



Naturhistoriska  
riksmuseet

### **Post-doctoral researcher Botany**

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

#### **The genetic basis of facultative lichenization - a tool to understand fungal lifestyles**

In this project, we will study the genetic basis of the lichen symbiosis utilizing a group of closely related fungi including lichens, saprotrophs, and species with an "optionally lichenized" strategy. The latter form simple lichen thalli when growing on the bark of *Populus tremula* or live as saprobes on *Populus* wood. Data analyses will include de novo genome assembling and annotation, analysis of differences in genome content, size and structure, gene ontology enrichment analysis for interpreting functions of a set of genes, and analysing the degree of pseudogeneization to investigate the genomic mechanisms for loosing lichenization. In a second step, we will use several culturable "optional lichens" to study the genetic basis of the lichenization, combining comparative genomics and transcriptomics data to investigate differences in gene expression of fungal species under different lifestyles, in order to detect regulatory pathways involved in the fungal-algal recognition and their physiological interaction.

#### **Qualifications**

Candidates have a recent (max 3 years old) PhD in systematics/evolutionary biology or similar, with experience in lichenology and/or mycology. A demonstrated publication record and excellent English communication and writing skills are expected. Good knowledge in molecular lab work, genomics, transcriptomics, phylogenetics and light microscopy are required, as is experience with fungal culture work and independent fieldwork. A valid driving licence is also a strong advantage. The successful candidate will mainly pursue own research, but is expected to participate also in other collaborations and undertake some administration subject to discussion.

**The preferred starting date is May 1st 2018, but can be discussed.** The appointment is for two years.

**For more information** please contact professor Mats Wedin ([mats.wedin@nrm.se](mailto:mats.wedin@nrm.se)). Union representatives are Johannes Lundberg, SACO-S and Anna Sandberg, 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 and list of publications, contact information for two references, and copies of educational certificates, with **dnr 2.3.1-20-2018**, and send it as a single pdf document to [rekrytering@nrm.se](mailto:rekrytering@nrm.se) or to the Swedish Museum of Natural History, Box 50007, SE 104 05 Stockholm, Sweden, **no later than March 31<sup>st</sup>, 2018**.