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Introduction

1. To support Reserved Matters applications for mixed use development at the Chidswell Site in Kirklees, an updated Barn Owl Scoping assessment was undertaken at the Site.
2. The Site (c. 119.4 hectares) is situated between Dewsbury and Leeds. The area covered by the redline boundary comprises large open areas of intensive arable farmland, with field sizes being larger to the south and smaller to the north. Field boundaries include fence-lines and some fragmented species-poor hedgerows. A line of mature trees and scrub is present along an ephemeral headwater stream on the south-east boundary. Hedgerows with better structure, as well as tree lines with mature trees and scrub are present along the two watercourses in the northern section of the Site.
3. Two off-site woodlands border the Site; these being Dum Wood to the north-east and Dogloitch Wood in the south-east.
4. Site development and fragmentation or loss of habitat are key issues with regard to impacts on barn owls in Britain and surveys are required to identify breeding, roosting and foraging sites where developments are proposed.

Method

5. A single scoping survey visit to the Site was undertaken on 30th January 2024. Weather conditions were good with clear, sunny and bright conditions, with a moderate breeze and temperatures between 4°C and 7°C.
6. Survey was undertaken by David Lovett, an experienced ornithologist with over 10 years professional experience undertaking ornithological research, bird surveys and monitoring, site and species evaluation and providing advice on mitigation and habitat enhancement for birds throughout the United Kingdom.
7. An intensive walkover survey of the site was made to systematically search, map and assess potential barn owl breeding and roosting sites within the red-line boundary. The walkover was undertaken while trees were still leafless to enable trees with suspected cavities to be located, assessed and checked.
8. Trees with a trunk diameter less than 45cm were disregarded as these are unsuitable, being too small for access by this species. The site was covered from access tracks, public footpaths and field margins. In addition, trees up to three trees in from the edges of Dum Wood and Dogloitch Wood adjacent to the site, were also assessed.

9. Survey methodology followed that outlined by Gilbert, Gibbons & Evans (1998), Hardey et al. (2009), Shawyer (2011) and the Barn Owl Trust (2012).

Figure 1 The Site

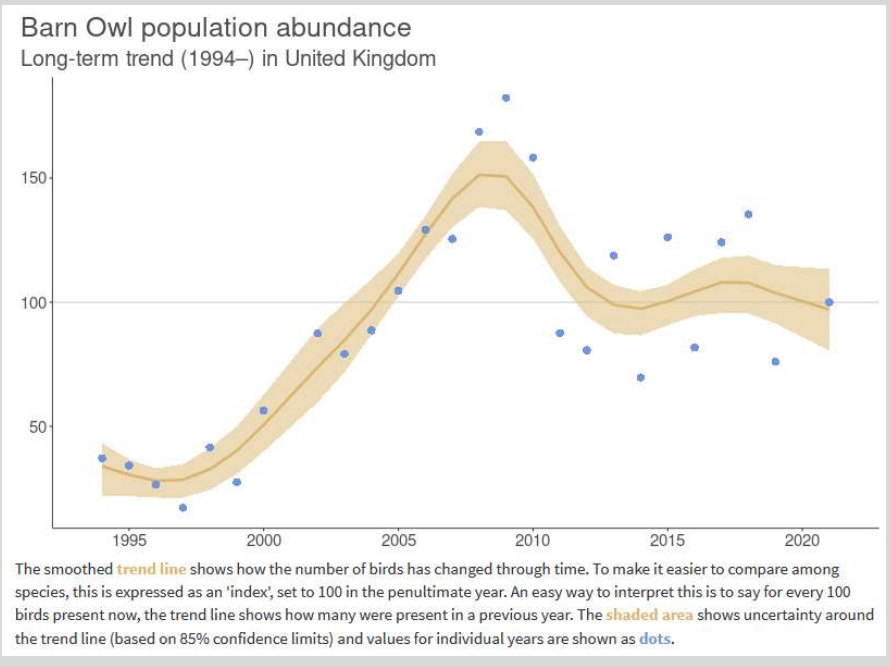


Box 1 Legislation and Protection

The barn owl is protected by law under Schedule 1 of the Wildlife and Countryside Act (1981) as amended, which provides special protection at all times. As such, the barn owl is one of a number of protected species in the United Kingdom whose presence must be given higher nature conservation priority and special legal protection when a potential development is being considered (Shawyer, 2011). Further detail on the protection of barn owls is provided in Appendix 1.

The species is green listed under the Birds of Conservation Concern 5 (BOCC5) (Stanbury *et al.*, 2021). However, it suffered marked declines during the twentieth century, and the current population estimate is 4,000 pairs breeding in the UK (Musgrove *et al.*, 2013). Declines are attributed to a combination of reasons, including a reduction in food supply (mainly small rodents and shrews) through loss of unimproved and rough grassland, loss of hedgerows, habitat loss due to urbanisation and development, and the loss of nesting and roosting sites, in addition to mortality from traffic collisions (Barn Owl Trust, 2012). Recently, numbers have shown some recovery, leading to the species' downgrading from Amber- to Green-listed in 2015 (Eaton *et al.*, 2015).

Figure 2 Barn owl population abundance: long-term trend (1994–) in United Kingdom. Harris *et al.*, 2022.



Box 2 Ecology and Life Cycle

Barn owls are found in a variety of open farmland habitats in Britain, with over 90% of breeding sites below 150m altitude. They may defend the immediate area around the nest (the nesting territory) and during the breeding season forage up to a kilometre from the nest – an area of up to 350 hectares.

Outside the breeding season, birds can forage up to 3km, occasionally 5km, from their nest site, which equates to a home range size of up to 5,000 hectares. Barn owls nest in large holes, predominantly those found in the interiors of building and large tree cavities – most often in old trees – bale stacks and rock fissures, as well as nest boxes, with dry, dark nest sites preferred (Hardey *et al.*, 2009). They show a very high degree of nest site fidelity and a similar degree of fidelity to their mates, for as long as both survive; the typical lifespan of birds that survive their first year is four years (Barn Owl Trust, 2012).

The breeding cycle is especially long, attributed mainly to the prolonged fledging period of young which can take about 67 days (9-10 weeks). When prey is freely available and the climate relatively mild, courtship normally begins in February and March, eggs are laid in April or early May, and following incubation the first chicks usually hatch during the first half of June, which in most years coincides with rising vole numbers. By mid-July, young are half-grown and most fledge in mid- to late-August, when field vole numbers are reaching their seasonal peak. By mid- to late-December most young are independent of their parents and disperse, first to nearby sites and then further afield. Barn owls will often breed in their first year at between 10 and 11 months of age, although males will sometimes not breed until their second year (Shawyer, 1998).

Results

Desk Study/Previous Surveys

10. A data search was carried out in July 2019 by West Yorkshire Ecology. The results did not include any barn owl records from within 2km of the Site.
11. Other survey work covering the Site included breeding bird surveys carried out between March and June inclusive, 2023. A single barn owl was recorded during these surveys, with an injured bird recovered by a member of the public on-site during May.

Scoping Survey

12. The site within the red-line boundary comprises mainly arable farmland with relatively poor field margins, hedgerows which vary in density and structure, some mature trees and no substantial areas of rough grassland. With regard to barn owl this type of habitat is often deficient in prey, lacks suitable nesting and roosting sites and consequently supports a very low population density or absence of this species.
13. Assessment for potential barn owl breeding and roosting sites throughout the site found that generally, trees present in field boundaries and along the edges of Dum and Dogloitch Wood are less than 45cm in diameter and with no cavities visible that could be used by nesting or roosting barn owls.
14. Some more mature trees are present, particularly within Dogloitch Wood, but no cavities that could be used were found within these trees.
15. There is one small brick-built structure (flat-roofed old generator building) within 300m of Chidswell Farm, but this has no visible holes within the exterior brickwork for access and is unsuitable for use by barn owl, either for roosting or breeding.
16. No Barn Owl boxes were found to be present within the site red-line boundary. The presence of boxes often indicates that this species has been recorded locally or bred previously, with boxes erected to encourage this species where natural nest-sites such as tree cavities are lacking and where suitable foraging opportunities are present. .

Figure 3 Tree-line field boundaries in the north of the Site.



Figure 6 Larger trees linked to the north-west corner of Dogloitch Wood.



Figure 4 The western edge of Dum Wood.



Figure 7 Western edge of Dogloitch Wood.



Figure 5 Trees bordering a watercourse in the north of the Site.



Figure 8 Trees bordering a watercourse linked to the south-west corner of Dogloitch Wood.



Figure 9 Trees along the southern boundary of the Site.



Figure 10 Former generator building near to Chidswell Farm.



Figure 11 Trees bordering a watercourse in the north of the Site.



Figure 12 View of habitat in the north of the Site.



Figure 13 View of habitat in the centre of the Site.



Figure 14 View of habitat in the south of the Site.



Conclusion

17. Overall, the scoping survey visit to assess potential barn owl breeding and roosting sites within the red-line boundary found that the Chidswell site is of very low potential to support breeding or roosting by this species.
18. This is informed by several factors in combination, including, the lack of suitable natural nesting sites, lack of barn owl boxes and also sub-optimal foraging opportunities within the red-line site boundary.
19. Given these factors, and the relative foraging distance during the breeding season for barn owl (in the region of one kilometre from the nest site), it is not considered necessary to undertake further surveys for this species.

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Appendix 1 Policy & legislation

United Kingdom Conservation Status of Birds

The fifth major review of the status of birds occurring in the United Kingdom, Channel Islands and the Isle of Man – Birds of Conservation Concern 5 (BoCC4) (Stanbury et al. 2021), presents lists of conservation concern based on assessments using objective listing criteria and most recent data. The listing criteria assess global conservation status, historical population decline, recent population decline (numbers and geographical range), European conservation status, rarity, localised distribution, and international importance of populations.

Lists are denoted Red, Amber and Green in a simple ‘traffic light’ system to provide a single, easily understood measure for each species to convey concern and hence to help set priorities for conservation action. Species are assigned to each list depending upon the scale of population decline and concern which includes breeding and non-breeding populations.

- Red list criteria – Severe population decline (> 50%) over 25 years or longer term.
- Amber list criteria – Moderate population decline (> 25% but < 50%) over 25 years or longer term.
- Green list criteria – Species not currently considered of conservation concern.

The review concerns native bird species only and not those introduced to the United Kingdom by humans, whether intentionally or accidentally. Populations of non-native bird species are not considered of conservation value, indeed introduced species can be harmful to the natural environment (Stanbury et al. 2021). These species are therefore not assessed for conservation attention and termed ‘not assessed’.

Summary of Relevant Legislation with Regard to Birds

The primary legislation affecting wild birds in England and Wales is the Wildlife & Countryside Act (1981) as amended. The basic principle of this act is that all wild birds, their nests, and eggs are protected by law and some rare species are afforded additional protection from disturbance during the breeding season (Schedule 1.). The term wild bird is defined as any bird of a species which is resident in, or a visitor to, the European territory of any Member State, in a wild state. Game birds are not included in this definition (except in certain sections of

the Act) but are covered by the Game Acts which give protection in the close season.

The Wildlife & Countryside Act (1981) states that ‘it is an offence, with certain exceptions, to:

- intentionally kill, injure or take any wild bird.
- intentionally take, damage or destroy the nest of any wild bird while it is in use or being built.
- intentionally take or destroy the egg of any wild bird.
- have in one’s possession or control any wild bird (dead or alive), part of a wild bird or egg of a wild bird which has been taken in contravention of the Act, the Protection of Birds Act 1954 or the law of any EU Member State (which implements the EU Birds Directive 1979).
- intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependant young of such a bird.
- have in one’s possession or control any birds of a species listed on Schedule 4 of the Act, unless registered and ringed in accordance with the Secretary of State’s regulations.

Rare Breeding Birds in the United Kingdom

The U.K. Rare Breeding Bird Panel (RBBP) (www.rbbp.org.uk) collates data on over 160 species of rare breeding birds and scarcer non-native breeding species, and ensures data are archived properly and are used for conservation. This informs understanding of the status, distribution and population trends of the rarest breeding birds, too rare to monitor in any other way, and also species introduced to the U.K. Archived records form the definitive historical record of rare breeding birds in the U.K. Breeding species are categorised as – regular breeder, occasional breeder, colonising and potential breeder.

United Kingdom Biodiversity Action Plan Bird (UK BAP) Species

United Kingdom Biodiversity Action Plan (U.K. BAP) Bird Species (jncc.defra.gov.uk/uk_bap_priority_bird_species) are those identified by the Joint Nature Conservation Committee (JNCC) as being the most threatened and requiring conservation action under the U.K. Biodiversity Action Plan and included on a list of priority bird species, initially created between 1995 and 1999, and subsequently updated in response to the Species and Habitats Review Report published in 2007. Original species on the U.K. BAP list (1995-1999) have

a Species Action Plan (SAP) which provides details of relevant conservation information and action. Following devolution, the U.K. BAP has recently (July 2012) been succeeded by the U.K. Post-2010 Biodiversity Framework which is focused at a country-level (England, Wales, Scotland & Northern Ireland) rather than at a U.K. level, with the list of priority bird species remaining an important reference source for conservation of individual bird species and also for conservation of bird biodiversity within a specified area or site. U.K. BAP species are identified in order to guide decision-makers, such as local planning authorities and regional authorities, in their duty to have regard to the conservation of bird biodiversity.

IUCN Red List Status (European Red List & Global Red List)

Birdlife International (the official International Union for Conservation of Nature (IUCN) Red List authority for birds) determines the global conservation status of birds (www.iucn.org/theme/species/birds). The IUCN red list is used by government agencies, wildlife departments, conservation-related non-governmental organisations (NGOs), natural resource planners, educational organisations, students, and the business community. It is crucial to identify bird species requiring targeted recovery efforts, but also for focusing on conservation to identify key sites and habitats that need conserving.

EU Biodiversity Legislation

Additional protection for birds is also provided to species listed within the European Union (EU) Wild Birds Directive 2009/147/EC. Further information may be found at;

ec.europa.eu/environment/nature/legislation/birdsdirective jncc.defra.gov.uk

This imposes strict legal obligations on EU member states to maintain populations of naturally occurring wild birds at levels corresponding to ecological requirements and to preserve a sufficient diversity and areas of habitats for their conservation. Bird species mentioned in Annex I (194 species and sub-species (races)) are particularly threatened and form the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.