



A citizen led initiative to address nesting bird habitat loss in a suburban residential setting



About us

We are neighbours who have formed a group to raise awareness of habitat loss in our area. Three Red Listed bird species - House Sparrow, Swift and Starling, rely on roof spaces in order to raise their young. By raising funds to purchase nest boxes and by finding host houses, we aim to retrofit homes that have had the soffits sealed with man made materials.

House Sparrow

Passer domesticus (Linnaeus, 1758)

Large declines of urban-suburban house sparrow populations have been recorded in many towns and cities across Europe.

In London, sparrow numbers fell by 60% between 1994 and 2004. The house sparrow is now on the red list of conservation concern and a priority BAP species.¹

Starling

Sturnus vulgaris (Linnaeus, 1758)

Starlings often nests in the eaves of our houses. They can be found across Britain & Ireland except for the highest peaks. Numbers increase dramatically during the winter months when birds arrive from northern Europe and larger roosts can number over a million birds.

The species is on the UK Red List due to a sharp breeding population decline since the 1960s.²

Swift

Apus apus (Linnaeus, 1758)

The word apus is the Latin word for a swift. It is derived from the Ancient Greek α, a, “without”, and πούς, pous, “foot”, based on the belief that these birds were a form of swallow that lacked feet.³

A Central European subspecies which lived during the last ice age has been described as *Apus apus palapus*.

Creating homes for three species

The houses our street are gradually losing their traditional eaves and soffits as houses are extended and modernised to accommodate family needs. Our main aim is to raise funds to purchase nest boxes to replace these lost spaces.

What is a “sealed” soffit?

Made from composite man made materials or uvpc, they are installed to replace damaged wooden soffits. The advantage is a more energy efficient and better insulated home. There is a disadvantage for the birds - they cannot get in!⁴

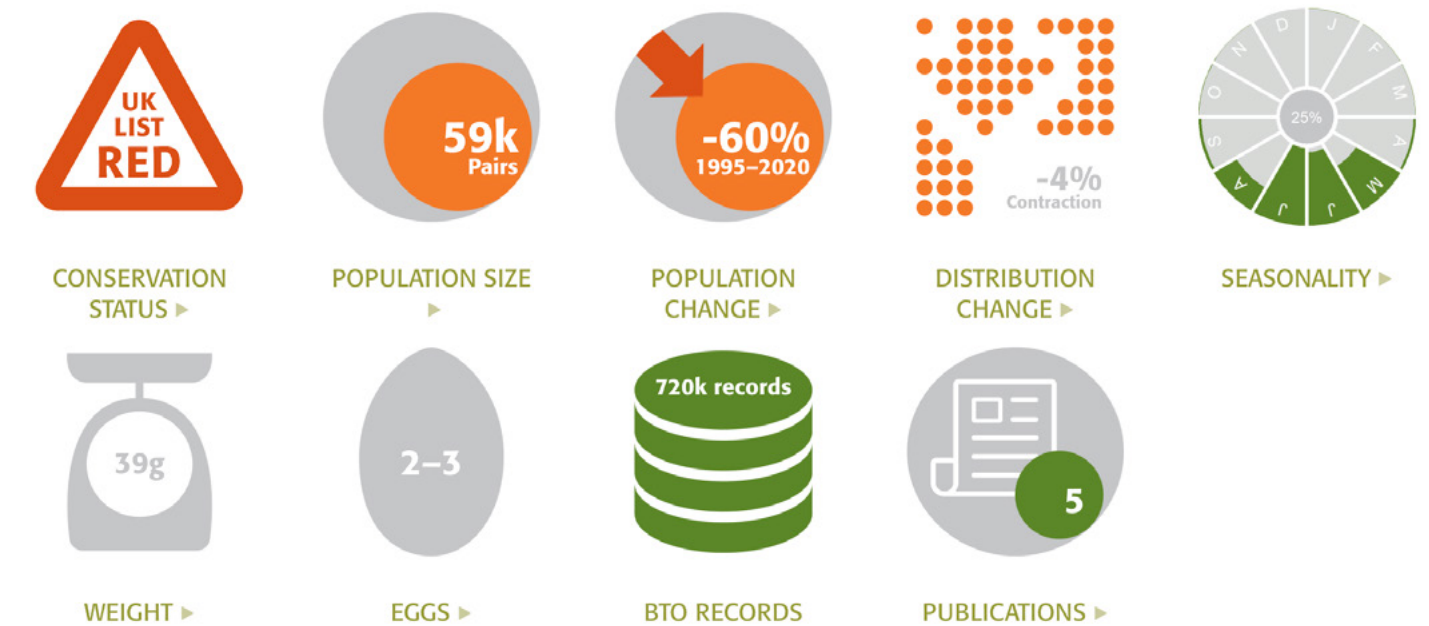


REFERENCES

1. RSBP. <https://www.rspb.org.uk/our-work/conservation/projects/causes-of-population-decline-of-urban-house-sparrows/> Information retrieved 15th July 2023
2. British Trust for Ornithology. <https://www.bto.org/understanding-birds/birdfacts/starling> Information retrieved 15th July 2023
3. Jobling, James A. (2010). The Helm Dictionary of Scientific Bird Names. London: Christopher Helm. p. 52. ISBN 978-1-4081-2501-4.
4. Swift conversation guide to bird friendly soffits: <https://www.swift-conservation.org/Leaflet%203%20-%20Swift%20Nest%20Places%20in%20Soffits%20&%20Eaves-small.pdf>

Swift statistics at a glance

(infographic: British Trust for Ornithology)



So what is the Red List? Information from the RSPB*

<https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/uk-conservation-status-explained/>

The Red List is a list of birds in the UK, Channel Islands and the Isle of Man in most urgent need of our help. It includes some of our rarest birds such as hen harriers and capercaillie, but also familiar birds like house sparrows and starlings, which have suffered huge declines.

The first UK Birds of Conservation Concern (BoCC) report was published in 1996. Roughly every six years, experts from different nature and conservation organisations, including the RSPB get together to update the report. Each type of bird is assessed and put on the Green List, Amber List or Red List depending on the level of concern.

What does the latest report say?

The 2021 report (BoCC 5) is a sobering read. More birds than ever before are on the Red List. It is now 70 species long – more than double the size it was in the first report in 1996.

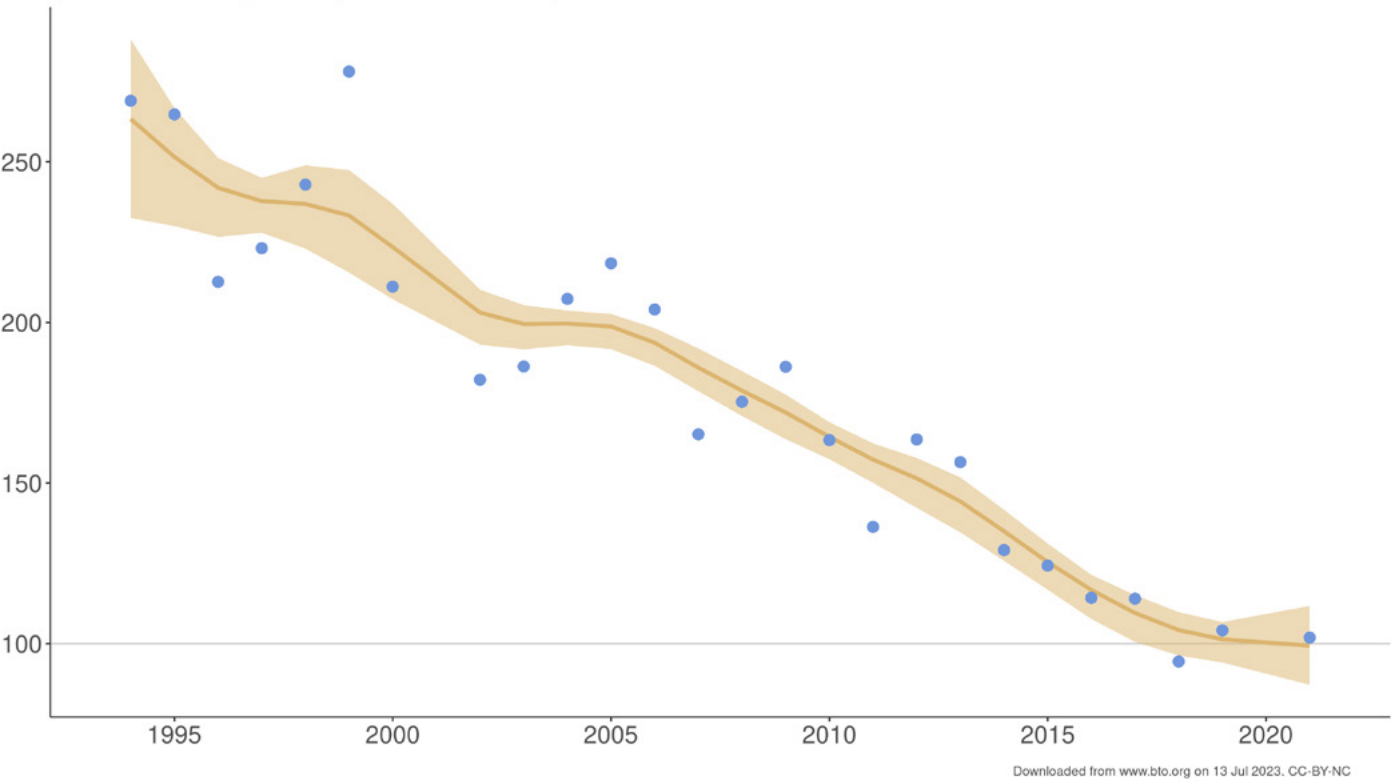
Summer visitors seem to be in real trouble, with Swifts and House Martins joining other migrants such as the Cuckoo, Nightingale, Spotted Flycatcher and others on the Red List. Other visitors from Sub-Saharan Africa, including the Sedge Warbler and Wheatear, have moved from Green to Amber.

Other groups of birds are declining too: Greenfinch, ptarmigan and Montagu’s harrier were moved to the Red List, the first two species jumping straight from Green, owing to large declines in numbers.

*Information retrieved 13th July 2023

Swift population abundance

Long-term trend (1994-) in the United Kingdom.
This graph is explained in greater detail on pages 10 and 11.



Swifts in Cuddington, Borough of Epsom & Ewell

Cuddington is an electoral ward in Surrey, lying close to the border with Greater London. The area is in part what remains of a “Lost Parish” from the Dissolution of the Monasteries. The “revived” Cuddington Parish Church, St Mary the Virgin was established first as an iron chapel in 1866 and in 1864 the foundation stone for the existing church was laid.

Cuddington is fortunate to have a thriving residents’ association and volunteer groups caring for the parks and open spaces, nearby chalk stream and residential streets. Each street in the ward has a “Road Rep” to distribute the local magazine and report items of concern to the local association and councillors.

There is an existing Swift project in one of the public open spaces, Shadbolt Park, owned by Epsom and Ewell Borough Council. It takes the form of a tower created by the artist Will Nash; money for the tower was raised from a grant applied for by a Borough Councillor, Phil Neale. This was completed in Spring 2023.

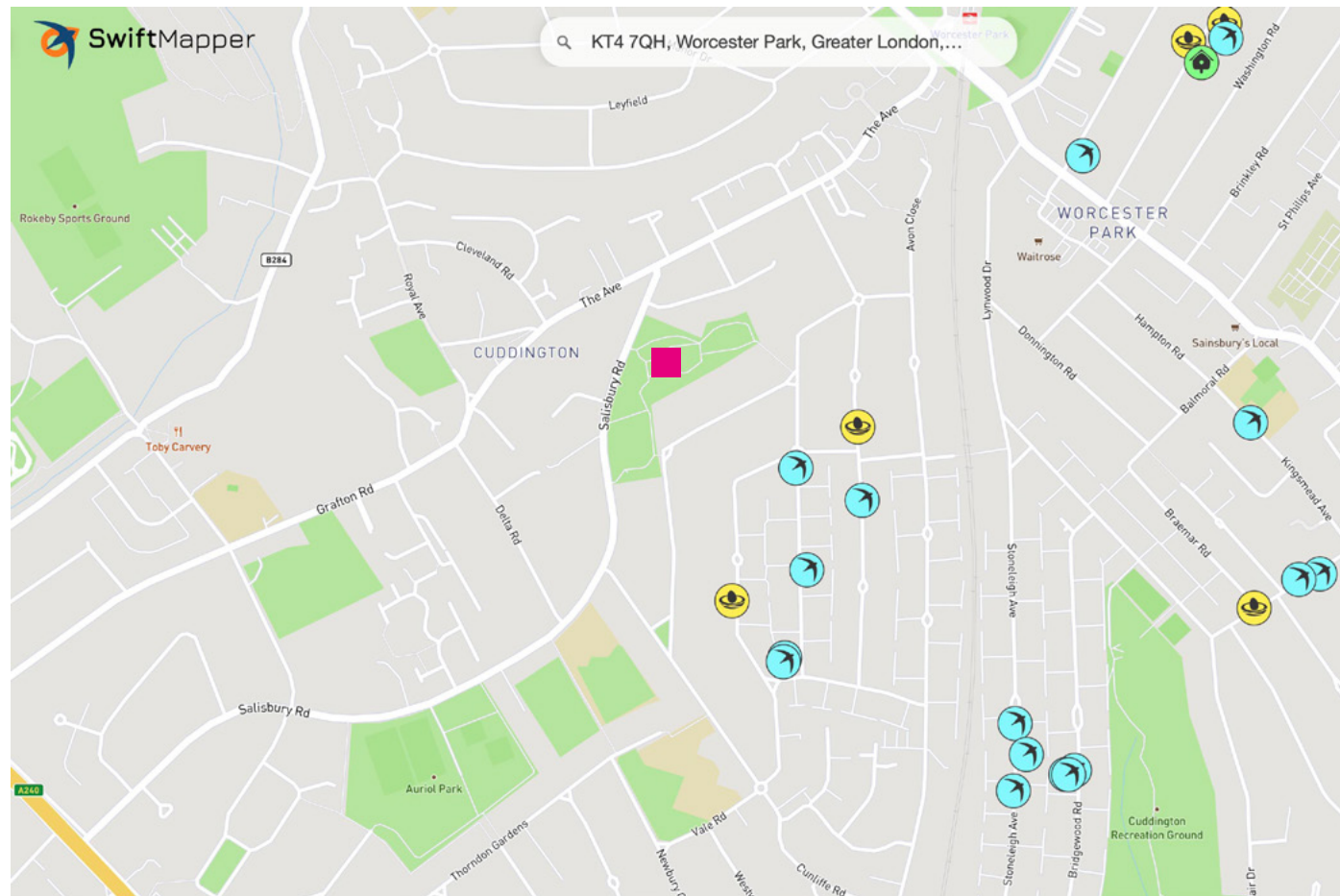
Elmstead Gardens

Elmstead Gardens is a residential street located to the east of the existing Swift project. The access paths at the rear of the gardens already supports a Hedgehog population of unknown number.

The houses in this area, built in the 1930s, are home to three Red List bird species: House Sparrow, Starling and Swift. Traditional eaves and soffits on this style of building provide valuable nesting space.

As houses are extended and modernised to accommodate family needs, particularly to create loft bedrooms, these spaces are being lost. This concern was raised by a resident and shared with the author of this document.



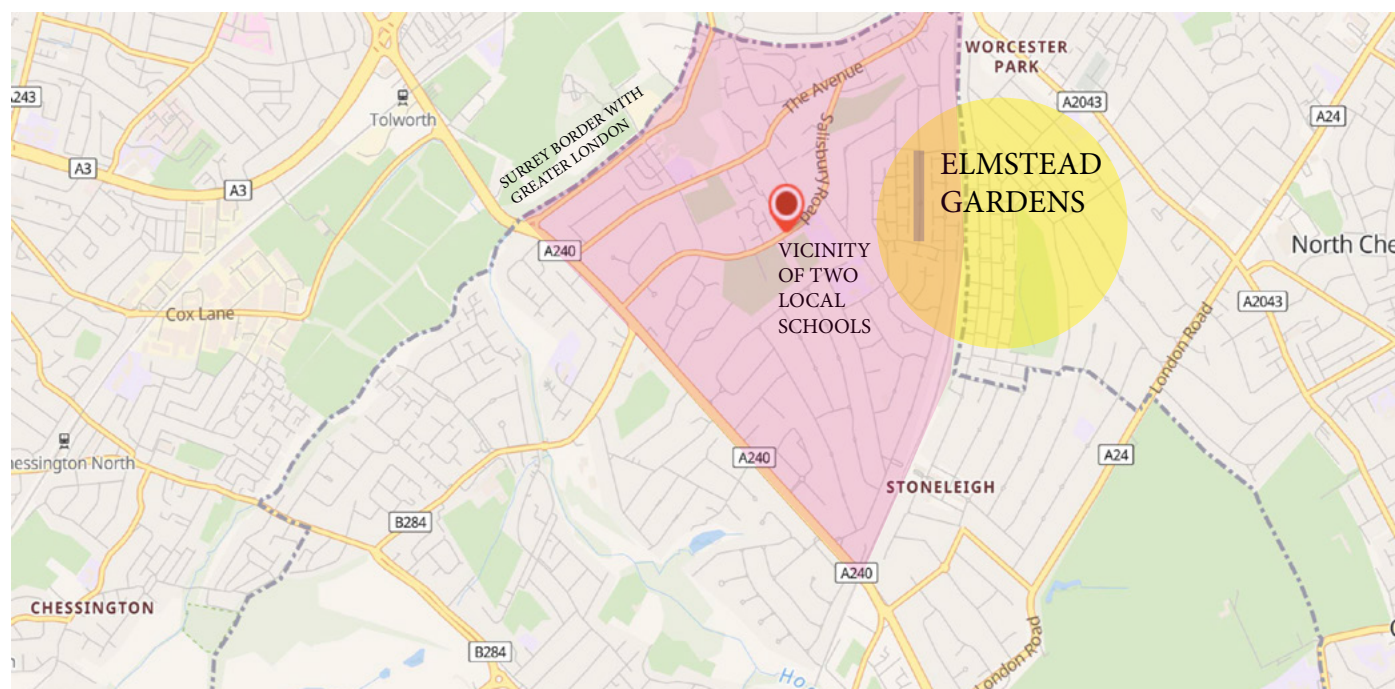


Swift sightings (blue markers) and nests active July 2023 (yellow)

The RSPB sponsor Swiftmapper online. Residents have been mapping nests and sightings¹. On this copy, we have marked the local park where the Swift Tower is sited

<https://www.swiftmapper.org.uk>

The shaded area below is Cuddington's position on the edge of Greater London.



Local magazine report on the Swift Tower²

A BOROUGH FIRST - OUR SWIFT TOWER!

Cuddington's amazing wildlife project in Shadbolt Park

A swift nesting tower, commissioned by Epsom and Ewell Borough Council and funded by a Community Infrastructure Levy Grant applied for by Councillor Phil, has been erected near the Shadbolt Park Surgery on Salisbury Road. The 7-metre-tall steel tower was designed and fabricated by award-winning sculptor, Will Nash. It features 12 nest boxes, to accommodate 24 swifts and their chicks. An audio system plays pre-recorded calls to attract swifts to the tower.

Swifts have recently arrived back in the UK. They are found mainly in the south and east until September, when they migrate through France and Spain to spend the winter in Africa, south of the Sahara. Numbers are in decline, partly due to loss of habitat. As a species, they have evolved to rely on human architecture, in particular the eaves of houses, to nest in. But as we make our homes more airtight, they have fewer places in which to nest.

Sussex-based artist Will Nash creates bespoke sculptures generated by geometric explorations. Recent habitable sculptures include:

- The Bat Bothy; a hollow stone bat roost
- Shalford Swift Tower; a 10-meter-tall Swift Tower for Shalford Common.
- The Optohedron, Surrey Hills AONB - a Kaleidoscopic seat and small creature habitat

Nash has received a number of awards, including the Sir Leslie Joseph Young Artist of the Year award in 2001, and was shortlisted for the Jerwood Sculpture Prize 2009. "I was attracted to the project by the challenge of making an artwork that was also a viable habitat for a particular bird. Swifts ideally need a drop of at least six metres from their nest, so the tower had to be quite tall. The shape was drawn from several sources, including the need for multiple eaves. This

resulted in an organic form with an ecological function. Constructed from birch plywood it has a larch exterior and GRP roof. Larch, traditionally used for cladding houses, is ideal because it is resistant to rotting."



The Royal Society for the Protection of Birds (RSPB) figures suggest that the UK lost 53% of its swift population between 1995 and 2016, largely due to the loss of nesting sites through the demolition of old buildings, declines in insect numbers caused by pesticides, and climate change. There are currently estimated to be 87,000 pairs of swifts in the UK; it is on the Red List of Birds of Conservation Concern. It nests in England each year from the end of April - beginning of August as part of an annual 14,000-mile migration from equatorial and

southern regions of Africa. This makes it one of the longest migration journeys of any bird.

The Swift is the world's fastest bird in level flight, reaching speeds of over 69 miles per hour. They fly continuously day and night, and only land to breed every year. They eat, drink, mate and even sleep on the wing by resting each half of their brain in turn. Swifts can fly almost 500 miles in one day, and 1.25 million miles in their lifetime.

After leaving their nest for the first time, they fly non-stop for up to three years but always return to their birthplace to mate. Swifts are distinguished by their dark, sooty colour, pale throat, long, narrow wings, very short legs, slightly forked tail and screaming call. The average lifespan of a swift is six years, but the oldest recorded swift was at least 21 years-old. When feeding chicks, an adult swift can collect 1000 insects in their throat at once - a journey repeated up to 100 times every day.

REFERENCES

1. RSPB. <https://www.swiftmapper.org.uk> retrieved 15th July 2023 Information retrieved 15th July 2023
2. The Cuddingtonian Magazine, Summer 2023

Do nestboxes really help bird numbers to recover?

Modernization of urban buildings can decrease the availability of nesting sites in buildings, leading to sudden decreases in the density of avifauna. In this study, we investigated the use of nest boxes as a bird conservation measure after buildings were thermally modernized.

In a 10 ha experimental area we mounted five types of nest boxes of different sizes and dimensions (a total of 132). Nest boxes were dedicated to species that lost access to their previous nesting sites. All species associated with the buildings significantly declined or disappeared. In the first year after the modernization, the House Sparrow (*Passer domesticus*) decreased by 66% compared with the period before the modernization, Eurasian Jackdaw (*Corvus monedula*) by 68%, Common Starling (*Sturnus vulgaris*) by 70%, and Common Swift (*Apus apus*) by 100%.

In the first two years after the modernization, the birds nested only in nest boxes. Five years of monitoring showed that using nest boxes as compensation for bird nesting sites lost during the renovation of buildings can cause a population to recover to ca. 50% of its original level. To optimize deployments of nest boxes, wildlife managers should consider target species' preferences for the dimensions and placement of boxes and limit the time boxes are used if a species prefers nesting outside nest-boxes, but in buildings (e. g. the House Sparrow) and does not require additional support¹.

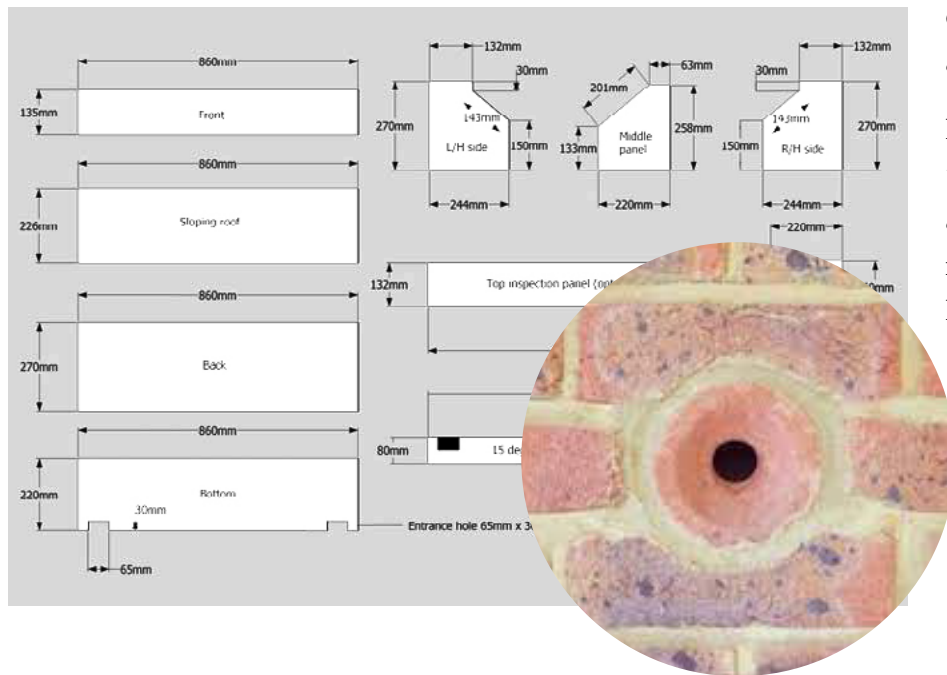
How have we costed the project?

Nest boxes can be manufactured by DIYers with the right tools and time. To start our project we have assumed self assembly, flat packed for Swift and ready made for House Sparrows and Starlings. £340 would buy two of each box. Assuming that we would have to pay a competent person to install the boxes, we have assumed a roofer at London rates, approximately £120, meaning we would need to raise £460.

As our project progresses, we hope to see interest from the surrounding streets and input from our local Repair Cafés, Mens' Sheds and similar volunteer groups. Free patterns are available online for a variety of

designs and we feel that DIY boxes are a possibility.

Nest boxes can also be built in. “Bird Bricks” are manufactured to allow birds to use wall cavities. This is a seamless solution for developers. Prices start at £37 per brick.



REFERENCES

1. Dulisz, Beata, Stawicka, Anna Maria, Knozowski, Paweł, Diserens, Tom A., Nowakowski, Jacek J. PY - 2022 DA - 2022/01/01TI Effectiveness of using nest boxes as a form of bird protection after building modernization. JO - Biodiversity and Conservation SN - 1572-9710 <https://doi.org/10.1007/s10531-021-02334-0> DO - 10.1007/s10531-021-02334-0ID - Dulisz2022



Eco Sparrow Tower | Price: £69

17cm depth x 65cm height. Compact and lightweight, easy to handle and install. Made from recycled plastic and FSC certified timber. Provides three separate nesting chambers, each with a 32mm entrance hole, perfect for house sparrows. Fixed roof to enable the box to be fitted high up in the eaves, where sparrows prefer. When you need to check or clean the box, just twist the fastening at the bottom and slide the nesting chamber out.



2 x Swift Boxes | Price: £64.00

A pair of Swift nesting boxes uniquely made from natural Larch and hand cut locally sourced Larch and reclaimed Welsh slate, ensuring a safe nesting place for returning birds. Hinged front for easy access when cleaning that securly locks, with a stainless steel screw, to protect the chicks. Built with stainless steel rustproof fixings. 2 Key

hole shaped cut out in the back for easy mounting. Built with a 30 mm x 70 mm entrance, for common swifts, and a with a wedge above to help shelter it from the elements to resemble natural nesting sites.



Starling Nest Box | Price: £34.99

Constructed from a mix of concrete and wood fibres, WoodStone® nest boxes safeguard against attacks from predators including woodpeckers, cats and squirrels. The material insulates the nest which creates a more consistent internal temperature than an ordinary wooden box. This is especially important during the breeding season and ensures that young birds have a greater chance of survival. We recommend using aluminium nails to hang due to the weight of the nest box and to limit any damage caused to trees. This 45mm hole nest box will be used by Starlings and can help support your local population of this red list species.

Citation: Harris, S.J., Massimino, D., Balmer, D.E., Kelly, L., Noble, D.G., Pearce-Higgins, J.W., Woodcock, P., Wotton, S. & Gillings, S. (2022) The Breeding Bird Survey 2021. BTO Research Report 745. British Trust for Ornithology, Theford.

The smoothed trend line shows how the number of birds has changed through time. To make it easier to compare among species, this is expressed as an 'index', set to 100 in the penultimate year. An easy way to interpret this is to say for every 100 birds present now, the trend line shows how many were present in a previous year. The shaded area shows uncertainty around the trend line (based on 85% confidence limits) and values for individual years are shown as dots.

Data source: Data from the BTO/JNCC/RSPB Breeding Bird Survey. The BBS relies upon a stratified random sample of c.4000 1-km squares across the UK. It provides representative trends across most major habitat types in the UK. The BBS is a partnership between the BTO, Joint Nature Conservation Committee and Royal Society for the Protection of Birds.

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Name	Metric Type	Metric Name	Country	Year	Index Unsmoothed	IU Lower Limit	IU Upper Limit	Index Smoothed	IS Lower Limit	IS Upper Limit	Sample Size
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	1994	268.98766	NA	NA	263.30787	232.51631	288.1392	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	1995	264.74627	NA	NA	251.51545	229.98293	266.7652	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	1996	212.61917	NA	NA	241.90810	226.61975	251.2073	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	1997	223.09795	NA	NA	237.76250	227.92733	244.9728	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	1998	242.88714	NA	NA	236.87805	222.97632	248.9348	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	1999	278.09917	NA	NA	233.26972	215.52851	247.4202	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2000	211.13389	NA	NA	223.45584	207.20982	236.9197	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2002	182.15343	NA	NA	203.04103	193.08559	210.2081	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2003	186.28425	NA	NA	199.51217	191.59297	205.3851	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2004	207.31553	NA	NA	199.65796	192.90222	203.6964	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2005	218.40176	NA	NA	198.72277	191.67705	202.6323	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2006	204.03141	NA	NA	193.66362	186.47956	198.2102	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2007	165.17581	NA	NA	185.90573	178.56644	191.9195	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2008	175.28581	NA	NA	178.74117	170.87198	184.8224	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2009	186.18232	NA	NA	171.95151	163.63978	177.5503	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2010	163.35647	NA	NA	164.37974	157.40327	168.9462	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2011	136.34774	NA	NA	157.29113	150.05863	162.3538	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2012	163.55551	NA	NA	151.45186	142.27826	157.8321	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2013	156.49334	NA	NA	144.27064	134.63456	151.7586	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2014	129.11184	NA	NA	134.98953	125.77605	141.6719	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2015	124.28298	NA	NA	125.39623	116.79296	131.1638	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2016	114.24548	NA	NA	116.70568	107.67906	121.4026	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2017	113.99132	NA	NA	109.54207	100.54187	115.1289	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2018	94.43806	NA	NA	104.22911	96.30940	109.7950	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2019	104.13316	NA	NA	101.34668	94.11063	106.7161	0
Swift	Population abundance	Long-term trend (1994-)	United Kingdom	2021	101.89552	NA	NA	99.35684	87.19712	111.7659	0

The benefits of our project

The neighbours in Elmstead Gardens have a friendly and close community. They enjoy street parties on special occasions and take great pleasure in observing the natural world that shares their space.

The front gardens, although paved for vehicle parking, include mature boundary hedges. Interesting wildlife friendly additions such as bird feeders and green sedum roof on wheely bin/bike sheds can be seen.

House Sparrow, Starling and Swift activity is noticeable during the summer months. A central island in the middle of the road features a tree and native flowers, which are watered by the residents.

Our changing climate, whatever you believe to be the cause, is a reality. For the individual householder, a well insulated home is a positive step that can be taken now; it keeps your home cool in the hot summers and warmer in the winter. This is good for human health and good for your pocket - it saves on energy bills and goes toward making us less dependent on fossil fuels.

Taking sensible steps like this should not penalise wildlife. We believe that the solution we have is sound and sensible. It allows householders to site nestboxes if that is what they would like to do. If they would rather not, they will still have the pleasure of welcoming birds in the spring and hearing their calls.

The project will be of great benefit to children, who will be able to watch nature at work, at close quarters, from the bedroom window and on their walk to school or the playground.

The position of the Shadbolt Park Swift Project, just a short walk north-west of Elmstead Gardens, and the proximity of parks, nature reserves and streams, provides connectivity and we hope, in time, a positive turn in the fortune of our "Red Listers".

Contributions and research

Mrs B. Beaumont

Mr Matthew Richardson

Councillor K. Spickett, Epsom & Ewell Borough Councillor

Further sources are referenced

Document creation

The design and production of this document and the ERLIBIRD logo was donated to the project by The Point Design Partnership, Cuddington, Surrey.