Photo Story

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Diversity of grasslands and other open habitats in the Turku Archipelago, Finland: Impressions from the 21st EDGG Field Workshop, 28 June to 6 July 2025

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The 21st EDGG Field Workshop (28 June – 6 July 2025), held in the Archipelago Sea, Finland, marked a new milestone in the history of the Eurasian Dry Grassland Group. It was the first EDGG Field Workshop ever conducted in a Nordic country and the northernmost study region explored so far within this long-running international workshop series. The expedition brought together researchers from across Europe to investigate the diversity of grasslands and other open habitats in one of the most distinctive landscapes of Northern Europe.

The Archipelago Sea, situated off the southwestern coast of Finland, consists of numerous islands and skerries, hosting a high diversity of habitats, including coastal meadows, heathlands, rocky grasslands, forest edges, and wooded pastures and meadows. The habitat diversity was shaped by the interplay of Baltic Sea climate, bedrock, and centuries of traditional land use. With over 20,000 islands, the archipelago forms one of the world's largest island clusters. Its mild maritime climate, extended summer daylight, and diverse substrates create ideal conditions for surveying semi-natural grasslands and other open habitats, typical of the region. Following the standard EDGG multi-scale methodology, we sampled nested plot series to collect data on

Location of the Turku Archipelago, Finland.

vascular plants, bryophytes, and lichens. Structural and environmental parameters such as soil depth, moisture, and vegetation cover were recorded. The data will be integrated into the GrassPlot database for comparative analyses across the Palaearctic region.

Study region

The Turku Archipelago is located within the hemiboreal vegetation zone, influenced by the maritime climate of the Baltic Sea. Winters are relatively mild, and summers are cool but prolonged due to extended daylight. The geology is dominated by Precambrian granite and gneiss, shaped by glacial and post-glacial processes. Rocky outcrops with thin soils present challenging growing conditions, which foster the rocky grassland and heathland habitats of the archipelago.

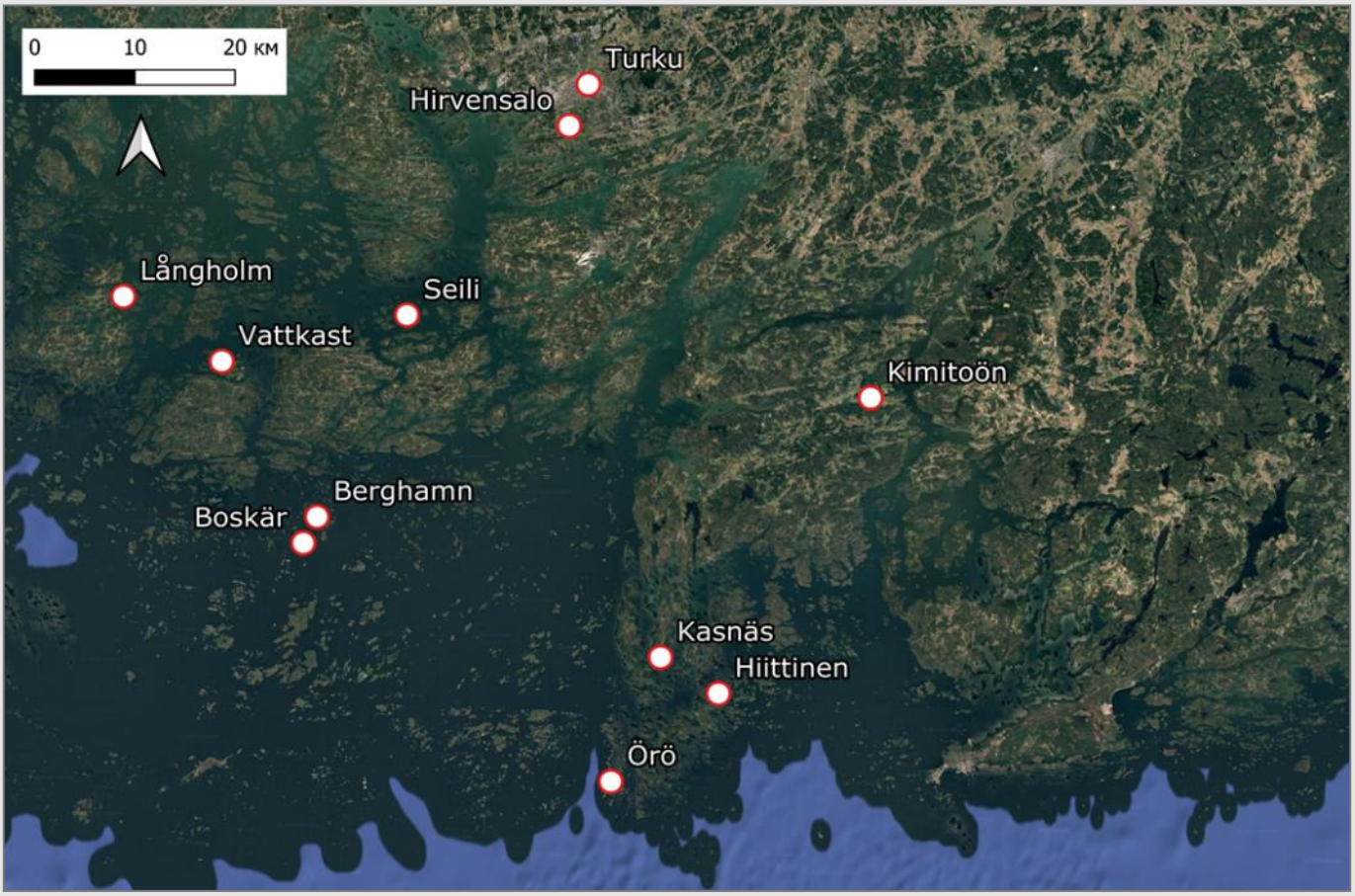
Grassland diversity

During the workshop, we explored a wide range of open habitats, including semi-natural pastures and meadows, rocky dry grasslands, sandy grasslands, coastal habitats, wooded meadows, heathlands, and wetlands. Each habitat type represents a different combination of soil depth, moisture, and management intensity, contributing to the remarkable habitat heterogeneity of the region.

Coastal meadows and dry grasslands in the archipelago are species-rich habitats in the Baltic Sea region, supporting numerous halophytic and mesophytic plant species that are maintained through traditional grazing and mowing regimes. On some islands of the Turku Archipelago, a common landscape feature is the combination of wooded pastures, which form a transitional zone between open grasslands and forested habitats, maintained by centuries of low-intensity grazing or hay-cutting. The highly threatened wooded meadows in the national park are maintained by a constant regime of raking, mowing, and grazing. Wooded meadows and pastures reflect the deep cultural connection between the people and the landscape.

Rocky dry grasslands occur on exposed bedrock with shallow soils. These habitats harbour species adapted to extreme conditions such as drought and nutrient scarcity. Their vegetation often forms small-scale mosaics with numerous mosses and lichens.

Open coastal habitats in the archipelago emerge on post-glacial deposits and beach ridges, sculpted by the interplay of wind and wave action. These exposed environments accommodate species resilient to stress and demonstrate dynamic plant communities due to the movement of substrates.



Map showing the islands where sampling took place during the 21st EDGG Field Workshop.

Participants of the 21st EDGG Field Workshop.

Colorful dry grassland with the Baltic Sea in the background, typical for the Archipelago Sea.


Coastal wetlands and wooded pastures with traditional grazing management.



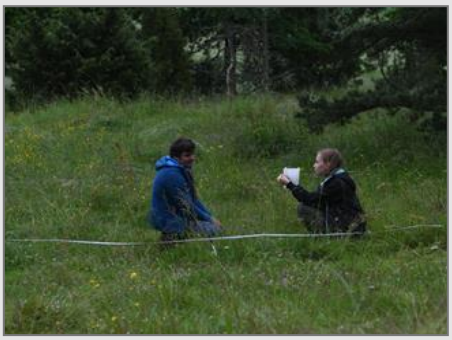



Diversity of open habitats in the Archipelago Sea: rocky grasslands with diverse microhabitats (upper row), dune habitats and shorelines with maritime influence (middle row), meso-xeric species-rich meadows and forest edges (bottom row).

Day 1: 28 June 2025. From Turku to the edge of the Archipelago

The workshop began with a cheerful morning gathering in Turku. Some of the participants already knew each other, while others met for the first time. We travelled south to the island of Kemiö for the first vegetation sampling when there was still dew and raindrops on the grass. Later, we took a scenic drive to Kasnäs and a taxi-boat journey to Örö Island - a former military fortress island that is now part of Archipelago National Park. Örö became our first coastal base for the next few days.

Our first taxi boat, and familiarization with weather conditions during sea trips.



Working moments of the first day.

Settling into traditional Finnish-style houses, introducing the group members, and planning for the next day.

Day 2: 29 June. Exploring Örö Island

We spent the day sampling diverse habitats of Örö Island. Dune habitats, rocky outcrops, and coastal meadows hosted species typical of maritime archipelago environments.



A very strong sea wind made adjustments of the clothing style necessary.


We were dealing not only with dry grasslands, but also with wet habitats.


Bicycles became our main mode of transport on the island, allowing us to quickly reach different parts for our research and stretch our muscles after long hours crouched in the plots.

Day 3: 30 June. Farewell to Örö

A calm sunny morning was devoted to completing the sampling on Örö. We also visited the neighbouring Island Hiittinen for additional sampling. In the afternoon, we took a ferry and a bus back to Turku, where we enjoyed a well-earned rest in the city.

Lunch, under any circumstance, was one of our team's favorite activities.

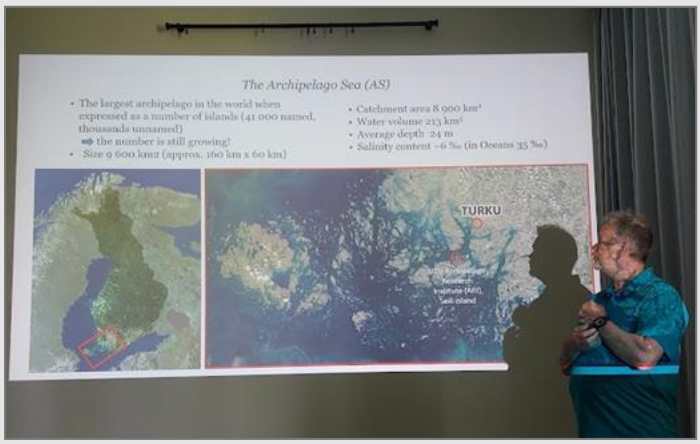
Each transfer was a pleasure with the incredible landscape and maritime views of the archipelago.

The compact but diverse island of Hiittinen had various attractions.

Day 4: 1 July. To Seili Island

Without breakfast in Turku, the group travelled west to Nauvo and took the ferry to Seili Island — home of the Archipelago Research Institute. Upon arrival, the Seili station manager presented the institute's maritime research activities. Experts from the Finnish Environment Institute, Åbo Akademi, and the Centre for Economic Development and the Environment presented lectures about vegetation surveys and monitoring. These sessions not only deepened the workshop participants' understanding of the archipelago but also provided a valuable platform for sharing experiences during the discussions. After a full day exploring the island's vegetation, the group had the opportunity to recover in a real Finnish sauna on the seashore.

Left: travel to Seili Island. Right: arrival at the Archipelago Research Institute.



Local experts presented lectures about vegetation surveys and monitoring in Finland.

Left: exploring vegetation of Seili Island. Right: experiencing a real Finnish sauna.

Day 5: 2 July. Seili in bloom

The second day on Seili Island brought ideal weather for fieldwork. Teams explored a range of contrasting habitats — from meadows rich in orchids to rocky outcrops. In the afternoon, we held a methodological session with a practical demonstration of spatial measurement techniques using a geodetic instrument. This approach allows for high-precision recording of research plot locations, which is extremely useful for mapping and ensuring the repeatability of ecological studies. The day concluded with species identification and reflections on Seili's history of land management and scientific research.

The Finnish Environment Institute demonstrated their methodology for the national biodiversity monitoring programme.

Beyond scientific work, the workshop offered moments of shared discovery and aesthetic appreciation.

Left: When you see an interesting species of lichen… Center: Measurement of maximum microrelief. Right: Determining the exact coordinates of the plot.

Magical sunsets of the Turku Archipelago: from the rocky shore and from the cliff.

Day 6: 3 July. To the Outer Archipelago

The last morning on Seili started with rainy weather, which did not stop us from doing our morning plots. After warm goodbyes to our colleagues who had worked with us on Seili and did not continue further, we took the ferry to the transfer point at Nagu. While waiting for the next boats, we organised lunch right on the Nagu pier. From Nagu, smaller taxi boats, manned by experienced skippers, took us to the outer archipelago. Navigation in this part of the archipelago requires a high level of skill due to the complex terrain and the large number of hidden underwater rocks. In the afternoon, we arrived at the research station on Berghamn Island. The day continued with an introductory excursion on the island led by local farmers and a sampling of the diverse grassland types. The remote island enchanted us with its atmosphere, hospitality, historical context, and traditional meadows. Berghamn's meadows have been traditionally managed for more than 500 years, and this management is still upheld by farmers and nature conservation authorities. For dinner, our Italian team member, Federico, planned and prepared a delicious Italian dinner. It was a long, eventful day, ending with a sudden change in weather, from sunshine to storm. After a delightful, cozy dinner, we had a group working session on plant samples and a traditional Finnish sauna in a new location.

Last rainy plots (left) and farewell words with small gifts (right) before the departure from Seili.

Sea transport is very important in the archipelago: our ferry from Seili to Nagu (left) and the small taxi boat from Nagu to Berghamn (right).

Introductory excursion on history, management, and grassland diversity at Berghamn.

The identification of the island's rich diversity of flora species lasted until nightfall.

Day 7: 4 July. Between sea and sky

The day started with further exploration of Seili Island. For the afternoon, we travelled to Boskär Island, known for its remarkable wooded meadows managed by raking, mowing, and autumn cattle grazing.

Sampling rock outcrops in Seili Island.

Our taxi boat to Boskär Island.

Left: Workshop co-organizer Denys monitors the accuracy of filling out the form. Right: A quiet evening after returning.

Eating both in establishments and preparing traditional dishes of the participating countries ourselves, we made our dinners very tasty, thanks to locally produced products. Borscht is one of the dishes of Ukrainian cuisine; it was prepared and eaten collectively.

Kitchen essentials on Boskär group house, field-style - can you find the odd one?

Day 8: 5 July. Return through Långholm and Vattkast

For this day, we were divided into two teams to cover the study of two islands in parallel.

One group got the chance to explore the diversity of pastures and meadows on Vattkast Island. We got an introduction from local farmers and set off in search of an attractive sampling location.

Left and center: There were two ways to overcome the very wet grasslands: rubber boots or no shoes at all.
Right: One person was recorded inside the plot!

The second group went to the island of Långholm to explore temporarily inundated meadows formed after a recent storm, mesotrophic meadows, moderately dry grasslands on well-drained substrates, brackish coastal meadows, and open dry patches on the upper slope, mostly composed of lichens and mosses. After completing surveys and enjoying the walk through the boreal woodlands and the panoramic coastal landscape from 50 m a.s.l., the whole team was reunited and returned to Turku under light rain.

Left: The girls found a homogeneous plot among fragmentary vegetation on a rock. Right: The penetrometer also served as a tool to break the shells of the boiled eggs we ate for lunch.

Left: "Vynokurov 10 HLŌ" - This is how our reserved table at a restaurant in Turku on Hirvensalo Island was signed. Right: After dinner, we gathered together at the hotel on the evening before most of the team departed.

Day 9: 6 July. The last day of the workshop.

After the official end of the Field Workshop, half of the team stayed for an additional half-day of sampling. Jürgen explored the beach below the hotel where moulting geese had created nutrient-rich, low-growing natural *Polygono-Poetea annuae* communities. Others sampled rock outcrops dominated by mosses and lichens in the Ilpoinen district of the Uittamo–Skanssi ward.

Nutrient-rich, low-growing communities created by Barnacle geese (*Branta leucopsis*).

Sampling rock outcrops dominated by mosses and lichens in the Uittamo–Skanssi ward.

Reflections and acknowledgements

The 21st EDGG Field Workshop successfully combined scientific rigor, collaboration, and appreciation for natural beauty. It strengthened the network of vegetation scientists across Europe and contributed valuable data for the study of grassland diversity in coastal environments. We express our gratitude to the organisers, local institutions, landowners, and all participants for their commitment and enthusiasm.