

# Advocating for wood pasture

by Laura Bower, Megan Gimber & Nigel Pilling



people's  
trust for  
endangered  
species

**Ancient wood pasture is not a well-known habitat and despite having exceptional ecological value is often overlooked**

## What is wood pasture?

Wood pasture is a cultural habitat with a diverse mosaic of open-grown or pollarded trees, scrub, and grazed grassland. Though heavily influenced by management, it mirrors the likely dynamic structure of prehistoric wildwood, to which much UK biodiversity is adapted. Ancient wood pasture offers many additional benefits due to its ecological continuity, and because they are under threat, protecting, restoring, buffering, and replicating them is essential.

### Ecological riches

Wood pasture supports incredibly high biodiversity through long-lived, veteran trees that host saproxylic invertebrates, lichens, and fungi. Grazed, species-rich pasture and flowering scrub further enhance biodiversity.

### Open-grown and pollard trees

- ▶ Exhibit a broad, spreading structure creating a multitude of microclimates essential for many highly specialised and rare invertebrates, lichens, fungi and hole-nesting birds (Smith, 2007).
- ▶ Live longer than their woodland counterparts, when given space and not overtopped by their neighbours.
- ▶ Hollowing and decaying trees are biodiversity hotspots, red list species are much more prevalent here (Müller *et al.*, 2014).

### Grazed Pasture or heathland

- ▶ Grazing creates a diverse sward, especially when mixed and regenerative grazing practices are used.
- ▶ Dung provides a critical substrate for specialist invertebrate species to feed and reproduce.

### Scrub

Young and middle-aged trees are essential to become the veterans and ancients of the future. Scrub helps support the natural establishment of young trees.

Flowering scrub provides essential foraging for many saproxylic insects that develop in dead wood but need nectar as adults.

## Bountiful benefits of wood pasture

- ▶ Trees grown in open conditions sequester carbon faster than those in shaded woodlands and appear to store more carbon than equivalent areas of woodland and pasture managed separately (Upson *et al.*, 2016).
- ▶ Undisturbed soil retains carbon that would be lost through cultivation and leaves fungal structure intact.
- ▶ Maintaining soil health and increased resilience to climate impacts such as flooding.
- ▶ Multifunctional land use: combining biodiversity with sustainable meat and small diameter timber production.
- ▶ Improving animal welfare through natural shade, shelter and forage diversity.



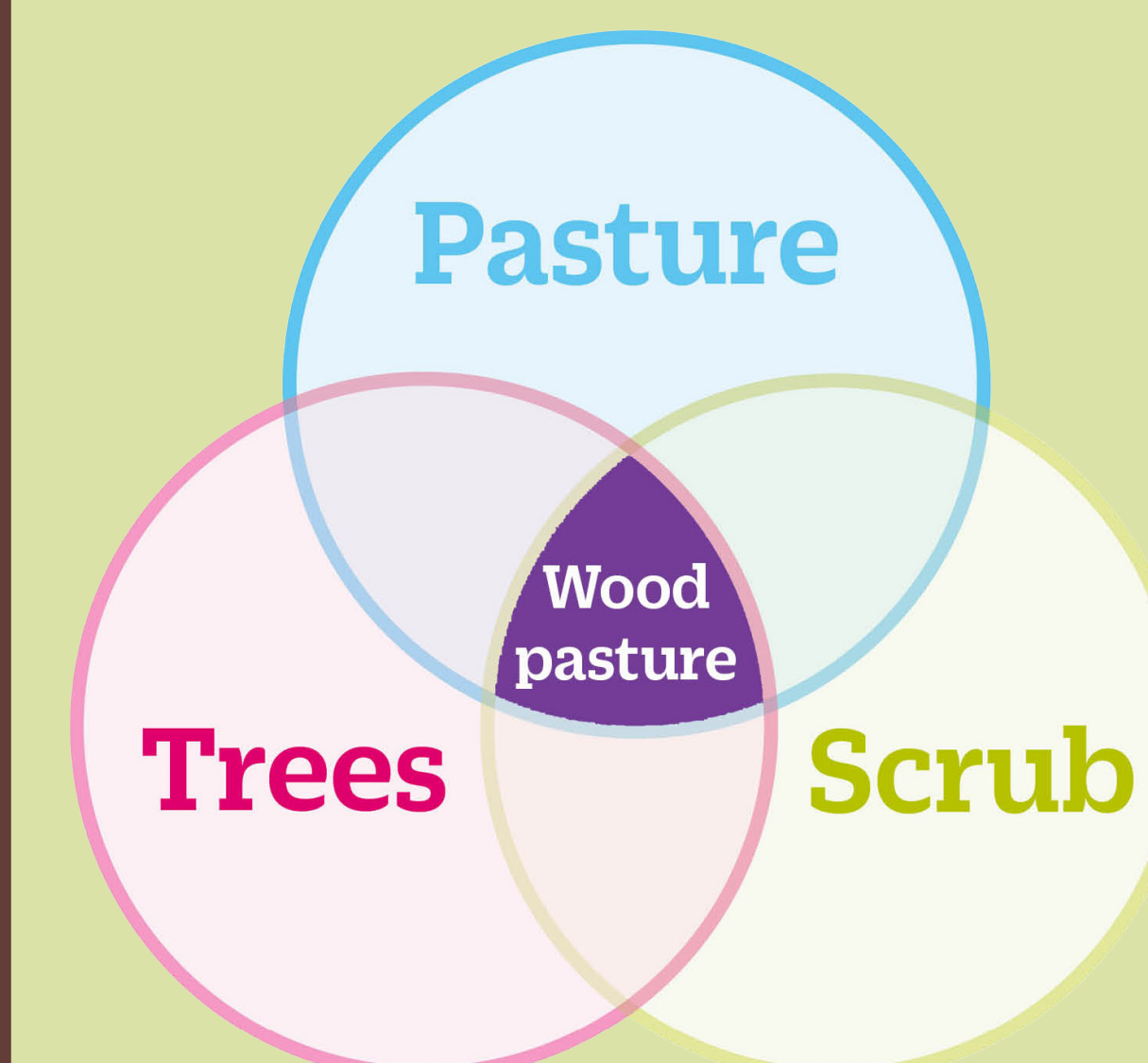
Belted Galloways grazing wood pasture by Laura Bower



Hollow ancient beech in wood pasture by Megan Gimber

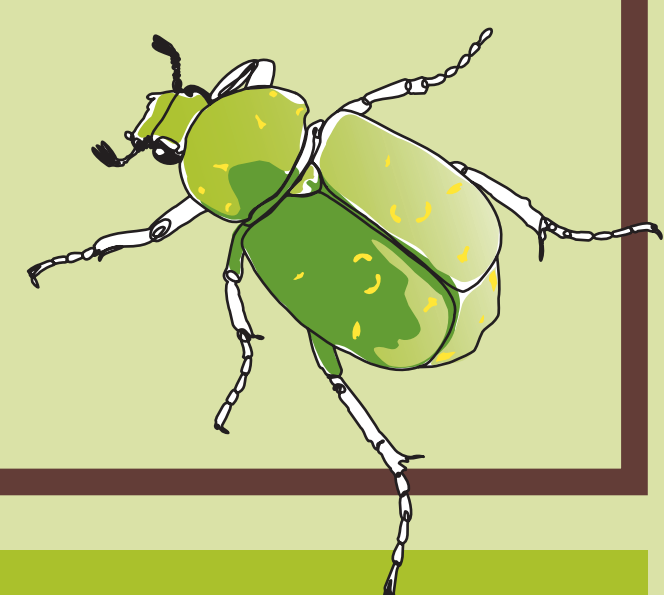
## Threats

- ▶ Lack of sensitive management reducing ecological function
- ▶ Lack of protection for ancient, veteran and other special trees
- ▶ Infill of trees – through planting or neglect
- ▶ Damage and fragmentation – intensive agricultural use and development pressures
- ▶ Lack of grazing, overgrazing and public pressure
- ▶ No recruitment of new trees through natural regeneration or planting
- ▶ High mortality in the veteran tree cohort and cohort gaps in the wider tree population

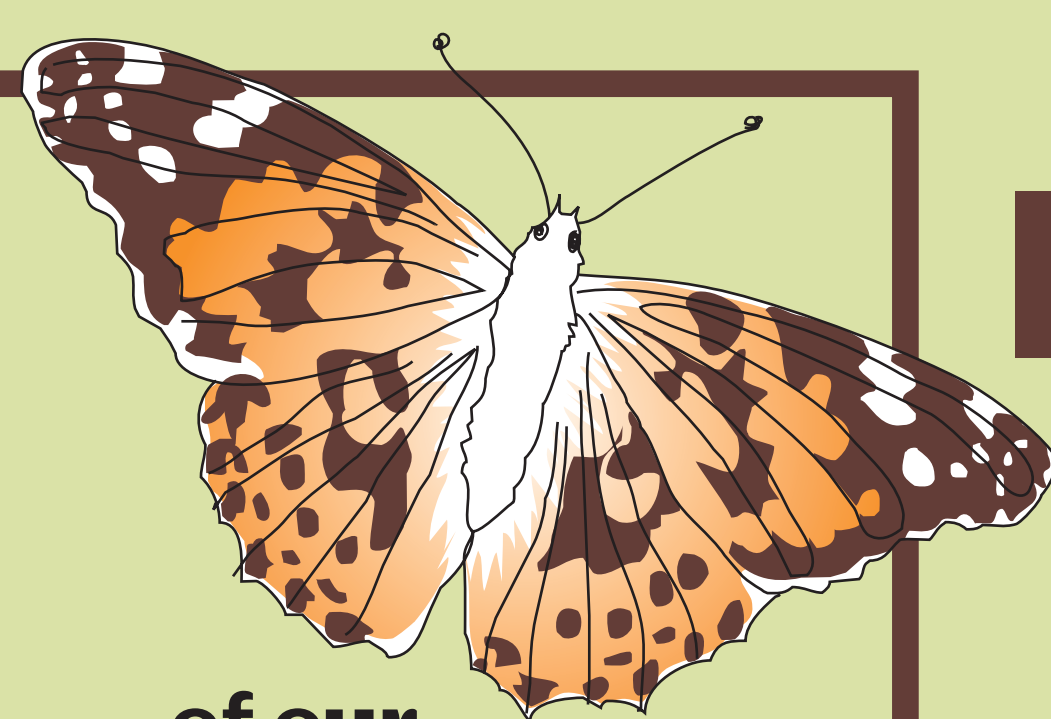


**Key components of wood pasture - its value is frequently said to be greater than the sum of its parts.**

At least  
**6%**  
of all invertebrates  
recorded from the UK are  
dependent on decaying  
wood at some stage in their  
life cycles (Alexander, 1999)



**74%** of our  
terrestrial  
bird species  
and many invertebrates  
depend on an open,  
structurally diverse  
landscape.



## Ecological continuity

Where veteran trees have been present on a site for millennia, with each generation of trees providing the same exceptional diversity of habitat niches as the last generation of tree, wood pasture sites will be especially rich in biodiversity. This is referred to as ecological continuity and relies on the retention of a significant proportion of the trees in perpetuity.



Oak regeneration  
by Laura Bower

## Opportunities

Wood pasture creation, restoration and management is supported by current environmental land management schemes and has significant potential to support government tree establishment, carbon and species recovery targets.

Newly created wood pasture, even where there are no existing veteran trees to incorporate, has significant biodiversity value, due to the combination of open grown trees, flowering scrub and open habitat providing resources for many native species. New wood pasture is the best choice to restore habitat on previous wood pasture sites, buffer existing sites and reconnect within or between habitat patches.

Wood pasture is an original form of silvopastoral agroforestry, sitting alongside other biodiversity rich cultural habitats such as traditional orchards and hedgerows. Where new agroforestry systems mimic wood pasture in tree and shrub species choice, and planting densities and patterns, they can replicate some of the function of a wood pasture mosaic. This provides opportunities to provide links and stepping stones between sites for many species associated with wood pastures, accepting that the full value of wood pasture is only realised where trees are retained in perpetuity and land management choices are biodiversity rather than production focussed.

## References

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[www.ptes.org/wppn](http://www.ptes.org/wppn)

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The UK Wood Pasture and Parkland Network is a small group of specialists working to promote the value of the priority habitat wood pasture and parkland. The network provides a link between Government, NGOs and the private sector, facilitating communications between the various groups with an interest in raising awareness of the value of this habitat and its management.