



饥饿与补偿生长对军曹鱼幼鱼能量收支的影响

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Effects of Starvation and Compensatory Growth on Energy Budget of *Juvenile Cobia Rachycentron Canadum*

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- 摘要
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摘要 采用室内生态实验法研究了军曹鱼 (*Rachycentron canadum*) 幼鱼 (初始体重(17.43±0.85) g) 分别饥饿0 (对照组), 2, 4, 6, 8 d后的补偿生长规律, 探讨军曹鱼幼鱼补偿生长的生物能量学机制. 结果表明: 随着饥饿时间的延长, 幼鱼的能量及体重损失率显著升高; 恢复生长过程中, 饥饿处理组幼鱼的平均日摄食率 (能量指标) 均高于对照组, 其中以饥饿8 d组幼鱼的平均日摄食率最高 (17.20%); 幼鱼在恢复生长过程中的能量、湿重及干重特定增长率均随着饥饿时间的延长而呈上升趋势; 军曹鱼幼鱼在饥饿后的恢复生长过程中通过提高摄食率来实现其完全补偿生长能力; 军曹鱼幼鱼在饱食条件下的能量收支方程为 $100.00C = 38.33G + 15.06F + 7.22U + 39.39R$, 同化能分配式为 $100.00A = 49.32G + 50.68R$.

关键词: 军曹鱼 幼鱼 饥饿 补偿生长 能量收支

Abstract: The effect of starvation for different days (0,2,4,6 and 8 days) and compensatory growth on energy budget of juvenile cobia (*Rachycentron canadum*) was estimated by an experimental ecological method. Results in present study indicated that energy content and body weight of juvenile cobia decreased significantly after starvation, and during the re-feeding period, ingestion rate in energy and specific growth rate in energy, wet weight and dry weight in the deprived fish were higher than those of control fish. Results also indicated that juvenile cobia showed complete compensatory effect in the recovery growth and it was contributed by the increase of ingestion rate. Energy budget of juvenile cobia fed to satiation was $100.00C=38.33G+15.06F+7.22U+39.39R$, and expression by assimilated energy was $100.00A=49.32G+50.68R$.

Key words: *Juvenile cobia* starvation compensatory growth energy budget

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