



British Hedgehog
Preservation Society

people's
trust for
endangered
species

**Helping hedgehogs
on your land**

Hedgehogs

Hedgehogs are widespread across Britain, but their serious decline makes them of conservation concern. Evidence shows they are now particularly scant across arable farmland and more likely to be found in towns and villages, putting them at risk of local extinctions.

As a key indicator of a healthy and sustainable countryside, the absence of hedgehogs is a serious concern for agriculture. Farmers and landowners can help and the actions recommended in this leaflet could strengthen grant applications.

Possible reasons for hedgehog decline include changes in land use reducing access to suitable nesting sites and habitats for shelter and hibernation. Fewer field boundaries and a higher use of pesticides means less invertebrate prey for them to feed on. An increase in the density of road networks leading to mortality is an issue. Possible effects of climate on both food availability and over-winter hibernation is having an impact.

Hedgehogs are also predated by badgers, and badgers compete with hedgehogs for food. However, the two species have coexisted in Britain for millennia. High badger numbers can have significant impact on hedgehogs locally but badgers aren't the single most important factor affecting hedgehogs. Hedgehogs are declining severely in parts of the country with low badger densities (e.g. East Anglia). Improving habitat quality and availability to ensure plenty of nesting and feeding sites will likely allow the two species to co-exist.

Beneficial management actions

For hedgehogs to flourish in the countryside, land management that helps provide suitable sites for shelter and abundant food is essential. Often, a single management activity can increase both food and shelter for hedgehogs. For example, maintaining and increasing hedgerows per hectare provides nest sites, shelter and refuge from predators while also increasing availability of insect prey. The Countryside Stewardship Scheme was designed to help conserve and restore habitat for wildlife, amongst other things, and many of the management actions will benefit hedgehogs.

Many farmers and landowners already take a sustainable approach to agriculture, but if hedgehogs are to thrive in our countryside they need a sustained effort from all of us.

This guide highlights management actions that are hedgehog friendly, including:

1. Hedgerow management
2. Field margin availability and management
3. Field size in relation to habitat availability
4. Ploughing regimes in relation to prey availability
5. Areas of scrub and decaying vegetation



1. Hedgerow management

Action

Increase density per hectare, the width, height and length of hedgerows.

Maintain and re-establish well-connected hedgerows with bramble understorey and good ground cover.

Maintain hedgerow of more than 3m in height and flay on a three-year rotation.

Hedgerow cutting should take place after January.

Ideally hedge bases should be more than 2m wide, with dense vegetation and no gaps.

Benefit for hedgehogs

Hedgerows rich with different plants, including native trees, have more invertebrates for hedgehogs to feed on. Fallen tree leaves are vital nesting materials.

Provides summer foraging and winter hibernation areas. Brambles and roses improve the structure of the hedge for nesting.

Appropriate field margins and networked hedgerows across the landscape allow dispersal and movement, as well as links to suitable patches of habitat and other hedgehog populations. This increases population stability and provides refuge from predators.

Hedgerows will be robust and healthy with more flowers and fruit to support the invertebrates that hedgehogs feed on. Cutting on rotation leaves two thirds of hedgerows uncut each year, reducing mulch at the base which hampers the vegetative growth needed for nest construction.

These actions also benefit:





**Relevant Countryside
Stewardship options:**

BE3: Management of hedgerows

BN7: Hedgerow gapping-up

BN11: Planting new hedges



Relevant Countryside Stewardship options:

- SW1:** 4m-6m buffer strips on cultivated land
- AB8:** Flower-rich margins and plots
- AB3:** Beetle banks
- AB10:** Unharvested cereal headland

2. Field margin availability and management

Action

Maintaining grassy field margins at least 2m from the base of the hedge into the crop.

Benefit for hedgehogs

Research confirms that hedgehogs forage mainly within field margins in arable and other cultivated land.

Field margins offer food and nesting sites which are sparse in intensively farmed landscapes. A wide margin encourages dispersal and access to food and nesting materials.

Hedge buffers or headlands provide additional cover, nest material and food.

Leave 3-6m grassy margins of pasture fields unmanaged.

Provides nesting and resting areas during the summer.

Avoid driving on grassy margins or using as footpaths.

Tramples the cover making it less hedgehog friendly, and could injure resting hedgehogs.

Cut to reduce shrub encroachment every five years.

Tussocky grass provides cover and daytime nests in the summer. Where particularly thick, it can be used for winter hibernation nests.

Dense undergrowth is good for beetles, spiders and caterpillars; important food for hedgehogs. Spiders and beetles can also reduce unwanted crop pests.

Maintain beetle banks across large arable fields.

Improves food availability and acts as a corridor for movement. Also provides natural control of crop pests and reduces the need for insecticides.

These actions also benefit:



partridges



harvest mice



owls



snakes

3. Field size in relation to habitat availability

Action

Design the landscape with numerous linear features and small land parcels.

Benefit for hedgehogs

Hedgehogs favour travelling along linear landscape features, so the more field boundaries and hedgerows the better.

Where field sizes are large, add field margins, robust hedgerows and beetle banks.

Helps hedgehogs cross the landscape more safely and provides access to additional food.

Aim for a mixed landscape of pasture and arable crops.

Creates a greater diversity of invertebrates.

Increase edge habitat, copses and different land uses with amenity areas and gardens around buildings.

Mixed farms could have more potential to support a viable hedgehog population than single use arable crops because of the diverse array of shelter and foraging opportunities.

Farm organically.

Increases prey availability at a large scale.

These actions also benefit:



birds



beetles



butterflies



owls



bees



snakes



partridges



Relevant Countryside Stewardship options:

- SW1:** 4m-6m buffer strips on cultivated land
- AB8:** Flower-rich margins and plots
- AB3:** Beetle banks
- AB10:** Unharvested cereal headland

4. Ploughing regimes in relation to prey availability

Action

Reduce tillage by switching from conventional tillage to no-till or conservation agriculture

Benefit for hedgehogs

Increases earthworms and may increase arable field use by hedgehogs.

Improves soil or organic matter, reduces the depth of the soil organic layer and rescues soil compaction.

Be patient – it will take up to ten years for these improvements to be evident.

Relevant Countryside Stewardship options:

None available but minimum tillage options are available for historic and archaeological features





Relevant Countryside Stewardship options:

WD7: Management of successional areas and scrub

5. Areas of scrub and decaying vegetation

Action

Retain unkempt areas of scrub, decaying vegetation and leaf litter. Either leave leaf litter in situ or collect into piles near tree lines, copses or hedgerows.

Establish and maintain sheltered areas with bramble.

Over winter, leave areas of scrub and piles of leaves intact.

Benefit for hedgehogs

Provides cover, and leaf litter is used for nest building and is a habitat for invertebrate prey.

Provides important hibernation sites that last longer and have lower daytime temperatures which may reduce arousal and thus risk of mortality over winter.

Reduces disturbance to hedgehogs.

These actions also benefit:



6. Helping hedgehogs through hibernation

Hedgehogs are not active for the whole year; the winter months are spent conserving energy when food availability is low. Hedgehogs need a good food supply in the months leading up to winter in order to build fat reserves to provide energy throughout hibernation. They also need suitable nest materials and plenty of secure nesting sites.

Hibernation appears to be a comparatively safe period for hedgehogs with relatively few fatalities if animals are not disturbed. Their greatest risk is when they wake up in spring – or sooner in mild winters. That's when they need a secure food supply, which means plenty of invertebrates.

Where?

Hedgehogs prefer to nest near broad-leaved hedgerows and woodlands but seem to avoid pasture fields. The availability of suitable nest materials and safe sites are important for successful overwintering. A mixed landscape with a mosaic of habitats provides the best chance for hedgehogs during hibernation. Connectivity between these sites, such as through mature hedgerow, is likely to be important for safe movement through the landscape.

Creating a varied landscape offers the best opportunities for hedgehogs to find safe nest sites. Both pasture and arable fields on more intensively managed farms seem to offer poor value in terms of foraging or nest sites for hedgehogs, which consistently choose to hibernate in other areas in the farmed landscape. Rural hedgehogs are frequently associated with buildings, such as outbuildings, barns, stables and garden sheds, which can provide safe nest sites, but could easily be disturbed, including inadvertently by livestock and day-to-day human activity. Therefore, avoiding areas where hedgehogs are known to be, or likely to be nesting overwinter is likely to be of benefit to the local population.

Land management practices are likely to influence whether hedgehogs hibernate successfully or not, with mature hedgerow, woodland patches and unkempt/unmanaged areas likely to be of significant value to hedgehogs. It is best to avoid clearance of scrub and piles of vegetation during winter in case hedgehogs are nesting there. Whilst hedgehogs do wake up and move to new nesting sites, try to avoid disturbing areas where they are likely to be hibernating because any activity over winter uses up precious energy supplies.

When?

Hedgehogs normally go into hibernation during November, although this is largely depending on weather conditions and availability of sufficient food. Emergence from hibernation usually occurs in March or April, with males usually rousing before females. Interestingly, hedgehogs can move nests relatively frequently. In a recent study, hedgehogs used on average five different nest sites over winter. Every hedgehog used at least three nests, and one animal made nine nests. Sometimes hedgehogs only move a couple of metres to a new nest site, even within the same flowerbed or hedgerow. However, they can also move 400-500m to a new nest location.



A varied landscape provides the best habitat for hedgehogs. Scrub and shrubby areas, hedges, and woodland edges, offer areas for the animals to nest and forage. In rural landscapes these areas are often near to buildings. Expanses of large homogenous fields (as seen in the outer edges of these farmed landscapes) with little in the way of hedgerows or field boundaries are avoided by hedgehogs which prefer a smaller patchwork of habitats.



Countryside Stewardship

Countryside Stewardship (CS) provides financial incentives for land managers to look after their environment. Management prescriptions that help hedgehogs also strengthen grant applications.

The scheme is open to all eligible farmers, woodland owners, foresters and other land managers:

- ▶ suitable for many types of land use (for example conventional and organic farmland, coastal areas, uplands and woodlands)
- ▶ competitive
- ▶ scored against local priority targets to maximise environmental benefits

There are three main elements to the scheme: Mid Tier, Higher Tier and Capital grants. The Mid Tier element of CS offers options and capital items to achieve simple but effective environmental benefits. The Higher Tier element covers the most environmentally significant sites, commons and woodlands.

For further information and how to apply visit:

www.gov.uk/government/collections/countryside-stewardship-get-paid-for-environmental-land-management

The RSPB and your local Wildlife Trust have advisors across many parts of the country who are well placed to offer advice. You can find details on their websites.

Wild Pollinator and Farm Wildlife Package

This package is a bundle of multi-year options designed to benefit wild pollinators, farmland birds and other farm wildlife such as rare arable plants, great crested newts, bats and brown hares. It includes options also beneficial to hedgehogs, including nesting habitats and invertebrate food.

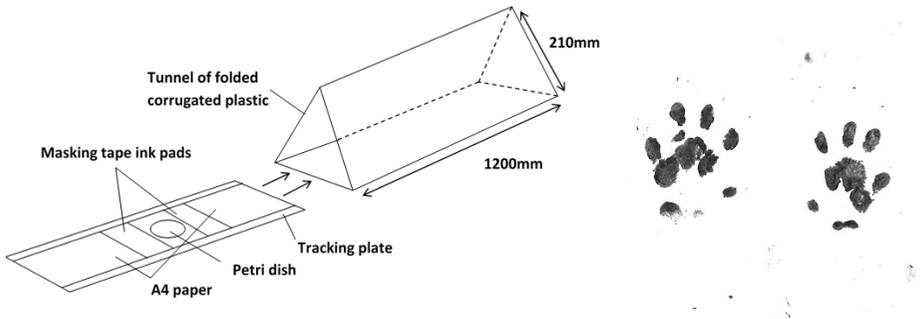
In January 2018 four new simplified offers for CS were introduced with a streamlined application process. Read more here:

www.gov.uk/government/news/countryside-stewardship-detail-of-new-simplified-offers

How to survey for hedgehogs

If you want to find out if you have hedgehogs on your land, get in touch at hedgehogs@ptes.org and we can send you advice on how to conduct your own hedgehog survey.

Hedgehog footprint tunnels can easily be used to determine if they're present at your site (no species licence is required). You can buy footprint tunnels online.



- ▶ The simple, plastic triangular tunnel is waterproof and has a removable insert with A4 paper attached to either end and ink painted on either side of a dish of bait. As hedgehogs move through the tunnel, footprints are left on the paper, which can be easily identified.
- ▶ Bait the tunnels with dry cat biscuits (poultry flavours are best).
- ▶ Place your tunnel along boundaries where hedgehogs are more likely to be travelling or nesting (e.g. hedgerows, walls or fences).
- ▶ Leave the tunnel for a maximum of five days and then move to a new location on the farm.
- ▶ Check the tunnel each day, to see whether a hedgehog has visited or not and replace food bait and footprint papers when necessary.

Don't forget to let us know if you find any hedgehog prints.



**For hedgehog
surveying advice:**

email hedgehogs@ptes.org

visit www.hedgehogstreet.org

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**HEDGEHOG
STREET**



CITY OF WILDLIFE

Hedgehog Street is a joint project run by People's Trust for Endangered Species and the British Hedgehog Preservation Society.

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www.hedgehogstreet.org

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