

TARGET HABITATS AND SPECIES FACT SHEETS



These factsheets provide further detail about the target habitats and species that are the focus of Warwick District Council's Biodiversity Action Programme. They include information on; the conservation status of the habitats and species; their distribution across Warwick District; key threats; conservation work being undertaken or planned by the Council and ways that residents of Warwick District can help.

Please note that whilst some important species groups such as fungi, bryophytes and other rare plants are not specific target species, they are closely associated with one or more target habitats and will flourish subject to sensitive and appropriate habitat management/enhancement (e.g. Saproxylic fungi benefitting from ancient and veteran tree conservation and enhancement in the Wood Pasture and Parkland, Trees and Woodland habitats).

Target Habitats:

- Wood Pasture and Parkland
- Trees (including ancient, veteran and important trees)
- Woodland (including ancient woodland)
- Grassland (including Habitat of Principal Importance (HoPI) grasslands)
- Priority Watercourses (main rivers) and Canals
- Native Hedgerows
- Arable Field Margins
- Wetlands and Ponds

Target Species:

- Black Poplar
- Scarce Arable Plants
- Water Vole
- Otter
- Hazel dormouse
- Bats (all locally occurring species)
- Hedgehog
- Barn Owl
- Urban Birds (including swifts, starlings and house sparrow)
- Farmland Birds (including skylark, lapwing, yellowhammer, corn bunting, linnet, grey partridge, tree sparrow and turtle dove)
- Wading Birds (including sandpiper (common and green), snipe, ringed plover and oystercatcher)
- Amphibians (including great crested newt)
- Grass Snake
- Common Lizard
- Slow Worm
- Pollinators
- Wood White Butterfly
- Dingy Skipper Butterfly
- Agent and Sable Moth
- White Letter Hairstreak Butterfly



Thistle plant with pollinators, taken in Warwick by Alec





WOOD PASTURE AND PARKLAND



Wood Pasture and Parkland (WPP) comprises open grassland associated with trees, tree groups and blocks of woodland, notably ancient and veteran trees (also a Target Habitat) with associated deadwood and decay features. It is a habitat typical of historic parkland and characteristic of the Arden Warwickshire Landscape Character Area, although examples are found throughout Warwick District. WPP management typically favours the retention of ancient and veteran trees and associated ecosystems that have been lost in much of our enclosed woodlands.

Target Habitat and Species Distribution:
Wood Pasture and Parkland



Conservation status:

- Habitat of Principle Importance (HoPI) under S41 NERC Act 2006
- Approx. 278,000ha of WPP in England
- Approx. 3.7% of Warwick District is made up of WPP (1,056ha)
- WPP is considered of equal importance to ancient woodland

Associated Warwick District Target Species:

- Hazel Dormouse
- Bats
- Hedgehog
- Common Lizard
- Slow worm
- Pollinators

Threats:

- Urban development
- Anti-social behaviour (e.g. arson, vandalism etc.)
- Agricultural land use
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Notable examples in Warwick District:

Stoneleigh Park, Wroxhall Abbey Park, Abbey Fields, Offchurch Bury Park and Warwick Castle Park.

Ways WDC is helping:

- Site specific management plans for woodland on Council land and other public open space, along with the development of a Woodland Enhancement and Management Strategy, to protect, conserve and enhance WPP and trees
- Raising awareness of habitat protection and enhancement with private landowners and managers
- Prioritising biodiversity, including tree protection, within the local planning system.

Ways you can help:

- Volunteer with a local group such as Warwickshire Wildlife Trust, Woodland Trust, Forestry Commission and others to contribute to some of the much-needed conservation action work.





TREES (INCLUDING ANCIENT, VETERAN AND IMPORTANT TREES)

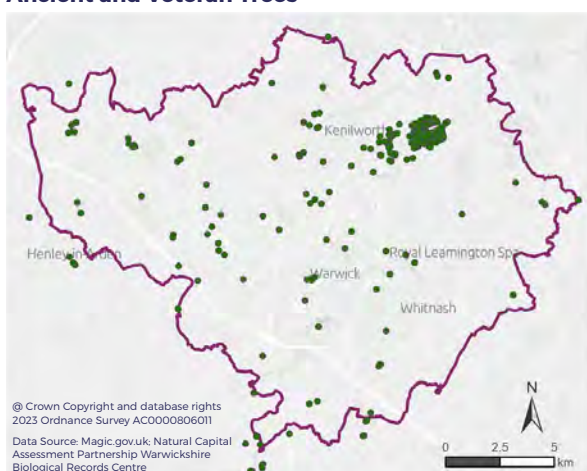


Jephson Gardens, taken by Steve

The terms 'ancient' and 'veteran' trees have been used interchangeably in the past but there is a difference. 'Veteran' is a term describing a tree which supports features such as wounds or decay, whereas 'ancient' refers to trees of significant age. Not all veteran trees are old enough to be ancient, they can be young trees but with features showing the 'scars' of age such as decay in the trunk, branches or roots, fungal fruiting bodies, or dead wood. Both ancient and veteran trees are considered **irreplaceable** habitats due to the age and dynamic growing conditions required for them to form.

Important trees are those which don't fit the above criteria but fulfil other key ecological functions or services and are considered to be particularly valuable. These include, but are not limited to: important urban trees providing essential canopy cover for climate regulation and urban greening; trees providing ecological connectivity including stepping stones between wooded areas; and trees covered by Tree Preservation Orders (TPOs).

Target Habitat and Species Distribution:
Ancient and Veteran Trees



Conservation status:

- Ancient and veteran trees are considered of equal importance to ancient woodland
- Some trees may be protected through TPOs

Associated Warwick District Target Species:

- Black Poplar
- Bats
- Urban birds
- Pollinators

Threats:

- Urban development
- Anti-social behaviour (e.g. arson, vandalism etc.)
- Agricultural land use
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Notable examples in Warwick District:

Abbey Fields, Priory Park and Jephson Gardens all have examples of ancient and veteran trees, along with Stoneleigh Deer Park which is home to Warwickshire's oldest sweet chestnut.

Ways WDC is helping:

- Site specific management plans for woodland on Council land and other public open space, along with the development of a Woodland Enhancement and Management Strategy, to protect, conserve and enhance woodland and trees
- Raising awareness of tree protection and enhancement with private landowners and managers
- Prioritising biodiversity, including tree protection, within the local planning system.

Ways you can help:

- Submit requests to Warwick District Council for new TPOs
- Volunteer with a local group such as Warwickshire Wildlife Trust, Woodland Trust, Forestry Commission and others to contribute to some of the much-needed conservation action work
- Let the Woodland Trust know about any ancient or old trees you see
- Plant trees in your garden or local community - the Woodland Trust can provide tree packs, often free for schools and communities. Please consider native trees of local provenance to reduce risk of disease and choose species that fruit or blossom to benefit pollinators.





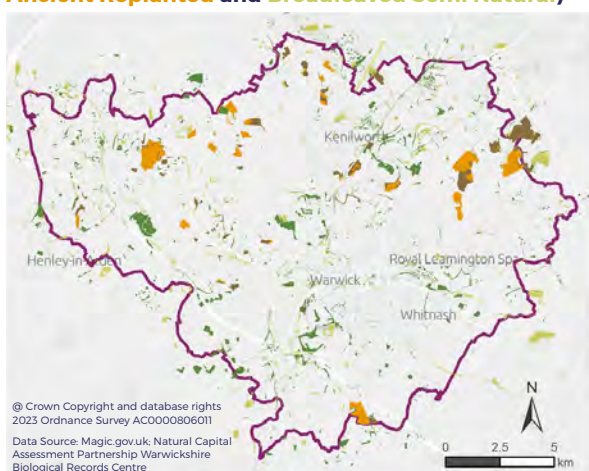
WOODLAND (INCLUDING ANCIENT WOODLAND)



Woodland comprises naturally occurring and historically planted woodland of native species. Good examples include ancient woodland, lowland beech and yew woodland, lowland mixed deciduous woodland and wet woodland habitats.

Woodland is one of the most important habitat categories in Warwick District, supporting many species and a variety of benefits such as landscape, public amenity and timber production. The multifunctional value of woodlands has been increasingly acknowledged locally and nationally.

Target Habitat and Species Distribution:
Woodland (Including Ancient Semi Natural, Ancient Replanted and Broadleaved Semi Natural)



Conservation status:

- Ancient woodland covers just 2.4% of the UK
- Approx. 3% of Warwick District is made up of ancient woodland (total of 747.5ha comprised of 278ha ancient semi-natural woodland and 469.5ha of ancient replanted woodland)
- Woodland covering the UK increased by 9% from 1998 to 2018

Associated Warwick District Target Species:

- | | |
|------------------|------------------------|
| • Black poplar | • Grass Snake |
| • Hazel Dormouse | • Slow worm |
| • Bats | • Common lizard |
| • Hedgehog | • Pollinators |
| • Urban birds | • Argent & sable moth |
| • Amphibians | • Wood white butterfly |

Threats:

- Development and agricultural intensification causing woodlands to be cleared
- Neglect or incorrect management (e.g. release of game birds, clear felling, etc.)
- Increased nutrients and runoff from urban areas and adjacent agriculture
- Invasive species and diseases such as ash dieback
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Notable examples in Warwick District:

Wappenbury Wood, Buddenhall Wood, Ryton Wood Landfill, Waverley and Weston Wood, Newbold Comyn Park, Haywood, Wroxall Abbey Park, Crackley Wood, Kenilworth Common.

Ways WDC is helping:

- Site specific management plans for woodland on Council land, along with the development of a Woodland Enhancement and Management Strategy, to protect, conserve and enhance woodland and trees
- Raising awareness of woodland protection and enhancement with private landowners and managers
- Prioritising biodiversity, including woodland protection, within the local planning system.

Ways you can help:

- Volunteer with a local group such as Warwickshire Wildlife Trust, Woodland Trust or Forestry Commission and others to contribute to some of the much-needed conservation action work within woodlands.





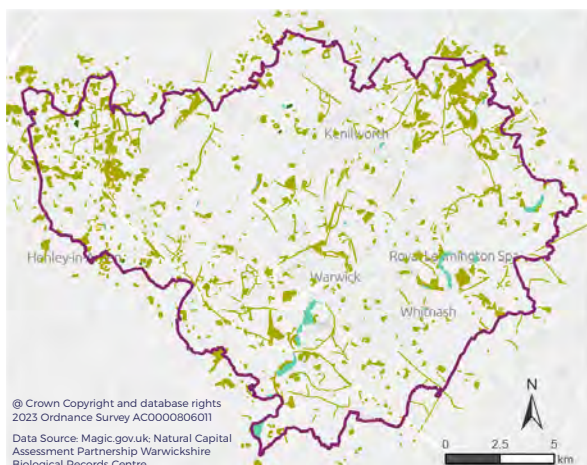
GRASSLAND (INCLUDING HABITATS OF PRINCIPAL IMPORTANCE)



This habitat comprises all areas of grassland and wildflowers including those managed for amenity, pasture and hay and those subject to less intensive management (e.g. verges). Grasslands of all types support numerous flora and fauna and may include nationally rare and scarce species.

Good examples of grasslands present in Warwick District include Lowland Meadow (27ha or approx. 0.1% of the district) and Floodplain Grazing Marsh (241ha or approx. 0.9% of the district).

Target Habitat and Species Distribution:
Grasslands of Existing Biodiversity Value Including:
Habitats of Principle Importance (Lowland Meadow, Floodplain Grazing Marsh), Other Grasslands (Unimproved Grassland, Semi Improved Grassland)



Conservation status:

- Habitat of Principle Importance (HoPI) under S41 NERC Act 2006

Associated Warwick District Target Species:

- | | |
|-----------------------------------|---------------------------|
| • Bats | • Grass Snake |
| • Hedgehog | • Common lizard |
| • Barn owl | • Slow Worm |
| • Farmland/wading and urban birds | • Pollinators |
| • Amphibians | • Dingy skipper |
| | • White letter hairstreak |

Threats:

- Loss of grassland to intensive farming or development
- Lack of management or over grazing
- Agricultural intensification and use of fertilizers, herbicides, and pesticides
- Increase in nutrients from run off from urban areas and agricultural land
- Climate change (e.g. storms, drought, erosion and wildfire)

Notable examples in Warwick District:

Buddenhall Meadows, Area North of Weston Fields Farm, Newbold Comyn Park, Abbey Fields, Wroxall Abbey Park

Ways WDC is helping:

- Site specific management plans for public open space on Council land incorporating grassland protection and enhancement measures delivered through the Council's grounds maintenance contract
- Restricting and reducing the use of pesticides and herbicides in Council operations
- Raising awareness of grassland protection and enhancement with private landowners and managers
- Prioritising biodiversity, including grassland protection, within the local planning system.

Ways you can help:

- Create your own wildflower area in your garden or leave a patch of uncut grass during Spring (and beyond if possible)
- Volunteer with a local group such as Warwickshire Wildlife Trust to contribute to some of the much-needed conservation action work.





PRIORITY WATERCOURSES (MAIN RIVERS) AND CANALS



Watercourses and canals are important wildlife corridors and habitats. Ecologically, the best watercourses are those that exhibit the natural channel features typical of lowland watercourses including a variety of flow patterns, channel features, meanders and associated erosion/deposition features. These and the natural variation of bankside habitats create a large range of niches upon which a huge range of species depends.

Few truly natural watercourses now exist in the sub-region as nearly all rivers and most streams have been severely modified for land drainage, abstraction of water, flood alleviation and navigation purposes by re-sectioning, straightening or deepening of the watercourse. However, naturalised elements, particularly of the River Avon, continue to exist in places.

Canals are man-made features and support standing water. The canal and towpath network provide valuable green and blue corridors providing connectivity for both wildlife and people.

Target Habitat and Species Distribution:
Priority Watercourse and Canals



Conservation status:

- Habitat of Principal Importance (HoPI) under S41 NERC Act 2006

Associated Warwick District Target Species:

- Water Vole
- Wading Birds
- Bats
- Grass Snake
- Barn Owl
- Pollinators
- Otter

Threats:

- Pollution events
- Impacts to the riparian zones and modifications to the riverbanks through urbanisation
- Land drainage
- Invasive species
- Climate change (e.g. storms, drought, erosion and new disease/pests).

Notable examples in Warwick District:

River Leam and River Avon and Grand Union Canal

Ways WDC is helping:

- Maintenance of riparian zones on Council land, along with focused biodiversity enhancements, delivered through the Council's grounds maintenance contract and other mechanisms
- Raising awareness of watercourse protection and enhancement with private landowners and managers
- Prioritising biodiversity, including watercourse protection, within the local planning system.

Ways you can help:

- Volunteer with a local group such as Warwickshire Wildlife Trust, RSPB, or the Canal and River Trust to contribute to some of the much-needed conservation action work.



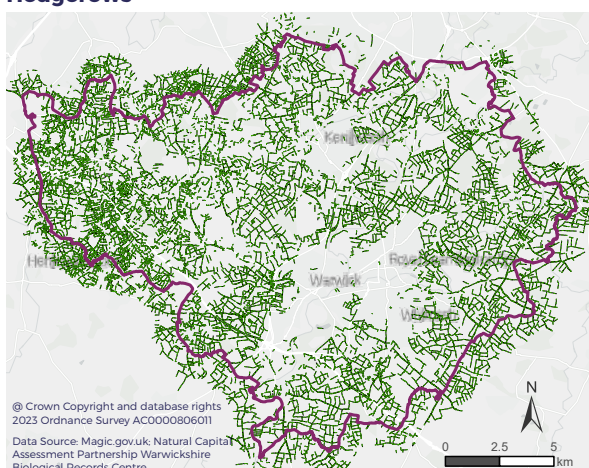


NATIVE HEDGEROWS



Hedgerows are defined as boundary lines of trees or shrubs over 20m long and less than 5m wide, with any gaps between the trees and shrubs being less than 20m (Joint Nature Conservation Committee). They are generally made up of 80% native woody species. Hedgerows can support hundreds of species of plants and animals, especially if they are maintained in a sympathetic way. They form a valuable nesting and food resource for a variety of birds and small mammals. They also act as a significant connectivity highway for numerous species including invertebrates, reptiles, mammals and birds to help them move freely and keep populations healthy. The hedgerow is of particular conservation significance for insects (mainly beetles, flies, bees and wasps).

Target Habitat and Species Distribution:
Hedgerows



Conservation status:

- Habitat of Principle Importance (HoPI) under S41 NERC Act 2006
- Protected under the Hedgerow Regulations 1997

Associated Warwick District Target Species:

- | | |
|------------------------|---------------------------|
| • Hazel Dormouse | • Amphibians |
| • Bats | • Common Lizard |
| • Hedgehog | • Slow Worm |
| • Barn owl | • Pollinators |
| • Farmland/urban birds | • White letter hairstreak |

Threats:

- Agricultural intensification and development
- Inappropriate management or cutting regimes
- Use of pesticides, herbicides and fertilisers
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Ways WDC is helping:

- Hedgerow maintenance, expansion, reinstatement and creation on Council land, including biodiversity enhancement measures delivered through the Council's grounds maintenance contract and other mechanisms
- Provision of tree packs to farmers, which include native hedgerow species, to help increase and/or 'gap-up' hedgerows across the district
- Raising awareness of hedgerow protection and enhancement with private landowners and managers
- Prioritising biodiversity, including hedgerow protection, within the local planning system and through implementation of the Hedgerow Regulations.

Ways you can help:

- If you have a hedgerow in your garden or on your land, consider cutting it on a 2 to 3 year rotation, targeting different sections each year, to allow berries and nuts to grow and provide food for a variety of wildlife
- Remember not to cut hedgerows between March and September because birds will be nesting during this time
- Help provide vital links for wildlife to move freely about the district by planting native hedgerows at home in place of, or alongside boundary fencing.





ARABLE FIELD MARGINS



Arable field margins are herbaceous strips or blocks around arable fields that are managed to provide benefits for wildlife. This includes margins sown with wildflowers for pollinators, to provide seed for birds or left as unmanaged grassland and herbs.

As well as providing an important refuge for wildflowers, field margins also provide buffer strips between farming operations and sensitive habitats such as woodlands, hedgerows, watercourses and ditches. These buffer strips provide valuable wildlife corridors for a range of species including invertebrates, birds, small mammals, reptiles and amphibians, helping them move freely between habitats.

Conservation status:

- Habitat of Principle Importance (HoPI) under S41 NERC Act 2006

Associated Warwick District Target Species:

- Scarce arable plants
- Hedgehog
- Farmland/urban birds
- Amphibians
- Common Lizard
- Slow Worm
- Pollinators
- White letter hairstreak

Threats:

- Agricultural intensification and development
- Inappropriate management or cutting regimes
- Use of pesticides, herbicides and fertilizers
- Climate change (e.g. storms, drought, erosion, wildfire and new disease/pests).

Ways WDC is helping:

- Raising awareness of arable field margin protection and enhancement with private landowners and managers
- Prioritising biodiversity, including arable field margin protection, through the local planning system.

Ways land managers/farmers can help:

- Sensitive management of arable field margins following a biannual (e.g. April and September) cut will allow the grassland to develop and flourish into a botanically rich buffer zone for wildlife to utilise for shelter, foraging and a corridor between habitats.





WETLANDS AND PONDS

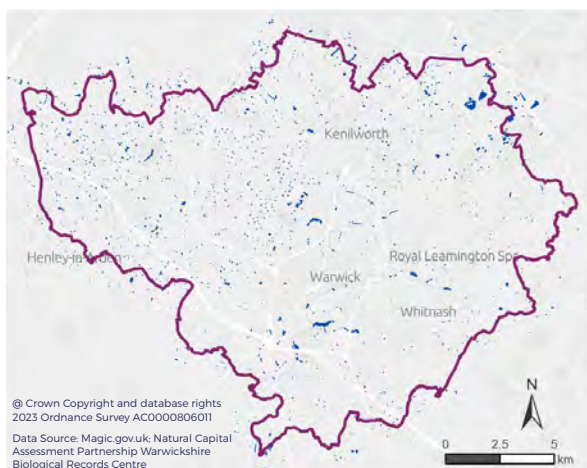


Wetlands include permanently and seasonally inundated habitats such as priority habitat lowland fen, swamp, reedbed and blanket bog (lowland raised bog), as well as Sustainable Urban Drainage Systems (SuDS).

Ponds are a familiar feature of many field corners, village greens and gardens, typically ranging in size from 1m² to 2ha.

Wetlands and ponds provide important habitat for a range of species dependent on aquatic habitats, as well as playing an important role in storing carbon and assisting with natural flood management.

Target Habitat and Species Distribution:
Wetlands and Ponds



Conservation status:

- Habitat of Principle Importance (HoPI) under S41 NERC Act 2006

Associated Warwick District Target Species:

- Water vole
- Otter
- Bats
- Wading birds
- Amphibians
- Grass Snake
- Pollinators

Threats:

- Pollution
- Nutrient build-up
- Inadequate management (e.g. overshadowing, damage by livestock and/or pets)
- Invasive species
- Climate change (e.g. drought and new disease/pests).

Ways WDC is helping:

- Management of wetlands and ponds (including SuDS) on public land, including biodiversity enhancement measures delivered through the Council's grounds maintenance contract and other mechanisms
- Working with partners (e.g. Warwickshire Wildlife Trust, Warwickshire County Council and others) on pond habitat creation
- Raising awareness of wetland and pond protection and enhancement with private landowners and managers
- Prioritising biodiversity, including wetland/ pond protection and creation and also appropriate SuDS construction and maintenance, through the local planning system.

Ways you can help:

- Create a wildlife pond in your garden
- Volunteer with a local group such as Warwickshire Wildlife Trust or RSPB to contribute to some of the much-needed conservation action work.





BLACK POPLAR

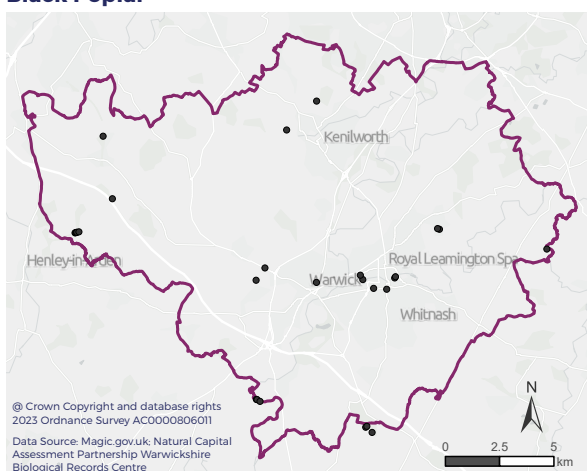


Black poplar tree in Jephson Gardens, taken by Steven Falk

The black poplar (*Populus nigra* ssp. *Betulifolia*) is Britain's rarest native timber tree. In past centuries, the native black poplar appears to have been numerous within England's floodplains and, to a lesser extent, its wider agricultural landscape. Over the past 200 years, however, it has gradually been replaced by hybrid black poplars and balsam poplars of various sorts. Increasing concern over its decline resulted in a Botanical Society of Britain & Ireland (BSBI) survey in the 1970s followed by the Daily Telegraph 'Black Poplar Hunt' in the 1990s. The latter suggested that only 2,500 trees survived nationally. Since then, increased survey effort has pushed that figure up to 10,000.

Within Warwick District there are 28 records of black poplar which represents 0.28% of the total population in Great Britain.

Target Habitat and Species Distribution:
Black Poplar



To reproduce, male and female black poplars need to be sited close to each other, which limits the ability of isolated trees to help increase the population.

Conservation status:

- One of Britain's rarest trees

Associated Warwick District Target Habitats:

- Wood Pasture and Parkland
- Woodland
- Wetland
- Trees

Threats:

- Drainage of land for agricultural use
- Climate change (e.g. storms, drought, wildfire and new disease/pests)
- Hybridisation with other poplar species.

Ways WDC is helping:

- Development of a Woodland Enhancement and Management Strategy that will incorporate the conservation, management, and planting (where suitable) of native black poplar on Council land
- Raising public awareness of the importance of Britain's rarest tree species
- Prioritising biodiversity, including black poplar protection, within the local planning system.

Ways you can help:

- Share records of black poplar with Warwickshire Biological Records Centre
- Share records with the Botanical Society of Britain and Ireland (BSBI) county recorders for Warwickshire
- Volunteer with a local group such as Warwickshire Wildlife Trust
- Download iNaturalist or a similar ecological recording app and note records.





SCARCE ARABLE PLANTS



Many plants once typical of cultivated land are now struggling with greatly reduced distribution and in some cases, they are on the edge of extinction.

Cornfield flowers are the most threatened group of British flora with seven species considered extinct and another 54 threatened. This group of plants are not only important for their own biodiversity value, they are also a key part of our culture and history.

Scarce arable plants within Warwick District include corn buttercup, Shepherd's-needle, prickly poppy and spreading hedge-parsley. These are typically associated with unmanaged arable field margins.

Target Habitat and Species Distribution:

Scarce Arable Plants (Annual Knavel, Shepherds Needle, Prickly Poppy, Corn Buttercup, Spreading Hedge Parsley)



Conservation status:

- Species of Principal Importance under S41 NERC Act 2006 (corn buttercup, Shepherd's-needle and spreading hedge-parsley)
- Some critically endangered species (corn buttercup and Shepherd's-needle)
- Some endangered species (prickly poppy and spreading hedge-parsley)

Associated Warwick District Target Habitats:

- Grassland
- Hedgerows
- Arable field margins

Threats:

- Loss of habitat and fragmentation
- Agricultural intensification
- Herbicide application
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Notable examples in Warwick District:

Stoneleigh Park, Wroxhall Abbey Park, Abbey Fields, Offchurch Bury Park and Warwick Castle Park.

Ways WDC is helping:

- Habitat enhancement and creation initiatives on Council land, including grassland and hedgerows, to support scarce arable plant species (where appropriate)
- Prioritising biodiversity, including scarce arable plant protection, within the local planning system.

Ways you can help:

- Monitor and submit records of scarce arable plants to Warwickshire Biological Records Centre
- Share records with the Botanical Society of Britain and Ireland (BSBI) county recorders for Warwickshire
- Download iNaturalist or a similar ecological recording app and note records.





WATER VOLE

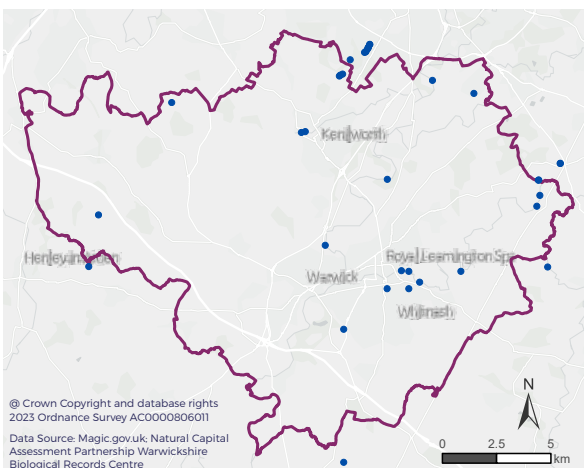


The water vole lives along rivers, streams and ditches, around ponds and lakes, and in marshes, reedbeds and areas of wet moorland. They are a vital part of these ecosystems, helping to create conditions for other animals and plants to thrive.

They are chestnut-brown with a blunt rounded nose, small ears and a furry tail. They feed on grass and herbs and live in burrows. They breed in Spring and have 3 to 4 litters of up to 5 young.

Although water vole are still widespread throughout mainland UK, the range and numbers have significantly declined.

Target Habitat and Species Distribution:
Water Voles



Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Schedule 5 of the Wildlife & Countryside Act 1981
- European Protected Species under Annex IV of the European Habitats Directive

Associated Warwick District Target Habitats:

- Watercourses
- Wetlands and ponds

Threats:

- Loss of habitat and fragmentation (agricultural intensification, flood management, development)
- Inappropriate habitat management
- Invasive predator – American mink
- Pollution and degradation in water quality
- Climate change (e.g. storms, drought, erosion and new disease/pests).

Ways WDC is helping:

- Working in partnership with Warwickshire Wildlife Trust to protect and enhance designated areas on Council land where water vole may be present
- Prioritising biodiversity, including water vole protection, within the local planning system.

Ways you can help:

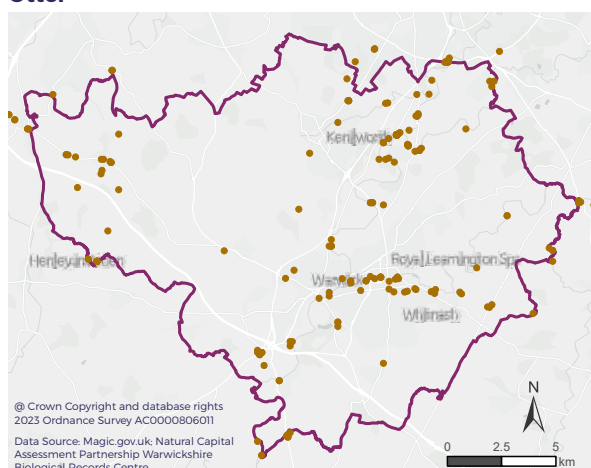
- Volunteer with Warwickshire Wildlife Trust to help maintain important habitats and monitor species numbers
- Correct disposal of litter and hazardous waste
- Monitor and submit records of water vole or American mink to Warwickshire Biological Records Centre
- If you own any land or your garden backs onto a stream or river, help support water voles by leaving a buffer of 3-5m of long grass and only cutting half of this area each year on a rotating basis.





Otters (a member of the weasel family) are highly mobile, have large territories and are thought to be present on most waterbodies across Warwickshire. They are a rare but widespread species. Otters have grey-brown fur, a broad snout, and a pale chest and throat. They are well suited to life on the water as they have webbed feet, dense fur to keep them warm, and can close their ears and nose when underwater. They hunt for fish, amphibians, crustaceans and waterbirds. They rest and raise their young in sheltered areas such as dense vegetation, animal burrows and pipes.

Target Habitat and Species Distribution:
Otter



Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Schedule 5 of the Wildlife & Countryside Act 1981
- European Protected Species under Annex IV of the European Habitats Directive
- Listed as Near Threatened on the global IUCN Red List of Threatened Species

Associated Warwick District Target Habitats:

- Watercourses
- Wetlands and ponds

Threats:

- Water quality and pollution
- Adequate food supply in waterbodies and watercourses
- Loss of riparian (riverbank) habitat
- Traffic collisions on roads and railways
- Presence of humans/pets
- Climate change (e.g. storms, drought, erosion and new disease/pests).

Ways WDC is helping:

- Working in partnership with Warwickshire Wildlife Trust to protect and enhance designated areas on Council land where otters may be present
- Prioritising biodiversity, including otter protection, within the local planning system.

Ways you can help:

- Volunteer with Warwickshire Wildlife Trust to help maintain important habitats and monitor species numbers
- Correct disposal of litter and hazardous waste
- Monitor and submit records of otter to Warwickshire Biological Records Centre.





HAZEL DORMOUSE

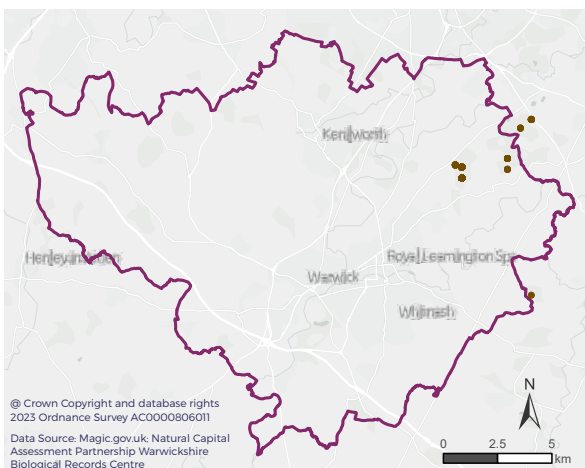


Carl Goldsack, Waterman

The hazel dormouse is extremely elusive and increasingly rare. They are thought to have become extinct from 17 English counties since the 19th century, with populations having declined by a third since 2000. The hazel dormouse is unlike other rodents, being predominantly arboreal, long living (average lifespan of 5 years) and highly specialised in its ability to hibernate. They live in deciduous woodland, hedgerows and dense scrub where they have a varied diet of buds, hazelnuts, berries and insects.

Weston Wood, a designated Local Wildlife Site located between Bubbenhall and Weston Under Wetherley, supports a population of hazel dormouse and is currently being maintained by a nest box project.

Target Habitat and Species Distribution:
Hazel Dormouse



Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Schedule 5 of the Wildlife & Countryside Act 1981
- Schedule 2 of the Conservation of Habitats & Species Regulations 2017
- Listed as a European Protected Species under Annex IV of the European Habitats Directive
- Critically endangered

Associated Warwick District Target Habitats:

- Wood Pasture and Parkland
- Woodland
- Hedgerows
- Arable field margins

Threats:

- Loss of habitat and fragmentation
- Changes to traditional countryside management practices
- Development and agricultural intensification causing a loss of habitat
- Fragmentation and loss of connectivity between remaining habitat
- Lack of management & coppicing within woodlands causing a decline in habitat quality
- Climate change (e.g. storms, drought, wildfire, new disease/pests and impacts on hibernating patterns due to milder winters).

Ways WDC is helping:

- Hedgerow maintenance, expansion, reinstatement and creation on Council land, along with the development of a Woodland Enhancement and Management Strategy, to help increase habitat availability and potential for populations to expand territory
- Working in partnership with Warwickshire Wildlife Trust to protect and enhance designated areas on Council land where hazel dormouse are present
- Prioritising biodiversity, including hazel dormouse and habitat protection within the local planning system.

Ways you can help:

- Dormice are not just confined to areas of woodland, they can be found in hedgerows and scrub in urban areas. Planting native species-rich hedgerows will increase connectivity between dormouse strongholds
- Not cutting hedgerows every year will allow berries to grow, providing more food for dormice throughout the winter
- Volunteer with Warwickshire Wildlife Trust to help maintain important habitats and monitor species numbers.





BATS (ALL LOCALLY OCCURRING SPECIES)

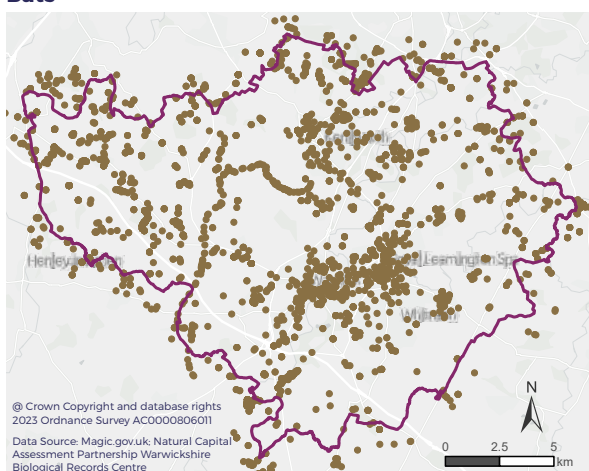


According to local records, the following bat species are all found in Warwick District: Barbastelle; Bechstein's bat; Brandt's bat; whiskered bat; brown long-eared bat; Daubenton's bat; Leisler's bat; lesser horseshoe bat; Natterer's bat; noctule; common pipistrelle; soprano pipistrelle; Nathusius' pipistrelle; and serotine.

The place a bat lives is called its roost. Bats will use a variety of features for roosting including holes in trees, caves, tunnels and buildings (hanging tiles, soffits and loft spaces). The place a bat roosts changes frequently depending on the time of year and whether they are hibernating or raising young.

All bats in the UK eat insects, so they are a great form of natural pest control. They travel large distances (1-2km) to find suitable foraging habitat utilising well-connected vegetated pathways for commuting between roosting and foraging sites.

Target Habitat and Species Distribution:
Bats



Conservation status:

- Conservation of Habitats and Species Regulations 2017 (Annex II species - Bechstein's bat, barbastelle, greater horseshoe bat and lesser horseshoe bat)
- Schedule 5 of the Wildlife & Countryside Act 1981 (All species)
- Species of Principal Importance under S41 NERC Act 2006 (Bechstein's bat, noctule, soprano pipistrelle, brown long-eared bat and lesser horseshoe bat)
- There has been a significant decline in bat populations over the last century due to habitat losses (roosting and foraging)

Associated Warwick District Target Habitats:

- Wood Pasture and Parkland
- Trees
- Woodland
- Grassland
- Watercourses
- Hedgerows
- Arable field margins
- Wetlands and ponds

Threats:

- Inadequate woodland/tree management (e.g. tree felling, removing decay features)
- Development/urbanisation (habitat loss and attacks from domestic cats) and increasing external lighting
- Permitted renovation works to buildings such as re-roofing and timber treatment
- Agricultural intensification (loss of habitat, reduced connectivity and pesticides reducing insect prey)
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land including woodland, grassland, wetland and hedgerows to support roosting, foraging and commuting opportunities for bats
- Creating and maintaining a register of bat roosts in Council properties to ensure protection
- Prioritising biodiversity, including bat protection, within the local planning system.

Ways you can help:

- Join the Warwickshire Bat Group to get involved with surveys and to learn more about bats
- Make your garden 'bat-friendly' - www.bats.org.uk/advice/gardening-for-bats
- Install a bat box on your house or on a suitable tree in your garden
- Turn off external security lights or have them on a short timer (<1min) or motion sensor
- Contact National Bat Helpline (0345 1300 228) if you're concerned works may impact bats or if you have a roost in your house and need advice.





HEDGEHOG

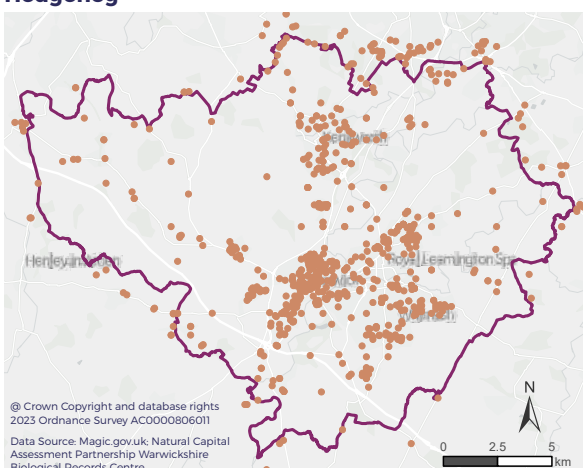


Hedgehog in garden, taken by James

Hedgehogs are one of Britain's most recognisable and much-loved wild animals. They are well established in our urban habitats, making good use of public open space, private gardens, cemeteries, and more. They are known as 'the gardener's friend' as they feed on slugs, caterpillars, beetles and other invertebrates.

Hedgehogs are most active at night and rest during the day in nests made of vegetation, such as leaves, twigs and grasses. They give birth in June and July and have an average litter size of four to five young, known as hoglets. They generally hibernate between November and March, with exact dates depending on the weather.

Target Habitat and Species Distribution: Hedgehog



Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Vulnerable on the red list due to declines but show positive signs in low density urban habitats. Where hedgehogs remain in urban environments the population is generally growing (State of Nature Report 2019)
- It is believed their populations could be down by over half in rural areas and a third in urban areas since 2000 (Woodland Trust)

Associated Warwick District Target Habitats:

- | | |
|-----------------------------|------------------------|
| • Wood Pasture and Parkland | • Grassland |
| • Woodland | • Hedgerow |
| | • Arable field margins |

Threats:

- Loss of habitat and fragmentation depriving hedgehogs of both food and shelter from badgers
- Traffic collisions on roads and railways
- Pesticides
- Impermeable fencing and loss of greenery in gardens
- Climate change (e.g. storms, drought, wildfire, new disease/pests and impacts on hibernating patterns due to milder winters).

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land including woodland, grassland and hedgerows to provide increased foraging and nesting opportunities for hedgehogs
- Prioritising biodiversity, including hedgehog protection and habitat protection/creation, within the local planning system

Ways you can help:

- Provide hedgehog highways - 13cm holes at the bottom of garden fences or walls to allow hedgehogs to move freely to find food or a mate
- Make a hedgehog house - www.woodlandtrust.org.uk/blog/2019/08/how-to-make-hedgehog-house/
- Check bonfires thoroughly before lighting - hedgehogs will be looking for suitable hibernation sites in late Autumn
- Wildlife friendly gardening
- For further information visit - www.britishhedgehogs.org.uk/hedgehog-information-leaflets/





BARN OWL

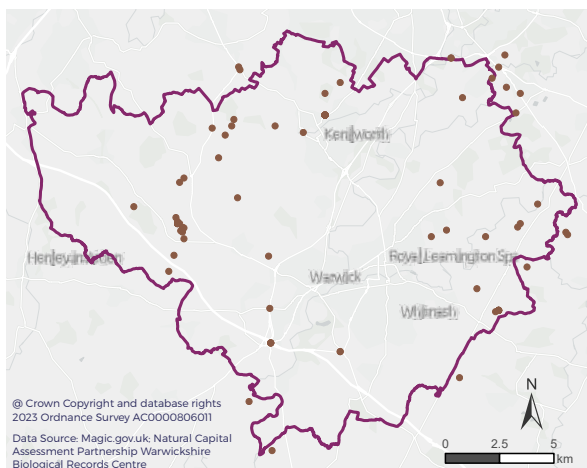


The barn owl has bright white feathers and a distinctive heart-shaped face. They have incredible long-distance vision, sensitive hearing and silent flight to help them hunt and catch small mammals such as voles, mice and shrews.

Barn owls live in open countryside and farmland and can often be seen on roadside verges. They nest in the cavities of old barns and buildings, as well as the hollows of trees. They tend to breed between March and August and lay around 4-6 eggs.

Barn owls are widely distributed across the UK but their populations have suffered declines mainly due to changing agricultural practices and the conversion of barns and old buildings into residential properties which reduce suitable foraging habitat and nesting sites.

Target Habitat and Species Distribution:
Barn Owl



Conservation status

- Schedule 1 of Wildlife & Countryside Act 1981

Associated Warwick District Target Habitats:

- Wood Pasture and Parkland
- Trees
- Woodland
- Grassland
- Watercourses
- Hedgerows
- Arable field margins
- Wetland

Threats:

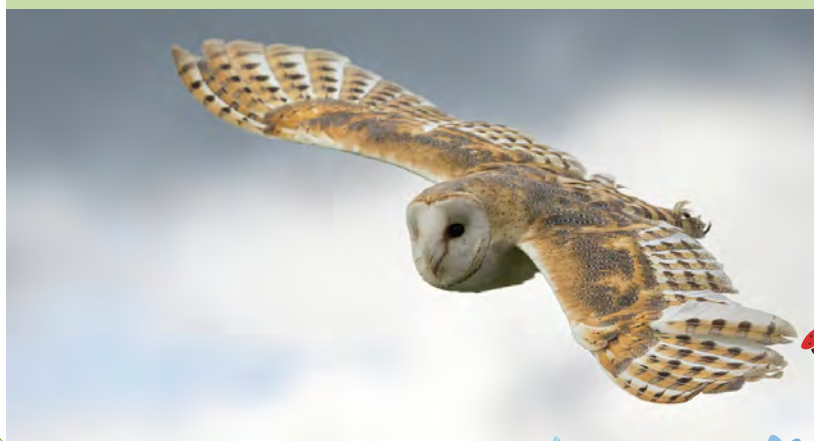
- Loss of habitat and fragmentation
- Use of pesticides
- Traffic collisions on roads and railways
- Loss of suitable nesting sites (e.g. barn conversions, tree loss)
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land including woodland, grassland and hedgerows to support roosting, foraging and commuting opportunities for barn owl
- Prioritising biodiversity, including Barn Owl protection, within the local planning system.

Ways you can help:

- Volunteer with Warwickshire Wildlife Trust and RSPB to help maintain important habitats and monitor species numbers
- Monitor and submit records to Warwickshire Biological Records Centre
- Erect a barn owl box in appropriate locations.





URBAN BIRDS (INCLUDING SWIFTS, STARLINGS AND HOUSE SPARROW)

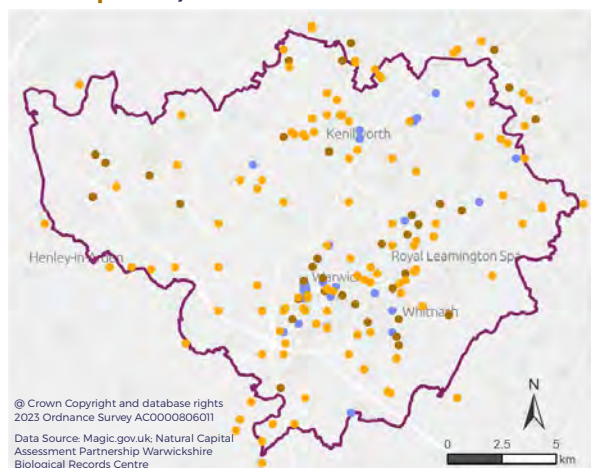


Urban birds are an important part of our towns and cities. They provide multiple benefits including seed dispersal which helps to 'green' the urban environment and natural pest control by eating insects and other pests. They also help to improve human wellbeing by connecting people with nature through bird song, flight displays such as the stunning starling murmuration and more.

There have been dramatic declines in populations of certain urban species across the UK, including swifts, starlings and house sparrows, mainly due to urban development reducing suitable foraging habitat and nesting sites.

The more common species of urban birds include blue tit, great tit, finches, blackbird, and thrushes but raptor species are also well adapted to urban settings including kestrels, buzzards and even peregrine falcon which are known to nest on Leamington Town Hall.

Target Habitat and Species Distribution:
Notable Urban Birds (including Swifts, Starlings and House Sparrow)



Conservation status:

- Species of Principal Importance under S41 NERC Act 2006 (starling and house sparrow)
- Wildlife and Countryside Act 1981
- Birds of Conservation Concern Red List (swift, starling and house sparrow)

Associated Warwick District Target Habitats:

- Trees
- Woodland
- Grassland
- Hedgerows
- Arable field margins

Threats:

- Decline in insect prey
- Permitted renovation works to buildings such as re-roofing and repairing soffits causing a loss of nest sites
- Development – new buildings typically lack suitable nesting features
- Agricultural intensification, including increased use of herbicides and pesticides, reducing suitable foraging habitat and nesting sites
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land and Council owned buildings to benefit urban bird populations, including swift bricks, bird feeding stations, wild bird feeding crops and more
- Prioritising biodiversity, including urban bird protection, within the local planning system.

Ways you can help:

- Install nest boxes in your garden such as on walls and trees and also on your house - swift boxes under eaves make a huge difference where swifts are already in the area
- Provide food (all year round) and water (during prolonged heat waves and droughts)
- Remember not to cut hedgerows between March and September because birds will be nesting during this time
- Check for nesting birds before undertaking building works
- Plant native hedgerows at home in place of, or alongside boundary fencing to increase foraging and nesting opportunities.





FARMLAND BIRDS

(SKYLARK, LAPWING, YELLOWHAMMER, CORN BUNTING, LINNET, GREY PARTRIDGE, TREE SPARROW AND TURTLE DOVE)

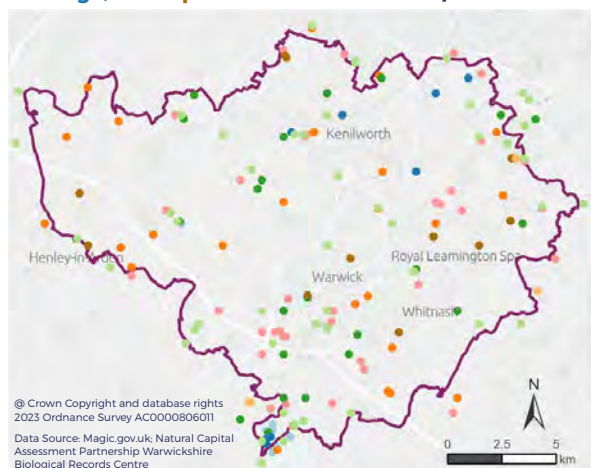


There are a range of bird species reliant on farm habitats, both pasture (grazed) and arable (e.g. cereal crops). These species include skylark, lapwing, yellowhammer, corn bunting, linnet, grey partridge, tree sparrow and turtle dove, all of which have shown significant population declines and are classified as red list species (globally threatened and populations in decline).

As seen in previous years, the breeding farmland bird indicator continues to fall and has declined by 60% between 1970-2022. Whilst most of these declines occurred in the late 1970s and early 1980s, largely due to the negative impact of rapid changes in many farmland management practices during this period, declines are ongoing and there was a marked short-term decline of 8% between 2017-2022.

Target Habitat and Species Distribution:

Notable Farmland Birds (Including Skylark, Lapwing, Yellowhammer, Corn Bunting, Linnet, Grey Partridge, Tree Sparrow and Turtle Dove)



Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Wildlife & Countryside Act 1981
- UK Conservation Status – RED
- All species have shown a significant decline.

Associated Warwick District Target Habitats:

- Wood Pasture and Parkland
- Grassland
- Hedgerows
- Arable field margins

Threats:

- Agricultural intensification, including increased use of herbicides and pesticides, reducing suitable foraging habitat and nesting sites
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land to support farmland bird species including sowing wild bird feeding crops on appropriate sites, hedgerow planting, restoration and reinstatement works and more
- Prioritising biodiversity, including farmland bird protection, within the local planning system.

Ways you can help:

- Keep to footpaths and keep dogs on a lead when walking in fields and meadows to avoid disturbing ground nesting birds
- Farmers can do the following things to help, with potential funding available through the Environmental Land Management Schemes (ELMs):
 - » Create skylark plots i.e. small areas (16-24m²) left unsown in winter cereals. Just two plots per hectare have been proven to boost the nesting opportunities and food availability for skylarks
 - » Construct beetle banks (raised grass bank 3-5m high and 0.4m high) to increase the amount of foraging resource
 - » Create grassy nesting cover (conservation headlands) next to cereal crops
 - » Limit management of grassland adjacent to hedgerows to provide a buffer and nesting opportunities
 - » Reduce/remove the use of pesticides
 - » Provide seed food through the winter with wild bird seed mixtures or over-wintered stubble.





WADING BIRDS

(SANDPIPER (COMMON AND GREEN), SNIPE, RINGED PLOVER AND OYSTERCATCHER)



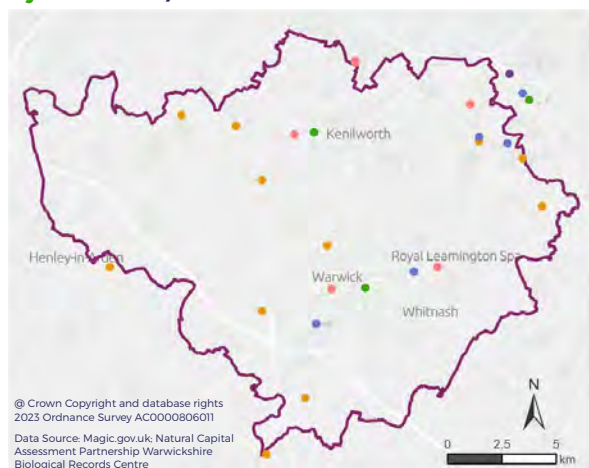
Snipe, Becky Bailey, Waterman

Water and wetlands include rivers, lakes, ponds, reedbeds, grazing marshes, other wet grasslands, and lowland raised bogs, which all provide important habitats for birds. Species included in the wading birds group are those defined as having a positive association with waterways or wetlands including rivers, lakes, ponds, reedbeds, grazing marshes, other wet grasslands and lowland raised bogs. However, they overlap and include many species also associated with farmland birds

The breeding water and wetland bird index for the UK fell by 13% between 1975–2022, but over the short term shows little change – a decline of only 3%. Over the short-term period between 2015 and 2020, 15% of species increased, 31% showed little change and 54% declined.

Target Habitat and Species Distribution:

Notable Wading Birds (Including Sandpiper (Common and Green), Snipe, Ringed Plover and Oystercatcher)



Conservation status:

- Wildlife & Countryside Act 1981

Associated Warwick District Target Habitats:

- Grassland
- Watercourses
- Arable field margins
- Wetland and ponds

Threats:

- Loss of habitat and fragmentation
- Inappropriate wetland management
- Climate change (e.g. storms, drought, wildfire and new disease/pests)

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land including grassland, wetland and watercourses to support wading bird species
- Prioritising biodiversity, including wading bird protection, within the local planning system.

Ways you can help:

- Volunteer with Warwickshire Wildlife Trust or RSPB to help maintain important habitats and monitor species numbers
- Avoid feeding bread to wildfowl which is not a natural food source for these birds and can cause malnutrition, pollution, disease, overcrowding, encourage pests and result in birds forgetting natural foraging behaviours. Instead, wildfowl can be fed seeds as well as other foods such as sweetcorn, peas, oats and rice
- Keep dogs under control at sites where there are wading birds, including rocky edges on reservoirs and wet damp grassland fields.



Oystercatcher



Sandpiper (Common)





AMPHIBIANS

(ALL LOCALLY OCCURRING SPECIES INCLUDING GREAT CRESTED NEWT)



Great Crested Newt

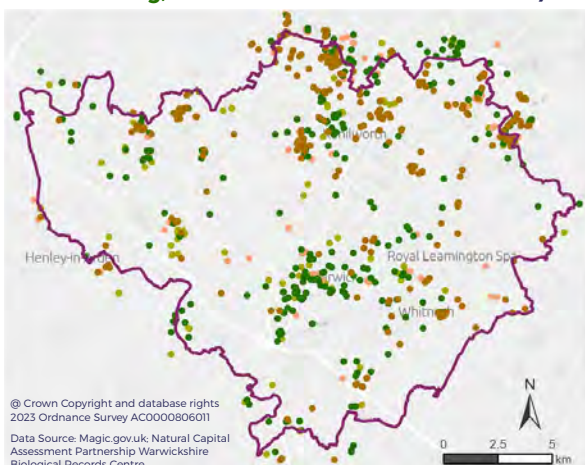
Native amphibians found in Warwick District include great crested newt, smooth newt, common frog and common toad. Although all are dependent on water for breeding, amphibians spend most of the year on land foraging for invertebrates such as worms, slugs and insects. In winter they hibernate underground, among tree roots and in old walls.

Conservation status:

- Species of Principal Importance under S41 NERC Act 2006 (common toad and great crested newt)
- Schedule 5 of the Wildlife and Countryside Act 1981 (great crested newt)
- Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (great crested newt)
- Enormous declines in range and abundance in the last century (www.arc-trust.org)

Target Habitat and Species Distribution:

Amphibians (Including Great Crested Newt, Common Frog, Common Toad and Smooth Newt)



Associated Warwick District Target Habitats:

- Wood Pasture and Parkland
- Woodland
- Grassland
- Hedgerows
- Wetland and Ponds

Threats:

- Loss and degradation of habitat – they require a number of breeding ponds within close proximity and with connected terrestrial habitat such as woodland, scrub, long grassland, hedgerows and field margins
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Notable sites within Warwick District for amphibians:

Buddenhall Meadows, Ryton Wood Landfill, land to the south-west of Abbey Fields and Nunley Pits Wood and Manor Wood.

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land including woodland, grassland, wetland and hedgerows to support amphibian populations
- Prioritising biodiversity, including great crested newt protection and amphibian consideration, within the local planning system.

Ways you can help:

- Create a wildlife pond in your garden including the following:
 - » a gentle slope to allow amphibians to enter/exit the pond without getting stuck
 - » submerged and emergent aquatic plants for laying eggs on
 - » areas of both shade and sunlight
 - » suitable surrounding terrestrial habitat such as patches of long grass
 - » No fish! They will eat the amphibian eggs and young
- Provide piles of twigs/branches in your garden for amphibian hibernation sites
- Check bonfires thoroughly before lighting – amphibians will be looking for suitable hibernation sites in late Autumn
- Volunteer with groups such as the Amphibian and Reptile Conservation Trust (Arc-Trust).





GRASS SNAKE

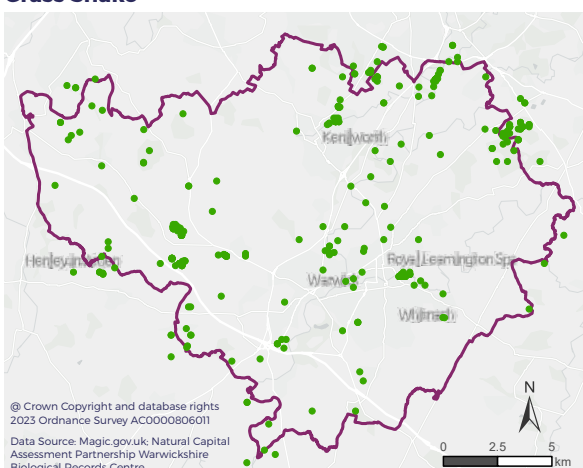


Carl Goldsack, Waterman

Grass snakes are widespread in England and Wales, occurring in a variety of habitats, including woodland, but normally found close to water. They can also be found in gardens with ponds and plenty of vegetation. They are non-venomous and pose no threat to humans. The grass snake is Britain's longest snake, being able to exceed a metre in length. They are usually olive green in colour with a distinctive yellow and black collar around their neck distinguishing them from other UK reptile species.

Grass snakes like to eat frogs, toads and newts, but will also eat fish, small mammals and birds. With no venom, they use the element of surprise to grab their prey and then swallow it whole. They are the only native snake species to lay their eggs, normally choosing a sheltered location in rotting vegetation - compost heaps can be a favoured spot!

Target Habitat and Species Distribution:
Grass Snake



Grass snakes like to hibernate in tree root systems, fallen trees, compost heaps and rabbit warrens, normally between October and April, depending on the weather.

Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Schedule 5 of the Wildlife & Countryside Act 1981

Associated Warwick District Target Habitats:

- Wood Pasture and Parkland
- Woodland
- Watercourses
- Arable field margins
- Wetland and ponds

Threats:

- Habitat loss and fragmentation (reptiles prefer a mosaic of hedgerows, scrub and grassland for shelter and to forage)
- Use of herbicides and pesticides
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land including woodland, grassland and wetland to support grass snake populations
- Prioritising biodiversity, including grass snake protection, within the local planning system.

Ways you can help:

- Wildlife friendly gardening:
 - » Create a log pile or compost heap in your garden
 - » Reduce your use of pesticides, herbicides and slug pellets
 - » Create wildflower areas or leave patches of uncut grass from March to September
 - » Create a wildlife pond
- Submit any records of grass snake to Warwickshire Biological Records Centre
- Volunteer with groups such as Warwickshire Wildlife Trust and the Amphibian and Reptile Conservation Trust (Arc-Trust).





Common Lizard

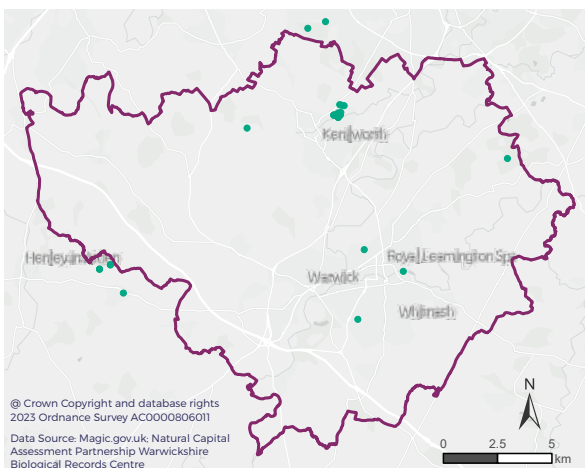


The common (or viviparous) lizard is most frequently found on commons, heaths, dry stone walls, embankments and woodland habitats. They are variable in colour, but usually brownish-grey with rows of darker spots or stripes down their back and sides. Males have bright yellow or orange undersides with spots, while females have paler, plain bellies. Instead of laying eggs, the common lizard bears up to 10 'live young', normally around July.

They feed on small invertebrates such as flies, spiders and even snails. If threatened by a predator, the common lizard can shed its still-moving tail as a distraction.

Although widespread across the UK, including records of them in Warwick District, common lizard populations have suffered declines, mainly due to habitat loss.

Target Habitat and Species Distribution:
Common Lizard



Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Section 9 (1 and 5) of the Wildlife and Countryside Act 1981
- Considered to be declining

Associated Warwick District Target Habitats:

- Wood Pasture and Parkland
- Woodland
- Grassland
- Hedgerow
- Arable field margins

Threats:

- Habitat loss and fragmentation (reptiles prefer a mosaic of hedgerows, scrub and grassland for shelter and to forage)
- Use of herbicides and pesticides
- Climate change (e.g. storms, drought, wildfire and new disease/pests)

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land including woodland, grassland and hedgerows to support common lizard populations
- Prioritising biodiversity, including common lizard protection, within the local planning system.

Ways you can help:

- Wildlife friendly gardening:
 - » Create a log pile or compost heap
 - » Reduce your use of pesticides, herbicides and slug pellets
 - » Create wildflower areas or leave patches of uncut grass from March to September
 - » Create a wildlife pond
- Submit any records of common lizard to Warwickshire Biological Records Centre
- Volunteer with groups such as Warwickshire Wildlife Trust and the Amphibian and Reptile Conservation Trust (Arc-Trust).





SLOW WORM



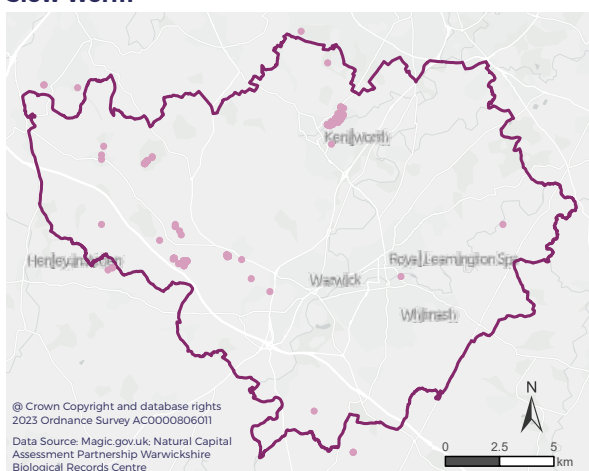
Leila Payne, Waterman

Slow worms favour humid conditions and shaded areas, such as rough grassland, woodland edges, gardens, meadows and heathland. Their diet consists of invertebrates, including slugs, worms, snails and spiders.

Slow worms are often mistaken for snakes, but they are actually legless lizards. Unlike snakes they have eyelids, a flat forked tongue and can drop their tail to escape from a predator. Males are a greyish brown colour and females are brown with dark sides. Some females possess a thin line down their back. Juvenile slow worms are very thin and are initially around 4cm long. Juveniles have black bellies and gold or silver dorsal sides, sometimes with a stripe running along the length of the body. Females lay and hatch their eggs internally and then give birth to an average of eight 'live young' in summer.



Target Habitat and Species Distribution:
Slow Worm



Like other reptiles, slow worms hibernate, usually from October to March. They will burrow underground or find a crevice in a rotting tree stump. Although widespread throughout Britain, including records of them in Warwick District, slow worm populations have suffered declines, mainly due to habitat loss.

Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Section 9 (1 and 5) of the Wildlife and Countryside Act 1981
- Considered to be declining

Associated Warwick District Target Habitats:

- Woodland
- Hedgerow
- Grassland
- Arable field margins

Threats:

- Habitat loss and fragmentation (reptiles prefer a mosaic of hedgerows, scrub and grassland for shelter and to forage)
- Use of herbicides and pesticides
- Climate change (e.g. storms, drought, wildfire and new disease/pests)
- Predation by domestic pets..

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land including woodland, grassland and hedgerows to support slow worm populations
- Prioritising biodiversity, including slow worm protection, within the local planning system

Ways you can help:

- Wildlife friendly gardening
 - » Create a log pile or compost heap
 - » "Reduce your use of pesticides, herbicides and slug pellets
 - » Create wildflower areas or leave patches of uncut grass from March to September
 - » Create a wildlife pond
- Check bonfires thoroughly before lighting – slow worms will be looking for suitable hibernation sites in late Autumn
- Submit any records of slow worm to Warwickshire Biological Records Centre
- Volunteer with groups such as Warwickshire Wildlife Trust and the Amphibian and Reptile Conservation Trust (Arc-Trust).





POLLINATORS



Pollinators include bumblebees and other bees (250 species), butterflies and moths (2200 species), flies (6700) and various other insects such as beetles, wasps and thrips (Buglife). They are vital for the survival and diversity of wild and cultivated plants, and the services those plants provide in terms of food, habitats and resources.

In fact, it is estimated that 84% of EU crops (valued at £12.6 billion) and 80% of wildflowers rely on insect pollination (Buglife). But pollinator populations are in decline! Protecting them is essential for a healthy environment, a healthy economy and to continue feeding our growing population.

Conservation status:

- Species of Principal Importance under S41 NERC Act 2006 (where applicable)
- Half of the UK's 27 bumblebee species are in decline, with 3 species already extinct and 7 species having declined by more than 50% in the last 25 years
- Two-thirds of our moths and 71% of our butterflies are in long term decline
- Across Europe, 38% of bee and hoverfly species are in decline and only 12% are increasing

Associated Warwick District Target Habitats:

- All

Threats:

- Loss and degradation of habitat (loss of foraging, nesting and hibernation sites)
- Agricultural intensification leading to fragmented and isolated flower-rich habitats and impacting the quality of those remaining
- Use of herbicides and pesticides killing both 'troublesome', but also beneficial insects
- Loss of wildflower habitat due to urban growth
- Loss of and damage to brownfield sites
- Insufficient planting of blossoming trees and nectar bearing species
- Climate change (e.g. storms, drought, wildfire, new disease/pests and changes to blossoming sequencing).

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives on Council land covering numerous habitats with the aim of providing additional food sources and host plants
- Prioritising biodiversity, including pollinator protection, within the local planning system.

Ways you can help:

- Create wildflower areas by seeding and managing plant beds with native plant species which are beneficial to pollinators
- Support No Mow May (and beyond) by changing your mowing regime in parts of your garden to allow flowers to blossom
- Install a bug box or make a bug hotel in your garden
- Reduce your use of pesticides and herbicides
- Pile up grass clippings in a corner of your garden to create nesting sites for bees
- Plant native nectar bearing/blossoming plants including cherry plum, purple leaved plum, goat willow, to extend blossoming sequences from early February to late June
- Join your local Bee Friendly Group to support the good work being done to benefit pollinators
- Adopt your local roadside verge through Warwickshire County Council and use it to grow wildflowers to benefit pollinators.



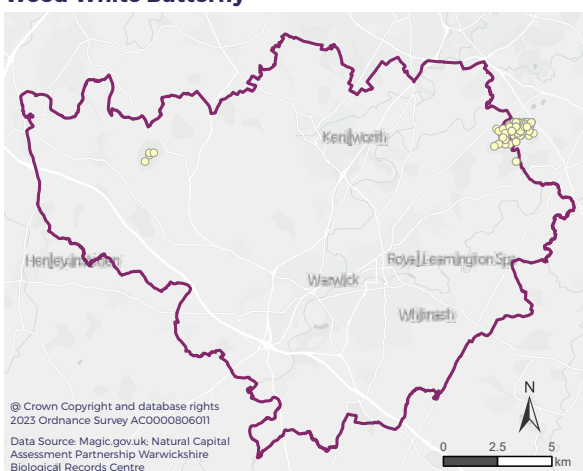


WOOD WHITE BUTTERFLY



The wood white is the smallest butterfly in the 'White' family of butterflies. It is renowned for having one of the most delicate flights of any British butterfly and this has given it the evocative nickname of "Lady of the Woods". In Britain, the wood white traditionally bred in ancient deciduous woodland with a long history of coppicing. The number of wood white colonies rapidly declined in size and number as the practice of coppicing ceased at most woodland sites during the mid-1900s.

Target Habitat and Species Distribution:
Wood White Butterfly



Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Schedule 5 of the Wildlife & Countryside Act 1981

Associated Warwick District Target Habitats:

- Woodland
- Grassland
- Hedgerow
- Arable field margins

Threats:

- Habitat loss
- Lack of woodland management
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Notable sites within Warwick District for White Wood Butterfly:

Ryton Woods and Hey Wood

Ways WDC is helping:

- Site specific management plans for woodland on Council land, along with the development of a Woodland Enhancement and Management Strategy, to help increase habitat availability and potential for populations to expand territory. To incorporate coppicing management into woodlands to help provide suitable breeding opportunities for the species
- Prioritising biodiversity, including wood white butterfly protection, within the local planning system.

Ways you can help:

- Volunteer with Warwickshire Wildlife Trust to help maintain important habitats and monitor species numbers.



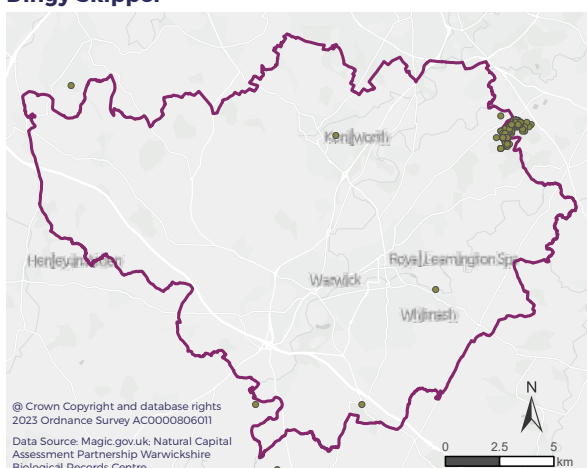


DINGY SKIPPER



The dingy skipper butterfly is well-named because on first appearance it can appear drab and moth like. Adults are generally only seen in ones or twos so can be easily overlooked. In dull weather and at night it perches on the top of dead flower heads, such as black knapweed, with its wings curved in a position not seen in any other British butterfly.

Target Habitat and Species Distribution:
Dingy Skipper



In Warwick District, the dingy skipper larval foodplants are species of bird's-foot-trefoil (*Lotus spp.*). The butterfly not only requires large vigorous plants but also plants growing in situations where the outer shoots of the plant are growing over bare ground or aggregate. Some taller vegetation is also required for shelter and roosting. Loss of bare ground due to lack of management or scrub invasion are the biggest threats to the species. Most colonies in Warwick District are found in post-industrial habitats such as brickworks, quarries, disused railways and spoil banks - these sites contain early successional habitat.

Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Schedule 5 of the Wildlife & Countryside Act 1981

Associated Warwick District Target Habitats:

- Grassland
- Hedgerow
- Arable field margins

Threats:

- Habitat loss
- Use of herbicides and pesticides
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Ways WDC is helping:

- Targeted habitat enhancement and creation initiatives such as grassland and hedgerows on Council land to benefit dingy skipper
- Prioritising biodiversity, including dingy skipper protection, within the local planning system.

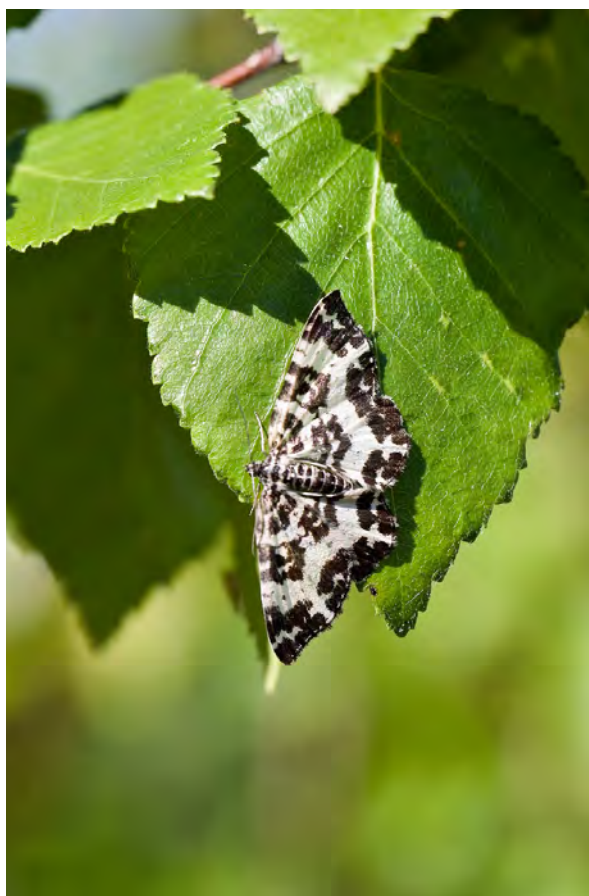
Ways you can help:

- Volunteer with Warwickshire Wildlife Trust to help maintain important habitats and monitor species numbers
- Create wildflower areas in your garden or leave patches of uncut grass from March to September
- Make sure that any seed mixes include birds-foot-trefoil to provide suitable breeding habitat for dingy skipper.



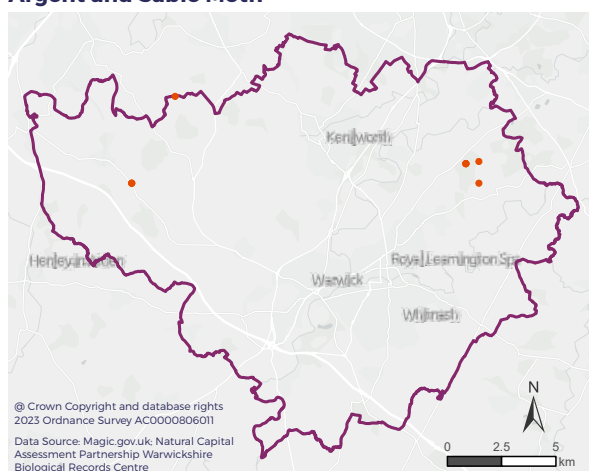


ARGENT AND SABLE MOTH



The argent and sable moth is a striking black and white moth of wingspan 34-38mm that inhabits woods and heaths. It flies only during the daytime and is visible in-flight from some distance due to its prominent black and white chequered markings. The flight is fairly swift and erratic, often spanning the higher canopy. It prefers sunny and warm weather but may be observed on overcast days if warm and humid.

Target Habitat and Species Distribution:
Argent and Sable Moth



Argent and sable sites must contain a wealth of the larval food plant, and for woodland sites this is young birch. Many of the prime sites for this moth are afforded warmth and shelter by adjacent mixed stands of conifers and mature silver birch. The species needs a continuous supply of young birch ideally between 0.3 -1.4 m growing in open sunny situations for it to thrive. Birch coppicing is therefore essential for this species whose caterpillars feed on 2-3 year old growth in July and August. The pupae overwinter at the base of the stools and the adult moth flies in the higher birch growth.

Conservation status:

- Species of Principal Importance under S41 NERC Act 2006
- Nationally scarce

Associated Warwick District Target Habitats:

- Woodland

Threats:

- Habitat loss
- Inadequate woodland management
- Use of herbicides and pesticides
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Ways WDC is helping:

- Site specific management plans for woodland on Council land, along with the development of a Woodland Enhancement and Management Strategy, to help increase habitat availability and potential for populations to expand territory. To incorporate coppicing management into woodlands to help provide suitable breeding opportunities for the species, specifically birch coppicing to support the larva
- Prioritising biodiversity, including argent and sable moth protection, within the local planning system.

Ways you can help:

- Volunteer with Warwickshire Wildlife Trust to help maintain important habitats and monitor species numbers.





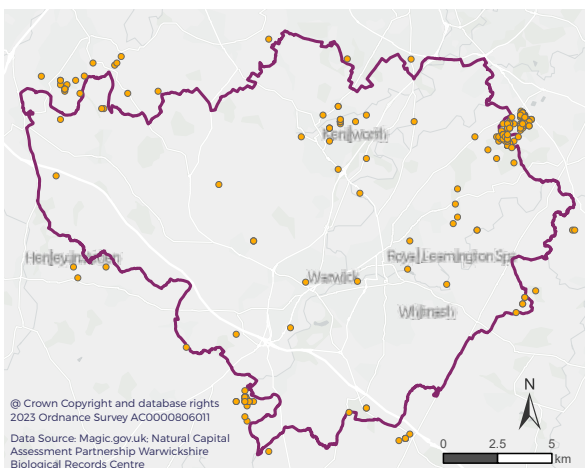
WHITE LETTER HAIRSTREAK



The underwings of the white letter hairstreak butterfly are brown with a white W-shaped streak, an orange edge and small tails. It is difficult to spot, as it flies around the tops of trees, particularly elms. It occasionally comes down to ground level to nectar on flowers, especially privet and bramble.

The butterfly breeds on various elm species, including wych elm, English elm and small-leaved, located in sheltered hedgerows, mixed scrub and on the edges of woodland rides, but also on large isolated elms. Research at one site indicated a preference for (and a higher success rate on) wych elm. It breeds on mature trees, or abundant sucker growth near dead trees. It has also been shown to survive on the Dutch Elm Disease-resistant varieties of elm.

Target Habitat and Species Distribution:
White Letter Hairstreak



The species declined in the 1970s when its foodplants were reduced by Dutch Elm disease, but it is recovering in a few areas.

Conservation status:

- Schedule 5 of the Wildlife & Countryside Act 1981

Associated Warwick District Target Habitats:

- Wood Pasture and Parkland
- Trees
- Woodland
- Grassland
- Hedgerow
- Arable field margins

Threats:

- Habitat loss
- Inadequate woodland management
- Use of herbicides and pesticides
- Dutch elm disease
- Climate change (e.g. storms, drought, wildfire and new disease/pests).

Ways WDC is helping:

- Site specific management plans for woodland on Council land, along with the development of a Woodland Enhancement and Management Strategy, to help increase habitat availability and potential for populations to expand territory. Including a focus on conserving elm species
- Prioritising biodiversity, including white letter hairstreak protection, within the local planning system.

Ways you can help:

- Volunteer with Warwickshire Wildlife Trust to help maintain important habitats and monitor species numbers.
- Plant wych elm trees on your land (where appropriate).

