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Conservation of priority grassland habitats in Slovenia through the establishment of seed bank and *in situ* restoration – project presentation

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Background

Semi-natural grasslands are remnants of traditional agricultural landscape in Europe. However, their surface in Europe and Slovenia is decreasing due to agricultural intensification on one hand and land abandonment on the other, which leads to overgrowth with shrubs and forest. In 2021, we started a five-year project called 'LIFE for Seeds' with the leading partner DOPPS and partners from three Slovenian protected areas, aiming to preserve the most valuable grassland habitats in Slovenia.

The project focuses on establishing a seed bank of 300 characteristic, indicator taxa found on three EU priority habitats that are included in the Natura 2000 network: 6210(*) - semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) – important orchid sites, 6230* - species-rich *Nardus* grasslands, and 3180* - turloughs. According to the latest national report of the Habitats Directive 2013-2018, all the three priority habitat types have either unfavourable status or bad status.



Aims

In this project, we will restore 74.1 ha of high nature value grasslands at seven Natura 2000 sites (Notranjski trikotnik, Goričko, Julijske Alpe, Drava, Krimsko hribovje – Menišija, Ljubljansko barje, Škocjanski zatok) using green hay and brush-harvested seed mixtures.

In order to increase genetic diversity of seed material of wild grassland angiosperms stored in Slovenia, we will collect and store 12,000 accessions of seeds of 300 characteristic plant species of HT 3180*, 6210(*), and 6230*. This will contribute to conservation of biodiversity at all levels: genetic, species, and ecosystem, which are all equally important for maintenance and preservation of ecosystem services.

Three conservation measures will be designed for the production of native seed material and grassland restoration, which will be included in the national agricultural policy after 2027.

Project milestones

- **Seed gathering** on 21 chosen Natura 2000 areas throughout Slovenia
- **Establishment of a seed bank** at the Agricultural Institute of Slovenia (AIS) that will hold 12,000 accessions of 300 plant species from three priority grassland habitat types
- **Restoration of high nature value grasslands** at seven Natura 2000 sites across Slovenia on a total area of 74.1 ha
- **Preparation of three agri-environmental measures** for the production of native seed material and its use for grassland restoration



Locations of seed gathering

- **Seeds for the seed bank:** project partner AIS will collect seeds on SAC Kum, SAC Sava – Medvode – Kresnice, SAC Krimsko hribovje – Menišija, and SAC Polhograjsko hribovje)
- **Brush-harvested seed mixtures:** project partner AIS will harvest seed mixtures on SAC Boč – Haloze – Donačka gora, SAC Haloze – vinorodne, SAC Bohor, SAC Goričko, and SAC Drava



Project partners



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