

REDUCTION OF EUTROPHICATION IN GREY DUNE HABITATS

Mg. Biol. Ilmārs Bodnieks

Environmental nongovernmental organization “Latvian Green Movement” (LaGM)

The aim of the project is the restoration and sustainable management of habitats and species of Community importance - grey dunes. The main project activity will be organized with small pine cutting in grey dunes which will raising of public awareness regarding the need for protection of habitats.



Local municipalities, the Nature Protection Agency (land owner), Joint Stock Company “Latvia's State Forests” (land owner) and local schools will be involved in pine cutting activities.

Photo: «Neatkarīgās Tukuma Ziņas»

The Baltic Sea coast of Latvia is an area of outstanding biological diversity, including habitats of Community importance – embryonic, white, grey and wooded dunes, western taiga and coastal meadows. The restoration of grey dunes is one of the main priorities for the protection of coastal species and habitats.

Since the strip of grey dunes in Latvia is no longer managed, it is overgrown with trees and shrubs. In an overgrown dune, the movement of sand decreases, the number of debris and nutrients increases, the number of light decreases, and thus the species characteristic of the dune also disappear. After pine cutting the introduction of coastal plant species is expected within a few years. The excellent grey dunes biotope is characterized by open areas with few or no trees and shrubs, the ground is covered with lichens, mosses and low herbaceous plants.



The aim of the project is the restoration and sustainable management of habitats and species of Community importance - grey dunes including potential habitats of plant species – Sand pink *Dianthus arenarius* and Spreading pasqueflower *Pulsatilla patens* listed in the Habitats Directive. Photo: J. Kluša

Research over more than 20 years shows that the grey dunes are becoming increasingly overgrown with trees and the areas of open grey dunes are decreasing. Data collected before and after management in grey dunes were compared to assess vegetation changes over a seven-year period. The results show that the cover of herbaceous species characteristic of grey dunes and bare sand patches has increased, but cover of wooded dune species and litter has decreased, which indicates an improvement in the quality of grey dunes (Barone I. 2021).

As a result of this project, open – grey dune habitat restoration measures will be carried out in an area of 30 ha



If the gray dune, which is considered one of the most valuable habitats, is not cultivated, it gradually overgrows and plants typical of this area, such as gray lichen, cannot grow there anymore. Photo: A. Balandiņa

The main labor force will be LaGM and local activists and schools. We will involve local municipality to support and to solve practical issues, like transportation. Most of the planned activities are based on volunteer's labor force, but also tenders for professional services.

Before the organization of pine cuttings, the involved persons will be informed and educated on the importance of the work to be done in the field of nature protection, and the importance of protecting grey dune habitats will be accentuated not only at the regional but also at the EU level.

At the beginning of the implementation of the project, cooperation with local organizations that have implemented similar activities in grey dune habitats will be promoted, and in the middle stage of the implementation of the project, it is planned to organize a seminar where the first results of the implementation of this project will be discussed, as well as the experience of other local projects will be heard.



The typical structure of Latvian coastal habitats with habitats of gray dunes. Photo: LIFE CoHaBit Nr. LIFE15 NAT/LV/000900

CONTACTS

The main project area: Natura-2000 site network territories in Baltic Sea coast of Latvia (in Kurzeme) – nature parks “Ragakāpa” (SiteCode: LV0303300) and “Engures ezers” (SiteCode: LV0302800).

Project duration: 01.10.2022 – 30-09.2024.

Name of the organization of implementation : Latvian Green Movement

Project manager: Ilmārs Bodnieks, e-mail address: ilmars.bodnieks@gmail.com

More information: <https://zalie.lv/en/>