High survival rates of sutchi catfish, Pangasianodon hypophthalmus, Larvae reared under dark conditions

Abstract

The sutchi catfish, Pangasianodon hypophthalmus is an important species for aquaculture in Southeast Asia. However, the larvae demonstrate a low survival rate due to their strong cannibalism during rearing. The aim of the present study was to reduce their cannibalism and improve larval rearing methods. Larval rearing experiments were conducted under normal light conditions (following a diel rhythm) and continuous dark conditions with larval densities of 10, 20 and 40 individuals L-1 from hatching day to 20 days old. The trial with 10 individuals L-1 under dark conditions had the highest survival rate. The dark conditions with lower individual densities tended to produce higher survival rates than the light conditions with higher individual densities. Fish body weight on the final day of larval rearing showed that rearing larvae under dark conditions resulted in steady growth similar to growth under light conditions. It seemed that the feeding behavior of sutchi catfish depended on chemo-sense rather than visual sense. This study showed that the cannibalism of sutchi catfish larvae can be reduced by rearing under dark conditions at low densities with adequate access to food. Therefore, it was concluded that rearing under dark conditions is a method for reducing cannibalism and increasing survival rates. © 2011 Academic Journals Inc.