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饥饿对云纹石斑鱼(*Epinephelus moara*)卵黄囊期仔鱼摄食和生长的影响

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摘要:

研究了在水温为(23±0.5)℃, 盐度为29-30的培育条件下, 饥饿胁迫对云纹石斑鱼(*Epinephelus moara*)仔鱼生长、摄食、存活等一系列的变化。结果显示, 2.5日龄体长出现负增长现象, 3日龄仔鱼开口摄食, 4.5日龄卵黄囊和油球消耗殆尽; 仔鱼摄食率随日龄的变化早先升高后降低, 最终为0, 最大值出现在卵黄囊和油球消失之后的当天, 即5.5日龄仔鱼达到最大初次摄食率, 摄食率为66.67%; 6日龄仔鱼的初次摄食率为最大初次摄食率的1/2, 仔鱼达到不可逆点, 其混合营养的时间为2-3 d, 即仔鱼初次摄食率发生到达不可逆点的时间为2.5 d; 云纹石斑鱼仔鱼孵化出膜后的3-6 d为其摄食的重要时期。

关键词: [云纹石斑鱼](#) [仔鱼](#) [饥饿](#) [初次摄食率](#) [不可逆点](#)

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Feeding and Growth of *Epinephelus moara* Larvae in the Process of Nourishing Transformation

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Abstract:

Newly hatched larvae do not have feeding activities. Instead, they obtain nutrients from the oil globule and yolk sac during the endogenous period. The oil globule and yolk sac are gradually consumed and absorbed with the development of the larvae. Then the larvae start to feed on a combination of baits, the oil globule and yolk sac for energy, and their development progress into the mixed vegetative period. As the oil globule and yolk sac are fully consumed, the larvae develop into the exogenous vegetative stage when they acquire the nutrients solely from the external environment. Here we investigated the growth, feeding and survival of the *Epinephelus moara*. The larvae were divided into a fasting group and a control group. In the fasting group the larvae were deprived of feed, and in the control group they were fed on the 3rd day after hatching. The feeding was conducted at temperature (23±0.5)℃ and salinity 29-30. We found that the body length of the larvae grouper grew negatively, and that they started feeding on the 3rd days after hatching. The yolk sac and oil globules were exhausted on the 4.5 day after hatching. We also found the initial feeding rate of the larvae changed over the days after hatching, first increased followed by a continuous decrease till 0 eventually. The maximum initial feeding rate (66.67%) appeared on the 5.5 day after hatching when the yolk sac and oil globules were completely exhausted. The initial feeding rate reduced to half of the peak value on the 6th day after hatching when the larvae reached PNR (point-of-no-return). Therefore the nutrition-mixture stage of the larvae lasted for 2.5 days, and 3-6 days after hatching should be the crucial feeding period of the larvae

Key words: [Epinephelus moara](#) [Larvae](#) [Starvation](#) [Initial feeding rate](#) [Point-of-no-return](#)

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