

Challenges of auditing the conservation and management of semi-natural habitats

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Structure of the presentation

Semi-natural habitats

- What kind of habitats they are and why they are valuable
- State of conservation and management of semi-natural grasslands in Estonia

Challenging issues in auditing the conservation and management of valuable habitats: examples from auditing the semi-natural grasslands.

- How do we know, where our natural values are?
- Does the conservation areas network incorporate the valuable habitats sufficiently? Habitats within and outside the protected areas.
- Have the appropriate conservation measures been planned and performed?
- Relations between the conservation activities and conservation status (impact of the management activities)
- Evaluation of the conservation status

Semi-natural communities - historical meadows and pastures of our ancestors

Semi-natural communities or “heritage communities” are areas of natural biota, which have been continuously mown or used as pastures.

Grasslands, which are managed centuries in old traditional nature-friendly way.

Most typical types in Nordic countries: **alvars, wooded meadows, coastal meadows, flooded and paludified meadows, wooded pastures.**



Semi-natural habitats listed in EU habitats directive Annex 1

Examples:

6280* Nordic alvars and
precambrian calcareous flatrocks

6210 Seminatural dry grasslands
and scrubland facies on
calcareous substrates (Festuco-
Brometalia) (*important orchid
sites)

6450 Northern boreal alluvial
meadows

6530 *Fennoscandian wooded
meadows

9070 Fennoscandian wooded
pastures

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Why are they valuable?

- Semi-natural communities are most valuable ecosystems within the agricultural landscape
- Rich in biodiversity: plants, birds, insects
- Cultural heritage – they reflect our history
- Sustainable agriculture – pastoralism and hay-harvesting on semi-natural meadows are amongst ecologically most viable ways to use nature



Threats and conservation measures

Main threats – lack of proper management, overgrowth, abandonment

Conservation measures:

- Hay harvesting and collecting (wooded meadows, floodplain meadows, dry meadows)
- Grazing with sufficient load (coastal meadows, alvars, wooded pastures)
- Restoration of the habitats
- Reconstruction of the necessary infrastructure (roads, bridges) for management purposes

Conservation and management status in Estonia

- Area of semi-natural habitats in protected areas – ca 75 000 ha
- Total area in Estonia – approximately (?) 125 000 ha
- Management of semi-natural habitats in 2013 – ca 27 000 ha (within protected/Natura2000 areas; agricultural subsidies)
- Management goal in protected areas for 2020: 45 000 ha
for 2030: 60 000 ha

Conservation status in 2013 (according to the Habitats Directive art 17 report to EC): **most of the semi-natural habitat types are in unfavourable status.**

- **What are the reasons for such evaluation?**
- **What could be the most important and challenging issues to be focused on for auditing the conservation of valuable habitats?**

Do we know where our valuable habitats are?

- We can only protect and evaluate the conservation status of these valuable areas which are known and inventoried. Otherwise, we can only register the decline of the species populations which depend on these habitats.

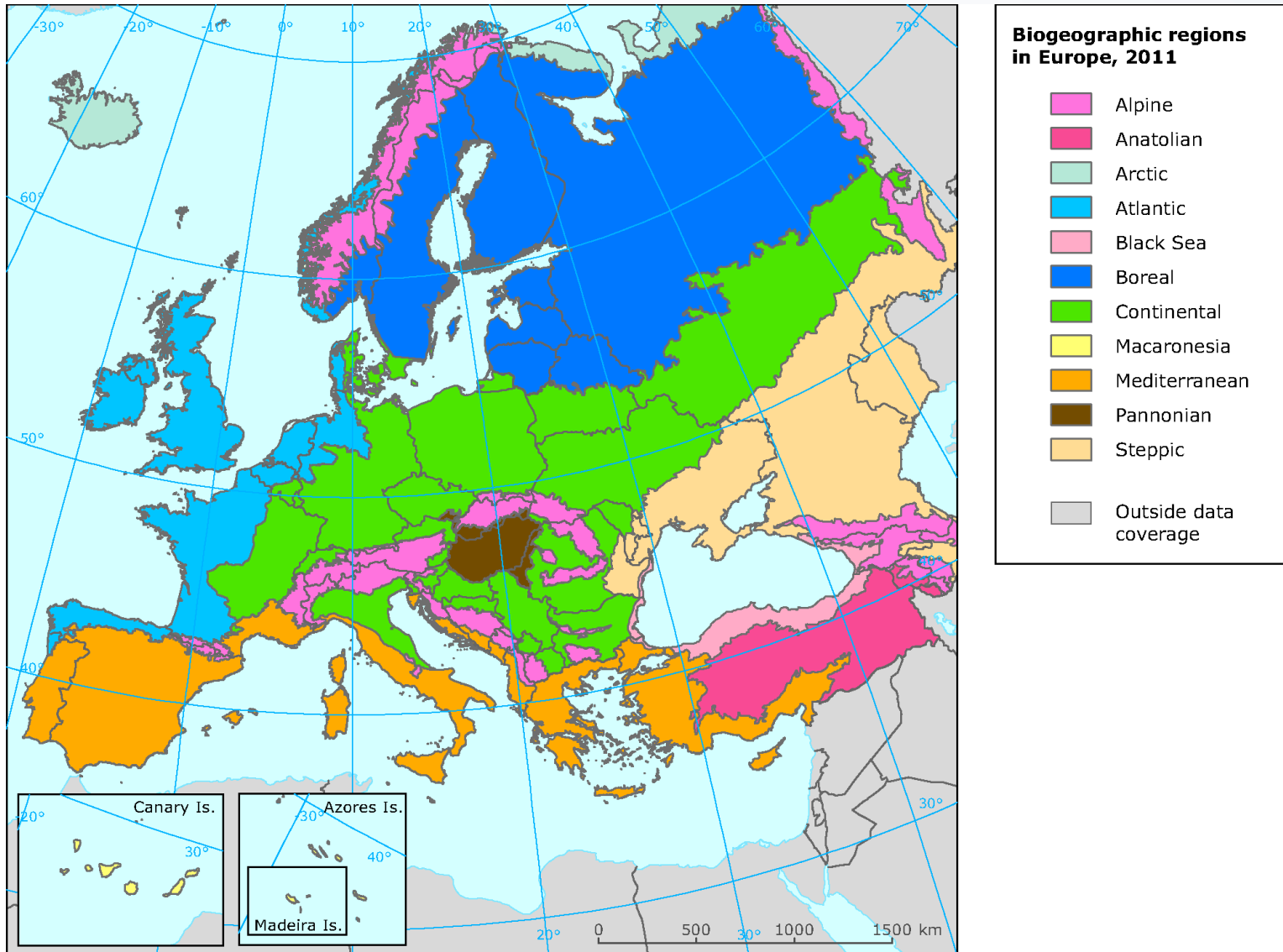
- Inventories of the habitats in all country territory
- Quality of inventory data

Example 1: Semi-natural grasslands were inventoried in Estonia in 1999-2000, during one project. This was a very challenging task because of the limited amount of suitable experts available for a short time period. The risk is low data quality and incorrect evaluation of habitat types. By now, only part of this inventory information has been updated lately.

Example 2: In 2008, NAO found that the quality of Natura2000 habitat inventories was low. Experts found, that e.g. only half of the “western taiga” habitat types in inventoried areas had been assessed correctly.

Do we protect known valuable habitats sufficiently?

- The idea of the Habitat Directive and Natura2000 network is to achieve the good ecological status of valuable habitats within the biogeographic regions (which exceed the countries' territory) and within all respective countries. It means that the experts should evaluate the ecological status of the habitats not only within the protected areas, but on the whole territory of the country.
- Many of the valuable semi-natural or natural habitats can't survive outside the protected areas' network (forest habitats with management interest, most of the semi-natural habitats without management subsidies).
- Important question to the nature conservation experts and government institutions: is the sufficient amount of valuable habitat type taken under protection to guarantee its good ecological status, both at the state level and biogeographic region level. Is it analysed?



Source: <http://www.eea.europa.eu/data-and-maps/figures/biogeographical-regions-in-europe-1>

Do the valuable habitats have a proper conservation and management mechanism?

- The protection regulation/rule does not guarantee the proper conservation measures for the habitats. At least in bigger protected areas, the values, threats and conservation measures should be analysed in a **management planning process** in cooperation of stakeholders.
- In Estonia, about half of the protected areas still do not have management plans. In the context of semi-natural grassland management, this means that for many areas it is not clear what are the needs and priorities of restoration and management activities, infrastructure investments etc.

Relation between the results of the conservation activities (effectiveness) and ecological status of the indicator species

- The important goal of environmental audit is to assess the effectiveness / impact of conservation activities and/or nature conservation investments.
- In nature conservation, the evaluation of the effectiveness of the conservation measures and their impact on the conservation status of the species is complicated, because there could be plenty of **different ecological factors that have an effect on the conservation status of the species**. E.g. we could restore the habitat of the species in one place, but the unfavourable status of the species could be connected to climatical factors or areal changes we are not able to evaluate.
- Example of semi-natural communities: habitat status is in good correlation with management activities.

Evaluation of the conservation status of the habitats. Importance of long-term monitoring data.

- Evaluation of the ecological status (favourable /unfavourable) should be based on the **state monitoring programs**, where proper methodology is used for carrying out measurements in nature and for analysing the results. Exceptionally, evaluations based on “expert opinions” are accepted (no proper monitoring programs and monitoring data) – *EU Habitats Directive*
- The changes / trends in the conservation status are particularly important. As there could be natural cycles in environmental conditions, which have an impact on the species, we need **long-term monitoring data**. This also means, that the data should be comparable/ the same monitoring methodology should be used.
- Example: the monitoring of the semi-natural grasslands in Estonia. MoE did not have management data older than 7 years. State monitoring program does not evaluate the areal changes of the habitats. Amount of monitoring areas per year is not sufficient for the reliable evaluation of some of the habitat types.



Thank you!

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