Characteristics of water quality and red tide distribution in the Seto Inland Sea immediately after heavy rain in the western Japan by GCOM-C SGLI data

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The heavy rain in western Japan disaster occurred in early July 2018. After this heavy rain, a large amount of sediment discharge from the river and damage of red tide occurred in the Seto Inland Sea. Meanwhile, Chla (Chlorophyll-a), TSM (Total Suspended Matter), CDOM (Color Dissolved Organic Matter), SST (Sea Surface Temperature), Rrs (Remote Sensing Reflectance) of GCOM-C SGLI launched at the end of December 2017 Standard product data with 250 m spatial resolution will be provided once every 2-3 days from JAXA (The Japan Aerospace Exploration Agency). In this research, the results of accuracy verification of these product data (Level 2) officially released in December 2018 will be reported. Secondly, a method for estimating the distribution of harmful red tides (mainly *Chattonella* and *Karenia*) occurred in the Seto Inland Sea from Rrs products will be examined. The study period is mainly from June to August 2018. As a result, the SGLI product satisfies the target accuracy even in this water area, and the characteristics of the water quality and red tide distributions in the Seto Inland Sea about one month after the heavy rainfall became clear.

Keywords: red tide, heavy rain, satellite