



Department of Applied Environmental Science
Laboratory for Analytical Environmental Chemistry
Stockholm University
Professor Michael McLachlan

Stockholm 2012-12-13

To:
Naturvetenskapliga Fakultetsnämnden

Proposal for a Senior Lecturer in Hydrogeochemistry

The Board of the Department of Applied Environmental Science (ITM) decided at its meeting on 11 December 2012 to propose a senior lecturer position in Hydrogeochemistry.

ITM is structured around two major research themes, one of which is contaminant science, the other of which is ATMOSPHERIC SCIENCE & BIOGEOCHEMISTRY. The overarching goals for the biogeochemistry research are to study processes in the natural atmosphere-biogeosphere that drive the major biogeochemical cycles and ultimately govern the composition of the environment, and to assess the impact of human activities on these processes. We combine large-scale field studies with molecular and isotopic methods to track changes, quantify transport, and trace sources of substances such as carbon, nutrients, metals and organic compounds and contaminants in water, air and soil.

One of the major biogeochemistry research groups at ITM has a long history of studying processes affecting aquatic ecosystems, including the impact of long-range airborne pollutants such as trace metals and acidifying substances. This group is currently led by Professor Hans Borg. Professor Borg will retire in May 2013 and we are seeking a new leader for this group. We need a person who can provide research leadership, stimulation and inspiration for the existing group of biogeochemists, and who can contribute to the further development of the Atmospheric Science and Biogeochemistry research theme and to the development of the biogeochemistry teaching curriculum at ITM. That is why we propose to recruit at the senior lecturer level.

Concurrently, we wish to renew the research profile, shifting the focus towards large scale, waterborne carbon, nutrient and trace element transport between land and the sea. This research field is timely, with strong links to topical research issues such as climate change and ocean acidification. It will open new opportunities for broad interdisciplinary cooperation with the Department of Geosciences, the Bert Bolin Centre for Climate Change and the envisaged Baltic Sea Science Centre, hence strengthening the faculty's research environment. Furthermore, since a broad network of collaborators is a prerequisite for successful research in this field, this

recruitment is certain to strengthen ITM's international links and contribute to the university's internationalization efforts.

On the basis of these considerations, we believe that a senior lecturer in Hydrogeochemistry is important for the development of ITM and would be a positive addition to the faculty.

The senior lecturer position will be financed from the department's base grant.

Sincerely

Michael McLachlan
Prefekt

BESLUT
FN 2013-01-30

Till
Naturvetenskapliga fakultetsnämnden

Förslag från styrelsen vid Institutionen för tillämpad miljövetenskap:

Anställningsprofil för universitetslektor i Hydrogeokemi

Ämnesbeskrivning	Med hydrogeokemi menas här storskaliga studier av kol, närsalter och spårämnen i akvatiska system längs övergången från land till hav.
Huvudsakliga arbetsuppgifter	Forskning, undervisning och handledning. I arbetsuppgifterna ingår att leda och utveckla den biogeokemiska laborieverksamheten.
Behörighetskrav	Behörig att anställas som lektor är den som dels har visat pedagogisk skicklighet, dels har avlagt doktorsexamen, eller har motsvarande kompetens, som är av betydelse med hänsyn till anställningens ämnesinnehåll och de arbetsuppgifter som ska ingå i anställningen. Som allmänt behörighetskrav gäller att ha såväl förmåga att samarbeta som den förmåga och lämplighet i övrigt som behövs för att fullgöra arbetsuppgifterna väl.
Högskolepedagogisk utbildning	Högskolepedagogisk utbildning eller motsvarande kunskaper förvärvade på annat sätt är meriterande. En sökande som saknar högskolepedagogisk utbildning om minst 7,5 högskolepoäng och som inte heller bedöms ha förvärvat motsvarande kunskaper på annat sätt ska genomgå sådan utbildning under de två första åren av anställningen.
Bedömningsgrunder	Under anställningsprocessen kommer lika och särskild vikt att fästas vid graden av vetenskaplig och pedagogisk skicklighet. Den vetenskapliga skickligheten kommer i första hand att bedömas inom ämnesområdet för anställningen. Viss vikt fästs även vid skicklighet att utveckla och leda vetenskaplig verksamhet och personal. Vid likvärdiga meriter bedöms den som har erfarenhet av att leda laborierarbete ha företräde.
Uppmaning till företrädare för underrepresenterat kön att söka anställningen	Fakulteten välkomnar kvinnliga sökande då flertalet lektorer och professorer vid fakulteten är män.
Finansiering	Inom institutionens budgetram.

Övriga upplysningar	Fakultetens kriterier för bedömning av vetenskaplig och pedagogisk skicklighet: www.science.su.se
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English translation

Senior Lecturer in Hydrogeochemistry

Subject description	Hydrogeochemistry in this context means large scale studies of carbon, nutrients, and trace elements in aquatic systems along the land-sea continuum.
Main tasks	Research, teaching and supervision. Responsibilities include leading and developing a biogeochemistry laboratory.
Required qualifications	<p>Specific qualifications required to be considered as a candidate for employment as a senior lecturer include a PhD or a corresponding level of scientific competence within the subject area of the position, documented teaching proficiency, and the necessary general qualifications.</p> <p>General qualifications include the ability to collaborate and the professional skills to perform all the duties of the position.</p>
Teaching and learning theory	Higher education in teaching theory, or corresponding knowledge obtained in another manner, is to be given credit. Candidates lacking formal advanced education in teaching theory corresponding to a minimum of 7.5 higher education credits and who are judged not in possession of corresponding teaching skills must pursue such studies during the first two years of employment.
Assessment criteria	<p>In the appointment process special consideration will be given to scientific and teaching proficiency, which will be weighted equally. Assessment of scientific proficiency will primarily focus on merits within the subject area of the position. Proficiency in developing and leading a research group will also be considered.</p> <p>When merits are judged to be similar according to the general criteria, the following will be distinguishing: -experience in leading laboratory work.</p>
Gender considerations	Since most lecturers and professors at the Faculty of Science are men, applications from women are particularly welcome.
Additional information	Criteria for assessment of scientific and teaching proficiency within the Faculty of Science: www.science.su.se/english

In the event of a discrepancy between the English translation and the Swedish original, the Swedish version shall prevail.

Förteckning över tänkbara sökande, inklusive nuvarande arbetsplats:

Sebastian Sobek (Docent, Uppsala University, Sweden)

Jorien Vonk (Swiss Federal Institute of Technology, Zürich, Switzerland)

Jonathan Klaminder (Dept. of Ecology and Environmental Science, Umeå University)

Ryan Spoonseller (Dept. of Forest Ecology & Management, Swedish Agricultural University)

Barbara Deutsch (Baltic Nest Institute, Stockholm University, Sweden)

Suzanne E Tank (Dept. of Geography, York University, Canada)

Max Holmes (Woods Hole Research Centre, USA)

Carolin Slomp (Dept. of Earth Sciences – Geochemistry, Utrecht University, Netherlands)