

## Runoff and erosion processes in a forested river catchment

\*Kazuhisa Chikita<sup>1</sup>, Daisuke Yanaba<sup>2</sup>, Yoshitaka Sakata<sup>3</sup>, Md Motaleb Hossain<sup>1</sup>

1.Department of Earth and Planetary Sciences, Faculty of Science, Hokkaido University, 2.Department of Earth and Planetary Sciences, School of Science, Hokkaido University , 3.Department of Space System, Faculty of Engineering, Hokkaido University

Behaviors of rainwater in the forest soil layer and its associated erosion processes were explored in the forested Oikamanai River catchment, Hokkaido, by setting a 4CH soil moisture profiler (10 - 40 cm depth) and five tensiometers (10 -50 cm depth) in the rainfall season of 2015. Water budget of the soil layer were estimated for some rainfall events in forest. As a result, a rainfall of total 58.0 mm in forest produced saturated throughflow in the tephra layer (Tarumae 1667 Ta-b) at 30 - 40 cm depth, which exhibited the high potentiality for eroding sand and mud grains.

Keywords: forest slope, tephra layer, saturated throughflow