

Location estimation of submarine groundwater discharge from Mt. Fuji in Suruga Bay

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Around the foot of Mt. Fuji, the main flow passages of groundwater are thought to be in the Younger Fuji volcano, which consists of the pervious basaltic lavas in new volcanic stage. Especially, the Fujikawa-kako fault zone, which stretches south to north in the southwestern side of Mt. Fuji, has a potentially effect on the local groundwater flow system into Suruga Bay. Therefore, precipitation at Mt. Fuji have been considered to be discharging partly from seabed in Suruga Bay and making a great impact on the biological production at the coastal sea area.

For the purpose of contribution to make sense of the rich coastal ecosystem in Suruga Bay, we conducted a survey for submarine groundwater discharge (SGD) in Oku-Suruga Bay: from the mouth of the Fuji River, at which the fault is found, to Tagonoura, where the lavas of the Younger Fuji volcano are distributed from 100 to 200 m below sea level. We are trying to estimate some locations of SGD from the condition of seabed and geological structure by using the side scan sonar and the sub-bottom profiler. We also use a remotely operated vehicle (ROV) for photographing for the image of the extrapolated spring points. In this presentation, we introduce our works noted above.

Keywords: submarine groundwater discharge (SGD), Mt. Fuji, Suruga Bay, side scan sonar, remotely operated vehicle (ROV)