

## Study of Estuarine Deposit and Ecology by Analysis of Satellite Image

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Ariake Sea is located West Kyusyu, and this sea area is formed as a semi-closed water area. Ariake Sea is framed by Fukuoka, Kumamoto, Nagasaki and Saga prefecture. This semi-closed water area has some peculiar ecological habitats. There is a large tidal flat, because the difference of sea level at Ariake Sea is large. And, because of the peculiar sedimentary environment, Saga Plain locates on a famous very soft Ariake clay deposit.

On this study, we focused attention on the coastal current system of north Ariake Sea in Saga prefecture, and examined the relationship between sedimentary environment and ecological habitat. At tidal flat of Ariake Sea, the water channels are formed by the river. On the side of water channels, there are several peculiar ecological habitats because of the deposition of Ariake clay. Therefore, such water channels have important area for the environmental preservation.

On the method of this study, we analyzed vegetation index (NDVI) by remote-sensing of satellite image, monitored the time change of NDVI. Then, we surveyed at site, because we examined the vegetation distribution of precious species such as *Sueda japonica* (Japanese name: Shichimensou). On this in-situ survey, we also measured the properties of optical spectrum of this vegetation.

As the results, we grasp erosive situation by the river and coastal current. Thus, on the remote-sensing analysis, we advance a suggestion of survey that shadow area and center of river flows.