

Future Wood Pasture: Integrating trees into evolving grazing systems in Northern England

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Themes



- “Future” – Working with systems currently identified as wood pasture
- “Evolving” – Management of these sites; past, present and future
- “Northern England” – Upland wood pasture on marginal land, frequently with a habitat of conservation interest (juniper, heathland, etc.)

Environmental Stewardship



- Administer Agri-Environment schemes
- Monitor Sites of Special Scientific Interest (SSSI)
- European priority habitats (heathland, native woodland, wood pasture, juniper)

Key Question

- How do you establish trees in a remote, grazed, upland environment relying primarily on natural regeneration?



- Examples that illustrate some of the successes and failures of tree establishment under previous environmental stewardship schemes
- New approaches that work with natural processes to establish trees in a grazed environment

Case 1 – Removal of grazing from SSSI (Site of Special Scientific Interest)



- Site in the uplands of Northern England
- Designated for Juniper (but also featuring Wood Pasture – Alder wet woodland)
- Lack of natural regeneration (both juniper and native woodland)



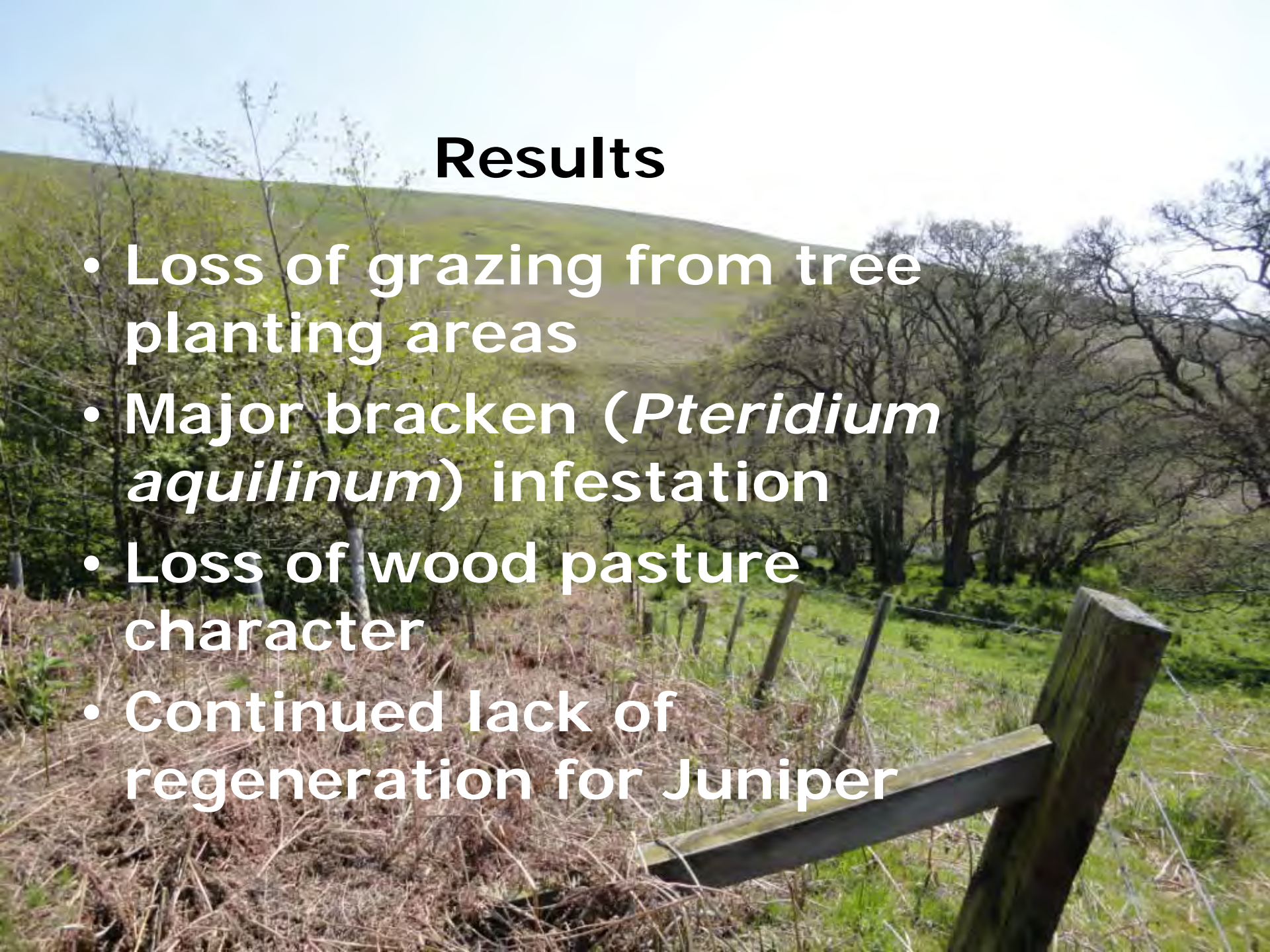


Remedies

- **Fencing and removal of grazing from major portions of the site (almost 10 years ago)**
- **Tree planting in un-grazed areas (including juniper)**

Results

- Loss of grazing from tree planting areas
- Major bracken (*Pteridium aquilinum*) infestation
- Loss of wood pasture character
- Continued lack of regeneration for Juniper





Key to understanding upland wood pasture?

- How did wood pasture/ juniper evolve?
- Changes in grazing management is the key

Changes in grazing management

- Cattle → sheep
- Transhumance or well-shepherded herds
→ set stocking
- Cattle droving

The Present – Juniper

- Ancient trees threatened with bracken, continuous sheep grazing and imported disease (*Phytophthora austrocedrae*)
- Juniper relies on severe disturbance for regeneration



The Present – Wood Pasture



- Ancient trees with no natural regeneration
- Threatened by tree planting and removal of grazing



How do we regenerate Wood Pasture?



- The use of Genguards where parent trees are nearby
- Use of Gorse (*Ulex europaeus*) as natural tree protection
- Changes to grazing management – mob grazing

Gorse - advantages

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- Natural protection from domestic graziers
 - High conservation value
 - Mimics natural methods of tree

Gorse - disadvantages

- Prone to fire
- Can act as a shelter to rabbits and hares
- Requires parent trees to located nearby



Genguards – protective metal enclosures

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Changes to grazing management – Mob Grazing



- Mimics natural behaviour of wild grazing animals
- Contributes to bracken control
- Creates disturbance
- Requires shepherding
- Policy shift



Juniper regeneration

- Major disturbance can create niches for regeneration
- Competing vegetation must be suppressed to promote seedling establishment

Summary



- Tree planting and removal from grazing
- Encouraging Gorse in order to protect natural regeneration
- Caged enclosures (Genguards)
- Shifts in grazing management

Any Questions?

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Creation/Restoration of Wood Pasture



- Creation and Restoration of Wood Pasture and Parkland (£180/ha)
- Only available on existing and former wood pasture and parkland
- Capital funds available for parkland trees (£7.50) and parkland tree guard (£64)



