenation and regeneration. The colony growth rate was relatively high. In stable environments, on the other hand, growth and offsetting in colonies depended primarily on the formation of new offsets by normal, undamaged corallites.