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EUROPARC Nordic-Baltic Section spring seminar

MANAGEMENT OF BIODIVERSITY AND LANDSCAPES IN ESTONIAN COASTAL AREAS

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EUROPARC NORDIC-BALTIC

KESKKONNAAMET

This EUROPARC Nordic-Baltic Section spring seminar 2010 was organised Keskkonnaamet Environmental Board of Estonia and Estonian University of Life Sciences in collaboration with the section secretariat. It was made possible by funding from the Nordic Council of Ministers.

The seminar had two parts. The first, including a field trip and discussions is presented in this report. The international conference Nature Conservation Beyond 2010, held in Tallinn on May 27-29 constituted the second part.

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Report of the EUROPARC spring seminar

MANAGEMENT OF BIODIVERSITY AND LANDSCAPES IN ESTONIAN COASTAL AREAS

26–27 May, 2010

Matsalu National Park – Läänemaa Suursoo Landscape Reserve – Tallinn

EUROPARC Nordic-Baltic Section

Environmental Board of Estonia

2010

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1. Introduction

As a part of the International Year of Biodiversity and celebrating the 100th anniversary of official nature conservation in Estonia the EUROPARC Nordic-Baltic Section spring seminar was held in Estonia consisting of two parts – a field trip to the sites of specific nature conservation projects and the ensuing conference Nature Conservation Beyond 2010. The former was aimed at drawing positive examples of biodiversity management and sharing experiences and lessons among the practicers in this field while the latter was focused at finding new directions in nature conservation both on international and local level.

The aim of the current report is to give an insight into the conservation projects introduced during the field trip as well as to summarize the participants' views and the concluding discussion held in the closing session of the seminar.

The focus of the EUROPARC seminar lied on management of Estonian coastal landscapes and semi-natural landscapes in particular. The severe decrease of the area of semi-natural communities, usually featuring very high species diversity, has been one of the major problems nature conservationists and managers in Estonia have had to deal with in recent decades. A myriad of projects on different levels from local to international dedicated to ease the consequences of this type of landscape loss have been and are under way. This seminar introduced the background, the course and outcomes of some of these projects.

List of abbreviations used in the report

EBE – Environmental Board of Estonia (*Keskkonnaamet*)
WCPA – World Commission on Protected Areas
IUCN – International Union for Conservation of Nature
LWFG - lesser white-fronted goose
NT – natterjack toad

2. Field visits to Matsalu National Park and Läänemaa Suursoo Landscape Reserve

Guided by the officials and conservation management practicers from the Environmental Board of Estonia the seminar field trip took the participants, mailnly representing the members of the EUROPARC Nordic-Baltic Section, to West-Estonian protected areas. The visited sites included Matsalu National Park and Läänemaa Suursoo Landscape Reserve.

During the drive to Matsalu National Park, a short overview of the local organizing body, the Environmental Board of Estonia (hereinafter EBE), was given by Leelo Kukk, the EBE executive officer on wildlife and nature conservation. EBE is a relatively new institution, established in 2009 as a restructured body comprising the former county-level environmental services departments, the State Nature Conservation Centre and Radiation Centre. The main aim of restructuring was to diminish the fragmentation of environmental management both in thematic and regional terms and facilitate the communication with state in any environmental matter.

In addition, a recent study on public opinion about applying economic tools for nature conservation and environmental protection was introduced bt Leelo Kukk. She concluded that in general, Estonians are willing to see the positive role of nature conservation in improving their well-being.

The first stop was made in the visiting center of Matsalu National Park in Penijõe manor house. An emotional introductory slide-show of the area with many faces throughout the year was presented to the participants by conservation biologist Ilona Lepik. Matsalu protected area, originally established in 1957 as a nature reserve to protect the area's nesting, moulting and migrating birds, was designated as a National Park in 2004. Situated in Western Estonia, the area is valued for its unique coastal landscape with floodplains, reed beds, coastal and wooded meadows. While the latter have first of all outstanding botanical value due to high species diversity, the low-lying open grasslands provide habitats for a large number of nesting birds and stopover ground for migratory waterfowl. The area is therefore known as a bird paradise.

EUROPARC seminar participants gather in visitor centre of Matsalu National Park in Penijõe (left) and listen to conservation biologist Ilona Lepik talk about the national park.

The introduction was followed by presentations on conservation projects carried out in Matsalu National Park. The next chapters of the report outline the following presentations: (1) coastal meadows management for the protection of the lesser white-fronted goose performed by Maire Toming (Matsalu National Park, EBE), (2) habitat restoration for natterjack toad performed by Ilona Lepik (Matsalu National Park, EBE), and (3) the project of the Baltic Sea Region Programme *Parks and Benefits* performed by Nele Sõber (EBE).

2.1 Coastal landscape management experieces from West-Estonian protected areas

2.1.1 Coastal meadows management in Matsalu – the case of lesser white-fronted goose

Substantial changes have taken place in the agricultural land use in Estonia in the last half a century due to drastic decline of traditional agricultural practices like mowing and grazing. This has resulted in remarkable overgrowth of open landscapes, including semi-natural communities such as coastal meadows. The loss of species adapted to this habitat type has resulted from the disappearance of coastal meadows.

Matsalu National Park comprises thousands of hectares of wet grassland habitats important for migrating waterfowl. Preservation, restoration and regular management of extensive coastal grassland area of Matsalu is of great significance in terms of providing quality stopover sites for thousands of birds migrating annually along the European migration route. The quality of staging habitats is an important factor influencing the nesting success and the population size, thus being a crucial factor influencing European bird fauna.

The lesser white-fronted goose (*Anser erythropus*, LWFG) is one of the most highly endangered species in Estonia and Europe as a whole. Its Fennoscandian population size reached as high as 10000 individual birds in the beginning of the 20th century. The estimated remaining population at the present time is less than 30 nesting pairs. The majority of its European population stops in Matsalu area each year to rest and feed on its lenghty way to nesting sites, more seldom to wintering sites. LWFG is a species highly loyal to its usual habitat and it barely becomes used to a new environment.

In spring 2005 an international EU LIFE project, titled *Conservation of the lesser white-fronted goose on European migration route* was launched. The overall objective of the project was to improve and monitor the conservation status of the lesser white-fronted goose at the most important breeding, staging and wintering sites along the European flyway of the critically endangered Fennoscandian LWFG breeding population.

Until the mid-1990s the islets of Matsalu Bay were regularly mowed by local people and thus maintained as low-growth meadows. Islands rapidly became overgrown with extensive reed beds soon after traditional land use was stopped. During the project carried out in Matsalu new staying sites for LWFG were restored on the islets formerly covered with extensive reed beds in Matsalu Bay. The location was selected based on two major assumptions: (1) the

vicinity of habitual feeding grounds on mainland; (2) safety of geese due to the isolation from mainland.

Status of LWFG in Western Estonia

- Monitored annually since 1999
- Appearing on coastal meadows and fields in Matsalu National Park and Silma Nature Reserve
- Staging during spring migration from the end of April till the end of the first decade of May
- Average staging period 18 days
- Number of birds fluctuating between 13 – 32 during the last decade (32 individuals in 2009 and 30 individuals in 2010)

LWFG habitat restoration project – doings and results

- Selecting the sites for habitat restroration on small islets
- 40 hectares of reedbeds removed
- Grazing introduced and maintained with more than 100 animals grazed annually since 2007
- Recorded cases of LWFG staging on managed area
- Benefits for other species – the first proved nesting of marsh sandpiper (*Tringa stagnatilis*), nesting of dunlin (*Calidris alpina*), lapwing (*Vanellus vanellus*) and redshank (*Tringa totanus*).
- Open landscape and scenery

National Action Plan for LWFG

- Management and restoration of coastal meadows in 13 West-Estonian strategic meadow areas
- Public awareness raising focusing on hunters and farmers
- Monitoring of LWFG staging population
- Educating the birdwachers and nature conservation specialists
- International coopertion

Coastal meadows in Haeska managed by Tuulingu tourist farm. The area is one of the favourite roosting and feeding places of migratory birds.

In conclusion, despite the overall positive context of the LWFG project in Matsalu the conservationists still face several problems to overcome. Grazing on the islands is rather complicated activity in terms of cattle transportation. It may also happen that animals move to the mainland. Another obstruction is the fast reed growth – vegetation grows faster than animals can eat during the limited grazing period. Therefore the area remains exposed to the overgrowth threat. But the conservation experts are hopeful in continuing the saving of the LWFG from becoming extinct.

2.1.2 Habitat restoration for natterjack toad in Western Estonia

During the last 50 years the natterjack toad (*Bufo calamita*, NT) has suffered a serious decline in population and distribution in Estonia as well as in other European coutries. NT inhabits open areas with short vegetation (e.g. coastal and flooded meadows) and sandy landscape with shallow mire-like depressions. The habitats of NT in Estonia predominantly comprise coastal meadows traditionally used as pastures. Cattle grazing and hay making keeps the vegetation low and lighting conditions favorable for NT. The severe loss of NT habitats in Estonia owes mainly to the afforestation of sand dune areas, the halt of grazing, vegetation alteration resulted from fertiliers use and water regime changes due to extensive land amelioration during Soviet period.

In order to prevent the NT from becoming extinct in Estonia, the restoration of its habitats, including the water bodies suitable for breeding, was initiated in the framework of the EU LIFE project *Boreal Baltic coast meadow preservation in Estonia* conducted between 2001 and 2004.

Status of NT in Western Estonia

- Drastic decline of NT population due to habitat loss
- Almost five-fold decrease of coastal meadow area
- 14 critically small isolated populations consisting of about 1000 individuals in 2004
- Remaining populations inhabiting secondary habitats former sand quarries, abandoned fishery ponds and cultivated hayfields.

NT habitat preservation project 2001–2004

- Removing overgrowth on coastal meadows
- Establishing and cleaning ponds
- Grazing beef-cattle and sheep
- Over 60 ponds restored for NT reintroduction
- Spawn and tadpoles introduced
- Slight increase of NT population indicative of breeding success on Kumari island

NT action plan

- Securing the survival and favorable status of existing populations
- Securing the genetic diversity of existing populations by creating reserve populations
- Creating meta-populations by restoring habitats and reintroducing the NT to coastal meadows

Most of the coastal meadows in Matsalu area have been ungrazed for 30–50 years. As a result, shallow pools on the meadows crucial for toad breeding have been overgrown with reed or old grass. The last population of NT in Matsalu area is found on the Kumari Island where both the spawning pond and terrestrial habitat of NT experience severe overgrowth. Work camps are being organized annually on the island to cut down the overgrowth and clean the NT ponds. Work camps involve a variety of interested people (e.g. conservation specialists, local people and other volunteers). During the first years of habitat restoration the main activities included bush cutting to create moving corridors within the terrestrial habitat, enlarging of existing open areas, cleaning of areas around breeding ponds and

mowing of open areas. Since 2001 some sheep graze the island all year round. Without any management the NT population on Kumari islet most probably would have died out.

An appealing as well as challenging prospect in terms of NT habitat restoration unexpectedly emerged for conservation biologists in Läänemaa Suursoo Landscape Reserve after extensive forest fire in Veskijärve sand dune area in spring 2008. As the fire had spread over parts of the protected area, the regional environmental authorities decided to leave this heath-type forest site as it was to enable natural succession to take place. However, a proposition was made by the NT conservation gruop to use the open area for establishing ponds for NT introduction. Thus, in part of the area burnt trunks have been dug out while the rest of the area has remained untouched. New NT population was introduced into newly dug artificial toad ponds. Hearings of some toads calling were recorded as early as only one year after the introduction, indicating some good results. However, it is too early to draw further conclusions on the success of this conservation project.

Ilona Lepik looking for tadpoles in a newly established pond in Veskijärve (left) and seminar participants in discussion intrigued by the project and the post-fire landscape.



In conclusion, the expert team realizes that reintroduction can only have success in case there are possibilities to bring thousands of tadpoles to one site. It should also be kept in mind that beside having well managed coastal meadows, also good hibernation sites nearby must be present, therefore habitat between breeding site and hibernation site should also be managed. An important aspect to consider in habitat restoration is that both the terrestrial and aquatic habitat for NT should lie within the same patch of land or very close to each other, as the NT does not cross vast areas of unsuitable terrain to move between summer and winter and breeding habitats.

2.2 Parks and Benefits

Aiming at ensuring the sustainable regional development in eight large protected areas in six coutries of the Baltic Sea region, the Parks and Benefits project was initiated in 2009 to implement the European charter for sustainable tourism in protected areas.

The project members include strategic and associated partners who gather once in a half-year project period in a meeting organized by one of the six partner countires. Project meetings are important milestones for transnational project work. Decisions concerning the whole project are made, project management reports to the whole partnership, the steering Committe gets together.

Current activities include: (1) joint application procedure for European Charter for sustainable tourism the related activities; (2) joint analyses of carrying capacity, visitor management, socio-economic benefits, acessibility and transportation; (3) forming a Baltic network of Charter parks; (4) development of Baltic tourist products; (5) education of staff; (6) promotion and networking.

2.3 Tuulingu tourist farm in Haeska

The field visit then continued with a drive to Haeska coastal meadow area. In the Tuulingu farm, the local provider of nature tourism services, discussion on traditional coastal landscape management prospects on local level was hold during the picnic lunch. Tuulingu farmstead represents a good example of involvment of local people in the activities of protected area. Beside hosting nature tourists, the farm takes care of the surrounding coastal meadows by grazing highland cattle, also the wooded meadows are being restored.

The birdwatching tower located in the farm is a highly acknowledged destiantion among nature tourists. The tower lies on the northern coast of Matsalu bay enabling an exellent view of the bay and the surrounding meadows on islets and mainland.

The 10-metres high Haeska observation tower lying on the northern coast of Matsalu bay offers great view of the surrounding meadows and attracts bird watchers.

Participants relax and chat after lunch in Tuulingu farm.

2.4 Vihterpalu manor

After the field visit to the above-mentioned site of Veskijärve forest fire in Läänemaa Suursoo Landscape Reserve the bus took participants to the final stop at historic Vihterpalu manor house. The Vihterpalu manor, founded in early 17th century, today serves as a hotel and conference centre in splendid environment. The two-storey stylish classicist main building, originally completed in the 1820s, was thoroughly renovated in the beginning of the 2000s. The dinner and sightseeing in one of the best renovated manors of Estonia put an exciting and refreshing end to an engaging filed trip.

Participants attentively listening to local lore in Vihterpalu manor.

3. Closing session

On the day following the field trip, attendees gathered for a closing session, moderated by Leelo Kukk from EBE. First, short presentations by Annely Reinloo, the land services chief specialist of EBE, and Stig Johansson, the European chairman of the World Commission on Protected Areas (WCPA), were delivered on the management of semi-natural areas in Estonia and structural as well as thematic focal points of WCPA in biodiversity preservation, respectively. The latter ultimately acknowledged the complicated structure of IUCN or as eloquently said by Stig Johansson: „It (IUCN) has a huge potential and it always will have". Subsequently, the division of roles between WCPA and other pan-European networks like EUROPARC and Eurosite was discussed. It was agreed that as often dealing with same topics and also involving same organisations and people the functions of networks must be distinguished in order to avoid spending resources on double work. For this more concerted communication is needed. WCPA as an umbrella-organization has closer link to global agenda and its work comprise strategic rather than applied projects while EUROPARC and Eurosite deal with practical conservation and management issues.

The session moderator then, attesting once again that the biodiversity loss should be decreased on every level, addressed the participants to share their views on how to establish a reasonable prize for projects like seen the day before and how to fulfill the conservation tasks as well as meet interests of other stakeholders.

Much of the following discussion was inspired by the curious visit to Veskijärve forest fire site that had provoked a wide range of emotions. For some people the area evoked confusion (*... this was such a mess, I'm afraid for those not so aware or fond of natterjack toad the prize for having this ugly landscape with half-burnt pines and toad ponds, even*

though well-functioning, may seem too high…) while the others found it appealing. Highlighted by a number of seminar attendees, aesthetic considerations in Veskijärve forest fire site remain to be dealed with by landscape managers as the area is a popular recreation destination. It is also crucial to find ways to control the excessive sand drift. Therefore, as suggested by one of the participant, *there should be a clearer and more elaborated plan for cases like this*. In general, the NT conservation project in Veskijärve raised the following questions: *is the conservation effort worth it*, *who should be entitled to decide on interferences with nature*, *how to show off and justify conservation projects, often very limited in scope and audience, for public*.

The management of semi-natural communities can be regarded as a good example of success in cooperation between local community and conservation people. Mowing and grazing have centuries-long traditions as well as direct connection to current everyday rural life, and the need for restoring these sites makes clear sense for people. Moreover, the agri-environmental subsidy schemes have also increased interest among people in reinstating coastal meadows and other semi-natural communities.

4. Conclusion

The seminar was useful in a number of aspects. Of these, as expressed by participants, the three most important ones are the following. First, the seminar revealed positive examples of biodiversity management. Second, it explicitly reminded of the need to place nature conservation into the wider context of landscape management, which is still often neglected. Third, the lessons learnt from experiences of foreign colleagues and shared knowledge obtained from discussions held in expert level are always very valuable in everyday work. It was agreed that a lot more effort should be made to communicate our message. This is often the key to success, or as remarked by Thomas Hansson (EUROPARC): „If we are good in communicating with academic world, public as well as our alliances we will always be winners.“