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Isotopic composition of throughfall in coniferous forest plantation

Hiroaki Kato^{1*}, Yuichi Onda¹, Kazuki Nanko², Takashi Gomi³

¹Life and Environ. Sci., Univ. of Tsukuba, ²Forestry and Forest Products Res. Inst., ³Tokyo Univ. of Agric. and Technology

A few studies reported the changes of isotopic composition of rainwater during its passage through the vegetation canopy (Brodersen et al., 2000; Liu et al, 2008). The selection processes, the forest canopy structure and resulting evaporation processes seemed to be the main factors influencing the isotopic composition of open rainfall while passing the canopy, however the effect of rainfall redistribution by the vegetation canopy on the isotopic composition of rainfall has often been neglected. In this study, we conducted field measurement of throughfall using 10m long and 10m wide interception plots and a set of 20 tipping bucket rain gauges and throughfall collectors for isotopic analysis in Japanese cypress and Japanese cedar plantations.

Keywords: Coniferous forest plantation, Throughfall, Isotopic composition