Japan Geoscience Union Meeting 2015
(May 24th - 28th at Makuhari, Chiba, Japan)

AHW27-10 会場:301B 時間:5 月 24 日 11:30-11:45

窒素流入量の異なる森林流域における溶存有機窒素動態
Dissolved organic nitrogen dynamics in forested watersheds with different nitrogen inputs

小林 政広 [1*] ; 伊藤 優子 [1] ; 篠宮 佳樹 [2]
KOBAYASHI, Masahiro[1*] ; ITOH, Yuko[1] ; SHINOMIYA, Yoshiki[2]

[1] 独立行政法人森林総合研究所, [2] 独立行政法人森林総合研究所東北支所
[1]Frestry and Forest Products Research Institute, [2]Tohoku Research Center, Frestry and Forest Products Research Institute

Increasing atmospheric nitrogen deposition often causes nitrogen saturation in forest ecosystems around Kanto plain in Japan. To clarify the mechanism of nitrogen saturation, we have observed the dissolved nitrogen of bulk precipitation, throughfall, litter leachate, soil water, and stream water in Katsura experimental forest (KEF) with low nitrogen deposition and Tsukuba experimental forest (TEF) with high nitrogen deposition. In the present study, we focused on the flux and discharge of dissolved organic nitrogen (DON) in the studied forest ecosystems. The seasonal variation of the ratio of DON to the total dissolved nitrogen (TDN) was observed for the litter leachate both in KEF and TEF. The DON/TDN ratios for litter leachate, stream water were lower in TEF than in KEF. It may be caused by the high rate of mineralization in TEF with excessive nitrogen.

キーワード: 森林, 溶存有機窒素, フラックス, 流出
Keywords: Forest, dissolved organic nitrogen, flux, discharge