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渤海湾大型底栖动物群落优势种长期变化研究

Long-term trends of the dominant macrozoobenthos in Bohai Bay

关键词: [大型底栖动物](#) [优势种](#) [底质状况](#) [人为干扰](#) [食物链](#) [渤海湾](#)

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摘要: 以2008年4月,2009年5月、8月,2011年5月、9月以及2012年9月采集的大型底栖动物资料为基础,结合历史数据,描述渤海湾底栖动物群落优势种的变化规律,探讨变化原因.结果表明,近60年来,渤海湾底栖动物群落优势种多为营埋栖生活的小型双壳类和蟹类,而近几年则以小型双壳类为绝对优势种.其中,干扰耐受种凸壳肌蛤(*Musculus senhousi*)在渤海湾迅速增值并成为绝对优势种,影响了底栖动物群落结构的稳定性.胶州湾、莱州湾、辽东湾及渤海湾的主要优势种较为相似,变化规律皆为个体较大、生命周期较长的双壳类、虾蟹类逐步被个体更小、生命周期更短的干扰耐受种代替,说明4个海湾的底栖生态环境皆受到了一定程度的干扰.渤海湾优势种的变化可能与海湾本身的底质状况、人为干扰(如围海造陆工程的实施)、过量的陆源排污以及食物链的变化有关.

Abstract. Based on the macrozoobenthos samples collected from Bohai Bay on April 2008, May and August 2009, May and September 2011, September 2012 and the historical data, long-term trends of the dominant macrozoobenthos in Bohai Bay were described, and reasons for the changing trends were also discussed. Results showed that the dominant macrozoobenthos in Bohai Bay were mainly composed of small bivalves and crabs with the life style of burrow dwelling. However, smaller bivalves had been the absolute predominant species in recent couples of years in Bohai Bay. In particular, *Musculus senhousi* (Benson, 1842), a disturbance tolerant species, spreaded very fast and had been the predominant species in the recent two years, which affected the stability of macrozoobenthos community. Moreover, Bohai Bay shared the similar dominant species and the similar changing patterns with Jiaozhou, Laizhou and Liaodong Bays. It was verified that shrimps and crabs with larger size and longer life span were substituted by those being tolerant to environment changes with smaller size and shorter life span, such as some smaller bivalves. It could be concluded that all the benthic habitats of the four bays was disturbed to some degree. The long-term trends of dominant macrozoobenthos in Bohai Bay may be related to the sediment conditions, anthropogenic disturbances such as land reclamations projects, excess input of pollutants and changes of food chains.

Key words: [macrozoobenthos](#) [dominant species](#) [sediment condition](#) [anthropogenic disturbances](#) [food chains](#) [Bohai Bay](#)

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