Wetland Ecology and management
Lammi 2.-6.9.2019

Teachers:
- Prof. Lauri Arvola, Lammi Biological Station, Finland
- Dr. Céline Arzel, Wetland Ecology Group, Helsinki University
- Dr. Preben Clausen, Department of Bioscience - Wildlife Ecology, Aarhus University, Denmark
- Dr. Aurélie Davranche, LETG (remote sensing and geomatic unit) UMR-CNRS 6554, University of Angers, France
- Dr. Eeva Einola, Vanajavesi Centre, Hämeenlinna, Finland
- Prof. Tony Fox, Department of Bioscience - Wildlife Ecology, Aarhus University, Denmark
- Dr. Sari Holopainen, Wetland Ecology Group, Helsinki University
- Sanni Manninen Johansen, Vanajavesi Centre, Hämeenlinna, Finland
- Prof. Jesper Madsen, Department of Bioscience - Centre for Adaptive Nature Management, Aarhus University, Denmark
- Dr. Kari Minkkinen, Department of Forest Sciences, Helsinki University
- Dr. Jari Ilmonen, Metsähallitus, Finland
- Prof. Mats Nilsson, Swedish University of Agricultural Sciences, Uppsala, Sweden
- Dr. Petri Nummi, Wetland Ecology Group, Helsinki University
- Dr. Hannu Pöysä, LUKE, Finland
- Stella Thompson, Wetland Ecology Group, Helsinki University
- Dr. Veli-Matti Väänänen, Wetland Ecology Group, Helsinki University
- Prof. Harri Vasander, Department of Forest Sciences, Helsinki University
- Dr. Mia Vehkaoja, Wetland Ecology Group, Helsinki University

Student tasks:
- Master students: Learning diary
- PhD students: presentation of their research activities or plan (10 min talk, 5 min discussion, on Friday morning) + short research proposal (to be sent for evaluation within the month following the end of the course)

Best PhD student talk to be judged by students

Arrival on Saturday or Sunday at Lammi Biological Station.

Breakfast 8:00 to 9:00
Lunch 12:00
Dinner 17:00
Morning Coffee break pending on the date, see the program
Afternoon Coffee break 14:30-15:00

Application opening date 1st of February
Application closing date 30th of April
Information on admission 31st of May
Applications to be sent to celine.arzel@helsinki.fi
Monday 2nd of September
Registration: 8:00-9:00

9:00-9:20, Janne Sundell
Presentation of Lammi Biological Station

9:20-10:00, Petri Nummi & Céline Arzel 40 min
Opening words

Wetlands ecology and services

10:00-10:45, Kari Minkkinen 45 min
Wetlands, their uses, functions and management _ 1st part

Coffee break

11:00-12:00, Kari Minkkinen 1h
Wetlands, their uses, functions and management_ 2nd part

Lunch break 12:00-13:00

13:00-14:30, Mats Nilsson 1.5h
Wetland biogeochemistry

14:30- 15:00 Coffee break

15:00-16:00, Harri Vasander 1h
Northern Peatlands

16:00-17:00, Organization of student working groups, meeting with the group mentors (Post doctorants and researchers), explanation of the tasks

17:00-18:00 Dinner

18:00- Welcoming party: get to know each other
Tuesday 3rd of September

From habitat to species

*Players of the wetland 1)*

8:45-9:45, Céline Arzel, 1h
Wetlands fauna and flora, food web

9:45-10:15, Sari Holopainen
Species interactions: competition, interspecific association, density dependence, facilitator, predators

Coffee break

*Players of the wetland 2)*

10:30-11:00, Veli Matti Väänänen, 1h
Breeding association between small colonial gulls and ducks and subsequent management actions

11:00-11:30, Céline Arzel
Dispersal of organisms by ducks

11:30-12:00, Petri Nummi
Wetland Aliens

Lunch break

13:00-13:30, Stella Thompson
Wetland engineering and ecosystem services: the beaver case

13:30-14:00, Mia Vehkaoja
Biodiversity of Urban wetlands

Anthropogenic changes affecting wetlands and wetland dependent species

14:00-14:30, Céline Arzel
Climate change and brownification

Coffee break

15:00-16:00, Hannu Pöysä
Waterbirds and climate change

16:00-17:00, Preben Clausen 1h
Eutrophication and land use change - impact on waterbird numbers and distribution

18:00 Sauna
Wednesday 4th of September

Management of wetlands and wetland dependent species

09:00-10:30, Jari Ilmonen, 1.5h
Conservation tools and policies in Europe and Finland.
(Ramsar, natura 2000, SPA, Habitat directive, IUCN, AEWA, compensatory measures....)

10:30-10:45, Coffee break

10:45-12:00, Sari Holopainen 1h15 min
Management of wetlands for waterfowl: trade-off between predator control and wetland quality

Lunch break

13:00-17:00, Field trip to Vanajavesikeskus
13:30-14:15, Sanni Manninen Johansen,
presentation of the Vanajavesikeskus
14:15-15:00, Eeva Einola,
Presentation of the FRESHABIT LIFE IP-project

Coffee break

15:30-16:15, Lauri Arvola, 45 min
Nitrogen retention in sedimentation ponds and wetlands - improved ecosystem services

16:15-18:00, visit of a FRESHABIT site.

Evening Lunch in the field, pending on weather

18:00 Sauna
Thursday 5th of September

09:00-10:00, Preben Clausen & Jesper Madsen, 1h
Management of wetlands under anthropogenic constraints: creating reserve networks for waterfowl involving stakeholders

Coffee break

10:15-12:00, Jesper Madsen, 1h45
Adaptive management of wetlands and waterfowl

Lunch break

Wetland restoration and methods to develop decision support tools for wetland management

13:00-14:30, Aurélie Davranche, 1.5 h
Remote sensing tools

14:30-15:00 Coffee break

15:00-16:00, Aurélie Davranche, 1h
Spatial Modeling tools

16:00-17:00, Tony Fox, 1h
“Putting back the clock - managing eutrophication with restoration”: case studies from Danish lakes and wetlands?

17:00-18:00 Dinner

18:00- Ending party
Friday 6th of September

09:00-10:30, Students, 1.5h
Wetland ecology and management: lessons learned, future questions and challenges for researchers, wetland managers and policy makers

Coffee break

10:45-11:00, Concluding words: Petri Nummi

Field trip
11:00-15:00, lunch + presentation of the wetlands at North Mäntsälä, c. 50 min drive from Hämeenlinna

16:00-17:00, Discussion + feedback