

veteran tree & wood pasture

Description of Habitat

Lowland wood-pastures and parkland are the products of historic land management systems, and represent a vegetation structure rather than being a particular plant community. Typically this structure consists of large, mature open-grown or high forest trees (often pollards) at various densities, in a matrix of grazed grassland, heathland and/or woodland floras.

Ancient trees are part of our history and culture, they have been honoured since time immemorial. You can travel throughout Europe and hardly catch a glimpse of any tree more than 200 years old. In Britain we are more fortunate. Veteran trees can still be found here, in ancient deer parks, pasture woodland and old wooded commons, on village greens, parish boundaries and marking the routes of ancient trackways. Others can be found in hedgerows, remnant hedgerows and in churchyards, particularly yews.



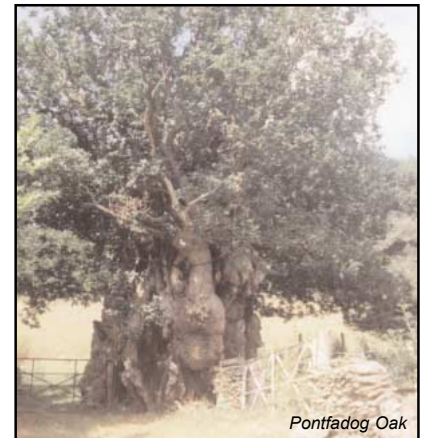
Chirk Parkland

Current Status

With the widespread clearance of temperate forest world-wide, which has been going on since Neolithic times, together with intensive management of most of the remaining woodland, species dependant on old trees suddenly became vulnerable. While most of their habitat was destroyed, the few remaining sites with many old trees and the few remaining individual old trees left in the wider countryside became widely scattered and separated from each other by open habitat, usually hostile to woodland species.

This left us in the 20th century with a legacy of relict populations of what are now very rare species, dependant on usually a dwindling number of ancient trees in places such as parks and pasture woodland. Even at these sites,

however, they are not safe. At most sites, the normal recruitment of future generations of trees ceased a very long time ago due to the effects of grazing and other land management on natural regeneration. The very land-use that has perpetuated most of our individual oldest trees - that of grazing animals around and beneath them, has robbed most of them of the possibility of perpetuating themselves. This



Pontfadog Oak



threatens to bring about a major break in the all-important continuity on which these organisms depend, possibly the first since the last ice-age. This poses a major challenge in conserving the fungi, plants and animals that are dependant on them (Key 1997).

The presence of large old trees is the key characteristic and the main reason for these habitat types being of special nature conservation interest.

The associated wood-decay and epiphyte communities are uniquely species-rich and much closer to the composition that was found in the Wildwood which developed in post-glacial times than those of any other woodland type in Britain. The mycorrhizal fungal communities are also uniquely species-rich. This species-richness involves a remarkably high percentage of rare and threatened saproxylic (ie species that feed on dead wood or are dependent on those species that do) organisms associated with veteran trees - a higher percentage than is known from most other habitat types in Britain. Many of these species have poor dispersal mechanisms and this feature indicates that wood-pasture was once much more widespread than today. Veteran trees and pollards in hedgerows and otherwise open fields provide valuable stepping stones for wildlife from one wood-pasture to another.

Historic wood-pastures which are no longer subject to grazing by livestock are included in this plan, whether they are now under

secondary woodland, plantation or scrub on the one hand, or arable on the other.

It is important not to become distracted by definitions of wood-pasture; conservation of ancient or veteran trees is the key objective of this Habitat Action Plan. The habitat type is also often of particular interest for birds and bats which use the cavities in the trees for nesting and roosting. A scrub component is important in wood-pasture in particular to provide the nectar and pollen sources required by many saproxylic insects. The pasture aspect may also be of special nature conservation interest, although more often than not today this interest has been severely degraded or lost through modern commercial farming practices.

Lowland wood-pastures and parklands are derived from medieval forests and emparkments, wooded commons, parks and pastures with trees in them. Some have subsequently had a designed landscape superimposed in the 16th to 19th centuries. A range of native species usually predominates amongst the old trees but there may be non-native species which have been planted or regenerated naturally.

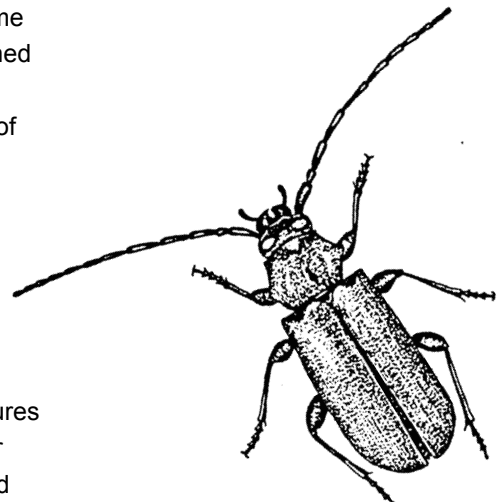
By their very nature, wood-pastures are frequently also of national or international historic, cultural and landscape importance.



Distribution

Distribution in UK and Europe

There are no reliable statistics on the extent of the overall resource, nor on historical and current rates of loss or degradation of this type of habitat. The figure of 10-20,000 ha 'currently in a working condition' given in the 'habitat statement' of the UK Biodiversity Steering Group report is the current best estimate. This habitat is most common in southern Britain, but scattered examples occur throughout the country. In a European context Britain may hold a very high percentage of the remaining lowland wood-pasture and veteran trees outside of the Mediterranean regions. Outgrown wood-pasture and mature high forest remnants ('virgin forests') occur in northern and central Europe, but the number and continuity of ancient (veteran) trees with their associated distinctive saproxylic (wood-eating) fauna and epiphytic flora are more abundant in Britain than elsewhere. Parklands and wood-pasture may also be of interest for bats and birds and may preserve indigenous tree genotypes. These areas are outstanding at a European level.



Longhorn Beetle

Distribution in Wrexham County Borough

In Wrexham County Borough there is an estimated 4330 ha of parkland habitat and it is mainly associated with estate lands.

Lowland wood-pasture and parklands within Wrexham County Borough include:

- Chirk Castle,
- Erddig,
- Brynkinallt, Pen-ylan, Gredington,
- Bettisfield Park,
- Isycoed Park,
- Rosehill, Overton Park and Cefn Park.

The Wynstay Estate no longer supports any areas of parkland, it does however host about six veterans within its grounds. Certain areas of parkland in Wrexham County Borough have been lost due to coal mining.

Wrexham County Borough hosts a

number of important Veteran Trees, the most famous being the Pontfadog Oak, estimated to be over 1500 years old, which is reputed to be one of the oldest oak trees in Britain.



Yew

The venerable yew trees of St Garmon's Church, Llanarmon DC, All Saints Church, Gresford, and St Mary's Church, Overton are important to Welsh History. Some of these famous yew trees date back at least to the 12th century and in some cases pre-date the Church.

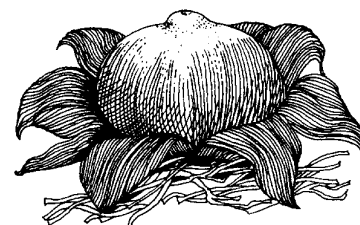
Both Chirk Castle and Erddig Estates are owned by the National Trust.

Species Associated with Parkland and Wood-pasture

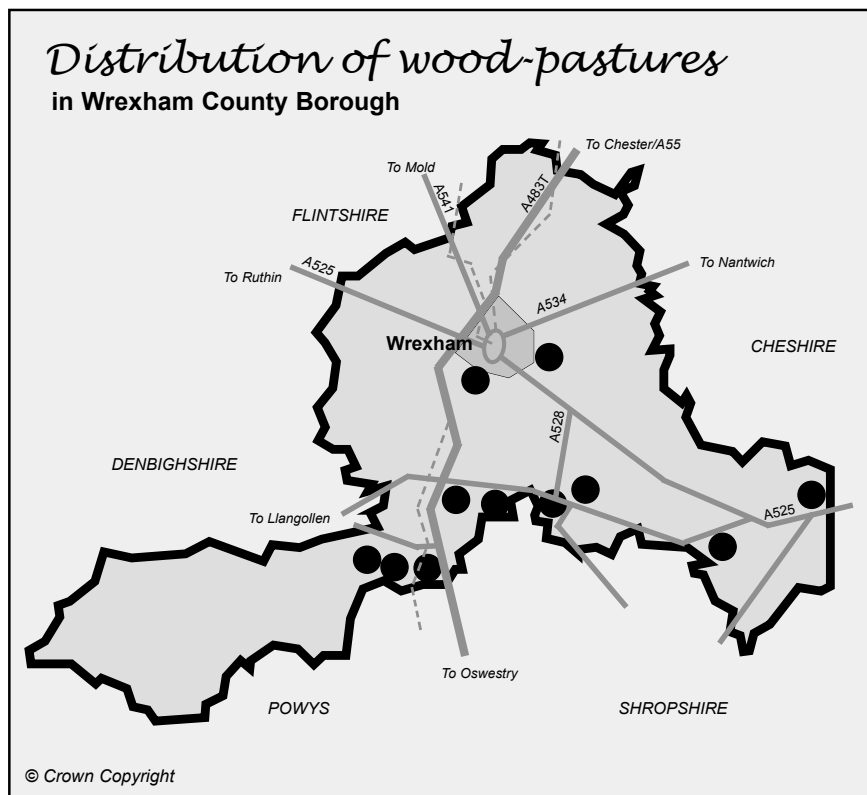
Biodiversity priority species associated with this habitat in Wrexham County include a very large range of saproxylic (dead bark) invertebrates & fungi as well as several species of bats including pipistrelle and lesser horseshoe. Unfortunately lichens are poorly represented in this area due to air and terrestrial pollution. Veteran trees and wood-pasture provides suitable habitat for feeding and nesting for birds such as lesser spotted woodpecker, tree creeper and spotted flycatcher (UK Biodiversity Priority Species).

Chirk Castle is a site of UK significance for the conservation of saproxylic invertebrates and twenty RDB species and 97 Nationally Scarce Species have been recorded there (Judd 1999). Ten species of Red Data List fungi have been found at Erddig (Bruce Ingers comm.) including the rare earth star, *Geastrum fimbriatum*.

At the turn of the last century (1900) a rare UK biodiversity priority lichen *Schimatomma graphidioides* occurred at Chirk Castle (Orange & Woods 1999) but now this species is extinct from Wrexham County Borough.

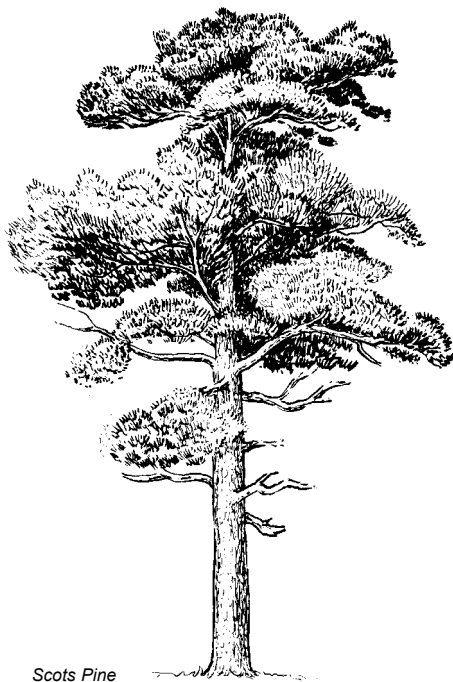


Earth Star



Factors Affecting the Habitat

- ✦ The future of our ancient trees is at risk. The greatest threat is not death, but misunderstanding. Many veteran trees are thought of as 'senile' or 'dying' and so are cut down, although hollow trunks and dead boughs are a normal part of a tree's development and ageing process. Many trees are felled at 50 and 200 years, when they are of highest timber value. Most would live much longer than this if allowed, to well over 500 years and even to 1,000 years.
- ✦ Lack of younger generations of trees is producing a skewed age structure, leading to breaks in continuity of dead wood habitat and loss of specialised dependant species.



Scots Pine

- ✦ Neglect, and loss of expertise of traditional tree management techniques (e.g. pollarding) leading to trees collapsing or being felled for safety reasons.
- ✦ Loss of veteran trees through disease (e.g. Dutch elm disease, oak dieback), physiological stress, such as drought and storm damage, and occasionally competition for resources with surrounding younger trees.
- ✦ Removal of veteran trees and dead wood through perceptions of safety and tidiness where sites have high amenity use, forest hygiene, the supply of firewood or vandalism.
- ✦ Damage to trees and roots from soil compaction and erosion caused by trampling by livestock and development pressures.
- ✦ Changes to ground-water levels leading to water stress and tree death, resulting from abstraction, drainage, neighbouring development, roads, prolonged drought and climate change.
- ✦ Isolation and fragmentation of the remaining parklands and wood-pasture sites in the landscape. (Many of the species dependent on old trees are unable to move between these sites due to their poor powers of dispersal and the increasing distances they need to travel).
- ✦ Pasture loss through conversion to arable and other land-uses.
- ✦ Pasture improvement through reseeding, deep ploughing, fertiliser and other chemical treatments, leading variously to tree root damage, loss of nectar-bearing plants, damage to the soil and epiphytes.
- ✦ Inappropriate grazing levels: under-grazing leading to loss of habitat structure through bracken and scrub invasion; and over-grazing leading to bark browsing, soil compaction, loss of nectar plants and excessive dunging and urination by livestock beneath canopy. Dung may contain residual de-worming drugs, antibiotics etc. that will kill soil organisms.
- ✦ Pollution derived either remotely from industry and traffic, or locally from agro-chemical application and nitrogen enrichment from pasture overstocking, causing damage to epiphyte communities and changes to soils.
- ✦ Removal of lower branches to enable farm machinery to pass under the canopy while spraying chemicals and spreading muck.

Policy and Legislation

For any woodland component of parkland and wood-pasture, national forestry policy includes a presumption against clearance of broad-leaved woodland for conversion to other land uses, and in particular seeks to maintain the special interest of ancient semi-natural woodland. Individual trees and groups may be afforded protection under the Town and Country Planning Act, 1990 and the Forestry Act, 1967. Felling licences from the Forestry Commission (FC) are normally required to fell trees.

Veteran trees may be particularly at risk because felling for safety reasons are likely to be exempt from the Felling and Tree Preservation Order Regulations.

Parklands listed as Special Landscape Areas in Wrexham County Borough receive some protected through local plans.

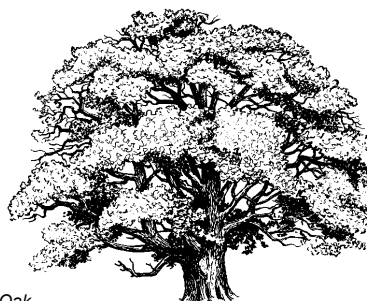
Several individual trees and woodlands are subject to Tree Preservation Orders in Wrexham County Borough.

Chirk Castle and Erddig parkland areas are proposed SSSIs for significant saproxylic invertebrates.

Management

Wrexham County Borough Tree and Hedgerow grant scheme aims to encourage farmers and landowners to restore their hedges and replace over-mature and dying hedgerow trees.

The National Assembly for Wales agri-environment grant scheme administered by CCW provides payments for orchards and parklands and the habitat management, restoration and creation of restoration pruning of orchard trees, pollarding, tree planting and parkland tree stock guards.



Oak

Wrexham Council offers free expert advice on all appropriate tree-care management and legal legislation through their qualified arboriculturalists.

Designation under the EC Habitats Directive as Special Areas for Conservation could give additional protection to some parkland and wood-pasture sites

Bats and most nesting birds are protected through the Wildlife and Countryside Act (1981). Bats have further protection under the EC Species and Habitats Directive.

There is recognition of the value of the habitat and individual old trees in various development plans, and landscape designations by CADW: Welsh Historic Monuments.

Advisory and Guidance

There is a wealth of information available from the Forestry Commission and other organisations and publications regarding all aspects of ancient woodland management.

- 🌿 The Countryside Advice and Information Service (Wales).
- 🌿 The Forestry Commission's Arboricultural Advisory Service and English Heritage's Parks & Garden's Team of historians, landscape managers, ecologist and arboriculturalists can offer advice.

Research and Monitoring

- 🌿 The Forestry Commissions National Inventory of Woodlands and Trees (2000).
- 🌿 The National Trust (NT) biological survey of NT-owned parkland and wood-pasture sites.
- 🌿 K.N.A. Alexander's (National Trust) personal dataset on saproxylic beetle sites.
- 🌿 A register of landscapes, parks and gardens of special historic interest for Wales is held by CADW: Welsh Historic Monuments.
- 🌿 Surveys of saproxylic invertebrates and lichens have been undertaken the Countryside Council for Wales's strategic survey of Welsh parklands.
- 🌿 JNCC's Lower Plants and Invertebrate Site Registers.
- 🌿 British Lichen Society database for parkland and wood-pasture.
- 🌿 The inventory of Historical Parks and Gardens, based at University of York, for information on historically important sites and County Historic Gardens Trust data.
- 🌿 Local naturalists such as Professor Bruce Ing (mycologist) keep records of species at some sites e.g. Erddig.
- 🌿 Wrexham Council's LANDMAP study data includes areas with characteristic parkland/estate landscapes.
- 🌿 The Tree Council 'Tree Warden Scheme' run through BTCV offers training and opportunities for individuals to manage trees in their local community.

- ✿ The Ancient Tree Forum, an association of land managers, ecologists and arboriculturalists has recently been set up to promote the conservation of ancient trees.
- ✿ The UK Forestry Standard 1997 and the Forestry Commission Guidelines for the management of semi-natural woodlands should be followed.
- ✿ The British Lichen Society have produced a habitat management guide for lichens, including parklands and wood-pastures.
- ✿ The Veteran Tree Initiative have produced a guide to good management of veteran trees (2000).

<i>Objectives and Targets</i>	
1	Identify all parkland and wood-pasture sites in Wrexham County Borough by 2003
2	Protect and maintain the current extent (4330 ha) and distribution of wood-pasture and parkland in a favourable ecological condition in Wrexham County Borough.
3	Maintain an up to date inventory of ancient trees and potential veterans.
4	Initiate in areas where examples of derelict wood-pasture and parkland occur a programme to restore 400 ha to favourable ecological condition by 2010.
5	By 2003 initiate the expansion of 430 ha of wood-pasture or parkland, in appropriate areas, to help reverse fragmentation and reduce the generation gap between veteran trees.
6	Initiate a programme of new planting adjacent to existing Veteran trees so they become the Veteran trees of the future.

<i>Proposed Action with Lead Agencies</i>			
Action	Objective	Partners	Target
Policy and Legislation Seek the inclusion of policies within Structure Plans, Local Plans, Waste Local Plans and Minerals Plans that ensure new development does not have an adverse effect on the nature conservation value of wood-pasture, parkland and veteran trees.	2	WCBC, CCW, NWWT, FC	Ongoing
Ensure that Local Plans identify sites of nature conservation importance with respect to wood pasture, parkland and veteran trees.	1, 2	WCBC, NWWT, FC	Ongoing
When reviewing existing incentive schemes (e. g. Tir Gofal, Woodland Grant Scheme/ Woodland Improvement Grants) seek to ensure they enable and encourage the most appropriate management of parklands and wood-pasture, with their ancient trees.	2	NAWAD, FC, CCW, WCBC	Ongoing
Continue the making of TPOs on privately owned veteran trees if the trees are considered to be endangered and are of sufficient amenity value.	2, 3	WCBC planning dept.	Ongoing
Support SSSI designation of important lowland wood-pasture and parkland sites such as Chick Castle & Erddig.	2	NT, WCBC, CCW	Ongoing
Site Safeguard and Management Encourage applications to buy and manage appropriate sites from potential funding sources.	2, 4, 5	CCW, NWWT, NT	Ongoing



Proposed Action with Lead Agencies

(continued)







Action	Objective	Partners	Target
Encourage the development and implementation of long-term integrated management plans through agreements with site owners and in partnership with CCW and CADW.	2, 4	CWW, FC, NAWAD, NWWT, CADW, NT, Farmers and Landowners	2004
Promote re-establishment of grazing where appropriate in derelict wood-pasture.	2, 4, 5	CCW, NAWAD, FC, NWWT, NT, Farmers/Landowners	2010
Encourage the development of subsequent generations of veteran trees in all sites.	2, 6	CCW, NAWAD, NWWT	2005
Promote the restoration of wood-pasture and parkland where old trees remain in former sites that are now arable fields or forestry plantations.	4	FC, NAWAD, FE, NWWT, NT, Landowners/Farmers	2010
Initiate programmes to expand parklands and wood-pasture sites in targeted areas.	5	CWW, FC, FE, NWWT, NT	2005
Contribute to the implementation of relevant priority species action plans, through the integration of management requirements and advice.	2	WGB, NWWT, CCW, Liverpool Museum	Ongoing
Select the most important sites for Wildlife Site Register.	2	WCBC, CWW, FC	2003
Communications and Publicity			
Increase awareness of the national and international importance and vulnerability of wood-pasture by promotional literature and events and encourage celebration of wood-pastures via the arts and media.	2	CCW, NT, FE	2005
Ensure adequate understanding of the health and safety issues with regard to veteran trees and promote tree conservation solutions such as pollarding and crown reduction.	2	FC, CCW, WCBC, NT	2005
Continue to keep a database of appropriately experienced arboriculturists.	3	WCBC Planning Dept.	Ongoing
Advisory			
Consider establishing demonstration sites for good practice in management.	2	FE, CCW, FC, NT, WCBC	2005
Encourage training in best practice in wood-pasture management for site owners, site managers, land-agents, foresters, arboriculturists and also for advisors and incentive scheme managers.	4	CCW, FC, NAWAD, NT, WCBC	Ongoing
Produce supplementary planning guidance notes for parklands and veteran trees.	2	WCBC Planning Dept.	2005
Future Research and Monitoring			
Produce a comprehensive list of all parkland and wood-pasture sites in Wrexham County Borough and establish a database for monitoring purposes.	1	CCW, WCBC, NWWT	2003
Identify target areas for new large-scale woodpasture creation. These should be areas which reduce fragmentation and isolation, buffering and linking up areas of habitat.	5	CCW, FC, NT	2005
Develop a site condition monitoring programme to assess the condition of wood-pastures and parkland.	4	CCW, FC, NT	2010
Undertake a programme of targeted surveys of the biological interest of sites where lack of information is impeding their appropriate management.	4	CCW, FC, FE, NWWT, NT	2005
Wherever possible pass biological records to WBG/CCW.	3, 4	All	Ongoing
Partner Abbreviations			
CCW - Countryside Council for Wales		WCBC - Wrexham County Borough Council	
NAWAD - National Assembly Wales Agricultural Department		FC - Forestry Commission	
FE - Forest Enterprise		NWWT - North Wales Wildlife Trust	
NT - National Trust		BTCV - British Trust for Conservation Volunteers	
WBG - Wrexham Biodiversity Group			



Links to Other Action Plans

-  Woodland Habitat Action Plan for Wrexham County Borough.
-  UK Lowland and Wood Pasture and Parkland Habitat Action Plan.

References

-  Clwyd Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales. Part 1: Parks and Gardens.
-  CADW (1995) Welsh Historic Monuments. Published by CADW.
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-  Roger Key: (1997) The Conservation Value of Veteran Trees - English Nature (Veteran Tree Initiative).
-  S. Judd: Wales Parkland Survey (1999). Chirk Castle Park, Saprophytic Invertebrates CCW Contract Science 352.
-  R. Woods & A. Orange (1999) A Census Catalogue of Lichens in Wales. National Museum for Wales, Cardiff.

Further information

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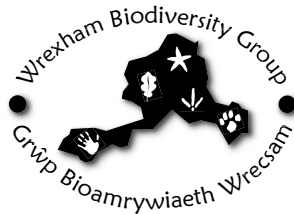
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Produced by the Planning Dept, Mar 2002