

A comparative Study on Water Environment of Isolated Islands - Focusing on Islands in Nagasaki Prefecture -

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Introduction There are many islands in Japan and each environment is unique because of its independent environment. From past research results, it is thought that land water of remote islands surrounded by the ocean is generally susceptible to sea salt influence (Goto et al. 1989), many of which are relatively small and limited. It is thought that not only human activity such as agriculture but also the influence of fallout such as rainwater tends to be reflected largely because it is a space. However, there are relatively few things concerning Tsushima, Iki, Goto Islands. In this research, we aim to clarify the present condition of the water environment by comparing the characteristics of the water quality of the land and rain water of each island.

Research method We conducted hydrological observations in the spring and fall seasons from 2014 to 2016. Temperature, water temperature, EC, pH, RpH were measured locally, samples were taken home, TOC measurement and main dissolved components by ion chromatography were analyzed. For rainwater, samples taken every month were analyzed in the same way.

Results and Discussion As a result of survey and analysis, the effects of sea salt on the land water of almost all islands are seen, the contribution of geology to sea salt is larger than that of sea salt as the overall feature of inland water in Iki, Shimoshima differed in Shimojima's water quality composition. Shimoshima has a remarkable influence of wind salt transfer, the contribution of geology to Goto Islands was seen by the area, it was clear that many nitrate was detected compared to Iki and Tsushima became. These are thought to be due to differences in geology, topography, and agricultural form.

Keywords: Iki Island, Tsushima Island, Goto archipelago, rainwater, water environment

