## WINCHESTER CITY COUNCIL BIODIVERSITY ACTION PLAN 2021 KEY SPECIES FACT SHEETS

SPECIES-RICH GRASSLAND TREES AND WOODLAND CHALK RIVERS HEDGEROWS AND ARABLE FIELD MARGINS HAZEL DORMOUSE BATS WATER VOLE HEDGEHOG SWIFT HOUSE SPARROW SKYLARK GREY PARTRIDGE GREAT SPOTTED WOODPECKER GREAT CRESTED NEWT SLOW WORM COMMON LIZARD COMMON TOAD WHITE-CLAWED CRAYFISH STAG BEETLE SOUTHERN DAMSELFLY BUMBLEBEE CHALK HILL BLUE BUTTERFLY SILVER SPOTTED SKIPPER STRIPED LYCHNIS MOTH GREEN WINGED ORCHID BEE ORCHID



## SPECIES-RICH GRASSIAND

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- From 2006 to 2018 there was a 19.2% decrease in Lowland Calcareous Grassland in Winchester (HBIC).
- Bats
- Hedgehog
- Swift House sparrow
- Skylark
- Great crested
  - Green winged orchid
- Common lizard
  Bee orchid

- - Common toad
- Grey partridge
- newt
- Slow worm

- SPECIES AFFECTED

  - Bumblebee
    - Chalk hill blue butterfly
    - Silver spotted skipper
    - Striped lychnis moth

#### Facts

This category contains unimproved or low nutrient input priority grasslands including Lowland Calcareous Grassland, Lowland Meadow, Lowland Dry Acid Grassland, Purple Moor Grass and Rush Pasture. Road verges of Ecological Importance (RVEI) and non-priority grassland habitats which are aimed at maintaining and enhancing biodiversity, such as newly planted wildflower areas, are also covered by this category. Priority grassland habitats support a very rich flora and fauna including many nationally rare and scarce species.

#### 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

#### Examples of Important chalk grassland

Cheesefoot Head SSSI, St. Catherine's Hill SSSI, Old Winchester Hill NNR, Beacon Hill NNR & SSSI, Hook Heath Meadows SSSI, Ratlake Meadows

SSSI, Waltham Chase Meadows SSSI, Whiteshute Ridge SINC, West Hill Cemetery SINC

#### Ways WCC is helping

The Wildflower Project – creation of new wildflower areas, management and restoration of WCC grassland sites and investigating changes in the management of road verges.

Development management and strategic planning – looking at offsetting to achieve Biodiversity Net Gain and Nutrient Neutrality.

#### Ways you can help

Create your own wildflower area in your garden or leave a patch of uncut grassland from March to September.



## TREES AND WOODLAND

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- Ancient woodland covers just 2.4% of the UK.
- Woodland covering the UK increased by 9% from 1998 to 2018.
- There was a 12% loss of lowland mixed deciduous woodland, 8.6% loss of wet woodland & 69.1% loss of wood pasture & parkland in Winchester from 2006 to 2018 (HBIC).

- Great spotted woodpecker
- Great crested newt
- Slow worm
- SPECIES AFFECTED • Hazel dormouse • Common lizard • Bats Common toad Hedgehog Stag beetle • Swift • Bumblebee • Striped lychnis • House sparrow moth

## Facts

Semi-natural broadleaved, mixed & yew woodland in line with the JNCC UK BAP broad habitat type. This is all inclusive of ancient and non-ancient woodland, traditional orchards, lowland beech and yew woodland, lowland mixed deciduous woodland, wet woodland, wood-pasture and parkland priority habitats.

Individual trees and groups of trees planted, owned or managed by WCC as well as trees deemed to be of wider importance through the planning and TPO process.

#### Threats

- Development and agricultural intensification causing woodlands to be cleared
- Lack of management and coppicing
- Increased nutrients and runoff from urban areas and adjacent agriculture
- Invasive species and diseases such as Ash dieback

#### Important woodlands in Winchester

Crab Wood LNR & SSSI, Botley Wood SSSI, Galley Down Wood SSSI, Peake Wood SSSI & Upper Hamble Woods SSSI

#### Ways WCC is helping

Development management and strategic planning – supporting applications which protect and enhance woodland habitats.

Tree Planting and projects to enhance small pockets of woodland such as Badger's Patch in Stanmore

#### Ways you can help

Volunteer with a local group such as HIWWT or RSPB to contribute to some of the much needed conservation action work within woodlands.





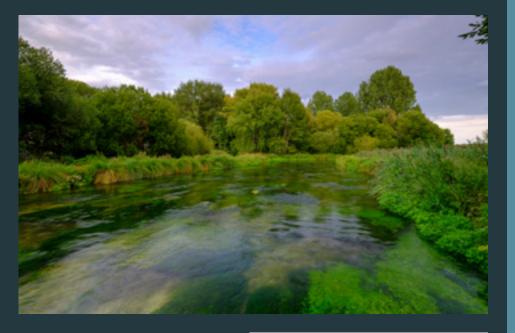
# CHALK RIVERS

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- No change in the area of chalk rivers in Winchester from 2006 to 2018 (118km) (HBIC). However this is an approximation from EA river GIS layers.
- Historic modification of chalk rivers through land drainage, flood defence, abstraction and effluent disposal has changed the natural river ecosystem and ultimately led to only 10.37% of the River Itchen SSSI being in favourable condition

(55.74% in unfavourable-recovering and 27.99% in unfavourable-no change). This is taken from the Natural England condition summary report generated 27 Jan 2021, based on the latest condition assessments for SSSI units (spanning from 2008 to 2018).

• The Test and Itchen Restoration Strategy was set up as a joint project between the Environment Agency and Natural England in 2012 to restore the rivers to favourable condition.



#### SPECIES AFFECTED

- Bats
- White-clawed
- Water vole
- Crayfish

# Common toad Southern damselfly

#### Facts

Fed from groundwater aquifers, producing clear waters and a generally stable flow and temperature regime, chalk rivers support a rich diversity of invertebrate and fish life. Brown trout Salmo trutta, brook lamprey Lampetra planeri, salmon Salmo salar, white-clawed crayfish Austropotamobius pallipes and otter Lutra lutra are among the species listed on Annex II of the EC Habitats Directive which chalk rivers support (JNCC).

#### Threats

- Development and agricultural intensification cause the loss of key habitats associated with chalk rivers
- Flood management and canalisation of river channels
- Runoff from urban areas and agricultural land causes an increase in nutrients and decreases water quality
- Invasive species (Himalayan balsam, signal crayfish and mink)

# Important Chalk rivers in Winchester

River Itchen SSSI, River Test SSSI & River Meon SINC

#### Ways WCC is helping

- River Maintenance Action Plan
- Green Infrastructure framework (in development)
- Development management and strategic planning – supporting applications which protect and enhance rivers, streams and associated habitats
- HIWWT monitoring land managed on our behalf (Winnall Moors & St Faith's Meadow)
- Provide support as partners of the River Meon Partnership

#### Ways you can help

Support the work of the Meon Valley Partnership. For further details visit their website at meonvalleypartnership.org.uk



## HEDGEROWS AND ARABLE FIELD MARGINS

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- Protected under the Hedgerow **Regulations 1997**
- The HBIC data for arable field margins is incomplete. Figures only show SINCs on arable land designated for rare arable plant assemblages. The area of arable field margins in Winchester has decreased from 1ha in 2006 to 0.9ha in 2018.
- The length of mapped hedgerows in Winchester is 3036km. This has not Great crested changed since data was available in 2016. newt There is no comprehensive information for priority hedgerows (HBIC).

#### SPECIES AFFECTED

• Bats

- Hazel dormouse Slow worm
  - Common lizard
  - Common toad

- skipper
- moth

#### Hedaehoa • Swift • Stag beetle House sparrow Bumblebee Skylark Chalk hill blue butterflv • Grey partridge • Great spotted Silver spotted woodpecker

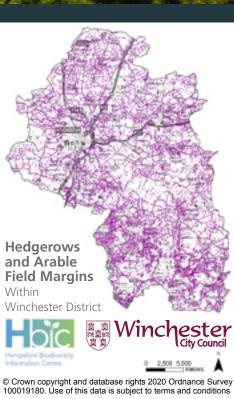
• Striped lychnis

#### Green Infrastructure framework (in development)

• Appropriate management of these habitats on WCC owned sites.

#### Ways you can help

If you have a hedgerow in your garden or on your land why don't you try changing the management? Cutting the hedgerow once every two or three years will allow berries and nuts to grow and provide food for a variety of wildlife. Remember not to cut back hedgerows between March and September because birds will be nesting during this time.



#### Facts

Arable field margins are herbaceous strips or blocks around arable fields that are managed specifically to provide benefits for wildlife (JNCC). This includes margins sown with wildflowers for pollinators, to provide seed for birds or left as tussocky grassland.

Hedgerows are defined as any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees or shrub species are less that 20m wide (JNCC). They should be at least 80% native woody species.

## Threats

- Agricultural intensification and development
- Inappropriate management or cutting regimes
- Use of pesticides, herbicides and fertilizers.

#### Ways WCC is helping

- Statutory duties including investigating breaches in Hedgerow Regulations 1981.
- Development management and strategic planning – supporting applications which protect and enhance hedgerow and boundary habitats.



## HAZEL DORMOUSE Muscardinus avellanarius

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- 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. In the last 18 years (2000 to 2018) the population has fallen by 51% in Britain (PTES)
- Stable between 2002-2012 but declining between 2008-2018 in Hampshire (HBIC).

#### HABITATS



Trees & woodland

Chalk rivers

 Hedgerows & field margins

Gardens



#### Facts

Extremely elusive and increasingly rare, 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 (HDG).

They live in deciduous woodland, hedgerows and dense scrub where they have a varied diet of buds, hazelnuts, berries and insects.

Hazel dormice have been recorded across much of Hampshire. In Winchester there are particular concentrations along the M3 corridor and across parts of the South Downs National Park.

#### Threats

• Development and agricultural intensification causing a loss of habitat

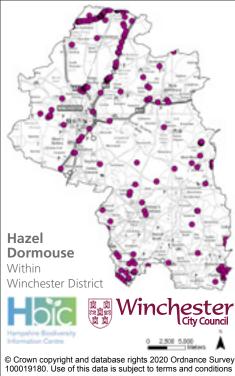
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- Fragmentation and loss of connectivity between remaining habitat
- Lack of management & coppicing within woodlands causing a decline in habitat quality
- Climate change causing more mild and wet winters which have a negative impact on hibernating animals.

#### Ways WCC is helping

- Appropriate management and monitoring on WCC sites
- Development management
- Green Infrastructure Project (in development)

- 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 and birds throughout the winter.



# BATS

## Pipistrellus Spp; Eptesicus serotinus; Plecotus auritus; Myotis daubentonii; Barbastella barbastellus and Myotis bechsteinii HABITATS

#### CONSERVATION STATUS

- UKBAP & s41 NERC (Soprano Pipistrelle, brown longeared, Bechstein's and barbastelle bats)
- Schedule 5 of the Wildlife and Countryside Act 1981
- Schedule 2 of the Conservation of Habitats and Species Regulations 2017
- Serotine bat declined in Hampshire from 2008 to 2018 (HBIC).

#### Facts

We are lucky enough to have 17 species of bat breeding in the UK, all of which have been recorded in Hampshire. All bats in the UK eat insects, so they are a great form of natural pest control. The place a bat lives is called its roost, some bats prefer to roost in hollow trees, some like caves or tunnels and others prefer buildings (making use of loose or hanging tiles, soffits and loft spaces). The place a bat roosts often changes depending on the time of year and whether they are hibernating or raising young.

#### Threats

 Tree felling particularly due to ash dieback

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Species-rich grassland

Trees & woodland

Chalk rivers

Hedgerows & field margins

Gardens

- Development (habitat loss and attacks from domestic cats) and increasing external lighting
- Permitted renovation works to buildings such as re-roofing
- Agricultural intensification (loss of habitat, reduced connectivity and pesticides reducing insect prey)
- Climate change

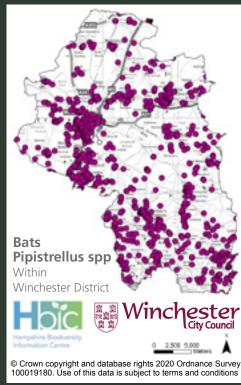
#### Ways WCC is helping

- Working in unison with our Property Services and Estates Teams to protect roosting bats
- Creating wildflower areas and managing WCC sites to benefit foraging bats
- Development Management

#### Ways you can help

- Contact National Bat Helpline (0345 1300 228) if you're anxious works may impact bats or if you have a roost in your house and need advice.
- Join the Hampshire Bat Group to get involved with surveys and to learn more about bats.
- Create insect rich feeding habitats https://www.bats.org.uk/advice/ gardening-for-bats
- Put up a bat box on your house or on a mature tree in your garden
- Turn off external security lights or have them on a short timer (<1min) or motion sensor.

ONTENTS





## WATER VOLE Arvicola amphibius

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- Schedule 5 of the Wildlife & Countryside Act 1981
- Believed to have been lost in up to 90% of sites (PTES)
- Water vole populations had under gone rapid decline in 2000, but from 2008 to 2018 populations were stable in Hampshire, although this is at a low and vulnerable level (HBIC).

#### HABITATS



Trees & woodland

Chalk rivers

Hedgerows & field margins

Gardens



#### Facts

Water voles are a vital part of river ecosystems. Their burrowing, feeding and movements help to create conditions for other animals and plants to thrive (WT). They are chestnut-brown with a blunt rounded nose, small ears and a furry tail. They Breed in Spring and have 3 to 4 litters of up to 5 young.

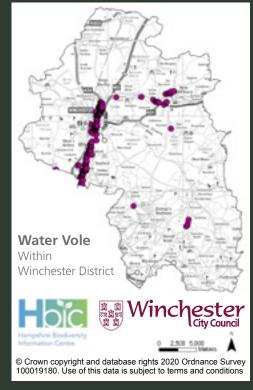
#### Threats

- Loss of habitat and fragmentation
- Inappropriate river management
- Invasive predator American Mink
- Pollution and degradation in water quality

#### Ways WCC is helping

- River Maintenance Action Plan
- Green Infrastructure framework (in development)
- Development management
- Hampshire and Isle of Wight Wildlife Trust managing land on our behalf
- Provide support as partners of the River Meon Partnership

- Volunteer with the Hampshire and Isle of Wight Wildlife Trust
- Support the work of the Meon Valley Partnership. For further details visit their website at www. meonvalleypartnership.org.uk
- Monitor and submit records of water vole or mink to HBIC
- If you own any land or your garden backs onto a stream or river why not provide a place for water voles by leaving a buffer of 3-5m of long grass and only cutting half of this area each year.



## H E D G E H O G Erinaceus europaeus

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- 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 they could be down by over half in rural areas and a third in urban areas since 2000 (Woodland Trust).



#### HABITATS

- Species-rich grassland Trees & woodland
  - Chalk rivers
- Hedgerows & field margins





#### Facts

Hedgehogs are one of the UK's most loved mammals. They feed on a variety of things including worms, beetles, slugs, caterpillars, earwigs and millipedes. Hedgehogs give birth in June and July, and they have an average litter size of four or five young known as hoglets. They hibernate between November and March.

#### Threats

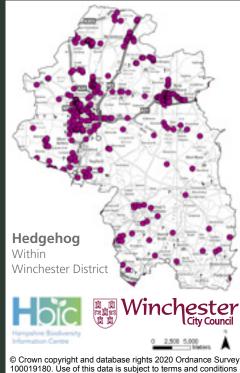
- Habitat loss and fragmentation
- Roads
- Pesticides on farmland and in gardens

#### Ways WCC is helping

- Hedgehog Project get in touch if you wish to borrow a hedgehog tunnel and survey your garden.
- Development Management
- Green Infrastructure Project (in development)
- 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 https:// www.woodlandtrust.org.uk/ blog/2019/08/how-to-makehedgehog-house/
- Wildlife friendly gardening:
- Leave areas of the garden 'wild', with piles of leaf litter and logs.

These are an attractive nest as well as a home for the invertebrates (slugs, beetles) that hedgehogs like to eat.

- Cover drains and holes and place bricks at the side of ponds to give hedgehogs an easy route out.
- Check for hedgehogs before using strimmers or mowers, particularly under hedges where animals may rest. Check compost heaps for nesting hogs before forking over.
- Build bonfires as close to time of lighting as possible and check them thoroughly before lighting.
- Slug pellets can poison hedgehogs and should only be used as a last resort. Instead try using one of many "natural" alternatives, like sprinkling crushed eggshells or coffee grounds around the plants you need to protect.



## SWIFT Apus apus

#### CONSERVATION STATUS

- Wildlife and Countryside Act 1981
- UK Conservation Status AMBER
- Recent Breeding Population Decline (1981-2007), Recent Winter Population Decline (1981-2007), Recent Breeding Range Decline (1981-2010), Recent Winter Range Decline (1981-2010) (BTO)
- In the UK and Hampshire, swifts have declined by over 50% during the last 23 years (HS)

#### HABITATS





Chalk rivers

Hedgerows & field margins

Gardens



#### Facts

Swifts feed on airborne insects and are only present in the UK during the spring and summer months. Swifts migrate south to Africa in early August once they have finished breeding, returning only at the beginning of May. By sleeping with half of its brain at a time, the swift only lands for a short period each year to breed (BTO). They don't breed until they are on average 4 years old and usually live for around 9 years (BTO).

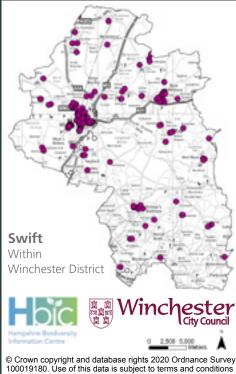
#### Threats

- Decline in insect prey species
- Permitted renovation works to buildings such as re-roofing and repairing soffits causing a loss of nest sites
- Development new buildings may not provide nest sites for swifts

#### Ways WCC is helping

- Providing swift boxes on WCC reroofed properties
- Working with Hampshire Swifts who monitor nest sites and uptake of boxes
- Development Management

- Put up boxes on your house https:// www.hampshireswifts.co.uk/nesting
- Check for nesting birds before undertaking building works from March to September.
- Take part in the Hampshire Swift Survey https://www. hampshireswifts.co.uk/survey



## HOUSE SPARROW Passer domesticus

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- Wildlife and Countryside Act 1981
- UK Conservation Status RED
- Recent Breeding Population Decline (1969-2010), Recent Winter Population Decline (1981-2010), Recent Breeding Range Decline (1981-2010), Recent Winter Range Decline (1981-2010) (BTO)

#### HABITATS



Trees & woodland

Chalk rivers

Hedgerows & field margins

Gardens



#### Facts

The house sparrow is a small bird with a stout bill designed for eating seeds (BTO).. Males sport a grey cap and black bib, the size of which indicates their status (WT). Familiar to towns, parks and gardens, they live in colonies and nest in holes or crevices in buildings, among Ivy or other bushes and in nest boxes.

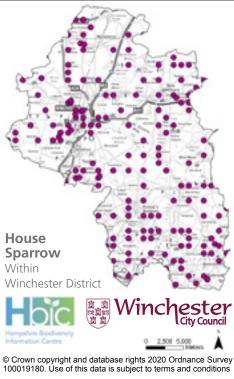
#### Threats

- Agricultural intensification (habitat loss and use of insecticides and pesticides)
- Permitted renovation works to buildings such as re-roofing and <u>repairing soffits.</u>
- Development

#### Ways WCC is helping

- Providing swift boxes on WCC reroofed properties
- Working with Hampshire Swifts who monitor nest sites and uptake of boxes
- Development Management

- Put up nest boxes
- Provide food and water in your gardens
- Check for nesting birds before undertaking building works from March to September.



## S K Y L A R K Alauda arvensis

#### CONSERVATION STATUS

- UKBAP, S41 NERC
- Wildlife and Countryside Act 1981
- UK Conservation Status RED
- Recent Breeding Population Decline (1969-2010), Recent Winter Population Decline (1981-2010), Recent Breeding Range Decline (1981-2010), Recent Winter Range Decline (1981-2010) (BTO)
- Declined in Hampshire from 2008 to 2018 (HBIC)

#### HABITATS

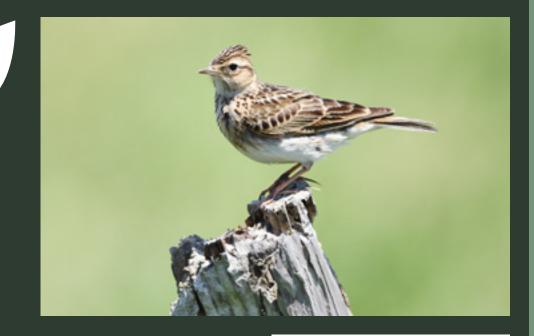


Trees & woodland

Chalk rivers

Hedgerows & field margins

Gardens



#### Facts

The skylark is an integral part of the British landscape with its melodious song. Although skylarks probably evolved to live on steppe grassland and salt marshes, they have long been the epitome of a farmland bird. Males are highly territorial using long song flights at high altitude to broadcast to rivals and potential mates (BTO).

#### Threats

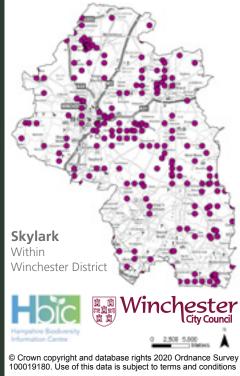
 Agricultural intensification reduction in over-winter seed availability from the loss of overwintered crop stubbles and autumnsown crops mean vegetation is generally too tall and too dense for skylarks to nest later in the season (BTO).

• Use of pesticides and herbicides (further reduce food availability)

#### Ways WCC is helping

- HIWWT monitoring and management on behalf WCC
- <u>Development management</u>

- Please keep to footpaths and keep dogs on a lead when walking in fields, meadows or heaths to avoid disturbing ground nesting birds.
- Farmers can create skylark plots ie small areas (16-24 metres square) left unsown in winter cereals. Just two plots per hectare have been proven to boost the nesting opportunities and food availability for skylarks. Funding for skylark plots may be available through the Environmental Land Management Scheme



## GREY PARTRIDGE Perdix perdix

## CONSERVATION STATUS

- UKBAP & S41 NERC
- Wildlife and Countryside Act 1981
- UK Conservation Status RED
- Recent Breeding Population Decline (1981-2010), Recent Winter Population Decline (1981-2010), Recent Breeding Range Decline (1981-2010), Recent Winter Range Decline (1981-2010) (BTO).
- The continuing decline suggests that all efforts to boost the population in the wider countryside have so far been unsuccessful (BTO)
- Indications after the second world war indicate that numbers dropped by 80% in 40 years (GWT)
- Rapid and accelerating decline from 2000 to 2005 and continued decline from 2008 to 2018 in Hampshire (HBIC).

#### Facts

Originally a bird of temperate steppe grasslands, it has adapted readily to open arable landscapes. This mediumsized bird has a distinctive orange face and flies with whirring wings and occasional glides showing a chestnut tail. It is strictly a ground bird, never likely to be found in pear trees!(RSPB).

The partridge has the largest clutch of any bird species in Britain and 14-15 eggs are typical. Adults feed on leaves (grass, cereals, clover), weed seeds and cereal grain but chicks are fed exclusively on insects, especially during the first two weeks of their life (BTO).

#### Threats

 Agricultural intensification (loss of field boundaries and hedgerows for nesting)

HABITATS

Species-rich grassland

Trees &

woodland

Chalk rivers

Hedgerows &

field margins

Gardens

 Use of herbicides and pesticides (by the 1980s, the number of chick food insects in cereals had fallen by at least 75%) (BTO).

#### Ways WCC is helping

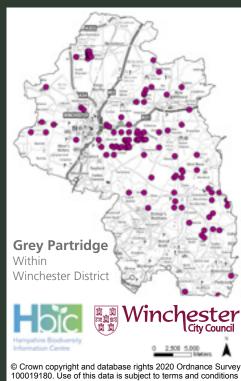
• HIWWT monitoring and management on behalf WCC at Barton Meadows

#### Ways you can help

 Please keep to footpaths and keep dogs on a lead when walking in fields, meadows or heaths to avoid disturbing ground nesting birds.



- Get involved by joining The Game Conservancy Trust's Partridge Count Scheme
- If you are a farmer or a landowner you can do the following things to help:
- Construct beetle banks to increase the amount of nesting cover
- Create grassy nesting cover (conservation headlands) next to cereal crops
- Manage the grass beside hedgerows so that there is old dead grass for nesting.
- Try to avoid using broad-spectrum insecticides after 15 March.
- Don't spray out fence rows with herbicides.
- Provide seed food through the winter with wild bird seed mixtures or over-wintered stubble
- See the grey partridge conservation guide for more information (https:// mailchi.mp/gwct.org.uk/greypartridge-guide)



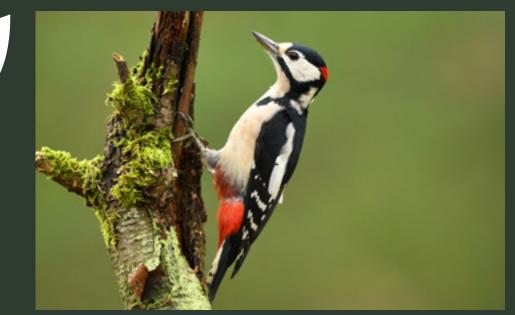


## GREAT SPOTTED WOODPECKER Dendrocopos major

#### CONSERVATION STATUS

- Wildlife and Countryside Act 1981
- UK Conservation Status GREEN





#### Facts

There are around 25,000 to 30,000 pairs of these striking birds breeding in Britain. They do need woodland but will visit isolated groups of trees. The 'drumming' of a great spotted woodpecker is a familiar sound of our woodlands, parks and gardens. It is a form of communication and is mostly used to mark territories and to display in spring (WT). The roots of their tongues are coiled round the back of their skulls and can be extended an exceptional distance to catch insect larvae (BTO).

#### Threats

- Loss of mature trees and woodlands
- Removal of deadwood (nesting and foraging sites)

#### Ways WCC is helping

- Engagement through play areas such as Badger's Patch
- Appropriate management of WCC sites and tree stock

- Only cut or prune hedges and trees outside bird nesting season (ie undertake cutting or pruning between September and February only)
- Provide food and water in your gardens
- Take part in Wonky activities and help teach children about the wildlife within our open spaces https://www.winchester.gov.uk/ community-recreation/find-a-playarea/www-winchester-gov-ukwonky



## GREAT CRESTED NEWT *Triturus cristatus*

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- Schedule 5 of the Wildlife and Countryside Act 1981
- Schedule 2 of the Conservation of Habitats and Species Regulations 2017
- European Protected Species under Annex IV of the European Habitats Directive.
- Enormous declines in range and abundance in the last century (ARCT)
- Declined in Hampshire from 2000 to 2018 (HBIC)

#### Facts

The great crested newt favours clean ponds during the breeding season in spring but spends the rest of the year feeding on invertebrates in woodland, hedgerows, marshes and tussock grassland. In the winter they hibernate underground, among tree roots and in old walls. On average they live for 6 to 15 years (WT).

#### Threats

 Loss and degradation of habitat – they require a number of breeding ponds within 250m of one another with connected terrestrial habitat such as woodland, scrub, long grassland, hedgerows and field margins.

HABITATS

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Species-rich

arassland

woodland

Chalk rivers

Hedgerows &

field margins

Gardens

Trees &

#### Ways WCC is helping

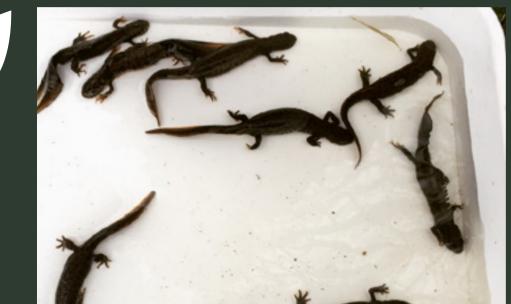
- Partnership with North Pond Conservation Group, Bishop Waltham
- Development Management
- Green Infrastructure Project (in development)

#### Ways you can help Create ponds for wildlife:

- These should have a gentle slope to allow amphibians to enter and exit the pond without becoming stuck
- Contain some submerged and emergent aquatic plants for them to lay their eggs on
- Include areas of both shade and sunlight
- Surrounded by some suitable terrestrial habitat such as a patch of long grassland

Don't be tempted to stock the pond with fish because they will eat amphibian eggs and young.





#### CONTENTS

## SLOW WORM Anguis fragilis

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- Section 9 (1 and 5) of the Wildlife and Countryside Act 1981
- Considered to be declining



#### HABITATS

Species-rich grassland
 Trees & woodland
 Chalk rivers
 Hedgerows & field margins
 Gardens



#### Facts

The slow worm is actually a legless lizard! Unlike snakes they have eyelids, a flat forked tongue and can drop their tail to escape from a predator (ARCT). Slow worms can be found in heathland, tussock grassland, woodland edges and rides where they can find invertebrates to eat and a sunny patch in which to sunbathe. They are often found in mature gardens and allotments. Like other reptiles, slow worms hibernate, usually from October to March (WT).

Males are paler in colour and sometimes have blue spots, while females are larger, with dark sides and a dark stripe down the back. Females incubate the eggs internally, 'giving birth' to an average of eight young in summer (WT).

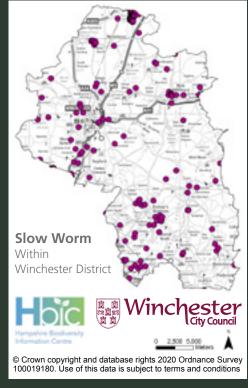
#### Threats

- Habitat loss and fragmentation (reptiles prefer a mosaic of hedgerows, scrub and grassland for shelter and to forage)
- Use of herbicides and pesticides

#### Ways WCC is helping

- Appropriate management and monitoring of WCC sites
- Habitat creation wildflower areas
- Development management
- Green Infrastructure Project (in development)

- Wildlife friendly gardening create a log pile or compost heap.
- Go green reduce your use of pesticides, herbicides and slug pellets. Slow worms are a natural predator of slugs.
- Create a wildflower area in your garden or leave a patch of uncut grassland from March to September.



## COMMON LIZARD Zootoca vivipara

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- Section 9 (1 and 5) of the Wildlife and Countryside Act 1981
- Considered to be declining

#### HABITATS





#### Facts

The common lizard is found across many habitats, including heathland, moorland, woodland and grassland, dry stone walls, embankments and cliff walls where it can be seen basking in sunny spots. Common lizards are variable in colour, but are usually brownish-grey, often with rows of darker spots or stripes down the back and sides. Males have bright yellow or orange undersides with spots, while females have paler, plain bellies.

Also known as the 'viviparous lizard', the common lizard incubates its eggs inside its body and 'gives birth' to live young rather than laying eggs (WT). They feed on small invertebrates such as flies, spiders and even snails (Woodland trust). If threatened by a predator, the common lizard will shed its still-moving tail as a distraction.

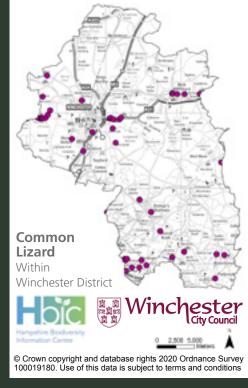
#### Threats

- Habitat loss and fragmentation (reptiles prefer a mosaic of hedgerows, scrub and grassland for shelter and to forage)
- Use of herbicides and pesticides

#### Ways WCC is helping

- Appropriate management and monitoring of WCC sites
- Habitat creation wildflower areas
- Development management
- Green Infrastructure Project (in development)

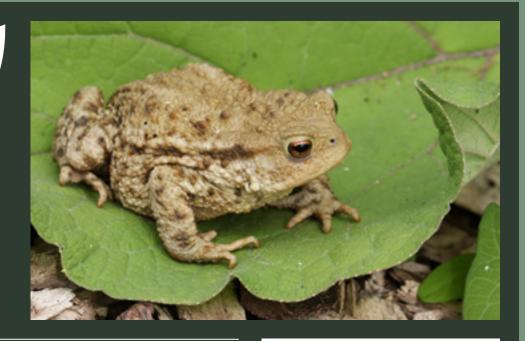
- Wildlife friendly gardening create a log pile or compost heap.
- Go green reduce your use of pesticides, herbicides and slug pellets.
- Create a wildflower area in your garden or Leave a patch of uncut grassland from March to September.



## COMMON TOAD Bufo bufo

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- Section 9 (1 and 5) of the Wildlife and Countryside Act 1981
- Considered to be declining



#### Facts

The common toad has olive-brown, warty skin and short back legs. They breed in ponds during the spring, spending much of the rest of the year feeding in woodland, gardens, hedgerows and tussock grassland. They are famous for their mass migrations back to their breeding ponds on the first warm, damp evenings of the year, often around St. Valentine's Day. They hibernate over winter, often under log piles, stones or even in old flower pots (WT).

#### Threats

 Loss and degradation of habitat – they require a number of breeding ponds within 250m of one another with connected terrestrial habitat such as woodland, scrub, tussock grassland, hedgerows and field margins.

 $\checkmark$ 

HABITATS

Species-rich grassland

Trees & woodland

Chalk rivers

Hedgerows & field margins

Gardens

• Fragmentation - roads block migration paths

#### Ways WCC is helping

- Appropriate management and monitoring of WCC sites
- Habitat creation
- Partnership with North Pond Conservation Group, Bishop Waltham
- Development management
- Green Infrastructure Project (in development)

#### Ways you can help Create ponds for wildlife:

- These should have a gentle slope to allow amphibians to enter and exit the pond without becoming stuck
- Contain some submerged and emergent aquatic plants for them to lay their eggs on
- Include areas of both shade and sunlight
- Surrounded by some suitable terrestrial habitat such as a patch of long grassland

Don't be tempted to stock the pond with fish because they will eat amphibian eggs and young.



## WHITE-CLAWED CRAYFISH *Austropotamobius pallipes*

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- Schedule 9 (5) (Sale only) of the Wildlife and Countryside Act 1981
- Listed under annexes II and V of the EU Habitats Directive and Appendix II of the Bern Convention
- Endangered on the global IUCN Red List of threatened species





## Facts

The white-clawed crayfish is a freshwater crustacean with pale undersides to its claws. They inhabit small freshwater streams of a depth less than 1 metre, hiding underneath stones and rocks and in small crevices (WT). Adults may reach over 12 cm and can live for more than 10 years.

They are nocturnal and eat invertebrates, carrion, water plants and dead organic matter. Breeding takes place in autumn and early winter (September to November) when the water temperature drops below 10°C for an extended period and females overwinter with a clutch of 20 to 160 eggs underneath their tail (juveniles hatch from June to August (conserving Natura 2000 Rivers).

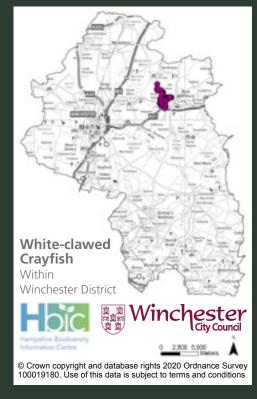
#### Threats

- Competition and disease from Invasive American Signal Crayfish
- Runoff/ pollution from urban areas and agricultural land causes an increase in nutrients and decreases water quality

#### Ways WCC is helping

- River Maintenance Action Plan
- Green Infrastructure framework (in development)
- Development management
- HIWWT monitoring land managed on our behalf (Winnall Moors & St Faith's Meadow)
- Provide support as partners of the River Meon Partnership

- Support the work of the Meon Valley Partnership. For further details visit their website at www. meonvalleypartnership.org.uk
- Report any findings of invasive American Signal crayfish.



## STAG BEETLE Lucanus cervus

#### CONSERVATION STATUS

- UKBAP S41 NERC
- Schedule 9 (5) (Sale only) of the Wildlife and Countryside Act 1981
- Nationally Scarce (PTES)
- Stable in Hampshire from 2008 to 2018, but had under gone decline in 2000 so numbers have stabalised at a low and vulnerable level (HBIC).



#### HABITATS

Species-rich grassland
 Trees & woodland
 Chalk rivers
 Hedgerows & field margins
 Gardens



#### Facts

Stag beetles are one of our most spectacular insects. The male's large jaws look just like the antlers of a stag. They spend most of their life (3 to 7 years) underground as larvae, only emerging for a few weeks in the summer to find a mate and reproduce (PTES). Larvae feed on decaying wood under the ground. Adults can't feed on solid food – they rely on the fat reserves built up whilst developing as a larva. They can use their feathery tongue to drink from sap runs and fallen soft fruit.

Female stag beetles prefer light soils which are easier to dig down into and lay their eggs. Newly emerging adults also have to dig their way up through the soil to reach the surface, therefore areas like the North and South Downs, which are chalky, have very few stag beetles.

#### Threats

- Loss of habitat (mature trees, woodlands, orchards and particularly standing deadwood)
- Climate change exceptionally dry or wet weather are likely to substantially affect the larvae. Wet and windy weather can inhibit adult beetles' flying ability
- Adult beetles are attracted to the warm surfaces of tarmac and pavements, which makes them particularly vulnerable to being crushed by traffic or feet

#### Ways WCC is helping

- Development management
- Tree Planting and projects to enhance small pockets of woodland such as Badger's Patch in Stanmore
- Green Infrastructure Project (in development)

- Leave deadwood within your garden – either standing or as log piles within a shaded area. https:// www.wildlifetrusts.org/actions/howmake-log-shelter
- if you do see any stag beetles underground when gardening, just place them back where you found them and cover back over with soil
- https://ptes.org/get-involved/ surveys/garden/great-stag-hunt/ stag-hunt-survey/



## SOUTHERN DAMSELFLY Coenagrion mercuriale

#### CONSERVATION STATUS

- UKBAP & S41 NERC
- Schedule 5 Wildlife and Countryside Act 1981
- Listed in Appendix II of the Berne Convention and Annex II of the EC Habitats Directive.
- 10 SACs support southern damselfly.
- Range has contracted in UK in last thirty years.
- Stable from 2002-2012 but declining from 2008-2018 in Hampshire (HBIC).

#### Facts

The southern damselfly is a rare species in the UK as it is living on the extreme north-western fringe of its European range. In the UK the southern damselfly is primarily a species of base-rich streams often within acid heathland areas. However, it also occurs on water meadows in the flood plains of two chalk rivers (British Dragonfly Society). The male is blue and black with a distinctive 'mercury' shaped marking on segment 2 near the top of the abdomen. Females are black with green/blue markings.

## Threats

• Removal of grazing animals that maintain the open nature of the species' breeding sites.

 $\checkmark$ 

HABITATS

Species-rich

arassland

woodland

Chalk rivers

Hedgerows &

field margins

Gardens

Trees &

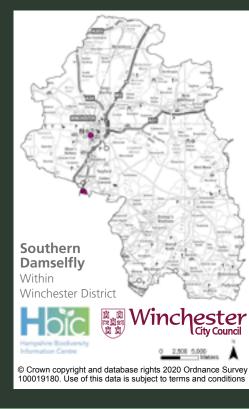
- Abstraction of water leading to a lowering of the water table
- Drainage due to agricultural and forestry pressures, and excessive nutrient enrichment from the runoff of fertilisers from agricultural land
- Isolation and scarcity of habitats

#### Ways WCC is helping

- River Maintenance Action Plan
- Green Infrastructure framework (in development)
- Development management
- HIWWT monitoring land managed on our behalf (Winnall Moors & St Faith's Meadow)
- Provide support as partners of the River Meon Partnership

#### Ways you can help

Support the work of the Meon Valley Partnership. For further details visit their website at www. meonvalleypartnership.org.uk



## B U M B L E B E E Bombus spp.

#### CONSERVATION STATUS

- UKBAP & S41 NERC (brown-banded carder-bee, moss carder bee, red-shanked carder-bee, large garden bumblebee, short-haired bumblebee, shrill carder bee);
- Some species are declining and in fact three bumblebee species have already become extinct in Britain;
- Seven species of bumblebee (the 'Big 7') are widespread across most of Britain. These are: red-tailed bumblebee, early bumblebee, common carder-bee, white-tailed bumblebee, buff-tailed bumblebee, garden bumblebee, tree bumblebee.

#### Facts

There are currently 24 species of bumblebee resident in Britain. They are well-known for their meandering, "bumbling" flight and their distinctive buzz, which is where their Latin name Bombus (meaning "booming") originates (BCT). Unlike the honey bee, bumblebees do not make honey as they do not need to store food for winter. Instead, the season's new queens hibernate and emerge to find their own nests in the spring.

18 species are social species. They make nests, collect pollen and have a worker caste. The remaining six species have a parasitic lifestyle, taking over existing nests established by other species. These species are known as 'cuckoo' bumblebees and don't have workers, just queens and males. They tend to be widespread but only at a comparatively low abundance (BCT).

#### Threats

- Loss and degradation of habitat (loss of foraging, nesting and hibernation sites);
- Agricultural intensification;
- Use of herbicides and pesticides;
- Climate change.

#### HABITATS



Hedgerows & field margins

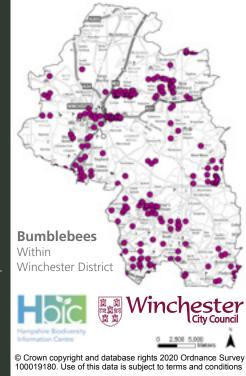
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#### Ways WCC is helping

- Appropriate management and monitoring of WCC sites;
- Creation of new wildflower areas and management of road verges.

#### Ways you can help

- Create wildflower areas or plant beds with native plant species which are beneficial to pollinators (https:// www.bumblebeeconservation.org/ gardeningadvice). Providing new habitats within gardens may provide some resilience to climate change;
- Make or put up a bug hotel within your garden https://www.wildlifetrusts. org/actions/how-build-bug-mansion;
- Go green reduce your use of pesticides and herbicides in your garden.
- Pile up your grass clippings in a corner. These can make great nesting sites for bees.



CONTENTS

## CHALK HILL BLUE BUTTERFLY Polyommatus coridon\_\_\_\_\_

#### CONSERVATION STATUS

- UKBAP
- Schedule 9 (5) (Sale only) of the Wildlife and Countryside Act 1981
- Butterfly Conservation Priority MEDIUM
- The butterfly is confined to calcareous grassland in southern England and has declined in some areas during recent decades (BC).
- Fluctuating populations in Hampshire from 2008 to 2018 (HBIC).



#### Facts

The chalk hill blue is on the wing from July to September. The blue males are conspicuous as they fly around searching for the more secretive, brown females. The sole food plant for the larval stage is Horseshoe Vetch (Hippocrepis comosa) but adults often feed on knapweeds and scabiouses. The caterpillars of the chalk hill blue are always found with ants which protect the caterpillars in return for a sugary substance that they produce (WT).

#### Threats

• Loss and degradation of chalk grassland habitat

HABITATS

Species-rich grassland

Trees &

woodland

Chalk rivers

Hedgerows & field margins

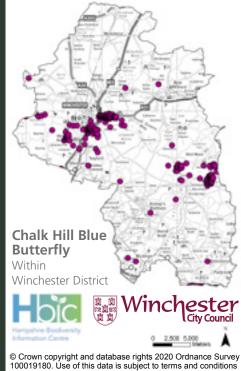
Gardens

- Agricultural intensification
- Herbicides and pesticides
- Climate change

#### Ways WCC is helping

- Appropriate management and monitoring of WCC sites
- Creation of new wildflower areas and management of road verges

- Create wildflower areas or plant beds with native plant species which are beneficial to pollinators. Providing new habitats within gardens may provide some resilience to climate change.
- Go green reduce your use of pesticides and herbicides.
- Volunteer for Butterfly Conservation to help maintain important habitats and monitor butterfly numbers.
- https://bigbutterflycount.butterflyconservation.org





## SILVER SPOTTED SKIPPER Hesperia comma

#### CONSERVATION STATUS

- Schedule 9 (5) (Sale only) of the Wildlife and Countryside Act 1981
- Butterfly Conservation Priority MEDIUM
- The silver-spotted skipper has declined rapidly over the last 50 years but has re-expanded partially since 1980 (BC).
- Stable from 1995 to 2005 and increasing from 2002 to 2012 but declined from 2008 to 2018 in Hampshire (HBIC).



#### Facts

The silver spotted skipper, a small butterfly with a low darting flight restricted to chalk downland in southern England. Upperwings orange with brown margins and pale orange spots and the underwings have silver spots (BC). They stop frequently to bask on bare ground or feed on flowers such as dwarf thistle. Sheep's-fescue (Festuca ovina) is the sole food plant of the caterpillar and the butterfly breeds only where this grows as small tufts in short or broken turf.

#### Threats

• Loss and degradation of habitat

HABITATS

Trees &

woodland

Gardens

Chalk rivers

 $\checkmark$ 

- Agricultural intensification
- Herbicides and pesticides
- Climate change

#### Ways WCC is helping

- Appropriate management and monitoring of WCC sites
- Creation of new wildflower areas and management of road verges

#### Ways you can help

- Create wildflower areas or plant beds with native plant species which are beneficial to pollinators. Providing new habitats within gardens may provide some resilience to climate change.
- Go green reduce your use of pesticides and herbicides.
- Volunteer for Butterfly Conservation to help maintain important habitats and monitor butterfly numbers
- https://bigbutterflycount.butterflyconservation.org





CONTENTS

## STRIPED LYCHNIS MOTH *Cucullia lychnitis*

#### CONSERVATION STATUS

- UKBAP
- Formerly more widespread in southern England, this species has suffered a period of rapid decline. However, it now appears to be expanding its range in some areas (BC).
- Stable from 2008 to 2018 in Hampshire (HBIC).





#### Facts

The striped lychnis moth can be found on roadside verges, embankments, field margins, rough downland, unshaded woodland rides and clearings. The adult moth is nocturnal and is rarely seen, but the larva has bright and distinctive markings and can be found quite easily by searching the most usual foodplant, dark mullein verbascum nigrum. It has also been reported on white mullein (V. lychnitis) and ornamental mulleins in gardens.

The eggs are laid mostly in June and July and the egg laying period possibly extends from late May to early August. The larvae develop from late July to early September. The species pupates in a cocoon on or just below the soil surface. The moth can spend up to three or four winters in this state, before the adults emerge in May and June, sometimes flying until early August (BC).

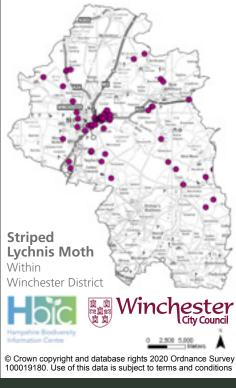
#### Threats

- Loss and degradation of habitat
- Agricultural intensification
- Herbicides and pesticides
- Climate change

#### Ways WCC is helping

- Appropriate management and monitoring of WCC sites
- Creation of new wildflower areas and management of road verges

- Create wildflower areas. Providing new habitats within gardens may provide some resilience to climate change.
- Go green reduce your use of pesticides and herbicides.
- Volunteer for Butterfly Conservation to help maintain important habitats and monitor the striped lychnis moth.



## GREEN WINGED ORCHID Anacamptis morio

#### CONSERVATION STATUS

- AMBER Vulnerable and Near-Threatened (Plantlife)
- Declining in Hampshire from 2008 to 2018 (HBIC)





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#### Facts

A short but pretty plant of unimproved grasslands, mainly on chalky soils, although it can be spotted on banks, village greens and even in churchyards. The Greenwinged orchid flowers in May to June with a cluster of pinky-purple flowers (sometimes white). It gets its name from the green veins in the hood formed by the sepals of the flowers. Green-winged orchids are pollinated by bumblebees.

Orchid seeds do not contain enough energy in the form of food reserves to germinate on their own and have to form a partnership with mycorrhizal fungus to grow. The loss of these fungi through cultivation

or application of artificial fertilisers and herbicides explains why these orchids are generally only found in unimproved grasslands (Plantlife).

#### Threats

- Loss of grassland to intensive agriculture or development
- Degradation of grassland habitat (lack disturbance from grazing)
- Increase in nutrients from run off particularly from agricultural land and urban areas
- Use of herbicides. fertilisers and pesticides (improving grassland)

#### Ways WCC is helping

- Monitoring of known sites through our partnership with HBIC
- Development management

#### Ways you can help

• If you find a green winged orchid make sure you submit the record to HBIC so we are able to protect this vulnerable plant.



CONTENTS

## BEE ORCHID Ophrys apifera

#### CONSERVATION STATUS

• GREEN – Least concern (Plantlife)

#### HABITATS Species-rich grassland Trees & woodland Chalk rivers Hedgerows & field margins Gardens



# ©Hampshire Biodiversity Information Centre

#### Facts

The bee orchid is a mimic, the flower's lip looks like a female bee. Males fly in to try to mate with it and end up pollinating the flower. However, the right bee species doesn't live in the UK, so this orchid is actually selfpollinated (WT).

The bee orchid can be found on dry, chalk and limestone grasslands, banks, woodland rides and pastures from June to July. Bee orchids like a bit of disturbance so they can also occur in disused quarries, sand dunes, mine spoil-heaps, roadsides, railway embankment and even waste grounds in towns (Plantlife).

#### Threats

- Loss of grassland to intensive agriculture or development
- Degradation of remaining grassland habitat (lack of disturbance from grazing)
- Increase in nutrients from run off particularly from agricultural land
- Use of herbicides, fertillisers and pesticides (improving grassland)

## Ways WCC is helping

- Appropriate management and monitoring of WCC sites
- Creation of new wildflower areas and management of road verges

#### Ways you can help

Submit any records of this plant to us and HBIC so that we can ensure the areas where they are found are managed appropriately.

