

Ingestion Rate and Feeding Behavior of Guppy (*Poecilia reticulata* Peters) Larvae Fed on Nauplii of *Artemia urmiana* and *Artemia franciscana*

Farhadian, Omidvar *. Taghavi, Delaram. Moradipour, Azar. Sedaghat, Roya

Department of Natural Resources, Isfahan University of Technology, Isfahan 84156-83111, Iran

Abstract

Artemia nauplii, despite their marine origin, have a good potential for application in the freshwater ornamental fish culture. In this study, two types of *Artemia urmiana* and *Artemia franciscana* were used for feeding of Guppy (*Poecilia reticulata* Peters) Larvae. Newly hatched fresh nauplii at three different densities of 3, 6, and 12 ind./ml as live feeds were compared for measuring larval ingestion rate. Results showed that type and density of *Artemia* nauplii had significant effects on ingestion rate ($P<0.05$). The average ingestion rate in larvae which maintain 12 hours starvation (first set of experiment) were 36, 244, and 664 ind./larvae/day for *A. urmiana*, correspondingly, for *A. franciscana* were 160, 480, and 880 ind./larvae/day at densities of 3, 6, and 12 ind./ml, respectively. The average ingestion rate of guppy larvae with 24, 48 and 72 hours feeding preconditions (2nd, 3rd and 4th set of experiment) were significantly ($P<0.05$) decreased. After starvation, the ingestion rate of guppy larvae fed *A. urmiana* had range 22-54, 86-102, and 148-188 ind./larvae/day, correspondingly, for *A. franciscana* 66-100, 100-260, and 200-224 ind./larvae/day at 3, 6, and 12 ind./ml, respectively. The use of suitable densities of 6 and 12 ind./ml from *Artemia* nauplii could increase efficiency of utilization and also improve Guppy larvae production.

Keywords: *Artemia urmiana*, *Artemia franciscana*, Guppy (*Poecilia reticulata*), Ingestion Rate, Feeding Behavior

*Corresponding author, Email: omfarhad@cc.iut.ac.ir