

Doktorandenstelle im Bereich Biogeochemie, Umweltwissenschaften

Flüsse von gelösten organischen C und N Verbindungen von terrestrischen in aquatische Ökosysteme im Einzugsgebiet „Soyang Lake“ (Südkorea): Bedeutung verschiedener Waldtypen

Ein gemeinsames Projekt des Lehrstuhls für Bodenökologie, Universität Bayreuth und des
Ecosystem/ Biogeochemistry Laboratory, Ewha Womans University Seoul, Korea
Das Projekt ist Teil des internationalen DFG Graduiertenkollegs "TERRECO".
Siehe auch <http://www.bayceer.uni-bayreuth.de/terreco/>

Betreuer:

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Projekt description

Both DOC (dissolved organic carbon) and DON (dissolved organic nitrogen) represent measures for dissolved organic matter. In forest ecosystems and forest soils DOC and DON fluxes often play a prominent role in the C and N cycle as well as for the transfer of C and N from terrestrial to aquatic systems. Furthermore, the quality of ground and surface water and the functioning of aquatic systems, including sediments are influenced by the transfer of DOC and DON from soils to water bodies. In ecosystems with a monsoon precipitation regime, DOC and DON concentrations and fluxes have received less attention, despite the fact that high precipitation events trigger substantial fluxes.

In the Soyang lake watershed (South Korea, near Seoul), forests are the dominating land cover (85%) and the transport of DOC and DON from the forested sub-watersheds therefore has an important role for the water quality and the element budget of the Soyang lake. Moreover, the Soyang lake watershed is characterized by sub catchments of different forest types and hence offers the opportunity to study the impact of forest types on the mobilization of DOC and DON under high precipitation events.

Objectives

- Quantify the export of DOC and DON from different forest types in the Soyang watershed as influenced by precipitation regime
- Investigate the relative contribution of DON to the total N loading of the streams and of the Soyang lake
- Investigate the quality and microbial use of DOC and DON from different forest types.

Interested?

The candidate should have a MSc. degree in Environmental Science, Ecology, Biology, Geosciences or related subjects. The candidate should have experiences in field and laboratory work. He/she will be hosted in Bayreuth and spend most of the time in Germany. However, intensive field and laboratory work of several months per year will take place in Korea, esp. during monsoon seasons. German language skills are helpful but not needed. A very good command of English in verbal and written communication is required.

The candidates will be supported by a stipend from German funds (maximum of 3 years, about 1150 € per month) and will join the Bayreuth Graduate School of Natural Sciences and Mathematics (BayNAT).

The position can be filled from August 1st 2012 on.

Applications shall be sent at any time to Prof. Matzner
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