

Effect of nutrients load from land in Bisan-Seto I. - Behavior of nutrients -

Satoru Takahashi^{1*}, Junya Miyoshi¹, Yasufumi Mishima², Ichiro Yuasa¹

¹IGG, AIST, ²BTRC, AIST

The nutrients load from the land influences the nutrients concentration in enclosed coastal sea. On the other hand, even if the fishery damage that the nutrients state relates is caused, it is difficult to solve such problems, because the range in the sea area where the nutrient load from the land influences is not clear yet. Then, in Bisan-Seto (central area of the Seto Inland Sea), a research project is started to clarify the behavior of nutrients from the source (land) to coastal sea consistently. In this project, we are trying to specify the region where the possibility that the fishery damage occurs is high. This time, the behavior of nutrient in Bisan-Seto is explained. In order to clarify the effect of nutrients load from land in Bisan-Seto, the ecological model experiment was carried out. Not only the nutrients load from the river but also the nutrients load discharged directly from land (domestic wastewater, plant effluent, etc.) was given to this model. The results of the ecological model experiment were analyzed. As a result, the following fact was clarified.

1) There is a difference in the primary production in two different regions where the nutrients load is large. That is, it is suggested that a certain factor besides the nutrients concentration is effective to the primary production in Bisan-Seto.

2) The variation patterns of water temperature, salinity, and nutrients concentration in several positions (river mouth, central region of Bisan-Seto, etc.) are compared respectively. And, it is revealed that the nutrients load from the river in Okayama Prefecture effects the whole of Bisan-Seto.