

Please note: the content of this PDF file is taken from archive holdings, and has been rendered to produce the best possible output. However, you may experience fluctuations in quality due to these files not being created from electronic originals.

The introduction and naturalisation of birds

Proceedings of a conference organised jointly by the
British Ornithologists' Union and the UK Joint Nature Conservation Committee

**Edited by
J.S. Holmes and J.R. Simons**

LONDON: The Stationery Office

© Copyright Joint Nature Conservation Committee 1996

Applications for reproductions should be made in writing to
The Stationery Office Limited, St Crispins, Duke Street,
Norwich NR3 1PD

ISBN 0 11 702041 9

Monitoring captive bird populations in Great Britain

Andy Jones

Jones, A. 1996. Monitoring captive bird populations in Great Britain. *In: The introduction and naturalisation of birds*, ed. by J.S. Holmes and J.R. Simons, 13-17. London, HMSO.

It is self-evident that any bird species kept in captivity in Great Britain could escape from captivity or be deliberately released into the wild. As a consequence there may be sound conservation reasons for assessing the range of species, their captive populations and the locations of birds which are kept in captivity. This paper describes systems currently in place which allow the assessment of some or all of these parameters. This paper also presents data describing the current captive populations of certain species. It also suggests some improvements to the system for monitoring those globally threatened bird species which are kept in captivity in Britain. Reference is made to systems which allow the monitoring of escapes, for example, records in some county bird reports.

A. Jones, The Royal Society for the Protection of Birds, The Lodge, Sandy, Bedfordshire SG19 2DL, United Kingdom

Present address: Montgomeryshire Wildlife Trust, Collot House, 20 Severn Street, Welshpool, Montgomeryshire, SY21 7AD, United Kingdom

Introduction

It is self-evident that any bird kept in captivity could escape or be deliberately released into the wild. As a consequence there may be sound conservation reasons for assessing the range of species, their captive populations and the locations of birds which are kept in captivity. This paper describes systems currently in place in Great Britain which allow the assessment of some or all of these parameters.

These systems can be sub-divided into two categories. Firstly, those instigated, organised or administered by government, often as a result of a statutory requirement, and termed here 'official systems'. Secondly, those systems instigated by non-governmental organisations, often aviculturally based, termed here 'voluntary systems'.

The information presented here relates to England, Scotland and Wales. The situation in Northern Ireland differs in detail and to avoid confusion is not discussed here.

Official systems

Schedule 4 of the Wildlife and Countryside Act 1981

This is the single system in Great Britain which allows for a reasonably accurate measurement of:

- i. the number of individual birds kept in captivity of species covered by the Schedule, and

- ii. the locations where these birds are kept.

Schedule 4 is created by section 7 of the Wildlife and Countryside Act 1981. This law requires any person who chooses to keep, possess or control any species on Schedule 4 to register each bird with the Department of the Environment (DoE). This registration process also, in most cases, requires the fitting of close rings to the registered birds. A close ring is a continuous metal band of a prescribed size for each species. The ring is placed over the foot of a young bird. As the bird grows, so do the foot joints and as a consequence the ring cannot be removed. There are around 60 species on the schedule, mostly diurnal raptors. The species currently included in Schedule 4 are listed in Annex A. Table 1 shows the numbers of individual birds of certain Schedule 4 species held in captivity in April 1995. The maximum penalty for failure to comply with these legal requirements is a fine of £5000. This sanction gives reasonable confidence in accepting the figures

Table 1. Captive populations of certain Schedule 4 species on 4 April 1995.

| | |
|------------------|-------|
| Chough | 72 |
| Bearded tit | 117 |
| Woodlark | 8 |
| Golden eagle | 63 |
| Peregrine falcon | 1,496 |
| Goshawk | 877 |
| Merlin | 365 |

Source: DoE

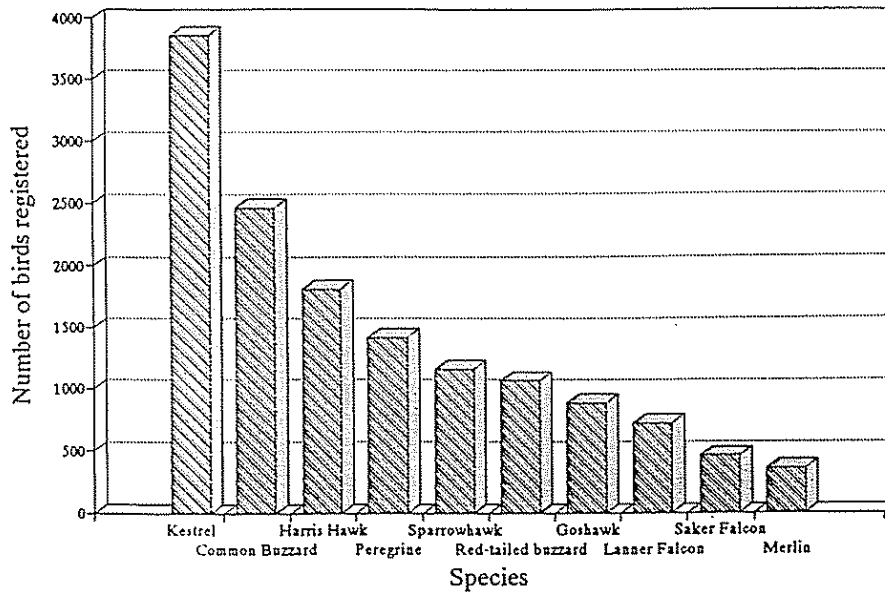


Figure 1. Birds Registered in Captivity (DOE figures for 1992).

for the registered population of birds in captivity as close to the actual captive population. It should be remembered, however, that cases of failure to register birds come to the attention of the authorities each year.

In 1994, Schedule 4 of the Wildlife and Countryside Act was amended (Muchmore 1994). Certain 'common' species including kestrel *Falco tinnunculus*, sparrowhawk *Accipiter nisus* and common buzzard *Buteo buteo* were removed from the Schedule. However, globally threatened raptors (Collar, Crosby & Stattersfield 1994) were included in the revised Schedule and a system for determining criteria to decide which species should be included in the Schedule was created. Many bird conservationists would like to see this principle of including globally threatened birds on Schedule 4 extended to taxa other than birds of prey.

Schedule 4 is associated with birds of prey. Figure 1 illustrates captive populations of registered birds of prey in 1992. There is no doubt that a proportion of birds allegedly bred in captivity have a wild origin (Nurse 1990-1993). Schedule 4 allows the numbers of young birds, apparently captive bred, which enter the captive population to be measured. Table 2 describes new registrations of young peregrines *Falco peregrinus* and goshawks *Accipiter gentilis* in the years 1990 to 1994. The significant reduction of

Table 2. New registrations of peregrine and goshawk, 1990-94.

| | 1990 | 1991 | 1992 | 1993 | 1994 |
|-----------|------|------|------|------|------|
| Peregrine | 269 | 319 | 290 | 360 | 289 |
| Goshawk | 79 | 155 | 141 | 154 | 116 |

Source: HANSARD

new registrations in 1994 may be attributable to the more widespread forensic use of DNA genetic profiling to determine claims of captive breeding.

It is another requirement of Schedule 4 that 'any bird one of whose parents or other lineal ancestor was a bird of a kind specified in the Schedule has to be registered.' This means that hybrids of species covered by the Schedule also need to be registered.

Schedule 4 provides a good model of all that needs to be in place for an accurate and reliable system of monitoring birds in captivity. The other systems described in this paper do not in any way approach the effectiveness of Schedule 4.

Schedule 3 Part 1 of the Wildlife and Countryside Act 1981

There are 19 species of birds which the Wildlife and

Countryside Act allows to be sold provided they have been fitted with a close ring and have been captive bred. These are species which have been traditionally kept in captivity and are listed in Annex B. It is not possible to determine the total numbers of each species held in captivity since Schedule 3 of the Wildlife and Countryside Act is only concerned with birds for sale. Rings are issued by suppliers approved by the Department of the Environment.

The Convention on International Trade in Endangered Species (CITES)

This international convention prohibits or controls trade in species which are included in its Appendices. Broadly, wild specimens of species included in Appendix I of CITES are prohibited from commercial trade, whilst wild specimens of species listed in Appendix II can be traded provided certain conditions are met. Clearly, as CITES seeks to control trade in species of conservation concern it is an important conservation convention. Each signatory country to CITES (there are currently in excess of 125) is required to report imports and exports of CITES species each year. From these records it is possible to gain some information about the range of species, and the numbers of individuals, entering or leaving a country.

These CITES data allow generalisations of the total of reported trade. For example, in 1989 the UK imported 103,282 birds of 195 CITES listed species from 60 countries; and in 1993 the UK exported 2,676 birds of 111 CITES listed species to 36 countries (World Conservation Monitoring Centre 1995). The majority of this trade, of course, involves CITES Appendix II species.

Additionally, these CITES data can be analysed more thoroughly. Table 3 describes the detailed information available for five selected species.

CITES data allow for the measurement of numbers of

birds of CITES species entering the captive population each year. These data, of course, cannot take account of mortality in captivity, birds bred in captivity from wild imported stock, or any illegal trade that may have taken place. CITES figures are very much minimum figures. There is a strong argument for birds included on CITES Appendix I to be included in Schedule 4 of the Wildlife and Countryside Act. This would allow a far more accurate method of monitoring British captive populations of these species of global conservation concern.

Quarantine data recorded by the Ministry of Agriculture, Fisheries and Food

For animal health reasons the Ministry of Agriculture Fisheries and Food (MAFF) requires birds entering the UK to be quarantined. For several years MAFF has compiled data concerning birds imported into the UK (MAFF 1991-1993). There is currently debate as to whether these data will continue to be collected because of the advent of the single European market within the European Union. These MAFF data complement and extend CITES data, particularly as MAFF data cover all species, not just those listed on the CITES appendices. For example, in 1990 175,967 birds were imported into Britain. Of these, 3,543 (2%) were found to be dead on arrival and a further 18,138 (10.3%) died in quarantine. This left 154,286 birds of at least 634 different species entering the British captive population. In addition a further 40 species could not be identified.

Voluntary systems

Species monitoring in trade journals

Trade journals carry advertisements of birds for sale. From these adverts it is possible to determine the range of species being traded and the values they

Table 3. Trade in CITES-listed birds reported by UK in 1993. I/E = import/export; APP = CITES Appendix; P = purpose (T = trade; N = re-establishment; P = personal); S = source (W = wild; C = captive; U = unknown).

| I/E | APP | Taxon | Term | Qty | Country | P | S |
|-----|-----|--|------|-------|----------|---|---|
| I | 2 | Orange-winged Amazon parrot <i>Amazona amazonica</i> | Live | 380 | Guyana | T | W |
| I | 2 | African grey parrot <i>Psittacus erithacus</i> | Live | 2,500 | Cameroon | T | W |
| I | 2 | Red kite <i>Milvus milvus</i> | Live | 24 | Sweden | N | W |
| E | 1 | Peregrine falcon <i>Falco peregrinus</i> | Live | 9 | Jordan | P | C |
| E | 1 | Hyacinth macaw <i>Anodorhynchus hyacinthus</i> | Live | 1 | Sweden | B | U |

Source: World Conservation Monitoring Centre

realise. Of course, advertisements can give no accurate indication of the total of birds in captivity.

Aviculturalists' records

Some avicultural organisations have created their own systems of recording numbers of birds, and other associated information, reported to them by their members. Often these records contain a great deal of detailed information, particularly in respect of captive breeding. Some examples are described below.

The Federation of Zoological Gardens of Great Britain and Ireland maintains a bird inventory which records, in detail, birds held and bred in the collections of its members. For example, its Bird Inventory of 1992 records 62 Macaroni penguins *Eudyptes chrysolophus* held in three different collections, and 16 hyacinth macaws *Anodorhynchus hyacinthus*, a CITES Appendix I species, held in six different collections. The Parrot Society maintains a breeding register of psittacines which recorded 424 Fischer's lovebirds *Agapornis fischeri* in captivity in 1992. The Foreign Bird Federation compiles a register of birds bred in the UK. In 1990, this recorded 33 lesser sulphur-crested cockatoos *Cacatua sulphurea* having been bred in captivity in that year. Aviomis UK maintains a register of certain waterfowl species in captivity.

The National Council for Aviculture maintains a register of captive birds reported stolen. For example in 1993, 153 thefts were reported. Species stolen included various psittacines, waterfowl, diurnal raptors and owls.

Whilst this avicultural information is useful in terms of understanding the range of species in captivity, it must be interpreted with caution as it generally reflects only a tiny percentage of the total UK captive bird population. For instance, although the Foreign Bird Federation recorded 33 lesser sulphur-crested cockatoos having been bred in captivity in 1990, the official MAFF quarantine and import figures for the same year revealed 410 birds being imported. Discrepancies between voluntary registers and official statistics are largely explained by imported birds quickly disappearing into the hands of dealers and pet shops where they are sold, the majority of new owners not reporting their possession to the avicultural organisations.

These voluntary systems only allow for the recording of a small proportion of the total of birds held in captivity. It should be noted, however, that in the

case of several 'specialist' species held by zoos and wildfowl collections a reasonably accurate assessment of captive populations can be made.

Monitoring escapes

No statutory system exists to allow the monitoring of escaped birds. Even Schedule 4 of the Wildlife and Countryside Act has no requirement for birds which have escaped from captivity to be reported, though DOE requests registered keepers to report escapes.

A useful and underused voluntary system is the record of escapes listed in various county bird reports. It is all too easy for birdwatchers to dismiss sightings of obvious escapes as not being worthy of record. The papers in this volume contest otherwise and calls for a more systematic approach to escape recording in future (e.g. J. Marchant, this volume) are well founded.

Conclusion

Various systems, both statutory and voluntary, exist to provide some sort of measurement of numbers and species of birds held in captivity in Great Britain. With the exception of Schedule 4 of the Wildlife and Countryside Act 1981, these systems provide only an indication of the minimum numbers of birds and species held in captivity. In most cases, this minimum number is only a small proportion of the total captive population for a particular species. However, the system provided by Schedule 4 gives an accurate measurement of the numbers and locations of birds covered by the schedule. This provides a good model for what can be achieved.

There is currently no satisfactory mechanism for monitoring birds which have escaped from captivity in Great Britain.

Acknowledgements

I am grateful for the information provided by John Caldwell of the World Conservation Monitoring Centre and David Neville of the National Council for Aviculture.

References

- Collar, N.J., Crosby, M.J., & Stattersfield, A.J. 1994 *Birds to watch 2*. Cambridge, BirdLife International.
- Ministry of Agriculture, Fisheries and Food. 1991. *Importation of birds mortality statistics from quarantine returns*. London, MAFF.

Ministry of Agriculture, Fisheries and Food. 1992. *Importation of birds mortality statistics from quarantine returns*. London, MAFF.

Ministry of Agriculture, Fisheries and Food. 1993. *Importation of birds mortality statistics from quarantine returns*. London, MAFF.

Muchmore, I. 1994. *Department of the Environment review of wildlife sales*. Consultation Document. Bristol, DoE.

Nurse, A. 1990. *RSPB Investigations Annual Report*. Sandy, Royal Society for the Protection of Birds.

Nurse, A. 1991. *RSPB Investigations Annual Report*. Sandy, Royal Society for the Protection of Birds.

Nurse, A. 1992. *RSPB Investigations Annual Report*. Sandy, Royal Society for the Protection of Birds.

Nurse, A. 1993. *RSPB Investigations Annual Report*. Sandy, Royal Society for the Protection of Birds.

World Conservation Monitoring Centre. 1995. *Records of the World Conservation Monitoring Centre*. Cambridge

| | |
|---------------------------|--------------------------------|
| Redstart, Black | <i>Phoenicurus ochruros</i> |
| Redwing | <i>Turdus iliacus</i> |
| Sea-Eagle, Pallas's | <i>Haliaeetus leucoryphus</i> |
| Sea-Eagle, Steller's | <i>Haliaeetus pelagicus</i> |
| Serin | <i>Serinus serinus</i> |
| Serpent-Eagle, Andaman | <i>Spilornis elgini</i> |
| Serpent-Eagle, Madagascar | <i>Eutriorchis astur</i> |
| Serpent-Eagle, Mountain | <i>Spilornis kinabaluensis</i> |
| Shorelark | <i>Eremophila alpestris</i> |
| Shrike, Red-backed | <i>Lanius collurio</i> |
| Sparrowhawk, New Britain | <i>Accipiter brachyurus</i> |
| Sparrowhawk, Gundlach's | <i>Accipiter gundlachi</i> |
| Sparrowhawk, Imitator | <i>Accipiter imitator</i> |
| Sparrowhawk, Small | <i>Accipiter namus</i> |
| Tit, Bearded | <i>Panurus biarmicus</i> |
| Tit, Crested | <i>Parus cristatus</i> |
| Warbler, Cetti's | <i>Cettia cetti</i> |
| Warbler, Dartford | <i>Sylvia undata</i> |
| Warbler, Marsh | <i>Acrocephalus palustris</i> |
| Warbler, Savi's | <i>Locustella luscinioides</i> |
| Woodlark | <i>Lullula arborea</i> |
| Wryneck | <i>Jynx torquilla</i> |

ANNEX A. SPECIES INCLUDED IN SCHEDULE 4 OF THE WILDLIFE AND COUNTRYSIDE ACT 1981

| <i>Common name</i> | <i>Scientific name</i> |
|--------------------------|----------------------------------|
| Bunting, Cirl | <i>Emberiza cirrus</i> |
| Bunting, Lapland | <i>Calcarius lapponicus</i> |
| Bunting, Snow | <i>Plectrophenax nivalis</i> |
| Buzzard, Honey | <i>Pernis apivorus</i> |
| Eagle, Adalbert's | <i>Aquila adalberti</i> |
| Eagle, Golden | <i>Aquila chrysaetos</i> |
| Eagle, Great Philippine | <i>Pitheophaga jefferyi</i> |
| Eagle, Imperial | <i>Aquila heliaca</i> |
| Eagle, New Guinea | <i>Harpyopsis novaeguineae</i> |
| Eagle, White-tailed | <i>Haliaeetus albicilla</i> |
| Chough | <i>Pyrrhocorax pyrrhocorax</i> |
| Crossbills (all species) | <i>Loxia spp</i> |
| Falcon, Barbary | <i>Falco pelegrinoides</i> |
| Falcon, Gyr | <i>Falco rusticolus</i> |
| Falcon, Peregrine | <i>Falco peregrinus</i> |
| Fieldfare | <i>Turdus pilaris</i> |
| Firecrest | <i>Regulus ignicapillus</i> |
| Fish-Eagle, Madagascar | <i>Haliaeetus vociferoides</i> |
| Forest-Falcon, Plumbeous | <i>Micrastur plumbeus</i> |
| Goshawk | <i>Accipter gentilis</i> |
| Harrier, Hen | <i>Circus cyaneus</i> |
| Harrier, Marsh | <i>Circus aeruginosus</i> |
| Harrier, Montagu's | <i>Circus pygargus</i> |
| Hawk, Galapagos | <i>Buteo galapagoensis</i> |
| Hawk, Grey-backed | <i>Leucopternis occidentalis</i> |
| Hawk, Hawaiian | <i>Buteo solitarius</i> |
| Hawk, Ridgway's | <i>Buteo ridgwayi</i> |
| Hawk, White-necked | <i>Leucopternis lacernulata</i> |
| Hawk-Eagle, Wallace's | <i>Spizaetus nanus</i> |
| Hobby | <i>Falco subbuteo</i> |
| Honey-Buzzard, Black | <i>Henicoperis infuscatus</i> |
| Kestrel, Lesser | <i>Falco naumanni</i> |
| Kestrel, Mauritius | <i>Falco punctatus</i> |
| Kite, Red | <i>Milvus milvus</i> |
| Merlin | <i>Falco columbarius</i> |
| Oriole, Golden | <i>Oriolus oriolus</i> |
| Osprey | <i>Pandion haliaetus</i> |

ANNEX B. SPECIES INCLUDED IN SCHEDULE 3, PART 1 OF THE WILDLIFE AND COUNTRYSIDE ACT 1981

| <i>Common name</i> | <i>Scientific name</i> |
|--------------------|---------------------------------|
| Blackbird | <i>Turdus merula</i> |
| Brambling | <i>Fringilla montifringilla</i> |
| Bullfinch | <i>Pyrrhula pyrrhula</i> |
| Bunting, Reed | <i>Emberiza schoeniclus</i> |
| Chaffinch | <i>Fringilla coelebs</i> |
| Dunnock | <i>Prunella modularis</i> |
| Goldfinch | <i>Carduelis carduelis</i> |
| Greenfinch | <i>Carduelis chloris</i> |
| Jackdaw | <i>Corvus monedula</i> |
| Jay | <i>Garrulus glandarius</i> |
| Linnet | <i>Carduelis cannabina</i> |
| Magpie | <i>Pica pica</i> |
| Owl, Barn | <i>Tyto alba</i> |
| Redpoll | <i>Carduelis flammea</i> |
| Siskin | <i>Carduelis spinus</i> |
| Starling | <i>Sturnus vulgaris</i> |
| Thrush, Song | <i>Turdus philomelos</i> |
| Twite | <i>Carduelis flavirostris</i> |
| Yellowhammer | <i>Emberiza citrinella</i> |

