Cover photo: Tracked vehicle traversing the East Antarctic ice sheet during the Japanese Swedish Antarctic Expedition 2007/08. Photo: Per Holmlund.
1. Introduction

The Department of Physical Geography and Quaternary Geology is one of the larger departments at the university, with about 110 employees: 12 professors, ca 45 lecturers and researchers, ca 30 PhD students and ca 25 technical/administrative staff. The personnel now consists of a broad mix of people coming from around the world, together creating a very dynamic and creative research and education environment at the department.

Together with our neighbours, the Department of Geology and Geochemistry, the Department of Applied Environmental Science and the Department of Human Geography, in the Geosciences building at the campus of Stockholm University, we constitute one of the most complete geocentres in Scandinavia. Within one building, we have all the facilities of a modern university: library, laboratories, and equipment to conduct increasingly successful scientific studies and offer stimulating and advanced education to current and prospective students.

We conduct multi-disciplinary research in the fields of ecological geography, geomorphology and paleoglacialogy, glaciology, hydrology, paleoclimatology, Quaternary geology, remote sensing and GIS, and tropical geography. Our research can be grouped under the following research profiles: i) climate, environment and landscape development; ii) glacier and polar environments; iii) land and water resources and iv) landscape analysis and geomatics. Basic research is oriented towards furthering our understanding of short- and long term processes and interactions that lead to landscape development and environmental and climate changes. The behaviour of past and present systems and interactions between systems are modelled for predictions of future likely trends. The department is equipped with sediment laboratories and a dendroclimatological laboratory.

We also take pride in providing a broad high-quality basic education. The goal of the undergraduate education is to offer high quality learning, reflecting the research profiles of the department, and meeting the society's need for a sound theoretical competence. The department carries out undergraduate education in geography, earth sciences, integrated biology-earth science, and in environmental sciences. Every year slightly more than 1000 students attend our undergraduate education programmes.

Arjen Stroeven
Head of the Department
History

Geography was established at Stockholm University as a subject in its own right in 1912, but it was not until 1929 that the first professor, Hans W:son Ahlmann, was appointed. He held this position until 1950. Gunnar Hoppe was appointed professor in 1954, one year before the division between Physical Geography and Human Geography commenced. Professor Hoppe retired in 1980 and was succeeded by Gunnar Østrem, Wibjörn Karlén, and, in 2003, by Peter Kuhry. Hans W:son Ahlmann, particularly interested in Arctic research, led several expeditions to the Arctic and initiated the establishment of a glaciological research station in the Swedish mountains, the Tarfala Research Station. Valter Schytt was appointed professor of glaciology in 1970 and held the position until 1985. Per Holmlund succeeded him in 1999.

Gunnar Hoppe pioneered the incorporation and interpretation of aerial photographs in geomorphological research. His strong interest in remote sensing led to the creation of a professorship in remote sensing at the Department of Physical Geography in 1980, a position held by Leif Wastenson until 2001. Johan Kleman succeeded him. Leif Wastenson developed and expanded the field of remote sensing leading to the creation of a professorship in ecological geography, held by Margareta Ihse since 1997. In 2005, following a strategic decision to develop the Department's profile in hydrology, a new professorship in hydrology, hydrogeology and water resources was established. The position is held by Georgia Destouni.

As long as geology has been a subject at Stockholm University, Quaternary Geology has received considerable attention. Two early professors of geology, Gerard De Geer (1897-1924) and Lennart von Post (1929-1950) had international reputations in Quaternary geology, De Geer for his invention of the clay-varve dating method and von Post as the father of pollen analysis. In 1956 von Post's successor, Ivar Hessland, created an assistant professorship, the first holder of which was Carl-Gösta Wenner, who gave the department new direction towards applied geology. In 1962 Quaternary Geology became an independent subject and in 1963 a department on its own. Jan Lundqvist succeeded Wenner in 1980 and became the first full professor of Quaternary Geology at Stockholm University. Lundqvist retired in 1993 and was succeeded by Bertil Ringberg, and, from 2002 to 2007, by Barbara Wohlfarth.

The Department of Physical Geography and the Department of Quaternary Research amalgamated to create the Department of Physical Geography and Quaternary Geology on January 1, 2001. Research interests of other professorships at the department are in tropical geography (Carl Christiansson), paleoclimatology (Karin Holmgren), glaciology (Peter Jansson), remote sensing (Bengt Lundén), paleoglaciology (Arjen Stroeven) and Quaternary stratigraphy (Stefan Wastegård). Together with the aforementioned professorships we successfully straddle both traditional and innovative directions in physical geography and Quaternary geology.
2. Current Research

Research groups in the fields of ecological geography, geomorphology and paleoglaciology, glaciology, hydrology, paleoclimatology, Quaternary geology, remote sensing and GIS, and tropical geography contribute to four research profiles described below. All research groups are involved in the BBCC program (2.5).

2.1. Glaciers and polar environments

**Research themes and areas**
Research focusses on glaciers, ice sheets and cold (permafrost) environments in a global perspective. Study areas include Antarctica and Greenland, alpine environments in Scandinavia (and elsewhere), and the tundra regions. In a temporal perspective we are working with three different time slots: the entire quaternary period (last 2 million years), the present (last 200 years) and the future. Research activities can be subdivided into:

- Climate related processes and impacts of Global Change.
- Glacial processes and ice physical properties
- Paleooglaciological inverse and numerical modelling of past and present ice sheets.
- Coupling between high latitude land ecosystems and the global climate system.

A significant number of projects are linked to Tarfala Research Station in the Kebnekaise massif where the department is running an extensive monitoring programme. Tarfala is used as a platform for both education and for national and international research programmes.

Perito Moreno Glacier close to El Calafate in Argentina is fed by the Southern Patagonian Icefield. Photo: Krister Jansson.
Ongoing projects
1. Applying the optically stimulated luminescence (OSL) technique to date the Weichselian glacial history of south and central Sweden / Alexanderson H.
2. Arctic Natural Climate and Environmental Changes and Human Adaptation (SciencePub) - ice-sheet variability on Svalbard (project leader J. Landvik) / Alexanderson H.
3. The glacial history of Jameson Land, East Greenland (with L. Håkansson) / Alexanderson H.
4. Estimating volume changes of Patagonian glaciers using inventory data and scaling techniques / De Angelis H.
5. Exploring the conditions for stability and modes of behaviour of glacier systems / De Angelis H.
6. The North Greenland Eemian ice drilling / Hansson M.
7. The European Programme on Ice Coring in Antarctica / Hansson M., Holmlund P., Karlin T.
8. Subglacial conditions beneath the East Antarctic Ice Sheet / Holmlund P.
9. Changes in size and thermal distribution of Swedish glaciers / Holmlund P.
10. Permafrost in glacier environments / Holmlund P.
12. Terrestrial history of the Muonionalusta iron meteorites / Hättestrand C.
13. Spatial and temporal snow accumulation patterns along an icedivide in Dronning Maud Land, Antarctica / Ingvander S.
14. Assessing the timing, extent and volume of Tibetan Plateau ice during the last 130,000 years by numerical simulations: A model for interpreting its Quaternary glacial history / Kirchner N., Stroeven A.P., Heyman J.
15. Paleoglaciology of the northern sector of the Cordilleran ice sheet / Stroeven A.P., Kleman J.
17. Paleoglaciology of the Shaluli upland on the SE Tibetan Plateau / Stroeven A.P., Hättestrand C., Heyman J.

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Britta Sannel, PhLic (see also 2.2, 2.3)

Students investigate assumed Early Weichselian beach sediments on Kvadehusletta, northwestern Svalbard, to study the sediments and soil profiles and to take samples for luminescence dating. Photo: Helena Alexanderson.
2.2. Climate, environment and landscape development

Research themes and areas
Our research is aimed at describing climate, environment and landscape changes in time and space, and understanding underlying processes and causes. Investigations address recent and rapid change as well as long term evolution over millions of years. We work over the whole world with ongoing projects in the Nordic countries, the rest of Europe, Africa, South-America, northern Russia, Canada, China, Antarctica and Greenland.

We make use of long instrumental records as well as natural archives such as lake sediments, peat deposits, ice cores, drip stones, tree rings, glacial sequences and archeological evidence to investigate changes in climate, environment and associated biological, chemical and physical processes. The comparison between multiple archives allows a better reconstruction of past changes at local, regional and global scales. We interpret landscape, landforms and sediment layers to understand landscape development. Regional reconstructions of landscape and ice sheet development are performed through a combination of spatial analyses based on aerial photos, satellite images, digital terrain models and field mapping with studies of sediments and their stratigraphy, and dating of landforms and sedimentary deposits. We also apply computer simulations to investigate how glaciers, ice sheets and global sea level are affected by climatic change.

View towards NW from the inselberg Pallastunturi in northern Finland (close to the Swedish border), on August 16 2008. Photo: Karin Ebert.
Ongoing projects

1. RESOlUTION – Rapid climate and environmental shifts during OIS 2 and 3 – linking high-resolution terrestrial, ice core and marine archives / Ampel L., Engels S., Helmens K., Wastegård S.
2. Time-synchronous correlation of late Holocene climatic changes and their environmental impact in central Sweden / Andersson S.
3. Cenozoic landscape development in northern Fennoscandia. Geomorphologic interpretation within a GIS framework / Ebert K.
5. Holocene environmental changes and climate development in Greenland / Engels S., Helmens K.
6. A short lacustrine record from Pilgrimstad: palaeoenvironmental changes inferred from fossil Chironomidae and related Diptera / Engels S.
7. NEEM project / Hansson M., Wastegård S.
8. The Urban Mind / Holmgren K.
10. Regional and temporal patterns in climate / Holmgren K.
11. CARBO-North: Quantifying the Carbon Budget in Northern Russia: Past, Present and Future / Kabry P., Holzkämper S., Angelius G.
12. Palaeorelief, saprolites and uplift/denudation of cratons / Lidmar-Bergström K.
13. Climate in the last millennium / Moberg A.
14. Late Quaternary climate and environmental change in the summer rainfall region of South Africa / Norström E.
15. Local and regional shore displacement in central Baltic area / Risberg J.
16. Usage of grinding stones in arachaeology based on siliceous microfossils and EDS element analyses / Risberg J.
17. GIS applications on palaeogeography / Risberg J., Alm G.
18. Den glaciala-interstadiala utvecklingen under Weichselistiden / Robertsson A.-M.
19. Arctic Sweden / Rosqvist G.
20. Climate change in the polar front zones / Rosqvist G.
21. Understanding the spatial and temporal variability of climate in northern Tanzania during the last 1000 years / Ryner M.
22. Africa’s climate and the survival of communities – Eastern Africa during the 18th and 19th centuries / Ryner M.
23. Holocene Climate Variability over Scandinavia / Sundqvist H.
24. Sharpening the tools – improving tephrochronology around the Atlantic Sea / Wastegård S.
25. SMART project (Synchronising Marine and ice-core records using tephrochronology) / Wastegård S.
26. Potrok Aike Lake Sediment Archive Drilling Project / Wastegård S., Veres D.
27. MILLENNIUM: European climate over the last millennium / Wastegård S., Moberg A., Rosqvist G., Bergman J., Schoning K., Gunnarson B., Grudt H., Berntsson A.
28. The role of climate-environmental change, in relation to socio-economic factors, in the rise and fall of Engaruka fossil land use system, Tanzania / Westerberg L.O.
29. Environmental change in northern Tanzania during the last 1000 years / Öberg H.
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2.3. Landscape analysis and geomatics

**Research themes and areas**
Research and education in these fields comprises methods development in satellite image processing, air photo interpretation, positioning, geographical information systems, and the application of these methods to a wide variety of geoscientific, bioscientific, landscape ecologic and environmental issues. Study areas are in Sweden, other Nordic countries, the British Isles, Russia, Canada, South America, Eastern Africa, Southeast Asia, Antarctica and Greenland.

Research in glacial and periglacial environments include glacial geomorphological mapping for reconstructions of paleoglaciological and long-term landscape evolution, the mapping of recent dynamics in permafrost landscapes, and glaciological remote sensing. Remote sensing and modelling techniques are developed to monitor changes in water quality and coastal ecosystems. The research of landscape ecological questions includes vegetation mapping for change detection in sensitive mountainous environments, analysis of landscape ecological structures, and mapping and monitoring of biodiversity and biological values in cultural landscapes. GIS is applied for monitoring and analysis of the cultural landscape and for environmental management and protection in urban/semiurban areas.

The Department has been instrumental in the development of the National Atlas project and its GIS components, as in applied projects of landscape and habitat inventory and monitoring in cooperation with the Swedish Environmental Protection agency in the Landscape Monitoring project of the agricultural landscapes, LiM, and the Natura 2000 program.

![Image of oak landscape](image-url)

INK master programme course Ecological geography - mapping, analysis and visualization field course to Turku in May 2008. The beautiful remnant of an oak landscape is a common feature to us within the Hemiboreal region. Photo: Helle Skånes.
Ongoing projects
1. Land use change and effects of functional and spatial connectivity on historical and present biodiversity patterns / Cousins S., Aggemyr E.
2. Historical land use influence on dispersal and diversity of grassland species in rural landscapes / Cousins S., Auffret A.
3. Linking management and feedback across scales in social-ecological systems - Examples from forest ecosystems / Eriksson S.
4. State of the art description of landscape planning strategies for biodiversity / Ihse M.
5. Studies of actual and medieval vegetation in summer farming areas of Snorre Sturlason, Iceland / Ihse M.
6. Assessment of changes in marine vegetation in Eastern Africa using satellite remote sensing / Lundén B.
7. Plant functional traits on satellite islands; effects of space and time / Reimark J., Cousins S.

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Dan Warghagen (Södertörn University College) (see also 2.4)
2.4. Land and water resources

Research themes and areas
We investigate natural processes and anthropogenic effects in different land, soil and water environments and their changes in space and time.

The research relates also to other Earth and environmental sciences, and to environmental monitoring, management and regulation of land and water resources in different applications. We carry out research for different parts of the world on:

- Land, water and waterborne substance interactions, flow and transport dynamics and changes in space and time.
- Freshwater interactions with climate, coastal and marine waters, snow/ice and socio-economic systems.
- Land and water resources in different physical, biogeochemical, ecological and cultural environments.
- The interaction between climate extremes, air pollution, soil conditions and forest ecosystems.
- Climate feedbacks and effects on land-water systems within the cross-disciplinary Stockholm University Climate Research Environment (BBCC)

In this research, we use, develop and couple tools such as hydrological flow and solute-pollutant transport models, geographical information systems and remote sensing for both basic process quantifications and different applications.

Ongoing projects
1. Pan-Arctic hydrological and biogeochemical responses to climate change / Bring A.
2. Pan-Arctic glacier-water-biogeochemical system responses and social-ecological resilience effects in a warming climate / Bring A., Dyurgerov M.
3. The subsurface water system role for land-to-atmosphere and land-to-sea vapor-water partitioning and solute mass flows / Destouni G., Darracq A.
5. Estimation of characteristic relations for unsaturated flow through rock fractures in the Forsmark area / Jarsjö J.
6. Participation, Deliberation and Sustainability: Governance beyond rhetoric in the domains of Climate, Forestry and Food Safety / Schlyter P.
8. Water package - an information package for increased awareness in water issues / Seibert J.
9. Water quality modelling based on landscape analysis: importance of riparian hydrology / Seibert J.
10. Modelling of climate influences on surface water DOC-regimes across spatial and temporal scales / Seibert J.
11. NORTHWATCH - Northern Watershed Ecosystem Response to Climate Change / Seibert J.
12. Participatory governance in Swedish forestry / Stjernquist I.
13. The relationship between air pollution deposition and the vitality of beech and oak forests in southern Sweden / Stjernquist I., Schlyter P.

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Two maasai warriors at an excavation for OSL sampling of an ancient irrigation system in Tanzania. Photo: Lars-Ove Westerberg.
2.5. The Bert Bolin Centre for Climate Research (BBCC)

The centre conducts a 10-year research and research environment-building program, funded by a Linné-grant from FORMAS and VR. The research program brings together the climate research expertise in four departments, and the program is coordinated by the Department of Physical Geography and Quaternary Geology. The research program focuses on five cross-disciplinary core themes: climate variability, atmospheric and ocean circulation, geodata for circulation system modeling, biogeochemical cycles, and climate governing small-scale processes. The financial framework is 10 Mkr (1.7 mill $)/year over the 10-year period 2006-2016, with an additional 2 Mkr/year for the associated research school.

Important policy decisions for sustainable development are based on climate scenarios derived through numerical climate modeling. Such models are a synthesis of our current understanding of climate-influencing processes in the various components of the climate system. Our challenge and aim is to provide improved knowledge about climate-influencing processes, over a range of time-scales and subsystems. The BBCC research program embraces natural climate processes and variability, as well as changes imposed by man’s ever-increasing impact on the climate system through emission of greenhouse gases and aerosols, and changes in land-use, vegetation and hydrology. With the present strong public and political interest in climate research, interaction with media and policy makers is an important task for many of the researchers involved in the program. There is already a strong involvement by BBCC researchers in IPCC, and on the policy side in the climate commission of the Swedish government.

Peat, a climate archive in the Russian tundra (Sphagnum hummock). Photo: Päivi Kaislahti Tillman.
3. Publications

Reviewed articles


The reconstruction of the pre-MIS 18 landscape is performed by using a GIS filtering model created to mimic the general patterns of glacial erosion over multiple glacial cycles in northwestern Scandinavia (Jansson, unpublished).
4. Publication series

**Ongoing**

- Dissertations from the Department of Physical Geography and Quaternary Geology, 2006-
- Reports from the Department of Physical Geography and Quaternary Geology, 2002-
- Tarfala Research Station Annual Reports, electronic pdf-based series, 1998-

**Past**

- Thesis in Quaternary Geology, 2002-2005
- Thesis in Geography with emphasis on Physical Geography, 2001-2006
- The Department of Physical Geography, Stockholm University Dissertation Series, 1994-2000
- Research Report, Department of Physical Geography, 1968-2000
- Meddelanden från Naturgeografiska institutionen, 1965-1994

The importance of understanding soils when studying tropical environments. Field course in Kenyan highlands. Photo: Maria Ryner.
5. Education

In July 2007 Stockholm University shifted to the Bologna Model of higher education together with all other universities in Sweden. In short this means that new degrees were introduced:

- First cycle: Högskoleexamen 2 years, Kandidatexamen (Bachelor’s Degree) 3 years
- Second cycle: Magisterexamen 1 year, Masterexamen (Master’s Degree) 2 years;
- Third cycle: Licentiatexamen 2 years, Doktorsexamen (Doctorate) 4 years.

In addition a new system of credits was introduced, compatible with the European Credit Transfer and Accumulation System, ECTS. One academic credit (Sw. högskolepoäng or hp; Eng. translation Higher Education Credit or HEC), corresponds to one ECTS credit or approximately 3 days of full time studies. One semester is composed of 30 HEC, corresponding to approximately 20 study weeks, and a full study year is composed of 60 HEC, corresponding to 40 study weeks.

The final stage towards a full compliance with the Bologna agreement was concluded with the implementation of a new system of grading that was fully introduced 1 July 2008. This system corresponds roughly to the ECTS standard grading scale, but at Stockholm University a criterion-referenced grading is practised, while the ECTS system is a relative grading system, i.e. with a set distribution of grades among the student population. In addition, during the autumn term 2008 all our course syllabus and programme plans were translated to English.

The goal of the undergraduate education at the Department of Physical Geography and Quaternary Geology is to offer a high quality education, reflecting the research profile of the Department, and meeting the society’s need for a sound theoretical competence.

The department carries out undergraduate education in geography, earth sciences, integrated biology-earth science, and in environmental issues. In addition a wide spectrum of graduate (master’s level) programmes and courses are given, reflecting the research profiles of the department. Every year about 1500 students attend our undergraduate and graduate education.

5.1. Undergraduate (First Cycle) education

Three undergraduate (Bachelor’s) programmes are given by the Department of Physical Geography and Quaternary Geology:

- Bachelor’s programme in Geography
- Bachelor’s programme in Earth Science
- Bachelor’s programme in Biology-Earth Science

Bachelor’s programme in Geography
The Geography programme includes courses up to 180 Higher Education Credits (HEC), which correspond to three years of full-time studies (1 HEC is roughly 3 days of full-time studies):

- 1-30 HEC: Geography I, 30 HEC
- 31-60 HEC: Geography II, 30 HEC
- 61-90 HEC: Geography III, 30 HEC
- 91-165 HEC: Optional courses
- 166-180 HEC: Geography, Degree Project (Bachelor’s Thesis), 15 HEC

The Department of Physical Geography and Quaternary Geology and the Department of Human Geography at Stockholm University collaborate within the geography education, and much of the
education is integrated physical and human geography. Every year 100-120 students starts their Geography studies. They study geography either as a part of ordinary university studies or as a part of the theoretical education within the teachers' training programme at Stockholm University. Geography can be studied within a programme framework or as stand-alone courses. Seen over a period of ten years, the influx of students has increased substantially. One reason for this increase is the elevated interest, and need for knowledge, in the field of geography in a world where globalisation is steadily increasing.

Bachelor's programme in Earth Science
The education in Earth Science is given in collaboration with the Department of Geology and Geochemistry at Stockholm University. Courses can be taken within the programme framework or as stand-alone courses, both study paths leading to a Bachelor's Degree. The programme encompasses 180 HEC. Within the study programme, the first year (60 HEC) consists of compulsory courses where students learn the basics in earth science: Geology and Marine Geoscience, Physical Geography, Geochemistry, and Hydrology and Quaternary Geology. After the first year the students specialise within either Geology, Marine Geoscience and Geochemistry, or Physical Geography, Hydrology and Quaternary Geology. The programme is completed with a 15 HEC Degree Project (Bachelor's Thesis), which at the Department of Physical Geography and Quaternary Geology is either in Quaternary geology, physical geography, or in hydrology/hydrogeology.

Bachelor's programme in Biology-Earth Science
The Biology-Earth Science Study Programme encompasses 180 HEC. The programme is carried out in collaboration with the Department of Biology Education at Stockholm University. The programme consists of 75 HEC mandatory courses in earth sciences and environmental issues and 90 HEC are in biology. A 15 HEC Degree Project (Bachelor's Thesis) in either biology, earth science or environmental issues ends the programme. The distinctive feature of the programme is the integration between earth science and biology. Earth sciences include geology, Quaternary geology, climatology, geomorphology, cartography, aerial photograph interpretation and GIS, hydrology, and environmental issues and nature conservation.

Environmental Studies
The Department of Physical Geography and Quaternary Geology offers a wide range of courses on environmental issues on basic level (first cycle) and advanced level (second cycle). The courses are stand-alone courses that are optional within the study paths of the bachelor programmes in Geography, Earth Science, Biology, and many other subjects.

5.2 Graduate (Second Cycle) education
The Department of Physical Geography and Quaternary Geology offers advanced courses in glaciology and glacial geomorphology, climatology and palaeoclimatology, palaeoecology, Quaternary geology, hydrology and hydrogeology, soil science, Geographic Information Systems, cartography and map production, remote sensing, ecological geography, and natural resources, environment, and land use in the tropics. The courses provides the prospective geoscientist and geographer with an overall breadth to be used in working with, for example, nature and environmental control, geoscientific examinations, planning, risk assessment and research.

The advanced courses are compiled in a number of Master's Programmes. These are all two years long and always include a research task in the form of a Degree Project, which may be one semester long (20 weeks), one and a half semester long (30 weeks) or a full study year long (40 weeks).
weeks). The programmes in general start with 1.5-2 semesters of mandatory courses with a certain topical emphasis. Thereafter the students take 1-1.5 semester of optional courses and finish the programmes with a Degree Project of 1-2 semesters.

**Master’s Programmes**
- Biology-Earth Sciences
- Environmental Analysis and Management
- Environment and Health Protection
- Environmental Protection and Physical Planning
- Geography
- Glaciology and Polar Environments
- Globalization, Environment and Social Change
- Hydrology, Hydrogeology and Water Resources
- Landscape Analysis with Remote Sensing, GIS and Cartography
- Physical Geography and Quaternary Geology
- Quaternary Science and Climate Development

**Other courses**
The course “Science Communication, 30 HEC” is an advanced course, which offers a generally deepened understanding of the role that scientific research plays in society and the problems attached to it, and offers a practice in the style of scientific writing and in communicating science in media.

The summer course “Glaciers and high mountain environments, 7.5 HEC” is a glaciology field course held at the Tarfala Research Station, northern Sweden. The field-based part of the course introduces different methods of measurement and analysis and the study of glacial or periglacial landscapes and processes.

### 5.3. Postgraduate (Third Cycle) education

The postgraduate education program at the Department of Physical Geography and Quaternary Geology, Stockholm University, includes courses, seminars, excursions and the writing and defence of a Licentiate and a Doctoral thesis. Students can choose to either graduate in “Physical Geography” or in “Quaternary Geology”. The success of our postgraduate programme is reflected in the amount and quality of Doctoral theses produced (see section 6 in this report for a list of recent theses). Below, we will tabulate currently enrolled students and their projects within each examination subject.

**Physical Geography / Geography with emphasis on Physical Geography:**

Elsa Aggemyr  
*Land use change and effects of connectivity on past and present plant patterns in the archipelago*

Ingela Andersson  
*The influence and concerns of the local physical landscape in regional planning of water quality*

Alistair Auffret  
*Historical land use effects on dispersal of grassland species in rural landscapes*

Arvid Bring  
*Distributed modelling of hydrological dynamics and waterborne mass fluxes in cold regions*
Martial Duguay
*The effects of climate change induced glacier melt on water resources in the La Paz region, Bolivia*

Karin Ebert
*Cenozoic landscape development in northern Fennoscandia. Geomorphologic interpretation within a GIS-framework*

Malin Johansson
*Spatial and temporal variations in surficial melt on the Greenland ice sheet and the effects on glacier dynamics*

Sofia Eriksson
*Linking management and feedback across scales in social-ecological systems - Examples from forest ecosystems*

Thomas Grabs
*Water quality modeling based on landscape analysis: importance of riparian hydrology*

Jakob Granit
*Coping with Global Environmental Change: Water Resources Management and Development*

Jakob Heyman
*Paleoglaciology of the northeastern Tibetan Plateau*

Gustaf Hugelius
*Landscape patterns of soil organic matter quantity and quality in permafrost terrain*

Susanne Ingvander
*Spatial and temporal snow accumulation patterns along an ice divide in Dronning Maud land, Antarctica*

Christina Jonsson
*Stable isotopes in lake sediments from Lappland*

Martin Margold
*Paleoglaciological reconstructions using digital elevation models and satellite imagery*

Shilpa Muliyil Asokan
*Basin-scale hydrological impacts of climate and land use changes*

Johanna Mård Karlsson
*Mapping Arctic social-ecological resilience to hydrological change*

Marcus Nathanson
*Spatial Variations of Runoff in a Boreal Landscape – controlling factors and consequences*

Klas Persson
*Solute transport processes and risk propagation in coupled groundwater and surface water systems*

Josefin Reimark
*Plant functional traits on grazed and abandoned satellite islands; effects of space and time*

Britta Sannel
*Temporal and Spatial Dynamics of Subarctic Peat Plateau / Thermokarst Lake Complexes*

Claudia Teutschbein
*Hydrological Modelling for Climate Change Impact Assessment*

Rebecka Törnqvist
*Basin-scale hydrological and pollutant load impacts of land use and climatic changes*
Dan Warghagen
*The changing land use: From agricultural heritage to leisure use*

Helena Öberg
*Environmental change in northern Tanzania during the last 1000 years*

**Quaternary Geology:**

Sofia Andersson
*Time-synchronous correlation of late Holocene climatic changes and their environmental impact in central Sweden*

Annika Berntsson
*Reconstruction of environmental and climate changes in Vindelfjällen, northern Sweden, using lake sediments*

Timothy Johnsen
*Dynamics and chronology of ice sheet dynamics in the central Fennoscandian mountain range*

Päivi Kaislahti Tillman
*Holocene climate and environmental change in high latitudes as recorded by stable isotopes in peat deposits*

Torbjörn Karlin
*Deep ice core analysis of processes in the climate system*

**List of examinations for 2008**

<table>
<thead>
<tr>
<th>Name</th>
<th>Date</th>
<th>Degree</th>
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<tbody>
<tr>
<td>Elin Norström</td>
<td>17 Mar 2008</td>
<td>PhD, Physical Geography</td>
</tr>
<tr>
<td>Fredrik Hannerz</td>
<td>07 Apr 2008</td>
<td>PhD, Physical Geography</td>
</tr>
<tr>
<td>Mattias de Woul</td>
<td>30 May 2008</td>
<td>PhD, Physical Geography</td>
</tr>
<tr>
<td>Brad Goodfellow</td>
<td>05 Jun 2008</td>
<td>PhD, Physical Geography</td>
</tr>
<tr>
<td>Martina Hättestrand</td>
<td>24 Oct 2008</td>
<td>PhD, Quaternary Geology</td>
</tr>
<tr>
<td>Linda Ampel</td>
<td>14 Nov 2008</td>
<td>PhD, Quaternary Geology</td>
</tr>
<tr>
<td>Gull Olli</td>
<td>04 Dec 2008</td>
<td>PhD, Physical Geography</td>
</tr>
<tr>
<td>Britta Sannel</td>
<td>24 Jan 2008</td>
<td>PhLic, Physical Geography</td>
</tr>
<tr>
<td>Jakob Heyman</td>
<td>23 Apr 2008</td>
<td>PhLic, Physical Geography</td>
</tr>
<tr>
<td>Sofia Eriksson</td>
<td>02 Dec 2008</td>
<td>PhLic, Physical Geography</td>
</tr>
</tbody>
</table>
6. Dissertations

The Department of Physical Geography and Quaternary Geology, Stockholm University
Thesis in Geography with emphasis on Physical Geography (2001-2006)


ANNA ALLARD, 2003: Vegetation changes in mountainous areas - A monitoring methodology based on aerial photographs, high-resolution satellite images, and field investigations. Dissertation No. 27. Fakultetsopponent: Doc. Timo Helle

PER KLINDBJER, 2004: Glaciers and climate in northern Sweden during the 19th and 20th century. Dissertation No. 28. Fakultetsopponent: Dr. Georg Kaser


The Department of Physical Geography and Quaternary Geology, Stockholm University


LAIMDOTA KALNINA, 2001. Middle and Late Pleistocene environmental changes recorded in the Latvian part of the Baltic Sea basin. Dissertation No. 9.


The Department of Physical Geography and Quaternary Geology, Stockholm University


ANGELICA FEURDEAN, 2004: Palaeoenvironment in north-western Romania during the last 15,000 years. Dissertation No. 3. Fakultetsopponent: Prof. Katherine J. Willis

ANDERS BORGMARK, 2005: The colour of climate: changes in peat decomposition as a proxy for climate change. Dissertation No. 4. Fakultetsopponent: Dr. Bas van Geel

JENS HEIMDAHL, 2005: Urbanised nature in the past – site formation and environmental development in two Swedish towns, AD 1200-1800. Dissertation No. 5. Fakultetsopponent: Dr. Jane Sidall
HÅKAN GRUDD, 2006: Tree rings as sensitive proxies of past climate change. Dissertation No. 1. Fakultetsopponent: Prof. Brian Luckman


ELIN NORSTRÖM, 2008: Late Quaternary climate and environmental change in the summer rainfall region of South Africa - A study using trees and wetland peat cores as natural archives. Dissertation No. 11. Fakultetsopponent: Prof. Michael Meadows.


Preparation of samples for gamma spectrometry, which is used to measure the natural radioactivity in sediments to determine the annual dose for optically stimulated luminescence dating, Risø, Denmark. Crushed sediment is mixed with hot wax and cast into “gamma cups”. Photo: Heidi Ryen.
7. International exchange

INK has the perfect preconditions for international exchange. Our department is popular among incoming students from our partner universities (and other universities). This has always been the case but English Master Courses have increased INKs popularity. Some students get back to us after their Erasmus-stay as visiting students to write their thesis here. We can observe an increased interest among our own students to study in other countries.

7.1. Lecturer exchange

Exchange programme and joint master programme with the Institute of Environmental Science and Management, University of Latvia / Schlyter P.

Nordic-Russian cooperation in heigher education with the Russian State Hydrometeorological University, St Petersburg, Russia; the Arkhangelsk State Technical University, Arkhangelsk, Russia; the The Nansen International Environmental and Remote Sensing Centre, St petersburg, Russia, the The Department of Physics at the University of Helsinki, Finland; and the Royal Institute of Technology, Stockholm, Sweden / Stjernquist L, Schlyter P.

INNOLEC: Lectures for students at Masaryk University, Brno, Czech Republic / Moberg A.

NordPlus: Bilateral teaching exchange with University of Turku, Finland / Skånes H.

ERASMUS: Visiting lecturer from Insbruck, Austria, Dr. Maria Wastl

7.2. Student exchange

Erasmus exchange (coordinator: K. Ebert)

Bern University, Switzerland
Innsbruck University, Austria
Freiburg University, Germany
Bordeaux University, France
University of Burgundy, Dijon, France
University of Ostrava, Czech Republic
8. Conferences and seminars

**January**

Hättestrand & Margold: 28th Nordic Geological Winter Meeting, January 7 - 10, 2008, Aalborg, Denmark

Lyon: Workshop Spatial Statistics in Watercourses, Uppsala, Sweden

**February**

Bring & Grabs: Hydrologidagarna, Uppsala, Sweden

Ihse: United Nations Subsidiary Body for Scientific, Technical and Technological Advice for Convention of Biodiversity (SBSTTA), Rome, Italy

Sundqvist: FG-DAPHNE, 2nd Workshop, Heidelberg, Germany

**March**

Alexanderson: SGU FoU-seminarium, Uppsala, Sweden

Berntsson, Grudd, Gunnarson, Jonsson, Moberg, Rosqvist, Schoning, Sundqvist & Wastegård: MILLENNIUM 2nd Milestone Meeting, Cala Millor, Spain

de Woul: IGS Workshop on mass balance measurements and modelling, Skeikampen, Norway

**April**

Alexanderson: Arctic Palaeoclimate and its Extremes (APEX) – Recent Advances (2nd international conference and workshop), Durham, UK

Ebert, Engels, Hättestrand, Lyon, Margold & Seibert: EGU General Assembly, Vienna, Austria

Grudd, Gunnarson, Holmgren, Holzkämper, Jonsson, Moberg, Rosqvist, Sundqvist & Wastegård: BBCC Workshop on Holocene Climate Variability over Scandinavia, Ingarö, Sweden

Ihse: IALE – US yearly congress, Madison, USA

Schlyter & Stjernquist: Forest Governance - Accountability, Expertise and Effectivity. A Forest Governance Research Workshop, Stockholm, Sweden

**May**

Nordström: Municipal inspectors in Environment and Health Protection, Stockholm, Sweden

Norström: Meeting global challenges in research cooperation, Uppsala, Sweden

Ihse: International Standardisation Organisation ISO/TC 21125th Plenary and working group meeting, Copenhagen, Denmark
June
Ingvander: IGS – International Symposium on Radioglaciology and its Application, Madrid, Spain
Ryner: WAC-6 – 6th World Archaeological Congress, Dublin, Ireland
Sundqvist: SUPRA-net Melting-pot Workshop, Sheffield, UK

July
Holmlund: SCAR/LASC IPY Open Science Conference, St Petersburg, Russia
Hugelius & Sannel: 9th International Conference on Permafrost, Fairbanks, USA

August
Bring: Northern Hydrology and its Global Role: XXV Nordic Hydrological Conference, Reykjavik, Iceland
Holmlund, Kirchner & Lidmar-Bergström: 33rd International Geological Congress, Oslo, Norway
Stjernquist: The Delta Kappa Gamma Society International Conference, Chicago, USA
Teutschbein: World Water Week, Stockholm, Sweden

September
Alexanderson & Johnsen: 12th International Conference on Luminescence and Electron Spin Resonance Dating, LED2008, Beijing, China
Ampel, Engels & Wastegård: RESOLUTION Final workshop, Bordeaux, France
Andersson, Berntsson, Holzkämper, Kaislahti Tillman & Wastegård: NEPAL 2nd Conference, Höör, Sweden
Bring & Lyon: BBCC 3rd Annual Meeting, Stockholm, Sweden
Heyman: International Glaciological Society British Branch Annual Meeting, Swansea, UK
Holmgren, Ryner & Westerberg: The Energy-Climate Conflict and Bio-Fuels: A North-South Perspective, Stockholm, Sweden
Ihse: Swedish IALE-SU conference on “Wetlands in the landscape”, Kristianstad, Sweden
Kirchner: Forum for Research Into Ice Shelf Processes (FRISP) / WAIS workshop, Castleton, UK
Moberg: MILLENNIUM SG5 workshop, Kandersteg, Switzerland
Seibert: HydroPredict’2008, Prague, Czech Republic
Stjernquist: IUFRO 1.01.07 Ecology and Silviculture of Beech, Nanae, Hokkaido, Japan
Wastegård: INTIMATE 10th Workshop, Oxford, UK
October
Moberg: MILLENIUM Nordic Multiproxy workshop, /Abisko, Sweden
Sannel: Global Change Impacts on Nordic Sub-arctic Palsa Mires and Greenhouse Gas Feedbacks in the Climate System, Abisko, Sweden
Schlyter & Stjernquist: Nordic-Russian University Cooperation in Higher Environmental Education, St Petersburg, Russia
Stroeven: Derde Belgische dagen van de geografie: Geography on the Move, Brussels, Belgium
Teutschbein: ENSEMBLES Fifth General Assembly, Santander, Spain
Teutschbein: Rossby Centre Workshop (SMHI), Norrköping, Sweden

November
Alexanderson: SciencePub projektmøte, Tromsø, Norge
Bring: A Global Contract Based on Climate Justice – The Need for a New Approach Concerning International Relations, Brussels, Belgium
Holmgren: Seminar of 30 years of Cooperation University of Eduardo Mondlane, Mocambique-Sida/SAREC, Maputo, Mocambique
Holzkämper: CARBO-North workshop, Utrecht, Netherlands
Kirchner: International Glaciological Society - Nordic Branch Meeting, Helsinki, Finland

December
Darracq: International Workshop on The Sustainable City - Technologies and Systems for Sustainable Development, Kerala State, India
Goodfellow, Grabs & Lyon: AGU Fall Meeting, San Francisco, USA
Hansson, Holmlund, Ingvander, Johansson & Karlin: 21st Symposium on Polar Meteorology and Glaciology, Tokyo, Japan
Schlyter & Stjernquist: Nordic-Russian University Cooperation in Higher Environmental Education, Workshop, Stockholm
9. Conference/Seminar conveners, Editorships, PhD opponents

**Goodfellow:** Convener of session “Cold regions geomorphology: present landforms and past climate”, EGU General Assembly, Vienna, Austria, April.

**Holmgren, Ryner & Westerberg:** Organiser of conference: “The Energy-Climate Conflict and Bio-Fuels: A North-South Perspective”, Stockholm University, Sweden, September.

**Hättestrand:** Convener of session “Glaciology and glacial geology”, Aalborg, Denmark, January
Convener of session “Glacial landscape evolution and paleoglaciological reconstructions”, EGU General Assembly, Vienna, Austria, April.

**Ihse:** Chair of Swedish IALE-SU conference on “Wetlands in the landscape”, Kristianstad, Sweden, September.

**Lyon:** Convener of session “Linking catchment hydrological and biogeochemical processes across spatial scales”, EGU General Assembly, Vienna, Austria, April.
Convener of session “Catchment Processes and Heterogeneity at Multiple Scales – Benchmarking Observations, Conceptualization and Prediction”, AGU Fall Meeting, San Francisco, USA, December.

**Nordström:** Organiser of Municipal inspectors in Environment and Health Protection Conference, Stockholm University, Sweden, May

**Seibert:** Chair of subdivision on catchment hydrolog, EGU General Assembly, Vienna, Austria, April.
Member of Scientific Advisory Committee, HydroPredict’2008, Prague, Czech Republic, September.
Associated editor for Hydrology and Earth System Sciences.
Opponent for Licentiate thesis at Uppsala University, Sweden.

**Schlyter & Stjernquist:** Organiser of Forest Governance - Accountability, Expertise and Effectivity. A Forest Governance Research Workshop, Stockholm University, Sweden, April.

**Stroeven:** Guest Editor of Geomorphology 97 (1-2).
External Opponent for Sarah Greenwood, Sheffield University, UK, April.
External Opponent for Nick Golledge, University of Edinburgh, UK, October.
9. Financial support

**Grant Organizations**

- **EU** - European Union
- **FORMAS** - The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Forskningsrådet för miljö, areella näringer och samhällsbyggnad)
- **KVA** - The Royal Swedish Academy of Sciences (Kungliga Vetenskapsakademien)
- **RS** - Swedish National Space Board (Ryndstyrelen)
- **SIDA** - Swedish International Development Cooperation Agency (Styrelsen för internationellt utvecklings Samarbeten)
- **SLU** - Swedish University of Agricultural Sciences (Sveriges lantbruksuniversitet)
- **SKB** - Swedish Nuclear Fuel and Waste Management (svensk kärnbränslehantering AB)
- **SKI** - Swedish Nuclear Power inspectorate
- **SU** - Stockholm University
- **VR** - The Swedish Research Council (Vetenskapsrådet)

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<th>Funding Authority</th>
<th>Project</th>
<th>Amount</th>
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<tr>
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<td>Interdisciplinary Science Workshop 14-16 May 2008 for Early Career Scientists organized by the IPY Swedish Youth Steering Committee, VR 327-2008-80</td>
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<td>Brown</td>
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<td>The application and refinement of SAR methods for identifying climate impacts on glaciers and ice sheets RS121/06:2</td>
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<td>Cousins</td>
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<td>Historiska källor och geografi för analys av markanvändningens påverkan på spridning av gräsmarksarter och dess konsekvenser för mängfald i framtidens jordbrukslandskap, 215-2006-2130</td>
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<td>Markanvändningsförändringar och effekten av funktionell och rumslig konnektivitet på historiska och nutida diversitetsmönster, 215-2007-1428</td>
<td>885 600</td>
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<td>Destouni</td>
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<td>The subsurface water system role for land-to-atmosphere and land-to-sea water-vapor, solute and pollutant flows, 621-2006-4366</td>
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<td>Pan-Arktisk hydrologisk och biogeokemisk respons på klimatförändringar, 214-2007-1263</td>
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<td>Destouni</td>
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<td>Pan-arktiska glacier-vatten-biogeokemiska systemförändringar och effekter på socio-ekologiska resiliens i ett varamare klimat, 311-2007-8393</td>
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<td>Destouni/Jarsjö/Persson</td>
<td>Räddningsverket</td>
<td>Riskkvantifiering vid olyckor med föroreningsspridning i mark o grundvatten 061127 Overenskommelse RV 621-6092-2005</td>
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<td>Hansson</td>
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<td>Productivity changes influencing ocean-atmosphere carbon fluxes, 214-2006-1107</td>
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<td>Hansson</td>
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<td>Nationellt driftsbidrag till det internationella djuphoppningsprojektet NEEM på Grönland - framtagande av isbörkarna för unika klimatstudier, 821-2007-3926</td>
<td>135 000</td>
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<td>Helmens</td>
<td>SKB</td>
<td>Weichselian climate variability in Scandinavia based on a unique sediment sequence preserved at Sokli, 17534</td>
<td>678 000</td>
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<td>Weichselian climate variability in Scandinavia based on a unique sediment sequence preserved at Sokli, 17534/2</td>
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<td>Helmens</td>
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<td>&quot;Literature review Greenland&quot; in collaboration with De Nationale Geologische Underzoekers for Danmark og Grøenland (GEUS), 18634</td>
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<td>The effects of climate change induced glacier melt on water resources in the La Paz region, Bolivia, SWE-2005-347</td>
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<td>Holmgren</td>
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<td>Regional and temporal patterns in climate, with focus on southern and eastern Africa</td>
<td>335 000</td>
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<td>Climate and hydrological variability in Engaruka, northern Tanzania, during the last millennium, SWE-2005-341-A</td>
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<td>The role of Geological Sciences for Sustainable Development in Mozambique, 2006-001251</td>
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<td>Holmgren</td>
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<td>The Climate Dimension (MISTRAs Idéstöd The Urban Mind, Cultural and Environmental Dynamics, FOR2007/78)</td>
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<td>Holmlund</td>
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<td>The Japanese Swedish Antarctic Expedition 2007/08 - A contribution to the 4th International Polar Year</td>
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<td>Holmlund</td>
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<td>Glaciers and permafrost in Sweden, SKI2007/423/200710245</td>
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<td>Inmätning av glaciärfronter i Sarek 2007-2008</td>
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<td>Jansson K</td>
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<td>A 3-dimensional GIS reconstruction of the Quaternary relief evolution in northwestern Fennoscandia based on integrated terrestrial geomorphology and off-shore seismic data, 621-2003-3221</td>
<td>434 700</td>
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<td>Greenland Ice Sheet Hydrology Project, 19637</td>
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<td>Mitigating pollution impacts on health and environment in the Aral Sea Basin SWE-2006-308</td>
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<td>Estimation of characteristic relations for unsaturated flow through rock fractures in the Forsmark area according to attached proposal, 18873</td>
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<td>Remote Sensing of past ice sheet beds and current ice sheet surfaces - methods development and delivery of constraints for climate modelling, RS126/06:2</td>
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<td>Landscape patterns of soil organic matter quantity and lability in permafrost terrain, 621-2005-4246</td>
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<td>Assessment of changes in marine vegetation in Eastern Africa using satellite remote sensing, SWE2005-337</td>
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<td>Moberg</td>
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<td>Forskaranställning - Rekonstruktion av klimatet under de senaste årtusendena, 622-2006-453</td>
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<td>Jönköping o Bohuslens museum</td>
<td>Växtmikrofossilanalyser av jordprover fr Rökinge 15:17-18 + Näs 6:3, Visingsö; Bollarp, Vireda sn; Raby 1:2, Skärstad sn, Småland; St. Peders sn, RAÄ 67, V Götaland; Tanum RAÄ 539, Bohslan; Ljungarum 3:2, Småland; Botaniska analyser fr Göta älvs, V Götaland</td>
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<td>Makrofossilanalyser av jordprover från en arkeologisk undersökning Övre krok, Orby sn RAÄ448, 450, V Götaland</td>
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<td>Regnell</td>
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<td>Botanisk analys av prov fr Sunnerby 9:1, Otterstad sn</td>
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<td>Robertsson</td>
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<td>Den glaciala - interstadiala utvecklingen under Weichseltiden, 16310/2</td>
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<td>Water quality modelling based on landscape analysis: importance of riparian hydrology</td>
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<td>Basinventering av Natura 2000 och skyddade områden</td>
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<td>Stroeven</td>
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<td>Spatial and temporal pattern of erosion under the Cordilleran ice sheet deduced using terrestrial cosmogenic nuclides and geomorphology</td>
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<td>Glacial history and landscape evolution in the north-east Tibetan Plateau: Was there a Huang He ice sheet?</td>
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<td>Wastegård</td>
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<td>Sharpening the tools - improving tephrochronology around the Atlantic Sea</td>
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<td>Wastegård</td>
<td>SKB</td>
<td>Granskning av kap &quot;Geological development during the Quaternary period&quot; till SKB-rapporten &quot;Geological evolution, palaeoclimate and historic development of the Forsmark and Laxemar-Simpevarp areas&quot;</td>
<td>6 000</td>
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Approved external research grants 27 434 407

<table>
<thead>
<tr>
<th>RESEARCH GRANT RECEIVER</th>
<th>FUNDING AUTHORITY</th>
<th>PROJECT</th>
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<tr>
<td>Bäckstrand/Stjernqvist</td>
<td>Lunds univ</td>
<td>Participation, Deliberation and Sustainability: Governance beyond rhetoric in the domains of Climate, Forestry and Food Safety</td>
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<td>Schlyter m.fl.</td>
<td>FORMAS</td>
<td>½ lektorat i fem år med 300 tkr/år under 2006-2010 (SU611-2777-04)</td>
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<td>Destouni</td>
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<td>Millennium - European climate of the last millennium (Contr No.017008) 2006--2009</td>
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<td>UNESCO</td>
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<td>INK (Holmgren m.fl.)</td>
<td>SU</td>
<td>Lärarlyftet - Klimat, vatten o hållbar utveckling (SU172-1405-07)</td>
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<td>FORSKARSKOLA FÖR LÄRARE</td>
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<td>CARBO-NORTH - QUANTIFYING THE CARBON BUDGET</td>
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<td>Kuhry</td>
<td>EU</td>
<td>Northern Russia: pace, present and future</td>
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<td>Stroeven</td>
<td>SU</td>
<td>Strategisk satsning engångsmedel</td>
<td>600 000</td>
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</table>

Total Approved research grants 36 515 115
7. Staff (late autumn 2008)

Department Chairman/Head: Professor Arjen Stroeven
Vice Chairman: Professor Georgia Destouni

**PROFESSORS**

- Christiansson, Carl: professor of Physical Geography,
- Destouni, Georgia: professor of Hydrology, Hydrogeology and Water Resources
- Duyrgerov, Mark: visiting professor of Hydrology and Water Resources
- Holmgren, Karin: professor of Physical Geography
- Holmlund, Per: professor of Glaciology
- Jansson, Peter: professor of Physical Geography
- Kleman, Johan: professor of Remote Sensing
- Kuhry, Peter: professor of Physical Geography
- Kuylenstierna, Johan: visiting professor of Water Resources
- Lundén, Bengt: professor of Remote Sensing
- Stroeven, Arjen: professor of Physical Geography
- Wastegård, Stefan: professor of Quaternary Geology

**ACADEMIC STAFF**

**Associate Professors (PhD, Docenter)**
- Alexanderson, Helena: senior lecturer
- Arnberg, Wolter: senior lecturer
- Cousins, Sara: senior lecturer
- Hansson, Margareta: senior lecturer
- Hättestrand, Clas: senior lecturer, headdirector of undergraduate studies
- Jansson, Krister: associate senior lecturer
- Jarsjö, Jerker: senior lecturer
- Moberg, Anders: researcher, also senior lecturer
- Nordberg, Maj-Liz: senior lecturer
- Risberg, Jan: senior lecturer
- Rosqvist, Gunhild: senior lecturer
- Seibert, Jan: research associate, also senior lecturer

**PhD**
- Baresel, Christian: research engineer
- Bergman, Jonas: researcher
- Borgström, Ingmar: senior lecturer
- Brown, Ian: researcher
- Darraçq, Amelie: researcher
- De Angelis, Hernán: research associate
- Engels, Stefan: researcher
- Goodfellow, Bradley: researcher
- Greenwood, Sarah: researcher
- Grudd, Håkan: researcher
- Gunnarsson, Björn: researcher
Helmens Femke, Karin researcher
Holzkämper, Steffen researcher
Hättestrand, Martina researcher
Kirchner, Nina senior lecturer
Lyon, Steve researcher
Norström, Elin researcher
Peterson, Garry researcher
Prieto, Carmen research engineer
Regnell, Mats researcher
Ryner, Maria senior lecturer
Schlyter, Peter senior lecturer
Schoning, Kristian researcher
Skånes, Helle senior lecturer
Stjernquist, Ingrid senior lecturer
Sundqvist, Hanna researcher
Westerberg, Lars-Ove senior lecturer

PhLic, MSc, BSc
Bråvander, Lars Gunnar MSc, senior lecturer
Eknyrt, Bo PhLic, lecturer
Fridfeldt, Anders BSc, lecturer
Karlsson, Sven PhLic, researcher
Nordström, Anders PhLic, senior lecturer
Trygger Bergman, Sophie MSc, lecturer
Yrgård, Anders PhLic, lecturer

Postgraduate students (PhLic, MSc, BSc)
Aggemyr, Elsa
Andersson, Ingela
Andersson, Sofia
Auffret, Alistair
Berntsson, Annika
Bring, Arvid
Duguay, Martial
Ebert, Karin
Eriksson, Sofia
Grabs, Thomas
Heyman, Jakob
Hugelius, Carl-Gustaf
Ingvander, Susanne
Johansson, Malin
Johnsen, Timothy
Jonsson, Christina
Kaislathi Tillman, Päivi
Karlin, Torbjörn
Margold, Martin
Muliyil Asokan, Shilpa
Nathanson, Marcus
Persson, Klas
Reimark, Josefin
Sannel, Britta
Teutschbein, Claudia
Törnqvist, Rebecka
Warghagen, Dan
Öberg, Helena

Teaching assistants
Holmlund, Moa BSc
Liljewalch-Fogelmark, Klara BSc
Mercer, Andrew BSc
Wennbom, Marika

**Administrative Staff**

Berggren, Berit senior administrative officer
Blåndman, Susanna BSc, personnel administrator
Damberg, Maria MSc, study advisor
Hansson, Erik MSc, educational administrator
Henriksson, Carina university certified administrator, senior administrative officer
Hultblad, Gertrud university certified administrator, senior administrative officer
Maija-Liisa Isdal BSc, financial administrative officer
Jacobsson, Henrik BSc, study advisor
Kruckenberg, Anita PhD, senior administrative officer
Malin Stenberg de Serves PhD, Informant
Sturesson, Elisabeth MSc, educational administrator
Åkerblom, Lena higher administrative officer

**Technical Staff**

Alm, Göran PhLic, systems engineer
Brotén, Bengt technician
Cabrera, Yanduy caretaker
Castro Matamoros, Ana Lucia MSc, specific project assistant
Dellgar Hagström, Mirja MSc, specific project assistant
Finné, Martin MSc, specific project assistant
Granell, Håkan supervisor of office services
Jacobson, Rolf web editor
Runborg, Siv BSc, research assistant
Spångberg, Martin systems engineer
Svanered, Ola BSc, systems engineer
Törnberg, Henrik MSc, technician, Tarfala Research Station
On a sunny day in September 2008, the department staff went off on an excursion in Uppland (Vallentuna, Norrtälje) to celebrate Margareta Ihse, professor in ecological geography and colleague of many years, who is now retiring from her post after long and faithful service. Photo: Joakim Lannek.
<table>
<thead>
<tr>
<th>Postadress</th>
<th>Besöksadress</th>
<th>Telefon/phone</th>
<th>Internet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mailing address</td>
<td>Visiting address</td>
<td>+46 8 16 20 00</td>
<td><a href="http://www.ink.su.se">www.ink.su.se</a></td>
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<td>Svante Arrheniusv. 8c</td>
<td>Telefax</td>
<td></td>
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<tr>
<td>106 91 Stockholm</td>
<td></td>
<td>+46 8 16 48 18</td>
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