Announcement for 3 Post doc positions for research on biodiversity conservation and ecosystem services in multifunctional agricultural landscapes

We invite applications for 3 two-year post-doctoral positions for research on biodiversity conservation, ecosystem services in multifunctional agricultural landscapes. The positions are part of the project ***"SAPES - Multifunctional Agriculture: Harnessing Biodiversity for Sustaining Agricultural Production and Ecosystem Services"*** (http://www.lu.se/o.o.i.s/23810)**.** The project is a collaboration between three Swedish universities: Lund University, Stockholm University and the Swedish University of Agricultural Sciences.

SAPES aims at determining the consequences of agricultural land-use at multiple scales on biodiversity, and the ability of interacting below- and above-ground communities of organisms to produce ecosystem services. We explore opportunities for integrating biodiversity conservation with agricultural production to benefit ecosystem services. The post docs will collaborate to produce scale dependent production functions linking land use to ecosystem service delivery, in order to understand trade-offs and synergies among multiple services and with biodiversity conservation. The ecological models will furthermore be combined with economic and governance models to value ecosystem services and predict how alternative governance regimes will affect land use, biodiversity and services under future scenarios. The positions form part of a strong interdisciplinary research environment that generates cutting-edge research to promote sustainable agriculture.

We hereby invite applicants for the following positions:

- **Postdoctoral position: Biodiversity and biological control**
- **Postdoctoral position: Linking biodiversity and ecosystem services in agricultural landscapes**
- **Post doctoral position: Linking soil ecosystem services and agricultural land use**

LUND UNIVERSITY

SLU
Swedish University of Agricultural Sciences

Stockholm University

Postdoctoral position: Biodiversity and biological control

Project description: We invite applications for a two-year post-doctoral position fellowship. Determining the links among species diversity, species interactions and the levels of ecosystem services is a major area of ecological research. We know that complex landscapes often house higher species diversity than simple landscapes. We also have evidence that agricultural management practices can encourage or discourage biodiversity. What we do not know is how predator biodiversity affects the ecosystem service biological control. The answer to the question of whether or not diverse assemblages of natural enemies suppress prey populations better than species poor assemblages is of particular importance for biological control. A more predictive framework has been suggested to include natural enemy foraging mode and habitat domains of both enemies and prey. When dealing with predator assemblages that contain generalist natural enemies it becomes important to also include the diversity of prey items. Composition of prey species may affect interactions among predators. The successful applicant for this position is expected to carry out research concerning how species identify, dominance, and habitat influence the delivery of the ecosystem service, biological control. The results of this research will be integrated into a production function for biological control that is being developed within SAPES. The successful candidate will collaborate with other scientists conducting empirical field-based studies and contributing to modeling applications.

Qualifications: Applicants should have a PhD in ecology, agronomy or other related research area. A person who holds a foreign degree that is deemed equivalent to a doctorate shall be qualified for appointment. The applicant needs to have a PhD from a non-Swedish university and can not have been employed at the Swedish University of Agricultural Sciences university. Previous work on biological control of insect pests in agroecosystems is important for this position. Statistical and modeling skills as well as experience in landscape level research are desirable.

The main criteria for the evaluation of applicants will be scientific skills. Emphasis will also be put on the extent to which the applicant can contribute to the interactions within the SAPES programme. Documented experience of collaboration among research areas will also be regarded as a qualification. Excellent skills in written and oral communications are required. The University strive to achieve an even gender balance. Therefore, applications from women, as well as from men, are encouraged.

Closing date for applications: 15 February, 2011

Date of appointment: As soon as possible

Form of employment: The appointment is limited to two years, fulltime (100%)

Placement: The position is placed at the Department of Ecology, Swedish University of Agricultural Sciences in Uppsala, Sweden. http://www.slu.se/ekologi

Application: Applications should be posted to the address below and be post marked no later than 15 February 2011. Applications should include a letter of interest, curriculum vitae, copies of degree certificates and transcripts of academic records (all attested) and a list of two persons who may act as references (with phone numbers and email addresses).

Applications should be sent to:
Professor Barbara Ekbom
Swedish University of Agricultural Sciences, Department of Ecology
SE-750 07 Uppsala, Sweden

For further information contact: Professor Barbara Ekbom +46 (0)18 67 26 25, e-mail: Barbara.Ekbom@ekol.slu.se

Postdoctoral position: Linking biodiversity and ecosystem services in agricultural landscapes

http://www.su.se/english/about/vacancies/post-doctoral-positions/postdoctoral-researcher-fellowship-in-landscape-ecology-1.10621

We invite applications for a two-year post-doctoral fellowship with the overall objective to analyze how different management interventions can help to protect biodiversity and generate ecosystem services in agricultural landscapes. By investigating a range of conservation measures, e.g. semi-natural habitats, no till, ecological farming, and their spatial configuration it is possible to identify different effects on species compositions, i.e. species identity, dominance, trait distribution and function. This knowledge will then be used to understand the synergies and trade-offs between managing for endangered or rare species and for species that contribute most to ecosystem services generation. How the investigated measures will affect opportunity costs for farmers can be estimated by using production functions at different spatial scales and land use intensity. The analyses will be built on already existing data and new field inventories that relate spatially explicit land-use information to the distribution organisms with main focus on plants, but also insects and birds. The study will be carried out in close collaboration with the other partners in the research program SAPES as well as the Landscape Ecology group at the Department of Physical Geography.

Qualifications: Qualifications for the research fellowship are a PhD in Biology or Ecology or closely related discipline. A person who holds a foreign degree that is deemed equivalent to a doctorate shall be qualified for appointment. The applicant needs to have a PhD not older than 5 years from a non-Swedish university and priority is given to candidates who have completed their degree no more than 3 years before the last date for applications.

The main criteria for the evaluation of applicants will be scientific skills. The successful applicant will have a research focus within topics such as landscape ecology, conservation ecology, and restoration ecology. Good knowledge in spatial statistics, modeling and geographical information systems are important qualifications. Experience in assessing ecosystem services at different spatial scales is a merit. Emphasis will also be put on the extent to which the applicant can contribute to the interactions within the SAPES programme. Documented experience of collaboration among research areas will also be regarded as a qualification. Excellent skills in written and oral communications are required.

Closing date for applications: 15 February, 2011

Date of appointment: As soon as possible

Form of employment: The appointment is limited to two years, fulltime (100%)

Placement: The position is placed at the Department of Physical Geography and Quaternary Geology, Stockholm University, Stockholm, Sweden. http://www.su.se/otherlanguages/ http://www.ink.su.se

Application: Applications labeled **"Postdoc dnr. 463-175-10"** should be posted to the address below and be post marked no later than 15 February 2011. Applications should include a letter of interest, curriculum vitae, copies of degree certificates and transcripts of academic records (all attested) and a list of two persons who may act as references (with phone numbers and email addresses).

Applications should be sent to:
Stockholm University, Department of Physical Geography and Quaternary Geology
Susanna Blåndman
SE-106 91 Stockholm, Sweden

For further information contact: Associate professor Regina Lindborg +46 (0)8 16 47 68, e-mail: regina.lindborg@natgeo.su.se

Post doctoral position: Linking soil ecosystem services and agricultural land use

http://www.naturvetenskap.lu.se/o.o.i.s/26278

Project description: This part of the SAPES project will study trade offs among above and below ground ecosystem services on different scales, in order to predict how land use by farmers can be optimized to achieve a sustainable use of agricultural production. In this post doctoral position the work will focus on the production of soil ecosystem services such as nutrient retention, carbon sequestration and soil structure in the agricultural landscape when producing food, biofuels and grasslands. The research includes field work, analyses of soil communities (e.g. with molecular markers) and development of models of the production of ecosystem services in order to determine trade offs among soil ecosystem services, as to above ground ecosystem services. The work will in the project be further used for determining the spatial scale at which land use configuration can give optimal use of multiple ecosystem services and to predict how different EU policies for agricultural land-use in Europe will affect production of ecosystem services. The candidate for this position is expected to carry out the work concerning soil ecosystem services in collaboration with other researchers in the SAPES programme in order to achieve potential trade offs between above and below ground ecosystem services. The candidate will take an active part in interacting in both field work and modelling work in order to achieve this interaction.

Qualifications: Applicants should have a PhD in ecology, agronomy or within a comparable subject area. The successful applicant will have a research focus within soil ecology including structure and function of soil communities. Experience in using general up to date methods for characterizing soil communities is needed. Skills in GIS and experience in planning and organizing field experiments are also important qualifications.

To be eligible for an appointment a person must have successfully completed a PhD degree or have corresponding scientific competence in a relevant subject area. The applicant needs to have a PhD not older than 5 years from a non-Swedish university and can not have been employed at Lund university. Priority should be given to candidates who have completed their degree no more than three years before the last date for applications. Candidates who have completed their degree earlier than this should receive equal priority if special grounds exist, for example documented leave of absence because of illness or parental leave.

The main criteria for the evaluation of applicants will be scientific skills. Emphasis will also be put on the extent to which the applicant can contribute to the interactions within the SAPES programme. Documented experience of collaboration among research areas will also be regarded as a qualification. Excellent skills in written and oral communications is required. The University strive to achieve an even gender balance. Therefore, applications from women, as well as from men, are encouraged.

Closing date for applications: 15 February, 2011

Date of appointment: As soon as possible

Form of employment: The appointment is limited to two years, fulltime (100%)

Placement: Centre for Environmental and Climate research (CEC) located at the Ecology Building, Lund University, Lund, Sweden. http://www.cec.lu.se/

Application: The application should state clearly which position is being applied for. The **reference number N2010/725** must be given. Personal details including name, date of birth, citizenship, gender, home address, home telephone number, present position and affiliation, including department, place of work, work telephone number and e-mail address, must be included.

A CV should be included, listing the qualifications the applicant wishes to be considered. The CV is to

be signed by the applicant. Copies of documents such as certificates and testimonials are to be attested. One copy has to be submitted of all documents that the applicant wants to be consider. Documents should be on single sided pages and should not be stapled together (to facilitate scanning and photocopying). Please note that photocopies must be attested.

Applications should be sent to: Applications, indicated with **reference number N2010/725**, may be sent by e-mail to Registrator@lu.se, but must be followed as soon as possible by a signed application. All applications are to be sent to: The Registrar, Lund University, Faculty of Science, P O Box 118, SE–221 00 Lund, Sweden, Sweden (internal mail stop 39).

For further information contact: Professor Katarina Hedlund +46-46-2223798, e-mail: Katarina.Hedlund@ekol.lu.se