

BE THERE FOR BARN OWLS PROJECT

JUNE 2013 - OCT 2016



Introduction

The Be There for Barn Owls project was a three-year project delivered by Ulster Wildlife from June 2013 to October 2016. The project, funded by the Heritage Lottery Fund (HLF), focused on developing and advancing barn owl conservation work in Northern Ireland.

Unfortunately barn owls have been in decline in Northern Ireland for decades - the last population estimate in the 1980s put the breeding population at only 30 to 50 breeding pairs. As an important part of our natural and cultural heritage, it was imperative that efforts were made to increase our understanding of the factors involved in their decline and to take action to help barn owls in areas where they are known to breed.

The project was delivered by one part-time Project Officer employed by Ulster Wildlife over the three years, working alongside many skilled volunteers.

This report provides an overview of the project, linking outcomes to the targets set and looking to the future for barn owl conservation in Northern Ireland. It also includes case studies demonstrating the individual impact of the project on those who participated.

Overview of Achievements

The Be There for Barn Owls project had five key outcomes agreed with the **Heritage Lottery Fund:**

- Increase the amount of suitable habitat for barn owls in Northern Ireland, particularly around barn owl 'hot spots'. 1.
- 2. Increase baseline knowledge of barn owl distribution and populations throughout Northern Ireland.
- 3. Identify and map barn owl nest/roost sites across Northern Ireland.
- 4. Raise awareness of the barn owl as part of our natural heritage and its conservation needs with the public and landowners in Northern Ireland.
- Build capacity for local action through a network of community-led local barn owl groups. 5.

Each of these outcomes had individual targets which were continually monitored.

Project Achievements



available for barn owls

nest boxes

erected



benefited from barn owl conservation advice



potential nest/roost sites surveyed in 2016

volunteers from all over Northern Ireland

of suitable countryside surveyed for barn owls

events attended to raise awareness of barn owls and their conservation



people engaged through outreach visits to schools, workshops, talks and agricultural shows



engaged through local and regional media coverage



Achievements Against Objectives and Targets

Objective	Target	Achievements
1. Increase amount of suitable habitat	 Support landowners in counties Armagh, Derry~Londonderry & Tyrone to undertake practical work, influencing 45ha by end of project. Hold meetings with relevant 	Over 65ha of land managed to benefit barn owls as well as a number of other different priority species including skylark and Irish hare as well as pollinators, bats and a whole suite of other species. This was achieved through advisory visits to individual
	organisations and government bodies to influence land management.	landowners influencing land management and working with large landowners such as NI Water, MOD and Derry City Council to undertake management of habitat, in similar ways to species rich grasslands.
	Erect a minimum 30 nest boxes.	71 nestboxes distributed through the project.
2. Increase baseline knowledge of barn owl distribution	Create survey packs for around 40 volunteer barn owl fieldworkers.	121 volunteers in total took part in the survey from 2014 to 2016 inclusive.
	 Undertake survey of tetrads each summer, covering at least 15 2x2km² survey squares. 	Survey methodology has progressed as further sites were mapped as a result of the survey and is now more in line with surveys across UK and Ireland.
		In 2014, 30 tetrads were included in the survey and 45 were included in 2015. In 2016, the survey methodology became more site-specific allowing volunteers to efficiently survey an area in less time.
3. Identify and map barn owl nest/roost sites	Record accurate records of barn owl nest sites, potential nest sites, historic nest sites and sightings submitted by the general public.	Over 200 barn owl sightings recorded and mapped each year, giving an indication of areas of barn owl activity. 50 known historic nest sites mapped.
		Nearly 300 sites on record to be surveyed in 2016 and in future years, with the potential to become an active barn owl nest.
		Currently four active nest sites known (sites used in last two years) - increased by 100% from start of project.
4. Raise awareness of the barn owl	 Barn owl community talks/ information sessions (min. six per year). Barn owl conservation 	29 talks given to 658 people from June 2013 to Oct 2016.
		10 barn owl conservation workshops were delivered from 2014 to 2016: in 2016 the workshops incorporated nest-minder training for all volunteers in line with the change in
	workshops (min. one per County area each year).	survey methodology. 16 schools have received a barn owl talk from 2013 to 2016,
	Nest-minder specialist training	reaching 1034 students and 56 accompanying adults. Local press circulation figures of well over 1 million over lifetime of the project; local radio & TV audiences reached over 600,000.
	where appropriate. • Deliver talks to four schools	
	educating at least 100 school children per year.	
5. Build capacity for local action	Barn owl groups developed in counties Armagh, Derry~Londonderry and Tyrone.	There are currently 71 active volunteers working together to achieve barn owl conservation objectives across Northern Ireland and it is hoped they continue to support each other beyond the project.
		Whilst no groups have been willing to formally constitute, some have affiliated themselves with larger organisations, like Ring of Gullion, whilst others have chosen to have less formal arrangements based around regular meetings and information dissemination.



Engagement with the farming community

It has been clear from the project that there is a high level of interest in barn owl conservation within the farming community.

However, with limited project resources it was difficult to keep-up with demand for advisory visits and barn owl nestboxes, particularly from counties which were not targeted by the project.

Farmers throughout Northern Ireland have received advisory visits from the Project Officer and received advice/literature through the barn owl summer surveys. All of the advisory literature printed for the project has been distributed through advisory packs and at events, such as agricultural shows. This engagement directly with landowners will increase their likelihood of entering an agri-environment scheme in the future and has increased awareness of the impact of rodenticides on barn owl populations, all of which will improve habitats and success rates for barn owls in the long-term.

The project target was to erect a minimum of 30 nest boxes; a total of 71 have been distributed throughout the country and can be seen on the map below.



Map showing locations of barn owl nest boxes distributed throughout the project

Engagement with the general public

Again, it is clear there is a high level of positive interest in the barn owl and its conservation from people from all walks of life in Northern Ireland.

The demand for talks from primary schools was particularly high, especially when given alongside a visit from a captive-raised barn owl.

The general public have been very active in terms of reporting barn owl sightings, averaging four sightings submitted per week through the lifetime of the project. The map below shows the distribution of sightings from 2015. The value of these sightings should not be underestimated; even though it has not been possible to verify each sighting, when compared over the three years of the project the sightings are concentrated in similar areas, allowing us to focus both survey efforts and farmer engagement where it is most likely to benefit breeding barn owls. Mapping the sightings has also enabled us to conclude that barn owls are rarely seen above 150 metres above sea level in Northern Ireland and that river corridors appear to be important in the movement of barn owls.

The project has also created a map for NIEA, using the information gathered throughout the project, to flag up barn owl locations for planners when assessing applications.



Map showing 2015 barn owl sightings

Increasing understanding of barn owl population dynamics in Northern Ireland

The project facilitated an MSc study into small mammals within the home range of a breeding barn owl pair, in conjunction with Queen's University Belfast (QUB) student Hannah Bradley. The conclusions arising from the study fed into Ulster Wildlife advice for landowners, highlighting the importance of hedgerows in maintaining a diverse small mammal population. Work with QUB has indicated there is an interest in future research projects and it is hoped that small mammal research can be carried out in conjunction with known nest sites and with the potential for pellet collection and analysis in County Down.

The discovery of a breeding pair of barn owls in a nestbox on the Ards Peninsula in spring 2015, gave Ulster Wildlife the opportunity to ring barn owl chicks for the first time in Northern Ireland. Two chicks were ringed by licensed and experienced ringers from the British Trust for Ornithology (BTO) in July 2015 and again in July 2016; the chicks turned out to be two females each year. It is hoped that in time, this will provide valuable information on the dispersal of barn owl chicks post-fledging and that ringing continues to be carried out when appropriate.



Barn owl chicks born in Greyabbey on the Ards Peninsula

Summer Surveys

Despite extensive efforts by over 70 volunteer surveyors each summer from 2014 to 2016, the barn owl surveys did not directly uncover any new active barn owl nest sites across Northern Ireland. This illustrates the difficult nature of surveying for barn owls - due to their elusive and wide-ranging behaviours - but it also indicates the low population density we are currently experiencing in Northern Ireland.

However the surveys have been beneficial in many ways: recording further barn owl sightings; recognising historic nest sites and previously unrecorded potential nest sites; raising the profile of barn owls and Ulster Wildlife in rural areas; providing landowners with advice; and engaging with the general public.

Following detailed mapping of sightings and survey results, we can see that to optimise resources, barn owl conservation work should focus on land below 150 metres above sea level and in areas where barn owl activity can be linked with strong wildlife corridors, such as river valleys.



A disused farm buildling - one of the many sites surveyed for barn owls

Field trip to Shropshire

In July 2015, eight barn owl survey volunteers accompanied the Project Officer to Shropshire to spend a day with John and Wendy Lightfoot of Shropshire Barn Owl Group. The day was spent visiting barn owl nestboxes around Shropshire and ringing the chicks found within. John and Wendy are experienced barn owl ringers and both have the appropriate licences for this work.

For most, it was the first time they had seen barn owl chicks up-close and they spent the day quizzing John and Wendy about anything that could help barn owl conservation back in Northern Ireland. It was an inspiring day; taught everyone huge amounts about practical barn owl monitoring and gave everyone bags of enthusiasm to continue barn owl conservation work back at home.



Volunteers who took part in the field trip to Shropshire © Antrim Lens

Case Studies

John O'Kane

Farmer, Drumsurn, Co. Derry ~ Londonderry

John runs a mixed 30 acre farm, part-time, overlooking the Roe Valley. John has a personal interest in wildlife and farms his land with sensitivity to local species such as barn owl, lapwing and the hedgehog.

I contacted Ulster Wildlife following a call for barn owl sightings which was followed up by a visit from Catherine, the Barn Owl Officer. On seeing the fenced-off rough grass margins along the burn running around the perimeter of my farm and hearing that I kept the farm rodenticide-free, Catherine decided it was a perfect location for a barn owl nest box, especially given the proximity to a number of barn owl sightings in the Limavady and Roe Valley area.

I have a clear vision for my land which involves enhancing wildlife habitats, alongside providing hands-on training for students from the local college - teaching in practical terms how to run a farm business and increase wildlife diversity. Specifically for the barn owl, I have plans afoot to plant new hedgerows and provide a permanent barn owl nest built into the structure of my traditional stone barn.



Brian Hegarty

Volunteer Barn Owl Fieldworker, Sion Mills, Co. Tyrone

Brian, a joiner by trade, has been involved in various bird surveys for more than six years now and has always held a fascination for barn owls.

I saw my first barn owl about 20 years ago and I've been looking for them ever since. I initially contacted Ulster Wildlife through Facebook after finding barn owl pellets in a derelict farm building outside Derry~Londonderry. I had previously attended a barn owl talk by Ulster Wildlife, so I knew what to look for. When the pellets were confirmed as barn owl, I was hooked and signed up to take part in the barn owl surveys straightaway.

In February this year, I recovered a dead barn owl from a roadside outside Derry~Londonderry and reported it to Ulster Wildlife. It was later found to have been ringed as a chick just a few months before in Co. Kerry – the longest known journey travelled by a barn owl in Ireland.



The Future for Barn Owl Conservation

While the three-year HLF-funded project has come to an end, Ulster Wildlife will continue to champion the barn owl and its conservation as resources allow.

We will continue to provide advice on barn owl conservation through our website and will seek to recruit a dedicated volunteer to help organise continued surveys and provide advice to landowners. We will also continue to seek funding for future barn owl conservation activities.

Additionally local groups and contacts will continue to deliver barn owl conservation work in their local areas. Terms of references have been drawn up for the Ring of Gullion group in south Armagh, and good links and a sound interest base have been created with the groups in Derry~Londonderry and Tyrone.

Fieldwork

One of the success stories of the project has been the number of volunteers getting involved with fieldwork each year, far exceeding the initial project targets. Training workshops have advanced as the project progressed and in summer 2016 the survey was in line with other national barn owl fieldwork, giving greater potential for continuity in future years. Each volunteer fieldworker was given a suite of sites to check for evidence of barn owls and it is hoped that after gaining permissions from landowners this summer, many fieldworkers will continue to check 'their' sites each summer in the future - ensuring any sites that become occupied by barn owls will be recognised and reported.

In some areas fieldworkers have formed active groups, exchanging information about barn owls and ensuring no duplication of survey efforts. It is hoped they will support each other to carry out barn owl conservation work in the future. Ulster Wildlife will continue to support volunteer survey effort annually as resources allow.



Feeding time © K Keatley

Reporting Sightings

A centralised database now exists for reporting barn owl sightings through CEDaR (linked from the Ulster Wildlife website where currently the majority of sightings originate). This will encourage continued reporting of barn owl sightings post-project and also allows the information to be shared with relevant government bodies and organisations.

The results of this are already apparent in the increased number of queries arising from planning applications in the final year of the project, and it is hoped this will lead to greater detection and protection of barn owl nest sites across Northern Ireland. Ulster Wildlife will continue to encourage landowners and the public to report sightings on an ongoing basis.

Research

There is huge potential to increase our understanding of barn owl behaviour and population movements in Northern Ireland through further research. Future research should include small mammal studies and barn owl pellet analysis. If there continues to be a nest site where the birds are accessible under licence, there is potential to GPS tag barn owls as Birdwatch Ireland and Transport Infrastructure Ireland have in County Kerry. kerrybirding.blogspot. co.uk/2016/08/gps-tracking-of-kerry-barn-owls.html

There is currently a research project being developed at the University of Lausanne, Switzerland, focusing on the morphological and genetic differences of barn owls that live on islands. Collaborating with the university on the project may lead to a better understanding of migration between the UK and Ireland populations.

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Michael Calvert, landowner, for his unending dedication to 'his' barn owls.

David Galbraith, BTO bird ringer.

Members of the Barn Owl Steering Group

Barn Owl Trust

www.barnowltrust.org.uk

Shropshire Barn Owl Group www.shropshirebarnowlgroup.org.uk

Barn Owl Conservation Network www.bocn.org

Birdwatch Irelandwww.birdwatchireland.ie

Department of the Environment www.doeni.gov.uk





For further information, visit www.ulsterwildlife.org/barnowl or Email: barnowls@ulsterwildlife.org

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Cover Image - Barn owl in meadow © J Hawkin

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