The Department of Ecology and Environmental Science invites applicants for a PhD student position within the project "Network breakdown? The effect of fragmentation by dams on plant communities in river networks" funded by Formas. The position is planned to begin in spring 2017. Apply before March 17, 2017.

Project description
This project integrates genomic methods and ecological modelling to assess the effect of landscapes on evolutionary processes. We use recent conceptual and methodological advances in genetics and spatial ecology to study patterns in gene flow and how this is influenced by landscape structure and obstruction of dispersal pathways by land-use activities. The project will use genetic markers to infer how dispersal of riverine plants has been affected by dams in regulated rivers. We will also evaluate the distribution of genetic diversity along the river course in selected plant species. We test (1) whether dams are barriers to plant dispersal, resulting in isolated populations with higher genetic differentiation between sites separated by dams than between populations in the same impoundment or among sites in free-flowing rivers, and (2) whether the downstream increase in genetic diversity of riverine plants documented in many species is absent or less pronounced in rivers fragmented by dams. The results of the project will help manage regulated rivers with the aim to conserve riverine plant communities.

Qualifications
We seek a candidate with relevant academic background (genetics, ecology, or equivalent subject). Earlier experience of population genetic analyses, high throughput genotyping methods and knowledge of bioinformatics are merits. The candidate should be creative, show initiative, independence and good social skills, and have a very good command in both oral and written English.

Prerequisites for PhD studies include 240 ECTS credits of higher education studies of which 60 should be on an advanced level (Master level), or an equivalent qualification from abroad. This position specifically requires 120 ECTS credits in a subject relevant for ecology and a degree project of at least 15 ECTS credits.

Evaluation and application
Evaluation will be based on the individual letter, quality and relevance of master program and publication, the interview, and the candidate's performance in a literature essay given after the interview.

The application should include:

- A short letter (max 2 pages) describing your research interests and why you are interested in the position
- CV, including academic achievements
- Digital copies of Bachelor/Master thesis
- Publications
- Certificates from higher education and other documentation that supports your application
- Contact information to three reference persons.

Your application must be registered in Umeå University's e-recruitment system MyNetwork Pro (at http://www.umu.se/om-universitetet/lediga-jobb/) no later than 17th March 2017.

Other information
The PhD student will be advised by Xiao-Ru Wang (head supervisor) and Roland Jansson (assistant...
supervisor). Contact Roland Jansson, tel +4690-786 9573, e-mail roland.jansson@umu.se, or Xiao-Ru Wang, tel +4690-786 9955, e-mail xiao-ru.wang@umu.se for more information.
Salary: According to agreements for PhD students at Umeå University.

The Department of Ecology and Environment Science, Umeå University, performs research and research education in ecology, environmental science and physical geography. The department has ~150 co-workers of which ~30 are PhD students. (www.emg.umu.se)

Type of employment
Temporary position longer than 6 months

Extent of employment
100%

Salary
Monthly salary

Contact
Roland Jansson
Tel: 090-786 95 73

Union representative
SACO
Tel: 090-786 53 65
SEKO
Tel: 090-786 52 96
ST
Tel: 090-786 54 31

First day of employment
Spring 2017, according to agreement