

Shropshire Barn Owl 1150 Group

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This report summarises the breeding results and activities of the Shropshire Barn Owl Group (SBOG) for 2018. SBOG is a voluntary group which has been working since 2002 to increase the breeding population of barn owls in Shropshire by providing nestboxes in areas of suitable habitat and working with farmers and other landowners to improve and conserve their habitat.

When we started out in 2002 the barn owl population in Shropshire had been in decline for many years and was estimated at around 140 breeding pairs. Now, it is in the region of 200 to 220 pairs.

What We Do

- Conduct site surveys and promote the conservation of barn owls and their habitat with farmers, landowners, statutory authorities and conservation organisations
- Operate a nestbox scheme for barn owls in Shropshire to provide new breeding sites and to replenish natural nest sites lost to decay and development
- Monitor nestboxes and natural sites for occupation by breeding and roosting barn owls on an annual basis under licence from the British Trust for Ornithology
- Maintain a database of breeding sites, nestbox occupation and breeding success
- Rehabilitate injured barn owls to their natural environment
- Disseminate information through illustrated talks, an annual report and our website
- Provide advice and practical assistance to local authorities, developers and homeowners to mitigate disturbance to barn owls

SOME OF OUR ACHIEVEMENTS SO FAR 422 nestboxes installed for Barn Owls in Shropshire 2728 nestbox and natural nest sites inspected

616 successful broods in nestboxes & natural sites 1558 young barn owls produced in nestboxes 280 young barn owls recorded in natural sites 375 site surveys completed 15 injured barn owls rehabilitated

The 2018 Breeding Season

Breeding success

209 barn owl chicks were produced in sites monitored in 2018. Table 1. The data is confined to those pairs successfully producing chicks and includes data from five breeding sites monitored by the Upper Onny Community Wildlife Group (UOCWG). An additional five nestbox nests failed

at the egg stage. Clutches ranged from one to five eggs and broods ranged from one to five chicks with an average of 2.8. Nestboxes produced 189 chicks and natural nest sites produced 20 chicks. Natural nest sites comprised four oak trees, an ash and a black poplar. One barn owl pair at Ryton had the company of breeding stock dove within the same nestbox! The indications in July were that barn owls were feeding their young predominately on wood mice which would indicate that their favoured prey, field vole, was in short supply at that time.



Shropshire Barn Owl Group Figures in brackets refer to number of broods													
Tree nestbox		Building nestbox		Pole nestbox		Tree cavity natural		Building natural		Other natural		chicks	chicks
No. chicks	Mean	No. chicks	Mean	No. chicks	Mean	No. chicks	Mean	No. chicks	Mean	No. chicks	Mean	Total No.	Mean No.
148 (52)	2.9	35 (12)	2.9	6 (2)	3.0	18 (6)	3.0	2 (1)	2.00	0	0	209	2.8

Six new breeding pairs were established in 2018 (fourteen in 2017) of which five were in nestboxes and one in a natural site.

Where they bred

Adderley, Admaston, Albrighton, Attingham (2), Bagley, Berrington, Brogyntyn, Burlton, Charlton Hill, Chipnall (2), Clive Wood, Colehurst, Colemere (2), Cold Hatton, Cressage, Criftins, Doley, Dorrington, Eaton Mascott, Ellesmere, Gobowen, Harley, Harmer Hill, Haughmond Hill, High Ercall (2), High Hatton, Hollinswood, Holly Banks, Hordley, Horton, Howle, Humbers, Kenley (2), Kynnersley, Leebotwood, Lower Kempley, Lwyn-y-Go, Lyneal, Lyneal Wood. Marchamley, Melverley, Morton, Much Wenlock, Oldfields, Pipegate. Rodway, Ruewood, Ryton, St. Martins, Sandford, Smethcott. Soundley, Spoonley (2), Stanton Lacev. Stanwardine, Tibberton, Tunstall, Welsh Frankton, Weston Lullingfields (2), Whitchurch, Willaston (2) and Woolaston.



UOCWG also confirmed breeding at Bishops Castle (2), Eaton (2) and Hardwick.

Breeding summary 2002-2018

Table 2. Breeding productivity according to type of nest site 2002-2018 Shropshire Barn Owl Group										
	Tree nestbox	Building nestbox	Pole nestbox	Tree cavity natural	Building natural	Other natural	All sites			
Total Broods	376	127	17	78	15	3	616			
Total chicks	1102	404	54	224	46	10	1838			
Mean No. chicks	2.9	3.1	3.0	2.8	3.0	3.3	2.9			

1838 barn owl chicks have been produced in nest sites monitored by SBOG since 2002, 1558 in nestboxes and 280 in natural sites. Table 2. Although data on the location and number of natural nest sites is limited it is highly probable that nestboxes are now the predominant nest site for breeding barn owls in Shropshire. Most breeding occurs in tree nestboxes, but internal sites, whether nestboxes or natural sites within buildings, are marginally more productive than tree nestboxes and nests in natural tree cavities. Perhaps environmental factors such as increased exposure to reduced temperatures or higher predation has a greater impact on external nest sites. Natural cavities other than trees or buildings appear to be the most productive but the data is limited.

The mean number of chicks produced per successful brood in Shropshire for the seventeen years 2002-2018 is 2.9. Studies elsewhere suggest that a long-term average productivity of about 3.2 young per pair is required to maintain viable populations, so the long-term productivity rate for Shropshire's barn owls appears to be acceptable.





The wide availability of nestboxes and the firm establishment of pairs at nestbox sites means that they produce a significantly greater proportion of chicks compared to natural sites. A two-year cycle in breeding productivity, probably correlated with fluctuations in the field vole population, is also increasingly evident (see graph). Higher mean breeding productivity appears to be correlated with peak breeding years and therefore lower mean broods per pair are consistent with alternate dips in breeding productivity. For example, the highest mean of 4.1 chicks was recorded in the peak breeding year of 2014 and the lowest of 2.0 chicks in the poor season of 2013.

2018 was unusual in that it was a productive breeding year which proceeded a previous peak in 2017, which also followed a productive year in 2016. Peaks are usually followed by



declines in breeding productivity and consecutive peak years have occurred only once before, in 2011 and 2012.

The indications are that whilst SBOG's survey work and data collection has undoubtedly contributed to a better knowledge of the barn owl in Shropshire, the sustained effort to replenish the loss of natural cavities by the siting of nestboxes in areas of good feeding habitat has promoted a real increase in the number of pairs.



the most serious threat to barn owls accounting for 66 (34%) of casualties between 2002 and 2018.



62% of the road victims relate to the winter period October to March. coincidina with dispersal iuvenile adults and their extending hunting ranges. An emerging trend is a peak in casualties in March and the high mid-summer

casualties in July, the latter possibly relating to dispersing juveniles from early or first broods.



Roost boxes

Designed by John Lightfoot to provide a cheap and practical roosting site, our roost boxes are made from plastic drums and comprise and entrance hole in the front with an open base to deter jackdaw and stock dove from nest building. Three roost boxes have been installed so far, one of which is already occupied by a roosting barn owl. Perched within the box a barn owl can be readily observed from a safe distance and white splash marks on the trunk or pellets below will give an indication that the box is occupied. The plan is to routinely install a roost box when a nestbox is installed and to monitor their success.



Barn Owls given a much needed nesting box in north Shropshire

This article was kindly produced for SBOG by supporters who wish to remain anonymous

We had been aware of a Barn Owl roosting in our open barn for some time. As well as frequent sightings, there were many black owl pellets under the roosting sites. Having picked up one of the Shropshire Barn Owl Group's leaflets and being interested to find out more, we contacted John Lightfoot and his wife Wendy. They came over soon after and decided to install a nest box in a corner of the barn. This was at the beginning of February 2018 and they did warn us that the owl might take a long time to get used to it and perhaps not be able to attract a mate for several years. So, we were delighted, when within a week or two, an owl was seen flitting back and to, and making itself well and truly at home in the nest box.

It was only at the end of May when we realised there was actually a pair of owls in residence, and suspected there could even be owlets, when cheeping and calling could be heard at dusk. In late June, John and Wendy came over to inspect the nestbox, and recorded seeing two owlets and the mother nestled inside. They promised to return in mid-July to ring the owlets and check on their progress.

It was lovely to be allowed to watch when the day came. We were all surprised to find there were in fact three owlets in the nest box – two females and a much smaller and less advanced male. He must have been hidden under the mother when John had checked a few weeks earlier. I was thrilled to be allowed to hold this tiny one who along with his sisters seemed unfazed by all that was going on. They were all ringed and weighed and their wing measurements taken before being put safely back into the nest box.

For almost a fortnight we saw the adults coming and going at dusk with food for their young. Everything appeared fine, until one afternoon about an hour before dark, when we noticed an owlet sitting on a large pile of logs beneath the box. We could see that it was not very mature, and realised it was the youngest one. He proceeded to hide several feet down amongst the logs. We knew the situation was serious, as an owlet on the ground would be abandoned, so we called the Shropshire Barn Owl Group for urgent assistance. John came over immediately and helped to rescue the owlet. After carefully assessing his condition, John returned him to the nest box to rejoin his siblings. The conclusion was that competition for food from the older owlets probably drove the youngest to escape from the box far too early, despite its careful design. After this event we provided additional food for the adult birds to feed to the owlets on a bird table near the box. The adult birds took a few days to get used to this, but soon began to take advantage.

Several weeks later the oldest of the owlets emerged from the box and began testing its wings. Shortly after the second owlet followed, and then around three weeks later the youngest finally emerged, now ready to learn to fly. After perhaps a month the barn became quieter as all of the owlets left to find their own territories.

It has been a privilege to observe the owls, and with the dedicated assistance of the Shropshire Barn Owl Group, see them thrive. The signs are also positive as it appears the nest box is being occupied again by the adult pair.

THANK YOU

Thank you to the many farmers and landowners across Shropshire who want to see barn owls thriving on their land and who provide invaluable support in allowing us to install nestboxes. For reasons of site confidentiality, we cannot disclose who or where they are. For financial support this year we are most grateful to the William Dean Countryside & Educational Trust, David Collin Greeting Cards and Madeley Parish Council. We are extremely grateful for the legacy bequeathed by David Wiseman. Thank you to other supporters who very kindly gave donations – we hope that you can see within this report some of the direct results of that commitment.

Thank you to Mr & Mrs Gilman for access to their water troughs in our design of a safety float to prevent barn owls from drowning; Rob Smith of Jewsons; Cuan Wildlife Rescue, partners in rehabilitating barn owls; Paul Shearer who kindly gives us off-cuts of roofing laths for our nestboxes; Huw Ellis who lets us store our mobile aviary in his building; Tristam Pearce for regularly providing barn owl records; Jill Barrow and Richard Cope for barn owl photos pages 3 & 4. Thank you to Jon Groom and members of the UOCWG, and Roger Clay and Jonathan Lingard for additional breeding data and records.

How you can help

Contact us if you would like to encourage barn owls to breed. Barn owls require large fields of permanent, ungrazed, tussocky grassland or extensive margins where the grass is maintained to a height of 20-40 cm. This allows their main prey, field voles, to thrive in a thick litter-layer at the base of the grass. Mowing will destroy the litter-layer and should be avoided. Instead, top to a height of around 13cm above ground level between mid-July and the end of October.

Contact us to arrange a site survey if you have grassy margins under DEFRAS's Entry Level or Higher-Level Stewardship Scheme SBOG can build, install and monitor nestboxes for a nominal cost of £80 Retain large, old trees to provide nest and roost sites Retain old barns and other outbuildings

Where buildings are developed incorporate an owl window and loft space Refrain from using highly toxic second-generation anticoagulant rat poison Let SBOG know when natural nest sites are threatened by development or decay so that we can work with you to repair the site or install a nestbox Report sightings of barn owls to us or the Shropshire Ornithological Society.

Visit our website www.shropshirebarnowlgroup.org.uk

If you would like to see more barn owls in Shropshire why not support our work and consider making a donation or leaving a legacy to the Shropshire Barn Owl Group? Contacts:

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