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## Nitrogen leaching from two forested watershed in Ibaraki, Japan

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Increased atmospheric nitrogen deposition to forested watersheds will increase the nitrate concentration in stream water. In Japan, high nitrate concentrations in stream water have been observed at some forested areas around the Kanto region, suggesting the occurrence of "nitrogen saturation". We observed the concentration and flux of inorganic nitrogen of bulk precipitation, throughfall, soil water, and stream water at two forested catchments with different N input, Katura experimental forest (KEF) with low N deposition and Tsukuba experimental forest (TEF) with high N deposition. The amounts of nitrogen deposition by throughfall at KEF and TEF were  $7.8 \text{ kg ha}^{-1} \text{ y}^{-1}$  and  $22.4 \text{ kg ha}^{-1} \text{ y}^{-1}$ . The inorganic nitrogen flux at 100 cm depth were lower than  $0.5 \text{ kg ha}^{-1} \text{ y}^{-1}$  at KEF and higher than  $50 \text{ kg ha}^{-1} \text{ y}^{-1}$  at TEF. The nitrogen runoff as stream water were  $1.9 \text{ kg ha}^{-1} \text{ y}^{-1}$  at KEF and  $11.1 \text{ kg ha}^{-1} \text{ y}^{-1}$  at TEF. In TEF, the nitrogen input is thought to exceed the ecological demand.