



**UiT Norges arktiske universitetsmuseum**

**ForBio-UiT course Bio-3025/8025:**  
**DNA Metabarcoding: Data processing and interpretation**

Monday, Feb. **08** – Saturday, Feb. **13**, 2021, The Arctic University Museum – Rotunda – 1<sup>st</sup> floor. Lars Thørings veg 10, 9006 Tromsø

*(i) Lecturers:*

**Eric Coissac**, LECA, Grenoble [eric.coissac@metabarcoding.org](mailto:eric.coissac@metabarcoding.org)

**Inger G. Alsos**, The Arctic University Museum, UiT [inger.g.alsos@uit.no](mailto:inger.g.alsos@uit.no)

**Sandra Garcés Pastor**, The Arctic University Museum, UiT [sandra.garces-pastor@uit.no](mailto:sandra.garces-pastor@uit.no)

**Anthony Chariton**, Dept. Biological Sc., Macquarie University, Sydney [anthony.chariton@mq.edu.au](mailto:anthony.chariton@mq.edu.au)

**Peter Heintzman**, The Arctic University Museum, UiT [peter.d.heintzman@uit.no](mailto:peter.d.heintzman@uit.no)

**Pierre Taberlet**, LECA, Grenoble [pierre.taberlet@univ-grenoble-alpes.fr](mailto:pierre.taberlet@univ-grenoble-alpes.fr)

**Nigel Yoccoz**, Dept Arctic and Marine Biology, UiT [nigel.yoccoz@uit.no](mailto:nigel.yoccoz@uit.no)

*(ii) Course Organization and teaching assistance:*

**Luke Elliott**, The Arctic University Museum, UiT, [lucas.elliott@uit.no](mailto:lucas.elliott@uit.no)

**Aya Komatsu**, The Arctic University Museum, UiT, [aya.komatsu@uit.no](mailto:aya.komatsu@uit.no)

**Galina Gusarova**, The Arctic University Museum, UiT, [galina.gusarova@uit.no](mailto:galina.gusarova@uit.no)

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**Monday, 08 February**

*8.45 Coffee/tea*

*9-10.30:*

Welcome and Individual Presentations – *all participants.*

*10.30-11: Coffee/tea*

*11 -12:*

Practical session 1: UNIX operating system and main commands - *Eric Coissac*

*12-13: Lunch break*

*13-14:*

Practical session 2: basic applications of R/R-studio - *Eric Coissac*

14-14.15: Coffee/tea

14.15-15.30:

Practical session 2: basic applications of R/R-studio (*continued*) - *Eric Coissac*

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## **Tuesday, 09 February**

8.45 Coffee/tea

9-10:

**Lecture 1: Selection of DNA Metabarcoding markers & primer design. EcoPrimers & EcoPCR demonstration tutorial – *Eric Coissac***

10 -10.30 Coffee/tea

10.30 -11.30: Guest lecture

**Lecture 2: Metabarcoding of vascular plants from soil and sediments - *Inger G. Alsos***

12-13 Lunch break

13-14

Practical session 3: OBITools (part 1) - *Eric Coissac*

14-14.15 Coffee/tea

14.15-15.30

**Lecture 3: Raw sequence analysis (OBITools) - *Eric Coissac***

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## **Wednesday, 10 February**

8.45 Coffee/tea

9-10: Guest lecture

**Lecture 4: QA/QC in Metabarcoding and its impact on reproducibility - *Anthony Chariton***

10 -10.30 Coffee/tea

10.30 -12

Practical session 4: OBITools (part 2) - *Eric Coissac*

12-13.30 Lunch break

13:30-14:30: Guest lecture

**Lecture 5: “More on technical aspects of DNA Metabarcoding” – *Pierre Taberlet***

14.30-14.45 Coffee/tea

14.45-15:30:

Practical session 5: OBITools (part 2, *continued*) - *Eric Coissac*

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**Thursday, 11 February**

8.45 Coffee/tea

9-10:

**Lecture 6: Ancient animal DNA in the environment - *Pete Heintzman***

10 -10.30 Coffee/tea

10:30-11:30 Guest lecture

**Lecture 7: DNA Metabarcoding: methods for estimating false positive and negative rates - *Nigel Yoccoz***

12:00-13:00 Lunch break

13:00-14.00 Guest lecture:

**Lecture 8: Trophic metabarcoding, natural samplers and iDNA - *Sandra Garcés Pastor***

14:00-15.30:

Practical session 6: OBITools (part 3) - *Eric Coissac*

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**Friday, 12 February**

8.45 Coffee/tea

9-10: Guest lecture

**Lecture 9: “DNA Metabarcoding is not magic” - Pierre Taberlet**

10 -10.30 Coffee/tea

10.30 –11.30

**Lecture 10: DNA Metabarcoding and Biodiversity indices - Eric Coissac**

11.30-12.30: Practical session 7: Biodiversity indices and Multivariate ordination in R -  
*Eric Coissac*

12.30-13.30 Lunch break (with excursion to the TROM-herbarium to discuss project  
work on reference databases for plants)

14-15:

Zoom question-answer in groups – *All*

15-15.30 Coffee/tea

15.30-17:30:

Zoom question-answer in groups - *All*

**Saturday, 13 February**

10-13, Coffee/tea 9.45

**Course Exam - short/multiple choice questions, access to all ref materials allowed. Wiseflow will be open for all UiT students taking Bio-3025 course. For the external participants an on-line form will be available. Exam will be done in real time and the form will not be available off-line.**

**Participant list**

	<b>Group</b>	<b>Name</b>	<b>E-mail address</b>	<b>Affiliation</b>
1	1	Adriana Mordente	adriana.mordente@zoo.ox.ac.uk	Department of Zoology, University of Oxford
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11	1	Julie Morgane Guenat	julie.guenat@unil.ch	University of Lausanne, Department of Ecology and Evolution, Laboratory of Conservation Biology headed by Dr. Luca Fumagalli.
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15	1	Maonian Xu	maonian@hi.is	University of Iceland
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