

NordFrost Workshop
Faculty of Veterinary Medicine, NMBU
18-19 April, 2023



Conservation of animal genetic resources: Towards conserving Nordic livestock biodiversity

Europe owns an animal inheritance with a huge genetic diversity, including hundreds of threatened or rare breeds of domestic farm animals, including fish. Animal production systems are constantly changing (intensification and industrialization), and a decreasing number of breeds are now producing an increasing part of Europe's total animal production. This has contributed to the disappearance of many native breeds, and within populations the genetic base is becoming increasingly narrow. The genetic resource base of Europe's numerous and diverse native breeds is of great importance to the future prosperity of the European animal production industry as genetic biodiversity allows the expression of advantageous traits influencing adaptability to both changing environmental conditions and emerging diseases. As such, there is an urgent need to protect and conserve animal genetic resources, not just as an "insurance" against acute threats such as climate change or disease epidemics, or a source of genes for contemporary breeding, but also as part of our national heritage.

This workshop will highlight the urgent need to conserve Nordic native breeds, many of which are now classified as threatened. The workshop will end with a round table discussion, with the main discussion point being the need to establish a central Nordic Gene Bank for the conservation of genetic resources (germplasm) from all farm animal breeds native to the Nordic region.

Registration

There is no registration fee for the workshop. Interested participants should register using the link below no later than the **6th of April**. Coffee/tea will be provided during breaks, and lunch can be purchased at the café-restaurant (Bikuben) situated 2 minutes from the lecture hall. The workshop is restricted to 110 participants.

[Follow this link to register.](#)

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Conservation of animal genetic resources: Towards conserving Nordic livestock biodiversity

Time	Speaker	Title
<i>Tuesday 18 April</i>		
09.00 - 09.40	Sipke Joost Hiemstra , Centre for Genetic Resources (CGN), Wageningen University & Research, the Netherlands	Opening lecture: Livestock gene banks – key element in National and European conservation and research infrastructures
09.40 - 10.20	Tullis Matson , Nature's Safe, UK	Saving animals from extinction: the future of AnGR genebanking
10.20 - 10.40	<i>To be announced</i>	
10.40 - 11.00 Coffee break		
11.00 - 11.40	Tom Blunt , Rare Breeds Survival Trust, UK	Europe's native livestock breeds - need to conserve genetic resources
11.40 - 12.20	<i>To be announced</i>	
12.20 - 13.30 Lunch		
13.30 - 14.10	Mafalda Costa & Kirsty Lloyd The Frozen Ark, UK	CryoArks: challenges and successes of setting up the UK's first national zoological biobank network
14.10 - 14.50	Tim Rittinghaus , Institute of Multiphase Processes, Leibniz University Hannover	Cryotechnology: advances and pitfalls!
14.50 - 15.10	<i>To be announced</i>	Ethical/legal considerations of gene banks
15.10 - 15.30 Coffee break		
15.30 - 16.00	Morten Kargo & Hanne Marie Nielsen Center for Quantitative Genetics and Genomics, Aarhus University	Challenges in efficient use of gene bank material – an example from Danish Landrace-1970 (pigs)
16.00 - 16.45	Thor Blichfeldt Norwegian Association of Sheep and Goat Breeders (NSG)	Conservation status of Norwegian sheep and goat breeds
16.45 - 17.05	Nina Svartedal Norwegian Genetic Resource, Centre Norwegian Institute for Bioeconomy Research (NIBIO)	How to establish up-to-date monitoring and reporting system for Animal Genetic Resources?
<i>Wednesday 19 April</i>		
09.00 - 09.40	Maxime Reverchon French Poultry and Aquaculture Breeders Technical Centre	Use of cryopreserved PGCs for the restoration of the complete genetic heritage of poultry breeds

09.40 - 10.10	Anna Maria Johansson Swedish University of Agricultural Sciences	Current conservation status of native farm animal breeds in Sweden
10.10 - 10.30	Jens Ivan í Gerðinum Faroese Islands Agricultural Agency	Conservation of Faroese horse AnGRs and the future action plans.
10.30 - 10.50	Juha Kantanen Natural Resource Institute Finland	State-of-art ARTs in conservation of Finnish native animal breeds.
10.50 - 11.20	Coffee break	
11.20 - 12.00	Martin Pšenička University of South Bohemia, Czech Republic	Conservation of fish genetic resources: application of germ cells.
12.00 - 12.20	Ian Mayer Norwegian University of Life Sciences	Conservation status of wild Atlantic salmon – need for a centralized gene bank
12.20 - 12.40		
12.40 - 13.30	Lunch	
13.30 – 15.30	Round table discussion – need for a Nordic Gene Bank	

Organisers

Ian Mayer, Faculty of Veterinary Medicine, NMBU (ian.mayer@nmbu.no)

Jaana Peippo (jaana.peippo@nordgen.org), NordGen

Mervi Honkatukia (mervi.honkatukia@nordgen.org), NordGen

Morten Kargo, Center for Quantitative Genetics and Genomics, Aarhus University (morten.kargo@qgg.au.dk)

Please contact one of the organisers if you have any questions.

Directions

The workshop will be held at the Faculty of Veterinary Medicine (VET) at the NMBU campus, Ås. Presentations will be held in the Hippocampus lecture theatre on the ground floor.

Trains leave every 30 minutes from Oslo S (R21 Moss), and takes 20 minutes to arrive at Ås (<https://www.vy.no/>). There is a bus connection from Ås station to the campus.

Address:

Hippocampus
Veterinærbygningen
Elizabeth Stephansens vei 15
N-1430 Ås