



Strasbourg, 10 September 2003  
[Inf11e\_2003.doc]

**T-PVS/Inf (2003) 11**

CONVENTION ON THE CONSERVATION OF EUROPEAN WILDLIFE  
AND NATURAL HABITATS

**Standing Committee**

23<sup>rd</sup> meeting  
Strasbourg, 1-4 December 2003

---

**Report on  
the implementation of the Bern Convention  
in Ireland**

*Document*

*prepared by*

*Mrs Clare Shine, Consultant in Environmental Policy and Law,  
37 rue Erlanger, 75016 Paris, tél/fax: 01 46 51 90 11, clare.shine@noos.fr*

*This document will not be distributed at the meeting. Please bring this copy.  
Ce document ne sera plus distribué en réunion. Prière de vous munir de cet exemplaire.*

## CONTENT

<b>Acknowledgments</b> .....	4
<b>Glossary and abbreviations</b> .....	5
<b>Author's note</b> .....	5
<b>1. Context for nature conservation in Ireland</b> .....	6
1.1. Physical and socio-economic context .....	6
1.2. Institutional framework .....	7
1.2.1 Department of Environment and Local Government.....	7
1.2.2 Other departments and agencies with relevant functions.....	7
1.2.3 Cross-sectoral coordination.....	9
1.2.4 Transboundary cooperation.....	9
1.3. Policy and legal framework .....	9
1.3.1 Biodiversity and landscape .....	9
1.3.2 Other sectoral strategies .....	10
1.3.3 Access to environmental information .....	11
1.4. Non-governmental organisations and the private sector .....	11
<b>2. Conservation of natural areas</b> .....	12
2.1. Habitat diversity in Ireland .....	12
2.2. National designations and tools .....	13
2.2.1. Natural Heritage Areas: the new national framework .....	13
2.2.2. National parks .....	14
2.2.3. Nature reserves .....	14
2.2.4. Management agreements .....	15
2.2.5. Common safeguards for designated areas.....	15
2.3. European sites (Special Areas of Conservation and Special Protection Areas).....	16
2.3.1. Legal framework.....	16
2.3.2. Current position and outstanding issues .....	16
2.4. Acquisition of land for conservation.....	18
2.5. Cooperation on transboundary sites and ecosystems .....	19
<b>3. Conservation of species and their habitats</b> .....	20
3.1. Species diversity in Ireland .....	20
3.2. Protection measures for wild flora .....	21
3.3. Protection measures for wild fauna.....	22
3.3.1. Wild birds .....	22
3.3.2. Wild animals (other than birds) .....	23
3.3.3. Fish and aquatic invertebrate animals.....	24
3.3.4. Damage by protected wild birds and animals .....	24
3.3.5. Hunting management .....	25
3.4. Protection measures for species' habitats.....	26
3.5. Wildlife trade and transport .....	26
3.6. Introduction of non-native species .....	27
3.7. Re-introduction of native species .....	28

<b>4. Biodiversity considerations in other sectoral frameworks .....</b>	<b>29</b>
4.1. Spatial planning .....	29
4.2. Environmental impact assessments .....	30
4.3. Agriculture .....	31
4.4. Forestry .....	33
4.5. Water resource management .....	33
4.6. Coastal management.....	35
4.7. Energy generation .....	35
<b>5. Conclusions and Recommendations .....</b>	<b>34</b>

**ACKNOWLEDGMENTS**

We would like to thank Michael Canny, Dr Alan Craig, Chris O'Grady, Dr Ciaran O'Keeffe, Jim Kelly, Wesley Atkinson, Anthony McElheron, Val Swan, Colm Malone, and especially Peter Brazel, of Dúchas-The Heritage Service, of the Irish Department of Arts, Heritage, Gaeltacht and the Islands, for all the information that they provided, orally and in writing, to assist in the preparation of this report, and for their warm welcome during the consultant's visit to Ireland.

Thanks are also due to Karin Dubsky of Coastwatch Ireland and to Dr Peter Foss and Patrick Crushell of the Irish Peatland Conservation Council.

We would like to express our appreciation to the Government of Switzerland for its financial contribution to the realisation of this report.

**Disclaimer**

The opinions expressed in this report are those of its author and do not necessarily reflect the views of the Standing Committee of the Bern Convention or the Council of Europe.

## GLOSSARY AND ABBREVIATIONS

An Bord Pleanála	National Planning Appeals Board
Birds Directive	Council Directive 79/409/EEC of 2 April 1979 on the Conservation of Wild Birds
Bord na Mona	Irish Turf Development Board
Comhar	National Sustainable Development Partnership
Convention	Bern Convention
DAF	Department of Agriculture & Food (formerly Department of Agriculture, Food & Rural Development)
DCMNR	Department of Communications, Marine and Natural Resources (formerly the Department of the Marine and Natural Resources)
DOELG	Department of Environment and Local Government (has taken over several functions of the former Department of Arts, Heritage, Gaeltacht and the Islands)
Dúchas	The Heritage Service [within Department of Environment and Local Government]
EPA	Environmental Protection Agency
Habitats Directive	Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora
Habitats Regulations	European Communities (Natural Habitats) Regulations 1997 (S.I.No.94/1997)
IDG	International Designations Group
Minister	Minister for Environment and Local Government
NHA	Natural Heritage Area (designated under the Wildlife (Amendment) Act 2000)
NPW	National Parks and Wildlife Service (part of Dúchas)
PA	Principal Act (Wildlife Act 1976)
REPS	Rural Environmental Protection Scheme
SAC	Special Area of Conservation (Habitats Directive)
SPA	Special Protection Area (Wild Birds Directive)
turbary	Relating to peat or turf cutting
WAA	Wildlife (Amendment) Act 2000

## AUTHOR'S NOTE

Ireland ratified the Convention on 23 April 1982 and it entered into force on 1 August that year. No reservations or objections have been entered.

Many of the Convention's requirements have been restated and extended in recent international instruments, notably the Convention on Biological Diversity (CBD) which Ireland ratified in 1996, and in relevant EC Directives. The Standing Committee has recognised the Convention as a tool for regional implementation of the CBD and the Convention is represented at all CBD meetings.

This report reflects this broader context for implementation of the Bern Convention. It shows how Ireland is responding, across different sectors, to international and European requirements and outlines:

- the physical, socio-economic and legal and institutional context (Part 1);
- area- and species-based conservation measures (Parts 2 and 3);
- measures to integrate nature conservation in other sectoral frameworks (Part 4).

Ireland's dramatic economic growth in recent years has created very positive opportunities for the country but presents major challenges for those involved in environmental management and conservation. There has been a huge amount of policy and legislative change in the last five years: this report recognises the difficulties encountered and the commitment by the various stakeholders to make new frameworks operational. It is hoped that the report may provide useful insights and information particularly to other European countries that are upgrading their legal and policy systems and dealing with rapid economic growth.

The report was prepared through a desk study of legislation, strategies, departmental and national reports and available literature, and through a series of interviews within Dúchas in November 2001 and visits to designated coastal and peatbog sites. It was revised in November 2002 to take account of government and institutional reorganisation after the general election in June 2002.

# 1. THE CONTEXT FOR NATURE CONSERVATION IN IRELAND

## 1.1 Physical and socio-economic context

The Republic of Ireland, situated in north-west Europe, is bounded on the west and south by the Atlantic Ocean, on the north by Northern Ireland, and to the east by the Irish Sea, which separates the island of Ireland from Great Britain. It covers 70,282 km<sup>2</sup> and its estimated population is 3.7 million.



Only 5% of the land rises above 300m, mainly in coastal mountain ranges that surround a relatively flat calcareous plain. Inland surface waters cover about 2% of the country's total area, including some 6,000 lakes. Several rivers have extensive flood-plains and some provide important fish spawning grounds. The lengthy coastline (over 7000km for the island of Ireland) is heavily indented, particularly along the western seaboard.

Ireland's climate is relatively windy, mild and moist. This, together with varied geology and topology and relatively low intensity resource use, contributes to high diversity of wetland habitat types. Species diversity is also highest for wetland-dependent and marine species.

Agriculture has long shaped Ireland's countryside. For historic reasons, demand for arable ground, timber and fuel led to clearance of native vegetation and nearly all indigenous forest (Ireland has proportionally the smallest native woodland area of any EU Member State). Over 70% land is used for agriculture, which makes it the most important sector as regards countryside management and possible impacts on biodiversity.

Ireland is relatively rural compared to many European countries, but its economy expanded rapidly in the 1990s (hence the nickname of 'Celtic Tiger'). Implications for nature and landscape include:

- accelerated migration towards urban and coastal centres and major infrastructure, residential and recreational development. 60% of the population now live in centres of more than 1000 people;
- increased pressure on coastal and marine areas, for tourism, aquaculture (now accounts for 25% of Ireland's fish production), sea fishing, off-shore gas and oil exploitation and maritime transport;
- intensified agricultural production: pesticide use and sheep densities doubled in 20 years, leading to a significant decrease in water quality and serious overgrazing with major impacts on blanket bog and other fragile habitats through vegetation loss and erosion (see 4.3);
- expansion of plantation forestry: acidification from conifer plantations has affected some poorly-buffered upland lakes and fish and invertebrate populations.

In 1999, Ireland identified its main environmental challenges as:

- meeting commitments to control greenhouse gases and other emissions to the atmosphere;
- halting the decline in the quality of rivers and lakes caused by excessive inputs of nutrients;
- reducing and managing waste;
- protecting the urban environment from degradation due to transport and other pressure;
- protecting the natural resources of the countryside, coastline and marine areas and their flora and fauna; and
- improving the strategic management of land use.

(Community Support Framework for Ireland 2000-2006, negotiated as part of the new round of EU Structural Funds).

## 1.2 Institutional framework

Following the formation of the new Irish Government in June 2002, several ministerial and departmental responsibilities were changed. This report refers to the new institutional arrangements but also indicates the ministry/department that previously carried out the functions concerned (see also Table of Abbreviations).

### 1.2.1 Department of Environment and Local Government (DOELG)

Responsibility for implementing the Bern Convention, other international instruments and national heritage policy was conferred on the Minister for Environment and Local Government in June 2002. Prior to this, nature conservation was handled by the Department for Arts, Heritage, Gaeltacht and the Islands<sup>4</sup>, whose Statement of Strategy 1998-2001 set five objectives:

- conservation of a representative range of ecosystems and maintenance and enhancement of populations of flora and fauna in Ireland;
- designation, control and supervision of European sites and natural heritage areas, in consultation with interested parties;
- preparation of a National Biodiversity Plan and arrangements to ensure its implementation;
- management, maintenance and development of National Parks and Nature Reserves;
- development of policy in relation to protected areas and biodiversity-related matters.

At the operational level, nature conservation continues to be administered by Dúchas-the Heritage Service, now an integral part of the DOELG. Within Dúchas, the National Parks and Wildlife Division (NPW: see Figure 1) and the Heritage Policy Division set, implement and coordinate policy and legislation to achieve these objectives.

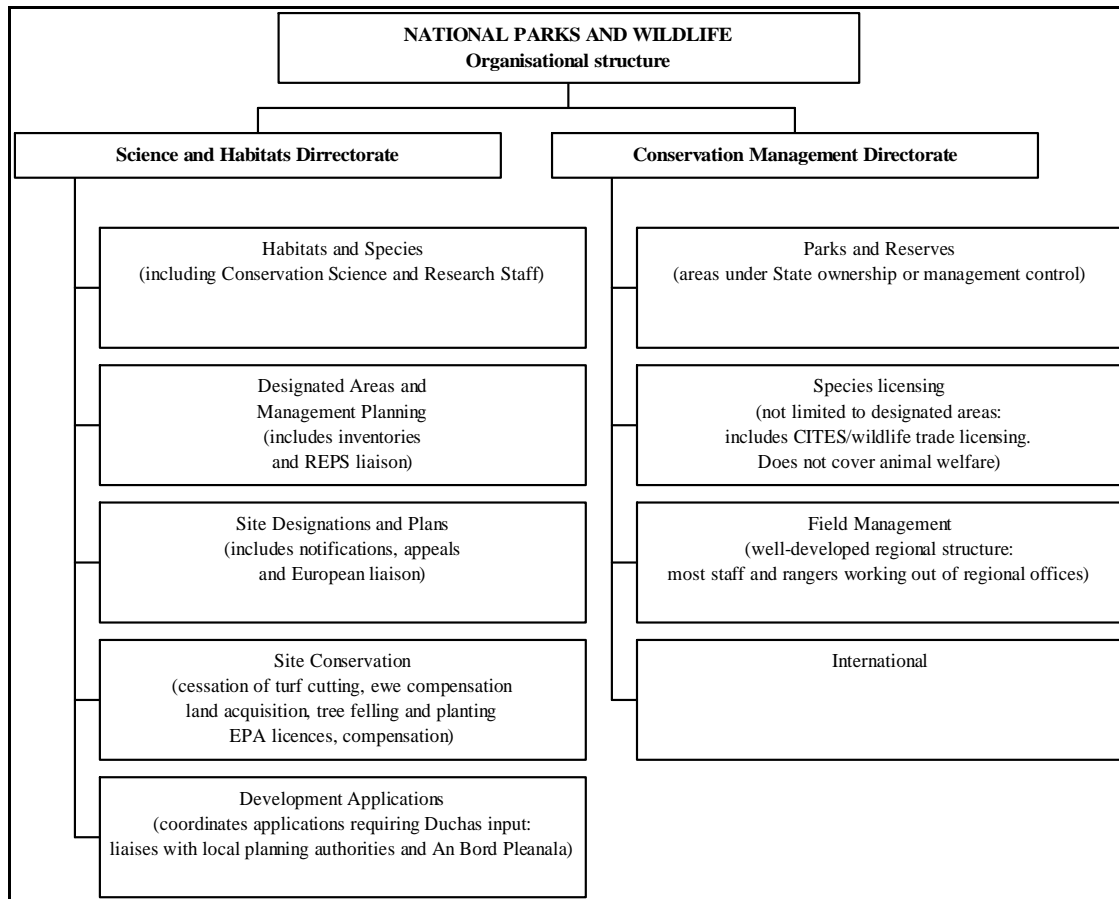



---

<sup>4</sup> This department has now been abolished and its responsibilities divided among a number of other departments.



**Figure 1: Organisational structure of National Parks and Wildlife Division**



The DOELG's remit also includes planning and environmental assessment, landscape policy, water quality, pollution control and climate change issues. DOELG defines policies and standards, prepares legislation and develops guidelines to coordinate actions by local authorities and relevant public bodies.

Local planning authorities<sup>5</sup> have important powers for land-use and environmental management (see 4.1). Planning appeals are heard by An Bord Pleanála, an independent statutory corporation established in 1976.

The work of the DOELG is supported by two independent public bodies:

- The Environmental Protection Agency (EPA), established in 1993, monitors environmental quality, handles integrated pollution control licensing and advises public bodies and local authorities on environmental protection. The OECD has recommended that the EPA play a more prominent role in local authority licensing and in local capacity building.<sup>6</sup>

•

The Heritage Council, established under the Heritage Act 1995, defines priorities for identification, protection and enhancement of wildlife, archaeology, architecture and inland waterways. It includes a statutory committee on wildlife. The Council now appoints and part-funds local heritage officers.

### 1.2.2 Other departments and bodies with relevant functions

- *Agriculture, rural development and forestry*

<sup>5</sup> There are 88 (29 County Councils, 5 County Borough Corporations, 5 Borough Corporations, 49 Urban District Councils).

<sup>6</sup> OECD 2000. *Environmental Performance Review: Ireland*.

The Department of Agriculture & Food (DAF) implements the EC Common Agricultural Policy (CAP), including measures to address pollution from agricultural sources (see 4.3). It is assisted by Teagasc (Agriculture and Food Development Authority), an independent agency.

- The Forestry Division of the Department of Communications, Marine and Natural Resources (DCMNR) is responsible for forest policy, funding, research and felling licences. Coillte Teoranta (Irish Forestry Board) is a state sponsored commercial company charged with the management and development of state owned forests (80 % forest area). Some eleven forest parks and nearly 200 smaller forests are now open to the public. *Fisheries, aquaculture and the marine environment*

DCMNR develops and coordinates management and conservation policies for sea and inland fisheries, aquaculture and fish processing. It is also responsible for harbour and foreshore development, dumping at sea, marine pollution, shipping and implementation of relevant conventions.

The Central Fisheries Board and Regional Fisheries Boards have operational responsibility for management of inland fisheries and sea angling; conservation and protection of fish stocks and their habitat; optimising fisheries' amenity, recreational and environmental values; and some enforcement of pollution controls. A Director of Dúchas is currently a nominated member of the Central Fisheries Board.

### 1.2.3 Cross-sectoral coordination

The Environmental Network, an inter-ministerial committee, promotes information exchange and supports environment units in major departments. Task Managers in each sector lead implementation of the National Sustainable Development Strategy (see 1.4.2). An independent Biodiversity Steering Committee, composed of focal points in departments whose activities may affect biodiversity, coordinates CBD implementation.

Comhar (National Sustainable Development Partnership) was established in 1999 to provide a forum for consultation between the State, economic sectors, non-governmental organisations, academics and the public. It promotes national consensus for sustainable development, evaluates progress and assists in developing effective mechanisms for environmental management and protection.

### 1.2.4 Transboundary cooperation

Cooperation between the Republic of Ireland and Northern Ireland (UK) was formalised under the Belfast Agreement of 10 April 1998. This established a North/South Ministerial Council with power to develop common policies on topics with a cross-border and all-island benefit (including animal and plant health, environment, inland waterways, inland fisheries and marine matters). The Council's Environment Sector has initiated cooperative work on environmental research, an environmental information database and the development of catchment strategies for water quality (see 4.5).

The British Irish Council, established under the Agreement, comprises representatives of the Irish and British Governments and the devolved administrations of Northern Ireland, Scotland and Wales as well as the Isle of Man, Jersey and Guernsey. It provides a forum for information exchange and closer cooperation on environment matters.<sup>7</sup>

The international Designations Group (IDG) is a more informal arrangement which has operated for many years. Representatives of Ireland through Dúchas, Northern Ireland, England, Wales and Scotland meet to discuss and cooperate on environmental issues of mutual concern. The Group is principally concerned with environmental designation issues but also addresses other issues as the need or interest arises.

## 1.3 Policy and legal framework

### 1.3.1 Biodiversity and landscape

---

<sup>7</sup> In 2000, the first BIC Ministerial meeting on the Environment agreed to focus initial work on impacts of climate change, waste management and radioactive waste from Sellafield (nuclear station on the UK's west coast). It supported intergovernmental cooperation on management measures for the Celtic Seas.

The Wildlife Act 1976 covered many aspects of nature conservation but predated nearly all modern conservation treaties as well as the EC Birds and Habitats Directives. The Wildlife (Amendment) Act 2000 strengthens the 1976 Act and provides a legal basis to ratify and implement CITES (see 3.5) and the African-Eurasian Migratory Waterbird Agreement. Supported by a series of regulations to implement EC Directives, the Wildlife Acts<sup>8</sup> are the main statutes for protection of flora and fauna and the control of activities that may adversely affect their conservation.

Key elements of the amended legal framework include:

- legal recognition for the concept of biodiversity;
- statutory protection for Natural Heritage Areas, stronger measures for other designations (see 2.2);
- stronger protection for species and their habitats, including control of wildlife trade, introductions of alien species and a regulatory system for commercial shoot operators (see 3);
- stronger investigation and enforcement procedures and increased penalties for wildlife offences, including the possibility of prison sentences.<sup>9</sup>

The National Biodiversity Action Plan was published in 2002, after some public consultation. It reviews Irish biodiversity at four levels (landscape/ecosystem, habitat/community, species, genetic) and outline measures for its conservation and enhancement. It proposes specific actions for the main sectors affecting biodiversity and supports cooperation with Northern Ireland on alien species, agricultural genetic resources, red data books, cross-border catchments and protected areas.

The National Heritage Plan was also published in 2002. This is the first integrated plan to set out priorities, strategies and actions for both built and natural heritage.

### 1.3.2 Other sectoral strategies

*Sustainable Development: A Strategy for Ireland* (1997) sets out environmental objectives and measures to be included in action programmes for sustainable agriculture, forestry, use of marine resources, energy policy, industrial development, transport and tourism. It encourages each local authority to complete Local Agenda 21 Plans and provides for the creation of a national and regional network of Local Agenda 21 Officers. The Strategy is led by DOELG and periodically reviewed on the basis of departmental reports and Comhar's advice. Progress on implementation varies between sectors.

The National Development Plan 2000-2006 (NDP) is the 'umbrella' policy instrument, approved in 1999. It sets out policies to increase the capacity of Ireland's economy to maintain strong and sustainable output and employment growth and to ensure balanced regional and rural development.<sup>10</sup> It provides for increased investment in water and waste management and for more coordinated and effective land use that balances the needs of environment and development.

Several sectoral policy instruments have been or are being developed under the NDP.

Ireland's CAP Rural Development Plan 2000-2006<sup>11</sup>, approved by the European Commission in 2000, forms part of the NDP. It reflects Ireland's support for an integrated approach to rural policy, agriculture and the environment, acknowledges problems linked to limited environmental awareness and sets out specific management and training measures for the agriculture and forestry sectors (see 4.3-4).

The National Greenhouse Gas Abatement Strategy was published in November 2001. The strategy, led by DOELG, is cross-sectoral and several departments share responsibilities for implementation.

<sup>8</sup> The two texts are cited as the Wildlife Acts 1976 and 2000 and construed together as one (s.1(2), WAA). This report cites PA section numbers (Principal Act 1976, with reference to amending sections of the WAA as appropriate).

<sup>9</sup> ss.70-78 PA, amended ss.64-71 WAA.

<sup>10</sup> Particularly in view of reduced EU structural funding, compared to the period 1994-1999.

<sup>11</sup> Developed in accordance with Council Regulation (EC) No. 1257/99 on Support for Rural Development.

The draft National Spatial Strategy meets an NDP commitment to provide a framework for balanced regional development over the next two decades.<sup>12</sup> It aims to guide infrastructural, industrial, residential and rural development while providing protection for Ireland's cultural, natural and environmental heritage. A consultation paper *Indications For The Way Ahead* was launched in September 2001<sup>13</sup>. Policy options for the various issues are being finalised.

### 1.3.3 Access to environmental information

Ireland has effective arrangements to facilitate public access to environmental information. Pursuant to the Freedom of Information Act 1997, DAHGI publishes free guides on *Functions and Records* and *Rules and Practices* which give straightforward explanations about responsibilities, criteria and procedures related to natural areas and wild species.

Much information is available through well-presented and accessible websites, which have been upgraded significantly over the last year. The DAHGI site (<http://www.ealga.ie/en/>) provides factual information on site designations, ecological characteristics of European sites and species licensing procedures (but not much background information on species). All licence forms can be downloaded. Technical datasets on all designated sites are available on <http://www.heritagedata.ie/en/index.html>.

Environmental education materials are disseminated free by Ireland's public information service on environment and sustainable development (ENFO: see <http://www.enfo.ie/>).

### 1.4 Non-governmental organisations and the private sector

Conservation NGOs in Ireland have a shorter tradition than in some European countries but play a growing role in policy and implementation matters. There are five main NGOs, who cooperate formally on matters of joint concern<sup>14</sup>:

- **An Taisce (National Trust for Ireland)** aims “to protect Ireland's heritage for future generations for the benefit of all the people”. It holds a small number of natural properties for long-term conservation and has the formal right to comment on sensitive planning applications (as a “prescribed body” designated under planning legislation).
- **Birdwatch Ireland** (member of BirdLife International) works for conservation of wild birds and their habitats throughout Ireland, manages some nature reserves and conducts research. It administers the Irish Rare Birds Committee, which maintains a list of the birds recorded in the Republic in cooperation with the Northern Ireland Birds Association Records Committee.
- **Coastwatch Ireland** focuses on policy for integrated coastal zone management, protection of coastal wetlands and coastal erosion and pollution issues (e.g. waste oil reception facilities in ports).
- **Irish Wildlife Trust** (formerly the Irish Wildlife Federation) conducts species-specific programmes for terrestrial and marine wildlife, education, research and policy campaigns.
- **Irish Peatland Conservation Council** aims to conserve a representative sample of intact Irish bogs and peatlands and safeguard their diversity. It works with Government, the EU, the private sector and local groups to raise funds to purchase, manage and restore bogs and conducts bog education and public awareness campaigns.

At the policy level, NGOs do not always have a well-established ‘partnership’ role and some aspects of the government-NGO relationship are quite adversarial. However, linkages are becoming more systematic which should contribute to greater trust and cooperation. Nationally, NGOs are now represented within Comhar and on the Appeals Advisory Board for European sites (see 2.3).

In the field, NGOs play a prominent role through surveys, monitoring and/or management: e.g. Birdwatch Ireland is joint lead partner in the action plan for the Corncrake, *Crex crex*, and carries out joint conservation and research work with NPW on important tern colonies. The NGO community often compiles and holds important information. For example, there is no official national survey of

<sup>12</sup> The Strategy will also take account of the European Spatial Development Perspective, agreed in 1999 by the 15 EU Ministers responsible for spatial planning.

<sup>13</sup> In conjunction with the launch of the dedicated website, [www.irishspatialstrategy.ie](http://www.irishspatialstrategy.ie).

<sup>14</sup> E.g. on site designation issues since 1999, including production of a shadow list of potential European sites in Ireland.

fens, but the IPCC published the Irish Fen Inventory Report in 2000<sup>15</sup>, and the IWT has undertaken hedgerow surveys. Both projects are funded by the Heritage Council.

NGOs may bring legal proceedings in the event of anticipated or actual damage to protected habitats or species: e.g. Coastwatch Ireland has applied for judicial review of several administrative decisions affecting coastal wetlands important for migratory birds.

The private sector in Ireland does not seem to be prominently engaged in projects to promote habitat or species conservation. One example of private sponsorship is the People's Millennium Forests Project, managed by Coillte, with AIB Bank as a major sponsor along with the National Millennium Committee. It is the largest woodland restoration programme undertaken in Ireland. Sixteen sites (14 in the Republic, two in Northern Ireland, covering 570 ha) will be planted with native trees.

## **2. Conservation of natural areas**

### **2.1 Habitat diversity in Ireland**

Ireland's wetlands are significant for their range of habitat types, the species they support and their economic and cultural benefits.

**Peatlands** are important at the European and global levels, but only about 220,000 ha remain in original condition compared to a former 1.3 million ha. Maintenance of a high water table is essential to prevent drying of the plants forming the peat and potentially irreversible ecological changes in vegetation. Blanket bog, which shapes the character of many upland areas, is threatened mainly by overgrazing and mechanical peat extraction for domestic fuel. For raised bogs, characteristic of the Irish Midlands, over 90% of the estimated original extent has been damaged or destroyed, mainly due to commercial extraction for fuel supply, electricity generation or horticulture and clearance for afforestation, agriculture or reclamation. In addition, small-scale peat extraction has been mechanised and considerably intensified over the last 20 years, with serious loss of bogland of conservation interest.

**Other wetland habitat types** include flood plain fens, reed swamps, valley and basin fen, flush fens, petrifying springs and turloughs (temporary lakes found only in Ireland, mainly found in western limestone areas). Threats include drainage and reclamation for landfill, road schemes and building land.

#### **Other significant habitat types include:**

- limestone pavements (exposed areas of almost bare limestone with shallow skeletal soils, occurring in the west, particularly the Burren region) and marl lakes. Main threats are reclamation, quarrying and use for gardening and construction;
- grasslands: lowland esker grasslands and moraines, consisting mainly of gravels and sands, are threatened by quarrying and agricultural improvement, but less now by drainage. Pasture and heath grasslands may be threatened by conversion to intensive grassland, commercial afforestation and, for upland grasslands, by overgrazing;
- natural or semi-natural woodlands, of which relatively few remain;
- sand dune systems and machair (a mosaic of dunes, grassland and wetland, grazed by sheep and cattle: important for Red Data book species such as corncrake, dunlin and red-necked phalarope). Threats include tourist and recreational development, some farming practices and removal of shingle and sand;
- other coastal and marine habitats: coastal lagoons, sea loughs, tidal bays and estuarine sites and cliff sites and shingle spits of importance for seabirds. Marine habitat protection is essential to sustain the harvesting of commercially important fish, crustaceans and molluscs.

There are some gaps in baseline data on habitat and species distribution in Ireland and limitations on monitoring capacity and development of indicators.<sup>16</sup> Surveys have been carried out for raised and

<sup>15</sup> This records 785 species of flora and fauna on Irish fens and identifies 65 new fens of conservation interest.

<sup>16</sup> *Ireland's Environment: A Millennium Report* (EPA, 2000).

blanket bogs, turloughs and marine habitats, but need further development for fens, wet grasslands, lakes and rivers and upland sites. NPW is developing a standard format for information collection, coordination and management, which should facilitate access to and use of existing data.

## 2.2 National designations and tools

Ireland now has a comprehensive framework for conserving different categories of natural areas, although at the operational level survey and notification procedures are still ongoing. The system is basically two-pronged:

- the Wildlife Acts cover the designation and protection of nationally important sites (nature reserves, Natural Heritage Areas, refuges for fauna and flora);
- the Regulations transposing the EC Birds and Habitats Directives cover the designation and management of European sites (which will be included in the NHA network) (see 2.3).

Area-based designations can also be made under planning legislation on scenic/amenity grounds (see 4.1) and for fisheries areas sensitive to the effects of commercial forestry (see 4.2).

A relatively small percentage of the total protected area estate is dedicated to strict nature conservation or is under direct management control for conservation purposes. For most sites, maintenance of ecological character depends on a mix of tools (statutory environmental and/or planning rules, site management planning, incentive or compensation measures).

**Figure 2: Main categories of protected areas in 2002<sup>17</sup>**

Designation	Objectives	No.sites	Coverage (ha.)	Ownership and protection regime
Natural Heritage Areas (NHAs)	Protection of flora, fauna, habitats and geological sites of national importance	1,100+	1 million ++	Public or private ownership. Statutory protection to prevent habitat damage.
National Parks	Nature conservation and public use and appreciation	6	59,060	State ownership (minor exceptions). No statutory protection.
Nature Reserves	Conservation of species and habitats	77	Approx. 18,000	Public or private (66 are State owned). Statutory protection, wardening
Special Protection Areas (SPAs)	Conservation of birds and their habitats of European importance	111	Approx. 230,000	Public or private. Statutory protection to prevent habitat damage.
Special Areas of Conservation (SACs)	Conservation of flora, fauna and habitats of European importance	364	Approx 1 million	Public or private. Statutory protection to prevent habitat damage.
Sanctuaries	Hunting prohibited	68	n/a	Statutory enforcement of hunting controls
Refuges for flora or fauna	Conservation of the habitat of named species	7	n/a	Statutory protection for named species

### 2.2.1 Natural Heritage Areas: the new national framework

The NHA network covers areas “worthy of conservation for one or more species, communities, habitats, landforms or geological or geomorphological features, or for [their] diversity of natural

<sup>17</sup> Sites with international designations always have a national designation. Ireland currently has 45 Ramsar sites, 2 World Heritage sites, 2 Biosphere Reserves and 14 Biogenetic Reserves recognised by the Council of Europe.

attributes".<sup>18</sup> The 1100 proposed sites will include all other nature conservation designations, including European sites, as well as sites proposed for NHA status only (e.g. fossil sites).

The network dates back to the 1960s, when ecological surveys of 'Areas of Scientific Interest' (ASIs) were initiated. By 1989, almost 1,500 sites were mapped. The concept of 'Natural Heritage Areas' was introduced in the 1990s on a non-statutory basis, and over 80% ASIs were re-surveyed by 1994. In 2000, the WAA established a statutory basis for NHA designation and management.

Proposed NHAs are publicised after consultation between NPW and competent authorities and notification to landowners. Objections may be made only on scientific grounds. Once a Natural Heritage Order is made, restrictions apply to the carrying out of works specified in the Order or that may destroy or significantly alter, damage or interfere with the features for which the site was designated. The Minister can apply for an injunction to stop works that may damage the NHA's integrity, even before designation procedures have been completed. This power also applies to works carried out outside the proposed NHA boundaries that may have such effects. Landowners who carry out such works may be required to restore the NHA. Compensation is available where consent for works is refused. NHA Orders may be registered in the Land Register and will then bind future purchasers.<sup>19</sup>

### **2.2.2 National parks**

There are six national parks, almost exclusively in State ownership (Killarney, Glenveagh, Connemara, Wicklow Mountains, The Burren and Ballycroy). Three have been established in the last ten years, with coverage more than doubling between 1983 and 1997. Further expansion is envisaged.

There is no national parks legislation, though this is planned. Parks are managed under the generic State Property Act 1954 and NPW policy is to apply the IUCN criteria and management standards for National Parks. Management plans are in place for all but the most recently-acquired park (Ballycroy). Many park lands are also designated as SACs under the Habitats Directive.

There is no statutory basis for involvement of local stakeholders in park management, but some informal initiatives are in place. The Consultative Committee on the Heritage of the Burren was established in 1999 to facilitate input of local views to official policies affecting the area. It is serviced by DOELG's Heritage Policy Division.

Nonstatutory liaison committees (representative of all stakeholders) have also been established for Killarney, Connemara and Wicklow National Parks. A working group representing local interests is currently engaged in planning the proposed visitor centre for Ballycroy National Park, Co. Mayo.

### **2.2.3 Nature Reserves**

Nature reserves are managed primarily for conservation of species, communities, habitats or any feature of geological, geomorphological or other natural interest.

State nature reserves may be established on public land, foreshore or seabed under an "establishment order". The relevant site should include, form or be capable of forming a habitat or part of an ecosystem of scientific interest, or contain the above-mentioned features of natural interest. The order should specify reasons for establishment and site management objectives. It should not be amended unless these objectives need amendment due to changes in the reserve's features, characteristics or boundaries.<sup>20</sup>

Public access to State-owned lands, foreshore and seabed nature reserves, and to other land held by the Minister for the purposes of the Wildlife Acts, may be permitted or restricted by regulations. Restrictions must be limited to measures necessary for conservation of wildlife, habitat or

---

<sup>18</sup> s.2, WAA.

<sup>19</sup> ss.16-23 WAA.

<sup>20</sup> s.15 PA, amended s.26 WAA.

geological/geomorphological features. Regulations are subject to prior consent of the Minister for the Marine and Natural Resources.<sup>21</sup>

Private reserves may be established, at the land occupiers's initiative, under a "recognition order" made on similar criteria.<sup>22</sup> Existing private reserves include Capel Island and Knockadoon Head (mixed coastal/marine) and Mongan Bog, Co.Offaly (owned by An Taisce).

#### **2.2.4 Management agreements**

The Minister may conclude agreements with owners/occupiers to ensure that land is managed in a manner that will not impair wildlife or its conservation. "Management" includes use of the land for agriculture, forestry, educational or recreational purposes; carrying out of works on, in or under the land; or making any change in the land's physical, topographical or ecological nature or characteristics.

Agreements may only be concluded after consultation with the Minister for Agriculture and Fisheries, the Commissioners for Public Works and the local planning authority. The owner/occupier may be paid a lump sum or annual payments in return for compliance with site-specific restrictions. Management agreements may be entered in the Land Registry and then run with the land.<sup>23</sup>

#### **2.2.5 Common safeguards for designated areas**

Certain safeguards apply to sites covered by establishment/recognition orders (reserves), designation orders (flora or fauna refuges, see 3.4 below), s.18 management agreements or NHA Orders.

Dúchas is a statutory consultee for planning and other matters that may affect designated sites. It may make recommendations to the relevant authority where it believes that proposed developments may negatively affect heritage. Dúchas has the right of appeal to An Bord Pleanála, under certain conditions, when its recommendations have not been accepted by a local authority.

Local authorities, Commissioners of Public Works, other Ministers and public agencies must consult the Minister before taking action that may affect or interfere with designated sites and take all practicable steps to avoid or minimise such interference.<sup>24</sup>

**Land drainage schemes** for areas that include designated sites or may affect them are subject to special scrutiny. The Commissioners for Public Works must consult the Minister to assess the extent to which the proposed scheme may affect the suitability of the land as a designated site, and take all practicable steps to minimise or avoid such effects, including where appropriate limitation of the scheme.<sup>25</sup>

**Burning of vegetation on uncultivated land** is restricted within one mile of designated areas and also woods and plantations (unless owned by the same landowner). Prior written notification must be given to the police, affected landowners and, for designated land, the Minister. The Minister/other recipient may object to the proposed burning if it may damage the wood or land concerned. It is also an offence to light a fire or do anything that may cause such vegetation to burn. Where damage to designated areas or woodland results from unauthorised or unlawful burning, this is deemed to have been caused by the negligence of the person responsible and the owner of land or woods may recover damages in court.<sup>26</sup>

### **2.3 European sites (Special Areas of Conservation and Special Protection Areas)**

#### **2.3.1 Legal framework**

---

<sup>21</sup> s.59 PA, amended s.62, WAA.

<sup>22</sup> s.16 PA, amended s.27 WAA.

<sup>23</sup> s.18, PA (unchanged by the WAA).

<sup>24</sup> s.12(2) PA, amended s.24(1) WAA. On planning, see also 4.1 below.

<sup>25</sup> s.43 PA, amended s.49 WAA.

<sup>26</sup> s.39 PA.



Regulations to transpose the EC Birds and Habitats Directives<sup>27</sup> provide for the designation of Special Protection Areas and Special Areas of Conservation. These form Ireland's contribution to NATURA 2000. These Regulations need to be read in conjunction with the WAA 2000.

NPW handles all stages of the site designation process. Protection measures apply from the time that candidate sites are notified to owners/occupiers, concerned ministries, planning authorities and holders of prospection or exploration licences.<sup>28</sup> The notification indicates operations or activities likely to alter, damage, destroy or interfere with the integrity of the site concerned. These may only be carried after prior notification.<sup>29</sup> Where likely to have a significant effect on the site alone or in combination with other operations or activities, they are subject to prior assessment.<sup>30</sup> Assessments are also required for damaging developments outside a European site that may affect that site. Permission for damaging developments can only be given for imperative reasons of overriding public interest and must be compensated for by appropriate measures, such as habitat improvement or possibly designation of alternative sites. Where consent is refused, compensation may be payable either for actual income losses (paid by DOELG) or through participation in the Rural Environment Protection Scheme (see 4.3).

If a site is damaged, NPW has powers to seek an injunction to stop the works and/or order the landowner to restore the site. It is an offence to carry out notifiable works on a site without Ministerial consent or to fail to carry out restoration works as directed by the Minister.

For planning applications that may affect European sites, authorities must ensure that an appropriate assessment is made of implications for the site's conservation interest. Permission may only be granted for developments that do not adversely affect the site's integrity, unless in the overriding public interest. Similar conditions apply to development planning and projects carried out by local authorities and to road development by a road authority.<sup>31</sup>

For activities outside the planning system, competent authorities responsible for licensing must take account of the Regulations when carrying out functions under other statutes and consult with the Minister.<sup>32</sup> Grant aid should be assessed for compatibility with site conservation objectives.

The Regulations provide for appeals on scientific grounds. Procedures include an independent non-statutory Appeals Advisory Board which was established as a user-friendly body to assist stakeholders. The Appeals Advisory Board has equal representation of landowner/user organisations and NGOs. There have been about 800 appeals: many of these concerned boundary definitions which in the early stages were less scientific and well-documented than is now the case. About 100 cases have gone to formal appeal: this stage is nearing completion for SACs.

### **2.3.2 Current position and outstanding issues**

The Habitat Regulations are controversial, as they make it possible to exercise control over activities outside the planning system (farming, forestry, peat extraction) and may affect development potential in high value areas (e.g. some natural coastal sites). Intensive negotiations have taken place with affected user groups, accompanied by a public information campaign. Local Liaison Committees have been set up for many SACs to involve stakeholders in preparing the required management plans. This is time-consuming, but the Irish authorities believe that the long-term viability of Natura 2000 depends on securing cooperation of those affected. Consultation is seen as a cultural necessity and an investment in future compliance.

---

<sup>27</sup> European Communities (Wildlife Act 1976) (Amendment) Regulations 1985, 1986; European Communities (Natural Habitats) Regulations 1997 (these are the most relevant as they also specify the protection measures applicable to SPAs).

<sup>28</sup> s.75 WAA (amending the Habitats Regulations which originally had legal effect from the date of advertisement in the regional press).

<sup>29</sup> Unless a management agreement has been concluded under Regulation 12 for the site.

<sup>30</sup> Regulations 14-15, Habitats Regulations.

<sup>31</sup> Regulations 27-30.

<sup>32</sup> Regulation 31. The Second Schedule lists statutes related to e.g. sea dumping, fisheries and minerals development.

The European Court of Justice (ECJ) ruled against Ireland, in proceedings initiated by the European Commission, for late transmission of its list of candidate SACs. The Court held that the Irish list was not exhaustive or definitive and omitted 26 natural habitat types of Community interest, including seven priority natural habitat types extensively represented within its territory (coastal lagoons, Atlantic decalcified fixed dunes (*Calluno-Ulicetea*), decalcified fixed dunes with *Empetrum nigrum*, active raised bogs, bog woodland, and *Taxus baccata* woods). The list also omitted sites for 20 species of Community interest, such as *Rhinolophus hipposideros*, *Phoca vitulina*, *Alosa fallax*, *Geomalacus maculosus* and *Margaritifera margaritifera*, of which Ireland has sizeable populations.<sup>33</sup>

The position has improved since this case was initiated, although more remains to be done. In 1999, extensive work was carried out on selection of marine candidate SACs and 33 sites were selected. By February 2002, 364 candidate SACs covering about one million hectares of land and water had been formally proposed to the European Commission. 25 new SPAs have recently been proposed as well as extensions to nine existing SPAs. SPA designations for dispersed species are currently under discussion with European officials.

Matters are still outstanding for two habitat types.

Salmonid waters were not originally proposed for designation, as NPW considered that fisheries legislation provided adequately for their conservation. In 1999, the first EU Atlantic Biogeographic Seminar<sup>34</sup> took a different view. NPW therefore began consultations to identify proposed sites with reference to: size of population; sites important for spring salmon which are

#### **Example of raised bog restoration**

The Raised Bog Restoration Programme, funded by the EU Cohesion Fund, identified restoration requirements for 46 sites and undertook acquisition and restoration works on 10 sites (mainly State-owned or areas with management agreements likely to be proposed as SACs). 235 km of drains were blocked and 1.3 km of large dams built to protect these sites. The Programme covered three sites in Co. Offaly designated as Ramsar sites, nature reserves and cSACs (Mongan, Clara and Raheenmore bogs). All are threatened by external activities that affect the water table as well as domestic peat cutting and drainage (Mongan), drainage and commercial peatcutting (Clara) and very deep marginal drainage (Raheenmore). Although the drain blocking/dam programmes had limited success, the sites are expected to continue to dry out gradually for as long as marginal drainage remains in place.

Bord na Mona, the Irish Turf Development Board, has carried out work on wetland restoration/creation in large machine cutaway raised bogs. It is estimated that somewhere between 12-20,000 ha. of cutaway will be eventually rehabilitated to woodland or wetland of various types.

<sup>33</sup> Case C-67/99, judgment delivered on 11 September 2001. In ongoing infringement proceedings (Case C-117/00), the Opinion delivered on 7 March 2002 found that Ireland had failed to adopt, within the prescribed period, the measures necessary to ensure the protection of a naturally occurring species in the wild state (Red Grouse, *Lagopus lagopus*). It had also failed to ensure, in accordance with the Birds Directive and the Habitats Directive, the conservation of an SPA (the Owenduff-Nepin Beg Complex), which shelters several species of wild bird and contains certain types of natural habitat of Community importance.

<sup>34</sup> This forum is the agreed process for evaluating Member State proposals. Ireland intends to publish any additional SAC proposals in one final tranche after taking the Second Biogeographic Seminar's conclusions into account and after the boundaries of salmon sites have been determined and are ready for notification to landowners.

genetically distinct and more threatened; geographic range; water quality; and significant presence of other listed habitats or species. By 2002, salmon had been listed as a qualifying interest in 14 existing candidate SACs and work was in progress to extend the boundaries of other cSACs to include salmon interests more fully and to propose five other river systems (Feale, Finn, Mulcair, Moy and Boyne).

For raised bogs, the Seminar held that too few cSACs were proposed (31 sites covering 8000 ha). The selection process for these sites has been particularly controversial and in some cases it was impossible even to establish a local liaison committee. NPW has not proposed further raised bog sites but is negotiating to phase out commercial peat cutting and/or acquire turbary rights in some sites. For domestic cutting, it has made payments to 104 owners of raised bog within cSACs under the Cessation of Turf-cutting Scheme. These payments confer an option to purchase the land for a nominal amount: such options are currently being exercised and the sale contracts finalised.<sup>35</sup>

Another important question concerns external processes and activities which can be as great a threat to wetlands as direct habitat loss. If NPW's powers to comment on planning and licensing applications are to work well, all concerned agencies need to ensure that external programmes and projects with potentially damaging impacts are actually identified and notified in a timely way to NPW. NPW has organised information meetings with local authorities to advise them of their obligations in respect of SACs. However, staff constraints and lack of scientific personnel at the local level make it difficult to ensure adequate oversight and consultation.

#### **Example of external programme impacts on internationally important wetlands**

The proposed Kildare by-pass would generate major hydrological effects on Pollardstown Fen 6km away, as it would cut into the aquifer which supplies the Fen with nutrient rich water. The Fen (Ireland's largest spring fed fen at 220 ha) is a Ramsar-listed nature reserve, has three Annex I habitats (alkaline and calcareous fen, petrifying springs with tufa formation) and provides habitat for listed species (*Drepanocladus vernicosus*, *Vertigo geyeri* and *Lutra lutra*).

At the public inquiry in 1993, Dúchas-NPW made a submission on the possible negative effects of the cutting on Pollardstown Fen. In January 1996, on the basis of the public inquiry inspector's report, the Minister for the Environment approved the scheme on certain conditions: raising the road level in the cutting by two metres; implementation by Kildare County Council, in consultation with NPW and other interested parties, of a monitoring programme to assess the effect of the road scheme on the Curragh aquifer and the Fen; and the taking of any remedial measures shown to be necessary.

In 1998, preliminary work on the site was halted by the European Commission, following a complaint made by An Taisce. Further mitigation measures have been considered, including sealing the sunken road in a plastic membrane. However, concerns about major biodiversity impacts and lack of public consultation have been expressed by the Inland Waterways Association and some NGOs.

## **2.4 Acquisition of land for conservation**

NPW has an active policy of land acquisition. This is mainly focused on raised bogs and on national parks, where land around core zones is targeted for purchase when it comes onto the market. In Connemara National Park, for example, shares are held in additional land in the Roundstone Bog complex for future development as a separate southern unit of the park. The Irish State is in the process of purchasing large areas of the Owenduff-Nephin Beg Complex which forms part of the target area of the Ballycroy National Park.

Acquisitions are carried out by agreement. There are no powers of compulsory purchase or preemption (first refusal) for conservation purposes.

<sup>35</sup> See also 4.2 on changes to EIA regulations regarding peat extraction from designated areas.

NGOs play an important but limited role in site ownership and management. Some acquire natural areas for conservation (e.g. IPPC owns or manages five peatland sites) but the concept of NGO-landowner is less developed than in some European countries.<sup>36</sup> Although funding may be available from national sources on a case-by-case basis, there seem to be no tax incentives to assist NGOs to acquire land for conservation. However, NGO properties are exempt from rates unless used for profitable purposes.

Interesting examples of public/private cooperation for specific sites include:

- **joint public-NGO ownership** (e.g. Wexford Wildfowl Reserve and Puffin Island Reserve (Co.Kerry) are jointly owned by NPW and Irish Wildbird Conservancy);
- **joint management** (e.g. Bootertown Nature Reserve (Co.Dublin) is jointly managed by Birdwatch Ireland, the Heritage Council, An Taisce local associations and local communities, with funding provided by local sponsorship);
- **acquisition by NGO, subsequent transfer to NPW** (e.g. Scragh Bog (Co.Westmeath) was purchased by the IPPC with funds from the Dutch Foundation for the Conservation of Irish Bogs, and then transferred to the State for management as a Nature Reserve);
- **transfer between public agencies** (e.g. several important raised bogs owned by Bord na Móna, including Redwood Bog (Co.Tipperary/Munster), were transferred to NPW in the early 1990s);
- **conclusion of a management agreement** where an attempted acquisition does not succeed (e.g. IPPC failed to acquire Sheheree Bog, but negotiations paved the way for s.18 management agreement between the site owner and NPW).

Site acquisition can be a catalyst for progressive modification of land-use around the site. For example, following IPPC's acquisition of Beal an Chuain Bog (Co.Galway) in 1996, the competent authority changed the use classification on the adjacent bog (Clochar na gCon) from turbary to education/amenity. This effectively protected over 400 additional hectares. NPW subsequently negotiated with a local cooperative to buy turbary rights to an additional 182ha. Site management is now overseen by a Management Group on which the different interest groups are represented.

## 2.5 Cooperation on transboundary sites and ecosystems

The Republic of Ireland and Northern Ireland consult on site designations through the International Designations Group (see 1.2.4). There is scope to designate additional cross-border areas of conservation importance: e.g. some border sites such as Carlingford Lough have been designated as Ramsar sites by Northern Ireland but not yet by the Republic although this is under consideration.

The need for closer coordination is generally accepted, particularly for river and coastal ecosystems. Joint Water Quality Management Strategy Plans have been developed for the Erne and Foyle crossborder catchments and their linking canals (see also 4.5).

The Belfast Agreement 1998 (see 1.2.4) established North/South Implementation Bodies to implement policies agreed in the Council. These include Waterways Ireland and the Foyle, Carlingford & Irish Lights Commission. The latter covers transboundary sea loughs on the east coast: once legislation is in place, its responsibilities will include inland fisheries, aquaculture, marine tourism and recreation

Initiatives for cooperation may also include progressive steps to build familiarity and trust between border communities living in or close to designated areas and ecosystems. The potential for

---

<sup>36</sup> E.g. An Taisce - unlike the UK National Trusts or Natuurmonumenten in the Netherlands - is not primarily a property-owning organisation and has no ongoing policy for site acquisition.

transboundary protected areas to contribute to peace and cooperation, an emerging theme in international policy<sup>37</sup>, may be particularly relevant to the island of Ireland.

### 3. Conservation of species and their habitats

#### 3.1 Species diversity in Ireland<sup>38</sup>

Ireland has 1,309 species of vascular plants, of which 815 are native. This is only 11% of the total number of European species, but many plant communities are ecologically highly significant. *Limonium paradoxum*, listed under the Convention, occurs in Ireland, as do eight species listed in the European Red Data Book: *Deschampsia setacea* (Bog hair grass); *Eriophorum gracile* (slender cotton grass); *Hammarbya paludosa* (bog orchid); *Hypericum canadense* (Irish St. John's wort); *Najas flexilis* (slender naiad); *Spiranthes romanzoffiana* (Irish lady's tresses); *Pyrola rotundifolia ssp maritima* (round leaved wintergreen); and *Trichomanes speciosum* (Killarney fern).

For other plants, areas of particular diversity include:

- **fungi** (3500 species recorded, but the total may be over 7000). There is no Red Databook. Threats include loss of old deciduous woodland and grassland linked to farming/forestry and development.
- **lichens** (1050 taxa from 223 genera, accounting for about 30% of European taxa: 34 are regarded as threatened in Europe). A Red Data book is being finalised. Air pollution is the biggest threat.
- **bryophytes** (533 mosses and 226 liverworts, a high percentage of European flora). One third are listed in the Red Data Book of Britain and Ireland for Bryophytes: an Irish Red Data Book is under preparation. Threats include habitat damage from commercial peat extraction and pollution.
- for **algal species**, 524 species of marine macro-algae and 181 species of marine phytoplankton have been recorded. There are 25 species of stoneworts (10% of the global figure) and an estimated 700-1,000 species of desmids (freshwater micro-algae).

Ireland's fauna is not very extensive, but contains several endemic species and sub-species as well as species with limited distributions elsewhere in Europe.

The 31 mammal species include red deer, fox, badger, red squirrel, otter, pine marten, Irish hare (*Lepus timidus*) and Irish stoat (*Mustela erminea hibernica*, a sub-species found only in Ireland and the Isle of Man). The seven native bat species include Europe's highest populations of lesser horseshoe bat *Rhinophus hipposideros* and leisler's bat *Nyctalus leisleri*.

380 species of wild birds are recorded in Ireland, 135 of which breed. In the countryside, populations in serious decline include Grey Partridge, Barn Owl, Yellowhammer, Corncrake and Lapwing. Contributing factors include habitat conversion, intensification of farming and hedgerow cutting.

Ireland provides winter refuge for internationally important populations of migratory waterbirds, including 75% of the world population of the Greenland whitefronted goose<sup>39</sup> and Red Data Book species such as garganey, gadwall, pintail, shoveler and pochard. The Irish Wetland Bird Survey (I-WeBS), a joint project of NPW, BirdWatch Ireland and the Wildfowl and Wetlands Trust, monitors these species annually and provides data for site designations.

Breeding seabirds include five species of terns (Annex I, Birds Directive), with a combined population of about 10,000 pairs. The Seabird 2000 Project, a survey for Ireland and Britain between 1999-2001, indicates that most species of breeding seabirds are doing well, but some large gull populations have seriously declined (possibly linked to mortality from botulism). Ireland and Wales cooperate on protection of Roseate Tern breeding populations.

<sup>37</sup> See e.g. *Transboundary Protected Areas for Peace and Co-operation* (IUCN 2001. Best Practice Protected Area Guidelines Series No.7)

<sup>38</sup> For further details, see Ireland's First National Report to the Convention on Biological Diversity.

<sup>39</sup> Ireland is a signatory of the African Eurasian Waterbird Agreement and is committed to finalisation of the International Conservation Plan for this species.

Ireland has only three species of amphibia, including the rare Natterjack toad *Bufo calamita* and the common frog, *Rana temporaria*. There is one native terrestrial reptile, the common lizard, and no snakes. Gastropods of conservation interest include the Kerry slug *Geomalacus maculosus*, Edible snail *Pomatias elegans*, *Oxychilus helveticus*, *Cochlodina laminata*, *Arion lusitanicus*, *Ashfordia granulata*, *Catinella arenaria* and three species of *Vertigo* listed under the Convention.

Ireland has one of the most extensive stocks in Europe of the freshwater pearl mussel. The subspecies *Margaritifera margaritifera durrovensis* occurs only in Ireland (River Nore) and is on the verge of extinction. The White-clawed crayfish *Austropotamobius pallipes* is still common in Ireland but has declined seriously in Britain and continental Europe due to water pollution and fungal disease introduced with a North American crayfish species.

There are 243 species of fish (some introduced), including Atlantic salmon *Salmo salar*. Endemic sub-species include *Alosa fallax killarnensis* (a land-locked dwarf form of twaite shad, found in the Killarney lakes) and *Coregonus autumnalis pollan* (Pollan). Some species have an indeterminate conservation status (e.g. the three lamprey species) as data is not sufficient to make a meaningful assessment.

The Celtic seas contain a large number of grey seals *Halichoerus grypus* and common seals *Phoca vitulina* and many different cetacean species (over 36,000 harbour porpoises, 75,000 common dolphins, the Bottle-Nosed Dolphin etc.).

Certain groups are characterised by high diversity and endemism, associated with Ireland's karstic limestone areas (notably the Burren) or tufa-spring fauna. These include Diptera (true flies), Lepidoptera (butterflies and moths) and Trichoptera (caddis flies). *Dragonfly Ireland 2000-2003* is a joint programme of Dúchas, its Northern Ireland counterpart and the Ulster Museum that documents the status and distribution of dragonflies throughout the island.

Existing inventory programmes mainly focus on key groups (vertebrates, threatened or endemic species) although progress is being made on Red Data Books for other groups. Information is more limited for invertebrates, certain fish and genetic resources. Indicators are not yet available for a comprehensive range of species.

### 3.2 Protection measures for wild flora

"Flora"<sup>40</sup> includes all plants (both aquatic and terrestrial) which occur in the wild in or outside Ireland, that are not grown in the course of agriculture, aquaculture, forestry or horticulture. It specifically includes lichens, mosses, liverworts, fungi, algae and vascular plants, namely flowering plants, conifers, ferns and fern allied plants and any community of such plants.

The Wildlife Acts provide for listing of wild species to which protection measures apply, either throughout the State or in a specified area. Where an order is area-specific, the planning authority must first be consulted and copies must be sent to all planning authorities with land affected by the order.<sup>41</sup>

The Flora (Protection) Order 1999<sup>42</sup> confers State-wide protection on 70 vascular plants, 14 mosses, 4 liverworts, one lichen and 2 stoneworts. Five are listed in Annex I of the Convention:

Vascular plants	Trichomanes speciosum Willd. (Killarney fern); Najas flexilis (Willd.) Rostk. & W.L.Schmidt (Slender Naiad); Saxifraga hirculus L. (Yellow Marsh Saxifrage)
Liverwort	Petalophyllum ralfsii (Wils.) Nees et Gott. ex Lehm.
Moss	Drepanocladus vernicosus (Mitt.) Warnst.

For listed (protected) flora, it is an offence, except under licence:

- to cut, pick, collect, uproot or otherwise take, injure, damage, or destroy any specimen or the flowers, roots, seeds, spores or other part thereof, or cause specimens to be cut etc.;

<sup>40</sup> s.2 WAA.

<sup>41</sup> s.21, PA.

<sup>42</sup> Statutory Instrument No.94 of 1999.

- to trade in, transport or possess such specimens (see 3.5 below); or
- to wilfully alter, damage, destroy or interfere with its habitat or environment.<sup>43</sup>

These activities, except domestic trade, may be licensed for scientific, educational or other purposes. Licence applications are forwarded to NPW research staff who recommend appropriate action. In the absence of any viable alternative, licences are granted where no significant damage will be caused to the species' conservation status and where the adverse impact on its local population is kept to a minimum.

The Habitats Regulations require surveillance of the conservation status of EC-listed habitats and species: authorised officers may enter and inspect lands for this purpose.<sup>44</sup> The Minister may take measures to ensure that taking in the wild and exploitation of named species is compatible with their maintenance at a favourable conservation status: these are *Cladonia subgenus* (Reindeer Moss), *Leucobryum glaucum*, all *Sphagna*, and *Lycopodium* spp. (Clubmosses).<sup>45</sup> Measures may include access and taking restrictions and a licence or quota system. Certain derogations may be authorised.

The Wildlife Acts provide some general protection to all wild vegetation in order to protect hedgerows. It is prohibited to cut, grub, burn or otherwise destroy vegetation growing on uncultivated land or in any hedge or ditch between March 1 and August 31. A number of recent prosecutions have been taken under Section 40 (as amended) with one successful prosecution to date. The Act provides for broad derogations for cutting or destruction of vegetation in the ordinary course of agriculture or forestry, works carried out for public health or safety<sup>46</sup>, fisheries development works, management of listed noxious weeds; and site clearance for road or other construction works.<sup>47</sup>

### 3.3 Wild fauna

"Fauna" covers all wild birds and wild animals (both aquatic and terrestrial), including wild mammals, reptiles, amphibians and aquatic and non-aquatic invertebrate animals and their eggs, larvae, pupae or other immature stage and young.<sup>48</sup>

#### 3.3.1 Wild birds

All Wild Birds are protected under the Wildlife Acts 1976 and 2000. However the Minister operates a limited derogation under Article 9 of the Birds Directive to permit the control of certain birds in specific instances where they represent a threat to crops, livestock, fauna or public health or where species represent a threat to air safety.<sup>50</sup> In 2001, the listed bird species were:

(a) *Species that may be killed where they represent a threat to crops, livestock, fauna or public health*: Hooded crow, magpie, rook, jackdaw, pigeon and dove;

(b) *Species that may be killed where they represent a threat to air safety*: Black headed gull, Common gull, Herring gull, Lesser black backed gull, Greater black backed gull, Rook, Jackdaw, Magpie, Starling, Lapwing, Golden plover, Hooded/grey crow, Pigeons and Doves.

For protected wild birds, it is prohibited except in accordance with a licence to:

- hunt, unless an open season has been declared for that species;
- injure except during hunting or under licence;
- wilfully take or remove eggs or nests;

<sup>43</sup> s.21(3) PA, amended s.29 WAA to include habitat protection requirements.

<sup>44</sup> Regulation 7.

<sup>45</sup> Regulations 24-5; Part II, First Schedule to the European Habitats Regulations 1997.

<sup>46</sup> The Minister may request details of any works carried out as well as a statement of the public health or safety factors involved (new s.40.3 PA).

<sup>47</sup> s.40 PA, amended s.46 WAA. It is a defence to prove that such acts were necessary to extinguish or prevent a fire spreading, to save human life or to deal with other emergency situations.

<sup>48</sup> New definition introduced by s.6(f), WAA.

<sup>50</sup> s.19 PA. Current lists were issued under SI 254/1986 and SI 152/1997. Protection measures may be extended to species listed in the Schedule after consultation with the Minister for Agriculture.

- wilfully destroy, injure or mutilate eggs or nests; or
- wilfully disturb a bird on or near a nest containing eggs or unflown young.<sup>51</sup>

These prohibitions are subject to very broad exemptions for: wilful disturbance during ornithology; unintentional injury/killing while engaged in ornithology, agriculture, aquaculture, fishing, forestry or turbary<sup>52</sup>; removal or destruction of eggs or nests in the ordinary course of agriculture or forestry; killing/injury or damage to eggs/nests during road construction, archaeological, building, engineering or other operations; and activities licensed under the Wildlife Acts or other statutes (see also 3.3.4).

Licences may be issued for capture, humane killing or taking of nests/eggs for educational, scientific or other purposes; repopulation or re-introduction to the wild; photography and filming; or handling of injured or dependant specimens for subsequent release. Few licences are granted under this section.<sup>53</sup>

Currently the Minister licences the engagement in falconry and possession of eagles, hawks falcons and other birds of the order Falconiformes. The Minister proposes to make regulations to broaden this licensing regime to include also the hunting with birds of the orders Accipitriformes and Strigiformes in accordance with the powers made available to him under the terms of the Wildlife (Amendment) Act 2000. About 20 licences are issued annually for taking birds from the wild for falconry/captive breeding, and about 50 for possession and engaging in falconry. For first time applicants, the premises are visited to ensure an adequate knowledge of falconry and that accommodation is consistent with applicable norms.<sup>54</sup>

Licences to take kestrels and sparrowhawks from the wild are facilitated as current demand does not pose any conservation threat to the status of the species. For peregrine falcon, licences are limited to five per year<sup>55</sup>: as demand exceeds the licences available, qualifying applicants are selected by lottery.

### 3.3.2 Wild animals (other than birds)

The Wildlife Acts use positive listing for protected wild animals, which are species listed in the Fifth Schedule and any other species listed by regulations after consultation with the Minister for Agriculture and Fisheries.<sup>56</sup> In 2001, the following species were protected:

- **land mammals:** badger, bats, deer, hare, hedgehog, otter, pine marten, red squirrel, pygmy shrew and stoat<sup>57</sup>;
- **marine mammals:** porpoise, seal and cetacean species;
- **amphibians:** natterjack toad; Common Frog and Common Newt<sup>58</sup>;
- **reptiles:** Common Lizard<sup>59</sup> and all species of marine turtle;<sup>60</sup>
- **molluscs:** Freshwater crayfish; Freshwater pearl mussel; Kerry slug<sup>61</sup>.

For protected wild animals, it is prohibited except in accordance with a licence to:

- hunt, unless an open season has been declared for a named wild mammal;

<sup>51</sup> See generally s.22 PA, amended s.30 WAA.

<sup>52</sup> Prior to the WAA, this exemption also covered intentional injury or killing.

<sup>53</sup> s.22(9) as amended.

<sup>54</sup> s.41 PA, amended s.47 WAA; Wildlife Act 1976 (Birds of Prey) Regulations 1984 (S.I.no.8 of 1984).

<sup>55</sup> Under a quota determined according to criteria set by the EU Technical Committee for Birds Directive implementation.

<sup>56</sup> s.20 and s.23, PA.

<sup>57</sup> The last two were added by S.I. 282 of 1980.

<sup>58</sup> *Ibid.*

<sup>59</sup> *Ibid.*

<sup>60</sup> Added by S.I. 112 of 1990.

<sup>61</sup> *Ibid.*



- injure, except during authorised hunting; or
- wilfully interfere with or destroy their breeding or resting places.<sup>62</sup>

Exemptions cover unintentional injury/killing or interference with breeding places during agriculture, aquaculture, fishing, forestry or turbary or road construction, archaeological, building or engineering operations (for these operations, the exemption also covers unintentional destruction/damage to resting places). They also cover capture of injured, disabled or dependant specimens and actions authorised under the Wildlife Acts or other statutes (see also 3.3.4).

Licences may be granted on similar grounds as for protected wild birds (see 3.3.1 above), where this will not adversely affect the species' conservation status. Currently, most licences are issued under DAF's research programme to evaluate the contribution of infected badger populations to bovine tuberculosis. Badger snaring is licenced in five specific project areas.

The Habitats Regulations mandate strict protection for otter, all cetacean and bat species and Natterjack toad at all stages of their life cycle and prohibit deliberate capture, killing, disturbance (particularly during the period of breeding, rearing, hibernation and migration) or damage to breeding or resting places. A system to monitor incidental capture and killing must be put in place and further measures taken as necessary to avoid significant negative impact on these species.<sup>63</sup> The Regulations also require surveillance and conservation measures for pine marten, Irish hare, grey and common seals, the common frog, Edible snail, the Freshwater pearl mussel and the White-clawed crayfish.<sup>64</sup>

The Whale Fisheries Act 1937 strictly prohibits the hunting of all whales, including dolphins and porpoises, within the State's fisheries limits (out to 200 nautical miles). It also prohibits hunting by Irish registered ships of certain whales, including right whales and female whales accompanied by calves, outside the State's fisheries limits.

### 3.3.3 Fish and aquatic invertebrate animals

These groups were not covered by the Wildlife Act 1976. In 2000, "wild animal" was redefined to include species of fish or aquatic invertebrate animals (or their eggs or spawn or other immature stage or brood or young) unless specifically excluded by regulations made with the consent of the Minister for the Marine and Natural Resources.<sup>65</sup> This means that such species are automatically subject to the provisions of the Wildlife Acts unless excluded. This should facilitate a more integrated approach to management of aquatic biodiversity and make it easier to designate aquatic species as "protected" if their conservation status makes this necessary.

The Wildlife (Fish and Aquatic Invertebrate Animals) (Exclusion) Regulations 2001 list 60 excluded aquatic invertebrate species and 205 excluded fish species. None of these species are listed in Annex 2 to the Convention, but six fish species are listed in Annex 3. These are Lampern *Lampetra fluviatilis*; Lampetra planeri; Allis shad *Alosa alosa*; Twaite shad *Alosa fallox*; *Coregonus autumnalis*; and *Salmo salar* (in freshwater only).

The Habitats Regulations mandate surveillance and conservation measures, to be developed jointly with the Minister for the Marine, for five fish species (*Lampetra fluviatilis*, *Alosa alosa*, *Alosa fallox*, *Coregonus autumnalis* and *Salmo salar* (freshwater only))<sup>66</sup>.

### 3.3.4 Damage by protected wild birds and animals

Where protected wild birds or animals cause serious damage to livestock, crops, other fauna or flora, plantations, fisheries or aquaculture, the owner/occupier may apply for permission to take appropriate steps to stop the damage. The Minister may also authorise such steps to be taken directly. The conservation status of the protected species must be considered when determining applications.

<sup>62</sup> s.23 PA, amended s.31 WAA.

<sup>63</sup> Regulation 23, applicable to species listed in the First Schedule, Part I to the Regulations.

<sup>64</sup> Regulations 7, 24 and 25, applicable to species listed in the First Schedule, Part II to the Regulations.

<sup>65</sup> s.2 and s.32 WAA.

<sup>66</sup> Regulations 7, 24 and 25, applicable to species listed in the First Schedule, Part II to the Regulations.

Permission, if granted, must specify allowable measures, apply to a specific area for a fixed period and may provide for tagging of captured/killed specimens and their disposal.<sup>67</sup>

It is a defence to charges of unlawful capture/killing of protected wild fauna to prove that:

- such actions were urgently necessary to stop damage of the kinds specified;
- in the circumstances it was not practical to make a prior application for permission; and
- the owner/occupier reasonably believed such damage was being caused by the bird/animal concerned.

However, this defence is not available in relation to species specified in the Fourth Schedule to the Wildlife Acts (buzzards, eagles, falcons, harriers, hawks, kites, osprey and owls (Part I); pine marten, red deer, seals and whales (Part II)).

### 3.3.5 Hunting management

The Wildlife Acts provide for regulation and licensing of hunting by species, area, season, catch limits and method. Open seasons for hunting<sup>68</sup> are currently declared for:

- hutable species of wild birds: Red Grouse, Mallard, Teal, Gadwall, Wigeon, Pintail, Shoveler, Scaup, Tufted Duck, Pochard, Goldeneye, Golden Plover, Snipe, Jack Snipe, Red-legged Partridge, Cock Pheasant, Woodcock, Curlew, Canada Goose, Greylag Goose and Woodpigeon;<sup>69</sup>
- ‘exempted wild mammals’: fallow, sika and red deer, hares.<sup>70</sup>

Shooting with firearms is usually the only permitted hunting method.<sup>71</sup> Certain traditional practices are licensed (carted stag hunting - one licence per year: hunting of hares with a pack of beagles or harriers during the closed season - two licences per year). Hare coursing may be licensed during the closed season, but no licences have been issued since 1990. Hunting of otters by packs of hounds was banned by the WAA, but in fact no licences had been issued since 1990.<sup>72</sup>

Some taking or hunting methods are prohibited except under licence.<sup>73</sup> Many restrictions apply to all wild species, not just protected wild animals and birds. Regulated methods include ringing and marking; import from outside the EU or possession of a cannon-net, mist-net, rocket-net or similar appliance; use of certain firearms; use of traps, snares, birdlime or poisonous substances; use of decoys and live species except in licensed falconry and in fishing; use of vehicles, vessel or aircraft; hunting by night; and use of artificial lights or dazzling devices.

The WAA 2000 establishes a compulsory permit system to regulate commercial shoot operators. Permits may limit the amount of hunting over specified land and include appropriate conditions, including those relating to gun days. They are valid for up to three years.<sup>74</sup>

Hunting on or over foreshore, State lands covered by inland waters or the territorial sea is subject to permit. Applications are granted on demand for five years, except in a small number of sites where permits are granted only for one year. Permits may not be granted for sanctuary areas (see below): other areas may also be excluded or limited on conservation grounds.<sup>75</sup>

### 3.4 Protection measures for species’ habitats

The definition of “habitat” includes the abode or natural home of a particular species or population of particular species, at any stage of life, or a community of organisms (emphasis added).<sup>76</sup> As noted,

<sup>67</sup> s.42 PA, amended s.48 WAA.

<sup>68</sup> ss.24-25 PA, amended by ss.33-34 WAA.

<sup>69</sup> Wildlife (Wild Birds) (Open Seasons) Order, 1979 (S.I. No. 192 of 1979), amended annually.

<sup>70</sup> Wildlife (Wild Mammals) (Open Seasons) Order.

<sup>71</sup> Licensing procedures are set out in ss.28-9 PA, amended s.37 WAA. The use of certain types of firearms is prohibited under s.33 PA, amended s.41 WAA.

<sup>72</sup> s.26 PA, amended s.35 WAA.

<sup>73</sup> ss.32-38 WA, amended ss.40-45 WAA.

<sup>74</sup> For detailed rules, see s.36 WAA.

<sup>75</sup> s.30 PA; s.58 PA, amended s.61 WAA.

<sup>76</sup> s.2, WAA.

the Wildlife Acts generally restrict activities damaging to the habitats of protected wild flora, all birds (unless exempted) and protected wild animals. This prohibition is not limited to designated areas.

Many area designations (see 2.2-3) are made to protect species habitat: e.g. over twenty island and sea cliff sites are designated as nature reserves/SACs for seabirds, and in Kerry, the two lakes that provide habitat for the natterjack toad (Loughs Yganavan and Nambrackdarrig) are State Nature Reserves.

In addition, the Wildlife Acts establish two tools specifically for species habitats:

- **Refuges.** These may be established to confer special protection on one or more species of fauna and/or flora on land which is, or is contiguous to, a habitat of the species. The “designation order” must specify measures to protect the habitat requirements of the species concerned. Compensation is payable for diminution in value, loss or disadvantage arising from such measures;<sup>77</sup>
- **fauna sanctuaries** are areas for which there is no order in force permitting the hunting of birds or wild mammals.<sup>78</sup>

In 1991, Ireland declared all waters out to 200 miles from the coast to be a Whale and Dolphin Sanctuary within which any taking is prohibited. This is the first European sanctuary within the fisheries limits of an entire country. The use of driftnets for tuna fishing will be prohibited from 2002, consistent with EC legislation, which should help to reduce incidental taking (bycatch).

### 3.5 Wildlife trade and transport

Ireland ratified the Convention on International Trade in Endangered Species (CITES) on 8 January 2002: it entered into force for Ireland on 8 April 2002. The WAA 2000 sets out detailed measures for the implementation of the EC Wildlife Trade Regulations (which implement CITES within the European Union). These measures cover the control of international trade and the holding, possession or domestic trade in specimens of species listed under the EC Regulations.<sup>80</sup> They are not further discussed here as international trade is outside the scope of the Bern Convention.

For wild fauna, it is an offence<sup>81</sup> for any person who is not a licensed wildlife dealer:

- to sell, keep for sale, transport or offer for sale or exchange, purchase for resale or exchange, advertise or engage in taxidermy in respect of a live or dead protected wild bird/animal at any stage of its life, or any parts, products or derivatives thereof, or any live or dead fauna listed under the First Schedule to the Habitats Regulations (see 3.3.2-3 above);
- to possess a protected wild bird/animal, whether alive or dead, or the eggs, spawn or other parts, products or derivatives thereof. Exemptions are limited to situations where the specimen is held for propagation, was lawfully acquired or is a close-ringed specimen of a live perching bird;<sup>82</sup>
- to purchase a protected wild bird/animal, except from a licensed wildlife dealer where the purchaser runs premises where meals are provided. Full records must be kept of purchases and made available for inspection by an authorised person.

The sale, purchase and possession of live perching birds (order Passeriformes) that occur in a wild state in the State, Northern Ireland, Great Britain, the Channel Islands or the Isle of Man, is prohibited, except for close-ringed specimens bred in captivity and for birds lawfully captured under licence.

For **wild flora**, the purchase, sale or possession of any specimen of protected flora, or the flowers, roots or other part thereof, is prohibited without a licence.<sup>83</sup> For other species of wild flora, where

<sup>77</sup> s.17 PA, amended s.28, WAA to cover flora as well as fauna.

<sup>78</sup> s.24-25 PA, amended s.33-34 WAA.

<sup>80</sup> Council Regulation (EC) No. 338/97; Commission Regulation (EC) No.939/97). See new s.53A PA, added by s.58 WAA.

<sup>81</sup> See generally s.45 PA, amended s.51 WAA. Procedures for obtaining a wildlife dealer’s licence are set out in s.48 PA, amended s.53 WAA.

<sup>82</sup> ss.45(2,3, 8), 22(5), 23(7)(d), 31 and 42, PA as amended.

<sup>83</sup> s.21(3)(b) PA as amended by s.29(b) WAA.

### Examples of invasive alien species in Ireland

*Rhododendron ponticum* threatens semi-natural woodlands and sphagnum bog. Control measures are used in Killarney and Glenveagh national parks but there is no broader strategy. Cherry Laurel (*Prunus laurocerasus*) is also a widespread problem e.g. in the Awbeg River SAC in Co.Cork.

Giant hogweed (*Heracleum mantegazzianum*), a common problem in several European countries, grows exceptionally well in Ireland and is forecast to become a highly invasive weed with significant economic implications. A national control and eradication strategy has been recommended.

appropriate for conservation reasons, regulations may be issued to prohibit or control trade, collection, purchase or sale for a specified period.<sup>84</sup>

The WAA 2000 reverses the burden of proof in legal proceedings under this section. A presumption that the sale was unlawful applies where the prosecution shows that the accused:

- (a) sold a plant, or part thereof, of the same species as the plant or part thereof to which the alleged offence relates; or
- (b) claimed, expressly or by implication, by advertising or otherwise, that the plant or part sold came from or was wholly or partly grown in a place covered by a protected flora order at the time when the alleged offence was committed.

It is a defence for the defendant to show that the plant or part thereof was lawfully imported.<sup>85</sup>

Marking requirements apply to domestic transport of packages containing: any protected wild bird or animal or the dead body, carcase or other part thereof; the eggs of a protected wild bird; or any flora specified by regulations. These rules may also be applied to other wild species.<sup>86</sup>

### 3.6 Introduction of non-native species

Ireland, like other European countries, has experienced adverse impacts to native species, habitats and ecosystems caused by introduced species across all taxonomic groups (see Box).

At least four species of introduced vertebrates have negative impacts: Sika deer, which interbreed with the native Red Deer population; grey squirrel and the bank vole, for which eradication is no longer feasible; and American Mink (*Mustela vison*) which is believed to pose a serious threat to ground nesting birds, fisheries and game. Some landowners and hunting organisations carry out private control measures.

*Rhododendron ponticum* threatens semi-natural woodlands and sphagnum bog. Control measures are used in Killarney and Glenveagh national parks but there is no broader strategy. Cherry Laurel (*Prunus laurocerasus*) is also a widespread problem e.g. in the Awbeg River SAC in Co.Cork.

Giant hogweed (*Heracleum mantegazzianum*), a common problem in several European countries, grows exceptionally well in Ireland and is forecast to become a highly invasive weed with significant economic implications. A national control and eradication strategy has been recommended.

Although few alien aquatic plants have naturalised, some freely-available species are known to be invasive elsewhere and could become so in Ireland, particularly in association with land-use and climate change. Examples include *Elodea canadensis*; *Crassula helmsi*; *Myriophyllum aquaticum*, *Azolla filiculoides* and *Hydrocotyle ranunculoides*. *Gunnera tinctoria*, spreading fast on Achill Island along roadside drains, is a nitrogen fixing plant that could negatively affect sphagnum bog.

<sup>84</sup> New s.21(8A-B), inserted s.29(e), WAA.

<sup>85</sup> s.21(6-7) PA as amended.

<sup>86</sup> s.51 PA, amended s.55(a) WAA.

The zebra mussel, *Dreissena polymorpha*, was recorded in the Shannon Catchment in the 1990s and has spread into the Erne catchment and to Northern Ireland. An international workshop to consider the economic and ecological impact of zebra mussels and their control was held in Galway in 1998. The expansion of shipping ports, their location further downstream, the rapid turnaround times of vessels and new trading patterns may increase opportunities for new introductions of alien marine species.

Introductions for restocking and sport fishing, including translocations to other lake or river systems in the country, can present major risks. Introduced Pike has seriously predated native brown trout stock in Loughs Mask, Carra and particularly Corrib: the competent regional fisheries boards have conducted culling programmes (see *European Parliament written question E-0474/01: Freshwater fishing in Ireland: ongoing disturbance of the natural balance in the Western Lakes Region*).

There is no national strategy for prevention and mitigation of invasive alien species. However, the WAA strengthens the legal basis for controlling the introduction of potentially invasive alien species. The Minister may issue regulations prohibiting possession or introduction of any species of wild bird, animal or flora, or part, product or derivative thereof, that may be detrimental to native species. Where such a species has been introduced, measures shall be taken, as far as feasible and appropriate, to ensure that such introductions do not pose a potential hazard to native stocks.<sup>87</sup>

Unless carried out under licence, it is prohibited with regard to non-native species:

- to release, wilfully cause to escape or transfer within the State for the purpose of establishment in the wild any species of wild animal or spawn and any wild bird or the eggs thereof ;
- plant or otherwise cause to grow in a wild state in any place in the State any species of flora, or the flowers, roots, seeds or spores thereof.<sup>88</sup>

### 3.7 Re-introduction of native species

A legal basis exists for re-introduction of native species listed in Annex IV, Habitats Directive, where this would contribute to their re-establishment at a favourable conservation status.<sup>89</sup> Licensing powers under the Wildlife Acts also cover the taking of eggs of a protected wild bird for the purposes of hatching them out for repopulation, or re-introduction to the wild.<sup>90</sup> There do not appear to be equivalent powers for re-introduction or repopulation of native wild animals.

Species recovery initiatives include the re-introduction to Connemara National Park of the nucleus of a herd of native deer; the development of a methodology for re-establishing the White Clawed Crayfish; and recovery measures for the corncrake. Some site management initiatives combine repopulation of native species with management of non-native species: e.g. two nature reserves (Richmond and Timahoe Eskers) are extensively planted with conifers and other exotic species, but it is planned to expand the native woodland using appropriate management techniques.

## 4. Biodiversity considerations in other sectoral frameworks

### 4.1 Spatial planning

The Planning and Development Act 2000 (PADA)<sup>91</sup> consolidates all previous planning legislation and much of the Environmental Impact Assessment (EIA) regulations. It recognises the objective of

<sup>87</sup> New s.52(6) PA, inserted by s.56(d) WAA. The Habitats Regulations confer similar powers on the Minister, to be exercised where appropriate in consultation with the Minister for the Marine (Regulation 36(2)(a)).

<sup>88</sup> New s.52(7) PA.

<sup>89</sup> Regulation 36(1), Habitats Regulations.

<sup>90</sup> s.22(9) PA, amended s.30(b) WAA.

<sup>91</sup> All provisions of the Act are now in force (Planning and Development Regulations 2001 (S.I. No. 600/2001)).

sustainable development and establishes a framework for local strategic and integrated environmental planning. Relevant provisions include:

- powers to designate areas on scenic or amenity grounds (Areas of Special Control in county development plans; Special Amenity Area Orders for strict development control in outstanding areas). Planning authorities must consider nature conservation benefits when designating amenity areas, which receive statutory protection through the planning system. Designations may straddle administrative boundaries. The competent Minister may direct authorities to exercise designation powers;<sup>92</sup>
- the requirement for planning authorities, when determining applications, to have regard to the provisions of any special amenity area order, any European site or other designated area and relevant Government policy.<sup>93</sup>
- tree protection orders to protect trees and woods of special amenity value: about 180 are in force.

The Architectural Heritage Initiative, launched in 1999, provides an interesting model for co-operation on integrated heritage planning (see Box).

The National Inventory of Architectural Heritage Act 1999 and the Local Government (Planning and Development) Act 1999 provide in combination for:

- systematic identification of the built heritage, through the National Inventory of Architectural Heritage compiled by Dúchas;
- mandatory recording of buildings of artistic, architectural or historic interest for protection in local authority development plans, in accordance with national criteria and standards and having regard to recommendations on specific buildings of regional, national or international significance. Draft guidelines to planning authorities for conservation of architectural heritage were issued in March 2000;
- requirement for owners of protected buildings to ensure that buildings do not become endangered.
- local authorities may direct necessary conservation works to be carried out and have compulsory purchase powers to intervene in extreme cases of neglect.

In 2000, the DOELG issued draft Guidelines on Landscape and Landscape Assessment, which were circulated for consultation and are now being finalised. These interpret “landscape” to include all that is visible when looking across areas of land, including mountains, hills, coastline, woodlands and buildings. The draft Guidelines aim to build awareness of the importance of landscape in all aspects of physical planning and lay down specific requirements for development plans to ensure consistency in decision-making by neighbouring authorities. They provide a methodology for Landscape Character Assessment to classify different landscape areas for different kinds of development, according to the degree of sensitivity of a particular landscape.

#### **4.2 Environmental impact assessments (EIA)**

Activities exempt from spatial planning controls (e.g. peat extraction, afforestation) may be brought within the regulatory framework by EIA regulations adopted under planning legislation.<sup>94</sup> However, Ireland has experienced difficulties linked to EIA thresholds that filter out small-scale projects with serious cumulative impacts. In the Burren, for example, no EIA was carried out for 59 reclamation projects totalling 256 ha (including 31 sites in proposed NHAs), which involved levelling of limestone pavement, vegetation clearance and loss of some archaeological and historical remains.<sup>95</sup> In a different context, the European Court of Justice ruled that Ireland had exceeded the level of

<sup>92</sup> ss. 202-209, PADA.

<sup>93</sup> s.34(2)(a) PADA.

<sup>94</sup> Revised ss.172-177 PADA.

<sup>95</sup> Heritage Council report, 1996.

permitted discretion under the EC EIA Directive because applicable regulations did not take account of the nature, location or cumulative effect of projects below set thresholds.<sup>96</sup>

The thresholds that trigger EIA requirements have recently been lowered to facilitate compliance with the ECJ ruling. The new regulations<sup>97</sup> transpose a package of measures agreed with the European Commission. The main elements for forestry are that:

- initial afforestation is wholly removed from the planning control system, in association with the introduction of a new statutory consent system operated by DCMNR;<sup>98</sup>
- the mandatory EIA threshold for forestry has been reduced from 70 hectares to 50 hectares;
- EIA may be carried out for projects below this threshold that may have major environmental effects.

For peat extraction:

- a definition has been introduced to cover drainage works carried out prior to actual extraction;
- the mandatory EIA threshold has been reduced from 50 hectares to 30 hectares;
- the planning threshold has been reduced from 50 hectares to 10 hectares;
- for NHAs and SACs, EIA may be required for peat extraction projects below the 10-hectare planning threshold, where this is likely to have significant effects on the environment.

EIA thresholds for other types of development vary according to the activity or process: e.g. 30ha for dams and water impoundment; 20 ha for reclamation from the sea; and 5 ha for extraction of stone, gravel, sand or clay.

Ireland is currently developing a Strategic Environmental Assessment (SEA) system to assess potential environmental impacts of sectoral policies. The OECD has recommended that SEA should be implemented in the context of the National Development Plan 2000-6.

### 4.3 Agriculture

Impacts of agricultural intensification include erosion and vegetation loss (overgrazing), eutrophication (high nitrate and phosphate inputs), habitat loss (drainage, clearance, afforestation) and contraction of species' range (habitat fragmentation, destruction of hedgerows). From the 1980s, some intensive practices were mainly grant-driven, linked to CAP subsidies based on headage<sup>99</sup> or other supports.<sup>100</sup>

In 1995, Ireland set up the nationwide Rural Environment Protection Scheme (REPS) to provide incentives for environmentally sensitive farming in accordance with farm plans drawn up by trained planners. By end 2001, 45,000 farmers were participating. In its first phase, REPS focused on building farmer awareness of environmental protection issues and contained relatively few mandatory measures to prevent habitat deterioration.

From 1999 on, REPS has been based on the CAP Rural Development Plan (2000-6) which provides a basis for more concrete management requirements. Its objectives are to promote:

<sup>96</sup> Case C-392/96, ruling delivered 21 September 1999. The ECJ rejected Ireland's case that other environmental protection legislation, such as the Habitats Regulations, made it unnecessary to assess afforestation, land reclamation or peat extraction projects carried out in environmentally sensitive locations: it ruled that Directive 85/337/EEC did not exclude from its scope regions or areas protected under other Community provisions.

<sup>97</sup> Local Government (Planning and Development) (Amendment) Regulations, 2001 (S.I. No. 539/ 2001); European Communities (Environmental Impact Assessment) (Amendment) Regulations, 2001 (S.I. No. 538 of 2001). Both are effective from 10 December 2001. They provide for corresponding amendments to the Habitats Regulations and the WAA.

<sup>98</sup> S.I. No. 538 of 2001 provides for consultation with prescribed bodies (including local authorities in the case of areas of special amenity) in relation to key environmental sensitivities such as acidification of waters, nature conservation, archaeology and amenity; and for broader consultation, including with the public.

<sup>99</sup> The number of sheep increased from 3.3 million in 1980 to 8.9 million in 1992.

<sup>100</sup> In 1975-1991, 500,000 ha was drained for land reclamation or farm development under various EU-assisted schemes.

- use of agricultural land compatible with protection and improvement of the environment, the landscape and its features, natural resources, soil and genetic diversity;
- extensification of farming and management of low intensity pasture systems;
- conservation of high nature-value farmed environments which are under threat;
- upkeep of the landscape and historical features on agricultural land;
- use of environmental planning in farming practice.

Farmers participating in the General Programme must comply with Good Farming Practices in the whole land holding for a five year period. These Practices are set out in Annex 2, which specifies standards, actions to be monitored and control mechanisms. Required measures are designed to:

- improve water quality and reduce diffuse pollution (preparation of an agreed nutrient management plan to REPS specifications; protection and maintenance of watercourses and wells; limitation on the use of herbicides, pesticides and fertilisers; and more extensive and environmentally appropriate cultivation of tillage crops);
- enhance habitat, wildlife and landscape protection (implementation of a grassland management plan for sensitive areas to reduce poaching, overgrazing and soil erosion; protection of distinct areas of natural and semi-natural wildlife habitats; management and maintenance of field walls, hedgerows and boundaries for wildlife and scenic benefit).

Farmers of land in ‘target areas’ (NHAs, SACs and SPAs, commonages<sup>101</sup>) must comply with farming prescriptions drawn up for particular habitat types or under an approved farm plan. In return, they receive financial support either under the REPS scheme or, if they choose not to participate, from Dúchas. Dúchas develops the prescriptions in consultation with relevant stakeholders, which can be a very slow process. Existing prescriptions cover habitat types (Burren habitats, blanket bogs, heaths, upland grasslands, sand dunes and machair) and, through Framework Plans, commonages (see Box). Discussions are ongoing for other habitat types, such as calow type land, turloughs and intensive grasslands.

Where there are no agreed prescriptions, the farm planner prepares individual farm plans which REPS participants then submit to the authorities. There has been some criticism that guidelines for planners are too general and do not provide detailed ecological guidance on the plant and animal species that require protection in the habitats concerned.<sup>102</sup>

For non-commonage (private) land that is not covered by an environmental designation, participation is voluntary and take-up is limited (particularly in more intensive farms).

Farmers participating in REPS can receive additional payments for rearing local breeds of livestock in danger of extinction, long-term set aside of riparian zones to benefit fisheries and semi-aquatic and marginal vegetation and conversion to organic agriculture

The CAP Plan recognises scope for closer integration between the DCMNR forestry planting programme and REPS. REPS planners are required to identify areas suitable for afforestation on environmental, agricultural, forestry and socio-economic grounds, taking account of natural habitats on the farm, and to notify such areas to the Forest Service. Afforestation of land covered by a REPS Plan may not disturb or reduce existing habitats: it should be designed to increase habitat area and enhance biodiversity.

REPS planners are now being trained in criteria for prioritisation of land use between forestry and agriculture. These include landscape, biodiversity, pollution control, carbon sequestration, wildlife and productivity/suitability of land for forestry and agriculture.

<b>Tackling overgrazing in upland areas through Commonage Framework Plans</b>
-------------------------------------------------------------------------------

<sup>101</sup> REPS Supplementary Measure A, approved by the European Commission in 1998.

<sup>102</sup> Commission submission in Case C-117/00 (Opinion delivered on 7 March 2002).



'Commonages' are areas in which grazing rights over large areas are shared by a fixed number (2-30) of farmers, sometimes with thousands of sheep. DAF and Dúchas have trained REPS planners and ecologists to prepare Commonage Framework Plans (CFPs) to reduce sheep numbers to sustainable stocking densities and promote regeneration of degraded areas. During the interim phase, priority was initially given to the six western counties where overgrazing is most serious (Galway, Mayo, Donegal, Kerry, Sligo and Leitrim).

Components of the programme include:

- identification of all commonages;
- interim reduction of 30% headage for western county commonages;
- development of methodology and criteria to assess agriculturally/ecologically unsustainable grazing;
- assessment of individual commonages by planning teams (one agricultural and one environment assessor). This has generated detailed baseline data on soil, vegetation cover and landscape;
- finalisation of CFPs with area-specific recommendations for further destocking or limited restocking. These are incorporated into individual farm plans and taken into account in annual revision of quota. Once the figure agreed, the farmers have 12 months to reduce their stocks;
- The Programme is enforced by regional Agriculture offices and Dúchas rangers. CFPs are reviewed every five years.

Full cross-compliance will take effect in 2003. Farmers with commonage land must have applied to have an approved REPS plan or a Dúchas farm plan before they can receive other agricultural support payments..

#### 4.4 Forestry

Ireland has one of the highest rates of commercial afforestation in Europe and of conifer use (over 80%).<sup>103</sup> Remaining semi-natural native woodland (less than 20,000ha) is mainly concentrated in designated areas. Because the forestry development programme relies mainly on afforestation of previously unplanted areas, local environmental implications are of particular concern.

Coillte Teoranta is required to have due regard to the environmental and amenity consequences of its operations and to consult with concerned authorities.<sup>104</sup> Afforestation applications in or near to designated sites are referred to NPW for comment and to date have not been grant-aided. Local authorities may comment on proposals that may affect the County Development Plan, those greater than 25 ha and those affecting areas listed in the Inventory of Outstanding Landscapes. For sites with fisheries considerations, Regional Fisheries Boards may comment on proposals over 5 ha (in areas designated as 'sensitive for trout and salmon fisheries'), over 40 ha (non-sensitive areas) or whenever the Forest Inspector recommends referral. Pre-planting applications for areas greater than 2.5 hectares must be published in local newspapers.

*Growing for the Future: A Strategic Plan for the Development of the Forestry Sector in Ireland* (1996) sets out the national policy framework to 2030. Steps to implement the Plan are based on the new National Forestry Standard<sup>105</sup>, Codes of Best Forest Practice and new/revised Environmental Guidelines on archaeology, biodiversity, landscape and water quality. Entitlement to afforestation grants is now conditional on compliance with these guidelines.

<sup>103</sup> C.f. below 10% in the Netherlands, Greece and Germany. Ireland's soils and climate are particularly favourable for growing Sitka spruce (growth rate of over three times the EU average). Past afforestation programmes have therefore concentrated almost exclusively on this species: it now accounts for about 60% of the forest estate, as against 20% for other conifer species and 20% for broadleaves.

<sup>104</sup> Forestry Acts 1946 to 1988, as amended by WAA 2000. The national Forest Inventory and Planning System is nearing completion.

<sup>105</sup> Includes criteria, indicators and measures for sustainable forest management based on those set out by the Third Ministerial Conference for the protection of Forests in Europe (Lisbon 1998).

The forestry grants system has been revised to support biodiversity-related goals. Changes introduced in 1997 include a 20% diverse grant and premium category to promote species diversification; incentives to promote broadleaf planting by farmers on better quality enclosed land (currently 15%); and higher density planting of broadleaved species.

The CAP Rural Development Plan 2000-2006 sets a target of 30% broadleaf planting by 2006 and introduces a compulsory broadleaf planting requirement of 10% on suitable sites (more prevalent in the South and East). Broadleaf planting records are to be published on a county basis and monitored at national level. Support measures for sustainable forestry consistent with the Codes and Guidelines include the new Native Woodland Forest Scheme, which provides grant aid for maintenance of existing native woodland and expansion onto adjacent land. The forest industry emphasises the need to increase availability of transplants of native genotypes of native species in order to implement these measures.

#### 4.5 Water resource management

Ireland's catchment-based strategy - *Managing Ireland's Rivers and Lakes* – addresses the main threats to water quality (eutrophication due to inputs of phosphorus, mainly from discharges from agricultural sources: to a lesser extent, inputs from sewage and industry). Local authorities have primary responsibility, with EPA, for implementation under the Water Pollution Acts and other legislation. Regional Fisheries Boards have enforcement powers as part of their fisheries management functions, but few pollution control powers.

Environmental Impact Statements are required for local authority and other developments that could give rise to appreciable discharges of polluting matters to waters. The appropriate Regional Fisheries Board must be sent copies of planning applications for developments that might have such impacts.

Quality monitoring and classification schemes are in place for rivers, to a lesser extent for lakes and, since 1995, groundwaters. The EPA recently classified 70% of Ireland's rivers as unpolluted.<sup>106</sup> However, although the incidence of serious pollution is declining, there is a distinct trend of increased slight and moderate pollution/eutrophication.

Catchment monitoring and management planning systems are in place for several river basins, in accordance with the EC Water Framework Directive. These include the Shannon, the largest catchment in Ireland which contains two Ramsar sites, Loughs Derravannagh and Ennell, and the South East River Basin Management Project. This programme, launched in March 2002, covers the Rivers Slaney, Barrow, Nore and Suir and will include groundwater, estuaries and coastal water to a distance of one nautical mile. It is a cooperative, regional initiative that brings ten local authorities together and involves other stakeholders, including the Regional Fisheries Board.

Local authorities may require farmers to prepare nutrient management plans where necessary to prevent, eliminate or minimise water pollution.<sup>107</sup> As noted, REPS also incorporates a major component on nutrient management plans. Legislation to give statutory backing to such plans and to by-laws for nitrate/phosphate restriction is currently being developed. These would apply to large farms that are usually outside the REPS scheme. Consultation on possible measures, including riparian use restrictions (buffer strips), is under way with farming organisations.

#### 4.6 Coastal management

Ireland has no specific legislation for coastal zone management (CZM): relevant provisions are found in environmental, planning, resource development and coastal protection statutes. There is also no formal coordination mechanism. As in many other European countries, national and local bodies have responsibility for different activities affecting the coastal zone. Local planning authorities may draft coastal zone management plans, but this is not mandatory. There do not appear to be any national planning rules applicable to unbuilt coastal areas to prevent ribbon strip development.

<sup>106</sup> A 3% improvement on river quality in 1997 and the first improvement recorded since the early 1970s.

<sup>107</sup> Waste Management Act 1996; Guidelines for implementation issued in August 1998.

The DCMNR has power to control activities, within a 12-mile limit, which may impact adversely on flora and fauna, amenities or public rights of way on the seashore.<sup>108</sup> It must consult NPW on all applications for Foreshore and Aquaculture Licences.<sup>109</sup> Licence applications must be made available for consultation with the public and expert organisations (relevant Fisheries Board, local authority, harbour authority, Marine Institute and An Taisce).<sup>110</sup> For salmon farms on marine sites, licence applications must be accompanied by an Environmental Impact Statement that takes account of competing beneficial uses of the areas or waters concerned, and the likely ecological and environmental effects on the local economy and the heritage value of the area or waters in question.<sup>111</sup>

Regulations under the Dumping at Sea Act 1996 provide for the phase-out of sewage sludge disposal, improved surveillance of ships carrying hazardous cargos and better planning for oil pollution emergencies. Under the Harbours Act 1996, major commercial ports are required to take account of environment quality and are improving waste reception facilities at ports.

A national Coastal Zone Management Strategy has been under discussion since 1994. The first initiative, led by the Coastwatch NGO, was followed by the creation of a joint committee involving DOELG and DCMNR. It commissioned a discussion document, *Coastal Zone Management - A Draft Policy for Ireland* (1997) which was put out to consultation. Since then, progress has been fairly slow, although Ireland participated in the EU ICZM pilot projects (coastal dune sites in Co. Donegal, Bantry Bay). In November 2001, the DCMNR appointed a high-level CZM Manager and is expected to propose legislation late in 2002.

These Departments also collaborate, with their counterpart authorities in the UK, on implementation of the Convention for the Protection of the Marine Environment of the North East Atlantic (OSPAR). This has included the joint preparation of a Quality Status Report for the Irish and Celtic seas and the seas west of Scotland and Ireland.

#### 4.7 Energy generation

The continued use of peat for electricity generation has attracted criticism from certain bodies, including the OECD, on the grounds of low economic efficiency and high environmental effects.<sup>112</sup>

In 2001, Bord na Mona was granted planning permission for two new electricity generators to be fired by peat from Midland raised bogs: the estimated harvesting requirement is 1 million tons per year. The EC has approved Ireland's request to impose a surcharge on electricity users to subsidise these new plants (an estimated Irish £30 million per year between 2001 and 2019) and the National Electricity Supply Company (ESB) will be required to purchase a set proportion of its electricity from peat-fired power plants.

Dúchas cooperates on a regular basis with Bord na Mona on reducing impacts of peat extraction. Where practicable, it promotes the transfer of turbary rights to less ecologically valuable sites, but this is considered to be a limited option (Dúchas' primary strategy is to compensate for the cessation of turfcutting by buying out turbary rights at a standard price). Dúchas considers that the development of these turf-powered electricity stations will have a negligible impact on measures to protect existing or proposed new bog sites. ....

Wind energy currently provides about 2.3% of Ireland's supply but this is to be increased to 10% by 2010. This will involve a major increase in the existing number of windfarms (currently 27), with potential environmental impacts on upland bogs and coastal/marine areas where wind speeds are highest (e.g. bird disturbance, habitat fragmentation, increased peatland erosion due to hydrological and physical disturbance). Some NGOs express concern that upland areas for which ecological

<sup>108</sup> 1933 Foreshore Act.

<sup>109</sup> s.59 PA am.s.62 WAA. About [25%] of aquaculture operations are in designated sites. Dúchas faces some capacity constraints as, unlike DMNR, it has no marine biologists on its staff.

<sup>110</sup> Under the Fisheries and Foreshore (Amendment) Act 1998.

<sup>111</sup> s.61, Fisheries (Amendment) Act 1997.

<sup>112</sup> Raised bogs function as carbon sinks: they are estimated to contain 2,000 tonnes of carbon per ha, c.f. blanket bogs 700 tonnes per ha and forest 300 tonnes. Peat is the most carbon intensive fossil fuel, releasing twice as much CO<sub>2</sub> as natural gas: its extraction also involves landscape and habitat damage.

surveys are not yet complete are already subject to development pressure. Some ongoing proposals (e.g. a proposed windfarm of 67 turbines and 25 miles of road in the Ox Mountains) are within SACs. There are also several offshore wind farm applications on both the eastern and western seabords.

There is currently no strategy or guidance to ensure that new windfarms are situated in appropriate locations. Consideration therefore needs to be given to:

- identifying suitable areas in advance as part of a planned approach;
- zoning sensitive areas as areas in which new wind farm developments are not permitted;
- ensuring that any development that is authorised only takes place on appropriate sites and does not lead to further loss of upland blanket bog; and
- attaching appropriate conditions to any licences granted.<sup>113</sup>

## 5. Conclusions and recommendations

The legal landscape in Ireland has been through major and very positive changes which are still coming onstream. It is too early to assess the effectiveness of the new measures, but the challenges for national and local staff to respond to these changes should not be under-estimated. Sustained political will across all sectors is critical to successful implementation by Dúchas and other key departments.

### **Institutional capacity and coordination**

A welcome result of the institutional reorganisation in June 2002 is that nature conservation is now administered by DOELG, the department responsible for environment, planning, landscape, water management and local government. Previously, it was administered by the department responsible for built and cultural heritage. The new arrangements provide scope to integrate nature conservation more closely into general environmental and resource policy and planning.

Horizontal (cross-sectoral) coordination is carried out mainly on a non-statutory basis. Collaboration is strongest on environmentally sustainable agriculture and forestry measures (DOELG, DAF, DCMNR) but much weaker for coastal and marine management (DCMNR, DOELG). Dúchas has faced capacity constraints on the marine side but has now created three marine biologist positions which are being filled through public competition. The Director of Science and Habitats within Dúchas is currently a member of the Central Fisheries Board. As a priority, Dúchas needs to be closely involved in programmes and initiatives to implement the EC Water Framework Directive. ....

Conservation administration is still very centralised. Even small applications are dealt with at the national level which places significant demands on Dúchas resources. At the local level, however, it has important strengths: a comprehensive regional management structure and the rangers' commitment to building positive relationships with owner/occupiers and affected interest groups. Dúchas recognises the need to inform and train local authorities to help them to deal with the establishment and maintenance of the NHA/SAC network, but more practical steps need to be taken for this purpose.

Local authorities have major environmental and planning responsibilities, but few direct powers for nature conservation. This may present conflicts of interest particularly in areas with strong local economic development priorities. It may also reduce the sense of 'ownership' of nature conservation initiatives.

Recommendations to facilitate greater engagement and consistency in decision-making include:

---

<sup>113</sup> E.g. the permit recently granted for a windfarm at Corry Hill, County Leitrim requires the developer to carry out a detailed habitat survey, draw up a best practice management plan to minimise damage from the development, and carry out regular wildlife monitoring on the site for five years.

- locally-based mechanisms for cross-sectoral consultation between planning authorities, Dúchas and regional offices of concerned departments and agencies, including Fisheries Boards and the Heritage Council. Such mechanisms may also engage local communities and interest groups. There may be scope to adapt Local Agenda 21 arrangements for this purpose.
- building capacity in local authorities as regards scientific expertise, information exchange and more efficient notification of external programmes and projects with potential impacts on designated sites and species.
- strengthening capacity of NPW, through the Development Applications Section of Dúchas, to monitor, assess and provide recommendations on planning and licensing applications.
- in the longer-term, decentralising some categories of species/habitat decision-making to the local level, subject to appropriate safeguards and transparency.

### **Policy, legislation and tools**

Policy-making in key areas has been fairly slow (biodiversity, spatial planning, heritage, coastal zone management) and has generally lagged behind new legislation. This means that although new laws are in place, the relationship and complementarity between separate sectoral measures is not always apparent. The position should improve following the recent adoption of a series of related policies.

A good precedent for a more integrated approach to natural heritage management is the Architectural Heritage Initiative (see 4.1). This defines respective responsibilities of national departments, local authorities and property owners/occupiers, based on a systematic inventory and backed by powers of compulsory purchase if necessary. It is recommended that DOELG, with other key departments, develop an equally comprehensive approach to natural heritage. This could include the development of targeted Dúchas guidance to local and sectoral authorities where consistent with its core role (possibly along the lines of the Environmental Guidelines issued by the DCMNR Forestry Division (see 4.4)).

In line with international best practice, wetlands and alien species would benefit from specific national policies because of the number of institutions, stakeholders, activities and processes relevant to prevention and management. For wetlands, many elements for a strategy are already in place (catchment planning to implement the EC Water Framework Directive, phase-out of peat extraction in some important bogs, farm nutrient management planning under REPS). For invasive alien species, the Biodiversity Action Plan envisages development of a specific strategy: this needs to take account of recommendations and ongoing work by the Bern Convention Standing Committee.

Work needs to continue on improving baseline data and rationalising a national information collection and management system, using standardised formats and linked databases. As far as possible, this should tap the potential of NGOs and research institutes to contribute to data gathering and assessment. Heritage Council support for NGO survey work can play an important role in this context.

### **Stakeholder and public involvement**

Emerging partnership approaches with the voluntary and private sectors are welcome, but opportunities for greater engagement at policy and project levels need to be explored. Business does not yet seem to play a leadership role in sponsoring conservation and educational programmes or championing specific initiatives e.g. species recovery plans.

NGO input is particularly valued in areas where they have technical expertise and at the local/site management level. At the policy level, there is scope for government and non-government bodies to build more constructive working relationships. More regular routine consultation could facilitate this.

Consultation at the community level is developing, as illustrated by the SAC Local Liaison Committees and some public-private site management initiatives (see 2.4). Given the resistance to SAC designation in some areas, continued dialogue is a high priority over the medium- to long-term. Where possible, site-specific initiatives should be linked to broader local consultation processes. There may be a role for new types of information tools (e.g. newsletters to owner/occupiers of designated sites to build a sense of participation in an expanding network).

### **Conservation of nationally important areas**

Ireland relies heavily on site-specific instruments, but only a small percentage have nature conservation as their primary aim. For sites subject to multiple uses, conservation depends on the effective application and regular review of regulatory and/or incentive tools (see 2.2-3).

Progress on site inventory and designation has been slow, due to extensive consultation, appeals and compensation procedures and the need to upgrade boundary delimitation procedures. Considerable progress has been made, when compared to the low starting point in the mid 1990s. Priority should now be given to completing designations in order to free up staff resources for monitoring and practical support to those in the field. This is important because cooperation under the various habitat protection schemes is still quite fragile.

#### **Specific recommendations include:**

- the adoption of modern national parks legislation (not necessarily restricted to State-owned land). If possible, this should create a legal basis for regional nature parks (IUCN Category V) as a tool to integrate conservation and land/resource planning policies at the regional landscape scale. Work should continue on bringing local and sectoral authorities and communities together on site management issues. The consultative committees now in place for the Burren, Wicklow, Killarney and Connemara National Parks (and evolving for Ballycroy) are a positive development;
- more ambitious prioritisation and protection of irreplaceable ‘flagship’ areas that continue to be threatened by damaging processes. If necessary, this should include acquisition of adjacent land or compensation of landowners in order to phase out particularly damaging activities (e.g. continued marginal drainage, peatcutting in valuable bogs etc.);
- additional designations for certain habitat types and species’ habitats, in line with recommendations by the EU Atlantic Biogeographic Seminar.
- development of property and tax incentives for private and voluntary actors to acquire/manage land for conservation or to transfer it to the State or a qualified organisation for long-term protection. Options include special safeguards for sites of high conservation value managed according to appropriate prescriptions; favourable tax treatment for property of assessed natural heritage value; and tax benefits for donations of land/money to qualified organisations.<sup>114</sup>

### **Conservation of locally important areas and broader countryside issues**

The EPA’s Millennium Report noted that significant resources have gone to areas of national and European importance, but that little attention is paid to sites of local significance. Ireland also recognises that resources for conservation outside protected areas are ‘limiting’ (First National Report to the Convention on Biological Diversity). In practice, natural habitats and landscape components that are not designated are at risk of continued loss or fragmentation unless appropriate sectoral measures are put in place.

Planners have a key role to play here and should make full use of their extended powers under the Planning and Development Act 2000 for strategic planning, scenic and amenity areas, landscape assessment and tree protection.

Within local authorities, Heritage Officers (part funded by the Heritage Council) have already begun to develop ‘local authority heritage plans’. Consideration could be given to incorporating local nature conservation measures into such plans (e.g. informal designation of local nature reserves, protection of wildlife corridors, identification of areas capable of restoration or rehabilitation).

The REPS scheme, and implementation measures for the EC Water Framework Directive, can contribute significantly to maintenance of linear landscape elements (e.g. hedges and boundary walls, copses, riparian areas). For hedgerows, the stricter provisions of the WAA need to be well-publicised and enforced.

### **Conservation of species**

---

<sup>114</sup> See further Standing Committee Recommendation T-PVS(97)11, Private or voluntary systems of natural habitat protection and management.

The Wildlife Acts extend licensing and control procedures for a range of activities, and bring Ireland's framework into line with modern conservation treaties and wildlife trade regulations. As noted (1.3.3), criteria and procedures are clearly set out in documentation and websites: very positive steps have been taken to promote legal certainty amongst species users.

The Acts do not provide a legal basis for species action or recovery plans: existing plans have been developed on an informal basis (e.g. for corncrake). that the adoption of the national Biodiversity Action Plan should make it easier to prioritise species action and research programmes, allocate responsibilities amongst named partners (including NGOs) and establish targets, indicators and evaluation procedures. Programmes should, as appropriate, include measures for management of invasive species and for reintroduction or reinforcement of native species populations (see 3.6-7).

Species recovery plans should also be used to coordinate non-site-specific conservation in the wider countryside and dispersed sites. This is important for WAA 2000, which contains far-reaching provisions on species habitats (irrespective of where these occur). Information tools could be designed to alert owner/occupiers, local authorities and public contractors to the likely presence of important species and to provide guidance on activities and management practices to minimise disturbance of species or their habitats throughout the life cycle. Improved liaison should also extend to the police and public prosecution service, to build awareness at the investigation and enforcement level.

Dúchas could usefully develop guidance for delivery through agricultural, forestry, fisheries and infrastructure agencies (e.g. in a different context, it has developed a Code of Practice on Archaeology for the National Roads Authority). It already draws up farming and forestry prescriptions in REPS, but these probably need to be more detailed to achieve significant conservation benefits for particular species with specific requirements.

### **Integration of biodiversity into sectoral frameworks**

Ireland is well-placed to develop an integrated approach to terrestrial and inland water planning, provided that appropriate resources and commitment are available to implement new policies.

On land, the improved 'toolkit' under the Planning and Development Act 2000 and new EIA regulations need to be made fully operational. The draft National Spatial Strategy and the National Heritage Plan should recognise the interdependence of site-specific measures and broader land and resource planning, to protect important and local components of biodiversity against external activities and to minimise the phenomenon of 'protected islands'.

For river basins, planning and legislation to implement the EC Water Framework Directive should provide a structured framework for improved management of water pollution, river and associated wetland habitats, riparian zones, fisheries and potentially damaging activities (flood defence, other inland waterways works). This is a priority issue in a country with Ireland's exceptional wetland biodiversity.

The position is weaker for coastal and marine planning. Ireland, as a maritime country with a long coastline, urgently needs a strategy and appropriate tools for integrated coastal zone management. This should be consistent with EU policy and international best practice: as far as practicable, it should be coordinated with coastal management policy in Northern Ireland. A strategy or guidelines should, as a priority, seek to minimise ribbon strip coastal development which is permanently changing the character of some remaining natural coastal areas.

Important steps have been taken in the forestry and farming sectors to integrate biodiversity considerations and to end grant aid for damaging activities in sensitive areas. In the energy generation sector, however, there is a need for greater harmonisation between conservation policies for sensitive habitats and programmes for peat extraction and peat and wind power production. In line with OECD recommendations, the continued use and subsidisation of peat for power production should be reevaluated.