

Training school about freshwater mussel breeding

Due to their frequently strong imperilment, more and more freshwater mussels become target species of conservation programs. These conservation programs often include breeding projects as a short term conservation method in order to prevent total extinction of target populations, preserve genetic diversity of species or restock extinct populations.

Implementation of breeding programs is complex and requires profound background knowledge and a „toolbox“ including various methods and skills from selection of target populations, breeding work steps like collection of larvae or rearing of host fish and juveniles up to releasing and monitoring juveniles and populations.

The training school about freshwater mussel breeding is directed towards all newcomers to mussel breeding and mussel conservation providing a thorough introduction on the topic with a strong focus on enabling practical experiences of all working steps.

The program is split in two courses taking place in June and September 2023 at the Kalborn mill in Luxemburg and the city of Passau in Germany. Detailed information is provided below.

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| Registration | <p>For part 1 in Luxemburg until Thursday May 15th 2023 at f.thielen@naturemwelt.lu</p> <p>For part 2 in Germany until Thursday May 15th 2023 at marco.denic@landkreis-passau.de</p> |
| Maximum number of participants | Fifteen (15) people |
| Trainee grants | Participants will get further information about possibilities on reimbursement of travel costs by the COST program after the deadline of Thursday May 15 th 2023. |

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Part 1: from selection of populations to rearing of juveniles

In the year 2007 the old mill of Kalborn, directly located at the river Our (Luxembourg), was renovated and transformed into a rearing facility for freshwater mussels. Since then a lot of experience was gained on how to culture the highly endangered freshwater pearl mussel (*Margaritifera margaritifera*) and the thick shelled river mussel (*Unio crassus*). Both species are currently cultured at the facility for the Eifel-Ardenes region from Belgium, Germany and Luxembourg. First experiments to culture the painter mussel (*Unio pictorum*) have also been conducted. The staff at the mill of Kalborn consists of Clemens (Mussel technician), Michel (Pisciculturist & Mussel technician), Sonja (Water chemistry) and Frankie (Ecology, Fish parasitology, Fish & Mussel biology).

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| Date | Tuesday 20th June – Thursday 22th June 2023 |
| Venue | Mill of Kalborn in northern Luxembourg  |
| Accommodations | Clervaux, a small touristic town, 15km away from the rearing facility offers a variety of different accommodations. Further possibilities are a hotel in Heinerscheid or Fischbach. Please contact the local organizer if you need help. A shuttle bus between Clervaux (Heinerscheid/Fischbach) and the rearing facility will be arranged. |
| How to get there | Clervaux and the mill of Kalborn are both situated in the northern part of Luxembourg. Mill of Kalborn: https://goo.gl/maps/XnD69TtyD84eAsmaA Clervaux: https://goo.gl/maps/X7xfVpWQwV52 Closest airport is Luxembourg City. Regular train connection to Clervaux are operated from Luxembourg City (Gare de Luxembourg CFL). Public transport in Luxembourg is free. |

Topics of the training school
and preliminary program:

Monday 19th June 2023: Arrival in Clervaux

Departure of the of shuttle bus from Clervaux (Market place) always at 08:30 -> Arrival at rearing facility at 09:00

Tuesday 20th June 2023: Mussel and host fish populations

Theoretical exercise (2-3 hours):

- General introduction of the site Kalbermillen.
- Why start captive breeding and background on how to select mussel and host fish populations.
- Fish husbandry (transport, diseases, treatment, glochidia infestation).

Practical exercise (4-5 hours):

- Search of mussels in a river using an Aquascope (Bathiscope). Catch of host fish by electric fishing.
- Host fish husbandry & water chemistry.
- Collection of Glochidia and host fish infestation.

Wednesday 21st June 2023: Collecting & feeding mussels

Theoretical exercise (1-2 hours):

- Collecting & feeding juvenile mussels and different holding systems.

Practical exercise (4-5 hours):

- Collecting juveniles / Different holding systems.
- Maintenance of different holding system.
- Feeding, preparation and feeding.
- Use of coulter counter.

Thursday 22nd June 2023

Theoretical exercise (1-2 hours):

- Semi natural and outdoor caging systems.

Practical exercise (4-5 hours):

- Visit of outdoor caging systems & their maintenance (gravel cages, floating cages...).

Evening Program: Dinner in Clervaux and visit of the festivities in Clervaux, the evening before the Luxembourgish national holiday.

Friday 23rd June 2023: Travel Home

Contact

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