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## ANNOUNCEMENT

15 December 2006

No. I E 373 6555/2006

Naturvetenskapliga fakulteten  
Geologiska institutionen  
Ekonomiadministratör Karin Price

Lund University announces the following vacancy

### PhD studentship in

### Geobiosphere Sciences, spec. Quaternary Sciences

at the Department of Geology, Faculty of Science

**Ref. no.: 6555**

**Day of appointment:** 1 March 2007

**Information:** Svante Björck, tel. +46 46 2227882, **email:** svante.bjorck@geol.lu.se

**Union organizations at Lund University:** OFR, SACO, and SEKO

**Project description:** *'Holocene climatic and environmental history of the Lake Lögurinn system, eastern Iceland'*

The main aim of this project, which is lead by Svante Björck and funded by the Swedish Research Council (VR), is to reconstruct Holocene climatic and environmental changes by analyzing sediments from Lake Lögurinn in eastern Iceland, northeast of Vatnajökull. This lake receives meltwater from Eyjabakkajökull, which is one of Vatnajökull's most active glaciers, and corings have confirmed the presence of laminated sediments in this deep (110 m) and large (53 km<sup>2</sup>) lake. These laminated, most likely varved, sediments reflect the melt-water discharge of Vatnajökull, which may be related to climate, and fluvial input from River Grimsa. Abundant tephra layers of historical and prehistorical age form sedimentary time markers.

Several laboratory methods will be employed: sediment descriptions, correlation of cores, validation of varve formation and varve counting, grain-size analyses, palaeomagnetic and mineral magnetic analyses, X-ray and geochemical analyses, and <sup>14</sup>C dating. The lithologic analyses form the basis of the PhD project. By calibrating the sediment variations of the last 100 years with the 100 year long hydrological, meteorological and glaciological measurement series, functions between climate and lithological variations will be found. These functions will be used to analyze the sediments further back in time. A detailed chronology of these sediments can be erected by combining varve measurements, geochemical identification of previously dated tephra layers and <sup>14</sup>C-dating any organic material. Since Vatnajökull is one of the most responsive climate sensors of the North Atlantic, this archive will give a unique record of the Holocene climate and glaciation history of the North Atlantic.

This is a joint Swedish-Icelandic research project with Ólafur Ingólfsson in Reykjavik as the Icelandic project leader.

**Qualifications:**

We preferably seek a person with a university degree in Earth Science, specialized in Quaternary Sciences. However, applicants with a background in e.g. general Geology, Geophysics and Physical Geography may also be regarded as qualified if they possess suitable skills. Documented skills in writing in English, and experience in some of the methods described above, e.g. mathematics, geochemistry and geomagnetic analyses, would be advantageous.

The position is restricted to four years. Formal regulations for postgraduate studies at the Faculty of Science are provided at <http://www.naturvetenskap.lu.se/fou/admission-eng.asp>.

PhD studentships can only be offered to applicants who are granted admission to postgraduate studies. In the selection procedure, the ability to complete the education according to the study plan for postgraduate studies is considered.

Apart from postgraduate education, the successful applicant may be assigned other duties within undergraduate teaching, research, and administrative work according to special regulations.

The Faculty of Science considers gender and equity aspects in the recruitment process. Women are particularly encouraged to apply, as the majority of PhD students within the Faculty are men.

Application forms for the announced position are provided at [http://www.naturvetenskap.lu.se/fou/antagn\\_blankett\\_eng.pdf](http://www.naturvetenskap.lu.se/fou/antagn_blankett_eng.pdf). Applications addressed to Registrator, Lunds universitet, Box 117, 221 00 LUND need to be received **no later than Monday 22 January 2007** to be considered. All documents included in the application need to be certified.

Karin Price