

Directive on the Conservation of Wild Birds: 79/409/EEC

Seventh Report by the UK Under Article 12:

Implementation of National Provisions 1999-2001

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Executive Summary

This is the seventh Triennial report for the United Kingdom (UK) on the implementation of Council Directive 79/409/EEC on the Conservation of Wild Birds. The first and second Triennial reports described in detail the legislation enacted to implement Directive 79/409 (as amended by Directives 85/411, 86/122, 91/244 and 92/43). The fourth Triennial Report recorded changes in legislation enacted between 1990 and 1992. The fifth Triennial Report reported on changes in legislation enacted, and other significant activities during the period 1993 -1995. The sixth Triennial Report reported on significant activities for the period 1996-1998, while this report updates the situation for the period 1999-2001.

The statutes relevant to the Birds Directive are the Wildlife and Countryside Act (WCA) 1981, the Wildlife (Northern Ireland) Order 1985, and the Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 and the Countryside and Rights of Way (CRoW) Act 2000 (for England and Wales).

During the reporting period, the UK has taken a range of new measures, and further developed some existing initiatives, which support its implementation of the Birds Directive. These measures include strengthening the legislative framework, introducing new stricter domestic measures to protect both important sites and species and improving wildlife crime enforcement provisions through the CRoW Act. Measures have also been taken on a range of initiatives including a review of the UK's Special Protection Area (SPA) network, wider initiatives to address wildlife crime in partnership with stakeholders, regulating use of lead shot to prevent poisoning of waterfowl and development of Habitat Action Plans (HAPs) and Species Action Plans (SAPs). The report also contains information on the UK's bird monitoring programmes and on scientific research undertaken during the reporting period which supports implementation of the Birds Directive.

Article 2

Ongoing efforts are underway to ensure effective enforcement of the legislation to enforce the Birds Directive, including the measures below.

Enforcement

The Partnership for Action Against Wildlife Crime

The conservation of wild birds can only succeed if the legislation implementing the Directive is effectively enforced. The Partnership for Action Against Wildlife Crime (PAW), first established in 1995, addresses a broad range of strategic wildlife enforcement issues. Its objectives include:

- supporting the UK network of Police Wildlife Liaison Officers and Customs and Excise CITES Wildlife and Endangered Species Officers;
- facilitating the exchange of information between all the agencies involved in wildlife law enforcement;
- raising awareness of wildlife crime issues;
- promoting and monitoring developments in the use of Deoxyribonucleic Acid (DNA) technology and other forensic techniques

Two handbooks – ‘Wildlife Crime: Cautioning Offenders’ and ‘Wildlife Crime: A Directory of Information Sources’ have been published to support Police and Customs officers on a range of wildlife crime issues. Measures to raise awareness of wildlife crime amongst the general public have included the establishment of the PAW Roadshow, and the launch of the PAW website at www.defra.gov.uk/paw.

Work is also continuing towards the establishment of a new National Wildlife Crime Intelligence Unit early in 2002. It will provide law enforcement agencies with information which will allow them to target and disrupt serious wildlife crimes and the major criminals involved.

In October 2000 a partnership was formed between the Countryside Council for Wales (CCW) and North Wales Police. A Police Officer has been seconded to CCW with the objective of reducing Wildlife Crime by raising awareness and building up a network of organisations sharing similar aims. Exchange of expertise has been the key to the success of the partnership, with the officer providing a link between CCW and all Police officers in Wales. A lack of information on the extent of Wildlife Crime has been an obstacle to effective wildlife law enforcement. A project to record all instances of Wildlife Crime initially in North and South Wales has therefore been implemented.

The Ministry of Defence (MoD) undertakes a number of positive management prescriptions to conserve the species and habitats found across the 238,765 hectares of MoD land. To help protect wildlife populations, MoD police have established a network of Wildlife Liaison Officers.

Inspections and training

A systematic programme of inspections by the Department for Environment, Food and Rural Affairs (Defra) Wildlife Inspectorate has ensured continued monitoring of the registration scheme for registered keepers of birds, and checks on those applying for licences to release barn owls *Tyto alba* into the wild.

During the period of this report 1,523 inspections were completed. The Department has continued assisting with training for the Police and other enforcement bodies, by speaking at conferences and training events. The Department also provided assistance in the investigation and prosecution of 130 cases.

Strengthening legislation through the Countryside and Rights of Way Act

The CRoW Act, which applies in England and Wales, came into force in January 2001. Similar legislation is planned for introduction into Scotland and Northern Ireland. It contributes to the conservation objectives of the Directive by strengthening the enforcement provisions of the WCA 1981. The CroW Act:

- gives police officers and Defra Wildlife Inspectors powers to require tissue samples for DNA analysis. This helps them establish the ancestry or identity of wildlife specimens;
- increases the maximum penalty to up to six months imprisonment for many wildlife offences (and up to two years for the release of non-native species). This acts as a deterrent;
- rationalises and strengthens the search warrant and time limits for bringing prosecutions provisions;
- creates a new offence of recklessly disturbing a protected bird while it is building a nest or is in, on or near a nest containing eggs or young, or dependent young of such a bird. Intentional disturbance was already an offence under the WCA;
- extends Wildlife Inspectors' powers to enter premises to ascertain whether various offences have been or are being committed; and
- makes certain wildlife offences 'arrestable', which gives police officers stronger search, seizure and arrest powers.

For more information on the CRoW Act, see Article 3.

DNA analysis

The Wildlife Inspectorate has continued its programme of inspections to obtain blood samples from families of birds registered with Defra, to complement the enforcement of the registration system. During the period of this report, 52 blood samples were taken and analysed and the claims of captive-breeding confirmed. DNA evidence has been used successfully in 8 court cases to disprove captive-breeding or familial relationships.

Status of Breeding Bird Populations

A summary of the current population status of breeding bird populations in the UK is given in Appendix 1. This updates the information provided in the sixth triennial report.

Goose Forum and Management Schemes

These schemes are explained in Appendix 6.

Lead poisoning of waterfowl / phasing out of lead shot

Following a four-year voluntary phase-out of lead shot, on 1 September 1999 the UK introduced new regulations, the Environmental Protection (Restriction on Use of Lead Shot)(England) Regulations 1999 SI No 2170, to prohibit the use of lead shot over certain wetlands and for waterfowl shooting in England. The objective of these Regulations is to protect waterfowl against poisoning from lead shot and to help the UK meet its commitment under the African-Eurasian Waterbird Agreement (AEWA) to endeavour to phase out the use of lead shot over wetlands by the year 2000. The Regulations are not intended to unnecessarily restrict shooting but to alter shooting practices, and to ensure that spent lead shot does not cause unnecessary deaths.

Following introduction of the Regulations in England, the Government convened a Review Group to review the list of wetland sites covered by the Regulations and the effectiveness of the Regulations in the light of the first year's experience. The Group comprised representatives from conservation, land-owning, farming, shooting and ammunition industry organisations. The Group reported in March 2001 and made recommendations for minor amendments to the Regulations.

In Scotland, consultation on the phasing out of lead shot is now complete, and Scottish Ministers are presently considering changes to legislation.

In Wales, lead shot reduction is currently on a voluntary basis. However, the National Assembly for Wales (NAW) has developed new regulations, the Environmental Protection (Restriction on Use of Lead Shot) (Wales) Regulations 2001, which will come in to force 1 September 2002. These prohibit the use of lead shot for:

- i. shooting on or over any area below the high water mark;
- ii. shooting on or over any Site of Special Scientific Interest (SSSI) listed in the regulations, or at any wild bird listed in the regulations.

Species Action Plans

The drafting of all 391 SAPs has now been completed in accordance with criteria set out in the 1995 UK Biodiversity Steering Group Report. They provide information on the threats facing each species and the opportunities for maintaining and enhancing their populations. Detailed actions are set out for a number of organisations to achieve the targets for these species. Shown below is a list of the bird species for which SAPs have been developed:

<i>Acrocephalus paludicola</i>	aquatic warbler
<i>Acrocephalus palustris</i>	marsh warbler
<i>Alauda arvensis</i>	skylark
<i>Botaurus stellaris</i>	bittern
<i>Burhinus oedicephalus</i>	stone curlew
<i>Caprimulgus europaeus</i>	nightjar
<i>Carduelis cannabina</i>	linnet
<i>Crex crex</i>	corncrake
<i>Emberiza cirrus</i>	circus bunting
<i>Emberiza schoeniclus</i>	reed bunting
<i>Jynx torquilla</i>	wryneck
<i>Lanius collurio</i>	red-backed shrike
<i>Loxia scotica</i>	Scottish crossbill
<i>Lullula arborea</i>	woodlark
<i>Melanitta nigra</i>	common scoter
<i>Miliaria calandra</i>	corn bunting
<i>Muscicapa striata</i>	spotted flycatcher
<i>Passer montanus</i>	tree sparrow
<i>Perdix perdix</i>	grey partridge
<i>Phalaropus lobatus</i>	red-necked phalarope
<i>Pyrhula pyrrhula</i>	bullfinch
<i>Sterna dougallii</i>	roseate tern
<i>Streptopelia turtur</i>	turtle dove
<i>Tetrao tetrix</i>	black grouse
<i>Tetrao urogallus</i>	capercaillie
<i>Turdus philomelos</i>	song thrush

Raptors

A Raptor Working Group was set up in 1995 following increasing concerns from grouse moor owners and racing pigeon fanciers over the impact of rising raptor populations on bird numbers. Certain birds of prey do predate on racing pigeons and the working group considered the extent of this predation and its impact on population numbers in relation to other factors. There are still problems relating to illegal persecution of raptors.

The group's report (Department of the Environment, Transport and the Regions (DETR) and JNCC 2000) helps to provide an integrated solution to the problems presented by birds of prey to game bird managers and pigeon fanciers. The report and recommendations were presented to interested parties at the Raptor Forum meeting on 3 February 2000. The UK is now taking forward this work.

Uist Wader Project

North Uist, Benbecula and South Uist in the Western Isles of Scotland support some of the most important populations of breeding waders (dunlin *Calidris alpina*, ringed plover *Charadrius hiaticula*, redshank *Tringa totanus*, snipe *Gallinago gallinago*, lapwing *Vanellus vanellus* and oystercatcher *Haematopus ostralegus*) in the British Isles and Europe. Surveys in 1983 found 17,000 pairs, including approximately 25% of the total UK breeding populations of dunlin and

ringed plover. These nest extensively on suitable habitat through the island but the best areas are classified as two large SPAs.

Hedgehogs *Erinaceus europaeus* are not native to the Uists but were introduced in 1974. There are now estimated to be over 5,000 adults living in suitable habitat. Subsequent re-survey of the waders in 1995 and 2000 has recorded substantial declines in their populations. Research has conclusively demonstrated that the declines in at least four species (dunlin, redshank, snipe and lapwing) were due to high levels of egg predation by hedgehogs (Jackson 2001, Jackson and Green 2000).

The Uist Wader Project was established in 2000, as a joint project between Scottish Natural Heritage (SNH), Scottish Executive (SE) and the Royal Society for the Protection of Birds (RSPB) to:

- slow down the spread of hedgehogs to new areas on the Uists, and where possible safeguard existing populations of breeding waders;
- evaluate appropriate methods of locating and catching hedgehogs;
- investigate methods of reducing the hedgehog population on the islands initially via non-lethal methods; and
- raise awareness of the issues and maintain close links with relevant external organisations.

The project is now in its final year and in the process of reporting its findings.

Conservation of Individual Species

Specific examples of efforts to conserve bird species are explained in Appendix 4.

Article 3

SSSI legislation review

Countryside and Rights of Way Act

The nature conservation legislation in England and Wales has recently been enhanced through the passage of the CRoW Act. In England and Wales, the provisions of the new Act apply to all SSSIs - which are nationally important areas of biological or geological importance - and hence to all listed Ramsar sites and SPAs. The provisions improve the protection and management of these designated sites. They include:

- new powers for English Nature (EN) and the CCW to refuse consent for damaging activities; to develop management schemes which will help to combat neglect, and to serve management notices to require positive actions. These are accompanied by new appeal procedures;
- additional powers to enter land, and more flexible powers for compulsory purchase of land;
- a statutory duty on public bodies to further the conservation and enhancement of SSSIs, both in carrying out their operations and exercising their decision-making functions;
- a statutory footing to biodiversity through a general duty on Government (including NAW with respect to Wales) to further the conservation of habitats and species of principal importance for biodiversity, and to keep under review and re-publish any revised list of species and habitats, published by the appropriate conservation body (EN and CCW); and
- increases in offences and penalties for deliberate damage to SSSIs, and powers to order restoration of the damaged special interest where this is practicable.

Section 74 of the new CRoW Act places a duty on Ministers, Government Departments and NAW to have regard to the conservation of biodiversity in exercising their functions. For the purpose of this section conservation is defined as including restoration and enhancement.

Consultation on possible new legislation is being separately undertaken for Scotland and Northern Ireland. In Northern Ireland, there has been a full public consultation on proposed new measures for the better protection and management of Areas of Special Scientific Interest (ASSI).

The Nature of Scotland

The SE policy statement *The Nature of Scotland* proposed measures to increase protection and improve the management of SSSIs in Scotland, including sites which are also designated as Ramsar sites. These measures include a new power for SNH to refuse permission for damaging operations on SSSIs, improved protection from the action of third parties, reserve powers to require the carrying out of action to ensure management that maintains the conservation interest and increased fines for offences against SSSIs. No timescale has yet been set for the introduction of the legislative measures

proposed in the *Nature of Scotland*, but SE is committed to introducing legislation as soon as possible.¹

In October 2001, in response to *The Nature of Scotland*, SNH launched 'Natural Care' - a new strategy for the management of SSSIs and Natura sites. The underlying aim of Natural Care is to secure a significant increase in the proportion of the area of SSSIs under positive management. It lays the foundation for a greatly enhanced programme of voluntary management schemes and agreements which will help more land managers to benefit from having an SSSI or Natura 2000 site on their land. Existing management schemes such as the Corncrake SPA Management Scheme, White-tailed Eagle Scheme, Caithness and Sutherland Peatland Management Scheme, and Goose Management Schemes are included within Natural Care (and explained under Appendix 6).

Northern Ireland

In Northern Ireland, the review document *Partners in Protection* detailed the key issues and sought comment through consultation. This was followed by a further consultation on proposals based on the feedback to the review document. The measures, which have now been finalised, include refusal of consent for damaging operations or activities and management orders to address cases of neglect or mismanagement of sites. Both of these will be accompanied by an appeal mechanism. Other measures include increased fines, powers of entry to assist the survey, monitoring and management of sites, and a statutory duty on public bodies to further the conservation and enhancement of ASSIs. It is hoped that the resulting legislation will come into effect in 2003.

SSSI/ASSI Statistics

Summaries of the notified SSSIs/ASSIs in the UK at March 31st 2001 are provided in the tables below:

Country	Number of SSSIs	SSSI area (ha)
England	4,115	1,097,766
Scotland	1,449	957,710
Wales	1,009	224,743
Great Britain	6,573	2,280,219

Country	Number of ASSIs	ASSI area (ha)
Northern Ireland	182	89,569.226
Northern Ireland	182	89,569.226

Management agreement statistics

Management agreements are used to safeguard and enhance the management of sites and are an important mechanism for securing their favourable condition. Only SSSI management agreement figures are given. It should be noted that SSSI management agreements may relate to any of the reasons for which the sites were designated. This of course includes, but is not limited to, birds. It should also be noted that most Natura 2000 sites are underpinned by SSSIs.

¹ Subsequent to the timeframe of this report, Scottish Ministers announced on 30 May 2002 that a draft nature conservation bill implementing the *Nature of Scotland* proposals would be published by early March 2003.

In England 4,115 SSSIs covered 1,097,766 hectares of land by 31 March 2001, of which 159,262 hectares was subject to management agreements. Of the 2,502 agreements in place, 2,221 covering 152,262 hectares had been concluded under positive agreements, including EN's Wildlife Enhancement Scheme (see Appendix 6).

In Northern Ireland 182 ASSIs covered 89,569 hectares of land by 31 March 2001. During the year 1 April 2000 to 31 March 2001, 21 ASSI management agreements were entered into.

In Wales 1,009 SSSIs covered 224,743 hectares of land by 31 March 2001. Of this, 31,653 hectares are subject to section 15 management agreements under the terms of the Countryside Act 1968.

In Scotland 957,710 hectares of land were covered by 1,449 SSSIs at 31 March 2001. Some 60% of this area was under some form of management arrangement providing assurance that management would support conservation needs. At the launch of Natural Care in October 2001 SNH was charged with bringing a further 15% of the SSSI area under positive management agreements by 2003/04 and therefore to increase the SSSI area under assured management arrangements to 75%. The management agreement schemes which form Natural Care are explained separately in Appendix 6.

Agri-environment Schemes

A number of Agri-environment Schemes are currently run in the UK, all of which are of benefit to farmland birds and will help contribute towards achieving the Public Service Agreement target. These schemes are explained in Appendix 5.

In England, Countryside Stewardship is set to rise from £29 million in 1999/2000 to £126 million by 2006/7. From 2002, following the success of the Arable Stewardship scheme, a number of its options (e.g. winter stubbles, nest plots, wild bird cover) will be incorporated into the Countryside Stewardship Scheme. An extra £500 million (approx) will be available over the next 3 years for Defra to pilot and run a 'broad and shallow' agri-environment scheme. Similar proposals are being developed in Wales.

Common Agricultural Policy and set-aside

The current arable set-aside arrangements were introduced as part of the Arable Area Payments Scheme, which arose from the 1992 reform of the Common Agricultural Policy cereals regime. The principle purpose of set-aside is to reduce cereals production in the European Union (EU) and, in order to qualify for area payments on their cropped land, all but the smallest farmers must set aside part of their arable land.

The UK has always aimed to maximise the environmental benefits of set-aside and the associated management rules were drawn up in close consultation with the main environmental organisations. These rules, which apply to all set aside land except that used to produce non-food crops, provide farmers with considerable scope to manage their set-aside for the benefit of wildlife and specifically allow for the creation of new habitats. Set-aside cover formed by natural regeneration on light shallow soils can provide suitable sites for ground nesting birds such as the stone curlew *Burhinus oedipnemus* which prefers a sparse ground cover for nesting. Set-aside sown with grass can also provide cover for ground nesting birds and hunting grounds for birds such as owls. Farmers may also sow a 'wild bird' cover which must be an unharvestable mixture of at least two

crop groups, for example cereals and brassica. This provides feeding grounds for both seed eating and insect eating birds, especially if left in place for two or more years. In areas with over-wintering migratory geese farmers can request a derogation from the management rules to enable them to create a lush sward to attract the geese and establish alternative feeding areas.

The set-aside management rules are annually reviewed and wherever possible changes are designed to provide enhanced environmental benefits, particularly for ground nesting birds such as the stone curlew.

In 2000, farmers were provided with an alternative to standard set-aside management conditions with the introduction of the Multiannual Set-aside Scheme. The scheme, which is a voluntary initiative, involves the production of a management plan for set-aside land for up to five years, which may include provisions for cultivated areas suitable for ground-nesting birds such as skylark *Alauda arvensis* and lapwing *Vanellus vanellus*.

Habitat restoration

Habitat restoration and re-creation can provide substantial benefits to birds. Specific examples of habitat restoration projects are explained in Appendix 7.

Habitat Action Plans

Drafting of all 45 Priority HAPs has been completed in accordance with criteria set out in the 1995 UK Biodiversity Steering Group Report. The plans set out detailed actions to be taken by a number of agencies in order to safeguard and enhance these habitats, which include native pine woodlands, upland oakwoods and lowland wood-pasture and parkland. Although HAPs do not relate specifically to birds, actions taken to implement them, such as habitat restoration and re-creation, may provide substantial benefits to bird populations.

In 2001, the UK Biodiversity Group published its first progress report “*Sustaining the variety of life*” - 5 years of the UK Biodiversity Action Plan.

Article 4

SPA network: background, rationale and statistics

A detailed review of the UK SPA network, was concluded in 2001; *The UK SPA network: its scope and content* (Stroud *et al* 2001). A major tool for completing this review was the development of SPA selection guidelines based on international bird conservation practice (Joint Nature Conservation Committee (JNCC) 1999). The guidelines were used to assess the conservation requirements of species listed in Annex I to the Birds Directive and/or migratory species regularly occurring in the UK, and to identify an appropriate suite of SPAs for each species. For Annex I species, assessments were made at either national scale (Great Britain) or, in the case of Northern Ireland, in an all-Ireland context. For migratory species not listed on Annex I, assessments were made at an international scale (*i.e.* the relevant biogeographic or flyway populations). The resulting network comprises 243 SPAs, extended to over 1.4 million hectares and supports 103 qualifying species. A small number of these sites are still under consultation, prior to classification, in March 2001.

The UK is of major international importance for several groups of birds, including breeding seabirds, non-breeding waterbirds, birds of the uplands and of Caledonian pine-forest. A high proportion – in some cases all – of the national and international populations of such species utilise the UK SPA network. In summer, the network holds around five million breeding seabirds, whilst in winter it supports over two million non-breeding waterbirds. The habitat protection provided for these birds is a major contribution to their international conservation.

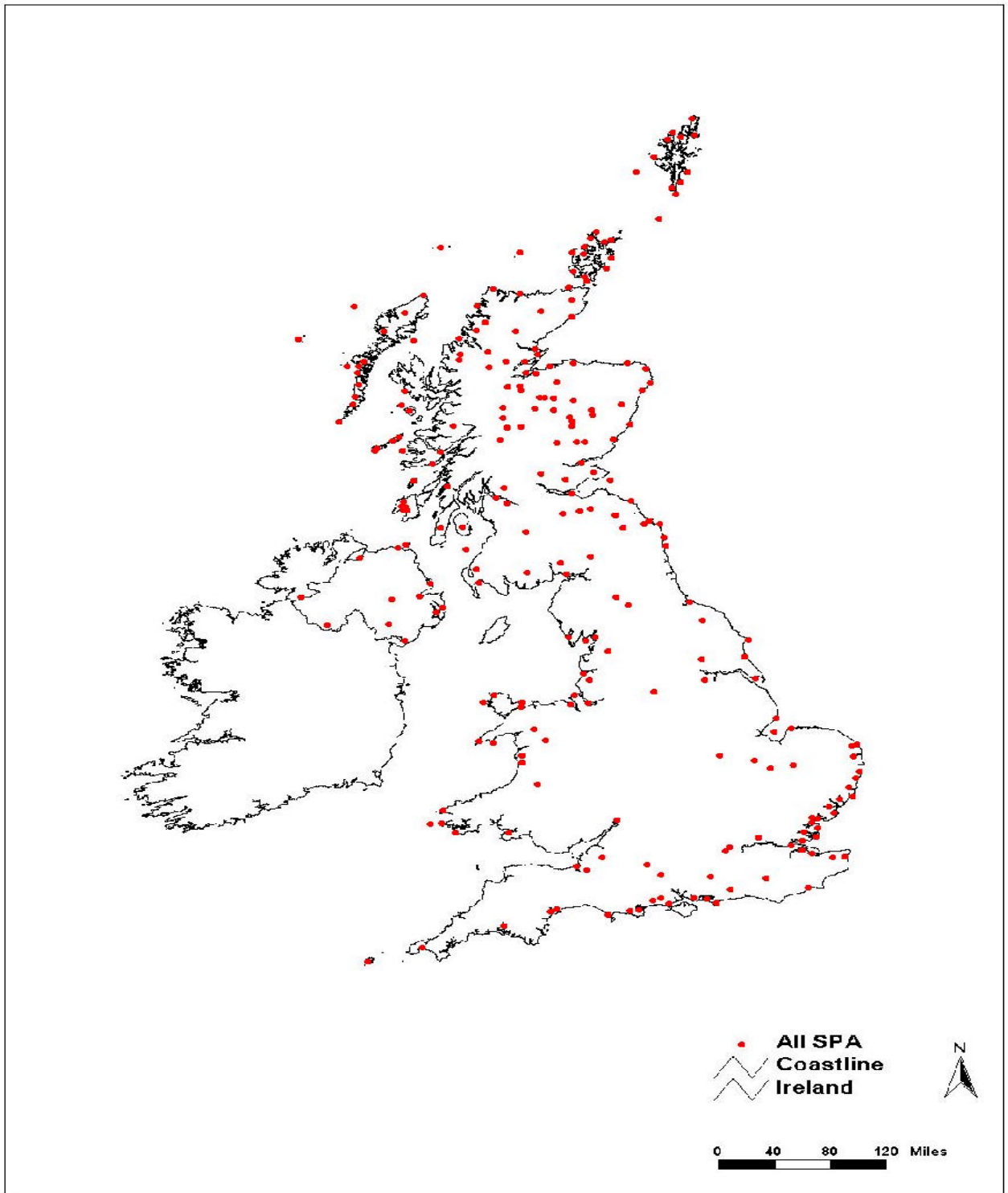
Those species of greatest conservation concern (in the context of the Birds Directive) tend to have the highest proportions of their populations within the UK SPA network, as do those that have the smallest geographic ranges (in summer and winter), and those where the UK holds a high proportion of international numbers.

SPAs are inappropriate for some UK bird species and thus for these, SPAs have not been selected. The rationale is presented in the SPA review document.

It has not been possible to identify a full SPA suite for a small number of species because of currently changing status or lack of data. Monitoring schemes are being developed to give feedback on changing population status of species within each SPA as well as at national level. This, together with increasing knowledge of conservation requirements, will allow the UK to modify the SPA network when new information indicates a need.

The UK SPA review dealt only with terrestrial sites. Development of SPAs in the marine environment is a separate process in the UK; no marine SPAs have yet been classified. Work to develop selection guidelines for marine SPAs was initiated in 2000, along with data collation and analysis. Three strands of work have begun: identifying boundaries for extending seabird colony SPAs into the marine environment; identifying areas of near-shore waters for non-breeding waterbirds; and identifying important offshore waters for feeding seabirds.

Map showing SPA network:



A summary of the classified SPAs in the UK at 31st March 2001 is provided in the table below:

Country	Number of SPAs	SPA area (ha)
England	73	596,772
England/Scotland	1	30,706
England/Wales	2	37,777
Northern Ireland	10	70,660
Scotland	122	445,864
Wales	11	66,830
UK	219	1,248,609

Ramsar site information

In addition to SPA classification, many wetland sites in the UK have also been designated under the Convention on Wetlands of International Importance (the Ramsar Convention).

Ramsar site designation in the UK has previously focused on identifying important localities for waterbirds. There has not been a systematic approach to the selection of sites for wetland habitats and non-avian species. For this reason, the UK Ramsar Committee agreed in November 2000 that the JNCC should co-ordinate a review of the UK site series, with the aim of achieving a more balanced representation of wetland interest features.

The objectives of the review are:

- i. to relate all existing Ramsar sites to the revised selection criteria (agreed at the seventh Conference of the Parties (CoP) in 1999);
- ii. to evaluate the representation of wetland habitats and selected non-avian species within existing and candidate Ramsar sites in the UK and its Overseas Territories; and
- iii. to identify any significant gaps in coverage and make recommendations for additional sites.

The first objective has been completed. All UK sites can now be related to the revised selection criteria. Work on the second and third objectives is currently being undertaken by JNCC. Two main approaches are being used for this phase of the review. For habitats and species considered to be of European importance (*i.e.* those listed on the Annexes of the EU Habitats Directive), comparisons will be made between the Ramsar site series and the proposed UK list of Special Areas of Conservation (SACs). For selected habitats and species this approach will be complemented by overlaying electronic distribution data with Ramsar site boundaries, using a geographic information system.

The review is not currently intended to cover all wetland interests in the UK. For habitats it will be reasonably comprehensive; particular attention will be paid to habitats considered to be under-represented either at global or national level (*e.g.* coral reefs, mangroves, sea grass beds, peatlands, and wet grasslands). A more selective approach will be adopted for species, focusing on fish (which have specific selection criteria) and other groups for which distribution data are readily available (*e.g.* dragonflies and vascular plants).

Decisions on recommendations made by the review will be discussed through the UK Ramsar Committee. If it is felt necessary to designate any additional sites to fill gaps in representativity, the target for their designation will be prior to COP9.

A summary of the designated Ramsar Sites in the UK at 31st March 2001 is provided in the table below:

Country	Number of Ramsar sites	Ramsar site area (ha)
England	64	292,788
England/Scotland	1	30,706
England/Wales	3	39,374
Northern Ireland	15	86,773
Scotland	48	273,655
Wales	7	11,366
UK*	138	734,663

*Figure excludes 11 Ramsar sites which have been designated in the UK Overseas Territories.

Article 5

Recklessness in the Countryside and Rights of Way Act

The UK has introduced stricter domestic measures to the general system of protection implementing Article 5. As explained under Article 2, the CRoW Act creates a new offence in England and Wales of recklessly disturbing a protected bird while it is building a nest or is in, on or near a nest containing eggs or young, or dependent young of such a bird. Intentional disturbance was already an offence under the WCA.

Article 6

There have been no further measures introduced to implement Article 6 during the reporting period.

Article 7

Capercaillie hunting ban

To aid the conservation of the capercaillie *Tetrao urogallus*, the Scottish Parliament introduced on 4th November 2001 a statutory ban on the hunting of the species. This decision was taken by Scottish Ministers following consultation with interested parties which concluded that the threat to the status of the species in Scotland required such a ban. It is intended to review the legal status of the species in 2006.

Other efforts to conserve this species are explained in Appendix 4, while the ‘Urgent Conservation Management for Scottish Capercaillie’ LIFE project is described in Appendix 7.

Article 8

Lead poisoning of waterfowl / phasing out of lead shot

The UK has introduced stricter domestic measures concerning methods of killing and taking wild birds, specifically in respect of use of lead shot in wetlands in England. These measures are explained in Article 2.

Article 9

Derogations report

The UK has compiled and submitted annual derogation reports to the European Commission (EC) as required under Article 9(3).

The UK Government, through JNCC, has continued to provide support to the EC by developing an information system to manage derogation information from Member States. The system has been developed to report derogations under both the Birds Directive (Article 9) and the Habitats Directive (Article 16). The system is available in all official EU languages and is supported by a guidance manual. The derogation information system is operational in nearly all Member States. It records information in a standard electronic template, and provides an effective and simple mechanism for the collation of derogation reporting to the EC. The system enables derogation data for birds to be compared directly with the BirdLife International and Ornithological Information System population databases (which are incorporated within the software). Standardisation of reporting has facilitated analyses in line with the provisions of the Directives.

Article 10

Bird population monitoring

Breeding Birds Survey

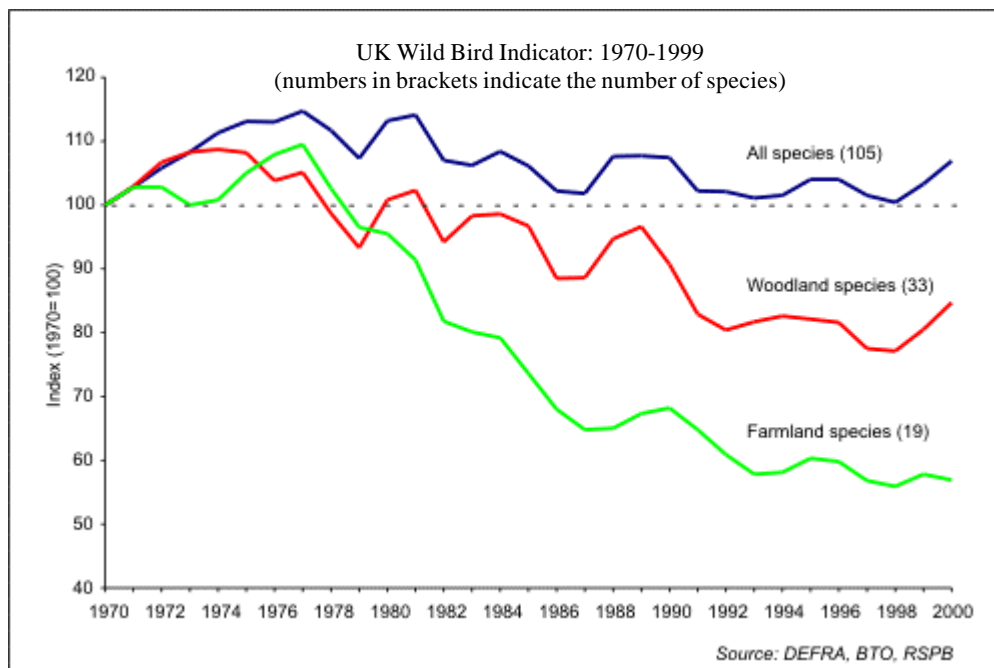
The Breeding Bird Survey (BBS) is the principal monitoring scheme for breeding birds in the UK. It is funded and managed on a partnership basis between BTO, RSPB and the JNCC. It is based on the annual re-survey of a stratified sample of randomly selected 1km squares throughout the UK. BBS has been running since 1994, and by 2000 was monitoring breeding bird numbers at 2,248 1km squares. It provides annual indices of population change² (at UK scale) of 100 species. The BBS reports annually (*e.g.* Noble *et al* 2001).

Statutory Conservation Agency/RSPB Annual Breeding Bird Scheme

The Statutory Conservation Agency/RSPB Annual Breeding Bird Scheme (SCARABBS) is a partnership between RSPB, JNCC and the country agencies. It funds periodic national surveys of a number of breeding bird species that are inadequately monitored by other schemes within the UK.

Wild Bird Headline Indicator

The UK wild bird indices form one of the 15 UK headline indicators for sustainable development, comprising indices of common farmland, woodland and all native bird species.



The all species UK index of British breeding birds has been relatively stable over the last two decades, and is currently at its highest level since 1990. Both farmland and woodland species have

² based on their occurrence in over 50 sample plots.

been generally declining from the mid-1970s. The farmland bird index declined by almost half between 1977 and 1993, but has been relatively stable since. The woodland bird index declined by around 30 per cent between 1974 and 1998, but it appears to have recovered in 1999 and 2000 to rise to its highest level since 1990. Populations of some farmland birds, such as the skylark *Alauda arvensis* and corn bunting *Miliaria calandra*, and of woodland birds such as the song thrush *Turdus philomelos* and bullfinch *Pyrrhula pyrrhula* have fallen by more than half.

UK Wild Bird Indices: 1970 - 1999				
	Population index			No. of species
	1970	1990	1999	
All native species	100	107	107	105
Woodland species	100	91	85	33
Farmland species	100	68	57	19

Wetland Birds Survey

The Wetland Bird Survey (WeBS) is a joint scheme of the British Trust for Ornithology (BTO), The Wildfowl and Wetlands Trust (WWT), RSPB and JNCC to monitor non-breeding waterfowl in the UK. The principal aims of the scheme are to identify population sizes, determine trends in numbers and distribution, and to identify important sites for waterfowl. WeBS Core Counts are made annually at around 2,000 wetland sites of all habitats; estuaries and large still waters predominate. Monthly co-ordinated counts are made mostly by volunteers, principally from September to March, with fewer observations during summer months.

WeBS Low-tide Counts have been made in 62 estuarine sites throughout the UK. Counts are not made annually, but are repeated typically every six years, however, more frequent coverage has been made on some sites. Co-ordinated counts are made monthly from November to February.

The scheme produces an annual report, *Wildfowl and wader counts*, which is widely disseminated (e.g. Musgrove *et al* 2001). This summarises the counts for the preceding count year. Data from other sources, e.g. roost counts of grey geese, are included in these reports where relevant.

A range of activity is currently underway to underpin and enhance the capabilities of WeBS. These include:

- *The Count Unit Definition Inventory (CUDI)*. Not all count sectors used by WeBS exactly match statutory sites boundaries. This issue is being addressed through the WeBS CUDI project. This is progressing through a series of phases.
- *The Integrated Waterbird Database (IWD)*. A fully integrated database system is under development by the WeBS Secretariat. This will have the ability to store and retrieve not only data collected under the core counts scheme, but also the multiplicity of other waterbird count data collected and reported (non-estuarine wader counts, grey goose censuses, etc.).

The IWD will have the capability to deliver desk-top access to relevant data for staff of the WeBS partnership as well as web-based access to certain elements of data (initially the level of data presented in *Wildfowl and wader counts*).

- *The development of a WeBS Alerts scheme*. Work is currently underway to develop an alerting system for WeBS. This aims to use annually collected counts of non-breeding

waterbirds to provide an objective means of indicating the significance of the changing numbers, against defined thresholds, of:

- UK populations of some non-breeding waterbirds;
- numbers of particular species on those sites which have been statutorily designated for them; and
- patterns of population changes at other scales (regional or country).

The alerting system depends on the analysis and interpretation of population trends over pre-defined periods to enable current changes in numbers to be placed in the context of the past.

The immediate work derived from research undertaken by BTO was presented at a workshop held in Peterborough in autumn 1998. That workshop reviewed previous alerting work with a range of national and international specialists and organisations, and made recommendations for the future development of both national and site-based alerts systems for non-breeding waterbirds. Since then, a three-year pilot programme has been undertaken to develop the concept.

- *The Low Tide Count Atlas*. Work is well underway to prepare an atlas of the low tide count data collected in the first seven years of the scheme. The atlas will give a detailed overview of the scheme, illustrate the distribution of selected species in each of the sites covered, provide a UK overview of each species at low tide and will provide practical advice on the use of low tide data for conservation work. Publication is planned for summer 2002.

Implications for the future development of the UK SPA network. All the initiatives above will have implications – to varying degree – for the SPA network. Of particular importance is the completion of the IWD (which will greatly enhance routine reporting capabilities) and the CUDI project.

Goose Monitoring

With the publication of the National Goose Forum Report (Scottish Executive Rural Affairs Department 2000), a number of goose management schemes have been developed in Scotland covering areas such as Islay, Kintyre, the Solway and South Walls on Orkney. A requirement to monitor goose populations in these areas has meant that SNH has co-ordinated comprehensive population monitoring of the key species populations (barnacle geese *Branta leucopsis* and Greenland white-fronted geese *Anser albifrons flavirostris*). Other species populations continue to be monitored through the national WeBS and the goose and swan monitoring carried out under the auspices of the JNCC contract with WWT. Furthermore, a newly created specialists group (Goose Science Advisory Group) is developing a longer term monitoring strategy for all important goose populations in order to gather additional data on population sizes and demography for future modelling and management purposes.

Seabirds at Sea

Standard Seabirds at Sea surveys continued in waters surrounding the UK. Data were collected on both seabirds and cetaceans, involving 10 cruises. Reports were published detailing the

distribution, dispersion and vulnerability of seabirds and cetaceans around the Faroe Islands (Taylor and Reid 2001, Skov *et al* 2002).

Seabird Monitoring Programme

The Seabird Monitoring Programme monitors breeding numbers and performance of Britain and Ireland's important seabird populations. The locations and size over time of seabird colonies are held on a customised database (Seabird Colony Register) jointly owned by JNCC and the Seabird Group. Annual monitoring is carried out at selected sites around the UK, and the results are reported annually by JNCC (*e.g.* Upton *et al* 2000).

Seabird 2000 survey

The Seabird 2000 survey initiative, launched in 1999 and in its final stages of completion, aims to establish national population counts for all 25 seabird species breeding around the coast of Britain and Ireland. All colonies were surveyed, with the exception of black guillemots *Cepphus grylle* in the Western Isles, and Atlantic puffins *Fratercula arctica* in the Farne Islands, as well as some inland colonies of gulls and skuas. The results of this work, approximating to 5,000 person weeks and including a substantial amount of voluntary effort, are due for publication in 2004.

Sea duck surveillance

Sea duck surveillance is a partnership project between WWT and JNCC, core-funded in support of the AEWA agreement and organised as part of the Seabirds at Sea project. The programme started in 2000 and in the winter of 2001/2, WWT undertook aerial surveys in key locations in Wales, northern England and Scotland to provide information on the numbers and distributions of seaduck populations in inshore waters around the UK.

Scottish Raptor Monitoring Scheme

The 'Report of the UK Raptor Working Group' (DETR and JNCC 2000) provided an important framework for developing work on raptors in the UK. It specifically made recommendations for further improvements to raptor monitoring which is carried out by a wide range of people and organisations. Work commenced on a partnership agreement between the Scottish Raptor Study Groups, the Rare Breeding Birds Panel (RBBP), RSPB, BTO, Scottish Ornithologists Club, JNCC and SNH to ensure co-ordination of this work, to promote best survey methodology and data standards and to make better use of the information for the understanding and conservation of Scotland's raptors and their habitats. A formal Agreement was signed in 2002.

Fish-eating birds

Final results of the jointly funded Ministry of Agriculture, Fisheries and Food (MAFF), Environment Agency and DETR projects were published in 1999 (Wernham *et al* 1999). These studies provided some guidance in the scientific assessment of impacts by fish-eating birds, but some results were inconclusive, demonstrating the difficulty of undertaking an adequate assessment of impacts. The studies demonstrated that there may be a local effect of predation by fish-eating birds and that solutions to the problems need to be sought at a local, targeted scale.

Raptors

A study was commissioned by DETR, undertaken by the Hawk and Owl Trust, to assess the impact of raptor predation on the racing and other domestic pigeon populations. The research was published in March 2000 (Shawyer *et al* 2000).

SNH has funded research to examine regional constraints on the golden eagle *Aquila chrysaetos* population in Scotland as part of an initiative to develop a national conservation framework of policies for this species (Watson and Whitfield 2002). SNH has also developed a predictive modelling method for range use in golden eagles (McLeod *et al* 2002), which is proving to be an indispensable tool in informing land management decisions for this species both on SPAs and in the wider countryside (*e.g.* Whitfield *et al* 2001). Additional studies have also looked at effects of forestry on golden eagles in south-west Scotland and at deriving management prescriptions and schemes for the 2 proposed golden eagle SPAs on the islands of Mull and Skye.

SNH has continued to contribute funding to the population monitoring programmes for the re-established white-tailed eagle *Haliaeetus albicilla* and red kite *Milvus milvus*. Dietary studies of the white-tailed eagle have also been funded to examine the extent to which live lambs are taken, and a parallel project funded by SE has examined the economic and agricultural aspects of this issue (see Appendix 6). These studies are being conducted with a view to establishing a management scheme for the species in areas where the population may conflict with sheep-rearing interests.

Studies of peregrine *Falco peregrinus* breeding success, diet and pesticide load have been carried out in north-east Scotland with the support of SNH to determine the causes for the poor performance of coastal birds in this region.

Since the last national UK survey of hen harriers *Circus cyaneus* in 1998 (Sim *et al* 2001), SNH has continued to collect and collate information on the number of hen harriers breeding on sites classified as SPAs or identified as potential SPAs (pSPAs) for this species. Many of these sites are surveyed annually by members of the Scottish Raptor Study Groups who pass data on to SNH. In other cases, for example the Rinns of Islay, SNH has commissioned specific surveys. For the time being, the intention is to continue a programme of annual surveys on the majority of hen harrier SPAs, with particular attention paid to sites where breeding numbers and/or success have apparently been low in recent years.

CCW commissioned a review of historic hen harrier data on the Berwyn SPA and Migneint-Dduallt possible SPA, to investigate the apparent decline in breeding hen harriers on Berwyn (Offord 2002). The study was completed in 2001, and has highlighted the need to ensure comprehensive

survey work of the species on these sites. The project has also highlighted additional areas of research that should be undertaken to better understand the species' requirements on both sites, and in the rest of the species' Welsh range.

National Ringing Scheme

Ringing provides a key component of the Integrated Population Monitoring Programme of the BTO/JNCC Partnership. In addition, it has several high priority projects for further development such as demographic monitoring of farmland birds, ringing and re-trapping adults for survival rate estimation (using species-specific techniques for a range of species and habitats) and a seabird ringing programme (including both mass ringing for recoveries and the collection of mark-recapture data). BTO ringing data are also used to analyse demographic data for declining species on the Birds of Conservation Concern Importance/Biodiversity Action Plan (BAP) list, demographics of estuarine wader populations and seabird demography. A major Atlas of Bird Migration (Wernham *et al* 2002) has recently been drafted based on analysis of all recoveries of ringed birds ringed in Britain and Ireland and recovered elsewhere or vice versa.

JNCC / BTO / WWT Partnerships

Breeding birds and wintering waterfowl are monitored through collaboration between JNCC and partner organisations in the voluntary sector - BTO, WWT, RSPB, the RBBP, and, at the international level, Wetlands International. These agreements provide the financial support necessary to maintain the necessary bird monitoring schemes to fulfill obligations under the Directive, as well as the development of underpinning ornithological conservation science. They are very cost-effective as they make use of the vast volunteer network of birdwatchers across the UK to provide information used to judge conservation status of species and the importance of sites for national, European and international designation purposes.

In August 1997, the BTO produced a research report on the long-term trends in the conservation status of breeding birds in the wider countryside, based on data from 1971-1995. The evaluation of monitoring information from a variety of schemes operated by the BTO during this 25-year period provides the basis for alerting JNCC and country conservation agencies to severe or developing declines in the status of breeding birds. This report has been recently updated and is available on BTO's web-site (<http://www.bto.org/birdtrends/index.htm>).

DNA research

A research project to develop a test enabling DNA to be extracted from feather tissue (rather than blood) for analysis has now been completed. The test, which is now an accepted technique and used as a matter of course, is expected to significantly increase the opportunities for enforcement activity.

CCW contracted Cardiff University to undertake a study of chough *Pyrrhocorax pyrrhocorax* DNA, taken from tissue samples of dead birds found during licensed ringing and nest monitoring activity, and from museum specimens (Bruford and Tomaskovic 2001). Amplification of mitochondrial DNA sequences was undertaken using existing primers from a closely related species, and these suggested that all UK populations form a single phylogenetic unit. This has important implications for any chough translocation projects that may be proposed in the future. However, it is possible that some populations have shown local adaptation and further research, to

identify polymorphic though microsatellite loci, would be required to investigate gene flow among populations at a local level.

Site Monitoring

All UK sites are being assessed as part of a programme of monitoring by the four statutory conservation agencies (EN, CCW, SNH and Environment and Heritage Service (EHS)). The programme implements common standards agreed through the JNCC and published on its web site (<http://www.jncc.gov.uk/idt/csm/default.htm>). The first full report of this comprehensive monitoring programme, set up in 1999, will not be available until 2005/6. After this, the programme will provide a readily accessible source of data on all UK designated sites. In England, Government has a target of bringing 95% of all SSSIs into favourable condition by 2010. Priority will be given to sites which are also Ramsar, SPAs or SACs in reaching that target.

Article 11

Rare Breeding Birds Panel

As part of its review of activities undertaken in 1996, the RBBP decided to collate breeding records of those breeding birds which are not native to the UK but still rare (*i.e.* excluded non-native breeding bird populations with large or well-established populations). This will assist in monitoring the establishment and possible spread of these non-native species and will also serve to alert government and the conservation agencies to the future establishment of breeding non-native species at an early stage. The species for which the Panel are initially collating data include: night heron *Nycticorax nycticorax*, black swan *Cygnus atratus*, whooper swan *Cygnus cygnus*, trumpeter swan *Cygnus buccinator*, all geese (see *British Birds*, **86**, 591-9), Egyptian goose *Alopochen aegyptiacus*, ruddy shelduck *Tadorna ferruginea*, muscovy duck *Cairina moschata*, wood duck *Aix sponsa*, red-crested pochard *Netta rufina*, bob-white quail *Colinus virginianus*, golden pheasant *Chryolophus pictus*, Lady Amherst's pheasant *Chryolophus amherstiae*, Reeve's pheasant *Syrnaticus reevesii*, budgerigar *Melapsittacus undulatus*, rose-ringed parakeet *Psittacula eupatria*.

The most recent of the Panel's reports on rare, non-native breeding birds covered the breeding year 1999 (Ogilvie and the RBBP 2001).

Non-native Waterbirds

Non-breeding, non-native waterfowl and hybrids are routinely monitored by WeBS and totals recorded are reported annually (*e.g.* Musgrove *et al* 2001). A total of 48 non-native waterbird species have been recorded during the period 1997/8 to 1999/2000. Of these, at least 13 species are known to have bred during this period.

A national survey of non-native geese was organised by WeBS in 1999 and aimed to assess the distribution and population sizes of non-native goose species in Britain, focusing in particular on Canada geese *Branta canadensis*. A parallel survey organised by BTO has been recently published (Rehfishch *et al* 2002).

A study was commissioned by the UK, undertaken by the BTO, to review the status of introduced and non-native waterbird species within the Agreement area of the AEWAs, and assess the extent to which these introduced species may negatively affect native species (Blair *et al* 2000).

Ruddy Duck

Ruddy ducks *Oxyura jamaicensis* are a North American species imported into wildfowl populations in the UK. Escapees and releases from these collections have formed a free-flying population that now numbers around 6000 birds.

The white-headed duck *Oxyura leucocephala* is classified as globally threatened, with the latest estimated world population of no more than 10,000 birds. The West European population of white-headed ducks is estimated to be around 2,300 birds, most of which are found in Spain. This population has grown from only 22 individuals in the 1970s due to a costly and determined conservation effort. Ruddy ducks hybridise with the white-headed duck in Spain. This poses one of the greatest threats to the survival of the white-headed duck as a distinct species. To address this

threat, the UK commenced a limited control trial of ruddy ducks in 1999, which has continued through to the reporting period. The main aims are to establish whether it is feasible to eradicate ruddy ducks in Britain within ten years and to estimate the cost of such a larger control strategy. The control trial concluded in June 2002.

On 30 November 2000, the UK organised a workshop at the meeting of the Standing Committee of the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention), on the control of the North American ruddy duck. The aim was to co-ordinate actions by contracting members of the Bern Convention to further implement recommendations of the white-headed duck Action Plan.

Control of the introduced population is, on its own, an insufficient measure to reduce the threat posed to white-headed ducks, due to the possibility of escape or release of ruddy ducks from captivity. The UK has therefore recommended to the EC that ruddy ducks be regulated under the EC Wildlife Trade Regulations (Council Regulation 338/97) with imports being prohibited under Article 4.6(d) of that Regulation.

List of Abbreviations

AEWA	African-Eurasian Waterbird Agreement
ASSI	Area of Special Scientific Interest
BAP	Biodiversity Action Plan
BBS	Breeding Bird Survey
BTO	British Trust for Ornithology
CCW	Countryside Council for Wales
CEFAS	Centre for Environment, Fisheries and Aquaculture Science
CITES	Convention of International Trade in Endangered Species of Wild Fauna and Flora
CoP	Conference of the Parties
CRoW Act	Countryside and Rights of Way Act 2000
cSAC	candidate Special Area of Conservation
CUDI	Count Unit Definition Inventory
Defra	Department for Environment, Food and Rural Affairs (formerly DETR and MAFF)
DETR	Department of the Environment, Transport and the Regions (now Defra and the Department for Transport, Local Government and the Regions (DTLR))
DNA	Deoxyribonucleic Acid
EC	European Commission
EHS	Environment and Heritage Service
EN	English Nature
ESA	Environmentally Sensitive Areas
EU	European Union
FC	Forestry Commission
FE	Forest Enterprise
HAP	Habitat Action Plan
HLF	Heritage Lottery Fund
IWD	Integrated Waterbird Database
JNCC	Joint Nature Conservation Committee
LIFE	L'Instrument Financier pour l'Environnement
LNR	Local Nature Reserve
MAFF	Ministry of Agriculture, Fisheries and Food (now Defra)
MoD	Ministry of Defence
NAW	National Assembly for Wales
NGMRG	National Goose Management Review Group
NNR	National Nature Reserve
NVC	National Vegetation Classification
PAW	The Partnership for Action Against Wildlife Crime
pSPA	potential Special Protection Area
RBBP	Rare Breeding Birds Panel
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAP	Species Action Plan
SCARABBS	Statutory Conservation Agency/RSPB Annual Breeding Bird Scheme
SE	Scottish Executive
SNH	Scottish Natural Heritage
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UK	United Kingdom

WCA	Wildlife and Countryside Act 1981
WeBS	Wetland Bird Survey
WWT	Wildfowl and Wetlands Trust
WWW	World Wide Web

Appendix 1: Status of breeding populations and assessment of change during the reporting period

Species name	Scientific name	Population Estimate (UK) ¹ (Pairs unless otherwise stated, key at bottom)	Year	Reference APEP ¹ , RBBP ² or REF ⁸ etc (for source see reference list at bottom)	%age change from Common Birds Census ^a (all plots) or Waterways Bird Survey ^b 1998-2000 ³	%age change BTO JNCC RSPB Breeding Bird Survey 1998-2000 ⁴	Conservation Status IUCN GLOBAL STATUS ⁵	Conservation Status BIODIVERSITY STEERING GROUPLIST ⁶	Conservation Status JNCC CONSERVATION IMPORTANCE LIST ^{5,7}
Red-throated Diver	<i>Gavia stellata</i>	935-1,500	1994	APEP				CONCERN	TABLE 4
Black-throated Diver	<i>Gavia arctica</i>	155-189	1994	APEP				CONCERN	TABLE 4
Little Grebe	<i>Tachybaptus ruficollis</i>	5,900-12,000	1988-91	APEP	-9 ^b			UNLISTED	UNLISTED
Great Crested Grebe	<i>Podiceps cristatus</i>	9,400 A	1988-91	APEP		+4		UNLISTED	UNLISTED
Red-necked Grebe	<i>Podiceps grisegena</i>	1-6	1999	RBBP				CONCERN	TABLE 4
Slavonian Grebe	<i>Podiceps auritus</i>	35-41	1999	RBBP				CONCERN	TABLE 4
Black-necked Grebe	<i>Podiceps nigricollis</i>	34-53	1999	RBBP				CONCERN	TABLE 4
Fulmar	<i>Fulmarus glacialis</i>	543,000	1985-87	APEP				UNLISTED	UNLISTED
Manx Shearwater	<i>Puffinus puffinus</i>	220,000- 250,000	1985-87	APEP				CONCERN	TABLE 4
Storm Petrel	<i>Hydrobates pelagicus</i>	20,000-150,000	1968-87	APEP				CONCERN	TABLE 4
Leach's Petrel	<i>Oceanodroma leucorhoa</i>	10,000-100,000	1969-87	APEP				CONCERN	TABLE 4
Gannet	<i>Morus bassanus</i>	201,000 N	1994-95	APEP				CONCERN	TABLE 4
Cormorant	<i>Phalacrocorax carbo</i>	7,600	1985-87	APEP		+19		CONCERN	UNLISTED
Shag	<i>Phalacrocorax aristotelis</i>	37,500	1985-87	APEP				CONCERN	TABLE 4
Bittern	<i>Botaurus stellaris</i>	19-24M	1999	RBBP				PRIORITY	TABLE 2
Little Egret	<i>Egretta garzetta</i>	30-36	1999	RBBP				UNLISTED	UNLISTED
Grey Heron	<i>Ardea cinerea</i>	11,000 N	1991	APEP	+3 ¹⁸	+18		UNLISTED	UNLISTED

Species name	Scientific name	Population Estimate (UK) ¹ (Pairs unless otherwise stated, key at bottom)	Year	Reference APEP ¹ , RBBP ² or REF ⁸ etc (for source see reference list at bottom)	%age change from Common Birds Census ^a (all plots) or Waterways Bird Survey ^b 1998-2000 ³	%age change BTO JNCC RSPB Breeding Bird Survey 1998-2000 ⁴	Conservation Status IUCN GLOBAL STATUS ⁵	Conservation Status BIODIVERSITY STEERING GROUP LIST ⁶	Conservation Status JNCC CONSERVATION IMPORTANCE LIST ^{5,7}
Mute Swan	<i>Cygnus olor</i>	28,000-30,000 A	1988-91	APEP	+1 ^b	+9		CONCERN	UNLISTED
Whooper Swan	<i>Cygnus cygnus</i>	4-7	1999	RBBP				CONCERN	TABLE 4
Greylag Goose	<i>Anser anser</i>	500-700 (N Scotland) 13,800 A (Feral)	1986 1991	APEP	-23 ^b	+27		CONCERN	TABLE 4
Canada Goose	<i>Branta canadensis</i>	47,200 A	1991	APEP	+50 ^b	+17		UNLISTED	UNLISTED
Barnacle Goose	<i>Branta leucopsis</i>	810 A (Feral)	1991	APEP				CONCERN	TABLE 4
Egyptian Goose	<i>Alopochen aegyptiacus</i>	700 A	1991	REF ⁸				UNLISTED	UNLISTED
Shelduck	<i>Tadorna tadorna</i>	10,900	1988-91	APEP		-23		CONCERN	TABLE 4
Mandarin Duck	<i>Aix galericulata</i>	7,000 I	1988	REF ⁹				UNLISTED	UNLISTED
Wigeon	<i>Anas penelope</i>	300-500	1988-91	APEP				CONCERN	TABLE 4
Gadwall	<i>Anas strepera</i>	688	1999	APEP				CONCERN	TABLE 4
Teal	<i>Anas crecca</i>	1,600-2,800	1988-91	APEP				CONCERN	TABLE 4
Mallard	<i>Anas platyrhynchos</i>	100,000- 130,000	1979-83	APEP	+19 ^a +6 ^b	+19		CONCERN	UNLISTED
Pintail	<i>Anas acuta</i>	22-37	1999	RBBP				CONCERN	TABLE 4
Garganey	<i>Anas querquedula</i>	37-108	1999	RBBP				CONCERN	TABLE 4
Shoveler	<i>Anas clypeata</i>	1,000-1,500	1988-91	APEP				CONCERN	TABLE 4
Red-crested Pochard	<i>Netta rufina</i>	100 A	1988-91	APEP				UNLISTED	UNLISTED
Pochard	<i>Aythya ferina</i>	394	1999	RBBP				CONCERN	TABLE 4
Tufted Duck	<i>Aythya fuligula</i>	8,000-9,000	1986	APEP	-16 ^b	+63		CONCERN	UNLISTED
Scaup	<i>Aythya marila</i>	1	1999	APEP				CONCERN	TABLE 4
Eider	<i>Somateria mollissima</i>	32,000-33,000 F	1988-91	APEP				CONCERN	TABLE 4

Species name	Scientific name	Population Estimate (UK) ¹ (Pairs unless otherwise stated, key at bottom)	Year	Reference APEP ¹ , RBBP ² or REF ⁸ etc (for source see reference list at bottom)	%age change from Common Birds Census ^a (all plots) or Waterways Bird Survey ^b 1998-2000 ³	%age change BTO JNCC RSPB Breeding Bird Survey 1998-2000 ⁴	Conservation Status IUCN GLOBAL STATUS ⁵	Conservation Status BIODIVERSITY STEERING GROUP LIST ⁶	Conservation Status JNCC CONSERVATION IMPORTANCE LIST ^{5,7}
Common Scoter	<i>Melanitta nigra</i>	14-58	1999	APEP				PRIORITY	TABLE 4
Goldeneye	<i>Bucephala clangula</i>	83-109	1989-92	APEP				CONCERN	TABLE 4
Red-breasted Merganser	<i>Mergus serrator</i>	2,300	1988-91	APEP				CONCERN	UNLISTED
Goosander	<i>Mergus merganser</i>	2,600	1987	APEP	-14 ^b			CONCERN	UNLISTED
Ruddy Duck	<i>Oxyura jamaicensis</i>	590	1991-92	APEP				UNLISTED	UNLISTED
Honey Buzzard	<i>Pernis apivorus</i>	13-43	1999	RBBP				CONCERN	TABLE 4
Red Kite	<i>Milvus milvus</i>	181 (Wales) 83 (England) 36 (Scotland)	1999	RBBP				CONCERN	TABLE 2
White-tailed Eagle	<i>Haliaeetus albicilla</i>	18 T	1999	RBBP				CONCERN	TABLE 2
Marsh Harrier	<i>Circus aeruginosus</i>	145-164	1999	RBBP				CONCERN	TABLE 2
Hen Harrier	<i>Circus cyaneus</i>	570	1998	RBBP				CONCERN	TABLE 2
Montagu's Harrier	<i>Circus pygargus</i>	4-11	1999	RBBP				CONCERN	TABLE 4
Goshawk	<i>Accipiter gentilis</i>	198-293	1999	RBBP				CONCERN	TABLE 4
Sparrowhawk	<i>Accipiter nisus</i>	34,000	1986	APEP	+14 ^a	-2		CONCERN	UNLISTED
Buzzard	<i>Buteo buteo</i>	12,000-17,000 T	1983	APEP	+18 ^a	+13		CONCERN	UNLISTED
Golden Eagle	<i>Aquila chrysaetos</i>	226 T	1999	RBBP				CONCERN	TABLE 4
Osprey	<i>Pandion haliaetus</i>	136	1999	RBBP				CONCERN	TABLE 2
Kestrel	<i>Falco tinnunculus</i>	52,000	1988-91	APEP	+3 ^a	-14		CONCERN	TABLE 4
Merlin	<i>Falco columbarius</i>	1,300 (1,100- 1,500)	1993-94	REF ¹⁰				CONCERN	TABLE 2
Hobby	<i>Falco subbuteo</i>	246-553	1999	RBBP				CONCERN	UNLISTED

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Peregrine	<i>Falco peregrinus</i>	1,283	1991	APEP				CONCERN	TABLE 4
Red Grouse	<i>Lagopus lagopus</i>	250,000	1988-91	APEP		-18		UNLISTED	UNLISTED
Ptarmigan	<i>Lagopus mutus</i>	10,000	1990	APEP				UNLISTED	UNLISTED
Black Grouse	<i>Tetrao tetrix</i>	25,270 (13,800- 36,700) M	1989-93	APEP				PRIORITY	TABLE 2
Capercaillie	<i>Tetrao urogallus</i>	2,200 A	1992-94	APEP				PRIORITY	TABLE 2
Red-legged Partridge	<i>Alectoris rufa</i>	90,000-250,000 T	1988-91	APEP	-17 ^a	+9		UNLISTED	UNLISTED
Grey Partridge	<i>Perdix perdix</i>	140,000- 150,000	1988-92	APEP	-8 ^a	-15		PRIORITY	TABLE 3
Quail	<i>Coturnix coturnix</i>	5-317	1999	RBBP				CONCERN	TABLE 2
Pheasant	<i>Phasianus colchicus</i>	1,600,000- 1,700,000 F	1989	APEP	-4 ^a	+41		UNLISTED	UNLISTED
Golden Pheasant	<i>Chrysolophus pictus</i>	1,000-2,000 A	1981-84	APEP				UNLISTED	UNLISTED
Lady Amherst's Pheasant	<i>Chrysolophus amherstiae</i>	100-200 A	1991	APEP				UNLISTED	UNLISTED
Water Rail	<i>Rallus aquaticus</i>	700-1,400	1988-91	APEP				CONCERN	TABLE 4
Spotted Crake	<i>Porzana porzana</i>	46-77 M	1999	RBBP				CONCERN	TABLE 4
Corncrake	<i>Crex crex</i>	576 P or M	1999	RBBP			GLOBALLY THREATENED	PRIORITY	TABLE 1
Moorhen	<i>Gallinula chloropus</i>	260,000 T	1988-91	APEP	+10 ^a & ^b	+18		UNLISTED	UNLISTED
Coot	<i>Fulica atra</i>	48,000 A	1988-91	APEP	+7 ^a /+2 ^b	+32		UNLISTED	UNLISTED
Common Crane	<i>Grus grus</i>	4	1999	RBBP				CONCERN	TABLE 4
Oystercatcher	<i>Haematopus ostralegus</i>	34,000-44,000	mid 80s	APEP	-3 ^b	+11		UNLISTED	TABLE 4
Black-winged Stilt	<i>Himantopus himantopus</i>	0-1	1999	RBBP				CONCERN	TABLE 4

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Avocet	<i>Recurvirostra avosetta</i>	655+	1999	RBBP				CONCERN	TABLE 4
Stone-curlew	<i>Burhinus oedicephalus</i>	235-246	1999	RBBP				PRIORITY	TABLE 2
Little Ringed Plover	<i>Charadrius dubius</i>	825-1,070	1988-91	APEP				CONCERN	UNLISTED
Ringed Plover	<i>Charadrius hiaticula</i>	8,600	1984	APEP				CONCERN	TABLE 4
Dotterel	<i>Charadrius morinellus</i>	840-950	1987-88	APEP				CONCERN	TABLE 4
Golden Plover	<i>Pluvialis apricaria</i>	22,600	1988-91	APEP		-14		CONCERN	TABLE 4
Lapwing	<i>Vanellus vanellus</i>	62,923 (55268-74499)	1998	REF ¹¹	+2 ^a /+7 ^b	+7		CONCERN	TABLE 4
Temminck's Stint	<i>Calidris temminckii</i>	3-4	1999	RBBP				CONCERN	TABLE 4
Purple Sandpiper	<i>Calidris maritima</i>	0-1	1999	RBBP				UNLISTED	TABLE 4
Dunlin	<i>Calidris alpina</i>	9,150-9,900	1985	APEP				CONCERN	TABLE 4
Ruff	<i>Philomachus pugnax</i>	0+ (at 3 localities)	1999	RBBP				CONCERN	TABLE 4
Snipe	<i>Gallinago gallinago</i>	61,000	1985-91	APEP		+29		CONCERN	UNLISTED
Woodcock	<i>Scolopax rusticola</i>	9,100-23,000	1988-91	APEP	+16 ^a			CONCERN	TABLE 4
Black-tailed Godwit	<i>Limosa limosa</i>	45-53	1999	RBBP				CONCERN	TABLE 2
Whimbrel	<i>Numenius phaeopus</i>	530	1989-92	APEP				CONCERN	TABLE 4
Curlew	<i>Numenius arquata</i>	38,000-43,000	1985	APEP	-10 ^a /+4 ^b	-1		CONCERN	TABLE 4
Redshank	<i>Tringa totanus</i>	32,000-35,000	mid 80s	APEP		+14		CONCERN	TABLE 4
Greenshank	<i>Tringa nebularia</i>	1,100-1,600	1988-91	APEP				CONCERN	TABLE 4
Green Sandpiper	<i>Tringa ochropus</i>	1-3	1999	RBBP				UNLISTED	UNLISTED
Wood Sandpiper	<i>Tringa glareola</i>	2-6	1999	RBBP				CONCERN	TABLE 4
Common Sandpiper	<i>Actitis hypoleucos</i>	15,800	1988-91	APEP	-11 ^b	-4		UNLISTED	UNLISTED

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Red-necked Phalarope	<i>Phalaropus lobatus</i>	18+ M	1999	RBBP				PRIORITY	TABLE 2
Arctic Skua	<i>Stercorarius parasiticus</i>	3,200 T	1985-87 1991-93	APEP				CONCERN	UNLISTED
Great Skua	<i>Stercorarius skua</i>	8,500 T	1985-87 1991-93	APEP				CONCERN	TABLE 4
Mediterranean Gull	<i>Larus melanocephalus</i>	60-79	1999	RBBP				CONCERN	TABLE 4
Little Gull	<i>Larus minutus</i>	0-1	1989-93	APEP				CONCERN	TABLE 4
Black-headed Gull	<i>Larus ridibundus</i>	190,000	1985-87	APEP		+10		UNLISTED	UNLISTED
Common Gull	<i>Larus canus</i>	68,500	1985-87	APEP		-14		UNLISTED	TABLE 4
Lesser Black-backed Gull	<i>Larus fuscus</i>	85,000	1985-87	APEP		-3		CONCERN	TABLE 4
Herring Gull	<i>Larus argentatus</i>	180,000	1985-87	APEP		-15		CONCERN	TABLE 4
Great Black-backed Gull	<i>Larus marinus</i>	20,000	1985-87	APEP		+11		UNLISTED	UNLISTED
Kittiwake	<i>Rissa tridactyla</i>	500,000	1985-87	APEP				UNLISTED	UNLISTED
Sandwich Tern	<i>Sterna sandvicensis</i>	17,000	1985-87	APEP				CONCERN	TABLE 4
Roseate Tern	<i>Sterna dougallii</i>	61-64	1999	RBBP				PRIORITY	TABLE 2
Common Tern	<i>Sterna hirundo</i>	14,000	1984-87	APEP				CONCERN	UNLISTED
Arctic Tern	<i>Sterna paradisaea</i>	44,000	1985-89	APEP				CONCERN	UNLISTED
Little Tern	<i>Sterna albifrons</i>	2,430	1988-91	REF ²⁰				CONCERN	TABLE 4
Guillemot	<i>Uria aalge</i>	1,100,000 A	1985-87	APEP				UNLISTED	TABLE 4
Razorbill	<i>Alca torda</i>	160,000 A	1985-87	APEP				CONCERN	TABLE 4
Black Guillemot	<i>Cephus grylle</i>	37,000 A	1982-90	APEP				CONCERN	TABLE 4

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Puffin	<i>Fratercula arctica</i>	903,000 A	1985-87	APEP				CONCERN	TABLE 4
Rock Dove	<i>Columba livia</i>	100,000 (GB & Eire)	1976	REF ¹²		-6 (FERPI)		UNLISTED	UNLISTED
Stock Dove	<i>Columba oenas</i>	240,000 T	1988-91	APEP	+31 ^a	-4		UNLISTED	TABLE 4
Woodpigeon	<i>Columba palumbus</i>	2,200,000- 2,700,000 T	1988-91	APEP	0	+5		UNLISTED	UNLISTED
Collared Dove	<i>Streptopelia decaocto</i>	210,000 T	1988-91	APEP	+10 ^a	+1		UNLISTED	UNLISTED
Turtle Dove	<i>Streptopelia turtur</i>	75,000 T	1988-91	APEP	+4 ^a	-15		PRIORITY	TABLE 2
Rose-ringed Parakeet	<i>Psittacula krameri</i>	1,508 I (winter roost)	1996-97 ⁶	REF ¹³				UNLISTED	UNLISTED
Cuckoo	<i>Cuculus canorus</i>	13,000-27,000	1988-91	APEP	+7 ^a	-2		UNLISTED	UNLISTED
Barn Owl	<i>Tyto alba</i>	c.4,000	1995-97	REF ¹⁴				CONCERN	TABLE 4
Little Owl	<i>Athene noctua</i>	5,000-9,000	1995-97	REF ¹⁴	+2 ^a	+29		UNLISTED	UNLISTED
Tawny Owl	<i>Strix aluco</i>	20,000	1988-91	APEP	+23 ^a	+2		CONCERN	UNLISTED
Long-eared Owl	<i>Asio otus</i>	1,600-5,400	1988-91	APEP				CONCERN	UNLISTED
Short-eared Owl	<i>Asio flammeus</i>	1,000-3,500	1988-91	APEP				CONCERN	TABLE 4
Nightjar	<i>Caprimulgus europaeus</i>	3,400 M	1992	APEP				PRIORITY	TABLE 2
Swift	<i>Apus apus</i>	85,000	1968-72 1988-91	APEP		-11		UNLISTED	UNLISTED
Kingfisher	<i>Alcedo atthis</i>	3,300-5,500	1988-91	APEP	+14 ^b			CONCERN	TABLE 4
Hoopoe	<i>Upupa epops</i>	0-1 M	1999	RBBP				UNLISTED	UNLISTED
Wryneck	<i>Jynx torquilla</i>	1-2	1999	RBBP				PRIORITY	TABLE 2
Green Woodpecker	<i>Picus viridis</i>	15,000	1988-91	APEP	+15 ^a	+4		CONCERN	TABLE 4

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Great Spotted Woodpecker	<i>Dendrocopos major</i>	25,000-30,000	1988-91	APEP	+34 ^a	+14		CONCERN	UNLISTED
Lesser Spotted Woodpecker	<i>Dendrocopos minor</i>	3,000-6,000	1985/ 1988-91	APEP	-4 ^a			CONCERN	UNLISTED
Woodlark	<i>Lullula arborea</i>	1426-1552 T	1997	REF ¹⁵				PRIORITY	TABLE 2
Skylark	<i>Alauda arvensis</i>	1,002,651 (925,130- 1,077,675)	1997	REF ¹⁶	-2 ^a	-2		PRIORITY	TABLE 3
Sand Martin	<i>Riparia riparia</i>	85,000-270,000 N	1988-91	APEP	+21 ^b	+76		CONCERN	TABLE 4
Swallow	<i>Hirundo rustica</i>	610,000 T	1988-91	APEP	+39 ^a	+17		CONCERN	TABLE 4
House Martin	<i>Delichon urbica</i>	270,000- 530,000	1988-91	APEP	+42 ^a	+31		CONCERN	UNLISTED
Tree Pipit	<i>Anthus trivialis</i>	120,000 T	1988-91	APEP	+36 ^a	-14		CONCERN	UNLISTED
Meadow Pipit	<i>Anthus pratensis</i>	2,000,000 T	1988-91	APEP	+19 ^a	0		CONCERN	UNLISTED
Rock Pipit	<i>Anthus petrosus</i>	36,000	1988-91	APEP				CONCERN	UNLISTED
Yellow Wagtail	<i>Motacilla flava</i>	50,000 T	1988-91	APEP	-27 ^a / ⁻³⁶ ^b	+9		CONCERN	UNLISTED
Grey Wagtail	<i>Motacilla cinerea</i>	38,000	1988-91	APEP	+39 ^b	+64		CONCERN	UNLISTED
Pied Wagtail	<i>Motacilla alba</i>	320,000 T	1988-91	APEP	+15 ^a / ⁺¹⁰ ^b	+12		CONCERN	UNLISTED
Dipper	<i>Cinclus cinclus</i>	7,500-22,000	1988-91	APEP	+9 ^b			CONCERN	UNLISTED
Wren	<i>Troglodytes troglodytes</i>	7,600,000 T	1988-91	APEP	+31 ^a	+22		UNLISTED	UNLISTED
Dunnock	<i>Prunella modularis</i>	2,100,000 T	1988-91	APEP	+19 ^a	+7		CONCERN	TABLE 4
Robin	<i>Erithacus rubecula</i>	4,500,000 T	1988-91	APEP	+24 ^a	+15		UNLISTED	UNLISTED
Nightingale	<i>Luscinia megarhynchos</i>	6,700 M	1999	REF ²¹				CONCERN	TABLE 4
Black Redstart	<i>Phoenicurus ochruros</i>	15-50	1999	RBBP				CONCERN	TABLE 4

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Redstart	<i>Phoenicurus phoenicurus</i>	90,000	1988-91	APEP	+15 ^a	0		CONCERN	TABLE 4
Whinchat	<i>Saxicola rubetra</i>	14,000-28,000	1988-91	APEP		-34		CONCERN	UNLISTED
Stonechat	<i>Saxicola torquata</i>	9,000-23,000	1988-91	APEP		+64		CONCERN	TABLE 4
Wheatear	<i>Oenanthe oenanthe</i>	56,000	1988-91	APEP		-34		CONCERN	UNLISTED
Ring Ouzel	<i>Turdus torquatus</i>	6,157-7,549	1999	REF ¹⁹				CONCERN	TABLE 4
Blackbird	<i>Turdus merula</i>	4,700,000 T	1988-91	APEP		+10		UNLISTED	TABLE 4
Fieldfare	<i>Turdus pilaris</i>	1-6	1996	RBBP				CONCERN	TABLE 4
Song Thrush	<i>Turdus philomelos</i>	1,100,000 T	1988-91	APEP	+31 ^a	+13		PRIORITY	TABLE 3
Redwing	<i>Turdus iliacus</i>	2-29	1999	RBBP				CONCERN	TABLE 4
Mistle Thrush	<i>Turdus viscivorus</i>	250,000 T	1988-91	APEP	+21 ^a	+1		UNLISTED	UNLISTED
Cetti's Warbler	<i>Cettia cetti</i>	555-563 P or M	1999	RBBP				CONCERN	TABLE 4
Grasshopper Warbler	<i>Locustella naevia</i>	10,500	1988-91	APEP		-53		CONCERN	TABLE 4
Savi's Warbler	<i>Locustella luscinioides</i>	0-9	1999	RBBP				CONCERN	TABLE 4
Sedge Warbler	<i>Acrocephalus schoenobaenus</i>	270,000 T	1988-91	APEP	-46 ^a /+26 ^b	+67		CONCERN	UNLISTED
Marsh Warbler	<i>Acrocephalus palustris</i>	3-29	1999	RBBP				PRIORITY	TABLE 2
Reed Warbler	<i>Acrocephalus scirpaceus</i>	40,000-80,000	1968-72 1988-91	APEP	+21 ^a /+11 ^b	-11		CONCERN	UNLISTED
Icterine Warbler	<i>Hippolais icterina</i>	1 M	1999	RBBP				UNLISTED	UNLISTED
Dartford Warbler	<i>Sylvia undata</i>	Up to 1,747 T	1999	RBBP				CONCERN	TABLE 2
Lesser Whitethroat	<i>Sylvia curruca</i>	80,000 T	1988-91	APEP	+62 ^a	+33		CONCERN	UNLISTED
Whitethroat	<i>Sylvia communis</i>	670,000 T	1988-91	APEP	+18 ^a /+6 ^b	+13		CONCERN	UNLISTED

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Garden Warbler	<i>Sylvia borin</i>	200,000 T	1988-91	APEP	-5 ^a	-9		CONCERN	UNLISTED
Blackcap	<i>Sylvia atricapilla</i>	590,000 T	1988-91	APEP	+16 ^a	+5		CONCERN	UNLISTED
Wood Warbler	<i>Phylloscopus sibilatrix</i>	17,200 (15,830- 18,570) M	1984-85	APEP		-3		CONCERN	UNLISTED
Chiffchaff	<i>Phylloscopus collybita</i>	690,000 T	1988-91	APEP	-14 ^a	-21		CONCERN	UNLISTED
Willow Warbler	<i>Phylloscopus trochilus</i>	2,500,000 T	1988-91	APEP	+1 ^a	-10		CONCERN	UNLISTED
Goldcrest	<i>Regulus regulus</i>	610,000 T	1988-91	APEP	+46 ^a	+25		CONCERN	UNLISTED
Firecrest	<i>Regulus ignicapillus</i>	3-103	1999	RBBP				CONCERN	TABLE 4
Spotted Flycatcher	<i>Muscicapa striata</i>	130,000 T	1988-91	APEP	+33 ^a	+10		PRIORITY	TABLE 3
Pied Flycatcher	<i>Ficedula hypoleuca</i>	35,000-40,000	1988-91	APEP				CONCERN	UNLISTED
Bearded Tit	<i>Panurus biarmicus</i>	368-373	1999	APEP				CONCERN	TABLE 4
Long-tailed Tit	<i>Aegithalos caudatus</i>	220,000 T	1988-91	APEP	+40 ^a	+28		UNLISTED	UNLISTED
Marsh Tit	<i>Parus palustris</i>	60,000 T	1988-91	APEP	+2 ^a	+28		CONCERN	TABLE 4
Willow Tit	<i>Parus montanus</i>	25,000 T	1988-91	APEP	-31 ^a	-35		CONCERN	TABLE 4
Crested Tit	<i>Parus cristatus</i>	900	1980	APEP				CONCERN	TABLE 4
Coal Tit	<i>Parus ater</i>	660,000 T	1988-91	APEP	+10 ^a	-13		CONCERN	UNLISTED
Blue Tit	<i>Parus caeruleus</i>	3,500,000 T	1988-91	APEP	-8 ^a	-4		CONCERN	UNLISTED
Great Tit	<i>Parus major</i>	1,700,000 T	1988-91	APEP	+13 ^a	+3		CONCERN	UNLISTED
Nuthatch	<i>Sitta europaea</i>	130,000 T	1988-91	APEP	-6 ^a	-9		CONCERN	UNLISTED
Treecreeper	<i>Certhia familiaris</i>	210,000 T	1988-91	APEP	+13 ^a	-4		CONCERN	UNLISTED
Golden Oriole	<i>Oriolus oriolus</i>	5-24	1999	RBBP				CONCERN	TABLE 4
Red-backed Shrike	<i>Lanius collurio</i>	1-5	1999	RBBP				PRIORITY	TABLE 2
Jay	<i>Garrulus glandarius</i>	160,000 T	1988-91	APEP	+12 ^a	+13		UNLISTED	UNLISTED

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Magpie	<i>Pica pica</i>	650,000 T	1988-91	APEP	0	+4		UNLISTED	UNLISTED
Chough	<i>Pyrrhocorax pyrrhocorax</i>	342	1998	RBBP				CONCERN	TABLE 2
Jackdaw	<i>Corvus monedula</i>	430,000 T	1988-91	APEP	+21	+8		UNLISTED	UNLISTED
Rook	<i>Corvus frugilegus</i>	1,268,000 (1,120,000- 1,430,000)	1996	REF ¹⁷		-1		UNLISTED	UNLISTED
Carrion Crow	<i>Corvus corone</i>	1,000,000 T	1988-91	APEP	+21 ^a	+7		UNLISTED	UNLISTED
Raven	<i>Corvus corax</i>	7,500	1988-91	APEP		+21		UNLISTED	UNLISTED
Starling	<i>Sturnus vulgaris</i>	1,200,000 T	1988-91	APEP	-10 ^a	+9		UNLISTED	TABLE 4
House Sparrow	<i>Passer domesticus</i>	2,800,000- 4,900,000	1988-91	APEP	+21 ^a	+2		UNLISTED	UNLISTED
Tree Sparrow	<i>Passer montanus</i>	110,000 T	1988-91	APEP	-8 ^a	+40		PRIORITY	TABLE 3
Chaffinch	<i>Fringilla coelebs</i>	5,800,000 T	1988-91	APEP	+10 ^a	+2		UNLISTED	UNLISTED
Brambling	<i>Fringilla montifringilla</i>	0-7	1999	RBBP				CONCERN	UNLISTED
Serin	<i>Serinus serinus</i>	1-6	1996	RBBP				CONCERN	UNLISTED
Greenfinch	<i>Carduelis chloris</i>	560,000 T	1988-91	APEP	+20 ^a	+19		CONCERN	UNLISTED
Goldfinch	<i>Carduelis carduelis</i>	230,000 T	1988-91	APEP	+23 ^a	+19		CONCERN	TABLE 4
Siskin	<i>Carduelis spinus</i>	310,000	1988-91	APEP		+11		CONCERN	UNLISTED
Linnet	<i>Carduelis cannabina</i>	540,000 T	1988-91	APEP	+25 ^a	+6		PRIORITY	TABLE 3
Twite	<i>Carduelis flavirostris</i>	66,000	1988-91	APEP				CONCERN	TABLE 4
Redpoll	<i>Carduelis flammea</i>	170,000	1988-91	APEP	-56 ^a	+1		CONCERN	UNLISTED
Crossbill	<i>Loxia curvirostra</i>	1,000-20,000	1968-90	APEP				CONCERN	UNLISTED
Scottish Crossbill	<i>Loxia scotica</i>	300-1,250	1988	APEP			GLOBALLY THREATENED	PRIORITY	TABLE 1

Species name	Scientific name	Population Estimate (UK) ¹ (Pairs unless otherwise stated, key at bottom)	Year	Reference APEP ¹ , RBBP ² or REF ⁸ etc (for source see reference list at bottom)	%age change from Common Birds Census ^a (all plots) or Waterways Bird Survey ^b 1998-2000 ³	%age change BTO JNCC RSPB Breeding Bird Survey 1998-2000 ⁴	Conservation Status IUCN GLOBAL STATUS ⁵	Conservation Status BIODIVERSITY STEERING GROUP LIST ⁶	Conservation Status JNCC CONSERVATION IMPORTANCE LIST ^{5,7}
Parrot Crossbill	<i>Loxia pytopsittacus</i>	0-2	1999	RBBP				CONCERN	TABLE 4
Common Rosefinch	<i>Carpodacus erythrinus</i>	0-5	1999	RBBP				CONCERN	TABLE 4
Bullfinch	<i>Pyrrhula pyrrhula</i>	200,000 T	1988-91	APEP	+6 ^a	+3		PRIORITY	TABLE 3
Hawfinch	<i>Coccothraustes coccothraustes</i>	3,000-6,500	1988-91	APEP				CONCERN	TABLE 4
Snow Bunting	<i>Plectrophenax nivalis</i>	70-100	1988-91	APEP				CONCERN	TABLE 4
Yellowhammer	<i>Emberiza citrinella</i>	1,200,000 T	1988-91	APEP	+4 ^a	+4		CONCERN	UNLISTED
Cirl Bunting	<i>Emberiza cirlus</i>	453	1999	RBBP				PRIORITY	TABLE 2
Reed Bunting	<i>Emberiza schoeniclus</i>	240,000 T	1988-91	APEP	+8 ^a /-2 ^b	+5		PRIORITY	TABLE 3
Corn Bunting	<i>Miliaria calandra</i>	19,800 (16,000- 23,000) T	1993	APEP	-41 ^a	+10		PRIORITY	TABLE 2

Notes

1. The letter given after the Population Estimate is as follows: A=individual adults; M=males; F=females; I=individuals; N=nests; P=pairs; T=territories.
2. APEP totals also include the Isle of Man.
3. Please note that the BBS data for 2001 has not been used for analysis because of poor coverage due to Foot & Mouth Disease access restrictions.

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Appendix 2: List of sites classified as SPAs between end of 1999 and 2001

	Site name	Administrative area	Classification date	Extension classification date	Area (ha)
1	Aird & Borve, Benbecula	Comhairle Nan Eilean/Western Isles	28-Oct-99	n.a	361.00
2	Arun Valley	West Sussex	03-Dec-99	n.a	528.62
3	Assynt Lochs	Highland	15-Dec-00	n.a	1156.43
4	Ben Alder	Highland	02-Feb-00	n.a	2860.21
5	Black Cart	Renfrewshire	07-Dec-00	n.a	56.30
6	Breydon Water	Norfolk	29-Mar-96	02-Feb-00	1202.94
7	Cairngorms	Highland; Aberdeenshire	25-Sep-97	31-May-00	50586.64
8	Caithness and Sutherland Peatlands	Highland	02-Feb-99	n.a	145516.80
9	Caithness Lochs	Highland	02-Feb-98	13-Oct-00	1378.45
10	Coll (corncrake)	Argyll and Bute	27-Mar-00	n.a	371.13
11	Craig yr Aderyn (Bird`s Rock)	Gwynedd	29-Jun-01	n.a	89.26
12	Craigmore Wood	Highland	30-Oct-01	n.a	654.09
13	Cromarty Firth	Highland	22-Mar-99	n.a	3746.95
14	Dungeness to Pett Level	East Sussex; Kent	02-Aug-99	n.a	1474.04
15	Dyfi Estuary / Aber Dyfi	Gwynedd; Powys; Ceredigion	29-Jun-01	n.a	2048.11
16	Eoligarry, Barra	Comhairle Nan Eilean/Western Isles	29-Mar-99	n.a	144.04
17	Firth of Forth	City of Edinburgh; Clackmannanshire; Falkirk; Fife; Stirling; West Lothian; East Lothian	30-Oct-01	n.a	6313.72
18	Firth of Tay & Eden Estuary	Dundee; Fife; Perth and Kinross	02-Feb-00	n.a	6923.29

	Site name	Administrative area	Classification date	Extension classification date	Area (ha)
19	Forest of Clunie	Perth and Kinross	13-Aug-01	n.a	19349.38
20	Hermaness, Saxa Vord and Valla Field	Shetland Islands	29-Mar-94	31-Dec-01	1662.92
21	Hoy	Orkney Islands	07-Dec-00	n.a	9499.70
22	Inner Clyde Estuary	Inverclyde; Renfrewshire; West Dumbartonshire; Argyll & Bute	27-Mar-00	n.a	1826.02
23	Inner Moray Firth	Highland	22-Mar-99	n.a	2339.23
24	Inverpolly, Loch Urigill and nearby Lochs	Highland	31-May-00	n.a	1986.30
25	Isles of Scilly	Isles of Scilly	10-Aug-01	n.a	401.64
26	Kilpheder to Smerclate, South Uist	Comhairle Nan Eilean/Western Isles	29-Mar-99	n.a	380.63
27	Kinveachy Forest	Highland	02-Feb-00	n.a	2849.36
28	Knapdale Lochs	Argyll and Bute	30-Oct-01	n.a	112.39
29	Lairg and Strathbrora Lochs	Highland	13-Oct-00	n.a	286.30
30	Langholm – Newcastleton Hills	Scottish Borders; Dumfries and Galloway	31-Dec-01	n.a	7544.87
31	Lee Valley	Hertfordshire; Greater London; Essex	22-Sep-00	n.a	447.87
32	Lewis Peatlands	Comhairle Nan Eilean/Western Isles	07-Dec-00	n.a	58984.23
33	Loch Leven	Perth and Kinross	27-Mar-00	n.a	1611.81
34	Loch Lomond	Argyll and Bute; Stirling and West Dumbartonshire	24-Mar-97	27-Mar-00	510.49
35	Loch of Inch and Torrs Warren	Dumfries and Galloway	02-Feb-99	n.a	2111.04
36	Loch Shiel	Highland	02-Feb-00	n.a	2290.94

	Site name	Administrative area	Classification date	Extension classification date	Area (ha)
37	Lough Foyle	Northern Ireland	27-Jan-99	n.a	2204.36
38	Marazion Marsh	Cornwall	10-Aug-01	n.a	54.58
39	Mointeach Scadabhaigh	Comhairle Nan Eilean/Western Isles	02-Feb-99	n.a	4148.44
40	Morangie Forest	Highland	30-Oct-01	n.a	3512.92
41	Morecambe Bay	Lancashire; Cumbria	04-Oct-96	24-Sep-99	37404.60
42	Muir of Dinnet	Aberdeenshire	10-May-99	n.a	157.60
43	Ness & Barvas, Lewis	Comhairle Nan Eilean/Western Isles	29-Mar-99	n.a	649.20
44	North Pennine Moors	Durham; North Yorkshire; Northumberland; Cumbria	09-Feb-01	n.a	147246.40
45	North Rona and Sula Sgeir	Comhairle Nan Eilean/Western Isles	30-Oct-01	n.a	138.81
46	North Sutherland Coastal Islands	Highland	02-Feb-99	n.a	221.11
47	North Uist Machair and Islands	Comhairle Nan Eilean/Western Isles	29-Mar-99	13-Oct-00	4876.35
48	North York Moors	Redcar and Cleveland; North Yorkshire	12-May-00	n.a	44087.68
49	Northumbria Coast	Durham; North Tyneside; Northumberland; Sunderland; South Tyneside	02-Feb-00	n.a	1107.98
50	Orkney Mainland Moors	Orkney Islands	13-Oct-00	n.a	4444.35
51	Otterswick and Graveland	Shetland Islands	31-Dec-01	n.a	2241.41
52	Papa Stour	Shetland Islands	27-Mar-00	n.a	569.03

	Site name	Administrative area	Classification date	Extension classification date	Area (ha)
53	Peak District Moors *	West Yorkshire	01-Mar-96	30-Nov-00	45270.52
54	Poole Harbour	Poole; Dorset	31-Mar-99	n.a	2271.99
55	Rannoch Lochs	Argyll and Bute; Highland; Perth and Kinross	07-Dec-00	n.a	1170.19
56	Rathlin Island	Northern Ireland	25-Feb-99	n.a	3344.62
57	Rousay	Orkney Islands	02-Feb-00	n.a	633.41
58	Sandlings	Suffolk	10-Aug-01	n.a	3391.80
59	Sléibhteán agus Cladach Thiriodh (Tiree Wetlands and Coast)	Argyll and Bute	30-Oct-01	n.a	1938.59
60	South West London Waterbodies	Surrey; Windsor and Maidenhead; Greater London	22-Sep-00	n.a	828.14
61	Switha	Orkney Islands	27-Mar-00	n.a	57.39
62	Teesmouth and Cleveland Coast	Redcar and Cleveland; Stockton-on-Tees; Hartlepool	15-Aug-95	31-Mar-00	1247.31
63	Thames Estuary and Marshes	Medway; Thurrock; Kent	31-Mar-00	n.a	4838.94
64	Thorne and Hatfield Moors	East Riding of Yorkshire; North Lincolnshire; Doncaster	16-Aug-00	n.a	2449.2
65	Tips of Corsemal and Tom Mór	Aberdeenshire; Moray	15-Dec-00	n.a	83.71
66	Tiree (corncrake)	Argyll and Bute	27-Mar-00	n.a	544.08
67	Wester Ross Lochs	Highland	07-Dec-00	n.a	1980.26

* The Peak District Moors site has been classified in a number of phases. The first classification date, listed in the table above, refers to phase 1 which resulted in the classification of the South Pennine Moors in March 1996. The two sites classified in phases 1 and 2 can be seen in Appendix 3 of the UK's Sixth Report, October 1999. The extension classification date and area, listed above, refers to the final phase which resulted in the sites classified as South Pennine Moors phases 1-3 being subsumed within the overall Peak District Moors site when it was classified in November 2000.

Appendix 3: List of sites on SPA network review as at end 2001

*sites classified in a number of phases.

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Abberton Reservoir	UK9009141	England	Classified	51 49 37 N	00 52 22 E	726.20
Abernethy Forest	UK9002561	Scotland	Classified	57 13 22 N	03 18 10 W	5793.46
Achanalt Marshes	UK9001701	Scotland	Classified	57 36 10 N	04 53 30 W	208.25
Ailsa Craig	UK9003091	Scotland	Classified	55 15 15 N	05 07 00 W	99.94
Aird & Borve, Benbecula	UK9001751	Scotland	Classified	57 27 20 N	07 23 30 W	361.00
Alde-Ore Estuary	UK9009112	England	Classified	52 04 58 N	01 33 03 E	2416.87
Arran Moors	UK9003341	Scotland	Potential	55 32 40 N	05 13 30 W	10767.79
Arun Valley	UK9020281	England	Classified	50 55 05 N	00 31 40 W	528.62
Ashdown Forest	UK9012181	England	Classified	51 03 44 N	00 04 12 E	3207.08
Assynt Lochs	UK9001591	Scotland	Classified	58 10 00 N	05 00 00 W	1156.43
Auskerry	UK9002381	Scotland	Classified	59 02 00 N	02 34 00 W	101.97
Avon Valley	UK9011091	England	Classified	50 47 02 N	01 47 46 W	1385.08
Ballochbuie	UK9002781	Scotland	Classified	56 59 30 N	03 19 06 W	1881.73
Beinn Dearg	UK9001631	Scotland	Classified	57 48 00 N	04 55 00 W	5567.59
Belfast Lough	UK9020101	Northern Ireland	Classified	54 38 00 N	05 54 00 W	432.14
Ben Alder	UK9002551	Scotland	Classified	56 50 25 N	04 29 45 W	2860.21
Ben Wyvis	UK9001641	Scotland	Classified	57 41 00 N	04 34 30 W	2174.54

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Benacre to Easton Bavents	UK9009291	England	Classified	52 23 11 N	01 42 37 E	516.83
Benfleet and Southend Marshes	UK9009171	England	Classified	51 31 42 N	00 41 00 E	2251.31
Berwyn	UK9013111	Wales	Classified	52 50 19 N	03 36 20 W	24187.53
Black Cart	UK9003221	Scotland	Classified	55 52 45 N	04 26 20 W	56.30
Blackwater Estuary (Mid-Essex Coast Phase 4)*	UK9009245	England	Classified	51 45 13 N	00 51 59 E	4395.15
Bowland Fells	UK9005151	England	Classified	53 59 13 N	02 33 45 W	16002.31
Breckland	UK9009201	England	Potential	52 30 54 N	00 35 39 E	39987.60
Breydon Water	UK9009181	England	Classified	52 35 03 N	01 37 18 E	1202.94
Bridgend Flats, Islay	UK9003052	Scotland	Classified	55 46 22 N	06 16 05 W	331.16
Broadland	UK9009253	England	Classified	52 43 56 N	01 36 00 E	5462.40
Buchan Ness to Collieston Coast	UK9002491	Scotland	Classified	57 26 20 N	01 48 30 W	208.62
Burry Inlet	UK9015011	Wales	Classified	51 38 55 N	04 10 37 W	6627.99
Caenlochan	UK9004011	Scotland	Classified	56 52 54 N	03 17 30 W	5975.28
Cairngorms	UK9002241	Scotland	Classified	57 04 30 N	03 38 30 W	50586.64
Caithness and Sutherland Peatlands	UK9001151	Scotland	Classified	58 20 10 N	03 56 15 W	145516.80
Caithness Lochs	UK9001171	Scotland	Classified	58 29 30 N	03 20 00 W	1378.45
Calf of Eday	UK9002431	Scotland	Classified	59 14 24 N	02 43 48 W	238.03
Cameron Reservoir	UK9004131	Scotland	Classified	56 17 32 N	02 51 12 W	68.76
Canna and Sanday	UK9001431	Scotland	Classified	57 04 00 N	06 30 00 W	1341.27
Cape Wrath	UK9001231	Scotland	Classified	58 36 00 N	04 53 30 W	1019.18

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Carlingford Lough	UK9020161	Northern Ireland	Classified	54 03 00 N	06 07 00 W	827.12
Castle Loch, Lochmaben	UK9003191	Scotland	Classified	55 07 12 N	03 25 50 W	107.60
Castlemartin Coast	UK9014061	Wales	Classified	51 39 29 N	05 03 30 W	1122.32
Chesil Beach and The Fleet	UK9010091	England	Classified	50 36 40 N	02 31 10 W	748.11
Chew Valley Lake	UK9010041	England	Classified	51 20 02 N	02 37 07 W	575.73
Chichester and Langstone Harbours	UK9011011	England	Classified	50 48 23 N	00 55 12 W	5810.03
Cnuic agus Cladach Mhuile (Mull Coast and Hills)	UK9003311	Scotland	Potential	56 20 04 N	05 50 02 W	12431.17
Coll	UK9003031	Scotland	Classified	56 39 16 N	06 30 05 W	2321.88
Coll (corncrake)	UK9003033	Scotland	Classified	56 36 10 N	06 37 15 W	371.13
Colne Estuary (Mid-Essex Coast Phase 2)*	UK9009243	England	Classified	51 48 57 N	00 57 36 E	2701.43
Copinsay	UK9002151	Scotland	Classified	58 54 00 N	02 40 30 W	125.42
Coquet Island	UK9006031	England	Classified	55 20 06 N	01 32 14 W	22.28
Craig yr Aderyn (Bird's Rock)	UK9020283	Wales	Classified	52 38 30 N	04 00 15 W	89.26
Creag Meagaidh	UK9002161	Scotland	Classified	56 57 00 N	04 35 00 W	2872.64
Cromarty Firth	UK9001623	Scotland	Classified	57 41 00 N	04 12 00 W	3746.95
Crouch and Roach Estuaries (Mid-Essex Coast Phase 3)*	UK9009244	England	Classified	51 38 23 N	00 43 06 E	1735.58
Cuillins	UK9001781	Scotland	Potential	57 15 00 N	06 28 01 W	29499.16
Deben Estuary	UK9009261	England	Classified	52 02 31 N	01 20 44 E	978.93
Dengie (Mid-Essex Coast Phase 1)*	UK9009242	England	Classified	51 41 26 N	00 57 34 E	3127.23

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Din Moss – Hoselaw Loch	UK9004291	Scotland	Classified	55 34 33 N	02 18 30 W	50.59
Dornoch Firth and Loch Fleet	UK9001622	Scotland	Classified	57 51 00 N	04 02 30 W	7836.33
Dorset Heathlands	UK9010101	England	Classified	50 39 00N	02 09 33W	8168.79
Drumochter Hills	UK9002301	Scotland	Classified	56 51 54 N	04 14 48 W	9445.56
Duddon Estuary	UK9005031	England	Classified	54 10 39 N	03 15 24 W	6806.30
Dungeness to Pett Level	UK9012091	England	Classified	50 55 50 N	00 44 59 E	1474.04
Dyfi Estuary / Aber Dyfi	UK9020284	Wales	Classified	52 32 22 N	03 59 43 W	2048.11
East Caithness Cliffs	UK9001182	Scotland	Classified	58 16 49 N	03 20 21 W	442.62
East Devon Heaths	UK9010121	England	Classified	50 40 18 N	03 21 32 W	1119.94
East Sanday Coast	UK9002331	Scotland	Classified	59 16 00 N	02 34 00 W	1515.23
Eilean na Muice Duibhe (Duich Moss), Islay	UK9003054	Scotland	Classified	55 43 20 N	06 15 20 W	576.42
Elenydd – Mallaen	UK9014111	Wales	Classified	52 16 07 N	03 43 39 W	30022.14
Eoligarry, Barra	UK9001761	Scotland	Classified	57 02 50 N	07 25 48 W	144.04
Exe Estuary	UK9010081	England	Classified	50 38 50 N	03 26 32 W	2345.71
Fair Isle	UK9002091	Scotland	Classified	59 32 15 N	01 37 00 W	561.27
Fala Flow	UK9004241	Scotland	Classified	55 49 00 N	02 54 20 W	318.04
Farne Islands	UK9006021	England	Classified	55 37 13 N	01 38 55 W	101.86
Fetlar	UK9002031	Scotland	Classified	60 36 35 N	00 51 20 W	2594.91
Firth of Forth	UK9004411	Scotland	Classified	56 01 00 N	02 53 00 W	6313.72
Firth of Forth Islands	UK9004171	Scotland	Classified	56 11 10 N	02 33 20 W	105.06
Firth of Tay & Eden Estuary	UK9004121	Scotland	Classified	56 24 30 N	03 05 00 W	6923.29

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Flamborough Head and Bempton Cliffs	UK9006101	England	Classified	54 07 55 N	00 06 48 W	212.17
Flannan Isles	UK9001021	Scotland	Classified	58 17 20 N	07 35 30 W	58.87
Forest of Clunie	UK9004381	Scotland	Classified	56 40 00 N	03 35 00 W	19349.38
Foula	UK9002061	Scotland	Classified	60 08 20 N	02 05 00 W	1323.31
Foulness (Mid-Essex Coast Phase 5)*	UK9009246	England	Classified	51 34 26 N	00 55 17 E	10968.90
Fowlsheugh	UK9002271	Scotland	Classified	56 54 45 N	02 11 45 W	10.15
Gibraltar Point	UK9008022	England	Classified	53 06 00 N	00 20 16 E	414.09
Gladhouse Reservoir	UK9004231	Scotland	Classified	55 47 10 N	03 06 00 W	186.41
Glannau Aberdaron and Ynys Enlli/ Aberdaron Coast and Bardsey Island	UK9013121	Wales	Classified	52 48 34 N	04 44 34 W	505.03
Glannau Ynys Gybi/ Holy Island Coast	UK9013101	Wales	Classified	53 18 07 N	04 41 18 W	352.59
Glas Eileanan	UK9003211	Scotland	Classified	56 29 48 N	05 42 50 W	1.43
Glen App – Galloway Moors	UK9003351	Scotland	Potential	55 00 19 N	04 56 29 W	9240
Glen Tanar	UK9002771	Scotland	Classified	57 01 10 N	02 53 30 W	4180.09
Grassholm	UK9014041	Wales	Classified	51 43 50 N	05 28 43 W	10.73
Great Yarmouth North Denes	UK9009271	England	Classified	52 44 02 N	01 41 10 E	149.19
Greenlaw Moor	UK9004281	Scotland	Classified	55 44 06 N	02 27 06 W	247.59
Gruinart Flats, Islay	UK9003051	Scotland	Classified	55 50 42 N	06 19 33 W	3261.32
Hamford Water	UK9009131	England	Classified	51 52 46 N	01 14 29 E	2187.21
Handa	UK9001241	Scotland	Classified	58 23 00 N	05 11 12 W	367.49
Hermaness and Saxa Vord	UK9002011	Scotland	Potential	60 49 19 N	00 54 00 W	1037.70

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Holburn Lake and Moss	UK9006041	England	Classified	55 37 20 N	01 55 09 W	28.03
Hornsea Mere	UK9006171	England	Classified	53 54 15 N	00 11 30 W	231.20
Hoy	UK9002141	Scotland	Classified	58 51 30 N	03 19 10 W	9499.70
Humber Flats, Marshes and Coast Phase 1*	UK9006111	England	Classified	53 37 58 N	00 00 39 W	15202.53
Inner Clyde Estuary	UK9003061	Scotland	Classified	55 56 50 N	04 38 00 W	1826.02
Inner Moray Firth	UK9001624	Scotland	Classified	56 50 25 N	04 21 15 W	2339.23
Inverpolly, Loch Urigill and nearby Lochs	UK9001511	Scotland	Classified	58 04 30 N	05 11 00 W	1986.30
Isles of Scilly	UK9020288	England	Classified	49 57 46 N	06 20 42 W	401.64
Killough Harbour	UK9020221	Northern Ireland	Potential	54 15 00 N	06 25 09 W	104.23
Kilpheder to Smerclate, South Uist	UK9001083	Scotland	Classified	57 02 40 N	07 23 24 W	380.63
Kintyre Goose Roosts	UK9003071	Scotland	Classified	55 31 00 N	05 37 00 W	412.37
Kinveachy Forest	UK9002581	Scotland	Classified	57 14 15 N	03 54 00 W	2849.36
Knapdale Lochs	UK9003301	Scotland	Classified	55 51 30 N	05 35 00 W	112.39
Ladder Hills	UK9002951	Scotland	Potential	57 12 12 N	03 15 00 W	4240.40
Laggan, Islay	UK9003053	Scotland	Classified	55 43 16 N	06 18 24 W	1230.02
Lairg and Strathbrora Lochs	UK9001611	Scotland	Classified	58 04 45 N	04 24 40 W	286.30
Langholm – Newcastleton Hills	UK9003271	Scotland	Classified	55 12 15 N	02 53 50 W	7544.87
Larne Lough	UK9020042	Northern Ireland	Classified	54 48 54 N	05 44 38 W	395.94
Lee Valley	UK9012111	England	Classified	51 34 51 N	00 02 58 W	447.87
Leighton Moss	UK9005091	England	Classified	54 10 03 N	02 47 31 W	128.61
Lewis Peatlands	UK9001571	Scotland	Classified	58 15 00 N	06 35 00 W	58984.23

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Lindisfarne	UK9006011	England	Classified	55 40 22 N	01 50 17 W	3679.22
Loch Ashie	UK9001554	Scotland	Classified	57 22 44 N	04 17 00 W	162.29
Loch Eye	UK9001621	Scotland	Classified	57 47 30 N	03 58 00 W	205.14
Loch Flemington	UK9001691	Scotland	Classified	57 32 32 N	03 59 15 W	21.00
Loch Ken and River Dee Marshes	UK9003111	Scotland	Classified	54 59 28 N	04 01 00 W	769.11
Loch Knockie and Nearby Lochs	UK9001552	Scotland	Classified	57 05 45 N	04 35 00 W	395.92
Loch Leven	UK9004111	Scotland	Classified	56 11 48 N	03 22 30 W	1611.81
Loch Lomond	UK9003021	Scotland	Classified	56 03 45 N	04 30 30 W	510.49
Loch Maree	UK9001531	Scotland	Classified	57 41 10 N	05 28 15 W	3173.66
Loch of Inch and Torrs Warren	UK9003121	Scotland	Classified	54 50 30 N	04 52 30 W	2111.04
Loch of Kinnordy	UK9004051	Scotland	Classified	56 40 30 N	03 02 40 W	85.09
Loch of Lintrathen	UK9004061	Scotland	Classified	56 40 40 N	03 11 00 W	186.40
Loch of Skene	UK9002261	Scotland	Classified	57 09 30 N	02 21 30 W	120.89
Loch of Strathbeg	UK9002211	Scotland	Classified	57 37 24 N	01 53 00 W	615.94
Loch Ruthven	UK9001551	Scotland	Classified	57 19 54 N	04 16 48 W	201.15
Loch Shiel	UK9001721	Scotland	Classified	56 50 00 N	05 30 00 W	2290.94
Loch Spynie	UK9002201	Scotland	Classified	57 41 00 N	03 16 42 W	93.62
Loch Vaa	UK9002751	Scotland	Classified	57 14 20 N	03 48 00 W	44.60
Lochnagar	UK9002281	Scotland	Classified	56 56 30 N	03 16 00 W	1431.28
Lochs of Spiggie and Brow	UK9002651	Scotland	Classified	59 56 00 N	01 20 00 W	141.48
Lough Foyle	UK9020031	Northern Ireland	Classified	55 05 24 N	07 01 37 W	2204.36

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Lough Neagh and Lough Beg	UK9020091	Northern Ireland	Classified	54 34 11 N	06 24 34 W	40835.53
Lower Derwent Valley	UK9006092	England	Classified	53 53 04 N	00 55 34 W	915.45
Marazion Marsh	UK9020289	England	Classified	50 08 04 N	05 28 30 W	54.58
Martin Mere	UK9005111	England	Classified	53 37 24 N	02 52 37 W	119.89
Marwick Head	UK9002121	Scotland	Classified	59 06 20 N	03 21 00 W	8.70
Medway Estuary and Marshes	UK9012031	England	Classified	51 24 02 N	00 40 38 E	4684.36
Mersey Estuary	UK9005131	England	Classified	53 19 39 N	02 53 42 W	5033.14
Mersey Narrows and North Wirral Foreshore	UK9020287	England	Potential	53 25 09 N	03 07 43 W	2089.41
Migneint – Dduallt	UK9013131	Wales	Potential	52 58 35 N	03 48 30 W	13991.53
Mingulay and Berneray	UK9001121	Scotland	Classified	56 48 18 N	07 38 33 W	911.07
Minsmere–Walberswick	UK9009101	England	Classified	52 18 55 N	01 38 02 E	2018.92
Mointeach Scadabhaigh	UK9001501	Scotland	Classified	57 36 00 N	07 17 00 W	4148.44
Monach Isles	UK9001071	Scotland	Classified	57 31 30 N	07 36 30 W	595.74
Montrose Basin	UK9004031	Scotland	Classified	56 42 40 N	02 30 20 W	984.61
Moray and Nairn Coast	UK9001625	Scotland	Classified	57 38 54 N	03 43 48 W	2410.25
Morecambe Bay	UK9005081	England	Classified	54 07 19 N	02 57 21 W	37404.60
Mousa	UK9002361	Scotland	Classified	60 00 00 N	01 10 20 W	197.98
Muir of Dinnet	UK9002791	Scotland	Classified	57 05 00 N	02 55 00 W	157.60
Muirkirk and North Lowther Uplands	UK9003261	Scotland	Potential	55 30 35 N	04 04 35 W	27540.20

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Mynydd Cilan, Trwyn y Wylfa ac Ynysoedd Sant Tudwal / Mynydd Cilan, Trwyn y Wylfa and the St Tudwal Islands	UK9020282	Wales	Potential	52 47 30 N	04 29 30 W	417.57
Nene Washes	UK9008031	England	Classified	52 34 41 N	00 04 33 W	1517.49
Ness & Barvas, Lewis	UK9001741	Scotland	Classified	58 29 30 N	06 15 30 W	649.20
New Forest	UK9011031	England	Classified	50 49 32 N	01 39 22 W	28002.81
North Caithness Cliffs	UK9001181	Scotland	Classified	58 39 00 N	03 24 30 W	557.73
North Colonsay and Western Cliffs	UK9003171	Scotland	Classified	56 06 28 N	06 10 00 W	973.96
North Harris Mountains	UK9001572	Scotland	Classified	58 00 00 N	06 57 30 W	13132.01
North Inverness Lochs	UK9001553	Scotland	Classified	57 21 42 N	04 30 10 W	123.21
North Norfolk Coast	UK9009031	England	Classified	52 58 13 N	00 35 55 E	7886.79
North Pennine Moors	UK9006272	England	Classified	54 39 24 N	02 14 49 W	147246.40
North Rona and Sula Sgeir	UK9001011	Scotland	Classified	59 07 18 N	05 49 30 W	138.81
North Sutherland Coastal Islands	UK9001211	Scotland	Classified	58 33 30 N	04 21 00 W	221.11
North Uist Machair and Islands	UK9001051	Scotland	Classified	57 32 00 N	07 22 45 W	4876.35
North York Moors	UK9006161	England	Classified	54 23 43 N	00 53 01 W	44087.68
Northumbria Coast	UK9006131	England	Classified	55 27 58 N	01 35 18 W	1107.98
Noss	UK9002081	Scotland	Classified	60 08 40 N	01 01 00 W	343.82
Orkney Mainland Moors	UK9002311	Scotland	Classified	59 05 00 N	03 08 00 W	4444.35
Otterswick and Graveland	UK9002941	Scotland	Classified	60 33 35 N	01 06 30 W	2241.41
Ouse Washes	UK9008041	England	Classified	52 28 34 N	00 12 19 E	2447.26

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Outer Ards	UK9020271	Northern Ireland	Potential	54 30 06 N	05 29 00 W	4753.82
Pagham Harbour	UK9012041	England	Classified	50 45 48 N	00 45 38 W	636.68
Papa Stour	UK9002051	Scotland	Classified	60 20 10 N	01 42 00 W	569.03
Papa Westray (North Hill and Holm)	UK9002111	Scotland	Classified	59 22 40 N	02 52 45 W	245.71
Pentland Firth Islands	UK9001131	Scotland	Classified	58 44 30 N	03 03 30 W	170.51
Pettigoe Plateau	UK9020051	Northern Ireland	Classified	54 32 00 N	07 59 04 W	1264.32
Poole Harbour	UK9010111	England	Classified	50 40 52 N	02 01 34 W	2271.99
Porton Down	UK9011101	England	Classified	51 07 45 N	01 39 15 W	1237.04
Portsmouth Harbour	UK9011051	England	Classified	50 49 41 N	01 07 32 W	1248.77
Priest Island (Summer Isles)	UK9001261	Scotland	Classified	57 57 40 N	05 30 30 W	131.68
Ramna Stacks and Gruney	UK9002021	Scotland	Classified	60 39 10 N	01 18 10 W	11.59
Ramsey and St David`s Peninsula Coast	UK9014062	Wales	Classified	51 54 30 N	05 18 12 W	845.63
Rannoch Lochs	UK9004021	Scotland	Classified	56 40 00 N	04 37 00 W	1170.19
Rathlin Island	UK9020011	Northern Ireland	Classified	55 17 30 N	06 13 30 W	3344.62
Ribble and Alt Estuaries Phase 2*	UK9005103	England	Classified	53 42 20 N	02 59 14 W	12361.13
Rinns of Islay	UK9003057	Scotland	Classified	55 46 55 N	06 21 00 W	9407.46
River Spey – Insh Marshes	UK9002231	Scotland	Classified	57 05 23 N	03 59 48 W	1158.87
Ronas Hill – North Roe and Tingon	UK9002041	Scotland	Classified	60 33 00 N	01 25 00 W	5470.20
Rousay	UK9002371	Scotland	Classified	59 10 50 N	03 06 00 W	633.41
Rum	UK9001341	Scotland	Classified	57 00 00 N	06 20 00 W	10942.38
Rutland Water	UK9008051	England	Classified	52 38 52 N	00 39 54 W	1556.87

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Salisbury Plain	UK9011102	England	Classified	51 15 14 N	01 53 11 W	19688.88
Sandlings	UK9020286	England	Classified	52 04 44 N	01 26 33 E	3391.80
Severn Estuary	UK9015022	EnglandWales	Classified	51 13 29 N	03 02 57 W	24700.91
Sheep Island	UK9020021	Northern Ireland	Classified	55 14 56 N	06 21 00 W	3.50
Shiant Isles	UK9001041	Scotland	Classified	57 54 00 N	06 22 00 W	212.33
Skokholm and Skomer	UK9014051	Wales	Classified	51 44 10 N	05 17 27 W	427.71
Sléibhteán agus Cladach Thiriodh (Tiree Wetlands and Coast)	UK9003032	Scotland	Classified	56 30 00 N	06 52 00 W	1938.59
Solent and Southampton Water	UK9011061	England	Classified	50 44 25N	01 31 33 W	5505.86
Somerset Levels and Moors	UK9010031	England	Classified	51 10 14 N	02 52 00 W	6388.49
South Pennines	UK9007021	England	Potential	53 28 03 N	01 45 51 W	
South Tayside Goose Roosts	UK9004401	Scotland	Classified	56 15 54 N	03 50 00 W	331.01
South Uist Machair and Lochs	UK9001082	Scotland	Classified	57 18 50 N	07 20 00 W	5017.23
South West London Waterbodies	UK9012171	England	Classified	51 27 41 N	00 31 27 W	828.14
St Abb`s Head to Fast Castle	UK9004271	Scotland	Classified	55 55 00 N	02 10 00 W	250.88
St Kilda	UK9001031	Scotland	Classified	57 49 00 N	08 35 00 W	865.51
Stodmarsh	UK9012121	England	Classified	51 18 18 N	01 10 19 E	481.33
Stour and Orwell Estuaries	UK9009121	England	Classified	51 57 15 N	01 09 26 E	3323.62
Strangford Lough	UK9020111	Northern Ireland	Classified	54 26 40 N	05 35 40 W	15580.79
Sule Skerry and Sule Stack	UK9002181	Scotland	Classified	59 05 05 N	04 24 15 W	18.90
Sumburgh Head	UK9002511	Scotland	Classified	59 51 55 N	01 16 05 W	39.04

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
Switha	UK9002891	Scotland	Classified	58 47 08 N	03 06 00 W	57.39
Tamar Estuaries Complex	UK9010141	England	Classified	50 26 14 N	04 11 42 W	1955.00
Teesmouth and Cleveland Coast	UK9006061	England	Classified	54 37 50 N	01 07 07 W	1247.31
Thames Basin Heaths	UK9012141	England	Potential	51 25 01 N	00 35 01 W	8388.13
Thames Estuary and Marshes	UK9012021	England	Classified	51 29 08 N	00 35 47 E	4838.94
Thanet Coast and Sandwich Bay	UK9012071	England	Classified	51 18 18 N	01 22 47 E	1870.16
The Dee Estuary	UK9013011	EnglandWales	Classified	53 18 39 N	03 11 02 W	13076.29
The Swale	UK9012011	England	Classified	51 21 39 N	00 50 21 E	6514.71
The Wash	UK9008021	England	Classified	52 56 16 N	00 17 12 E	62211.66
Thorne and Hatfield Moors	UK9005171	England	Classified	53 38 16 N	00 53 53 W	2449.20
Tips of Corsemaul and Tom Mór	UK9002811	Scotland	Classified	57 26 32 N	03 00 35 W	83.71
Tiree (corncrake)	UK9003034	Scotland	Classified	56 28 20 N	06 55 00 W	544.08
Traeth Lafan/ Lavan Sands, Conway Bay	UK9013031	Wales	Classified	53 44 10 N	04 02 28 W	2642.98
Treshnish Isles	UK9003041	Scotland	Classified	56 29 30 N	06 25 10 W	240.67
Troup, Pennan and Lion`s Heads	UK9002471	Scotland	Classified	57 41 00 N	02 15 05 W	172.11
Upper Lough Erne	UK9020071	Northern Ireland	Classified	54 12 00 N	07 29 40 W	5771.54
Upper Solway Flats and Marshes	UK9005012	EnglandScotland	Classified	54 54 20 N	03 25 27 W	43636.73
Walmore Common	UK9007051	England	Classified	51 49 58 N	02 22 14 W	52.85
Wealden Heaths ^{*3}	UK9012131	England	Potential	51 05 11 N	00 51 02 W	3923.78

³ Wealdon Heaths is to be classified in two separate phases and these two separate classifications are not yet joined together.

Site name	EU code	Country	Status (as at 31.12.2001)	Latitude	Longitude	Area (ha)
West Westray	UK9002101	Scotland	Classified	59 17 40 N	03 00 45 W	350.62
Wester Ross Lochs	UK9001711	Scotland	Classified	57 45 00 N	05 27 00 W	1980.26
Westwater	UK9004251	Scotland	Classified	55 45 30 N	03 24 30 W	49.77
Ynys Feurig, Cemlyn Bay and The Skerries	UK9013061	Wales	Classified	53 24 42 N	04 30 40 W	85.66
Ynys Seiriol / Puffin Island	UK9020285	Wales	Potential	53 19 05 N	04 01 30 W	31.21
Ythan Estuary, Sands of Forvie and Meikle Loch	UK9002221	Scotland	Classified	57 20 30 N	01 57 30 W	1016.24

Appendix 4: Reports on the Conservation of Individual Species

Red kite

The second phase of the re-establishment of the red kite *Milvus milvus* into central Scotland, started in 1996, was due for completion in 2000 with the release of 20 birds from Germany. The seizure by German authorities in Saxony of 13 young kites as part of an illegal consignment of birds of prey, however, led to the opportunistic release of a further six kites in central Scotland in 2001. No more releases are planned for the area. A total of 103 kites have been released in this second phase. Two bred for the first time in 1998; this had risen to ten pairs by 2001. The population in north Scotland, resulting from the first re-establishment phase, stood at 34 breeding pairs in 2001. A third phase was begun in Dumfries and Galloway, south-west Scotland, during 2001, with the release of 33 birds from north Scotland, England and Germany.

The Red Kite Survey carried out in 2000 provided population estimates of 16 breeding pairs in central England, 112 pairs in southern England and three pairs in Yorkshire. Releases of birds will continue in Yorkshire until at least 2003 using nestlings taken from the expanding southern England population. Work to tackle problems with illegal poison baits and accidental secondary poisoning with rodenticides is continuing.

The Welsh Kite Trust continues to coordinate annual monitoring of the Welsh red kite population. The Welsh population has now grown and spread to such an extent that complete coverage is not possible, and kite watchers are instead concentrating on a sample of the total population. This survey work has indicated a continuing increase in the population over the last thirty years. The last reliable population estimate was in 2000, which recorded a population of 203 active nests. Due to Foot and Mouth Disease access restrictions in 2001, the population was under-recorded; data for 2002 are still being collated, but a continuing population increase is anticipated. Although some of the early population increases may be attributable to increasing survey effort, much of the success is due to increased protection and a greater public awareness of the species.

White-tailed eagle

A total of 57 birds were released under the second phase of the white tailed eagle *Haliaeetus albicilla* reintroduction programme, 1993-1998. Since then, the Scottish population has relied solely on recruitment from Scottish-bred offspring. The population now consists of 23 territorial pairs. During 2001, 11 young were successfully fledged from seven breeding pairs – three of the pairs involved at least one bird from phase two of the reintroduction programme. For the first time, within the breeding population wild-bred birds outnumbered those released in the original release programme.

A demonstration management scheme was conducted for this species during the reporting period (See Appendix 6).

Corncrake

The Corncrake SPA Management Scheme is explained in Appendix 6.

Capercaillie

The capercaillie *Tetrao urogallus* SAP Steering Group has continued its work programme throughout the period. A range of issues including the potential impact of deer-fencing and snaring on capercaillie have been discussed. A project officer (joint funded by RSPB, SNH, and the Forestry Commission (FC)), whose role is to co-ordinate the capercaillie BAP, provide conservation advice to landowners and develop specific capercaillie projects, has been in post since September 1999. A series of workshops on land management for the species has been held, targeting key land owners, managers and practitioners in capercaillie stronghold areas. FC, Forest Enterprise (FE), SNH, RSPB, and SE have submitted a LIFE III bid for habitat restoration and species protection measures within and adjacent to eight capercaillie SPAs (see Appendix 7). This bid has been approved by the EC and Habitats Committee.

A statutory ban on the hunting of this species was introduced into Scotland in 2001 (see Article 7).

Bittern

The 'Urgent Action for Bitterns' LIFE project is described in Appendix 7.

Stone Curlew

The stone curlew *Burhinus oedicephalus* recovery project, a partnership between EN, RSPB and Defra, has worked towards locating breeding birds, liaising with farmers to prevent disturbances through agricultural operations, and creating and managing nest plots. Stone curlew numbers have increased from 149 pairs in 1994 to 254 pairs in 2000. The project is also supported by MoD, with more than one third of the stone curlew breeding population occurring on MoD land.

Osprey

In 2000 a pair of Ospreys *Pandion haliaetus* successfully bred in England for the first time since the 19th century, as a result of natural recolonisation from the Scottish population. One chick was reared at the undisclosed locality in Cumbria. In 2001, a pair again bred at an undisclosed site in Cumbria, but there were also two much more widely publicised successful breeding attempts: one pair nested on FC land in Cumbria (again as a result of recolonisation) and the other pair nested at Rutland Water, and involved a male from the Osprey Translocation Programme. The programme was a joint partnership between Anglian Water, the Leicestershire and Rutland Wildlife Trust, and the Highland Foundation for Wildlife, and involved the annual release of birds at Rutland Water, taken from nests in the Scottish Highlands between 1996-2001.

Appendix 5: Agri-environment schemes

Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) were introduced in 1987 in order to protect landscape, wildlife and historic interests in areas of environmental significance, where changes in farming methods posed a threat to the environment and where conservation depended on adopting, maintaining or extending particular farming practices. ESA schemes are administered by Defra (England), the Agriculture and Rural Affairs Department (Wales), Scottish Executive Environment and Rural Affairs Department (Scotland), and Department of Agriculture and Rural Development (DARD) (Northern Ireland). Under these schemes, farmers and land managers enter ten-year management agreements (with an option of termination after five years). Annual payments are made on each hectare of land entered into the scheme and are based on income forgone. Payments may include incentives to encourage positive management. A detailed monitoring programme is in place to examine the environmental effects of the scheme.

The Countryside Stewardship Scheme

The Countryside Stewardship Scheme was introduced in 1991 to encourage farmers and landowners, by means of incentive payments (over a ten-year period), to manage their land in an environmentally beneficial way. The scheme operates throughout England and aims to sustain landscape beauty and diversity, protect and extend wildlife habitats, conserve archaeological sites and historic features, restore neglected land or features, create new habitats and landscapes and improve opportunities for people to enjoy the countryside. The eligible areas and features, all of which are habitats relevant to birds, include chalk and limestone grassland, waterside land, lowland heath, the coast, the uplands, old meadows and pastures, historic landscapes, old orchards, field boundaries, field margins and countryside around towns. Following the economic and ecological evaluation of the Arable Stewardship Scheme pilot, a suite of new arable options has now been incorporated into the Scheme. Detailed objectives for each area are agreed through a process of consultation and targeting at county and regional level.

Habitats Scheme

The Habitats Scheme was launched in England in 1994 to create or improve a range of important wildlife habitats (waterside habitats alongside designated watercourses or lakes, valuable habitats created under the five-year set-aside scheme and saltmarsh on suitable coastal land). Farmers with land containing the target habitats were invited to enter into long-term (mainly twenty-year) agreements to manage it in an environmentally beneficial way. The scheme was closed to new applicants in December 1999 and incorporated into the Countryside Stewardship in January 2000.

The Scheme was extended to Wales in 1995, with the aim of protecting and enhancing the wildlife value of broadleaved woodland, species rich grassland, water fringe and coastal belt. Agreements were for a maximum of ten years. The scheme was closed to new applicants in May 1999 and incorporated into Tir Gofal.

Moorland Scheme

Heather moorlands support a wide range of wildlife and are particularly important for ground nesting birds such as curlew *Numenius arquata* and merlin *Falco columbarius*. The Moorland Scheme aims to protect and improve the moorland environment by encouraging upland farmers outside ESAs to graze fewer sheep where this will improve the condition of heather and other moorland vegetation. Though the scheme is now closed to new applications, upland options were included in the Countryside Stewardship Scheme (England) and Tir Gofal scheme (Wales) in 1999.

Arable Stewardship Scheme

The Arable Stewardship Scheme was introduced as a three-year pilot scheme in two areas (East Anglia and West Midlands) in January 1998. Farmers were offered five- or six-year agreements. The aim of the scheme was to test the effectiveness of a range of options that have been devised to maintain and enhance wildlife in arable areas. The options include cropped arable fields being left as stubble over the winter following harvest, over-wintered stubble fields being sown in spring with cereals, grass field margins around arable fields, and sowing of wildlife seed mixtures within arable fields. This scheme is now closed to new applications but a suite of new arable options is now available as part of the Countryside Stewardship Scheme.

Tir Cymen

Tir Cymen is a whole farm scheme launched by CCW in 1992. Restricted to the three pilot areas of Swansea, Dinefwr and Meirionydd, the purpose of the scheme is to integrate farming practices with the conservation of wildlife, landscape, historic features and public access. In return for annual payments per hectare, all existing wildlife habitats and environmental features across the whole farm must be managed according to scheme prescriptions. Additional annual and/or capital payments are available for landscape protection and the provision of new public access. Agreements last for ten years. The scheme closed to new applicants in October 1998.

Tir Gofal

Launched by NAW in 1999, Tir Gofal is a whole farm scheme run by CCW. Available throughout Wales, the scheme incorporates elements of a number of predecessors including Tir Cymen, ESA, Habitat Scheme, Moorland Scheme and Farm Conservation Grant. The purpose of the scheme is to integrate farming practices with the conservation of wildlife, landscape, historic features and public access. In return for annual payments per hectare all existing wildlife habitats and environmental features across the whole farm must be managed according to scheme prescriptions. Additional annual and/or capital payments are available for habitat restoration (including the re-establishment of arable cropping and protection of watercourses), landscape protection and the provision of new public access. Agreements last for ten years with a five year break clause. A notable feature of the scheme is the integrated approach to woodland management, incorporating close links between agri-environment prescriptions and the Woodland Grant Scheme.

Countryside Premium Scheme

The Countryside Premium Scheme was launched in 1997, throughout Scotland, to provide financial incentives for the management and creation of habitats of conservation interest on agricultural land

outside the ten designated ESAs. As with ESA schemes, farmers can choose from a number of management options. Examples include the creation and management of wetlands, the creation of grass margins, extended hedges or beetle banks, the management of grassland flood plains and the retention of extensive cropping.

Scotland-wide Rural Stewardship Scheme

Launched in 2001, over 312 applicants joined the Scheme. It has been designed to ensure that all types of farm or croft have an opportunity to gain access to the funding available. The scheme has more than 30 management options to reflect all types of conditions to be found on Scottish farms and crofts, and aims to deliver a wide range of conservation benefits, with many options focussing on safeguarding and enhancing endangered species and biodiversity. The Scheme takes account of sites which are subject to national or international designation.

Countryside Management Scheme (Northern Ireland)

The Countryside Management Scheme is administered by DARD in Northern Ireland. It offers farmers in areas outside of ESAs in Northern Ireland the opportunity to increase the biodiversity of habitats, improve water quality, enhance the landscape and protect heritage by integrating good farming practice with care and protection of the countryside. The Countryside Management Scheme is broadly similar to the ESA Scheme by offering a 'whole farm' scheme requiring all participants to comply with Good Farming Practice and a series of basic environmental prescriptions. Participants will also be required to follow specific management prescriptions for the habitats and features present, develop and follow a nutrient management plan for the whole farm and attend a training programme designed to develop the land owners skills which should aid them in the management of their habitats.

Appendix 6: Management Agreements/Schemes

Wildlife Enhancement Scheme

This scheme, which is now available throughout England, uses simple agreements and standard payments to support positive site management. It draws on the expertise of owners and occupiers, and is an example of the partnership approach commonly used in the UK.

Caithness and Sutherland Peatlands Management Scheme:

The Caithness and Sutherland Peatlands Management Scheme is currently under review in the light of the recent changes to agri-environment measures. It is planned to launch a revised scheme in mid 2002. At the end of March 2001, 133 agreements were in place covering an area of 97,664ha at a total cost of £199,443 to SNH. Approximately 65% of the Caithness and Sutherland candidate SAC (cSAC) (143,572 ha) is currently managed within the scheme.

Skye Peatlands Management Scheme:

The Skye Peatlands Management Scheme was introduced in 1998 based on the Caithness and Sutherland Scheme format. It is also currently under review and it is planned to launch a revised scheme early in 2002. At the end of March 2001, 6 agreements were in place covering an area of 1,642ha at a total cost of £5,292 to SNH. Approximately 89% of Skye's peatland SSSIs are currently managed within the scheme.

Lewis Peatlands Management Scheme:

The Lewis Peatlands Management Scheme was launched in January 2000 as a means of underpinning the Lewis Peatlands SPA and cSAC without SSSI notification. The agreements include general conditions for land and water management which require the entrant to discuss any proposed changes to the management of the site with SNH. The current SE approval for the scheme allows new entrants to be recruited up until 31 March 2003. The first agreements will expire on 31 March 2005. At the end of March 2001, 44 agreements were in place covering an area of 33,122ha at a total cost of £69,064 to SNH.

White-tailed eagle demonstration scheme

This three year demonstration project aims to clarify the extent to which white-tailed sea eagles *Haliaeetus albicilla* predate upon lambs, to help inform their future management in Scotland and ensure it is based on best available scientific information. It is limited to the Isle of Mull. There were 19 Agreements in force during the year to 31 March 2001 covering an area of 41,995ha or 60% of the proportion of eligible area under agreement, and at a cost to SNH of £16,050.

Although the project was due to expire in 2001, it has been extended for a further year to allow for the final year of research to be undertaken, which was postponed due to the outbreak of foot and mouth.

Goose Management Schemes

A suite of four Goose Management Schemes were launched in Scotland in October 2000. These four Schemes were the result of a review of existing schemes, carried out in 2000, in accordance with the national policy framework established by the National Goose Forum. They were launched on Islay, Kintyre, South Walls on Orkney, and in the Solway⁴.

The Schemes aim to help integrate productive farming with the conservation of wild geese and their grazing on farmland and target populations of wintering Greenland white-fronted geese *Anser albifrons flavirostris* and wintering barnacle geese *Branta leucopsis*.

Funding for the schemes was agreed by SE, through the National Goose Management Review Group (NGMRG – the successor body to the National Goose Forum). Although schemes are developed by local Goose management groups and approved by the NGMRG they are administered and paid for by SNH and therefore come within that organisation's Natural Care programme.

Figures as at March 31st 2001	Islay	Kintyre	Solway	Orkney
Expenditure on agreements during year:	£503,526	£18,047	£8,1859	£4,810
Number of agreements in force :	111	23	18	3
Net area under agreement (ha):	6,201	539	923	226
Proportion of eligible area under agreement (approximate)	-	-	90%	95%

Corncrake SPA Management Scheme

The Corncrake SPA Management Scheme provides financial incentives to help safeguard populations of breeding corncrakes *Crex crex* within corncrake SPAs by encouraging and supporting the sympathetic management of agricultural land. From 1998-2001 eligible areas were the corncrake SPAs in the Western Isles, Tiree, Coll and Islay. The scheme is designed to complement other corncrake management prescriptions available under the ESA Schemes on the Argyll Islands and the Uist Machair, the Countryside Premium Scheme and Rural Stewardship Scheme. There were 128 Agreements in force during the year to 28 February 2001 at a cost to SNH of £49,277 and covering an area under agreement of 266 ha.

By 28 February 2001, approximately 15% of crofts and farms within the corncrake SPAs had entered the Corncrake SPA Management Scheme. There are many units which have entered land under other agri-environment schemes for corncrakes or which do not have the capacity to undertake the required management. The Corncrake SPA Management Scheme was reviewed in 2001 and a revised scheme launched early in 2002.

⁴ In early 2002 funding was agreed for the launch of two further schemes in Scotland: in the Uists and at the Loch of Strathbeg. Both these areas had previously been the subject of demonstration schemes. The schemes were redesigned to help minimise economic losses to farmers, whilst securing maximum public value for money.

Moorland Management Schemes

The Forest of Clunie Moorland Management Scheme was launched in August 2001. The Forest of Clunie SSSI and SPA is made up of five moorland areas in north-east Perthshire bringing into management 19,477 ha. It is of outstanding interest for its variety of upland breeding birds. In particular, it is internationally important, and has been made an SPA, for hen harrier *Circus cyaneus*, osprey *Pandion halieatus*, short-eared owl *Asio flammeus* and merlin *Falco columbarius*. It is nationally important for black grouse *Tetrao tetrix*. The Scheme provides payments to land managers for moorland management planning; muirburn; bracken control and stock reduction; pest control; and there are also payments for diversionary feeding; wetland and moorland restoration to be made on a case by case basis.

Following swiftly in the footsteps of this scheme, four further moorland schemes began development in 2001: a scheme focusing on the protection and conservation of hen harriers on Orkney Mainland Moors (SPA); and three further schemes in the west of Scotland on Arran Moors SSSI; Glen App and Galloway Moors SSSIs; and Muirkirk and North Lowther SSSIs, respectively.

Appendix 7: Habitat Restoration Projects

Tomorrow's Heathland Heritage

The Tomorrows Heathland Heritage Programme aims to increase the coverage of lowland heathland in the UK and allow more people to appreciate and enjoy its natural beauty and interesting wildlife. The UK supports a significant proportion of the European lowland heathland resource and 20% of the world total. Since 1800, more than 80% of lowland heathlands have been lost, largely due to the impacts of agricultural reclamation, afforestation and building development. To help reverse this trend, the Heritage Lottery Fund (HLF) has allocated £14 million to the programme matched by funding from the private and public sectors. The programme will make a major contribution to a BAP target to restore and manage 58,000 ha of degraded heathland and 6,000 ha of lost heathland by the year 2005. Rare heathland bird species such as the nightjar *Caprimulgus europaeus*, woodlark *Lullula arborea* and Dartford warbler *Sylvia undata* will also benefit from the programme.

To date 25 projects in five tranches have been funded including 'Putting back the wild heart of Cornwall', 'Pembrokeshire's Living Heathland' and 'Hardy's Egdon Heath: return of the native Dorset heathland'. There are currently 15 projects in the programme which between them will restore 30,000 ha and recreate 2,000 ha of heath.

Urgent Action for Bitterns

Bitterns *Botaurus stellaris* appear to be responding to the concerted efforts made in recent years by a number of organisations and individuals funded in large part by EN, RSPB and EU-LIFE project funding. Efforts have focused on restoring existing reedbeds which have dried as a result of succession and on creating new reedbeds in the vicinity of those which already exist.

The number of 'booming' birds, the unit by which breeding population size is compared between years, has risen from 11-22 in 1996-1998 to 19-30 in 1999-2001. 2001 saw the fourth successive annual increase in booming numbers since the low of 1997. In addition, breeding birds have returned to the River Humber after an absence of nearly 30 years and new areas have been colonised in south-west England. Productivity, however, remains low and there are concerns for the future of this species in the UK.

The Restoration of Atlantic Oakwoods

The Restoration of Atlantic Oakwoods LIFE project concluded in August 2001, and provided restorative management to Atlantic Oakwood habitat in seven of the 9 cSACs listed for this habitat in Britain by working in partnership. As scattered remnants of previously more extensive ancient woodland type the Atlantic Oakwoods of western Britain have a particularly high wildlife and scenic value. They contain some of Britains least altered soils, vegetation communities and landscapes and are an important stronghold for migrant songbirds such as Redstart *Phoenicurus phoenicurus*, Pied flycatcher *Ficedula hypoleuca* and Wood warbler *Phylloscopus sibilatrix*.

Restoration of Scottish Raised Bogs

In partnership with SNH and FE, the Scottish Wildlife Trust is leading a Scottish LIFE project to safeguard raised bog habitats on 12 cSACs which are important habitats for wetland and moorland birds including the hen harrier *Circus cyaneus*, Greenland white-fronted goose *Anser albifrons flavirostris*, short-eared owl *Asio flammeus*, lapwing *Vanellus vanellus*, redshank *Tringa totanus*, curlew *Numenius arquata*, greylag goose *Anser anser*, peregrine *Falco peregrinus*, and merlin *Falco columbarius*.

Woodland Habitat Restoration: Core Sites for a Forest Habitat Network

The Core Forest LIFE project is providing restorative management to alder, oak and mixed woodland cSACs, which will contribute to the development of the Forestry Habitat Network – a national framework for woodland conservation, restoration and expansion. Characteristic breeding bird communities associated with these woodlands are wood warbler *Phylloscopus sibilatrix*, redstart *Phoenicurus phoenicurus*, pied flycatcher *Ficedula hypoleuca*, tree pipit *Anthus trivialis*, spotted flycatcher *Muscicapa striata*, siskin *Carduelis spinus*, and Annex 1 species Scottish crossbill *Loxia scotica* and osprey *Pandion halieatus*.

Wet Woods Restoration

The Wet Woods Restoration LIFE project is restoring areas of bog woodland (and residual alluvial forest), an important habitat for the internationally important breeding population of Scottish crossbill *Loxia scotica* and national important populations of Annex 1 species osprey *Pandion halieatus*, capercaillie *Tetrao urogallus*, wood sandpiper *Tringa glareola*, merlin *Falco columbarius* and peregrine *Falco peregrinus*.

Urgent Conservation Management for Scottish Capercaillie

The purpose of the LIFE project is to improve the breeding success and halt the decline of capercaillie *Tetrao urogallus* (a woodland grouse listed on Annex 1) populations within 8 SPAs and 37 additional key sites in Scotland. The site-based practical focus of the work is designed to complement the existing national strategy of Capercaillie and contribute to the longer-term targets of the UK Government's Capercaillie SAP. The overall objective is to increase the viability of the six main capercaillie metapopulations that have been identified in Scotland by establishing management regimes and developing recommendations that will enable the overall population to increase, in order to ensure this species does not become extinct in Scotland for a second time.

Mink Control to Protect Important birds in SPAs in the Western Isles

The spread of American mink *Mustela lutreola* into Uists threatens the continued existence of many populations of internationally important breeding bird assemblages on a range of classified SPAs. This LIFE project is aiming to prevent significant disturbances and losses to these populations. Species at risk are little tern *Sterna albifrons*, Arctic tern *Sterna paradisaea*, red-throated diver *Gavia stellata*, corncrake *Crex crex*, ringed plover *Charadrius hiaticula*, and dunlin *Calidris alpina*.

Wetlands for Wales

A joint CCW, Environment Agency, RSPB and Wildlife Trusts initiative, Wetlands for Wales has obtained a HLF grant to contribute towards the purchase of various sites in Wales including substantial areas of former estuarine marsh on the Dyfi Estuary (Cors Fochno & Dyfi Ramsar site) with the aim of restoring wet grassland and marsh. These areas provide some of the most important habitat for breeding waders in Wales. Further land purchase and management agreements are being sought to facilitate mire rehabilitation, and a study is to be commissioned to determine the best options for wetland restoration and management across the Cors Fochno and Dyfi estuarine unit. The RSPB, part funded by CCW grants, have completed 2 major purchases on the Dyfi and detailed management plans are being prepared.

Chough Habitat Restoration Project

The Chough Habitat Restoration Project is a three year RSPB project with Objective One funding, and CCW grant aid, that will run until March 2003. The main aim of the project is to secure and increase the chough *Pyrrhonorax pyrrhonorax* population in Wales, initially focussing efforts on 19 key areas within the Objective One area of West Wales. Activities will concentrate on increasing the amount of foraging habitat within key areas, and investigating the potential to manage new areas; ensuring that nest sites are free from disturbance and in suitable conditions; increasing our understanding of the factors influencing population trends in Wales through research, survey and monitoring; and demonstrating through best practice guidance the economic benefits of chough habitat management to landowners, farmers and the general public.

Habitat Restoration in Northern Ireland

In Northern Ireland, the Belfast Bog Meadows, an area of approximately 26 hectares close to Belfast city centre, was until recently totally neglected. Although it remained a haven for wildlife, it was deteriorating rapidly and threatened by various development pressures. Using funding from the EU support programme for Peace and Reconciliation and EHS, a partnership between the local community, the Ulster Wildlife Trust and Government Departments have transformed this area into an example of people and nature living side by side. The improvement in the habitat for wetland birds is demonstrated by the diversity of species that have returned to breed there after many years of absence. It was designated as a Local Nature Reserve (LNR) in 1991.

The RSPB have recently restored habitat for breeding waders on several islands in Lough Erne in County Fermanagh and re-created traditional hay meadows at their reserve at Portmore Lough in County Down. The RSPB has also successfully created habitat for nesting common terns *Sterna hirundo* at their Belfast Harbour Reserve. The Reserve forms part of the Belfast Lough SPA and was established with financial assistance from EHS.

Since 1999 The National Trust have been restoring lowland heath at the Murlough National Nature Reserve (NNR) by removing gorse and bracken and grazing rank grasses using Exmoor ponies and Black Galloway cattle. The Trust have also implemented an ongoing programme of wetland creation for breeding waders and wildfowl and provision of grazing for geese at Strangford Lough.

Habitats Directive Review of Consents

Within England and Wales, the Environment Agency has commenced a comprehensive review of its existing licences and consents to comply with the Conservation (Natural Habitats &c.) Regulations 1994, which implements the EU Habitats Directive and Birds Directive. This will directly benefit SPAs. The process involves a risk assessment process for each SPA, to investigate those licences and consents that may be having an adverse effect upon the SPA's ability to support its qualifying species. Through this review, a wide ranging suite of habitat restoration measures will be identified and implemented by 2010.

Appendix 8: Ornithological survey and monitoring with government involvement

Aerial surveys of common scoter in Welsh inshore waters	CCW, EN, RSPB, WWT, and commercial companies
Analysis and Report of hen harrier pellets on Islay	SNH
Annual Spring Bird Count	MoD, BTO and RSPB
Annual Survey at Cape Wrath	MoD
Bean Geese monitoring at Slammanan	SNH
BBS	BTO, JNCC, and RSPB
Breeding of Four Species of Tern and Black-Headed Gull at Forvie NNR 1999	SNH
Breeding seabird counts Buchan Ness to Collieston SPA, Gamrie and Pennan SSSI	SNH
Carmarthen Bay sublittoral sediment infauna and common scoter population studies	CCW and Swansea University
Census of Manx Shearwater Colonies Using Tape Playback: Isle of Rum NNR	SNH
Chough population monitoring and survey	CCW, RSPB, National Parks and volunteers
Common Birds Census	BTO, JNCC
Corncrake Habitat Survey of Tiree pSPA	SNH
Countryside Survey 2000	BTO, DETR, and Institute of Terrestrial Ecology
Diet of breeding White-tailed Sea Eagle in Scotland, particularly on the Island of Mull	SNH
Feasibility Study for Foreshore Recharge on the Eden Estuary	SNH
Feasibility Study Into the Options for Management of Mink in the Western Isles	SNH
Feeding Distribution of Birds on the Inner Clyde Estuary	SNH

Field work in Orkney to contribute to the Seabird 2000 census	SNH
Forest of Clunie Habitat Survey (National Vegetation Classification (NVC))	SNH
Forth Estuary Shorebird Project	SNH and Stirling University
Gannet population survey on Grassholm	CCW and RSPB
Goose Counts Mid Argyll	SNH
Guillemot and razorbill population studies on Skomer	CCW and Sheffield University
Habitat & Management survey of Ness & Borvas SPA	SNH
Habitat Survey of Corncrake SPAs in the Western Isles	SNH
Habitat Survey of Uist SPA	SNH
Hen Harrier at Orkney Mainland Moors	SNH
Hen Harrier Ecology	SNH
Hen Harrier Habitat & Range Use on Mull	SNH
Identification of Golden Eagle concentrations & high productivity areas in Scotland	SNH
Inshore Counts of Breeding Seabirds	SNH, JNCC, EN, and CCW
Integrated Management Strategy and Action Plan for the Firth of Clyde	SNH and Firth of Clyde Forum
Inventory of Shingle Vegetation Survey - Solway Firth	SNH
Knapdale Lochs SPA Black-throated Diver Breeding Success Survey	SNH
Lewis Peatlands cSAC NVC Survey	SNH
Loch Leven 1999; Physical, Chemical and Algal Aspects of Water Quality	SNH
Loch Leven 2000: Physical, Chemical and Algal Aspects of Water Quality	SNH
Macrophyte & Bathymetric Survey - Loch of Strathbeg Final Report, July 2000	SNH

Management Trial to Reduce Hen Harriers Predation on Red Grouse at Langholm in 1998 and 1999	SNH
Manx Shearwater Survey - Rum NNR	SNH
Manx Shearwater survey on Skomer, Skokholm and Middleholm SPA	CCW and Edward Grey Institute of Field Ornithology
MoD Purbeck Basin study of Redshank	MoD, RSPB, EN and Bournemouth University
Monitoring Barnacle Goose populations	SNH
Monitoring of algal mats at Montrose Basin SSSI/SPA	SNH
Monitoring of breeding hen harriers on Arran	SNH
Monitoring of breeding hen harriers on Ladder Hills SPA	SNH
Monitoring of breeding hen harriers on Rinns of Islay	SNH
Monitoring of water quality at Loch Leven NNR	SNH
Monitoring of Whooper Swan at Blackcart	SNH
National Ringing Scheme	BTO and JNCC
Nest Records Scheme	BTO and JNCC
North Pennines Black Grouse Project	MoD, RSPB and Game Conservancy Trust
NVC Survey & Habitats Condition Assessment of Rhunhaorine Point SSSI	SNH
NVC Survey & Habitats Condition Assessment of Tangy Loch SSSI	SNH
Oystercatcher and shellfish surveys on Burry Inlet	CCW, CEFAS, and Centre for Ecology and Hydrology
Phosphorus Study at Loch Flemington	SNH
Predator Control Study	MoD and Game Conservancy Trust
Raptor survey of Berwyn and Migneint SPAs	CCW, RSPB, and Wales Raptor Study Group
Red Kite population monitoring	CCW and Welsh Kite Trust

Report of Breeding Success of Hen Harriers on Orkney	SNH
Ringling of Greylag Geese on Coll and Tiree 1999	SNH
Seabird 2000	CCW, EN, SNH, EHS, JNCC, and RSPB
Solway Firth Environmental Assessment and Coastal Management Survey	SNH
Substitute feeding trial to reduce hen harrier predation on red grouse	SNH
Survey of Breeding Wildfowl and Waders in the Muirkirk and North Lowther Uplands 1999	SNH
Survey of predatory and scavenging birds in the Western Isles	SNH
Survey of Tiree Wintering Greenland Goose Roosts	SNH
The Interpretation of data from Ship-borne Surveys of the Distribution of Seabirds at Sea	SNH
The Salt Marshes of Montrose Basin LNR	SNH
The Second National Survey of Breeding Dotterel, 1999	SNH
The use of the waters surrounding their colonies by Seabirds in Scotland	SNH
Uist Wader Recovery Project	SE, RSPB, and SNH
Upland Bird survey of Mynydd Hiraethog SSSI	CCW
Upland Wading Birds Project	MoD and RSPB
Waders and Wildfowl on the Ythan Estuary 1999/2000	SNH
Waterbird abundance and distribution studies in Milford Haven (Sea Empress project)	CCW and BTO
Welsh Black Grouse recovery project	CCW and RSPB
Wet Woods Life Project Hydrological Survey	SNH, FE, FC, RSPB, Highland Birchwoods, and Caledonian Partnership
WeBS	BTO, JNCC, RSPB, and WWT
Winter Farmland Birds Survey	BTO and JNCC

Wintering wildfowl in the Sounds around Wyre, Orkney	SNH
Ythan Estuary photos and interpretation	SNH

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