FORBIO TERRESTRIAL FIELD COURSE IN GREENLAND: TWO PARTS:
1 TERRESTRIAL ARTHROPODS OF GREENLAND
2 VASCULAR PLANTS OF GREENLAND

15 July to 1 August, 2013
Application deadline: 14 February 2013

The course is organized and funded by the Research School in Biosystematics (ForBio), and ForBio members have priority. ForBio associates can participate but have to cover their travel and stay. See http://www.forbio.uio.no/ for more information on ForBio and membership.

The students have to choose between participation in the vascular plant part or the terrestrial arthropods part.

FACTS ABOUT THE FIELD COURSE:
Recommended course credits: 7.5 ECTS.
Level: PhD-level course.
Language of instruction: English.
Course start: Participants and instructors will meet in Copenhagen on July 15, and travel to Greenland on July 16. Exact details will be sent to all participants well in advance.
Course end: Participants and instructors will leave Greenland August 1, with an additional night in Copenhagen if necessary.
Localities: Kangerlussuaq (Søndre Strømfjord), Qeqertarsuaq (Godhavn on Disko Island), and Ilulissat (Jakobshavn) on the west coast of Greenland. Kangerlussuaq is representing a dry, continental climate and Qeqertarsuaq a moister, more oceanic climate.The Qeqertarsuaq area is in particular renowned for several homothermic springs with a unique flora and fauna.
Admission: Application deadline 31.01.2013.
Final evaluation/Assessment: The students will be working in groups with relevant systematic projects during the field course for parts of the time. Each group must deliver a report before mid-September. Grade: pass/fail. A ForBio certificate will be provided if passed.
Contact person: Heidi Solstad (heidi.solstad@ntnu.no).

Preliminary schedule:
15 July: Arrival Copenhagen
16 July: Arrival Kangerlussuaq (flight)
16–21 July: Fieldwork and laboratory work at Kangerlussuaq, different vegetation types and localities from day to day
22 July: Arrival Ilulisat (flight)
22–23 July: Fieldwork Ilulisat if we manage
23 July Arrival Qegertarsuaq (boat)
23–29 July: Fieldwork and laboratory work at Qegertarsuaq, different vegetation types and localities from day to day
30 July: Arrival Ilulisat (boat)
30–31 July: Fieldwork Ilulisat if we manage

31 July: Arrival Kangerlussuaq (flight)
1 August: Arrival Copenhagen (flight)
15 September: Deadline for submission of project report
NB: Please note that fieldwork and travelling in an arctic climate is depending on weather conditions thus we will have to be flexible regarding the program.

1 TERRESTRIAL ARTHROPODS OF GREENLAND

Course-specific requirements:
Good general knowledge of the major groups of terrestrial arthropods is desirable as this is an advanced course.

Course materials:
A two-volume treatise of the Greenland entomofauna (insects, myriapods and arachnids) is in a late state of preparation at the Natural History Museum of Denmark and will hopefully be available as a pre-print.
A useful popular handbook is: Böcher, J. (2001) Insekter og andre smådyr – i Grønlands fjeld og ferskvand. 302 pp. [In Danish.]

Course content: The terrestrial arthropods course will give an overview of the spiders and insects of Greenland and train students in identifications to an appropriate level. The morphology and biology of the different groups will be taught with a focus on adaptations to an arctic climate. Techniques for collecting and preparation of specimens will be demonstrated and rehearsed.

Teaching program: Fieldwork during the day studying terrestrial arthropods and collecting specimens. Work with species determination of the material in the laboratory during the evenings. The students will be working in groups with relevant biosystematic projects during the field course for parts of the time. There will be some lectures in the evenings covering relevant subjects.

Learning outcomes: The students should be able to do species determinations of arctic terrestrial arthropods. The students will learn how to collect and preserve specimens.

Instructor: Thomas Pape (Natural History Museum of Denmark, University of Copenhagen).

2 VASCULAR PLANTS OF GREENLAND

Course-specific requirements: The students should have some basic knowledge about arctic and boreal floras.

Course materials:
Böcher, T.W., Holmen, K. and Jakobsen, K. 1968. The flora of Greenland. 312 pp. [Alternatively: Böcher, T.W., Fredskild, B., Holmen, K. and Jakobsen, K. 1978. Grønlands Flora. 326 pp. NB: In Danish.]
Beentje, H. 2010. The Kew Plant Glossary. Kew publishing, Royal Botanic Gardens Kew, Richmond. 160 pp.
Hand lens for botany studies (10-15x).

Course content: Training in identification of Greenlandic vascular plants. Taxonomic problematic groups and species will have particular focus. The morphology of some problematic species groups will be studied to find diagnostic characters to improve species descriptions and keys. The species diversity of different vegetation types will also be studied within and between the two study sites. Reproduction modes and frequencies of these in the different vegetation types will also be studied.

Techniques for collecting and preparation of specimens will be demonstrated and rehearsed, and the role and importance of scientific collections will be discussed.

Teaching program: Fieldwork during the day studying vascular plants and collecting specimens. Work with species determination of the material in the laboratory during the evenings. The students will be working in groups with relevant biosystematic projects during the field course for parts of the time. There will be some lectures in the evenings covering relevant subjects.

Learning outcomes: The students should be able to identify arctic vascular plants to the level of species and subspecies and to work morphologically with problematic vascular plant groups. The students will learn how to collect and preserve specimens.

Instructors: Reidar Elven (Natural History Museum, University of Oslo) and Heidi Solstad (Museum of Natural History and Archaeology, Norwegian University of Science and Technology).

PRACTICALITIES

Travel insurance: All participants must have travel insurance valid in Greenland that allows ordinary fieldwork for the duration of the stay. This is the responsibility of each participant. Valid insurance must be documented before departure from CPH.

Accommodation and meals: Basic accommodation with shared rooms and bathroom facilities. We will stay at the Kangerlussuaq International Science Support (KISS) in Kangerlussuaq, at the public school in Qegertarsuaq, and in a guest house or similar in Ilulissat. Be prepared that we might have to organize some of the meals ourselves, but we will try to recruit someone to take care of this. Also, expect the food to be basic. Please take into account the restricted availability of vegetarian food in Greenland.