



Phylogeographic methods

16 – 24 September 2013, University of Tromsø

Language of instruction: *English*

Course materials: *Curriculum/reading list ca. 10-12 papers*

Course contact person: *Sergei V. Drovetski (sdrovetski@gmail.com)*

Teachers: Dorothee Ehrich (University of Tromsø, dorothee.ehrich@uit.no) and Andreas Tribsch (University of Salzburg, Austria, andreas.tribsch@sbg.ac.at)

Applications accepted until the course is filled on the "first come, first serve basis"

Introduction: Phylogeography literally combines phylogeny with biogeography and investigates the geographic distribution of intra- or interspecific genetic variation. Observed patterns reflect the biogeographical and evolutionary history of a species or a species complex. Phylogeographic studies address questions about colonization pattern, historical range contractions or expansions in reaction to past climate change or other environmental influences, ice age refugia or hybridization. The phylogeographic approach has become increasingly important in taxonomic research as well as in the field of conservation biology. Despite its original focus on genetic lineages and sequence data, also allele frequencies and other types of genetic data are frequently used.

Course focus and activities:

In this course we will introduce the theoretical basis of phylogeography, genetic markers used, and data analysis. The main part will be a computer course in analyzing and interpreting phylogeographic data based on model datasets and/or data sets of participants. We will start with basic analyses such as estimating diversity and differentiation and introduce a few more advanced methods such as Isolation with migration models or historical demography later. The course is also meant to be a workshop, where it will be possible to discuss concepts, ideas and analyses of the participants own data sets.

General information:

Course participants are expected to have basic knowledge in evolutionary

biology and population genetics. Some knowledge of biogeography is an advantage. Participants will receive a number of scientific articles (10-12) on the topic to study before the course. Evaluation will be based on a project report to be delivered after the course. There is no exam and successful course participation will be certified as "passed".

Required previous knowledge/course specific requirements

Master degree in biology

Assessment - Project report

Assignment

A report and participation in course activities. Grade pass/fail.

Course start: 16 September 2013 at 12:00 Course end: 24 September at 17:00

Course costs: No course fee. Travel and accommodation is refunded for members of the Research School in Biosystematics (ForBio). Food is not refunded for courses organized at a university campus.

Terms for reimbursement: For travel reimbursement you will have to fill out the standard Norwegian travel form and send it with original receipts to Sergei V. Drovetski (Tromsø University Museum, NO-9037 Tromsø Norway). For the travel we will cover your accommodation and transportation expenses. You must order flight tickets within 4 days after you receive confirmation from us; this is to get access to the cheapest tickets possible. Other types of transportation (bus, trains, etc.) that can be pre-booked, should also be booked as early as possible. Do not book hotels on your own, ForBio will book accommodation. Rooms (2-3 persons per room) will be reserved at Sydspissen Hotel (<http://www.sydspissenhotell.no/EN/index.html>).

Application:

Persons with a genuine interest in biosystematics who want to participate in this course, first have to register as ForBio member or associates (please visit ForBio membership page (<http://www.forbio.uio.no/membership/>)). After registration as ForBio associate, please send an e-mail to Sergei V. Drovetski (sdrovetski@gmail.com) expressing your interest in course attendance and briefly describing your research interest(s)/project(s).