Minutes for the European Regional Focal Point for Animal Genetic Resources (ERFP) Ad-hoc action – The Network for native horse breeds in the Baltic Sea region and Northern Europe (Native Horse Network)

Oct. 25th, 2023

Online meeting scheduled: Oct. 25th, 2023 12:00 – 14:00.

Agenda: The meeting was opened, and the agenda was presented (J. Peippo), Greetings from the participants (Representatives of each country), Greetings from ERFP (R. Šveistienė), The summary of the questionnaire was presented (J. Peippo), Presentation of collection of epididymal semen for gene bank (J. Peippo), AOB (All participants), closing of the meeting: next steps and next meeting (J. Peippo)

The meeting was attended by 17 participants: Beata Smulska, Davis Rachel, Ellen-Louisa Fagerheim White, Haldja Viinalass, Jaana Peippo, Jenny Johnsen, Jens Ivan i Gerdinum, Maiken Holm, Peer Berg, Poul Gerhard, Signa Kallsoy Joensen, Stine Samsonstuen, Susanna Back, Susanne Eriksson, Rūta Šveistienė, Tone Blindheim, Mervi Honkatukia

Chairman Jaana Peippo opened the meeting and presented the agenda. Ruta Šveistienė was responsible for writing the minutes.

Activity 1. Each participant presented what institution she/he represents, who they are, what they are currently working on, what breeds they work with, and commented on the main problems they face working with native horse breeds.

Notes 1. In summary, the main challenge of working with local horse breeds is the declining number of foals, covered mares and decreasing populations.

Activity 2. R. Šveistienė presented the main comments and recommendations from the ERFP on the goals and objectives of the AHA and a short review of the first questionnaire. The observation from the ERFP was that Native horse network should not focus on creating a new database because there is a working FAO database (DAD-IS), and it is better to supplement appropriate data to this database. The ERFP recommends preparation of the article and submission of the manuscript to the partly EPFP-funded new open access online Journal Genetic Resources (launched in 2020). This would be a great opportunity to make the results public.

Notes 2. Susanne Eriksson, SLU, Inst. for animal Genetics, Working on: Genetic Evaluation on coldblooded trotting horses (harness racing horses) and the Swedish main applicant for the genomic study. She noted that when publishing genetic research data, she is faced with a situation where there is no peer-review scientific literature on breeds history and characteristics that can be used to draw on when writing articles from the field of genetics. Therefore, such an overview article about local breeds would be quite useful.

Activity 3. During the meeting, a brief summary from the first questionnaire on local breeds was presented by R. Šveistienė. Assessments regarding available data and considerations regarding what data are still missing. The first questionnaire collected material on 45 local horse breeds from 14 countries and identified 25 organizations working with these breeds. 34 breeds have identified risk statuses, 24 of them have organized conservation programs. Information describing horse types was diverse: leisure horse, draught, coach/riding horse, medium sized

work horse, trotter, driving and riding, small work horse, and universal small riding horse. According to the size of the horses it is possible to split them in three types.

Notes 3. According to the results of the initial survey, R. Šveistienė proposed to distinguish between the different types of breeds by describing their varieties inside the breed and further assess their risk status, type and other characteristics separately.

Activity 4. J. Peippo summarized the results from the new questionnaire. The questionnaire was sent out to the mailing list, and received answers from Denmark (Frederiksborgs Horse), Faroe Islands, Finland, Lithuania, Norway, Poland, Sweden (Swedish Ardenner), and the UK. Summary: Native breeds are recognized in each country; population structure and trends are known on National the level or in DAD-is; breeding programmes/action plans exist for most breeds. The reported challenges were the same as participants described introducing their own experience at the beginning of the meeting: low number of foals, inbreeding, lack of funding, and lack of interest toward the breeds. Most breeds have at least some gene banking activities, collecting semen, blood, hair, DNA, embryos (UK).

Note 4. It was decided to proceed with the completion of the questionnaire, NordGen will have the main responsibility for this – collected data will be processed and aim to obtain the missing data. J. Peippo discussed the possibility of organizing a physical meeting for preparing the manuscript (will be organized by NordGen) – the date will be decided in agreement with ERFP, by what date can reimbursement for some participants after holding the meeting be expected? **Next steps:** need to decide the structure of the publication for the online journal of Genetic Resources (Jaana Peippo). Deadline for manuscript need to be decided.

Activity 5. After a short break J. Peippo introduced a new topic: Collection of epididymal semen for gene bank. The presentation included information about what is needed for collection of testes, successful collection of semen from stallion epididymis and semen cryopreservation. Differences between collection semen from ejaculated and epididymal semen were discussed; collection epididymal semen shows cheapest infrastructure, but legal consideration of sanitary regulations depend on EU and national regulation. J. Peippo showed examples of the sanitary requirements for semen collection of stallions in Finland.

Note 5. It was discussed that the sanitary requirements vary between European countries - in some countries collection of epididymal semen is prohibited. It was recommended that each participant should contact the relevant authority in their own country to find out the status.

AOB: Discussion

J. Peippo included a discussion on the topic of equine dermatitis. She emphasized that some stallion lines of the Finnish horses are distinguished by the sensitivity to the bite of insects and dermatitis as a reaction. She invited other countries to join the new project on this field. H. Viinalas asked about the possibility to participate in the project Genomic Characterization of Native Nordic Horse breeds. Concerns that collection of adequate samples for the additional genomic characterization was not possible in the previous year - it was asked if there are some changes in the number of samples.

Minutes noted by R. Šveistiene Minutes approved by Jaana Peippo