

Seasonal variation in growth and survival of *Strombus canarium* (Linnaeus, 1758) larvae.

ABSTRACT

This study was conducted to analyze variation in *Strombus canarium* larvae development, growth and survivals when cultured during wet (main reproductive period) and dry seasons. Larvae were reared at 200 larvae L(-1) in filtered seawater (0.22 microm) and fed with *Isochrysis galbana* at 1000 cells mL(-1) ad libitum. The culture environment was maintained at 29 +/- 1 degrees C, salinity of 30 +/- 1 PSU and photoperiod of 12:12 light dark cycle. Growth of the larvae was described on a length-at-age basis using the modified Gompertz regression. There was high correlation in shell length-at-age relationship for both wet season (R² = 0.99) and dry season (R² = 0.98) culture experiments. The maximal growth rate (M) and survival rate (S) were higher for larvae cultured during wet season (M = 62.44 microm day(-1), S = 14.36-2.31%), compared with dry season (M = 43.05 microm day(-1), S = 5 +/- 1.15%). The maximal attainable larval size (a) was however lower during wet season (950.19 +/- 66.93 microm shell length) compared with dry season (1343.05 +/- 586.51 microm shell length), which might be due to significantly low larvae density in the latter. Further studies are needed to investigate variation in bio-chemical composition of the egg mass, which was suggested as the main reason for the differences.

Keyword: Mollusk; Veliger; Dog conch; Larval growth rate.