

Suffolk's Endangered Wildlife



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Suffolk is home to lots of different wildlife species, but some are in danger of becoming extinct if we don't care about their conservation for the future!

Learn here about the lifestyles, habitats and threats to the continued wellbeing of those animals, birds and invertebrates which are of most concern.

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Suffolk Owl
Sanctuary
& Nature Centre



Suffolk
Wildlife
Trust

Suffolk Owl Sanctuary & Nature Centre is concerned with the preservation and conservation of our British wildlife, and is proud to present to you this compilation of our local treasures.

Part of our remit as a registered charity is to commit to educating and enthusing youngsters, not only about the beauty of our native birds of prey, but also the necessity and value of ensuring a safe environment for future generations of all British wildlife.

Aimed primarily at our younger enthusiasts, this handbook can be used to support Key Stage 1 and Key Stage 2 studies.

Suffolk Owl Sanctuary & Nature Centre is grateful to Suffolk Wildlife Trust for providing the information on which this booklet is based.



BAT

Status
Protected...

...in the UK under the Wildlife and Countryside Act, 1981.



Did you know?

They hibernate over winter, usually between November and April.

Diet

All UK bats are nocturnal, feeding on midges, moths and other flying insects that they find in the dark.

Despite it's size the tiny pipistrelle bat can easily eat 3,000 a night!

Habitat

- Widespread, in a wide range of habitats from grasslands to urban areas.
- They roost in tree holes, bat boxes and even the roof spaces of houses.



Build a Bat Box

- ✓ Use untreated wood. Bats are sensitive to smells and preservative chemicals may be harmful to them.
- ✓ Use rough sawn wood.
- ✓ Ensure joints are tight - bats hate a draught.
- ✓ Provide a narrow slit at the back with a rough piece of clamber wood attached.
- ✓ Two or more internal compartments.
- ✓ Make the box as large as possible - a deep cavern makes bats feel safe and keeps the air temperature constant.
- ✓ Locate under the eaves of your house or on the trunk of a mature tree in a large garden.

A bat box gives these night-time creatures somewhere safe to roost, raise their pups and sleep during the day.

Did you know?

The common pipistrelle is so small, it can fit into a matchbox!

Breeding

During the summer females form maternity colonies to collectively raise a single pup.

BARN OWL



Status
Protected...

...in the UK under the Wildlife and Countryside Act, 1981.



Threats



Roads are the largest cause of mortality. New highways fragment habitat, and faster traffic leaves owls flying at hunting height unable to avoid collisions.

The loss of traditional farming methods has caused loss of habitat for both owls and their prey.

Did you know?

With soft feathers which quickly become saturated in the rain, Barn Owls need shelter.

Diet

Mice, voles, shrews and some larger mammals and small birds.

As one of the UK's driest counties, Suffolk is a natural stronghold.

Did you know?

The greatest known age of a Barn Owl in Europe is more than 21 years!

Breeding



The population crashed to a dangerously low level in the 1990s and by 2000 it was estimated that there were less than 4,000 breeding pairs in Britain. Changes in agricultural practices have helped halt this, and favourable weather patterns have contributed towards breeding.

Build a nest box

- ✓ Locate where there is little risk of disturbance.
- ✓ Provide a permanent and visible means of access (Barn Owls look for holes, not boxes).
- ✓ A front shelf or tray allows fledglings to exercise their wings before first flight.
- ✓ The minimum dimensions of the box should be 36cm x 32cms x 60cms.

Habitat

- Widespread across the UK
- Field edges, the edges of watercourses and grass strips alongside woodland



BUMBLE BEE



Did you know?
Bees forage using colour and spatial relationships to identify flowers to feed from.

Diet

Bumblebees are foragers and gather nectar and pollen from a wide variety of flowering plants, using their long hairy tongues to lap up the liquid.

Breeding

- Queens hibernate underground during winter and emerge in spring to find a nest site.
- They build a nest of dried grasses and lay about a dozen eggs that hatch into workers - sterile females.
- New queens and males hatch and mate. The males, workers and old queens die; new queens hibernate.

Threats

- There are 25 species of bumblebee in the UK, but only 8 are regarded as common.
- A significant population decline has been caused by habitat loss, agricultural changes and pesticides.
- Bumblebees are important pollinators, so this is a cause for concern.

Did you know?

Bees are social insects, living in colonies of up to 200 workers and their queen.

Habitat

You can spot bumblebees throughout the garden, in parks, woods, orchards and in meadows.

How can you help?

Gardens and allotments are an important refuge for bumblebees. There's a few things you can do to help:

- ✓ Seek to grow a range of nectar and pollen-rich plants that bloom during different seasons.
- ✓ Create informal, unmanaged nesting areas by leaving long grass and wildflowers to grow along boundaries.
- ✓ Insecticides that are used to control garden pests like aphids, are also harmful to bees. By gardening without pesticides we can help minimise bees' exposure to these substances.

DORMOUSE



Status

Protected...

...in the UK under the Wildlife and Countryside Act, 1981.

Habitat

In the UK the species tends to be more closely associated with old coppice woodland but they also occur in scrub habitat, old hedgerows and are sometimes found in conifer plantations.

Did you know?

Dormice hibernate through the winter and may spend as much as seven months of the year asleep.

Diet

After emerging from hibernation, they feed on flowers and insects. In autumn, dormice prepare for hibernation by eating nuts, seeds and berries, putting on the fat needed to survive the winter.

Breeding

Dormice typically give birth to a litter of four to five young each summer.

Threats

Predators include weasels, grey squirrels, cats, badgers and wild boar when dormice are hibernating at ground level.

The loss and degradation of woodland and hedgerows is driving its decline

Conservation methods include managing woodland and providing nest boxes.

Did you know?

If you find a hazel nut with a smooth circular hole in the shell, the chances are it was made by a feeding dormouse!

HEDGEHOG



Status

Least Concern

...however, a concerning decline in the UK make it a UK Priority Species.



Diet

- Macro-invertebrates e.g beetles, caterpillars, earthworms, slugs and spiders
- Sometimes, frogs and fruit

Predators

The main predator of the hedgehog is the European badger, but it can also be threatened by foxes and pet dogs.



Habitat

- Urban and rural areas
- Common in gardens and hedgerows

R.I.P



In rural areas, numbers of hedgehogs have dropped by more than 50% in 20 years. In urban areas, up to a 1/3 of the population was lost between 2000 and 2014.

Did you know?

Hedgehogs can travel about 2km in one day. One hedgehog has been recorded travelling 9km in just one night!

Threats

Over-tidy gardens reduce important habitat.



Impermeable boundaries such as fences and brick walls make navigating urban areas difficult.



Urbanisation and farming practices cause a loss of habitat.

Did you know?

Hibernation is influenced by temperature and food availability.

Hogs may wake up several times during winter, and even move nests!

Nests are made from leaves, under the support of log piles, brambles or sheds.

Ipswich Hedgehog Project

- ✓ Raises awareness
- ✓ Offers easy to follow advice
- ✓ Creates hedgehog-friendly streets and green spaces throughout the town
- ✓ Conduct surveys and collaborates with universities to better understand the ecology and distribution
- ✓ Offers an equipment loan scheme
- ✓ Records hedgehog sightings
- ✓ Provides courses and training for land managers, planners, ecologists, grounds teams, housing associations and businesses
- ✓ Advises on hedgehog permeable fencing within development plans

ipswichhogs

Breeding

- Hedgehogs breed between April and September
- Litter sizes are often 4-5 hoglets, with just 2-3 of these surviving to independence.



HONEY BEE

Honey

- Honey is made in a nest in the wild, or a man-made hive.
- Female workers forage for nectar in a 4 mile radius.
- Nectar is then mixed with an enzyme in the bee's mouth.
- It is deposited in a wax honeycomb back at the hive.
- Once the honeycomb is full, the bees seal it with wax.



During colder months, there are less flowers to provide pollen.

Honey therefore acts as a winter food supply for these bees.

It is very important that bee keepers only harvest surplus honey.

Did you know?

Honey bees fly at a speed of around 25kmph and beat their wings 200 times per second!

Diet

Honey bees are foragers and gather nectar and pollen from a wide variety of flowering plants, using their hairy tongues to lap up the liquid.

Habitat

You can spot honey bees throughout the garden, in parks, woods, orchards and in meadows.

How can you help?

- ✓ Seek to develop a pollinator garden. This is a garden that is planted predominately with flowers that provide nectar or pollen.
- ✓ Keep your own hive - this a way to raise healthy honeybees and ensure that the plants and crops surrounding you are being pollinated.
- ✓ Insecticides that are used to control garden pests like aphids, are harmful to bees. By gardening without pesticides we can help minimise bees' exposure to these substances.
- ✓ Report a swarm to a beekeeper's association; they may relocate them to a safer new home.

We are important!

- Over the past 15 years workers have been leaving their colonies - the reason remains unknown.
- It is referred to as 'Colony collapse disorder'.
- As the number of colonies decreases, so does the rate of crop pollination, threatening the food supply for humans.

OTTER

Status

Protected...

...in the UK under the Wildlife and Countryside Act, 1981.

Habitat

- Freshwater, coastal regions, wetlands, woodlands.
- Otter distribution has increased significantly in Suffolk over the last 15 years. They are now widespread in rivers and coastal waters.

Threats

Habitat loss, hunting, pesticide pollution and oil spills.

The Wildlife Trusts manage many wetland nature reserves for the benefit of the wildlife they support.

Diet

Mainly fish, also waterbirds, amphibians and crustaceans.

Breeding

- 1-4 cubs are born in underground burrows, known as 'holts'.
- They are excellent swimmers; the young are in the water by 10 weeks old.

Did you know?

Otters are well suited to a life on the water as they have webbed feet...

...dense fur to keep them warm, and can close their ears and nose when underwater.



TOAD



Status

Protected...

...in the UK under the Wildlife and Countryside Act, 1981.



Diet

Toads eat insect larvae, spiders, slugs and worms. Larger toads may eat slow worms, small grass snakes and harvest mice.



Frog or toad?



Frogs usually have moist slimy skin, while toads have dry bumpy skin.



You can help

You can encourage toads to stay in your garden by providing places for hibernation.

Toads hibernate during the winter in burrows, deep leaf litter, log piles, under a large stone, or in structures like an old flower pot.



Habitat

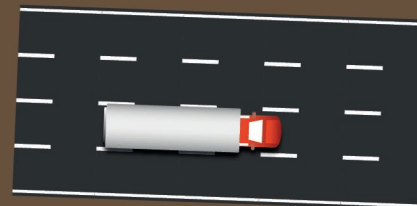
- Widespread and common in mainland Britain.
- Parks, scrubby areas, woods and fields, ditches, lakes and slow-moving rivers.
- In and around ponds and damp, wooded areas of the garden during breeding season.

Did you know?

Toads tend to crawl rather than hop!

Threats

Toad habitat is threatened by modern farming activity, pollution and the drainage of wetland breeding grounds.



Toads have a strong migratory instinct, following the same route back to their breeding ponds each spring.

This can sadly result in considerable road deaths as streams/water courses flow underneath roads.



Did you know?

Glands in the toad's skin contain powerful toxins to deter predators.

TAWNY OWL

Status

Amber

...in the UK, under the Birds of Conservation Concern List.



Breeding

Nesting usually takes place in spring in hollow trees or an old crow's nest.



There are thought to be about 50,000 breeding pairs in the UK, but...

...Tawny Owls only breed when there is sufficient prey.

Numbers of field voles - a main food source - are thought to have declined recently.



Threats

Urbanisation and habitat loss are thought to be threatening the species.



The tawny owl is nocturnal, so it is often heard calling at night.



Diet

- Extremely varied diet which includes small mammals and rodents, small birds, frogs, fish, insects and worms.
- Tawnies are perch and pounce hunters, dropping on prey as it passes the nest site.



Habitat

- Widespread throughout England, Wales and Scotland
- Farmland, woodland, parks, towns and large gardens

Did you know?

The famous 'twit-two' call, is actually made up of a 'ke-wick' sound from a female and an answering 'hoo-hoo-ooo' from a male.



Did you know?

Tawny owls can famously turn their head through 270 degrees and are able to look behind them!



Build a nest box

- ✓ Provides a safe space for breeding
- ✓ An upright box, 90cm long, can be fixed to a tree trunk or large branch
- ✓ Chimney nestboxes - which replicate the hollow ends of large broken branches - can be longer, up to 150cm in length
- ✓ Chicks start to explore their surroundings well before fledging, so the box needs to have nearby branches they can climb over
- ✓ Tawny Owls are sensitive to disturbance when on eggs - so do not approach!

SWIFT



Habitat

- Widespread from grassland, freshwater and farmland, to coastal regions, woodlands, towns and gardens.
- Swifts are in the UK for three months each summer, then migrate to Africa.

Status

Amber

...in the UK, under the Birds of Conservation Concern List.

Diet

Swifts eat small flying insects - usually catching them up in the sky!

Insects collect in the swift's throat, where they are bound together by saliva to form a bolus which can be regurgitated and fed to chicks. A single bolus can contain over 1000 insects!

Did you know?

During their annual migratory journey, Swifts do not touch the ground throughout the 6,000 mile trip.

Nests

Swifts only spend 10-12 weeks in the nest. These are generally located in buildings and accessed through small holes.

Threats

Changes in house construction, renovation and insulation have seen entrances to swift nest sites sealed off, with devastating results.

Suffolk swift populations are on the decline. Between 1994 and 2007 over half of swifts breeding in south east England were lost.

Did you know?

Swifts spend almost all of their lives on the wing, roosting at an altitude of over 3,000 metres.

They only land to nest!

Build a nest box

Specially designed nestboxes help this species to survive in our towns. If you want to create a swift nest site, there are a number of ways you can do this:

- ✓ Install commercial 'swift bricks' in block work walls
- ✓ Make dedicated box eaves
- ✓ Create holes in suitable walls
- ✓ Purchase a ready-made swift nest box

SWALLOWTAIL BUTTERFLY



Status

Protected...

...in the UK under the Wildlife and Countryside Act, 1981.

Breeding

This butterfly only breeds in open fens and marshes that support vigorous growths of milk-parsley.

Did you know?

Caterpillars possess a unique organ behind their heads, called the osmeterium.

This forked structure emits smelly secretions when the butterfly feels threatened.

Diet

- The native British caterpillar race feeds solely on milk-parsley.
- Butterflies feed on flowers such as thistles and ragged robin.

Threats

The swallowtail population declined during the 20th century, when fenland management destroyed habitat.

It has since benefitted from conservation projects designed to increase open fenland vegetation.

Did you know?

Swallowtail butterflies are so named for their forked 'tail' similar to that of a swallow.

Habitat

- Restricted to the Norfolk Broads, partly due to the distribution of the larval foodplant, milk-parsley.
- Areas of mixed fen, which are cut periodically and contain tall, prominent foodplants.

WHO AM I?

It's time to test your knowledge! If you're unsure, have a flick through this booklet and you'll find the answer. But if you get stuck, have a peek at page 19...

1. I can turn my head 270 degrees.



2. I have black spots on my belly.



I display my antler-like jaws to fight off rival males.



3. I am the UK's fastest declining bird species.



4. I am the UK's only venomous snake.

My eggs camouflage well on stony, bare soil.



I have webbed feet and am suited to a life in water.



8. I eat 80% of my bodyweight every day.



I can easily eat 3000 insects a night!



My feathers are soft and can become saturated in heavy rain.

10. I am a forager and gather nectar and pollen from flowers using my long hairy tongue.

Honey is my winter food supply.



If you find a hazel nut with a small circular hole, the chances are, I made it!

I can travel 2km in a typical day.

13. I am a forager and gather nectar and pollen from flowers using my long hairy tongue.



I have glands in my skin which help to scare off predators.



Milk-parsley is my favourite food.



15. I roost at an altitude of over 3000 metres.



I roost at an altitude of over 3000 metres.



My hairy legs let me sit on the water's surface.

See our website for details on how to WIN a visit to Suffolk Owl Sanctuary & Nature Centre for your whole class! www.owl-help.org.uk

ANSWERS: 1. Tawny Owl 2. Great Crested Newt 3. Turtle Dove 4. Stag Beetle 5. Adder 6. Stone Curlew 7. Otter 8. Water Vole 9. Bat 10. Barn Owl 11. Dormouse 12. Hedgehog 13. Honey Bee 14. Bumblebee 15. Toad 16. Swallowtail Butterfly 17. Fen Raft Spider 18. Swift

STAG BEETLE



Status

Protected...

...in the UK under the Wildlife and Countryside Act, 1981.

Habitat

- South East England, particularly in South and West London
- Oak woodlands, gardens, hedgerows and parks
- Stag beetles are increasingly under pressure from intensive agriculture and commercial housing developments, meaning that private gardens are becoming even more important as safe havens.

If you find a stag beetle, please record it with Suffolk Biodiversity Information Service

Did you know?

The jaws of the male Stag Beetle look fearsome, but are actually quite weak, making this beetle pretty harmless to humans.

Extinct?

Although still familiar in South Suffolk, the stag beetle is now a priority Biodiversity Action Plan species, and it's feared the beetle may soon become extinct at the edge of its range.



R.I.P.

Wood piles

There are two main requirements for stag beetles; dead wood and minimal disturbance.



Make a wood pile

- ✓ Place logs in partial shade to prevent them drying out
- ✓ Fresh logs with bark attached provide ideal long-term habitat. The larger the diameter of the logs, the better
- ✓ Partly bury the logs in soil so they retain moisture
- ✓ Place the logs vertically in the soil as this will further increase the number of visiting insects
- ✓ Don't pile logs too high as the timber on the top will dry out
- ✓ Allow plants to grow over them to create shade and humidity

Mating

Once the male has found a mate, he displays his famously massive, antler-like jaws to her, and uses them to fight off rival males.



Diet

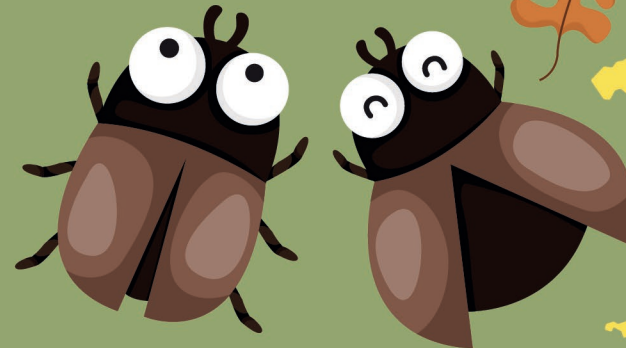
A stag beetle's jaws are large and may prevent it from eating. During its short adult life it may just suck tree sap for sustenance.

Did you know?

The Stag Beetle is the UK's largest beetle!

Longevity

It can take up to seven years for stag beetle larvae to reach maturity. Adults then live for just a few months in order to breed.



ADDER

Status

Protected...

...in the UK under the Wildlife and Countryside Act, 1981.

How to identify

The adder is a greyish snake, with a dark and very distinct zig-zag pattern down its back, and a red eye. Males tend to be more silvery-grey in colour, while females are lighter or reddish-brown.



Diet

The adder hunts small mammals such as mice, rats, voles and shrews as well as ground-nesting birds like skylarks and meadow pipit.



Did you know?

Adders hibernate from October, emerging in the first warm days of March.



Habitat

- Found throughout Britain, from the south coast of England to the far north of Scotland.
- Common in grassland, woodland, moorland and coastal regions.

Did you know?

The adder is the UK's only venomous snake.

Adders only bite when they are disturbed - their poison is generally of little danger to humans.

Instead, they use their venom to immobilise and kill their prey.

Threats

Adders suffer loss of habitat due to human activity such as building and agriculture. Deforestation and scrub encroachment on preferred habitat also impact populations negatively.

Whilst the population has a large range across the UK, a recent decline in numbers merits major conservation concern.



Breeding

In Spring, male adders perform a 'dance' during which they duel with other competing males.

Predators

Predators include birds such as crows, buzzards and owls.



FEN RAFT SPIDER

Status
Protected...

...in the UK under the Wildlife and Countryside Act, 1981.

Did you know?

They are able to sit on the surface of the water and move across it thanks to their hairy legs.

Habitat

Fens and other wetlands in southern England and Wales, including Lopham Fen in Suffolk.

RIP

Due to its rarity, the risk of extinction is still high for this spider.

Brought back from the brink of extinction through a project of captive breeding and translocation, the fen raft spider is now thriving in certain areas.

Diet

Invertebrates such as small spiders, dragonfly larvae and pond skaters.

Breeding

After mating, the females build an egg sac which they carry for approximately three weeks, dipping the egg sac in the water every few hours to keep the eggs moist. When it is time for the eggs to hatch, the female builds a nursery web.

GREAT CRESTED NEWT

Status
Protected...

...in the UK under the Wildlife and Countryside Act, 1981.

Did you know?

Great Crested Newts can be identified by the black spots on their bellies. Each newt possesses a unique pattern.

Diet

Feeds mainly on tadpoles, young froglets, worms, insect larvae, and water snails.

Habitat

- Widespread across lowland England and Wales.
- Grassland, freshwater, farmland and wetlands.

Breeding

Newts normally live on land, but breed in ponds and pools.

Did you know?

Male newts can be distinguished from females by the jagged crest which appears on their backs during the mating season.

STONE CURLEW

status
Protected...

...in the UK under the Wildlife and Countryside Act, 1981.



Habitat

- The Stone curlew is a rare summer visitor to southern England and East Anglia.
- It inhabits dry, open places with bare, stony ground or very short vegetation.

Breeding

- Stone curlews nest on dry land with low vegetation, in order to see approaching danger clearly.
- Eggs are laid on bare soil, where they are camouflaged by scattered stones.



Did you know?

Stone curlews can easily be disturbed, especially by people with dogs, up to 500 metres away!

Threats

Lower levels of grazing by livestock and a decline in the rabbit population has left large tracts of grassland unsuitable for nesting due to taller vegetation.

Modern intensive farming methods have destroyed much stone curlew habitat.

Many nests have been lost as a result of root crop hoeing and cereal rolling.



Did you know?

Bright yellow eyes, knobby yellow legs and an eerie call have earned it the names...

Thick knees

Wailing heath chicken

Bull nosed swollen knee

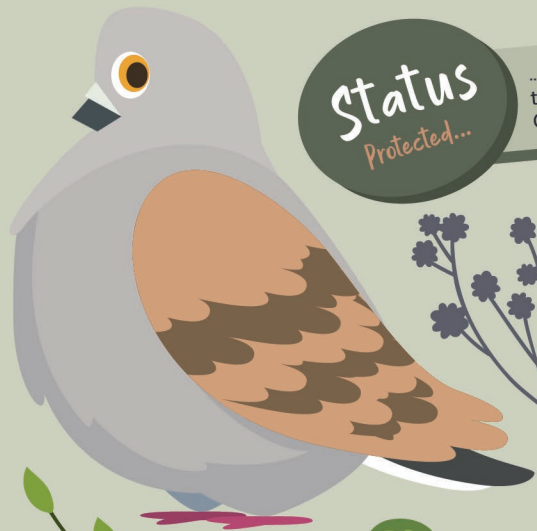
Goggle eyed plover

Diet

Small invertebrates such as beetles, grasshoppers, crickets, ants, earwigs and occasional small reptiles, frogs and rodents.



TURTLE DOVE



Status
Protected...
...in the UK under the Wildlife and Countryside Act, 1981.

Diet
Wildflower seeds and farmed crop grains found on the ground.



Breeding
Turtle doves like to nest in thick hedgerows near their feeding grounds, building a simple platform close to the ground.

Habitat

- Southern and eastern England, although can sometimes reach as far as Wales.
- Woodland, hedgerows and open land with scattered bushes.



Did you know?

- Turtle doves are the only long distance migratory dove species in Europe.
- They complete annual migrations to their wintering grounds in West Africa.
- They typically return to their breeding grounds during April.

Look out for...
The turtle dove is distinctively mottled with chestnut and black, and its tail is black with a white edge.

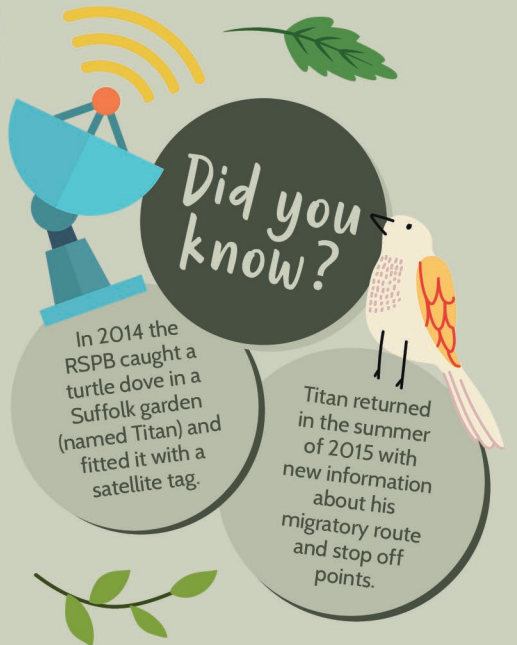


Attention!

Turtle doves are the UK's fastest declining bird species and they are listed as vulnerable on the IUCN Red List.



Population decline has resulted from changes in farming methods. Reduced food supply and less nesting habitat cause a much shorter breeding season.



Did you know?

- In 2014 the RSPB caught a turtle dove in a Suffolk garden (named Titan) and fitted it with a satellite tag.
- Titan returned in the summer of 2015 with new information about his migratory route and stop off points.

WATER VOLE



Status

Protected...

...in the UK under the Wildlife and Countryside Act, 1981.

Did you know?

The Water Vole is famously known as 'Ratty' in Kenneth Grahame's classic children's tale, *The Wind in the Willows*.



Habitat

Water Voles live in burrows within the banks of rivers, streams and ditches, around ponds and lakes and in marshes, reedbeds and areas of wet moorland.

Water Voles play a vital part in river ecosystems. Their burrowing and feeding helps to create optimum conditions for other plants and animals.

Wildlife Trusts are working hard to improve riverbank habitat and are undertaking water vole reintroduction schemes.

Breeding

- 1-5 young
- 3-4 litters a year



Diet

Mainly grass and other vegetation, but will also consume fruits, bulbs, twigs, buds, and roots.

Water Voles need to eat 80% of their own body weight every day. In Britain, they have been recorded eating 227 different species of plant!

Did you know?

Threats

Water Vole populations have suffered huge declines in the UK as a result of pollution, habitat loss and predation by the American mink. Between 1989 and 1998 numbers fell by 90%.



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