

## Changes to Category C of the British List†

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In its maintenance of the British List, the British Ornithologists' Union Records Committee (BOURC) is responsible for assigning species to categories to indicate their status on the List. In 1995, the British Ornithologists' Union (BOU) and the Joint Nature Conservation Committee (JNCC) held a conference on naturalized and introduced birds in Britain (Holmes & Simons 1996). This led to a review of the process of establishment of such species and the terms that best describe their status (Holmes & Stroud 1995) as well as a major review of the categorization of species on the British List (Holmes *et al.* 1998). The BOURC continues to review the occurrence and establishment of birds of captive origin in Britain. This paper summarizes the status of naturalized and introduced birds in Britain and announces changes to the categorization of many on the British List or its associated appendices (Categories D and E):

Mute Swan *Cygnus olor* Categories AC change to AC2  
Black Swan *Cygnus atratus* Category E\* – no change  
Greylag Goose *Anser anser* Categories ACE\* change to AC2C4E\*  
Snow Goose *Anser caerulescens* Categories AE\* change to AC2E\*  
Greater Canada Goose *Branta canadensis* Categories ACE\* change to C2E\*  
Barnacle Goose *Branta leucopsis* Categories AE\* change to AC2E\*  
Egyptian Goose *Alopochen aegyptiacus* Categories CE\* change to C1E\*  
Ruddy Shelduck *Tadorna ferruginea* Categories BDE\* – no change  
Muscovy Duck *Cairina moschata* Category E\* – alert JNCC  
Wood Duck *Aix sponsa* Category E\* – no change  
Mandarin Duck *Aix galericulata* Categories CE\* change to C1E\*  
Gadwall *Anas strepera* Category A change to AC2  
Mallard *Anas platyrhynchos* Categories AE\* change to AC2C4E\*  
Red-crested Pochard *Netta rufina* Categories AE\* change to AC2E\*  
Ruddy Duck *Oxyura jamaicensis* Categories CE\* change to C1E\*  
Black Grouse *Tetrao tetrix* Categories AE – no change  
Western Capercaillie *Tetrao urogallus* Categories BC change BC3  
Red-legged Partridge *Alectoris rufa* Categories CE\* change to C1E\*  
Grey Partridge *Perdix perdix* Categories ACE change to AC2E  
Common Pheasant *Phasianus colchicus* Categories CE\* change to C1E\*  
Golden Pheasant *Chrysolophus pictus* Categories CE\* change to C1E\*  
Lady Amherst's Pheasant *Chrysolophus amherstiae* Categories CE\* change to C6E\*  
Black-crowned Night Heron *Nycticorax nycticorax* Categories AE\* – no change  
Sacred Ibis *Threskiornis aethiopicus* Category E – no change  
Red Kite *Milvus milvus* Categories AC change to AC3  
White-tailed Eagle *Haliaeetus albicilla* Categories ACE change to AC3E  
Northern Goshawk *Accipiter gentilis* Categories AE\* change to AC3E\*  
Rock/Feral Pigeon *Columbia livia* Categories AE\* change to AC4E\*  
Rose-ringed Parakeet *Psittacula krameri* Categories CE\* change to C1E\*  
Barn Owl *Tyto alba* Categories AE\* – no change  
Little Owl *Athene noctua* Category C change to C1

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## The British List

The BOURC maintains The British List – the official list of birds recorded in Britain. The most recently published of these is the sixth edition of the *Checklist of the Birds of Britain and Ireland* (BOU 1992). Changes to the 1992 *Checklist* are detailed in the annual reports of the BOURC, the most recent of which (31st) can be found in *Ibis* **147**: 246–250, and an up-to-date List can be found on the BOU website at <http://www.bou.org/uk>.

The Committee's remit includes the assessment of new species to be admitted to the British List, and the category assignment of species on the List.

The definition of the categories used for the British List is reviewed from time to time, and a new subcategory is introduced in the present review. The categories, including (with the publication of this review) the new subcategory C6, are:

**A** Species that have been recorded in an apparently natural state at least once since 1 January 1950.

**B** Species that were recorded in an apparently natural state at least once between 1 January 1800 and 31 December 1949, but have not been recorded subsequently.

**C** Species that, although introduced, now derive from the resulting self-sustaining populations.

C1 *Naturalized introduced species* – species that have occurred *only* as a result of introduction, e.g. Egyptian Goose *Alopochen aegyptiacus*.

C2 *Naturalized established species* – species with established populations resulting from introduction by Man, but which also occur in an apparently natural state, e.g. Greylag Goose *Anser anser*.

C3 *Naturalized re-established species* – species with populations successfully re-established by Man in areas of former occurrence, e.g. Red Kite *Milvus milvus*.

C4 *Naturalized feral species* – domesticated species with populations established in the wild, e.g. Rock Pigeon (Dove)/Feral Pigeon *Columba livia*.

C5 *Vagrant naturalized species* – species from established naturalized populations abroad, e.g. possibly some Ruddy Shelducks *Tadorna ferruginea* occurring in Britain. There are currently no species in category C5.

C6 *Former naturalized species* – species formerly placed in C1 whose naturalized population is either no longer self-sustaining or are considered extinct, e.g. Lady Amherst's Pheasant *Chrysolophus amherstiae*.

**D** Species that would otherwise appear in Category A except that there is reasonable doubt that they have ever occurred in a natural state. Species placed in Category D only form no part of the British List, and are not included in the species totals.

**E** Species that have been 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).

The British List comprises only those species in Categories A, B and C.

The newly created Category C6 recognizes that some previously established naturalized introductions to Britain have declined (and others may do so in the future) to a level that is no longer self-sustaining, and which will ultimately lead to extinction. Further releases of such non-native species are prohibited under Section 14 of the Wildlife & Countryside Act (1981).

## Species reviews undertaken

This review forms part of the work on a new (7th) edition of the *Checklist of the Birds of Britain* (in prep.), and the following groups of birds have been examined:

- Species in Category A whose breeding populations may have been supplemented by introductions (e.g. Grey Partridge *Perdix perdix*) or were established by escapees (e.g. Barnacle Goose *Branta leucopsis*) to determine in the case of breeding populations originating from escapees and/or introductions whether any self-sustaining naturalized populations exist and so could qualify the species for admission to Category C.
- Species currently in Category C to determine whether their current populations are still self-sustaining, to support their continued position in Category C.
- Several non-native species on Category E (e.g. Muscovy Duck *Cairina moschata*) to determine whether any self-sustaining naturalized populations exist that could qualify them for admission to Category C.

## Determining a self-sustaining population

When considering individual, often isolated, populations, it needs to be determined whether any

population is self-sustaining. Such a definition should apply equally to populations both of naturally occurring breeding populations and to naturalized non-native or established feral populations. An essential feature of sustainability is the likelihood that succeeding generations will persist. This matters for both short-lived and long-lived species. A population is deemed to be self-sustaining if it is considered probable that succeeding generations will persist without human interference. However, measuring sustainability is not always easy. Populations of long-lived species might survive for many years without breeding – and therefore without problems such as habitat change (affecting nest-site, roost site and feeding availability, fledging success and predator avoidance) being detected – or without breeding very successfully, before eventually becoming established. Alternatively, individual birds might continue to live long after a population ceased to be self-sustaining. Conversely, populations of short-lived species may persist in the short term through many breeding cycles until environmental change occurs, and the population rapidly declines to extinction.

The overall size of a self-sustaining population may only be small, but the establishment, over time, results in a stable population which a natural event (e.g. diverse weather affecting breeding or survival) is unlikely to reduce to a less than self-sustainable level, and which would require direct intervention by Man (intentionally or accidentally) to reduce the population to such a level that it would be deemed no longer to be self-sustainable. A self-sustaining population is therefore defined as 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.

For the purposes of the British List, species are admitted to Categories C1–C4 if their populations are deemed to be self-sustaining. When a naturalized population declines to a level that is deemed to be no longer self-sustaining, the species will be placed in Category C6 even if some individuals persist in the wild, e.g. Lady Amherst's Pheasant.

This paper covers all species placed on Category C before recategorization in 1996 (Holmes *et al.* 1998) as well as some species currently on Categories A, B, C, D and/or E where categorization issues have been identified. Some of the conclusions differ from those previously published by the BOU (e.g. in Vinicombe *et al.* 1993) because numbers of some populations have increased or, using the definition of

self-sustaining above, a species is now deemed to be self-sustaining.

### **Determining the source of a species and nature of establishment**

The BOU follows the terminology and definitions set out by Holmes and Stroud (1995), including the terms 'feral', 'domestic' and 'naturalized'. The keeping of a species in captivity does not necessarily constitute domestication. Feral species have undergone change during captivity ('domestication'), whether for plumage, behaviour, economic productivity or just ability to breed in captivity. 'Feral' is therefore used when referring to a naturalized establishment that originates from a domesticated source. For example, Rock Pigeon *Columba livia* was domesticated and underwent considerable change from which a feral form (Feral Pigeon) has since established itself in the wild. However, an established population of a species such as Barnacle Goose, where the naturalized population originates from captive birds that have not undergone any form of change during captivity, is a naturalized establishment and not a naturalized feral establishment.

### **Recording of self-sustaining populations**

The BOU recognizes that due to the vagaries of bird recording, the published information (in Rare Breeding Birds Panel (RBBP) reports etc.) is not necessarily complete, and self-sustaining populations of some species may exist which are either unknown to the BOURC or not adequately recorded in a published source on which a recommendation can be made. The BOU encourages all observers to submit records of all bird species, including the recording and monitoring of all naturalized species (particularly breeding records and interactions with native species) and, just as importantly, increased reporting of all escaped species seen in the wild in Britain, including importantly escaped species found breeding in Britain and in particular those with increasing breeding numbers which may be future considerations for Category C status if a self-sustaining naturalized population is established.

For the purposes of bird recording in Britain, the BOU recommends that individuals should only be considered as naturally occurring if they are known, or thought likely, to originate from populations

considered to be self-sustaining (as per this paper and any other subsequently published sources). It is also recommended that such individuals are recorded in the main systematic lists of county and regional bird reports, other publications and lists. All other individuals should be treated as being of captive origin (not feral unless derived from a domestic source – see above), and recorded separately, preferably in an appendix of such reports. Information on the establishment of populations that reach sustaining levels should be documented through the RBBP and county and regional bird reports through the local recording network. The BOU will not act as arbiters or assessors of other local populations once a species has been admitted to The British List, but will periodically review published data by the RBBP, county and regional bird reports and other publications to monitor that specific species continue to satisfy their Category C status.

### Detailed species reviews

The decisions contained within this paper have been reached by reviewing literature, through consultation with specialists and, in the case of the Muscovy Duck, data gathered by the author. These categorization changes take immediate effect for the purposes of the British List.

The letters in bold after each species name indicate the category or categories (as above) of the British List on which each species was placed prior to this review.

#### **Mute Swan** *Cygnus olor* **AC**

Retain on Category A of the British List.  
Change to Category C2 of the British List.

A review of this species undertaken in 2001 (BOU 2002) supported the earlier view that 'wild immigrants occur and because most of the breeding population is derived from semi-domesticated descendants of wild stock rather than artificially introduced' (BOU 1971a) and Mute Swan should be placed on Category A.

The reference in the above statement to this species deriving from a semi-domesticated source is now at variance with what is deemed to be a domesticated source. Mute Swan did not undergo a period of what we normally recognize as captivity, but more an 'ownership' by means of pinioning and/or the marking of wild birds which continued to live and breed in their natural environment. In this sense, the

birds at best underwent confinement rather than captivity. During this period it was not truly domesticated, and no detected change occurred to the species to result in a feral form. Any birds reared from this confined/captive source are therefore a naturalized establishment (Category C2) and not a naturalized feral establishment.

#### **Black Swan** *Cygnus atratus* **E\***

Retain on Category E\* of the British List.

Continue to encourage record submission and monitor any further establishment.

- 2000 Four pairs bred (Cleveland, Devon, Greater Manchester, Sussex), all raising broods (totaling eight young). Three more pairs recorded (Norfolk, Northamptonshire, Warwickshire) (Ogilvie & RBBP 2002).
- 2001 At least nine pairs bred, with nine broods seen, in nine counties/regions (Devon to Orkney) (Ogilvie & RBBP 2003).
- 2002 Two pairs bred (only one young seen) in Greater Manchester and Sussex. In four counties where breeding occurred in 2001 (Devon, Lothian, Northeast Scotland and Orkney) it was confirmed that no breeding took place (Ogilvie & RBBP 2003).

Nine widely scattered breeding pairs across nearly the whole length of Great Britain in 2001 do not constitute a self-sustaining population, but pairs which are likely to be unrelated and unlikely to interact with one another due to their geographical spread and isolation. The reduced number found breeding in 2002, including negative reports from four of the 2001 breeding localities, supports the view that such isolated pairs cannot be deemed a self-sustaining population.

#### *British population*

Table 1 illustrates the general upward trend in the number of sites occupied and the total number of individuals recorded in Britain by the Wetland Bird Survey (WeBS) since 1992.

#### **Greylag Goose** *Anser anser* **ACE\***

Retain on Category A of the British List.

Change to Category C2 and C4 of the British List.

In addition to the naturally occurring wild breeding population in western Scotland, there is a widespread breeding population established in other parts of

**Table 1.** Estimated British Black Swan population, and number of sites occupied, based on annual maximum site counts from WeBS counts 1992–2003.

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Birds	13	28	53	52	70	63	107	147	176	120	121	130
Sites	8	22	37	33	44	37	55	78	92	71	72	76

Britain which is largely derived from the release of birds reared from eggs taken from the wild Scottish population (C2) (Sedgwick *et al.* 1970), and individuals from a domestic source (C4) (Campbell & Lack 1985, Gibbons *et al.* 1993).

#### **Snow Goose** *Anser caerulescens* AE\*

Retain on Category A of the British List.

Admit to Category C2 of the British List.

Continue to encourage record submission to monitor any further establishment.

1991 A survey of introduced geese found 160–182 birds at 27 sites (Delany 1995). Argyll: a population on the Isle of Mull totalling 40 birds (including six blue morph *A. c. caerulescens* 'Lesser Snow Goose'), 14 of which were juveniles (see below). Gloucestershire: one site, 22 birds 'grounded'. Hampshire: one site, a flock of 12 birds including one juvenile, present in June/July (wandering to Berkshire). Norfolk: one site, 23 *A. c. caerulescens*, including four juveniles. Oxfordshire: one site, a flock of 32 (see below). Also recorded from Orkney, Cumbria, Leicestershire, Bedfordshire and seven un-named counties.

2000 A survey of introduced geese found 86 birds at 17 sites (no mention of the Argyll flock – see 1991, 2001 and 2002) (Rowell *et al.* 2004). Hampshire: two pairs bred at a regular site rearing four young (see below). Argyll: the introduced flock of 30–40 birds present, but no reports of breeding (see below) (Ogilvie & RBBP 2002).

2001 Hampshire: a single bird paired with a Greylag Goose reared three young (see below). Argyll: the flock of 30–40 birds present, but no reports of breeding (Ogilvie & RBBP 2003).

2002 Hampshire: two pairs present but no breeding confirmed. Argyll: 24 adults raised ten goslings (see below) (Ogilvie & RBBP 2004).

#### *Argyll*

Birds in a waterfowl collection in northwest Mull were left full-winged sometime in the 1950s or 1960s and, by the 1970s, had built up to 40–50 birds, apparently breeding within the collection and in its vicinity. It has remained at this level ever since, with the highest count being of 57 on Mull in January 1981. In 1985, breeding was confirmed on Coll (Newton 1989) and, in the last 5–10 years, most if not all breeding appears to have taken place there. Counts of breeding birds are not undertaken annually, but success has been noted in 1993 (two pairs bred), 1994 (one pair bred), 1996 (two pairs bred), 1997 (five pairs raised at least 16 young), 1998 (four young fledged), 2000 (nine pairs raised at least 28 young) and 2002 (ten young seen). Despite these numbers of young being reared, the total population in the area has not increased, suggesting either relatively high mortality or, perhaps, emigration, though there are no sightings in western Scotland that could be attributed to this (Argyll Bird Club, Ogilvie & RBBP 2002, 2003). It is considered that the Argyll population is self-sustaining.

#### *Hampshire*

An increasing number of birds has been encountered in the county with 29 present in 1996, including five breeding pairs (no young seen) at Eversley. Numbers declined to 13 in 2003 with one or two pairs attempting to breed annually at Stratfield Saye (young seen in 1999 and 2000), including a mixed pair with Greylag Goose (Hampshire Ornithological Society, Ogilvie & RBBP 2002, 2003). This declining and localized population is not considered to be self-sustaining, although continued monitoring is recommended as this could change.

#### *Oxfordshire*

Following an increasing number of records in the 1970s, breeding was first confirmed in 1980 when a pair raised five young in the Lower Windrush area, with two pairs breeding successfully in 1981. The number

of birds present in the county increased and a pattern emerged with breeding around Stanton Harcourt and Lynch Hill area, and the flock spending much of the non-breeding season at Blenheim. Numbers peaked at 33 in 1991 but were reduced to 17 by 2002. Breeding in 1980, 1981, 1986 (confirmed but no details), 1987 (three young), 1991 (two fledged young), 1992 (two fledged young), 1995 (bred but no young raised), 1993 (bred but no young raised), 1998 (one young), 1999 (six young fledged) and 2000 (one young fledged) (Oxfordshire Ornithological Society, Ogilvie & RBBP 2002, 2003). This declining localized population is not considered to be self-sustaining, although monitoring is recommended as this could change.

**Greater Canada Goose *Branta canadensis* CE\***  
Change to Category C2 of the British List.

The species is well established and a widespread naturalized breeding population of captive origin exists in Britain (Gibbons *et al.* 1993).

The taxonomic status of the Canada geese has recently changed with Greater Canada Goose *Branta canadensis* (comprising subspecies *canadensis*, *fulva*, *interior*, *maxima*, *moffitti*, *occidentalis* and *parvipes*) and Lesser Canada Goose *B. hutchinsii* (comprising subspecies *hutchinsii*, *leucopareia*, *minima* and *taverneri*) now being recognized (Sangster *et al.* 2005). No vagrant Canada geese have ever been accepted to subspecific level, so there are currently no accepted records of either species on Category A. A review is in progress to establish if any individuals can be assigned to either species group.

Although individuals resembling Lesser Canada Goose occur within the established naturalized population, there is no evidence that this species forms either a significant part of the naturalized population or maintains a self-sustaining population of its own within the naturalized population.

**Barnacle Goose *Branta leucopsis* AE\***

Retain on Category A of the British List.  
Admit to Category C2 of the British List.

Continue to encourage record submission to monitor any further establishment.

1991 A survey of introduced geese found 925 birds (including at least 83 juveniles) at 89 localities (Delany 1993). The new breeding atlas (1988–1991) states ‘although Kear (1990) notes that this species is now breeding “at large” in Britain, birds are probably too

scattered for there to be a self-sustaining population’ (Gibbons *et al.* 1993).

- 2000 A survey of introduced geese found 693 birds (including 129 juveniles) at 75 sites but details of numbers and the locations of all breeding sites are not given (Rowell *et al.* 2004). Breeding was confirmed in Cumbria, Essex and Hampshire. Numbers were reduced from the 1991 survey. At least 59 pairs bred or probably bred (22 young reported) from Avon, Berkshire, Cumbria, Essex, Hampshire, Lancashire and West Midlands. In addition, a county-wide survey in Cumbria revealed 98 adults (including ten breeding pairs) and in Norfolk flocks up to 133 birds reported (Ogilvie & RBBP 2002).
- 2001 c. 20 pairs (minimum 18 young reported) from Avon, Cumbria, Lancashire and Merseyside (Ogilvie & RBBP 2003).
- 2002 An unknown number of pairs (but probably between 20 and 30) bred at nine localities in eight counties/regions raising a minimum of 65 young. Bedfordshire: site one, number of pairs unknown, 28 young, fledging success unknown; site two, one pair reared one young (see below). Cheshire & Wirral: one pair hatched one young. Derbyshire: one pair fledged two young. Hampshire: one site, eight pairs reared at least 20 young. Highland: one pair bred, outcome unknown. Norfolk: one pair bred successfully but number of young unknown (see below). Suffolk: one site, unknown number of pairs hatched 12 young (see below). Suspected breeding at other sites. Warwickshire: one site, three pairs bred but outcomes unknown (Ogilvie & RBBP 2004).

**Bedfordshire**

A rapidly increasing population is now established in the county.

- 2001 Maximum 115 at Roxton with two pairs breeding (no details of success). A third pair with young seen at Harold Country Park (*Bedfordshire Bird Report*).
- 2002 Maximum of 164 at Roxton with an unknown number of pairs raising at least 28 young. A single pair was again seen with young at Harold Country Park (*Bedfordshire Bird Report*, Ogilvie & RBBP 2004).
- 2003 Roxton population up to 262 with 13 broods totalling 40 young seen. A single pair was again

seen with young at Harold Country Park (*Bedfordshire Bird Report*).

This flock seems to be increasing too fast for the limited number of young reported, and it is unclear if it is being supplemented by further birds of captive origin, or birds from neighbouring regions.

#### Norfolk/Suffolk

There is an increasing population with a non-breeding flock now numbering over 600 along the Suffolk coast, with breeding confirmed at several sites along the county boundary, as well as at other sites in both counties.

- 1996 Suffolk: at least five pairs confirmed breeding (*Suffolk Birds* 1996).
- 1997 Flocks of 37–60 seen at many sites centred on the Yare Valley. At least three pairs bred including one pair containing a Swedish-ringed male (since 1993) (*Norfolk Bird Report* 1997, *Suffolk Birds* 1997).
- 1998 Flocks of 45–60 seen at many sites centred on the Yare Valley. Five pairs bred (*Norfolk Bird Report* 1998, *Suffolk Birds* 1998).
- 1999 Yare Valley: c. 125 birds. Norfolk: 12 pairs bred away from the Yare Valley – Flitcham (one pair), Pensthorpe (nine broods totalling 22 young) and Hethersett (two broods) (*Norfolk Bird Report* 1999, *Suffolk Birds* 1999).
- 2000 Yare Valley: maximum 265 during second winter period. Eleven pairs raised 21 young at Flitton Lake (*Norfolk Bird Report* 2000, *Suffolk Birds* 2000).
- 2001 Yare Valley: maximum 500 in October. No breeding confirmed but considered likely. Norfolk: away from the Yare Valley, 13 pairs bred: Barton Broad (one pair), Hethersett (four pairs) and Pensthorpe (eight broods) (*Norfolk Bird Report* 2001, *Suffolk Birds* 2001).
- 2002 Suffolk: maximum 600 Southwold/Reydon area (birds moved from Yare Valley). No breeding confirmed in Yare Valley but in Suffolk 50 adults with 12 young at Sotterly Park. Also, 'It is believed that feral birds are regularly breeding at other sites within the county [Suffolk]' (*Norfolk Bird Report* 2002, *Suffolk Birds* 2002).
- 2003 Suffolk: the entry under this species within the main species accounts of *Suffolk Birds* (2003) includes 'With the arrival of 72 birds at Benacre Broad on August 2nd, followed by

a steady increase to over 500 by the end of the month, the feral population appears to have reached a new high. Although no single site in East Anglia can account for such a large number, the "discovery" of a large, free-flying colony at the Otter Trust, near Bungay, in early May, estimated at 80 adults, with at least 20 nests located around the waterfowl pool, could account for up to half of this total. Other populations from Fritton Lake and elsewhere could make up the remainder ... Alternatively, birds may be arriving from the Netherlands where a substantial feral population, numbering an estimated 1100 pairs in 2000, exists and is still increasing.' A separate entry for Barnacle Goose in an Appendix devoted to Category E species lists includes 'Elveden: 25 on a farm reservoir, April 20th' (*Suffolk Birds* 2003).

The reference to Elveden refers to birds from a reportedly established breeding population at a holiday complex at Elveden.

#### Other counties

Cumbria: a flock of up to 200 individuals in 2003 and 2–5 pairs breeding annually, 2000–2003 (*Cumbria Bird Reports* 2000–2003). Hampshire: population between 190 and 270 individuals with breeding regularly confirmed, including up to 24 pairs fledged 42 young at Stratfield Staye (1998) with eight pairs (20 fledged young) in 2002 (*Hampshire Bird Report* 1997–2003). Lancashire: two feral populations present around Martin Mere (up to 62 in 2002) and Marton Mere (up to 43 in 2002). 1–3 breeding pairs 1990–2002 (*Lancashire Bird Report* 1990–2003).

This is an incomplete picture as there is a lack of data on other reportedly established breeding populations, e.g. Elveden, Suffolk. It is considered that this species now has an established naturalized and self-sustaining population (Bedfordshire and Norfolk/Suffolk) within Britain.

#### **Egyptian Goose** *Alopochen aegyptiacus* CE\* Change to Category C1 of the British List.

There are a number of localized, established, breeding populations of captive origin (Gibbons *et al.* 1993).

#### **Ruddy Shelduck** *Tadorna ferruginea* BDE\* Retain in Categories B, D and E\* of the British List.

Although breeding is occasionally recorded (escaped birds), this species is clearly not established. Natural vagrancy has not been supported in modern times (post-1950), nor has vagrancy from purported naturalized population(s) in continental Europe (BOU 2003).

#### Muscovy Duck *Cairina moschata* E\*

Meets criteria for Category C4: alert JNCC (see BOU 2005).

Continue to encourage record submission and monitor further establishment.

- 2001 Six pairs bred. Cambridgeshire: at least three pairs bred (see below); Cheshire: one pair raised young; Devon: one site, two pairs present with ten birds present in December; Dorset: a pair present at one site throughout the year. Records of non-breeding birds received from two other counties (Ogilvie & RBBP 2003).
- 2002 At least four pairs bred – in addition to Cambridgeshire and Derbyshire (see below), in Norfolk one pair fledged one young. No breeding took place in Cheshire or Devon where the species was recorded breeding in 2001 (Ogilvie & RBBP 2004).

#### Ely, Cambridgeshire

- 1991 The new breeding atlas (1988–1991) states 'The Ely (Cambridgeshire) population stood at c. 130 birds in 1991, 60% of which were juveniles' (Gibbons *et al.* 1993).
- 1994 Maximum 68 in December (*Cambridgeshire Bird Report 1994*).
- 1996 82 in January, 52+ in March (*Cambridgeshire Bird Report 1996*).
- 1997 Maximum 20 adults in July with 24 young seen (*Cambridgeshire Bird Report 1997*).
- 2000 Population culled (and possibly in earlier years) by East Cambridgeshire District Council. 'This authority [East Cambs. District Council] carried out a culling operation of tame Muscovy Duck in Ely City centre in January 2000 – we understand this is not the first time the council have taken this action. As a result of public pressure the council called PICAS in to advise them as to the best way to control the population. The council is now set to put in place an area, exclusively for the birds, where breeding boxes will be provided and also a designated feeding area for the

general public. It is hoped that this facility will be ready for the start of the breeding period in 2001.

'In 2002 the authority opened a new waterfowl feeding area beside the river area in Ely. The feeding area was opened in a blaze of positive publicity with radio, TV and newspapers present. A local cinema/restaurant, The Maltings, agreed to sell corn and floating duck pellets to the public at 20 pence a bag, in an effort to discourage the public from feeding large quantities of white bread. The authority commissioned a local artist to create a public information sign explaining to the public what the authority is trying to achieve and why. The authority has also produced an excellent public information leaflet.

'This scheme has been a real success with The Maltings selling large quantities of the "right" food for waterfowl residing on the river and as a result there has been a marked decrease in the amount of white bread and poor quality food offered.

'As yet there have been no plans to roll out a set-aside area for breeding where ducks and geese would be encouraged to nest and where eggs would be oiled to stop them from hatching. This method of control is the only way to ensure that there is a "reduction" of waterfowl present at the riverside in Ely.' (PICAS – Pigeon Control Advisory Service).

Following the cull of c. 20 birds at the beginning of the year, 22 present in February, 24 in June–July and 43 in November included four fledged broods (no total number of young recorded) (*Cambridgeshire Bird Report 2000*).

- 2001 Up to 30 in January. 18 adults seen with three broods (of seven, four and two) in August (*Cambridgeshire Bird Report 2001*, Ogilvie & RBBP 2003).
- 2002 Maximum of 19 adults present during the breeding season with at least ten young seen (Ogilvie & RBBP 2004).
- 2003 Maximum 32 in August. At least three broods (number of young not recorded) seen in June (*Cambridgeshire Bird Report 2003*).
- 2004 40 birds present in January. (Cambridgeshire Bird Club (CBC) database), with 14 adults

and 15 juveniles on 30 May (per S.P.D.) and 25 adults and five broods (4, 6, 8, 9 and 11) of various ages (but all too young to be part of the 15 juveniles recorded in May) totalling 38 young on 11 August (S.P.D.). Up to 59 birds (including ten 'well-grown' young) present on 7 November, six new ducklings found on 8 November and 59 birds (no mention of any young) still present on 7 December and into 2005 (CBC database). The number of young raised at this site during 2004 is therefore 59–69+, which is by far the highest annual total recorded at the site to date.

On 11 August the author found birds wandering freely along the streets, greens and footpaths centred on the The Maltings (riverside pub, cinema and restaurant area) of the River Ouse, and along the river itself. I saw one group of birds (away from The Maltings/river area) being fed bread by passers-by and found one bird in the car park of the Cutter Inn by the rear entrance to the kitchen! I enquired at the cinema about sales of 'duck food' (see 2000 above) and was told they no longer sold this as sales were too low. Apart from one group of birds being fed bread, all the other birds present were foraging naturally around the greens and riversides.

The birds obviously take advantage of supplementary feeding but, talking to residents, this is mainly in the summer months and centres on weekends when the area is much busier with shoppers and, in particular, restaurant and pub goers, many of whom drink and/or dine outside on the riverside on warmer days and throw food scraps and crisps to the wildfowl. I was informed that relatively little feeding takes place during autumn, winter and early spring (when fewer people use the area and virtually no outside drinking/dining occurs). Given the relatively low level of supplementary feeding that does occur, and the abundance of natural foraging areas, it is unlikely that this localized population is dependent on supplementary feeding any more than other wildfowl being fed at the site, or similar groups of wildfowl at park sites. The population is spreading and, as well as roaming throughout the gardens and green spaces of the city, birds have spread along the River Ouse and birds are now reported to be resident on several areas of the nearby Ouse Washes (CBC). It is not possible to obtain counts of these expansive and inaccessible washland sites from public access areas.

The Cambridgeshire population is clearly established, can overcome periodic culling by the local authority to reduce numbers, and is now spreading along the River Ouse. Supplementary feeding is not considered to be significant in the species' survival and overall sustainability. It is therefore considered that this constitutes a naturalized feral establishment that is self-sustaining.

#### *Bradford Dale, Derbyshire*

- 1997 Female with five young (*Derbyshire Bird Report 1997*).
- 1998 Pair with nine young (*Derbyshire Bird Report 1998*).
- 2002 Up to 11 adults with two broods of eight and seven (*Derbyshire Bird Report 2002*, Ogilvie & RBBP 2004).

#### *Other confirmed breeding records*

- 2000 Cheshire: pair with one young (Ogilvie & RBBP 2002).

#### *Plumage variation*

Many Muscovy Ducks seen at liberty in Britain do not conform to the 'black and white' plumage of the wild species, but often appear as white or grey-and-white plumage variants. All such plumage variations are direct results of domestication (the origin of our feral birds).

Hybrid Muscovy Duck × Mallard offspring have been recorded in the wild in the US (Lawrence 1925) and within the Ely population (A. Harrop pers. comm.). In captivity, cross-breeding with Mallard produced sterile offspring (Campbell & Lack 1985, J. Kear pers. comm.).

#### *British population*

Table 2 illustrates the general upward trend in the number of sites occupied and the total number of individuals recorded in Britain by the WeBS since 1993.

#### **Wood Duck *Aix sponsa* (Linnaeus) E\***

Retain in Category E\* of the British List.

Although breeding by birds of captive origin has occasionally been recorded, this species is clearly not established (Vinicombe *et al.* 1993) and there remains insufficient evidence to support any natural vagrancy that might allow the species to be admitted to Category A (BOU 2003).

#### **Mandarin Duck *Aix galericulata* CE\***

Change to Category C1 of the British List.

**Table 2.** Estimated British Muscovy Duck population, and number of sites occupied, based on annual maximum site counts from WeBS counts 1993–2003.\*

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Birds	72	143	131	158	196	193	123	196	186	138	86
Sites	5	13	16	17	33	48	46	53	42	39	33

\*Excludes the Cambridgeshire population.

There are a number of localized, established, breeding populations which derive from escaped and/or introduced birds (Gibbons *et al.* 1993).

#### **Gadwall** *Anas strepera* A

Retain on Category A of the British List.

Admit to Category C2 of the British List.

Migrant birds occurred in Britain in the 1800s as records from decoys operated in eastern England testify, e.g. at Ashby Decoy, Bottesford, Lincolnshire (now Humberside) during the winters of 1844–48 (Wentworth-Day 1954). The first breeding atlas (1968–1972) states 'A pair of migrants decoyed at Dersingham (Norfolk) were wing-clipped and turned down at Narford in the Brecks, where they bred. A substantial population had arisen from this source by 1875 ...' (Sharrock 1976). By 1983, there were around 600 breeding pairs in Britain and Ireland with an annual autumn increase of 4.6% over the period 1960–85 (Fox 1988). The migration atlas states 'recent expansion in breeding (5% per annum) and wintering numbers (15% per annum)' (Wernham *et al.* 2002).

The British breeding population originates in part from the naturalized population established in the 1800s, but there is no evidence that birds of captive origin continue to augment the current population. The latter continues to expand due to natural growth of the breeding population and immigration from the continent.

#### **Mallard** *Anas platyrhynchos* AE\*

Retain on Category A of the British List.

Admit to Category C2 and C4 of the British List.

The 1971 checklist acknowledged that 'artificial rearing and re-stocking is widely practised' (BOU 1971b). The new breeding atlas (1988–1991) stated that birds released in autumn and surviving to the following breeding season 'will undoubtedly add to the apparent distribution of the species' (Gibbons *et al.* 1993). Hundreds of thousands of captive-reared

Mallard have been released for sporting purposes almost annually since 1958 (Harrison & Butt 1970, Owen *et al.* 1986), and many of these have become naturalized. Some birds originating from some of these releases and/or other captive origins are considered to be of a domestic source (Domestic Duck, Campbell & Lack 1985) and account for the feral element within the British population.

#### **Red-crested Pochard** *Netta rufina* AE\*

Retain on Category A of the British List.

Admit to Category C2 of the British List.

Breeding in Britain 'most years since 1968; probably all escaped birds (BOU 1971a)' (Cramp 1977). The new breeding atlas (1988–1991) states the British population is estimated at 'fewer than 100 individuals' (Gibbons *et al.* 1993).

2001 Six pairs in two counties (Norfolk, Nottinghamshire) (Ogilvie & RBBP 2003).

2002 At least five pairs bred at five localities in four counties (Glamorgan, Gower, Lincolnshire, Norfolk) (Ogilvie & RBBP 2004).

#### *Cotswold Water Park, Gloucestershire/Wiltshire*

This is a large, sprawling area of old gravel pits that are used for many different recreational activities, including water sports and fishing. The population here is difficult to review from the limited information available in local bird reports. The majority of the Water Park falls within Gloucestershire and this area is split into 'west' and 'east' sections for counting and recording purposes. In addition, a small part of the Park falls in Wiltshire (*Gloucestershire Bird Report 1990–2002, The Hobby* 1–30). Fragmentation of recording within the Park has undoubtedly led to a certain degree of duplication of counts.

The species was first recorded in the area in January 1960 but the population did not begin to become established until the 1970s, with the first confirmed breeding recorded in 1975. By the early

1990s, up to 70 birds were present, rising to a maximum of 117 in 2001. Breeding probably occurs annually but this is not always confirmed, and it is likely that breeding pairs are going undetected in this large area.

Numbers peak over the winter period, usually between January and March, and are usually much reduced during the summer months (sometimes no birds recorded) suggesting dispersal, and probably breeding, outside the Water Park recording area (as occurred in 1995). There are no data on ages and/or sex of birds for many of the counts, including the post-breeding flocks, which build up from August, so it is impossible to calculate annual productivity.

1975 Wiltshire: at least three present apart from the 'summer months' (*The Hobby* 1). Breeding confirmed in Gloucestershire section (Mardle & Ogilvie 1976).

1977 Wiltshire: broods of three and seven observed (*The Hobby* 3).

1979 Wiltshire: 22 present in January, increasing to 40 in December (*The Hobby* 5).

1988 Wiltshire: maximum count of 13 in January with one brood observed (*The Hobby* 14).

1991 Gloucestershire: maximum 25 in January; broods of three and six. Wiltshire: two pairs present but breeding not confirmed (*Gloucestershire Bird Report 1991, The Hobby* 17).

1992 Gloucestershire/Wiltshire: maximum 49–63 present February–March; Gloucestershire: three pairs with two broods observed (eight and four). Wiltshire: maximum 31 in February; several pairs present but no breeding confirmed (*Gloucestershire Bird Report 1992, The Hobby* 18).

1993 Gloucestershire/Wiltshire: maximum 45–70 present January–March; Gloucestershire: maximum 41 in March; three pairs each with up to six young. Wiltshire: no breeding reported (*Gloucestershire Bird Report 1993, The Hobby* 19).

1994 Gloucestershire/Wiltshire: maximum 50–63 present February–March; Gloucestershire: no breeding reported. Wiltshire: no breeding reported (*Gloucestershire Bird Report 1994, The Hobby* 20).

1995 Gloucestershire/Wiltshire: maximum 68–86 present January–February; Gloucestershire: two pairs each raised young (five and three) and a third pair fledged two young away from the Water Park. Wiltshire: no breeding reported

(*Gloucestershire Bird Report 1995, The Hobby* 21).

1996 Gloucestershire/Wiltshire: maximum 58–82 present January–February; Gloucestershire: no breeding reported. Wiltshire: no breeding reported (*Gloucestershire Bird Report 1996, The Hobby* 22).

1997 Gloucestershire/Wiltshire: maximum 70–103 present January and 69–108 present in November; Gloucestershire: no breeding reported. Wiltshire: pair with three young (*Gloucestershire Bird Report 1997, The Hobby* 23).

1998 Gloucestershire/Wiltshire: maximum 50–65 present January; Gloucestershire: females with broods of one and two young. Wiltshire: no breeding reported (*Gloucestershire Bird Report 1998, The Hobby* 24).

1999 Gloucestershire/Wiltshire: maximum 32–59 present February; Gloucestershire: female with three young. Wiltshire: no breeding reported (*Gloucestershire Bird Report 1999, The Hobby* 26).

2000 Gloucestershire/Wiltshire: maximum 34–55 present February and 37–59 present in November; Gloucestershire: no breeding reported. Wiltshire: no breeding reported (*Gloucestershire Bird Report 2000, The Hobby* 27).

2001 Gloucestershire/Wiltshire: maximum 56–117 present January; Gloucestershire: females with broods of six and seven young. Wiltshire: no breeding reported (*Gloucestershire Bird Report 2001, The Hobby* 28).

2002 Gloucestershire/Wiltshire: maximum 37–86 present December; Gloucestershire: one young seen. Wiltshire: no breeding reported (*Gloucestershire Bird Report 2002, The Hobby* 29).

It is considered that this represents an established, naturalized and self-sustaining population.

#### *Baston & Langtoft Gravel Pits, Lincolnshire*

Baston & Langtoft GP is a complex of gravel pits of various ages. Extraction is still active, but several of the pits now provide excellent wildfowl habitat and are largely free from disturbance (apart from occasional shooting). Red-crested Pochard is considered resident at this site and is largely sedentary with few records noted locally away from this site (Lincolnshire Bird Club, Peterborough Bird Club).

A female in December 1984 was the first record for the site with a male in the area in March 1985. The first multiple bird record was a pair in November–December 1989. In 1990–91 the local landowner released at least one pair of captive birds at the site. In 1992 two pairs recorded 30 miles north of Baston & Langtoft GP at Kirkstead were thought to originate from a local wildfowl park. From 1993, at least two pairs were in residence at Baston & Langtoft GP with the first proof of breeding in 1996 when two young were raised (*Lincolnshire Bird Reports 1979–1996*). In 1998 the species was simply noted as breeding with a maximum count of 12 in September. Three pairs raised at least six young in 1999. 2000: two broods and a maximum count of 15 birds (including at least two juveniles) on 2 July. 2001: two pairs present, no young seen, maximum count of 16 in January and December. 2002–04, 2–4 pairs breeding with a new maximum count for the site of 27 in August 2004 (Peterborough Bird Club, S.P.D.).

To summarize, there has been a clear increase in Red-crested Pochard records in Lincolnshire from 1980 onwards, resulting in a small breeding population established at Baston & Langtoft GP near Market Deeping in south Lincolnshire. Breeding was proven for the first time in 1996 with young seen annually since and up to four pairs present from 2002.

#### *Lound GP, Nottinghamshire*

Apparently resident at the site for 'some years'. In 2000 a female mated with a male Common Pochard *Aythya farina* producing at least one young (Ogilvie & RBBP 2002). In 2002 a pair bred with four young seen (Ogilvie & RBBP 2004).

#### *Other breeding records*

- 2000 Norfolk: population reportedly still present in one area but no further details. Surrey: pair bred raising three young (Ogilvie & RBBP 2002).  
2001 Norfolk: free-flying group (figure unknown) raised five broods (total number of young unknown) (Ogilvie & RBBP 2003).

- 2002 Glamorgan: pair present. Gower: pair present. Norfolk: free-flying group (figure unknown) still present, only two young seen (Ogilvie & RBBP 2004).

#### *British population*

Table 3 illustrates the general upward trend in the number of sites occupied and the total number of individuals recorded by the WeBS since 1993.

#### **Ruddy Duck** *Oxyura jamaicensis* CE\*

Change to Category C1 of the British List.

There is an established, widespread breeding population that derives solely from birds of captive origin (Gibbons *et al.* 1993).

#### **Black Grouse** *Tetrao tetrix* AE

Retain on Category A of the British List.

There is no evidence to support suggestions that the current population (or a significant proportion of it) derives from captive stock (J. Hughes pers. comm.). Birds are currently being released into areas of former occurrence to attempt to re-establish the species in these areas, but none has so far succeeded (J. Hughes pers. comm.).

#### **Western Capercaillie** *Tetrao urogallus* BC

Retain on Category B of the British List.  
Change to Category C3 of the British List.

The localized, re-established, breeding population within the species' former breeding range in Scotland derives solely from birds released in the 19th century. Bannerman (1963) gives Sweden as the origin of these re-established birds while Madge and McGowan (2002) state that they are of the race *urogallus*.

#### **Red-legged Partridge** *Alectoris rufa* CE\*

Change to Category C1 of the British List.

**Table 3.** Estimated British Red-crested Pochard population, and number of sites occupied, \* based on annual maximum site counts from WeBS counts 1992–2003.

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Birds	174	236	218	191	140	149	155	170	154	165	217	254
Sites	35	55	45	42	51	41	53	49	58	42	58	63

\*Cotswold Water Park (Glos/Wilts) treated as a single site.

There is an established, widespread, breeding population which derives solely from birds of captive origin. The species is still released annually, with up to 1 million birds per annum to at least the late 1980s (Potts 1990, Gibbons *et al.* 1993, Robertson 1996) and probably continuing at a similar level to the present. Bannerman (1963) gives France as the origin of these birds while Madge and McGowan (2002) state that they are of the race *rufa*. Other *Alectoris* species have been introduced but due to poor documentation it is difficult to be certain which species have been released (Robertson 1996). Chukar *Alectoris chukar* was released and although the species failed to establish it did interbreed with Red-legged Partridge (Robertson 1996). Pairs containing one or more hybrid birds had a significantly lower breeding success (Potts 1988) probably due to the inbred nature of the original Chukar release stock, and the release of the species was banned from 1993 to preserve the viability of the Red-legged Partridge wild-breeding population in Britain (Robertson 1996).

**Grey Partridge *Perdix perdix* ACE**

Retain on Category A of the British List.

Change to Category C2 of the British List.

Subspecific status on the British List to be noted as

Resident breeder – *P. p. perdix*

Naturalized breeder – *P. p. perdix*

There were annual importations of this species into Britain from ~1900 to 1914 (Maxwell 1911) and to Ireland in 1908 (Alington 1910). Importations resumed after World War I when a survey showed 12 000–21 000 brought annually into Britain from large estates within 300 km of Prague (Hunting 1933) at a time when the number of Grey Partridges in the native population was near four million (G.R. Potts pers. comm.). Detailed accounts show 7555 (25% of the total number of Partridges present) were exported from a single estate in Hungary between 1931 and 1938 (Potts & Faragó 2000). Totals of up to 50 000 per annum were exported from the zone around Prague with the last in 1940 (Szederjei *et al.* 1959). Many of these birds were destined for Britain, Germany, Denmark, France or Belgium, but North America had imported > 230 000 Grey Partridges by 1930 (Yeatter 1934). Judging from the areas of origin for which we now have documentation, it is likely that birds imported into Britain all belonged to the nominate race (Potts 1986). The report of *P. p. lucida* being imported from Russia (*Ibis* 98:

160) may have been due to confusion with the very large number of birds (up to 300 000 per annum in the early 1930s) exported dead from Leningrad for the Smithfield market.

From the 1950s, game farms in Denmark have shipped large numbers of eggs and young to Italy with much smaller numbers of eggs to Britain and a few as far as New Zealand (Potts 1986). Some eggs are still imported annually to help re-stock at least one game farm in Scotland (G.R. Potts pers. comm.). Where it can be ascertained, all such imports belong to the nominate race, including many of the darker birds typical of Denmark. In the 1990s a few coveys of game-farm birds were brought in annually from France. These were the progeny of wild birds caught up in the general area that includes the Beauce, which is occupied by the race *P. p. belesiae*. The numbers were small and their breeding success so poor that any contribution to the present British population is likely to be very low (G.R. Potts pers. comm.). In the 20th century, introductions from all areas into Britain have amounted to < 0.2% of the total stock (G. R. Potts pers. comm.).

Two mtDNA clades were found in recent studies of Grey Partridges: a western one originating in Spain (including the nominate race) and the other (including *P. p. lucida*) originating in the Caucasian refugia, south to Israel and Syria. Birds sampled from England were all of the western clade, but those from Ireland included birds from the eastern clade that may have been shipped from Greece (Liukkonen-Antila *et al.* 2002). Introductions to Ireland from 2003 have included some from France and further introductions are planned from Estonia (C. O’Gorman pers. comm.).

In summary, Grey Partridge populations of mainland Britain, but not Ireland, are of the nominate subspecies and the British population is made up of both naturally occurring *P. p. perdix* and birds deriving from introduced *P. p. perdix*.

**Common Pheasant *Phasianus colchicus* CE\***

Change to Category C1 of the British List.

The established, widespread, breeding population in Britain derives solely from birds of captive origin. The species is still released annually in large numbers, with 15–20 million birds per annum to at least the late 1980s (Potts 1990, Robertson 1996) and probably continuing at a similar level to the present. The British population largely comprises intraspecific hybrids with Hill and Robertson (1988) stating

that the following races have been introduced into Britain: *colchicus*, *torquatus*, *mongolicus*, *principalis*, *pallasi* and *satscheuensis*. Only *colchicus* and *torquatus* have previously been recognized as occurring in Britain.

**Golden Pheasant** *Chrysolophus pictus* CE\*  
Change to Category C1 of the British List.

The established, localized, breeding populations derive solely from birds of captive origin.

Golden Pheasant regularly hybridizes in captivity with Lady Amherst's Pheasant *Chrysolophus amherstiae* and known hybrids were released into some areas of Britain; for example, the original Dumfries and Galloway establishment derives solely from hybrid stock released around 1895 and eventually reverted to Golden Pheasant 'type' (Maxwell 1905, Sharrock 1976). The presence of Lady Amherst's within the population in the early 1970s may indicate the release of pure Lady Amherst's but there is no record of pure Golden Pheasants ever being released into the area. Hybrids continue to be reported from other British populations (e.g. Wolferton, Norfolk), and given that hybrid releases have reverted to Golden Pheasant type (e.g. in Dumfries and Galloway) this may indicate that some other populations may be made up entirely of hybrid individuals, or contain a high level of hybrid birds, and/or derive solely from hybrid stock.

**Lady Amherst's Pheasant** *Chrysolophus amherstiae* CE\*  
Change to Category C6 of the British List.

- 1998 85 territories identified in Bedfordshire (Ogilvie & RBBP 2002).
- 2001 The only information submitted to the RBBP was that there is still a population present in Back Wood and Wavendon Woods, Buckinghamshire (Ogilvie & RBBP 2003).
- 2002 15 individuals still present in Bedfordshire and 'still present' in Buckinghamshire (Ogilvie & RBBP 2004).
- 2004 A survey of known sites in Bedfordshire and Buckinghamshire found only nine males and a single female, and estimates the population to be no more than 20 males with an unknown number of females (Nightingale 2005).

The Bedfordshire/Buckinghamshire population is no longer considered self-sustaining. No other self-

sustaining population occurs in Britain. As a non-native species, further releases are prohibited under Section 14 of the Wildlife & Countryside Act (1981).

**Black-crowned Night Heron** *Nycticorax nycticorax* AE\*  
Retain on Categories A and E\* of the British List.

- 2000 Two known populations of full-winged birds. Norfolk: no count. Lothian: no count (Ogilvie & RBBP 2002).
- 2001 Two populations of full-winged birds. Norfolk: five including juveniles in October. Lothian: no young were left full-winged at Edinburgh Zoo. The Zoo is pursuing a policy to reduce the number of free-flying birds (Ogilvie & RBBP 2003).
- 2002 Two populations of full-winged birds. Norfolk: no numbers or breeding reported. Lothian: no young were left full-winged at Edinburgh Zoo. The Zoo is pursuing a policy to reduce the number of free-flying birds (Ogilvie & RBBP 2004).

**Sacred Ibis** *Threskiornis aethiopicus* E  
Retain on Category E of the British List.

There is no evidence to suggest that this species has occurred as a vagrant from naturalized population(s) in France (BOU 2003).

**Red Kite** *Milvus milvus* AC  
Retain on Category A of the British List.  
Change to Category C3 of the British List.

Red Kites (of the nominate race *milvus*) have been successfully re-established in various localities in England and Scotland (Carter *et al.* 2003).

**White-tailed Eagle** *Haliaeetus albicilla* ACE  
Retain on Category A of the British List.  
Change to Category C3 of the British List.

This species has been successfully re-established into western Scotland (Bainbridge *et al.* 2003, BOU 2005).

**Northern Goshawk** *Accipiter gentilis* AE\*  
Retain on Category A of the British List.  
Admit to Category C3 of the British List.

The Goshawk became extinct as a British breeding species around 1890 as a result of persecution.

The current re-established population derives from escaped and intentionally released falconers' birds originating from continental Europe with breeding recorded from 1951 onwards. The British population consists of the race *gentilis* imported from central Europe and Scandinavia. There is no evidence to support natural re-colonization from continental Europe (Petty 1996).

**Rock Pigeon/Rock Dove (Feral Pigeon) *Columba livia* AE\***

Retain on Category A of the British List.  
Admit to Category C4 of the British List.

There is a long history of domestication of Rock Pigeons for food, racing and a variety of other reasons. Birds of captive origin led to the establishment of today's huge feral population and this is continuously supplemented by further birds of domestic origin. Feral Pigeons have established themselves across the whole of Britain and wild birds may have joined colonies of Feral Pigeons (Cramp 1977). It is unclear whether there are any remaining truly wild Rock Doves.

The first breeding atlas (1968–1972) estimated the British and Irish population to be 100 000 pairs (Sharrock 1976). Marchant *et al.* (1990) give a population estimate of 80 000–100 000 pairs. The new breeding atlas (1998–1991) points out that no censuses have ever been undertaken on the species, but atlas survey work revealed a 39% increase in occupied 10-km squares since the 1968–1972 atlas, and concluded that there were fewer Rock Doves and more Feral Pigeons. No population estimates were given (Gibbons *et al.* 1993).

**Rose-ringed Parakeet *Psittacula krameri* CE\***

Change to Category C1 of the British List.

There are localized, established, breeding populations that derive solely from birds of captive origin. A study found that the west London population shows characteristics of the two Indian forms *P. k. borealis* and *P. k. manillensis* (Pithon & Dytham 2001).

**Barn Owl *Tyto alba* AE\***

Retain on Categories A and E\* of the British List.

A BTO/RSPB study showed that captive-bred Barn Owls have a low survival rate when released into the wild (10% for birds released as juveniles and 15% for adults) and the study concluded that 'it was very unlikely the release of captive-bred Barn Owls was

boosting the wild population at all. So even if thousands of Barn Owls are being released each year, very few live long enough to breed, so their effect on the population is negligible' (Cayford & Percival 1992). Following this study, Barn Owl was admitted to Schedule 9, Part 1 of the Wildlife & Countryside Act (1981) to control the release of captive birds.

**Little Owl *Athene noctua* C**

Change to Category C1 of the British List.

Britain has an established, widespread breeding population deriving solely from birds of captive origin introduced from the late 1800s to around 1930 (Cramp 1985). The British population is recognized as *vidalii* (Cramp 1985) imported from central Europe, although the earliest introductions were from Italy and would have involved birds of the nominate race *noctua*; it is unknown if this race became established or persists to the present day.

**Other species**

The following non-native species all bred in Britain in 2001 and/or 2002 (Ogilvie & RBBP 2003, 2004) and their populations here should be monitored:

**Bar-headed Goose *Anser indicus* E\***

**Emperor Goose *Anser canagicus* E\***

**Reeves's Pheasant *Syrnaticus reevesii* E\***

**Helmeted Guineafowl *Numida meleagris* E\***

**Rosy-faced Lovebird *Agapornis roseicollis* E\***

**Blue-crowned Parakeet *Aratinga acuticaudata* E\***

**Monk Parakeet *Myiopsitta monachus* E\***

**Eagle Owl *Bubo bubo* E\***

In addition, there are increasing numbers of the following species in the wild in Britain (Ogilvie & RBBP 2004). Although breeding has not yet been confirmed, continued monitoring is required:

**Green Pheasant *Phasianus versicolor* E**

The following three species are on the British List (but not on Category C), and there are no naturally occurring breeding populations of any of them in Britain. However, all three were found breeding in Britain in 2001 and/or 2002 (Ogilvie & RBBP 2003, 2004), and some/all records are likely to relate to birds of captive origin (making the species potential candidates for Category C). These species require further monitoring:

**Pink-footed Goose** *Anser brachyrhynchus* AE\*  
**Greater White-fronted Goose** *Anser albifrons* AE\*  
**Ruddy Shelduck** *Tadorna ferruginea* BE\*

### British List totals

These changes do not affect the total number of species on the British List, which remains at 569 species (Category A, 547; Category B, 12; Category C, 10).

### Appendix

#### Red-winged Laughingthrush *Garrulax formosus* on the Isle of Man

Retain on Category E\* of the Isle of Man List.  
 Recommend further monitoring to establish extent of establishment.  
 Alert Isle of Man Government Department of Agriculture, Fisheries and Forestry to the increasing population and possible future establishment.

Following escape from captivity, Red-winged Laughingthrush *Garrulax formosus* has been recorded in the wild on the Isle of Man since April 1995, with breeding recorded since 1996 (Thorpe & Sharpe 2004). At present the population size is not known, nor are the number of breeding birds or any details of fledging success which would help to assess population growth. Thorpe and Sharpe report that despite most sightings coming from gardens, the birds are surviving without making regular use of supplementary feeding (i.e. garden bird tables) and have spread into forestry plantations in at least two glens on the island.

With both the population size and breeding success unknown, on the data currently available it is not possible to determine the degree of establishment and, importantly, whether the population is self-sustaining. It would appear that on current knowledge, population growth is likely, which could result in the establishment of a self-sustaining naturalized population that would qualify Red-winged Laughingthrush for admission to Category C1 of the Isle of Man List.

It is recommended that a survey of known areas of occurrence be undertaken to determine population size and try and assess the number of breeding pairs (and nesting success if possible). It is also recommended that the Isle of Man Government Department of Agriculture, Fisheries and Forestry be alerted to the increasing population and possible future establishment of this non-native species.

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