

# Quality improvement and diversification of the EU importance habitat 2180 Wooded dunes in the Nature Park «Lake Engure» – *Natura 2000* site

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## WOODED DUNES

Wooded dunes need natural disturbances such as wind, fire or regular disruption of the ground vegetation which keeps the sand exposed to the sun. In the absence of such disturbances, the dunes gradually become overgrown, the habitats of different plant and animal species disappear and the forest levels out.

## WHY TO MAINTAIN?

Due to lack of natural disturbance, the shady conditions and the nutrient-rich soil in the Nature Park "Lake Engure" contributes to an excessive proliferation of mosses and *Vaccinium spp.*, which, in turn, suppress the sun-loving lichens and other species native to this habitat.

## «LAKE ENGURE»

- Strictly protected area, founded 1957. *Natura 2000* site since 2004.
- The total area: 12 580 ha
- Nature values: 23 habitats, 44 endangered European bird, 5 fish and 3 plant species.

## BEFORE THE ACTIVITIES



There are too many nutrients, so the wooded dunes are grown over and there is not enough space and sun for sun-loving lichens and other species native to this habitat. There are not enough different structures, like deadwood, trunks, etc.

## THE RESULT TO ACHIEVE



Wooded dunes with a varied structure: pine groves with trees of different ages and sizes, uniform arrangement of trees interspersed with openings and pine thinnings. Reduced projective cover of the dominant shrubs and a greater proportion of the lichens of the genera *Cladonia* and *Cladonia* in the ground cover promoted.

## HISTORICAL FACTS

100 and more years ago natural disturbances were partly insured by human activities, like forestry, charcoal producing, amber and seashell collection. We can see the precise marks from these activities also in LIDAR maps.



Collecting the seashells in wooded dunes, 1930



Charcoal producing 1920-30 after the methods used in 1650



Marks from charcoal production in 1650. LIDAR map

## COMMUNICATION

- Expert-level seminar for the stake holders involved
- Information boards on site to inform the park's visitors
- Publications in local and national media to inform the community



## METHODS

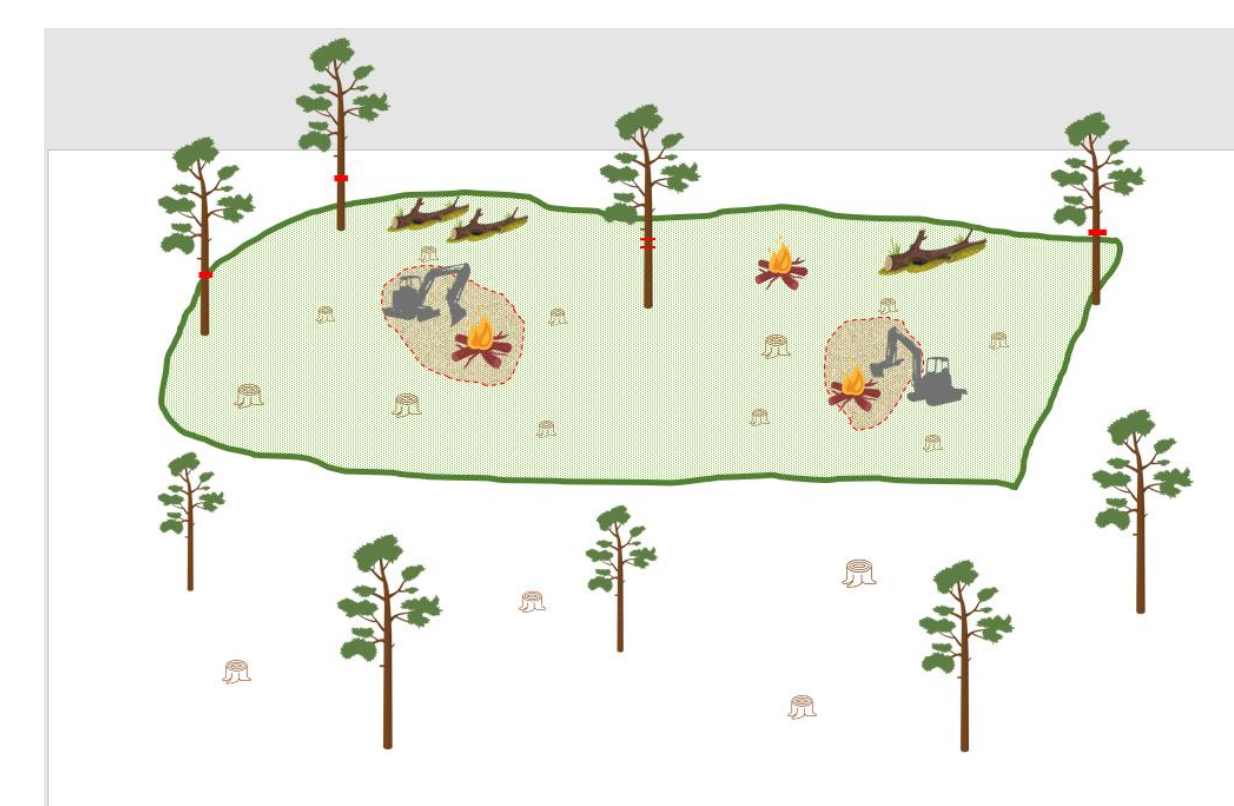
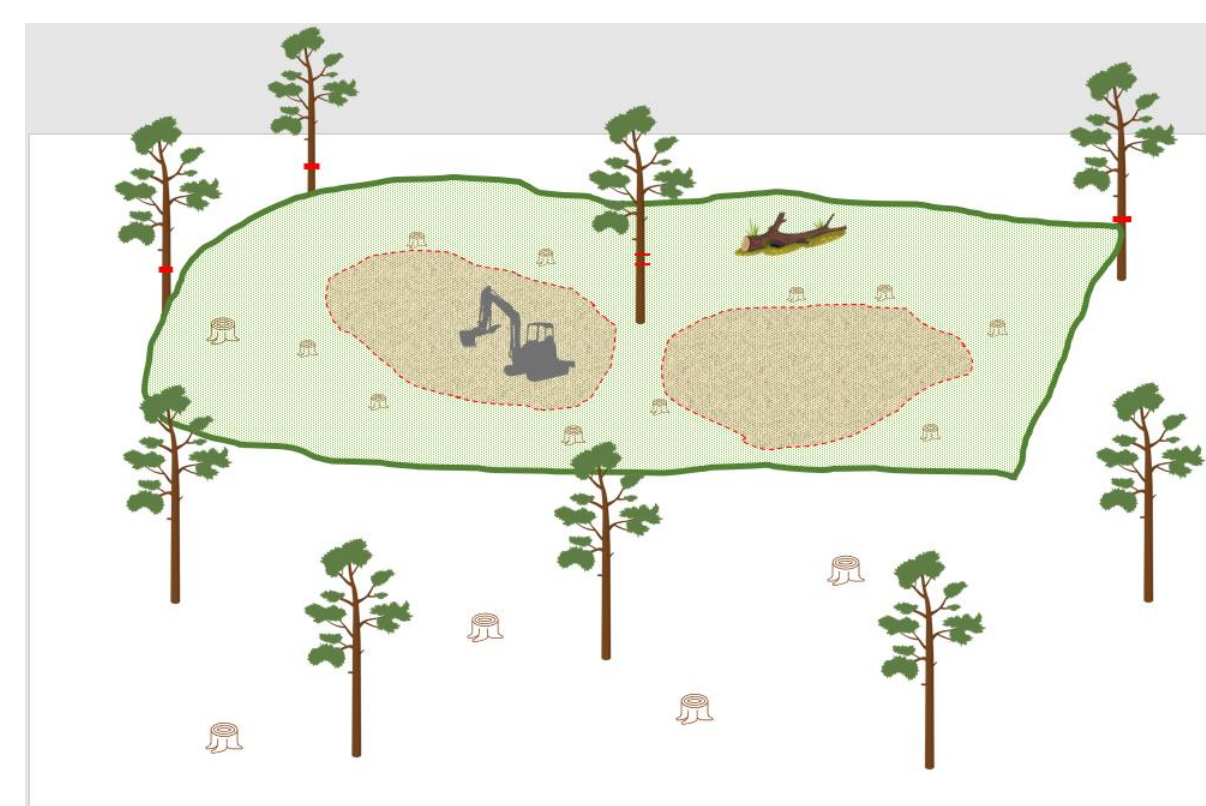
### Quality improvement and diversification of the wooded dunes in a total area of 33 ha

- we thin the trees to allow space for sunlight
- we increase dead wood so that the habitat once again supports different structures, making it more diverse and more suitable for natural forest inhabitants
- we expose the sand and create irregularly shaped areas or openings for the lichens characteristic of the habitat to spread
- we pile up the logging residues to leave them to dry for a while. After drying, the piles will be incinerated, thus also burning the biotope's excess nutrients
- we sow pine trees in individual openings to promote pine regeneration and diversify the age distribution of the forest
- we test ways of reducing the harvested excess organic material: burning, burying, removing

Demo area A, 18 ha



Demo area B, 15 ha



## LIFE-IP «LatViaNature»

During the "LIFE-IP LatViaNature" project (2021-2028), LVM will carry out restoration works of three different forest habitats of European Union importance and test nature-friendly forestry methods in a total area of more than 100 hectares in four pilot territories of disturbed forests. Three of these territories are *Natura 2000* sites.

The habitats are being restored during LIFE-IP «LatViaNature» project:

- Wooded Dunes, **2180**
- Lichen-Rich Pine Forests, **91To**
- Sand Ridge Forest, **9060**

