REARING OF GROPER, *Epinephelus coioides* (HAMILTON), LARVAE WITH ARTIFICIAL DIETS

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Abstract

The ability to grow grouper larvae, *Epinephelus coioides* fed with artificial diets was examined. The two experiments were conducted. The experiment 1, larvae were fed with microencapsulated diets alone at day 18th (18 days after hatching) to day 32nd. The results showed that the larvae were able to grow when fed microencapsulated diet, even survival rate, total length and weight (4.1 %, 10.3 mm and 18.2 mg, respectively) were significantly lower (p < 0.05) than those fed with live foods (rotifer and *Artemia*). However the specific growth rate (SGR) of larvae in the last week of the experiment was improved from 1.9% in the first week to 4.7% in the last week of the experiment. The experiment 2 was conducted to examine the weaning of larvae at day 30th, 36th and 42nd from *Artemia* to artificial diet for 14 days and compared with control treatment that fed with *Artemia*. The survival and growth of larvae fed artificial diet improved when larvae grew up from day 30th, 36th and 42nd (survival rate of 32.8, 77.8 and 88.3% and length of 14.9, 19.8 and 25.9 mm, respectively). Larvae fed artificial diet at day 30th and 36th had survival and growth which were significantly lower than *Artemia* treatments. However, the results of start feeding larvae at day 36th were not much different from *Artemia* treatment which survival rate and length were 82.8% and 22.2 mm, respectively. Survival and growth from treatment of day 42nd larvae group were not significantly different (P < 0.05).

This study showed that grouper larvae from day 18th were able to grow by feeding microencapsulate diet alone though low survival and growth, but can be improved when larvae grew up from day 30th. Further study will be carried on rearing of grouper larvae by using artificial diet supplemented with live foods at different proportion for improvement of survival and growth of larvae.

Key words: Grouper, *Epinephelus coioides*, Artificial diets, Larvae, Rearing