

Non-native breeding birds in the United Kingdom in 2006, 2007 and 2008

Mark Holling and the Rare Breeding Birds Panel

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Monk Parakeet *Myiopsitta monachus*

This is the ninth report by the Rare Breeding Birds Panel (RBBP) summarising breeding reports of non-native species in the UK. The RBBP has monitored the establishment and status of populations of the rarer non-native bird species since 1996. Annual reports were published in *British Birds* covering the years 1996–2002 (e.g. Ogilvie *et al.* 2004). Since the availability of records of non-native breeding species varies from year to year, however, we moved to periodic reviews covering three-year periods after 2002, with the intention

that reports would better reflect the national status. Hence the last report (Holling *et al.* 2007) covered 2003–05 and this review covers the years 2006–08.

The RBBP archive now contains records of breeding or potential breeding by 39 species where the population is (a) believed to have become established by naturalisation and (b) the total number of breeding pairs each year is (or has been) less than 300 pairs. Since 1996, it has become clear that the population of Rose-ringed Parakeets *Psittacula krameri* has increased and now exceeds this figure by

a large margin. From 2004, this species has been sufficiently numerous to be monitored by the BTO/JNCC/RSPB Breeding Bird Survey (BBS), occurring in 110 (3%) monitored BBS squares in 2009 (Risely *et al.* 2010). Consequently, this species will not be included in future RBBP non-native reports.

For completeness, short status summaries for the commoner species with populations derived from naturalised sources in the UK are presented in Box 1. Most of these species have populations numbering in the thousands, with the exception of the Ruddy Duck *Oxyura jamaicensis*, which has been subject to a national programme of eradication (see Henderson 2009) such that the breeding population is now believed to be below 300 pairs. Accordingly, Ruddy Duck has been added to the RBBP list of monitored species with effect from the 2009 season and data on this species are requested for the next non-natives report, which will cover the period 2009–11.

The full list of non-native species currently considered by the RBBP is available on the Panel's website (www.rbbp.org.uk), but breeding attempts by any other rare non-native species will also be collected, archived and included in future reports.

The information presented here helps the UK Government to fulfil Article 8 of the Convention on Biological Diversity, and other international treaties such as the EU Birds Directive, through the provision of the results of monitoring programmes. Any deliberate release of a non-native species is illegal in the UK under the 1981 Wildlife and Countryside Act and the 1985 Wildlife (Northern Ireland) Order. Most of what is reported here probably reflects past deliberate or accidental releases prior to establishment of the current legal frameworks, although accidental escapes no doubt continue.

The status of non-native breeding species as documented in these reports is also used by the BOU to assess inclusion of species on the British List (see Box 2). Non-native species with populations deemed to be self-sustaining are added to Category C of the British List (see Dudley 2005). The current BOU categorisation for all species in this report is included alongside the species headers (see BOU 2006 for definitions of

these categories). These categories apply to Britain only but Northern Ireland and the Isle of Man have similar categories.

The current membership of the RBBP is as follows: David Stroud (Chairman), Mark Eaton, Ian Francis, Simon Gillings, Andrew King, David Norman and Mark Holling (Secretary).

Rare non-native breeding birds in 2006–08

This report includes details of 24 species breeding or showing indications of breeding during 2006–08. In the heading of each species account, numbers given in the format '1–4 pairs' indicate (in this case) one confirmed breeding pair and a possible maximum total of four breeding pairs. Non-native species occur widely in the UK but the location of breeding (or potentially breeding) pairs of the rarer 24 species considered here is concentrated into relatively few recording areas (or 'counties'). Fig. 1 shows the number of rare non-native species breeding by recording area. The top three areas are: Lancashire & N Merseyside (12 out of 24 species), Hertfordshire (9) and Norfolk (8), but in total records from 53 counties (out of 82) are included in this report. The map shows that most non-native species are concentrated in England, particularly the south-east. The most widely distributed rare non-native breeding bird is the Black Swan *Cygnus atratus*, with at least probable breeding recorded in 27 counties, although Barnacle Goose *Branta leucopsis* (24) and Egyptian Goose *Alopochen aegyptiaca* (21) are close behind.

Although the Black Swan is widely distributed, and the numbers reported here are the highest ever, the totals are still too low, and the distribution too scattered, to suggest that the population is self-sustaining. In contrast, the breeding populations of both Barnacle and Egyptian Geese are now numbered in the hundreds, and both are potential candidates for removal from the list of rare non-native species monitored by RBBP. (A review of species on the RBBP list will take place in 2011, based on the preliminary results from the BTO/BWI/SOC Bird Atlas 2007–11.)

Numbers of other wildfowl numbers remain low, and breeding localised. Of these

The status of commoner non-native breeding birds in the UK**BOX 1**

Unless stated otherwise, population estimates are from Baker *et al.* (2006) and breeding population trends from the Breeding Bird Survey (BBS) and Common Birds Census (CBC) (Eaton *et al.* 2010; Risely *et al.* 2010). Wetland Bird Survey (WeBS) data are from Calbrade *et al.* (2010).

Canada Goose *Branta canadensis* C2E*

The Canada Goose population has risen steadily in the UK since the 1960s, with a tenfold increase in the WeBS index since 1966/67. WeBS data suggest that the population growth since 2001 has stabilised, but the BBS trend has continued to show an increase (by 106% between 1995 and 2008). This might mean that larger waterbodies, covered by WeBS counts, have reached capacity but the species has continued to increase in the wider countryside. Austin *et al.* (2007) showed that, in 2000, 56% of the breeding population occurred in habitats classed as 'no-water habitats'. The most recent population estimate was of 174,000 individuals in 2002/03, spread through much of lowland UK (Jackson *et al.* 2006).

Mandarin Duck *Aix galericulata* CIE*

The Mandarin Duck is poorly covered by most surveys owing to its preference for small, often wooded lakes; WeBS counts (e.g. maximum of 418 in 2008/09) clearly underestimate the population – estimated at 7,000 individuals by Davies (1988). Since 1988 there has been a steady increase in numbers counted by WeBS (up by 156% since 1993/94), as well as the proportion of BBS squares reporting this species: 45 squares (1.4%) in 2009, up from 25 (1.0%) in 2004, 18 (0.8%) in 1999 and 5 (0.3%) in 1994. This reflects range expansion as well as an increase in numbers, although the great majority remain in England.

Ruddy Duck *Oxyura jamaicensis* CIE*

The population of Ruddy Ducks in the UK has declined steeply in recent years as a result of the Defra eradication programme. A census in January 2010 found 269 birds at 103 sites, and by July 2010 it was estimated that there were 200 birds remaining in the UK, down from 4,400 at the beginning of the cull in September 2005 (Anon 2010).

Red-legged Partridge *Alectoris rufa* CIE*

There are estimated to be between 72,000 and 200,000 breeding pairs of Red-legged Partridges in the UK, with the population having shown no clear trend in numbers (an increase of 29% over 1995–2008, but a decrease of 11% since 1970). It is estimated that 6.5 million birds are released for shooting annually, of which 2.6 million are shot (figures for 2004; PACEC 2006). Clearly only a small proportion of the remaining birds are recruited into the breeding population in the following year.

Common Pheasant *Phasianus colchicus* CIE*

The breeding population of Common Pheasants in the UK (consisting of a conglomerate of at least six different subspecies) was estimated to be 1.8–1.9 million breeding females in 2000. The population has been growing steadily, with increases of 33% over 1995–2008, and 74% over 1970–2008. This reflects a steady rise in the numbers released for shooting: it is thought that around 35 million individuals are released every year, of which some 15 million are shot (figures for 2004; PACEC 2006).



54. Little Owl *Athene noctua*.

Little Owl *Athene noctua* CI

The most recent population estimate for the Little Owl in the UK was 5,800–11,600 pairs, in 2000. However, Little Owls have been declining steadily, over both the long-term (-38%, 1970–2008) and the short-term (-24%, 1995–2008), so the population may now be towards the lower end of that range, or even below it.

In addition, there are a number of native species for which a proportion of the population is derived from releases, whether deliberate or accidental. These include Mute Swan *Cygnus olor*, Greylag Goose *Anser anser*, Gadwall *Anas strepera*, Mallard *A. platyrhynchos*, Black Grouse *Tetrao tetrix*, Grey Partridge *Perdix perdix*, Red Kite *Milvus milvus*, Northern Goshawk *Accipiter gentilis*, Rock Dove/Feral Pigeon *Columba livia* and Barn Owl *Tyto alba*. Two species, Capercaillie *Tetrao urogallus* and White-tailed Eagle *Haliaeetus albicilla*, originate entirely from intentional releases intended to reintroduce extinct populations.

the most numerous species is the Red-crested Pochard *Netta rufina*, for which there was a record number of confirmed breeding pairs (14 in 2008, in eight counties).

Seven species of gamebird are included in this report. Although the rare pheasants are in decline, other species, especially Indian Peafowl *Pavo cristatus*, are being reported more frequently. For some commonly domesticated species of gamebird (and Muscovy Duck *Cairina moschata*), it is often difficult to ascertain whether breeding has occurred in the wild by escaped individuals, as opposed to wide-ranging but still domestic birds. We encourage observers to check each specific instance carefully so that only wild breeding birds are reported to the RBBP.

Falconry displays are responsible for many escaped birds of prey, but breeding in the wild is unusual, so the report of egg-laying by a pair of Harris's Hawks *Parabuteo unicinctus* in 2008 is noteworthy. Similarly, parrots are frequent escapees and six species have now bred in Britain, although only Rose-ringed Parakeets have colonised successfully and established a viable population. In this report we present an analysis of the history and current status of this species.

Although many believe that there is a thriving population of Eagle Owls *Bubo bubo* breeding in the wild in the UK, the Panel has received no evidence to support this; in the three years reviewed here there was just one recorded breeding pair in the UK.

Coverage and data inclusion

The Panel collects records from the whole of the UK including the Isle of Man, but not from the Channel Islands. Information for this report was submitted by most county and regional recorders and some additional data were gleaned from annual bird reports and from direct submissions from individ-

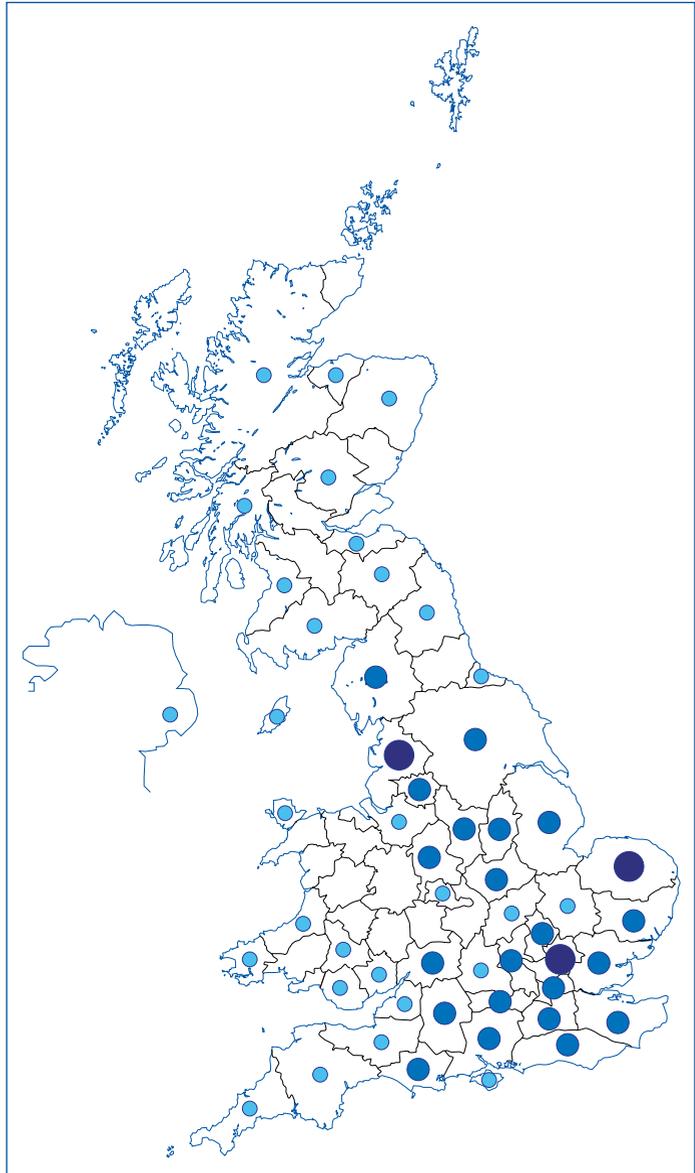


Fig. 1. The distribution of rare non-native breeding birds by recording area, 2006–08. Large dots show 7–12 species recorded; medium dots show 3–6 species recorded; small dots show 1–2 species recorded. There is generally a concentration of records in the more urban areas, especially those close to London, although Norfolk proves to be an exception. The single entry for Northern Ireland is in Co. Down.

Non-native species and the British List

The British Ornithologists' Union Records Committee (BOURC) maintains the British List and each species on the List is placed in one or more categories denoting its status on the List. Two categories are relevant to non-native species: C and E.

Category C, created in 1971, is for species that, although introduced initially, now have self-sustaining populations. In 1997, categorisation was revised to assist protection under national wildlife legislation, especially of naturalised species, and Category C was expanded to allow species with different histories of introduction and naturalisation to be distinguished by the use of separate sub-categories (1–5). Categorisation and species are reviewed periodically, with the last such review undertaken in 2005, when an additional sub-category, C6, was added. Further information is available on the British List pages of the BOU website (www.bou.org.uk).

Category E is for species recorded as introductions, human-assisted transportees or escapees from captivity, and whose breeding populations (if any) are thought not to be self-sustaining. Species in Category E that have bred in the wild in Britain are designated as E*. Category E species form no part of the British List (unless already included within Categories A, B or C); further details are available on the BOU website (see above).

The criteria for assessing whether populations are self-sustaining are critical to the placing of species on the British List (see Dudley 2005). In essence, a self-sustaining population is one that survives at, or increases beyond, what is assessed

to be a viable stable level in a natural state in the wild in Britain, and for which it is considered probable that succeeding generations will persist without human interference. BOURC uses a variety of information sources to make these assessments, but the information compiled in RBBP reports of breeding non-native birds is a key source.



Wood Duck *Aix sponsa*

(Contributed by Steve Dudley, BOU)

Simon Gillings

uals. For 2008, we have also had the benefit of some records submitted to Bird Atlas 2007–11. Holling *et al.* (2010) included the key to the geographical regions used in this report.

Data submission was generally good in all three years, with data received for all recording areas in 2006 and most in 2007 and 2008; the main area not contributing in the last two years was Greater London, an important county for breeding non-native birds. However, the Greater London recording area includes parts of neighbouring counties, five of which (Buckinghamshire, Essex, Hertfordshire, Kent and Surrey) contributed data for all three years, but we have only incomplete data for the remaining areas (Middlesex and Inner London).

Despite this good nationwide coverage, many non-native species are not well reported by the birdwatching community and an unknown number of breeding attempts must go unrecorded. The RBBP

would again like to encourage all bird-watchers and county recorders to report and collate all records of breeding attempts by rare non-native birds. Given the potential for some of these species to create conservation or economic problems (see below), it is important that this report is as comprehensive as possible, and we hope that its publication will encourage better reporting of these species. Our guidelines on recording rare breeding birds (www.rbbp.org.uk/rbbp-recording-standards) give more information. Because non-native wildfowl can occur widely but do not breed in most locations, we aim to collect only records of actual breeding attempts by wildfowl. For other species, we ask that all records are submitted. Our aim is to make the RBBP archive as complete as possible, so that decisions over what should be reported can be made from the widest possible knowledge base. Readers are referred to the details in the systematic list for further guidance. For completeness, previous

Policy on non-native breeding birds

The profile of non-native species as a conservation concern has grown considerably in recent years, both in the UK and beyond, so this report, presenting the most recent available population figures for the UK's breeding non-native birds, provides a useful insight into the scale of the issue in the UK. Many non-native species prove to be harmless, but some – termed *invasive* non-natives – may establish, spread and wreak havoc on native biodiversity, ecosystems, socio-economic interests and human health. This is no exaggeration: globally, invasive non-native species have been partly or wholly responsible for the extinction of at least 68 bird species, representing half of all birds (135 species) that have gone extinct since 1500 (BirdLife 2007). In the EU, the damage caused by invasive non-native species is estimated currently to cost at least €12 billion each year (EC 2008). In Great Britain alone, the cost stands at £1.7 billion per annum (Williams *et al.* 2010).

'Prevention is better than cure'

Reflecting the significance of the threat posed, the respective government departments for England, Scotland and Wales launched their 'Invasive Non-native Species Framework Strategy for Great Britain' in 2008. At the heart of this Strategy are the Guiding Principles for dealing with invasive non-natives, as outlined by the Convention on Biological Diversity. These Principles promote a three-stage hierarchical approach: prevention, detection/surveillance and control/eradication. Such an approach requires international co-operation: invasive non-native species do not recognise, and are not limited by, national borders.

A risk assessment process exists under the Strategy to determine which non-native species pose the greatest threat. Without a doubt, timely and co-ordinated action to prevent and control the impacts of these species before they become established is the most cost-effective and environmentally beneficial response. Further information can be obtained from the Non-native Species Secretariat website (<https://secure.fera.defra.gov.uk/nonnativespecies/home/index.cfm>), although much of the information here concerns taxa other than birds. The potential problems of non-native wildfowl were reviewed by Fox (2009).

The importance of reporting

Much depends on the early detection of new invasive species, so that action can be taken as soon as possible. Birdwatchers can play a key role in acting as an early warning system, and reporting all breeding attempts by non-native bird species to the RBBP via the relevant county recorder is fundamental to this.

(Contributed by Sarah Eaton, RSPB)

breeding occurrences of non-native species for which there were no reports in 2006–08 are summarised in Appendix 1.

The impacts of non-native species

A joint BOU/JNCC conference held in 1995 concluded that there was a need for better monitoring of the scarcer non-native birds breeding in the UK (Holmes & Simons 1996) and that the RBBP was best placed, given its links with county recorders, to collect and report on these species. The first report published covered 1996 (Ogilvie *et al.* 1999).

In October 2008, the BOU held a follow-up conference on the impact of non-native species (the proceedings are available online at www.bouproc.net). The conference was

wide-ranging, including papers on the impacts of naturalised Canada Geese *Branta canadensis* and Egyptian Geese, the control programme for Ruddy Ducks, and the potential impacts of introduced parakeets and Eagle Owls. One presentation recommended that the various schemes that monitor non-natives (especially RBBP and WeBS) work more closely together to provide useful population data. Some of these presentations have helped to inform this report and readers are encouraged to consult these proceedings.

Because of the potential impacts of non-native species on our native fauna and flora, the UK Government has developed a policy on non-native breeding birds and further information on this is presented in Box 3.

Black Swan *Cygnus atratus* (E*)

(Native to Australia.)

2006 11–14 pairs. 2007 11–20 pairs. 2008 16–25 pairs.

It is only since 2003 that the number of breeding pairs of Black Swans has been consistently in double figures and the data presented here point to increasing numbers within the main range: those parts of England south of a line between the Mersey and the Humber. Fieldwork for Bird Atlas 2007–11 probably boosted numbers reported in 2008. Dudley (2005) concluded that the population is not yet self-sustaining, owing to the small numbers and the wide scatter of sites. In 2006–08, only six counties (Berkshire, Essex, Greater London, Sussex, Wiltshire and Yorkshire) reported more than one breeding pair in any one year. Even though this is such a conspicuous species, there may still be an element of under-recording and we appeal to birdwatchers to report all breeding pairs. The data here include mostly breeding or apparently breeding pairs but some other counts are included that indicate a broader presence in a county.

England, SW

2006 One pair bred in Hampshire, but no young fledged. One pair in Wiltshire fledged four young.

2007 One pair bred in Hampshire, rearing three young, and two pairs fledged five young between them in Wiltshire, where there was a third, non-breeding pair.

2008 One pair bred, but failed, in Hampshire and there were two non-breeding pairs in Wiltshire.

England, SE

2006 Two pairs bred in Berkshire, fledging four young. Two pairs were present at one site in Essex, one of which bred and fledged two cygnets. In Greater London, two pairs bred, both producing broods. Two pairs bred at one site in Sussex, raising four cygnets between them.

2007 One pair produced two broods in St James's Park, Greater London. One pair was present in Hertfordshire and up to 11 birds in Essex, but no signs of breeding.

2008 Three pairs bred in Berkshire but all young perished. One pair nested in Buckinghamshire. One pair again bred in St James's Park, Greater London. One pair bred in Kent, where there were also three other pairs, and one pair bred in Oxfordshire. There was a non-breeding pair in Hertfordshire while in Sussex a pair built a nest but did not lay.

England, E

2006 One pair and many singles reported in Norfolk, but no nesting noted.

2007 One pair bred in Cambridgeshire (no young fledged), and there were records of single birds



Sheila Blamire

55. Black Swans *Cygnus atratus*, Cheshire & Wirral, April 2010. The data in this report suggest that numbers are increasing in England.

from a further 20 sites. One pair bred in Lincolnshire where there was a further non-breeding pair, while in Norfolk one pair fledged two young and there were two non-breeding pairs.

2008 One pair present in Northamptonshire. In Suffolk, a pair bred but failed because of flooding.
England, C

2006 At a site in Nottinghamshire, eight birds included two cygnets.

2007 One pair was present all summer in Leicestershire & Rutland and one pair fledged two young in Staffordshire.

2008 One pair bred in Derbyshire and one pair bred in Nottinghamshire, where cygnets were seen.
England, N

2006 One non-breeding pair in Cumbria. A pair in Yorkshire hatched three young but all perished within a few days.

2007 One non-breeding pair in Lancashire & N Merseyside. In Yorkshire three pairs bred at two sites. Of two broods totalling nine young, only three survived. The third pair was reported with four young in a nest. A fourth pair at a third site consisted of a pinioned female with a free-flying male; they built five nests but did not lay.

2008 One pair bred in Cheshire & Wirral where five young hatched, but none survived. One pair bred in Greater Manchester but failed to hatch young. These were the first breeding records for both counties. One pair bred in Isle of Man producing young. One pair bred in Yorkshire and a second pair built a nest but did not lay.

Wales

2008 In Gwent, a pair nested in October, laying five eggs, but deserted in November.

Scotland, S

2007 One pair present and may have bred in Dumfries & Galloway.

Whooper Swan *Cygnus cygnus* (AE*)

(Breeds in Iceland, northern Europe and northern Asia south to Kazakhstan and Mongolia. Small native population breeds in northern Scotland and Northern Ireland.)

2006 Two pairs. 2007 Two pairs. 2008 4–8 pairs.

Only a small number of naturalised pairs bred in Britain in 2006–08, when there appears to have been three centres of breeding: Bedfordshire, Greater London and the Strathfarrar area of Highland. Apparently wild pairs were included in the main RBBP report for each of these three years.

England, SE

2006 Two pairs in Bedfordshire, one incubated a clutch that did not hatch.

2007 Three birds in Bedfordshire included a pair that laid three eggs, but the nest was flooded. Birds reported in Hertfordshire may have originated from the Bedfordshire group.

2008 In Bedfordshire two pairs bred, one fledging one young. A pair also bred in Greater London, while in Hertfordshire a pair was present from March to November but did not breed.

Scotland, N & W

2006 At least three birds presumed not to be of wild origin were present in Highland but there was no indication of breeding.

2007 One pair bred in Highland.

2008 Pairs were present at four sites in Highland, presumably originating from the apparently naturalised population centred on Strathfarrar. One pair bred and two young were seen in the nest.

Bar-headed Goose *Anser indicus* (E*)

(Breeds on the Tibetan Plateau.)

2007 Two pairs. 2008 1–3 pairs.

Small numbers of Bar-headed Geese are often recorded among flocks of other naturalised geese in England, but the number of breeding attempts in recent years is fewer than in the late 1990s (up to eight pairs bred in 1999; Ogilvie *et al.* 2001). The records listed here include only breeding pairs or pairs faithful to a site during the year.

England, SE

2007 A pair in Hertfordshire was seen with a single juvenile in June. In Sussex, one pair raised two juveniles in July.

2008 In Kent, there were up to three adults at one site and 1–2 birds at another, but there was no indication of a breeding attempt.

England, N

2008 A pair bred in Lancashire & N Merseyside, fledging one young.

Snow Goose *Anser caerulescens* (AC2E*)

(Breeds in Arctic regions of northeast Siberia and North America.)

2006 0–2 pairs. 2007 1–3 pairs. 2008 0–5 pairs.

Breeding attempts in recent years have been largely confined to Hampshire and Argyll. Indications are, however, that these populations are dying out, as breeding has not been proved since 2005. The only sign of confirmed breeding during 2006–08 was a nest with eggs in Pembrokeshire, but the eggs did not hatch.

Snow Goose was added to Category C2 in 2005 on the basis of the Argyll population, which at the time was the only one believed to be self-sustaining. The limited information available recently indicates that this population is not monitored adequately.

England, SW

2006 Two pairs present all year in Hampshire, but did not breed.

2007 Two pairs present all year in Hampshire, but did not breed.

2008 Two birds were reported on one date in April at the usual site (Stratfield Saye) in Hampshire, but did not breed. The last breeding at this site took place in 2005, so this population may be heading for extinction.

Wales

2007 One bird was found sitting on a nest containing five eggs in Pembrokeshire.

Scotland, S

2008 A pair was reported in Ayrshire.

Scotland, N & W

2008 Four pairs were reported in Argyll from Coll, where a small, sedentary population, derived originally from a wildfowl collection on Mull, continues to breed.

Emperor Goose *Anser canagicus* (E*)

(Breeds in Arctic regions of western Alaska and northeastern Siberia.)

2006 No reports. 2007 One pair. 2008 One pair.

The only reported population was in Cumbria, with one pair breeding in 2007 and 2008. Up to 20 birds were present at a single site during the breeding season in both years. No breeding attempt was made in 2006, although the population numbered 15–24 birds.

England, N

2007 One pair bred in Cumbria, with a brood of three reported.

2008 One pair again bred in Cumbria.

Barnacle Goose *Branta leucopsis* (AC2E*)

(Breeds in Greenland, Svalbard and Arctic Russia.)

2006 A minimum of 73 pairs. 2007 A minimum of 117 pairs. 2008 A minimum of 84 pairs.

Familiar as a winter visitor mainly in coastal areas of Scotland and Ireland, the Barnacle Goose has become a reasonably common sight elsewhere, throughout the year, when associating with other naturalised geese such as Greylag *Anser anser* and Canada Geese. Barnacle Goose was added to Category C2 in 2005 based on self-sustaining populations in at least Bedfordshire, Norfolk and Suffolk. Breeding by naturalised Barnacle Geese is now well established and the size of flocks found in many English counties suggests that the numbers reported here do not truly

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reflect the actual totals. The most recent WeBS winter maximum reported, of 1,516 naturalised Barnacle Geese in January 2009 (Calbrade *et al.* 2010), gives a better indication of the abundance of this species. (In the WeBS, birds recorded in areas away from the wintering ranges of the Svalbard and Greenland populations of Barnacle Geese are considered to be of naturalised origin.)

Some examples might illustrate this. In Cumbria, in 2007, 150–210 birds were present at one site, although only one brood was reported. In 2006 and 2008, breeding was confirmed for 20 and 14 pairs respectively. In 2008 in Suffolk, only 23 breeding pairs were reported, but the county recorder estimated a breeding population of at least 100 pairs. A post-breeding survey of three sites in Suffolk in 2006 recorded 805 birds of which about 20% were juveniles (although some of these may have bred elsewhere in East Anglia or possibly originate from the large and expanding naturalised Dutch population). In the Isle of Wight there is a large, free-flying flock that originates from a wildlife park but the birds are not known to breed outside this park. There were up to 250 individuals in 2006 (max. 160 in 2007 and 2008). Breeding has occurred in north Lincolnshire in recent

Confirmed breeding pairs	2006	2007	2008
England, SW			
Avon	0	0	2
Gloucestershire	2	2	1
Hampshire	23	21	14
England, SE			
Bedfordshire	17	11	1
Buckinghamshire	0	0	11
Essex	2	1	1
Kent	0	0	2
Surrey	0	1	1
England, E			
Lincolnshire	*	*	*
Norfolk	0	0	3
Suffolk	6	7	23
England, C			
Derbyshire	2	5	5
Leicestershire & Rutland	0	1†	1†
Staffordshire	0	0	1
England, N			
Cheshire & Wirral	0	1	1
Cumbria	20	1	14
Lancashire & N Merseyside	*	*	*
Yorkshire	0	*	0
Wales			
Breconshire	0	0	1
Ceredigion	0	*	*
Scotland, Mid			
Perth & Kinross	0	0	1
Scotland, N & W			
Argyll	1†	0	0
Highland	0	1	1
Northern Ireland			
Co. Down	n/a	65	n/a
Total	73	117	84
* breeding occurred but numbers not known			
† mixed pairings			

years and in October 2008 the Humber flock numbered 468 birds, yet there were no counts of breeding pairs from this county. Similarly, in Lancashire and N Merseyside, two sites held over 130 birds and breeding probably occurred at both. In this and a number of other counties where breeding was noted, but where numbers were not available, the annual totals in the table left are marked with an asterisk.

Although numbers in the UK are stable or increasing overall, some counties do not seem to have self-sustaining populations. In Hampshire, at least 23 pairs bred in 2006 but only six young in four broods were seen; this population continues to decline with only three broods produced in 2007 and just one in 2008. Productivity seems to have been low in recent years, but the post-breeding population has also declined from a peak of 237 in 2001 to just 20 in 2008 (Clark 2009). A combination of decreased fecundity of an inbred and ageing population and the illegal shooting of feeding flocks in autumn is suspected as the reason for this decline.

Despite the sizeable numbers of naturalised Barnacle Geese at large, there were two instances of mixed pairing: in Argyll in 2006 a single Barnacle Goose was paired with a Canada Goose and in Leicestershire & Rutland, in both 2007 and 2008, a Barnacle Goose paired with a Greylag Goose.

The table left includes records of confirmed breeding pairs only.

Egyptian Goose *Alopochen aegyptiaca* (CIE*)

Confirmed breeding pairs	2006	2007	2008
England, SW			
Devon	0	1	1
Gloucestershire	0	0	1
Hampshire	3	4	7
England, SE			
Bedfordshire	0	0	1
Berkshire	24	14	16
Buckinghamshire	4	2	3
Essex	2	6	1
Hertfordshire	1	1	0
Inner London/Middlesex	4	7	n/a
Kent	1	1	1
Surrey	3	1	20
Sussex	1	1	1
England, E			
Lincolnshire	2	3	1
Norfolk	40	55	39
Suffolk	18	11	20
England, C			
Derbyshire	0	0	1
Leicestershire & Rutland	8	10	12
Nottinghamshire	n/a	n/a	2
Staffordshire	0	0	2
England, N			
Yorkshire	0	0	1
Wales			
Anglesey	1	0	0
Total	112	117	130

(Native to sub-Saharan Africa and formerly the Nile Valley north to southern Egypt.)

2006 112 pairs. 2007 117 pairs. 2008 130 pairs. (Note: these are the reported figures, but probably represent only 10–15% of the UK breeding population.)

Egyptian Geese were introduced as ornamental birds, mainly from South Africa, as early as the seventeenth century. The species was admitted to Category C of the British List in 1971 and at the time of the first Breeding Atlas (Sharrock 1976) there was a small but stable self-sustaining population in Norfolk and northern Suffolk. By the time of the second Atlas (Gibbons *et al.* 1993), there was evidence of consolidation in the range in East Anglia and an associated increase in population. The WeBS data for Egyptian Goose show a substantial increase in recent years, with a 400% rise between 1993/94 and 2008/09 (Calbrade *et al.* 2010). However, it is likely that the numbers counted within WeBS are only a small proportion of the current population; the peak of 726 in the 2008/09 winter is likely to be



David Tipling

56. Egyptian Goose *Alopochen aegyptiaca*, Norfolk, July 2005. There are indications that the range of this striking goose is expanding within the UK, and that the population may be in the region of 850–1,000 breeding pairs.

a substantial underestimate of a population that may be several times larger. The last decade has seen a range expansion away from the core area in Norfolk, with substantial counts from other counties, including Buckinghamshire, Hampshire and Leicestershire & Rutland. In addition, the number of BBS squares in which Egyptian Goose was recorded grew from

two (0.1%) in 1994 to 26 (0.8%) in 2009 (Risely *et al.* 2010).

With these figures in mind, it is clear that RBBP data do not fully reflect the total UK breeding population, although it is probably the core area of Norfolk and Suffolk which is most under-recorded. The forthcoming Norfolk Bird Atlas (Taylor & Marchant 2011) estimates that there were 750–900 breeding pairs in that county in 2000–07.

The table above shows the number of confirmed breeding pairs only. From these reported records, the total population would appear to be static, yet there are indications of spread: in 2008, breeding was reported for the first time in Bedfordshire, Derbyshire and Gloucestershire, though no young were fledged from these pioneering pairs. Breeding in the north of England had previously been reported only from Greater Manchester (most recently in 2002), but occurred in Yorkshire in 2003 and again in 2008 (the former record was not included in Holling *et al.* 2007).

If it is assumed that the county totals reported to RBBP in recent years are reasonably accurate, with the notable exception of Norfolk, then the UK breeding population would appear to be in the order of at least 850–1,000 pairs.

Ruddy Shelduck *Tadorna ferruginea* (BE*)

(Native to North Africa, and southeastern Europe to central Asia.)

2006 0–3 pairs. 2007 Two pairs. 2008 Two pairs.

A small population is restricted to East Anglia. Breeding has been reported in all years, except 2002, since monitoring by RBBP began, but never by more than three pairs in each year.

England, E

2006 Single pairs were present at three sites in Norfolk.

2007 One pair was seen with seven young in June in Norfolk, while another pair bred in Suffolk.

2008 A pair with young was reported in Essex, while in Norfolk in June another pair, also with a brood, was recorded from the same site as in 2007.

Muscovy Duck *Cairina moschata* (E*)

(Native to Central and South America.)

2006 At least five pairs. 2007 At least two pairs. 2008 Three pairs.

The data presented here include records of breeding pairs or pairs faithful to a site, but this species occurs widely across the UK in farmyards, and it is possible that some records relate to domesticated birds.

Equally, because of this, many birds are assumed to belong to free-roaming domesticated stock and go unreported. The only regular site continues to be Ely in Cambridgeshire, where the population appears to be spreading along the River Ouse. Breeding occurs regularly there but goes largely unmonitored, and the totals presented here are underestimates. This popula-



57. Muscovy Duck *Cairina moschata* family, Ely, Cambridgeshire, November 2010. A healthy population of Muscovy Ducks breeds along the River Ouse at Ely but better information on numbers and productivity is required.

Simon Gillings

tion appears not to be reliant on supplementary feeding by the public and, in the absence of sustained control measures, appears to be self-sustaining (Dudley 2005). However, the lack of regular counts, especially of the breeding population, means that it is not yet clear whether the Cambridgeshire birds constitute a naturalised population. We encourage birders in the area to make counts throughout the year and submit records to the county recorder.

England, SW

2006 A male and two females were seen with three downy young in Wiltshire.

2008 A pair with young was seen in Cornwall. The small population in Wiltshire had died out by the end of the year, with no breeding reported and at least two road casualties.

England, SE

2008 A nest with eggs was reported in Sussex.

England, E

2006 At Ely in Cambridgeshire, a peak count of 73 birds in November included 11 juveniles, but the number of pairs that laid eggs was unknown.

2007 In Cambridgeshire, Muscovy Ducks again bred at Ely, but counts of breeding pairs were not available. A pair also bred in Suffolk.

2008 There were no reports from any county in eastern England, including Cambridgeshire.

England, C

2008 A bird sitting on a nest was reported in Staffordshire.

England, N

2006 A pair hatched six young at a site in Greater Manchester but all had gone by mid August, possibly predated.

Scotland, S

2006 In Borders, a pair with three ducklings was reported in October.

Scotland, Mid

2006 A pair with young was seen in Moray & Nairn.

Wood Duck *Aix sponsa* (E*)

(Native to North and Central America.)

2006 2–3 pairs. 2007 2–4 pairs, including a mixed pair. 2008 3–5 pairs.

Breeding again occurred in Wiltshire in 2006, where a pair had previously fledged young in 2002. Although the birds remained until 2008, no further nesting took place at this site. A new site was identified in Lancashire & N Merseyside, where young hatched in all three years.

England, SW

2006 A pair bred in Wiltshire. Records of a pair and later five immatures in neighbouring Somerset may refer to the Wiltshire pair, or possibly to another attempt.

2007 In Wiltshire, three males and two females were reported at the 2006 site, but no breeding took place. Elsewhere in the county, a male paired with a female Mallard *Anas platyrhynchos*, which was seen with three hybrid young on 17th March, but the ducklings had disappeared five days later.

2008 Although there were two males and two females at the Wiltshire site, no breeding took place for the second successive year.

England, SE

2008 In Sussex, a female was seen with four ducklings, but no males were reported. However, there were a number of Mandarin Duck *A. galericulata* broods here so this breeding attempt may have resulted from a mixed pairing.

England, N

2006 Breeding was confirmed in Lancashire & N Merseyside where a female was seen with three young.

2007 A female with one young was reported in Lancashire & N Merseyside.

2008 In Lancashire & N Merseyside two pairs bred at different sites, with young reported at both.

Red-crested Pochard *Netta rufina* (AC2E*)

(Breeds patchily in Europe and east into central Asia.)

2006 10–12 pairs. 2007 13–34 pairs. 2008 14–30 pairs.

This species appears to be increasing, with nesting reported in eight counties during the three years under review and new records set for the number of confirmed breeding pairs (14 in 2008) and total pairs (34 in 2007). The population in the Cotswold Water Park, where breeding first occurred in 1975 (Mardle & Ogilvie 1976), continues to be the main one, with 20 pairs in 2008. On the basis of this established, naturalised and self-sustaining population, the Red-crested Pochard was added to Category C2 in 2005.

England, SW

2006 Eight pairs bred at the Cotswold Water Park in Gloucestershire with seven broods (totalling 33 young) counted.

2007 In Gloucestershire, five pairs bred at the Cotswold Water Park: two broods and three nests were reported there. Four other females were seen elsewhere in the county in April. Five pairs with 25 young reported from Wiltshire may refer to the same pairs from Gloucestershire as the site straddles the boundaries of the two counties. A post-breeding flock of up to 191 birds was present at this site.

2008 Of 20 pairs at the Cotswold Water Park in Gloucestershire at least six produced broods and the post-breeding flock numbered 135. Again, six broods reported from the Wiltshire part of the Cotswold Water Park may have been the same birds.

England, SE

2006 One pair bred in St James's Park in Greater London, hatching three broods. There were many other birds at large within the recording area, including 19 at Bushy Park in January, although there were no other indications of breeding.

2007 Four pairs bred in Essex and there were 23 birds at this site in August. In Greater London, two pairs bred in St James's Park, one of these raising at least nine young, and two pairs were present in Hyde Park. In Hertfordshire, two pairs bred (broods of four and two in early May) and there were three other pairs in the county.

2008 A pair that fledged three young in Berkshire constituted the first breeding record for that county. Four pairs again bred in Essex with a post-breeding flock of 23 in August. Two pairs bred in Greater London, with young seen in June and in September. In Hertfordshire, one pair lingered into April but was not seen subsequently.

England, E

2006 Two pairs were reported in Lincolnshire and one pair bred in Norfolk, where a brood of three was seen in early May but not subsequently.

2007 In Lincolnshire 12 pairs were reported but no broods were found.

2008 One nest with eggs was reported in Lincolnshire, and in Norfolk a pair probably bred.

Wild Turkey *Meleagris gallopavo* (E*)

(Native of North America south to Mexico.)

2006 No reports. 2007 Four nests. 2008 Three nests.

This species has not previously appeared in RBBP reports but a small breeding population seems to have become established in Lancashire and N Merseyside. Since 2008 there have also been some reports of other birds apparently living in the wild, in Wales and Herefordshire.

England, N

2007 At one site in Lancashire & N Merseyside four nests were found; one of these contained 28 eggs. Nine young were raised and at least ten birds were present to the end of the year.

2008 At the same site in Lancashire & N Merseyside three nests were found in June, although none was thought to be successful.

Northern Bobwhite *Colinus virginianus* (E)

(Native to North America including Mexico and Cuba.)

2006 One bird. 2007 No reports. 2008 No reports.

The only previous record in the RBBP archive is of a singing bird holding territory in the Isle of Man in 1998 (Ogilvie *et al.* 2000).

Scotland, Mid

2006 A singing male held territory for four weeks in July and August in North-east Scotland.

Reeves's Pheasant *Syrnaticus reevesii* (E*)

(Native to north central China.)

2006 Seven birds. 2007 No reports. 2008 At least four males.

These few reports reflect the sporadic occurrence of Reeves's Pheasants in England; there is no indication that a persistent population is becoming established. This species is kept widely and it is assumed that most records relate to occasional escapes from captivity.

England, SW

2008 Up to three males and two females at one site in Dorset but no evidence of breeding.

England, E

2006 Seven birds at one site in Norfolk but no evidence of breeding.

England, N

2008 One or more males recorded all year at one site in Lancashire & N Merseyside.

Golden Pheasant *Chrysolophus pictus* (CIE*)

(Native to central China.)

2006 Minimum of 25 birds. 2007 Minimum of 31 birds. 2008 Minimum of 11 birds.

All records submitted, apart from one-day reports of single birds, are summarised here to give indication of presence, but this elusive species suffers from under-recording and the numbers are certainly minima. Norfolk and Suffolk continue to be the main counties from which regular sightings are reported. Most records, where specified, refer to males, but it is important that bird-watchers report the sex of each bird seen to help with more accurate recording of the population. Gibbons *et al.* (1993) quoted an estimate of 1,000–2,000 birds in the UK, but submissions to the Panel since 1996 have never exceeded the 118 pairs in 2000 (Ogilvie *et al.* 2002). The mean number of individuals reported between 1996 and 2003 (omitting 2001, when access was restricted) was 71. This compares with an average of just 27 individuals reported for the most recent five-year period (2004–08), supporting the belief that numbers are declining.

England, SW

2008 In Dorset, a record of a first-winter male with six other birds at one site in December provides confirmation of breeding there. It is also thought that breeding occurred at a second site.

England, SE

2006 Two birds, presumably males, were reported in May at one site in Sussex.

England, E

2006 Recorded in the first six months of the year at five sites in Norfolk, with a maximum total of 17 birds. In Suffolk, records were received from four sites, with three males at one of these.

2007 Two territories were held at one site in Norfolk and at least 15 birds were recorded at six other sites. In Suffolk, up to 14 birds were reported from three sites and, although a male was specified at only one site, a young bird was also seen, indicating breeding had occurred in the county.

2008 Three males were reported at two neighbouring sites in Suffolk.

England, N

2008 A single male was present throughout the year at a site in Lancashire & N Merseyside.

Lady Amherst's Pheasant *Chrysolophus amherstiae* (C6E*)

(Native to southwest China and adjacent regions of Burma.)

2006 Six males. 2007 Seven males. 2008 Five males.

This summary includes all records submitted to the Panel, other than one-day reports of single birds in areas away from the established population in Bedfordshire and Buckinghamshire. No records of confirmed breeding were received. At the time of the last RBBP review of non-natives, when we reported on 1–2 males in Buckinghamshire, no data had been received from Bedfordshire. We are now aware of the following totals for that county: ten males in 2003; at least 12 males in 2004; 9–10 males in 2005. The numbers presented here suggest that this species is just about hanging on, but it seems only a matter of time before the UK population dies out, as predicted by Nightingale (2005). This situation resulted in the BOU establishing the new sub-category C6 (Dudley 2005) for species formerly placed in C1 (naturalised introduced species) whose populations are now no longer considered to be self-sustaining.

England, SE

2006 Six males were reported from three sites in Bedfordshire.

2007 Seven males were reported from three sites in Bedfordshire, but no females were seen.

2008 Five males were reported from three sites in Bedfordshire.



David Tipling

58. Male Lady Amherst's Pheasant *Chrysolophus amherstiae* Norfolk, February 2010. The small population in Bedfordshire and Buckinghamshire continues to decline and its extinction seems to be inevitable.

Indian Peafowl *Pavo cristatus* (E*)

(Native to the Indian subcontinent and Sri Lanka.)

2006 Three pairs. 2007 Two pairs. 2008 Six pairs.

Peafowl associated with parks, animal collections and stately homes often wander some distance from these locations and from the records presented here it seems that some then attempt to breed 'in the wild'. These records refer only to these apparently wild-ranging birds that remain faithful to a site, and include 11 records of broods. We suspect that breeding in the wild by this species is under-recorded.

England, SE

2007 In Bedfordshire a pair nested in the wild and fledged three young. Seven birds at four sites in Hertfordshire appeared to be living in the wild.

2008 Records came from 13 sites across Bedfordshire with two reports of broods. In Hertfordshire there were up to 15 birds at four sites.

England, C

2006 In Derbyshire a pair hatched two young, which did not survive.

2007 In Derbyshire a pair again hatched two young, which did not survive.

2008 In Derbyshire two females nested, hatching one and two young respectively.

England, N

2008 A pair was recorded with four young in Lancashire & N Merseyside and there was also a brood reported in Yorkshire.

Scotland, Mid

2006 Two broods at two separate sites were reported in North-east Scotland.

Helmeted Guineafowl *Numida meleagris* (E*)

(Native to sub-Saharan Africa.)

2006 No reports. 2007 Reports from five sites including one nest. 2008 Reports from 12 sites including one nest and three broods.

In the wake of breeding records in Norfolk in 2001 and Hampshire in 2003, there is a much greater spread of records in this report, indicating that there are more birds at large in the countryside (although, as with Muscovy Duck, it is often not clear whether birds seen with young have bred in the wild). In 2006–08 there were reports from eight counties with breeding confirmed in five of these.

England, SW

2007 Two females were seen on five occasions in the Isle of Wight until May and were sitting on at least 40 eggs when they were both taken by a Fox *Vulpes vulpes*. In Wiltshire, up to five were regularly reported as having been present for several years.

England, SE

2007 In Hertfordshire up to 13 were reported from two sites, but there was no indication of breeding.

2008 Records were received from four sites across Bedfordshire including a nest with eggs in July, while in Hertfordshire there were up to 50 birds at five sites. In Kent five birds with young were reported in May.

England, E

2008 In Norfolk a pair with young was reported in June.

England, N

2008 In Lancashire & N Merseyside five birds with young were reported in July.

Wales

2007 Up to ten free-ranging birds were reported in East Glamorgan in January.

Harris's Hawk *Parabuteo unicinctus* (E*)

(Native to the Americas from southwestern USA to southern Chile and Argentina.)

2006 No reports. 2007 One mixed pair. 2008 One pure pair and one mixed pair.

This species has not appeared in these reports before but is a popular hawk flown by many falconers. Such birds occasionally escape and several counties have records of odd sightings, including some long-staying individuals, but with no evidence of breeding. The following records show that nesting attempts should not be ruled out, however. In 2007, one associated with a pair of Common Buzzards *Buteo buteo* and may have fathered some hybrid offspring; mixed pairing seems likely to have occurred in 2008 as well. The Panel is now also aware of a similar mixed pairing between a male Harris's Hawk and a Common Buzzard, in Cheshire & Wirral between at least 1997 and 2001. Two hybrid young were produced in 2000 and possibly also in 1998.

Nevertheless, it was with some surprise that two Harris's Hawks paired and laid eggs at a site in Lancashire & N Merseyside in 2008. The male had been in residence in the area for three years, but in March 2008 was seen with a female. Although both birds had leather anklets, indicating a captive origin, they behaved like wild birds, keeping a distance from observers. An old nest of a

Magpie *Pica pica* was lined and eggs laid in mid/late April. To prevent the possible establishment of a wild population, a licence was given for the capture of the female and the removal of the eggs, which were hatched in an incubator.

England, N

2007 In Yorkshire a breeding attempt probably occurred following a pairing with a Common Buzzard. A pair of Common Buzzards

was nesting and the male Harris's Hawk had been noted at the nest-site. The male Buzzard was present at the start of the nesting attempt but disappeared halfway through, leaving the male Harris's Hawk and the female Buzzard. Later, at least three odd-looking juveniles were seen, throwing some doubt on their parentage.

2008 In Lancashire & N Merseyside a pair nested but the eggs were taken by Natural England and hatched in captivity; one of the adults was also captured. In Yorkshire the male that may have bred in 2007 was again paired with a Common Buzzard and was seen taking food to the nest. The two young that fledged again had an odd appearance and are believed to have been hybrids.

Red-tailed Hawk *Buteo jamaicensis* (E)

(Native to North and Central America.)

2006 One mixed pair. 2007 No reports. 2008 One displaying bird.

These reports continue the records of occasional presence of individual Red-tailed Hawks, which, in the absence of their own kind, seem to be attracted to Common Buzzards. As with Harris's Hawk, there are a number of other reports of individuals at large which did not appear to form pairs with their own kind or other species.

England, C

2006 In Nottinghamshire a male, present all year, was seen displaying and mating with a female Common Buzzard. Stick-carrying was also seen, indicating nest-building.

2008 In Nottinghamshire, at the 2006 site, one bird was reported in March and seen displaying in July.

Rosy-faced Lovebird *Agapornis roseicollis* (E*)

(Native to southwest Africa.)

2006 At least one pair. 2007 None. 2008 None.

This parrot is a popular cagebird and in 2002 an escaped pair bred at Dunbar, Lothian, where a juvenile was seen in August. This was the first reported breeding of Rosy-faced Lovebirds in the wild in the UK (Ogilvie *et al.* 2004). No further data were available for this species in the last report, but we have since received information from a local observer about this small population. In 2003, up to seven adult birds were recorded between March and October, and from two to



Mike Lane

59. Escaped Harris's Hawks *Parabuteo unicinctus* such as this falconer's bird have been responsible for a small number of nesting attempts in the UK in recent years, as reported here.

eight juveniles were seen on four dates in June, July and August. It is not known how many pairs bred. The observer was absent in 2004 and no other records were received, and in 2005 there was just a single record, of one adult in August.

Breeding occurred again in 2006 when four adults and three juveniles were seen on 25th June. The last record was of two adults in July 2006.

Scotland, S

2006 In Lothian at least one pair bred.

Rose-ringed Parakeet *Psittacula krameri* (CE*)

(Native to sub-Saharan Africa north of the equator, and the Indian subcontinent including Sri Lanka.)

2006–08 Most recent estimate (2002) was 6,000 individuals, but now likely to be considerably more, perhaps c. 30,000 birds.

The Rose-ringed Parakeet began nesting regularly in the wild in the UK in 1969 (Hudson 1974) and was admitted to Category C of the British List in 1983 following the establishment of self-sustaining populations in southeast England, particularly in Kent and Greater London. Prior to that time there had been three recorded instances of breeding: in Norfolk in 1855, Essex in 1930 and Northamptonshire in 1931 (Holloway 1996). Rose-ringed Parakeets became established in the UK primarily as a result of persistent releases or escapes. Their behavioural flexibility, including generalist feeding ecology and ability to withstand temperate climates, has contributed to significant population growth over the past 40 years. They appear to be more successful in habitats more densely populated by humans, possibly because of the higher availability of food in these habitats, and their distribution in the UK reflects that characteristic.

The number of 10-km squares with breeding evidence increased from just three in the first Breeding Atlas (Sharrock 1976) to 15 in the second (Gibbons *et al.* 1993) and has already reached 75 in Bird Atlas 2007–11, with some expansion to the north and west of the more traditional range in southeast England (fig. 2).

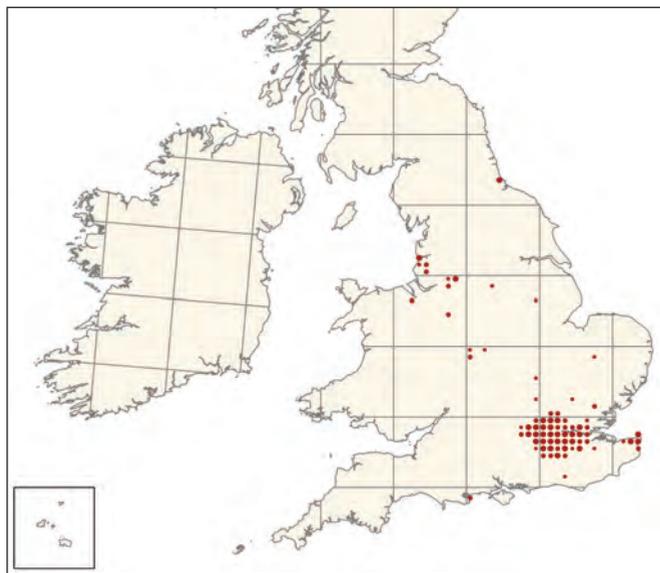


Fig. 2. The breeding distribution of Rose-ringed Parakeets *Psittacula krameri* in Britain & Ireland, based on data collected to date for *Bird Atlas 2007–11*. There are clear concentrations in and around Greater London and in east Kent, with fewer, scattered records mainly across the English Midlands to Lancashire & N Merseyside. The distribution closely matches the RBBP data for the years 2006–08. The three dot sizes represent confirmed (largest), probable and possible breeding. Map generated December 2010.

Rose-ringed Parakeets are now sufficiently numerous to be monitored by the BBS, occurring in 3% of survey squares in both 2008 and 2009 (Risely *et al.* 2009, 2010). BBS trends show that there has been a statistically significant increase of 696% over the period 1995–2008, the largest of any monitored species. In 2002, the estimated total UK population was 6,000 individuals, based on roost counts (Butler 2002). Co-ordinated counts have been taking place during the 2010/11 winter (see www.projectparakeet.co.uk), and it is anticipated that these will show there to be over 30,000 individuals within the Greater London area. It is not known how this translates into numbers of breeding pairs.

During 2006–08, most records came from southeast England, where breeding was confirmed in Berkshire, Essex, Greater London, Kent and Surrey, and probable breeding was recorded in Buckinghamshire and Hertfordshire. The numbers reported (for instance a total of nine pairs in Greater London in 2007) are a poor reflection of the presumed actual numbers of nesting pairs, however. Atlas work in Surrey (including part of Greater London) in 2008 recorded breeding pairs in 19 tetrads but records of Rose-ringed Parakeets came from 169 tetrads, indicating a much larger population. In Thanet, Kent, breeding numbers are believed to have stabilised in recent years at around 500 pairs. Breeding did not occur in Sussex, though, despite the large numbers present in neighbouring Surrey. In February 2006, approximately 6,000 roosted at Hershams (Surrey) and similar numbers were counted at Stanwell (Middlesex) in November, but it is thought that the main roost had relocated to the latter site. In 2007, roost counts from Greater London were 3,000 at Ewell, 1,600 at Stanwell, 1,000 at Wormwood Scrubs and 900 at Redhill.

Elsewhere, there appear to be small populations in five counties. A maximum of six birds was present throughout the year in Dorset but breeding was not confirmed. One or two pairs were confirmed breeding in West Midlands in 2007 and 2008. Two pairs bred in Cleveland in 2006 fledging at least three young between them. This is the first recorded breeding in that county and is the most northerly breeding record so far, although regular sightings in southern Northumberland may indicate the establishment of a new population. There are small populations in north-west England, with breeding confirmed or likely in Greater Manchester and Lancashire & N Merseyside during 2006–08. Breeding had formerly occurred in Lancashire & N Merseyside from around 1970 to the early 1980s (White *et al.* 2008) and in Greater Manchester in 1977 and during

1980–82 (Judith Smith *in litt.*) but both populations appeared to die out. Possible breeding was reported in Greater Manchester in 2006 and confirmed breeding at the same site in 2007. The total population in that county is still less than 20 individuals. In Lancashire & N Merseyside, breeding was not confirmed again until 2009 but records indicate a small, not self-sustaining, population of 10–20 birds present in the late 2000s.

Recent studies on introduced populations of Rose-ringed Parakeets have identified some of the factors behind the species' success and its current (and projected) distribution.

Although it is native to tropical regions, it seems to cope



Rose-ringed Parakeet *Psittacula krameri*

Dan Powell

well with the temperate climate of the UK. Strubbe (2010) compared parakeet reproductive success in areas where they have been introduced (such as the UK and Israel) with that in their native range in India, and found that parakeets in cooler areas (the UK) had a much higher rate of egg infertility than those in India or Israel. Predation pressure, however, was higher in the bird's native range and this reduced pressure may partly offset the effects of climate.

A review of the potential distribution and the impacts of increasing numbers of Rose-ringed Parakeets has suggested that, despite the species' generalist diet, continued augmentation of the population and near-exponential increase, the UK population is likely to remain confined to urban areas (Poole 2009). In Belgium, a study using radio-tracked birds showed that they forage mainly in city parks, gardens and orchards, rarely venturing into forests or agricultural areas (Strubbe 2010). Pithon (1998) showed that, in the UK, parakeet densities correlated best with concentrations of detached and semi-detached housing where older residents are more likely to provide bird food. Pithon & Dytham (1999a,b) found that breeding success of parakeets in small populations is poor compared with that in their native range, and that the rate of population increase may exceed the rate of geographic spread – which matches the massive population increase in southeast England but the limited spread beyond that area. However, Poole (2009) modelled the impact of climate change and suggested that the species' range would spread north and eastwards, which may bring the bird into conflict with farmers.

Parakeets nest early in the season and thus have the potential to affect other secondary hole-nesters, which breed later. Strubbe (2010) manipulated the availability of holes and found that sealing up cavities used by parakeets in two city parks in Brussels resulted in a significant decline in the number of nesting Eurasian Nuthatches *Sitta europaea*. However, even with large numbers of nesting parakeets, the impact under natural circumstances was judged to be small. Both Strubbe (2010) and Poole (2009) concluded that there were no imminent ecological threats, which suggests that immediate implementation of control measures is unnecessary in the UK, although the establishment of new populations should be discouraged. The Rose-ringed Parakeet remains a protected species in the UK, but from January 2010 Natural England enabled landowners and occupiers to use a 'general licence' to kill this species if they could demonstrate a legitimate reason for doing so: for example, significant damage to crops, a significant negative impact on native wildlife or risk to public health and safety.

Given the current status and expansion of this species' population, this is the last RBBP report that will include Rose-ringed Parakeet. We will, however, continue to monitor other parrots breeding or attempting to breed in the UK.

Monk Parakeet *Myiopsitta monachus* (E*)

(Native to South America.)

2006 At least ten nests. **2007** Three nests. **2008** An estimated minimum of five nests.

As described in our last report, there are small populations of Monk Parakeets in Hertfordshire and Greater London. Limited information was received for 2006–08 but the indications are that the numbers are similar to those in previous years, with no change in distribution. Monk Parakeets are a more recent introduction to the wild in the UK than Rose-ringed Parakeets and this population may still be in the establishment phase. Both species have the potential to cause ecological and economic damage (Tayleur 2009) but further work is required to produce an evidence base for any assessment.

England, SE

2006 Among a total of 51 birds, nine pairs were seen at nests in February at Borehamwood in Hertfordshire, where nesting occurred in 2004 and 2005. In Greater London, 25 were counted around a communal nest-site in August.

2007 There were three active nests at Borehamwood, Hertfordshire, and a roost count of 40 in mid January. In Greater London, there were up to 15 at one favoured site but no evidence of breeding.

2008 Sporadic reports were received from Borehamwood, Hertfordshire, including 40 on 26th February with several repairing nests. A minimum of five nesting pairs was estimated.



Stephen Murphy

60. Young Eagle Owls *Bubo bubo*, Lancashire & N Merseyside, May 2010. Given the amount of coverage of the 'Eagle Owl issue' in recent years, it may come as a surprise to birdwatchers that the only formal breeding report during 2006–08 was of a pair in Lancashire & N Merseyside.

Eagle Owl *Bubo bubo* (E*)

(Widespread in Europe and temperate Asia.)

2006 One pair. **2007** One pair. **2008** One pair.

Our last report included a lengthy review of the occurrence of Eagle Owls in the UK, and documented all known breeding occurrences. Although rumours of a much larger population continue, the only evidence of breeding that was submitted refers to a single pair in Lancashire & N Merseyside. Long-staying birds were also reported during the review period from Breconshire, Kent, Meirionnydd, Norfolk and Radnorshire, and no doubt others were at large too, but there was no suggestion of more than one bird present in any of these cases. In our last report we summarised the limited data then available for 2006 and 2007 and speculated that there were two breeding pairs in 2007, but evidence now points to the second record being of a single, non-breeding bird.

England, N

2006 In Lancashire & N Merseyside a pair laid eggs, which were later abandoned.

2007 In Lancashire & N Merseyside a pair nested and fledged three young. This pair became the subject of much media publicity as the nest was close to a public footpath.

2008 In Lancashire & N Merseyside the same pair nested and fledged two young from a clutch of four eggs.

Acknowledgments

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Appendix I.

The following non-native species have previously been recorded breeding in the UK, but no potential/confirmed breeding records were received for the period under review.

Trumpeter Swan *Cygnus buccinator* (E*)

A pair bred in Northamptonshire in 1997, raising one young, and although present in 1998 did not breed again (Stroud 1998; Ogilvie *et al.* 1999, 2000).

Pink-footed Goose *Anser brachyrhynchus* (AE*)

Five birds, considered to be a family party of three well-grown young and two adults, were seen in Highland in July 1998. The young may have been reared locally but it is not clear whether the adults were wild birds or an escaped pair (Ogilvie *et al.* 2000).

White-fronted Goose *Anser albifrons* (AE*)

The last confirmed breeding was reported in Argyll in 2003 (Holling *et al.* 2007).

Red-breasted Goose *Branta ruficollis* (AE*)

The only breeding record of this species published by RBBP was of a clutch of eggs found in Yorkshire in 2003 (Holling *et al.* 2007).

South African (Cape) Shelduck *Tadorna cana* (E*)

In both 1997 and 1998 a pair of shelducks bred in Surrey. One of the pair was believed to be a hybrid, either between South African Shelduck and Paradise Shelduck *T. variegata* or between Australian Shelduck *T. tadornoides* and Paradise Shelduck (Ogilvie *et al.* 1999, 2000).

Blue-winged Teal *Anas discors* (E*)

A pair in Essex, present since 1994, bred successfully in 1997 (Ogilvie *et al.* 1999) but there have been no further records.

Common Goldeneye *Bucephala clangula* (AE*)

One or two pairs of non-wild birds were reported between 1996 and 2000 but not subsequently. The wild breeding population, largely confined to northern Scotland, is documented annually in the main RBBP report.

Silver Pheasant *Lophura nycthemera* (E*)

A pair bred in Norfolk in 1994 but there have been no subsequent reports of breeding.

Green Pheasant *Phasianus versicolor* (E)

Two populations, thought to be of hybrid descent, continue to persist in the Brecks (Norfolk/Suffolk) and northeast Norfolk, but no counts were available and there is no evidence that these are breeding populations. Similar birds have apparently been released widely in Dumfries & Galloway. There is some debate whether many supposed Green Pheasants are, in fact, melanistic Common Pheasants *P. colchicus*.

Night Heron *Nycticorax nycticorax* (AE*)

Full-winged birds bred in Lothian until at least 1998 and Norfolk until 2003, but breeding has not been recorded subsequently.

Red-rumped Parrot *Psephotus haematonotus* (E)

The only record concerns a family party in Northamptonshire in 1998, which are most likely to have escaped together rather than having bred in the wild.

Alexandrine Parakeet *Psittacula eupatria* (E*)

One pair bred in Lancashire & N Merseyside in 1997–99, with a second pair also nesting in 1998; all attempts were successful and the birds were not seen subsequently. In 2001 a mixed pair (with Rose-ringed Parakeet) nested in Kent but there have been no further records.

Blue-crowned Parakeet *Aratinga acuticaudata* (E*)

One pair bred in Kent in 2001 and possibly in earlier years. In 2001 the eggs were predated and no further records have been reported.

Red-winged Laughingthrush *Garrulax formosus* (E*)

The only record for the period under review was a single bird on the Isle of Man on 1st November 2006. Ten birds were imported into a wildlife park there in 1990 but by 1998 all had died or escaped. Breeding is believed to have occurred from at least 1996 (when an adult was seen feeding a young bird), and Sharpe *et al.* (2007) thought it likely that breeding in the wild was still occurring. It is not clear whether the Isle of Man population is self-sustaining, but given that the last reported sighting was in 2006 it is possible that it has now died out.

Canary *Serinus canaria* (E*)

In 2005, a pair of the domestic form of Canary attempted to nest in Gateshead, Co. Durham. The nest contained five eggs on 3rd June but had been abandoned on 18th June. This record has not previously been published by RBBP.

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