



Swedish University of Agricultural Sciences
Department of Forest Ecology and Management
Faculty of Forest Sciences Umeå, Sweden

Ph.D. student position (4 years)

Hydrological transit time analysis: A tool to understand stream biogeochemical response to climate change

We are recruiting a PhD student during winter/spring of 2010 to join the project **"Hydrological transit time in boreal catchments: A foundation for understanding biogeochemical response to climate change in northern regions"**. The purpose of the project is to develop new residence time models that will function across the boreal landscape. The project will be based on a modelling approach where the translation of hydrological tracers in precipitation/snowmelt will be used to define transit times. The model development, which will largely rely on already existing field data resources, will be used to develop simplified models that can be applied to less well studied catchments in other northern regions and to understand biogeochemical patterns in stream water.

The goal of the project will be reached by combining field studies, analyses of already available data and modeling. The project will be conducted within the department of Forest Ecology and Management (<http://www.seksko.se/>) at SLU in Umeå, Sweden. The research will be carried out in close collaboration with the international network of Northern Watershed Ecosystem Response to Climate Change (North-Watch) representing seven of the most well studied nested catchments in northern latitudes. The project is a collaboration between SLU in Sweden (Hjalmar Laudon and Kevin Bishop), Northern Rivers Institute in Aberdeen, Scotland (Doerthe Tetzlaff and Chris Soulsby) and University of Zurich, Switzerland (Jan Seibert).

Prerequisites for the position include 180 ECTS or equivalent, with a minimum of 120 ECTS in a field relevant to Hydrology or Environmental Sciences (for example biogeochemistry or physical geography). The position is available for a four-year period (48 months) of research with guaranteed financial support during this period. The application should include a Curriculum Vitae, a short description of experience that make you suitable for the position and why you are interested, copies of degree certificates from higher education, relevant publication, and contact information of at least two references.

For further information please contact

Hjalmar Laudon <hjalmar.laudon@seksko.slu.se>, +46 (0)90-786 85 84.

Your complete application, marked with reference number **3610/09** should be sent to the Register, SLU, Box 7070 - 750 07 UPPSALA, or e-mail: registrator@slu.se, to arrive at January 26, 2010 at the latest.