



Shropshire
Barn Owl
Group



2021

This report summarises the breeding results and activities of the Shropshire Barn Owl Group (SBOG) for 2021. SBOG is a voluntary group which has been working since 2002 to increase the breeding population of Barn Owls in Shropshire by providing nestboxes and working with farmers and other landowners to retain and improve their habitat.

When we started out in 2002 the Barn Owl population in Shropshire had been in decline for over half a century and we estimated it to be around 140 breeding pairs. Now, it is in the region of 220 pairs. Our aim is to ensure that the population remains stable and to continue to establish new breeding pairs each year.

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 and breeding success**
- **Rehabilitate injured Barn Owls to their natural environment**
- **Disseminate information through an annual report, articles, website, Facebook and talks**
- **Provide advice and practical assistance to local authorities, developers and homeowners to mitigate disturbance to Barn Owls**

SOME OF OUR ACHIEVEMENTS SO FAR

471 nestboxes installed for Barn Owls in Shropshire

3332 nestbox and natural nest sites inspected

815 successful broods in nestboxes & natural sites

2115 Barn Owl chicks produced in nestboxes

319 chicks produced in natural nest sites

420 site surveys completed

The 2021 Breeding Season

2021 proved to be a milestone year. We expected it to be a productive breeding season after last year's downturn and it was. In fact, it was the most productive breeding season in our twenty years of conservation work, with 233 young Barn Owls produced in nestboxes and natural sites, surpassing the

previous record of 225 in 2017. In addition, a second milestone was achieved, with over 2000 chicks now produced in our nestboxes since 2002.



Ed Penman

203 nestboxes and natural sites were monitored. Breeding (at least one egg laid) occurred in 73 (35.9%) of the sites. The breeding data in Table 1 is confined to those pairs successfully producing chicks and includes data from three successful breeding sites monitored by the Upper Onny Community Wildlife Group (UOCWG). 233 chicks were produced in 71 (34.9%) of those sites successfully producing chicks, 218 in nestboxes and 15 in natural sites. Broods ranged from one to six chicks and averaged 3.2 (the highest average rate since 3.4 in 2014). Broods faired particularly well in internal nestboxes with an average of 3.8 chicks, well above the long-term norm of 3.1. Forty-eight chicks were found dead in the nest on the first visit or dead or missing on a second inspection, presumed predated or consumed by their parents or siblings. Thirty-two of the dead chicks were noted in July, the age and condition of the owlets suggesting that they had probably succumbed to starvation following a period of heavy rain between the 3rd and 6th July. Unusually for a productive breeding season, no second broods were recorded. An additional six sites held a single adult. Eight new pairs were recorded.

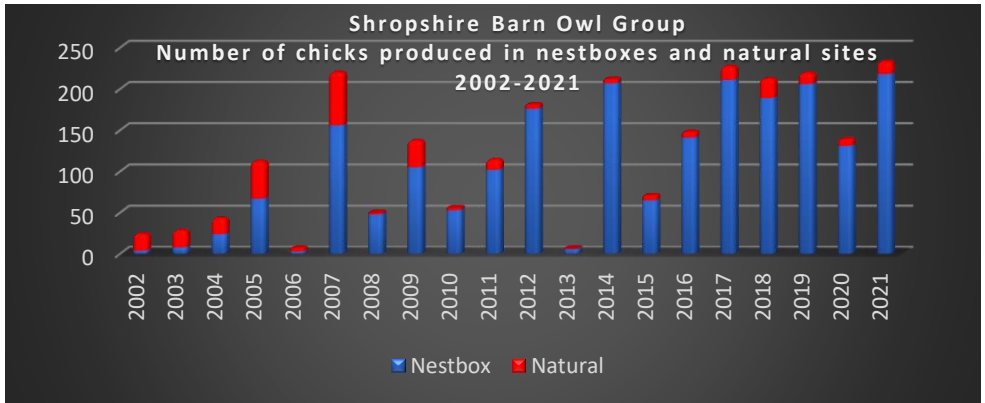
Intriguingly, when one chick died in a nestbox site in an old smallholding building in June, the remaining four well-developed young were joined by a juvenile outsider, probably dispersing from its place of birth, and all five food-begged at the window of the building. One nestbox in Ellesmere was successfully occupied by a breeding pair and three late chicks in September, after a lapse of 13 years.

**Table 1. Number of chicks produced according to type of nest site in 2021
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 | 61 (16) | 3.8 | 4 (2) | 2.0 | 15 (6) | 2.5 | 0 | 0 | 0 | 0 | 233 (71) | 3.2 |

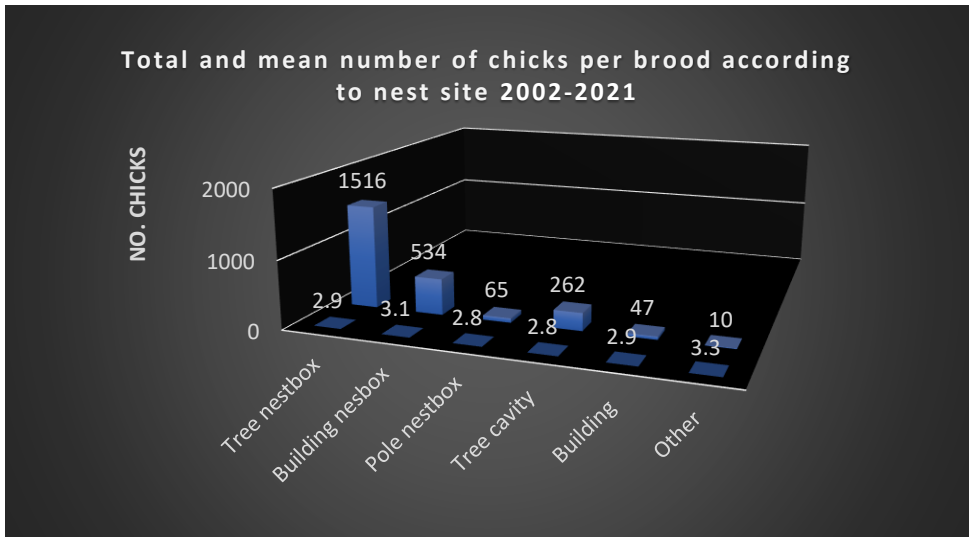
Breeding summary 2002-2021



2434 Barn Owl chicks have been produced in nest sites monitored by SBOG since 2002, 2115 in nestboxes and 319 in natural sites. 87% of Barn Owls monitored by Shropshire Barn Owl Group over the last two decades have been produced in nestboxes and, 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. The mean number of chicks produced per successful brood in Shropshire for the twenty years 2002-2021 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 productivity rate for Shropshire's Barn Owls is encouraging.



Dawn Micklewright



Dispersal of Barn Owls in Shropshire

Analysing ninety-one Barn Owls ringed as chicks in Shropshire and recaptured live or recovered dead between 2007 and 2020, we discovered females disperse further than males.

Barn Owls in Shropshire move away from their place of birth soon after fledging, around 98 days, but we wanted to see how far they moved and whether there was a difference between males and females. We looked at natal dispersal, the movement of chicks from the nest site to recovery locations in any subsequent breeding season, 1 April - 31 October, and juvenile dispersal, the movement of chicks from the nest to recovery locations within 12 months of ringing.



Males dispersed less than females: the average natal dispersal distance for males was 6km and for females 9km. The average juvenile dispersal distance was 5km for males and 7.5km for females. The minimum natal dispersal distance for a male live-recapture was 2km for an individual ringed at Attingham on 18 July 2016 and recovered dead at Berwick on 26 June 2017, for a female 2 km for an individual ringed at Sleaf on 28 August 2014 and recaptured at Burlton on 6 June 2017. The maximum for a male live-recapture was 9km ringed at Sleaf on 7 July 2012 and recaptured at Ellesmere on 23 June 2016, for a female it was 114km, ringed as a chick at Longden on 3 August 2015 at and recaptured at Fenny Compton, Warwickshire, on 15 June 2017.

The predominant location or cause of death was road casualties - 60%. Most juvenile deaths in Shropshire Barn Owls occurred in the first 12 months of their lives and most occurred in the winter period when the population is probably at its post-breeding peak. 75.6% of juvenile deaths occurred within the first 12 months of their lives. For those surviving beyond 12 months the average age at death was 1158. The oldest juvenile was an individual ringed at Peplow on 9 June 2012 and found dead 2455 days later at Admaston, nearly seven years of age.

Young Barn Owls, therefore, appear to move the minimal distance required to secure suitable feeding habitat, roost sites, a mate and a nest site. In other words, the nearest vacant site to their



Tim Preston

place of birth. Given the small dispersal distance of juveniles and the current breeding productivity rate it appears that the population in Shropshire is presently viable, self-sustaining and not reliant on the immigration of Barn Owls.

The full report 'Post fledging dispersal in Barn Owls *Tyto alba* in Shropshire and its implications for the sustainability of a breeding population' can be found in the Shropshire Bird Report 2020.

Through the Owl Window

Farmers, overrun by mice and rats feeding on their cereals in ricks and barns, valued their Barn Owls as pest controllers and traditionally encouraged them by creating access holes or 'owl windows' in barns. We were delighted when commissioned by the National Trust to construct an owl window and nestbox chamber in an old nineteenth century barn due for conversion to a holiday cottage at Sandybury, Bridgnorth.



Although we had previously installed a nestbox in an old cart shed at Sandybury and owls were occasionally seen, they had not settled there. Now that the barn was to be converted there was a great opportunity to adopt a different approach. So, in the autumn of 2020, whilst construction work on the building was ongoing, we built and fixed a nest chamber – a large, insulated, plywood box – to the inside of an external wall in the loft space.

A small hole, the owl-window, in the external wall allowed access to the nestbox from the outside and a hatch in the box would provide access for inspection. Securely partitioned off from the rest of the building, any future occupants would be free from disturbance, and, likewise, the holidaymakers would not be disturbed.

On inspecting the nestbox for the first time in June of this year, we were thrilled to find not only two adult Barn Owls in residence but four, small chicks, tucked snugly away at the back of the box. Routinely ringed under license as part of the British Trust for Ornithology's ringing scheme to provide information on movements, survival and productivity, the chicks were too young and small to ring on this visit, so it was decided to return in July. This time, two chicks had sadly succumbed, often the case within Barn Owl broods, but the other two were duly ringed, two females, 51 and 53 days old and 300g and 350g respectively, good weights and progressing well. We left very satisfied, a new breeding pair firmly established and in the knowledge that the young owls, in a few months' time, would depart their natal area, possibly only as far as a few kilometers, to form breeding pairs of their own.



Over the last two decades, more than two-thousand young Barn Owls have been raised in nestboxes provided by the Shropshire Barn Owl Group as well as in natural sites, young owls that would otherwise not have had the fortuity to thrive but for the nestbox scheme. New breeding pairs are continually created every year, over one hundred since the group was formed, every pair a treasured asset. That the owl window and nestbox chamber proved to be so effective and so quickly, in less than a year, illustrates just how readily barn conversions and similar developments can accommodate both people and Barn Owls, without detriment to either. And, at Sandybury Barn, holidaymakers get the added unique experience of living with Barn Owls literally a few feet away.

An afternoon with the Shropshire Barn Owl Group

Tim Preston

In July, I was extremely privileged to have spent an afternoon with John, Wendy and Glenn from the Shropshire Barn Owl Group. I joined them at a site where I have been watching owls for the last two years.

After introductions we headed to the nest. It was thought that there were two chicks in the nest after Glenn had done a preliminary check. As John climbed the well extended ladder to the nest, I felt a little excited, this was a special treat. John peered into the nest for a few minutes before reaching in. "There's three!" he announced. "And they're big!" John carefully reached in and delicately removed each owlet. The owlets were placed into individual bags to keep them safe whilst they were weighed, measured and ringed.



As John handled each owl it was like watching a surgeon perform an operation. Each little owl was handled like a fragile piece of glass. The care and attention paid to these wonderful birds was like nothing I had seen. Their weight was taken, the scales topped out at just over 400g for each of them, I learned they can be heavier now than they will be in adulthood! The length of the wing feathers was measured to determine the age, in this case they were between 54 and 58 days old - almost ready to fledge. Each head

was measured and recorded. Before ringing the legs were measured too.

Nothing was rushed, everything was calm. John and Wendy worked like clockwork as tools passed back and forth and measurements were recorded. Even whilst the talons were untangled from the material bags it was so precise and gentle. All three owls were returned safely to their nest no worse off for their experience.

I was honoured to have been able to witness this and hopefully, fingers crossed, it won't be long until I see these youngsters gliding around the fields too. Huge thanks to Glenn, John and Wendy for allowing me an insight into their fabulous work that they have been carrying out since 2002.



Thank you

Thank you to the farmers and landowners across Shropshire who want to see Barn Owls on their land and who provide invaluable support in allowing SBOG 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 and David Collin Greeting Cards and the many landowners who contribute to the nestbox costs. Without this financial support we could not do what we do for Barn Owls.

Thank you to: Ray & Lorna Bailey for the mobile release site; Paul Homes APHA for post-mortems; Kingsley Press for printing the reports; Carrie-Anne Goodchild, Dawn Micklewright, Ed Penman, Tim Preston for the stunning Barn Owl images; Tim Preston for his account of a day with SBOG; Jon Groom and members of the UOCWG, and Ian Littlewood for additional breeding data; Steve Dawes, Tim Preston, Tris Pearce, Rob Wilcox for 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 centimetres. 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, if necessary, top to a height of around 13 centimetres 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 £130
- Retain fields and margins of rough, tussocky grassland
- Retain old, decaying trees and barns to provide nest and roost sites
- Incorporate an owl window and nest chamber in the loft space of barn conversions
- Refrain from using rat poison
- Tell us when natural nest sites are threatened by decay or development so that we can work with you to repair the site or to install a nestbox
- Persuade local authorities to reduce mowing regimes along country lanes
- Report sightings to us, the Shropshire Ornithological Society or BTO BirdTrack



Visit our website www.shropshirebarnowlgroup.org.uk or Facebook site

If you would like to see more Barn Owls in Shropshire, support our work, consider donating wood or other nestbox materials, equipment, making a donation or leaving a legacy.

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