Post-doctoral researcher Cryptogamic Botany

A two-year postdoctoral position is available in the Department of Cryptogamic Botany, Swedish Museum of Natural History, Stockholm. The position is placed within professor Mats Wedin’s working group and is a part of the project area “Fungal phylogeny and evolution” funded by the Swedish Research Council (VR). The working group has several projects funded by VR, the Swedish Taxonomy Initiative, and Formas/BiodivERsA, focusing on taxonomic and phylogenetic biodiversity questions in lichens and associated organisms.

Optional lichenisation

Here, we study fungi in the family Stictidaceae (Ostropales, Ascomycota), a group containing saprotrophic, parasitic and lichenized fungi, focusing on some species that can live either as saprotrophs or as lichens, depending on the substrate they grow on. This is a phenomenon we have coined “optional lichenization”. We have also suggested that the fungus, at or soon after the germination of the fungal spore, irreversibly initiate either way of life.

The postdoc will study microbial and photobiont diversity in Schizoxylon albescens. Schizoxylon albescens constitutes two genetically distinct cryptic species that both show optional lichenization, and Schizoxylon when lichenized is probably associated with a consortium of algae, only some of which are potential “true” photobionts. The simple lichen associations in Schizoxylon and other related Stictidaceae will be a useful model system to study fungal-algal-microbial interactions.

The bacterial and photobiont communities in Schizoxylon will be compared with communities in Populus-bark and wood (potential substrates of the fungus) and with other lichen-associated bacterial communities described in the literature. This will be done using established pyrosequencing methods based on targeted PCR-amplification with bar-coded primers to separate samples, utilizing a GS Junior next-generation-sequencing machine available in-house. The postdoc will utilize the data to test several hypotheses.

Qualifications

Candidates have a recent PhD in systematics/evolutionary biology or similar, preferably with experience of pyrosequencing and bioinformatics. A demonstrated publication record and excellent English communication and writing skills are expected. Good knowledge in molecular lab work, phylogenetics and light microscopy are required, and
experience in lichenology, mycology, and field work is an advantage. A valid driving licence is required.

**The starting date is May 1st 2013.** The appointment is for two years.

**For more information** please contact professor Mats Wedin (mats.wedin@nrm.se). Union representatives are Bodil Kajrup, SACO-S and Yvonne Arremo, ST. All can be reached at telephone number + 46 8 519 540 00.

**Mark your application,** including a cover letter outlining relevant background, experience and motivation, your CV including a list of publications, contact information for two references, and copies of educational certificates, with **dnr 2.3.1-9-2013**, and send it as a single pdf document to rekretering@nrm.se or to the Swedish Museum of Natural History, Box 50007, SE 104 05 Stockholm, Sweden, **no later than February 28th, 2013.**