

C-2.5 Development and application of a method to measure of acid neutralizing capacity of fresh water

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Evaluation of the response of fresh water to acid input is necessary when assessing the impacts of acidic deposition on aquatic ecosystem. We measured the pH change after acid 1ml doses of dilute sulfuric acid (0.001N, 0.01N, 0.1N) added to each 100ml aliquot of sample water. We decided to judge the river with the possibility of acidification, when the pH after 0.001N acid input became 6.0 or lower, and without the possibility of acidification, when the pH after 0.01N acid input became 6.0 or higher.

We collected typical freshwater samples throughout the Japan Islands and measured pH, cations, anions and pH change after acid input. In the many streams on Yakushima Island, the pH after 0.001N acid input were lower than 6.0, so signs of acidification and its environmental effects are appearing.