

**Department of Aquatic Resources** 

# **Post-doctoral researcher**

### Statistical food-web modelling for marine management

We are seeking an 18 months post-doctoral researcher to join our research team on quantitative food-web ecology at the Institute of Coastal Research, Öregrund.

You will work in 'Ecosystem-based approach for developing and testing pelagic food web indicators', a joint project between the Department of Aquatic resources at SLU and the Stockholm Resilience Centre (SRC). You will be part of our team working on dynamics of fish communities and marine food-webs, and their ecological and evolutionary responses to climate change, exploitation and other human pressures. You will also work closely with the group of postdoctoral and senior researchers at SLU and SRC involved in the project, and within our international research network.

**Duties:** To analyze how inter- and intraspecific interactions in the upper part of the food-webs in the Baltic Sea pelagic result in dependencies between indicators of food-web state, biodiversity and exploited fish stocks, using multi-variate autoregressive statistical models applied to monitoring time series data. Develop statistical food-web models and use these to perform scenario analyses resolving management trade-offs and indicator performance under the joint impact of climate change, exploitation and other human pressures. You are expected to present the results as one or more scientific papers, a popular science paper and oral presentations.

**Qualifications:** Expertise in, and documented experience of, time series analyses or quantitative analyses of population dynamics is required. You are highly motivated, fluent in spoken and written English, a good collaborator and have good communication skills. Expertise in community ecology, dynamic population modelling, fisheries biology, or understanding of Baltic Sea ecology is advantageous. Skills in R- or Matlab-programming is meriting. A PhD in quantitative ecology, applied mathematics, statistical modelling, or related discipline is required.

## Form of employment: 18 months

Extent: 100 %

Starting date: August 2014 or by agreement

## Application:

We welcome your application marked with Ref no. SLU ua 1158/2014.

Please submit your application to the Registrar of SLU, P.O. Box 7070, SE-750 07 Uppsala, Sweden or<u>registrator@slu.se</u> no later than **April 22**, **2014**.

Specific documents attached: (1) motivation letter describing how you fit the description and how the project and focus of our research team fits you (max 1 page), (2) CV documenting your academic career and education, (3) copies of doctoral degree diploma and masters educational certificates, with transcript of records, (4) list of publications and unpublished works, (5) scientific merits, with special account of merits in statistical modelling and/or quantitative ecology, and (6) contact details of two references (name, relation to candidate, e-mail and telephone number).

SLU is an equal opportunity employer.

The Swedish University of Agricultural Sciences (SLU) develops the understanding and sustainable use and management of biological natural resources. The university ranks well internationally within its subject areas. SLU is a research-intensive university that also offers unique degree programmes in for example rural development and natural resource management, environmental economics, animal science and landscape architecture. SLU has just over 3,000 employees, 5.000 students and a turnover of SEK 3 billion. The university has invested heavily in a modern. attractive environment on its campuses in Alnarp, Skara, Umeå and Uppsala.

The Department of Aquatic Resources conducts research. environmental monitoring and assessment in limnic and marine ecology focusing on fish and shellfish. We develop knowledge, education and biological advice to promote the sustainable use of these resources. The department with three main research institutes located outside Gothenburg, Uppsala and Stockholm (in Lysekil, Öregrund and Drottningholm, respectively) and five field stations. has ca 150 employees. Our interface of science and advice for management, from local to international scale, provides a vibrant environment for applied research. Visit us at slu.se/aquaticresources. Welcome!

## Further information:

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