DEFINING FAROESE VEGETATION: A COMMUNITY ECOLOGY PERSPECTIVE

Background

- **Faroe Islands** has a harsh climate and long history of sheep grazing.
- Unlike nearby regions, they lack a **standardized vegetation classification**.
- **Study aims**: (**1**) **Identify** vegetation community types and potential gradients. (**2**) **Assess** grazing impacts. (**3**) **Compare** findings with Norwegian NiN and British NVC frameworks.

Methods

- **Data**: Point-intercept survey of vegetation - 6 sites across Faroe Islands, by Tjósavnið summer 2025.
- Detrended Correspondence Analysis (**DCA**) was done to identify gradients and community structure through clustering.
- **Czekanowski similarity index** (via RMAVIS[1]) was used to compare data with British National Vegetation Classification (**NVC**).
- Comparison with Nature in Norway (**NiN**) was done **qualitatively** with an official mapping guide[2].

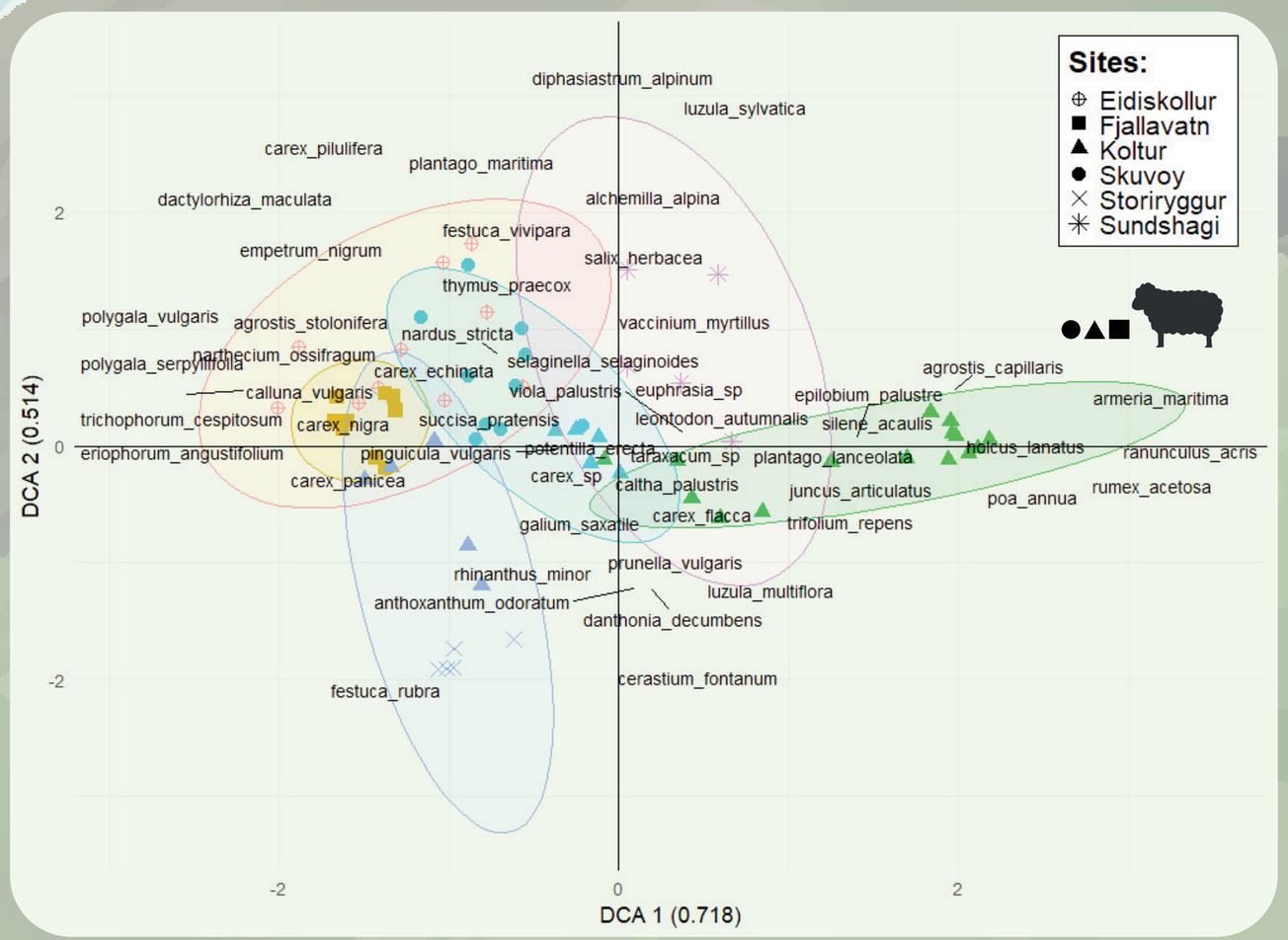

Figure 1: Clustered Detrended Correspondence Analysis ordination of species and study plots. Text representing species loadings and individual shapes indicating study plot loadings. Clusters are separated by colours, and eigenvalues of axes on respective axis label.

What We Found

- **Clustering** suggests vegetation types, with most sites staying within one cluster. The exception being Koltur, the most sampled.
- Evidence to interpret **DCA 1** showing a **soil fertility gradient**.[3] **DCA 2** might show a grazing disturbance gradient. With more graminoids in lower loadings, and forbs in higher loadings. Though, some species at highest and lowest loadings both are known to have resistance to grazing disturbance.[3]
- Sites showed **weak correlations** to **NVC** types, (e.g., Calcorious glasslands (CG11,12,14), Heath (H20), Wet Heath (M15), Blanket Mire (M17), Calcifugous grasslands and montane communities (U4, U5, U13)). The low correlation might be caused by the absence of dominating species within NVC types at the sites. Stóriryggur and Sundshagi had the weakest correlations to NVC types.
- Sites were **partly similar** to some **NiN** types - mainly Coastal Heaths (T34), Semi-natural Grassland (T32) and Semi-natural Mires (V9).

Future Prospects

- Our analysis has highlighted vegetation types on the Faroe islands which **cannot** sufficiently be explained by nature types in nearby regions.
- More research is needed to construct a **local standardized classification** fitting Faroese vegetation and climate.
- To properly confirm fertility and grazing gradients in faroese vegetation types, **soil samples** should be collected from sampling points and **grazing intensity** should be taken into account in future research.


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