春末三峡大坝首次蓄水期长江口浮游植物群集

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Phytoplankton assemblages in Yangtze River Estuary in the first sluice discharge duration of Three Gorges Dam in late spring.

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- 摘要
- 参考文献
- 相关文章

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摘要

根据2003年6月三峡大坝第1次蓄水期长江口及其邻近水域(28°—33°N, 120°—125°E)34个测站采集的浮游植物水样,报 道了该水域浮游植物群集特征.结果表明:调查区浮游植物以硅藻和甲藻为主,伴有少量的绿藻和金藻.浮游植物细胞丰度介于0.2~ 1504.2 cells • ml-1, 平均为72.7 cells • ml-1, 主要优势物种为骨条藻(Skeletonema sp.)、具齿原甲藻(Prorocentrum dentatum)和锥状施克里普藻(Scrippsiella trochoidea).调查区表层两个浮游植物密集区分别位于北部的冲淡水域和西南部近岸 水域. 浮游植物细胞丰度最大值出现在中层(10 m层),最小值出现在底层. 冲淡水域的优势物种是骨条藻,主要出现在表层;而在长 江冲淡水与台湾暖流、黄海混合水交汇的水域,优势物种为具齿原甲藻,主要分布在表层和中层.

关键词: 长江口 三峡大坝 浮游植物 群集结构 多样性

Abstract:

In June 15-25, 2003, the first sluice discharge duration of the Three Gorges Dam, water samples were taken from a grid of survey stations around the Yangtze River Estuary and its adjacent waters to analyze the characteristics of phytoplankton assemblages. In the survey area, the major phytoplankton groups were diatoms and dinoflagellates, and a few species belonging to Chrysophyceae and Chlorophyceae were observed. The cell abundance of the assemblages ranged from 0.2 to 1504.2 cells • ml-1, with an average of 72.7 cells • ml-¹, and the dominant species were *Skeletonema* spp., *Prorocentrum dentatum*, and *Scrippsiella trochoidea*. The highest cell abundance was appeared in north diluted waters and southwest inshore waters. The cell abundance was the maximum in mid (10 m) water layer, and the minimum in bottom layer. In diluted waters, Skeletonema spp. was the dominant species, and mainly presented in surface water layer; while in the waters with the diluted water of Yangtze River and the mixed water of Taiwan Warmer Current and Yellow Sea, Prorocentrum dentatum dominated, and mainly distributed in surface and mid water layers.

Key words: Yangtze River Estuary Three Gorges Dam phytoplankton assemblage structure biodiversity

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