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森林集水域からの大気降下物由来硝酸イオン流出
Isotopic study on atmospheric nitrate discharge from forested watersheds

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Clarifying the source of discharged nitrate is important to discuss the influence of increasing nitrogen deposition on forest ecosystem, because in the forested ecosystem where discharged nitrate derived from atmospheric nitrate, increasing atmospheric nitrate deposition is difficult to accumulate into the forest ecosystem and influence on nitrogen saturation might be small. However, increasing atmospheric nitrate may directly increase the amounts of discharged nitrate from such forest ecosystems. On the other hand, in the forested ecosystem where discharged nitrate derives from nitrified nitrate, increase of nitrate deposition should not immediately increase nitrate discharge from watershed because atmospheric nitrate is taken up by nitrogen cycle in such forest ecosystems at least one time. However, atmospheric nitrate should easily accumulate in such forest ecosystem.

In this study, we conducted the observation of several storm events and quantitatively clarify the source of nitrate discharged from forest ecosystems at storm events.

キーワード: 同位体, 窒素, 森林, 物質循環
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