Course: Bioinformatics for metagenomic analyses and environmental sequencing

Time: 18-22 March 2013.

Place: Department of Biosciences (Kristine Bonnevies Hus). University of Oslo.

Registration: ForBio members and associates register here: https://nettskjema.uio.no/answer/53313.html.

If you register directly with Håvard/MERG, please also send an email to Magnus Popp (magnus.popp@nhm.uio.no).

Course fee: none.

Registration deadline: February 15, 2013.

Organizer: Håvard Kauserud (haavarka@bio.uio.no), MERG and the Research School for Biosystematics – ForBio.

Main teachers: Ramiro Logares, University of Barcelona
Thomas Haverkamp, University of Oslo
Anders Lanzén, University of Bergen (tentative)

Preliminary course content: High throughput sequencing of amplified markers (DNA barcodes) can be used to analyze the taxonomic composition of environmental samples. Moreover, metagenomics analysis is employed to understand the genetic composition and metabolic capacity of microbial communities. In this course the students will be introduced to important analytical approaches used for analyzing organismal communities in environmental samples using high throughput sequencing. The participants will be briefly introduced to high throughput sequencing (methods and concepts) and how the data can be analyzed further to study organismal diversity and metagenomics. Important themes will be:

- Filtering and quality assessment of high throughput sequence data.
- Clustering of high throughput sequence data.
- Taxonomic and genetic annotation of high throughput sequence data.

- Diversity analyses.
- Analyses of community composition and change.
- Metabolic reconstruction analyses.

There will typically be some lectures before lunch and hand on sessions after lunch. The main emphasis will be on the programs/bioinformatics pipelines Qiime, mothur and MEGAN. More detailed information will be provided to the participants before the course start.

At the University of Oslo the course is run with code BIO9905MERG1 and you can find more information here: http://www.uio.no/studier/emner/matnat/ibv/BIO9905MERG1/index.xml

Important information to ForBio members: ForBio will reimburse the costs for tickets and accommodation for members (not associates) that are not registered at the University of Oslo. More information will be sent out to participants after the registration deadline.

ForBio
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Research School in Biosystematics