ACTION for WILDLIFE

Warwickshire, Coventry and Solihull Local Biodiversity Action Plan



REVISION IN PROGRESS 2021

WOODLAND & WET WOODLAND

INTRODUCTION

Woodland is one of the most important habitat categories in the subregion, supporting many species and a variety of benefits such as landscape, public amenity and timber production. The multi-functional value of woodlands has been increasingly acknowledged nationally and in recent years reflected regionally by the West Midlands Forestry Framework and Delivery Plan 2010-2013 'Growing Our Future'. The sub - region has relatively low woodland cover, of c.13420ha, despite its mosaic of small woodlands and mature hedgerow trees giving the impression of a wooded environment. Locally it may include patches of beech woodland, and small wet areas.



Bunsons Wood © Steven Falk

Rides and edges may grade into grassland and scrub (<u>JNCC, 2011,p.38</u>), important for providing a woodland margin with a range of heights and species, and a valuable habitat for butterflies and dormice (*Muscardinus avellanarius*) in particular. The following butterflies are useful indicators for assessing the quality of woodland habitat: silver washed fritillary (*Argynnis (ex-Dryas) paphia*), wood white (*Leptidea sinapis*), purple hairstreak (*Neozephyrus quercus*) and white admiral (*Limenitis arthemis*) (pers.comm. M.Slater, 2013). The pauper pug moth is a species of small leafed lime, common at Oversley, Weston and Waverley and Ryton Woods. The beautiful snout moth depends on the presence of bilberry, found at only 2 sites, Clowes and Rough Hill Woods.

The following birds are indicators of good woodlands: woodcock (*Scolopax rusticola*) very scarce as a breeding bird in the county, sparrowhawk (*Accipiter nisus*), tawny owl (*Strix aluco*), great spotted woodpecker (*Dendrocopos major*), song thrush (*Turdus philomelos*), blackcap (*Sylvia atricapilla*), chiffchaff (*Phylloscopus collybita*), spotted flycatcher (*Muscicapa striata*), marsh tit (*Poecile palustris*), nuthatch (*Sitta europaea*), treecreeper (*Certhia familiaris*) and jay (*Garrulus glandarius*) (Jon Bowley, pers.comm. 2015).

The <u>Ancient Woodland Inventories</u> (AWI) were compiled in the 1980s and 1990s by the Nature Conservancy Council to identify woodland sites over 2ha that are considered to be of an ancient origin, pre-dating 1600. In Warwickshire and the West Midlands a few sites, characterised by the presence of small-leafed lime (*Tilia cordata*) and sessile oak (*Quercus petraea*), may be especially old. <u>Piles Coppice</u>, to the east of Coventry, is considered by some researchers to be a remnant of the primeval "wildwood" that formed 8000 years ago. There are many smaller woods which have the characteristics of ancient woodland that are currently unrecorded as such. From the Warwickshire Inventory (Forestry Commission (later <u>Forestry England</u>), 2002), about 4236ha of woodland are listed, based on all sites over 2 ha in area. Of this, 2439ha are classified as ancient seminatural woodland (ASNW), our most biologically important woodland resource. The remaining 1797ha of ancient origin woodlands are recorded as plantation on ancient woodland sites (PAWS). Many of the larger PAWS sites were converted wholly or in part to conifer plantations in the twentieth century. These areas tend to retain features of the

original semi-natural woodland and remain of high biodiversity value. Data from the West Midlands (Coventry & Solihull) Ancient Woodland Inventory has not been included.

The remaining woodland area (grown since 1600) is either plantation, grown mainly for timber production or is secondary semi natural woodland and scrub. Plantation woodlands are generally linked with the estate-lands parts of the Warwickshire sub-region, whereas the secondary semi-natural woodlands are associated with post-industrial sites (gravel and sand extraction, etc.) and poorer quality land not cultivated for agriculture. More recently there has been significant creation of new woodland by individual landowners as part of farm diversification, game shooting, shelter and screening and by organisations such as the Woodland Trust looking at social inclusion opportunities and core habitat areas. Principally these are broad-leaved or mixed woodlands and generally are of 'small landscape' scale, i.e. less than 10ha.

The best woodlands for biodiversity tend to be larger ones on long standing sites (Ancient Woodland Sites, AWS) with a varied and diverse structure. An abundance of different internal habitats such as standing and fallen deadwood, wide rides, clearings or open space, water, 'soft' woodland margins, ponds, scrub and field headlands are key components and can be supported by woodland management operations such as coppicing or thinning. With 20% of British fauna dependent on it, the value and role played by dead and dying wood in woodland biodiversity is important; the removal of this habitat from modern plantation woodland makes it a scarce resource for the scarce lesser spotted woodpecker and other species dependent on mature woodland (Day, 2014).

At least 30 National Biodiversity Action Plan species, as well as Red Data Book and Nationally Scarce species, such as great crested newts (*Triturus cristatus*), inhabit woodland ponds. They support a wide variety of invertebrates, a key part of the foodchain, and provide drinking water; a number of scarce plants can also be found in woodland ponds. Their waters are often clean, certainly compared with water in many other terrestrial habitats as the trees filter out pollutants and buffer ponds from contaminated water.

Wet woodland (or carr) occurs on poorly drained or seasonally wet soils, usually with alder, birch and willows as the predominant tree species, but sometimes including ash, oak, pine and beech on the drier riparian areas. It is found on floodplains, as successional habitat on fens, mires and bogs, along streams and hill-side flushes, and in peaty hollows. These woodlands occur on a range of soil types including nutrient-rich mineral and acid, nutrient-poor organic ones. The boundaries with dry woodland may be sharp or gradual and may change with time through succession, depending on the hydrological conditions and the treatment of the wood and its surrounding land. Therefore wet woods frequently occur in mosaic with other woodland key habitat types and with open habitats such as fens. Management of individual sites needs to consider both sets of requirements (JNCC,2011, p94). Lesser spotted woodpecker (*Dryobates minor*) and willow tit (*Poecile montanus*) depend on wet woodland for both feeding and nesting, requiring standing decaying wood in which to excavate their nests.

ACTION for WILDLIFE

Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

| 2. | OBJECTIVES* | TARGETS* | | | |
|------------|---|----------|--|--|--|
| Park | Associated Action Plans are: 'Open Mosaic Habitats on Previously Developed Land', 'Old Parkland & Veteran Trees', Marsh & Swamp, Wet Grassland & Wet Woodland, 'Roadside Verges', 'Ponds', Rivers & Streams, 'Great Crested Newt', 'Common Dormouse', 'Hedgehog', 'Bats', 'Song Thrush', 'Adder', 'Wood White', 'Leaf-rolling Weevil', 'Red Wood Ant' and 'Argent & Sable' | | | | |
| | EASE CONSULT THE ' <i>GENERIC HABITATS'</i> ACTION PLAN IN CO /ITH THIS DOCUMENT FOR OBJECTIVES COMMON TO ALL HABI | | | | |
| A . | To achieve condition of 2531ha of ancient semi-natural woodland over 0.25ha that are currently in unfavourable condition, to favourable or recovering, giving priority to those holding UK Priority Species* & Red Data Book species. *The UK BAP was succeeded by the 'UK Post-2010 Biodiversity Framework' in July 2012. The UK list of priority species, however, remains an important reference source. | 2026 | | | |
| В. | To restore 918ha of degraded ancient semi-natural woodland. | 2026 | | | |
| C. | To expand the extent of native broadleaf woodland by 1006ha. | 2026 | | | |
| D. | To establish and promote local markets for the produce from semi-natural ancient and other woodlands. | ongoing | | | |
| | *Derived from Regional Spatial Strategy Phase 3 Technical Report (2009) and based on a minimum mapping unit of 0.25ha. Numerical targets have been incorporated into section 6. | | | | |
| | See Generic Habitats Plan for rationale for derivation of targets and definitions of favourable and unfavourable condition ('Habitats overview' in 'State of the Natural Environment' (NE,2008,p49). | | | | |

1. NATIONAL BAP OBJECTIVES & TARGETS

Woodland is one of England's most important habitats for biodiversity and is on the current UK Biodiversity Action Plan (BAP) list of Priority Habitats published in 2007(<u>Joint Nature</u> <u>Conservation Committee</u>). Habitat descriptions for <u>Lowland Mixed Deciduous Woodland</u> BAP, updated in 2010-11, and <u>Wet Woodland</u>, may be seen online.

The <u>Woodland Trust</u> is working to a simple aspiration of doubling woodland cover over next 50 years. The <u>Government Policy Statement</u> (Defra, 2013) estimates that Government and the sector working together towards this shared objective could achieve 12% woodland cover by 2060, an average planting rate of 5,000 hectares per year, provided private investment in woodland creation increases in line with expectations.

2. CURRENT STATUS

The <u>National Forest Inventory</u> (NFI) is a continuous inventory of Britain's forests and woodlands conducted since 1924. The elements of the inventory are a digital map of woodland in Britain constructed from aerial photography, complemented by other sources of information, and a programme of ground surveying of woodland using a representative sample drawn from the woodland and forested areas of Great Britain.

Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

Woodlands are widespread but fragmented throughout Warwickshire, Coventry and There are notable concentrations of ancient woodlands around Princethorpe, Solihull. around Atherstone, and on the western side of Stratford-upon-Avon District. The eastern parts of the county are particularly sparsely wooded. The woodland community is heavily influenced by the underlying geology. Oak, birch (Betula spp.) and bracken-dominated woods are characteristic of more acidic soils (especially in the north and west), and oakash woods, usually with dog's mercury (Mercuralis perennis), are found on more lime-rich soils in the south and east. The semi-natural woodland types described above fall into two main categories of the National Vegetation Classification: W8 Fraxinus excelsior - Acer campestre - Mercurialis perennis woodland and W10 Quercus robur - Pteridium aquilinum - Rubus fruticosus woodland. Alder (Alnus spp.) and willow (Salix spp.) woodland tend to form in wetter areas. The extent of wet woodland is not accurately known, in part because this habitat often forms a part of larger woodland areas. Grey poplar (Populus x canescens) woodland is a relatively new type of invasive woodland that has formed along certain southern river corridors. There are also a number of significant conifer woodland blocks throughout the sub region and more recently large poplar plantations have been created.

Approximately 11% of ancient woodland (530ha) in Warwickshire was destroyed between 1925 and 1988, and a further 38% (1797ha) was converted to plantation (Warwickshire AWI, 1989). Neglect, through a cessation of coppicing, has been an equally significant factor in the loss of woodland biodiversity since the mid-1900s. The proposed HS2 railway is a key threat to the remaining ancient semi-natural woodland in the county; 6 ancient woods comprising 8.1ha will be lost and possibly another 12ha more from potential ancient woodland (pers.comm. Gina Rowe 2021). **TO BE CONFIRMED**

In 2019 the HBA gives the total area of long-standing woodland in the sub-region including woodland on the AWI as 5135 ha; this includes sites under 0.25ha which may not be remnant ASNW; the figure is only an estimate based on preliminary checks using woods as they appeared on the OS Victorian maps. The National Ancient Woodlands Inventory has the figure of 4,772ha which only includes woodlands above 2ha.

There are 14 woodland-dominated <u>Sites of Special Scientific Interest</u> (SSSIs) in the subregion, covering 784ha (2019 data, see table below). All SSSI status woodlands in Warwickshire are in 'Favourable condition', with the exception of Knavenhill Wood which is 'Unfavourable recovering' as a result of deer pressure; as it has appropriate management in place it can be classed as 'recovering'. Tile Hill Wood in Coventry, which received SSSI status in 1952, has been de-designated.

| District | Site | Area ha | Status in 2019 |
|-------------------|-------------------------------|---------|-----------------|
| Stratford on Avon | Aston Grove & Withycombe Wood | 54 | 100% Favourable |
| | Bannam's Wood | 30 | 100% Favourable |
| | Knavenhill Wood | 24 | 100% |
| | | | unfavourable |
| | | | recovering |
| | Long Itchington & Ufton Woods | 79 | 100% favourable |
| | Rough Hill & Wirehill Woods | 52 | 100% favourable |
| | Snitterfield & Bearley Bushes | 61 | 100% favourable |
| | Whichford Wood | 46 | 100% favourable |
| | Windmill Naps Wood | 37 | 100% favourable |
| | Wolford Wood & Old Covert | 66 | 100% favourable |

ACTION for WILDLIFE

Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

| North | Bentley Park Wood | 105 | 100% favourable |
|--------------|----------------------------|-----|-----------------|
| Warwickshire | Hoar Park Wood | 29 | 100% Favourable |
| | Kingsbury Wood | 60 | 100% Favourable |
| Solihull | Clowes Wood & New Fallings | 46 | 100% Favourable |
| | Coppice | | |
| Rugby | Ryton Wood | 94 | 100% favourable |
| Total area | | 784 | |

The area of plantation is of the order of 7500ha, some of these new woods being specifically targeted at achieving biodiversity gains, whilst further woods were planted specifically for timber production, landscaping and other benefits. Examples of new woods included screen plantings around quarries and industrial or residential estates, blocks of trees within suburban countryside and a range of woodland types and size within agricultural settings.

Many other woodlands are formally designated Local Wildlife Sites (LWSs) and it is anticipated that most other good quality ASNWs will be selected as LWSs in the current review, which is being undertaken by the Local Wildlife Sites Project (LWSP). The number of designated sites in 2019 was 224, covering an area of 2724ha.

14 woodlands (466ha) are managed as reserves by <u>Warwickshire Wildlife Trust</u> (WWT), four of which are SSSIs. A number of other woods are in some form of protective ownership through the Woodland Trust, Local Authorities or sympathetic private owners. 5 woodland Local Nature Reserves (22.56ha) are also managed by WWT: Cock Robin Wood (Rugby BC), Crackley Wood (Warwick DC), Dafferns Wood (North Warwickshire BC) and Oakwood & Blacklow Spinneys (Warwick DC).

In 2018 wet woodland was recorded as 77ha, with linear fragmented areas along the Grand Union Canal, R. Avon, R.Blythe, R.Tame and at Kingsbury Water Park and 31ha at 6 discrete sites: Claybrookes Marsh, Coombe Country Park (a small corridor along Smite Brook/Top pool), Whitacre Heath, Lowsonford Alder Wood, (Stratford-on-Avon Canal), Stonebridge Meadows alder carr and Streetley Meadows. By 2019, 7 more sites of this important habitat for the rare willow tit (*Poecile montanus*), marsh tit (*Poecile palustris* and lesser spotted woodpecker (*Dryobates minor*) had been identified by the Habitat Biodiversity Audit at: Temple Balsall (4.8ha), Packington (3.5ha), Ufton Fields (21ha), Brandon Marsh (24ha), Middleton Lakes, Ladywalk Reserve and Leasowes Farm. This additional 53ha. of known wet woodland gives a total of at least 130ha in the sub-region, an increase in recorded wet woodland of 70%.

4.1 Legal and Policy Status

A wide range of species and habitats are protected under international and domestic laws, including the <u>Wild Birds Directive</u> (1979), the <u>Wildlife and Countryside Act</u> (1981), the <u>Conservation Regulations</u> (1994) and <u>EC Habitats Directive</u> (1992). Protection of sites is afforded nationally through <u>Sites of Special Scientific Interest</u> (SSSI) designation, <u>Special Areas of Conservation</u> (SAC) and Local Nature Reserve (LNR) statutory status. Other sites are offered recognition of their value through Local Wildlife Site status (LWS), Local Character Areas and identified Landscape Scale Areas. The <u>National Planning</u> <u>Policy Framework</u> (2019, para.175) states conditions with regard to any development

negatively affecting biodiversity, including protected sites, ancient woodland and other irreplaceable habitats (paragraph 118). The Wildlife & Countryside Act and schedule 2 of the <u>Conservation of Habitats & Species Regulations</u> (2017, as amended) make it an offence to intentionally kill, injure, take, possess, sell, buy or transport a range of species.

Woodlands have reasonable legal protection through the <u>Forestry Acts</u> (1967 and 1981) – and <u>Tree Preservation Orders (TPOs)</u> but these measures do not ensure that appropriate management is undertaken. The Forestry Act 1967 (amended) <u>Environmental Impact</u> <u>Assessment Regulations</u> (Forestry Projects) (FC, 2001) <u>UK Forestry Standard</u> (UKFS) (FC, 1998), Ancient and Semi Natural Woodland Policy, <u>England Forest Strategy</u> and <u>West Midlands Regional Forestry Framework</u> (RFF) (FC, 2004) set the context under which the FC regulates and supports woodland stewardship and woodland creation.

The UK Forestry Standard presents the Government's approach to sustainable forestry stewardship, including key criterion on physical, biological, human and cultural resources. Standard notes on the best practice management of existing woodlands of different types, especially the management of semi-natural ancient woodland provide direction in the planning and implementation of woodland operations. Controls on tree felling through <u>Felling Licences</u> mean that the Forestry Commission (FC) can regulate most proactive woodland management operations to ensure that they conform to UKFS and industry best practice. The <u>English Woodland Grant Scheme</u> (EWGS) enables the FC to financially support management that conforms to the standards detailed.

The UKFS includes a Standard Note (SN3) on "Creating New Native Woodland". The English Woodland Grant Scheme enables the FC to support woodland creation; the grants are subject to applications being assessed against a scoring system which reflects the priorities in the regional values of the Forestry Strategy for England. This promotes new woodlands that can be of high biodiversity value, as well as other targets.

Other legislation and protection affecting trees, woodlands and associated habitats include the <u>Town & Country Planning Act 2008</u>, TPOs, <u>Hedgerow Regulations 1997</u>, 1981 Wildlife & Countryside Act, <u>Registered Parks & Gardens, Countryside and Rights of Way Act 2000</u>, <u>Highways Act 1980</u> and the <u>Railways Act 2005</u>.

4.2 Current Factors Affecting the Habitat

Despite losses of woodland in the sub region, particularly ASNW, relatively little new woodland planting has been undertaken, leaving the remaining ancient woodlands recorded on the AWI fragmented and isolated. Since 1985 the loss of ASNW woodland has been substantially reduced to the extent that lack of appropriate management is now seen as a greater threat than habitat destruction. There is still, however, some small-scale ASNW loss through farming practices, illegal felling activities and through planning approvals.

- Fragmentation of habitat: the isolation of woodlands leaves them unable to sustain populations of woodland species. The continued and prolonged loss of hedgerows that has occurred over the last 50 years has left many small woodlands even more isolated from other areas of habitat making species less secure.
- Loss of age structure of scrub due to lack of awareness of its importance for wildlife and the need to manage it for this.

ACTION for WILDLIFE

- Loss of areas of wet woodland due to drainage and change of management.
- **Neglect or cessation of coppicing,** partly due to a declining market for traditional woodland produce and the relative economic benefits of conifer timber production, has resulted in a widespread loss of habitat quality in many woodlands as they became less structurally diverse and more densely shaded. Species such as the dormouse (*Muscardinus avellanarius*), several species of fritillary butterfly (*Argynnis spp.*), and the nightingale (*Luscinia megarhynchos*) are some of the victims and woodland flowers such as violets (*Viola spp.*) and certain orchids have become much scarcer.
- Unsympathetic management of woodland margins, particularly in respect of fertiliser and herbicide drift from cropped fields, will lead to loss of adjacent woodland edge habitat.
- A lack of mature and over-mature trees in many secondary, plantation and new woodlands, and on AWS felled during World War I and II, is leading to very limited deadwood habitats.
- Health and safety concerns: trees are at risk of being lost due to perceptions of safety, size, subsidence etc. Issues such as '<u>Trees of Time and Place</u>' and fear of litigation and misunderstanding of risks contribute to the tendency of landowners to remove dead wood from areas with public access.
- Increasing deer population and lack of deer management groups is leading to unsustainable browsing damage of regenerating and planted trees and is acting as a disincentive to sustainable woodland management. There are limited opportunities for venison markets and farm business or shop diversification to sell venison. Culls between 30 and 60% are considered necessary (Journal of Wildlife Management, 2013)
- **Damage by grey squirrels** (*Sciurus carolinensis*) is causing limb and crown damage on trees and occasionally reduced timber quality and increased management costs.
- Coniferisation undertaken in the mid 20thC at the expense of previous ASNW is now being reversed by both state and private owners guided by <u>Ancient and Semi Natural Woodland Policy Statement</u>. The introduction of other inappropriate tree and shrub species of non-local provenance or the natural regeneration of such species including sycamore (*Acer pseudoplatanus*), rhododendron (*Rhododendron ponticum*) and <u>Himalayan balsam</u> (*Impatiens glandulifera*) is actively deterred but cannot always be prevented.
- **Change of ownership:** following opposition to their original proposal to sell off the country's forests, the Government Forestry and Woodlands Policy Statement (2013) confirmed that the public forest estate will remain in public ownership after all.
- Recreational and development pressure, particularly transport infrastructure and other urban development, e.g. the construction of large housing estates adjacent to woodland and subsequent disturbance and erosion in and around woods. The intrusion of motorbikes, quads, 4X4's, fly-tipping and paint balling, and the increasing illegal and indiscriminate use of guns give cause for concern, especially in those woodlands on the urban fringe. It is estimated by the Woodland Trust that nationally 350 ancient woods are at risk from development proposals for housing, roads, high speed rail and quarries (British Wildlife, Conservation news, 2013).

- Woodland creation is leading to an increase in the resource and, if appropriately placed, an extension of existing woodlands and defragmentation of isolated woods. The incentives for the creation of new woodland play a crucial role in decisions about woodland creation but high land values restrict woodland creation.
- **Organisations and individuals:** some organisations, such as The Woodland Trust, and occasionally wealthy individuals, are committed to creating new woodlands with social and biodiversity objectives at the forefront of their thinking.
- **Diseases**, including Sudden Oak Death caused by the plant pathogen *Phytophthora ramorum*, and <u>Ash Dieback</u> caused by the fungus *Hymenoscyphus pseudoalbidus (*formerly called *Chalara fraxinea*). Ash Dieback is present across the county and in 2019 the percentage of resistant trees was identified as 5% (FE, 2019).
- Impact of invasive species: e.g. snowberry (Symphoricarpos albus, variegated yellow archangel (Lamiastrum galeobdolon argentatum) Rhododendron spp., Spanish bluebell (Hyacinthoides hispanica).

3. LOCAL ACTION

- An accurate digitised database of all woodland in the sub-region, including ancient woodlands of all sizes, has been established by the Habitat Biodiversity Audit (HBA) and is annually updated.
- Tree planting schemes through the Warwickshire Tree Scheme which ran from 1980 - 2009, over a million trees were planted across Warwickshire to create new woodland and enlarge existing woodlands, through the use of native species. The choice of tree and shrub types were shaped by the <u>Warwickshire Landscapes Guidelines</u> (1993); these identify landscape character areas [for example Arden] and direct decision making on appropriate tree or woodland location, scale, species choice etc. The Solihull Free Tree Scheme was used until 2005 to enlarge existing woodlands with native species trees and produced <u>Arden Landscape Character guidelines</u> (1993) to direct decision making on appropriate tree or woodland location, scale, species choice etc.
- The <u>Big Tree Hunt in Warwickshire</u>, inspired by <u>Steven Falk</u>, collected data about location, size, age and form of notable and veteran trees within the sub region from 2005-2010. The following publications were produced:
 - Warwickshire Tree Catalogue Part One: Introduction
 - Warwickshire Tree Catalogue Part Two: Conifers etc
 - Warwickshire Tree Catalogue Part Three: Broadleaves Acer-Morus
 - Warwickshire Tree Catalogue Part Four: Broadleaves Nothofagus-Zelkova
 - Warwickshire Tree Catalogue Part Five: Sites
 - Veteran Tree Booklet
- The NE 'good practice guidelines' encourage the use of appropriate species for re-planting in semi-natural woods and for new woods e.g. <u>Arden National Character area profile.</u>
- The **UK Forestry Standard** (3rd edition, FC, 2011) defines a series of forestry requirements that ensure international commitments are addressed while

focusing on the UK context. The UKFS sets out these statutory requirements together with requirements of good forest practice in the Ancient and Native Woodland Practice guidance (<u>Managing ancient and native woodland in England</u>, FC, 2010) to ensure the status of priority habitats and species is protected or enhanced.

• The Warwickshire Forest Design Plan (FDP), (FC, 2011-2021), aims to establish policies encouraging use of appropriate species for re-planting in semi-natural woods and for new woods intended for nature conservation, and encourage use of these on new developments:

| Ancient | Current Situation |
|-------------|---|
| Semi | • There are 61ha of ASNW fragmented across the FDP area (21.4%) and this is |
| Natural | stocked with oak, birch and hazel. |
| Woodlands | Isolated specimen / veteran oaks can be found throughout the woodlands but |
| (ASNW) | primarily along woodland boundaries and Black Poplar in Weston and Waverley |
| 、 | wood. There are only a limited amount of deadwood habitats. |
| | Regeneration in each of these woodlands |
| | |
| | Objectives/Planning Targets |
| | ASNW will be managed through selective felling to create a complex woodland |
| | structure which will provide varied light levels for the ground flora, encourage |
| | natural regeneration, release established trees, ensure that the stands remain |
| | stable and any exotic species are removed. |
| | Small groups of broadleaves and individual native broadleaf trees that remain |
| | within the FDP area will be retained wherever possible to provide a seed source to |
| | restock adjacent areas. |
| | ASNW areas will be restocked through natural regeneration of indigenous species |
| | typical of the natural woodland characteristic. |
| | Retain small groups and individual broadleaves in perpetuity to provide long-term |
| | retentions and deadwood habitat. |
| Plantations | Current Situation |
| on Ancient | The restoration of AWS is a key objective within this FDP and the West Midlands |
| Woodland | District Plan. |
| Sites | Objectives/Planning Targets |
| (PAWS) | The remaining areas of PAWS will be managed largely through a selective felling |
| | programme where the exotic species are removed to allow the established |
| | broadleaves to dominate the canopy and encourage further natural regeneration. |
| | Areas adjacent to the fragmented ASNW areas and individual native trees will be |
| | targeted when management operations are carried out, opening them up to create |
| | adequate light and shelter to facilitate natural regeneration of indigenous species. |
| Secondary | Current Situation |
| Woodland | Less than 1ha of the FDP is classified as Secondary Woodland: Arley Wood 0.2ha |
| | and May's Wood 0.3ha. |
| | Objectives/Planning Targets |
| | The current conifer stands within Arley Wood and May's Wood will be managed in |
| | the same way as the rest of the woodland area with a gradual restoration to |
| | broadleaf woodland. |
| Retentions | Current Situation |
| | All of the FDP woodlands are being formally managed and the only variation is |
| | within the research plot in Weston and Waverley Wood where management |
| | operations are carried out by Forest Research. |
| | Objectives/Planning Targets |
| | Within the new FDP, 5% (14.8ha) of the forest area will be managed as a natural |
| | reserve. |
| | Veteran and old deadwood will be retained wherever possible in each of the |
| | woodlands to create long-term retentions |
| Na Na | tural England supports woodland stewardship through the Higher Level |

 Natural England supports woodland stewardship through the <u>Higher Level</u> <u>Environmental Stewardship Scheme</u>, with the particular target of Ancient

Woodland Sites. Notable examples are around Dorsington, on the Spernal Estate, Temple Balsall, Grandborough, Twomlow near Southam, the West Arden Living Landscape area (<u>Heart of England Forest</u>, HoEF) and Barnrooden, Priors Marston, a 30yr. old plantation now with a wide variety of habitats.

- The Forestry Commission (FC) supports large woodland creation projects (20ha) through the English Woodland Grant Scheme (EWGS), with a particular target for the creation of native species woodlands with significant open ground habitat; also the restoration of mixed woodland to broadleaf by the removal of conifers:
 - between 1991-2013 2406ha of woodland were entered into the EWGS:
 - in 2012 a 10yr restoration of quarried farmland to woodland was begun by CEMEX to link Ryton, Bubbenhall and Wappenbury Woods.
 - the programme of Restoration of Plantations on Ancient Woodlands (PAWs) is committed to naturally regenerating broad-leaved woodland within their own estate from conifer to deciduous woodland at Weston & Waverley Wood, Oversley Wood, May Wood, Hay Wood and Arley Wood.
- Friends of Brandon Wood (FoBW) is restoring this 'Domesday Book' wood to mainly broadleaf. Scallops, with scrub developing at the woodland edges, have been created by selective thinning and mowing at carefully selected times to achieve a mix of species which is encouraging wildflowers for butterflies.
- **Stratford District Council:** Bridgetown Community Woodland & Meadows is an area of newly planted woodlands to the south of the town centre and includes large open fields, sparse hedgerows and a community orchard.
- Warwickshire Wildlife Trust (WWT):
 - coppice management is being actively implemented with other landowners as part of the 10 yr. management plans in 14 woods including ride-side coppicing at Bubbenhall Wood, Ryton Wood SSSI, Snitterfield Bushes SSSI, Wappenbury Wood, Hampton Wood and Oakley Wood. Most of the management plans include work to increase structural diversity of rides and margins; 20ha of coppicing, scalloping, brashing up and dead hedging have been carried out by volunteers since 2011.
 - deer management including fencing is taking place in Wappenbury Wood, Snitterfield Bushes, Hampton Wood and Ryton Wood.
 - The <u>Dunsmore Living Landscape Partnership</u> has been active since 2004 and is developing co-operative woodland management on a landscape scale, to establish active management of woodlands for the benefit of wildlife and people including the production of wood fuels for use in local communities, woodland management skills training, deer management and public access. In 2012, Warwickshire Wildlife Trust was successful in securing landfill credit funding from SITA Trust for woodland management in three Trust woodlands. Since 2012, 13.4ha of coppicing with standards, 600m of ride restoration and 2ha of tree planting has been carried out. At Piles Coppice a trial area of lime coppicing is planned as part of the new management plan.
 - Clowes Wood and New Fallings Coppice: this WWT reserve is managed by the Earlswood Wildlife Partnership.

- **HoEF**: has created 358.37ha of native species forest between 2014-19, funded by FC, predominantly around Spernal and Dorsington, including Coughton Fields (110ha), and Noleham Wood (21.81ha) with BCW.
- The **Woodland Trust** planted Millenium Woods at the following sites:
 - in 1999, Gibbet Hill Wood was planted with a mixture of native broadleaf trees and shrubs such as oak, ash, silver birch, field maple and sallow as part of the 'Woods On Your Doorstep' initiative to mark the Millenium. The site is leased from Coventry City Council on a 125yr agreement and lies immediately south of Tocil Wood ASNW.
 - in 2012, land owned by the University of Warwick as one of the locations for a 'Jubilee Wood', planted in 2013 with 31,000 native trees to celebrate Queen Elizabeth's Diamond Jubilee.
 - in 2012, supported Rugby Borough Council to create the 'Diamond Wood in Rugby in 2012 as part of the Woodland Trust's Jubilee Woods programme. In 2016 a partnership with RBC was forged to show how tree planting can deliver wide social and environmental benefits for local authorities; supported by a Countryside Stewardship grant from Natural England and 30,000 trees from the Woodland Trust.
 - Cuttle Brook Wood (Temple Balsall), Flowers Wood (Ilmington) and Kingstree Wood (Kineton), were also planted for the millennium.
- <u>Severn Rivers Trust</u>: the riparian planting of 3515 trees in 2013 was part of the Avon & Leam Catchment Plan delivery.
- Butterfly Conservation Warwickshire (BCW):
 - in 2014 the North West Woodlands Warwickshire Landscape was defined as an area for action; this includes Hay Wood where work is being undertaken to thin conifers by 30% and to widen the main rides, also to increase the area of heathland plants. By 2016 good heather regeneration followed the rotational cutting of scrub edge of rides including brush-cutting grassland to wood edge (see Wood White and Argent & Sable action plans)
 - since 2014, coppicing work has been carried out in Ryton Wood, Weston Wood, Oversley Wood and Hay Wood.
- <u>Agri-environment schemes</u> administered by Natural England support 75 agreements for the carr option, including at Ufton Fields where 2695 willows were pollarded and for the management of Stonebridge meadows alder carr by WWT.
- Wet woodland management for the scarce lesser spotted woodpecker, willow and marsh tits is known to be carried out at:
 - Alvecote Pools, Brandon Marsh, Claybrookes Marsh, Decoy Wood and Dials Pool Wood (Packington Estate), Kingsbury Water Park, Ladywalk Reserve, Middleton Lakes, Stonebridge Meadows, Streetley Meadows, Ufton Fields and Whitacre Heath.
 - Temple Balsall NR where lesser spotted woodpecker and willow tit were last recorded in 1988 but marsh tit, recorded in the churchyard in 2019, may be breeding here.
 - At Coombe Country Park a conservation area with no public access allows the retention of dead standing & fallen trees, a favoured area for 2-3 pairs of willow tits & 6-8 pairs of marsh tits; an area of willow & alder carr bordering the

lake on the edge of the wild flower meadow is managed for the 3-4 pairs of lesser spotted woodpeckers to nest.

- The <u>Tame Valley Wetlands Nature Improvement Area (NIA)</u> holds a nationally important population of willow tit, with strongholds at Ladywalk Nature Reserve and Middleton Lakes, managed by the Royal Society for Protection of Birds (RSPB). The '<u>On a Tree by a River</u>' project aims to bring the species back from the brink as one of UKs most threatened native birds, providing a corridor of wet woodland along the R.Tame from Ladywalk to Middleton through habitat improvement and the strapping of fallen dead wood to living trees in an upright position to provide nesting opportunities.
- At Ladywalk Reserve (<u>West Midland Bird Club</u>), management of wet woodland is carried out throughout the reserve for the breeding willow tits; there is no evidence of breeding for lesser spotted woodpecker and the 1 pair of marsh tits (pers.comm.Richard King 2021).
- *Friends of Woods'* groups (to be combined with wardens for Ryton, Wappenbury and Bubbenhall Woods) have been established at Coombe Country Park, Daffern's Wood LNR, New Arley, Oakley, Tile Hill, Oversley, Hay, Brandon and Binley Woods; also at Foundry Wood where 0.2ha of deciduous wood along the main railway line is managed as an open access community woodland.
- **Ongoing survey** of many woods by various wildlife recorders (especially high since the 1980s) is helping to establish their biodiversity, characteristics, cultural history and relative significance.
 - in 2012 survey work was carried out by Warwickshire Flora Group and Butterfly Conservation. Breeding birds, bat, dormouse and butterfly surveys, and woodland condition monitoring, were undertaken at Ryton Wood SSSI and Wappenbury Wood in 2012 and 2013 by Warwickshire Wildlife Trust, funded by SITA Trust and <u>People's Trust for Endangered Species</u> (PTES).
 - between 2009-16 <u>Dormouse Conservation Warwickshire</u> coordinated a survey of 16 woods in the county to update knowledge of the status of the common dormouse but no new sites were found. There have been three introductions of dormice by PTES, in 2009, 2017 and 2018, all of which have become established populations, with breeding taking place.
 - in 2020 Heart of England Forest planned to resume the survey of Warwickshire's woodlands for dormice in three of their woods.

6. PROPOSED LOCAL ACTIONS

| ACTION | Lead | Partners | Ву | |
|---|------|----------------|---------|--|
| PLEASE CONSULT THE ' GENERIC HABITATS' ACTION PLAN IN CONJUNCTION WITH THIS DOCUMENT FOR ACTIONS COMMON TO ALL HABITAT PLANS | | | | |
| Policy, Legislation & Protection | | | | |
| PL1. Identify and assess for SSSI status suitable candidate ANSWs, particularly those supporting priority species such as dormice and those in | NE | FC WWT LWSP | ongoing | |

ACTION for WILDLIFE

| landscape scale complexes. | | | |
|--|------|----------------------------------|---------------|
| PL2. Continue to select all qualifying ASNW, including sites of less than 2ha as LWSs and enter onto database. | LWSP | NE LAS WWT | ongoing |
| PL3. Ensure that the protection of all woodland is included in Local Development Plans, Neighbourhood Plans and any other relevant strategies. | WCC | NE LAs WWT | ongoing |
| PL4. Ensure that new minor or major developments aim for net biodiversity gain through adherence to the mitigation hierarchy. | WCC | NE WWT LPAs NWBC NBBC | ongoing |
| PL5. Actively work to ensure development proposals do not affect the integrity or setting of ancient woodland sites or the opportunity to extend existing woodlands or impact on other sensitive habitat sites using the FDP. | WCC | BCW FC WWT LAs | ongoing |
| PL6. Develop an agreed policy on buffering around ancient woodlands to protect from development and climate change / drainage. | WWT | LNP | 2022 |
| PL7. Ensure the management of woodlands for all priority species by the implementation of the LBAP. (Ref. Action plans for Common Dormouse, Argent & Sable Moth, Leaf Rolling Weevil, Wood White Butterfly and Great Crested Newt. | LBAP | WWT WCC FC BCW DCW WART | ongoing |
| Site / Species Safeguard & Management | | | |
| SM1. Maintain favourable ecological condition of all 784ha of SSSI woodlands, by appropriate management to increase resilience to current and future changes, e.g. climate change and the impact of pests such as ash die back. | NE | WWT WT FC BCW DLLP LAs LOs | ongoing |
| SM2. Achieve condition of 1000ha of ancient semi-natural woodland over 0.25ha that are currently in unfavourable condition, to favourable or recovering, by 2015, and another 1531ha by 2026. Ensure appropriate management to increase resilience to current and future changes, e.g. climate change and the impact of pests such as ash die back. | LOs | WWT NE FC DLLP | 2015- 2026 |
| SM3. Achieve a varied age structure at woodland margins and along rides within woodland by managing or creating areas of scrub (see RM2). | LOs | CCP NT | ongoing |
| SM4. Maintain the age structure of wet woodland | LOs | NE WCC NT | ongoing |

| | | | , |
|---|----------------------------|--|-----------------------|
| (see RM3) by coppicing and water management. | | RSPB SRT EA WWT TAMP LAs WMBC NAM CCP | |
| SM5. Retain old dead wet wood for nesting sites for lesser spotted woodpecker and willow tit; supplement with rotten logs with sawdust-filled holes for willow tit nest building, e.g. at Alvecote Pools. | LOs | WWC WWT WMBC WWT RSPB CCP LAs | ongoing |
| SM6. Restore 287ha of conifer or non-native broad-leaved plantation on ancient woodland sites to native broad-leaved plantation or semi- natural woodland by 2015 and a further 631ha by 2026 (UK Forestry Standard. Ancient & Semi Natural Woodland Policy). | FE | LOs | 2015- 2026 |
| SM7. Increase the extent of the woodland cover and resource by 314ha by 2015 and a further 692ha by 2026 by: expanding existing ASNW by natural regeneration or appropriate woodland creation using locally native species in accordance with FC Bulletin 112. expanding other plantation or farm woodland cover in the sub region in accordance with the regional spatial strategy and other policy and or legislation creating new plantations of native broadleaf species | LOs | WWT FC SRGBG NT HoEF WT | 2015- 2026 |
| SM8. Introduce additional woodland habitats e.g. open ground, rides, river banks, etc. and increase social, economic and biodiversity opportunities where appropriate during all the above actions. | LOs | WWT FC NT WT HoEF SRT | ongoing |
| SM9. Work at a landscape scale, focusing effort on identified important clusters of ANSW to maximise benefit, 'rewilding' the wider countryside and restoring the range of the habitat to build resilience to climate change. Target areas are: Dunsmore Living Landscape (DLLP) West Arden landscape area (HoEF) North Arden landscape area (WWT) Hay Wood 'central' cluster (BCW) | DLLP HoEF WWT BCW | FC WT NT NWBC DCW FoHW | 2026 |
| SM10. Establish, implement and maintain deer management groups covering all the main concentrations of woodland in the sub-region and minimising loss caused by development or neglect, prioritising Dunsmore Living Landscape | WWT | WCC FC LOs DLLP | New date to be set |

| area. | | | |
|---|-----|------------------------|---------|
| Advisory | | | |
| A1. Inform landowners of all woodland SSSIs about appropriate sustainable management and grant schemes. | NE | WWT FC | ongoing |
| A2. Inform all owners/managers of ancient semi- natural woodland and woodlands, particularly LWS, about appropriate sustainable management and the opportunities with respect to grants and markets. | WWT | NE LAS BCW LWSP SWA | ongoing |
| A3. Provide advice on appropriate management of the remaining 5213ha (HBA, 2012) of ancient semi-natural woodland, including woodlands under 0.25ha. | FC | WWT BCW LAs WT LOs | ongoing |
| A4. Ensure that all Felling Licence and Stewardship or Woodland Creation Grant (EWGS/HLS) applications meet the UK Forestry Standard to comply with legislation for species and habitats. | FC | NE | ongoing |
| A5. Actively encourage that EWGS/HLS Stewardship agreements for management of woodland cover all habitat components, including rides, ponds, clearings, deadwood & woodland edge. | FC | NE WWT | ongoing |
| A6. Provide advice on management to reduce the detrimental effects of game bird rearing, especially pheasants, on woodland and other wildlife, signposting to Game & Wildlife Conservation Trust and Forestry England. | WWT | GWCT C | ongoing |
| Research & Monitoring | | | |
| RM1. Maintain the HBA digitised dataset of all woodland and other adjacent habitat types and seek to establish a record of habitat types within woodlands. | HBA | FC WCC WWT LWSP | ongoing |
| RM2. Record areas of biodiverse scrub (see SM2). | HBA | LOs WBRC WWT | ongoing |
| RM3. Record further areas of biodiverse carr woodland (see SM3). (Ref. RM3 Marsh & Swamp, Wet Grassland & Wet Woodland action plan). | HBA | LOs WBRC WWT LAs | ongoing |

| RM4. Continue to use the plant indicator species list for assessing the quality of woodland habitat, recording invasive species during surveys (see section 4.2) | LWSP | BCW HBA | WWT | ongoing |
|---|------|----------------|--------------|---------|
| RM5. Use existing indicator flora list for monitoring woodland condition and expansion every 5 years. | WWT | FC | BCW | ongoing |
| RM6. Using existing research, establish a project to develop local sustainable markets for the produce of ASNW and AWS to facilitate their management, e.g. Dunsmore Woodlands. | WWT | FC | LOs | 2030 |
| RM7 . Review and assess the monitoring by High Speed Rail HS2 of woodland soil translocation to mitigate loss. | NE | ERG confirr | To be ned | 2030 |
| Communication & Publicity | | | | |
| CP1. Raise awareness and understanding of the ecosystem services value of trees and woodlands, particularly ASNW & AWS amongst woodland owners, managers, contractors and the public. | WWT | FC | WCC | ongoing |
| CP2. Organise training and discussion sessions to cover all elements of sustainable woodland management in the Dunsmore Living Landscape area. One training event per year as a minimum. | WWT | WCC FC | BCW | 2021 |

Abbreviations: BCW – Butterfly Conservation Warwickshire, CSG – Core Steering Group. DCW – Dormouse Conservation Warwickshire, DLLP – Dunsmore Living Landscape Project, ERG – Ecological Review Group, FC – Forestry Commission, GWCT – Game and Conservation Wildlife Trust, HoEF – Heart of England Forest, LAs – Local Authorities, LBAP – Local Biodiversity Action Plan, LOS – landowners, LPAs – Local Planning Authorities, LNP – Local Nature Partnership, LWSP – Local Wildlife Sites Project, NE – Natural England, , SRGBG – Sunrising Green Burial Ground, SRT – Severn Rivers Trust, SWA – Small Woods Association, TAMP – Tame Anker Mease Catchment Partnership, Unis – Universities, WBRC – Warwickshire Biological Record Centre, WCC – Warwickshire County Council, WT – Woodland Trust, WWT – Warwickshire Wildlife Trust.

7. PROGRESS WITH ACTIONS

From 2015–2020 there will be a rolling programme of reporting on progress, of 10 action plans per year with an annual summary of results. Progress with this plan up to 2019 can be seen at <u>https://www.warwickshirewildlifetrust.org.uk/LBAP</u>.

8. BIBLIOGRAPHY

Kirby, P. (1992). <u>Habitat management for Invertebrates</u>: a Practical Handbook. RSPB.

Peterken, G (1994) Woodland conservation management. Chapman & Hall.

Forestry Commission (2002) <u>National Inventory of Woodland and Trees –</u> Warwickshire

Kirby, K.J., Smart, S.M., Black, H.I.J., Bunce, R.G.H., Corney, P.M. & Smithers, R.J. (2005). Long term ecological change in British woodland (1971-2001). Peterborough, Natural England (Research Report 653)

Countryside Agency (2005). Community Forest Programme 1990-2005.

Tudge, C. (2006). The Secret Life of Trees – How They Live and Why They Matter (Penguin Press Science).

Olsen, L. (2006). Small Woodland Creatures. OUP

Merryweather, J. (2007). Planting trees or woodlands? An ecologist's perspective. British Wildlife, vol.18, no.4:250-258.

DEFRA (2007) <u>A strategy for England's trees, woods and forests</u> (supercedes the 1998 Forest Strategy)

JNCC (2011) UK Biodiversity Action Plan: Priority Habitat Descriptions.

Woodland Trust (2008) Woodland actions for biodiversity and their role in water management.

Falk, S.J. (2009) Warwickshire's Wildflowers - provides habitat-specific species lists, and explanations of habitats from a botanical viewpoint.

Treweek Environmental Consultants (2009) Regional Spatial Strategy (R.S.S.) Phase 3 Regional Habitats Targets Review, Technical Report pp.71-94, prepared for the W. Midlands Regional Assembly.

Lawton, J.H. (2010) <u>Making Space for Nature</u>: a review of England's wildlife sites and ecological network. Report to Defra, advocating a landscape-scale approach guided by four key principles, summarised as '*more, bigger, better and joined*'.

Plantlife (2011) <u>Forestry Recommissioned</u> – bringing England's woodlands back to life.

Forestry Commission (2011) <u>Forests and Biodiversity</u>: UK Forestry Standard Guidelines.

DEFRA (2011) <u>Biodiversity 2020</u>: A strategy for England's wildlife and ecosystem services.

Natural England (2020). <u>Priority Habitat Inventory (England)</u> - habitat surveillance pilots and inventory updates are part of the ongoing monitoring projects carried out by Natural England.

Forestry Commission (2011) <u>National Forest Inventory Woodland Area Statistics:</u> England

Forestry Commission (2012) Warwickshire Forest Design Plan 2011 – 2021

Wäber, K., Spencer, J. & Dolman, P.M. (2013) Achieving landscape-scale deer management for Biodiversity Conservation: the need to consider sources and sinks. Journal of Wildlife Management.

DEFRA (2013) Forestry and Woodlands Policy Statement (incorporating the Government's Response to the Independent Panel on Forestry's Final Report) - confirms that the Public Forest Estate will remain in public ownership, held in trust for the nation by a new independent body.

ACTION for WILDLIFE

Warwickshire, Coventry and Solihull Local Biodiversity Action Plan

Forestry Commission (2013) <u>Woodland for Water</u>: Woodland measures for meeting Water Framework Directive objectives: An evaluation of the key issues relating to woodland and the Water Framework Directive.

HBA (2013) The State of the Habitats of Warwickshire, Coventry and Solihull.

Rackham, O. (2014) The Ash Tree. Little Toller Monograph.

Day, J. (2014) Creating structural diversity and deadwood habitat by ring-barking. Habitat management News, British Wildlife vol.26, no.2. p.96.

RSPB (2016) <u>State of Nature</u> – a stocktake of all our native wildlife by over 50 wildlife organisations.

Natural England (2016) <u>Conservation Strategy for the 21st Century.</u> Sets out how NE will help deliver DEFRA's ambitions for the environment to reverse biodiversity loss, sustain distinctive landscapes and enhance engagement with nature.

Overall, A. (2017) Fungi: Mushrooms & Toadstools of Parks, Gardens, Heaths and Woodlands.

Worldwide Fund for Nature (2018) <u>The Living Planet Report</u>: aiming higher. Published in collaboration with the Zoological Society of London.

Farjon, A. and Hill, L. (2019) Natural woodland generation as an alternative to treeplanting. British Wildlife Vol.30, no 4, pp.117-185.

Forestry England (2019) Ash die back. British Wildlife, vol. 30 no 3, p 193. Full title to confirmed.

9. FURTHER INFORMATION

Habitat Biodiversity Audit (HBA) for Warwickshire, Coventry & Solihull – mapping data set and associated information. Phase 1 (\underline{JNCC}) 1996-2002 and Phase 2 (Local Wildlife Sites) ongoing.

Biodiversity Planning Toolkit - a new online resource to help incorporate biodiversity and geodiversity into the planning system and new development.

Forestry Commission (1992) Woodland management for Pheasants Bulletin 106.

<u>Royal Society for the Protection of Birds</u> (2005) Woodland Management for Birds – a guide to managing for declining woodland birds in Britain (NHBS). Also for 9 new woodland management advice sheets, email: <u>publications@rspb.org.uk</u>

Forestry Commission (2003). Tree Felling – Getting Permission. Also (2007) Forest Reproductive Material – guidance in choosing seeds and young trees for planting.

Natural England (2005). <u>Development of good practice guidelines for woodland</u> <u>management for bats</u>, Report no. 661 – available online or from 01733 455100

World Wildlife fund WWF (2005). Deadwood – Living Forests. The importance of veteran trees and dead wood for biodiversity.

British Wildlife (2007) A new deadwood habitat survey method. Vol.18, no.5. p.324.

Forestry Commission (2010) Practice Guide: Managing ancient and native woodland in England.

<u>Plantlife</u> - a charity which carries out plant species and habitat conservation, owns and manages nature reserves, campaigns, and raises awareness through education.

Butterfly Conservation: <u>Woodland management for butterflies and moths: a best</u> <u>practice guide</u> - intended for anyone involved in the management of woodland, it provides guidance on the woodland habitat features needed by butterflies and moths, and how to create, maintain and improve them. Also <u>Woodland Scallops:</u> – a management factsheet on ride- side scallops that can help provide habitats for many rare and declining species.

Woodland Trust - works on woodland policy issues across all parts of the UK.

Future Trees Trust is a charity dedicated to the improvement of broadleaved trees.

<u>Living Ash Project</u> by The Earth Trust, in partnership with Defra, to identify and secure ash trees showing good tolerance to the ash dieback fungus.

<u>Observatree</u> is a network of volunteers trained to conduct tree health surveys and report by the Woodland Trust.

British Wildlife (2017) Woodlands. What does 'traditional' management really mean? Vol.29, no.2, p.117.

Lesser spotted woodpecker request for records <u>http://www.hnhs.org/kcfinder/upload/files/LSWnests2016.pdf</u>

RSPB et al. (2019) <u>Woodland Wildlife Toolkit</u>, developed to help woodland managers to integrate wildlife conservation with other woodland management objectives.

The <u>Warwickshire Rural Hub</u>: helps farming and rural businesses to prosper in Warwickshire and the surrounding counties.

<u>Arden Farm Wildlife Network:</u> brings together like-minded farmers to share best environmental practice.

Forestry Commission (2019) <u>Tree felling: getting permission</u>. To help protect England's trees and woodland, a lling licence from the Forestry Commission is required to fell most trees as it is an offence to fell trees without a licence if an exemption does not apply.

Forestry Commission / Natural England (2020) <u>Guidance on managing and</u> <u>protecting woodland wildlife</u>. How to protect wildlife and habitats and apply for wildlife licences so you can legally operate in woodlands and forests.

<u>Game and Wildlife Conservation Trust</u>: <u>Woodland creation and management for</u> <u>pheasants</u> - a best practice guide.

Game and Wildlife Conservation Trust (2020) Advice: Woodlands and pheasants.

10. CONTACT

Clive Jackson, Forestry Commission, Block B, Government Buildings, Whittington Road, Worcester, WR5 2FR. Tel. 01905 362730. Email: clive.jackson@forestrycommission.gov,uk