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species



Hedgehogs and development

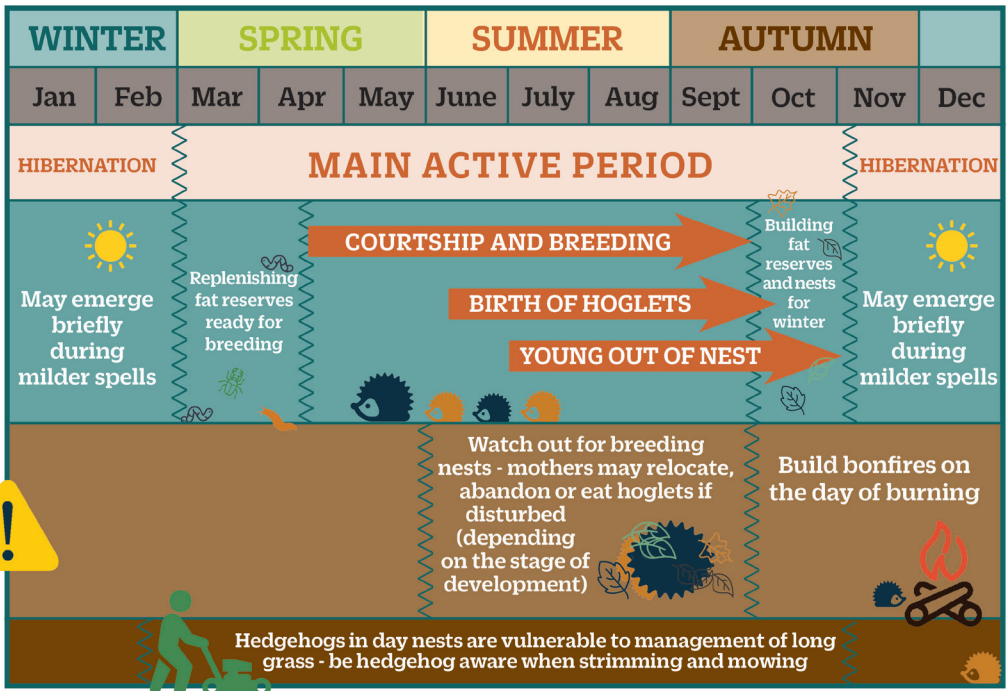


Hedgehog ecology and status

Hedgehogs are native and widespread across the UK. They require a mixture of habitats for foraging, nesting and mating, and a connected landscape.

Rural hedgehogs are currently rapidly declining, with at least half lost from Britain since 2000 (*State of Britain's Hedgehogs Report, 2022*). They appear to be faring better in urban than rural areas, with those populations stabilising and potentially improving. They are one of the few animals able to happily live alongside us, seeming to prefer gardens and amenity grassland habitats. Enhancing and connecting urban and suburban areas will help this struggling species to survive.

Hedgehogs are iconic and popular, voted Britain's favourite mammal several times. Publicising hedgehog-friendly features in your development can be highly beneficial.



Hedgehogs and the law

Hedgehogs are protected by British law under Schedule 6 of the Wildlife and Countryside Act 1981, making it illegal to kill or capture them using certain methods. Similar protection exists in Northern Ireland under Schedule 6 & 7 of the Wildlife Order 1985. They are also protected in Britain under the Wild Mammals Protection Act (1996), prohibiting cruelty and mistreatment.

They're listed as a Species of Principle Importance in England under the Natural Environment and Rural Communities (NERC) Act 2006 Section 41, in Wales under the Environment Act 2016, and in Scotland under the Nature Conservation Act 2004. Similarly, hedgehogs are on the Priority Species List for Northern Ireland.

Additionally, hedgehogs are on the Scottish Biodiversity list as 'Watching Brief Only' requiring monitoring to prevent decline.

These laws make hedgehogs a material consideration for Local Planning Authorities (LPAs) during the planning process.

Developments should also be consistent with Local Plans (LPs) and Neighbourhood Area Plans (NAPs), some of which may explicitly refer to hedgehog conservation and connectivity of the landscape.

In 2020, hedgehogs were added to the red list of Britain's mammals, categorised as 'vulnerable to extinction'.



Before the build

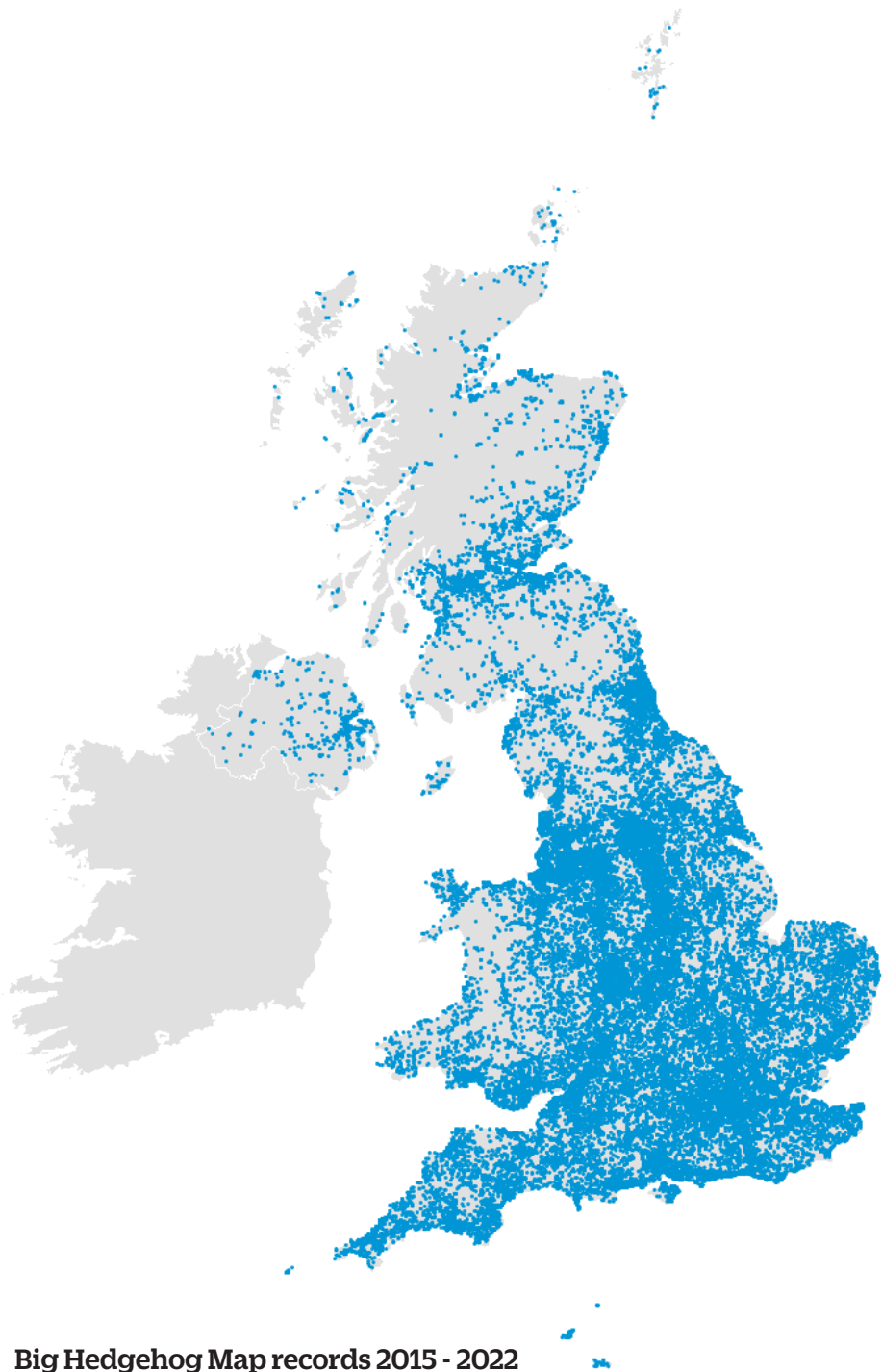
Information about whether hedgehogs have previously been recorded in the area can be obtained easily from www.BIGHedgehogMap.org, local record centres and National Biodiversity Network (NBN) Atlas (subject to data licences). Hedgehogs roam far and wide looking for food and mates, so be sure to include a search radius of 3km around the development site.

Given the widespread distribution of hedgehogs, if your site offers suitable habitat for hedgehogs then it can be assumed that hedgehogs are present. You'll then need to consider ways to protect any hedgehogs during the build and think about how hedgehog-friendly features will fit into the site layout (see page 9). Hedgehog habitat includes:

- ▶ dense scrub to build hibernation nests in during the winter
- ▶ short grass to forage in for invertebrate prey
- ▶ longer grass to forage in and to make nests in during the summer
- ▶ areas of leaf litter to collect and use for hibernation nests
- ▶ log piles and decaying vegetation to forage in and hibernate in
- ▶ hedgerows and boundary vegetation are important corridors for travel and nesting sites

Depending on your ecologist's assessment, they may propose mitigation measures, habitat enhancement works and/or monitoring measures. These can affect the budget, timescale and physical layout of the development and therefore need to be considered at an early stage.

Surveys for hedgehogs are not essential under planning regulations, however LPAs may sometimes require surveys to be conducted, particularly where hedgehogs are considered a local conservation priority, or the proposed development could have significant impacts at the population level. This may be the case, for instance, if your development is on the only large green space in an area that is surrounded by development.



Big Hedgehog Map records 2015 - 2022

Contains Ordnance Survey data © Crown copyright and database right 2022

Surveying

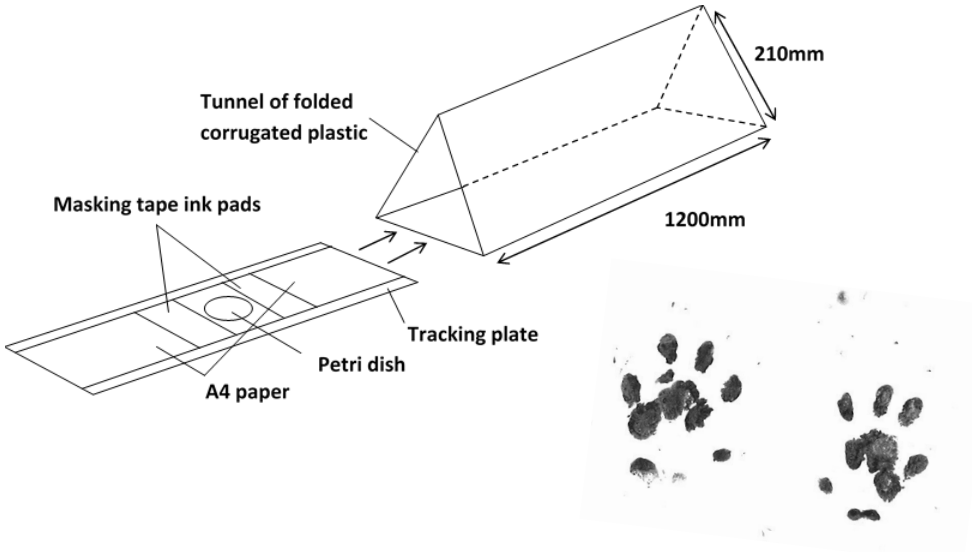
If you are required to survey for hedgehogs or are unsure if the habitat is suitable and would like to determine if hedgehogs are present or absent, there are two main methods you can use that your ecologist will be able to advise on:

- ▶ **Torchlight surveys** involve walking a set transect around the site with a high-powered torch to scan the ground for hedgehogs, and usually take place over four consecutive nights. *A licence from the relevant statutory organisation is required.*



- ▶ **Footprint tunnels** contain ink pads either side of bait and clean paper for animals to leave their footprints (see diagram opposite). They are placed along the edges of suitable habitat around the site and checked daily for hedgehog footprints. They are rebaited each day for five days. Ideally, ten tunnels are used per 1km². *No licence is required for this survey technique.*

More information on hedgehog surveys can be found at www.hedgehogstreet.org/surveying-for-hedgehogs/



Given their hibernation period over winter, all surveys for hedgehogs are seasonally constrained and may need to be repeated. Two survey periods during separate months within the active season are recommended to confirm the presence or absence of hedgehogs on site. The best times of year to carry out hedgehog surveys are shown below:

Survey type	Month											
	J	F	M	A	M	J	J	A	S	O	N	D
Habitat suitability assessment	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Optimal
Hedgehog survey	Unsuitable	Unsuitable	Unsuitable	Sub-optimal	Optimal	Optimal	Optimal	Optimal	Optimal	Sub-optimal	Unsuitable	Unsuitable



optimal period



sub-optimal period



unsuitable period for this survey type

During the build

The Construction Environmental Management Plan (CEMP) should include measures to protect individual hedgehogs. Work likely to cause disturbance during hibernation – for example removal of hibernation habitats such as log piles and dense scrub – shouldn't take place during November to March.

Preparing the site

Caution is needed in case of nesting hedgehogs when clearing the ground prior to development, particularly piles of deadwood or leaves and areas of long grass or dense vegetation, and when using machinery within a foot of ground level. Areas should be cleared on rotation with scrubby patches left to provide nesting habitat and cover. If this is not possible, piles of dead wood and brash piles can be created in other areas around the site to mitigate for the removal of suitable nesting sites. These can be created behind hedges or out of the way for smaller developments with limited space.



Temporary shelters, such as hedgehog houses, can be added to these areas. Particularly hazardous areas, such as where there will be high traffic, should be blocked off to prevent hedgehog access, but connectivity should also be ensured throughout the rest of the build to facilitate movement across and surrounding the site.



Hazards

The building site should be made safe for ground-dwelling animals with hazards such as open holes, pits, ditches, ponds and drains covered over or fitted with ramps to allow for escape. Netting should be kept off the ground to avoid entanglement and any slack netting tied up. Rubbish should be kept contained in a designated area to avoid animals becoming trapped in litter.

There have been some cases of developers using netting to cover hedgerows to prevent birds nesting prior to site works. Please avoid doing this as netting poses a serious risk to hedgehogs, as they use hedgerows as a primary corridor for travel.

Animal welfare

If a hedgehog is found during development and/or there are welfare concerns, The British Hedgehog Preservation Society can be contacted for advice and guidance on 01584 890 801.



Features of the build

Connectivity

Consider connectivity of the landscape, enabling ground-dwelling species such as hedgehogs to move around freely. Boundaries and barriers within and surrounding the development, including fencing, railing and gates, should be made permeable e.g.:

- ▶ through the use of fence panels with 13 x 13 cm holes at ground level (hedgehog holes)
- ▶ leaving a sufficient gap beneath gates
- ▶ leaving brick spaces at the base of brick walls

A variety of fence suppliers stock specific hedgehog-friendly fencing options, which can be easily incorporated at little or no additional cost. Hedgehog holes should be positioned to connect as much of the landscape as possible and can be mapped by your ecologist, or alternatively by contacting *Hedgehog Street* at hedgehogs@ptes.org



Similarly, where essential ground level changes may create barriers to movement (e.g. high kerbs, steps, terracing, sunken patios, gullies and drains), the landscaping should ensure sloped access/escape routes for ground-dwelling species.



Planting

Hedges are preferable to fences for defining property boundaries where feasible. Sympathetic planting of boundaries and features has the potential to create useful wildlife corridors. Native-species hedgerows are particularly recommended throughout any development. Existing trees should be retained and new native species planted where possible.

Increasing the diversity of shrub species can increase the number of invertebrates available to hedgehogs. It can also provide a continuity of food and other resources for a range of wildlife. Hawthorn, wild cherry, field rose and dog rose are a few examples of plants that provide important nectar or pollen resources for invertebrates, and berries later in the year for birds. Other native hedgerow species include wayfaring tree, ash, elm, beech, spindle and guelder rose. Source local stock where possible, for example from a community tree nursery.



Scrub and deadwood

Retain areas of unkempt leaf litter, dead wood and scrub to provide shelter for hedgehogs. Scrub patches (particularly brambles) that provide suitable hibernation nesting habitat are important for hedgehogs and small patches of this habitat may be used by many animals. Where an area of scrub is lost, efforts should be made to replant areas with scrubby native hedgerow species such as bramble and hawthorn. Logpiles can be installed on site behind hedges, or out of the way, and they can be anything between half a meter to 3 meters depending on the size of habitat that has been lost.



Habitat features

Minimise areas of hard standing and artificial grass in favour of grassland or permeable 'living driveways'. Wild grass and flower areas can be created to encourage biodiversity and food for hedgehogs and can be used to make the development more visually appealing.



Other features such as ponds in gardens and log piles that help to encourage hedgehogs and other wildlife should also be included where possible. Water features and ditches should always have a sloped or ramp exit for hedgehogs to escape.

Including hedgehog-friendly features in the build presents a promotional opportunity. Joint press releases with wildlife organisations you've been working with (such as People's Trust for Endangered Species, British Hedgehog Preservation Society, Wildlife Trusts) can enhance public perception of a new development. See image of Barratt Homes' Kingsbrook estate in Aylesbury, right.

If you would like input into the design phase of a development, such as ideal Hedgehog Highway routes, please contact **hedgehogs@ptes.org** for free advice on your plans.



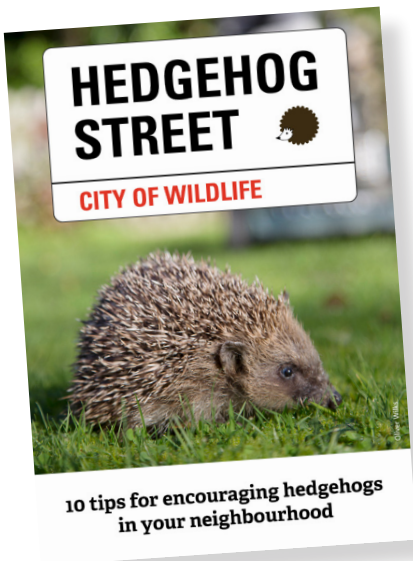
After the build

Education

Include details of hedgehog-friendly features and sign post to relevant wildlife organisations in the new home owners welcome pack. This will raise awareness and prevent home owners from reversing these features, for instance blocking fence holes or removing ramps.



Hedgehog Highway signs are an effective way of indicating the purpose of the hole in the fence and can be used in conjunction with any publicity. These are available at a discount when purchased in bulk from *Hedgehog Street*. Please contact hedgehogs@ptes.org for a quotation.



You can also request copies of our Top Tips leaflet covering 10 simple steps to make your garden hedgehog-friendly. These can be distributed to all new homeowners and cover everything they need to know about how to help hedgehogs.

Monitoring

Monitoring habitat features for up to ten years after completion helps to identify successful features and those that need improvement. An ecological consultant can advise on the most appropriate monitoring regime. Methods should mirror surveys carried out prior to any work in order to make a direct comparison before and after build.

Land management

Advice should be given to any company that takes over management of the open space in the development. The land will need to be managed appropriately, with connectivity maintained, areas of scrub retained, wild flower and grass areas mown once annually in September, and water bodies kept clear with escape routes.

Chemical use should be avoided and organic management encouraged because toxicity levels can build up in animals like hedgehogs, and vital food sources are removed from the ecosystem. Hedgerows need regular cutting during early years to encourage lateral growth and can be layed or coppiced in later years if they start to thin out at the base. Once established they can be cut on a 3-year rotation, e.g. with one side or the top being trimmed each year. Hedgerows should not be cut during bird breeding season (March-August) and care must be taken to avoid hibernating hedgehogs at the base.

More detailed information and advice can be found in our hedgehog ecology and land management guide. This can be obtained for free by contacting **hedgehogs@ptes.org** or by downloading it electronically from our website www.hedgehogstreet.org/hempguide.





Case study — Russell Armer Homes, Cumbria and Lancashire

In 2016 Cumbrian homebuilder, Russell Armer Homes, wanted to support hedgehog conservation by becoming the first homebuilder in the country to create Hedgehog Highways.

Hedgehog Street worked closely with the developer and encouraged the introduction of 125mm x 125mm hedgehog holes across the development, allowing hedgehogs to move from garden to garden. The first homes helping conservation in this way, by being part of a Hedgehog Highway, were Russell Armer's new homes at OverSands View, Grange-over-Sands and the Sheiling, Arkholme – a total of 56 properties. By creating gaps in fences, Russell Armer Homes are establishing habitat corridors for Cumbrian and Lancastrian hedgehogs. These gaps are too small for most pets to use, but allow safe passage for hedgehogs.

Russell Armer Homes have also committed to creating hedgehog gaps in new homes built in the future. Each home with a hedgehog gap will be provided with an informative leaflet and have a special sign installed, so any new owners understand the importance of this small hole, and why it shouldn't be blocked.

Martyn Nicholson, Managing Director, Russell Armer Homes: *"We are delighted to become Hedgehog Champions by creating what we believe to be Cumbria and Lancashire's first Hedgehog Highways. Hedgehogs have been associated with the area for many years, thanks to Beatrix Potter's Tales and it is important to look after their welfare. We hope homeowners, not living in one of the homes we are building with a 'hedgehog gap feature', will follow our lead and remove a brick or cut a gap in their own fencing."*

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.

hedgehogs@ptes.org

www.hedgehogstreet.org

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