6.2 An historical perspective

The protection of the natural environment has a long tradition in England. There are many ancient laws that limit the use of common land (see Section 2.5.2) and protect game species from over-exploitation. However, most of the legislation and practice that exists to conserve biodiversity, protect landscape character and promote public access and enjoyment originated in the 20th and 21st centuries.

National Parks and Access to the Countryside Act 1949
The designation of areas of land and water as protected areas has been the cornerstone of conservation strategy, not just in England but in the rest of the world. A suite of such designations was introduced under the National Parks and Access to the Countryside Act 1949. These remain central to conservation strategy in England today, although the laws and policies that regulate protected areas have evolved in the past half-century, usually to give sites greater protection.

The most extensive of these designations in terms of area are National Parks and Areas of Outstanding Natural Beauty (AONBs), which cover 23% of England (see Section 2.3.1). These areas contain our finest landscapes and their designation is intended to protect natural beauty and, in the case of National Parks, promote public access.

The 1949 Act laid a duty on county councils to prepare definitive maps of rights of way in their areas. This has proved an immense task and the Wildlife and Countryside Act 1981 introduced a system of continuous revision. While the 1949 Act did provide for the creation of long distance routes (now known as National Trails), with the first route, the Pennine Way, opening in 1965, it failed to introduce a right of open access to mountain, moor, heath and down for which walkers' groups had long lobbied. The Countryside and Rights of Way Act 2000 finally provided for a right of access for open air recreation on such land and on registered common land. The right was introduced progressively across the country as maps were prepared, with the last area being completed in October 2005.

The 1949 Act also allowed for the setting up of National Nature Reserves (NNRs), which were owned or managed by the then Nature Conservancy, now Natural England. This designation was extended in 1981 to sites of national nature conservation importance owned or managed by other competent organisations.

In 1992, the aims for NNRs were set out as being to improve their management; to use this improved management skill to assist practice elsewhere; and to make them more available for people to enjoy, involving local communities in the process. Although the aims have subsequently been restated in other words, these broad intentions have remained at the forefront of Natural England's commitment to NNRs. Chosen to be among the scientifically most important wildlife sites, NNRs also have a research purpose, and many of the methods of habitat management now used were researched upon NNRs.

Sites of Special Scientific Interest

Although Sites of Special Scientific Interest (SSSIs) were originally seen as less important than NNRs, a legal obligation to notify local authorities about their location and importance was also established in 1949. SSSIs protect terrestrial and freshwater but not marine sites. The series of SSSIs continued to grow in the decades after 1949 and, by the 1970s, national and local scientific expertise was being deployed in the systematic identification and notification of SSSIs, using the 'Criteria for Key Sites' first set out in *A Nature Conservation Review* in 1977.

During the 1970s, although general concern about the impact of agricultural intensification had increased, the Nature Conservancy had few powers to influence SSSI owners' decisions over changes in land use, other than persuasion. The climate of opinion precluded the use of available compulsory purchase powers. Thus, despite increasing recognition of their importance, SSSIs were still being actively damaged or destroyed before, during and after notification.

The central role of SSSIs in nature conservation policy was not fully established until the Wildlife and Countryside Act of 1981. Among a broad range of conservation measures, the 1981 Act required that owners and occupiers of SSSIs were notified of the sites and their scientific interest. Owners and occupiers in turn were required to notify the Nature Conservancy Council (now Natural England) if any potentially damaging operations were to be carried out, such as conversion of grassland to arable or afforestation. Initially, compensation payments were made to SSSI owners and occupiers for not carrying out potentially damaging operations (prompting some landowners to propose activities they had little intention of carrying out). Over time, this arrangement evolved into the Wildlife Enhancement Scheme (WES) for payment for positive conservation management on SSSIs.

Changes in farming practice, and the rapid spread of car ownership post-war, led to many unforeseen pressures on both National Parks and nature reserves. By the 1960s, National Parks were being seen as victims of their own popularity, and the 1968 Countryside Act gave local authorities powers to establish Country Parks. These were to be located close to major centres of population and intercept visitors who might otherwise have journeyed further into the countryside. Over 300 have been created since, often in the process opening up previously private parkland or newly reclaimed derelict land.

In recent decades, various types of neglect and mis-management have become the principal cause of damage to SSSIs. Between 2000 and 2008, Government had a Public Service Agreement target to restore 95% of SSSIs to favourable or recovering condition (Defra 2008c). This has made improving management of SSSIs one of the core conservation activities of recent years. The Countryside and Rights of Way Act 2000 not only greatly increased the area of access land for countryside visitors, but also further strengthened the protection of SSSIs. This included giving a statutory duty to public bodies to further the conservation and enhancement of SSSIs, and English Nature (now Natural England) was given powers to ensure that appropriate management of SSSIs is carried out.

International protection

Following the Ramsar Convention in 1971, there has been a steady growth in international agreements and legislation relating to nature conservation. In most cases, this has involved the designation of a series of protected areas that meet international criteria, with overlapping designations at sites that qualify under more than one set of criteria. In addition to the Ramsar sites, which are internationally important wetlands, there are Special Protection Areas (SPAs) under the 1979 EC Birds Directive, Special Areas of Conservation (SACs) under the 1992 EC Habitats & Species Directive, Geoparks and a World Heritage Site. For the most part, the sites of international biodiversity or geodiversity importance are already designated under domestic legislation – all are SSSIs apart from marine areas. However, international agreements and legislation often bring higher levels of protection. For the first time, the Birds and Habitats Directives provided a mechanism for including significant areas of marine habitat within protected areas, one of the few conservation measures for the marine environment in place.

Species protection

In contrast to the approach for habitats, the protection of many species is not easily achieved through site designations. Designation does not ensure protection – for example capturing or killing species may occur without the permission of the notified site owner or manager. Furthermore, many uncommon and threatened species occur in the wider countryside outside of protected areas.

The first English law aimed at protection of wildlife because of concern over its conservation (there is earlier legislation relating to game and pest species) was the Seabirds Preservation Act of 1869, which came into force long before the concept of the nature reserve or protected area was developed. In practice, many laws regulate the exploitation of wild species, or the control of wild and introduced plants and animals deemed to be pests. There are, for example, specific Acts of Parliament relating to Seals, Deer, Badgers and Weeds. However, the most important legal instruments in terms of species conservation are the Wildlife and Countryside Act 1981 and the Conservation (Natural Habitats &c.) Regulations 1994, which give stringent protection to some of the most threatened species in England, many of which are also of Europe-wide conservation concern. Under these laws, activities that could threaten a listed species' survival at any locality (eg disturbance including by photography, and scientific research) are illegal without a licence from Natural England. Such licences are granted only under strict conditions, to avoid damage the species' survival prospects. These laws also require the regular review of the lists of protected species, so that species of emerging conservation concern can be added to the list. Those whose status has improved can be removed from such strict protection. Later, a further series of regulations was introduced to arrest the decline of the natural environment outside of the protected areas series, including the Hedgerows Regulations in 1997, Environmental Impact Assessment (EIA) for uncultivated land and semi-natural areas in 2002, as well as the Heather and Grass Burning Regulations and Code.

Other regulatory pathways have been used to solve conservation problems, including prohibitions and regulations not linked to specific sites or species. One of the main environmental concerns of the 1960s was the impact of pesticides, in no small part due to the publication of Rachel Carson's *Silent Spring*. In Britain, work by Derek Ratcliffe and others at the Nature Conservancy on peregrine falcons showed convincingly that the decline of predators such as birds of prey and the otter was due to the build up of toxic levels of pesticides in their bodies. Despite fierce opposition from the pesticide producers and users, eventually the compelling science led to the removal from use of persistent pesticides such as DDT, and in due course dieldrin and lindane. In addition to the setting up of a mechanism of pesticide approval – the licensing and monitoring of which continues to this day – the thorough scientific investigation of the problem did much to promote evidenced-based conservation and a respect for conservationists' views in government and industry.

Agri-environment schemes

In the 1970s and 1980s, there was increasing public concern about the impact that agricultural intensification was having upon landscapes and wildlife in the wider countryside outside of protected areas. The drainage and conversion to arable crops of grassland at Halvergate Marshes in the Norfolk Broads brought this issue into focus in the 1980s, not least because much of the damaging land use change was encouraged by government subsidies to farmers. The first incentive scheme that paid farmers for managing their land in an environmentally beneficial way was set up in 1987 when five Environmentally Sensitive Areas (ESAs) were established. The ESA scheme offered financial incentives to encourage farmers to adopt agricultural practices that would safeguard and enhance parts of the country of particularly high landscape, wildlife or historical value. The ESA scheme aimed to maintain and enhance the nature conservation, landscape and historical value of the key environmental features of an area and, where possible, improve public access to these areas. In signing up to a 10- year management agreement, farmers received an annual payment on each hectare of land entered into the scheme. Between 1987 and 1994, 22 ESAs were established in four stages, including very familiar landscapes such as the South Downs and Pennine Dales, as well as lesser known areas, such as the Clun, on the Shropshire-Wales border, and the Blackdown Hills which straddle the border between Devon and Somerset. These 22 ESAs covered around 10% of England's agricultural area.

In 1991, the Countryside Stewardship scheme was launched by the Countryside Commission as a pilot scheme. Outside of ESAs, this became the Government's main scheme for enhancing the wider countryside aiming, through the payment of grants, to improve the natural beauty and diversity of the countryside; to enhance, restore and re-create targeted landscapes, their wildlife habitats and historical features; and to improve opportunities for public access.

In 2005, a national agri-environment scheme, Environmental Stewardship, was launched. This scheme is open to all farmers and its primary objectives are wildlife conservation, landscape quality enhancement, protection of the historic environment, natural resource protection and improved public access, with genetic conservation and flood management as secondary objectives. The scheme takes a tiered approach. Entry Level Stewardship (ELS) is intended to provide improved countryside management through relatively simple activities and now covers over 50% of England's farmland. Higher Level Stewardship (HLS) is more relevant to farmland that is of high environmental value and, in return for higher levels of payment, much greater commitment to natural environment management is required.

Woodland

Conservation of woodland has been strongly associated with the powers of the Forestry Commission. The Forestry Act 1967 sets out the Forestry Commission's functions, requiring landowners to apply for a licence (with minor exceptions) to fell growing trees and giving the Commissioners powers to pay grants to private landowners for the establishment and management of woodland. The original Forestry Commission objective for forestry was timber production, but by the late 1980s the natural heritage value of woodland had become increasingly recognised as important. The Forestry Commission's Broadleaves Policy of 1985 recognised that broadleaved woodland should be maintained and enhanced. The Broadleaved Woodland Grant Scheme awarded higher rates of grant than were available for planting conifers and began to reverse the trend of replanting ancient woodland with conifers.

Changes to taxation legislation in 1988 shifted the emphasis in afforestation from large-scale conifer plantations to smaller scale broadleaf planting. The trend towards more multi-purpose forestry was reinforced in the 1990s through the Biodiversity Action Plan and production of the UK Forestry Standard (Kirby 2003b).

The change in the approach to ancient woodland, started in 1985, has recently been further consolidated by the publication of the Government's policy for England's ancient and native woodland, *Keepers of Time* (Forestry Commission 2005). This states that, "The existing area of ancient woodland should be maintained, and there should be a net increase in the area of native woodland". Defra's Planning Policy Statement 9 (PPS9) also strengthens protection of ancient woodland. Restoration of important open habitats (such as heathland or peatland) that had been planted with trees during the 1950s and 1960s is increasingly undertaken and a new policy framework for this is being developed during 2008.

Protection of individual trees is administered by Local Authorities through Tree Preservation Orders (TPO) under the Town and Country Planning (Tree Preservation Order) Regulations 1969 as amended and TPO Regulations 1999. Local authorities issue TPOs, and owners need to make an application to the Forestry Commission to fell trees covered by a TPO. Planning guidance also states that "aged and veteran" trees are important for biodiversity and "their loss should be avoided".

Landscapes

The limitations of confining protection to just the 'best' landscapes became increasingly obvious in the 1980s. This led to a new approach of assessing the landscape character of every area and the publication, in 1996, by the Countryside Commission and English Nature of a map showing the Character of England, landscape, wildlife and natural features. One key use envisaged for the map was in helping to identify where and how to tailor agri-environment schemes and other delivery mechanisms to the landscape character of each area.

In the 1980s, the Countryside Commission also recognised that most open-air recreation trips were not to specific sites, but to the wider countryside, particularly close to towns, with the public rights of way network being the single most important means of enjoying the countryside. From 1987, it began promoting the opening up of this network.

Freshwater

Our rivers, streams, lakes, ponds and canals currently pose some of the greatest challenges for natural environment protection. Our freshwaters have been afforded a similar level of protection to that afforded to terrestrial habitats. For example, our largest and most important lakes are included within the Lake District National Park and many freshwaters are SSSIs, SPAs, SACs or Ramsar sites. Similarly, a number of freshwater species such as the great crested newt *Triturus cristatus* and floating water-plantain *Luronium natans* are given strict legal protection. However, these measures do not solve the problems caused by the fact that our most important freshwaters are fed by water that has previously crossed other land. Land management and other activities elsewhere in the catchment can undermine conservation activities within protected areas due to point and diffuse sources of pollution. Although legislative control of water quality goes back to the Victorian period, laws and regulations that address the most severe natural environment problems are much more recent. In the past two decades, a wide range of regulatory mechanisms was introduced, such as the Water Resources Act 1991 and Water Act 2003, which control contamination. Added impetus to solving the problems of freshwater pollution was given in 2000 by the EC Water Framework Directive, which requires member states to restore or maintain freshwaters in "good ecological condition". The regulation of recent years has meant that many point sources of freshwater contamination have been cleaned, although this task is by no means complete. In contrast, diffuse water pollution from agriculture has proved to be a recalcitrant problem. In 2006, Defra launched a Catchment Sensitive Farming programme. This is aimed at improving the water quality in 42 catchments where farming practices most severely impact upon water quality, through a combination of advice and grant schemes administered by Natural England.

Planning

In a densely settled country such as England much of our countryside and coast would be lost to development over time were it not for the Town and Country Planning system. In large part, the planning system has its origins in the years immediately following the Second World War. At that time, the rapid expansion of built development was seen as the main potential cause of damage to the countryside. A main purpose for the designation of National Parks, AONBs and SSSIs in 1949 was to identify sites where there should be a presumption in planning decisions against such development. Although in the following decades increasing weight was given to the protection of designated sites, with many potentially damaging developments on protected areas subject to public inquiry, nonetheless there was almost no statutory provision for conservation needs outside of SSSIs to be taken into account in the planning system. The situation was greatly improved in 1994 with the publication of Planning Policy Guidance 9: Nature Conservation (PPG9) which, as well as re-emphasising to planning authorities the importance of designated sites, also required them to consider wildlife outside of protected areas, both habitats and legally protected species. This was to be done primarily through Structure Plans and Local Plans, with a presumption that Environmental Assessment would be carried out over proposed development that could damage wildlife. Planning Policy Guidance 7: Planning and the Rural Economy (PPG 7) in 1992 provided guidance on the protection of National Parks and AONBs from major developments. A further significant step was taken in 2005 in Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9), which required the production of Regional Spatial Strategies and Local Development Frameworks, which give a consideration to all habitats, species and features of geological importance, both inside and outside protected areas. Most importantly, PPS9 required that places where biodiversity enhancement could take place be identified in the strategies and frameworks, along with measures of success.

Biodiversity

The signing of the 1992 Biodiversity Convention in Rio de Janeiro did not introduce new requirements for protected areas, but emphasised the need to halt the loss of global biodiversity. Progress in responding to our commitments under the Convention was rapid in the UK, and by 1994 a UK Biodiversity Action Plan (UK BAP) was published. In several important ways, this plan was a departure from established practice. Firstly, it was not prepared by government or a government agency, but was the result of a partnership that also included local government, voluntary bodies, business and the research community. The core of the work on BAP has been the delivery of conservation for priority species and priority habitats through action plans. Between 1995 and 1999, 43 Habitat Action Plans and 347 Species Action Plans were published relating to habitats and species in England. Such plans are not the only delivery frameworks for BAP. In 2002, the England Biodiversity Strategy *Working with the Grain of Nature*, was published in order to provide a framework for action in the main water and land use sectors. Local activity is co-ordinated through more than 170 Local Biodiversity Action Plans in England. Reporting on BAP activity in 2005 provided an overview of progress, and there is now a shift to a more integrated approach to habitats and species and an increase in the number of priority species in England to 943, and the number of habitats to 56.

Biodiversity funding in the UK

Biodiversity exhibits public good characteristics (i.e. it is **non-rivalrous** in consumption – one person's consumption does not reduce the amount available for others, and **non-excludible** – everyone is able to enjoy at least some of the benefits provided). This makes it very difficult for those that conserve biodiversity to earn sufficient returns on any investment. As a result, other things being equal, too few resources are likely to be allocated to biodiversity provision from society's perspective.

Biodiversity conservation in the UK is, therefore, very reliant on public funding and charitable donations. For example, recent research (GHK 2006) estimates that the cost of meeting the UK Biodiversity Action Plan targets is likely to exceed £670 million per year between 2005-2010. Public and Non Governmental Organisation (NGO) annual expenditure on biodiversity in the UK in 2005/06 was estimated at £551 million which suggests that a significant funding gap remains, despite a 60% increase in spending in real terms over the last five years.

Marine

Marine conservation has lagged behind that for our land and freshwaters, despite the high biodiversity importance of England's seas, which represent a high proportion of the shallow, flooded continental shelf of Europe. Under the National Parks and Access to the Countryside Act 1949, the only areas of sea that could be notified as SSSI were those that fell within a local authority jurisdiction. This meant that protection by designation was afforded only to a few estuaries and other relatively small inshore areas. The Wildlife and Countryside Act 1981 introduced an obligation of the Nature Conservancy Council (NCC) to notify Marine Nature Reserves (MNRs). However, the Act placed the onerous requirement on the NCC to accommodate the interests of all the other users of the sea before an MNR could be notified. As a consequence, in 27 years only one MNR has been designated in England: Lundy in the Bristol Channel. The 1992 Habitats Directive gave great impetus to marine conservation by requiring member states to notify SACs for 13 marine habitat types and 8 marine species. There are currently 28 SACs and 40 SPAs with marine components, while another 10 sites in UK offshore waters are being evaluated for their potential to become SACs.

Fishing has one of the greatest impacts upon the marine environment, particularly using trawls and other fixed gear, which leave the seabed heavily disturbed. In other parts of the world, no-take zones have been established as a mechanism for protecting special marine environments and providing a refuge where commercially fished species can breed, with the objective of replenishing commercial stocks outside the no-take zone. The first such no-take zone in England was established at Lundy in 2003, and the early signs are that it has benefited both biodiversity conservation and local fishermen.

Landscape-scale

The 1949 legislation was predominantly about protecting the best sites from urban development. We have since learnt that day-to-day management is just as important in securing the landscape and nature value of such sites. But we have also found that we need to secure the health of the natural environment as a whole if we wish to live sustainably and conserve biodiversity. Similarly, just protecting the best 20% of our landscapes leaves 80% unprotected. Recognising the character of our landscapes everywhere gives us a chance to maintain or enhance that character as necessary change, be it for urban development or as a result of changing market demands for food and fibre, takes place.

Access

In 1949, open air recreation, especially in the uplands, was for the enthusiast, not the masses, and the legislation was framed accordingly. The demands of mass car-borne visitors in the 1960s were seen as a threat to be corralled or minimised, not an opportunity to be grasped. Only when visitors stayed away en masse during the Foot and Mouth epidemic of 2001 were the benefits they brought to National Parks and the countryside generally realised. But competition for the public's leisure time has also grown since the 1960s. While open-air recreation in the natural environment is still a mass activity, it is no longer growing. As a result, if people are to enjoy the benefits to health and wellbeing that contact with the natural environment brings, and to support the protection of the natural environment in the future, simply providing the facilities will not be enough.