

**MASS CULTURE OF MOSQUITOLARVAE (*CULEX
PIPIENS*) AND THEIR NUTRITIVE VALUE AS FOOD FOR THE
FRESHWATER PRAWN**

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ABSTRACT

Larvae of *Culex pipiens*, mosquito were cultured under controlled laboratory conditions. They were introduced to larvae of the freshwater prawn, *Macrobrachium rosenbergii* (De Man) in a 7 5-day feeding experiment. Larvae of the prawn with an initial total length of 1.2 cm and initial body weight of 0.02g, received three feeding regimes; (1) live *Artemia* nauplii alone, D1 (2) live mosquito larvae alone, D2 (3) mixture of *Artemia* nauplii and mosquito larvae (1:1) (D3). Each treatment was evaluated in duplicate aquaria. The growth rate, survival and amino acids analysis were performed for prawns larvae fed on different diets. No significant difference ($P > 0.05$) was found in growth rates, survival, and amino acid composition of prawns larvae receiving D1 and D3.

A significantly lower growth and survival rates were observed in prawns larvae fed on mosquito larvae as a sole food and this was due to cannibalism that occurred in this group. The nutritive value and proximate composition of mosquito larvae were measured (crude protein, 42.2% and crude lipid, 16.1% and high values of most essential amino acids content such as threonine 5.08, valine 5.20, histidine 2.83, isoleucine 6.96, phenylalanine 4.46 and lysine 7.59%). Also, mosquito larvae contained some major metals such as Ca, Na, K, Mg, Fe, Cu, Zn and Mn. The study revealed that mosquito larvae in their live form failed to improve the growth rate and survival of the freshwater prawn when added to *Artemia* nauplii. This may be due to their active swimming and breathing behavior.