

Woodland Features

Relative to the rest of Europe, only a small proportion of Britain (approximately 800,000 ha) is wooded, with only about 300,000 ha comprising ancient semi-natural woodland (that is, woodland that has existed since at least 1600). The remaining areas largely comprise recent semi-natural woodland and plantation woodland of various types, including both broadleaved and coniferous species. Ancient woodland tends to be more varied in structure and richer in biodiversity than more recent woodland.

Separate habitat action plans have been prepared in the UKBAP for several different types of ancient semi-natural woodland, and three of these have been recorded to date on the Highways Agency soft estate: wet woodland, lowland beech (*Fagus sylvatica*) wood and lowland wood pasture and parkland.

However, much of the information relating to woodland on the soft estate does not conform to UKBAP habitat types. The majority of the woodlands within the soft estate originate from planting schemes dating back only to road construction, and are not ancient. Many comprise exotic conifer trees that were introduced because they grow quickly and provide a year-round screening function. Nevertheless, there is considerable potential for woodland on the soft estate to develop in the future and make a significant contribution to overall biodiversity on the soft estate.

Current status

General

Ancient semi-natural woodland has been comprehensively mapped by English Nature, and its presence on or adjacent to the soft estate is relatively easy to establish. Wherever this is the case, there is an opportunity to encourage expansion of elements of the habitat through natural colonisation and favourable verge management.

UKBAP habitats

Separate habitat action plans have been prepared in the UKBAP for six different types of woodland: lowland beech and yew woodland; lowland wood pasture and parkland; native pine woodland; upland mixed ashwoods; upland oakwood; and wet woodland. Although any of these habitats could potentially occur on the soft estate, the available network ecological information to date holds records for only three of them.

Wet woodlands occur on poorly drained or seasonally wet soils, and are characterised by an abundance of alder (*Alnus glutinosa*), willow (*Salix sp.*) or birch (*Betula sp.*) trees. This was the woodland Priority Habitat most frequently recorded in the existing network information, with 17 sites in the south-west supporting small stands.

Lowland beech and yew woodland is considered to be native in southern England, but northern woodlands have originated from planting. The habitat often occurs on limestone and chalk outcrops (e.g. in the North and South Downs, the Chilterns and the Cotswolds), and is currently known to occur on or adjacent to the soft estate in seven locations in the south-west of England.

Lowland wood-pasture and parkland comprises a mixture of large veteran trees in a matrix of grassland, heathland and/or woodland flora. This habitat is likely to be very thinly spread on the soft estate, as it is generally only found where the verge is adjacent to existing parkland habitat.



Current factors affecting the habitat

Habitat loss and deterioration

The construction of new roads not only leads to the loss of woodland habitat, but also causes fragmentation and isolation of woodlands. Although tree and shrub planting may have taken place on the road verge (often linking isolated woodlands), these plantings have often comprised non-native species of lesser value to wildlife. Many woodland ground flora species are unlikely to colonise new woodlands unless planted adjacent to existing woodland.

Road widening schemes or road improvements may also lead to the loss of trees, shrubs and possibly woodlands close to or on the road verge. Works undertaken to maintain or repair pipe and cable services can also cause damage to trees and shrubs on the road verge. Care is usually taken to avoid damage to mature trees, but shrubs and young trees can be affected.

Inappropriate management

Large mature trees are often perceived to be a threat to road safety and may be felled or undergo tree surgery when situated close to the highway. Dead-wood (standing and cut) is a valuable component of woodland habitat, but is usually removed from the soft-estate to keep it tidy. Uncontrolled deer browsing, rabbit grazing and bark stripping by grey squirrels can damage woodland structure and species composition by preventing new tree and shrub growth (young trees, newly planted trees, seedlings, saplings and coppice re-growth can all be affected). Where alien species such as Rhododendron (*Rhododendron ponticum*) and Turkey Oak (*Quercus cerris*) are present in existing woodlands, they can spread into the adjacent road verge and threaten the development of a valuable woodland flora and fauna.

Objectives

To maintain and enhance the nature conservation value of the woodland and scrub habitats found on road verges. Particular attention should be paid to the UKBAP woodland habitats that are known to be present on the

Current action

A number of woodlands on or adjacent to road verges are considered to be of county or national importance for nature conservation, and have received formal designation. English Nature holds an Ancient Woodland Inventory for most counties in England. These documents map all ancient woodland sites in England that are over 2 ha in size.

The TRMM indicates that verges that have developed botanical interest or nature conservation value should be managed to conserve and enhance this status. It also states that 'where designated sites lie within or adjacent to the highway boundary, the soft estate should be maintained on the advice of English Nature or local wildlife trusts'. The TRMM also recommends that thinning and coppicing works should be carried out with care in areas of recognised nature conservation value.

Advice on the creation, translocation and management of woodland and scrub habitat on road verges is provided in the DMRB.

The HA has undertaken a restoration project on Grade II historic parkland on the Sparkford-Ilchester Scheme. This has involved growing trees from acorns from a 900-year-old oak, and adjusting the grazing regime of the parkland. It is intended that some of these oaks will be used on the road verge adjacent to the parkland when the scheme is completed.

A number of studies have been undertaken to investigate the effect of pollution on plant growth. These have included studies on epiphytic lichens and on tree and shrub growth. Studies have also been undertaken on the accumulation of pollutants within plant tissues. Other studies have looked at the effect of noise disturbance from roads on the behaviour of woodland birds.

soft-estate (wet woodland, lowland wood pasture and parkland and lowland beech wood), but MAs and TMCs should also be aware of the other UKBAP priority woodlands that may be recorded on the network.

	Objective	Proposed actions
A	To protect, maintain and enhance the nature conservation value of road verges that have been found to support UKBAP and other valuable woodland/scrub habitats.	7
B	To mitigate unavoidable impacts to woodland/scrub habitat associated with new roads or road improvement schemes.	1, 4, 5, 6, 7, 9, 11, 12
C	To ensure that road verges adjacent to woodlands that have been designated as sites of nature conservation value, are managed appropriately.	2, 3, 9, 10
D	To raise awareness with HA staff, Managing Agents and consultants regarding the importance of woodland/scrub habitats on the network.	1, 13, 14, 15

	Objective (continued)	Proposed actions
E	To create road verges that support valuable woodland habitats, particularly where these verges are adjacent to existing woodlands and/or link woodlands with designated sites of nature conservation value.	8, 12
F	To manage woodland habitats on road verges for known protected or Priority Species.	

Proposed action

The following table lists the actions required to achieve the objectives set out in this Plan. For some of the actions, potential partners have

been assigned as likely sources of cooperation. Targets are provided to give an indication of the timescale for the proposed action.

	Action	Potential partners	Target
	<i>Policy, guidance and advice</i>		
1	Provide detailed information in TRMM/DMRB on the management of the soft estate for the benefit of woodland, in particular UKBAP woodland. Through TRMM, encourage the use of native species, of local provenance, in new plantings, particularly where they are adjacent to existing semi-natural woodlands.	-	2004
	<i>Surveying</i>		
2	Ensure that all valuable woodlands, Juniper scrub, Native black poplar trees and veteran trees that fall within the soft estate (in particular UKBAP habitats) are mapped. Use English Nature's Ancient Woodland Inventory. Include all records on the HA Environmental Database.	EN	2007
3	Carry out ecological surveys of all areas of ancient woodland on the network (including invertebrate surveys of veteran trees) to investigate their potential value for UKBAP Priority Species.	-	2012
4	Identify all areas where new tree and shrub planting could be undertaken to link/increase the size of existing valuable woodlands and/or to enhance their structural diversity.	-	2007
	<i>Research and monitoring</i>		
5	Monitor all sites where specific management has taken place (e.g. Juniper enhancement on the M3 between Bar End and Compton) as part of ongoing maintenance.	-	Ongoing
6	Investigate mowing regimes that would best reflect the optimum grazing system for areas of wood pasture and parkland.	EN	2007
	<i>Mitigation and Management</i>		
7	Ensure that valuable woodland habitats, in particular UKBAP Priority Habitats and/or designated sites, are taken into account when designing new roads/road widening schemes; where at all possible, avoid direct impacts.	-	Ongoing

	Action (continued)	Potential partners	Target
	<i>Mitigation and Management (continued)</i>		
8	Where loss of woodland habitat is unavoidable, consider habitat translocation or creating similar plant communities within the road scheme, particularly in areas adjacent to existing woodlands and on verges that link existing woodlands.	-	Ongoing
9	During road construction, ensure that any valuable woodland habitats retained within/adjacent to a road scheme, are protected by fencing. Care should also be taken to protect the hydrology of the site.	-	Ongoing
10	Ensure that existing woodlands/areas of plantings are managed appropriately (including the removal of alien species) to maintain and enhance their nature conservation value. Draw up a management statement where these are within or adjacent to nationally or internationally designated sites, and/or where protected or UKBAP Priority Species, are found to be present.	-	2005
11	Undertake any tree and shrub planting/management required to extend the area of existing ancient woodland, and increase connectivity between valuable woodland sites.	-	40 sites by 2012
12	Undertake any planting/management of Juniper required to extend its area both on existing roads and on new schemes, where appropriate.	-	40 sites by 2012
13	Undertake any planting/management of Native black poplar, where appropriate.	-	1000 trees by 2012
14	Ensure that trees and shrubs are not planted on valuable grassland/heathland habitats.	-	Ongoing
	<i>Communications and publicity</i>		
15	Raise awareness within the HA of the value of UKBAP woodland habitats, for example through the use of internal publications.	-	2003
16	Raise awareness of local road verge protection schemes and of nature conservation designations that affect the management of road verges.	LAs, EN, Wildlife Trusts	2003
17	Raise awareness of the features and species of value in new and existing woodland habitats (e.g. large mature trees, dead wood, lichens etc.).	-	2003
18	Ensure that HA staff members (in particular, MAs and TMCs) involved in road verge management, are aware of the HABAP and of any updating of TRMM with regard to woodland management.	-	2005

Links with other plans

This plan should be read in conjunction with the Boundary Features HAP and with the SAPs for dormice, red squirrel, bats and juniper.

Woodland habitats are included in the majority of LBAPs in England.

Lead partners

The lead partners for the relevant woodland UKBAPs are:
Wet woodland - Forestry Commission
Lowland wood pasture - English Nature & Parkland
Lowland beech and yew - Forestry Commission.