

研究简报

不同品系萼花臂尾轮虫休眠卵的形态特征

刘桂云, 席贻龙

安徽师范大学生命科学学院重要生物资源保护和利用研究安徽省重点实验室, 安徽省高校生物环境和生态安全省级重点实验室, 芜湖 241000

收稿日期 2005-6-1 修回日期 2006-4-21 网络版发布日期 接受日期

摘要 对采自青岛和芜湖两地的萼花臂尾轮虫在3种温度(20 ℃、25 ℃和30 ℃)和2种藻类食物浓度(1.0×10^6 和 5.0×10^6 cells·ml⁻¹)下所产休眠卵的长径、短径和体积等形态特征进行了显微测量、计算和分析. 结果表明, 2种食物浓度下, 培养温度以及培养温度和品系间的交互作用均对轮虫休眠卵的长径、短径和体积具有显著影响. 当食物浓度分别为 1.0×10^6 和 5.0×10^6 cells·ml⁻¹时, 轮虫在20 ℃下所产休眠卵的长径、短径和体积均最大; 在25 ℃和30 ℃下所产休眠卵的短径和体积均最小. 品系对轮虫休眠卵长径、短径和体积的影响也取决于食物浓度. 当食物浓度为 1.0×10^6 cells·ml⁻¹时, 芜湖品系轮虫的休眠卵长径、短径和体积(156.00 μm、99.95 μm和12 269.11 μm³)均显著大于青岛品系轮虫的休眠卵(145.13 μm、91.97 μm和10 498.19 μm³); 而当食物浓度为 5.0×10^6 cells·ml⁻¹时, 芜湖品系轮虫的休眠卵长径、短径和体积(155.68 μm、100.85 μm和12 348.59 μm³)均与青岛品系轮虫的休眠卵(156.63 μm、98.04 μm和12 054.20 μm³)之间无显著差异. 两品系中, 仅芜湖品系轮虫休眠卵的长径、短径和体积分别与温度呈曲线相关. 同一温度下, 两品系轮虫的休眠卵体积均随着食物浓度升高而增大; 但30 ℃下芜湖品系轮虫所产休眠卵体积却随着食物浓度的升高而减小.

关键词 [萼花臂尾轮虫](#) [品系](#) [休眠卵](#) [形态特征](#) [温度](#) [食物浓度](#)

分类号

Morphological characteristics of resting eggs produced by different *Brachionus calyciflorus* strains

LIU Guiyun, XI Yilong

Provincial Key Laboratories of Conservation and Utilization for Important Biological Resource and Biotic Environment and Ecological Safety in Anhui, College of Life Science, Anhui Normal University, Wuhu 241000, China

Abstract

In this paper, the Qingdao and Wuhu strains of *Brachionus calyciflorus* were cultured at 20 ℃, 25 ℃ and 30 ℃, and fed with 1.0×10^6 and 5.0×10^6 cells·ml⁻¹ of *Scenedesmus obliquus*. The morphological study of their produced resting eggs showed that at the two food concentrations, the resting eggs produced at 20 ℃ were the largest in length, width and volume, while those produced at 25 ℃ and 30 ℃ were the smallest. The effects of strain on the morphological characteristics of resting eggs also depended on food concentration. When the food concentration was 1.0×10^6 cells·ml⁻¹, the length, width and volume of the resting eggs produced by Wuhu strain and Qingdao strain were 156.00 μm, 99.95 μm and 12 269.11 μm³, and 145.13 μm, 91.97 μm and 10 498.19 μm³, respectively, while when the food concentration was 5.0×10^6 cells·ml⁻¹, the corresponding values were 155.68 μm, 100.85 μm and 12 348.59 μm³, and 156.63 μm, 98.04 μm and 12 054.20 μm³, respectively. For test strains, only Wuhu strain showed a marked curvilinear correlation in the length, width and volume of its resting eggs with temperature. At the same temperature, the volumes of the resting eggs produced by both Qingdao and Wuhu strains were increased with increasing food concentration, with the exception that the resting eggs produced by Wuhu strain at 30 ℃ decreased with increasing food concentration.

Key words [Brachionus calyciflorus](#) [Strain](#) [Resting egg](#) [Morphological characteristics](#) [Temperature](#) [Food concentration](#)

扩展功能

本文信息

▶ [Supporting info](#)

▶ [PDF\(398KB\)](#)

▶ [HTML全文\(0KB\)](#)

▶ [参考文献](#)

服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

相关信息

▶ [本刊中包含“萼花臂尾轮虫”的相关文章](#)

▶ 本文作者相关文章

· [刘桂云](#)

· [席贻龙](#)

DOI:

通讯作者