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STRATEGIC UPDATE ABOUT GRASSLANDS AND ITS CONSERVATION STATUS IN THE BOREAL REGION - FINLAND

Martina Reinikainen
Senior Specialist / Ministry of the Environment / Department of the Natural Environment / Nature Conservation and Management Unit

Area of permanent grasslands in Finland - trends and possible reasons of grasslands area dynamics

- The national inventory of semi-natural grasslands and natural pastures has been updated in Finland between the years 2016 and 2023 (most of the inventories where made between 2019-2021). The first national inventory of traditional rural biotopes in the 1990's.

- The Ministry of the Environment in Finland financed the inventory, that was carried out by the Centre for Economic Development, Transport and the Environment (on privately-owned land) and Metsähallitus Parks & Wildlife (on state-owned land + some privately-owned nature reserves)

- The **preliminary results** on the update of the national inventory of semi-natural grasslands and natural pastures :

Total area of valuable sites ca 45 000 ha of which:

➢Area of sites of national value: 7 639 ha

➢Area of sites of regional value: 15 263 ha

➢Area of sites of local value: 22 096 ha

In addition to the valuable areas ca 6 000 ha suitable for restoration was recognized in the inventory

(Finnish Environment Institute 2024, not yet published)

- A total of ca **30 000 ha** of valuable semi-natural grasslands and natural pastures are managed. Ca 1 500 ha of sites suitable for restoration are under management.

- 67 % of the area of the valuable (national, regional, local) sites is **managed**.

- The **quality of the management is good** on ca 40 % of the total managed area.

- Nearly **all of the sites of national value are managed**. The quality of the management is good on 64 % of the area of the nationally valuable sites. The quality of the management is inadequate on 30 % of the area of the sites of national value.

(Finnish Environment Institute 2024, not yet published)

Preliminary conclusions

- Based on the inventory data the number of known semi-natural grassland sites and their total surface area has increased compared to the 1990's.
- **The improved level of information explains most of the increase of site numbers and surface area.**
- Due to the inventory's insufficient coverage – probably only a part of them are still known.
- The increase in surface area compared to the figures of the 1990s is also affected **by changes in definitions.** Today, semi-natural grassland sites aim to include the entire potential area that benefits from management, including parts that can be restored. Earlier inventories focused only on the most valuable open area, still under maintenance. (Vainio et al. 2001, Kemppainen 2017)
- About half of the nationally valuable sites in the 1990's have fallen into lower value categories. Based on the inventory data, the reason for the object's value class to drop is most often the end of management or inadequate management, for example lack of maintenance clearence of trees and shrubs, over- or under-grazing, that lead to eutrophication and overgrowth. Other reasons for example tree planting and forestry (Finnish Environment Institute 2024, not yet published)

Habitat management and the persistence of grassland specialist species in mesic and dry seminatural grasslands (PEBIHOITO-project 2021-2022)

- Abundance changes of grassland specialist plant and insect species were studied by repeating in summer 2021 the quantitative surveys conducted 20 years earlier in 66 managed and unmanaged mesic and dry semi-natural grassland areas in southern Finland
- A general decline in specialist plant and insect species of semi-natural grasslands was observed
- Eutrophication and overgrowth were observed in both managed and unmanaged sites, but managed sites had lost fewer grassland species than the unmanaged ones
- Grassland plants had benefited from active management especially in mesic grasslands, but in insects the effects of management varied from positive (in butterflies) to negative (in moths and bees).
- Grassland insects would benefit from less intensive habitat management than grassland plants (e.g. lower grazing pressure, habitat management in alternating years, or dividing the managed grassland area into separately managed sub-areas)

Final report of the PEBIHOITO project: https://helda.helsinki.fi/items/5e7b643f-a7fa-4feb-a771-f6675f8ba5c3

Situation analysis of (EU) protected grassland habitats in the country - trends, conservation status, overview on the reasons determining existing state of grassland habitats

- Semi-natural grasslands are nationally assessed as the most threatened habitat group in Finland, where nearly all habitat types belong to critically endangered habitat types (Threatened Habitat Types in Finland 2018 (IUCN based assessment) Kontula & Raunio 2018).

• Kontula, T. & Raunio, A. 2018: Suomen luontotyyppien uhanalaisuus 2018 : Luontotyyppien punainen kirja. Osa 2: Luontotyyppien kuvaukset. Suomen ympäristö 5/2018.

- Grasslands in Finland contain totally 13 habitat types listed in Annex 1 of the Habitats Directive. Three habitat types, Boreal Baltic coastal meadows 1630*, European dry heaths 4030 and Fennoscandian wooded pastures 9070 are included in the Grassland-group as these are considered as management dependent semi-natural grasslands in Finland.

Article 17 web tool

Article 17 > Habitat report

Habitat assessments at Member State level

Choose a period, a group and then a country. Optionally, further refine your query by selecting one of the available biogeographical regions for that country.

Period... 2013-2018 | **Group...** Grasslands | **Country...** Finland | **Bio-region...** Boreal | Filter

Note: Rows in italic shows data not taken into account when performing the assessments (marginal presence, occasional, extinct prior HD, information, etc)

Legend: FV Favourable | XX Unknown | U1 Unfavourable-Inadequate | U2 Unfavourable-Bad

Current selection: 2013-2018, Grasslands, Finland, Boreal.

Member States reports

Habitat	Range (km²)				Area (km²)								Structure and functions (km²)					Future prospects				Overall assessment						Distribution area(km²)		
	Surface	Status (% MS)	Trend	FRR	Min	Max	Best value	Type est.	Method	Status (% MS)	Trend	FRA	Good	Not good	Not known	Status	Trend	Range prosp.	Area prosp.	S & f prosp.	Status	Curr. CS	Curr. CS trend	Prev. CS	Prev. CS trend	Status Nat. of ch.	CS trend Nat. of ch.	Distrib.	Method	% MS
6150 - Siliceous alpine and boreal gr...	8600	52.44	=	≈	4	6	N/A	estimate	b	6.25	=	≈	3 - 5	N/A - N/A	1 - 1	FV	=	good	good	good	FV	FV	=	FV	N/A	noChange	noChange	3600	a	72
6210 - Semi-natural dry grasslands a...	11700	5.15	=	≈	0.70	1.70	1.40	estimate	b	0.64	=	>	0.13 - 0.13	1.27 - 1.27	0.30 - 0.30	U2	=	good	bad	bad	U2	U2	=	U2	-	noChange	method	6400	b	6.79
6230 - Species-rich Nardus grasslan...	19500	7.07	=	>	N/A	N/A	0.50	estimate	c	2.47	=	>	0.10 - 0.10	0.40 - 0.40	N/A - N/A	U2	=	poor	bad	bad	U2	U2	=	U2	-	noChange	method	7300	b	8.46
6270 - Fennoscandian lowland speci...	244300	31.96	=	≈	N/A	N/A	15	estimate	c	0.85	=	>	2 - 9	N/A - N/A	6 - 13	U2	=	good	bad	bad	U2	U2	=	U2	-	noChange	method	86900	b	23.87
6280 - Nordic alvar and precambrian...	15100	33.48	=	≈	N/A	N/A	0.50	estimate	b	0.17	=	>	0.05 - 0.05	0.45 - 0.45	N/A - N/A	U2	=	good	bad	bad	U2	U2	=	U2	-	noChange	knowledge	7100	a	25
6410 - Molinia meadows on calcare...	800	0.18	=	>	N/A	N/A	0.30	estimate	c	0.12	=	>	0.03 - 0.03	N/A - N/A	0.27 - 0.27	U2	=	poor	bad	bad	U2	U2	=	U2	=	noChange	noChange	600	a	0.31
6430 - Hydrophilous tall herb fringe ...	102900	36.11	+	≈	N/A	N/A	40	estimate	b	46.80	=	≈	1.40 - 1.40	N/A - N/A	38.60 - 38.60	U1	=	good	poor	poor	U1	U1	+	U1	=	noChange	knowledge	32500	b	32.57
6450 - Northern boreal alluvial mead...	75000	23.50	=	≈	N/A	N/A	32	estimate	b	6.05	=	≈	7.30 - 7.30	24.70 - 24.70	N/A - N/A	U2	=	good	poor	bad	U2	U2	=	U2	-	noChange	method	22200	b	19.79
6510 - Lowland hay meadows (Alop...	28200	6.68	=	>	N/A	N/A	0.50	estimate	b	0.12	=	>	0.40 - 0.40	N/A - N/A	0.10 - 0.10	U1	=	poor	bad	bad	U2	U2	=	U2	-	noChange	method	6100	a	3.39
6530 - Fennoscandian wooded mea...	9100	4.58	=	≈	1	2.30	N/A	estimate	b	2.36	-	>	0.67 - 0.67	0.33 - 1.63	N/A - N/A	U2	=	good	bad	bad	U2	U2	-	U2	=	noChange	genuine	3200	b	6.44

- Additional measures are required to restore these habitats and re-instate a continuous management compatible with their ecological requirements on areas that are currently subject to abandonment or other land uses (e.g. tree plantations, improved grasslands, constructions).

- Altogether, the above 12 Annex I grassland habitat types dependent on management actions are found in 307 Natura 2000 sites of mainland Finland. The number of Natura 2000 sites of this kind in Åland is 8. Altogether, over 300 Natura 2000 sites in mainland Finland and all 8 sites in Åland have specific conservation objectives for one or several of these habitats in Finland. Site-specific conservation and restoration are described and quantified in the site's management plans.

(PRIORITISED ACTION FRAMEWORK (PAF) FOR NATURA 2000 in FINLAND including the Province of Åland pursuant to Article 8 of Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive) for the Multiannual Financial Framework period 2021 – 2027)

Prioritized maintenance needs for grasslands 2021-2027

- The active maintenance measures are essential to avoid further deterioration of the conservation status of 12 grassland Annex I habitat types. Any reduction in the extent of the area actively managed for these habitat types or species would lead to a further deterioration of their conservation status.
- On maintenance, more interest should be paid on the proper **management quality**. It is evident that many sites, inside and outside Natura 2000, are suffering from too low grazing and mowing pressure or inadequate tree clearings. Additional management actions should specially be targeted to the most valuable and species-rich sites to get the best ecological results.

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Prioritized restoration needs for grasslands 2021-2027

- The whole grassland **network** needs supportive and high-quality actions to be able to maintain habitat values and the species, and to help to maintain species also in the changing climate.
- However, special attention must be paid on restoration **of the most species rich grassland habitats and sites, such as dry and mesic meadows and wooded meadows, particularly on calcareous soils.**
- Generally, the prioritized restoration measures should be targeted based on site's real ecological values, habitat resilience and habitat connectivity. As the amount of open grassland habitats in Finland is low, but the amount of threatened species living in these habitats so high, the amount of open grasslands should be increased by picking up the most potential sites for restoration actions also from the severely overgrown areas.

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Update of ongoing developments/initiatives, challenges and successes regarding grassland conservation in the country

Helmi Habitats Programme

2021-2030

Helmi Habitats programme 2021-2030

Comprises a total of 40 measures for protection, restoration and management of habitats.

The programme is implemented both in and outside conservation areas, and it is based on voluntary action by landowners.

The measures improve the conservation status of tens of threatened habitat types and numerous species.

Lagopus lagopus

Restoration and management of semi-natural grasslands

The preservation of semi-natural grasslands requires constant management. The restoration and management of semi-natural grasslands aims to create a network composed of well-managed semi-natural grasslands for species that depend on these.

Tapio Heikkilä

Surface area of managed semi-natural grasslands increased to

52,000 ha

Semi-natural grasslands restored to improve their quality

26,000 ha

A national coordination group set up for the management of semi-natural grasslands

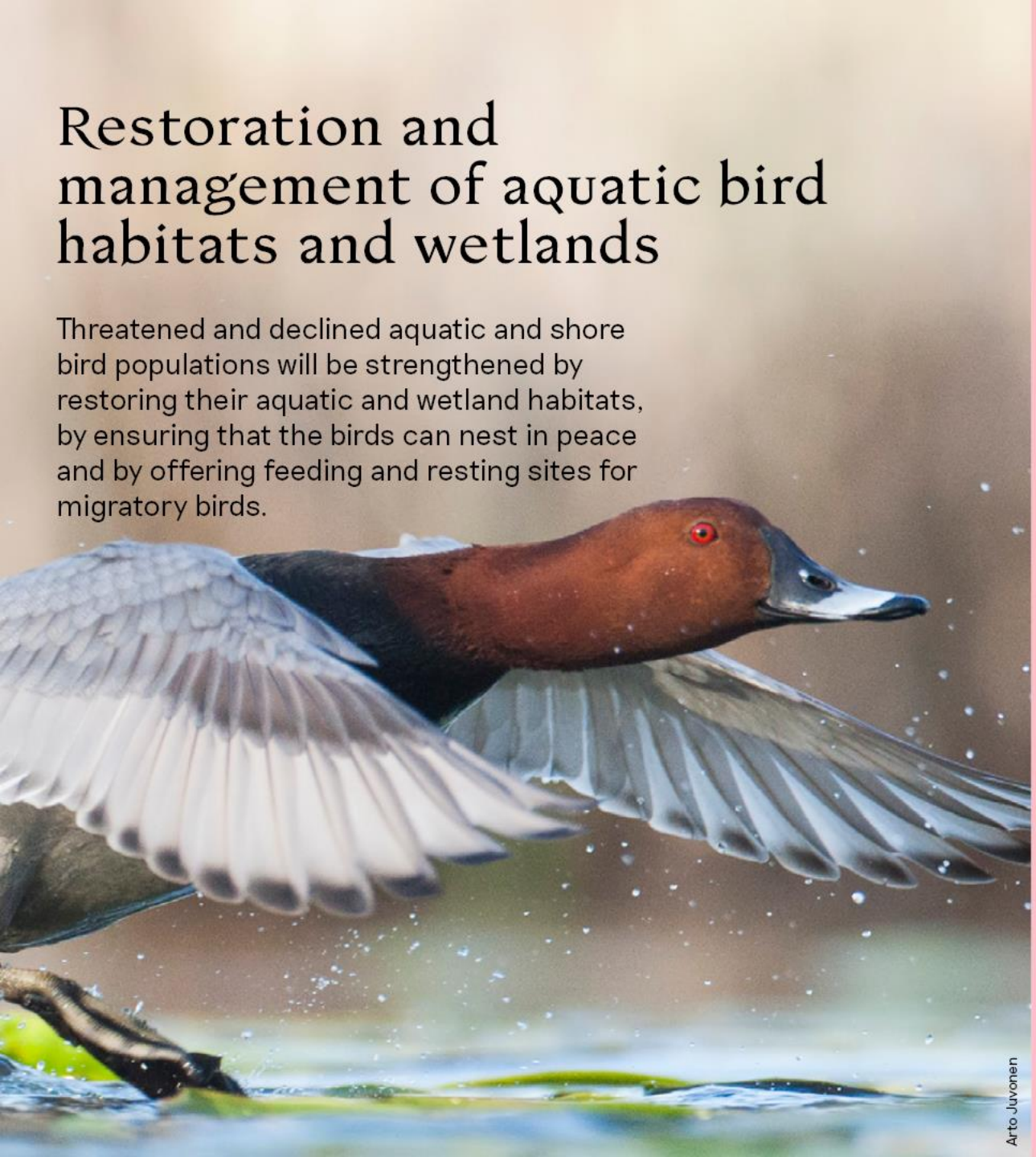
Regional cooperation groups set up for the management of semi-natural grasslands

Novel habitat sites with valuable flora and fauna restored and managed to strengthen the network of novel habitats

150 sites

Restoration and management of aquatic bird habitats and wetlands

Threatened and declined aquatic and shore bird populations will be strengthened by restoring their aquatic and wetland habitats, by ensuring that the birds can nest in peace and by offering feeding and resting sites for migratory birds.



Arto Juvonen

Special protection areas (SPA) designated under the EU Birds Directive and other valuable aquatic bird habitats in the conservation area network restored

200 sites

Wetland habitats for birds established and restored outside the conservation area network

500 sites

Restored sites managed after restoration and, where necessary, restoration measures repeated during the Helmi period

100 sites

Intensified hunting of non-native predators in some of the restored SPA sites started

70 sites

Network of protection and resting areas for birds supplemented through voluntary action models

150 sites

Setting favourable reference values for grassland habitats both in and outside the Natura 2000 network

- So far, Finland has used operators in FRA-section instead of numeric data in Art. 17 reportings
- However, fairly detailed estimates of area needed to be restored has been done in the PAF plan, both inside & outside Natura 2000 network
- Setting the FRA's is planned to be done simultaneously with the 2024 starting directive reporting assesments
- Challenges can be anticipated in setting the suitable / correct historical reference point as well as in estimating the sufficient areas to maintain the functioning habitat networks

Current state of pledges under biodiversity strategy

- Finland is finalizing the pledges at the moment, the target for submitting the pledges is the first half of 2024
- Compared to the pledge of e.g. Sweden, the Finnish approach has been to fulfill the given assignment from the commission in Pledge 2: needed actions are identified to halt the further degredation for most of the directive habitats and species, and ~ 30 % of those currently in unfavourable status are chosen to be set on a strong improving trend by 2030
- On the improving list are 3 grassland habitats(1630, 6270, 9070), based on the estimation of which habitats the CAP and Helmi Programme´s actions are most likely to improve
- Whether the current plan can be fully implemented remains to be seen

Thank you!

Martina Reinikainen

Senior Specialist / Ministry of the Environment / Department of the Natural Environment / Nature Conservation and Management Unit

martina.reinikainen@gov.fi

Ympäristöministeriö
Miljöministeriet
Ministry of the Environment

Aleksanterinkatu 7, Helsinki | PL 35, FI-00023 Valtioneuvosto | ym.fi

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