

# Technical Guidance Series



Chartered  
Institute of  
Ecology and  
Environmental  
Management

## Competencies for Species Survey: Barn Owl



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## 1. Introduction

The purpose of this document is to set out the knowledge, skills and experience required to survey, disturb or to carry out research works (hereinafter referred to generically as 'survey') for the barn owl *Tyto alba* in a professional capacity. To be undertaking such work, CIEEM would consider attainment of the criteria outlined in this guidance to be a minimum for an individual to competently survey for barn owls. The Institute aims to drive up standards in the ecological profession for the benefit not only of ecologists but also of the public.

This document does not provide guidance on the techniques to be employed in carrying out survey activities, although references to published sources of guidance on survey methods are listed in Section 5. A training log book with example entries is provided in Section 7.

## 2. Status

Barn owls in the United Kingdom experienced a large decline over the 20th century. The British Trust for Ornithology estimates that there are about 4,000 breeding pairs in the UK and it is thought that the decline in numbers has stabilised since the mid-1990s. In Europe, the barn owl is on the list of 'Species of European Conservation Concern' (SPEC Category 3) and is on the Amber List of UK birds of conservation concern (Eaton *et al.* 2009). Barn owls are on the Red List of birds of conservation concern in Ireland (both Northern Ireland and the Republic of Ireland) and breeding population levels are thought to be declining; in Wales they are also on the amber list (Johnstone 2010). The main threats to barn owl populations include habitat loss, traffic deaths and reduction in prey numbers due to agricultural intensification and pesticide use.

## 3. Legislation and Licensing

### Legislation

Barn owls are protected under the following legislation. This outline of legislation is not comprehensive and the appropriate legislation should always be consulted for a definitive list of offences.

### Licensing

COUNTRY	LEGISLATION GIVING PROTECTION	SCHEDULE OR ANNEX LISTING
<i>England</i>	Wildlife and Countryside Act 1981 (as amended)	Schedules 1, 3 & 9 (parts I)
<i>Wales</i>	Wildlife and Countryside Act 1981 (as amended)	Schedules 1, 3 & 9 (parts I)
<i>Scotland</i>	Wildlife and Countryside Act 1981 (as amended)	Schedules 1, 3 & 9 (parts I)
<i>Northern Ireland</i>	Wildlife (Northern Ireland) Order 1985	Schedule 1 (part I)
<i>Republic of Ireland</i>	Wildlife Act 1976 (as amended)	Schedule 4

The following Statutory Nature Conservation Organisations (SNCOs) are responsible for issuing licences to permit actions that would otherwise be illegal under the relevant legislation:

COUNTRY	SNCO
<i>England</i>	Natural England
<i>Wales</i>	Natural Resources Wales
<i>Scotland</i>	Scottish Natural Heritage
<i>Northern Ireland</i>	Northern Ireland Environment Agency
<i>Republic of Ireland</i>	National Parks & Wildlife Service

*A licence to disturb a wild barn owl is required:* at sites where there is a realistic expectation that the habitat might support this species (Shawyer 2010) and where there is a specific intention to approach or inspect occupied or potential nest sites of this bird (*i.e.* nestboxes, buildings, hollow trees or rock crevices).

*A survey licence is not required:* for habitat appraisal or general ecological survey purposes (*e.g.* a breeding bird survey, where breeding barn owls are not the specific target).

In the event that a barn owl is unexpectedly encountered during the breeding season at an occupied or potential nest site or is believed to be breeding outside the normal nesting season, unlicensed surveyors should retreat and a licence would be required should it be necessary to approach or inspect the site again.

It is the role of the appropriate licensing authority to define the criteria for issuing such licences as may be required for survey work, therefore, attainment of the skills set out is no guarantee that a licence will be obtained; other criteria will need to be considered.

#### 4. Knowledge, Skills and Experience

To undertake a barn owl survey, independently and competently, an individual would be expected to possess all of the following knowledge, skills and experience.

A surveyor needs to recognise their level of attainment along a continuum. Those without the breadth and depth of the knowledge, skills and experience that CIEEM consider a minimum, should always work with, or seek advice from, an adequately experienced individual.

##### Knowledge

Individuals should have a knowledge and understanding of:

- a. conservation status;
- b. distribution;
- c. threats to populations, species range and species survival;
- d. barn owl ecology, breeding biology (e.g. altitude and climate, cyclic changes in short-tailed vole abundance, suitability of foraging habitat and of nests and roost sites) and behaviour;
- e. known ecological requirements;
- f. other species which may be present at potential barn owl nest sites and the risks imposed by these species;
- g. legal protection;
- h. licensing, Species Recovery Areas (SRAs) and permissions;
- i. the optimum survey period (June-July);
- j. current relevant guidance on survey methods and standards;
- k. survey methods used to survey for barn owls and the strengths, weaknesses and limitations of these methods;
- l. the potential risks of nest desertion (e.g. in the early phase of the breeding cycle);
- m. range of factors that might lead to bias in the survey results, and false negatives;
- n. sources of information on current (and historical) distribution and abundance (*i.e.* Wildlife Conservation Partnership, British Trust for Ornithology and local contacts) and of those areas in the UK where barn owl recovery programmes are operating and where SRAs exist (Barn Owl Conservation Network);
- o. metadata standards;
- p. the fact that licensed barn owl fieldworkers operate in all counties and in most regions of the UK and that before surveys are contemplated, appropriate checks should be made to ensure that the sites are not already being monitored; and
- q. health and safety risks and procedures involving the inspection of nests, the birds and their prey species.

##### Skills

Individuals should have skills and experience which equips them with the ability to:

- a. identify and age barn owls (including identification and ageing of owl chicks (and different owl species));
- b. identify field signs of barn owls (including droppings, pellets, pellet debris, moulted feathers and egg shells);
- c. recognise barn owl calls (adults and young);
- d. assess habitat potential for barn owls;
- e. appropriately scope in the general area of interest, normally within 5 km;
- f. plan and implement sound scientific surveys;
- g. interpret and analyse survey data; and
- h. take appropriate health and safety precautions.

##### Practical Experience

Whilst some of the knowledge and skills set out in this guidance can effectively be gained from personal study, vocational training and structured education, applicants for barn owl licences (to disturb breeding barn owls or their dependant young by observation only, usually for the purpose of science, research and education) would be expected to have gained practical experience, under the direct supervision of a licensed barn owl worker.

For those seeking a 'licence to disturb' for the purpose of nest observation only, individuals are expected to have gained practical experience of:

- a. at least 10 visits to and inspections of potential nest sites, of which at least five nests are active, under the supervision of a licensed researcher/trainer.

In the unlikely event that surveyors wish to handle (temporarily to take, possess or control) a wild barn owl and take biometric recordings at an active breeding site, they are expected to have gained practical experience of:

- b. at least 10 nest visits to handle eggs or young, supervised by a BTO ringer/nest recorder (possessing a Schedule 1 Disturbance Permit for Ringing and Nest Recording of Barn Owls).

Should there be any intention to catch and handle breeding adults, then more specialised training is required.

## 5. Reading

The following references are essential reading for those wishing to gain the necessary knowledge, skills and experience to survey for barn owls.

Barn Owl Trust (2010) *Survey techniques*. Leaflet no. 8. The Barn Owl Trust, Ashburton, Devon.

Eaton MA, Brown AF, Noble DG, Musgrove AJ, Hearn R, Aebischer NJ, Gibbons DW, Evans A and Gregory RD (2009) Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds* **102**: 296-341.

English Nature (2002) *Barn owls on site: A guide for developers and planners 2<sup>nd</sup> Edition*. English Nature, Peterborough.

Johnstone I (2010) The Revised Population Status of Birds In Wales. *Welsh Birds* **7**: 39-91.

Lynas P, Newton SF and Robinson JA (2007) The status of birds in Ireland, an analysis of conservation concern, 2008-2013. *Irish Birds* **8**: 149-166.

Shawyer CR (1998) *The Barn Owl*. Arlequin Press, Chelmsford.

Shawyer CR and Holmes M (2009) Site mitigation for Barn Owls - a case study. *In Practice* **66**: 32-35. IEEM, Winchester.

Shawyer CR (2011) *Barn owl Survey Methodology and Techniques for use in Ecological Assessment*. Wildlife Conservation Partnership/Barn Owl Conservation Network, Wheathampstead. In press.

Toms MP (2001) *Project Barn Owl: Evaluation of an Animal Monitoring Programme*. British Trust for Ornithology, Thetford.

Toms MP, Crick HQP and Shawyer CR (2001) Project Barn Owl - the status of breeding barn owls *Tyto alba* in the United Kingdom 1995-1997. *Bird Study* **48**: 23-37.

## 6. Acknowledgements

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Cover photographs (left to right) taken by: Colin Shawyer, wildstock.co.uk and Colin Shawyer.

## 7. Sample Log Book

Name	A. Trainee				Licensing authority				NE						
Address					Area office										
Email					Authority contact										
Date	County	Site name	Site type	Survey type	Details of survey 45method	Hours daytime field survey	Hours night observation	Sites where barn owl signs were found	Potential nest sites (PNS)	Active roost sites (ARS)	Active breeding sites (ABS)	Name of licence holder	Licence ref.	Licence holder present	Training given or practise only
12/04/2010	Norfolk	Ixton	River valley	For road development (Shawyer 2011)	Stage 1 Scoping survey	7	-	-	-	2	-	A. Mentor	xxx	yes	Training in the identification of relevant habitat types/features
20/06/2010	Norfolk	Ixton	River valley	For road development (Shawyer 2011)	Stage 2 Field survey	5	-	8	5	3	-	A. Mentor	xxx	yes	Training in the recognition of potential nest sites/foraging habitat and RTA 'blackspots'
30/07/2010	Norfolk	Ixton	River valley	For road development (Shawyer 2011)	Stage 3 Nest verification survey	4	2	-	-	1	1	A. Mentor	xxx	yes	Training in visiting and identification of breeding sites
24/06/2010	Suffolk	Holme	Farmland	For windfarm development (Shawyer 2011)	Stage 2 Field survey	6	-	-	2	1	-	A. Mentor	xxx	yes	Training in the ageing of pellets and recognition of foraging habitat
28/07/2010	Suffolk	Holme	Farmland	For windfarm development (Shawyer 2011)	Stage 3 Nest verification survey	2	0	1	-	0	1	A. Mentor	xxx	yes	Practice in approaching breeding sites safely
21/02/2010	Sussex	Boune	Airfield	For residential development (Shawyer 2011)	Stage 1 Scoping survey	8	-	-	-	-	-	A. Mentor	xxx	yes	Practice in the recording of habitat types
11/05/2010	Sussex	Boune	Airfield	For residential development (Shawyer 2011)	Stage 2 Field survey	5	-	5	4	3	-	A. Mentor	xxx	yes	Health and safety training for climbing and use of ladders
26/08/2010	Sussex	Boune	Airfield	For residential development (Shawyer 2011)	Stage 3 Nest verification survey	4	1	-	-	-	2	A. Mentor	xxx	yes	Practice in the identification species present at nest sites
22/09/2010	Kent	Chart	Farmyard	For farm building conversion (Shawyer 2011)	Stage 3 Nest verification survey	4	1	1	1	1	0	A. Mentor	xxx	yes	Practice in the identification of a recently used breeding site
Cumulative total /active breeding sites found						45	4	15	12	10	4				

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