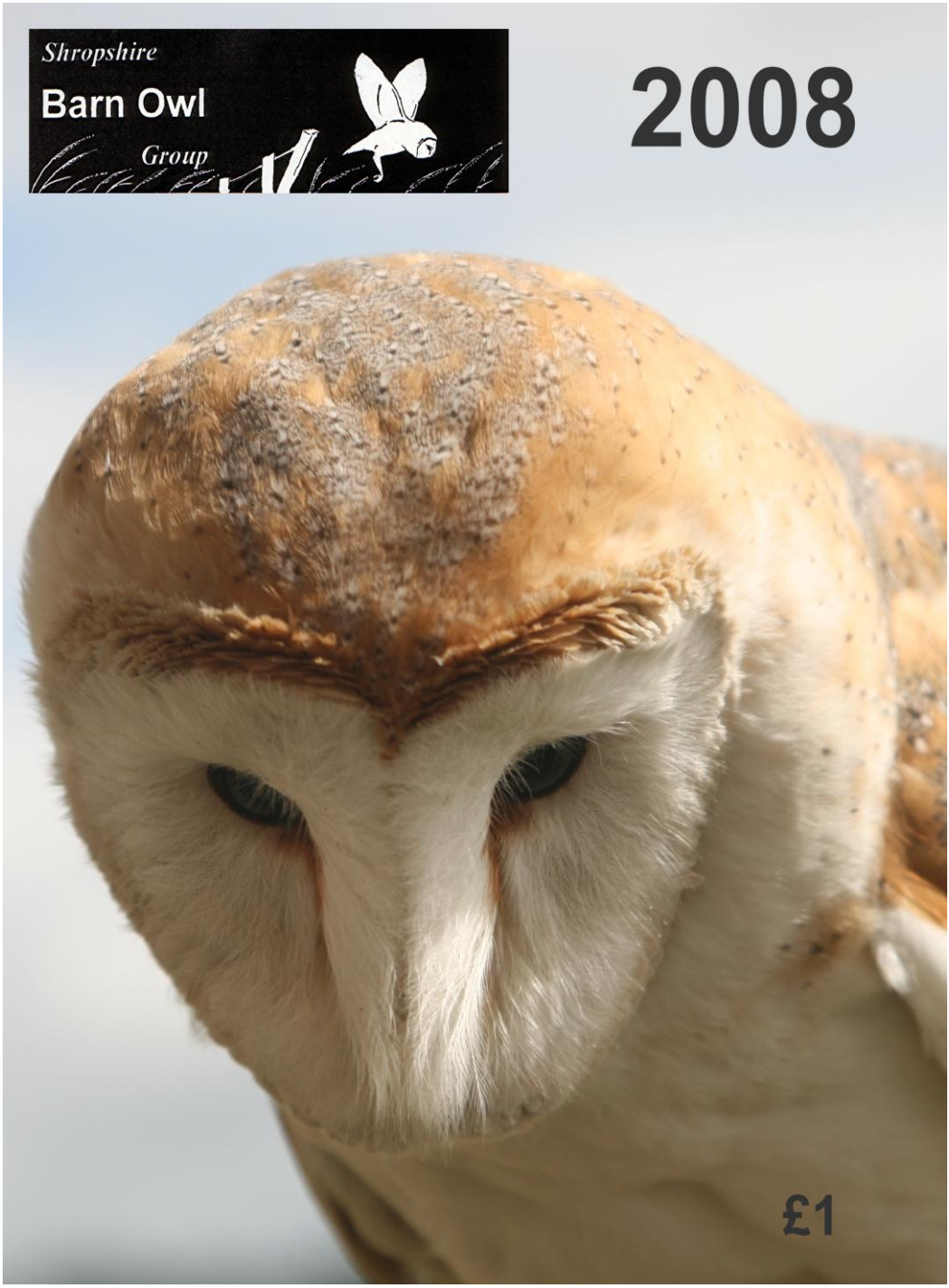
Shropshire Barn Owl Group

2008



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This report summarises the results and activities of the Shropshire Barn Owl Group (SBOG) for 2008. The SBOG formed in 2002 and works voluntarily 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 enhance their habitat.

What we do

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

• Operate a nestbox scheme for barn owls in Shropshire 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 Natural England

• Maintain a database of breeding sites, nestbox occupation and breeding success

• Act as a lead partner in the Shropshire Biodiversity Action Plan for barn owls

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

Why Barn Owls Need Our Help

In 1932 there were 287 breeding pairs of barn owl in Shropshire. In 2002 the Shropshire Barn Owl Group estimated the population at 121 to 140 pairs - a loss of around 150 pairs. The national population has declined from 12000 pairs to 4000 pairs and the barn owl is amber-listed as a species of medium conservation concern in the UK. The barn owl is on the UK Biodiversity Steering Group Conservation Concern List and a target species in the Shropshire Biodiversity Action Plan. The steep decline has been attributed to:

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

Photos: Glenn Bishton, John Harding, Mike Wootton.

Breeding Season 2008

The Nestbox Scheme

Of 259 barn owl nestboxes available at the start of the breeding season 21 supported breeding pairs and 21 were occupied by roosting birds at some point in the year. Table 1 includes both successful and unsuccessful breeding attempts by barn owl pairs. The occupancy rate of 15% by breeding barn owls in 2008 was slightly above the average occupancy rate of 12% and the overall nestbox occupancy rate of 31% by both breeding and roosting barn owls was only marginally below the average occupancy rate of 33%.

Table 1. Nestbox occupation by Barn Owls 2002-2008
Shropshire Barn Owl Group

Year	Total No. nestboxes monitored	Tree				Building				Pole				%. of nestboxes occupied by breeding pairs	% of all nestbox types occupied B and R birds
		No. Boxes	Breeding	Roosting	%	No. boxes	Breeding	Roosting	%	No. boxes	Breeding	Roosting	%		
2002	13	6	1	0	16	7	0	3	42	0	0	0	0	7	30
2003	48	22	1	6	31	26	2	4	23	0	0	0	0	6	27
2004	97	51	4	14	27	41	4	5	21	5	0	4	80	8	31
2005	135	76	13	18	40	48	9	10	39	11	0	3	27	16	39
2006	160	85	2	22	28	63	0	20	31	12	1	2	25	1	29
2007	187	101	25	14	38	74	15	10	33	12	2	1	25	27	35
2008	**185**	**105**	**21**	**22**	**40**	**74**	**6**	**7**	**17**	**6**	**1**	**1**	**33**	**15**	**31**
Total	825	446	67	96	36	333	36	59	28	46	4	11	32	12	33

This is consistent with our observations during monitoring that although breeding activity was much reduced several nestboxes were found to support non-breeding pairs, utilising the nestboxes for roosting purposes and hopefully remaining to breed in 2009.

The average yearly nestbox occupancy rate for the seven years 2002-2008 is 33% and is greater for tree nestboxes, 36%, than building nestboxes, 28%, and pole nestboxes, 32%.

SBOG had 290 nestboxes in place at the end of 2008.

Breeding success

The SBOG confirmed barn owls breeding in nestboxes monitored by the group at Alkington, Allscott, Anchor, Argoed, Childs Ercall, Clive, Cound, Doley, Dudleston, Ellesmere (2), High Ercall, Hordley, Lydham, Lyneal Wood, Marchamley (2), Morton, Norton (2), Oswestry, Rednal, Spoonley, Telford, Tunstall, Welsh Frankton, Whitchurch and Whixall (2). Breeding in natural nest sites monitored by the SBOG occurred at Hanwood.

Table 2 summarises the breeding success of barn owls in 2008 in nestboxes and natural sites in Shropshire. The data is confined to those pairs successfully producing chicks. 48 chicks were produced in the nestboxes in 2008 and natural nest sites produced an additional 2 chicks. The total number of chicks produced in all sites monitored by the SBOG was 50.

Breeding began with the first egg produced on 12 April and clutches ranged from 1 to 5 eggs. Broods ranged from 1 to 5 chicks, mean 2.2. Young were last recorded in a nest site on 23 August 2008 and the latest fledging date was around mid September. 2008 proved to be a poor breeding season with the lowest mean chick productivity per pair so far, with several pairs failing to breed at all and seven clutches failing. However, a pair attempted to breed in a nestbox in Telford for the first time, and although the clutch of four eggs failed, it is highly likely that this new pair will become firmly established on the site.

484 barn owl chicks have been produced in nest sites monitored by SBOG since 2002, 310 in nestboxes and 174 in natural sites. Nestboxes have produced an average of 3.1 chicks per nest site with productivity marginally highest in pole nestboxes. Natural nest sites have produced an average of 3.1 chicks. Productivity is highest in natural building nest sites at 3.7 chicks but the sample is small and the data should presently be treated with caution. The mean number of chicks produced per brood in Shropshire for the seven years 2002-2008 is 3.1. Studies elsewhere suggest that a long-term average productivity of about 3.2 young per pair is required to maintain viable populations. SBOG's policy of targeting nestboxes at farms enrolled in agri-environment schemes with extensive areas of grassy margins and siting networks of new nestboxes near to existing pairs to allow for occupation by dispersing young is intended to assist the creation of viable populations of barn owl.

Table 2. Number of chicks produced according to type of nest site 2002-2008
Shropshire Barn Owl Group

Figures in brackets refer to number of broods

Year	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		
2002	4 (1)	4.0	0 (0)	0	0	0	20 (6)	3.3	0 (0)	0	0	0	24 (7)	3.4
2003	2 (1)	2.0	6 (2)	3.0	0	0	18 (8)	2.2	2 (1)	2.0	0	0	28 (12)	2.3
2004	12 (4)	3.0	12 (4)	3.0	0	0	14 (5)	2.8	5 (1)	5.0	0	0	43 (14)	3.0
2005	40 (12)	3.3	27 (8)	3.3	0	0	39 (12)	3.2	6 (2)	3.0	0	0	112 (34)	3.2
2006	0	0	0	0	3 (1)	3	4 (2)	2.0	0	0	0	0	7 (3)	2.3
2007	92 (26)	3.5	56 (15)	3.7	8 (2)	4.0	44 (12)	3.6	17 (4)	4.2	3 (1)	3.0	220 (60)	3.6
2008	**34 (16)**	**2.1**	**11 (4)**	**2.7**	**3 (1)**	**3.0**	**2 (1)**	**2.0**	**0**	**0**	**0**	**0**	**50 (22)**	**2.2**
Total Broods	60		33		4		46		8		1		152	
Total chicks	184		112		14		141		30		3		484	
Mean No. chicks	3.0		3.3		3.5		3.0		3.7		3.0		3.1	

Shropshire Barn Owl Road Casualties 2002-2008															
Road	**Male**	**Female**	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**	**Total**
A5 Telford–Shrewsbury-Oswestry	7	4	1	5	5	3	1			2	1	2	8	3	31
A49 Ludlow-Shrewsbury-Whitchurch		1	1	3	4		1				3	2			14
A53 Market Drayton Bypass	1			1	1	1					3	1			7
A483 Pant–Oswestry	3	1		3	2				1				1		7
A41 Albrighton-Whitchurch		2	1		2			1				2	1		7
A458 Halfway House-Bridgnorth		1		1		1						2	2		6
A495 Oswestry-Whitchurch		3		1			1		1				2		5
A442 Alveley-Telford-Prees				1											1
Other A roads	1	1		3	2						3	1	1		10
B roads						4			1	1		1			7
Total	12	13	3	18	16	9	3	1	3	3	10	11	15	3	95

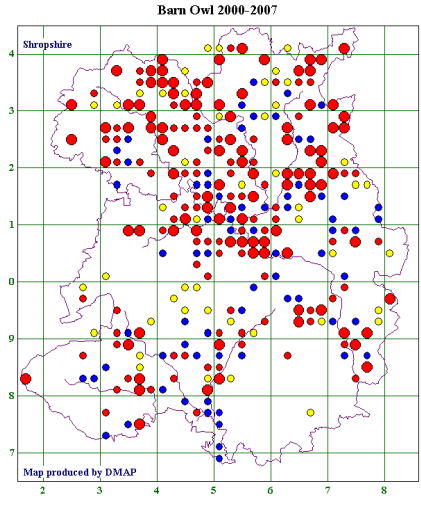
SBOG has been collating data on barn owls found dead on roadsides since 2002. Twenty three road casualties were recorded in 2008, 19 from the first half of the year and four from the second half. This ties in with the poor breeding season and fewer young birds in the process of dispersing from their natal sites. 2008 also recorded the first casualty in June.

92% of road casualties occur on 'A' roads with relatively few birds found dead on 'B' roads. The A5 is clearly a serious threat to barn owls. Of the 95 road victims identified 69% relate to the winter period October to March. This period correlates with the dispersal of juveniles from the natal site and an increase in the hunting range of adult barn owls of up to 5km from the nest site.

Bird Atlas 2007-2011
Mapping Britain and Ireland's birds

The Shropshire Ornithological Society (SOS) is organising an atlas survey of the wintering and breeding distribution of birds across Shropshire from 2007 to 2011. A lot of changes have occurred since the last atlas in 1992 and the new data will be invaluable in informing conservation work.

Volunteers are needed to record all bird species in tetrads (2 km squares) in both winter and the breeding season. Casual records of both winter and breeding birds, common or rare, are also required. If you wish to take part contact: Allan Dawes, BTO Shropshire Representative, Rosedale, Chapel Lane, Trefonen, Oswestry SY10 9DX. 01691 654245. allandawes@btinterent.com.



BARN OWLS ON TARGET

The Shropshire Biodiversity Action Plan

The SBOG is the lead partner in the Shropshire Biodiversity Action Plan (BAP) for the barn owl in Shropshire. Ambitious targets set by the BAP to achieve 160 breeding pairs of barn owl in Shropshire by 2010 look set to be achieved. The large red dots on the map of Shropshire relate to breeding pairs between 2000 and 2007, the small red dots are birds in suitable breeding habitat, blue dots winter records and yellow dots records between 2000 and 2002.

290 nestboxes installed by SBOG since 2002 in areas of good barn owl hunting habitat has seen the establishment of new breeding pairs in hitherto unoccupied sites. Creating new pairs is a gradual, long term process, requiring patience. The occupation of new nestboxes is often initially tentative, perhaps for roosting purposes only for part of the year, but over time the barn owls will stay and breed. Providing the habitat features remain stable and the barn owls are undisturbed they can be expected to occupy such sites indefinitely.

Further support for an increase in the breeding population can be found in the breeding data: 310 young from 97 broods in SBOG's nestboxes since 2002. Natural nest sites monitored by the group have produced an additional 174 chicks. Whilst production in natural nest sites would mostly have occurred without any intervention by SBOG many additional young produced in nestboxes have been successfully recruited into the breeding population as a direct result of SBOG's nestbox scheme. Some have undoubtedly gone on to create new and successful breeding pairs in both nestboxes and in natural sites in trees and buildings.

SBOG's database now holds 220 confirmed and potential breeding pairs. The database has persistently increased year-on-year since 2002, possibly as a direct consequence of SBOG's nestbox scheme and the creation of rank grassland habitat under agri-environment schemes. These factors in isolation would probably have had a reduced impact, but by siting nestboxes in ideal barn owl habitat, chances of success have been heightened.

A press release issued by Shropshire County Council in 2008 noted that "it is great to see that these striking and beautiful birds are now on the increase in the county. This is

thanks to the wonderful work that the group is doing to create additional nest sites and secure habitat".

New Barn Owl Leaflet - The SBOG has produced a leaflet which offers guidance on the habitat requirements of barn owls, signs to look out for, and types of nestboxes. Kindly funded by the Shropshire Wildlife Trust's Clive Tate Memorial Fund and produced with the help of MA Creative the leaflet provides advice for farmers and other landowners who wish to do something positive to help and encourage barn owls to breed on their land. Copies are available from SBOG (see contacts below) and the Shropshire Wildlife Trust.

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 thanks to the following for their support: The Barn Owl Trust, Shropshire Ornithological Society, Shropshire Wildlife Trust, Shropshire County Council, Allscott Sugar Factory, Ironbridge Power Station (Eon Power), Harper Adams University College, Severn Trent, The Forestry Commission, The Environment Agency. Thank you to Neil and Stephanie Dobson who sponsored our stand at the Newport Show this year. A special thank you also to the many farmers and landowners across Shropshire who have allowed us to install nestboxes on their land, to the Trustees of the William Dean Trust and the Shropshire Wildlife Trust's Clive Tate Memorial Fund.

Several 'silent' helpers have provided invaluable support and records during the year, either willingly or by default! They are Simon Hughes, Shaun Burkey, Leo Smith, Richard Camp, Dave Ellis, Jill Barrow, John Harding, Bryan Herbert & New Moon, Alan Russon, Sally Pittam and Alison Littlehales.

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 grassy margins where the grass is maintained to a height of 20-40cm. This provides barn owls with a high density of small mammal prey
- Contact us to arrange a site survey if you have created grassy margins or headlands under DEFRA's Entry Level or Higher Level Stewardships scheme
- SBOG can construct, install and monitor nestboxes for a nominal cost of £60
- Retain large, old trees to provide nest and roost sites
- Retain old barns and stock shelters, or where they are to be developed, consider incorporating a loft space for breeding barn owls
- Let us know when natural nest sites are threatened by development or decay.
- Report sightings of barn owls during the breeding season March to August
- Report locations of dead barn owls

Contacts

John Lightfoot. Tel. 01939 261141. Mobile 07967 878147. john.lightfoot3@virgin.net
Glenn Bishton Tel. 01952 433005. glenn@bishton2.orangehome.co.uk

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.