

Impact of Nishi-Nihon Big Storm in 2018 on nutrient discharge in a Seto Inland Sea Catchment: example in Takahashi River

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In July 5 to 7 in 2018, the serious disaster by the huge storm event more than 500mm occurred and more than 200 persons dead in a wide area of western Japan. In that time, high turbidity was observed in the wide area of Seto Inland Sea by the satellite image. However, these nutrient flux has not been monitored.

In this research, we aimed to confirm the real situation of high turbidity and nutrient concentration just after this event. We observed those from the river mouth area to 10km offshore of Takahashi River in Okayama Prefecture at three times of 7days, 14 days and 30 days after the disaster. In addition, we monitored groundwater and river water around river mouth area once a week since 2017.

The turbidity in river mouth area of Takahashi River normally was 5 to 8 FTU. On the other hand, it increased drastically more than 1000 FTU just 7 days after the disaster. Especially, high turbidity water of more than 500 FTU expanded to 10km offshore. Though the turbidity decreased on 30 days after, the high turbidity area with around 100 FTU appeared not only at the river mouth but at 8km offshore. These would be by the resuspension from the bottom. The nutrient also indicated same as these.

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