



EU LIFE Programme project
"Optimising the Governance and Management of the
Natura 2000 Protected Areas Network in Latvia"
(LIFE19 IPE/LV/000010 LIFE-IP LatViaNature)

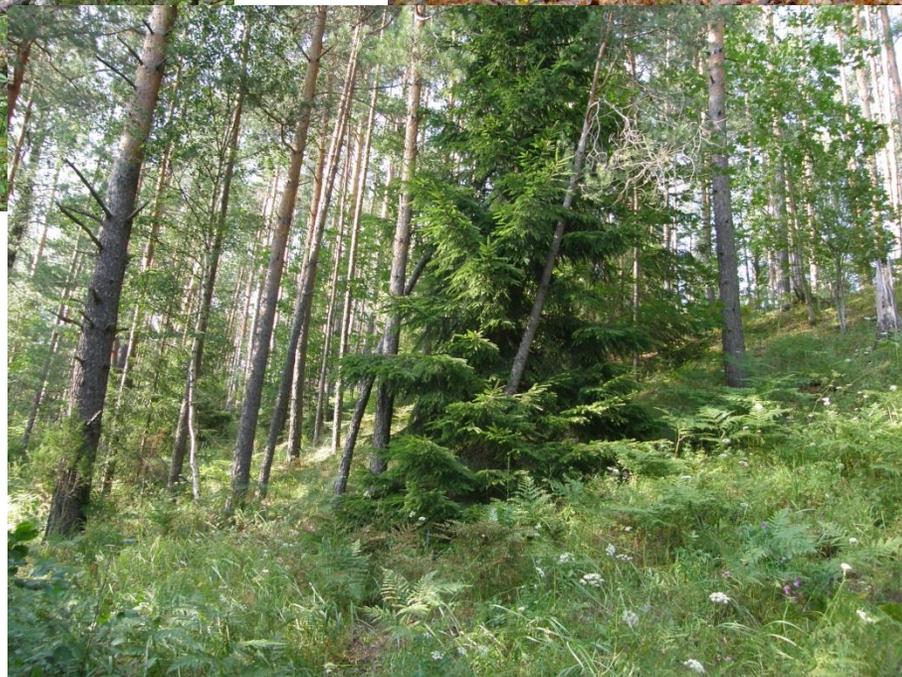
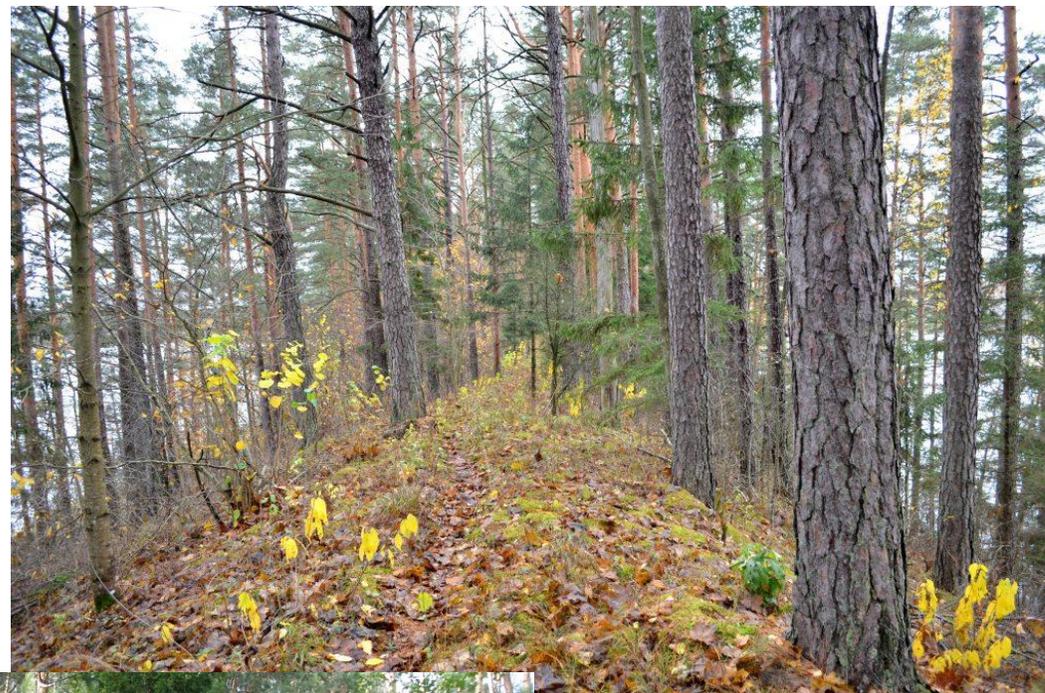


Management of Esker forests* – Latvia approach

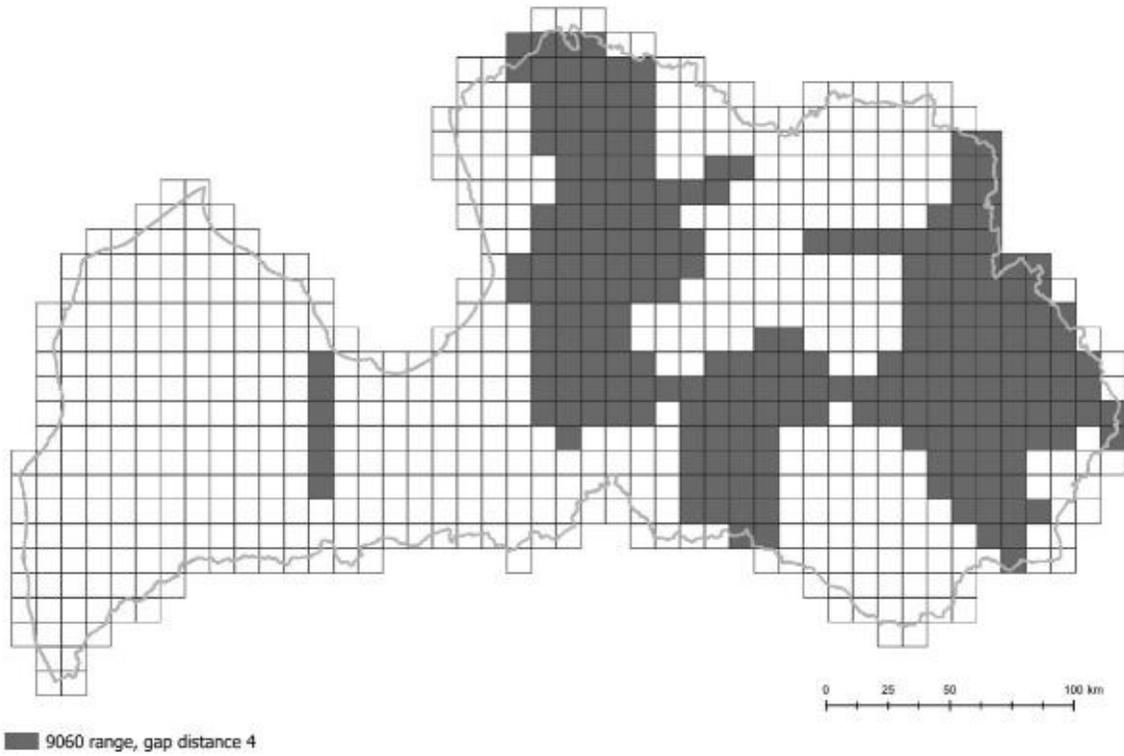
*EU importance habitat 9060 Coniferous forests on, or connected to, glaciofluvial eskers

Esker forests

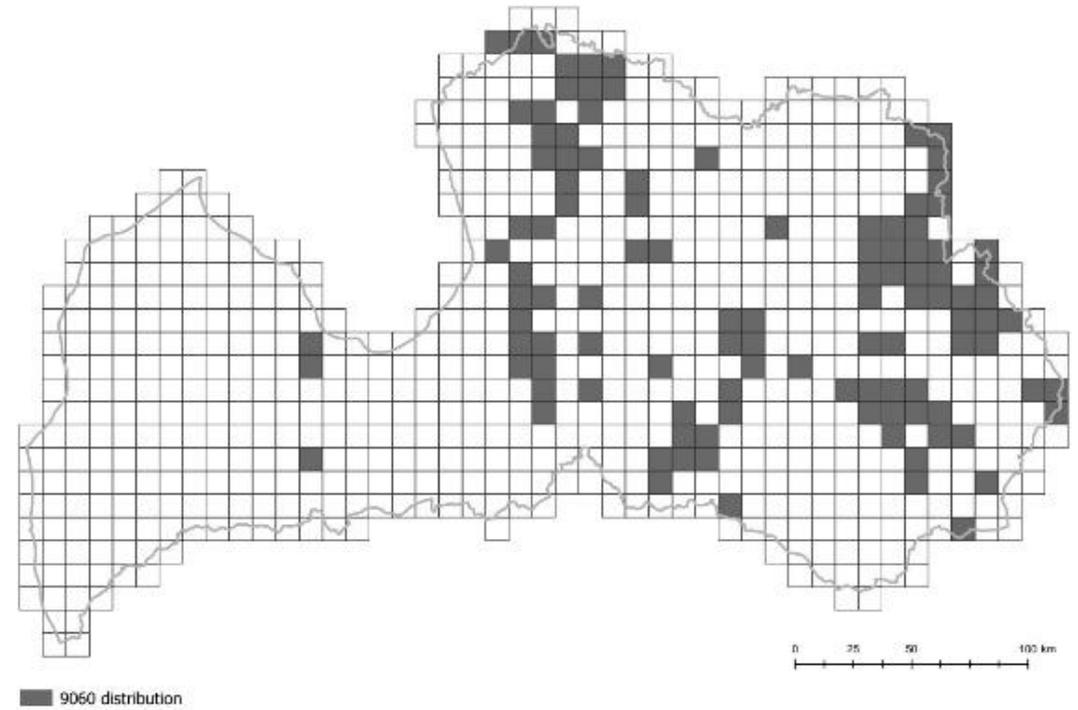
- ❖ Fennoscandian conifer forests
- ❖ Found on or close to eskers - Eskers are glaciofluvial gravel and sand formations which consist of relatively sorted material, often forming ridges over 20 meters high.
- ❖ The microclimate differs notably between shaded and sunny slopes.
- ❖ Vegetation on sunny esker slopes is often relatively rich in species and particularly contains many leguminous plants as well as some eastern steppe plant species



9060 areal



9060 distribution



Esker forests 9060

Some numbers	Ha or %
Area in Latvia	1882 ha
Area in Natura 2000 sites	853 ha (45%)
NP Rāzna	31 ha
% from all EU Forest habitats	0,67 %
Good quality	43 %
Strict protection in Natura 200	28 %

Charasteristic species

Geranium sanguineum



• *Polygonatum odoratum*



Rare species

Arenaria procera



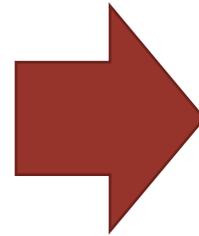
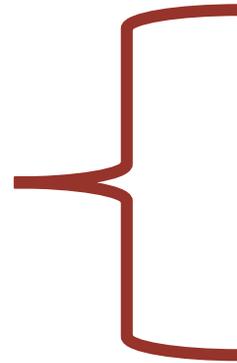
Dracocephalum ruyschiana



Natural disturbances

In the past:

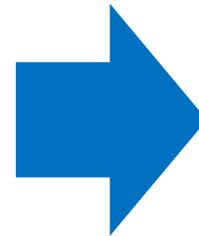
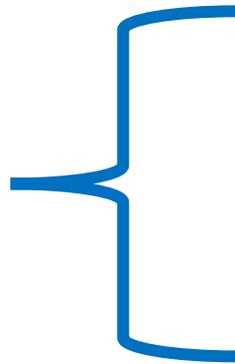
- Fire
- Wind brakes
- Grazing



**Disturbance-dependent
habitats and species**

Nowadays:

- Cutting
- Doing nothing
- Fire suppression



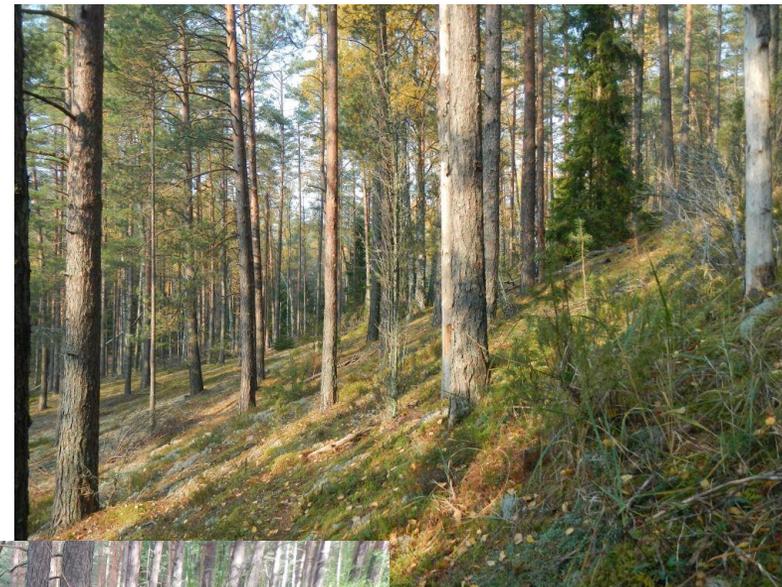
???????

Result - «Sprucification»



The management objectives in 9060

- ❖ Reduce shading;
- ❖ Prevent soil acidification;
- ❖ Decrease the litter layer;
- ❖ Increase the amount of elements characteristic of natural forests.



Management



Management



Experience

- ✓ NR Laukezers – 2016., ~ 17 ha, cutting of spruces and shrub layer;
- ✓ Rāzna NP – 2013./2014. – cutting of spruces and mineral soil was uncovered by removing the moss and soil O-horizon layers by hand rake in patches;
- ✓ NP Driksnas sils 2013./2014 – selective cutting in many stands;
- ✓ NR Pososnīca, NR Numernes valnis, Rāzna NP 2023 – cutting of spruces, increasing of the amount of elements characteristic of natural forests, moss removing in several small plots;
- ✓ NR Grebļuklans 2024 – cutting of spruces, hazel stump grinding.

Missing link

- ❯ **Long term monitoring !!!!!**
- ❯ Response of rare species – is it an appropriate management?
- ❯ Pyrophilous species – how do they feel?
- ❯ Habitat maintenance costs



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Thank you!

