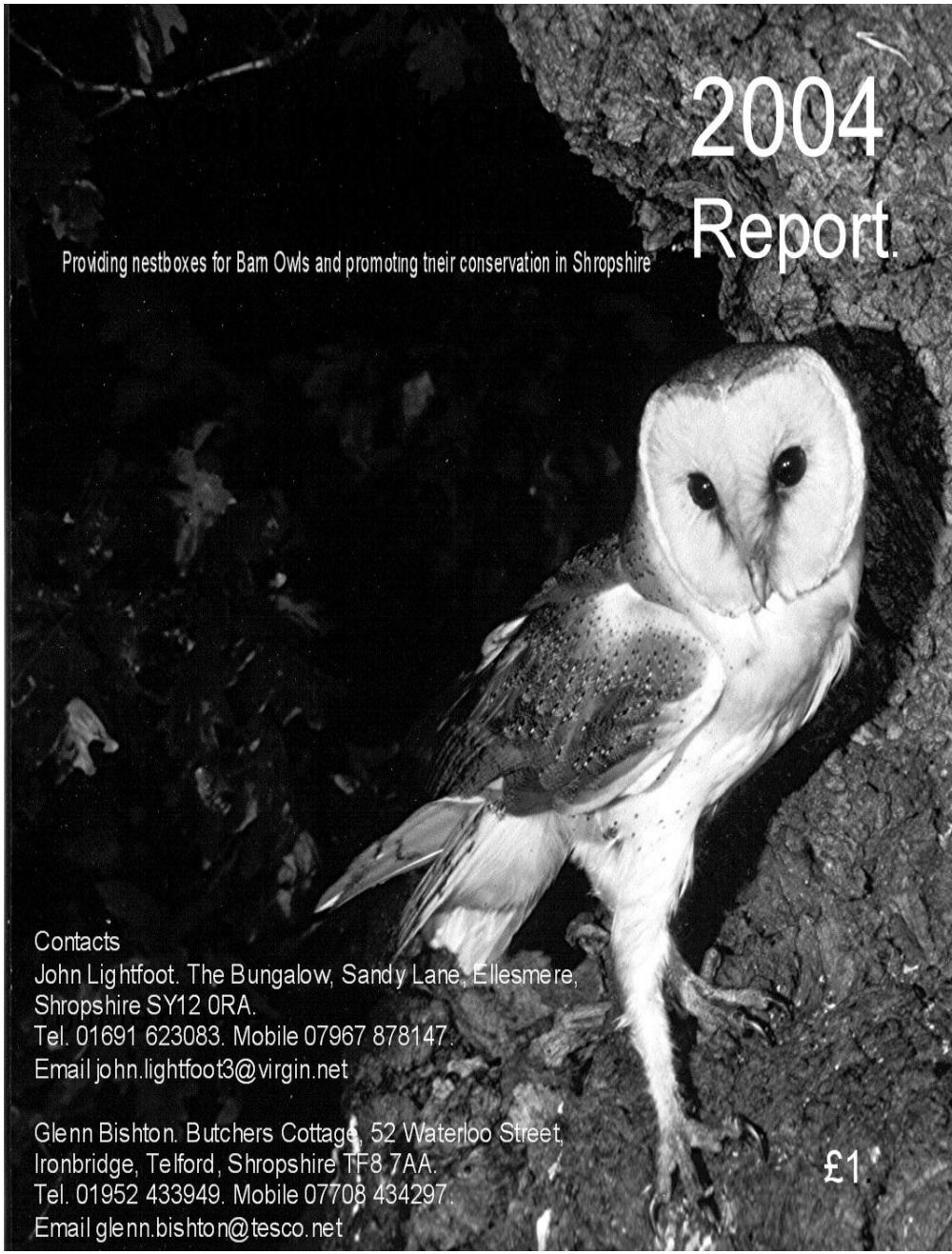

2004 Report.

Providing nestboxes for Barn Owls and promoting tneir conservation in Shropshire

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£1.

The Shropshire Barn Owl Group

This is the second annual report of the Shropshire Barn Owl Group which summarises our activities and results for 2004. The group formed in 2002 following several years of independent barn owl conservation work by some members. The group is a voluntary organisation which depends on raising funds and donations to accomplish its conservation work. We aim to increase the breeding population of barn owls in Shropshire by providing nestboxes in areas of suitable habitat and working with farmers and landowners to enhance their habitat.

What we do

• Conduct site surveys and promote the conservation of barn owl habitat with farmers, landowners, statutory authorities, conservation organisations and other interested individuals.

• Operate a nestbox scheme for barn owls in Shropshire to replenish natural nest sites in trees and buildings lost to decay and development

• Monitor nestboxes and natural sites on an annual basis under licence from English Nature in order to determine their occupation by breeding and roosting barn owls.

• Observe and record barn owls throughout Shropshire and research their diet and other aspects of behaviour in order to better understand their habitat requirements.

• Maintain a database of breeding sites, nestbox occupation, breeding productivity and road casualties.

• Provide advice and practical assistance to local authorities, developers and home owners where planning applications affect barn owl nest sites.

• Share our knowledge and enthusiasm for barn owls through reports, general articles, illustrated talks and events.

Why barn owls need our help

In 1932 there were 287 breeding pairs of barn owl in Shropshire. In 2002 we estimated the population at 121 to 140 pairs:- a loss of around 150 pairs! (see report entitled 'An estimate of the breeding population of Barn owls Tyto alba in Shropshire 2002' In the Shropshire Ornithological Society 2002 Annual report).The national population has declined from 12000 pairs to 4000 pairs and the barn owl is amber-listed (medium conservation concern) in the UK. This steep decline has been attributed to a number of factors but mainly:

- The loss of prey-rich foraging habitat on farmland
- A reduction in the availability of nest sites in old trees and barns
- Urbanisation and pesticides

Results of the Nestbox Programme 2004

SBOG conducted 45 site surveys in 2004 as part of its ongoing programme of identifying suitable sites for barn owl nestboxes and providing advice to farmers and landowners on habitat creation and management. Of 97 internal and external nestboxes available at the start of the breeding season, 8 held breeding barn owls and 23 were occupied by roosting birds at some point in the year (Table 1). The occupancy rate for barn owls was 31.95%. Other nestboxes held stock dove (20), jackdaw (9) and tawny owl (2). Pole boxes, only erected in 2003, were not expected to hold breeding barn owls in 2004. An additional 61 nestboxes were installed in 2004 bringing the total number of nestboxes in place by the end of 2004 to 151.

Table 1. Occupation of nestboxes by barn owls

Shropshire Barn Owl Group 2004

Nestbox type	No. nestboxes monitored	No. nestboxes occupied		Total occupied	% occupied
		Breeding	Roosting		
Building	41	4	5	9	21.95
Tree	51	4	14	18	27.45
Pole	5	0	4	4	80.00
Total	97	8	23	31	31.95

In view of the difficulty in directly recording the fledging of young barn owls, breeding success of barn owl pairs is measured as chick productivity. 24 chicks were produced in the nestboxes (Table 2), an increase from 8 in 2003. 6 natural nest sites monitored by SBOG in 2004, mainly tree cavities, produced an additional 19 chicks. Brood sizes ranged from 2 to 5 young, mean 3.07 per pair.

Table 2. Number of barn owl chicks produced in nestboxes and natural nest sites

Shropshire Barn Owl Group 2004

Nest site	No. nests	No. chicks	Mean No. chicks
Building nestbox	4	12	3.00
Tree nestbox	4	12	3.00
Building natural	1	5	5.00
Tree cavity natural	5	14	2.80
Total	14	43	3.07

Breeding in 2004 was confirmed at 13 sites. These included Welsh Frankton, Ellesmere (2), Colemere (2), Lyneal, Peaton, Moreton Say, Kynnersley, Weald Moors (2), Betton and Doley. Pairs were well established at nest sites by the end of March with the first egg recorded on 5 May and the first chick on 5 June. The last young fledged on 22 November.

Nestbox occupation and breeding success
A summary
2002-2004

Table 3 summarises the occupation of nestboxes by barn owls for the three years 2002 to 2004. The average occupancy rate is 30% and is greater for tree nestboxes (30%) than building nestboxes (24%). The occupancy rate for pole nestboxes should be treated with caution due to the low number of nestboxes of this type installed to date but does indicate that the ability to position nestboxes on poles directly within good barn owl hunting habitat, and where the absence of suitable isolated trees might have been restricting nesting attempts, is particularly effective and augers well for the future.

Table 3. Nestbox occupation by Barn Owls
2002-2004
Shropshire Barn Owl Group

B= Breeding R=Roosting

Year	Total No. nestboxes monitored	Building				Tree				Pole				No. nestboxes occupied	% of all nestbox types occupied
		No. boxes	B	R	%	No. boxes	B	R	%	No. boxes	B	R	%		
2002	13	7	0	3	42	6	1	0	16	N/A	0	0	0	4	30
2003	48	26	2	4	23	22	1	6	31	N/A	0	0	0	13	27
2004	97	41	4	5	21	51	4	14	27	5	0	4	80	31	31
Total	158	74	6	12	24	79	6	20	30	5	0	4	80	48	30

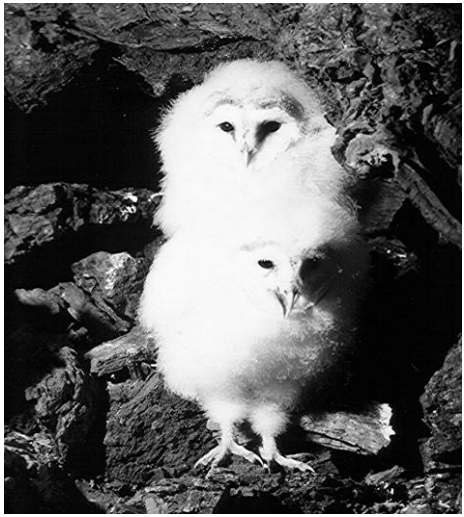
Table 4 summarises breeding success for nestboxes and natural nest sites monitored by SBOG for the three years 2002 to 2004. 36 chicks have been produced in nestboxes and 59 in natural sites, total 95, since 2002. The mean number of chicks produced is 2.8 per pair with productivity highest in natural building nest sites, 3.5, and lowest in natural tree sites at 2.7 young. Nestboxes produced on average 3.0 chicks per nest site. However, breeding success can fluctuate from year to year in response to cyclical changes in field vole numbers and other external factors and 2003 may well

have been a poor breeding season for barn owls in Shropshire. More data from a greater sample of nest sites and over several more years will be required to verify these effects.

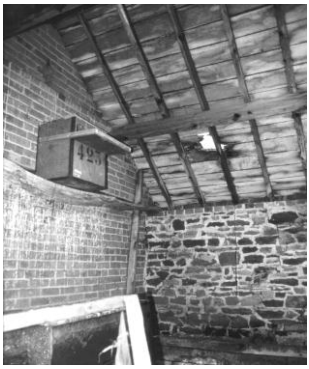
Table 4. Number of chicks produced according to type of nest site 2002-2004
Shropshire Barn Owl Group

Figures in parentheses refer to number of broods

Year	Building nestbox		Tree nestbox		Pole nestbox		Building natural		Tree cavity natural		Total No. chicks	Mean No. chicks
	No. chicks	Mean	No. chicks	Mean	No. chicks	Mean	No. Chicks	Mean	No. chicks	Mean		
2002	0 (0)	0	4 (1)	4.0	N/A	N/A	0 (0)	0	20 (6)	3.3	24 (7)	3.4
2003	6 (2)	3.0	2 (1)	2.0	N/A	N/A	2 (1)	2.0	18 (8)	2.2	28 (12)	2.3
2004	12 (4)	3.0	12 (4)	3.0	0	0	5 (1)	5.0	14 (5)	2.8	43 (14)	3.0
Total nest sites	6		6		0		2		19		33	
Total chicks	18		18		0		7		52		95	
Mean No. chicks	3.0		3.0		0		3.5		2.7		2.8	



Current nestbox projects



As well as responding to requests from farmers and landowners from all over Shropshire to survey their sites and provide assistance in encouraging barn owls to breed, SBOG has a number of defined projects where we aim to provide a series of interconnected nestboxes in areas of good barn owl habitat. Evidence suggests that a breeding pair of barn owl range over around three square kilometres, depending upon the habitat, and hunt mainly within 1 to 2 kilometres of their nest site in summer but will feed or roost up to 5 kilometres away in winter. By providing a series of interconnected nestboxes, dispersing young will be able to settle near their natal area and stable and viable breeding populations will be established.

We use nestboxes of three main types: modified tea chests are used for internal sites, 'A' shaped or rectangular shaped external nestboxes fixed to the trunks of isolated trees and rectangular boxes with an apex roof are used where there are no suitable trees and a pole is required to support the nestbox. Tree boxes and pole boxes are positioned at a height of around 3 metres and facing east to reduce the impact of strong westerly winds and rain. This year we have developed our own design – the 'Shrop' box – which is essentially a rectangular nestbox for fixing to tree trunks. The design has the advantage of a flat roof on which emerging nestlings can rest and practice flying and is also cheaper and easier to construct than the 'A' shaped boxes.

Two or more external nestboxes might be installed on a site but a cost of around £40 per box tends to focus the mind a little and ensure that we are as sure as we can be that barn owls will be interested! Fortunately, many landowners offer to cover the cost of the nestboxes, and as a voluntary group dependant on raised funds, this is most welcome and allows us to be proactive in targeting other sites across the county.

We envisage that new nestboxes installed in sites were barn owls have not been recorded in recent years or where the habitat has only recently been improved will take time to be used by barn owls, perhaps two years or more. The nestbox scheme therefore should be viewed in the long-term and we look forward to new pairs being established in nestboxes over time and with the careful targeting of suitable sites. However, a pole box installed in Oswestry attracted a roosting barn owl within 28 days and tree nestboxes have been occupied by roosting barn owls within 7 months.

The Weald Moors Project

The Weald Moors comprises an area of mixed farmland covering 50 square kilometres immediately north of Telford. Historically marshland, much of the land has been continuously drained by drainage ditches since at least 1576, and possibly more intensively from the 1800's. This has created level plough land of peat interspersed with rectangular fields of poplar. However, the water table remains near the surface and barn owls are able to hunt along the grassy ditch banks and patches of marsh. Several farms are enrolled in agri-environment schemes with low density grazing and grassy headlands, providing extensive areas of good barn owl habitat.

In 2002, only one pair of barn owl was known to breed, at Wall Farm, where the owners, Neil and Stephanie Dobson, were encouraging barn owls. Clearly, the lack of suitable nest sites was inhibiting the population of barn owl so SBOG began an intensive programme of nestbox installation, initially focused around Wall Farm.

With nestboxes funded by the Environment Agency the nestbox scheme was widened to other farms on the Weald Moors and by the end of 2004, 24 nestboxes were in place involving eight farmers and landowners. As a result, the barn owl population increased to 3 breeding pairs in SBOG nestboxes with a potential fourth new pair established in 2004. A total of 14 young have been produced in the Weald Moors nestboxes to date.

The River Severn and Tern Project

This project aims to establish additional breeding barn owls along the River Severn and Tern, southeast of Shrewsbury and to date 15 nestboxes have been installed. Three nestboxes installed at Dryton in 2002 on a farm supporting extensive areas of rank and rough grassland but with no recent evidence of barn owls succeeded in attracting roosting owls in 2003. Unfortunately, the barn owls did not breed in the nestboxes in 2004 but we plan to expand the scheme to a neighbouring farm in 2005. A nestbox installed at Cound in 2002 was found to hold a pair of barn owl for the first time in 2004 and five nestboxes were installed at Allscott, bordering the River Tern, with support from Allscott Sugar Factory: we are optimistic that breeding will occur at these sites in 2005.

Ironbridge Power Station constructed several nestboxes for us in 2003 and three were installed on their land near the River Severn at Buildwas, on a site with no recorded evidence of barn owl but supporting some perfect hunting habitat. When inspected in May 2004, one nestbox was found to support a pair of barn owl and with hopes of a breeding attempt was not inspected again until August. Unfortunately, the nestbox had been tampered with, probably causing desertion of the nest site or someone may even have had the intent of taking the eggs or young. It is an offence to recklessly disturb barn owls while they are nest building or when they have eggs or young with special penalties involving a fine of up to £5000 or a custodial sentence applicable.

Due to the disturbance, the nest site failed in 2004 but SBOG has now secured the existing three nestboxes and is working with Ironbridge Power Station to improve nesting opportunities and the safety of the barn owls in 2005. The site will now be regularly monitored.

The Bridgnorth Project

Analysis of both SBOG and Shropshire Ornithological Society barn owl records suggested that there were only 7 potential pairs in the Bridgnorth area with breeding confirmed at only one of the sites. SBOG was therefore eager to commence a project in Bridgnorth in order to obtain a better understanding of the barn owl population there and to enhance their numbers. Consequently, in 2004, mainly as a result of responses from an article we produced for 'The Farmer', we were able to install 11 nestboxes at 6 sites in and around Bridgnorth. Barn Owl pellets were found at 3 of the sites and we hope to record the first breeding barn owls in the Bridgnorth nestboxes in 2005.

The Forestry Commission Project

In October, we were contacted by Alan Reid of the Forestry Commission who was interested in developing a nestbox scheme for barn owls on the perimeter of a number of Forestry Commission sites in south and mid- Shropshire. SBOG has been keen to install nestboxes in south Shropshire for some time as the number of breeding barn owls is believed to be low and information is lacking. The opportunity to work in partnership with Alan and the Forestry Commission is therefore very welcome and timely. Construction of the nestboxes is underway and It is envisaged that work on installing 11 nestboxes in four sites will commence in early 2005 so that nestboxes are in position and available for dispersing young barn owls in the autumn.

Barn Owl Road Casualties

Road casualties

SBOG has been maintaining data on barn owls found dead alongside roads since 2002. Many of these records are found by members of the group or reported to us or The Shropshire Ornithological Society. Birds found dead on roadsides are likely to be the result of collisions with vehicles. The light weight and buoyant flight of barn owls hunting over grassy verges adjacent to main roads renders them vulnerable to being caught up in the slip-stream of a passing vehicle and death is usually caused by collision with the following vehicle. Not all birds hunting on road verges will be doing so out of desperation or are emaciated, indicated by the fact that a number of winter casualties weighed by SBOG were within the normal weight range for male and female barn owls of 330g and 370g respectively. Death can be attributed to starvation when male and female body weights fall below 240g and 250g respectively.

The table below indicates that that A5 and A483 cause the most deaths and are a serious threat to barn owls. None of the reported casualties related to B roads. Of the 28 road victims identified, 26 (92%) relate to the winter period October to March. This period correlates with the dispersal of juveniles from the natal site and an increase in hunting range of up to 5km from the nest site by adult barn owls. Of those casualties identified according to sex, most are females.

Barn Owl Road Casualties Shropshire 2002-2004															
Road	**Male**	**Female**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**Total**
A5 Telford–Oswestry	1	2	1	2	1							1	3	2	10
A483 Pant–Oswestry	3	1		3	2				1						6
A49 Ludlow-Whitchurch					1							1			2
A41 Albrighton-Whitchurch		1										2	1		3
A495 Oswestry-Whitchurch		3							1				2		3
A458 Halfway House-B'north												1	1		2
A53 Market Drayton Bypass					1										1
Other		1											1		1
Total	4	8	1	5	5				2			5	8	2	28

The report 'Barn Owls and Major Roads' produced by the Barn Owl Trust recommends that barn owls should not be encouraged to nest within 1km of a major road unless the road is screened by a hedgerow or coniferous trees or sunken below the adjacent terrain, which forces an owl to gain height to negotiate the hedgerow thereby over flying the road and avoiding collision with vehicles below. SBOG has always avoided siting nestboxes near major roads such as A roads, dual carriageways and motorways but natural dispersal and other movements will mean that many barn owls will inevitably encounter a major road at some point.

However, several casualties that we have recovered, especially on parts of the A5, have been on sunken roads flanked by hedgerows, which, together with the fact that the birds were found immediately adjacent to the carriageway, would suggest that the birds had been hunting on the grass verge parallel to the road and not simply negotiating the road from one side to the other.

Poisoning

Present rodenticides such as brodifacoum, bromadiolone and difenacoum are much more toxic than the first generation poisons such as warfarin. Brodifacoum is especially toxic and exposure rodents contaminated by these second generation poisons will cause death to barn owls from haemorrhaging from the bill. As few as three contaminated mice – less than a nights food - is enough to kill a barn owl. They should not be used on farms where barn owls are known to be present. SBOG was encouraged by one farmer who contacted us in 2004 and who needed to control rodents but suspected barn owls were present on the farm. A site survey confirmed the farm did indeed hold a breeding pair, one that was unknown to us or the SOS, and we were able to advise against the use of the most toxic poisons which she passed on to the pest control officer.

A Barn Owl Diary
Colemere House Farm

Summer 2004

In an attempt to gain an insight into the breeding behaviour of the barn owl in Shropshire, John Lightfoot of the Shropshire Barn Owl Group watched the resident pair at Colemere House Farm over the summer of 2004. Two nestboxes had previously been installed in the farm outbuildings, one in a Dutch barn and another in an adjacent old cart shed. This is John's account of the owls' activities in and around the barn over the summer evenings and begins in April with the pair involved in courtship activity and follows them through the egg laying and incubation periods It ends with the subsequent rearing of two barn owl chicks in June and their successful fledging and, sadly, the death of the male parent barn owl in August.

Courtship

11 April: The male barn owl emerged from the Dutch barn nestbox at 8.00pm and flew down into the nestbox in the adjacent cart shed. The female, who was evidently roosting with the male in the same nestbox, commenced issuing food-begging 'snores', a rasping hiss, and emerged at 8.15 pm to settle on the nestbox ledge for a short while before flying out of the barn and into the dark, presumably to commence hunting.

The female returned to the Dutch barn nestbox at 8.40pm and was joined by the male, both birds entering the nestbox and emitting much noise, which I suspect related to courtship activity. The male emerged at 8.45pm and settled on the nestbox ledge before leaving the barn at 8.55pm to continue hunting. The female was continuing to emit 'snoring' calls when darkness rendered further observation impossible at 9.10pm and I departed.

Egg-laying and incubation

18 April: 8.20pm male barn owl emerged from the Dutch barn nestbox and perched on the nestbox ledge, preening. The female emerged ten minutes later and perched at the entrance hole of the nestbox, her white underbody feathers stained from the moist pellets on the floor of the nestbox. The male showed no reaction to the female's food-begging calls and at 8.35pm she re-entered the nestbox while the male flew from the barn. The male returned to the barn at 9.00 and was still there when I left at 9.30pm..

2 May: 8.15pm, the male emerged from the Dutch barn nestbox and perched on the ledge, eyes still closed. He departed 15 minutes later with the female 'snoring' in the box. At 8.40pm he returned with prey, flying directly into the nestbox, leaving the prey and emerging to continue hunting. The male returned twenty minutes later at 9.00pm with more prey and presented this to the female inside the nestbox. The

female emitted a series of greeting chirrups and twitters and the male emerged almost immediately to resume hunting over the rough grass of a nearby ditch. The male returned and entered the nestbox at 9.15pm, presumably with more prey but impossible to confirm in the darkness. I left at 9.30pm noting that this is the first night that I have not actually observed the female.

15 May: On my arriving at 8.15pm, the male barn owl was already out and perched on a post in the adjacent field. Perch-hunting, he moved on to three posts in turn then disappeared from view. He entered the barn at 9.10pm with prey, landing on the steel bracing before entering the nestbox, where he was noisily greeted by the female. The male quickly emerged to preen on the nestbox ledge for a while, and on emitting a loud, drawn out 'screech', departed from the barn. He returned at 9.20pm and again at 9.40pm with more prey which was delivered to the female in the nestbox.

22 May: Male bird perched on the nestbox ledge at 8.20pm, suggesting that he his still roosting with the female. The presence of a cat by the barn at 9.10pm alerted the male who clearly followed the progress of the cat around the barn. With a couple of 'screeches' at 9.15pm the male was off and quartering over the adjacent field, the cat in hot pursuit! The male landed on his favourite damson tree, some 30 metres from the barn, and with the cat creeping ever closer, he flew off to hunt across the field.

Darkness was falling as the resident kestrel came into roost at 9.30pm. When, at 10.20pm, the male barn owl was chased around the barn by the female I decided to use this opportunity to inspect the nestbox. This revealed five, well-stained eggs, while the presence of numerous feathers suggests that the female is moulting. The female returned to continue incubating her eggs at 10.30pm and resumed her food-begging calls. I left at this point, pleased at the progress of the pair and the prospect of several barn owl chicks.

The nestling period

5 June: Arrived at 8.30pm to find the male perched on the nestbox tray. By 8.50pm he was more alert and he left the barn at 9.05pm. I was able to observe him hunt along his familiar route – the hedge line, around 30metres from the Dutch barn- and then he flitted over the hedge and out of sight. He returned at 9.15pm with a shrew in his talons and which he dropped through the nestbox entrance. The male then entered the nestbox and shortly emerged, wiping his beak on the nestbox ledge. This suggested that he had been tearing up the prey to feed to young. The male then re-entered the box, remained for a short while with much noise emanating form the box, to emerge and wipe his beak has before. He left the barn at 9.50pm and returned with more prey at 10.05pm.

14 June: at 9.40pm inspected the nestbox and recorded two chicks approximately 10 days old. None of the other three eggs were present, nor were any eggshells visible, which would suggest that the eggs or the young had been consumed by the parent birds or the surviving chicks. The female returned to the nestbox at 10.00pm and I left the barn satisfied that at least two young barn owls had been produced.

19 June: I arrived at 8.50pm to see that the male barn owl was already hunting along the hedgerow. Five minutes later he arrived at the nestbox with a field vole, dropped it into the box, departed and returned ten minutes later with another vole in his talons. Transferring the prey to his beak, he dropped it into the nestbox. This was repeated with more field vole prey at 9.05pm, 9.25pm, 9.35pm, 9.40pm and 9.45pm. At 10.00pm he arrived with a field mouse, the long tail evident, and produced further unidentifiable prey at 10.05pm: in all 8 prey items in one hour ten minutes or an average of one item every eight minutes 45 seconds. I remain to 11.00 pm but do not record the male bird again.

The young owls emerge form the nestbox

31 July: At 8.50pm I settled into a makeshift hide that I had constructed on a previous visit amongst the hay bales and was rewarded with good views of the young owls, both calling noisily until a flock of 'honking' Canada geese flew over and all went quiet. As the calls from the geese declined, the young owls commenced their calling again, only to stop abruptly when a tractor went by. The owls eventually entered their nestbox and the male bird brought in prey at 10.15pm.

Death of the adult male

6 August: I arrived at 8.30pm, unintentionally flushing the young owls from the hay bales and made no further observations until 9.45pm when I decided to check the cart-shed nestbox for a possible second clutch. A young owl emerged from the box and to my horror I discovered the decomposing corpse of the male parent barn owl at the bottom of the box. I left saddened at the male's death and anxiously hoping that another bird would move into the site in the autumn, but also thankful that the female only had two young to feed.

14 August: Following the first 'snoring' calls at 8.45pm the adult female and the two young owls left the cart-shed by 9.15pm. At 9.30pm I observed the female flying across the field, a field vole in her talons, towards a young owl perched on a fence post. To the sound of 'snoring' calls, the female flew off into the night followed by the young owl.

The young owls fledge

15 August: Screeching from a barn owl was given at 8.30pm in response to a polecat which moved along the nearby fence and disappeared down the hedgerow. No further observations are made and I leave at 10.00pm.

21 August: Apart form an owl flying form the cart-shed at 9.00pm no more observations are made. It would appear that the dependency on the nestbox is declining and the young are becoming increasingly independent.

29 August: No owls to be seen and inspection of the Dutch barn reveals that it has now been taken over by a stock dove which has layed one egg.

Illustrated talks and events

Members of the group gave two illustrated talks in 2004, to the South Staffs Naturalist Society and Dorrington Allotment Association. Proceeds from these events were added to the SBOG's funds. SBOG also attended events organised by the National Trust at Attingham Park in May and at Dudmaston in August, South Telford Rights Of Way Project at Telford Town Park in September and Madeley Parish Council at Madeley Park, Telford, in November. We produced a photographic display in 2004 which we are able to put on show at the events.

Articles about our barn owl conservation work were produced for 'The Farmer' and the Shropshire Wildlife Trust magazine. The articles and events were very rewarding in that they produced many new barn owl records and contacts, as a result of which we were able to survey several new sites and install additional nestboxes.

John Lightfoot also completed a number of volunteer weeks at the Barn Owl Trust headquarters in Ashburton, Devon, keeping us up to date with the latest developments in UK barn owl conservation.

Birdwatching guide to the Severn Gorge

Glenn Bishton has produced a guide entitled 'Birdwatching in and around the Severn Gorge, Ironbridge' which provides information on finding 125 species of birds in seventeen sites. Sites include the Severn Gorge woodlands, the River Severn, The Wrekin and Ercall and sites in Buildwas, Broseley, Sheinton and Little Wenlock. 77 pages and fully illustrated with black and white drawings, colour photos and maps. Available from Glenn Bishton, Severn Gorge Books, Butchers Cottage, 52 Waterloo Street, Ironbridge, Telford TF8 7AA. Tel. 01952 433949. Price £9.99. A donation of £1.00 from the sale of each book is made to the Shropshire Barn Owl Group. £80 has so far been raised.

The Early Level Stewardship Scheme

A new agri-environment scheme for farmers, the Early Level Stewardship (ELS) scheme is to be launched by the Department for Environment, Food and Rural Affairs (DEFRA) in early 2005. The ELS will, for the first time, allow all farmers in England access to funding to manage their farms to help conserve wildlife and is likely to include options that help barn owls and other farmland birds. There will be 50 management options to choose from and those particularly applicable to barn owls include buffer strips around fields which should provide some ideal grassland hunting habitat over time. The agreements last for 5 years.

This is a great opportunity to help increase barn owls numbers in Shropshire so please consider contacting the DEFRA helpline on 08459 335577 or email helpline@defra.gsi.gov.uk or see their website at www.defra.gov.uk.

The diet of the Barn Owl in Shropshire

In order to help determine the dietary and habitat requirements of the barn owl in Shropshire, SBOG has been collecting and analysing barn owl pellets from across the county over the past two years. 40 samples have so far been collected from a range of habitats, including grazing land, arable farmland and unmanaged grassland. A total of 295 pellets have been examined and 744 prey items identified mainly small mammals.

The most numerous prey item is the field vole, comprising 82% of the items recorded. Common shrew and wood mouse comprise 8% and 6% respectively. Other species comprising less than one percent of the diet include pygmy shrew, rat, house mouse, mole and small birds.

The study is to continue in 2005 and a full report produced. The project has been generously sponsored by the Leighton Fund of the Shropshire Wildlife Trust to which we are extremely grateful.

THANK YOU

Much of the conservation work undertaken by the Shropshire Barn Owl Group is accomplished in partnership with a variety of organisations and we wish to express our gratitude and thanks to the following for their support: The Barn Owl Trust (www.barnowltrust.org.uk), Shropshire Ornithological Society, Shropshire Wildlife Trust, WildAid, Allscott Sugar Factory, Ironbridge Power Station, Care Ironbridge, Telford Lions Club, Harper Adams University College, The Forestry Commission and The Environment Agency. A special thank you to the Trustees of the William Dean Trust who have put their faith in us over the last three years and have given us the opportunity to make much of this possible.

SBOG was extremely delighted to receive a totally unexpected award from the student Rag Team of Harper Adams University College in November and we wish to thank John Rossiter, Andrew Metson and Stephen Hall for all their hard work and Scott Kirby for nominating us in the first place.

We are indebted to the many farmers and landowners across Shropshire who are concerned for their barn owls and who have contacted us for our assistance or have responded with good grace to our requests to install nestboxes on their land. This report is intended to go some way in keeping them informed about the conservation of the barn owl in Shropshire and to thank them for their support and co-operation. For site confidentiality reasons, we do not propose to name them here but we hope that they all know how much we appreciate their help and can assure them that as a result of their commitment, the future of the barn owl in Shropshire is looking increasingly brighter.

There are several 'silent' helpers whose names do not appear in the literature for one reason or another but who have provided invaluable support on various projects during the year, either willingly or by default! They are Annette Bishton, Victoria Fennell, Richard Fennell, Jonathan Lightfoot, Angela Lunt, Neil Jones, Geoff Holmes, John Turner, Brian Dale, Bill Roberts, Barry Davies and Alan Russon. Margot Manuel, Delaine Haynes and Margaret Harper have generously sponsored nestboxes. Our 'helpers' numbers received a welcome and wonderful boost on 16 September with the birth of Lauren Sarah Fennell, daughter of Victoria and Richard and granddaughter of Annette and Glenn Bishton. Lauren has already 'supervised' a nestbox installation trip and we understand is looking forward to getting more involved in a few years time!

Barn Owls and the Law

The barn owl is on Schedule I of the Wildlife and Countryside Act 1981 under which it is an offence to take, injure or kill any wild barn owl, or take or destroy an egg or damage a nest whilst it is in use. In addition, the Countryside and Rights of way Act 2000 deems reckless disturbance of a barn owl at or near the nest an offence. Disturbance may be deemed reckless if it is committed by someone who could be expected to know that the birds might be present but failed to check. Under the act it is illegal to release barn owls into the wild in Britain without a license.

With a little care and imagination the presence of breeding barn owls in a building under development does not have to be a problem and both birds and owners can both be accommodated. In one recent case, SBOG was able to comment on a planning application involving barn owls and gave advice to architects. The property had previously held breeding barn owls and with guidance from SBOG, the owner made provision for the building of a small chamber in the loft with access to the outside through an owl window in the gable end of the roof. Sound proofing was installed to prevent any disturbance to both human or owl occupants and in 2004, to the delight of the owners, a pair of barn owls successfully raised 2 young in the loft.

How to create the right habitat for Barn Owls

We are constantly on the lookout for good barn owl habitat and increasingly farmers are contacting us to survey their land and to provide advice on habitat management and installing nestboxes. Barn owls need several cavities in large old trees or outbuildings within their home range for both nesting and roosting. Barn owls are also susceptible to wet and inclement weather and nestboxes provide secure, dry and relatively warm breeding and roost sites for barn owls, which probably enhances their survival.

Research has shown that a pair of barn owls require around 4 hectares (10 acres) of permanent rank or rough, tussocky, grassland supporting good supplies of small mammal prey, especially short-tailed field voles or 8 to 15 kilometres of 3 to 5 metre wide grassy margins. Grasses such as Yorkshire fog, false-oat grass and cocksfoot are ideal and a thick sward and deep litter layer is best. Grassland which is only lightly grazed can be suitable for barn owls but much rank grassland on farmland is now largely confined to linear features such as hedgerows, headlands, drainage ditches, fence lines and woodland edge. Intensively grazed land and crops are generally poor habitat, but harvesting of some crops might cause a concentration of wood mice for example at field margins.

- On arable farmland, retain existing grass margins, preferably at least 3 metres in width, or sow new ones along hedgerows, field headlands, riverbanks, ditches and corners.
- On grazing land consider pulling a temporary fence line back a few metres from a hedge or ditch.
- Retain posts as hunting perches.
- Retain decaying hedgerow trees with holes and cavities to provide barn owl nest sites.
- Provide nestboxes with help from the Shropshire Barn Owl Group.

- Where grass mowing is essential to prevent the development of scrub, consider topping different patches in rotation over several years and set the mower to its maximum height.
- Retain old barns and stock shelters, or where they are to be developed, consider incorporating a loft space for breeding barn owls.
- Use less toxic first generation rodenticides such as warfarin rather than the more toxic second generation brodifacoum where rodent control is unavoidable.
- Contact DEFFRA to consider the options for creating barn owl habitat under the agri-environment schemes.

We often find varying densities of good grassland feeding habitat on site surveys but an absence of outbuildings with suitable chambers or isolated trees with cavities to provide nest sites and roost sites. What we do is try to bring these two essential ingredients together on a site. That is, we install nestboxes to replicate natural nest cavities and give appropriate advice in habitat management where the habitat requires some improvement.

Our experience from numerous site assessments across Shropshire is that many farmers and landowners are actively reducing stocking levels on grassland, creating grassy headlands around arable fields, re-instating old hedgerows and planting new ones, planting scrub corners and small woodlands and creating ponds and other wetlands, all of which helps to create a diversified landscape suitable to barn owls and other birds. Some of these initiatives are linked to DEFRA's agri-environment schemes, but many farmers with a life-long interest and concern for birds and other wildlife are paying for these improvements themselves, and often without recognition.

How you can help

- Contact us if you see barn owls on your land and you have the right habitat – **large fields of permanent rank grassland or lightly grazed grassland or extensive grassy margins**- and would like to encourage barn owls to breed. If you have recently entered into one of DEFRA's agri-environment schemes, particularly the creation of grass margins around arable fields contact us to arrange a site survey.
- Send records of barn owl sightings to Geoff Holmes, County Bird Recorder, Shropshire Ornithological Society, 22 Tenbury Drive, Telford Estate, Shrewsbury SY2 5YF. Email geoff.holmes4@btopenworld.com . Remember, barn owls are light brown above with white underparts, inhabit open grassland and give a loud 'screech': tawny owls 'hoot' and are found in woodlands.
- Let us know of breeding birds so that we can update our site records.
- If you find a dead barn owl send details to John Lightfoot (see report cover).
- External tree nestboxes cost £40 and are our biggest expense. Could you donate boards of external plywood or perhaps help us by raising funds?
- Could you make a few nestboxes for us in your spare time? We can supply a cutting plan and the materials.
- Several supporters have sponsored a nestbox, which we install in their name and keep informed of developments each year. One sponsored nestbox installed in November 2002 held a roosting barn owl by June 2003.

Photos: Glenn Bishton and John Lightfoot