

# What is EUFORGEN

Collaborative programme on forest genetic resources (FGR)

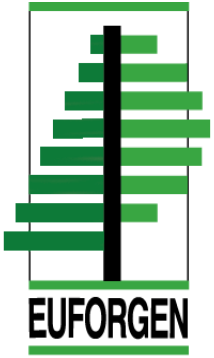
Financed by its member countries

Five-year Phases  
now Phase V 2015-19

Activities carried out  
on the basis of  
government-driven  
consensus





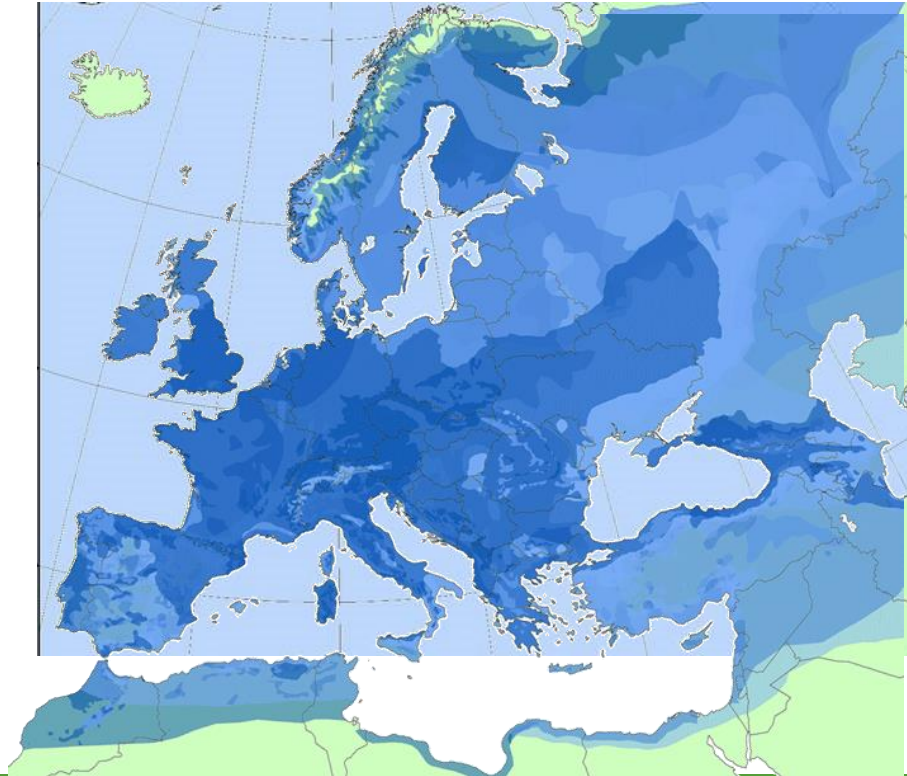


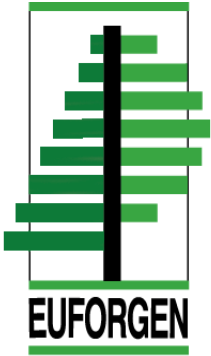
# Need for pan-European FGR conservation strategy

Genetic diversity varies within species ranges

Species do not restrict themselves to political borders

All countries where species occur need to take part in conservation



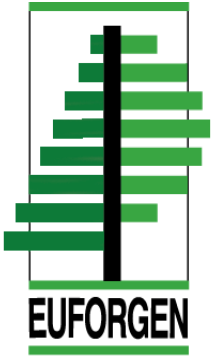


# Steps in developing the pan-European FGR conservation strategy



1. Identify conservation goals
2. Define minimum requirement
3. Collect data on existing national FGR inventories into a single information system
4. Identify suitable proxy
5. Identify gaps
6. Monitor progresses.





# 1. Identify conservation goals



Ultimate goal is the conservation of forest genetic resources at the level of the species distribution ranges through a network of genetic conservation units

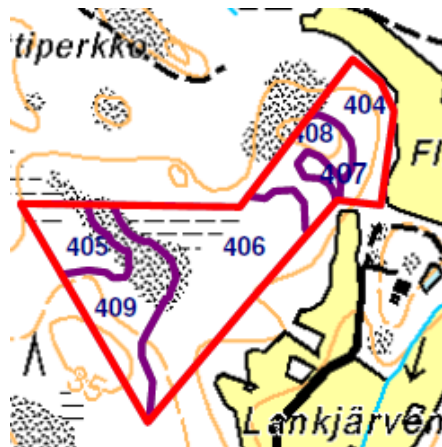


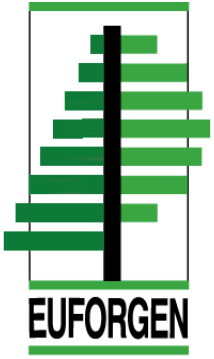
## 2. Define Minimum requirements

what is a **genetic conservation unit**

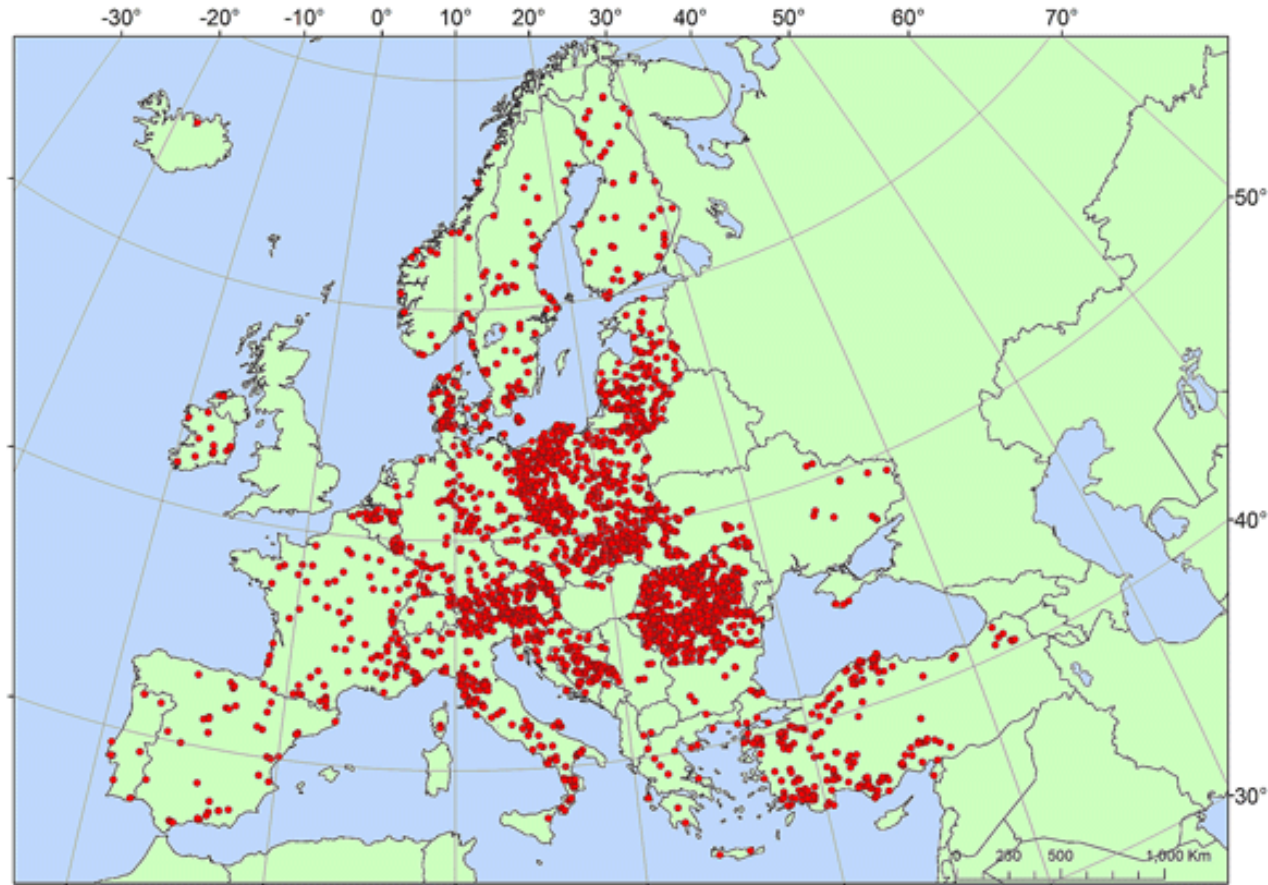
how **manage** for long-term conservation

**check list** for entering data in a common information system

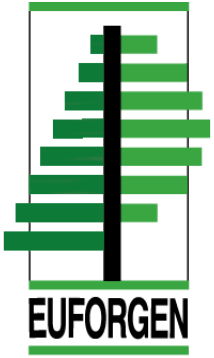




### 3. Collect data on existing national FGR inventories into a single information system





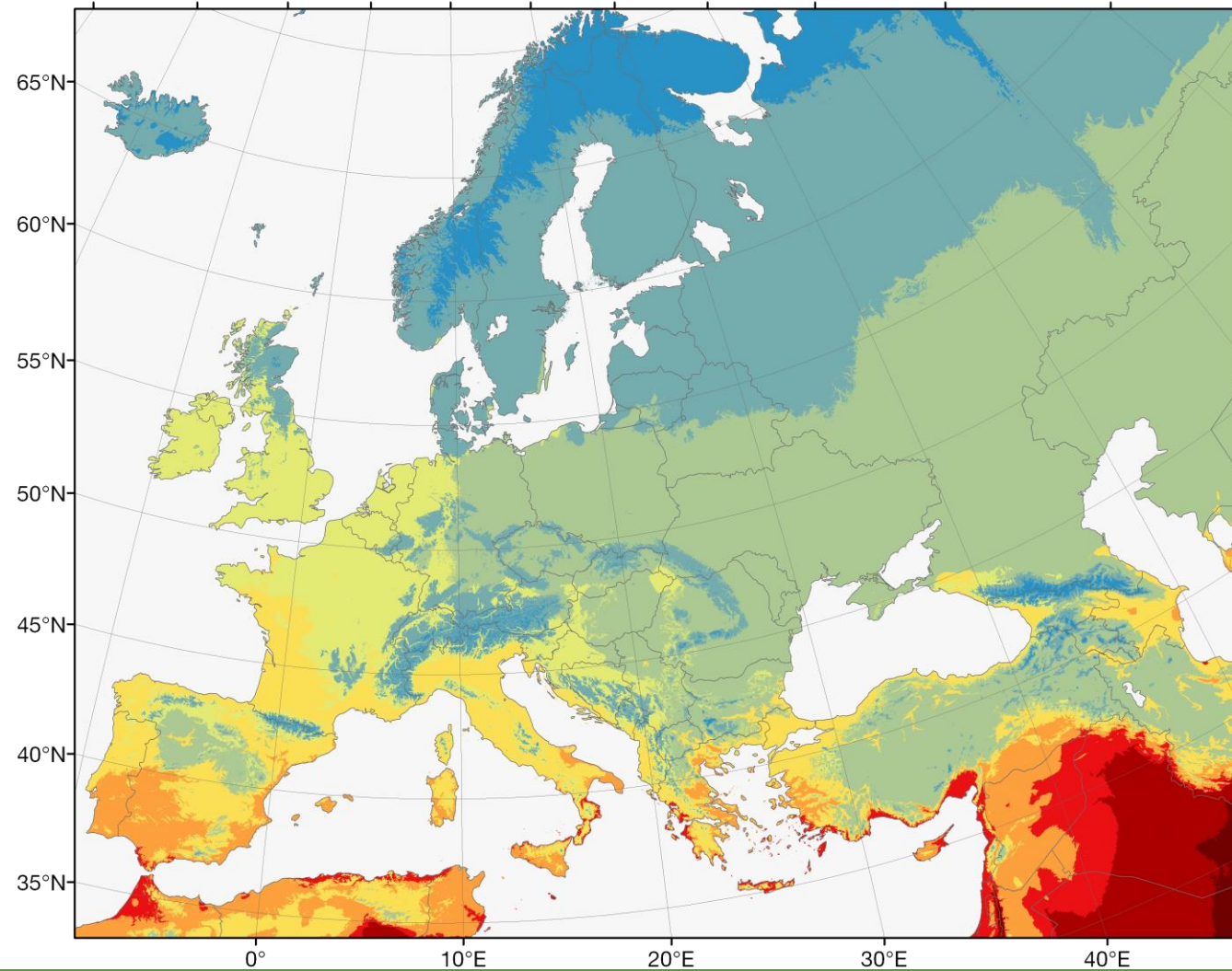
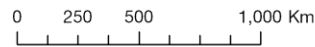


# 4. Identify suitable proxy



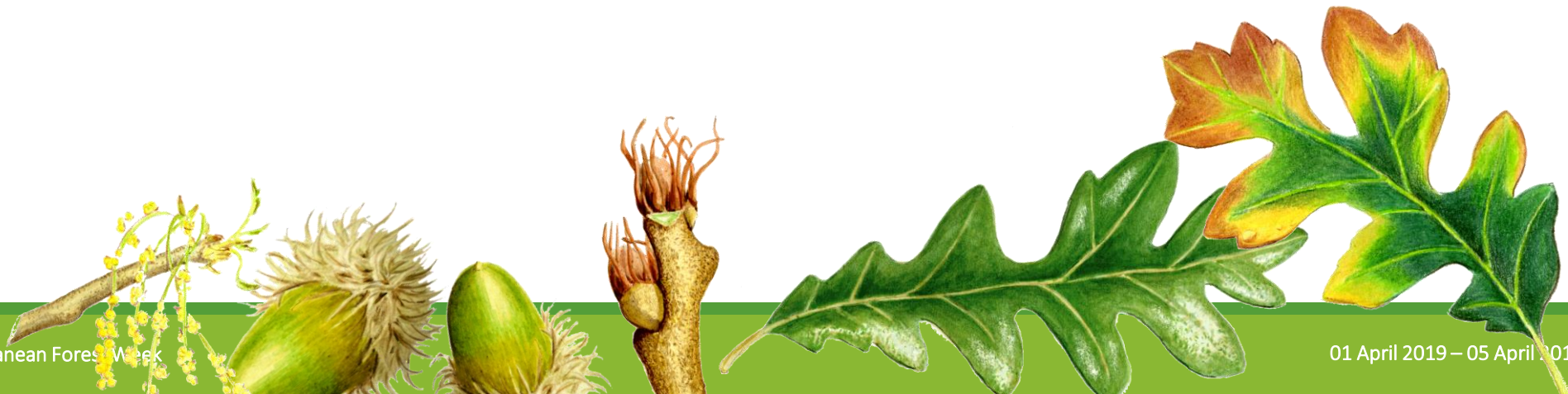
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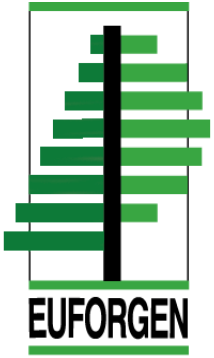
Aggregated environmental zoning of Europe (based on Metzger *et al.*, 2013)



# Steps in developing the pan-European FGR conservation strategy

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6. Monitor progresses



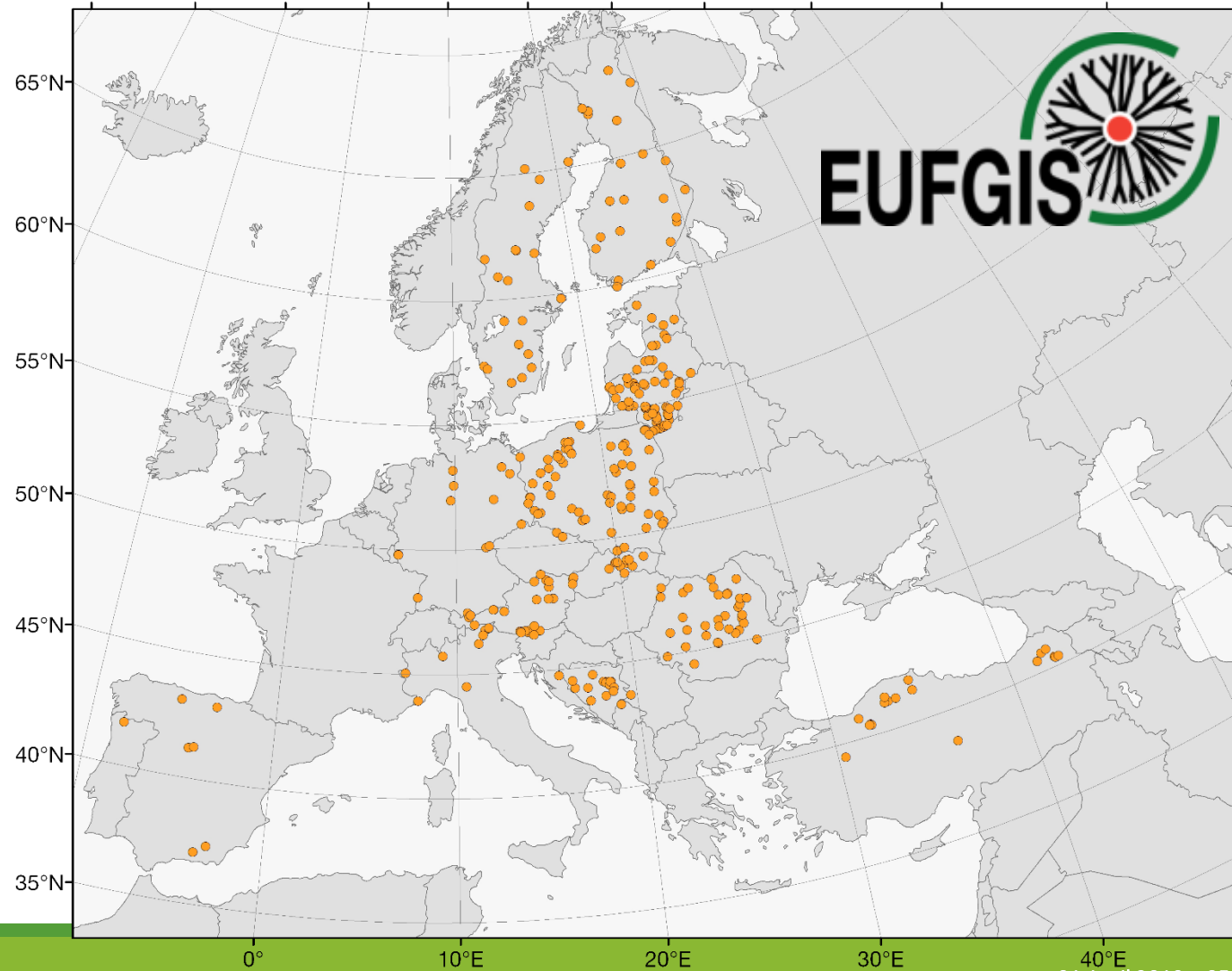


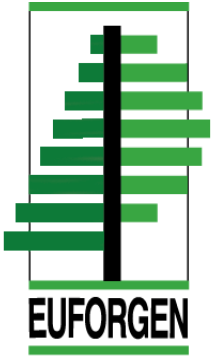
# *Pinus sylvestris*



VI MFW  
Mediterranean  
Forest Week

● *Pinus sylvestris*



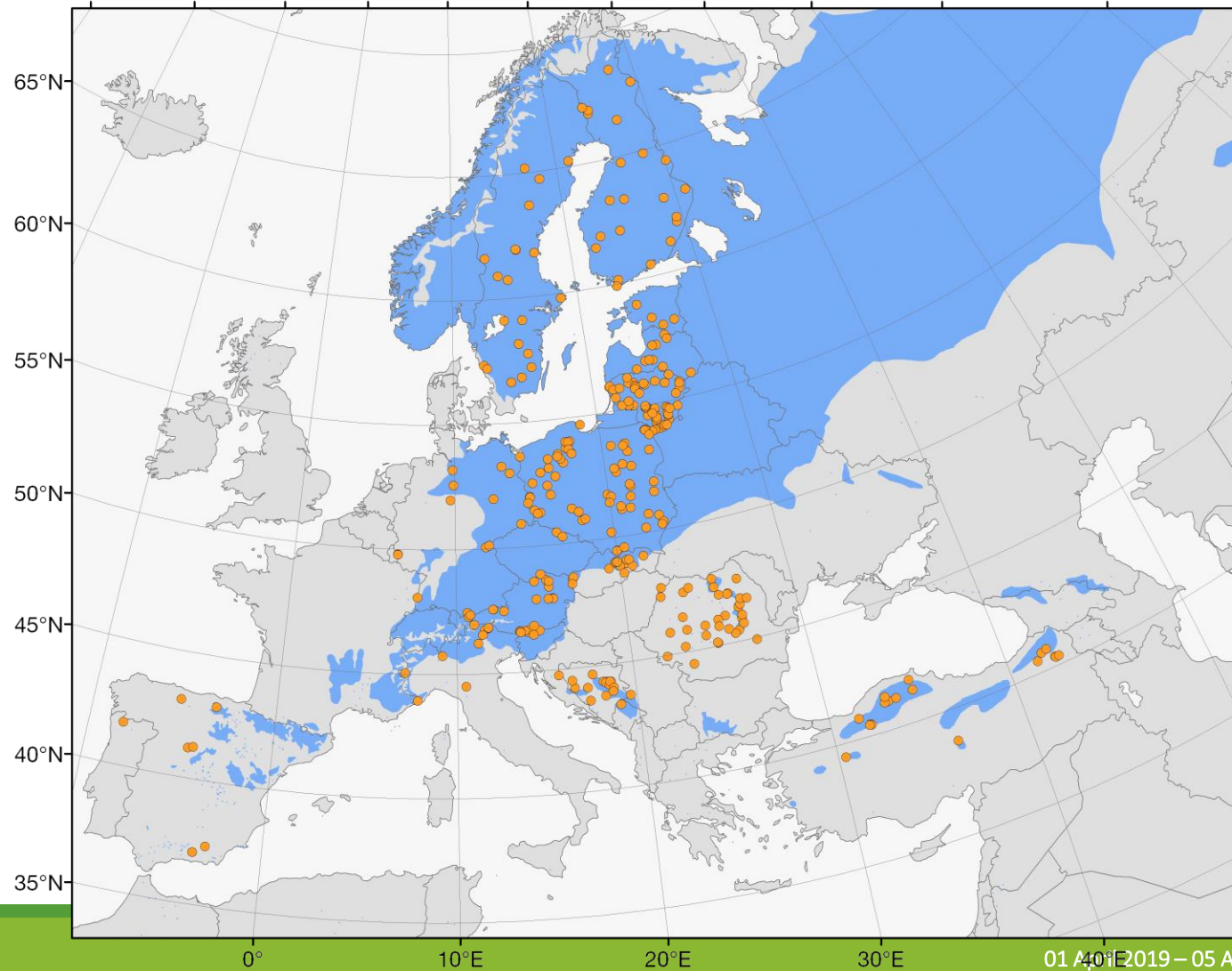


# *Pinus sylvestris*

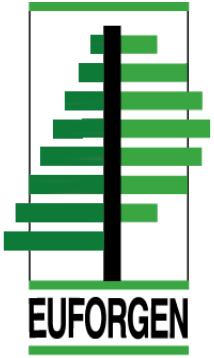


VI MFW  
Mediterranean  
Forest Week

- *Pinus sylvestris* GCU
- *Pinus sylvestris* range



0 250 500 1,000 Km

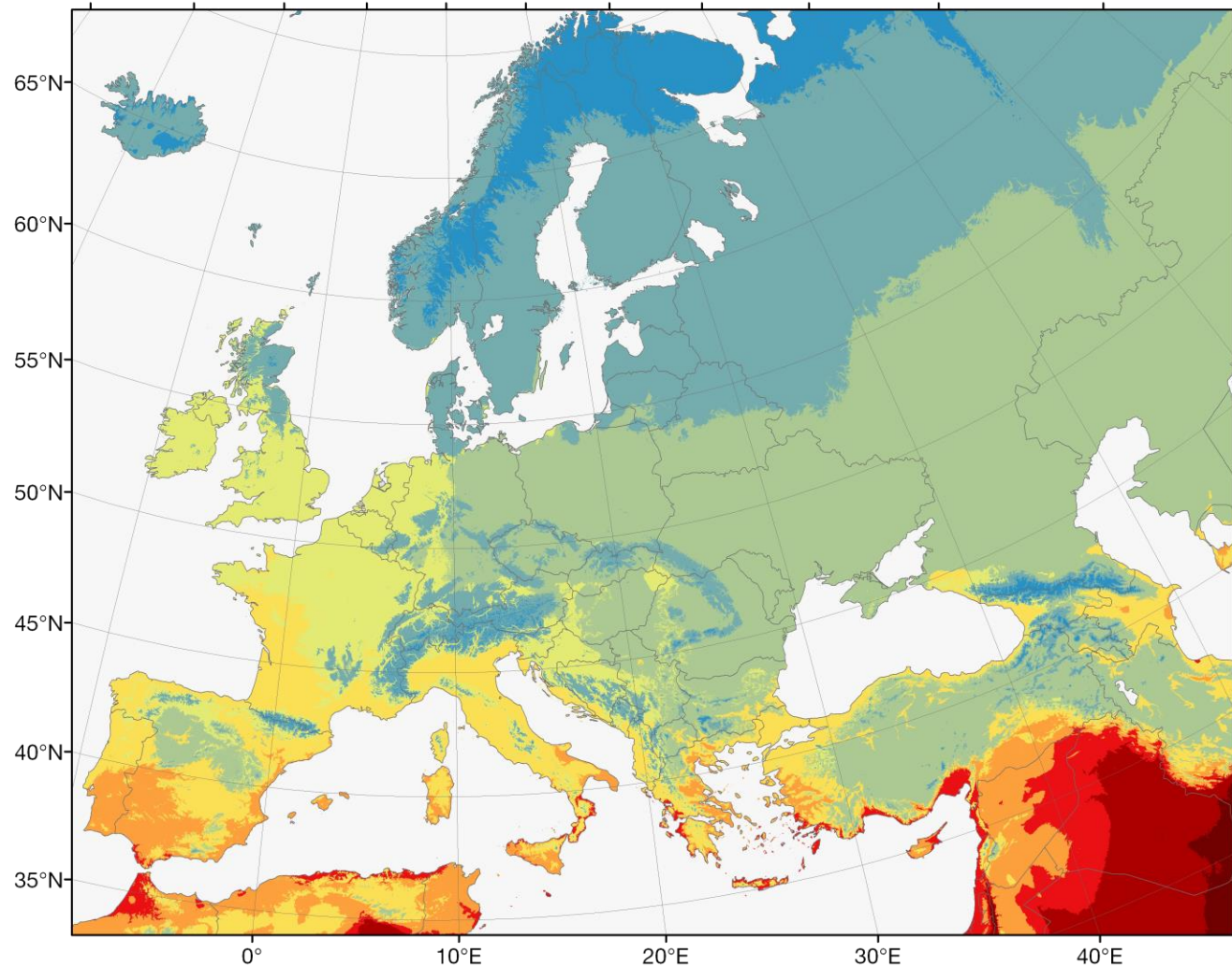


# climatic classification of Europe

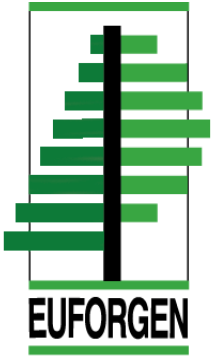
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Aggregated environmental zoning of Europe (based on Metzger *et al.*, 2013)

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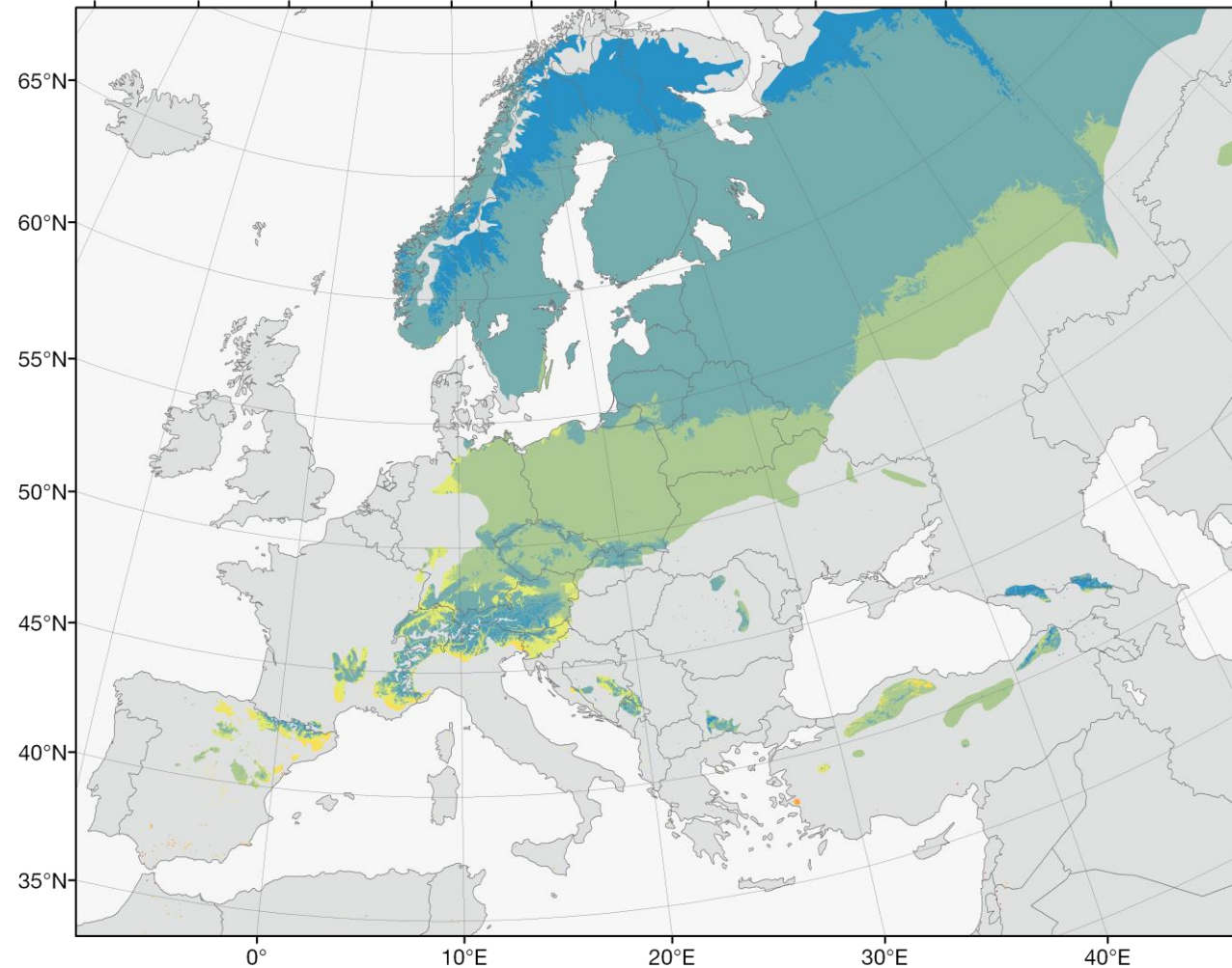
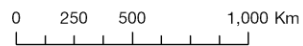
# *Pinus sylvestris* (Environmental classification)

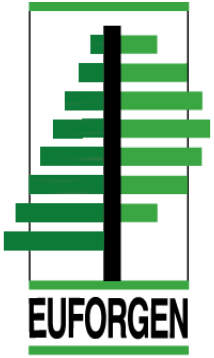


## *Pinus sylvestris*

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Aggregated environmental zoning of Europe (based on Metzger *et al.*, 2013)





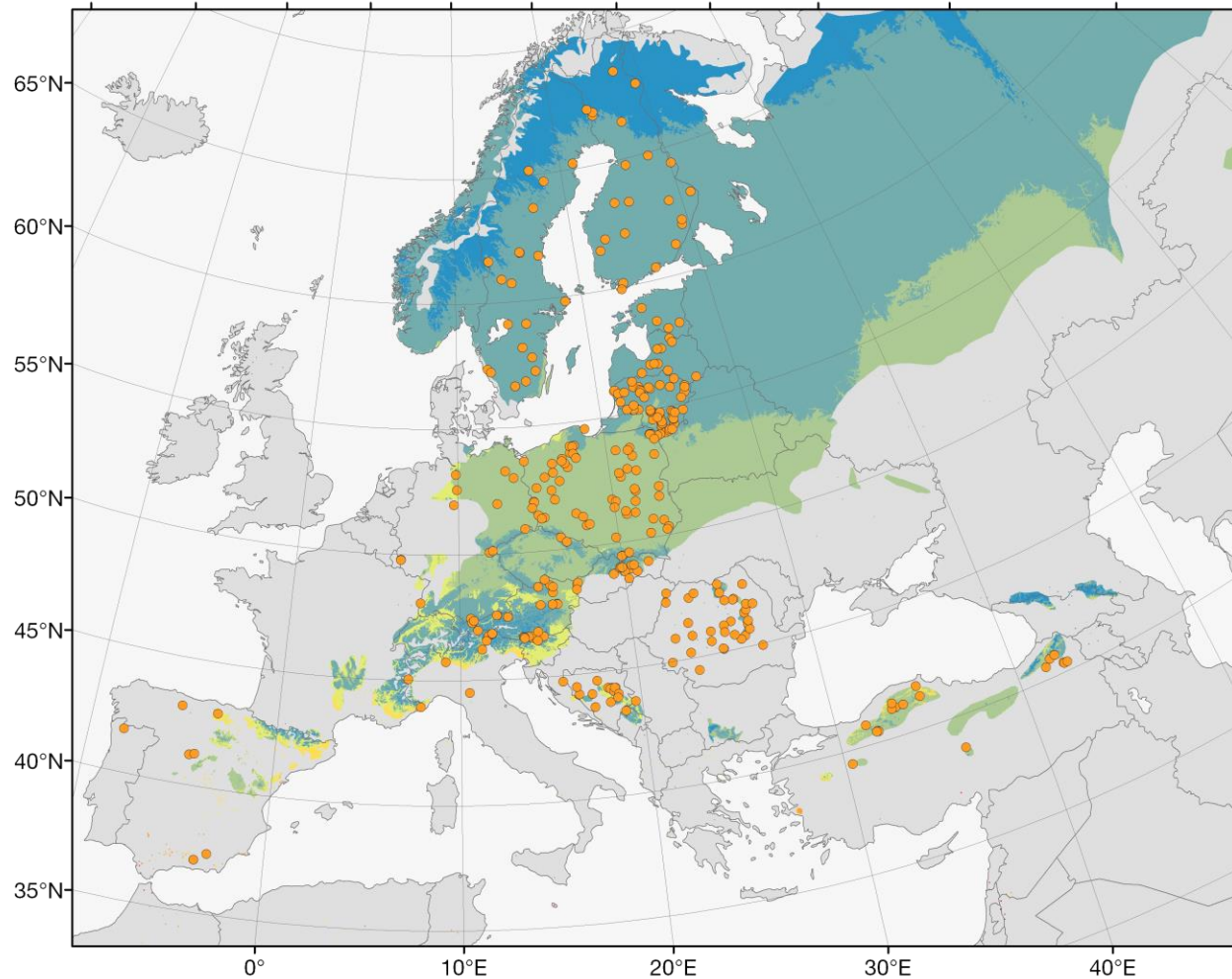
# *Pinus sylvestris* & genetic conservation units

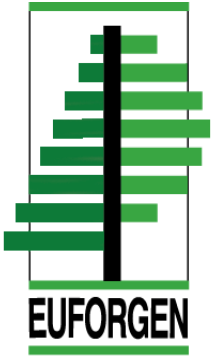


VI MFW  
Mediterranean  
Forest Week

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  - *Pinus sylvestris* GCU

0 250 500 1,000 Km



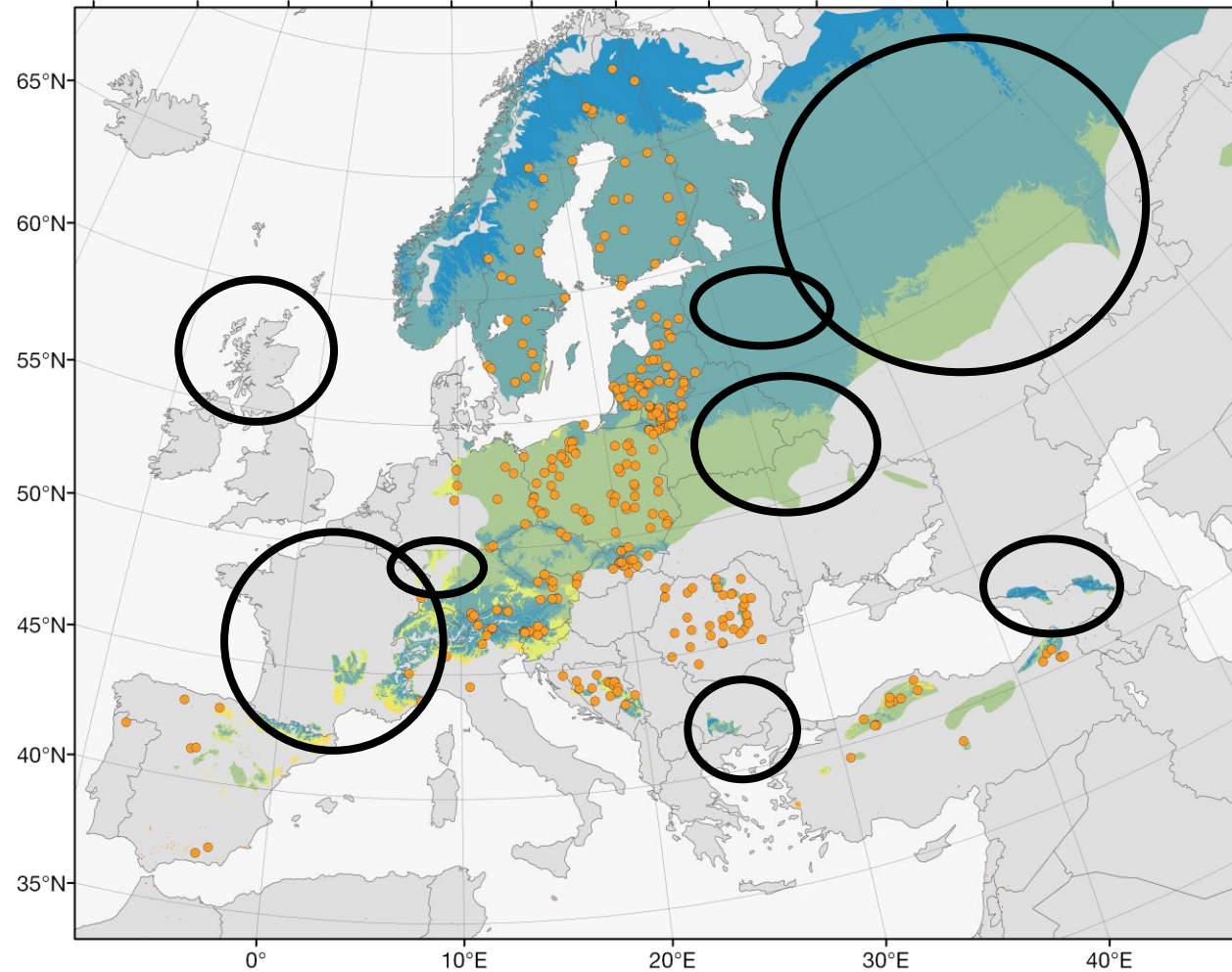


# 5 conservation gaps in *Pinus sylvestris*



- Pinus sylvestris***
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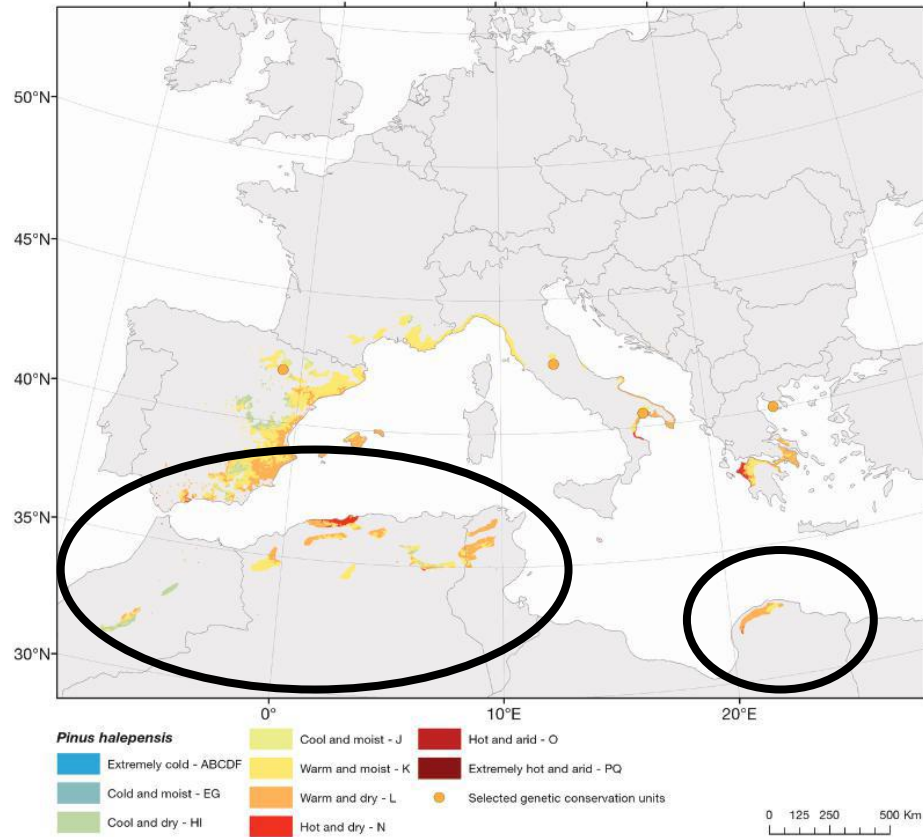




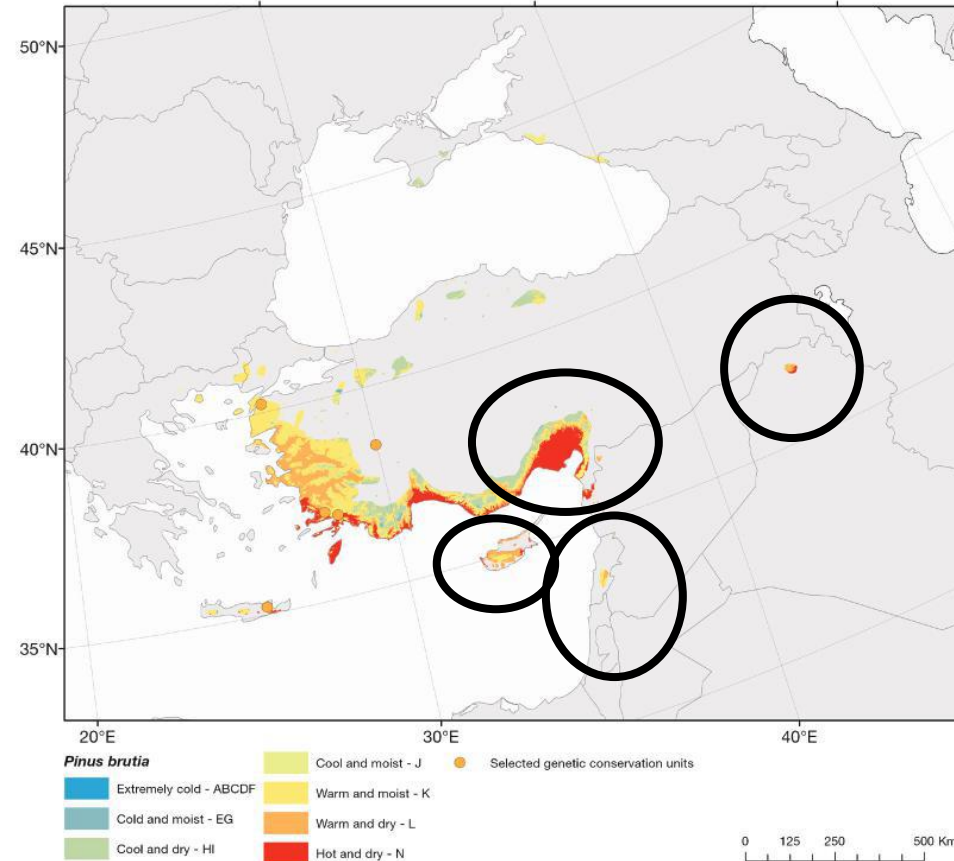


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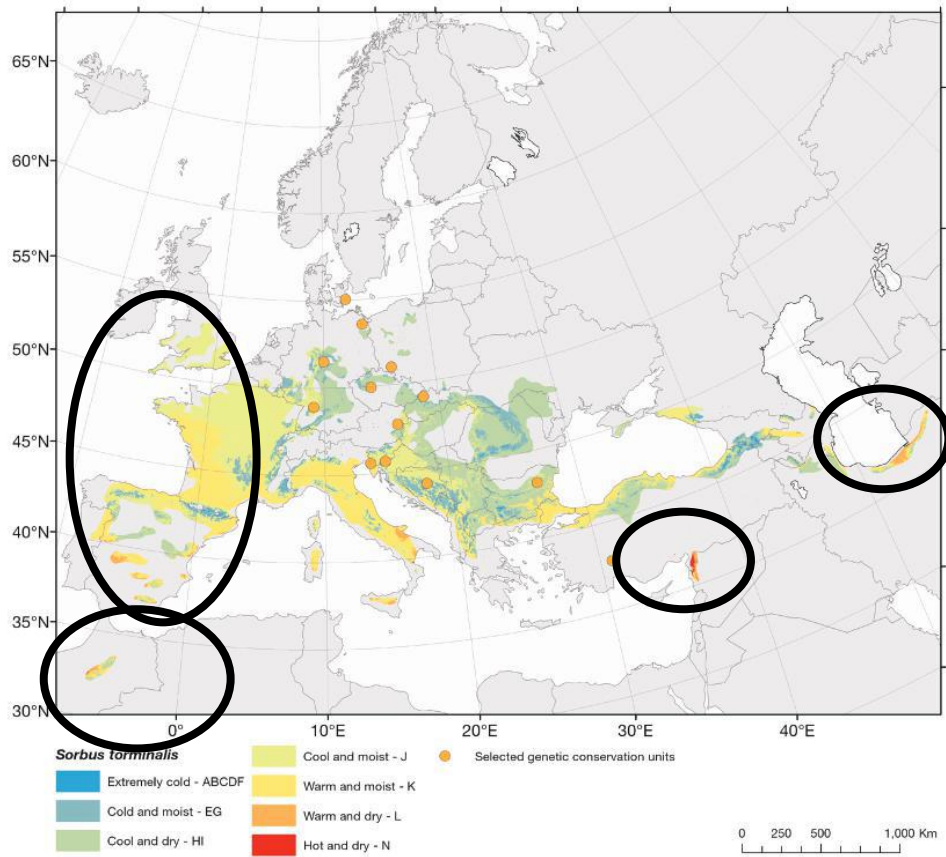
# *Pinus halepensis*



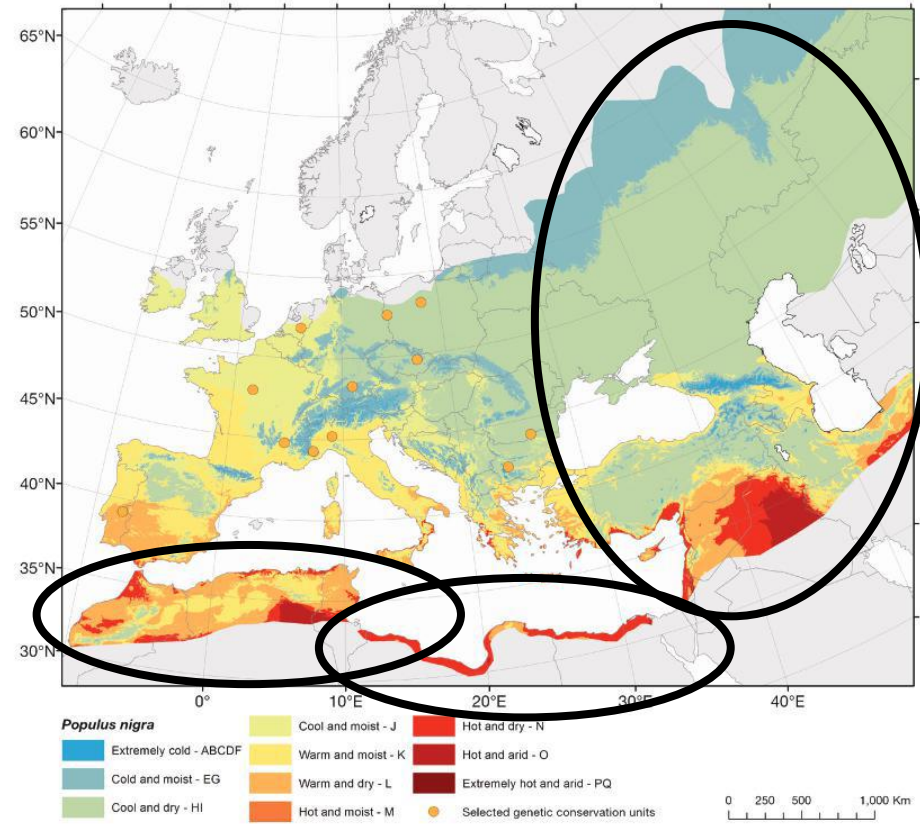
# *Pinus brutia*



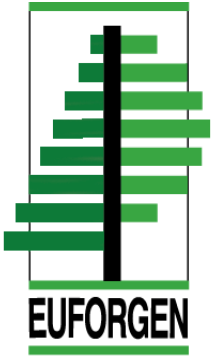
# *Sorbus torminalis*



# *Populus nigra*



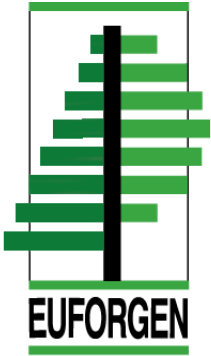
**VI MFW**  
Mediterranean  
Forest Week



# Pan-European strategy for genetic conservation of forest trees



[www.euforgen.org](http://www.euforgen.org)

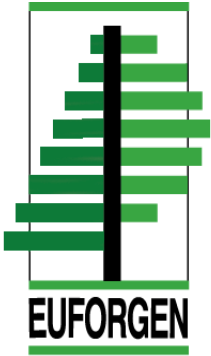


# 6 Monitor progresses



EUFORGEN developed a set of **four indicators** to monitor progress in conservation of FGR in Europe, based on the Pan European Strategy

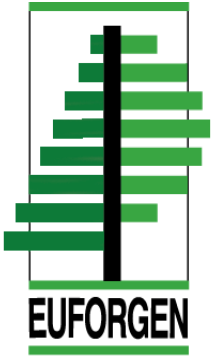




# Four indicators



- i. dynamic conservation of native populations
- ii. dynamic conservation of non-native populations
- iii. static *ex situ* conservation
- iv. Potential for production of Forest Reproductive Material



# i. dynamic conservation of native populations



four verifiers:

## conservation effort

*total nb of genetic conservation units established in the country*

## species diversity index

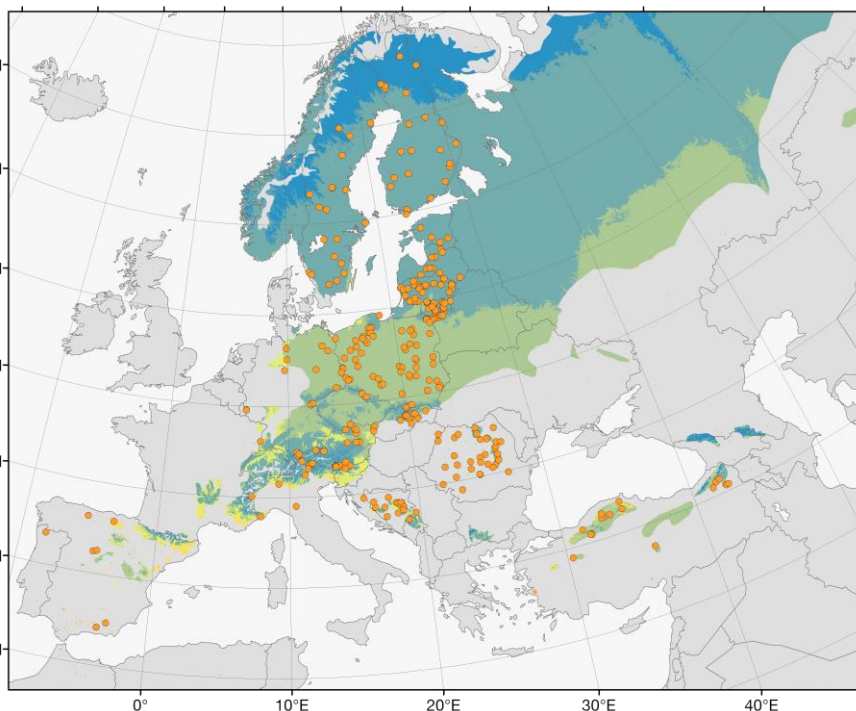
*nb of species conserved / nb of species within the country*

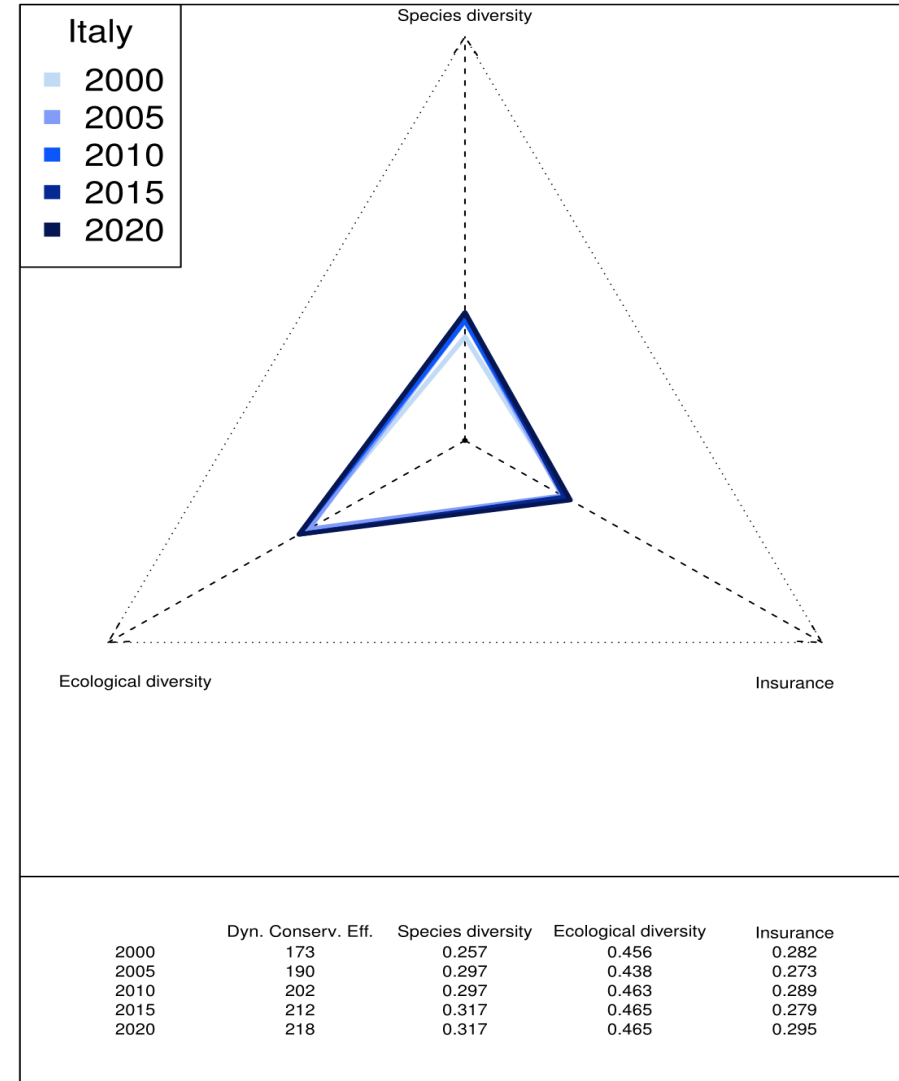
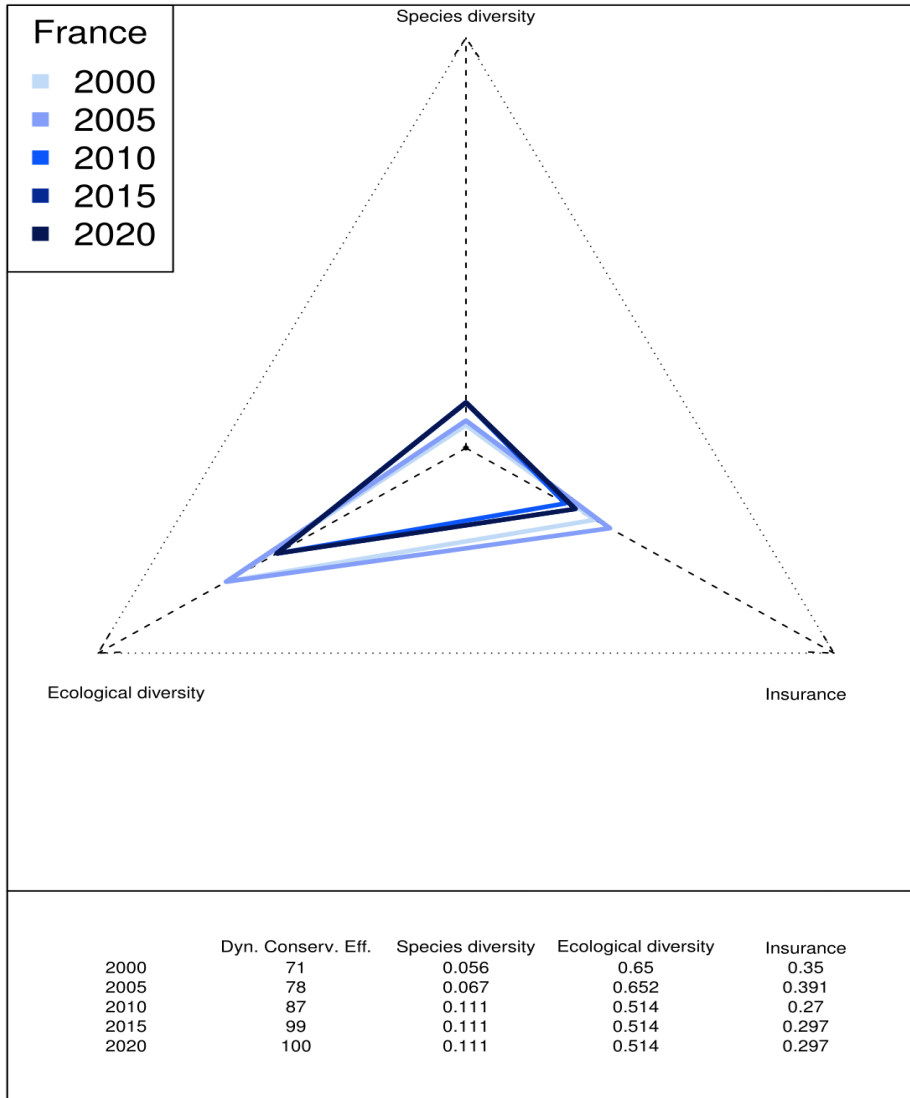
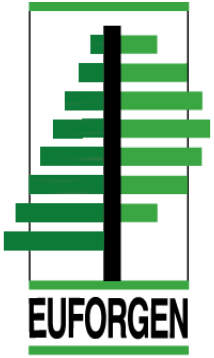
## 'ecotype' diversity index

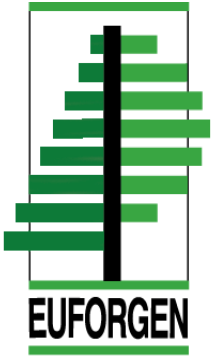
*nb of "ecotypes" conserved / nb of "ecotypes" within the country (summed over conserved species only)*

## insurance index

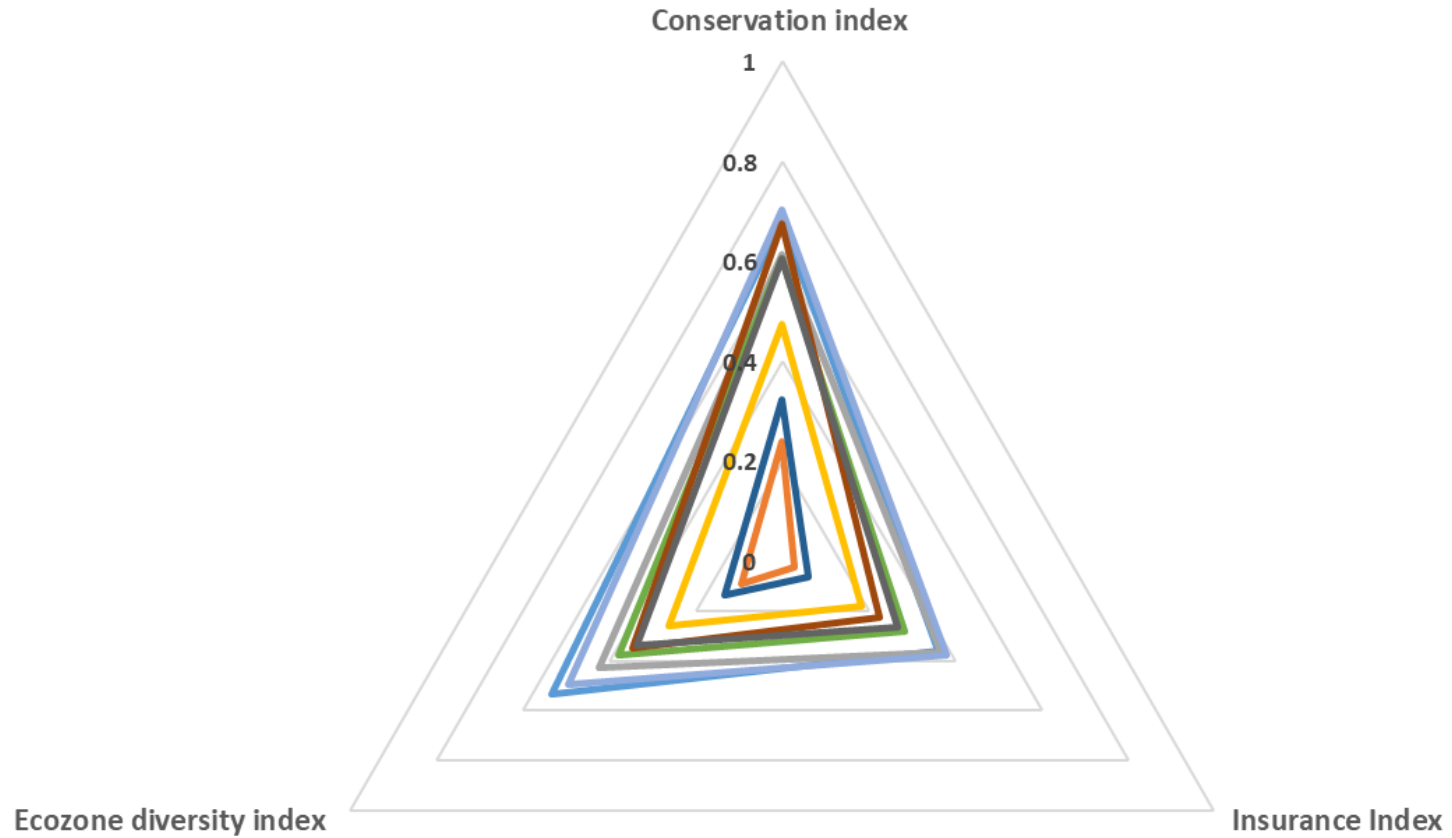
*nb of "ecotypes" conserved with a minimum nb of 2 units / nb of "ecotypes" occurring within the country (summed over conserved species only)*







- Abies alba (325)
- Castanea sativa (11)
- Fagus sylvatica (497)
- Fraxinus excelsior (115)
- Picea abies (648)
- Pinus sylvestris (377)
- Populus nigra (25)
- Quercus petraea (261)
- Quercus robur (334)







THANK YOU

*Michele.Bozzano@EFI.int*

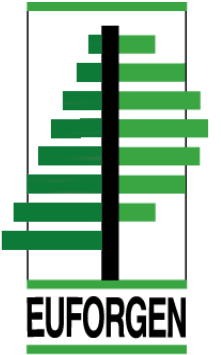
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