

Occurrence of fishes around area with submarine groundwater seepage in the central Seto Inland Sea, with special emphasis on flatfishes

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In order to examine the effects of submarine groundwater discharge (SGD) on fish community structure and production, physical and biological surveys were conducted at a tidal flat in Seto Inland Sea, Japan. Flatfish species were dominant among fish community in and around the area with high SGD detected by monitoring survey by the use of radon concentration as a SGD tracer. Stomach content and stable isotope analyses indicated dependence of the fish species on nutrients derived from terrestrial sources through SGD. Marbled sole juveniles > 40 mm showed a higher dependence on the land-originated nutrients than other species.

Keywords: water-food NEXUS, fishery resources, submarine ground water, flatfish, Seto Inland Sea, Hiroshima