



Shropshire
Barn Owl
Group



2019

This report summarises the breeding results and activities of the Shropshire Barn Owl Group (SBOG) for 2019. 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 formed in 2002 the barn owl population in Shropshire had been in decline for over half a century 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

430 nestboxes installed for Barn Owls in Shropshire

2932 nestbox and natural nest sites inspected

687 successful broods in nestboxes & natural sites

1764 young barn owls produced in nestboxes

293 young barn owls recorded in natural sites

390 site surveys completed



The 2019 Breeding Season

Breeding success

2019 proved to be another productive year for barn owls in Shropshire, following two highly productive years in 2017 and 2018. 68 breeding pairs were recorded, seven new pairs were established and 219 chicks produced. Table 1. The breeding data is confined to those pairs successfully producing chicks and includes data from five successful breeding sites monitored by the Upper Onny Community Wildlife Group (UOCWG). Broods ranged from one to six chicks with an average of 3.0. Nestboxes produced 206 chicks and natural nest sites produced 13 chicks. Natural nest sites comprised five oak trees. Two nestboxes were occupied for the first time since they were installed in 2007, and another for the first time since installed in 2008. A tree nestbox was occupied again after being vacant since 2012.



Table 1. Number of chicks produced according to type of nest site in 2019
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		Total No. chicks	Mean No. chicks
No. chicks	Mean	No. chicks	Mean	No. chicks	Mean	No. chicks	Mean	No. chicks	Mean	No. chicks	Mean		
153 (47)	3.2	48 (16)	3.0	5 (2)	2.5	12 (5)	2.4	1 (1)	1.00	0	0	219	3.0

Forty-eight chicks were lost in the nest, possibly due to predation but most likely due to starvation as a result of heavy and persistent rainfall in June which impeded feeding by the adults with first broods. One nestbox adjacent to the River Severn held five young in May but when checked in June all the young were dead, probably due to flooding and inundation of rough grassland feed habitat. Three pairs proceeded to have second broods in July and August: one of the three first broods of these pairs was successful and all three second broods were in the same nestbox as the first breeding attempts and all succeeded. By the end of August, 13 nestboxes contained small young, which was unprecedented, with young in the nest noted into late October.



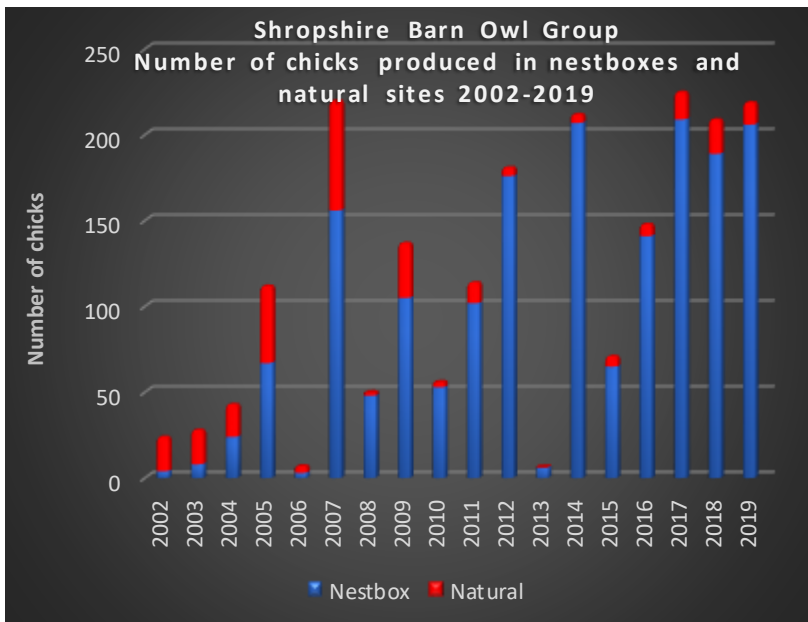
Despite the problems inflicted by excessive rainfall, the 219 young successfully produced was the third highest for SBOG in eighteen years of monitoring. 2019 was a peak breeding season which followed two previous successful breeding seasons, with no notable dip associated with field vole cycles as in some previous years.

Breeding summary 2002-2019

2057 barn owl chicks have been produced in nest sites monitored by SBOG since 2002, 1764 in nestboxes and 293 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.

**Table 2. Breeding productivity according to type of nest site
2002-2019
Shropshire Barn Owl Group**

	Tree nestbox	Building nestbox	Pole nestbox	Tree cavity natural	Building natural	Other natural	All sites
Total Broods	423	143	19	83	16	3	687
Total chicks	1255	452	57	236	47	10	2057
Mean No. chicks	2.9	3.1	3.0	2.8	2.9	3.3	2.9

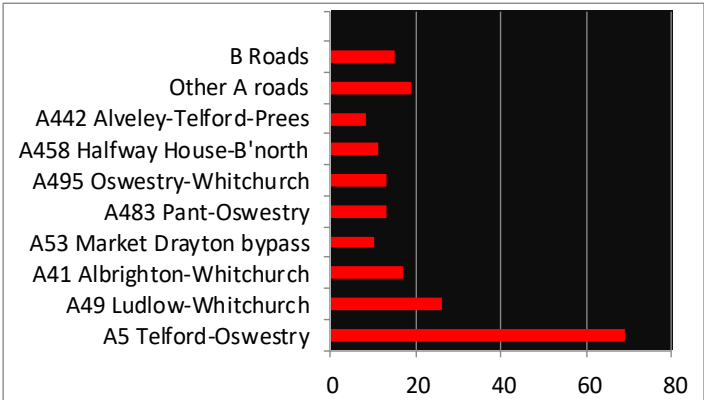


The mean number of chicks produced per successful brood in Shropshire for the eighteen years 2002-2019 is 2.9. Studies elsewhere suggest that a long-term average productivity of about 3.2 young per pair is required to maintain viable populations, so the long-term productivity rate for Shropshire's barn owls appears to be acceptable.

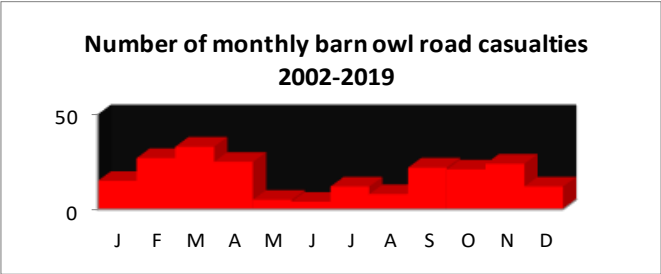
The wide availability of nestboxes and the firm establishment of pairs at nestbox sites means that they produce a significantly greater proportion of chicks compared to natural sites. A two-year cycle in breeding productivity, probably correlated with fluctuations in the field vole population, is also increasingly evident (see graph). However, this fluctuation for the last three years is less evident, with productivity in all three years being particularly high.

Barn Owl Road Casualties

Thirteen casualties were recorded on roads in Shropshire in 2019. Owls were located either directly on the road or on the central reservation or grass verge. 92% of casualties between 2002 and 2019 have occurred on 'A' roads – see chart - with relatively few casualties on 'B' roads. The A5 is the most serious threat to barn owls accounting for 69 (34%) of casualties.



65% of road victims occur in the winter period October–March, and probably arise from juvenile dispersal. Adult Barn Owls are site faithful and highly sedentary, but juveniles make short-distance dispersal movements from their natal areas, usually by December, although some make longer movements. An emerging trend is a peak in casualties in March.



Predatory Bird Monitoring Scheme 2018 Report



Predatory Bird
Monitoring Scheme



The Predatory Bird Monitoring Scheme (PBMS) 2018 report shows that 87% of barn owls analysed had detectable liver residues of one or more second-

generation anticoagulant rodenticides (SGAR). SBOG recommends that landowners refrain from using highly toxic rat poison. Wherever we find a dead barn owl we send it to PBMS for analysis. See www.pbms.ceh.ac.uk.

A Barn Owl Rescue

Last January, whilst walking their dogs around a nearby solar farm, some friends, Paul and Amanda, noticed a commotion and walked over to investigate. As they approached a buzzard flew off. When they got closer, they realised there was a barn owl against the fence. They think it may have been eating prey when the buzzard saw an opportunity for its own meal. It was clear that the owl would have been killed had they not been there as it had a nasty wound on its head from the attack.



The barn owl was taken to Cuan Wildlife Rescue, where it proved to be a fighter and recovered well. Cuan contacted John Lightfoot of SBOG who decided that a five-acre field neighbouring the solar farm would be an ideal place to release it. So, a couple of weeks later, John towed a mobile aviary to the site and collected the owl from Cuan. The head wound had healed well and John provided some frozen chicks and instructed us how to use the feeding box incorporated into the aviary to provide the owl's meals. He suggested we monitor his feeding and start with two chicks per day, but within a few days, we had increased to three as it became clear the bird had a good appetite.

Paul and I elected to buy a commercial pole nestbox to provide a potential breeding site and Paul happened to have an old telephone pole which was ideal for mounting the nest box at a height of about four metres. We bought the extra materials we needed to modify the box with a platform to allow any young to perch and settle. We slowly and carefully transported the pole on a trailer to the field and were so pleased with our efforts that we decided to erect the pole immediately. Having done so and stood back to admire our efforts, I pointed out that we seemed to have missed one step in our process: we had forgotten to mount the platform on the pole before erecting it! We decided it would be best if we took the pole down again and mounted the platform on the ground. That was how we discovered it is much easier to erect a long, heavy telephone pole than lift it out of a hole to lay it back on the ground. Although quite a struggle, because of the weight and the height whilst working on ladders, the rest of the construction went well.



On 29 January, John raised the roof of the aviary and we started a regime of placing two chicks in the feeding box daily. I also mounted a wildlife camera and it soon became clear that he was returning to the aviary around sunset every night. After 29 days, we reduced the meals to 1 chick to encourage him to fend for himself. This became the regime for the next 59 days. Having smashed the previous record of 70 days, by day 99 John suggested we reduce feeding to 1 chick every other day. By 1 June we gave up feeding him and John had taken the aviary away and left a feeding station, but it was never used.

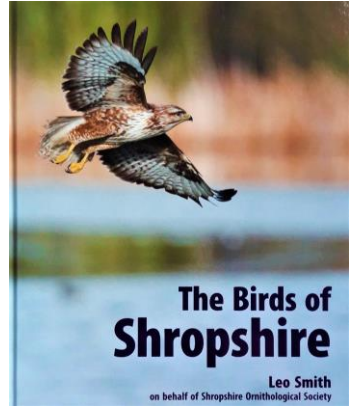
Sadly, there is no evidence that our barn owl even investigated the nestbox. However, we think he has a home at a nearby farm and the farmer reports regularly seeing him. To my surprise my wildlife camera photographed a barn owl on my back lawn on 1 September just after sunset. Perhaps he was missing his fast food. We hope he will have a long and happy life and avoids buzzards.

Tony Cordery, Condoover

The Birds of Shropshire

Published by the Shropshire Ornithological Society in December 2019, 'The Birds of Shropshire' is the most comprehensive record of the County's avifauna ever published. Tracing the occurrence and distribution of all birds recorded in Shropshire from the 1800's, and even earlier, to the present day, this book will shape conservation priorities in Shropshire for decades to come.

The Barn Owl account, prepared by SBOG, offers some hope in that the Shropshire breeding population is now estimated to be in the region of 200-220 pairs, up from 140 estimated in the 1992 Shropshire Atlas.



The map of the Breeding Distribution Change since the 1992 Atlas shows gains as well as losses, but clearly shows increases in areas where we installed nestboxes. Without the nestbox programme, the decline, which accelerated after the second World War and which was still evident at the end of the twentieth century, would undoubtedly have continued.

While our survey work and data collection has contributed to better knowledge, the sustained effort to promote the conservation of the Barn Owl's habitat and to replenish the loss of natural nest sites by the siting of nestboxes in areas of good feeding habitat has promoted a real increase in the number of pairs.

Now we must strive to keep them there.

See www.shropshirebirds.com for details on how to purchase the book.

The State of the UK Barn Owl population 2018

The report comprised data from 37 groups, including SBOG. Overall, 2018 was a poor year for barn owls in the UK but Shropshire bucked the trend with a high number of breeding pairs. Available on www.barnowltrust.org.uk



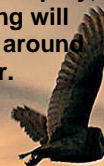
THANK YOU

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, Madeley Parish Council, John & Gaye Simister, Steve & Chris Jaggs. Without all this support we couldn't do what we do for barn owls.

Thank you to: Tony Cordery for providing a mobile aviary release site and the fascinating article in this report; Dave Ware for providing storage for the aviary; Cuan Wildlife Rescue, partners in rehabilitating barn owls; Cooper & Williams Ltd for donating roofing felt for the nestboxes; the late Ben Arrowsmith for donations; Paul Shearer who kindly donated nestbox materials; Tim Preston and Lauren Fennell for the stunning photos on the cover and this page respectively; Jon Groom and members of the UOCWG and Dave Ellis 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

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
rodenticides (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 or Facebook site

**If you would like to see more barn owls in Shropshire, support our work and
consider making a donation or leaving a legacy to the Shropshire Barn Owl Group**

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