

**EFFECT OF THE NATURAL CAROTENOID
ENRICHED FEED TO COLOR OF THE COLOR
REDUCED *Lysmata amboinensis* SHRIMP IN
CAPTIVE CONDITION**

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ABSTRACT

Lysmata amboinensis is a very important marine ornamental shrimp because they have high demand in export market. According to ornamental fish exporters, export orders are mainly depend on these shrimps and they have a good price in export market. The problem however is when they are kept in aquarium condition until they are exported; their natural color is reduced. There for this research was focused on increasing color of the color reduced shrimp. The main objective of the research was enhancement of color of color reduced shrimp by using natural carotenoid enriched feed. For the experiment two experimental diets were used which prepared by using shrimp head meal and *Gracillaria corticata*. 50 ppm carotenoid level was maintained in two experimental diets. According to results the color of the shrimp was increased by two carotenoid enriched diets and shrimps fed control diet did not show any color enhancement. The color enhancement of shrimps fed with shrimp head diet was significantly different to commercial feed and there was no significant difference with shrimps fed with seaweed enriched diet. The growth performance of the shrimps were observed by calculating total weight gain of shrimps. Result showed that the weight gain of the shrimps fed with shrimp head enriched diet and seaweed enriched feed significantly differ from each other and there was no significant difference between commercial feed. By considering all the results can conclude that shrimp head is the best feed to enhance color and growth of the color reduced *Lysmata amboinensis* shrimps. It is also mostly available feed and a waste product of the shrimp processing factory. There for it is a freely available resources which can use to produce most valuable carotenoid source.

Key words: *Lysmata amboinensis* shrimps, *Gracillaria corticata*, Carotenoid, Color enhancement