

863课题进展

海洋酵母培育仿刺参 *Apostichopus japonicus* 浮游幼体研究

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摘要:

采用海洋酵母 (*Rhodotorula* sp.) 作为单细胞藻类的替代饵料培育仿刺参 (*Apostichopus japonicus*) 浮游幼体。从生长速度 (G)、浮游期成活率 (SRP)、变态成活率 (SRM)、特定生长率 (SGR) 和40%樽形幼体出现时间 (T) 等5个指标比较了海洋酵母组 (Z9) 与不同种类和比例单胞藻混合饵料组 (8个组合, Z1~Z8) 的投喂效果; 并确定了不同发育阶段海洋酵母的最佳投喂组合。结果表明: 海洋酵母能够促进刺参幼体的正常发育和变态。ANOVA分析表明, 不同饵料组间的生长和变态率等指标差异显著, Z2和Z9两组间差异不显著, 但显著优于其他单胞藻混合组。投喂不同数量的海洋酵母对浮游幼体也有显著影响。

关键词: 海洋酵母 仿刺参 *Apostichopus japonicus* 幼体 生长 变态

Studies on Culturing *Apostichopus japonicus* Auricularia with Marine Yeast as Feed

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Abstract:

Marine yeast (*Rhodotorula* sp.) was used as an alternative bait of single-cell microalgae to culture *Apostichopus japonicus* auricularia. By five indicators of growth rate (G), the survival rate of planktonic period (SRP), survival rate of metamorphosis (SRM), specific growth rate (SGR) and 40% bottle shaped larvae time (T), the effect of feeding with marine yeast group (Z9) was compared with that of by different types and proportion of single cell microalgae mixed feed groups (altogether 8 combinations, from Z1 to Z8), and confirmed the optimum feeding combination in different growth phases with marine yeast. The results showed that marine yeast could promote the normal development and metamorphosis of larvae ANOVA analysis indicated that there were significant differences in the targets for growth and survival rate among different diet groups. There were no significant differences between groups Z2 and Z9, but the effect of these 2 groups were notably better than the other single-cell microalgae mixed groups. Besides, different feeding quantities also had significant influences on auricularia.

Keywords: marine yeast *Apostichopus japonicus* auricularia growth metamorphosis

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