



# Biodiversity

## Applying European Directives

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# Professional Ecology



• What are professional ecologists?

• What do they do?

- Policy Advisors
- Legislation Advisors
- Implementing Conservation Legislation
- Species/Habitat Assessment Surveys
- Land Management and Advice
- Habitat Creation, Restoration and Management
- Marine / Freshwater / Terrestrial Ecology
- Forestry / Agriculture / Fisheries Advice and Management
- Mitigation for Development
- Environmental Impact Assessment (EIA)
- Other





# Professional Ecology



- Where do professional ecologists work?

- Local Authorities
- Government Agencies
- Industry
- Teaching and Research
- Designated Sites and Protected Areas
- Non-Governmental Organisations
- Other



# Professional Ecology



- How do professional ecologists fit in with other environmental professionals in Europe and the UK?

Engineering, Architecture, Roads, Railways, Housing, Construction, Etc.

- Professional ecologists are not political activists!





# Professional Ecology



What is the role of IEEM  
in the profession of ecology  
and environmental management?



# Professional Ecology



The Objectives of IEEM are:

1. To advance the science, practice and understanding of ecology and environmental management for the public benefit in the United Kingdom and internationally;
2. To further the conservation and enhancement of biodiversity and maintenance of ecological processes and life support systems essential to a fully functional biosphere;
3. To further environmentally sustainable management and development;
4. To promote and encourage education, training, study and research in the science and practice of ecology, environmental management and sustainable development; and
5. To establish, uphold and advance the standards of education, qualification, competence and conduct of those who practise ecology and environmental management as a profession and for the benefit of the public.



# Environmental Policy in Europe



## Directorates-General XI (Environment)

The 11<sup>th</sup> Directorates-General (DG) is the Environment DG

1 of 36 DGs that make up the European Commission

Main role is to initiate and define new environmental legislation and to ensure that measures are put into practice in the member states

Source: European Commission



# Europe



## 6<sup>th</sup> Environmental Action Programme (EAP) of the European Community 2002-2012

### Seven (7) Environmental Thematic Strategies:

- Air Pollution
- Prevention and Recycling of Waste
- Protection and Conservation of the Marine Environment
- Soil
- Sustainable Use of Pesticides
- Sustainable Use of Resources
- Urban Environment

Source: European Commission



# Europe



## 6<sup>th</sup> Environmental Action Programme (EAP) of the European Community 2002-2012

### Four (4) priority areas for urgent action:

- Climate Change
- Environment and Health and Quality of Life  
Air Pollution, Sustainable Use of Pesticides, Urban Environment
- Natural Resources and Waste  
Prevention and Recycling of Waste, Sustainable Use of Resources
- Nature and Biodiversity  
Protection and Conservation of the Marine Environment, Soil

Source: European Commission



# EC Environmental Directives



- Environmental Impact Assessment Directive
- Water Framework Directive
- Environmental Liabilities Directive (not yet transposed)
- Wild Birds Directive
- Habitats Directive



# Habitats and Birds Directives



- **NATURA 2000**  
Wild Birds Directive (1979) and Habitats Directive (1992)
- **In Europe (including the UK)**  
Special Protected Areas (SPAs)  
Special Areas of Conservation (SACs)
- **Transposed into UK legislation by the**  
Conservation (Natural Habitats, & c.) Regulations 1994



# Habitats and Birds Directives



## **Wild Birds Directive (1979)**

The Birds Directive protects all wild birds, their nests, eggs and habitats within the European Community. It gives EU member states the power and responsibility to classify Special Protection Areas (SPAs) to protect birds which are rare or vulnerable in Europe as well as all migratory birds which are regular visitors.

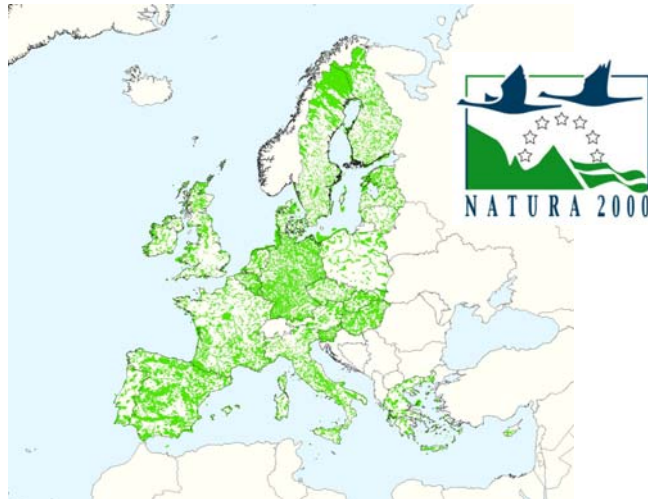
## **Habitats Directive (1992)**

The Habitats Directive builds on the Birds Directive by protecting natural habitats and other species of wild plants and animals. Together with the Birds Directive, it underpins a European network of protected areas known as Natura 2000. This network includes SPAs classified under the Birds Directive and a new set of international nature conservation areas introduced by the Habitats Directive, Special Areas of Conservation (SACs).

Source: Scottish Natural Heritage



# NATURA 2000



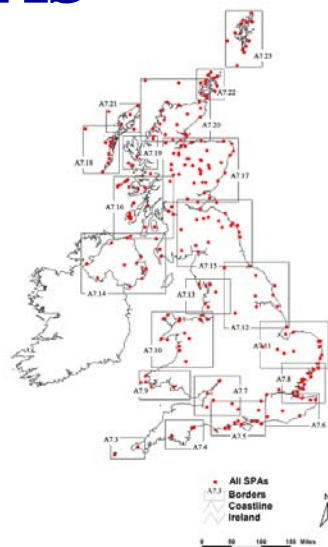
*"A European network of protected sites which represent areas of the highest value for natural habitats and species of plants and animals which are rare, endangered or vulnerable in the European Community"*



# SPAs



- 251 sites in the UK covering 1,520,124 hectares
- 13 more potential sites



Source: Joint Nature Conservation Committee



# SPAs



Severn Estuary,  
Wales



Belfast Lough,  
Northern Ireland



St Kilda,  
Scotland



Salisbury Plain,  
England



Source: Joint Nature Conservation Committee



# SPAs



Protected Birds	No. Species
Divers and Grebes	8
Seabirds	11
Gulls, Terns and Skuas	15
Crakes and Rails	3
Hérons, Bitterns and Egrets	3
Birds of Prey and Owls	11
Waterfowl	33
Waders	33
Other Birds	9
<b>TOTAL</b>	<b>126</b>



Red Kite



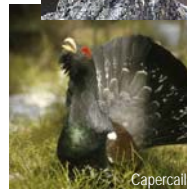
Mallard



Puffin



Bittern



Capercaillie

Source: Joint Nature Conservation Committee





# SACs



- 611 SACs in the UK covering 2,504,662 hectares
- 16 possible and draft sites (pSACs and dSACs) covering 2,485,122 hectares (mostly offshore marine sites)



Source: Joint Nature Conservation Committee



# SACs



Dead Island Bog,  
Northern Ireland



Wye Valley Woodland,  
Wales



Dover Cliffs,  
England



Ben Nevis, Scotland



Source: Joint Nature Conservation Committee



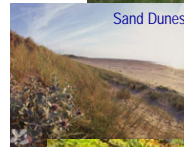
# SACs



## Habitats

- Marine, Coastal and Halophytic Habitats
- Coastal Sand Dunes and Continental Dunes
- Freshwater Habitats
- Temperate Heath and Scrub
- Sclerophyllous Scrub (Matorral)
- Natural and Semi-Natural Grassland Formations
- Raised Bogs and Mires and Fens
- Rocky Habitats and Caves
- Forests

**189 TOTAL HABITAT TYPES**



Source: Joint Nature Conservation Committee



# SACs



## Species

- Invertebrate Species
  - e.g. Molluscs and Arthropods
- Vertebrate Species
  - e.g. Fishes and Mammals
- Lower Plant Species
  - e.g. Mosses and Algae
- Higher Plant Species
  - e.g. Flowering Plants and Trees

**788 TOTAL SPECIES**



Source: Joint Nature Conservation Committee



# Protected Areas



	UK	Italy	Europe	World
Protected Area (ha)	2,571,240	3,374,224	193,357,332	1,439,529,732
Total No. of Protected Sites	7,191	664	51,690	98,400
% of Total Land Area Protected	10.5	11.2	8.4	10.8



Source: World Resources Institute



# NATURA 2000 Implications



- Requirement for Appropriate Assessment alongside EIA
- Review of existing consents and licences
- SEA of plans and programmes potentially impacts SPAs/SACs
- Management and monitoring to maintain/restore favourable status

