# The condition of protected woodlands in Northern Ireland; threats and pressures

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DAERA

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***Sustainability*** *at the heart of a living, working, active landscape valued by everyone.*

NIEA Northern Ireland Environment Agency
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# Presentation Content

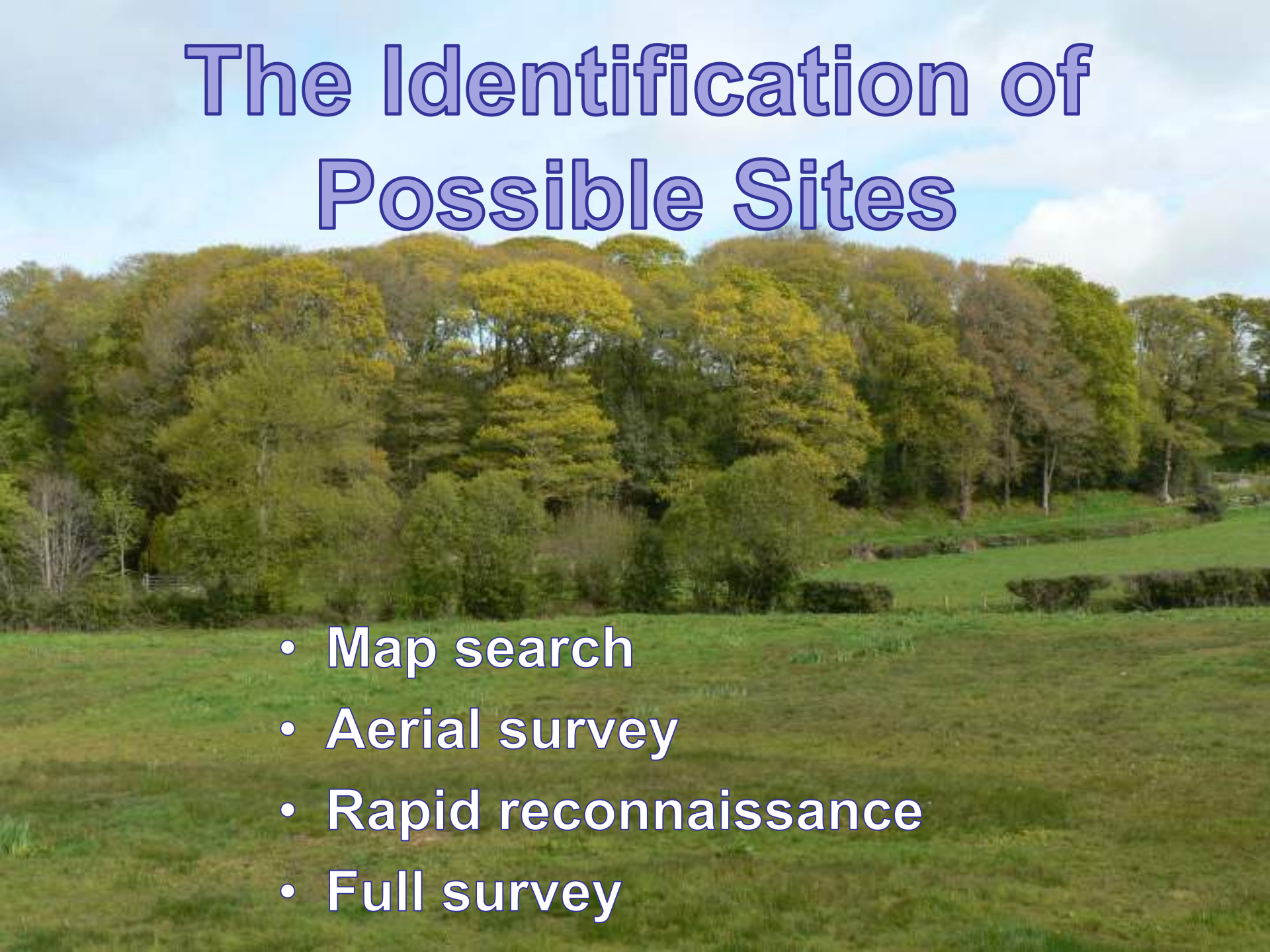
- Protected woodlands in Northern Ireland
- 22 years of assessing their condition
- What we found and what we did
- What we have learnt – be flexible and adapt to changes in knowledge and pressures
- Future threats and the unknown!

# Areas of Special Scientific Interest (ASSIs) Aims of designation

- Protect the top-quality sites for nature conservation

- Include an adequate representation of the range of woodland habitats and their most vulnerable/threatened features

# The Identification of Possible Sites



- Map search
- Aerial survey
- Rapid reconnaissance
- Full survey

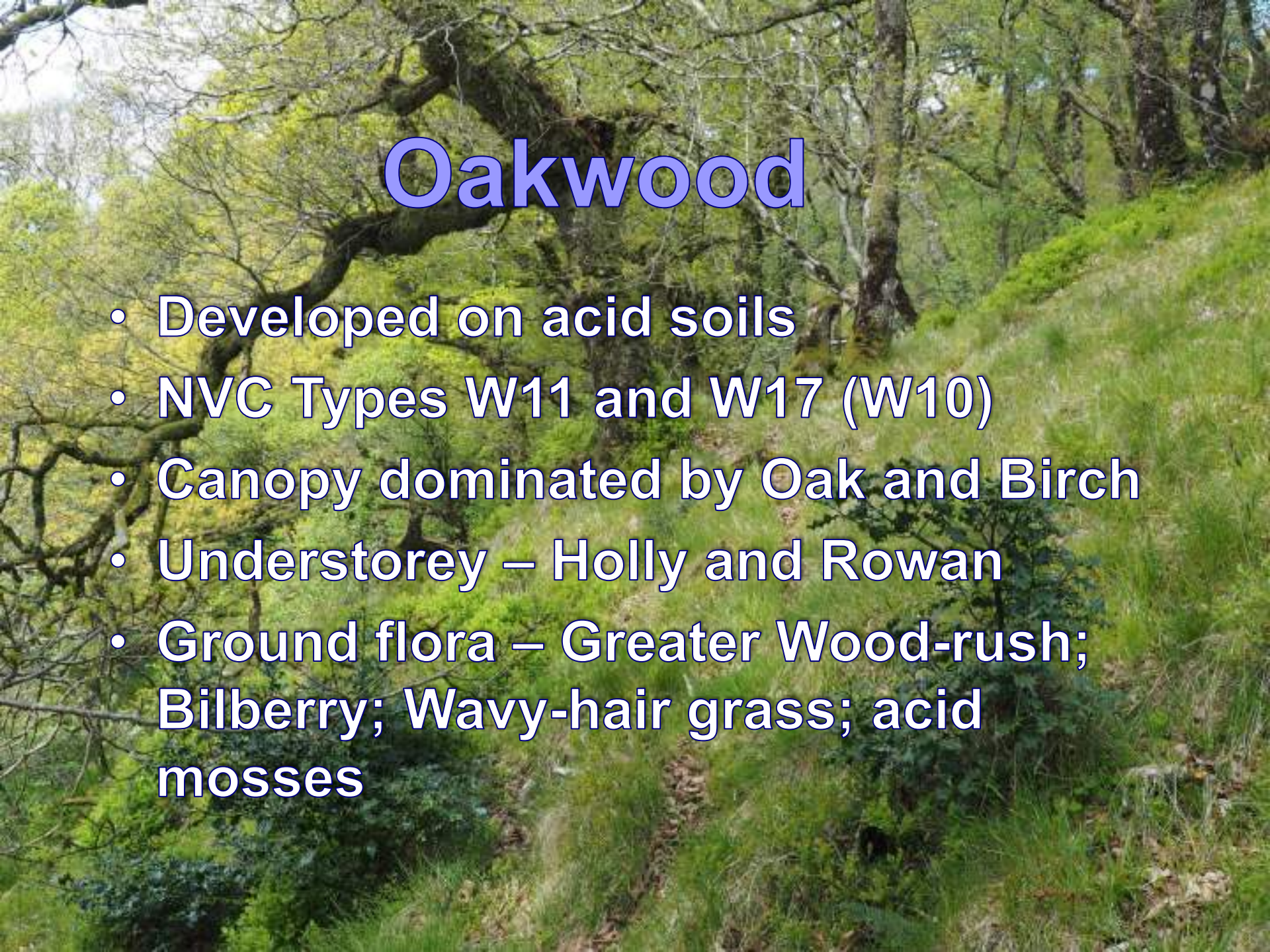
NORTHERN IRELAND WOODLAND ASSESSMENT TABLE

**SUMMARY TABLE FOR SPERRIN WOODS**

| NAME | STATUS | SIZE AREA | SIZE SCORE | SPECIES INDIC | RARITY SCORE | POSITIVE WOODLAND ATTRIBUTES: COMMUNITY DIVERSITY | HABITAT DIVERSITY | STRUCTURAL DIVERSITY | POSITIVE SCORE | NEGATIVE ATTRIBUTES: EXOTICS | DISTURBANCE | NEGATIVE SCORE | TOTAL SCORE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Banagher Glen | ASSI/cSAC | 74.8 | 24 | 111 | 3 | 20 | 11 | 15 | 184 | -6 | -12 | -18 | 166 |
| Owenkillew and Glenelly Woods* | ASSI/cSAC | 39 | 16 | 115 | 4 | 17 | 10 | 14 | 176 | -13 | -11 | -24 | 152 |
| Altmover Glen | ASSI | 27 | 14 | 100 | 0 | 11 | 10 | 14 | 149 | -1 | -2 | -3 | 146 |
| Errigal Glen | ASSI | 11 | 10 | 97 | 20 | 16 | 8 | 15 | 166 | -17 | -1 | -3 | 145 |
| Fury Water Woods | | 38 | 16 | 110 | 0 | 15 | 7 | 10 | 158 | -2 | -12 | -14 | 144 |
| Silverbrook Wood | ASSI | 14 | 11 | 108 | 4 | 11 | 7 | 15 | 156 | -5 | -8 | -13 | 143 |
| Crockaghole | ASSI | 5.32 | 5 | 100 | 0 | 15 | 10 | 12 | 142 | 0 | -5 | -5 | 137 |
| Bond's Glen | ASSI | 20 | 12 | 103 | 6 | 12 | 8 | 15 | 156 | -4 | -16 | -20 | 136 |
| Corbylin Wood | ASSI | 20 | 12 | 94 | 4 | 12 | 8 | 14 | 144 | -5 | -5 | -10 | 134 |
| Aghanloo | ASSI | 50 | 18 | 103 | 1 | 13 | 8 | 13 | 156 | -11 | -12 | -23 | 133 |
| Drumlea & Mullan Woods | ASSI/cSAC | 32 | 15 | 90 | 0 | 15 | 7 | 11 | 138 | 0 | -6 | -6 | 132 |
| Ness Wood | ASSI | 18 | 12 | 93 | 2 | 10 | 11 | 13 | 141 | -9 | -1 | -10 | 131 |
| Strabane Glen | ASSI | 12 | 11 | 89 | 4 | 10 | 12 | 13 | 139 | -4 | -8 | -12 | 127 |
| Glenmore Wood | ASSI | 12 | 11 | 87 | 2 | 14 | 8 | 10 | 132 | -3 | -4 | -7 | 125 |
| Umbra Wood | | 31 | 15 | 92 | 3 | 13 | 11 | 12 | 146 | -16 | -5 | -21 | 125 |
| Ervey Wood | ASSI | 25 | 13 | 92 | 0 | 10 | 10 | 15 | 140 | -12 | -11 | -23 | 117 |
| Sloughan Glen | ASSI | 4.5 | 5 | 91 | 6 | 15 | 10 | 12 | 139 | -10 | -14 | -24 | 115 |
| Grange Wood | ASSI | 9 | 9 | 95 | 2 | 8 | 3 | 9 | 125 | -2 | -9 | -11 | 114 |
| Whitewater Wood | | 15 | 11 | 89 | 2 | 14 | 7 | 9 | 132 | -4 | -19 | -23 | 109 |
| Gorticashel Wood (1)* | ASSI/cSAC | 1.8 | 2 | 76 | 2 | 7 | 5 | 14 | 106 | -1 | -1 | -2 | 104 |
| Knockadoo Wood | ASSI | 7 | 7 | 82 | 0 | 9 | 4 | 10 | 112 | -3 | -2 | -10 | 102 |
| Cappagh Burn Wood | | 6 | 6 | 87 | 0 | 10 | 6 | 11 | 120 | -9 | -10 | -19 | 101 |
| Drummenagh Wood | | 13 | 10 | 85 | 0 | 9 | 2 | 10 | 116 | -1 | -16 | -17 | 99 |
| Boorin Wood | ASSI | 16 | 12 | 67 | 0 | 14 | 3 | 10 | 106 | -5 | -4 | -9 | 97 |
| Ballykelly Wood | | 13 | 11 | 69 | 2 | 10 | 4 | 15 | 111 | -12 | -6 | -18 | 93 |
| Derryarkin Glen | | 8 | 8 | 76 | 0 | 11 | 4 | 13 | 112 | -6 | -14 | -20 | 92 |
| Curley River Wood | | 10 | 10 | 69 | 0 | 11 | 6 | 13 | 109 | -6 | -12 | -18 | 91 |
| Knockcloghrim Wood | | 14.17 | 11 | 72 | 0 | 6 | 4 | 8 | 101 | -10 | -6 | -16 | 85 |
| Glenlark Wood | | 10 | 10 | 60 | 2 | 8 | 9 | 10 | 99 | -1 | -15 | -16 | 83 |
| Old Mountjoy Wood | | 11 | 11 | 64 | 0 | 9 | 3 | 11 | 98 | -3 | -14 | -17 | 81 |
| Gorticashel Wood (2) * | ASSI/cSAC | 14 | 11 | 71 | 0 | 7 | 7 | 10 | 106 | -9 | -17 | -26 | 80 |
| Ryland's Burn Wood | | 7 | 7 | 69 | 0 | 10 | 5 | 10 | 101 | -10 | -12 | -22 | 79 |
| Labby Wood | | 8 | 8 | 62 | 0 | 10 | 3 | 9 | 92 | -3 | -13 | -16 | 76 |
| Kilcranny Wood (Bann Estuary) | ASSI/cSAC | 3.54 | 4 | 48 | 0 | 4 | 1 | 12 | 69 | -4 | -6 | -10 | 69 |
| Glensawisk Wood | | 8 | 8 | 52 | 0 | 7 | 3 | 5 | 75 | -1 | -9 | -10 | 65 |
| Altdoghal Wood | | 6 | 6 | 51 | 0 | 10 | 4 | 11 | 82 | -17 | -6 | -23 | 59 |
| Lagavadder Burn Wood | | 9 | 9 | 34 | 0 | 9 | 5 | 10 | 67 | -3 | -19 | -22 | 45 |

# Woodland Features based upon Priority Habitats

- Oakwood
- Mixed Ashwoods
- Wet woodland
- Wood pasture and parkland



# Oakwood

- Developed on acid soils
- NVC Types W11 and W17 (W10)
- Canopy dominated by Oak and Birch
- Understorey – Holly and Rowan
- Ground flora – Greater Wood-rush; Bilberry; Wavy-hair grass; acid mosses

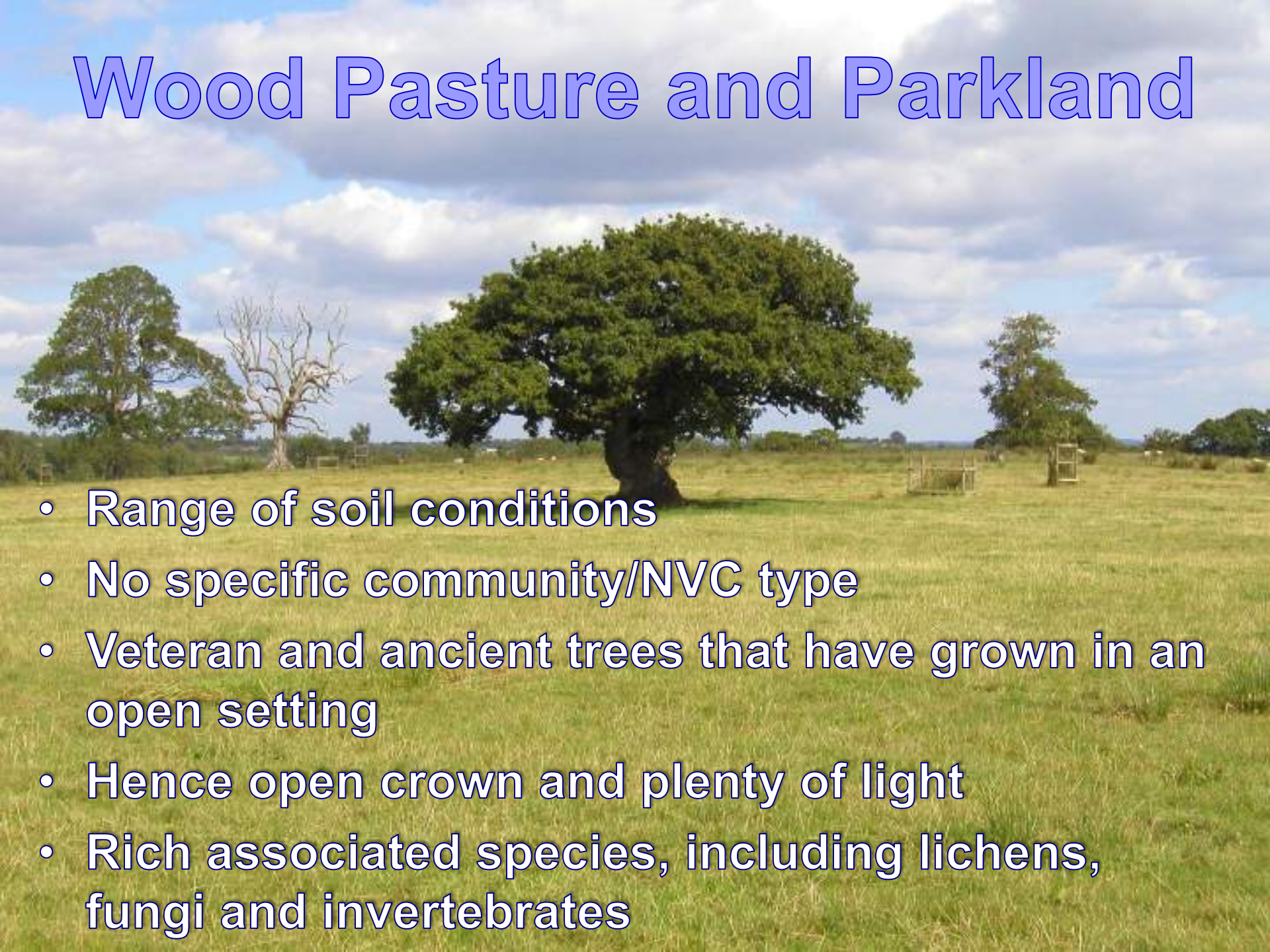
# Mixed Ashwoods

- Developed on base-rich soils
- NVC Type W9
- Canopy dominated by Ash
- Understorey – Hazel and Goat Willow
- Ground flora – “typical” woodland – rich in spring-flowering species

# Wet Woodlands

- Wet and waterlogged soils (acid to base-rich)
- NVC Types W1 – W7
- Canopy dominated by Alder, Willows and Birch
- Understorey – Willows, Guelder rose
- Ground flora – very varied – fen and swamp species; bog species; flush species

# Wood Pasture and Parkland



- Range of soil conditions
- No specific community/NVC type
- Veteran and ancient trees that have grown in an open setting
- Hence open crown and plenty of light
- Rich associated species, including lichens, fungi and invertebrates

# The Belvoir Oak

# ASSIs & SACs

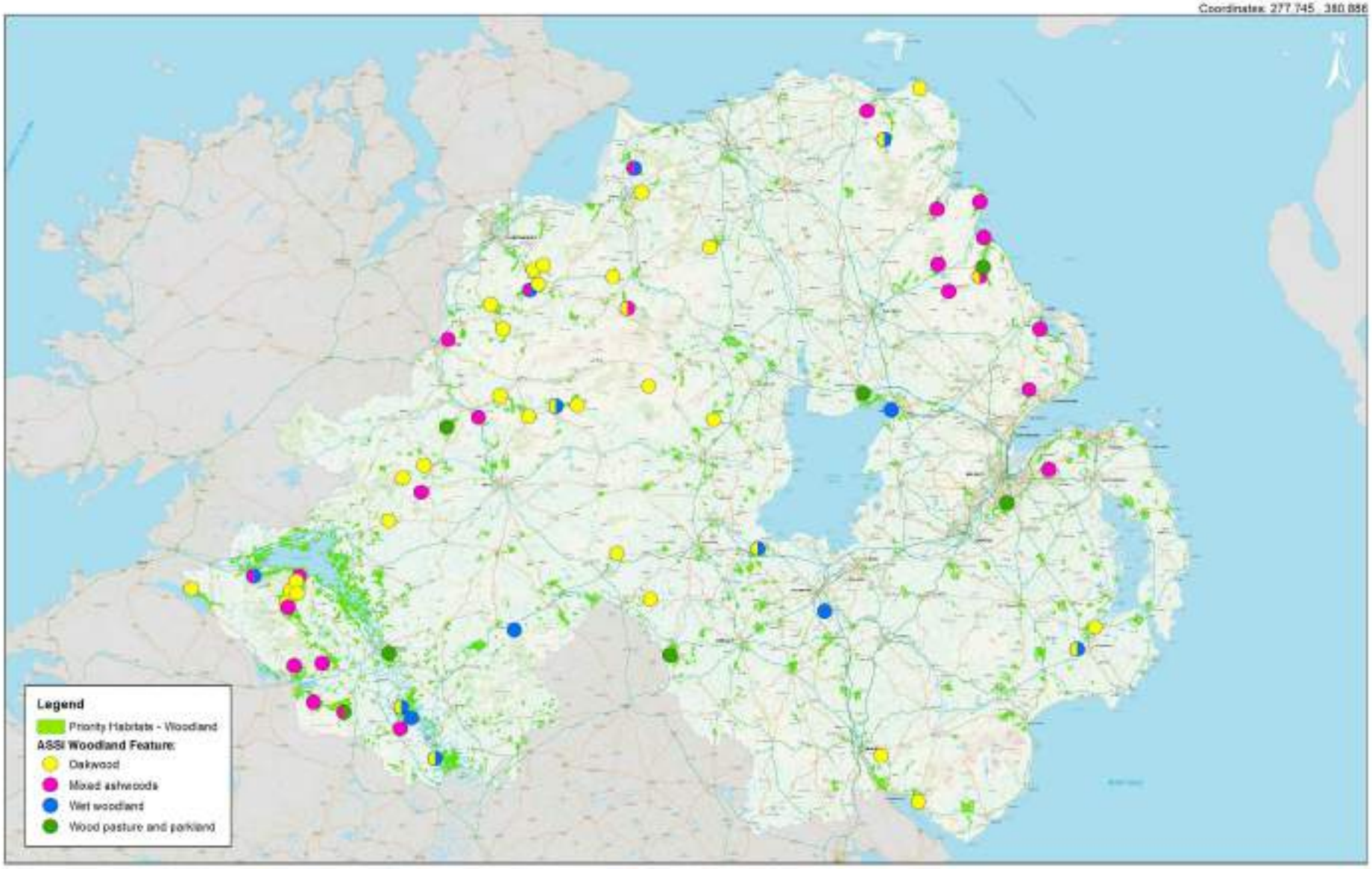
## Woodland ASSIs

| | |
|---|---|
| • Oakwoods | 36 designations |
| • Mixed ashwoods | 23 designations |
| • Wet woodland | 13 designations |
| • Wood pasture and parklands | 8 designations |
| | **Total of 80 ASSIs** |

## Woodland SACs

| | |
|---|---|
| • Tilio-Acerion forests of slopes, screes and ravines | 2/24 of ASSIs |
| • Old sessile oakwoods & Blechnum in the British Isles | 13/36 of ASSIs |
| • Bog woodlands | 3/13 Wet woodlands |
| • Alluvial forests with Alnus glutinosa and Fraxinus excelsior | 2/16 Wet woodlands |
| | **Total of 20 SACs** |

Coordinates: 277 745 , 380 886




**Northern Ireland Woodland ASSIs and Priority Woodland Habitat**

1:600,000

0 10 Kilometres



Map Created: 27 September 2024

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22 Years of Woodland
Condition Assessment

# Condition Assessment - why do we do it?

- Reporting
- Measuring targets
- Identifying threats and pressures
- Assessing the effectiveness of management – and making recommendations for the future

# How do we do it?

- UK Common Standards Monitoring
  - Rapid, but repeatable
  - Based upon objectives/standards
  - Features, attributes and targets
  - Favourable or unfavourable?

# Attributes for Woodlands

- Extent
- Structure
- Regeneration
- Negative indicators

# Targets

- Favourable condition is defined by setting targets for each attribute.

- If attributes do not meet the specified targets the feature is in unfavourable condition.

# REILLY AND GOLE WOODS - SAMPLE POINTS

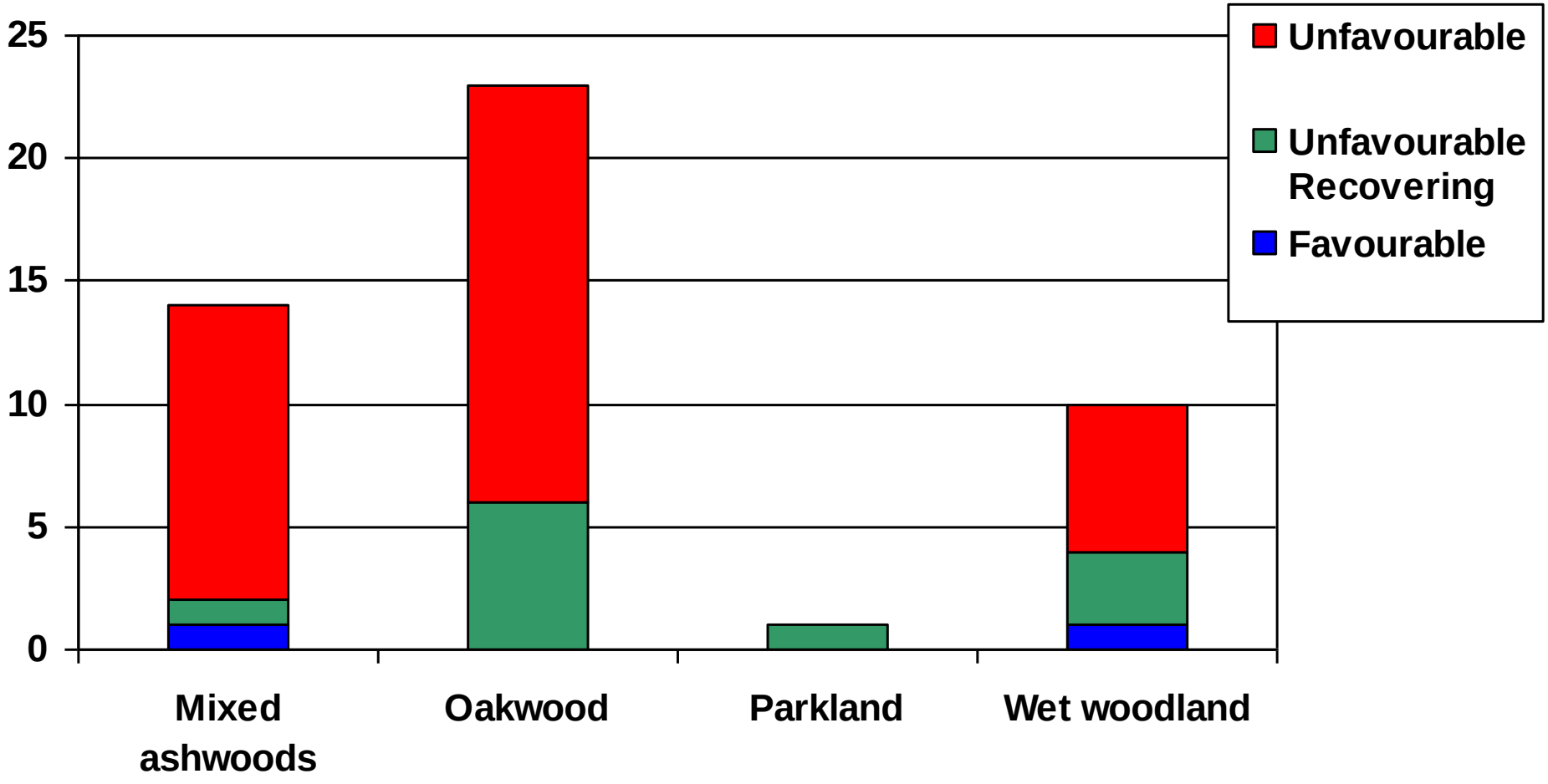
1:7,000

0 60 120 240 360 480
Meters

# CONDITION ASSESSMENT

| Attributes | Measures | Targets | Result | Favourable/Unfavourable |
|---|---|---|---|---|
| * Area | Extent | No loss – maintain ashwood at ha | | |
| * Natural processes and structural development | Structural Variation | Canopy cover 60% + | 72% | **Favourable** |
| | | Shrub cover 25 -80% | 23 | **Unfavourable** |
| | | Field cover 20-60 % | 37 | **Favourable** |
| | | Herb cover 60%+ | 80 | **Favourable** |
| | | Moss cover 50%+ | 20 | **Unfavourable** |
| | Age-class variation | Young Trees (5- 20cm diameter) at least frequent in 75% of Plots | F– 40%<br>O–30%<br>R- 30% | **Unfavourable** |
| | | Mature Trees (20 - 75cm diameter) at least frequent in 90% of Plots | F – 60%<br>O – 30%<br>R – 10% | **Unfavourable** |
| | | Over-mature Trees (>75cm diameter) at least present in 10% of Plots | A – 100% | **Unfavourable** |
| | Presence of standing and fallen dead wood | Standing dead wood at least frequent | F – 40%<br>O – 40%<br>A – 20% | **Favourable** |
| | | Fallen dead wood at least frequent | F – 70%<br>O – 10%<br>A – 20% | **Favourable** |

# The Condition of ASSI Woodland Features



# Reasons for Failure

- Management - grazing/browsing
- Regeneration
- Composition – invasives
- Structure

# How do we fix it?

## Regeneration/Grazing/Browsing

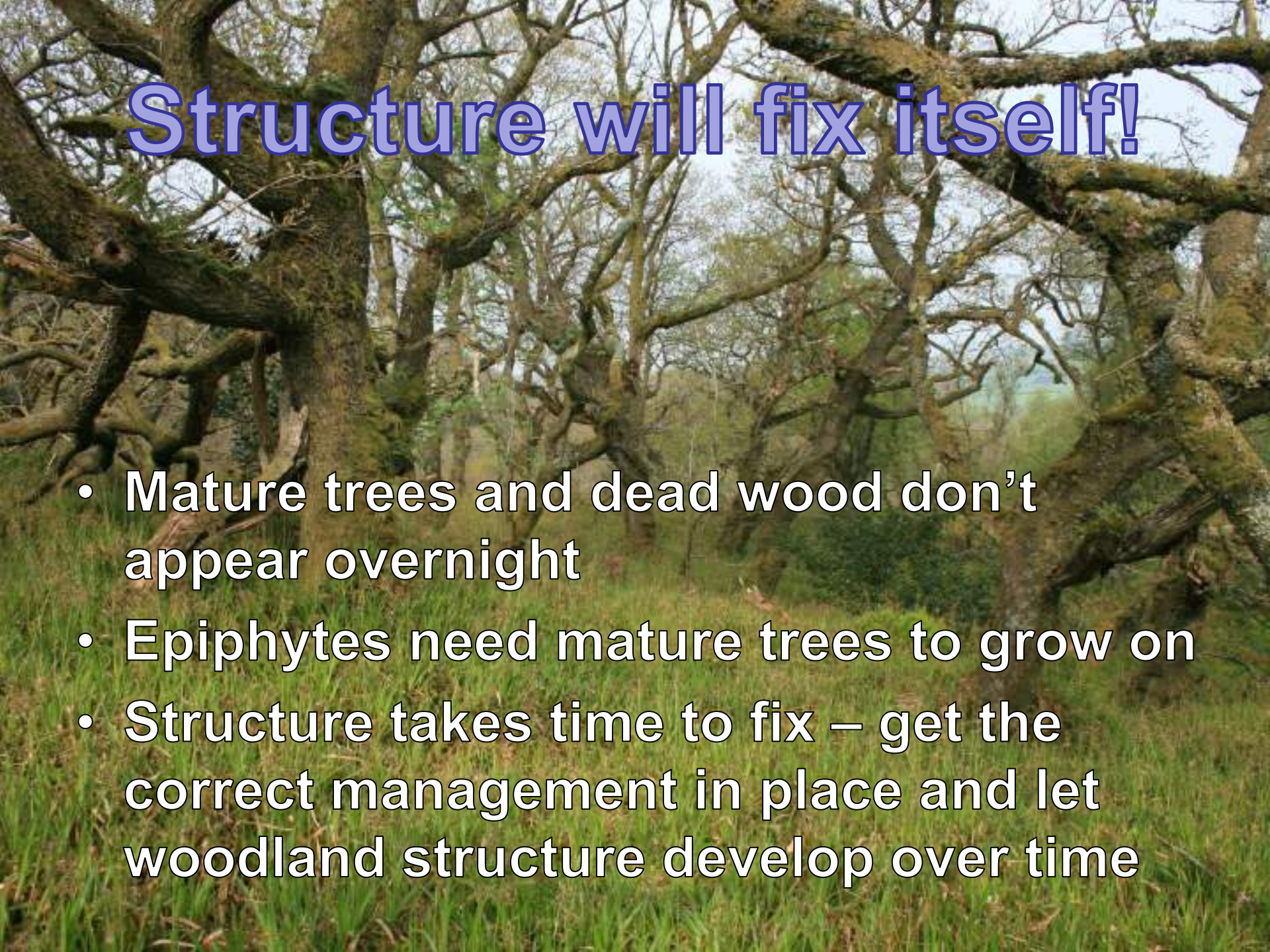
- **Straightforward management recommendations**

**– e.g. control stock and other grazing/ browsing animals**

# How do we fix it? Invasive species

Controlling

- Sycamore
- Beech
- Conifers
- Rhododendron
- Himalayan Balsam, etc.



# Structure will fix itself!

- Mature trees and dead wood don't appear overnight
- Epiphytes need mature trees to grow on
- Structure takes time to fix – get the correct management in place and let woodland structure develop over time

# Emerging Pressures and Threats

- Invasive species – deer etc.
- Disease - Ash dieback etc.
- Eutrophication
- Climate Change!

# Invasive species
# Deer

# Ash die-back

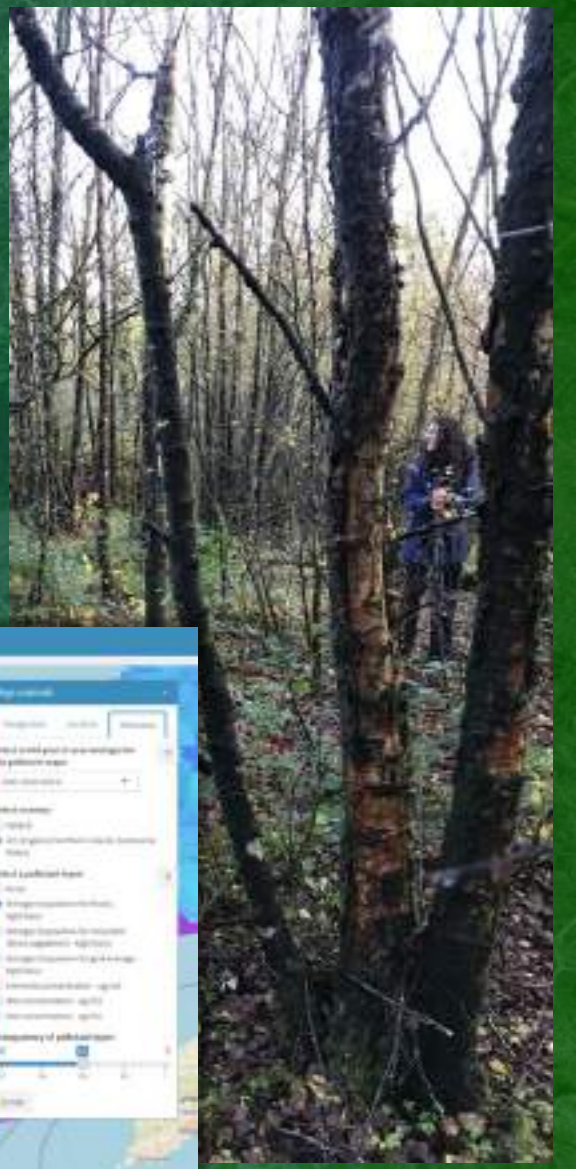
**Record**

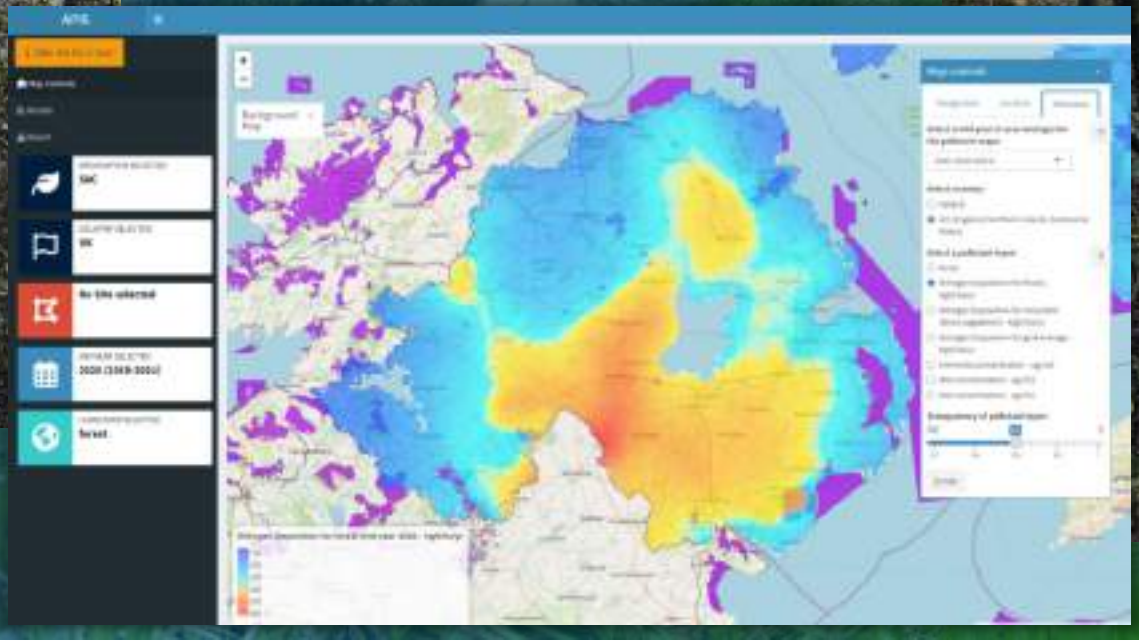
Look for resilient trees

Consider possible replacement species


Hanging Rock

# Many protected sites in N.I. exceed APIS critical load thresholds for Ammonia/Nitrogen deposition





# Air Quality – we need to address it!


Climate Change

# Lessons learnt over 22 years

- Standard targets may not be appropriate - tailor targets to sites
- Avoid being too prescriptive
- Be flexible and adapt to changes in knowledge and pressures

# Resilience

# Thank you

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