

Non-native breeding birds in the UK, 2009–11

Mark Holling and the Rare Breeding Birds Panel



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Black Swans *Cygnus atratus*

Abstract This Rare Breeding Birds Panel report covers only non-native species recorded breeding in the UK during 2009–11. A total of 26 species was recorded breeding or potentially breeding during this period, two of them (Swan Goose *Anser cygnoid* and Speckled Teal *Anas flavirostris*) for the first time. Numbers of most species remain extremely small, but Barnacle Geese *Branta leucopsis* and Egyptian Geese *Alopochen aegyptiaca* have increased rapidly.

This is the tenth report by the Rare Breeding Birds Panel (RBBP) summarising breeding reports of non-native species in the UK¹. To mirror other national reporting schemes, the geographical scope of the report includes Britain, Northern Ireland, the Isle of Man and the Channel Islands. A three-year period is used in an attempt to overcome the significant year-to-year variation in the availability of records of non-native species; reporting is considerably more sporadic and patchy than for native species. The RBBP has monitored the establishment and status of populations of rarer non-native bird species since 1996, but the period under review is the first to coincide with a national bird atlas project,

which had a beneficial impact on coverage.

The RBBP collates records of confirmed or potential breeding by non-native species where the total number of breeding pairs each year is fewer than 300. With effect from this report, we now include Ruddy Duck *Oxyura jamaicensis*, which, following a national eradication programme (see Henderson 2009), now has a population of fewer than ten breeding pairs in the UK. Although both Barnacle Goose *Branta leucopsis* and Egyptian Goose *Alopochen aegyptiaca* are now believed to have breeding populations far in excess of 300 pairs, the RBBP is continuing to collate data for these species.

To provide a more complete overview of the UK's non-native avifauna, we have again

¹ In this report, the Isle of Man and the Channel Islands are included within the term 'United Kingdom' in the title and as shorthand reference. Their legal status is complex, however, and further information is available at www.royal.gov.uk/MonarchUK/QueenandCrowndependencies/QueenandCrowndependencies.aspx

included short status summaries for the commoner non-native breeders, and we also present information on breeding non-native species in the Republic of Ireland for the same period (see below).

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

Rare non-native breeding birds in 2009–11

This report includes details of 26 species breeding or showing indications of breeding in Britain & Ireland during 2009–11. The review period coincided with the last three years of fieldwork for the BTO/BirdWatch Ireland/SOC *Bird Atlas 2007–11* (Balmer *et al.* 2013). Fieldworkers were strongly encouraged to note *all* bird species encountered and this report is greatly enhanced by records collected by the Atlas project. As a consequence, this report is our most comprehensive review of British and Irish non-native breeding birds to date.

Numbers of Black Swans *Cygnus atratus* were the highest ever recorded, with 25 confirmed breeding pairs in 2010 (although fewer were reported in 2011). The Black Swan remains the most widely distributed of the species in this report, with confirmed or probable breeding pairs in 28 counties in 2009–11. Seven species of non-native geese nested in 2009–11, with two (Barnacle Goose and Egyptian Goose) now estimated to number over 1,000 breeding pairs (Musgrove *et al.* 2013). We report the first ever breeding by Swan Geese *Anser cygnoid* in the UK and the first successful nesting by Red-breasted Geese *Branta ruficollis*. It was a surprise when a pair of Snow Geese *A. caerulescens* began breeding on Orkney in 2009, with two pairs nesting there in 2011; the species no longer breeds in Hampshire but there is a small, stable population in Argyll.

Since its accidental introduction in the 1950s, the Ruddy Duck has nested in 63 counties. It was still sufficiently widespread in 2009 for confirmed breeding to be recorded in 17 counties, but by 2011 that had been reduced to just 12, while the number of pairs more than halved between 2009 and

2011. Other breeding ducks included the established Red-crested Pochard *Netta rufina* (up to 31 nesting pairs) and rather more sporadic Muscovy Duck *Cairina moschata* (up to 17 pairs). No other species of duck had more than three nesting pairs in any one year, but two separate records of breeding Speckled Teal *Anas flavirostris* represented the first for this species in these reports.

With the apparent demise of the Lady Amherst's Pheasant *Chrysolophus amherstiae* population, Golden Pheasant *C. pictus* is the only remaining established rare non-native gamebird. Although this is a secretive species, it seems that numbers are stable, with the population concentrated in the East Anglian Brecks. Indian Peafowl *Pavo cristatus* now seems to be more widespread, although reporting of this species is likely to have benefited from Atlas fieldwork.

There were breeding records of just one non-native diurnal raptor – Harris's Hawk *Parabuteo unicinctus*. This species, widely kept for falconry, has a tendency to pair up with Common Buzzards *Buteo buteo* and these mixed pairs often fledge young successfully. Pairs of Eagle Owls *Bubo bubo* have bred in the wild since 1997 but the reported numbers remain low, at a maximum of three pairs. Monk Parakeets *Myiopsitta monachus* continue to breed in Hertfordshire and Greater London, though inconsistent recording obscures trends.

Only two species of non-native passerine have been proved to breed in the UK since 1996, but there are no reports since 2005. Red-winged Laughing-thrushes *Garrulax formosus* bred on the Isle of Man from at least 1996 until the late 1990s, but there have been no documented records since 2005 (Holling *et al.* 2011). There is one record of attempted breeding by Canaries *Serinus canaria*, in Co. Durham in 2005 (Holling *et al.* 2011). The Canary was the only non-native passerine recorded in the Atlas (Balmer *et al.* 2013), present in only six 10-km squares in the breeding season. Although songbirds do escape from aviaries, it seems they soon perish, perhaps quickly being taken by predators or succumbing to cold weather.

Unfortunately, despite the stimulus of fieldwork for the Atlas, many non-native species are still poorly reported by the bird-

watching community. Readers should be aware that the figures quoted in this report, from which we derive five-year means, should be treated with caution, since they are based solely on information supplied to the Panel. They are still, however, the best assessments available. We encourage birdwatchers to report all nesting and potential nesting pairs of the species covered in this report, and we hope that its publication will stimulate better recording. We welcome any records of breeding of non-native species from any year, including records that might have been overlooked from previous years. 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, for this group we aim to collect only records that would be categorised as probable or confirmed breeding. For other species, all records of birds in potential breeding habitat should be submitted. Further details can be found in the systematic list.

Why collect data on non-native species?

The data and information presented here help governments in Britain and Ireland to fulfil obligations under Article 8 of the Convention on Biological Diversity, and other international treaties such as the EU Birds Directive.

In the UK, any deliberate release of a non-native species (apart from Common Pheasant *Phasianus colchicus* and Red-legged Partridge *Alectoris rufa*) is illegal under either the 1981 Wildlife and Countryside Act (in Great Britain) or the 1985 Wildlife (Northern Ireland) Order. Most of what is reported here probably reflects the consequence of past deliberate or accidental releases prior to the current legal frameworks, although accidental escapes no doubt continue. For some species (e.g. Wild Turkey *Meleagris gallopavo* and Reeves's Pheasant *Syrnaticus reevesii*) recent intentional releases may be continuing.

The impacts of non-native species are now recognised as a major driver of biodiversity loss worldwide and a significant issue for conservation (Millennium Ecosystem Assess-

ment 2005; Holling *et al.* 2011). Although some non-native species appear to be harmless, others are invasive and can have serious effects on native species – for example, through competition, displacement, hybridisation and modification of habitats. For these reasons, it is critical to report and monitor their occurrence and particularly any attempts at breeding.

The status of non-native breeding species as documented in these reports is also used by the British Ornithologists' Union Records Committee (BOURC) to assess inclusion of species on the British List. Non-native species with populations deemed to be self-sustaining are included in Category C of the British List (see Dudley 2005 and Holling *et al.* 2011). Non-native species where the populations are thought not to be currently self-sustaining are placed in Category E; those which have bred at some point within Britain are designated E*. 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 similar categories apply to Northern Ireland and the Isle of Man, based on recommendations of the Association of European Records and Rarities Committees (see www.aerc.eu).

Further information on policy and the recording of non-native species of all taxa can be obtained from www.nonnative-species.org (Great Britain) and <http://invasivespeciesireland.com> (Ireland).

Population sizes of breeding non-native species in the UK

Table 1 shows all the non-native species that have been reported on by the RBBP since 1996, listed in descending order of population size.

Coverage and data inclusion

The full list of non-native species considered by the RBBP is available at www.rbbp.org.uk but breeding attempts by any other rare non-native species will also be collected, archived and included in future reports. We collect records from the whole of the UK including the Isle of Man and the Channel Islands (although no instances of breeding by rarer non-native species were received from the

Table 1. Breeding non-native birds in the UK, in descending order of population size. The population estimates for the commoner and scarce species are based on information from national monitoring programmes (see below), and from Musgrove *et al.* (2013). Other figures are the five-year means presented in this report (for details see the introduction to the species accounts).

	Population †		
Commoner non-native species		Ruddy Shelduck <i>Tadorna ferruginea</i>	1
Common Pheasant <i>Phasianus colchicus</i>	2,300,000	Emperor Goose <i>Anser canagicus</i>	1
Red-legged Partridge <i>Alectoris rufa</i>	82,000	South African Shelduck <i>Tadorna cana</i>	1
Canada Goose <i>Branta canadensis</i>	62,000	Swan Goose <i>Anser cygnoid</i>	<1
Rose-ringed Parakeet <i>Psittacula krameri</i>	8,600	Speckled Teal <i>Anas flavirostris</i>	<1
Little Owl <i>Athene noctua</i>	5,700	Red-breasted Goose <i>Branta ruficollis</i>	<1
Mandarin Duck <i>Aix galericulata</i>	2,300	Non-native species which have not yet been proved to breed in UK, but which are included in this report	
Scarce non-native species which bred in UK in 2009–11		Northern Bobwhite <i>Colinus virginianus</i>	
Egyptian Goose <i>Alopochen aegyptiaca</i>	1,100	Reeves's Pheasant <i>Syrmaticus reevesii</i>	
Barnacle Goose <i>Branta leucopsis</i>	1,000	Non-native species which bred in UK during 1996–2008 but for which there were no breeding records in 2009–11	
Rare non-native species which bred in UK in 2009–11		Trumpeter Swan <i>Cygnus buccinator</i>	
Ruddy Duck <i>Oxyura jamaicensis</i>	48	Bean Goose <i>Anser fabalis</i>	
Red-crested Pochard <i>Netta rufina</i>	28	White-fronted Goose <i>Anser albifrons</i>	
Black Swan <i>Cygnus atratus</i>	25	Silver Pheasant <i>Lophura nycthemera</i>	
Golden Pheasant <i>Chrysolophus pictus</i>	12	Lady Amherst's Pheasant <i>Chrysolophus amherstiae</i>	
Muscovy Duck <i>Cairina moschata</i>	9	Night Heron <i>Nycticorax nycticorax</i> (naturalised population)	
Monk Parakeet <i>Myiopsitta monachus</i>	8	Peach-faced Lovebird <i>Agapornis roseicollis</i>	
Indian Peafowl <i>Pavo cristatus</i>	6	Alexandrine Parakeet <i>Psittacula eupatria</i>	
Wood Duck <i>Aix sponsa</i>	4	Blue-crowned Parakeet <i>Aratinga acuticaudata</i>	
Snow Goose <i>Anser caerulescens</i>	3	Red-winged Laughing-thrush <i>Garrulax formosus</i>	
Wild Turkey <i>Meleagris gallopavo</i>	3	Canary <i>Serinus canaria</i>	
Helmeted Guineafowl <i>Numida meleagris</i>	2		
Harris's Hawk <i>Parabuteo unicinctus</i>	2		
Whooper Swan <i>Cygnus cygnus</i> (naturalised population)	2		
Eagle Owl <i>Bubo bubo</i>	2		
Bar-headed Goose <i>Anser indicus</i>	2		

† Most recent population estimate (breeding pairs).

Channel Islands in the period under review). This report also includes available records from the Republic of Ireland, although other than *Bird Atlas 2007–11* there was no dedicated effort to collect data on non-native birds in the Republic during the review period. Information for this report was submitted by most county and regional recorders along with their returns for native rare breeding birds, some additional data were gleaned from annual bird reports and from individual observers, while about 25% of the total of all records were those submitted originally to *Bird Atlas 2007–11*.

Data submission was generally good in all three years. Altogether, almost 900 unique species/year/site records of breeding non-native birds were submitted in 2009–11 but

there were relatively fewer in 2011 (27.5% of the three-year total) than either 2009 or 2010 (each with 36.5% of the total), perhaps because 2011 was the final year of atlas field-work.

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

Six species currently exceed the threshold used to denote a non-native breeder as 'rare', and some of them are among the commonest and most conspicuous species to be found in the country.

Of these six species, the three introduced most recently continue to increase in both numbers and breeding range. The Rose-ringed Parakeet *Psittacula krameri* was considered a rare breeder three years ago

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68. The male Indian Peafowl *Pavo cristatus* is a familiar sight around stately homes and ornamental gardens, but the less gaudy female is not as conspicuous. Breeding birds can be easily overlooked unless an incubating female is flushed by chance, or young birds are seen accompanying the female, as shown here in Germany in 2001.

Table 2. Commoner non-native breeding species in the UK.

	Date and location population established	Current breeding population ¹	Short-term population trend ²	Long-term population trend ³	GB range ⁴	GB range trend ⁵
Canada Goose <i>Branta canadensis</i>	Late 19th century (England)	62,000	+57%	+303%	1,790	+49%
Mandarin Duck <i>Aix galericulata</i>	Early 20th century (England)	2,300	+122%	+144%	497	+121%
Red-legged Partridge <i>Alectoris rufa</i>	1770s (England)	82,000	+24%	-15%	1,645	+35%
Common Pheasant <i>Phasianus colchicus</i>	11th century (probably England)	2,300,000	+32%	+74%	2,392	+5%
Rose-ringed Parakeet <i>Psittacula krameri</i>	1969 (England)	8,600	+1,057%	+1,047%	91	+43%
Little Owl <i>Athene noctua</i>	1842 (England)	5,700	-44%	-56%	1,238	-11%

¹ Number of pairs (Musgrove et al. 2013).

² Trend from BTO/JNCC/RSPB Breeding Bird Survey 1995–2011 (Risely et al. 2013), except for Mandarin Duck, from the BTO/JNCC/RSPB/WWT Wetland Birds Survey 1993–2011.

³ Trend from BTO Common Birds Census and BTO/JNCC/RSPB Breeding Bird Survey 1970–2011 (Eaton et al. 2013), or, for Canada Goose and Mandarin Duck, from UK Article 12 Report 2013 (period 1980–2010), or, for Rose-ringed Parakeet, from UK Article 12 Report 2013 (period 1983–2012).

⁴ Number of occupied 10-km breeding squares in *Bird Atlas 2007–11* (Balmer et al. 2013). Note that there are 2,876 10-km squares in Britain.

⁵ Percentage change in number of 10-km breeding squares since the 1988–91 breeding bird atlas (Gibbons et al. 1993).

(Holling *et al.* 2011); the breeding population is now approaching 10,000 pairs and continuing to increase, although most of the population remains within Greater London. The estimate in table 2 for the Mandarin Duck *Aix galericulata* population is likely to be a substantial underestimate, given it refers to numbers in 1988. Since then reports by the Wetland Bird Survey (WeBS) have more than doubled, and *Bird Atlas 2007–11* indicated significant expansion into areas such as the Welsh Borders and northwest England since the 1988–91 breeding atlas (Gibbons *et al.* 1993).

Of the other species, data for both Common Pheasant and Red-legged Partridge are misleading since they do not include the huge number of both species released for shooting purposes. It has been estimated that 35 million Common Pheasants and 6.5 million Red-legged Partridges are released in the UK every autumn, of which around 40% are shot (15 million pheasants and 2.6 million partridges, PACEC 2006). It is likely that the total biomass of Common Pheasants in the early autumn comfortably exceeds the springtime biomass of all the UK's native breeding birds combined; the ecological impact of these birds on the UK's countryside and its biodiversity is poorly understood.

Non-native birds in Ireland

Ireland holds far fewer non-native breeding birds than Britain, but their status has not previously been reported by our partners in Ireland, the Irish Rare Breeding Birds Panel. This report provides a baseline position from which their future status can be assessed.

Of the commoner non-natives in Ireland as a whole, only the Common Pheasant is widespread. Canada Goose *Branta canadensis* and Red-legged Partridge are more localised while Mandarin Duck is restricted to a handful of sites, mainly in the north. There are no breeding Rose-ringed Parakeets or Little Owls *Athene noctua*. Of the scarce and rare species described in the species accounts below, only the following bred during 2009–11: Black Swan (Republic of Ireland only), Barnacle Goose (Northern Ireland only) and Ruddy Duck (Republic of Ireland only).

Where breeding non-native species were

recorded in the Republic during 2009–11, the records are listed below those for the UK, but the number of pairs is not included in the headline totals. The only species thus affected are Black Swan and Ruddy Duck.

Species accounts

In this report we have introduced species banners similar to those now used in the main RBBP report (e.g. Holling *et al.* 2013). In these, alongside the species name, we give five pieces of information:

1. An indication of breeding status, based on the occurrence of confirmed breeding over the last ten years (in this report the ten years concerned are 2002–11):
 - Regular breeder – breeding has been confirmed in at least eight out of the last ten years;
 - Occasional breeder – breeding has been confirmed in 1–7 of the last ten years;
 - Former breeder – confirmed breeding occurred before 2002 but has not been recorded since;
 - Potential breeder – breeding has never been confirmed in the UK, but pairs or territorial birds have been recorded in potential breeding habitat.
2. A population estimate, based where possible on the mean maximum population size (in pairs or numbers of individuals) from the last five years (in this report the five years are 2007–11). In some cases where we believe this approach provides a substantial underestimate we show the totals estimated in the most recent report of the Avian Population Estimates Panel (Musgrove *et al.* 2013).
3. An indication of the population trend, whether increasing, stable or decreasing. Note that this trend is based only on the information received by the RBBP.
4. The category in which the species is placed on the British List by the BOURC.
5. An indication of the natural breeding range of the species.

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. Holling *et al.* (2007a) included the key to the geographical regions used in this report.

Black Swan *Cygnus atratus*

Regular breeder (10/10)

5-yr mean 25 bp; stable/increasing

E*

Native to Australia

2009 18–28 pairs. 2010 25–34 pairs. 2011 10–17 pairs.

Black Swans remain widely distributed across many counties of England, with confirmed breeding reports from 19 English counties during 2009–11. Twenty-five confirmed breeding pairs in one year (2010) is the highest yet reported. The potential is certainly there for an increase in the population in the future, but only five sites supported breeding pairs in all three years: in Berkshire, Dorset and Yorkshire (three sites). The single pair in the Republic of Ireland also occupied the same site in all three years.

Fig. 1 shows that numbers have increased in most years since 2001. The apparent decline in 2011 may be a recording artefact, since fewer records overall were submitted in that year, but the decline is proportionately more than might have been expected. Interestingly, there has also been a decline in the number of birds reported on Wetland Bird Survey (WeBS) counts since 2009 (fig. 1). Perhaps the run of colder winters in 2009–11 caused increased mortality, given that Black Swans will not be accustomed to long periods of frozen water in their native Australia. In the Netherlands, Beemster & Klop (2014) showed that a fall in the number of occupied atlas grid squares correlates well with the severity of winter weather.

Few records submitted made reference to the number of young fledged; such data would be invaluable to judge the productivity of nesting pairs, and whether established pairs are more successful than ‘new’ pairs. There are anecdotal reports of aggression by Black Swans towards Mute Swans *Cygnus olor* where the outcome is that neither species raises young (see also Blamire 2010).

Black Swan

Total pairs	2009	2010	2011
England, SW	5	9	6
Devon	2*	3*	
Dorset	1	1	1
Gloucestershire	1	1	
Hampshire	1*†		
Isle of Wight		1*	
Somerset		1*	1*
Wiltshire		2*	4*
England, SE	11	12	4
Bedfordshire	1		
Berkshire	2*	6*	1*
Buckinghamshire	1*		
Essex	2*	1*	
Greater London	1*	1*	
Hertfordshire	1	1	1
Kent	1	1*	1*
Oxfordshire			1*
Sussex	2	2*	
England, E	2	6	1
Lincolnshire		4*	1
Norfolk	1*	1*	
Northamptonshire	1		
Suffolk		1	
England, C	1	1	2
Derbyshire	1*	1*	1
Warwickshire			1*
England, N	6	6	4
Cheshire & Wirral	1*	1*	
Cumbria			1
Lancashire & N Merseyside		1*	
Yorkshire	5*	4*	3*
Wales	1	0	0
Caernarfonshire	1		
Isle of Man	2*	n/a	n/a
UK (confirmed and total)	18–28	25–34	10–17
Republic of Ireland	1*	1	1*

* counties/years where confirmed breeding records occurred

† mixed pairs with Mute Swan *Cygnus olor*

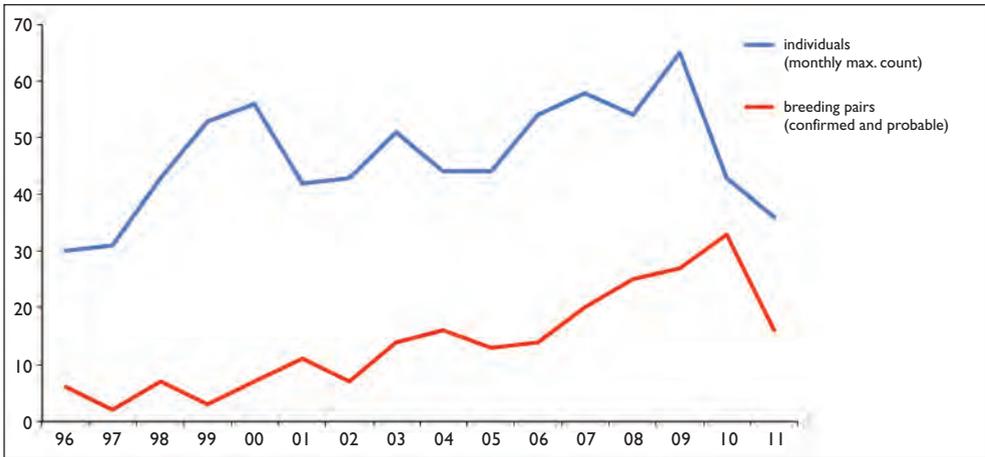


Fig. 1. Numbers of confirmed and probable breeding pairs of Black Swans *Cygnus atratus* in the UK, 1996–2011; and the total number of individuals recorded on WeBS counts during that period.

Whooper Swan *Cygnus cygnus*

Regular breeder (9/10)

5-yr mean 2 bp; stable

AE*

Breeds mainly in Iceland, Fennoscandia and northern Russia, with small populations (5-yr mean 19 bp) in northern Scotland and Northern Ireland

2009 Two pairs. 2010 One pair. 2011 Two pairs.

In 2009, two naturalised pairs bred, in **Bedfordshire** and **Kent**. Both pairs laid eggs but there was no record of any young. In 2010 and 2011, breeding was confined to **Bedfordshire**. The nest in 2010 was deserted after heavy rain, but in 2011 two pairs attempted to breed. One pair hatched two young, though they failed to fledge, while the second pair had two failed breeding attempts.

Emperor Goose *Anser canagicus*

Occasional breeder (7/10)

5-yr mean 1 bp; stable/declining

E*

Breeds in Alaska and Siberia

2009 Two pairs. 2010 One pair. 2011 No breeding.

Pairs continued to nest on Walney Island in **Cumbria** until 2010. In 2009, up to 15 birds were present in the breeding season and two pairs bred, hatching three young, although none survived. A single pair bred in 2010, two young were hatched but again none fledged. The maximum count was 14 birds, including the goslings. There were no reports of breeding in 2011.

Snow Goose *Anser caerulescens*

Regular breeder (8/10)

5-yr mean 3 bp; stable

AC2E*

Breeds mainly in Siberia and Arctic North America

2009 Two pairs. 2010 One pair. 2011 Three pairs.

The population that formerly bred in **Hampshire** had died out by 2009. The last breeding recorded there was in 2005. The long-established **Argyll** birds bred again on Coll, with maximum counts of 25 adults and four juveniles in August 2009. There were no records in 2010, but breeding was assumed in 2011, based on the occurrence of two juveniles in October.

A new population became established in **Orkney**. A nest was found in May 2009 but the attempt failed. The pair renested in 2010; a brood of six goslings was seen in June and later three juvenile birds were recorded. In 2011, two pairs bred at separate sites, broods of

three and four were reported.

Given that the overwinter estimate for the numbers of Snow Geese in the UK is 180 birds (Musgrove *et al.* 2011), and even though this number includes some wild birds, it is possible that the breeding population of naturalised birds is higher than the five-year mean of three pairs. It may be that some nesting pairs in Argyll (and others elsewhere) are being overlooked, or going unreported.

Bar-headed Goose *Anser indicus*

Regular breeder (9/10)

5-yr mean 2 bp; stable

E*

Breeds central Asia

2009 One pair and one mixed pair. 2010 One pair. 2011 One pair.

In 2009, a pair bred at the London Wildfowl Centre, Surrey, where a family party was seen in August, while on Islay, Argyll, one bird paired with a domestic goose was seen with goslings in April. In 2010, a pair bred in Lancashire & North Merseyside and in 2011 a pair bred in Regent's Park, Greater London.

Balmer *et al.* (2013) showed that records of Bar-headed Geese are well scattered across England, with birds often associating with Greylag *Anser anser* and Canada Geese, but breeding remains rare. However, a naturalised breeding population of at least 100 pairs has become established in the Netherlands (Banks *et al.* 2008), so there is potential for this species to establish itself in Britain and it is important that records of breeding pairs are submitted to county recorders.

Swan Goose *Anser cygnoid*

Occasional breeder (2/10)

5-yr mean <1 bp; first bred in 2009

E*

Breeds central and eastern Asia

2009 One pair. 2010 No breeding. 2011 One pair.

A pair at Scaling Dam, Cleveland, present since 2006, bred for the first time in 2009 and raised two goslings. There were no breeding records in 2010, but in 2011, confirmed breeding was also recorded in Herefordshire.

These are the first breeding records of this species in the UK.

Barnacle Goose *Branta leucopsis*

Regular breeder (10/10)

APEP estimate 1,000 bp; increasing

AC2E*

Breeds in Greenland, Svalbard, Arctic Russia and increasing rapidly in the Baltic

2009 A minimum of 168 pairs. 2010 A minimum of 162 pairs. 2011 A minimum of 164 pairs.

Musgrove *et al.* (2013) estimated that there were around 1,000 pairs of nesting Barnacle Geese in the UK, a figure that was derived from the numbers of apparently naturalised birds counted in the winter. RBBP data do not reflect this higher total, but we feel that breeding pairs in general are poorly reported, while there are no regular counts at a number of key sites, so an estimate of 1,000 breeding pairs is not unrealistic. Thus at Derwentwater, in Cumbria, 50 nests were counted on just one island in 2010, but the observer estimated that there may have been 100 pairs. Minsmere in Suffolk and Whitton Sands in Yorkshire are two other sites which regularly report over 20 pairs, and the large post-breeding flocks (133 in July 2011) at the Cotswold Water Park, Gloucestershire indicate a sizeable breeding population here too (although it is likely that some post-breeding flocks are quite mobile, making it difficult to determine the actual nesting sites).

Balmer *et al.* (2013) showed that there has been an 88% expansion of the breeding range since 1988–91. The naturalised population seems to be well established and increasing, but firm evidence to provide an accurate estimate of the number of breeding pairs is lacking.

Non-native breeding birds in the UK, 2009–11

Barnacle Goose					67	90	83
Confirmed breeding pairs	2009	2010	2011	England, N	1	2	1
England, SW	10	5	29	Cheshire & Wirral	42	62	52
Avon	2	2	2	Cumbria	1		9
Gloucestershire	5	1	25	Lancashire & N Merseyside	23	26	21
Hampshire	3	2 [†]	2	Yorkshire	1	3	3
England, SE	28	3	8	Wales		1	2
Bedfordshire	13	1	8	Anglesey		1	1
Buckinghamshire	11			Breconshire	1	1	
Essex		1		Ceredigion	1	1	0
Kent	2*	1		Scotland, Mid	1	1	
Surrey	2			Perth & Kinross	2	2	0
England, E	52	53	37	Scotland, N & W	1	2	
Cambridgeshire		1	1	Highland	1		
Lincolnshire	1			Shetland	1	1	0
Norfolk	3	3		Northern Ireland	1	1	
Northamptonshire	1			Co. Down	1	1	
Suffolk	47	49	36	Total	168	162	164
England, C	6	4	4				
Derbyshire	6	3	3				
West Midlands		1	1				

* includes one mixed pair with Greylag Goose
† includes one mixed pair with Canada Goose

Red-breasted Goose *Branta ruficollis*

Occasional breeder (2/10)

5-yr mean <1 bp

AE*

Breeds in Arctic Siberia

2009 No breeding. 2010 No breeding. 2011 One pair.

A pair bred in 2011 in Essex; four young were fledged. This is the first known successful breeding of this species in the UK; the only other breeding record involved a clutch of eggs found in Yorkshire in 2003 (Holling *et al.* 2007b).

Egyptian Goose *Alopochen aegyptiaca*

Regular breeder (10/10)

APEP estimate 1,100 bp; increasing

CIE*

Native to sub-Saharan Africa

2009 112 pairs. 2010 192 pairs. 2011 165 pairs.

Bird Atlas 2007–11 showed that Egyptian Geese occur in 8% of 10-km squares in Britain and that, in the last 20 years, the population has spread south and west from the strongholds in East Anglia, principally to counties around London. The numbers of pairs reported to the RBBP do



Egyptian Geese *Alopochen aegyptiaca*

Alan Harris

not in any way reflect the real abundance of this species, with the total of confirmed breeding pairs representing only 10–17% of the UK breeding population estimate. Taylor & Marchant (2011) estimated that there are 750–900 breeding pairs in Norfolk alone. The table shows only the number of confirmed breeding pairs, but in fact few other pairs are reported to the RBBP.

There is a large naturalised breeding population in the Netherlands (Gyimesi & Lensink 2010), which numbered c. 10,000 pairs in 2009.

Egyptian Goose						
Confirmed breeding pairs	2009	2010	2011	Oxfordshire		1
England, SW	7	11	9	Surrey	8	6 10
Cornwall			1	Sussex	1	2 1
Devon	2	1	2	England, E	51	89 91
Dorset		1	1	Cambridgeshire	1	1 1
Hampshire	5	9	5	Lincolnshire	2	5 7
England, SE	39	70	46	Norfolk	48	64 54
Bedfordshire		1		Northamptonshire		1
Berkshire	13	21	n/a	Suffolk		18 29
Buckinghamshire	1	5	8	England, C	15	22 19
Essex	2	7	6	Derbyshire	2	2 1
Greater London	6	20	15	Leicestershire & Rutland	10	17 15
Hertfordshire		3		Nottinghamshire	2	1 2
Kent	8	4	6	Staffordshire	1	2 1
				Total	112	192 165

Ruddy Shelduck *Tadorna ferruginea*

Occasional breeder (6/10) 5-yr mean 1 bp; stable

BDE*

Native to North Africa, southeastern Europe, west and central Asia

2009 No breeding. 2010 One pair. 2011 One pair.

In 2009, two pairs were reported from three sites in **Wiltshire**, including a pair resident from March to August, but there was no evidence of a breeding attempt. However, a pair bred in that county in both 2010 and 2011, at the same site, using a nestbox provided for owls or Common

Kestrels *Falco tinnunculus*. Ten young fledged in 2010 and 14 in 2011.

A female with three fledged young was reported from **Buckinghamshire** in August 2009 but it is not known from where these birds originated – it may not even have been in the UK, so this record is excluded from the statistics. There are naturalised populations in several countries in Europe including Denmark, Germany and the Netherlands.



Hans Schouten/FLPA

69. The Ruddy Shelduck *Tadorna ferruginea* has become established as a breeding bird in neighbouring countries in Europe such as Denmark, Germany and the Netherlands. These populations are of naturalised birds, which probably originate from wildfowl collections. Some of the Ruddy Shelducks recorded in Britain may be from these breeding populations, or from the few pairs that have bred in Britain.

South African Shelduck *Tadorna cana*

Occasional breeder (1/10) 5-yr mean 1 bp; stable

E*

Native to southern Africa

2009 0–1 pairs. 2010 One pair. 2011 0–1 pairs.

A pair was present in **Breconshire** in 2009 and bred in 2010, when nine ducklings were seen on 10th May. One of the adults may have been a hybrid South African × Australian Shelduck *T. tadornoides*. In 2011 there were up to four birds at this site but breeding was not repeated.

The only previous breeding records were in Surrey in 1997 and 1998.

Muscovy Duck *Cairina moschata*

Regular breeder (9/10) 5-yr mean 9 bp; increasing?

E*

Native to central and South America

2009 16 pairs. 2010 17 pairs. 2011 Seven pairs.

Fieldwork for *Bird Atlas 2007–11* showed that Muscovy Ducks occur widely across England, and a number of breeding records were reported. Since many of these ducks are found close to human habitation, there is much doubt about how wild the individuals are and it is likely that many will have gone unreported or lacked appropriate breeding evidence. The only regular site remains the River Ouse at Ely, in Cambridgeshire.

Muscovy Duck	2009	2010	2011		0	2	0
Confirmed breeding pairs				England, C		2	0
				Derbyshire		2	
England, SW	3	1	1	England, N	1	0	3
Avon	2	1		Cleveland			1
Cornwall			1	Lancashire & N Merseyside			1
Devon	1			Yorkshire	1		1
England, SE	0	1	1	Wales	1	0	0
Berkshire			1	Gower	1		
Kent		1		Scotland, S	0	1	0
England, E	11	10	2	Lothian		1	
Cambridgeshire	10	10	2	Scotland, N & W	0	2	0
Norfolk	1			Highland		2	
				Total	16	17	7

Wood Duck *Aix sponsa*

Occasional breeder (7/10) 5-yr mean 4 bp; stable

E*

Breeds North America and Cuba

2009 Three pairs. 2010 Three pairs. 2011 Three pairs.

Breeding occurred in **Wiltshire** again in 2009 (two pairs), but not in 2010, and by 2011 only a single bird remained. A female with six ducklings in **Norfolk** in 2009 was evidence of confirmed breeding in that county, but it was not repeated. In **Cambridgeshire**, a pair bred in both 2010 and 2011; in both cases a nest with eggs was reported. Another nest with eggs was found in **Nottinghamshire** in 2010, while in 2011 a brood of young was reported in **Berkshire**. Also in 2011, a pair in suitable habitat was noted in **Hertfordshire**.

Speckled Teal *Anas flavirostris*

Occasional breeder (2/10) 5-yr mean <1 bp; first bred in 2009 E

Native to South America

2009 One pair. 2010 No breeding. 2011 One pair.

This species has not previously been recorded breeding in the wild in the UK, but *Bird Atlas 2007–11* fieldwork revealed breeding pairs in two counties. In 2009, a brood of young was recorded in Surrey in late April, while in late May 2011 another brood was reported from Hampshire.

These are the first breeding records of this species in the UK.

Red-crested Pochard *Netta rufina*

Regular breeder (10/10) 5-yr mean 28 bp; stable AC2E*

Breeds patchily in central and southern Europe, east into central Asia

2009 15 pairs. 2010 27–30 pairs. 2011 31 pairs.

The numbers are similar to those shown in the last report. The majority of the small population occurs in two areas: the Cotswold Water Park, Gloucestershire/Wiltshire, and at several sites in Greater London, such as Hyde Park, Regent’s Park and St James’s Park.



Mark Holling

70. Red-crested Pochards *Netta rufina* have become regular breeders in England with what now seems to be a stable population occurring mainly in the Cotswold Water Park (Gloucestershire/Wiltshire) and in Greater London. Proof of breeding is usually obtained as a result of sightings of females with broods of young; the ducklings shown here (in Germany, in July 2012) are well grown and approaching juvenile plumage.

Red-crested Pochard				Hertfordshire	2*	2*	1*
Total pairs	2009	2010	2011	England, E	2	4	1
England, SW	8	12	20	Lincolnshire	1*	1	
Gloucestershire	5*	4*	8*	Norfolk	1*	2	1*
Wiltshire	3*	8*	12*	Suffolk		1*	
England, SE	5	14	10	Confirmed and total			
Bedfordshire		1*	1*	breeding pairs	15	27–30	31
Buckinghamshire			1*				
Essex	1*	2*	1*	* counties/years where confirmed breeding			
Greater London	2*	9*	6*	records occurred			

Ruddy Duck *Oxyura jamaicensis*

Regular breeder (10/10)

3-yr mean 48 bp; declining

CIE*

Native to North America

2009 46–70 pairs. 2010 34–41 pairs. 2011 24–32 pairs.

The Ruddy Duck was introduced into southwest England by a series of accidental escapes from WWT Slimbridge in Gloucestershire in the 1950s (Hughes 1996). The first confirmed breeding was at Chew Valley Lake, Avon, in 1960, heralding a rapid population increase as it spread across many counties of England, with breeding also recorded in Northern Ireland, Scotland, Wales and the Republic of Ireland. Between 1960 and 2009, breeding was confirmed in a total of 63 recording areas: 39 in England, nine in Wales, 11 in Scotland, three in Northern Ireland plus the Isle of Man. Previous population estimates suggested 550 breeding pairs in 1991–92 (Stone *et al.* 1997) and 661–707 pairs in 1988–94 (Baker *et al.* 2006), but the estimated peak number of individuals was 6,000 in January 2000 (www.nonnativespecies.org/index.cfm?pageid=244). Musgrove *et al.* (2013) gave no estimate of the breeding population, noting that the winter population was just 60 individuals (based on Henderson 2012).

The migration of some Ruddy Ducks from the introduced British population to Iberia resulted in mixed breeding with the native and endangered White-headed Duck *O. leucocephala*. To protect the latter species, a national eradication programme of Ruddy Ducks in Britain began in late 2005. By the winter of 2008/09 the UK population had been reduced by almost 90% (Henderson 2009). By that point, the number of breeding pairs had declined to the extent that they fell into the range considered by the RBBP, so breeding records were collected from the 2009 breeding season.

The areas where breeding was still recorded during 2009–11 were in northwest England, the English Midlands, south Yorkshire and Greater London, with an outlying population in Anglesey. Breeding has ceased in Scotland and Northern Ireland. Confirmed breeding was reported from 17 counties in both 2009 and 2010 but only 12 in 2011. Although it is clear that the population continues to decrease, the decline may be exaggerated to an unknown degree owing to deliberate under-reporting in some areas. The cull has continued and numbers are expected to decline.

The Animal Health and Veterinary Laboratories Agency (AHVLA), part of Defra, is the Government agency responsible for managing the eradication programme. Iain Henderson of AHVLA brings us up to date on recent results: ‘Under the auspices of the Bern Convention, the UK and the other European states with viable populations (the Netherlands, France and



Dan Powell

Ruddy Ducks *Oxyura jamaicensis* (with Eurasian Wigeons *Anas penelope* and Common Coots *Fulica atra*).

Ruddy Duck							
Total pairs	2009	2010	2011		1	2	3
England, SW	6	1	2	Wales	1	2	3
Avon	1*		1*	Anglesey	1	1*	3*
Devon	1*			Caernarfonshire			
Dorset	1	1*	1	Carmarthenshire			
Gloucestershire				Denbigh & Flint		1*	
Hampshire	3*			East Glamorgan			
Somerset				Gower			
Wiltshire				Gwent			
England, SE	15	14	7	Montgomeryshire			
Bedfordshire				Radnorshire			
Berkshire	2			Scotland, S	0	0	0
Buckinghamshire				Ayrshire			
Essex	2*	1*		Borders			
Hertfordshire	5*	4*	1*	Clyde			
Greater London	2	4*	3*	Lothian			
Kent	2	3	1	Scotland, Mid	4	0	0
Oxfordshire				Angus & Dundee			
Surrey		1*		Fife	3		
Sussex	2	1*	2*	NE Scotland			
England, E	12	6	4	Perth & Kinross			
Cambridgeshire		2*	2*	Upper Forth	1*		
Lincolnshire	2*	1*	1*	Scotland, N & W	0	0	0
Norfolk	9*	3*	1*	Highland			
Northamptonshire	1			Orkney			
Suffolk				Northern Ireland	2	1	1
England, C	10	6	2	Co. Antrim	2	1	1
Derbyshire	1*	1*	1*	Co. Armagh			
Herefordshire				Co. Down			
Leicestershire & Rutland				Isle of Man	0	0	0
Nottinghamshire	2*	2*	1*	Confirmed and total			
Shropshire	1*			breeding pairs	46–70	34–41	24–32
Staffordshire	5*	3*		No. of counties with			
Warwickshire				confirmed breeding	17	17	11
West Midlands	1*			Republic of Ireland	1*		
Worcestershire							
England, N	20	11	13				
Cheshire & Wirral	4*	2*	4*	* counties/years where confirmed breeding			
Cleveland				records occurred			
Cumbria							
Co. Durham				Ruddy Ducks bred in all the recording areas listed			
Greater Manchester	1*	1*		prior to 2009 (39 in England, 11 in Scotland, nine			
Lancashire &				in Wales, three in Northern Ireland and also the			
N Merseyside	1*			Isle of Man); those with no breeding records in			
Northumberland				2009–11 are shown in grey.			
Yorkshire	14*	8*	9*				

Belgium) have agreed to aim for eradication of the species in Europe by the end of 2015. Since the period under review in this report (2009–11), the number of Ruddy Ducks and the number of breeding pairs in the UK have continued to fall as the eradication programme has progressed. The UK population now consists of a small number of regional populations comprising 4–8

birds each. In most of these regions there are only one or two adult females, and if these can be removed the eradication can be completed successfully. In 2013 it was thought that fewer than five pairs bred successfully. Removing breeding birds as quickly as possible will help the eradication programme to meet the 2015 target, costs will be reduced, and the number of birds which have to be culled will be minimised.'

Helmeted Guineafowl *Numida meleagris*

Occasional breeder (6/10) 5-yr mean 2 bp; stable

E*

Native of Africa, largely south of the Sahara

2009 Two pairs. 2010 Two pairs. 2011 Two pairs.

There were two confirmed breeding pairs in each year but all the records were in different counties: Bedfordshire (2009), Gwent (2011), Hampshire (2009), Norfolk (2010), Sussex (2010) and Yorkshire (2011). This species is being increasingly recorded in the wild across many parts of the UK, though sightings are concentrated south of a line between the Severn and the Wash (Balmer *et al.* 2013).

Northern Bobwhite *Colinus virginianus*

Potential breeder 5-yr mean <1 individual

E

Native to North America

2009 No reports. 2010 1–2 singing birds. 2011 One single bird.

In August 2010, singing birds were reported from separate sites in Cambridgeshire, although the sites were only 4 km apart so conceivably just one bird was involved. A single bird was seen in Cambridgeshire in 2011 but no singing was reported.

There have been two previous records of this species singing and appearing to hold territory, in the Isle of Man in 1998 and in NE Scotland in 2006.

Indian Peafowl *Pavo cristatus*

Occasional breeder (6/10) 5-yr mean 6 bp; stable

E*

Native to the Indian subcontinent including Sri Lanka

2009 Ten pairs. 2010 Nine pairs. 2011 Four pairs.

Fieldworkers for *Bird Atlas 2007–11* were encouraged to record all bird species they found apparently living in the wild and a surprisingly high number of Indian Peafowl were encountered: there were records from 289 10-km squares across the four-year period, although not all of these would have been in potential breeding habitat. Breeding was confirmed in 22 of these squares.

Indian Peafowl				Warwickshire	1		
Confirmed breeding pairs	2009	2010	2011	England, N	2	2	2
				Co. Durham	1	1	
England, SE	1	0	1	Lancashire & N Merseyside			1
Bedfordshire	1		1	Northumberland	1	1	
England, E	3	3	0	Yorkshire			1
Cambridgeshire		1		Scotland, S	1	0	0
Norfolk		1		Dumfries & Galloway	1		
Northamptonshire	3			Scotland, N & W	0	2	1
Suffolk		1		Argyll		2	1
England, C	2	1	0	Isle of Man	1	1	0
Leicestershire & Rutland		1					
Nottinghamshire	1			Total	10	9	4

reported and the level of breeding evidence obtained. We have assigned possible breeding to records of males in suitable habitat if there is some history of occupation in an area, and probable breeding if there is some evidence of territoriality (calling males at a site on more than one date), or if males and females are seen at the same site in the breeding season. Nonetheless, it is quite likely that even the maximum numbers reported here are underestimates.

Confirmed breeding is not recorded every year, though is assumed to take place annually; we have evidence from only four of the last ten years, including 2009 and 2011. In 2009–11 breeding was confirmed in just two counties: Dorset and Norfolk. Only in the East Anglian Brecks, Norfolk/Suffolk, and in northwest Norfolk have Golden Pheasants been recorded in all three breeding atlases, and there has been a 45% reduction in breeding range over the last 40 years, with losses from parts of central and southern England, Anglesey and southern Scotland.

Lady Amherst's Pheasant *Chrysolophus amherstiae*

Former breeder

5-yr mean 4 individuals; declining

C6E*

Native to southeast Asia

2009 Two males. **2010** Three males. **2011** Three males.

The only county to report this species was **Bedfordshire**, always the stronghold of this introduced population. There were no records of confirmed breeding, and populations of this species are no longer thought to be self-sustaining. Balmer *et al.* (2013) showed a 46% reduction in breeding range over the last 40 years, although escaped individuals were also occasionally reported away from Bedfordshire. RBBP records show that the last time breeding was confirmed in the UK was in 1997, when a brood of two was seen (Ogilvie *et al.* 1999).

Wild Turkey *Meleagris gallopavo*

Occasional breeder (5/10)

5-yr mean 3 bp; stable

E*

Native to North America

2009 Two nests. **2010** Five nests. **2011** Two nests.

Wild Turkeys of the population that became established as a consequence of release into **Lancashire & North Merseyside** in 2007 continued to breed during the review period. A female with 11 young was seen in 2009 and in both 2010 and 2011 nests with incubating females were found. The birds are fed by gamekeepers and associate with released Common Pheasants. There was no information on breeding success but the maximum number reported was 20 in March 2011.

In **Breconshire**, Turkeys released at a pheasant shoot in 2008 bred in both 2009 and 2010, fledging six young in 2010.

Harris's Hawk *Parabuteo unicinctus*

Occasional breeder (5/10)

5-yr mean 2 bp; stable

E*

Native to southwest USA, central and South America

2009 One mixed pair. **2010** One pair, two mixed pairs and one undetermined pair. **2011** One pair, one mixed pair and a further mixed, non-breeding pair.

In **Devon**, a mixed pair of Harris's Hawk and Common Buzzard bred in a town park in 2010, fledging two young. Although the pair was again present in 2011, breeding did not take place.

In **Lancashire & North Merseyside**, a pair of Harris's Hawks bred in both 2010 and 2011, but no information on the outcome of the breeding attempt is available.

In 2010, at a site in **Kent** close to a bird of prey centre, up to three birds were present and a pair was seen mating and nest-building, but no eggs were laid. It is possible that one of this pair was a Common Buzzard.

In **Yorkshire**, a male Harris's Hawk paired with a Common Buzzard bred in all three years at

the same site that was occupied in 2007–08. On all occasions two hybrid young fledged, although in 2011 the male Harris's Hawk was removed in May, leaving the Common Buzzard to rear the young on her own.

Eagle Owl *Bubo bubo*

Regular breeder (10/10)

5-yr mean 2 bp; stable

E*

Widespread in Europe, Asia and North Africa

2009 Three pairs. 2010 Three pairs. 2011 One pair.

In both 2009 and 2010 three pairs bred successfully. A pair in **Cumbria** fledged two young in both years, but was not reported at this site in 2011. In **Lancashire & North Merseyside**, two pairs nested in both 2009 and 2010, and at least one in 2011. The minimum number of young fledged in each year was one, three and four. These are the first records of three pairs breeding in any one year.

Elsewhere, there were long-staying, unpaired individuals in **Breconshire** (all years), **Fife** (2009 and 2010) and **North-east Scotland** (2011) and a few reports of other individuals in the wild seen on only one or two occasions. Fewer reports of Eagle Owls were submitted to the RBBP in 2009–11, but it is likely that there are more birds in the countryside and perhaps other pairs breeding. However, they go unreported because breeding Eagle Owls in Britain have tended to occur in more remote and inaccessible areas, and because this species is mainly nocturnal. A review of known breeding records of Eagle Owl since the first in Moray & Nairn in 1984 (Holling et al. 2007b) showed that breeding has occurred every year since 1997.

Monk Parakeet *Myiopsitta monachus*

Regular breeder (9/10)

5-yr mean 8 bp; stable?

E*

Native to South America

2009 Approximately 16 pairs. 2010 Minimum of ten pairs. 2011 2–7 pairs.

Recording of Monk Parakeets is not consistent but it seems that there are two extant populations. In **Hertfordshire**, at Borehamwood, 33 birds using a large communal nest site were recorded in July 2009, but the number of nests was not noted. In 2010 there was no information on nesting but a maximum count of 33 birds was again recorded, in November. In 2011, six birds were nest-building on 5th June and 22 birds, including five dependent young, were seen on 6th July.

There is another population, in **Greater London**, on the Isle of Dogs. Although not recorded in 2009, 36 birds were counted on 31st October 2010 and on 23rd December 20 birds were seen visiting ten nest sites. In 2011, birds were noted at a nest site in April, while nearby a nest with young was recorded in June. The maximum count in this area was 23 in November.

There may also be a population in **Buckinghamshire**, as a wary, unringed pair was seen regularly at garden feeders in the summer of 2011.

Acknowledgments

We are grateful to all County and Regional Recorders, bird report editors and others who supplied the information from which this report has been compiled. The recorders in particular played a valuable role checking a draft of the species accounts, and responding to specific queries on their non-native avifauna. Data from *Bird Atlas 2007–11* have been particularly helpful in enhancing our dataset on non-native species. Iain Henderson supplied supporting supplementary information on the monitoring of Ruddy Ducks. Chas Holt provided data on Black Swans from the BTO/RSPB/JNCC/WWT Wetland Bird Survey (WeBS).

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The Rare Breeding Birds Panel is supported by JNCC, RSPB and the BTO

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