



卵形鲳鲹胚后发育阶段的体色变化和鳍的分化

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摘要 采集在池塘进行育苗的31天前的卵形鲳鲹 *Trachinotus ovatus* 仔稚幼鱼, 对其早期发育阶段的体色变化和鳍的发生、发育进行了连续观察。在水温 $24.73 \pm 2.11^\circ\text{C}$ 、盐度 $20\text{‰} - 24\text{‰}$ 、 $\text{pH} 8.0 - 8.2$ 条件下, 初孵仔鱼体表已具有黑色素, 第2天眼点的褐色素增加, 此时仔鱼未开口、眼点未有视物功能; 第3天开口时, 眼大而突出、布满黑色素, 变为黑色的眼睛, 具有视觉功能; 第17天当仔鱼变态为稚鱼时, 鱼体变得不透明; 在第22天变态为幼鱼时, 鱼体体表为褐色; 30天的幼鱼体表为银白色, 与成鱼的体色一致。各鳍开始分化和发育的顺序依次为胸鳍→尾鳍→背鳍→臀鳍→腹鳍。1天仔鱼胸鳍原基出现; 2—3天仔鱼开始摄食, 胸鳍为扇形; 第17天各鳍发育基本完成, 标志着稚鱼期的开始。体色的变化和鳍的形成和发育对仔稚鱼的摄食、行为、生长、变态和存活等生命活动有着至关重要的作用, 也是仔稚鱼变态发育的重要特征之一, 与人工育苗生产技术尤其是投饵、分池等密切相关。

关键词: 卵形鲳鲹 早期发育 体色变化 鳍的分化

Abstract: The body color variation and fins development at early life stages of *Trachinotus ovatus* were continuously observed by collecting samples of larvae, juveniles and young fish reared in pond from newly hatching to 31 days after hatching (DAH) under water temperature of $24.73 \pm 2.11^\circ\text{C}$, salinity of $20\text{‰} - 24\text{‰}$ and pH of $8.0 - 8.2$. The newly hatched larvae were covered by melanin. Brown pigment in eye-spot increased at 2 DAH, while the mouth was not found opening and visual sense undeveloped. Mouth opened at 3 DAH, eye became black, big and protruding, covered by melanin, with optic function. Metamorphosis occurred at 17 DAH, when the larvae were turned into juveniles and the body became opaque. The body color changed into brown at 22 DAH while the metamorphosis was finished from juvenile to young fish. It was argent at 30 DAH with the body color in accord with adult stage. The fin development was in order of pectoral fin, caudal fin, dorsal fin, anal fin and ventral fin. Primordial pectoral fin appeared in 1-day-old larvae, first feeding was observed at 2 - 3 DAH, with the fan-like pectoral fin. Fins were developed completely at 17 DAH, symbolizing the start of juvenile stage. Results of this research indicated that body color variation and fins development in *T. ovatus* played a very important role to life activities of larvae and juveniles such as feeding, behavior, movement, growth, metamorphosis and survivorship, being one of the important characters in metamorphosis development of larvae and juveniles, it correlated closely with artificial seedling production especially in feeding and grading.

Keywords: *Trachinotus ovatus*, early development, body colors variation, fins development

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