Seasonal precipitation isotope variability in the northern Nobi Plain, central Japan

Nami Oomiya¹, *Maki Morimoto¹

1. Gifu University

The weekly isotopic compositions of precipitation in the northern Nobi Plain, central Japan have been investigated in the period from August 2016 to the present. Rain gauges were installed at five observation sites along the 4 km east-west survey line from Gifu university to Mt. Kinka, (329 meters msl) in Gifu city. The weekly precipitation and their hydrogen and oxygen isotope ratios obtained show clear seasonal variations, and especially in March and October, d-excess values changed significantly. Weekly horizontal distribution patterns of precipitation were classified by their characteristics and the weather conditions. The vertical isotopic gradients are slightly different between east and west slopes of Mt. Kinka, and this suggests that those differences are related to seasonal changes of wind directions and rain-producing clouds.

Keywords: precipitation, hydrogen isotope ratio, oxygen isotope ratio, Nobi Plain