



Establishment of the Pannon Seed Bank for the long-term ex situ conservation of Hungarian vascular wild plants



2010.01.01-2014.12.31

Project objectives:



Research Centre for Agrobiodiversity

The main goal of this project is the long-term seed preservation of the wild vascular flora of the Pannonian biogeographical region in order to assist and complement in situ species conservation activities. In addition to the increased safety in case of accidental loss or degradation of endangered populations of rare species in the natural, native habitats, ex situ seed banks may provide additional possibilities for monitoring genetic changes in wild populations, facilitate access to research material without increasing the rate of disturbance of and pressure on the original habitats, and assist multidisciplinary studies on factors involved in the maintenance of diversity and stability in plant associations.



Seed storing



Institute of Ecology and Botany of the Hungarian Academy

The project aims to achieve this goal through expanding the current functions of the world's 13th largest agricultural gene bank, the Research Centre for Agrobiodiversity, having more than fifty-years of experience in the conservation of agricultural genetic resources. The establishment of a joint seed bank for the agricultural and wild flora would be a unique and demonstrative example worldwide in line with the objectives of the Convention on Biological Diversity, as the genetic diversity of the Pannonian biogeographical region's entire flora, including the wild flora as well as crop and vegetable plants serving human nutrition are aimed to be conserved at one place.



Reference collection



Esztramos mountain, Aggtelek National Park

Project participants:

Research Centre for Agrobiodiversity

Institute of Ecology and Botany

Aggtelek National Park Directorate



Seed samples





Project actions:

Seed collection strategy and methodologies is developed by the Institute of Ecology and Botany of the Hungarian Academy of Sciences with the involvement of prominent botanists.

Based on this scientifically well-founded strategy, **collection** will be carried out by botanical experts and the national park directorates. **By the end of the project, approximately 50 percent – at least 800 species – of the species of the wild native flora will be collected.**

Seed samples will be safeguarded in the Base and Active storage facilities of the Pannon Seed Bank established at the Research Centre for Agrobiodiversity. The **Base collection** serves the long term conservation of reserve samples, while the **Active collection** helps to facilitate research and distribution of research material.

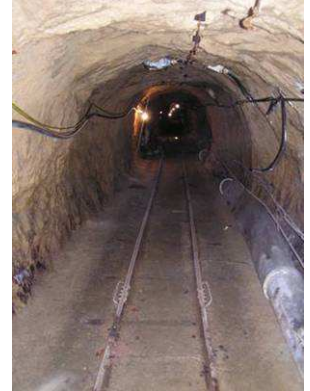
In order to achieve full safety, a **duplicate store of the Base collection** will be established inside a man-made mine hole inside the Esztramos mountain of the Aggtelek National Park Directorate to avoid risks of unexpected environmental hazards. The **duplicate store of the Active seed collection** will be established at the Institute of Ecology and Botany.

In order to show how the genetic material preserved in the Pannon Seed Bank could be utilized in nature, a **model reintroduction** of certain species of the sand steppe community typical to the Pannonian biogeographical region will be done at Natura 2000 priority habitats (Pannonic sand steppes and inland dunes) of the Kiskunság National Park.

Moreover, the project is also focus on the **awareness raising** of decision makers (members of the parliament, government officials etc.) on the importance of biodiversity. In order to disseminate project information within Europe, an international conference will be organized for relevant institutions, experts and projects.



Seed collecting



Man-made mine hole inside the Esztramos mountain



Seed moisture testing



Pannonic sand steppes



Storing cabinet of active collection



Training for MSc and PhD students

For more information please visit our website: www.pannonseedbank.hu

