

Influence that oxygen condition of sediment gives algal growth

【Abstract】

In Lake Kasumigaura, water quality improvement project may have improved oxygen conditions in sediment. However, its impact on algal growth is not clear yet. The concentrations of oxygen, N/P and essential trace element in the bottom layer were measured, and algae (cyanobacteria, green alga) growth potential was measured to evaluate the potential growth, the relationship between algal growth and water quality characteristics.

During the summer with high temperature, release concentration of nutrients and metals from lake sediments was very high. Understanding the impact that they dissolve in water. Nishiura and Kitaura of Lake Kasumigaura unlike the maintenance of the sewerage service ratio improvement project and watershed water quality, sediment as well as different water conditions. In particular, nutrients and metal is high concentrations of Mn in Kitaura, the dissolution rate was due to decreased levels of dissolved oxygen in the water. The algal growth potential using the water leaching conditions of Kitaura sediments, the highest number of breeding. This capacity is compared to the growth of algae Nishiura, Kitaura was large.

Key words : Sediment Pore Water, Release of Nutrients and Metals, Sediment Oxygen Demand (SOD), Algal Growth Potential (AGP)