

# The Eagle Owl in Britain

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**ABSTRACT** Interest in the Eagle Owl *Bubo bubo* in Britain has increased during the past decade, particularly in relation to two well-known breeding pairs in northern England. An increase in the numbers being reported has led to calls for Eagle Owl to be re-admitted to the British List. This paper examines the BOURC's previous reviews, which led to the species' removal from the British List in 1996, the historical status of Eagle Owl in captivity, and other data relating to this species, in order to assess the likelihood of natural vagrancy.

**T**he Eagle Owl *Bubo bubo* is a widespread and ecologically adaptable species, occupying a range of habitats in Europe, from the mountains of southern Spain to the forests of northern Scandinavia. It is therefore difficult to explain why the species apparently did not persist in Britain beyond the Mesolithic (c. 9,000–10,000 years BP; Stewart 2007). One possible explanation is that it was exterminated by humans (Mikkola 1983), although this seems unlikely given that more conspicuous predators, such as Wolf *Canis lupus* and Brown Bear *Ursus arctos*, survived until relatively recent times. Bears certainly persisted until Roman times in Britain (c. 2,000 years BP), and possibly later, whereas Wolves hung on until the seventeenth

century (Yalden 1999). It is also surprising that, for an obvious and revered species, there are no lingering tales, legends, myths or folklore relating to Eagle Owls in British literature (Harrison & Reid-Henry 1988).

#### *Recent historical status and BOURC reviews*

Eagle Owl was included in all the BOU lists published before 1992. In the first (BOU 1883) and second (BOU 1915) it was described as a scarce/occasional visitor, the latter stating also that specimens were 'taken in the Shetland and Orkney Islands, Argyllshire, and in many counties of England. It is possible that some of those recorded may have escaped from captivity.' By 1952, it was listed as a 'probably irregular

visitor' (BOU 1952), while the 1971 list (BOU 1971) stated: 'about 20 records in the eighteenth and nineteenth centuries, mostly poorly documented and rather vague, and some at least referring to escapes from captivity; birds in Orkney (1830), Shetland (autumn 1863, March 1871) and Argyll (February 1883) seem the most likely to have been genuine vagrants, correctly identified. In the twentieth century noted in the Outer Hebrides (November 1931), Devon (April 1933), Yorkshire (December 1943) and Shropshire (April 1954), but none of these records [are] entirely satisfactory.' With-erby *et al.* (1938–41) included Eagle Owl as a very rare vagrant but 'being frequently kept in captivity, suspicion rests upon a good many recorded occurrences'. So, as understanding of the species' vagrancy potential has developed and record assessment improved, the status of Eagle Owl as a British bird became increasingly questioned.

In 1972, BOURC reviewed Eagle Owl claims from 1931, 1933, 1941, 1943 and 1954. The 1941 and 1954 records were considered to be misidentified, and in the case of the other three the identification was considered not proven. A further review, in 1982–85, assessed four earlier records listed in BOU (1971): Orkney c. 1830, Shetland in autumn 1863 and March 1871, and Argyll in February 1883. These records were selected because of their remote locations, which were farthest from likely sources of captivity, and, in the case of the Orkney and Shetland records, because of their proximity to Norway. All four were considered to be insufficiently well documented. The 1871 record from Shetland was seen by an apparently reliable observer, but no description was available.

In 1994, an extensive literature search located at least 79 claims of Eagle Owl in Britain between 'some time prior to 1684' (Orkney) and the (then) most recent record in 1990 (West Midlands) (see Appendix 1). BOURC assessed these records (BOU 1997) and found that they fell into three groups: 1) misidentified, 2) insufficiently documented to confirm identification, and 3) identification confirmed but escape from captivity could not be eliminated. During this review, one BOURC member commented that on several occasions he had gone to investigate convincing reports of Snowy Owls *B. scandiacus* by crofters in Shetland yet all had turned out to be Short-eared Owls *Asio flammeus* – illustrating how easily and frequently

people misjudge the size of birds. This experience was echoed more recently by an Orkney-based member. Many of the early descriptions of Eagle Owl do not rule out either Short-eared or Long-eared Owl *A. otus*.

The specimen of an 'eagle owl' shot by a gamekeeper in Shropshire in 1954 was traced and proved to be an American Great Horned Owl *B. virginianus*, undoubtedly of captive origin. Borrer (1891) referred to an 1813 publication that mentioned 'North American Eagle Owls' held in captivity at Arundel, Sussex, at this time. One record concerned an Eagle Owl seen flying low down the back streets of Scarborough, Yorkshire, in autumn 1879, which is an unlikely location for a wild bird, even though it appeared after northeasterly winds. The majority of records that were reviewed in 1994 were insufficiently documented to confirm identification. However, even if these records had been confirmed, captive origin would be difficult to eliminate given the long history of captive Eagle Owls in Britain.

Fisher (1966) suggested that Eagle Owls were 'possibly native [from the] eighth to eleventh centuries'. However, literature searches have failed to substantiate this. The only reference to Eagle Owl from this period comes from mentions in Old Latin and Old English glossaries from the eighth century ([www.tha-engliscan-gesithas.org.uk/birdlore/fugellar.html](http://www.tha-engliscan-gesithas.org.uk/birdlore/fugellar.html)).

### *Eagle Owls and humans*

#### *Behaviour towards humans*

Eagle Owls are known to be wary, especially at or near the nest-site. Mikkola (1983) stated that they are extremely sensitive and prone to abandoning eggs and/or small young; he remarked that, during visits to many nests in Finland, it was often difficult even to catch sight of the adult birds. His experience matched that of renowned owl researcher Prof. Merikallio, who knew of only one instance of aggression by Eagle Owls towards humans in many decades of research in Finland (Mikkola 1983). This behaviour seems at odds with that of those nesting in Britain, where people close to the nest have been attacked (e.g. <http://news.bbc.co.uk/1/hi/england/lancashire/6698873.st>).

#### *Historical accounts of Eagle Owls in captivity*

Ray (1678) included an account of two Eagle Owls in 'His Majesty's Park of St James's near Westminster', plus another captive bird seen in

France at the King's Palace of Bois de Vincennes. Clearly, the species was held in captivity in western Europe at this time. Edward Fountain bred Eagle Owls in his aviary at Easton, Norfolk, for the first time in 1849 and continued to do so almost annually until at least 1875. According to Gurney (1849a,b), this was apparently the first account of captive breeding in Britain; he commented that after only five weeks, the young were 'in the same stage as specimens *usually* [our italics] imported from Norway at this time of year by the London bird-dealers'. The key point here is that as far back as 1849, Eagle Owls were being imported with sufficient frequency for Gurney to use the term 'usually'.

Knox (1850) mentioned an unrivalled collection of these magnificent birds at Arundel Castle that apparently lived in a semi-wild state, in fissures in the ivy-covered rocks of the old dungeon keep, and occasionally reared young. These may have been the 'North American Eagle Owls' (i.e. Great Horned Owl) referred to by Borrer (1891). Lilford (1891–97) commented that he successfully bred Eagle Owls in captivity, and that other English possessors of these owls met with (even) greater success. Trevor-Battye (1903) quoted the following correspondence between Lilford and E. B. G. Meade-Waldo, dated 24th June 1887, concerning the latter's desire to dispose of some young Eagle Owls: 'I am much obliged for your offer of the young eagle owls, but I have no room for them. I will try to place them for you if you wish to dispose of them. I should think that the Duke of W—, who encourages eagles and almost all wild birds on his forest, would like to try the experiment of turning out these grand birds.' The unnamed duke is most likely the first Duke of Westminster, Hugh Grosvenor (1825–1899), who had extensive landholdings, including an estate close to one of Lord Lilford's estates. This correspondence indicates that releasing unwanted young Eagle Owls into the wild was being considered, and perhaps already practised, as long ago as 1887. Lord Lilford was responsible for introducing Little Owl *Athene noctua* to Britain and held collections of live birds, which included two free-flying Lammergeiers *Gypaetus barbatus*.

#### *Current situation and likelihood of escape*

Eagle Owls (including the Indian form *B. b. bengalensis*) are commonly held in captivity in

Britain and there is no formal requirement to register captive Eagle Owls. However, an Article 10 certificate is required by the Convention on International Trade in Endangered Species (CITES) to permit any commercial use (chiefly sale, advertisement, import and display). These certificates are normally issued just once for each bird, and will cover all transactions involving that individual (even after its death in the case of taxidermy specimens). In the ten-year period prior to June 2007, a total of 3,370 certificates were issued by Defra for Eagle Owls held in Britain, while a further 158 certificates were refused. The majority of Article 10 certificates issued relate to the sale of young, captive-bred Eagle Owls so it is likely that the actual number in captivity is considerably higher than this (in captivity the species is long-lived, perhaps up to 60 years; [www.raptorfoundation.org.uk](http://www.raptorfoundation.org.uk)). In addition, there are likely to be imported Eagle Owls in Britain that will be covered by Article 10 certificates issued in another EU member state and so will not appear in the above figures.

Eagle Owls continue to be imported to Britain in surprisingly large numbers. CITES figures reveal that during 1983–89, a total of 380 European Eagle Owls were imported (Thomsen *et al.* 1992). Since 1997, however, certificates have not been required for movements between EU member states, and since 1st July 2007 the importation of wild-caught birds into the EU has been banned.

The Independent Bird Register (IBR) was established in 1994, primarily to reunite owners with lost birds of prey. By 2007, the IBR had over 56,000 rings in circulation, including 440 fitted to Eagle Owls, at which time it estimated the number of captive Eagle Owls in Britain to be 3,000–4,000 (N. Fowler pers. comm.); this seems compatible with the statistics on Article 10 certificates discussed above.

Since the IBR was established, there have been 73 reports of registered Eagle Owls that were lost but not subsequently (reported as) recovered, while a further 50 registered birds escaped and were recovered. A total of 123 registered escapees over 13 years equates to 9–10 per annum and to 28% of the 440 total. This seems particularly high, but is probably owing to many having been flown for falconry. If the same escape rate applied to all captive British Eagle Owls over the same 13-year period, that would translate to over 800 escapes or around

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**Table 1.** Summary of Independent Bird Register (IBR) Eagle Owl *Bubo bubo* data for 1994–2007.

IBR lowest estimate of British captive population	3,000
Number of birds registered with IBR	440
Number of registered birds that escaped and were not refund, in 13 years	73
Number of registered birds that escaped and were refund, in 13 years	50
Number of unregistered birds reported to IBR in 13 years	83
Total number of registered birds escaping in 13 years	123
Percentage of registered birds escaping in 13 years	28%
(28% of the estimated captive population in Britain)	(839)

65 per year. There are clearly numbers of unregistered captive birds in Britain escaping or being deliberately released as, since 1994, 83 unregistered Eagle Owls were found and reported to the IBR (table 1).

*European population estimates*

Hagemeijer & Blair (1997) estimated the European (wild) population at 10,353–12,926 (11,308) breeding pairs in 32 countries, but excluding the Russian population of 2,000–20,000 (6,325) pairs. They stated that 'Altogether, some 60% of the European population is in decline.' More recently, BirdLife International (2004) put the European total at 19,000–38,000 pairs (but including Russia and Turkey). Its estimates for individual countries varied considerably, e.g. Spain 2,500–10,000 pairs, emphasising the difficulty of establishing population totals for this species. For the countries we consider as potential source populations for naturally occurring Eagle Owls in Britain (those bordering the North Sea), the BirdLife estimates (pairs) are as follows: Norway (1,000–2,000), Denmark (22), The Netherlands (1–2), Belgium (25–30) and France (1,000–1,200). There are other important populations in Fennoscandia, in Sweden (500–1,000) and Finland (2,000–3,000).

Eagle Owls have benefited from large-scale reintroduction or reinforcement programmes in Europe. In Germany, Eagle Owls were restricted to four mountainous areas during the 1960s. During the 1970s and 1980s, 1,500 birds

were released and the species is now a widespread breeder in Mittelgebirge and Schleswig-Holstein (Radler & Bergerhausen 1988). The breeding populations in Belgium and The Netherlands are believed to originate from this source, while the breeding population in Sweden is thought to be derived largely from releases of captive-bred birds (Snow & Perrins 1998).

*Eagle Owls breeding in the wild in Britain*  
*Scotland*

In Orkney, Baikie & Heddle (1848) stated: 'Is now extremely rare. Low (1813), though he speaks of it, never himself saw a specimen. Since then, however, one was killed in Sanday, by Mr Strang, in 1830. It is said to be occasionally seen in Rousay, and is believed still to breed in the Hammers of Birsay.' Low's earlier work published posthumously (Anderson 1879) made no reference to breeding Eagle Owls in Orkney. Moreover, Low (1813), having never seen an Eagle Owl, published a description from Pennant (1761–66), which incorrectly stated that the eyes were bright yellow, and also failed to mention ear tufts: 'In size it is almost equal to the eagle; irides bright yellow; the head and whole body finely varied with lines, spots, and specks of black, brown, ash-colour, and ferruginous; the wings long; the tail short, marked with dusky bars; the legs thick, covered to the ends of the toes with a close and full down, of a pale yellowish brown; the claws great, much hooked, and dusky.' There are no further details about any of these Orkney records. It seems likely that these rumours were confusing Eagle Owl with another species, possibly Long-eared or even Short-eared Owl (the latter is a relatively common breeder), particularly in the light of Low's misleading description.

Reports from Shetland are equally unconvincing. Edmondston (1809) stated that the 'Great Horned Owl' was formerly common and may have bred, but that it was now very scarce, although he had 'repeatedly seen five or six together'. Saxby (1874) believed that Edmondston had been deceived, although Saxby himself saw the 1871 record (Balta and Huney, Unst, in March), but did not give any description.

Elsewhere in Scotland, Drummond-Hay (1886) stated that: 'One was also shot at Faskally, Perthshire, a few years ago, but this bird was ascertained to have escaped from confinement; indeed, it is not unlikely that the



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Aberdeen bird may also have been an escape, as Mr Harvie-Brown in a note to me says it occurs in a semi-wild and domesticated state in Glen-shee, at Mr Paterson's, Dalnaglar; and any shot or reported are probably escapes, whether in Braemar, Forfar, or Perth.' Breeding in the wild occurred in Moray & Nairn in 1984 and 1985. A single egg failed to hatch in 1984, but one chick was reared in 1985 (Cook 1992; Holling *et al.* 2007). These breeding birds were thought to originate from a deliberate but unofficial introduction attempt.

## England

In May 1993, a local raptor worker was shown an Eagle Owl nest by a gamekeeper in the north Peak District moorlands of Derbyshire. The nest was already abandoned, containing four cold eggs, but there were several subsequent Eagle Owl sightings in this general area during the same season. Pellets collected near the nest showed that the bird(s) had fed on Mountain Hare *Lepus timidus*, Rabbit *Oryctolagus cuniculus*, Hedgehog *Erinaceus europaeus*, Red Grouse *Lagopus lagopus* and Common Pheasant *Phasianus colchicus*. There have been a number of Eagle Owl sightings in the Peak District moorlands since 1993, including two owls together in 2006, close to the original nest-site. However, there was no further evidence of nesting and one bird was picked up injured in 2006, and subsequently died (W. Underwood pers. comm.).

In North Yorkshire, a pair has bred successfully since 1997 (Holling *et al.* 2007), the birds having been present from at least 1996, and the female initially having the remains of jesses, which were later lost. Between 1997 and 2005 a

total of 23 young were raised by this pair, all of which were ringed. Two of these, both fledged in 2004, have been recovered: one found dead in Shropshire in 2005, the other found dead in Borders in 2006. This pair suffered persecution, the eggs being deliberately smashed on three occasions. In December 2005, the female was found dead; it had been shot, although this was not thought to be the ultimate cause of death. This female was replaced by another (ringed) female in 2006, which was subsequently seen with the male, but no eggs were found; the male was still at this site into 2007.

In the Forest of Bowland, Lancashire & North Merseyside, a single Eagle Owl wearing jesses was reported in October 2005. In 2006, another appeared and a nest was found containing four eggs, which failed to hatch. The pair nested again in 2007, more than 1 km from the 2006 nest-site, and raised three chicks. This breeding attempt was widely publicised and the pair watched by many observers (plates 241 & 242). Analysis of the prey remains revealed that the diet was almost entirely of Rabbit, with much smaller numbers of Hedgehog, Red Grouse and Common Pheasant. The remains of a breeding female Hen Harrier *Circus cyaneus* were also found near the nest, although feathers reported to be those of an adult male Hen Harrier proved to be from a Common Gull *Larus canus* (*Brit. Birds* 100: 629; Peter Grice pers. comm.). These birds moved to a less accessible nest-site elsewhere in the Forest of Bowland in 2008, laying three eggs and rearing two chicks. In 2003, another pair bred in northern England but the eggs were infertile; only one bird was recorded in 2004 and there were no further reports (Holling *et al.* 2007).



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241 & 242. These Eagle Owls *Bubo bubo* bred successfully in the Forest of Bowland, Lancashire & North Merseyside, June 2007.

Away from northern England, a pair appeared in southern England in 2004 and successfully reared three young in 2005 (B. O'Dowd pers. comm.). There have been no reports of breeding at this site since, although at least one bird was still present in 2007.

Holling *et al.* (2007) tabulated other records during 1996–2005, all of which were of single birds. Although not representing the total number of birds present, these figures make clear the increase in birds being reported in 1996, and then again from 2004 onwards.

#### Other reports

During our research, we came across numerous reports of individual birds, and several pairs, at large in the British countryside. Some were said to have survived for a number of years, but no formal details were forthcoming and we could find no further evidence of breeding. Formal reporting and recording of all known birds is essential for assessing the species' true status accurately. For details of BOURC's rationale for determining population sustainability and admissibility to Category C, see Dudley (2005).

#### Eagle Owls in falconry

Armstrong (1975) provided evidence that, as early as the sixteenth century, raptors were being imported into Britain for falconry, although we have found no specific reference to Eagle Owls being brought in for this purpose. Harting (1898) mentioned that Eagle Owls were used by falconers in France, at least in the mid eighteenth century. Eagle Owls are powerful raptors that can be trained to hunt a range of prey, and are particularly effective at dusk and at night. A small number of modern falconers use Eagle Owls in this way and, since 2004, some hunts in Britain have begun to use them for taking foxes *Vulpes vulpes* driven by hounds (e.g. [www.owlpages.com/news.php?article=351](http://www.owlpages.com/news.php?article=351)). It is also well-established that hunters may use a tethered or disabled Eagle Owl to lure other large birds of prey to the ground, where they can be captured or killed (Zuberogoita *et al.* 2008). The medieval trade links between Britain and the Middle East make it possible that Eagle Owls were imported into Britain, perhaps for falconry, at a much earlier date than the first documented reference by Ray (1678).

#### Eagle Owl in the archaeological record

Stewart (2007) summarised the known archae-

ological record for the species in Britain and reviewed 13 fossil records claimed to be Eagle Owl. He noted that separation of Eagle Owl and Snowy Owl remains can be extremely difficult and concluded that four (of the 13) specimens were Eagle Owl or 'a species of the genus *Bubo* very closely allied with modern Eagle Owl *Bubo bubo*... present in Britain for up to 700,000 years, through to the end of the last ice age some 10,000 years ago and into the Holocene'. The most recent seems to be Mesolithic in age, or about 10,000 years BP, from Demen's Dale, Derbyshire.

#### Discussion

If Eagle Owls had been present in Britain up to around 10,000 years BP, what caused their demise? Mikkola (1983) suggested that persecution was responsible for their absence during the last 1,000–2,000 years, but offered no explanation for their absence between 2,000 and 10,000 years BP. The following would seem a more plausible theory. After the last ice age and up to around 9,000 years ago, Britain was still connected to mainland Europe, until rising sea levels engulfed the land bridge ([http://en.wikipedia.org/wiki/Land\\_bridge](http://en.wikipedia.org/wiki/Land_bridge)). Until that point, humans and other terrestrial animals used the land bridge to recolonise land revealed by the retreating ice sheet. Eagle Owls would have been driven southwards by the glaciers of the last ice age, and some birds would have recolonised Britain across the land bridge as the ice retreated. Recent and historical evidence suggests that Eagle Owls are relatively slow in expanding their range (often the case for large, relatively sedentary predators), and the species is known to be reluctant to cross large stretches of water (see below). It is possible that, by the time the land bridge with Europe was lost, only a small population of Eagle Owls had re-established in Britain and that further colonisation was perhaps hampered by low density on the mainland and certainly by the necessity for a sea crossing.

#### Likelihood of natural vagrancy

Long-eared and Short-eared Owls are regular winter migrants to Britain from Scandinavia, while Snowy Owl, Hawk Owl *Surnia ulula* and Tengmalm's Owl *Aegolius funereus* are irruptive species that have reached Britain, although the last two are extremely rare. Great Grey Owl *Strix nebulosa*, Pygmy Owl *Glaucidium passer-*

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*inum*, Ural Owl *S. uralensis* and Eagle Owl are by comparison sedentary, non-irruptive species that would be no more likely to turn up in Britain than would a Tawny Owl *S. aluco* in Ireland. These species clearly find sea crossings a significant barrier to dispersal.

Ringed recoveries confirm that Eagle Owl is largely sedentary in Europe, and that movements are associated mainly with post-juvenile dispersal and altitudinal shift. Cramp (1985) listed known movements of ringed birds as follows:

- 12 recoveries of Norwegian-ringed birds, 8–220 km (mean 95 km) from ringing site, with a tendency to head towards the coast;
- 75% of recoveries of chicks ringed in Sweden were within 50 km of the nest, with none farther than 86 km (Olsson 1979);
- recoveries of birds from west-central Europe with similar recorded movements to those of Scandinavian birds, range 11–205 km;
- 52 captive-bred birds released into the wild dispersed 0–110 km.

More recent data from the ringing schemes in Finland and Sweden provide valuable insights into Eagle Owl dispersal. In Finland, an average of 342 Eagle Owls have been ringed each year in the seven years to 2007 (Johanna Oja pers. comm.). One Finnish-ringed bird has been recovered in Estonia; a crossing of the Gulf of Finland would involve at least 30 km over the sea but this bird may have travelled round the eastern end of the Gulf of Finland, rather than across it. One ringed in southwest Finland in 1986 was recovered near Stockholm, Sweden, in 2000. However, 14 years between ringing and recovery is a long time and it could conceivably have avoided a sea crossing and gone round the northern end of the Gulf of Bothnia. A more likely possibility is that it used the numerous islands in the Åland archipelago and island-hopped across to Sweden, thus avoiding sea crossings of more than 20 km.

By 2003, 6,663 Eagle Owls had been ringed in Sweden and there had been 1,805 recoveries, giving a 27% recovery rate (Thord Fransson pers. comm.). One hatched in central Sweden in 1977 was found in western Finland in 1985; like the Finnish bird mentioned above, it may well have travelled via the Åland archipelago. There is also one record of a bird ringed in central Sweden being recovered on the island of Gotland in the Baltic, involving a sea crossing of at least 40 km. The median distance travelled

from hatching place for birds recovered during summer (May to August), at least one summer after ringing, is 52 km (range 0–528 km, n=66). It is also notable that there are no recoveries of Swedish-ringed Eagle Owls in Denmark, despite the short distance and minimal sea crossing involved.

Elsewhere in Europe, Glutz von Blotzheim & Bauer (1985) noted a bird in the Alps moving 400 km. Other work in the Alps using satellite-tracking found that, in Switzerland, Eagle Owls in their first winter covered distances of 4–35 km per night and crossed mountain ranges up to 3,000 m high. These birds 'settled' between 10 km and 100 km from their place of origin (Aebischer *et al.* 2005).

It has often been suggested that records of Eagle Owl from the east coast and from North Sea oil installations are proof that the species crosses the North Sea. The North Sea Bird Club (NSBC) monitors birds on oil platforms and associated structures/vessels in the North Sea. Migrants from Scandinavia are recorded regularly, including many vagrant species; owls are recorded regularly (between January 1979 and February 2006, NSBC recorded 406 Long-eared Owls, 426 Short-eared Owls and four Snowy Owls), yet it has no records of Eagle Owl. Some of the 79 records assessed by BOURC were on the east coast during autumn, and these are arguably more likely to involve natural vagrants than records from elsewhere in the country. Despite the declines in many European populations, Hagemeyer & Blair (1997) reported some evidence of a resurgence in western Europe since 1970, linked to reintroduction programmes but also exploitation of new habitats (e.g. clear-fells) and food sources (e.g. rats *Rattus* associated with rubbish dumps). If these trends continue, the likelihood of wild birds reaching Britain will increase. However, the number in captivity, the frequency of escapes and the limited evidence of sea crossings support the view that current British records are most likely due to escapes, illegal releases (it is illegal to release into the wild any bird which is not normally resident in, or a regular visitor to, Britain), or their offspring; there is currently no clear evidence that wild birds are involved.

The BOU must have a very strong case for adding any species to the British List. In the case of Eagle Owl, there are two potential routes: 1) admission to Category C, based on the criteria of a self-sustaining population (originating

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from a captive source) being determined, or 2) natural occurrence (with strong supporting evidence, e.g. ringing recovery or stable-isotope analysis). Any such record must reach a balance of probability which is overwhelmingly in favour of natural vagrancy. Currently, the known records do not meet either of these criteria.

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## References

- Aebischer, A., Nyffeler, P., Koch, S., & Arlettaz, R. 2005. Jugenddispersion und Mortalität Schweizer Uhus (*Bubo bubo*) – ein aktueller Zwischenbericht. *Ornithol. Anzeiger* 44: 197–200.
- Anderson, J. (ed.) 1879. *A Tour through the Islands of Orkney and Shetland*, by G. Low. William Peace & Son, Kirkwall.
- Armstrong, E. A. 1975. *The Life and Lore of the Bird in Nature, Art, Myth and Literature*. Crown, New York.
- Baillie, W. B., & Heddle, R. 1848. *Historia Naturalis Orcadensis. Zoology, Part 1*. Paterson, Edinburgh.
- BirdLife International. 2004. *Birds in Europe: population estimates, trends and conservation status*. BirdLife International, Cambridge.
- Borrer, W. 1891. *The Birds of Sussex*. Porter, London.
- British Ornithologists' Union (BOU). 1883. *A List of British Birds*. BOU, London.
- 1915. *A List of British Birds*. BOU, London.
- 1952. *Check-list of the Birds of Great Britain and Ireland*. BOU, London.
- 1971. *The Status of Birds in Britain and Ireland*. Blackwell, Oxford.
- 1997. Records Committee: Twenty-third Report (July 1996). *Ibis* 139: 197–201.
- Cook, M. 1992. *The Birds of Moray and Nairn*. Mercat Press, Edinburgh.
- Cramp, S. (ed.). 1985. *The Birds of the Western Palearctic*. Vol. 4. OUP, Oxford.
- Drummond-Hay, H. M. 1886. Report on the ornithology of the east of Scotland, from Fife to Aberdeenshire inclusive. *Scot. Nat.* 8: 355–380.
- Dudley, S. P. 2005. Changes to Category C of the British List. *Ibis* 147: 803–820.
- Edmondston, A. 1809. *A View of the Ancient and Present State of the Zetland Islands*. Ballantyne, Edinburgh.
- Fisher, J. 1966. *The Shell Bird Book*. Ebury Press & Michael Joseph, London.
- Glutz von Blotzheim, U. N., & Bauer, K. M. 1985. *Handbuch der Vögel Mitteleuropas*. Weisbaden, Aula-Verlag.
- Gurney, J. 1849a. The Eagle Owl (*Strix bubo*) breeding in confinement. *Zoologist* 7: 2566–2567.
- 1849b. The Great Eagle Owl (*Otus bubo*) nesting in confinement. *Zoologist* 7: 2452.
- Hagemeyer, W. J. M., & Blair, M. J. 1997. *The EBCC Atlas of European Breeding Birds: their distribution and abundance*. Poyser, London.
- Harrison, C., & Reid-Henry, D. 1988. *The History of the Birds in Britain*. Collins, London.
- Harting, J. E. 1898. *A Handbook of British Birds*. Van Voorst, London.
- Holling, M., & the Rare Breeding Birds Panel. 2007. Non-native breeding birds in the United Kingdom in 2003, 2004 and 2005. *Brit. Birds* 100: 638–649.
- Knox, A. E. 1850. *Ornithological Rambles in Sussex*. Van Voorst, London.
- Lilford, T. L. P. 1891–97. *Coloured Figures of the Birds of the British Islands*. Porter, London.
- Low, G. 1813. *Fauna Orcadensis*. Ramsay, Edinburgh.
- Mikkola, H. 1983. *Owls of Europe*. Poyser, London.
- Olsson, V. 1979. Studies on a population of Eagle Owls *Bubo bubo* (L.) in Southeast Sweden. *Viltrevy* 11: 1–99.
- Pennant, T. 1761–66. *British Zoology*. Marsh, London.
- Radler, K., & Bergerhausen, W. 1988. On the life history of a reintroduced population of Eagle Owls (*Bubo bubo*). In: Garcelon, D. K. & Roemer, G. W. (eds.), *Proceedings of the International Symposium on Raptor Reintroductions: 83–94*. Institute of Wildlife Studies, Arcata, CA.
- Ray, J. 1678. *The Ornithology of Francis Willughby*. John Martyn, London.
- Saxby, H. L. 1874. *The Birds of Shetland*. MacLachlan & Stewart, Edinburgh.
- Snow, D. W., & Perrins, C. M. (eds.). 1998. *The Birds of the Western Palearctic. Concise Edition*. OUP, Oxford.
- Stewart, J. R. 2007. The fossil and archaeological record of the Eagle Owl in Britain. *Brit. Birds* 100: 481–486.
- Thomsen, J. B., Edwards, S. R., & Mulliken, T. A. (eds.). 1992. *Perceptions, Conservation and Management of Wild Birds in Trade*. TRAFFIC International, Cambridge.
- Trevor-Battye, A. 1903. *Lord Lilford on Birds*. Hutchinson, London.
- Witherby, H. F., Jourdain, F. C. R., Ticehurst, N. F., & Tucker, B. W. 1938–41. *The Handbook of British Birds*. Witherby, London.
- Yalden, D. W. 1999. *The History of British Mammals*. Poyser, London.
- Zuberogoitia, I., Martinez, J. E., Martinez, J. A., Zabala, J., Calvo, J. F., Azkona, A., & Págan, I. 2008. The dho-gaza and mist net with Eurasian Eagle-Owl (*Bubo bubo*) lure: effectiveness in capturing thirteen species of European raptors. *J. Raptor Res.* 42: 48–51.

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## The Eagle Owl in Britain

**Appendix 1.** Summary of all historical occurrences of Eagle Owl *Bubo bubo* in Britain 1678–1990, with BOURC comments on acceptability following review.

Date	Location	Comment	BOURC view (see key)	Reference
1678	St James's Park, London	First record in captivity in Britain (and known in captivity in France in same year)	–	125
Pre-1684	Orkney	Report	1	136, 117, 149, 10, 113, 107, 54, 115, 133, 11, 128
Pre-1752	Sussex	Report	1	86, 153
Pre-1768	Yorkshire	Report	1	117, 92, 57, 102, 80, 31, 133, 83, 114, 130, 9, 100
Spring 1770	Kent	Report	1	92, 120, 157, 115, 80, 133, 111, 81, 8, 147, 78
Pre-1772	Fife	Killed	1	118, 119, 92, 57, 120, 65, 115, 80, 111, 82, 126, 139
Pre-1774	Shetland	Report	1	2, 50, 51, 41, 80, 133, 129, 52, 155, 11, 9
29th December 1782 or 1784	Herstmonceaux, East Sussex	Shot	1	93, 120, 59, 102, 115, 80, 133, 19, 157, 111, 81, 155, 130, 152, 9, 47, 135, 53
Pre-1813	Orkneys	Report	1	98, 102, 80
1813	Shetland	Report	1	130, 11, 9, 146
1820	Honiton, Devon	Report	1	108, 109, 102, 157, 115, 80, 133, 121, 44, 111, 81, 155
c. 1824	Horton, near Bradford, Yorkshire	Shot	1	31, 72, 111, 81, 114, 28, 100
1828	Shardlow, Derbyshire	Report	1	63, 20, 115, 80, 133, 153, 111, 81, 89, 155, 130, 9
1830	Sanday, Orkney	Killed	1	7, 65, 115, 80, 71, 23, 18, 130, 11, 9, 22, 146
Summer 1832	Near Harrogate, Yorkshire	Taken alive; considered an escape	2	71, 31, 111, 114, 28, 100
Pre-1833	Durham	Report	1	134, 102, 71, 133, 145
Winter 1833	Near Oxford, Oxfordshire	Shot	1	101, 115, 80, 133, 6, 111, 81, 90, 155, 124
1836?	Swansea, Glamorgan	Report	1	115, 80, 133, 111, 27
1837	Off Flamborough Head, Yorkshire	Captured on board ship	2	84, 71, 31, 81, 114
Spring 1841	Hornsey, Middlesex	Specimen	2	18, 62
1842	Scotland	Report	1	3
Autumn 1843	Near Goring, Berkshire	Report (seen from train)	1	101, 80, 6, 81, 90, 124
Pre-1844	Derbyshire?	Specimen (unlabelled)	1	20
c. 1845	Handley Common, Dorset/Wiltshire	Report	1	137, 155, 130, 122
March 1845	Clifton Castle, Yorkshire	Report	2	110, 71, 31, 111, 114, 100
3rd November 1845	Hampstead, Middlesex	Report	2	74, 79, 115, 80, 133, 111, 81, 62

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Date	Location	Comment	BOURC view (see key)	Reference
November 1845	Greetland, Yorkshire	Report	1	71, 31, 81, 114, 100
1848	Stainton le Vale, Lincolnshire	Report	2	71, 36, 111, 155, 138
Pre-1849	Near Melbourne, Derbyshire	Report	1	21, 80, 153, 111, 81
1849	Easton, Norfolk	First known captive breeding in Britain –		68
1853	Norfolk	Taken alive, considered an escape	3	88, 115, 24, 151, 71, 133, 111
1855	New Forest	Report	1	91, 155, 130, 9, 32, 33
December 1859	Embleton Beach, Durham	Obtained	3	111, 15, 16, 60
Pre-1863	Brodie, Morayshire	Report	1	141, 83, 34
Autumn 1863	Near Haroldswick, Shetland	Report	1	131, 80, 132, 71, 52, 11, 22, 146
November 1863	Near Llanidloes, Montgomeryshire	Report	3	12, 56
1864	Somerton, Norfolk	Shot	2	71
February 1866	Methlick, Aberdeenshire	Seen on 2nd February 1866, but was later 'collected'	2	65, 115, 80, 133, 85, 111, 81, 9
c. 1868	Steventon, Herefordshire	Caught; kept alive for three years, taken to Ludlow Museum	3	55
1869	Northrepps, Norfolk	Report; tame	3	71
c. 1871	Near Harpenden, Hertfordshire	Report	3	45, 148
March 1871	Balta and Huney, Shetland	Report	1	132, 71, 52, 81, 130, 11, 9, 22
October 1872	North Sutherland	Report	1	75, 71, 81, 15, 60
17th January 1873	River Tummel near Pitlochry, Perthshire	Report	2	66, 71, 81, 82
Autumn 1873	Near Bridgnorth, Shropshire	Killed	2	35, 71, 55, 81, 130, 155, 9
5th November 1875	Hummersea, Yorkshire	Shot	2	103, 114, 28, 100
Pre-1876	Seaton Carew, Durham	Report	1	71, 145
July 1876	Rombolds Moor, Ilkley, Yorkshire	Report	1	25, 31, 81, 114, 28, 100
12th April 1879	near Stamford, Lincolnshire	Shot; female	2	42, 129, 130, 73, 9, 138, 96
30th October 1879	Scarborough, Yorkshire	Report	1	30, 31, 36, 81, 114, 130, 28, 100
Winter 1879–80	Easington, Yorkshire	Report	1	37, 38, 114, 130, 28, 9, 100
1880–1900	Near Blackpool, Lancashire	Shot; known locally in captivity	3	77
23rd December 1881	Bayfordbury Estate, Near Hertford, Hertfordshire	Report; one escaped locally three months earlier	2	95, 127
February 1883	Duntroon Hill, Kilmartin, Argyllshire	Caught in rabbit trap	5	83, 155, 130, 11, 9, 22, 146
1st January 1885	Fixby, nr Hudders- field, Yorkshire	Report	1	72, 76, 114, 28, 100
1887	Near Onslow, Shropshire	Report	3	55

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Date	Location	Comment	BOURC view (see key)	Reference
October 1888	Spurn, Yorkshire	Report	1	36, 37, 38, 114, 28, 100
May and October pre-1890	Borders of Essex	Report	1	29
c. 1890	Kincardineshire	Shot	1	142, 9, 40
Winter 1891	Paultons, near Romsey, Hampshire	Report	2	112, 91, 156, 155, 130, 9, 32, 33
1908	Nottinghamshire	Report; birds known to have been released in the county about same time	3	49
October 1915	Near Redcar, Cleveland	Report	1	1, 28, 143
26th November 1931	Newton Lodge, North Uist, Hebrides	Report	1	4, 142, 11, 9, 22, 43
23rd April 1933	Morchard Bishop, Devon	Shot; abraded tail and primaries	2	26, 22
Autumn 1938	Kintyre	Report; pair; tame	2	61, 9
13th January 1939	Near Cuckfield, Sussex	Shot	3	47, 135
21st April to mid July 1941	Newton Stewart, Kircudbrightshire	Report; displaying; Short-eared Owl not eliminated	1	13, 11, 9
1941	Fannyside Moor, Dumbartonshire	Report	1	61
1942	Fannyside Moor, Dumbartonshire	Report	1	61
17th December 1943	Yarker Bank plantation, Wensleydale, Yorkshire	Report	1	5, 150, 28, 9, 22, 100
February 1947	Fannyside Moor, Dumbartonshire	Report	1	5
1949	Fannyside Moor, Dumbartonshire	Report	1	5
14th April 1954	Shropshire	Killed; specimen; Great Horned Owl	4	154, 22
1975–85	Scotland	Report; several escaped or deliberately released	2	146
14th March 1981	Near Windsor Great Park, Berkshire	Report	2	per BBRC
10th–12th September 1981	North Warnborough, Hampshire	Report; tame	2	per BBRC
27th July 1982	Leigh-on-Sea, Essex	Report; same as Little Wakering below	2	39
5th August 1982	Little Wakering, Essex	Report; same as Leigh-on-Sea above	2	39
1983–84	Kent	Report; six birds	2 or released individuals	per P. J. Grant
1984 onwards	Moray	Report	2 or released individuals	34
16th October 1987 to May 1989	Chichester, Sussex	Report; known escape	2	per J. T. R. Sharrock
9th December 1990	Willenhall, West Midlands	Report	2	per BBRC
<b>BOURC view</b>				
1 Insufficiently documented/identification unconfirmed				
2 Identification confirmed; presumed escape				
3 Contemporary doubt; presumed escape				
4 Identification incorrect				
5 Insufficiently documented/identification confirmed				

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## References for Appendix 1

- Almond, W. E., Nicholson, J. B., & Robinson, M. G. 1939. Birds of the Tees valley. *Trans. Northern Nat. Union* 5: 229–251. [1]
- Anderson, J. (ed.) 1879. *A Tour through the Islands of Orkney and Schetland*, by G. Low. William Peace & Son, Kirkwall. [2]
- Anon. 1888. *A Collection of British Birds at Rousdon*. Causton, London. [3]
- 1932. Eagle-Owl seen in North Uist. *Brit. Birds* 26: 58. [4]
- 1944. Yorkshire Naturalists' Union (Vertebrate Section) Committee for Ornithology. Report for 1943. *Naturalist* 55–73. [5]
- Aplin, O. V. 1889. *The Birds of Oxfordshire*. Clarendon Press, Oxford. [6]
- Baikie, W. B., & Hedde, R. 1848. *Historia Naturalis Orcadensis. Zoology, Part 1*. Paterson, Edinburgh. [7]
- Balston, R. J., Shepherd, C. W., & Bartlett, E. 1907. *Notes on the Birds of Kent*. Porter, London. [8]
- Bannerman, D. A. 1955. *Birds of the British Isles*. Vol. 4. Oliver & Boyd, Edinburgh. [9]
- Barry, G. 1805. *The History of the Orkney Islands*. Constable, Edinburgh. [10]
- Baxter, E. V., & Rintoul, L. J. 1953. *The Birds of Scotland*. Oliver & Boyd, Edinburgh. [11]
- Beckwith, W. E. 1879. *Birds of Shropshire*. Adnitt & Naunton, Shrewsbury. [12]
- Bedford. 1943. Eagle-Owls in Kirkcudbrightshire. *Brit. Birds* 36: 180. [13]
- Bolam, G. 1912. *The Birds of Northumberland and the Eastern Borders*. Henry Hunter Blair, Alnwick. [15]
- 1932. A catalogue of the birds of Northumberland. *Trans. Nat. Hist. Soc. Northumberland, Durham and Newcastle-upon-Tyne* 8(2): 1–165. [16]
- Booth, E. T., & Griffith, A. F. 1927. *Catalogue of Cases of Birds in the Dyke Road Museum*. 5th edn. Booth Museum, Brighton. [18]
- Borrer, W. 1891. *The Birds of Sussex*. Porter, London. [19]
- Briggs, J. I. 1844. Notes on the capture and appearance of some of our rarer British birds in the county of Derby. Part 3. *Zoologist* 2: 644–646. [20]
- 1849. The birds of Melbourne. *Zoologist* 7: 2475–2493. [21]
- British Ornithologists' Union. 1971. *The Status of Birds in Britain and Ireland*. Blackwell, Oxford. [22]
- Buckley, T. E., & Harvie-Brown, J. A. 1891. *A Vertebrate Fauna of the Orkney Islands*. David Douglas, Edinburgh. [23]
- Bulteel, C. J. C. 1873. Eagle Owl in Norfolk. *Field* 29, November 1873. [24]
- Butterfield, E. P. 1877. Eagle Owl in Yorkshire. *Zoologist* 1(3): 177. [25]
- Butters, F. C. 1933. Eagle-Owl in Devonshire. *Brit. Birds* 27: 75. [26]
- Cardiff Natural History Society. 1927. *The Birds of Glamorgan, 1925*. Cardiff. [27]
- Chislett, R. 1952. *Yorkshire Birds*. Brown, London. [28]
- Christy, M. 1890. *The Birds of Essex*. Durrant, Chelmsford. [29]
- Clarke, W. E. 1880. Ornithological notes from Yorkshire. *Zoologist* 4(3): 353–358. [30]
- & Roebeck, W. D. 1881. *A Handbook of the Vertebrate Fauna of Yorkshire*. Lovell Reeve, London. [31]
- Cohen, E. 1963. *Birds of Hampshire and the Isle of Wight*. Oliver & Boyd, London. [32]
- & Taverner, J. 1972. *A Revised List of Hampshire and Isle of Wight Birds*. Oxford Illustrated Press, Oxford. [33]
- Cook, M. 1992. *The Birds of Moray and Nairn*. Mercat Press, Edinburgh. [34]
- Cooke, N. 1874. Eagle Owl at Bridgnorth. *Zoologist* 9(2): 3997. [35]
- Cordeaux, J. 1889. Notes from the Yorkshire and Lincolnshire coasts in the autumn of 1888. *Naturalist* 1889: 1–4. [36]
- 1891. Rare British birds in the Humber district. *Zoologist* (3)15: 361–367. [37]
- 1899. *A List of Birds Belonging to the Humber District*. Porter, London. [38]
- Cox, S. 1984. *A New Guide to the Birds of Essex*. Essex Birdwatching and Preservation Society, Chelmsford. [39]
- Crichton, G. M. 1976. *The Birds of Angus*. G. M. Crichton, Brechin. [40]
- Crotch, W. D. 1861. Notes on the fauna of Shetland. *Zoologist* 19: 7337–7345. [41]
- Cullingford, J. 1879. Eagle Owl in Lincolnshire. *Zoologist* 3(3): 306. [42]
- Cunningham, P. 1983. *The Birds of the Outer Hebrides*. Melven Press, Perth. [43]
- D'Urban, W. S. M., & Mathew, M. A. 1892. *The Birds of Devon*. Porter, London. [44]
- Davis, F. 1874. *Luton Past and Present: its history and antiquities*. F. Davis, Luton. [45]
- des Forges, G., & Harber, D. D. 1963. *A Guide to the Birds of Sussex*. Oliver & Boyd, Edinburgh. [47]
- Dobbs, A. (ed.). 1975. *The Birds of Nottinghamshire, Past and Present*. David & Charles, Newton Abbot. [49]
- Edmondston, A. 1809. *A View of the Ancient and Present State of the Zetland Islands*. Ballantyne, Edinburgh. [50]
- Edmondston, T. 1844. A Fauna of Shetland. *Zoologist* 1: 459. [51]
- Evans, A. H., & Buckley, T. E. 1899. *A Vertebrate Fauna of the Shetland Islands*. David Douglas, Edinburgh. [52]
- Fairbank, R. 1991. The Sussex List. In: Bonham, P. F. (ed.), *The Sussex Bird Report 1990*, Sussex Ornithological Society. [53]
- Fleming, J. 1828. *A History of British Animals*. Bell & Bradfute, Edinburgh. [54]
- Forrest, H. E. 1899. *Fauna of Shropshire*. Wilding/Terry, Shrewsbury/London. [55]
- 1919. *A Handbook to the Vertebrate Fauna of North Wales*. Witherby, London. [56]
- Fothergill, C. 1799. *Ornithologia Britannica or, a list of all the British Birds*. Fothergill, York. [57]
- Fox, G. T. 1827. *Synopsis of the Newcastle Museum*. T & J Hodgson, Newcastle upon Tyne. [59]
- Galloway, B., & Meek, E. R. 1978–83. Northumberland's birds. *Trans. Nat. Hist. Soc. Northumberland, Durham and Newcastle-upon-Tyne* 44(1): 1–51. [60]
- Gibson, J. A. 1953. Rare birds in the Clyde area. *Glasgow & West Scotland Bird Bull.* 2: 31–32. [61]
- Glegg, W. E. 1935. *A History of the Birds of Middlesex*. Witherby, London. [62]
- Glover, S. 1829. *The History, Gazetteer, and Directory of the County of Derby*. 1. Stephen Glover, Derby. [63]
- Gray, R. 1871. *The Birds of the West of Scotland*. Thomas Murray, Glasgow. [65]
- 1873. Note on the occurrence of the Eagle Owl (*Bubo maximus*) in Perthshire. *Proc. Nat. Hist. Soc. Glasgow* 2: 214. [66]
- Gurney, J. H. 1849a. The Eagle Owl (*Strix Bubo*) breeding in confinement. *Zoologist* 7: 2566–2567. [68]
- 1876. *Rambles of a Naturalist in Egypt*. Jarrold, London. [71]
- 1886. [Opinion on 'Eagle Owl near Huddersfield' in 1885.] *Naturalist* 1886: 114. [72]
- Haines, C. R. 1907. *Notes on the Birds of Rutland*. Porter, London. [73]
- Hall, T. 1846. Occurrence of the Great-horned Owl at Hampstead. *Zoologist* 4: 1496. [74]
- Hancock, J. 1874. *Catalogue of the Birds of Northumberland and Durham*. Williams & Norgate, London. [75]
- Hanson, C. C. 1886. Eagle Owl near Huddersfield. *Naturalist* 1886: 114. [76]
- Hardy, E. 1931. Unrecorded specimens of Eagle-Owl and Ruddy Sheldrake from Lancashire. *Brit. Birds* 25: 132–133. [77]
- Harrison, J. M. 1953. *The Birds of Kent*. 2 vols. Witherby, London. [78]



## The Eagle Owl in Britain

- Harting, J. E. 1866. *The Birds of Middlesex*. Van Voorst, London. [79]
- 1872. *A Handbook of British Birds*. Van Voorst, London. [80]
- 1901. *A Handbook of British Birds*. 2nd edn. John C. Nimmo, London. [81]
- Harvie-Brown, J. A. 1906. *A Vertebrate Fauna of the Tay Basin and Strathmore*. David Douglas, Edinburgh. [82]
- & Buckley, T. E. 1895. *A Fauna of the Moray Basin*. 2 vols. David Douglas, Edinburgh. [83]
- Hawkridge, P. 1838. Capture of the Eagle Owl (*Strix bubo*) off Flamborough Head. *Wood's Nat.* 3: 155. [84]
- Hay, H. M. D. 1886. Report on the ornithology of the east of Scotland, from Fife to Aberdeenshire inclusive. *Scot. Nat.* 8: 355–380. [85]
- Hill, J. 1752. *A General Natural History*. Vol. 3. Thomas Osborne, London. [86]
- Jean, G. 1865. Notes on British birds. *Naturalist* 1: 257–260. [88]
- Jourdain, F. C. R. 1905. Birds. In: Page, W. (ed.), *Victoria History of the County of Derby*. Constable, London. [89]
- 1926. Birds of the Oxford District. In: Walker, J. J. (ed.), *The Natural History of the Oxford District*. OUP, Oxford. [90]
- Kensal, J. E., & Munn, P. W. 1905. *The Birds of Hampshire and the Isle of Wight*. Witherby, London. [91]
- Latham, J. 1779–82. *General Synopsis of Birds*. Benjamin White, London. [92]
- 1787. *General Synopsis of Birds*. First supplement. Benjamin White, London. [93]
- Littleboy, J. E. 1884. Notes on birds observed in Hertfordshire during the year 1882. *Trans. Herts. Hist. Soc. Field Club* 2: 209–222. [95]
- Lorand, S., & Atkin, K. 1989. *The Birds of Lincolnshire and South Humberside*. Leading Edge, Hawes. [96]
- Low, G. 1813. *Fauna Orcadensis*. Ramsay, Edinburgh. [98]
- Mather, J. 1886. *The Birds of Yorkshire*. Christopher Helm, London. [100]
- Matthews, A., & Matthews, H. 1849. The birds of Oxfordshire and its neighbourhood. Part 3. *Zoologist* 7: 2592–2603. [101]
- MacGillivray, W. 1837–40. *A History of British Birds*. Scott, Webster & Geary, London. [102]
- McLean, K. 1899. The avifauna of Staithes and Loftus-in-Cleveland, Yorkshire. *Naturalist* 1899: 129–147. [103]
- Montagu, G. 1813. *Supplement to the Ornithological Dictionary or Synopsis of British Birds*. Woolmer, Exeter. [107]
- Moore, E. 1830. On the ornithology of South Devon. *Trans. Plymouth Inst.* 1: 289–352. [108]
- 1837. On the birds of Devonshire. *Mag. Nat. Hist.* (2) 1: 113–115. [109]
- Morris, F. O. 1851. *History of British Birds*. Vol. 1. Groombridge, London. [110]
- 1895. *History of British Birds*. 4th edn. Vol. 1. Groombridge, London. [111]
- Muskett, F. 1891. Horned Eagle Owl. *Nat. Hist. J. School Rep.* 15: 76. [112]
- Neill, P. 1806. *A Tour through some of the Islands of Orkney and Shetland*. Constable, Edinburgh. [113]
- Nelson, T. H. 1907. *The Birds of Yorkshire*. 2 vols. Brown, London. [114]
- Newton, A. 1871. *Yarrell's British Birds*. Vol. 1. Van Voorst, London. [115]
- Pennant, T. 1768. *British Zoology*. Vol. 1. Benjamin White, London. [117]
- 1777a. Sketch of Caledonian zoology. In: Lighfoot, J. (ed.), *Flora Scotica*. Vol. 1. Benjamin White, London. [118]
- 1777b. *Tour in Scotland and Voyage to the Hebrides*. Benjamin White, London. [119]
- 1812. *British Zoology*. Vol. 1. Wilkie & Robinson, London. [120]
- Pidsley, W. E. H. 1891. *The Birds of Devonshire*. Gibbings, London. [121]
- Prendergast, G. D. V., & Boys, J. V. 1983. *Birds of Dorset*. David & Charles, Newton Abbot. [122]
- Prestwich, A. A. 1949. Eagle-Owls. *Avic. Mag.* 55: 100–105. [123]
- Radford, M. C. 1966. *The Birds of Berkshire and Oxfordshire*. Longmans, London. [124]
- Ray, J. 1678. *The Ornithology of Francis Willughby*. John Martyn, London. [125]
- Rintoul, L. J., & Baxter, E. V. 1935. *A Vertebrate Fauna of Forth*. Oliver & Boyd, Edinburgh. [126]
- Sage, B. L. 1959. *A History of the Birds of Hertfordshire*. Barrie & Rockliff, London. [127]
- Saunders, D. 1991. *Rare Birds of the British Isles*. Patrick Stevens, Yeovil. [128]
- Saunders, H. 1889. *Illustrated Manual of British Birds*. Gurney & Jackson, London. [129]
- & Eagle Clarke, W. 1927. *Manual of British Birds*. Gurney & Jackson, London. [130]
- Saxby, H. L. 1864. Ornithological notes from Shetland. *Zoologist* 22: 9230–9243. [131]
- 1874. *The Birds of Shetland*. MacLachlan & Stewart, Edinburgh. [132]
- Seebohm, H. 1883. *A History of British Birds*. 3 vols. Porter, London. [133]
- Selby, P. J. 1833. *Illustrations of British Ornithology*. Vol. 1. Lizards, Edinburgh. [134]
- Shrubbs, M. 1979. *The Birds of Sussex*. Phillimore, Chichester. [135]
- Sibbald, R. 1684. *Scotia Illustrata. Pars secunda specialis. Tomus secundus de animalibus Scotia tam feris quam domesticis at de mineralibus at marinis Scotia*. Edinburgh. [136]
- Smith, A. C. 1887. *The Birds of Wiltshire*. Porter/Bull, London/Devises. [137]
- Smith, A. E., & Cornwallis, R. K. 1955. *The Birds of Lincolnshire*. Lincolnshire Naturalists' Union, Lincoln. [138]
- Smout, A.-M. 1986. *The Birds of Fife: an outline of their status and distribution*. Donald, Edinburgh. [139]
- St John, C. 1863. *Natural History and Sport in Moray*. Edmonston & Douglas, Edinburgh. [141]
- St John Yates, J. M. 1932. Eagle-Owl in North Uist. *Scot. Nat.* 57: [142]
- Stead, P. J. 1964. The birds of Tees-side. *Trans. Nat. Hist. Soc. Northumberland, Durham and Newcastle-upon-Tyne* 15(2): 1–59. [143]
- Stevenson, H. 1866. *Birds of Norfolk*. 3 vols. Van Voorst, London. [144]
- Temperley, G. W. 1951. A history of the birds of Durham. *Trans. Nat. Hist. Soc. Northumberland, Durham and Newcastle-upon-Tyne* 9(2): 1–296. [145]
- Thom, V. 1986. *Birds in Scotland*. Poyser, Calton. [146]
- Ticehurst, N. F. 1909. *A History of the Birds of Kent*. Witherby, London. [147]
- Trodd, P., & Kramer, D. 1991. *The Birds of Bedfordshire*. Castlemead, Welwyn Garden City. [148]
- Tunstall, M. 1771. *Ornithologia Britannica*. J. Dixwell, London. [149]
- Utley, J. P. 1944. Eagle-Owl in Yorkshire. *Brit. Birds* 37: 215–216. [150]
- Walker, J. 1873. Eagle Owl in Norfolk. *The Field* 13. December 1873. [151]
- Walpole-Bond, J. 1938. *A History of Sussex Birds*. 3 vols. Witherby, London. [152]
- Whitlock, F. B. 1893. *Birds of Derbyshire*. Bemrose, London & Derby. [153]
- Wilson, D. 1955. Eagle Owl in Shropshire. *Brit. Birds* 48: 92. [154]
- Witherby, H. F., & Ticehurst, N. F. 1908. On the more important additions to our knowledge of British birds since 1889. Part VIII. *Brit. Birds* 1: 314–322. [155]
- , Jourdain, F. C. R., Ticehurst, N. F., & Tucker, B. W. 1938. *The Handbook of British Birds*. Vol. 2. Witherby, London. [156]
- Yarrell, W. 1856. *A History of British Birds*. 3 vols. Van Voorst, London. [157]