Barn Owl Report 2024











Acknowledgements

We would like to thank all the people involved, directly or indirectly, in supporting barn owl conservation over this last year. Thank you to every single person who carried out a survey, made or put up a barn owl box, carried out barn owl ringing, attended a talk, and to everyone that reported sightings.

Our thanks include, but are not limited to, the following organisations and individuals for their contributions - the Barn Owl Trust, the British Trust for Ornithology (BTO), BirdWatch Ireland (BWI), CEDaR, Comber Rotary, National Trust, National Biodiversity Data Centre, NI Raptor Study Group (NIRSG), RSPB NI, Ulster Wildlife staff, volunteers, and of course the nest minders. Thank you also to our funders NIEA & DAERA through the Carrier Bag Levy, the Garfield Weston Foundation and Ulster Wildlife Members.

It is always inspiring to see that so many of you stand in solidarity with us to help the recovery of this iconic species in Northern Ireland. 2024 has been an exciting but challenging year and a good one for barn owls; with combined conservation efforts paying off.



Picture 1: Katy Bell, Senior Conservation Officer, and Ross McIlwrath, Priority Species Officer, with Ulster Wildlife volunteers and National Trust staff putting up a barn owl box in the winter of 2024.

Contents

1. Introduction	4
2. Barn Owl Work	4
2.1. Survey	4
2.2. Sightings	6
2.3. Dead barn owl reports	8
2.4. Known active nest sites	8
2.5. Boxes	10
2.6 Awareness Raising	12
3. Limitations and successes	13
4. Future plans	15
5. Conclusion	15
6. References	16

Introduction

Since 2010, Ulster Wildlife has undertaken work focusing on the conservation of Barn Owls (*Tyto alba*) in Northern Ireland. Classed as "Least Concern" on the International Union for Conservation of Nature (IUCN) red list on the global scale, the situation in Northern Ireland is completely different. Barn owls have been in decline for decades as a result of habitat loss, meaning loss of both hunting habitat and nesting places. The last population estimate in the 1980s put the breeding population at only 30 to 50 breeding pairs (Northern Ireland Species Action Plan, 2006); but we estimate there are now likely less than 30 pairs. Fortunately, they are protected and appear as a priority species in the Northern Ireland Biodiversity Strategy and are also "Red Listed" in Birds of Conservation Concern in Ireland. We are thankfully sharing good news for 2024 as NI's barn owls had another good breeding year.

As an important part of our natural and cultural heritage, Ulster Wildlife's barn owl work aims to develop and advance barn owl conservation throughout Northern Ireland. This work feeds into Ulster Wildlife's vision of a wilder future where nature is in recovery and wildlife is thriving across Northern Ireland. Ulster Wildlife carries out a range of conservation actions, such as raising awareness, the management of sightings, the construction and the erection of nest boxes, and offering advice and support to landowners to improve their habitat for barn owls. In addition, our focus in the summer months is co-ordinating an annual barn owl survey. The aim is to visit sites that are most likely to host barn owls in order to discover new active roost or nest sites, as well as checking nesting boxes for signs of occupation. Knowing the exact locations of roosting and breeding barn owls is essential to target conservation efforts. Surveying for barn owls is not an easy task, particularly due to the low population densities that exist in Northern Ireland. In addition, the fact that they are nocturnal and one of the most elusive birds make them even harder to find. Discussions are in place to develop new methodology for carrying out nationwide surveys in Northern Ireland after some initial analysis with the BTO and BWI.

This report will give an overview of the work undertaken by Ulster Wildlife throughout 2024, with an important focus on the barn owl survey, sightings, nest monitoring and boxes. It will compare some results with the findings of the previous years, and Ulster Wildlife's work plan for 2025 will be covered.

2. Barn Owl Work

2.1. Survey

The Ulster Wildlife Barn Owl Survey started in 2010. During the first years, the field work concentrated on 2x2 km survey tetrads in areas where barn owls had been sighted. The survey consisted of talking to locals and landowners and conducting field-based surveys. Then historic sites and potential nest/roost sites, as well as locations of barn owl boxes within each tetrad, were identified, surveyed and recorded into the mapping database. Since 2018 we have also included long-eared owls (*Asio otus*) in our survey. While they are considered to be common and widespread across the whole of the island of Ireland (NIRSG, Birdwatch Ireland, Bird Atlas 2007-11), there is a lack of information on their distribution across Northern Ireland. There are common characteristics between barn owl and long-eared owl, such as the fact that, to a large

degree, they rely on the same food sources (*i.e.* small rodents). Long-eared owls are more common in woodlands but are vastly under recorded.

For the 2024 survey, we contacted everyone on our list that had a barn owl box and asked that the landowner check the box themselves for any signs of occupation (whitewash, pellets, feathers, noise) during the months of July and August. This was done at a distance from the box itself so as not to cause any disturbance. Each surveyor received a copy of the Survey Methodology, a Recording Form and a Risk Assessment. We asked that people provide us with up-to-date information regarding the nesting box: whether it was occupied, the grid reference, and whether it needed repaired or replaced. That way we can see whether a box needs to be replaced, or we need to add boxes in an area. In total **87** boxes were checked for signs of barn owl activity throughout July and August (**Figure 1**). A further focus was to investigate reports of owls in particular areas where the data might indicate a nesting pair. Thank you to all the volunteers and Ulster Wildlife staff who helped with the surveys this year.



Figure 1: Location of the boxes and sites surveyed in 2024.

2.2 Sightings

We are very pleased to see support from the public continue with regular sightings of barn owls reported via the Ulster Wildlife website, emails, phone calls, social media (Facebook/Twitter), or online through CEDaR's website (Centre for Environmental Data and Recording) and iRecord.

By the end of 2024, there was a total of **57** barn owl sightings submitted. This was compared to 81 sightings in 2023. This number was lower than 2023, partly because we had an increase in long-eared owl sightings and there is an increased awareness of the difference between these two birds. We would encourage people to submit barn owl sightings to us through the website or email address below. This data gives us an insight into where birds may be nesting or roosting and allows us to target conservation action specifically where it is needed. Public engagement is vital in raising awareness and we plan to try and encourage more sightings in 2025. There was another increase in the number of long-eared owl sightings submitted in 2024, a total of **69** compared to 59 in 2023, and 32 in 2022. The winter of 2024 saw more short-eared owls visiting Northern Ireland, but we only received **2** sightings.

In **Figure 2** all of the barn owl, long-eared owl and short-eared owl sightings received by Ulster Wildlife have been mapped. We also tried to encourage more sightings from the west of the province, and this was reflected in the map in comparison with previous years.

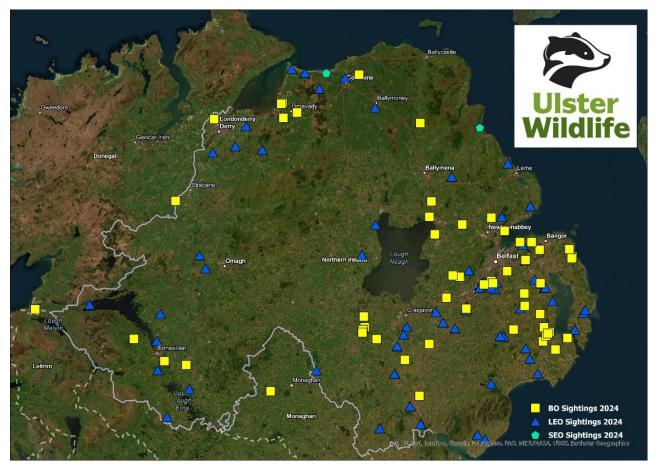


Figure 2: Sightings of Barn Owls, Long-eared Owls and Short-Eared Owls in NI in 2024.



Figure 3: Sightings of Barn Owls across Ireland in 2024 (BirdWatch Ireland and Ulster Wildlife).

We work closely with BirdWatch Ireland as it is important to collaborate outside of Northern Ireland as barn owls can travel long distances in search of foraging areas and new nest sites. This work is vital to get a clear picture of what is happening with barn owls in Ireland as a whole. We also collaborate across the UK with the Barn Owl Trust on the State of the UK Barn Owl Population reports.

To submit an owl sighting for Northern Ireland visit:

- Ulster Wildlife: https://www.ulsterwildlife.org/report-sightings or report it to barnowls@ulsterwildlife.org.
- Alternatively submit it via CEDaR or iRecord.

To submit a sighting for the Republic of Ireland visit:

• BirdWatch Ireland: <u>https://bit.ly/barnowl-survey</u>.

2.3 Dead barn owl reports

Thankfully 2024 saw fewer dead barn owls being report than 2023. Only a small number were found and reported dead (**Figure 4**) which is a positive outcome. We do however encourage reports of dead barn owls as this data is extremely important. If you find a dead barn owl, please report it to <u>barnowls@ulsterwildlife.org</u>.



Figure 4: Deceased barn owls found and reported in 2024.

2.4 Known active nest sites

In 2024, Ulster Wildlife, along with volunteer nest minders, monitored a number of active nest sites. 2024 was an incredibly positive year with another new nest site being found across Northern Ireland. Ulster Wildlife monitored **9** nests, with the Lough Neagh Barn Owl Group monitoring a number of other nest sites (contact the group directly for information). This is a really encouraging figure, and it is great to see barn owls having a good breeding year. There were a number of nest sites that were unfortunately inaccessible and so we are unable to report the total number of fledged chicks (recorded in **Table 1** as 'Unknown') however all of these sites had confirmed breeding. Ringing was carried out with BTO ringers at four of the nest sites in County Down. The majority of the nest sites monitored are in tree boxes but there were also a number of pairs nesting in tree cavities and in old buildings.

Table 1 shows another successful breeding year for barn owls in 2024, despite the weather and the fact that some of the chick numbers are unknown. We hope that these pairs continue to flourish, and the number of chicks fledging continues to increase. This will hopefully lead to more pairs establishing and the collaborative conservation efforts across Northern Ireland are vital to achieving this.

Nest site	Number fledged 2021	Number fledged 2022	Number fledged 2023	<u>Number</u> fledged 2024
Mount Stewart	-	1	2	3
Strangford	2	4	4	4
Finnebrogue	2	-	3	Unknown
Downpatrick	-	3	4	2
Downpatrick 2	-	-	1	1
Co. Antrim	-	-	Unknown	3
Fermanagh 2	-	-	1	Unknown
Fermanagh 3 (NEW)	-	-	-	Unknown
Co. Down	-	4	5	Unknown
Total	4	12	19	13
Mean	2	3	2.9	2.6

Table 1: Number of known fledged barn owl chicks within the Ulster Wildlife monitored nest sites.

In Strangford, after the pair's first nesting attempt failed, we were able to celebrate the pair fledging 4 chicks in the summer, for the 6th year in a row - <u>Strangford farmer celebrates</u> <u>six years of helping barn owls bounce back | Ulster Wildlife</u> This farm is helping the future of barn owls locally and shows how targeted management options such as wild bird cover and winter stubble, delivered through agri-environment schemes, have been effective in helping barn owls by ensuring a year-round supply of food. Alongside a network of safe nesting sites, barn owls are thriving on David's farm.

This year we were able to celebrate a new barn owl nesting site in County Fermanagh. Barn owls were once a common sight in Fermanagh but now we only have two known pairs. This pair was discovered late in the season, so we are unsure of how many chicks fledged the site, but we know chicks were present. We look forward to seeing the birds return in the 2025 season. We also hope for more barn owl pairs to settle in County Fermanagh in the coming years.

Mount Stewart and Ballycruttle Farm had more successful seasons with the pairs returning and fledging chicks once again. A number of our other sites are confidential but providing havens for barn owls to breed and overwinter. A site name is only made public if the landowner chooses to and new sites are always confidential while the pairs establish. We were able to celebrate barn owls breeding at a wildlife-friendly farm

where the landowners have been working hard to create feeding and nesting habitat for barn owls. Over the winter a number of nest cameras were placed at breeding sites under licence in order to get a new insight into the barn owls' behaviour.

NOTE: All photos taken under licence from NIEA.



Pictures 2 & 3: Two of the barn owls ringed by BTO ringers in 2024.

2.5 Boxes

Since the beginning of the year, **20** barn owl boxes have been erected by Ulster Wildlife throughout Northern Ireland (**Figure 5**). We focused on priority areas where we knew barn owls were present nearby in order to provide nesting and roosting areas for fledging chicks, and also areas of suitable foraging habitat. Boxes have been placed using a 'Nature Recovery Network Approach'. A total of **21** site visits were carried out to landowners where we provided advice on boxes and land management. There were a number of other people where advice was given via email or phone call. Our 'Improving Land for Barn Owls' leaflet was given to everyone who got in touch. A number of talks and events were also carried out in key areas to raise awareness of barn owls.

A number of organisations and volunteers make nesting boxes for Ulster Wildlife. Our thanks to all the groups, young people and volunteers who helped with this, especially Comber Rotary, BASC and the Heart of Down Squirrel Group. Thank you also to everyone that has provided locations for barn owl boxes so far.

While we aim to support everyone who gets in contact with us, as there is a high demand for boxes, we must prioritise sites which are the most suitable for barn owls. This work is carried out mainly in late autumn and winter, outside of the breeding season. We make the decision on whether to visit a site based on certain parameters such as proximity to an existing nest site, the number of sightings in the area, the abundance of rough grassland, thick hedgerows, and other suitable habitat features. Also, any negative site features are taken into account, such as the proximity to a main road. We always visit a site before we make the decision on whether the site is suitable for a box. If you think you have land that could support barn owls, please contact barnowls@ulsterwildlife.org.



Figure 5: Locations where barn owl boxes were erected by Ulster Wildlife in 2024.



Pictures 4 & 5: Ulster Wildlife staff and volunteers erecting barn owl boxes.

2.6 Awareness raising

Through our conservation work, Ulster Wildlife aims to raise awareness of barn owls in Northern Ireland and how people can help them. Throughout 2024 we carried out **6 talks** and **4 events** engaging with over **370 people** in total. This included a talk for RSPB farmers, a talk at Balmoral Show (**Picture 6**), a celebration event for a landowner with breeding barn owls, box building with the Boys Brigade, and pellet dissection sessions with various groups. This is an important part of the work and allows us to get out onto the ground to talk to people to help grow support for barn owl conservation. We also featured on BBC News NI for our story of the late season breeding barn owls at Ballycruttle (**Picture 7**) and to celebrate the success of David Sandford's farm (**Picture 8**).

We have continued to share our guidance for 'Improving Land for Barn Owls' which provides detail on what barn owls need to survive in the local countryside. This advice is for landowners and farmers to be able to take action to provide foraging habitat and nesting provisions for this important local species.

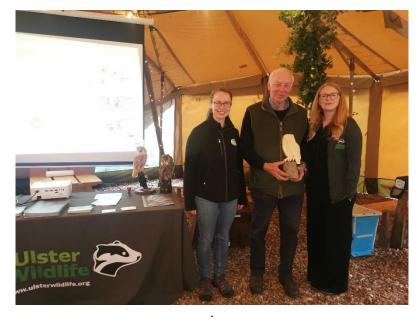
You can find the booklet here - Barn Owl Land Management Leaflet.pdf





Picture 6: Katy Bell giving a talk on barn owls at the Balmoral Show for the NFFN

Picture 7: Filming for BBC News NI in January 2024.



Picture 8: A barn owl celebration event for David Sandford held in June in Finnebrogue Woods (Michelle Duggan, RSPB, David Sandford, Katy Bell, Ulster Wildlife).

3. Limitations and successes

The use of thermal imaging equipment has improved our surveying abilities by allowing us to check boxes from the ground. This technology can tell us whether a box is occupied and therefore minimising any potential disturbance. Through our funders, we purchased thermal imaging binoculars and monoculars which have been put to good use at every site visit. This equipment is also extremely valuable during evening surveys. This winter we increased the number of nest cameras placed at nest sites under licence. This will hopefully improve our knowledge on the inaccessible sites and also our understanding of the birds' behaviour during the breeding season.

During 2024 Ulster Wildlife collaborated with The Met Office and The Wildlife Trusts to look at how weather is affecting barn owls locally. This give us interesting details on the last 10 years of nesting data and how weather is impacting local birds. Going forward climate change and the resulting weather extremes will be causing changes in breeding success and timing. This is something we will continue to collect data on. Thank you to the staff at The Met Office and The Wildlife Trusts for their help on this project. You can find out more here - <u>A climate of collaboration and volunteering helps UK's threatened wildlife - Met Office</u>

In 2024, Ulster Wildlife hosted an MSc student from Queen's University Belfast who carried out a successful research project on barn owl diet. Thank you to Adithi for her time spent with the organisation. We aim to add to this data by hosting another student in 2025.

In 2024 Ulster Wildlife barn owl staff visited the Barn Owl Trust in Devon in July (**Picture 9**). We spent three days visiting their premises, nature reserve and captive barn owls. During this time, we carried out site visits, helped monitor nest visits, assisted with ringing and box checking, and shared knowledge on barn owl conservation. A huge thank you to the Barn Owl Trust for hosting us for a fantastic trip.



Picture 9: Katy Bell and Ross McIlwrath with Mateo Ruiz from the Barn Owl Trust.

4. Future plans

Our main aim in 2025 will again be to identify further nest sites as well as support current nest sites. We hope that the number of nest sites that we monitor will continue to increase and this means an increased number of nest minders and pairs to support. Our target audience through our communications will continue to be farmers and landowners. We want to ensure that land is managed properly for barn owls and that anyone that knows of a nest site is engaged with and supported. We will also be encouraging measures to be put in place to support barn owls in future agrienvironment schemes. We will also continue to carry out site visits and provide advice on nature-friendly land management. This year we aim to run more events for landowners as well as ongoing collaboration with partners. Ulster Wildlife will continue raising awareness of barn owls at a local scale and the pressures and threats they face. We will be carrying out an annual survey again in 2025 and hope to increase the number of potential sites checked.

Ulster Wildlife have been collaborating closely with BirdWatch Ireland to collect data for a diet study of the barn owl in Ireland. This year we plan to dissect more pellets to provide valuable information on what these birds are eating at various sites across Ireland.

5. Conclusion

In Northern Ireland, even after a good breeding year, barn owls remain very vulnerable and elusive. The annual survey, carried out by volunteers during the summer, allowed us to check **87** boxes. We received **57** barn owl sightings and **69** long-eared owl sightings this year, and we continue to encourage these sightings. New boxes in key areas, and periods of dry and warm weather, allowed barn owl pairs to have another good breeding year. Barn owls are particularly vulnerable to prolonged heavy rain periods (such as in spring 2021) which badly impact breeding success - unfortunately such weather conditions are likely to be more frequent due to climate change and we therefore need to work hard to ensure the population is as resilient as possible.

There were **over 13** barn owl chicks, born to **5 pairs** in 2024, with more fledging from **4** inaccessible sites, so **9** pairs in total and this is a very welcome boost to our local population. By expanding the barn owl box network locally, the aim is to provide more opportunities for birds to nest and roost. Ulster Wildlife also believes that land management is key to barn owls' survival and this remains crucial in helping our population here in Northern Ireland and we would encourage more landowners to take action for barn owls. We also support agri-environment schemes that deliver for nature.

Finally, 2025 brings exciting opportunities to forward plan for the future of our barn owl conservation work. We want to be able to find more nest sites, support more landowners and nest minders, and ultimately play our part in helping to protect the important population of barn owls in Northern Ireland. We are looking forward to the year ahead and the continuation of our conservation work on this iconic species. We anticipate that this year will build on the successes of recent years. We hope that once again we can rely on your support, as we have relied on it historically, to help build a future for one of Northern Ireland's most iconic species.

6. References

Barn Owl Trust (2012) *Barn Owl Conservation Handbook*, Pelagic Publishing, Exeter *Bird Atlas 2007-11. The breeding and wintering birds of Britain and Ireland*. Balmer, Gillings, Caffrey, Swann, Downie and Fuller. (456-457).

Bunn, D.S., Warburton, A.B. & Wilson, R.D.S. (1982). *The Barn Owl*. Calton: T & AD Poyser. Fick, S.E and RJ. Hijmans, 2017.

Gilbert, G., Stanbury, A. and Lewis, L. (2021), "Birds of Conservation Concern in Ireland 2020 –2026". *Irish Birds* 43: 1–22.

Hossein Vahidi, Brian Klinkenberg and Wanglin Yan (2017), *Trust as a proxy indicator for intrinsic quality of Volunteered Geographic Information in biodiversity monitoring programs*, GIScience & Remote Sensing, 10.1080/15481603.2017.1413794, (1-37).

Lusby, J. and O'Clery, M. (2014) *Barn Owls in Ireland: Information on the ecology of Barn Owls and their conservation in Ireland.* BirdWatch Ireland.

Lusby, J., O'Clery, M., McGuinness, S., Tosh, D., & Crowe, O. (2019). *The interactions between Barn Owls and major roads: informing management and mitigation*. BirdWatch Ireland.

Paul, K., Quinn, M. S., Huijser, M. P., Graham, J., and Broberg, L. (2014). An evaluation of a citizen science data collection program for recording wildlife observations along a highway. *J. Environ. Manage*. 139, 180–187. doi: 10.1016/j.jenvman.2014.02.018.

Worldclim 2: *New 1-km spatial resolution climate surfaces for global land areas*. International Journal of Climatology.

Websites

https://www.ulsterwildlife.org/barn-owls

https://www.barnowltrust.org.uk/uk-barn-owl-population-latest/

https://www.cieem.net/data/files/Resource Library/Technical Guidance Series/SoSM/TGSS oSM-Barn Owl Survey Methodologyrevised2012.pdf

http://www.nirsg.com/long-eared-owl/

https://birdwatchireland.ie/tii/

https://www.birdwatchireland.ie/IrelandsBirds/Owls/LongearedOwl/tabid/1123/Default.aspx

https://www.daera-ni.gov.uk/sites/default/files/publications/doe/Natural-plan-species-actionbarn-owl 0.pdf

https://www.eea.europa.eu/publications/COR0-landcover accessed 2017

https://www.gov.je/Environment/LandMarineWildlife/Birds/Pages/Owls.aspx#anchor-3

https://www.rspb.org.uk/globalassets/downloads/bocci4-leaflet.pdf

Join now and together we can **Bring Nature Back**

www.ulsterwildlife.org/join

(f) ulsterwildlife 💿 ulsterwildlife 🛞 @UlsterWildlife

Ulster Wildlife McClelland House, 10 Heron Road, Belfast BT3 9LE 028 9045 4094 • membership@ulsterwildlife.org • www.ulsterwildlife.org

Ulster Wildlife is the operating name of Ulster Wildlife Trust, registered with the Charity Commission for Northern Ireland NIC101848. A company incorporated in Northern Ireland limited by guarantee NI 12711

Funded by

