

Hedgehog *Erinaceus europaeus*

Between 2000 and 2015 hedgehog populations in England fell by more than 50% in rural areas; 33% in urban areas (see 'The State of British Hedgehogs 2015' published by the People's Trust for Endangered Species (PTES)). When the PTES looked at hedgehog survey data 2015-2017, it appeared to show that in urban areas hedgehog numbers were no longer declining. For a hedgehog population to be sustainable it needs a minimum of 30 animals and at least 90 hectares (over 200 acres) of continuous well-connected parks and gardens (Morris, P., 2014). This means that people can make a difference in improving hedgehog numbers by making their gardens more hedgehog friendly, connecting them to other gardens and green spaces and encouraging more wildlife friendly management of all green spaces including parks, allotments, school and sports grounds.

Hedgehogs are solitary animals except when raising young. They are nocturnal and during spring, summer and autumn spend the daytime sleeping in nests of leaves, waking at dusk to hunt for soil invertebrates such as slugs, snails, beetles, earwigs, worms, caterpillars, and millipedes. They change their nests frequently, especially male animals, and in summer sometimes just hide in tussocky grass. Hedgehogs have poor eyesight, relying more on an acute sense of smell, touch and hearing and travel 1-2 kms/ night searching for food. Male animals may travel further when in search of mates. They mate in April then the male leaves the female. She gives birth to 3-5 blind, pink young about month later in a special maternity nest of leaves and grass. The babies quickly develop soft white spines; their familiar brown spines only appear after the first week of life. They open their eyes at about 14 days old. Their mother takes them out on their first foraging trip at about 4 weeks and continues to suckle them until they can hunt for themselves. By 6 weeks they should be independent and will leave the nest area.

In winter (November-mid March) when less food is available, hedgehogs hibernate in a nest of dead leaves and grass beneath deep leaf litter in woodland or beneath hedgerows, scrub or even garden sheds. Their body temperature drops from about 35C to 10C or less, their heart rate slows from about 190 beats/minute to about 20 and their respiration rate to 1 breathe every few minutes. They do wake occasionally during winter and may move to or even build another nest on mild winter nights before sinking back into hibernation. If they weigh less than 450gms (1lb) they will not survive hibernation, so if you find a small hedgehog in autumn advice should be sought from a local expert or the British Hedgehog Preservation Society at www.britishhedgehogs.org.uk

An adult hedgehog has 5,000-7,000 spines. When threatened it raises its spines and rolls into a tight ball. If it isn't quick enough, a dog, fox or even a cat can grab its back legs and prevent it from rolling up properly. If they survive their first year they may live for another 4-5 years. Some individuals have been recorded as reaching 10 years.

Threats to hedgehogs in London Borough of Bromley

- Decline in invertebrate numbers and decline in foraging areas (rough grassland, hedgerows, scrub- within gardens foraging areas lost to paving & decking).
- Loss of habitat for nesting/hibernating- scrub, wild undisturbed areas.
- Habitat fragmentation –wider, faster and more roads and secure gardens with lack of access for hedgehogs.
- Pesticides- reducing insect prey and also accumulating in predators such as hedgehogs.
- Hazards such as ponds with straight sides, netting and litter-especially cans and cups with remains of food in them.

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- Gardens with steep sided changes in levels where hedgehogs can become trapped in small areas with steep sides.
- Use of strimmers on long grass or scrub where they may be sleeping during the day.

In Bromley, hedgehogs are now generally rarely recorded, but three years of surveying (2017-2019) has highlighted a few areas in the borough where records have been sent from several gardens. These records were generally near areas of open space, e.g. around Poverest/Covet Wood, West Wickham, Darrick & Newstead Woods, Chislehurst and a wider area from Bromley Common to Jubilee CP in one direction and eastwards to Parkfield Rec. and Crofton Woods.

Some records have been generated following articles in local newsletters, e.g an article about the hedgehog survey in The Petts Wood Gazette and one in the West Wickham Residents Newsletter.

The latter led to records from gardens around West Wickham football and cricket club near Corkscrew Hill with some closer to Langley Park Golf Course. Articles were sent to other residents' groups in 2019 and further articles will be produced for newsletters in 2020. In addition to the records submitted by members of the public, 3 sites: Downe Orchard, Jail Lane and Clockhouse Orchard were surveyed by Sue Holland and Steven Lofting of idverde/RSPB in 2018 using hedgehog footprint tunnels baited with dog food, but no hedgehog footprints were recorded. Strawberry Bank, Pratts Bottom and Den Barn were surveyed in 2019 with a similar lack of results. Further sites will be surveyed in 2020.

Leaflets have been posted targeting streets where hedgehogs have been sighted, giving advice on how to help hedgehogs as they travel through their gardens and green spaces. Through this we hope to not only gain more records of sightings but to encourage gardening in a wildlife friendly way.

All Bromley's records have been submitted to Greenspace for Greater London (GiGL) and will be sent to Hedgehog Street. We have mapped the records we have been sent and are looking at the maps to see how it may be possible to link green spaces. Please do what you can to link your gardens with those of your neighbours, back alleys, paths bordered by scrub or long grass, any nearby green spaces e.g. parks, school and sports grounds, Churchyards, cemeteries and allotments. All you need is a hole measuring about 13 x 13cms through or under your garden fence, and to make sure that the hole doesn't become blocked, for example by leaves in autumn.

It is essential to provide safe corridors along which hedgehogs can travel and forage, minimising their use of roads.

Bromley Biodiversity Partnership will continue to ask for records during 2020 and will contact householders in areas where there have been several hedgehog sightings to encourage neighbours to get together and follow guidance set out in Hedgehog Street. See www.hedgehogstreet.org and click on, 'highways for hedgehogs'. There are many other tips for helping hedgehogs on both this site and the British Hedgehog Preservation Society website (see third paragraph for website address). General advice is set out below:

- Hedgehogs travel quite long distances when looking for food, often 2kms or more every night, so make sure walls and fences at site boundaries have safe gaps for hedgehogs to pass through. A gap measuring 13cms x 13cms beneath a fence should be sufficient to enable a hedgehog to pass from one garden to the next.
- Make sure you have areas within your garden, park, allotment, sports or school grounds that are undisturbed, with long grass and some scrub.
- Check long grass or scrubby areas for hedgehogs before cutting or strimming.
- Don't clear away all the dead leaves in autumn, leave some in a sheltered area out of the wind, preferably adjacent to a hedge or scrub where a hedgehog can hibernate undisturbed.

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- If you have a bonfire, check any pile of brash etc. before burning it.
- Hedgehogs die in steep sided ponds because they can't get out. Make sure ponds have at least one gently sloping bank that a hedgehog can use to climb out. If the pond has steep concrete or plastic sides, add a ramp (not too steep and ridged to allow a good foothold), or add stones and/or water plants (preferably native) along one side to make a gradual slope.
- Consider planting a hedge of native species. This will support the invertebrates hedgehogs need and as the hedge matures, if it is well maintained, with a thick base, it will provide them with a home and a safe place to hibernate.
- Make sure no pesticides or slug pellets are used near any scrub, wild areas or hedgerows left for hedgehogs.
- Hedgehogs quite often become entangled with wire or plastic netting leading to severe cutting of their legs as they struggle to break free, so please ensure any wire or plastic netting is at a safe height for hedgehogs (30cms above soil level) and stored away when not in use.
- Consider making a hibernation box for hedgehogs. Place in a suitable place beneath logs and/or dead leaves for extra safety and insulation.
- If hedgehogs visit your garden provide them with some water to drink and maybe dog or cat food, but do not give them bread or milk because they cannot digest them.
- For further information on how to help hedgehogs visit www.britishhedgehogs.org.uk
- Please continue sending records to bromleybiodiversity@gmail.com

Thank-you so much for what you have done, we look forward to hearing from you in 2020

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References

Morris, P. (2014) Hedgehogs, Whittet Books Ltd., Stanstead

People's Trust for Endangered Species (PTES) 2015, The State of Britain's Hedgehogs see https://ptes.org/campaigns/hedgehogs/state_of_britains_hedgehogs

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House Sparrow *Passer domesticus*

House sparrows are resident throughout the UK, living in groups often first noticed by their noisy cheeping. They live for 3-4 years (occasionally for much longer), mate for life and often return to the same nest site every year, building nests quite close together of dry grass lined with feathers and hair in holes, crevices or hedges. They will also use nestboxes. Between April and August each pair may lay 2-3 clutches of 2-5 eggs. The young are fed on invertebrates, including aphids, caterpillars, beetles and grasshoppers. When these are scarce, seeds and vegetable matter are also given, but the adults rarely travel more than 60-80 metres from the nest site. Young birds leave the nest after 14-16 days, but the parents continue to feed them until they are fully independent at about 4 weeks. They then often form small flocks. Adult birds are mainly seed eaters but they also eat insects. According to the RSPB, UK house sparrow numbers fell 71% between 1977-2008. In urban areas experiments have shown that lack of invertebrates for birds in the nest is one factor, but although providing supplementary mealworms improved the numbers of fledging birds, the numbers surviving to breed the following year only showed marginal improvements even when seeds were supplied. Research is ongoing, with a reduction in colony numbers noted to coincide with areas where air pollution from vehicle emissions is high.

Threats to House Sparrow

- Reduction in invertebrates for developing young.
- Loss of habitat for both adult birds (loss of long grass providing seeds) and for invertebrates which provide food for young (loss of *native hedgerow and tree species).
- Reduction in availability of 'weed' seeds due to herbicide use and frequently mown turf.
- Loss of nesting sites: reduction of scrub & hedgerows, over-trimming of hedges, tidying up. Improved house insulation – loss of nesting opportunities in eaves etc.
- Air pollution

In 2018 55 records were submitted from many parts of the borough of which a total of 7 reported that they had started seeing house sparrows again following a gap when none had been seen for a number of years. 1 resident from Beckenham stated that 2018 was the first time she had seen them since moving into her current house 14 years ago, another reported, '1st time in years'. Residents from West Wickham recorded 'the first siting for 10 years', 'the first for a very long time' and 'Yes they are coming back'. A population in Leaves Green, Biggin Hill has grown to over 30. Records included 23 from West Wickham – thanks, in part, to an article in the residents association newsletter in 2018, but there were also 6 from Orpington, 5 from Beckenham and records from Penge East Station, Petts Wood, South Norwood, Norman Park, St. Paul's Cray, Downe, Hayes, Coney Hall, Chislehurst, Elmstead, Gravel Road, Lovibonds Ave., Crown Lane, near Hoblingwell Wood and near Sundridge Park. In 2019 short articles which included asking for records of house sparrow in the London Borough of Bromley, were submitted to Friends of Willett's Recreation Ground, Friends of Pratt's Bottom, Friends of Whitehall Recreation Ground and Bromley RSPB. Reports requesting help with collecting records were also sent to Friends of Jubilee Country Park and Friends of Darrick and Newstead Woods.

A further 34 records were submitted in 2019. Additional areas where house sparrow was recorded included Farnborough and several places around the outskirts of Bromley town centre. It is likely that improved publicity for the survey might elicit records for other parts of the borough. However, as we have received a reasonable number of records fairly well distributed throughout the borough and there is evidence of them returning to some areas, this survey will be discontinued. We will continue to promote measures that will help house sparrows in Bromley (see below).

Measures to help House Sparrow in Bromley

- Increased planting of *native species; shrubs, trees and other plants to increase invertebrate numbers, e.g. planting of *native species rich hedgerows, planting/encouraging the growth of native species in gardens.
- More and larger *wild areas in local parks, school and sports grounds and gardens, including long grass, to provide invertebrates and seeds.
- Maintain some areas of scrub and manage climbing plants to provide multiple nesting sites.
- Provide nest boxes: note the entrance hole needs to have a slightly wider diameter than that of blue tits – i.e. 32 mm rather than 30mm. For instructions to make and site sparrow boxes (you need more than one as they live in colonies), see www.bto.org/sites/default/files/house_sparrow_nest_box_plan.pdf
- Link wild areas via thick hedgerows, scrub and/or rough grassland.
- Decrease pesticide and herbicide use and encourage others to do the same.
- Feed birds in your garden. If you know you have sparrows nearby, put out seeds and suet balls for adult birds, mealworms during the nesting season. They will feed on the ground or from a table.
- If you have a cat, keep it indoors between dusk and dawn and use a collar with a bell or ultrasonic device.

*More invertebrates in the UK are adapted to feed on native plants than non-native plants so these are more valuable for wildlife.

Reference, and to find out more, see RSPB website at www.rspb.org.uk

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Common Toad *Bufo bufo*

Common toads spend the winter lying dormant in places such as compost heaps, beneath log piles or in crevices in walls, sometimes coming out to forage for invertebrates. They are generally nocturnal and emerge on damp, mild nights when the temperature is above 5 degrees Centigrade. In the Bromley area breeding typically occurs in March, sometimes going on into April, but will vary from year to year and according to site. When toads are mature enough to breed (2-3 years old) they return to the pond where they were originally spawned, travelling up to 400 metres (occasionally as much as 2kms) but if suitable ponds are constructed en route to the original breeding pond these may be used. Males often start to move first and will wait around the pond for females to arrive and then climb on their backs. When they are returning to ponds many are killed on roads.

Toadspawn is laid in long ribbons wound around the underwater stems of pond plants so toad ponds will have submerged and/or emergent plants. Vegetation around pond margins is also very important, providing toadlets leaving the pond protection from drying out and from predators such as birds. Native plants in and around ponds are always better than non-native as they are used as food by the invertebrates which are then eaten by toad poles and toads. The ideal toad pond is deeper than that required by frogs and has a depth in some areas of 90cms. Toadlets leave ponds in large numbers over a few days in summer. Toads spend most of their lives on land, living in scrub, woodland, beneath hedgerows or in coarse grassland feeding at night on insects, worms, slugs and other invertebrates.

According to Froglife, toad populations in south-east England have fallen by more than 68% since 1986.

Records of toads in the London Borough of Bromley submitted to Bromley Biodiversity Partnership Species and Habitats Sub-Group 2017-2019 show that there are breeding ponds in High Elms Country Park, Scadbury Park, Jubilee Park, Spring Park, Brook Lane, pond near Duggan Drive and in Ridgeway Drive (both in Sundridge Park area), Keston (though which pond here is uncertain) and gardens in Newstead Avenue near Newstead Woods, Courtfield Rise West Wickham, Wickham Chase (near Langley Park Golf Course), Kidbrook Close – near Petts Wood Recreation Ground/Crofton Woods, West Way Petts Wood, Leamington Close near Grove Park Cemetery & River Quaggy, Kingsway Coney Hall, and near Coopers School and Norlands Crescent Chislehurst.

Threats to Toads

- Loss of suitable ponds
- Loss of suitable terrestrial habitat (scrub, rough grassland, hedgerows, walls with crevices)
- Habitat fragmentation: death on roads
- A decline invertebrate prey
- Pesticides (indirect effect: decline in invertebrate numbers, direct effect: build up of pesticide within toads from having eaten poisoned invertebrates).

Next steps: Work for 2020

Results from 2017-2019 have revealed a few ponds where toads breed, but more records are needed, particularly evidence of breeding. The easiest and safest way to do this is to have a look, in daylight, for male and female toads in amplexus (a male on top of and holding onto the larger female) in or very near to a pond in March/April according to weather conditions. Help with this

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would be very much appreciated but it is very important that great care is taken near ponds, the banks of which may be very slippery at this time of year. Using binoculars to look from a short distance away should be ok but we urge that no-one takes any risks in looking out for toads. If anyone is interested in having a look for toads in amplexus, please contact bromleybiodiversity@gmail.com Information received regarding when amplexus is first noted in the borough can be sent to interested parties so they know when to start checking nearby ponds.

Other Measures

- In areas where toads are often found as roadkill in spring e.g. around Duggan Drive and near the Knoll in Beckenham it would be worth trying to put up notices re toads crossing at the relevant time and asking residents to look out for toads and possibly collect and move them to the adjacent breeding pond.
- Looking at the maps showing results to date, consider how to improve connectivity between nearby good terrestrial habitat with breeding ponds.
- Improve vegetation in existing ponds where toads known to breed so eggs can be wrapped around pond plants.
- Improve vegetation around ponds to provide protection and food for young toadlets on emergence.
- Improve understanding of the importance of scrub, hedgerows and rough grassland in providing protection and the habitat required for prey items (beetles, worms etc.)
- Encourage putting in suitable ponds between terrestrial toad habitat and known breeding ponds.

The following measures could help toads in Bromley:

1. Plant more native species in gardens and encourage others including schools and sports grounds to plant hedgerows of native species and leave areas of grass uncut during the summer. This would help to increase prey items available for toads because the invertebrates they eat tend to be adapted to live on native species rather than exotic plants.
2. Decrease pesticide and herbicide use and encourage others to do the same.
3. Have a wild area in your garden or local park with some scrub, a log pile and a pond.
4. If you are thinking of creating a pond which might be suitable for toads remember it needs to be about 90cms deep in some parts, contain pond plants which toadspawn could be wrapped around and include some marginal vegetation in which they can hide and feed on emergence. See <https://freshwaterhabitats.org.uk> for further advice.
5. When toadlets are emerging from ponds stop cutting or strimming grass in this area for a week or so until they have disappeared.
6. Consider contacting Froglife regarding helping toads cross roads: see www.froglife.org/what-we-do/toads-on-roads
7. Continue to send records to bromleybiodiversity@gmail.com

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