

农村发展—生态资源环境

深澳湾表层底质沉积物中凯氏氮和总磷的时空分布及与周边地区的比较

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摘要:

氮和磷是近海网箱养殖系统重要的生源要素之一,为探究深澳湾表层底质沉积物中氮磷等元素的分布和变化规律,于2007年和2008年对粤东深澳湾表层底质沉积物中凯氏氮和总磷的含量进行每月一次的采样调查。结果显示,表层沉积物中凯氏氮的变化范围分别为0.533-2.038 mg/g,无显著性季节差异,但空间变化很明显;总磷的变化范围为0.042-2.085 mg/g,无显著性季节差异,但2007年底质中的含量明显高于2008年,且空间差异明显。在对深澳湾进行底质采样调查的同时也对达濠高位江蓠养殖区进行了调查,同时比对其他学者对柘林湾养殖区的研究数据,发现深澳湾养殖区氮磷含量要低于以上两处养殖区,且深澳湾底质中氮磷的含量主要与人类活动的密集程度有关。

关键词: 时空变化

The spatiotemporal patterns of Kjeldhal nitrogen (TKN) and total phosphorus (TP) in the superficial deposits at Shen' ao Bay, and the comparison between Surrounding areas

Abstract:

For N and P are the one of the most important factors in near-coast cage culturing system, the research on Kjeldhal nitrogen (TKN) and total phosphorus (TP) has been conducted once a month at Shen' ao Bay in 2007 and 2008 to reveal its distributions and patterns in superficial deposits. It was showed that the fluctuation of TKN was 0.533-2.038 mg/g. The temporal fluctuation of TKN was weak and no seasonal patterns were found, but there was a significant spatial variation; It was also showed that the fluctuation of TP was 0.042-2.085 mg/g with no seasonal patterns. And a significant spatial patterns was showed. Meanwhile, a similar research was conducted at Dahao culturing area. The comparison of TKN and TP in superficial deposits of Shen' ao Bay, Dahao culturing area and Zhelin Bay (data was quoted from another paper) was conducted. It was showed that the contents of N and P in Shen' ao bay were lower than in the two areas, meanwhile its contents were correlated with human activities in Shen' ao bay.

Keywords: Spatiotemporal patterns

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2. 陈国建, 张晓萍, 李 锐, 杨勤科. 延安示范区土地利用与退耕还林的时空变化研究[J]. 中国农学通报, 2005,21(5): 418-418
 3. 赵永敢 李玉义 逢焕成 王龙昌 任天志. 四川省粮食单产时空变化及其动因分析[J]. 中国农学通报, 2010,26(23): 370-374
 4. 葛 岩, 王保泽, 李春龙, 冯 琳, 佟 威. 辽西北沙地流动沙丘土壤水分时空变化特征研究[J]. 中国农学通报, 2007,23(6): 634-634
 5. 叶温乐, 何雪青, 赵平芝, 孙书存, 王睿勇. 江苏盐城新洋港互花米草盐沼的微生物区系调查[J]. 中国农学通报, 2007,23(8): 420-420
 6. 王琳 卢小凤. 基于TM影像的盐城市土地利用时空变化研究[J]. 中国农学通报, 2011,27(第4期2月): 464-468
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