O59. RELEASE OF NUTRIENTS FROM BOTTOM SEDIMENTS IN OSAKA BAY, JAPAN IN 2015

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Osaka Bay is the most polluted enclosed sea area, in which is located the eastern part of the Seto Inland Sea, Japan. There are four kinds of sources on loadings of nutrients to Osaka Bay, which are land including rivers and industrial effluents beside coast, ocean sea water, release from bottom sediment to sea water, and wet and dry deposition from air. The pollutant loadings inflowing from the land to Osaka Bay have been cut by various policies since 1970’s. The concentrations of nutrients in the inner part of Osaka Bay have showed an obvious decreasing tendency. However, the water quality in offshore sea has not satisfied the environmental standard on nutrients. We investigated the amount of nutrients released from bottom sediments. The core samples were taken at two stations in the inner part of Osaka Bay once a month from February to November, 2015. The core incubation experiment in laboratory was conducted for 24 hours according to Tada et.al. The concentrations of ammonium nitrogen (NH₄-N) and phosphate phosphorus (PO₄-P) were measured by an automatic analyzer. The flux showed similar range with the values investigated in 1986. The results suggested that the flux of nutrients from bottom sediments in the inner part of Osaka Bay has not decreased during summer season at least since 1985. Therefore, the contribution of release from bottom sediment on the nutrients budget would relatively become larger in inner part of Osaka Bay.