

Dabas aizsardzības
pārvalde

Forests for biodiversity in Latvia. Role of old-growth forests in this system

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Old growth forests and EU habitats*

Legislation, obligations, definitions

Some key characteristics of old-growth forest stands

-  Structural features and dynamics such as natural regeneration, gap dynamics, large and diverse dead wood, structural complexity, and the presence of old trees, or trees reaching senescent stage and tree-related microhabitats
-  Forest stands have acquired these structural features and dynamics through several decades of natural development without significant human intervention.
-  Areas showing old-growth characteristics and ancientness may often overlap.
-  Ancient forest (i.e. a continuously wooded forest land) which has been actively managed might lack old-growth characteristics.
-  Areas which have been forested more recently can develop structures associated with old-growth forests when given enough time.

Member State methodologies for old growth forests should be

-  Science-based
-  Developed transparently and shared publicly
-  Ensure cross-border harmonisation and consistency with the common definition
-  Make it possible to objectively verify fit and appropriate implementation by all relevant forest stakeholders

Indicators for old-growth forests

1. Native species
2. Deadwood
3. Old or large trees
4. Stand origin
5. Structural complexity
6. Habitat trees (high density and high diversity of tree-related microhabitats)
7. Indicator species

EU forest habitat quality algorithm

Criteria	2180	9010	9020	9050	9060	9080	9160	9180	91D0	91EO	91F0	91T0
number of old trees	x	x	x	x	x	x	x	x	x	x	x	x
amount of large logs	x	x	x	x	x	x	x	x	x	x	x	x
hollow trees and trees with wo	x	x	x	x	x	x	x	x	x	x		x
amount of large snags	x	x	x	x		x	x	x	x	x	x	x
openings in canopy		x	x	x	x	x	x	x	x	x	x	
number of rare species	x	x	x	x		x	x	x	x	x		x
self thinning is typical		x	x	x	x	x	x	x	x	x		
mixed tree age	x	x		x		x	x	x	x	x	x	
amount of trees with bracken-f	x	x				x		x	x	x	x	x
recently cut trees	x	x					x					
invasive and expansive species	x										x	
amount of old hazel trees			x					x				
amount of slowly growing trees						x			x			
hydrological regime						x			x			
Vegetation	x											
Dominant tree species age	x											
windfall				x								
area with springs								x				

EU forest habitats in Latvia

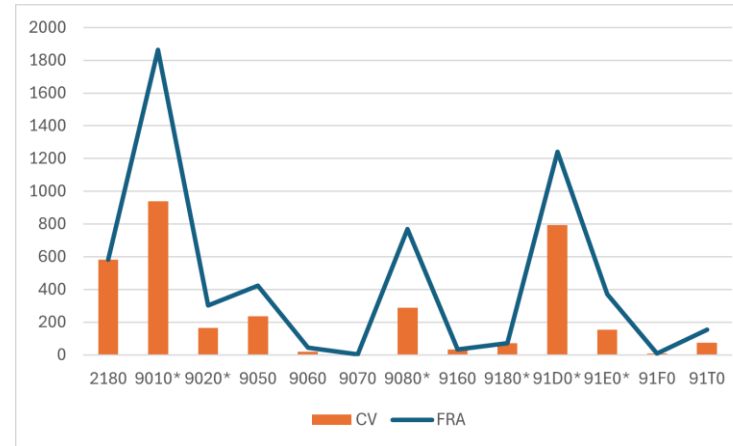
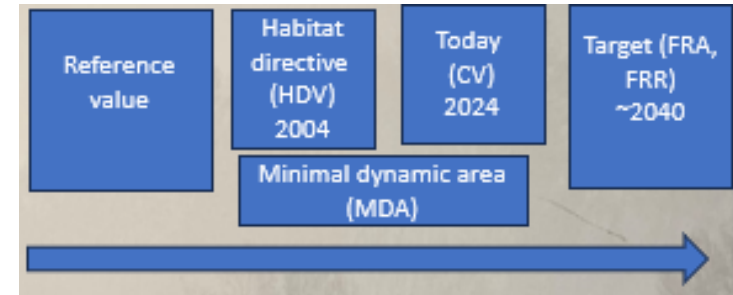
How to assess progress in biodiversity conservation?

-  Setting Favourable reference values
-  Evaluating conservation status of a species or habitats
-  Article 17 report of the Habitats Directive – main instrument for assesment of species and habitats conservation status
-  LIFE-IP project “Optimising the Governance and Management of the Natura 2000 Protected Areas Network in Latvia” (LIFE19 IPE/LV/000010 LIFE-IP LatViaNature) determined national-level habitat reference values in a systematic way, using a standard methodology. Reference values consist of two components: favourable reference area (FRA) and favourable reference range (FRR).

Determining favourable reference area

🌱 Habitats favourable reference area (FRA) is minimal area that should provide stable population for habitats indicator species.

- 🌱 Finding reference value: GAP analysis and habitat distribution models
- 🌱 Setting threshold values for minimal dynamic area (20%, 37,5%)
- 🌱 Comparing minimal dynamic area values to habitats area when Latvia joined EU and habitats present area (CV)
- 🌱 Setting favourable reference areas values



Threats

Threat	EU habitat type	Impact
Final felling	All	Destroys habitat
Thinning	All	Decrease number of old trees, large trees, logs, snags, hollow trees
Selective cutting	All	Decrease number of old trees, large trees, logs, snags, hollow trees
Drainage system	9080, 91E0, 91D0	Decrease amount of slowly growing trees, increase change of vegetation, change of dominant tree species
Legal and illegal removal of dead wood	All	Decrease amount of dead wood
Road construction near habitat	9080, 91E0, 91D0	Decrease amount of slowly growing trees, increase change of vegetation, change of dominant tree species
Sanitation felling in clear cut	All	Destroys habitat
Sanitation felling with selective cutting	All	Decrease number of old trees, large trees, logs, snags, hollow trees

Management

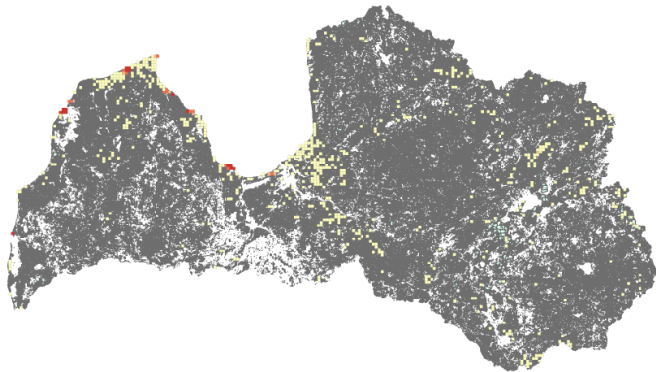
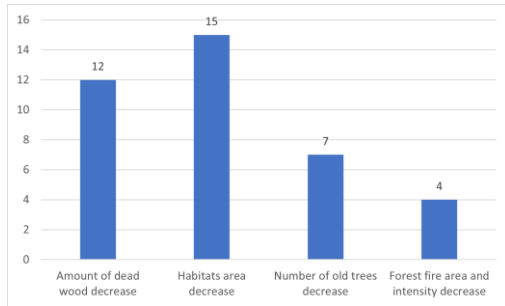
Management	Habitats	Impact
Habitat preservation	9010, 9020, 9180, 9160, 91F0, 9050, 9080, 91E0, 91D0	Allows natural succession, by which increases number of old trees, dead wood, hollow trees etc
Hydrological regime restoration	91E0, 91D0, 9080	Restores natural hydrological regime
Disturbance creation	91T0, 2180, 9060	Increase amount of dead wood, increase habitats brightness, increase amount of burned wood
Invasive species eradication	All	Eradicates invasive species
Increasing amount of dead wood	All	Increases amount of dead wood

Development and updating of habitat action plans

- 🌱 Prioratisation (factors – forest stand area, habitat quality, habitat «hotspot», connectivity (indirectly), location inside/outside *Natura 2000* site), etc.).
- 🌱 Within the framework of the habitat action plans, priority areas for protection and priority areas for management are modelled.
- 🌱 In most cases, for forest habitats management areas overlap with protected areas.
- 🌱 In most cases time and non-intervention are necessary.
- 🌱 In many cases habitat protection will improve status of specific and threatened species

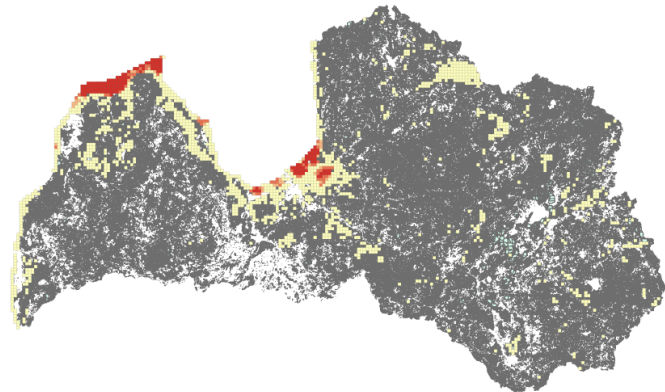
Scarce pine forests (91T0, 2180, 9060)

Threats



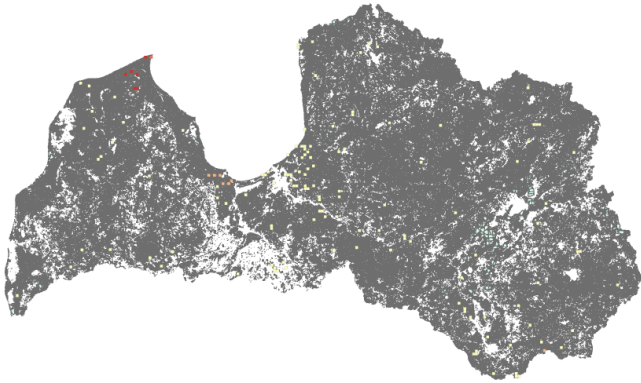
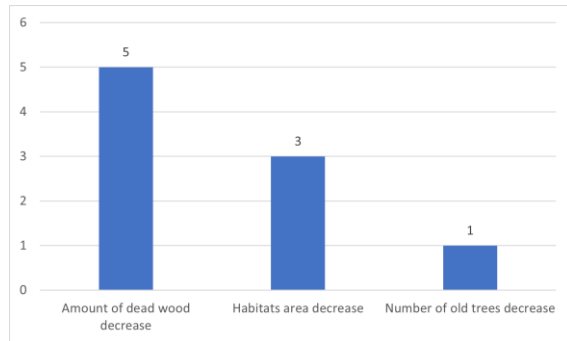
 Best management: controlled burning.
Current area: 675,6 km² FRA: 797 km²

saproxylic beetles	LC	NT	VU	EN
Current	3	1	8	3
Future	3	5	7	0



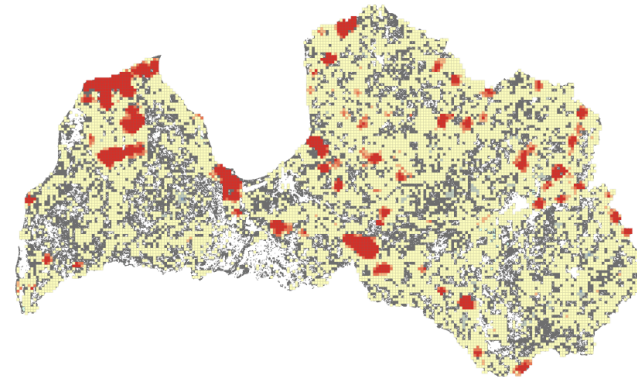
Wetland forest habitats (9080, 91E0, 91D0)

Threats



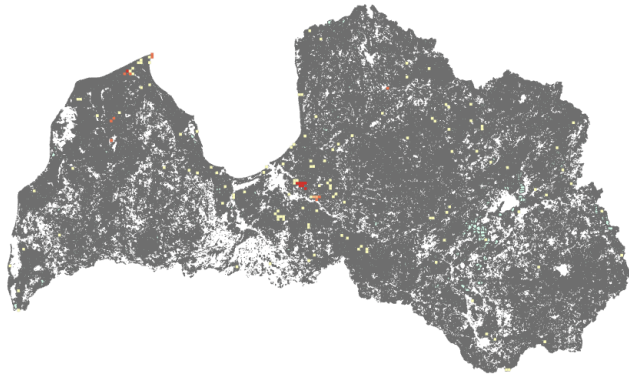
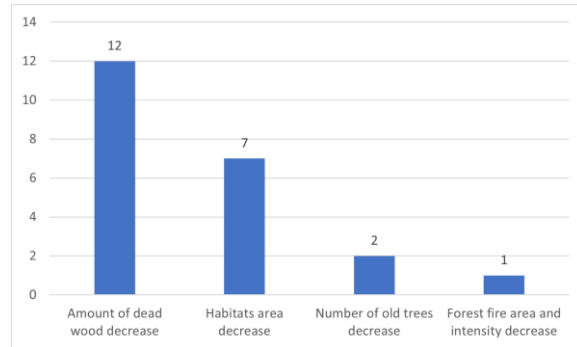
 Best management: habitat preservation.
Current area: 1238 km² FRA: 2451 km²

saproxylic beetles	LC	NT	VU	EN
Current	3	1	1	1
Future	4	0	2	0

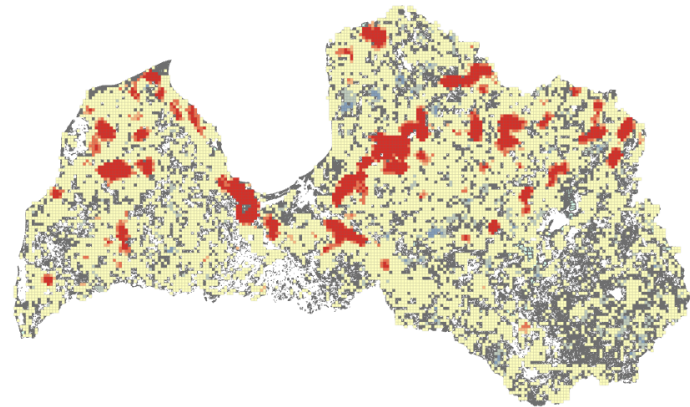


Boreal forests (9010, 9050)

Threats

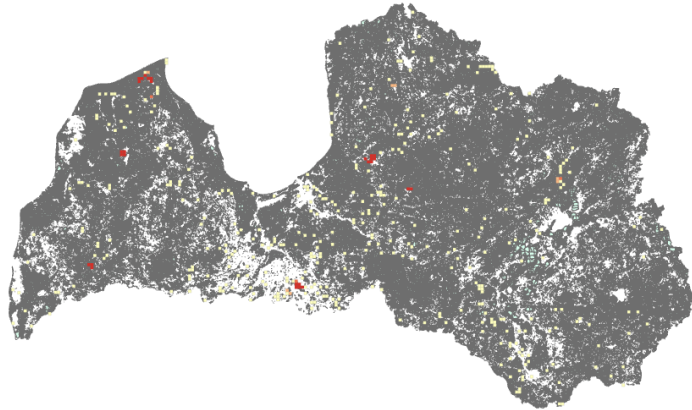
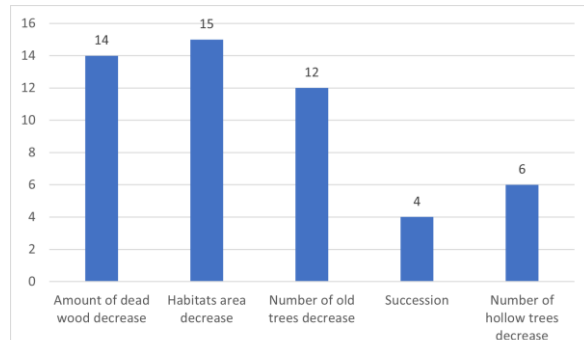


 Best management: habitat preservation.
Current area: 1173 km² FRA: 2456 km²

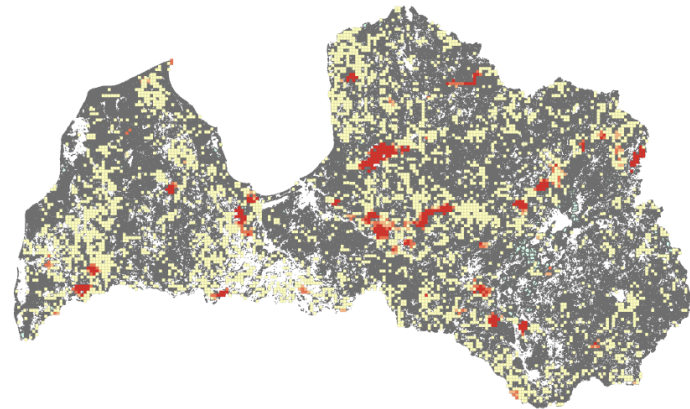


Broadleaf forests (9020, 9160, 9180, 91F0)

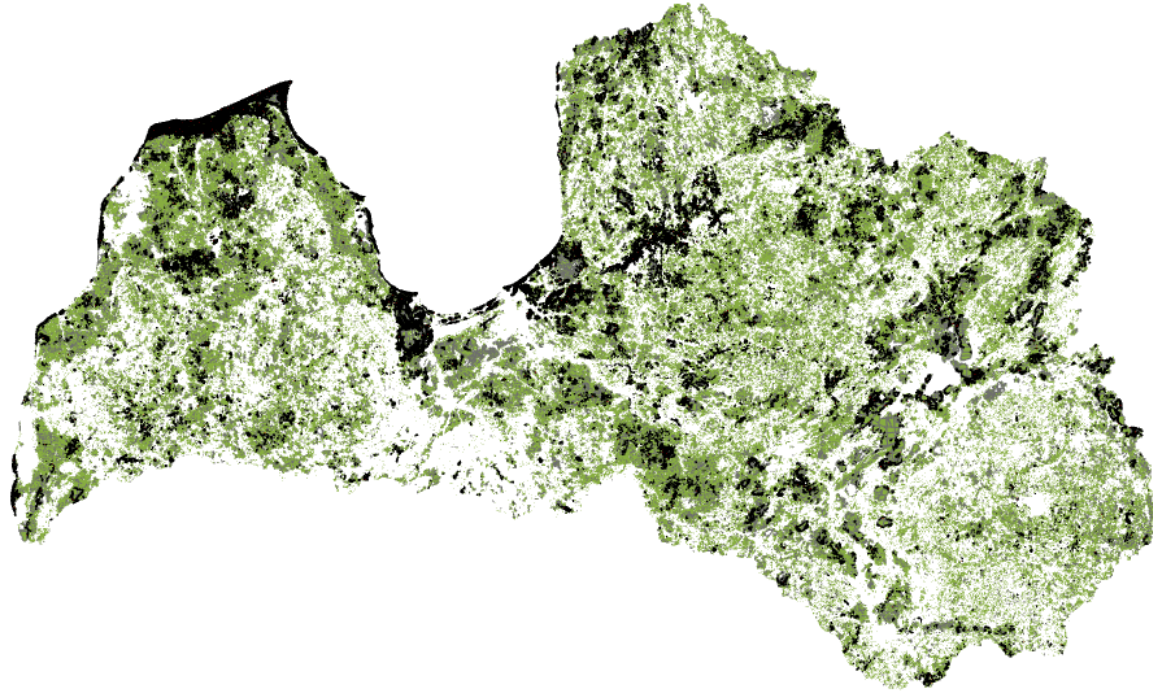
Threats



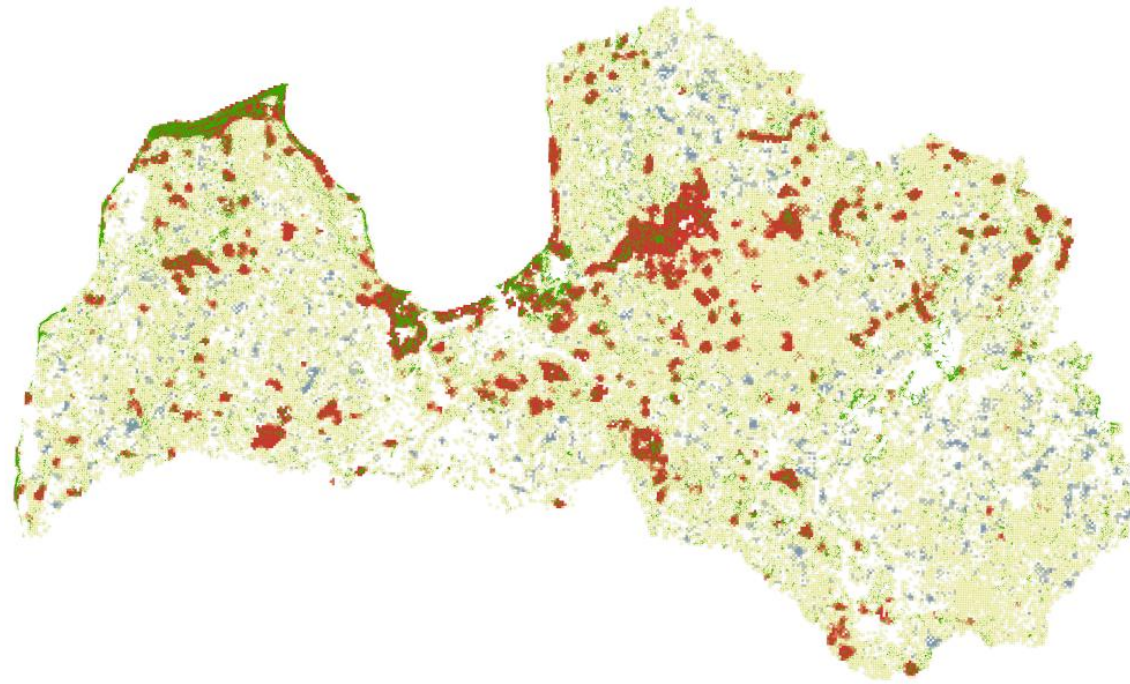
 Best management: habitat preservation.
Current area: 277 km² FRA: 609 km²



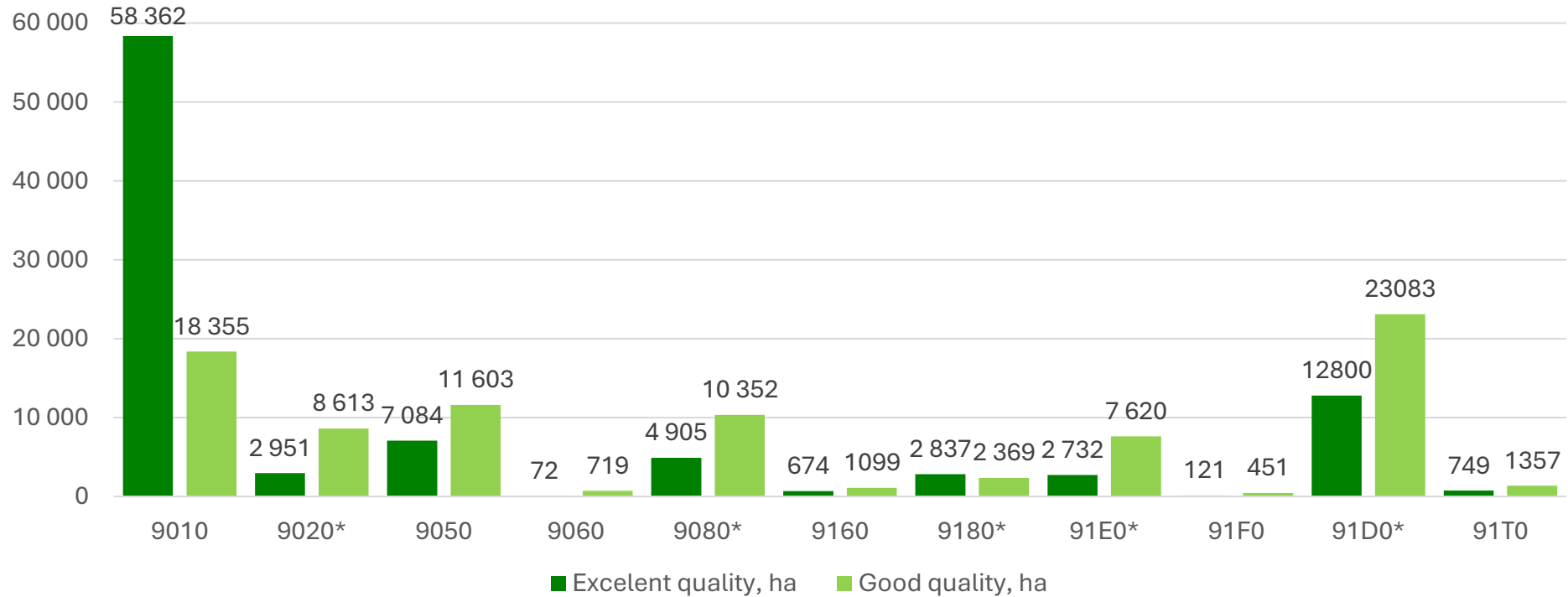
EU-importance forest habitats – hotspot areas

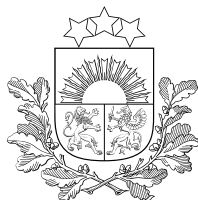


Woodland key habitats



How much?





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