

**DEVELOPMENT OF CULTIVATION TECHNIQUES
FOR HARPACTICOID COPEPOD *EUTERPRINA
ACUTIFRONS***

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ABSTRACT

The survival and development of fish larvae are directly influenced by values and supply of live feeds. Copepods are one of the most important live feed for the marine finfish larval stage. However, copepods are difficult to culture at sufficient densities on a commercial scale. In this study, *Euterpina acutifrons* a pelagic harpacticoid copepod had successfully isolated from Sepanggar Bay, Kota Kinabalu and maintained in laboratory. Under laboratory conditions study on the effects of temperature, salinity and diet on the growth of *E. acutifrons* were conducted. This study shows that *E. acutifrons* could tolerate salinities from 20psu to 40psu with the highest population growth at 30psu. Distribution of life stages of *E. acutifrons* cultured at different salinities was variable with copepod life stages most evenly distributed in 30psu while at lower and higher salinities, particularly at 20psu and 35psu the population consisted of greater amount of nauplii. In addition, *E. acutifrons* can be cultured at a temperature range of 25°C-29°C, with the highest population growth at 27°C. The distribution of developmental stages in population was also affected by temperature. After 10 days culture at 25°C, the population consisted of greater amount of nauplii, while culture at 27°C and 29°C the populations were comprised of more copepodites. Present study also proved that binary algal diets supported better growth of *E. acutifrons* compared to mono algal diets. The binary diet combination of Cs & Iso turned out to be the most suitable diet for growth of *E. acutifrons*. *Tetraselmis* sp. and *Nannochloropsis* sp. were unsuitable for *E. acutifrons*, while *Isochrysis* sp. and *Chaetoceros* sp. may potentially be used for maintain low density stock cultures of *E. acutifrons* during non production seasons. Future studies should be carried out to further investigate its application as feed for various species of fish larvae.