

EFFECTS OF DIFFERENT MICROALGAE DIETS IN THE LARVAL CULTURE OF THE MUSSEL *Perna perna*

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Mussel culture has been seen as an important activity for the economical and social development of littoral fishermen communities of Santa Catarina State in Southern Brazil. However, the industry stopped growing recently, as mussel seed are starting to be scarce in the natural stocks along the state coast. Despite the need for research related to mussel seed hatchery production, little information is available in the literature about *Perna perna* larval biology. This study aimed to determine the effect of different microalgae diets in the larval culture of the rock mussel *Perna perna* in order to develop a protocol for hatchery mussel seed production.

It was accomplished 3 feeding experiments of 5 days each, between the 1st and the 15th day of larval culture, in which 4 microalgae were tested (*Isochrysis galbana* T-ISO; *Chaetoceros calcitrans*; *Thalassiosira pseudonana* 3H and *Chaetoceros mulleri*) isolated and combined in equal proportions (1:1) based on its dry weight. Data were assessed by analysis of variance (ANOVA) followed by Tukey's multiple range test. Percentage data were transformed to arcsine values. Differences were considered significant at $P < 0.05$.

Mixed diets (*Isochrysis galbana* with *Thalassiosira pseudonana* or with *Chaetoceros mulleri*) determined the highest growth and survival among the larvae fed between the 1st and the 5th and the 5th and 11th cultivation days, reaching 106.6 μ m (81.3%) and 145.9 μ m (73.1%), respectively. The best results, not only for growth and survival among larvae fed between the 11th and 15th cultivation days were obtained by the simple diet constituted by *Isochrysis galbana* (143.9 μ m, 70.9%). Statistically, this simple diet also presented the same results of the best diets previously mentioned. Therefore, this microalgae can be used with success during the whole *Perna perna* larval culture.