

Effect of temperature on population growth of copepod, *Euterpina acutifrons*

ABSTRACT

Abstract This study was aimed at determining the optimum temperature for culturing the copepod, *Euterpina acutifrons*. The trial was conducted for 10 days in chambers at temperatures of 25°C, 27°C, 29°C and 31°C. Ten adult individuals of the copepod were randomly collected and placed into three replicate experimental flasks for each treatment. Throughout the trial, the salinity, light intensity, and photoperiod were maintained at 30 ±2psu, 100µmolm⁻²s⁻¹ and 12:12 light-dark cycle, respectively. The copepods were fed with 80,000cell/ml *Isochrysis* sp. daily. At the end of the trial, the total numbers of *E. acutifrons* nauplii, copepodites and adults were determined and counted using Sedgwick-Rafter. The highest population was found at 27°C with mean total population of 800±100 individuals from an initial of 10 individuals. This was followed by those reared at 25°C and 29°C where the population counts were 700±100 individuals and 367±115 individuals, respectively. At the 31°C, all the copepod specimens were found dead on day 5th. Statistical analysis showed that the temperature had a significant effect (P