

study illustrate the importance of understanding particle-scale association of hydrophobic organic contaminants for explaining bioavailability difference among sediments; however the further study is needed. In this work, we also found that the PBDE concentrations in sediments from Luju river and Dagu estuary were five times higher than Qikou estuary sediment, it may be that they were located in Tianjin Lingang Industrial Area where human activities are increasing rapidly in these areas.

Nutrient pollution in Tianjin Bohai Bay, China

Yanwen QIN ^{1*}, Binghui ZHENG ¹, Wei MENG & Lei ZHANG ¹

Institute of Estuarine and Coastal Studies, Chinese Research Academy of Environmental Sciences, Beijing 100012, China
*E-mail: qinyw@craes.org.cn/wittyqin@126.com

The paper studied the contaminative levels of biogenic elements, the historical evolvement trend and the eutropication of Tianjin Bohai Bay through the investigation of biogenic elements of surface seawater in Bohai bay as well as the collection and analysis of historical data concerned. The result indicated that the surface seawaters were under the bad nitrogen contaminative conditions. Beitang and Dagu estuary appeared to be the two main contaminative sources of inorganic nitrogen and phosphorus pollution. Historical evolvement trends of DIN and DIP closely related to the annual runoff into the ocean, especially the notable relation in the coastal areas of Dagu estuary where the contents of DIN and DIP were proportional to the annual runoff into the sea, indicating of the land sources of inorganic nitrogen and phosphorus around Bohai bay. Influenced by the increasing contents of inorganic nitrogen in the offshore area of Bohai bay in Tianjin, the nutrient structure of the offshore area of Bohai bay in Tianjin had been remarkably changed from 1985 to 2003. It had been changed from nitrogen limitation in 1985 to phosphorus limitation, thus greatly affecting the phytoplankton community structure in waters.

A simulation of the accumulation process of suspended particles derived from rivers flowing into Ariake Bay, Japan

Yoshihiro YOKOYAMA ^{1*}, Masataka NAKASHIMA ¹, Akihiko FUJII ¹, Tadashi UCHIDA ¹ & Hiroshi NAKANISHI ²

¹ Kyushu Environmental Evaluation Association, Matsukadai Higashiku 1-10-1, Fukuoka, 813-0004 Japan

*E-mail: yokoyama@keea.or.jp

² Emeritus Professor of Yamaguchi University, Higashisue 987-18, Ube, Yamaguchi, 759-0206 Japan

Ariake Bay is the one of the best-known semi-closed sea located in southwest Japan. In this bay, the decrease of fish hauls and bivalve larvae, the increase of red tides and incidences of oxygen deficiency and a change for the worse of the bottom sediment were all observed recently. Now, numerous scholars, government offices and others are performing research for the clarification of these environmental change factors. In the future, greater efforts for the restoration and preservation of the environment will be needed.

In order to evaluate the transport and accumulation of the suspended particles from the rivers flowing into Ariake Bay, the authors simulated the movement of the particles discharged from the main rivers and Isahaya Reservoir by using a computer simulation. The

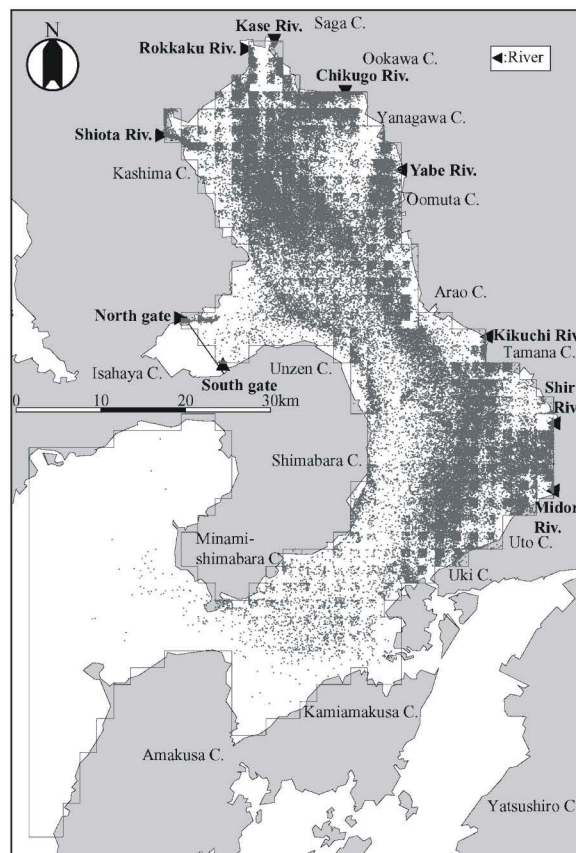


Fig. Distribution of accumulated particles in Ariake Bay sediment which derived from the rivers.