

Comparison of stable water isotopes between lake bottom springs and groundwater around Lake Kawaguchi at the northern foot of Mount Fuji

*Shinya Yamamoto¹, Takashi Nakamura², Yukihiro Serisawa³

1. Mount Fuji Research Institute, Yamanashi Prefectural Government, 2. Interdisciplinary Graduate School, Research Center for River Basin Environment, University of Yamanashi, 3. Faculty of Education, University of Yamanashi

In Lake Kawaguchi, we previously reported the existence of lake bottom springs at the depth of 8 meters in the east of the Unoshima Island. Lower water isotope values around the springs indicate groundwater inflows from the surrounding mountains, however, the detailed source area of the springs was not determined due to the mixing with lake waters. In this study, we directly obtained spring water by scuba diving, and compared its water isotope ratios with those in groundwater around the lake collected at the same period. Water isotope values of the springs were higher than those in groundwater from the southern side of the lake, and showed more close values to groundwater from the northern side of the lake. This suggests that the source of the lake bottom springs is likely derived from Misaka Mountains.

Keywords: Fuji Five Lakes, springs, stable water isotopes