

Simulation of the Time Dynamics of Marine Ecosystems in the Northern Continental Shelf of South China Sea with Ecosim Model

JIANG Tao¹, LU Yi¹, LI Shi-yi¹, WANG Xiao-hong², DUAN Li-jie²

(1. School of Environmental Science and Engineering, Sun Yat-sen University, Guangzhou 510275, China;

2. School of Automatic and Electric Engineering, University of Science and Technology of Qingdao, Qingdao 266000, China)

Abstract: A Ecosim model for the northern continental shelf of South China Sea is established for the period of 1987 to 1998 by using the EwE 5.1 software to examine the time dynamic change in the marine ecosystems. The model consists of 20 functional groups, with key initial parameters inherited from the mass balanced Ecopath model in the late 1980s. The effects of fishing on the dominant economic fish species are examined through trophic interactions. The results show that total system throughput and total biomass increase to some extent, but total catches decline clearly in 1998. Intensified fishing pressure on economic fish species results in indirect "prey release" of some low-valued species of small fish, and as a consequence a decline in the biomass of many high-valued species of big (or middle) fish. The marine ecosystem appears to develop reversely, which was mainly attributed to top-down control exerted by overfishing.

Key words: the Northern continental shelf of South China Sea; marine ecosystem; Ecosim model

· 简 讯 ·

本刊被广东省科技厅授予科技期刊优秀编辑部称号

在广东省科技期刊编辑学会成立 10 周年之际, 为鼓励先进, 进一步推动广东省科技期刊质量水平的提高, 广东省科技厅最近在广州召开全省科技期刊总结交流大会。根据专家评审意见, 表彰了一批优秀编辑部、优秀主编和优秀编辑工作者。中山大学学报自然版被授予优秀编辑部称号。省科技厅刘庆茂等领导为获奖单位和个人颁发了获奖证书和奖牌。中山大学学报自然版王建华主编应邀在会上作了办刊经验交流报告。

近年来, 中山大学学报自然版更新办刊理念, 狠抓质量建设, 实现跨越式发展, 在连续两届获国家期刊奖百种重点期刊基础上, 2006 年又被教育部评为首届中国高校精品科技期刊, 其办刊指标被引频次再次列于中国高校学报综合类第 1 位, 再次被中国科技信息研究所评为“百种中国杰出学术期刊”。中山大学学报自然版被多种国外权威数据库收录, 美国《工程索引》(EI Compendex) 2006 年收录本刊论文 184 篇。

在这次总结评选表彰活动中, 中山大学学报自然版张楚民被评为优秀主编, 秦社彩被评为优秀编辑工作者。

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