

# External Embryonic Development of South Caspian Sea Barnacle *Amphibalanus* (= *Balanus*) *improvisus* (Crustacea: Cirripedia) under Laboratory Conditions

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**Abstract:** In the present study, external egg development of Caspian sea barnacle, *Amphibalanus improvisus*, was studied for first time under laboratory conditions. Duration of each embryonic stage and time interval for all stages were recorded. Schematic drawings for each of them, showing marked differences and key characters, are provided. The rate of egg development varies in different species and it is affected by environmental factors (mainly temperature). In the moderate climate of this area, *A. improvisus* was found ovigerous throughout the year. In the present study, embryonic development at temperature  $18 \pm 0.5$  °C was calculated about 7-8 days. It seems *A. improvisus* enhanced its reproductive success at the Caspian Sea via strategies such as year round breeding with comparatively shorter allocated time for embryonic development.

**Key words:** strategy, exotic fauna, embryonic stage, development, temperature