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**CONSERVING BRITAIN'S BIODIVERSITY:**

**a report of the statutory  
nature conservation agencies'  
contribution under the  
UK Biodiversity Action Plan**

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## PREFACE

In 1992, 157 countries attending the United Nations Conference on Environment and Development signed the Convention on Biological Diversity. This highlighted the strength of international concern about the future of our natural environment.

The key to the future success of the Convention will be global responsibility combined with local action. In 1994, the UK Government published *Biodiversity: The UK Action Plan*, confirming its commitment to the principles of the Convention. This Plan also provides a framework for action, not only for statutory agencies, but also for any other organisation or individual sharing the common goal of caring for the environment.

The following report provides a summary of the work carried out by the Countryside Council for Wales, English Nature and Scottish Natural Heritage towards conserving the biological diversity of the UK. The National Plan set out 59 summary action points and this report focuses on work carried out under each of these. The work underlying these objectives is dynamic and wide-ranging and will need close co-operation between individuals and agencies, working together to achieve environmental benefits.

This report, we hope, makes a useful contribution to recognising not only our recent achievements in this field but also, and equally importantly, the future requirements necessary for the maintenance and enhancement of our biological diversity.



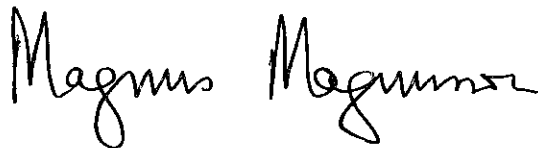
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## UK BIODIVERSITY ACTION PLAN - AGENCY REPORT

In January 1994, the UK Government published *Biodiversity: the UK Action Plan* (HMSO 1994). This was produced in response to Article 6 of the Convention on Biological Diversity, signed by the Prime Minister at Rio de Janeiro in June 1992. This article requires Member States to "...develop national strategies, plans or programmes for the conservation and sustainable use of biological diversity or adapt for this purpose existing strategies, plans or programmes which shall reflect, *inter alia*, the measures set out in this Convention...". The Action Plan was developed in consultation with Government Departments, statutory agencies and non-governmental organisations, and provides a framework for action to maintain and enhance UK biodiversity through implementation of local and national initiatives.

Under the Environmental Protection Act 1990, nature conservation in Great Britain is addressed through the work of three statutory agencies: the Countryside Council for Wales, English Nature and Scottish Natural Heritage. The country

agencies unite to form the Joint Nature for Conservation Committee, which provides a forum delivery of statutory responsibilities over Great Britain as a whole, and internationally. These responsibilities - both national and international - work towards sustaining and enriching biological diversity, enhancing geological features and sustaining natural systems.

While there are many targets for action implicit in the main text, the Action Plan states 59 summary action points explicitly. These are by no means all of the requisite actions. However, they provide a useful indication of the range of issues in which the consideration of biodiversity is paramount. In addition, they provide a useful baseline against which to illustrate the range of issues addressed by the statutory agencies as well as providing an indication of the level of importance attached to biodiversity in the conservation of our environment.

This report focuses on our actions under the 59 summary action points, although this in no way denigrates the importance of other actions considered in the main Action Plan. The general principles of sustainability and wise-use of non-

### OVERALL GOAL

To conserve and enhance biological diversity within the UK and to contribute to the conservation of global biodiversity through all appropriate mechanisms.

### UNDERLYING PRINCIPLES

- 1 Where biological resources are used, such use should be sustainable.
- 2 Wise use should be ensured for non-renewable resources.
- 3 The conservation of biodiversity requires the care and involvement of individuals and communities as well as Governmental processes.
- 4 Conservation of biodiversity should be an integral part of Government programmes, policy and action.
- 5 Conservation practice and policy should be based upon a sound knowledge base.
- 6 The precautionary principle should guide decisions.

### OBJECTIVES FOR CONSERVING BIODIVERSITY

- 1 To conserve and where possible enhance:
  - (a) the overall populations and natural ranges of native species and the quality and range of wildlife habitats and ecosystems;
  - (b) internationally important and threatened species, habitats and ecosystems;
  - (c) species, habitats and natural and managed ecosystems that are characteristic of local areas;
  - (d) the biodiversity of natural and semi-natural habitats where this has been diminished over recent past decades.
- 2 To increase public awareness of, and involvement in, conserving biodiversity.
- 3 To contribute to the conservation of biodiversity on a European and global scale.

*Biodiversity: the UK Action Plan HMSO 1994*

renewable resources underlies many of these objectives. This approach may not provide a comprehensive synopsis of all the actions undertaken within agencies but has the advantage of highlighting inter-relationships between apparently disparate areas of work. The components of biodiversity are inherently associated with other areas of work and, as such, biodiversity cannot be considered in isolation.

While many of the targets are integral to the work of the agencies, others are achieved primarily through collaboration between several statutory bodies, Government Departments and non-governmental organisations. For example, the Action Plan includes an undertaking to improve the accessibility of existing biological datasets and to provide common standards for future recording. As much of the information required to achieve this is not owned by Government, the importance of effective co-operation between agencies and organisations working towards the same goals cannot be understated.

## BIODIVERSITY ACTION PLAN: SUMMARY CONTRIBUTIONS

**To conserve and where practicable enhance wild species and wildlife habitats the Government and its agencies will:**

### *1. Ensure that summary management plans are prepared and, where possible, implemented for each biological SSSI by the year 2004.*

The format for site management briefs has been agreed within England and Wales. Management Plan formats are currently being trialled in Wales by the Countryside Council for Wales, with a view to including additional elements such as features monitoring (formerly Site Integrity Monitoring and Loss-Damage Monitoring) and budgeting of resources for management works and agreements.

A programme to complete site management statements for all SSSIs by 1998 is in place in England. For earth science sites, site management briefs have now been prepared for all SSSIs. Site objective statements have been completed for all SSSIs as a prelude to the preparation of site management briefs. All National Nature Reserves have management plans in England. Contact with owners and occupiers of SSSIs to promote better management for nature conservation have advanced with a regular quarterly newsletter to all owners and a rolling programme of visits with contact with 20% of owners and occupiers every year.

Scottish Natural Heritage ensures that a summary management plan is produced prior to notification of each SSSI. These are currently being produced for SSSIs on a 10% per annum basis. At least 442 currently are in existence (in addition to the 70 National Nature Reserves now established). Dialogue is maintained on each of these through a rolling programme of visits to 20% of the owners and occupiers per annum, approximating to 1600 visits per year. Schemes have been initiated within Scotland to streamline the completion of positive management agreements such as the Peatlands Management Scheme in Caithness and Sutherland and the Solway Merse scheme in Dumfries and Galloway.

### *2. Continue to designate additional protected areas to deal with acknowledged gaps in the existing coverage, e.g. in relation to freshwater habitats, peatlands and intertidal wildlife habitats and species.*

Areas for protection have all been identified and the designation process will continue in accordance with the obligations and requirements of the Birds Directive (79/409/EC) and the Wildlife and Countryside Act 1981 (as amended). Areas for designation under the Habitats Directive (92/443/EC) have now been identified and recommended to Government for the whole UK.

Programmes within country agencies are committed to continued notification of SSSIs. Sites aim to cover both Geological Conservation Review (GCR) and biological SSSI criteria and give priority to vulnerable and threatened sites. English Nature aims to submit 85 proposed SSSIs for consideration every year until 2000, while Scottish Natural Heritage gives priority to notifying land in fulfilment of obligations entered into by the Government under an EC Directive, or in accordance with priorities as determined from time to time by the Main Board (PPG 1/92).

JNCC, on behalf of the country agencies, is producing SSSI selection guidelines to supplement those published in 1989, and guidelines for intertidal marine habitats are currently at an advanced stage of drafting. A revised version has just been published for bogs (Joint Nature Conservation Committee 1994).

## HEATHLAND AND PEATLAND

Britain's lowland heaths and peatlands are identified as internationally important and threatened habitats on Annex I of the EU Habitats Directive, as are the rarest and finest coastal features and richest, most varied areas of sea. The country agencies now have well-established programmes of work to sustain and widen the extent of the heathland, peatland and maritime nature conservation resource, and maintain and enhance its wildlife.

***3. Complete the designation of all identified Special Protection Areas and Ramsar sites. Comply with the timetable for the designation of Special Areas of Conservation set down in the Habitats Directive by the year 2004.***

Sites continue to be designated and notified under the Ramsar Convention, with future plans to refine the criteria for other species in addition to birds and aquatic habitats. Designation of areas as SPAs or SACs under Natura 2000 is co-ordinated, on behalf of the country agencies, through JNCC, to provide baseline data and habitat and species information to provide the context for site selection.

New programmes are currently being established within Scotland and England to direct resources towards work for Natura 2000. Work in Scotland is co-ordinated by the Natura 2000 project team, including delineation of boundaries, surveys and monitoring work, consultation and policy development. Designation of SPAs on the current list is planned to be completed by March 1998. The Habitats Directive has been recognised in a Corporate Project by English Nature, and a programme is currently being produced to complete the designation of remaining terrestrial SPAs as well as Ramsar sites by March 1997.

***4. Create mechanisms for effective protection and management of key wildlife areas in the marine environment.***

Identification of key wildlife areas and provision of a legislative framework for their protection and management are central to fulfilling this action. We are currently working towards this objective primarily through implementation of the Habitats Directive, and through consensus-led management schemes developed and implemented by a consortium of agencies.

Regulations are now in place for implementation of the Habitats Directive. Co-ordination of country agency work is supported by the Habitats Directive database, including marine site data, maintained within JNCC. Effective implementation of this Directive will provide a route to identifying and implementing conservation objectives within the marine environment, a function which has proved difficult to fulfil through the Marine Nature Reserve legislation. It is the intention to ensure that the

procedures for notifying and managing sites are workable, adopting a consensus approach incorporating zoning principles, and building on the experience gained at non-statutory sites and statutory areas in other parts of the world.

In addition to implementation of the Habitats Directive, we will continue to promote integrated management in coastal zones. The Marine Conservation Database is central to site assessment, selection and management. The biotopes classification being developed by the Marine Nature Conservation Review is also an important element of site assessment and selection. Work has commenced in JNCC to identify rarity and vulnerability criteria in the marine environment, and development of the coastal information system and coastal directories will collate and disseminate a wide range of coastal and marine information. This will be used, where appropriate, as a preliminary to the development of informed and comprehensive integrated management in the coastal zone. This includes habitat and species data, as well as fisheries, geological and geomorphological data.

In England, management plans are well advanced for estuaries. English Nature is working towards the preparation of plans for 50% of England's estuaries by the year 2000. Initiation of these plans is running at a rate of 7 per annum, with an equal emphasis placed on their implementation. English Nature believes that such an approach is possible in the open sea and has identified 27 'Sensitive Marine Areas' (SMEs) containing particular concentrations of wildlife which appear to need this approach. Management Initiatives have been launched in two of these.

The Countryside Council for Wales has established a Marine Nature Reserve at Skomer and is awaiting a Government decision on its proposal to designate a second at Menai Straits. The Marine Consultation Areas in Scotland have been in place since 1989 and are receiving increasing recognition, while the Focus on Firths Project also promotes an integrated and co-operative approach to the management of large estuarine and marine areas.

**5. Ensure that development control conforms to Government policies for the conservation of biodiversity.**

Statutory agencies continue to advise Local authorities on the concept of biodiversity and sustainability to ensure the most beneficial planning decisions for the maintenance and restoration of biodiversity. This is done by ensuring that development plans include policies to protect and enhance natural heritage interests in their area by providing general guidance and by commenting on local, structure and unitary development plans. We help to ensure that these policies are translated into action in respect of planning applications by prompt responses to consultations on applications, including those where environmental assessment is carried out.

We will continue to work towards ensuring that Government guidelines are adhered to, and to influence policy and decisions where relevant. Information has been made available through a number of publications, for example *Conservation issues in strategic plans* (Countryside Commission 1993) - a joint publication between English Nature, the Countryside Commission and English Heritage - and *Nature Conservation strategies: the way forward* (English Nature 1994a) and *Planning for wildlife in towns and cities* (English Nature 1994b).

**Wider countryside monitoring**

Land cover and the nature of the countryside change are fundamentally important to biodiversity and, hence, to policies for the protection of the natural heritage. Scottish Natural Heritage, through the National Countryside Monitoring Scheme, has provided a clear picture of land cover changes in Scotland between the 1940s, 1970s and 1980s. With the scheduled completion of this study in 1995, including the integration of its results with the 1988 Land Cover of Scotland census, this new information has produced a heightened awareness and increase understanding of the state of the natural heritage in Scotland.

**6. Improve the database of the Countryside Surveys of Great Britain and Northern Ireland, while further developing the Scottish Office Land Cover of Scotland survey.**

Statutory agencies contribute to the development of the Countryside Survey 1990 through the provision of information and advice, and seek to ensure the effective coverage of data on habitats and species. We will continue to perform functions such as the provision of information and to advice on the development of the Countryside Information System. Scottish Natural Heritage is involved in consultations with the Scottish Office over the review of the Land Cover of Scotland map for its future development.

JNCC, on behalf of the country agencies, maintains the Biological Records Centre database (BRC) at Monks Wood, through a joint arrangement with the Institute of Terrestrial Ecology. This database contains over 6 million records of species occurrence.

English Nature is currently exploring Service Level Agreements for access to data through local records centres in order to improve access to existing data sets. A project has been initiated to support the information needs for Natural Areas which will involve a review of external data sources including the NRA, MAFF and soil databases. English Nature is currently committed to developing a comprehensive corporate information system which will include the facility to link to external data sets.

The Countryside Council for Wales is committed to completing a habitat survey of Wales by 1997 at Phase I level and is striving to carry out more detailed survey of the most vulnerable habitats.

**7. Utilise existing knowledge to identify prime biodiversity areas in the UK based on best available levels of data recorded and agree a strategy to protect and enhance them involving all interested parties.**

We will continue to contribute to this objective through research undertaken to analyse and identify 'hot spots' defined by species richness and rarity. Examples are the work undertaken at JNCC to analyse data on the distribution of vertebrates, plants (using JNCC's Lower Plants Biodiversity Register and its Rare Vascular Plants



Database) and invertebrates (through the Invertebrate Site Register). The BRC database also contributes to this work.

Prime Biodiversity Areas are being identified as part of the programme of characterising Natural Areas in England. Over 150 have been identified, with a detailed action plan produced for the Suffolk Coast and Heaths Prime Biodiversity Area. A need has been identified for a project initiation plan to outline the work and the resource input necessary for each area. This should include a communications plan for the overall concept in addition to a work programme with targets. English Nature has set an objective to develop 21 PBAs by April 1998 and to review all of these by the year 2000.

We are currently developing a model of information used for biological recording within country agencies. We will continue to promote the implementation of this model by organisations and individuals owning and managing biodiversity data. A foundation model currently exists and will be developed further under our Information Systems Strategy.

***8. Revise the Natural Areas map for England by 1994, completing a strategy for 6 Natural Areas with key objectives by 1995. In Scotland publish maps of biogeographical zones by 1995.***

The English Nature map of Natural Areas in England was finalised and published in May 1994 and identifies 92 terrestrial and 24 Maritime Natural Areas. English Nature plans to complete the joint map of England with the Countryside Commission by April 1997. A programme is currently being initiated to provide core profiles for all 116 areas by September 1995 and, once these profiles are complete, detailed action plans will be drawn up in co-operation with other bodies. To widen community involvement, English Nature aims to help existing bodies working in the community, rather than try to set up new ones. To support the development of Natural Areas, English Nature is exploring information needs with a view to building information systems by April 1996, drawing together existing data and providing a framework for new data acquisition.

Work on the identification of biogeographical zones has progressed in Scotland, with

## **NATURAL AREAS**

People have a strong relationship with 'their own part of the world', recognising in it a character distinct from that of neighbouring regions. English Nature has found that this character comes largely from the underlying rocks and landforms of the area, its typical plants and animals and the traditional patterns of land use found there. English Nature calls these distinctive localities Natural Areas, a concept which was launched in May 1994. English Nature believes that, because everyone broadly shares this view of England, the concept may be developed to unite statutory, voluntary and others' efforts for nature conservation, to involve more people and maximise benefits for the natural heritage.

publication of the final maps imminent.

Preliminary studies, jointly undertaken by Scottish Natural Heritage and the Institute of Terrestrial Ecology (NERC), have been published (Carey *et al.* 1994). These studies incorporate data from six groups of species: breeding birds, terrestrial molluscs, diurnal insects (Lepidoptera, Orthoptera and Odonata), vascular plants (a random selection of 200 species), mosses (also a random selection of 200 species) and liverworts. Further work is in hand to widen the biological basis of the zonation so as to incorporate a wider perspective of Scotland's natural heritage.

***9. Complete the Marine Nature Conservation Review under the aegis of the Joint Nature Conservation Committee.***

The Marine Nature Conservation Review (MNCR) is being undertaken within the JNCC Support Unit on behalf of the country agencies. In particular, the MNCR work relates to the provision of advice for Britain as a whole and the establishment of common standards throughout Britain, both within the 12 mile limit of territorial seas and beyond.

Since 1987, considerable effort has been directed towards new field surveys of marine habitats on the shore and in the near shore subtidal zone. The information gained is used to advise the country agencies on the nature and quality of marine habitats, including sites of high marine biological importance (such as for the EC Habitats Directive).

Much effort is directed also at the establishment and promotion of national standards for marine data collection, storage and interpretation. The MNCR is developing a national marine biotopes classification and is, through the EU LIFE-funded programme *BioMar*, co-ordinating development of this for application throughout the north-east Atlantic. The classification will substantially enhance, by the end of 1996, the marine elements of the current European CORINE classification.

The MNCR is publishing a series of foundation and regional reports. Within a three-year plan to 1998, the MNCR will complete the marine biotopes classification and undertake a review of new survey methods. These will be undertaken within a continuing programme of regional studies which contribute to the national overview of Britain's marine habitats and species. The results of these projects will be used to establish the most effective way of completing the remainder of the MNCR programme.

Using the approach currently adopted, and with current funding levels, the MNCR will be completed by about 2010.

***10. Continue to implement new approaches to coastal flood defences and coast protection which manipulate, and work with, natural processes.***

Statutory agencies recognise the importance of coastal cell studies - the area within which sediment erosions and accretion are inter-related and largely independent of other cells (Motyka & Brampton 1993) - as the key to progress in the area of coastal protection. Consequently, resources have been invested in defining these areas around the British coast to enable planning to take account of natural processes. Agencies are pressing for Shoreline Management Plans, with English Nature contributing to the preparation of guidance by MAFF to operating authorities. These should be available in 1995.

Further research continues to be commissioned to investigate the distribution and cause of coastal erosion. For example, research relating to machair in the Western Isles as part of the Scottish Natural Heritage Minch Project is being undertaken. An English Nature trial project is currently underway in Cornwall with Kerrier and West Penwith District Councils which aims to

develop the practice of environmental objective-setting. English Nature actively develops and promotes new engineering techniques, mainly for managed retreat, and will continue to monitor the pioneering experimental scheme at Northey Island, Essex. English Nature will continue to encourage the use of more environmentally-friendly approaches, i.e. soft engineering, through the provision of papers and presentations and has also recently completed a review of past sea wall failures (Bird *et al.* 1994). Geomorphological studies have been initiated for Scottish estuaries as part of the Focus on Firths project in order to contribute to the development of estuary management plans.

Aside from its focus on managed retreat, English Nature has co-funded the preparation, by the Construction Industry Research and Information Association, of a manual for beach management techniques. This aims to codify and publicise current best practice in the area of beach feeding and is a significant promotion of an important and potentially widely applicable soft engineering technique. The manual is scheduled for completion in 1995. The Countryside Council for Wales is participating in a series of coastal cell studies around the Welsh coast.

***11. Designate sufficient SACs and SPAs and ensure that mechanisms are in place for their effective conservation under the Habitats and Birds Directives.***

The statutory agencies have, with the co-ordination of JNCC, developed criteria for the selection of possible SACs and have presented the resulting lists to Government. After consideration by Government, a list for terrestrial sites should be forwarded to the European Commission by June 1995, following the consultation with owners and occupiers of land and with other relevant interests. A list for marine areas will follow after June 1995 in addition to other sites, for example rivers, which cannot be consulted on until a SSSI programme of notification is complete.

Consultation will be carried out at two levels. Consultation with owner/occupiers will be carried out largely through the statutory agencies acting on behalf of Government. These will continue beyond June 1995 to help ensure the integrity of each site and a favourable conservation status for

each interest specified in the Directive. Consultation with national bodies will be carried out by Government.

*12. Produce estuaries management plans for 27 key estuaries in England by 1997, and in Scotland work towards the preparation of integrated management plans and co-operative frameworks for their implementation for the Moray Firth, Solway Firth and the Firth of Forth by 1998; to be followed by other significant Scottish estuaries in due course. In Northern Ireland complete plans for Strangford Lough and Belfast Lough.*

We will continue to work towards developing and monitoring estuary management plans to ensure that the needs of estuarine fauna and flora are recognised. English Nature is currently on course to meet this objective, initiating plans at the rate of 7 per year. Six are to be completed in the current year, with an overall target to ensure plans are in place for 50% of estuaries by the year 2000 (covering 80% of the estuarine area). English Nature is working in collaboration with the Countryside Council for Wales to initiate a management plan for the Dee Estuary, with a similar project planned for the Severn. The Countryside Council for Wales is also in the initial stages of developing a management plan for the Dyfi Estuary Biosphere Reserve.

Scottish Natural Heritage has initiated plans through the Focus on Firths project, which is now

in its second year, with Project Officers appointed for the Forth, Solway and Moray Firths. Open fora have met and broad-based partnerships have been established for the Forth, Solway and Clyde. The organisations are developing management strategies through the work of specialist topic groups. A collation of data for the Moray Firth has been published (Harding-Hill 1993) and data management and analysis will be facilitated with a GIS for all Firth projects. Other themes incorporated into Focus on Firths are community involvement, the retention of features of local distinctiveness and production of educational and interpretative material. Research projects will be carried out as required and have included single species studies, landscape assessments and geomorphological studies.

*13. Promote the preparation of coastal zone management plans where required, following consultation on coastal zone policy discussion papers for England and Wales, stressing among other things, the importance of conserving and enhancing biodiversity. Issue a separate Scottish consultation paper covering coastal issues in due course.*

We will continue to provide information and data for inclusion in coastal zone management plans, and promote their implementation through estuary management plans, sensitive marine areas and shoreline management plans where applicable. Marine Natural Areas are to be considered as a possible framework for the preparation of such plans in England. The Countryside Council for

#### **Focus on Firths**

The major firths of Scotland are regulated by an array of statutory authorities each covering its own local or sectoral area of interest. Through Focus on Firths, Scottish Natural Heritage set out to establish local partnerships having a broad overview of all the issues which need to be addressed across each Firth as a whole. Representation has come from local government, pollution control agencies, industry and business, voluntary bodies, community groups and recreational and other users. Specialist topic groups have undertaken the detailed analysis of issues and their reports will be integrated leading to the development of management strategies which take into account the widest possible range of users and interest groups. By means of this voluntary approach, Scottish Natural Heritage aims to facilitate increased understanding, local ownership and consensus on measures to enhance the natural heritage.

Focus on Firths has trialled the latest approaches to involving local communities in the consultation process with a series of workshops, seminars and attitude surveys. The project is also publishing a wide range of educational and interpretative products including slide packs, directories, information reviews, posters, newsletters, leaflets and a multi-media package.

Wales Coastal Zone Policy Paper, embracing coast and inshore waters, was subject to public consultation in September 1994 (Countryside

The Coastal Directories project is designed to provide information in support of the development of coastal zone management, and centres around the integration of coastal zone management plans. Work on these will continue through the JNCC. The JNCC Support Unit also provides specialist advice through presentation of papers at national and international symposia, and is active in a number of coastal networks in the UK and Europe, whose aims include the promotion of integrated management in the coastal zone. We currently provide expertise in collection and collation of coastal zone information as part of an integrated strategy for coastal zone management which is being requested throughout Europe and in the USA.

***14. Undertake further research to assess the scope for habitat creation through managed retreat of the coast linking research projects around a full scale trial.***

English Nature has been funded by MAFF to provide the site for a full scale trial. The site was acquired in February 1994 and initial inundation is scheduled for 1995. English Nature will be responsible for the engineering works. English Nature has helped MAFF to prepare the saltmarsh re-creation tier of the Habitats Scheme and will be looking to see a range of pilot projects developed under this. The eventual targets set for habitat re-creation (by all methods) encompass 130 ha of saltmarsh and 500 ha of intertidal flat per annum, which is considered to be the level needed to compensate for current losses.

***15. Utilise voluntary and statutory marine reserves and other relevant initiatives as mechanisms to involve individuals and communities in practical marine conservation work.***

Country agencies provide financial incentives and grant-aided funding in order to promote active involvement of individuals and communities in practical marine conservation work. For example, English Nature has recently established a voluntary reserve grant scheme. £50,000 was

made available in the last financial year (1994/95) and it is planned to run the scheme for one further year. The primary aim of this grant is to increase substantially the number of voluntary reserves by working through local groups. Statutory reserves will be recommended for designation if it is needed alongside a measure of local support. Work with local communities will continue in order to conserve important marine areas and English Nature will seek to extend effective methods of working to all important areas.

The voluntary Marine Nature Reserve (MNR) at St Abb's Head is supported by Scottish Natural Heritage and, until recently, a Liaison Officer was in post for the Loch Sween area, to encourage community involvement and awareness. Scottish Natural Heritage is currently seeking to encourage further the voluntary approach, in particular through the promotion of SEASEARCH and working with the voluntary conservation sector.

The Countryside Council for Wales manages one statutory MNR at Skomer and has proposed a second at Menai Straits. A decision is currently awaited from Government on this proposal.

***16. Encourage local planning authorities to make reasonable provision for Local Nature Reserves and natural green space in local plans and environmental charters.***

We will continue to support and encourage local authorities through the provision of information, data, advice or grant-aid to local wardens, for example, Aberlady Bay Local Nature Reserve (LNR).

Scottish Natural Heritage initiated a review of LNRs. This review has now been completed, subject to editing of final reports. The report from this study covers the background on how and why LNRs in Scotland were established, the number designated, reasons for their distribution, and the key factors which have influenced these processes. The outcome of the study is now being used to inform the evolution of Scottish Natural Heritage's own policy on LNRs in addition to the production of guidance notes for local authorities and others engaged in their promotion and management.

### **Invertebrate and lichen populations of parklands**

Aimed at identifying potentially important sites, this project has started with an inventory of all parklands in Wales and a gradual refining of the list to focus efforts on the most promising for the conservation of dead-wood invertebrates and bark-growing lichens.

In 1994, the Natural History Museum was contracted to investigate dead-wood beetles and to report on the quantity of dead-wood habitats at each of 32 selected sites. These sites have been ranked according to their national, regional and local importance. Three sites, Dinefwr, Llandovery and Powis Castle Park, were considered to be of national importance for the conservation of these invertebrates. Twenty-five invertebrate species have been recorded new to Wales, including *Aeletes atomarius*, *Batrisodes venustus*, *Ptinella limbata*, *Corticaria alleni*, *Cryptophagus labilis* and *Scraptia testacea*.

In 1995, the intention is that a similar survey will concentrate on the lichen flora of the more important parklands. The information generated by the two surveys will then be combined in order to identify the most significant parklands in Wales. Discussions will then take place to determine the best strategy for promoting their conservation.

At the request of English Nature, the UK Man and the Biosphere (MAB) Forum published a discussion paper setting out size and distance criteria for natural green space in urban areas (Box & Harrison 1993). Through this, English Nature aims to encourage Local authorities in urban areas to achieve the minimum target of 1 hectare of Local Nature Reserve per 1,000 population. These should include the main, representative habitats within in the boundaries of each jurisdiction and emphasise, in particular, those of significance in relation to the Natural Area in which they are sited. English Nature actively encourages local authorities to aim for at least 2 hectares of accessible natural green space within 0.5 km of every resident, at least one 20 hectare site within 2 km, at least one 100 hectare site within 5 km and at least one 500 hectare site within 10 km of all residents.

To aid effective dissemination of information, English Nature has published a promotional policy/legislation leaflet aimed at Councils for use by partners and staff (English Nature 1993). This is also intended to inform management planning guidance for LNRs. Internal policies have been developed within English Nature to encourage LNR declaration and a strategic approach to them by local authorities. A database has been developed for LNRs in England.

*17. Continue to support voluntary sector initiatives aimed at enhancing the conservation value of urban and urban fringe land, for example continued support to the Groundwork Trust movement, enabling more urban trusts to be established, and to the Royal Society for Nature Conservation to enable it to extend its "Environment City" scheme in co-operation with local authorities. In Scotland, continue Scottish Natural Heritage's Countryside Around Towns programme to enhance the value of degraded land, and continue to underpin UK2000 Scotland's role in forging partnership between private, voluntary and public sectors for environmental purposes.*

Thirteen projects form the core of Scottish Natural Heritage's Countryside Around Towns (CAT) network. Each project is tailored to suit local circumstances and partners, but all share the key objectives of natural heritage enhancement, improvement of recreation and access provision, environmental education and community involvement. While most of the CAT projects are centred in and around the Glasgow conurbation, they also extend throughout Scotland's central belt and as far north as Inverness.

In addition to the CAT network, Scottish Natural Heritage continues to support a wide range of projects and schemes to enhance the natural heritage in and around Scotland's settlements. These aim to increase people's enjoyment of their environment, for example, through its Environmental Community Chest and the Grounds for Learning school improvement scheme.

Scottish Natural Heritage continues to support UK 2000 Scotland and its agent partners, combining private, voluntary and public resources for a broad range of environmental purposes. During 1995, Scottish Natural Heritage will produce *Natural heritage in and around settlements* (Scottish Natural Heritage *in prep*), a policy framework which is intended as a consultation document. This seeks to engender partnership with a wide range of public, private, voluntary and community bodies towards achieving common goals.

English Nature established the Community Action for Wildlife scheme primarily to facilitate contact with wildlife in towns and cities and, thus, influence people's attitude towards them. The scheme links the need to maintain wildlife habitats, geological sites and other areas with the enjoyment people get from a personal and practical contribution to nature conservation. Over the last three years, English Nature have channelled £700,000 into predominantly urban-based community projects developed by local groups, voluntary bodies and local authorities. This has included support for 26 Groundwork Trust projects. English Nature's School Grant Scheme has enabled many urban fringe schools to increase the wildlife interest and educational value of their grounds. Both these schemes are essentially about community participation and partnership to achieve consensus and action towards sustainable development. The schemes will continue over the next three years.

The Countryside Council for Wales provides significant support for programmes of work agreed with the voluntary sector, including support for the Groundwork Trust.

***18. Continue to support further 'greening' of the CAP while recognising the need to work within the framework of the reformed CAP, press for closer linkage between agricultural and environmental policies and objectives.***

We provide Government with information and advice on the benefits and practicalities of incorporating environmental objectives into the CAP. This advice influences not only the terms and conditions attached to support for non-environmental products, but also the nature and resourcing of measures designed specifically to

benefit the natural heritage. We will continue to monitor environmental impacts of past CAP policies and reforms in view of common goals and considerations previously discussed through the Land Use Policy Group, which addressed the inter-relationship between agricultural policies and the natural heritage.

***19. Continue to monitor existing financial incentives to encourage environmentally sensitive forms of agriculture to ensure they are having positive effects on the habitats and landscapes targeted and are thus contributing to biodiversity objectives. Tailor the new incentive schemes planned under the agri-environment programme to complement existing schemes and keep under review.***

Agency support for environmentally sensitive forms of farming in England and Wales is largely through the provision and development of incentive schemes, for example Tir Cymen (which is established as a pilot in three Districts of

#### **Tir Cymen**

CCW's Tir Cymen scheme was launched in 1992 in three pilot areas - the districts of Meirionnydd, Dinefwr and Swansea. It is confined to farmers, is voluntary, whole-farm based and includes positive land management elements, capital works, a basic conservation code for the whole farm and new linear and area access opportunities for the public.

Its objective is to combine the conservation of existing semi-natural habitats and - where possible - habitat improvement and expansion, landscape conservation and the protection of archaeological features with good farm husbandry and practice while promoting opportunities for the public to enjoy the countryside and coast. The pilot also tested the efficiency and cost-effectiveness of three different administrative systems and the socio-economic impacts of the scheme.

It has a five-year target of incorporating 50% of the farmed land in the pilot areas within Tir Cymen agreements. By the end of 1994 over 45,000 hectares of farmland was subject to such agreements (24% of the agricultural area). In total there are 388 agreements to date.

Wales) and the Hedgerow Incentive Scheme in Wales. We make recommendations on the selection, boundary definitions and management prescriptions (and their revision) for Environmentally Sensitive Areas (ESAs). In Scotland, our support is primarily through advice to the Agricultural Departments. Scottish Natural Heritage advises the Scottish Office Agriculture and Fisheries Department as a member of the ESA Monitoring Steering Group.

In more general terms, we provide advice on targeting and implementation of the agri-environmental measures and on selection and management of sites within the agri-environmental Habitats Scheme (for example, long-term set-aside). English Nature will continue to advise on the development and implementation of Countryside Stewardship both in a statutory role and through an agri-environmental working group. Schemes administered by Scottish Natural Heritage are currently under review. Work has been carried out by the Extensive Farming Systems Unit in JNCC, on behalf of the country agencies, which focused on the integration of conservation and agriculture, in particular through the Forum on Nature Conservation and Pastoralism.

*20. Enforce strictly regulations controlling the use and storage of environmentally damaging pesticides and fertilisers, if necessary introducing new measures.*

Our actions under this objective are co-ordinated through a lead agency, English Nature, who provides a focus for information and advice on these issues.

English Nature contributes to the development of policies concerning regulatory processes through representation on a range of statutory committees, including the Advisory Committee on Pesticides and the Veterinary Products Committee. English Nature's pesticide policy, which seeks a selective reduction in pesticide use to benefit wildlife, is being promoted through research identifying the causes of declines in populations of farmland birds and associated development of advice on the environmental effects of pesticides, including addressing the problems of pesticide drift.

English Nature is currently evaluating the impact of a range of pollutants on water quality in rivers,

estuaries and coastal waters. This work relates particularly to the effects of nutrient enrichment from run-off and has important implications for fertiliser use. English Nature is involved with assessing the effectiveness of buffer strips along rivers as a means of reducing the effects of drift or run-off of fertilisers, and has been closely involved in a pilot project set up by MAFF to promote the creation of waterside fringes.

*21. Support organic farming and encourage more extensive livestock farming in selected areas.*

We support initiatives for organic farming and extensive livestock farming primarily through the provision of information, data and advice to Government, that is through the Welsh Office Agriculture Department, the Scottish Office Agriculture and Fisheries Department and the Department of the Environment.

Scottish Natural Heritage has also demonstrated extensive livestock farming through a number of initiatives including a demonstration project at Cairnmore of Fleet NNR, and a North West Agricultural Project to encourage extensive grazing on appropriate areas of high nature conservation interest. Scottish Natural Heritage has worked closely with SOAFD on the development of the heather moorland (extensification) scheme and, in conjunction with SOAFD, is undertaking further research into the influence of grazing in the uplands.

English Nature has not, to date, specifically endorsed organic farming but adopts a positive approach to extensive systems likely to deliver general environmental benefits, for example the reduction of pollution. A formal position statement for the use of specific standards in respect of nature conservation will be published by English Nature in 1995/96. English Nature continues to advise MAFF on the nature conservation benefits of farming methods through the provision of advice on extensive livestock farming, particularly in relation to overgrazing in the uplands, but also to institute appropriate grazing of lowland habitats.

JNCC currently represents the country agencies on the Advisory Committee for the British Trust for Ornithology's Birds and Organic Farming project. Other contributions to this objective have

been made through the work of the Extensive Farming Systems Unit and the Land Use Policy Group promoting a scientific basis for extensification methods.

***22. Expand Government research on environmental management and continue support and advice to farmers to help them identify and adopt environmentally beneficial management practices, which will conserve, and where practicable, enhance wildlife habitats on their land.***

As the statutory nature conservation advisors to the Government, we will continue to provide a focal point for issues relating to nature conservation within Britain. This will include promoting environmentally sensitive forms of farming through the provision of advice and information where required.

To ensure that such advice is provided on the basis of best available information, we will continue to commission research on the impact of habitat management on wildlife. This will include issues such as the effectiveness of field margins, conservation headlands and heathland management.

In order to support the system of advice currently available to farmers, information is available to ADAS officers in England and Wales, and to FWAG officers advising farmers on environmentally beneficial farming practices throughout Britain. SNH currently provides core support for FWAG, approximating 55% of the total costs of FWAG in Scotland.

Scottish Natural Heritage's TIBRE project (Targeted Inputs for a Better Rural Environment) aims to encourage the adoption of new technological applications to reduce the environmental impact of present agricultural operations. English Nature contributes through their Whole Farms Plans project and through research into environmental management.

***23. Continue to support measures for hedgerow management and restoration for England and Wales.***

This objective is addressed directly through provision of the Hedgerow Restoration Scheme

and Hedgerow Incentive Schemes administered by the Countryside Council for Wales and English Nature respectively. We will continue to provide advice generally and to support policy and incentive measures instituted by other organisations working towards the same objectives. English Nature continues to encourage the development of a hedgerow evaluation scheme and has agreed to publish the results in *English Nature Science* pending submission of an approved report. A local hedgerow group has also been established by English Nature in south-west England to promote hedgerow conservation.

***24. Implement the biodiversity aspects of the UK Sustainable Forestry Programme.***

This objective is related primarily to the remit of the Forestry Authority. However, we will continue to provide advice and information on the sustainable use of forestry to Forest Enterprise, private companies and landowners. English Nature and Scottish Natural Heritage are promoting the restoration of semi-natural vegetation on sites which have been converted to plantations. English Nature has a target of at least 4,000 hectares of plantations on ancient sites to be restored to semi-natural woodland over the next decade. This recommendation was first presented to the House of Commons Environment Committee in 1992.

Plans are also underway for a report summarising key management, monitoring and woodland types on NNRs.

The Countryside Council for Wales and English Nature maintain and update ancient woodland inventories which include the best examples of ancient woodland in SSSI and NNR programmes. English Nature plans to produce a report on inventory revisions and a paper on the extent of ancient woodland in SSSIs and NNRs. English Nature also promotes the enhancement of biodiversity within management planning for ancient woodland which has been notified as an SSSI or NNR, and will use NNRs as demonstration areas.

English Nature and Scottish Natural Heritage contribute to ecological research on enhancing the biodiversity of woodland, including contributing to Forestry Authority research into methods of measurement and their cost-effectiveness. English



Nature also supports research into the impacts of deer and other large herbivores on woodland and has long-term projects underway on the impact of forestry practices on biodiversity. Results of these are scheduled for publication in the next two years, along with papers on the impact of recreation and fragmentation patterns in woods. A Scottish Natural Heritage Deer Policy paper highlights the impact that high deer populations have on woods (Scottish Natural Heritage 1994).

***25. Continue to protect ancient semi-natural woodlands and encourage forms of management which conserve their special characteristics.***

We contribute to conservation management of ancient semi-natural woodland through a variety of projects along with our statutory responsibility for site designation. Examples of these are the provision of financial incentives, e.g. Coed Cymru and Scottish Natural Heritage's grant-aid which is provided in conjunction with the Forestry Authority, and training. English Nature also contributes to 2-3 year training courses on ancient woodland management.

We are currently in discussion with the Forestry Authority to determine the possibility of a link between the ancient woodland inventory and the Forestry Authority Census, and have contributed a chapter to a Forestry Authority Handbook on woodland management for conservation. We will

**Coed Cymru**

*Coed Cymru* was established in 1985 to act as a catalyst in bringing small broad-leaved woodlands in Wales into management. Surveys had shown that native woodlands were grazed and failing to regenerate. Coed Cymru officers advise on appropriate management techniques and grant-aid sources. The organisation is also involved in developing markets and products suitable for native hardwoods, having recognised that a timber production capacity was crucial to making management economic and encouraging owners, mainly farmers, to maintain an interest in woodland management. During 1992-94, Coed Cymru brought a total of 1,453 ha of woodland into management and facilitated 341 ha of new planting.

continue to provide advice to owner/occupiers on appropriate forms of management.

Scottish Natural Heritage encourages native woodland management and expansion through S15 agreements and grant-aid available for other tree planting programmes. English Nature has established a Parkland Initiative and intends to ensure conservation through establishing working partnerships with other agencies involved in parkland management. We will continue to encourage the uptake of environmentally sensitive planting schemes offered by the Forestry Commission, for example the native pinewood schemes in Scotland, and will continue to respond to consultations over Woodland Grant Scheme applications.

Dissemination of information remains a high priority. Guidelines on the management of woodland for lower plants are to be published through JNCC. Advice on the conservation of woodland and parkland will be provided to country agencies through the Invertebrate Site Register Habitats Association Module. The JNCC Support Unit has provided advice, on behalf of the country agencies, on the management of coppiced woodland and woodland rides and glades for wildlife through joint publications with the British Trust for Ornithology (Fuller & Warren 1993; Warren and Fuller 1993).

Scottish Natural Heritage is considering the desirability and feasibility of developing a Forest Habitat Network in Scotland, aiming to reverse past trends of fragmentation and isolation.

***26. Continue to encourage the regeneration of woodland.***

We will continue to encourage the sensitive regeneration of broad-leaved woodland with a view to maximising the benefits to conservation and biodiversity. At present, this is done through the provision of financial support, for example S15 grants and Tir Cymen, and through the provision of information and advice to individuals in a position to disseminate this more widely, for example FWAG officers and local staff.

We will continue to advise on regional targets and locations for extending semi-natural woodland and, in England, to promote the use of natural

regeneration in and around existing semi-natural woodland.

Statutory agencies currently contribute to studies investigating the impact of specific activities on the regeneration of woodland, for example grazing of domestic stock and deer. Work will continue on the production of management advice to incorporate the findings of this research. As a result of this approach, a recent review of muntjac status has recommended that this species be placed on Schedule 9 of the Wildlife and Countryside Act.

JNCC and Scottish Natural Heritage recently provided an ornithological evaluation of Scottish Regions to provide recommendations on areas for future afforestation. This information was distributed to the relevant Scottish local authorities and subsequently incorporated into their Regional Forestry Strategies. English Nature also advises on the natural distribution of tree species in England and promotes their use in planting programmes.

***27. Encourage the restructuring of even-aged plantations to create more varied forests with a mixture of types and ages of trees, including the implementation of forest design plans in State forests.***

This objective is primarily within the remit of the Forestry Authority and other organisations involved in diversification and re-design of forests, particularly Forest Enterprise. Our contribution to this objective is through the provision of advice where required, in-putting to the Forestry Authority Redesign Plans and providing advice on the re-creation of open habitats. We will continue to provide this advice to maximise the biodiversity and conservation value of forests. Restructuring is viewed as one of the main mechanisms through which to develop the Forest Habitat Network mentioned above.

***28. Continue to encourage a steady expansion of woodland and forest cover.***

We will continue to encourage expansion of woodland cover, where appropriate for local biodiversity, by promoting the use of Indicative Forestry Strategies and other strategies with respect to natural afforestation programmes. To

this end, English Nature ran a workshop in October 1994 with the Forestry Authority on the expansion of native woods in the uplands, and are developing targets for woodland expansion based on a figure of 65,000 ha of woodland of which 15,000 ha should be by natural regeneration. English Nature is currently discussing energy coppicing on ex-arable land with the Department of the Environment.

We will continue to encourage the controlled expansion of woodland cover and forest cover through financial mechanisms such as the Forestry Authority's Woodland Grant Scheme. In Wales, Coed Cymru is supported in order to guarantee the survival of existing broad-leaved woodland and to make a small contribution to woodland expansion.

***29. Encourage the extension and creation of native woodlands, including extending the area of Forestry Commission Caledonian Forests (native pine and broad-leaves).***

Statutory agencies will continue to support financial mechanisms to encourage the use of native tree species in afforestation programmes, for example by joint initiatives such as Highland Birchwood and through working closely with the Forestry Authority.

***30. Support the creation of community woodlands near population centres.***

We currently provide support for the development of plans for community forests in England through the Forestry Authority and the creation of multi-purpose woodlands in Scotland's central belt through the Central Scotland Countryside Trust. Scottish Natural Heritage have invested in this initiative to the sum of approximately £0.7 million per annum. In addition, the Countryside Around Towns project network may involve the creation of urban/community woodland in Scotland.

***31. Support the creation of a new National Forest in the English Midlands, and the creation of multi-purpose woodlands in Scotland's central belt through the Central Scotland Woodlands Initiative.***

English Nature currently supports the Forestry Commission/Countryside Commission joint project for a new National Forest in the Midlands, mainly through the strategy document, *Environmentally sustainable forestry and woodland management* (English Nature 1994c). English Nature has helped to identify sites and advise on policy. Scottish Natural Heritage encourages the creation of multi-purpose woodlands in Scotland's central belt through financial support and advice to the Central Scotland Countryside Trust.

***32. Continue to support urban tree planting and care through research, support to voluntary organisations, and urban regeneration initiatives.***

We administer several financial incentive schemes to support voluntary bodies, including Scottish Natural Heritage's grant scheme, the Community Action for Wildlife administered by English Nature and the Countryside Council for Wales' tree planting grants. In addition, we will continue to support research initiatives and to provide advice and information through local offices.

Scottish Natural Heritage's 13 core Countryside Around Town (CAT) projects have the promotion of woodland in and around settlements as a key objective. Scottish Natural Heritage and English Nature are both members of the Urban and Community Forestry Panel and Scottish Natural Heritage also contributes to a joint research programme with Scottish Enterprise which encompasses urban forestry. English Nature's contact with the English Partnership (urban regeneration) also provides a route for addressing this objective.

***33. Prepare action plans for threatened species in priority order: globally threatened; threatened endemics; other threatened species listed in the relevant schedules and annexes to UK and EC legislation and international agreements to which the UK is a party; endangered and vulnerable species listed in Red***

***Data Books, aiming to complete and put into implementation plans for at least 90% of the presently known globally threatened and threatened endemic species within the next ten years.***

Statutory nature conservation agencies have a responsibility at both national and international levels to ensure action under this objective.

A common format and standards for Species Action Plans are currently being developed for birds (in collaboration with RSPB), mammals, amphibians, reptiles, invertebrates and plants. Preparation of Action Plans for threatened species in Scotland and England are well advanced for birds and have also been initiated for some invertebrates in England. English Nature has produced Species Action Plans for 10 bird species with production of another two imminent. In the longer term, English Nature aims to produce plans for 36 globally threatened and endemic species and for 75 vulnerable and endangered species. English Nature will prepare and facilitate a programme of Plans for appropriate species listed in the relevant schedules and annexes to UK and EU legislation, some of which are already included in the threatened category.

Scottish Natural Heritage is devoting £57,000 per annum to the production of Action Plans for threatened vascular plants in Scotland over the next three years. Work on Action Plans for scheduled lower plants is nearing completion but may be extended to include additional species identified by the UK Biodiversity Action Plan priorities. Progress on Bird Action Plans continues in Scotland, in collaboration with the RSPB and other agencies, and implementation of plans is underway for sea eagle, red kite and corncrake, which are all high priority species.

The Countryside Council for Wales has conducted an analysis of endangered species in Wales. The list, which runs to almost 80 species of plant and animal, will be used to determine what information is required in order to devise monitoring schemes. Twenty-eight of these species have monitoring programmes in place.

JNCC, on behalf of the country agencies, has published an Action Plan for the conservation of the native crayfish (Joint Nature Conservation Committee 1994) and a strategic framework for the conservation of the native flora of the UK

(Joint Nature Conservation Committee 1995). We are grant-aiding Butterfly Conservation to produce Action Plans for scarce British butterflies over the next three years.

***34. Continue English Nature's Species Recovery Programme by adding at least five new species per year.***

Although ostensibly an objective for English Nature, other country agencies contribute in some way to the development and implementation of Species Recovery Programmes. English Nature's programme commenced in 1991 and has since met objectives for the initiation of recovery programmes on certain species, for example rough marsh-mallow, starfruit and fen ragwort. The completion of projects and an increase in the budget has allowed the initiation of recovery programmes for ten new species in 1994/95. These are pine marten, sand lizard, smooth snake, greater horseshoe bat, bittern, ladybird spider, fen orchid, ground pine, perennial knawel and shore dock.

The Countryside Council for Wales has a recovery programme for fen orchid in operation and will shortly be re-introducing sand lizard and natterjack toad to appropriate historic sites. Both species have been extinct in Wales for some considerable time.

**ENGLISH NATURE'S SPECIES RECOVERY PROGRAMME**

English Nature's Species Recovery Programme aims to restore the populations of plants and animals that are under threat of extinction. Ultimately we want them to be able to survive unsupported in the wild. We also want to make people more aware of the importance of species conservation and give landowners and land managers advice on habitat management. The Species Recovery Programme is a high priority for English Nature and will make a significant contribution to the Government's *Biodiversity Action Plan*. This includes the Programme in its objectives, with a target of adding five new species each year.

JNCC continues to support the established programme through the provision of advice, and funding for species recovery programmes for three rare moth species including captive breeding in conjunction with zoological gardens. In addition, a recovery programme has been developed, in conjunction with the RSPB, to re-introduce the red kite to Britain. Birds have been successfully introduced from Sweden and Spain and British populations are now thought to be self-supporting in the wild. The need to monitor established breeding populations remains a priority for the future, in order that progress can be checked and modifications to the conservation programme made.

***35. Establish priorities for Red Data Books for the main taxonomic groups without them.***

Red Data Books are currently in preparation for higher plants (a revision of the existing book), bryophytes and lichens. The Red Data Lists for these books are being drawn up using the recently revised IUCN (World Conservation Union) threat categories. Reviews of fungi and invertebrates are under consideration. A programme is also being initiated by JNCC to develop a Vulnerable Habitats list.

***36. Update and publicise guidelines on translocations, re-establishments, introductions and re-stocking.***

Statutory agencies continue to provide advice and information to the Department of the Environment on licence applications for release of non-native species under the Wildlife and Countryside Act. A background study of all aspects of species translocations, re-establishments, introductions and re-stocking has been commissioned. We have agreed to take this work forward jointly through an inter-agency working group which is charged with drafting national guidelines by 1997.

Country agencies are currently considering policy positions, with a provisional position now in place in Scotland, subject to national guidelines recommended through JNCC. Consideration is being given to methods of raising public awareness of the impact of introduced species through publication and dissemination of information.

**37. Review microbial (and possibly botanical and animal) genetic resources, and then consider whether to develop a formalised strategy for future ex-situ conservation across all genetic resources taking account of international obligations and developments in this field.**

JNCC, on behalf of the country agencies, is supporting a study by the University of Nottingham undertaking genetic fingerprinting of red kite populations in Britain. English Nature has a CASE studentship with Keele University to investigate the genetic composition of a number of Lepidoptera, including species in the Species Recovery Programme such as the swallowtail butterfly. Similarly, several species have been subject to genetic analysis as an aid to their conservation management in Scotland, for example Scottish primrose, brown bog rush and the wildcat, with further work in this area likely. Little attention has been paid to microbial genetics or ecology, although Scottish Natural Heritage has contributed to information on the issue of genetically modified organisms recently, producing a paper for consideration by the Joint Committee. More attention may be paid to this field following the results of a review of soil biodiversity currently commissioned by Scottish Natural Heritage.

The Countryside Council for Wales has a major programme of research on conservation genetics focusing on scarce vascular plants. The programme is now nearing completion and the agency is now sponsoring a studentship at the University of Wales, Bangor, on the Snowdon lily *Lloydia serotina*.

A recent genetic study, funded by JNCC, has confirmed the existence of creeping marshwort *Apium repens* in Britain.

**38. Continue to have regard to the need to conserve marine fauna and flora in carrying out the Government's duty to regulate fisheries.**

This objective is aimed primarily at the Fisheries Ministers and Sea Fisheries Committees. Our contribution to its implementation is through the work of the Marine Fisheries Task Group. We will continue to develop close links with the fishery regulators to advise on issues affecting the wider marine environment and to provide advice

#### **Marine Fisheries Task Group**

In the UK, the statutory nature conservation organisations have jointly established a Marine Fisheries Task Group to identify the main areas where fisheries affect wildlife and agree any action needed.

A discussion paper *Developing an action programme for sea fisheries and wildlife* has been produced by the Group and agreed by the JNCC as the basis for discussions with fisheries regulators, the fishing industry and other interested parties (particularly the non-governmental organisations) for refinement as an action plan for nature conservation in relation to fisheries.

and information on the conservation of marine fauna and flora where required.

**39. Seek to control levels of fishing effort in the UK fleet by a package of measures to reduce capacity (e.g. decommissioning) and fishing activity (e.g. restrictions on days spent at sea).**

Although primarily a task for the Government to pursue, as advisors on nature conservation, we will continue to support measures which allow the improvement of commercial fish stocks without detriment to marine wildlife.

**40. Ensure that fisheries research continues to provide:**

- *effective understanding of the natural processes that control the production and survival of fish;*
- *the means of making accurate and timely assessments of fish stock numbers;*
- *assessment of topical issues such as the inter-action between towed gear and the seabed and by catches.*

Statutory agencies contribute to this objective through the work of our Marine Fisheries Task Group. We will continue to provide appropriate information and support for collaborative research to aid the development of sustainable fisheries management and identify areas where further research is required. For example, Scottish Natural Heritage has funded research on the impacts of cockle-dredging on non-target species. The effects of static gear are being assessed by joint projects with fisheries bodies while the

Countryside Council for Wales and English Nature are collaborating with the NRA in drafting freshwater fishery management guidelines related to conservation. The JNCC Support Unit will continue to provide information on the level of fish stocks consumed by predators.

***41. Draw up priority action statements to guide UK implementation of the new agreements on European bats and small cetaceans of the Baltic and North Seas.***

Statutory agencies are responsible for ensuring that the conservation of UK flora and fauna accords with new agreements on both a national and international level. To this end, the Support Unit provides a UK overview and advice to the Department of the Environment in the preparation of action plans to implement the ASCOBANS agreement. We will continue to ensure the co-ordination of international agreements and monitor the implications of their implementation.

Country agencies play an active role in implementing agreements at a national level, for example the agreement on the Conservation of European Bats (Bonn Convention) while recognising that many of their actions, for example research into the management of bottlenosed dolphins in the Moray Firth, also contribute to the aims of the agreements. English Nature has drafted a section on conservation priorities for inclusion in the UK's report on the Bats Agreement to be presented to the first meeting of Parties to be held in the UK in June 1995.

***42. Continue to give legal protection to threatened species and prohibit the persecution of protected species and the use of illegal means of killing/taking.***

Statutory nature conservation agencies are obliged to monitor the protection afforded to species under the Wildlife and Countryside Act 1981 (as amended), the Conservation (Natural Habitats, etc.) Regulations 1994 and under international obligations and statutes to which the UK is a signatory. We are charged with carrying out a 5-yearly review of Schedules 5 and 8 of the Wildlife and Countryside Act through JNCC and work is currently underway on the third Quinquennial Review. Through JNCC, we also ensure that the

**Red kite re-introduction**

JNCC, along with the RSPB, have jointly undertaken an experimental re-introduction of the red kite in Britain.

Red kite were once very common but human persecution from the fifteenth to nineteenth centuries resulted in their extinction in England and Scotland. Only a handful of birds survived in Wales at the beginning of this century.

Red kite have been released every year since 1989 at secret sites in southern England and northern Scotland. The re-introduced birds were taken from large and healthy populations in Spain and Sweden. They have survived and adapted well to the wild.

In 1992, these birds bred in the wild for the first time in over a century. As a result of the work of the conservationists, the GB population has now increased to over 100 pairs.

provisions of the Birds Directive are implemented in the UK, with particular reference to hunting regulations and the control of opportunistic species. JNCC also plans to review the effectiveness of some other aspects of species protection legislation.

We play an active role in ensuring that the terms of the Wildlife and Countryside Act are met, maintaining a licensing system under this Act, the Deer Act 1991 and the Protection of Badgers Act 1992. This legislation provides for otherwise unlawful activities to be permitted under licence, where statutory agencies are charged with ensuring that both the applicants and the work proposed are acceptable in terms of their conservation and science, and meet high standards of competence and necessity. This is done either through licences issued by each agency or by the provision of advice to other licensing departments, for example MAFF, DoE, SOAFD and SOEnD. We use the results of research and surveys to ensure that licences which are issued are justified and will not deleteriously affect the conservation status of the species. This work depends on the maintenance of effective working relationships with voluntary bodies, police forces and animal welfare organisations.

**TO DEVELOP PUBLIC AWARENESS AND UNDERSTANDING THE GOVERNMENT AND ITS AGENCIES WILL:**

***43. Encourage voluntary bodies involved in tourism and heritage activities to raise funds locally for initiatives on the conservation of biological resources.***

Country agencies address this objective locally through collaborative work with other national and regional agencies to promote environmentally sustainable tourism. For example, Scottish Natural Heritage works closely with the Scottish Tourism Partnership, while English Nature collaborates with the Peak (District) Tourism Partnership to determine visitor management plans which incorporate the principles of conservation. Scottish Natural Heritage is also engaged with the Scottish Wildlife Trust in reviewing management systems towards supporting their portfolio of wildlife reserves, opportunities for their development and enhancement, and resources required to sustain them as part of a three-year project concluding in 1996.

The voluntary sector have been encouraged in a number of ways to 'put something back in' to the footpath resource on which their enjoyment depends. The Scottish Mountaineering Trust, in particular, has made notable contributions to this scheme from the revenue gained from the sale of hill-walking and climbing guidebooks.

English Nature has responded to DoE consultations on the UK Strategy for Sustainable Development, one section of which deals with tourism and recreation and includes paragraphs on *Opportunities to enhance nature conservation* and *Vision for 2010*. These form the basis of English Nature's current policy (English Nature 1994d).

***44. Encourage the tourism industry to include more information about the need for environmental conservation in its promotional literature, and to develop the necessary skills to provide high quality information and interpretation, including information about local biodiversity.***

Our contribution to this objective is as the previous statement, with the provision of advice

and information on the principles of good conservation practice both through promotional literature and through the inclusion of these in management plans. The JNCC Support Unit will include these aspects of conservation in the 5th European Union for Coastal Conservation (EUCC) Congress in July 1995 where the emphasis will be on tourism, recreation and coastal conservation.

Scottish Natural Heritage also provides representation on the Scottish Tourism and Environment Task Force. Members of this group include all of the public sector agencies with an interest in this issue. The group has overseen a number of area-based initiatives which are aimed at ensuring the development of tourism in a way which is sympathetic to the natural heritage. It has also provided information and advice through publications such as *Going green: guidelines for the tourist industry* (Scottish Tourism Co-ordinating Group 1993) and a brochure which is currently being produced by Scottish Natural Heritage and the Scottish Tourist Board to promote enjoyment of the natural heritage to tourists. The former was produced by the Task Force in 1993 to provide advice for the industry on how it can be more environmentally conscientious.

***45. Consider a publicity strategy to explain the meaning and importance of biodiversity and to explain what needs to be done to conserve and enhance it. The campaign could:***

- *support initiatives that enhance people's understanding of what is special about their local environment;*
- *encourage the creation of a network of community wardens;*
- *support initiatives that promote local action to conserve and improve local biodiversity.*

Several activities are planned to coincide with the European Nature Conservation Year 1995 (ENCY '95) declared by the Council of Europe. Ideas build on two of the three parts of the proposed campaign for biodiversity; these are to support initiatives which enhance people's understanding of what is special about nature in their neighbourhood and to promote local action to conserve and enrich biodiversity. Themes and specific initiatives are currently being developed

by a UK committee, including agency representation, and a promotional leaflet has been distributed. English Nature is also committed to the development of activity programmes promoting the value of parklands and the Natural Areas concept in a European context for up to 12 separate types of local community, again for implementation in ENCY '95.

In addition to the focus on ENCY '95, we will continue to promote biodiversity through action frameworks, such as a *UK plant conservation strategy*, and ensuring the publication of future UK plant, vertebrate and invertebrate conservation strategies in conjunction with NGOs.

**46. Incorporate environmental principles, including biodiversity, in their policies and programmes.**

The principles underlying this action point are integral to the work of the statutory agencies. We will continue to provide advice to Government and others where appropriate.

**47. Encourage where possible the adoption of agreed measures arising out of the Scottish Working Groups report *Learning for Life*, and adoption of measures proposed in the Toyne Report.**

Country agencies are currently assessing the implications of recommendations arising out of these reports.

Since the publication of *Learning for life: a national environmental education strategy for Scotland* (HMSO 1993a), Scottish Natural Heritage has developed and started to implement its environmental education strategy and special project - one of five such projects in its current corporate plan - using additional funding provided by SOEnD for this purpose.

The strategy is based on the learning contexts identified in *Learning for life* and an analysis of its recommendations. There are four target groups - the *workplace and vocational training* for professional environmental managers; *formal education* (3 - 8), including schools and nurseries; the *general public*, including at home, in the community and at leisure, as well as Scottish Natural Heritage staff in the workplace; and a

focus on *co-operation and networking*, with a series of prioritised tasks within each.

The special project comprises a programme promoting particularly new, innovative and experimental projects covering the whole spectrum of formal and informal education, interpretation and training based on the strategy. Biodiversity is promoted particularly through the production of pupil and teacher materials, generally in partnership with others, and through encouraging learning out of doors through such initiatives as *Grounds for learning*, a partnership project incorporating the creation of new wildlife habitats and their study and care. Additional events planned in association with ENCY '95 include *The pine and the eagle*, an interactive schools/community group environmental musical drama celebrating Scotland's natural heritage.

Scottish Natural Heritage worked in association with the Scottish Consultative Council on the Curriculum in 1994, producing an informal summary position paper to inform the Biodiversity Working Group about environmental education in Scotland.

As a direct result of the Toyne Report (HMSO 1993b), English Nature developed the College-English Nature (CEL) Scheme which provides fieldwork project ideas, advice, sites and grants to college students. Learning more about nature conservation will help make college students more suited to the environmental jobs of the future.

**Data sheets for educational use**

A new partnership has been established to bring up-to-date, accurate data and information to teachers in Scotland, serving particularly the needs of Standard and Higher Grade curricula. The main bodies involved in the project are the World Wide Fund for Nature and Scottish Natural Heritage. Three pilot themes have been selected - Biodiversity, Freshwater and Red deer. The material has been designed to promote students' skills in interpreting data sets, informing teachers on current developments in research and encouraging informed debate about controversial issues related to the themes. As they become available, two sets are sent free to each secondary school and to selected departments. Curriculum developers and the Scottish Examination Board also receive copies.



The recommendations of the Toyne Report do not apply specifically to Scotland. Nevertheless parallel actions are taking place. As part of its environmental education strategy, Scottish Natural Heritage is working on a project entitled *Education for sustainability*, with Higher Education Institutions. Following a review of the environmental education content of Higher Education courses, support materials, including coverage of biodiversity, are being produced.

The Government Panel on Sustainable Development, in its First Report, has recommended that the Government should develop a comprehensive strategy for environmental education and training. In the Agenda for action on page 7, it states "*It is essential that clear policies, establishing objectives and a strategy for implementation, should be widely available at all levels*". This agenda may provide a useful contribution and support to the Panel's main recommendations covering education and training. Any comprehensive strategy would help to develop wider understanding and support for biodiversity.

***48. Establish a Citizens' Environment Network to carry the message to individuals throughout the local community.***

Several initiatives, including Environment Watch and Rural Action for the Environment, can provide support to local communities who wish to be more involved with managing and caring for the living world around them. English Nature has encouraged the Environment Watch pilot projects to listen and respond to local people's concerns and interests, which may include biodiversity or nature in their neighbourhood. English Nature has also encouraged the Environment Watch co-ordinators, CSV Environment, to include rural trials, relate the trials to Local Agenda 21 initiatives and begin to identify ways of relating more closely to Rural Action.

English Nature has recently carried out an audit of its 600 or so voluntary wardens associated with National Nature Reserves (NNRs) and considered the role of volunteers on other nature reserves. Many are keen to relate their work to wider environmental volunteering roles within the communities. There may be an opportunity to develop links between volunteers on nature

reserves (such as NNRs and Local Nature Reserves) and volunteers associated with Environment Watch in particular communities.

From trials in the Chilterns Natural Area and Prime Biodiversity Areas, such as the Greensands of Bedfordshire, it appears that the smaller and potentially richer PBAs may be a better starting point for involving communities. Where partnerships are established, potentially enrichable areas are identified with the local community, and local communities, including landowners, are willing to enrich the areas between protected sites.

***49. Promote a co-ordinated programme of research through the Government's environment agencies to include understanding of the impact of recreation on biodiversity and to develop visitor management techniques to reduce negative effects, e.g. the Sustainable Tourism Project in Northern Ireland.***

We continue to support research and action on the impact of recreation and tourism on the natural heritage, including terrestrial and marine environments. To date this has included reviews such as JNCC's *Disturbance to waterfowl on estuaries* (Davidson & Rothwell 1993) and Scottish Natural Heritage's *Recreation and the natural heritage - a research review* (Sidaway 1994). In 1994, the Institute of Biology held a seminar on the ecological impact of increased access in the countryside. This was funded by the country agencies in conjunction with the Countryside Commission.

Scottish Natural Heritage has run a Footpath Management Project for the past ten years, which has stimulated much new work to manage upland paths in Scotland. Major reviews of the need for further path management have also been conducted in Wester Ross and in the Cairngorms, with two partnership trusts established (on Skye and in Wester Ross) to promote more action of this kind. Scottish Natural Heritage is also a partner in Tourism and the Environment which has promoted a range of actions in support of its purposes, including study of the options for monitoring change at heavily visited sites in the Trossachs. In addition, Scottish Natural Heritage contributes to initiatives such as the Trossachs Tourism Management Project and environmental monitoring undertaken for this.

The Countryside Recreation Network provides an inter-agency forum for debate and liaison about research and practice in open-air recreation. It is funded by a consortium of agencies, of which the three country agencies are main sponsors (alongside the Countryside Commission, the Sports Council, the Forestry Commission and DoE Northern Ireland). Scottish Natural Heritage launched a major policy paper on access to the countryside which places strong emphasis on promoting better access close to where people live (Rowan-Robinson *et al.* 1993). This takes into account people's needs and illustrates a positive approach to sustainable use of the countryside for recreation.

English Nature's contribution to this objective is primarily through local projects from which principles and good practice are derived. English Nature part fund (with the Countryside Commission) the Peak District Access Consultative Group which was set up by the Peak Park Planning Board to produce good practice for access management planning. English Nature, in conjunction with the Countryside Commission, are preparing guidelines on the restoration of the Pennine Way.

#### **Data and information**

The Biological Records Centre (BRC), funded jointly by JNCC and the Institute of Terrestrial Ecology, holds records of the occurrence of plants and animals throughout Britain. These are collected in part by professional researchers but mostly by a large army of interested amateur naturalists.

The records cover everything from bats to bryophytes, willows to weevils. However, bird records are held elsewhere.

BRC holds over 6 million records. This is a unique resource. It allows us to chart the expansion or decline of species and see changes in their distribution patterns. Since its creation, the nature conservation agencies have helped to fund BRC's activities. An agreement has been reached covering the ownership and management of the data it holds. As part of a five-year contract, the agreement establishes a partnership between JNCC and BRC with joint ownership of, access to, and responsibility for, the data. This will ensure access to this information for the needs of nature conservation.

#### **50. Improve the accessibility and co-ordination of existing biological datasets; provide common standards for future recording.**

We are committed to identifying and addressing the need for access to, and co-ordination of, biological datasets through the collation and dissemination of information. At present, this is done primarily through development and validation of databases. Examples of these are the BIRDS database, BRC database, Habitats and Species database, coastal zone datasets and the Seabirds at Sea database. In addition, the Biodiversity Steering Group established a data sub-group, including statutory agencies and voluntary representation, to look at improving access to data and the feasibility, in due course, of a UK Biota Database.

A data model is being developed through our Information Systems Strategies as the first step towards relating biodiversity information to conservation action. This aims to ensure that information remains generally accessible while promoting its use as support for many of the objectives of the Biodiversity Action Plan. This programme of work will endeavour to investigate the feasibility of integrating existing datasets to provide information in a more user-friendly format. An investigation is being undertaken to assess whether the data currently held in databases could be used more comprehensively, minimising the need to develop new systems for each purpose.

A report has been commissioned from the Co-ordinating Commission on Biological Recording, in conjunction with the Department of the Environment and the Natural Environment Research Council (NERC) to assess the current situation on access to, and the availability of, data, and to make recommendations for future direction and development. This is currently in draft form and is being used as an input to the work of the Biodiversity Action Plan Data Sub-group.

We will continue to identify the needs for habitat data and JNCC, on behalf of the country agencies, will review the data-holding for species on Annex I and habitats on Annex II of the Habitats Directive. The free exchange of information between BRC and the conservation agencies will continue with on-line facilities to be the medium-term aim.

We will continue to promote common standards for data capture, provision and monitoring. In doing so, we will utilise alternative data sources where applicable, for example the British Trust for Ornithology Atlas Data, to ensure effective monitoring of UK fauna and flora. The Butterfly Monitoring Scheme, run jointly with ITE, is an example of a long-running monitoring exercise. RECORDER software is being promoted as a standard for species/site data management in partnership with other statutory agencies and the Wildlife Trusts. Version 3.2 of RECORDER has been completed and its use promulgated.

**TO CONTRIBUTE ON THE CONSERVATION OF BIODIVERSITY ON A EUROPEAN AND GLOBAL SCALE THE GOVERNMENT AND ITS AGENCIES WILL:**

***51. Participate actively at all levels of the Biodiversity Convention.***

We have contributed to this objective through participation in the development of the UK Biodiversity Action Plan and subsequent arrangements to implement this. This involves our participation on the UK Steering Group and representation on the Sub-groups which report to it, primarily the Data Sub-group and the Targets Sub-group. We contribute to this objective on a daily basis through work related to achieving objectives under the national plan. In addition, JNCC Support Unit staff have acted in an advisory capacity in respect of work on international implementation of the Convention.

***52. Plan an active part in developing effectively existing international conventions for nature conservation, particularly CITES, the Bern, Ramsar and Bonn conventions and the specific agreements under the last of these.***

JNCC, on behalf of the country agencies, will continue to advise Government on ways in which existing international conventions and agreements can be developed as effective instruments for the conservation of biological diversity. This includes the development of a strategic approach to the relationship between existing treaties and the Convention on Biological Diversity. JNCC Support Unit staff frequently participate in the

regular conferences of the Parties to treaties as members of the UK Government delegation. We are responsible for submitting proposals to the UK Government for the designation of sites under the Ramsar Convention and for direct implementation of the provisions, for example on consultations for site designations and management plans.

The JNCC is the Scientific Authority for Animals under CITES, advising DoE on policy matters as well as some 12,500 individual licences per year to import or export wildlife or wildlife products.

***53. Play a full part in ensuring a sound scientific basis for conservation in Europe.***

The country agencies address this aspect of their work primarily via the Support Unit. We maintain representation on a European level to ensure the inclusion of UK information and expertise in European initiatives, for example the recent meeting of Atlantic Biogeographical Region Specialists. We attend European Working Groups for EU Directives, for example the Habitats Directive Working Group. Through these fora we ensure an input to European initiatives and thereby contribute to maintaining effective international collaboration on common issues.

The exchange of data is an important part of effective collaboration. To this end, we are currently developing an EU Derogations Information System, funded by the European Commission, to facilitate Europe-wide access to information on derogations granted under European Directives. As the UK representatives, we are also responsible for contributing UK data for inclusion in European initiatives, for example the potential inclusion of BRC data in European mapping schemes, and in co-operating with European partners towards understanding relevant issues in north western Europe. Current work also focuses on the development of the marine elements of the EU CORINE classification and development of the European coastal habitat reviews through the EcoCOAST programme.

In addition to our work through the JNCC Support Unit, English Nature and the Countryside Council for Wales are involved in Eurosite to support its development and to promote land management expertise. English Nature will continue to contribute to the development of Euronet through the production of a paper on

Natural Areas and Prime Biodiversity Areas and will continue to attend the UK Committee of IUCN to comment on ways of improving its effectiveness.

Scottish Natural Heritage have been involved with the work of the Federation of Nature and National Parks in Europe, the development of the IUCN Action Plan for Europe (Parks for Life) and Econet. We have been involved with the work of Centre Naturopa and have actively contributed to the programme of events developed under ENCY '95 declared by the Council of Europe.

#### ***54. Participate in the identification of sensitive areas at high risk from shipping.***

In 1993, as part of the EU's initiative on Marine and Coastal Environmentally Sensitive Areas, we submitted to Government departments a list of environmentally sensitive sites subject to heavy shipping traffic. The establishment of such areas (described as Marine Environmental High Risk Areas - MEHRAs) is one of the principal recommendations of the Donaldson Report on the prevention of pollution from merchant shipping (HMSO 1994), which Government has accepted. JNCC, on behalf of the country agencies, will continue to identify suitable sites and will continue to develop sensitivity indices. A number of possible pilot projects leading to a detailed Sensitivity Atlas for the UK are under consideration, although they are not restricted to the impacts of shipping.

We believe that the sites on the original list presented to Government are suitable candidates for high risk protection, and will encourage Government to conduct a comprehensive monitoring exercise to check that vessels are avoiding MEHRAs. Recommendations will be made that these routes be made compulsory areas to be avoided, should the voluntary approach be unsuccessful.

#### ***55. Participate fully in the Agreement on the Conservation of Small Cetaceans of the Baltic and North Seas (ASCOBANS) which will improve on an international scale, measures for conservation, management and research.***

Statutory agencies address this point at both national and international levels. JNCC, on behalf

of the country agencies, contributes through the provision of advice and baseline data to Government, also forming part of the UK delegation for the international development of ASCOBANS.

Country agencies have invested directly in measures for conserving small cetaceans. These include recommending Sites of Conservation Interest, providing marine environment advice and general measures to improve understanding and public awareness of small cetaceans. Scottish Natural Heritage is currently co-ordinating a Dolphin Awareness Scheme for the Moray Firth, issuing leaflets and stickers along with a code of conduct for small boats dolphin-watching in this area. Scottish Natural Heritage is developing an accreditation scheme for operators of dolphin-watching cruises in the Moray Firth, and a project officer has been appointed with some EU LIFE funding. In addition, a general code of conduct/identification guide is being prepared by both Scottish Natural Heritage and English Nature.

Scottish Natural Heritage provides a scheme for the recovery of stranded cetaceans while a similar scheme is supported in Wales through the Countryside Council for Wales. A project is in progress with Aberdeen University Lighthouse Field Station, Cromarty, to review all the data and information relating to the Moray Firth population, to identify threats and impacts and make recommendations for its sustainable management.

In 1993/94, English Nature funded the installation of a hydrophone to improve the study of the semi-resident population of bottle-nosed dolphins off the Dorset coast and produced Dolphin Awareness stickers. In terms of research, English Nature has funded a project to genetically fingerprint harbour porpoises in the Celtic Sea as a contribution to understanding the impact of by-catches on the population. This work has been completed.

#### ***56. Take full account of the EC 5th Environmental Action Programme in respect of its implications for biodiversity.***

The Fifth Environmental Action Programme provides an important framework for the biodiversity and sustainability component of statutory agency work. In addition to promoting

the themes of the Programme and implementing the Habitats Directive, we have been developing the concept of habitat networks in the context of Econet. We have also been promoting the integration of biodiversity criteria in wider land-use management.

We will continue to provide advice to Government and will assist in the development of the European Environment Agency's role in monitoring and evaluating progress and trends, where appropriate.

preparation of biodiversity profiles for each territory. These have been circulated to Dependent Territory Governments for comments and we hope to publish final versions later this year.

We shall continue to provide advice as necessary, supported by production of publications to assist in the dissemination of information.

***57. Assist the conservation and sustainable use of biological resources in countries otherwise unable to afford it and rich in biodiversity through the Darwin Initiative.***

Consultation on proposals from the DoE under the Darwin Initiative are primarily carried out through JNCC on behalf of the country agencies. We will continue to provide advice and comments on proposed projects as requested.

***58. Through the aid programme support national development programmes in developing countries that aim at or involve the conservation and sustainable use of biodiversity; and assist developing countries to take action to conserve biodiversity in the global interest through the Global Environmental Assistance Programme.***

UK-level consultation on international issues is primarily carried out through JNCC on behalf of the country agencies. We will continue to provide advice and information where required.

***59. Encourage individual Dependent Territories to develop strategies for biodiversity conservation, including updating existing legislation and developing new legislation to protect species and habitats as appropriate.***

JNCC, on behalf of the country agencies, advises Government on biodiversity issues in Dependent Territories for which HMG has international responsibility. This includes the implementation of international conventions, for which UK ratification has implications for many Dependent Territories.

In recognition of the fact that knowledge of the biodiversity of Dependent Territories is incomplete, JNCC has commissioned the

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