Egg masses, juveniles and adults of the gastropod Palio dubia were found in shallow rocky habitats of eastern Canada dominated by the bryozoan Eucratea loricata. Multiple-choice experiments and direct field observations revealed that P. dubia prefers to feed on E. loricata. Courtship, copulation and egg-laying as well as hatching of P. dubia were closely related to the lunar cycle. Reproduction was preceded by increased pairing and aggregative behaviour. The duration of embryonic development in the capsules was 10–15 d. After hatching, most veligers were retained within the bryozoan branches during their pelagic phase (1–3 d). In multiple-choice experiments, settlement occurred preferentially on the bryozoan E. loricata. In the absence of the preferred substratum, the larvae continued to swim and died after a period that never exceeded 8 d. Juveniles remained associated with the bryozoans on which they settled and reached the adult size in ~3 months.

Keywords: nudibranch, feeding, spawning, lunar cycle

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