

Annual Report 2022 (mini)



Biogeo students at Hässlen, Hedemora, Dalarna performing a groundwater exercise. Photo: Stefan Wastegård.

Department of
Physical Geography



Stockholm
University

Department Structure

Department Board

Extended Management Group

Executive Group

Head of Department

Georgia Destouni (until 220731)
Sara Cousins (from 220801)

Deputy

Qiong Zhang (until 220731)
Stefan Wastegård (from 220801)

Director of Studies

Jerker Jarsjö (until 220731)
Björn Gunnarson (from 220801)

HR Responsible

Susanna Blåndman

Head of Administration

Madeleine Karpegård

Heads of Research Units

Climate Science and Quaternary Geology
Margareta Hansson and Stefan Wastegård

Landscape, Environment and Geomatics
Gustaf Hugelius and Ian Brown

Water, Permafrost and Environmental Systems
Fernando Jaramillo, Stefano Manzoni

Geomorphology and Glaciology
Nina Kirchner and Per Holmlund

Director of PhD Studies

Helle Skånes

PhD subject representative

Stefan Wastegård (until 220731)
Arjen Stroeven (from 220801)



The garden outside the Geoscience building in April 2022.

Research Grants Awarded 2022

Grant Receiver	Funding Organisation	Project Name	Total Grant (TSEK)
Belyazid Salim	EU	NUTRIBUDGET - Optimisation of nutrient budget in agriculture	256
de la Torre-Castro Maricela	Vetenskapsrådet	Den blåa ekonomin i tropiska havsskap: inkomstmöjligheter och transformation under klimatförändringar	800
Destouni Georgia	Vetenskapsrådet	Det kopplade sötvattenssystemets variationer, trender, och deras drivkrafter runt världen	3 600
Eriksson Victor	Bolincentret	How does grassland restoration affect biodiversity and soil C sequestration?	96
Fischer Sandra	Naturvårdsverket	Gruvkemikaliers miljöpåverkan i nedströms vattendrag	285
Hugelius Gustaf	REA/HORIZON	AI4SoilHealth: Accelerating collection and use of soil health information using AI technology to support the Soil Deal for Europe and EU Soil Observatory	690
Hugelius Gustaf	Vetenskapsrådet	Torvmarker med permafrost under komplexa klimatscenarier kollaps, resiliens eller stabilitet	3 600
Jaramillo Fernando	Formas	Förslag på optimal återställning av hydrologiska regimer i s venska våtmarker genom djupinlärning och hydrogeodesi	3 805
Jaramillo Fernando	Formas	Utökad övervakning av vattenresurser för att möta klimatrelaterade risker i vattenförsörjningen	3 917
Kalantari Zahra	EU	NATURANCE	284
Kirchner Nina	Formas	Glaciärer, klimat och snabba förändringarna i det svenska Arktis - ett kommunikationsprojekt genom erfarenhetsbaserat lärande vid Tarfala forskningsstation	1 779
Kirchner Nina	Vetenskapsrådet	Växelverkan mellan glaciärer och hav i norra Grönland: ny kunskap om norra Grönlands utloppsglaciärer för att bättre kunna begränsa framtida havsnivåhöjningar.	3 476
Rosqvist Gunhild	Formas	Att undvika den gröna omställningens dilemma - Behovet av klimatkonsekvensanalyser för områden med renskötsel i Sápmi	11 451
Scaini Anna	Formas	Växelverkan mellan glaciärer och hav i norra Grönland	3 970
Wastegård Stefan	Vetenskapsrådet	Tefrokronologi i Sverige - att knyta ihop säcken	2 640
Wood Heather	G Gustafsson	Övervakning av fladdermöss i Lappland	50
Zhang Qiong	Vetenskapsrådet	En undersökning av klimatsvängingar på flera århundranden i klimatmodeller	4 240
Sum			44 939

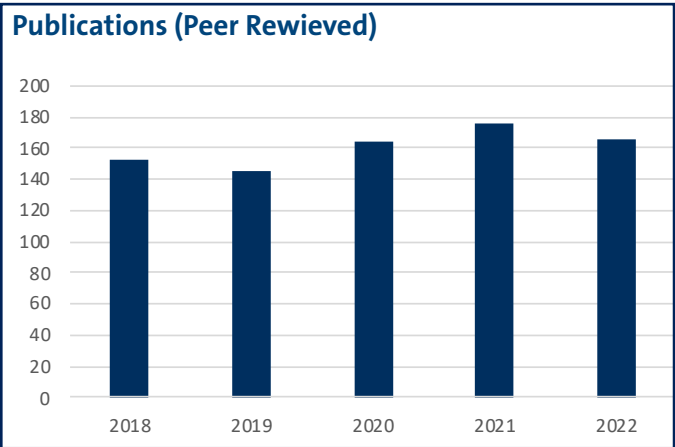
Research Contracts Awarded 2022

Grant Receiver	Funding Organisation	Project Name	Total Grant (TSEK)
Frampton Andrew	SKB	Hydromekanisk modellanalys	4 987
Stroeven Arjen	Boliden	Quaternary geology	736
Sum			5 723



Earth Science and Geography students at Stådjan, NW Dalarna. This year's excursion in the Quaternary geology course was held by Peter Kubry and Stefan Wastegård Photo: Stefan Wastegård.

Publications 2022



Number of peer reviewed publications 2018-2022. A total of 166 papers were published in peer reviewed journals 2022. Statistics for 2022 reported in DiVA as of 2023-01-04.

QR Code to All NG Publications in 2022



Infrastructure

Field stations:

- Tarfala Research Station (TRS)
- Navarino Environmental Observatory (NEO)

Other facilities:

- Stockholm Tree Ring Laboratory
- Chemical Laboratory
- Microscope facilities
- Optically Stimulated Luminescence Laboratory (OSL)
- Sediment Laboratory
- GIS and remote sensing cluster
- Ice Laboratory
- Geomorphology Laboratory

Education

The Department's goal is to offer high quality education, reflecting its research profile, and meeting society's needs for theoretical and practical expertise and skills.

The Department offers education at undergraduate (Bachelor's) level in Geography, Earth Sciences, Integrated Biology-Earth Science, and Environmental Studies. In addition, a wide spectrum of graduate (Master's level) programmes and courses are given, reflecting the research profile of the Department.

Every year about 1200 students attend our undergraduate and graduate courses.

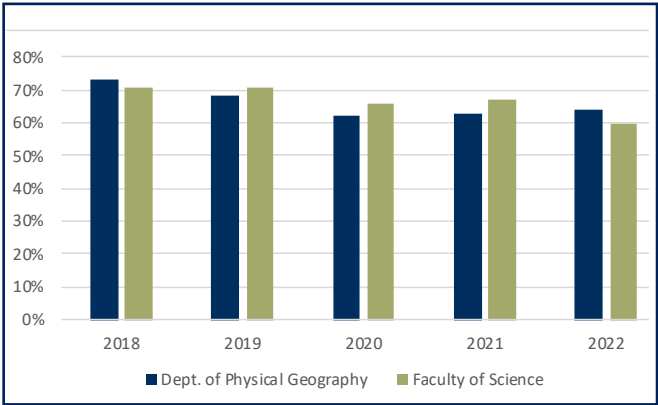
Bachelor Programmes (180 credits) in:

- Biology-Earth Sciences
- Geography
- Earth Sciences

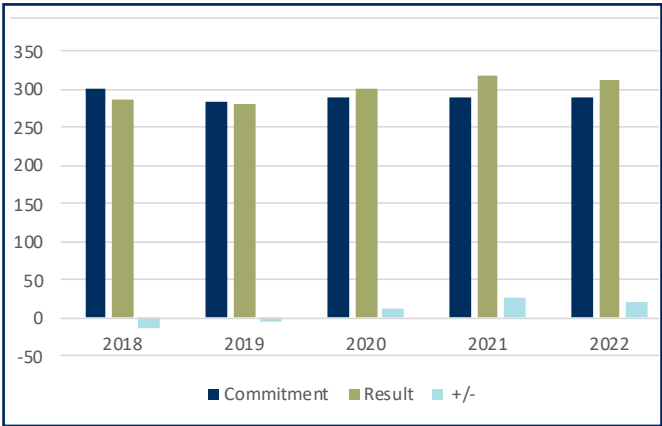
Master's Programmes (120 credits) in:

- Environmental Management and Physical Planning
- Geomatics with Remote Sensing and GIS
- Landscape Ecology
- Polar Landscapes and Quaternary Climate

Student Completion Rate in % (Genomströmning)



Annual Performance Equivalent/HÅP



Excursion in Greece. Photo: Martina Hättstrand.

PhD Education

Doctoral Theses 2022

Arjun Chakrawal: *Novel approaches in modeling of soil carbon - Upscaling theories and energetics.*

Simon Larsson: *Ashes to ashes – applications of tephrochronology in Scandinavia.*

Baraka Nyangoko: *Managing Mangrove Ecosystem Services for Local Livelihoods and Adaptations in Tanzania.*

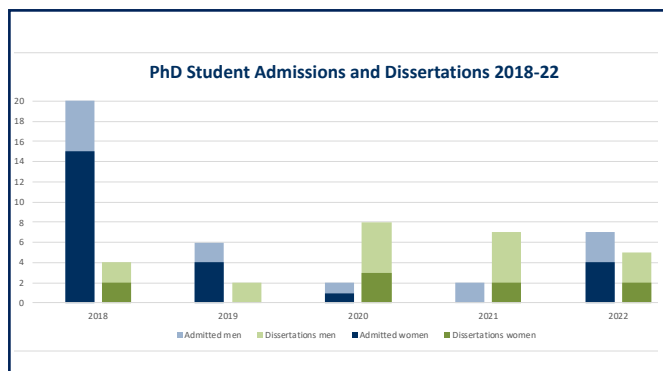
Jóhanna Gísladóttir: *A systems thinking approach to corruption and natural resources in the context of sustainability. The thesis was printed and defended at University of Iceland for a double degree in Environment and Natural Resources (UoI) and Physical Geography (SU).*

Sandra Fischer: *Waterborne pollution from mining in cold climates - Potential catchment-scale immobilization of substances by microbial sulfate reduction (MSR).*



Nailing ceremony with Sandra and Simon. Photo: Malin S. de Serves.

PhD Student Admissions and Dissertations 2018-22



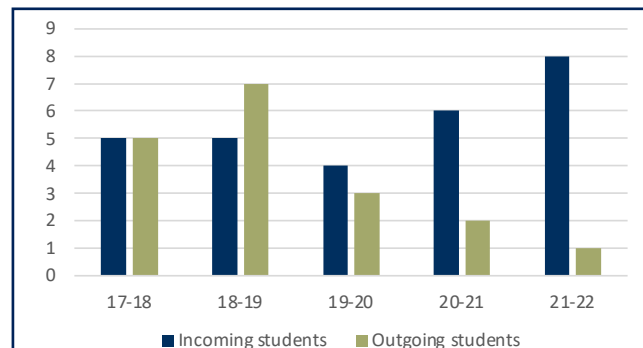
Collaboration

International Exchange Education

Partner Universities until spring semester 2022

Aachen, Germany
Brussels, Belgium
Copenhagen, Denmark
Freiburg, Germany
Gent, Belgium
Grenoble, France
Innsbruck, Austria
Kiel, Germany
Leuven, Belgium
Liège, Belgium
NTU, Singapore
Turku, Finland

Exchange Students 2018-22



The number of students in the graph only show exchange students from our own exchange agreements. In addition we also receive as well as send out exchange students via central (university-wide) agreements, North2North, Nordlys and CIVIS, agreements handled by the International Office at Stockholm University.

Alumni Network

We wish to stay in touch with former students and researchers. Our alumni are part of the valuable network that supports us in a range of different ways: by being important ambassadors and by engaging in the development of reserach and education.

Outreach and Media

We interact with the public and schools at annual events like; the Researchers Night, the Geology Day, the Bolin Centre Climate Festival, the Sustainability Forum and the World Water Day.

Advances in research are not just for us but for society in general. Through the media, we can contribute to the dissemination of knowledge and debate. With communication we can increase understanding and interest and broaden the views for the future. Almost every week our researchers and teachers appear in the media.

Contact

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Stockholm University in Frescati. Photo: UltraCam Eagle, LMV.

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