

A photograph of a dense woodland. The ground is covered in a thick layer of green moss and ferns, with some fallen brown leaves. The trees are mostly thin and have moss growing on their trunks and branches. The overall atmosphere is damp and verdant.

# The 'What, where and why' of native woodlands

A brief look at their classification and character

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# Surveys and Research in last 20 years

- **National Survey of Native Woodlands (NPWS and Forest Service) Perrin *et al.***
- BioForest/ForestBio (UCC)
- Native Woodland Scheme
- Woodlands of Ireland
- Vegetation Map of Europe (Bonn)
- Regular monitoring under EU Habitats Directive (NPWS)
- Preliminary survey of Ancient Woodlands (NPWS – Perrin *et al.*)
- Monitoring of permanent plots in KNP (D. Kelly)
- Research on Scot's Pine
- Coillte LIFE Projects



# Map of the natural vegetation of Europe

A detailed map of Europe and its surrounding regions, including parts of North Africa, the Middle East, and Iceland. The map is color-coded to show different natural vegetation zones. The northernmost regions are colored in shades of purple and pink, representing boreal forests. The central and western parts of Europe are dominated by green and yellow-green, indicating temperate deciduous forests. The southern part of Europe, particularly the Mediterranean basin, is colored in shades of orange and red, representing Mediterranean scrublands. The map also shows major geographical features like the Atlantic Ocean, North Sea, Baltic Sea, and Mediterranean Sea. A small inset map in the top right corner shows the location of Europe within the context of the world's continents.

Mesophytic deciduous broadleaf forests

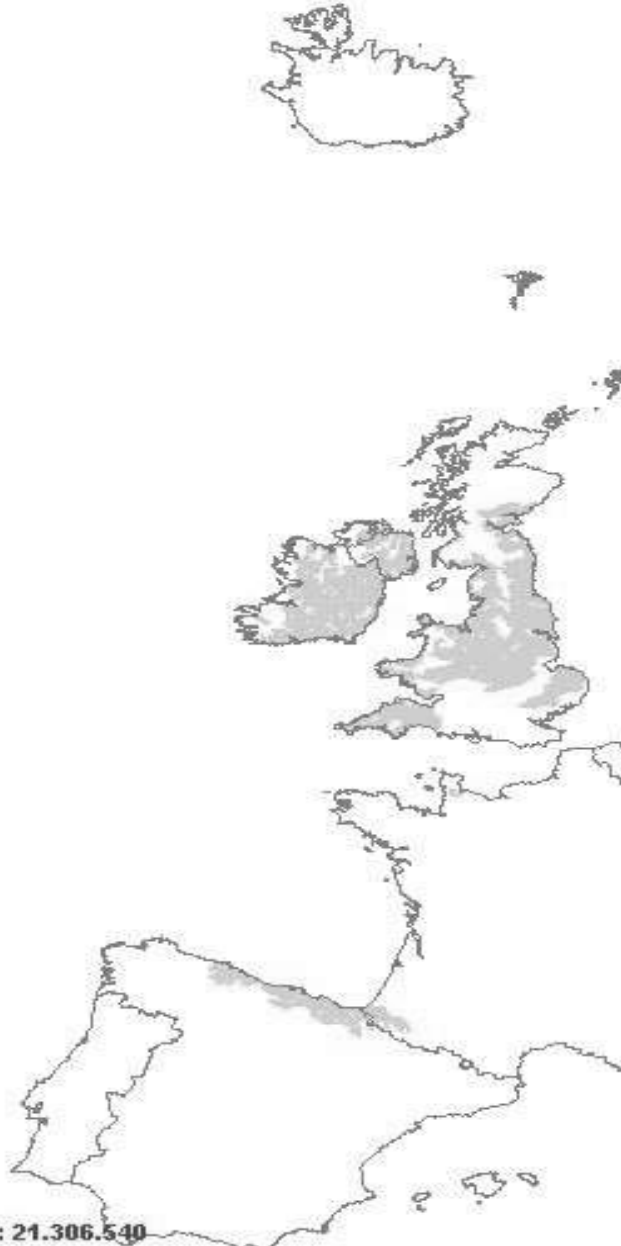
Forests of oak, ash, alder, birch (and beech)

Global  
significance



# Ash woodlands and bluebells in Europe

F2



TAXON 59 (1) • January 2010, 68–82

Crundwell & al. • Phylogeny and taxonomy of *Hyacinthoides*

the Iberian Peninsula and southern, western Europe. Finally, we have attempted to infer biogeographical patterns and establish a robust hypothesis describing the diversification of these beautiful plants in the western Mediterranean region.

Such work on bluebells will contribute to the understanding of the evolution of the western Mediterranean vegetation, in particular the evolution of vegetation in the western Iberian Peninsula.

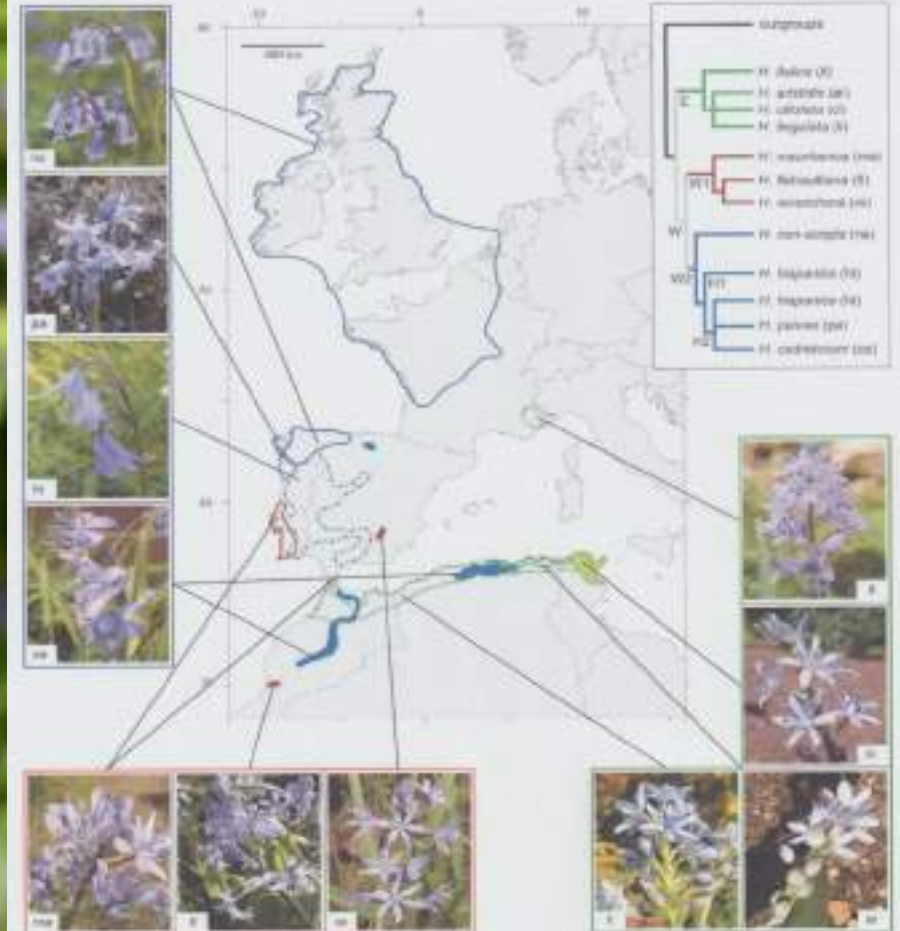


Fig. 5. Geographical distribution, flower variation and simplified phylogeny of *Hyacinthoides* species. The light blue area in northern Spain indicates the distribution area of the unclassified specimens. Figures 6a and 6b kindly provided by John T. Loewen, [www.edgeworksolutions.com](http://www.edgeworksolutions.com).



# Principal Native Woodland Types

(based on 1320 relevés - Perrin *et al*)

- Sessile oak – Woodrush (3 sub-types)
- Ash – Ivy (6 sub-types)
- Alder-Meadowsweet (5 sub-types)
- Birch- Purple moor-grass (6 sub-types)
- Minor types – yew, willow



# What determines the distribution and character of our native woodlands?

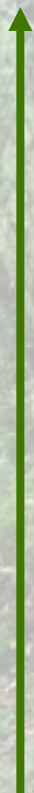
1. Climate: mild and moist
  - W-E rainfall gradient
  - NE-SW temperature gradient
  - Altitudinal gradient
2. Soils
  - Acidic-non-acidic
  - Dry-wet
3. Hydrology: important in determining distribution of alluvial and other wetland woods
4. Human activity – explains some of the variation in character



# Schematic distribution of woodland types

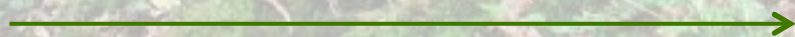
(based National Survey of Native Woodlands)

Non-acidic



Acidic

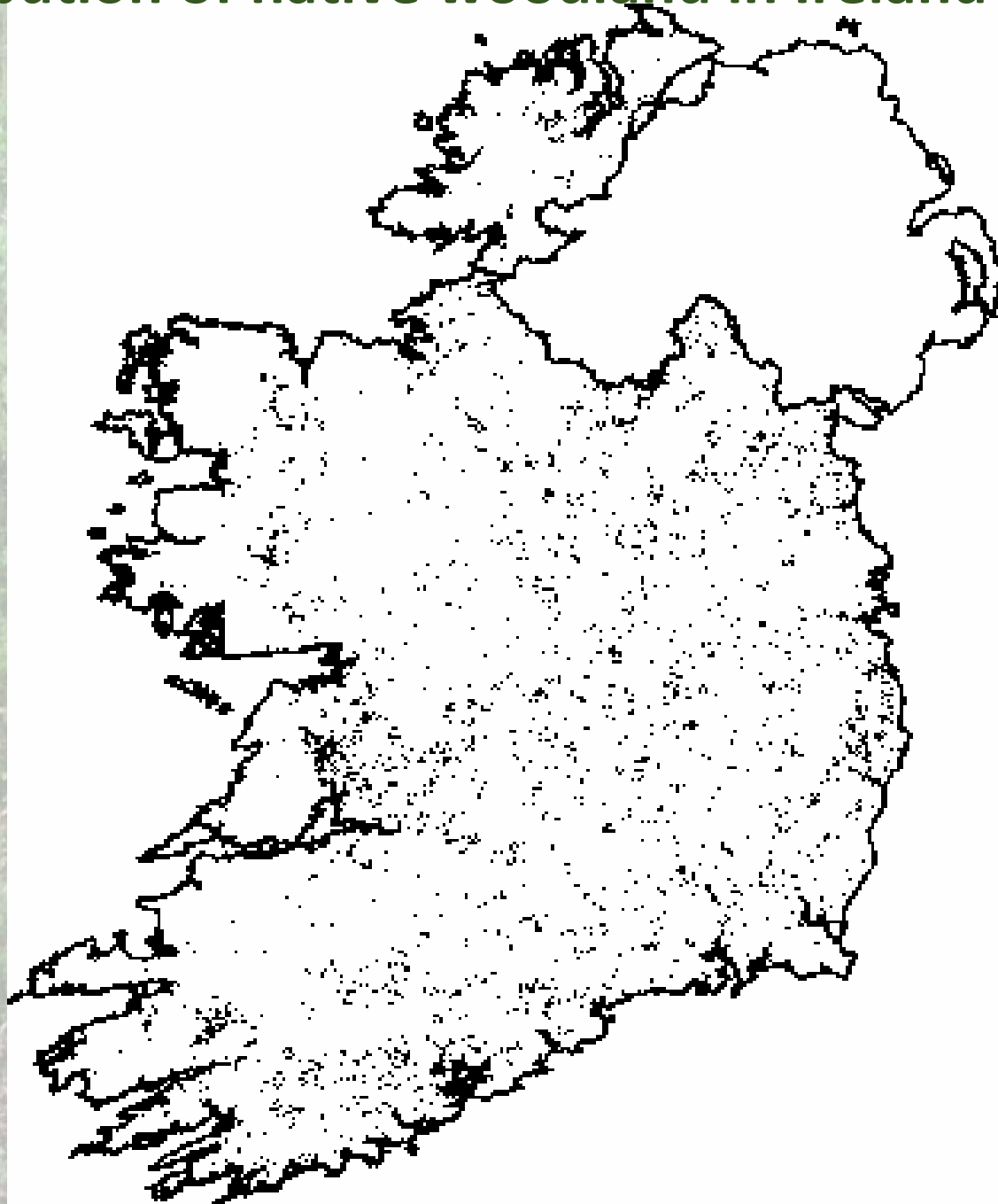
Dry



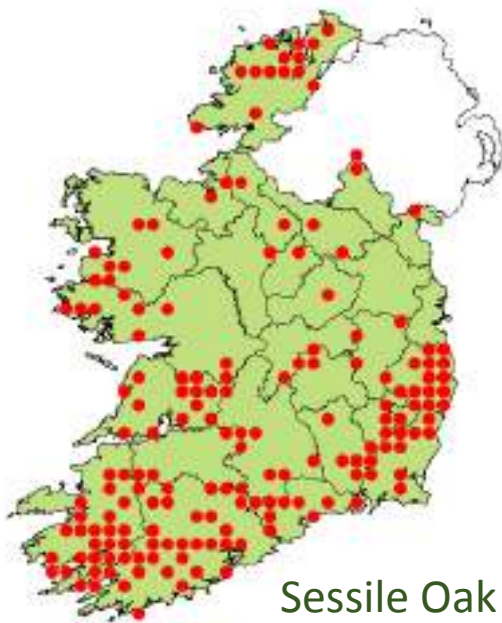
Wet



# Distribution of native woodland in Ireland (Republic)





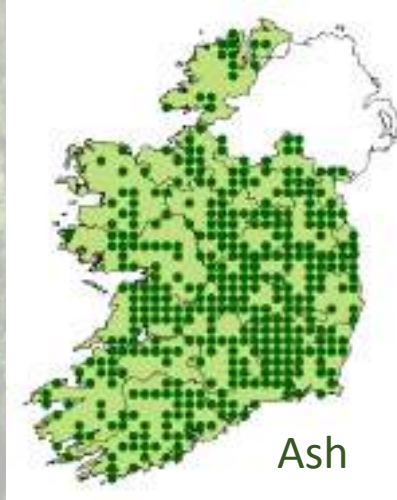


Sessile Oak

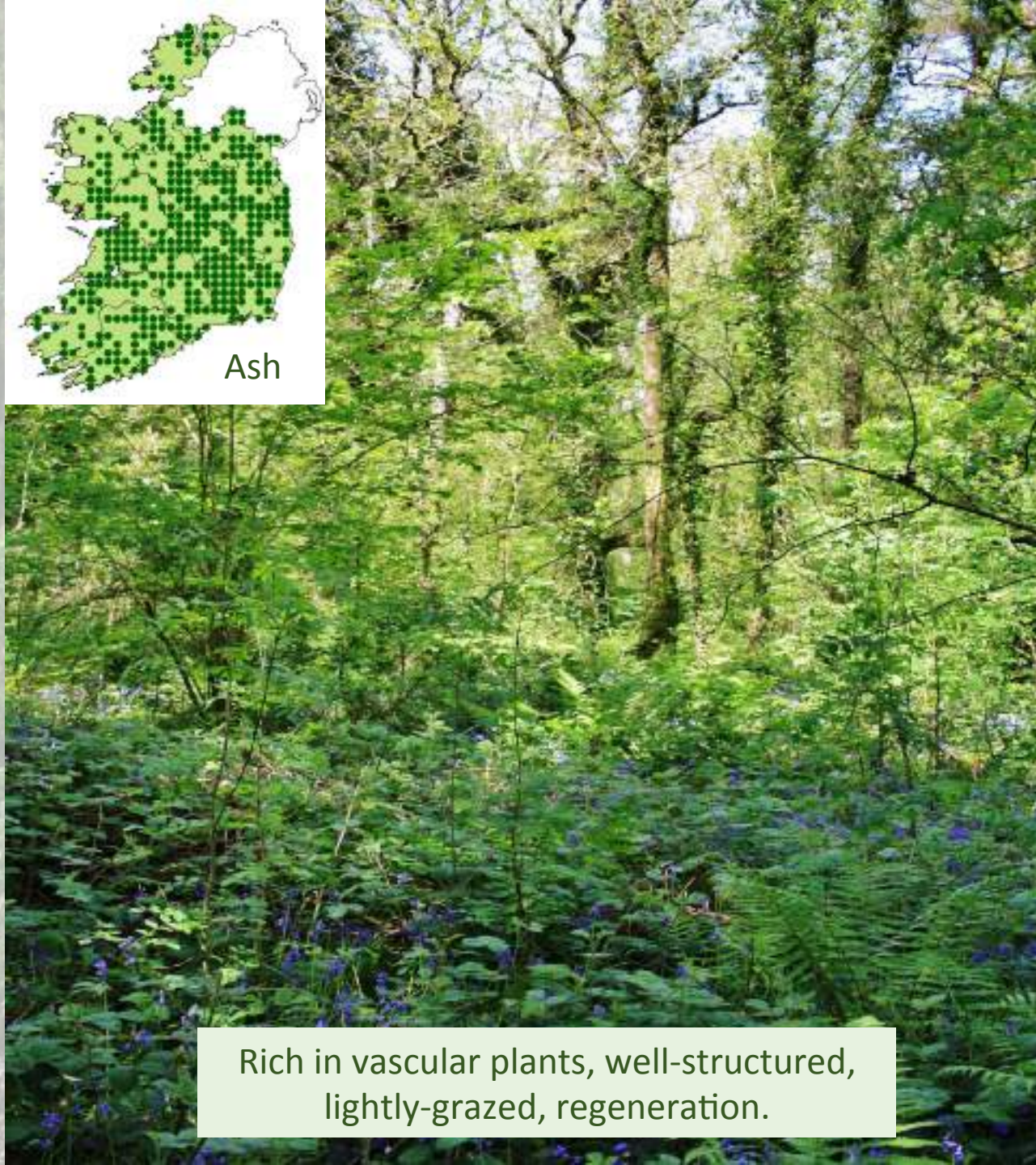


Poor in vascular plants, rich in bryophytes and lichens,  
mono-specific, even-aged, overgrazed.



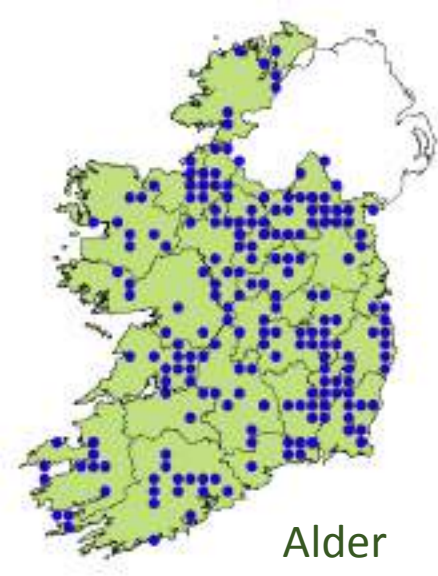


Ash



Rich in vascular plants, well-structured,  
lightly-grazed, regeneration.



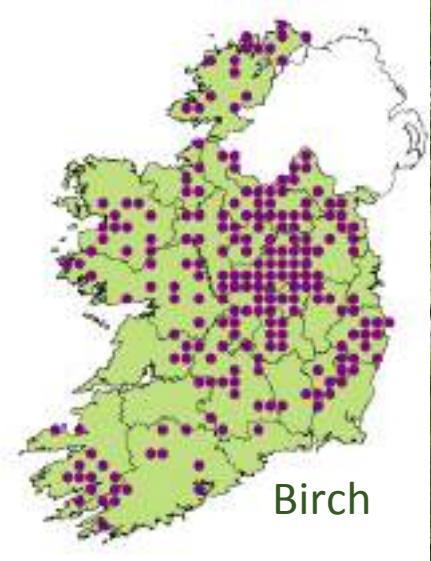


Alder



Species-rich, unmanaged, ungrazed, dead and fallen timber. Hydrologically important.





Birch



Species-poor, uniform, even-aged, ungrazed.




# What are the practical implications of this knowledge?

## **Informs management**

- Structural and species-diversification, e.g. felling, coppicing
- Control of grazing
- Encouraging regeneration
- Removal of non-native (and sometimes invasive) species
- Dead and decaying wood
- Ancient woodlands

## **New Woodlands**



A photograph of a dense forest with many trees and green undergrowth. The trees are mostly thin and have green leaves. The ground is covered with fallen leaves and moss. The overall scene is lush and green.

This information provides a basis for current and future woodland management for biodiversity, timber and other products.

**Thank you for your attention**