

## Water quality and stable isotope characteristics of Akaike, a temporary pond at the northern foot of Mount Fuji, in August 2021

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Akaike is a small, temporary pond located about 1 km east of Lake Shoji at the northern foot of Mt. Fuji, which appears following heavy rainfall events. In a previous study, we measured the hydrogen and oxygen stable isotope ratios of water from Akaike Pond, which appeared in July-August 2020, and suggested that water flowing into Akaike Pond was mainly derived from the immediately preceding rainfall. We also measured major dissolved ion compositions, the nitrogen and oxygen stable isotope ratios of nitrate ions, and trace element composition, and suggested that water in Akaike Pond appeared in a relatively short period (within a few days) after the heavy rainfall events, without deep underground percolation. However, the formation mechanism of Akaike Pond remains unclear due to the lack of continuous observation data on water quality and environmental isotopes, as well as the adequate understanding of hydrogeologic settings. In this study, we measured water quality, and the the hydrogen and oxygen stable isotope ratios of water from Akaike Pond in August 2021, and compared the results with those obtained in 2020 to better understand the formation mechanism of Akaike Pond. We will also introduce the observation plan for groundwater levels at Akaike Pond from this year.

Keywords: Mount Fuji, temporary pond, water quality, stable isotopes