

# inpractice

Issue 75 | March 2012



## Planning Reform and Biodiversity

### In this issue

A Cunning Plan...  
or a Plan too Far?

EclAs: The Spirit Versus  
the Letter of the Law?

Using BREEAM Assessments  
to Deliver Benefits for  
Urban Wildlife

## Welcome

# From your CEO

Bob Dylan is quoted as once saying “*There is nothing so stable as change.*” Whilst I may argue the semantics over the use of the word ‘stable’ in this context, the point he was making is a good one. Change is permanently around us, affecting our work, influencing our behaviour, changing our attitudes and perceptions. We live in a fast-changing world and it often seems that we are in a period of constant uncertainty. Sometimes that can be overwhelming but it can also signify good things and great opportunities.

The Institute is changing. Some of those changes are very obvious – the new look of *In Practice* for example. The same style of content but a new, fresher and more modern look that some of you will like and some of you will not, because design is subjective. We would like to hear your feedback regardless. This April we should have a new website as well, with a similarly fresher look, better navigation and more interactive functionality. The intention is to provide you, the members, with a better service and information resource whilst also demonstrating to our external audiences the vibrancy and scope of our profession.

But some important changes are less obvious. Over the past 12 months various member-led working groups have been looking at several strategic and operational areas of our work. These include the Institute’s governance arrangements, how we implement the Disciplinary Process, the criteria for each membership grade and how we assess those criteria. Important considerations for the future growth and direction of IEEM. Of course, one of the biggest changes may well come later this year if our application for a Royal Charter is successful and we become the Chartered Institute of Ecology and Environmental Management with all the responsibility and opportunity entails.

The operating environment for our profession is also changing quite significantly. Reform of the planning system is a topical issue with the new National Planning Policy Framework emerging for England, a major review underway of the planning system in Wales, evidence gathering taking place for National Planning Policy Framework 3 in Scotland and a recent new Planning Act for Northern Ireland. Planning reform presents both opportunities and challenges for biodiversity (hence the theme for our Spring Conference later this month and for this issue of *In Practice*) and will impact on our work whether it be for an NGO, a local authority, as a private sector consultant, in a statutory agency, or in teaching and research. The current review of the implementation of the European Habitats and Wild Birds Directives in England is another example of a potential change to how we do our work.

I believe that it is right and proper that IEEM engages and seeks to influence the operating environment for the profession in order to achieve positive change. We have a wealth of experience and expertise to draw on from members working across all sectors. Our challenge is to find ways of harnessing and utilising **your** knowledge and ideas to maximise our impact. The opportunities are there if we can only grasp them.

**Sally Hayns MIEEM**

Chief Executive Officer, IEEM

## Information

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### Editor

Mr Jason Reeves (jasonreeves@ieem.net)

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### IEEM Office

**43 Southgate Street, Winchester,  
Hampshire, SO23 9EH, UK**

**T: 01962 868626**

**E: [enquiries@ieem.net](mailto:enquiries@ieem.net)**

**W: [www.ieem.net](http://www.ieem.net)**

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# Contents



PG 7

## A Cunning Plan... or a Plan too Far?

*Richard Wilson, Penny Simpson*



PG 12

## All that Glitters, is it Gold?

*Richard Wilson*



PG 15

## Designing a System to Secure Ecological Sustainability

*Roger Morris*



PG 20

## Exposing, Exploring and Navigating the Built and Natural Environment

*Alister Scott*



PG 24

## The Biodiversity Planning Toolkit

*Andrew Williams, Mike Oxford, Ann Skinner*



PG 26

## EclAs: The Spirit Versus the Letter of the Law?

*Katherine Drayson, Stewart Thompson*



PG 30

## Using BREEAM Assessments to Deliver Benefits for Urban Wildlife

*David Smith, John Day*



PG 36

## Backlash Against Bats?

*Johnny Birks, Lisa Kerslake, Richard Crompton, Lisa Hundt*

02	Editorial
03	Contents and Information
04	News in Brief
	Feature Articles
07	- A Cunning Plan... or a Plan too Far? <i>Richard Wilson, Penny Simpson</i>
12	- All that Glitters, is it Gold? <i>Richard Wilson</i>
15	- Designing a System to Secure Ecological Sustainability <i>Roger Morris</i>
20	- Exposing, Exploring and Navigating the Built and Natural Environment Divide in Public Policy and Planning <i>Alister Scott</i>
24	- The Biodiversity Planning Toolkit <i>Andrew Williams, Mike Oxford, Ann Skinner</i>
26	- ECIAs: The Spirit Versus the Letter of the Law? <i>Katherine Drayson, Stewart Thompson</i>

30	- Using BREEAM Assessments to Deliver Benefits for Urban Wildlife <i>David Smith, John Day</i>
36	- Backlash Against Bats? <i>Johnny Birks, Lisa Kerslake, Richard Crompton, Lisa Hundt</i>
40	- Ecology Legal Update <i>Penny Simpson</i>
44	Institute News
46	Institute Activities
49	New and Prospective Members
50	Internal Articles - Applying for Fellowship
53	Recent Publications & Journals
58	Tauro-Scatology
59	Diary





### Environmental internships report published

The Institution of Environmental Sciences (IES) has recently published a report on the role of internships in the environmental sector. Internships are becoming a prominent way for graduates to first gain experience in the environmental sector, either as a means of securing employment or to strengthen applications for other organisations. As internships have not been a common stepping stone between university and employment until recent years, there is much uncertainty from graduates and employers alike regarding what graduates should expect and what employers should provide. The report uncovers the vital statistics such as the average duration of an internship and how usual it is for internships to be paid or unpaid and whether expenses are covered. The report explores what benefits graduates and employers gain from internships and employers' attitudes towards graduates' skills. Key findings suggest internships provide valuable experience, but do not necessarily lead directly to employment. Read the full report at [http://www.ies-uk.org.uk/resources/papers/graduate\\_employment\\_and\\_internships\\_report.pdf](http://www.ies-uk.org.uk/resources/papers/graduate_employment_and_internships_report.pdf).

### New POSTnotes

The Parliamentary Office for Science and Technology has recently published two new POSTnotes that may be of interest to members. The first is on Natural Flood Management (no. 396) and the second is on Open Access to Scientific Information (no. 397). Both publications address issues that overlap with the conservation and enhancement of the natural environment. Find out more at <http://www.parliament.uk/mps-lords-and-offices/offices/bicameral/post/publications/>

### New lichen species discovered in Wales

Plantlife experts have found, in the grounds of Gregynog Hall in Powys, an internationally important lichen that has never been seen in Wales before - *Enterographa sorediata*. The discovery adds further importance to an already special area. Read more at [www.plantlife.org.uk/about\\_us/news\\_press/great\\_discovery\\_in\\_a\\_great\\_welsh\\_wood](http://www.plantlife.org.uk/about_us/news_press/great_discovery_in_a_great_welsh_wood).

### Wales Coast Path to open in 2012

May 2012 is scheduled to see the opening of the 870 miles of the Wales Coast Path. The path will provide a continuous walking route around the whole of Wales – from the outskirts of Chester in the north to Chepstow in the south. It will be as near to the coast as legally and physically practicable, whilst fully taking into account the needs of health and safety, land management and conservation.



### Badger control pilot locations in England announced

Following the announcement that two locations in West Gloucestershire and West Somerset have been selected to pilot the Government's badger control policy, Natural England will now begin working with licence applicants in both areas to advise on the next steps of the applications process.

Natural England has emphasised its commitment to delivering a licensing service of the highest quality, providing expert help and advice to applicants; and ensuring that licences are assessed securely, impartially and efficiently. Licence applications will be assessed against detailed criteria set out in the Government's published Guidance to Natural England ([www.defra.gov.uk/publications/files/pb13692-bovinetb-guidance-ne.pdf](http://www.defra.gov.uk/publications/files/pb13692-bovinetb-guidance-ne.pdf)). Provided the criteria are met, Natural England expects to be able to grant licenses in the two pilot areas in early summer 2012 – with control measures then taking place in the autumn.

Any other licence applications received during this period will be assessed only once the results of these pilots have been evaluated. No other licence applications will be considered until the results of these pilots have been evaluated. Details of the licence application process are available at <http://www.naturalengland.org.uk/ourwork/regulation/wildlife/species/badger/b.aspx>.



### Assembly agrees tougher stance on Strangford Lough

The Northern Ireland Assembly has supported new measures for better protection of Strangford Lough. Measures to protect, monitor and restore the biogenic reefs were agreed following a debate sponsored by the Environment Committee. The agreement came on the eve of an important EU meeting to discuss the plight of Strangford Lough as there is the potential that infraction action in the form of significant fines for Northern Ireland could occur. The Assembly has agreed that, following consultation, it will create two additional sea fisheries exclusion zones, introduce by laws to regulate mooring, anchoring and diving, and undertake further scientific research to examine ways of restoring the biogenic reefs.



### New leaflet highlights Highland hotspots for red squirrels

Fans of red squirrels can now find the best sites to see them in the wilds of the Highlands thanks to a new leaflet showing red squirrel hotspots. As well as providing some information on site facilities, the leaflet includes a red squirrel fact file, as well as details of how visitors can get involved and help record the range and number of red squirrels. All the hotspots are close to car parks to enhance accessibility. To download a copy of the leaflet visit [www.redsquirrelsofthehighlands.co.uk](http://www.redsquirrelsofthehighlands.co.uk).



Photo by Nick Jackson

## Cutting hedgerows less frequently can benefit wildlife

A study, published in *Biological Conservation* (Stanley 2011), into the effectiveness of hedgerow management options in agri-environment schemes (AES), such as Environmental Stewardship (ES) in England has found that cutting hawthorn hedges every three years, or in late winter, can substantially increase resources to benefit wildlife. The most popular ES options in England currently specify cutting hedgerows once every two years, while standard practice outside the scheme is for annual trimming. An alternative ES option involves cutting once in three years. The study found that reducing cutting frequency from every year to every three years resulted in 2.1 times more flowers and a 3.4 times greater berry weight over five years. Cutting every two years also increased flowers and berry provision, but the increase in berry weight depended on cutting hedges in late winter rather than autumn. If hedges currently managed under the most popular ES option (32% of English managed hedgerow length) were managed under a three-year cutting regime instead, the study estimates that biomass of berries would increase by approximately 40%.

## London Assembly publishes report on railway linesides

The report on the management of London's railway linesides, *On the right lines? Vegetation Management on London's Railway Embankments*, highlights the importance of the city's railways for wildlife; over 1,000 ha are identified as Sites of Importance for Nature Conservation, and they support important populations of species such as lizard, slow-worm, woodpeckers, kestrel and wren. Critically the report recommends that Network Rail and Transport for London should communicate more specific detail about maintenance work to local residents and work more closely with the London Biodiversity Partnership. Read the full report at <http://www.london.gov.uk/sites/default/files/Embankments%20Final%20Report.pdf>.



Tree pipit  
Photo by Frank Vassen

## Migrant declines linked to wintering grounds

Many UK-breeding birds that migrate to Africa for the winter have undergone dramatic declines in recent decades. New BTO research in *Bird Study* (Ockendon 2011) shows that both winter habitat and the geographical regions visited had a significant effect on population trends between 1994 and 2008, as measured by data from the Breeding Bird Survey. Species overwintering in the tropical humid zone of west and central Africa declined more rapidly than migrants wintering in other regions. This might be because humid zone species have not advanced their return migration dates as much as species wintering further north, and are therefore not keeping pace with earlier springs in the UK. Humid zone species affected included four on the Birds of Conservation Concern Red List: turtle dove, tree pipit, spotted flycatcher and cuckoo. However, generalist species, including the house martin, did well no matter where they wintered because their ability to adapt to a wide range of habitats allows them to cope with changes to land use in their wintering grounds (e.g. deforestation and agricultural intensification). Conversely, habitat specialists, such as nightingales and garden warblers that rely on understorey and scrub, are likely to be adversely affected by accelerating habitat changes in their wintering grounds, compounding similar effects on their breeding grounds.



Photo by Jim Thompson

## Environmental Stewardship information package available

As the current Rural Development Programme for England (RDPE) draws closer to its December 2013 end date, Natural England has developed a package of information for farmers and agents on Environmental Stewardship (ES). The package provides comprehensive details of how ES will be implemented through the next two financial years. It has been produced to equip farmers, land managers, agents and partners with a clear understanding of the key issues and deadlines for the remainder of the current Rural Development programme. A detailed timetable of activity has been produced, summarising the steps to be taken by ES applicants, land agents and Natural England through the next two financial years. Full information can be found at [www.naturalengland.org.uk](http://www.naturalengland.org.uk).



[www.wildstock.co.uk](http://www.wildstock.co.uk)

## Concern over disease in Irish red squirrels

A red squirrel from Co. Wicklow has died from squirrel pox virus (SQPV). This is the first confirmed record of this virus in the Republic of Ireland. SQPV was confirmed in 2011 in Northern Ireland. The virus is carried by grey squirrels, which do not appear to suffer from it, but it is not clear why the disease is now turning up in Irish red squirrels.

The disease is generally fatal to red squirrels and has been a significant factor in the decline of the red squirrel across England. Red squirrels with SQPV rapidly develop myxomatosis-type symptoms and die within a few days. For more information or to report a suspected case of SQPV please contact [natureconservation@environ.ie](mailto:natureconservation@environ.ie).





Photo by Jenny Downing

### Ramsey Bay designated as the Isle of Man's first Marine Nature Reserve

Underwater surveys have revealed that the bay has a highly complex, thriving and diverse habitat and that it is ideal for the establishment of a reserve which will protect marine life, safeguard local fisheries and provide opportunities for Ramsey to develop as a centre for marine tourism, research and education. The seabed also has eelgrass meadows, kelp forests, reef habitats and bright pink maerl beds as well as an abundance of shellfish and numerous fish species. For more information see <http://www.isleofman.com/lifestyle/article.aspx?article=39963>.

### Five new European Ramsar sites designated

Estonia and Romania have designated three and two new Ramsar sites respectively. Estonia has designated three mire complexes as new Wetlands of International Importance, bringing its total number of Ramsar sites to 16. The three sites are Agusalu, Leidisoo and Lihula. Romania has designated two new sites, bringing its total number of Ramsar sites to eight. The two sites are Comana Natural Park (Parcul Natural Comana) and Poiana Stampei Peat Bog (Tinovul Poiana Stampei). For more information see [www.ramsar.org](http://www.ramsar.org).

### New US Research Helps Predict Bat Presence at Wind Energy Facilities

It is hoped that a new interactive tool developed by researchers from the United States Forest Service's Pacific Southwest Research Station (PSW) will help wind energy facility operators make informed decisions on efficient ways to reduce impacts on migratory bats. The tool can be found at <http://www.fs.fed.us/psw/topics/wildlife/bat/batprob.shtml>.

### High plant diversity is needed to maintain ecosystem services

According to a recent study in *Nature* (Isbell 2011), most species in an ecosystem could help supply essential ecosystem services. The researchers found that 84% of species in the grassland ecosystems they studied contributed towards at least one ecosystem service. Losing any of these species would therefore degrade the ecosystem services that such an environment could provide. The results suggest that, following the precautionary principle, conservationists should protect all of the species in an ecosystem as they cannot be sure which contribute to the provision of ecosystem services, and which may do so if conditions change. Given every species could contribute to ecosystem function in some way, the findings also suggest that ecosystems contain little functional redundancy: if a species is lost, there may be no other species that can take over the provision of the services it provided. The results of the study suggest that other biodiversity studies have underestimated the number of species required to maintain ecosystem services. Previous studies have suggested that multiple species are needed to provide ecosystem services over long periods of time or large areas. They have also suggested that different species contribute to different ecosystem services, or that different species will be needed to maintain or enhance these services as the environment changes in future. However, these studies have not examined how many species are needed to maintain many different ecosystem functions under many different environmental conditions. This latest research is the first attempt to look at all of these variables in a single analysis. In a single context, around 27% of species promoted ecosystem services, and this remained constant regardless of how many species were present. However, when the researchers looked at whether different species contributed to ecosystem function in slightly different contexts (for instance, looking at the same function, place and change scenario, but changing the year), they found there was limited overlap between the groups of species that delivered the services. More species promoted ecosystem functioning as more contexts were considered. The findings suggest that conservationists and others responsible for managing biodiversity need to protect as many of the species in an ecosystem as possible to maintain the supply of ecosystem services. In particular, the study revealed for the first time that almost every species (both common and rare) in an ecosystem contributed at least once to the functioning of that ecosystem and their contributions were context dependent, making it hard to predict the effects of losing even a single species.



### EEA updates interactive water maps

Interactive maps displaying data on surface and groundwater bodies across Europe have been updated by the European Environment Agency (EEA). They include summary statistics at country and river basin district level. The data comes from River Basin Management Plans reported by Member States to the Commission under the Water Framework Directive. Currently, 22 Member States have submitted this information. A new feature includes information on parameters such as the status of the fish population and other ecological factors used for classifying the individual water bodies, alongside information on types of pressures affecting the water body. For rivers, information at water body level is currently only displayed for 11 countries, including the UK but not Ireland. The EEA has also published a new map layer showing the location of river monitoring stations across Europe, and a new Floods Directive map viewer displaying the geographical Units of Management (UoM) and the associated Competent Authorities. For more information see [www.eea.europa.eu](http://www.eea.europa.eu).

### FAO Forestry launches iPhone App



The UN Food and Agriculture Organisation (FAO) has launched an application for the iPhone. The app provides news, videos, select publications, interactive maps showing world forest statistics, and a quiz. It also directs users to the website of FAO's Telefood fundraising programme, which uses public contributions to help poor families achieve food security through financing small-scale agriculture, livestock and fisheries projects. The free app is available from <http://itunes.apple.com/us/app/fao-forestry/id490653521?mt=8>.

# A Cunning Plan... or a Plan too Far?

## Comments on the draft National Planning Policy Framework for England

**Richard Wilson CEnv MIEEM**  
Richard Wilson Ecology

**Penny Simpson**  
Environmental Lawyer, DLA Piper UK LLP

### The Prologue

Modern planning and nature conservation policy, it could be argued, are bedfellows, twins that were conceived during tumultuous times and born amongst the ashes and destruction of London's East End in the immediate aftermath of World War II. Fast-forward 65 years and these policies are, according to the current Government, due for retirement. This article considers the draft National Planning Policy Framework for England (NPPF), its relevance to developers, planners and ecologists and whether they may lead to changes in how biodiversity is protected through the planning system.

### Background

Out of the wide scale destruction experienced by the industrial cities of England during World War II, before the end of hostilities, the Government, through the reports of several committees, recognised the need and the opportunity to effectively and coherently manage post-war reconstruction. Concurrently, a special committee was convened to identify how land management for nature conservation could be managed in England and Wales. The Huxley Committee's *Report of the Wildlife Conservation Special Committee: Conservation of Nature in England and Wales* (Huxley 1947) paved the way in England for our National Parks, Sites of Special Scientific Interest (SSSIs) and Local Nature Reserves (LNRs). The Committee supported the Government's planning policy, reflecting the public's concern to protect the natural environment and to access the countryside, as well as the need to plan development in accordance with need. This historical background is important to place the proposed changes announced in summer 2011 in context, i.e. it was recognised, perhaps crudely, that policies protecting the environment and enabling development could advance together, though not always without challenges.

The following decades witnessed an explosion of ideas, policy, legislation and case-law (both domestic and European) that has resulted in the green belt, protected sites (i.e. Special Protected Areas (SPAs) and Special Areas of Conservation (SACs) in addition to SSSIs) as well as the need to protect individual species. Parallel with these are a host of wide ranging but related and relevant ideas and concepts, notably *Our Common Future* (Brundtland Commission 1987), which defined environmentally sustainable development and the Rio Declaration on Environment and Development (United Nations 1992a) and the resulting Convention on Biological Diversity in 1992 (United Nations 1992b) from which the Biodiversity Action Plan process emerged. More recently, concepts



Five-banded weevil-wasp (*Cerceris quinquefasciata*)

The Five-banded weevil-wasp is a rare Red Data Book wasp found in the south-east of England on exposed sandy ground such as sporadically disturbed brownfield sites, gravel pits, soft cliffs and heathlands. In summer months they dig burrows in sand for their eggs and provide each with weevil prey items for the grubs to feed on. Many of the nesting sites in their core area of the East Thames Corridor have been lost or under threat of development. Their persistence in the UK depends on the availability of bare sandy ground to nest, in close proximity to wildflower-rich grasslands and scrub that support their weevil prey species to feed their young, made more difficult by their need for a warm, sunny climate.

Photo by Mike Edwards (Buglife)

(Right) Shrill carder bee (*Bombus sylvarum*)

Once widespread, the loss of wildflower-rich habitat in the wider landscape has reduced the Shrill carder bee to only a few UK metapopulations, the targets of which is found in the Thames Gateway. The degradation of the countryside means that the open wildflower grasslands that they require is now commonly found in brownfield sites, where they feed on vetches, trefoils and clovers. The loss of large brownfield sites in the Thames Gateway could prove disastrous for the Shrill carder bee, which requires 10-20km<sup>2</sup> of forage habitat to maintain a population and likes continuous patches of food resources.

such as ecosystem services, which recognise the economic value of biodiversity to human society (Kumar 2010), have taken greater prominence within business and industry (e.g. WBCSD 2010) with the UK Government publishing their *National Ecosystem Assessment* (UK NEA 2011) in June 2011.

We have therefore reached a point, by the beginning of the 21<sup>st</sup> century's second decade, where nature conservation, be it at a species or habitat scale, is routinely understood by developers, planners and ecologists to be a material consideration in land use planning decisions (ODPM 2005a).



Photo by MJ Clark (Buglife)



## Feature Article: A Cunning Plan... or a Plan too Far? (continued)

### Regime Change

The current Government came in to power promising to be the "...greenest Government ever..."<sup>1</sup>. Within its first 18 months, it published the UK's National Ecosystem Assessment (UK NEA 2011) the first white paper on nature conservation in England in more than 20 years (*The Natural Choice: securing the value of nature* (HM Government 2011)) and a "...new ambitious biodiversity strategy [(Defra 2011)] for England..." , to quote Defra.

But this has also coincided with the most significant economic downturn in living memory on a global scale, uncertainty in the Middle East and North Africa and, closer to home, a loss of confidence in the Euro. Collectively, these factors have increased political pressure on the current Government to act, perhaps radically, to stimulate economic growth. And in doing so, the Government proposed (on 25 July 2011) the NPPF (DCLG 2011a), a single 52-page document of planning policy to replace 1,000 pages of existing national planning policy in England. Whilst some regard this as the most radical overhaul of the planning system since the Huxley Committee, others consider this to be proportionate.

The NPPF has been widely reported, resulting in a range of views being expressed by conservation NGOs (e.g. RSPB<sup>2</sup>, Wildlife Trusts<sup>3</sup>, Campaign for the Protection of Rural England (CPRE)<sup>4</sup> and the National Trust<sup>5</sup>), practitioners (e.g. Royal Town Planning Institute (RTPI)<sup>6</sup>) and users (Confederation of British Industry (CBI)<sup>7</sup> and the National Housing Federation (NHF)<sup>8</sup>).

The remainder of this article aims to comment on the NPPF as published in July 2011 and on how it may affect planning decisions in the context of nature conservation. The outcome of the NPPF consultation (which closed in mid-October 2011) is scheduled to be adopted in spring 2012. Some of the concerns raised and discussed here may therefore not ultimately be pertinent to the final document, depending upon what and whether it is ultimately adopted. This article seeks to offer a balanced consideration.

### Planning Ahead for Biodiversity and Nature Conservation

In the Government's own words, the NPPF "...is a radical streamlining of existing Planning Policy Statements, Planning Policy Guidance Notes and some circulars to form a single consolidated document. The Framework condenses the near 900,000 words of national planning policies (over 1,000 pages) into a user-friendly and accessible document which can be understood and used by everybody who has an interest in shaping the development of their area." (DCLG 2011b page 8 paragraph 10).

The NPPF will cancel *Planning Policy Statement 9: Biodiversity and Geological Conservation* (PPS 9) (ODPM 2005b), as it will many other (though not all) Planning Policy Statements and older Planning Policy Guidance documents. The NPPF replaces PPS 9's seven pages of policies with three pages on nature conservation and biodiversity (DCLG 2011a

Photo by Sam Ashford (Buglife)



Brown-banded carder bee (*Bombus humilis*)

As with the Shrilc carder bee, the Brown-banded carder bee has suffered from loss of wildflower-rich grassland in the landscape as a result of agricultural intensification. Much of its northern range has been lost, and in the south-east the species now relies heavily on brownfield sites to provide it with sufficient forage of plants such as vetches and clovers. The Brown-banded carder is able to take advantage of quite scattered patches of forage, and one of its strongholds, the Thames Gateway, offers such resources in the scattered brownfields throughout the region, but it still benefits from the extensive resources of larger brownfield sites.

pages 46-48 paragraphs 163-170). However, the NPPF is intended to be read as a whole (e.g. see paragraph 14) and so pages 46-48 cannot be considered in isolation. It appears that Circular 06/2005 (*Biodiversity and Geological Conservation: Statutory Obligations and Their Impact Within the Planning System*) is to be retained as the NPPF includes a footnote on page 46 (footnote 12) making reference to "Circular 06/ 2005" (ODPM 2005a).

The NPPF's policy on biodiversity has been summarised by the Government as: "*The Framework underlines that the planning system should seek not just to protect, but, where possible, to enhance biodiversity – making sure we don't just have isolated pockets of wildlife, but rich and connected green spaces for all kinds of species to thrive. Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland.*"<sup>9</sup>

### Responses

Organisations representing business and developers (e.g. CBI and NHF) have broadly welcomed the publication, largely stating that it would be good for the economy, attract investment and create growth and jobs.

However, nature conservation NGOs (e.g. RSPB and Wildlife Trusts) have expressed serious concerns, namely that:

- the NPPF's "presumption in favour of sustainable development" (paragraph 14) has no consistent use or meaning;
- there is a clear emphasis on economic development (e.g. see paragraph 13 of the NPPF);
- the NPPF will lead to a weakening of protection currently afforded to SSSIs and non-statutory sites; and
- the policies of the NPPF do not adequately replace PPS 9 and its associated guidance.

### Outcome

So are the concerns expressed by the detractors justified? Will there be fewer ecological constraints to development under the NPPF?

In answering this, the key starting point is the text in paragraphs 9-19 of the NPPF (*Delivering Sustainable Development*). Paragraph 9 states that "...purpose of the planning system is to

contribute to the achievement of sustainable development." The well-known Brundtland Commission definition of sustainable development is adopted, i.e. "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Note 2, DCLG 2011a). The NPPF then goes on to recite the three pillars of sustainable development (paragraph 10): "...for the planning system, delivering sustainable development means planning for prosperity (economic role)...., planning for people (social role)...., planning for places (environmental role)."

Paragraphs 13 and 14 of the NPPF however then appear to reveal a different intention.

Under a heading *The presumption in favour of sustainable development*, the NPPF in paragraph 13 singles out the need for economic growth "...significant weight should be placed on the need to support economic growth through the planning system". Thus whilst the NPPF defines sustainable development in accordance with Brundtland, it appears then to interpret the 'presumption in favour of sustainable development' as favouring the economic pillar over the other pillars of sustainable development. Paragraph 14, which is crucial to interpretation of the entire NPPF, including the nature conservation policies on pages 46-48, reads:

"At the heart of the planning system is a presumption in favour of sustainable development, which should be seen as a golden thread running through both plan making and decision taking. Local planning authorities should plan positively for new development, and approve all individual proposals wherever possible. Local planning authorities should:

- Prepare Local Plans on the basis that objectively assessed development needs should be met, and with sufficient flexibility to respond to rapid shifts in demand or other economic changes;
- Approve development proposals that accord with statutory plans without delay; and
- Grant permission where the plan is absent, silent, indeterminate or where relevant policies are out of date.

All of these policies should apply unless the adverse impacts of allowing development would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole."



It is important to stress that there already exists effectively a 'presumption in favour of development proposals which comply with sustainable development'. There has been a qualified presumption in favour of development since 1947 and up until the Planning and Compensation Act 1991. This presumption was replaced by the enactment of section 54A of the Town and Country Planning Act 1990 (by section 26 of the Planning and Compensation Act 1991) which effectively introduced a presumption in favour of the development plan. The Planning and Compulsory Purchase Act 2004 then introduced a statutory requirement (section 39) that, in preparing development plans, local authorities must contribute to the achievement of sustainable development. A presumption in favour of development proposals that comply with sustainable development policies therefore effectively applies.

However, in the authors' view, paragraph 14 nevertheless represents a shift from the existing position due to:

- The prominence now given to the economic pillar of 'sustainable development';
- The non-precautionary approach of paragraph 14 "*...all of these policies should apply unless the adverse impacts of allowing development would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole*". This can be summarised as 'where there is doubt (i.e. where there are no significant and demonstrable negatives) then the development should proceed'; and
- The overriding nature of the policy in paragraph 14, in that Local Plans must comply with it and where they do not (i.e. the plan is absent, silent, indeterminate or where relevant policies are out of date) paragraph 14 will prevail.

With this background it is then useful to consider the NPPF's specific nature conservation policies as against PPS 9. An initial comparison of the two documents has identified some clear differences between them (see Table 1 overleaf for details).

In general terms, the NPPF would appear from Table 1 to offer weaker policy protection to nature conservation interests than PPS 9.

However when considering nature conservation policies, the impact of paragraph 14 of the NPPF is probably of most significance. Paragraph 14, as noted above, is central to interpretation of the entire NPPF.

Current SSSI policy (PPS 9) permits development "*likely to have an adverse effect*" on a SSSI only where the benefits clearly outweigh the impacts. Note therefore that the presumption is against development; in practice it will be for the developer to demonstrate that the benefits of the development will outweigh the adverse effects; and the protection policy kicks in where there is a 'likelihood' of an adverse effect. By contrast paragraph 14 of the NPPF reflects a presumption for development; the presumption will persist

unless there are adverse impacts (though note, likely adverse impacts would appear insufficient to displace the presumption); and displacement of the presumption will only occur when the adverse impacts of allowing development would "*significantly and demonstrably*" (paragraph 14) outweigh the benefits. In addition the decision-maker weighing up the factors in this way must consider that balance "*...against the policies in the Framework taken as a whole...*" (paragraph 14). Since the thrust of the NPPF is to support economic development (see, for example, paragraph 13), the weight to be attached to economic benefits will be notable. However, as Nathan and Overman (2011) argue, the NPPF needs to be "*...more [their emphasis] explicit about what sustainable development involves and should indicate how such judgements could be made in practice*".

The very same issue arises in relation to the protection under PPS 9 for species not benefitting from specific statutory protection. The protection of these species would appear to be undermined in the same way as for SSSIs.

It can potentially be argued that the wording in paragraph 169 of the NPPF ("*When determining planning applications in accordance with the Local Plan and the presumption in favour of sustainable development...*"), mitigates to a degree, the impact of paragraph 14 as described above. However, the interface between the language in paragraphs 169 and 14 is difficult to decipher, and at best the position is far from clear.

It is correct that planning policy should not be read as legislation. The words of Lord Justice Pill in the Court of Appeal judgement in Buglife v Thurrock Thames [2009] EWCA Civ 29 are worth recalling. In his judgement (which went against Buglife), he acknowledged that there had been no sentence-by-sentence analysis of PPS 9 by the planning authority ("*which is not to be construed as a statute*" (paragraph 51)) but nevertheless the overall tenor of the policy had not been ignored which, in that case (and bearing in mind Natural England's withdrawal of its objection), was adequate. Lord Justice Pill stated: "*...consideration of the larger picture, the main issues, should not be defeated by over attention to detail, with the risk of thereby losing, in common parlance, the wood for the trees*" (paragraph 52<sup>10</sup>). Some may argue therefore that the forensic analysis of the differences between PPS 9 and the NPPF is not appropriate. This argument may for example have some merit when considering the difference between, for example, "*adverse impact*" (NPPF paragraph 14) and "*likely adverse impact*" (PPS 9 for SSSI protection). In reality there may be little difference between these phrases, in that predictions as regards ecological impacts made in the context of a planning application are of course only that and there can never be absolute certainty.

However such an argument cannot be used, in the authors' view, to detract from the fundamental switch, where adverse nature conservation impacts are expected, from a presumption against development to a presumption for development.

The evidential burden on the objector under the NPPF is likely to be higher and developers are likely to have a smoother path.

In summary, the NPPF's policies as a whole would appear to offer less comprehensive protection to nature conservation interests than PPS 9. There has been a great deal of confusion and uncertainty in the media, industry and the lobbying groups. The NPPF is of course scheduled to be adopted in spring 2012. The Environmental Audit and the Communities and Local Government Committees (CLGC) have both reported their views on the NPPF and made a number of recommendations suggesting significant changes.

The CLGC has gone as far as making recommendations to change core tenets of the document such as removing the emphasis on the economy and the default 'yes' to development. It will not only be interesting to see how different the final version of the NPPF will be from its current form, but how the final version will be interpreted by users, and ultimately, if it comes to it, the courts.



Photo by PR Harvey (Buglife)

Distinguished jumping spider (*Sitticus distinguendus*)

The Distinguished jumping spider is known from only two sites in the UK, both in the Thames Gateway. Its Essex site at West Thurrock Marshes is threatened with a warehouse development- the species here is found on dry, sparsely vegetated ground, on a saline substrate of sandy PFA and stony clinker (The spider builds a protective cocoon in holes in the clinker). At its Kent site at Swanscombe, the Distinguished jumper is associated with the sparsely vegetated surface of sand and cement flue ash.

## Feature Article: A Cunning Plan... or a Plan too Far? (continued)

Table 1. Some Comparisons between PPS 9 and the NPPF

Section of PPS 9	Comparable Section of NPPF	Comment
<b>Key Principle 1(i):</b> Development plan policies and planning decisions should be based upon up-to-date information.	<b>Paragraph 34:</b> Planning policies and decisions should be based on up-to-date information about the natural environment.	Wording is consistent with PPS 9.
<b>Key Principle 1(ii):</b> Plan policies and planning decisions should aim to maintain, and enhance, restore or add to biodiversity and geological conservation interests.	<b>Paragraph 168:</b> Planning policies should promote the preservation, restoration and re-creation of priority habitats, ecological networks and the recovery of priority species.	The NPPF policy is restricted to priority species. There is a wider scope for interpretation in PPS 9, potentially allowing LPAs to consider protecting biodiversity ( <i>i.e.</i> assemblages) in general ( <i>e.g.</i> 'common' or 'locally rare' species, rather than just priority species).
<b>Key Principle 1(iii):</b> Strategic approach to plan policies for the conservation, enhancement and restoration of biodiversity.	<b>Paragraph 167:</b> LPAs should set out a strategic approach in their Plans, planning positively for the creation, protection, enhancement and management of networks of biodiversity and green infrastructure.	Wording is consistent with PPS 9
<b>Key Principle 1(iv):</b> Policies should promote opportunities for the incorporation of beneficial biodiversity within the design of development.	<b>Paragraph 169:</b> LPAs should aim to conserve and enhance biodiversity by applying a number of principles, including the encouragement of opportunities to incorporate biodiversity in and around developments.	Wording is consistent with PPS 9
<b>Key Principle 1(vi):</b> Planning decisions should prevent harm to biodiversity interests. If planning permission would result in significant harm to those interests, LPAs would need to be satisfied that the development cannot reasonably be located on any alternative sites that would result in less or no harm or if no alternatives, they should ensure that adequate mitigation measures are put in place. If this cannot be achieved, appropriate compensation measures should be sought, or if not then planning permission should be refused.	<b>Paragraph 169:</b> When determining planning applications in accordance with the Local Plan and the presumption in favour of sustainable development LPAs should aim to conserve and enhance biodiversity by applying a number of principles, including if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused.	Wording is consistent with PPS 9.
<b>Paragraph 8:</b> Where a proposed development on land within or outside a SSSI is likely to have an adverse effect (either individually or in combination with other developments), planning permission should not normally be granted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs.	<b>Paragraph 166:</b> LPAs should set criteria based policies against which proposals for any development on or affecting protected wildlife sites or landscape areas will be judged. Distinctions should be made between the hierarchy of international, national and locally designated sites (reference is made to Circular 06/2005).	The NPPF does not make a distinction between statutory sites ( <i>e.g.</i> SSSIs), local sites (LNRs) or non-statutory sites ( <i>i.e.</i> Local Wildlife Sites). It places the onus on the LPA to define criteria based policies which will distinguish between the different tiers of protection, albeit using Government Circular 06/ 05 (ODPM, 2005a) as a reference. This could potentially weaken protection afforded to sites and/ or create an unlevel playing field between different LPAs. The most significant point however is in relation to paragraph 14 (see text of main below).
<b>Paragraph 9:</b> Policies should be established in development documents relating to sites of regional and local biodiversity ( <i>e.g.</i> LNRs and Local Sites).		
<b>Paragraphs 15 &amp; 16:</b> Biodiversity in general, though a clear emphasis on priority species should be considered and protected through the planning system. Other species ( <i>i.e.</i> those without a statutory protection under a range of legislative provisions) have been identified as requiring conservation action as species of principal importance for the conservation of biodiversity in England. Local authorities should take measures to protect the habitats of these species from further decline through policies in local development documents. Planning authorities should ensure that these species are protected from the adverse effects of development, where appropriate, by using planning conditions or obligations. Planning authorities should refuse permission where harm to the species or their habitats would result unless the need for, and benefits of, the development clearly outweigh that harm.	<b>Paragraph 168:</b> No equivalent provision for priority species in NPPF.	As for Key Principle 1(ii) (see second row above). The NPPF provides little if any protection for biodiversity in general.



## Editor's Note

Read the IEEM response to the draft NPPF consultation at [www.ieem.net/docs/IEEM%20NPPF%20response%20FINAL.pdf](http://www.ieem.net/docs/IEEM%20NPPF%20response%20FINAL.pdf)

## Notes

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### About the Authors

Richard Wilson is a freelance ecologist based in Leeds. He takes a keen interest in planning and environmental law and policy development in the context of nature conservation and writes a blog (<http://richardwilsonecology.wordpress.com>) on this and other subjects relevant to developers, planners and ecologists.

### Contact Richard at:

Richard.Wilson\_ecology@yahoo.co.uk  
and follow him on Twitter @ecology\_digest

Penny Simpson is an environmental lawyer at DLA Piper UK LLP, specialising in natural environment law. She advises a wide range of private and public sector clients including developers, mineral operators, energy companies, environmental consultancies, local planning authorities and some non-governmental organisations. The views presented here are Penny's own and not necessarily those of DLA Piper UK LLP.

### Contact Penny at:

Penny.Simpson@dlapiper.com  
and 0114 283 3353



Dormice  
Photo by Michael Woods

# All that Glitters, is it Gold?

## An Appraisal of the Comments Made in the Autumn Statement 2011

**Richard Wilson CEnv MIEEM**

Richard Wilson Ecology

### The Prologue

The Autumn Statement by the Chancellor of the Exchequer is a legal obligation of the Industry Act 1975, which requires the Government to publish twice annual economic forecasts. It is not normally an event that causes nature conservation organisations to react, indeed, it probably barely registers a comment. Not so in November 2011. A single sentence within a statement that contains 6,832 words resulted in opprobrium across a wide spectrum of audiences that included the RSPB, Wildlife Trusts, environmental commentators and the general media. It was as if the very existence of nature conservation in the UK had been threatened.

But was the reaction justified? The purpose of this article is to consider the implications of the Habitats and Birds Directives review<sup>1</sup>, which is scheduled to be published by 21<sup>st</sup> March 2012 (the Budget) and whether or not changes could realistically be implemented. It is hoped that the article presents the case in a balanced way.

### The Directives

The requirements of the Conservation of Wild Birds Directive 1979<sup>2</sup> (the 'Birds Directive') is implemented by the Wildlife and Countryside Act 1981, which includes for the designation of sites considered to be of particular importance to bird populations (Special Protection Areas (SPAs)). The Conservation of Natural Habitats and of Wild Fauna and Flora Directive 1992 (the 'Habitats Directive') is transposed into UK law by the Conservation of Habitats and Species Regulations

2010<sup>3</sup> (the 'Habitat Regulations'). The 2010 Regulations cover the legislation dealing with European Protected Species (EPS), designated sites (Special Areas of Conservation (SACs)) and the assessment of the implications of plans and projects on either SPAs or SACs; otherwise known as a Habitat Regulation Assessment (HRA).

### The Statement

The Autumn Statement<sup>4</sup> was delivered by the Right Honourable George Osborne MP, Chancellor of the Exchequer, on 29<sup>th</sup> November 2011. There was no particular hint as to what was about to come, other than a well-informed environmental commentator, Mark Avery (ex-RSPB Conservation Director) writing on his blog (<http://markavery.info/blog/>) that the Regulations might be mentioned. Sometimes, important political announcements are hinted at through 'leaks', or 'sources', so it could be considered that the sentence that resulted in the subsequent uproar was considered insufficiently controversial to warrant any mention, or perhaps HM Treasury assumed ecologists and environmentalists wouldn't be listening. It turned out that ecologists and environmentalists were listening; and the sentence which got everyone's attention?

*"And we will make sure that gold-plating of EU rules on things like habitats [sic] aren't placing ridiculous costs on British businesses."*

Alongside the Autumn Statement, the Government published the National Infrastructure Plan (NIP) (HM Treasury 2011), where it too makes reference to the review. The NIP states that the Directives should *"...not lead to unnecessary costs and delays to development, while continuing to support the Directives' objectives. The Government... is committed to tackling blockages for developments where compliance is particularly complex or has large impacts."* It goes on to state that whilst recognising that the Directives protect Europe's most precious ecosystems, and they are committed to them, the Government is *"...keen to ensure that compliance with the Directives does not lead to unnecessary costs and delays in the delivery of important, sustainable infrastructure projects, such as offshore wind developments."*

Information on the proposed review can be read on Defra's website<sup>5</sup>. Based on the terms of reference, the review is going to be detailed and comprehensive. For example, it will review topics such as risk of significant effect, risk of adverse effect on integrity, mitigation solutions and compensatory measures (to name a few) in relation to case-law and how this relates to compliance costs and delays; how the statutory authorities apply the legislation (too rigorous or too lenient); and lessons that can be learned from other EU Member States.



## The Response

Grave concerns have been expressed by various organisations that the strict protection afforded to habitats (SPAs and SACs) will be watered down and that EPS (e.g. great crested newts *Triturus cristatus*, pipistrelle bats *Pipistrellus* spp. and hazel dormice *Muscardinus avellanarius*) will face similar reductions in protection from irresponsible or harmful development. Is this likely to happen?

The first observation to make is that the Habitats Directive was first transposed into UK law by the Conservation (Natural Habitats, &c.) Regulations 1994, which have been subsequently amended on no less than seven occasions (in 1997, 2000, 2004, 2007, 2008, 2009 and 2011) if you include the devolved administrations. Some of these amendments have arisen as a consequence of amendments to the Directive itself or to address minor legal technicalities. However, the 2007 amendment, relating to Appropriate Assessment, was a result of a European Court of Justice (ECJ) decision (C-06/04)<sup>6</sup> against the UK Government in how it transposed an element of the Habitats Directive into domestic law. Therefore, whilst the Government has expressed a wish to review how the Directive is applied through domestic law, it will have to retain legal integrity. In other words, any change in the way the Regulations are **applied** must avoid conflicting with previous ECJ decisions; otherwise there is a significant likelihood that the UK Government will face challenges in the courts. The Government may well discover that its ability to change the way the Regulations are applied could be very limited.

Another element that was asserted by George Osborne was that the Habitat Regulations are gold-plated and place ridiculous costs on business.

The assertion that European Union (EU) Directives (the 'rules') are gold-plated in the UK is not new. Indeed, the last Chancellor of the Exchequer, Alistair Darling MP, requested a review in the 2005 pre-budget statement (the then equivalent of the Autumn Statement) to examine and report on the extent to which EU legislation placed unnecessary regulatory burdens on the UK. The results were published in November 2006; the resulting report is commonly referred to as the Davidson Review (Davidson 2006). The review defined gold-plating in four ways: extending the scope; abstaining from derogations; enhanced sanctions; or early implementation. In summary, the review identified that stakeholders' perceptions of gold-plating were often misplaced, for example:

- complaining about issues that were not related to over implementation (including the EU legislation *per se* (i.e. the fact that legislation existed) or confusing domestic laws with EU legislation);
- the UK over-implements compared with other EU countries. No evidence to support this allegation was identified; and
- contradictory evidence from the World Bank and Organisation for Economic Co-operation and Development (OECD), which described the UK as having one of the most favourable regulatory environments for doing business in the EU

In summary, the review concluded that whilst there were instances where gold-plating had been undertaken (e.g. consumer sales, financial services, transport and waste legislation), no reference was made to either the Habitats or Bird Directives. Thus the assertion made by Osborne is counter to a detailed review instigated by his

immediate predecessor. Furthermore, a specific study on the question as to whether the Habitats or the Bird Directives are gold-plated has been reported by Morris (2011) in a peer-reviewed journal. In it, he concludes that where the UK has sought to minimise the impacts of the Directive, the Government has been required to review its decision(s) and enforce more rigorous and, therefore, more restrictive implementation. In other words, previous attempts to amend the Directive(s) implementation have fallen foul of the ECJ. And the UK is not alone in this. France, Spain, the Netherlands and Italy have all had to amend their domestic legislation to reflect the meaning of the Directives. Morris (2011) further concludes that the *"...Habitats Directive has established a common template for assessment of nature conservation impacts and has required competent authorities to justify particular judgements. This challenges people and organisations that have been used to much less rigorous or onerous processes and consequently there will be inevitable voices of dissent. This dissent has been highlighted by antipathy towards the Directive and allegations of 'gold plating'."*

So is there any scope for a review? I would argue, in certain situations, there is. Take the great crested newt as an example.



Great crested newt  
Photo by Richard Wilson

If there is one EPS that attracts negative press attention, then this is it. And it is not a minor inconvenience.

Take this scenario: a housing developer wishes to build on a brownfield (or greenfield) site. Within the site there lies a single pond, unmanaged and unloved and unlikely to be there through natural processes in the near future. Accumulations of leaf litter and silt are slowly reducing the pond's ability to retain water during the spring and summer months. The presence of a small population (i.e. 10 or less) of great crested newts is recorded, along with other amphibian species through appropriate survey.

Under the current regime, the developer is faced with a comprehensive and potentially costly (in financial and temporal terms) exercise in obtaining an EPS licence from the statutory authority for consideration and approval. This can, and normally does, take up to 30 working days to obtain a decision but more information can be requested, which may inevitably further delay the issue of the licence. Once the licence is issued, the erection of temporary amphibian fencing (TAF), often extending for hundreds of metres and covering an area beyond where you might expect >80% of the population to reside (e.g. even in very sub-optimal terrestrial habitat) is imposed. A minimum of 30 and up to 60 (or even more) consecutive days are required to trap out the newts before the developer can get on to site; as set out in the *Great Crested Newt Mitigation Guidelines* (English Nature

2001). Development may be delayed by many months for what is arguably minimal additional benefit for the newts or biodiversity in general. And the relationship between the ecologists and the developer can quickly become strained with the inevitable reduction in good will. Occasionally, the press pick up on these issues and generate headlines that create a poor image for the ecology profession.

An alternative approach to the above scenario would be to take a more pragmatic view for appropriate sites with low, or the lower end of medium, great crested newt populations established through accurate and currently accepted survey methodologies. The work must still be documented so that the developer, local planning authority and the statutory nature conservation organisation are legally bound to ensure that what has been agreed to is undertaken. The receptor site, unlike the current regime that requires it to be in an area set aside within the development could, if this is not practical, or if a better solution is available, be located in an existing nature reserve as close as possible to the development site. If necessary, construction of pond(s) and suitable terrestrial habitat would still be completed before any translocation exercise.

However, the translocation exercise could be considerably briefer (e.g. 10-15 working days), maybe involving a period of trapping (i.e. TAF and bucket traps) and ending with a fingertip search of suitable habitat supervised by a licensed ecologist. This approach may not collect every single newt, but it will capture the greater percentage of the population, thus ensuring that the population survives beyond the construction phase of the development, maintains favourable conservation status and results in 'no net loss' of habitat, which is what the Habitat Directive aims to achieve.

However, this alternative approach may not be appropriate for every occasion, for example, on a site with a large population, in which case the regime currently in force should remain. Furthermore, this alternative approach should be better received by developers who may then be more willing to invest finance and time towards other ecological enhancements that would otherwise be ignored. This alternative approach has been suggested before (Watson 2008); thus, this is not promoting a new idea. It may be that with further refinement, it could contribute to the Government's Nature Improvement Areas promoted in the Natural Environment White Paper (HM Government 2011) by allocating funds, time and good will that would otherwise be lost in spending it on collecting every last newt pre-construction.

### Possible Motivation?

There is, perhaps, a tantalising glimpse elsewhere in the Autumn Statement as to the motivation behind this review. In the Autumn Statement, George Osborne stated that the Government's plans to revisit airport capacity: "...and we will explore all the options for maintaining the UK's aviation hub status, with the exception of a third runway at Heathrow", which inevitably raised comparisons with the proposed Thames Estuary Airport (TEA). If this were the case, and the TEA proceeded to the planning submission stage, an Appropriate Assessment would be required as it would be within close proximity to, or in the Thames Estuary and Marshes SPA, Benfleet and Southend Marshes SPA, and Medway Estuary and Marshes SPA to name but three European Protected Sites. Whilst the Government could always revert to the 'imperative reasons of overriding public interest' (the IROPI test), if granted permission, this would require significant and expensive compensatory measures, especially as any Appropriate Assessment would potentially involve consideration of non-UK protected

sites (e.g. Banc des Flandres Site d'Importance Communautaire, Nord-Pas de Calais, France). How compensation could be achieved, given that the intention of the Directives is to achieve no net loss, is beyond the scope of this article, other than to say that it would be extremely complex. One aspect that would need to be considered in practical terms would be whether compensation could be achieved in England alone. If not, would compensation measures across international boundaries be required? In other words, would land need to be identified in northern France, Belgium or the Netherlands; and if so, would this comply with the Directives, and if yes, would the French, Belgian and Dutch governments find this politically acceptable? I am not aware that this has been undertaken, nor tested in the ECJ. Finally, any decision would be required to comply with the Waddenzee Case<sup>7</sup>, whereby the competent authority must be certain, beyond all reasonable scientific doubt, that the proposed project (in this example the TEA) would have no significant effect on any European site's

integrity. Could 'certainty' in all likelihood actually be achieved, given the complexities?

### Conclusions

The outcome of the review is scheduled to be published in March 2012 in time for the Budget. The review will address examples presented in this article and it is not possible to predict the outcome at the time of writing (early January 2012). However, Morris (2012) in this issue of *In Practice* presents a dozen key principles that decision-makers are currently required to consider. It will be interesting to compare the outcome of Defra's review with the principles presented in Roger Morris' article, in addition to domestic and ECJ case-law. All those who engage in the planning system, be they developers, planners, ecologists, lawyers or conservation practitioners, should be awaiting its publication with keen interest. In this Olympic year, will our highly protected sites retain their gold status?

### Notes

1. The review, according to Defra's website (<http://www.defra.gov.uk/news/2011/11/29/habitats-and-birds-directives/>; last accessed 15<sup>th</sup> December 2011), will be applied to England only.
2. Council Directive of 2 April 1979 on the conservation of wild birds (79/409/EEC); available online at <http://eur-lex.europa.eu/LexUriServ/site/en/consleg/1979/L/01979L0409-20070101-en.pdf>; last accessed 15<sup>th</sup> December 2011.
3. Strictly speaking, the entire 2010 Regulations apply to England and Wales only. Those parts of the 2010 Regulations which deal with reserved matters apply to Scotland, otherwise the Conservation (Natural Habitat, &c.) Regulations 1994 (as amended) continue to apply in Scotland. However, the 1994 Regulations and subsequent amendments have been repealed in England and Wales. The Conservation (Natural Habitats, &c.) Regulations (Northern Ireland) Order 1995 continues to apply in Northern Ireland.
4. The text is available online here: [http://www.hm-treasury.gov.uk/press\\_136\\_11.htm](http://www.hm-treasury.gov.uk/press_136_11.htm); last accessed 15<sup>th</sup> December 2011.
5. The terms of the Defra review are available here: <http://www.defra.gov.uk/news/2011/11/29/habitats-and-birds-directives/> and here: <http://www.defra.gov.uk/rural/protected/habitats-wildbirds-review/>.
6. Commission v United Kingdom, 20<sup>th</sup> October 2005. The text of the judgement is available here (<http://curia.europa.eu/juris/document/document.jsf?text=&docid=60655&pageIndex=0&doclang=EN&m ode=doc&dir=&occ=first&part=1&cid=1211672>); last accessed 21<sup>st</sup> December 2011.
7. C-127/02 – Landelijke Vereniging to Behoud van de Waddenzee and Nederlandse Vereniging to Bescherming van Vogels v Staatssecretaris van Landbouw). The text of the judgement is available here: (<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:62002CJ0127:EN:HTML>); last accessed 21<sup>st</sup> December 2011.

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#### About the Author

Richard Wilson is a freelance ecologist based in Leeds. He takes a keen interest in planning and environmental law and policy development in the context of nature conservation and writes a blog (<http://richardwilsonecology.wordpress.com>) on this and other subjects relevant to developers, planners and ecologists.

#### Contact Richard at:

Richard.Wilson\_ecology@yahoo.co.uk  
and follow him on Twitter @ecology\_digest



# Designing a System to Secure Ecological Sustainability:

## 12 Principles for Decision-Makers

**Roger Morris** CEnv FIEEM  
Bright Angel Coastal Consultants



Photo 1

The Crumbles, near Eastbourne, would have qualified as Habitat HD1220 Perennial Vegetation of Stony Banks had it survived into the 1990s. However, the site was allocated for the construction of a marina with associated housing. This image shows vegetated shingle on the seaward side in 1989. The *Arrhenatherum* grassland is typical of early transitional stages in vegetated shingle systems.

Photo by Roger Morris

## Introduction

Sustainable development is an aspiration that means different things to different people. Some favour an economic interpretation whilst others focus upon environmental parameters; conflict therefore arises on a regular basis. The Habitats Directive was designed as a sustainable development instrument. It has attracted considerable criticism from some stakeholders but their calls for changes reflect its effectiveness; if it were not causing problems for developers and decision-makers it would have achieved nothing. Some of the problems involve misunderstandings about its purpose and implementation. Even so, the Directive is one of the best tools we have to secure some aspects of environmental sustainability. Why is this? Perhaps the answer is to ask the question: *If you were developing a tool to secure sustainable development what principles might be employed to define its architecture?*

## Designing the Basic Framework for Wildlife

In the traditional approach to consent for new development, decisions were made by 'balancing' the demands of economic development against the natural environment. That balancing approach led to a range of changes and using the UK as an example some obvious big impacts included:

- 'reclamation' of coastal wetlands;
- development of the roads network;
- housing expansion on heathland; and
- urban sprawl and infilling of green space

Many of the biggest changes occurred beyond living memory, but the pace of change barely abated until very recently. Our wildlife asset has been so badly impoverished that we now have to pay to restore it! Even so, most decisions are still taken using the traditional 'balancing' approach.

Why does 'balancing' generally favour development? Wildlife is the poor cousin at the table unless given its own muscles. It cannot do so after the decision has been made about locations for new developments. If land allocations for development are made before any assessment of ecological impact, the subsequent process of Environmental Impact Assessment (EIA) is largely irrelevant from the perspective of wildlife conservation. It therefore follows that, provided decision-makers are committed to genuinely weighing up the interests of economic prosperity and environmental sustainability, the first rule of a new paradigm should be:

## Principle 1

Remaining areas of wildlife importance should be identified on their wildlife interest alone. These areas should form the nucleus of a site protection framework for wildlife.

This is not actually any different from the approach taken for commercial development.

After all, Local Development Frameworks, Regional Spatial Strategies and National Policy Statements all make spatial provision for new projects. The difference is that these strategies involve consultation with the public. Obviously, defining wildlife areas on the basis of what lives there is different because the wildlife cannot speak for itself: it therefore requires champions – the NGOs and nominated specialist bodies (i.e. Government Agencies).

## Feature Article: Designing a System to Secure Ecological Sustainability (continued)

But some wildlife occupies a more dispersed footprint and is not confined to tightly defined sites. For example, populations of more generalist plants and animals, some of which are highly vulnerable to ongoing loss of basic countryside fabric. Consequently there is a need to make provision for these species and hence the second rule:

### Principle 2

Provision should be made to maintain the overall fabric of the countryside to support mobile populations of plants and animals.

There are also species that are particularly vulnerable to a range of impacts that may affect only part of their life-history. This may have a profound impact upon the ability of those species to maintain locally and nationally viable populations. Hence the third principle:

### Principle 3

Certain species that are vulnerable to impacts that affect part of their life-strategy should be afforded special protection measures.

Most of the wildlife we have in mind has already been compressed into tiny areas and the impact of change is long-term. Changes made several or tens of years ago may still be detrimentally affecting populations and ecosystems. Consequently, measures to safeguard what is left cannot be confined to stopping further erosion of their basic needs. There may be a need to reverse changes and stabilise populations at a level that is biologically sustainable, i.e. recognise that meta-population decline may be ongoing even if existing sites are safeguarded. Changes to management or range might not lead to immediate loss or gain but will bring longer-term benefits. A final principle therefore emerges:

### Principle 4

Provision should be made for restoration of populations of species or for ecosystem function where existing levels are sub-optimal and likely to be followed by further erosion of the underpinning biological capital.

Once a framework is designed to meet these four principles, there is a need to bear in mind that society will still want to make decisions about land allocation. A series of social principles to underpin the framework is also needed.

## Designing the Basic Framework for Economic Development

Until recently wildlife sites were the point of least resistance when drawing up plans for new development projects. These were the least attractive for agriculture or served a specific and possibly redundant function in local economies. For example, woodland often occurs on the poorest, fastest or poorest draining soils; heathlands provided materials such as turf and furze; and washlands are too difficult to use for agriculture because they flood regularly. The traditional value of these sites has diminished

because fuel and timber sources have changed, and technology has made it possible to engineer the water environment to a much greater extent. Their value to landowners is generally less than more fertile and productive soils and consequently the basic land value is low and therefore attractive to new developers. Furthermore, until we became reliant upon alternative sources of food, agricultural land was critically important. Modern agriculture and globalisation have reduced our reliance on agricultural land for food production (at least until recently) and it has been seen as acceptable to use it for other purposes. Even so, wildlife land is often regarded as vacant and therefore most suitable for development. Consequently, the framework for wildlife conservation needs to redress this valuation:

### Principle 5

Wildlife land is of fundamental importance to our quality of life and consequently it should not be lost except under exceptional circumstances.

This means that there is a need to make clear when development is acceptable so that decision-makers can set a threshold for key tests. The framework needs to take account of key issues and where there are sound technical or societal reasons these need to be taken into account. If the basic core of wildlife land is to be maintained, the thresholds must be robust and must exclude those frivolous or opportunistic proposals that follow the historic paradigm where wildlife was the point of least resistance:

### Principle 6

Only projects that are fundamental to the health and safety of human populations, or those which are of strategic importance should be allowed to proceed where there is a deleterious effect on our wildlife heritage.

At this point, the key question is: *How do you make sure that projects are of strategic importance?* If decision-makers are left to traditional mechanisms, then the old game of 'balancing' will re-emerge and we will be back to square one. A further paradigm shift is required in which the question is posed:

### Principle 7

Decision-makers should be able to prove to the satisfaction of the highest decision-maker that it is not possible to secure the objectives of this project in a way that avoids impact on the designated wildlife interest.

## Making Decisions

Having established the basic framework there is also a need to consider the role of the decision-maker and how he/she will do his/her job. This means that they will need help in deciding what is important and what can be disregarded. Moreover, they will need a baseline to work against, i.e. the wildlife advocate must provide the explanation about what makes the site/species important and what the factors are that will affect its long term survival:

### Principle 8

A clear definition of what is of wildlife importance must be provided together with defined objectives to maintain its well-being and to ensure consistency of decision-making.

But decisions are not made in isolation with a queue of proposals lining up sequentially in front of a single authority. Such an approach would surely cause an impossible log-jam and fails to take account of the range of competent authorities involved. Furthermore, the sum of two projects might add up to more than their individual parts through synergistic interactions:

### Principle 9

Making decisions cannot happen in isolation. Decision-makers must take account of other proposals that have reached a similarly advanced stage.

Furthermore, decision-making must avoid erosion of the remaining biological capital. The framework must make sure that the survival of the wildlife affected is not compromised and at the same time the opportunity for other stakeholders to pursue equally important proposals must not be sterilised. At the end of the decision-making process, the overall wildlife capital must not diminish and the prospects for maintenance and recovery must be safeguarded or ideally reinforced:

### Principle 10

If, after taking account of all of the issues, a project must proceed, it must do so in such a manner that its impact upon the wildlife is at worst neutral.

Making sure that the final impact is neutral involves an element of uncertainty. Our understanding of knock-on effects is incomplete and we must therefore build in provision for uncertainty. Unlike the traditional approach which accepts the impacts, a system that safeguards remaining assets cannot be complacent:

### Principle 11

Making decisions where there is uncertainty can lead to unexpected consequences. Decisions should only be made where there are sound grounds for certainty, i.e. a risk-averse system.

Finally, let us remember that the land in question is somebody's home. The law protects human occupants and consequently displaced people are recompensed and re-housed. If sustainable development is to mean anything for all facets of the environment, then we need a final principle to cover displaced wildlife:

### Principle 12

If a decision to proceed has to be taken, it must be accompanied by measures to make sure that displaced wildlife is re-housed.



## Providing a Transparent Decision-Making Process

If we are to move away from the traditional 'balancing' process it is important to understand how decisions are made and what evidence supports those decisions. The system must be auditable so that the official and unofficial guardians of those who cannot speak for themselves can do their job. Consequently the trail needs to provide a series of checks and balances:

Firstly, how do you decide whether or not a project really will be detrimental to the wildlife interest involved? This must mean that you must prove the thesis and provide unequivocal supporting evidence.

### Stage 1

Equates to a screening process – a concept already established for wider environmental and social consequences.

If at stage one there are no grounds for believing that the range of qualifying sites and species will be affected then a decision may be made. This is provided that other factors such as those affecting people are properly considered. If the test of stage one cannot be satisfied, and bearing in mind the need for certainty, stage 2 should be followed. This demands a precautionary approach to make sure that the audit trail is complete and any challenge can be countered. It also requires that the proponent does not place subjective assessments on the data as there is only one body with the vested responsibility to make such judgements.

### Stage 2

Involves the development of sufficient information for the decision-maker to form a view on the impact on the wildlife interest.

Once sufficient information has been assembled, and the proponent has provided detail of how they will avoid an impact or reduce its impact by changing operating procedures or design, then a decision needs to be taken.

### Stage 3

Involves assessment of the proposals against the defined objectives (Principle 8) set to make sure that the wildlife interest is safeguarded and taken into account according to principles 10 and 12.

At this stage, a decision may be made. It should bear in mind the earlier rule that maintaining wildlife interest is dependent upon higher levels of certainty than those used in traditional 'balancing' decisions. There is therefore a need to add in further tests if the decision-maker is unable to provide a clear auditable explanation of why the project will not prevent the set wildlife objectives being met (taking account of Principle 12 in particular).

### Stage 4

Requires the decision-maker to go back to Principle 7 and establish that all other options have been explored and can be disregarded for sound reasons.

If the decision-maker concludes that Principle 7 can be satisfied then any decision must be made in accordance with Principle 11. It should be made with the caveat that the decision-maker must justify the decision according to a defined set of principles.

### Stage 5

Involves making sure that the decision to proceed can be defended on grounds that the project is genuinely essential and that it meets strategic rather than tactical principles.

At this stage, the traditional tools of the 'balancing' process may be applied. In other words, compensatory measures can be brought to bear and consent may be granted provided strict compensatory provisions are met. Once implemented, compensation needs to be incorporated back into the fabric of the system in order that the objectives of Principles 1 and 2 are met.

The requirement for compensatory measures means that there is a real value attached to the land. Developers will complain about the cost but if land is allocated for housing or commercial development its price automatically rises well above basic agricultural land values; so why not apply the same principles to wildlife?

## Links to Policy Frameworks

Does this framework sound familiar? It should because it is the underlying bones of the Habitats Directive. The terminology has been adapted to avoid the legal wording of official documents; but it is the same animal. Stage 1 of the decision-making process equates to determination of 'Likely Significant Effect', Stage 2 is the data gathering, Stage 3 is 'Appropriate Assessment', Stage 4 is consideration of alternatives and Stage 5 is determination of 'Imperative Reasons of Over-riding Public Interest'.

This framework cannot operate in isolation however, and there is of course a corresponding need for policies to define the sorts of infrastructure and activities that do actually conform to the concept of imperative reasons of over-riding public interest (IROPI). That is not to say that IROPI itself must be defined, but where decisions are taken involving strategic infrastructure the significance of the industry or sector itself needs to be carefully defined.

Policy statements that define locations will clearly need to justify an absence of alternatives, whilst those that do not define locations but create a broader policy framework must be backed up by studies that justify the need for more capacity.

Photo 2

Storm ridges present within the development of housing at The Crumbles, 1989. The bare ground between vegetated ridges is typical of major vegetated shingle structures and reflects periods of quiescence followed by ridge building during major storms.

Photo by Roger Morris



Photo 3

A repeat of photograph 1 taken in October 2010. The *Arrhenatherum* grassland has largely disappeared but occasional plants of yellow-horned poppy *Glaucium flavum* are present.

Photo by Roger Morris



Photo 4

Sovereign Harbour now replaces The Crumbles. It represents the loss of a major vegetated shingle system and as such cannot be described as 'sustainable'. Furthermore, maintenance of the locality now relies upon rock armour sourced from super quarries in Norway.

Photo by Roger Morris





Table 1. The 12 Principles Cross-Referenced Against the Habitats Directive

Principle	Habitats Directive Article	Notes
<b>Principle 1.</b> Remaining areas of wildlife importance should be identified on their wildlife interest alone. These areas should form the nucleus of a protection framework for wildlife.	Article 2, 3, 4	Consistent also with SSSI designation which establishes the scientific interest.
<b>Principle 2.</b> Provision should be made to maintain the overall fabric of the countryside to support mobile populations of plants and animals.	Article 10	Also linked to wider biodiversity objective-setting.
<b>Principle 3.</b> Certain species that are vulnerable to impacts that affect part of their life-strategy should be afforded special protection measures.	Articles 12-16	Provision in Schedule 5 of the Wildlife & Countryside Act (1981) also relevant.
<b>Principle 4.</b> Provision should be made for restoration of populations of species or for ecosystem function where existing levels are sub-optimal and likely to be followed by further erosion of the underpinning biological capital.	Articles 1(e), 1(i), 10, 22	Weakly recognised by practitioners and in need of greater prominence.
<b>Principle 5.</b> Wildlife land is of fundamental importance to our quality of life and consequently it should not be lost except under exceptional circumstances.	Article 6, especially 6(2)	Quality of life indicators include farmland birds. Article 6(2) emphasises the need to maintain this value once designated.
<b>Principle 6.</b> Projects that are fundamental to the health and safety of human populations, or those which are of strategic importance should be allowed to proceed.	Article 6(4)	
<b>Principle 7.</b> Decision-makers should be able to prove to the satisfaction of the highest decision-maker that it is not possible to secure the objectives of this project in a way that avoids impact on the wildlife interest.	Article 6(4)	
<b>Principle 8.</b> A clear definition of what is of wildlife importance must be provided together with defined objectives to ensure consistency of decision-making.	Article 6(1)	Establishment of Conservation objectives – also provided by 'Views about Management' for SSSI.
<b>Principle 9.</b> Making decisions cannot happen in isolation. Decision-makers must take account of other proposals that have reached a similarly advanced stage.	Article 6(3)	
<b>Principle 10.</b> If, after taking account of all of the issues, a project must proceed, it must do so in such a manner that its impact upon the wildlife impact is neutral.	Article 6(4)	
<b>Principle 11.</b> Making decisions where there is uncertainty can lead to unexpected consequences. Consequently decisions should only be made where there are sound grounds for certainty i.e. a risk-averse system.	Article 6(3)	
<b>Principle 12.</b> If a decision to proceed has to be taken, it must be accompanied by measures to make sure that displaced wildlife is re-housed.	Article 6(4)	No such provisions in WL & C Act, 1981.

## Concluding Comments

There are those who argue that the UK approach to the Habitats Directive is 'gold-plated'. This is an understandable viewpoint if wildlife land is seen simply as a resource for commercial development, but there is an alternative argument. The approach is comprehensive. It needs to be because little more than 8% of England's landmass (including inter-tidal) is designated as Natura 2000. What has happened to the remaining 92%? A further 8% has some significant wildlife value and includes those SSSIs that have not been designated as SPA or SAC (some are geological sites), Local sites (SNCI) and many ancient woodlands.

The statistics raise an important question about the role that the Habitats Directive really plays in limiting commercial activity and economic prosperity, as has recently been portrayed in Chancellor George Osborne's Autumn Statement. Examination of the Natura 2000 network viewer (<http://natura2000.eea.europa.eu/#>) is illustrative with much of England largely devoid of designations whereas huge tracts of Germany

are covered by Natura 2000 designations. Doubtless some additional sites could be added from the suite of SSSI and Ancient Woodlands that have not been designated as SAC but the options are relatively limited.

This leaves the remaining 84% which has been converted to a mixture of housing, roads, commercial development, agriculture and intensive silviculture. Doubtless some of this supports a more restricted fauna but it is largely open to development pressures and further agricultural intensification without attracting significant protection.

These statistics present a gloomy picture of the degree to which the UK has been willing to safeguard biodiversity to date and the prognosis for the future if existing protection is regarded as an impediment to our commercial prosperity.

### About the Author

Roger Morris is Principal at Bright Angel Coastal Consultants Ltd ([www.bacoastal.co.uk](http://www.bacoastal.co.uk)). He has extensive experience of the application of the Habitats Directive in the UK and northern Europe, especially in relation to port development and flood risk management.

**Contact Roger at:**  
brightangel.coastal@gmail.com

# Exposing, Exploring and Navigating the Built and Natural Environment Divide in Public Policy and Planning

**Professor Alister Scott**

Professor of Spatial Planning and Governance, Birmingham City University

## Introduction

An important ingredient for the management of the environment and its biodiversity is an effective and integrated planning system that provides clarity and certainty for the long-term. However, this goal has been seriously hindered by the way planning for the built and natural environment has been artificially separated leading to 'disintegrated planning', with far-reaching consequences for the way planning is delivered across environmental, economic and social policy domains. This paper exposes the nature of this planning divide with particular reference to the challenges facing the delivery of biodiversity. There is an urgent need for the co-production of more joined-up and inclusive approaches to the way we develop policy and manage our environment, set within an improved dialogue between those working and living in and across the built and natural environments.

## The Nature of the Divide

Table 1 shows graphically the prevalence of this divide through the lenses of the built and the natural environment using examples from the West Midlands region. This reveals two different planning systems in England; one that focuses on the natural environment<sup>1</sup> and one that focuses on the built environment. These systems were formalised within the 1947 Town and Country Planning Act where key government reports by Scott (1942)<sup>2</sup> and Barlow (1940)<sup>3</sup> provided the rationale for creating a divide between the built and natural environment. Thus we have the twin ideas of controlling urban development via a system of restraint (town and country planning system via development plan and control procedures), whilst supporting agriculture and forestry production through a system of incentives (resource planning system via government subsidy). These opposing objectives of 'supporting' and 'controlling' establish the foundation of this divide, which has largely shaped the evolution of separate institutional landscapes thereafter. The specifics of this divide are exposed in Table 1 and, through the use of examples, serve



to illustrate the different ideas and spatialities which manufacture and intensify the divide in theory, policy and delivery. Within each row of the table we see different responses and boundaries of concern reflecting how serious this divide has become, with different philosophical roots, theories, agencies, tools and vocabularies employed. Yet, seemingly, both with the intent to achieve similar outcomes in terms of sustainable land management.

This divide is at its most obvious when engaging with planners and environmentalists in various meetings and workshops to progress their policy imperatives. The planners have little idea of the ecosystem approach, least of all how to use it

within their contemporary planning practice. They see it as 'something environmentalists do'. Conversely, the environmentalists are equally unfamiliar with spatial planning; they tend to view planning only as through the perceived negativity of development plan policies and development control. However, both views fail to recognise the more positive aspects of contemporary planning and environmental practice, which to some extent must relate back to how well we communicate these ideas within our respective policy environments.

The vocabulary and jargon across this divide are so different that we might as well be on different planets; such is the depth of this divide. Crucially, there are few people championing the need for closer harmony between the two approaches; our preoccupation and present work culture of guarding and championing particular institutional silos, academic disciplines, policy initiatives and outcome targets hinders new ways of working. In many respects, these artificially imposed boundaries actually hinder good planning. Yet it is difficult to break out of such thinking.

It is important to note that at the national level the different government departments (Department for Environment, Food and Rural Affairs, and Department for Communities and

Local Government) do little to cross this divide. Indeed, their separate policy developments (Natural Environment White Paper and National Planning Policy Framework) respectively fail to cross connect or reference each other, whilst their favoured policy instruments tend to look inward rather than across the divide, championing their own particular policy initiative; whether it be Nature Improvement Areas (NIAs), Green Belts, Local Enterprise Partnerships or Enterprise Zones. The common ingredients emerging only include habitat banking and the proposed green space designation. Surely, more account could have been made between the greenbelt and NIAs to increase the areas positively managed for nature conservation benefits, improving co-ordinated policy responses.

Yet, this is not happening as initiatives tend to be pursued separately. It is noteworthy, however, within Table 1, that the Black Country region bucks this trend with a marked degree of policy convergence, which is most welcome (Green Belt, Nature Improvement Area, Enterprise Zone). This also reflects the conventional wisdom that for the delivery of sustainable policy you need integrated approaches that tackle social, economic and environmental priorities collectively and not in isolation. The clear identity and geography of the area with planning and environmental initiatives focussed collectively therein will not necessarily produce joined-up outcomes unless there is effective communication and dialogue between all of these converging strands.

Table 1. The divided views of the built and the natural environment using examples from the West Midlands region

Principle	Natural Environment lens	Built Environment lens
<b>Rationale</b>	<b>Incentives:</b> <ul style="list-style-type: none"> <li>• Environmental Stewardship</li> <li>• Catchment Sensitive Farming</li> <li>• Energy Crops Scheme</li> <li>• English Woodland Grant Scheme</li> <li>• Heritage Management plan grants</li> </ul>	<b>Control</b> <ul style="list-style-type: none"> <li>• Planning permission</li> <li>• Building Regulations</li> <li>• Listed building consent</li> </ul>
<b>System</b>	<b>Resource Planning</b> Agriculture, Forestry and Water: rural centric	<b>Town and Country Planning</b> Built environment: urban centric
<b>Policy Framework</b>	Natural Environment White Paper (NEWP) / Biodiversity 2020	National Planning Policy Framework (NPPF)
<b>Government Department</b>	Defra	Communities and Local Government
<b>Delivery Bodies</b>	Quangos (Forestry Commission, Environment Agency, Natural England)	Local Authorities (Neighbourhoods)
<b>Approach</b>	Ecosystem Approach	Spatial Planning
<b>Focus</b>	<b>Classify and value</b> <ul style="list-style-type: none"> <li>• National Vegetation Classification</li> <li>• Phase ½ habitats Assessments</li> </ul>	<b>Order and zone</b> <ul style="list-style-type: none"> <li>• Use Class Orders</li> <li>• Areas of development restraint</li> </ul>
<b>Tools</b>	National Ecosystem Assessment	Sustainability Assessments / Strategic Environmental Assessments
<b>Boundaries</b>	<b>Integrated Biodiversity Delivery Areas</b> e.g. Wye Severn and Avon Vales IBDA	<b>Local Authority areas, West Midlands</b> Birmingham City Council; Coventry City Council; Dudley Metropolitan Borough Council; Sandwell Metropolitan Borough Council; Solihull Metropolitan Borough Council; Walsall Metropolitan Borough Council; Wolverhampton City Council;
<b>Instruments</b>	<b>Nature Improvement Areas</b> Through to 2 <sup>nd</sup> stage of current competitive bids <ul style="list-style-type: none"> <li>• Wye Valley NIA – (catchment)</li> <li>• Warwickshire Coventry and Solihull NIA - (Wetland/wood/urban)</li> <li>• Birmingham and Black Country Living Landscapes - (Urban/wetland/river/heath)</li> <li>• Meres and Mosses of the Marches – (wetland)</li> </ul>	<b>Green Belts</b> <ul style="list-style-type: none"> <li>• Birmingham, the Black Country and Coventry, (incorporating Rugby, Leamington Spa, Warwick, Alcester, Kidderminster, Bridgnorth, Telford, Rugeley, Lichfield and Nuneaton)</li> <li>• North Staffordshire conurbation</li> <li>• Burton</li> </ul> <b>Enterprise zones</b> <ul style="list-style-type: none"> <li>• Birmingham city centre</li> <li>• Black Country</li> <li>• Rotherwas Enterprise Zone Hereford</li> <li>• Warwickshire's MIRA Technology Park (MTP) in Nuneaton</li> </ul>
<b>Partnerships</b>	<b>Local Nature Partnerships</b> Successful applications for capacity building fund from Defra: <ul style="list-style-type: none"> <li>• 1<sup>st</sup> round: Birmingham and the Black Country; Staffordshire</li> <li>• 2<sup>nd</sup> round applications made by: Shropshire Telford and Wrekin, Herefordshire, Warwickshire</li> </ul> <small>*Application for LNP status is in early 2012 and the results will be announced in June 2012.</small>	<b>Local Enterprise partnerships</b> <ul style="list-style-type: none"> <li>• Greater Birmingham and Solihull Local Enterprise Partnership Includes: Birmingham, Solihull, Redditch, Wyre Forest, East Staffordshire, Lichfield, Tamworth, Bromsgrove and Cannock in addition to Birmingham and Solihull Councils</li> </ul>



# Feature Article: Exposing, Exploring and Navigating the Built and Natural Environment Divide in Public Policy and Planning

This exception, however, should not mask the fact that there are significant disconnects which hinder effective planning for the environment. The issue of scale is crucial here as different boundaries are imposed by agencies for planning involving different groups, stakeholders and partnerships. So, for example, the recently introduced Integrated Biodiversity Delivery Areas developed by Natural England do not square with any other spatial or administrative boundaries across the built environment.

Furthermore, the recently enabled Greater Birmingham and Solihull Local Enterprise Partnership pursuing the economic development agenda does not have any environmental representation. Here, the view that the environment is separate from the enterprise agenda prevails, echoing George Osborne's statement that they are a brake on development. However, if one looks at the immense body of scientific research emerging from the recent UK National Ecosystem Assessment, it reveals that the natural environment brings billions of pounds into the economy each year and is, therefore, a key asset which should be embedded in Local Enterprise Partnerships (National Ecosystem Assessment, 2011). We then have the somewhat farcical situation of Local Nature and Local Enterprise Partnerships developing policy and strategy without connecting with each other. This merely intensifies the nature of the divide leading to future conflict positions. Our research as part of the Relu programme<sup>4</sup> explicitly addresses this divide through a concerted attempt to synchronise the ecosystem approach with spatial planning in the rural-urban fringe; the fuzzy and messy place where the built and natural environments and their respective planning systems converge and where the divide is at its most obvious (Scott and Carter 2011). The starting point in the research was to build an effective dialogue across the divide through the recruitment of a team of academics and policy-makers (Figure 1).

Figure 1. Building an Interdisciplinary Team<sup>5</sup>

- Prof Alister Scott PI BCU
  - Dr Mark Reed CI Aberdeen
  - Prof Richard Coles CI BCU
  - Dr Nick Morton CI BCU
  - Dr Rachel Curzon CI BCU
  - Claudia Carter CI BCU\*
  - Nicki Schiessel CI BCU\*
- 
- Claudia Carter Forest Research
  - David Collier NFU
  - David Jarvis/Ben Stonyer DJA Consultants
  - Ruth Waters/Andrew Hearl Natural England
  - Karen Leach/Chris Crean Localise West Midlands
  - Miriam Kennet Green Economics Institute
  - Keith Budden/Nick Grayson Birmingham Environment Partnership
  - Bob Foster West Midlands Rural Affairs Forum
  - Mark Middleton Worcestershire County Council, West Midlands Regional Assembly

The team comprised experts who worked in either spatial planning or the ecosystem approach or had a particular interest in the rural-urban fringe. The development of a research team uniting across conventional boundaries of natural and social sciences, urban and rural domains, policy and academia is seen as particularly important in building an acceptable framework to navigate and cross the divide. The subsequent journey then involved each team member writing their own reflective paper(s) on their experiences in spatial planning and/or the ecosystem approach. This enabled the co-production of a composite working paper that captured emerging synergies of the two approaches (Figure 2).

Figure 2. Synergies between Spatial Planning and the Ecosystem Approach

- New ways of thinking
- Holistic frameworks
- Cross-sectoral
- Multi-scalar
- Negotiating
- Enabling
- Long term perspective
- Connectivity
- Governance
- Inclusive
- Equity goals
- Regulatory
- Market-orientated

Further discussion prioritised these points of intersection within three cross-cutting themes that were seen to capture the key challenges for policy in both the Ecosystem and Spatial Planning approaches (Time, Connections and Values). However, the adoption of these terms made them more intelligible and accessible across the different professions and the public. So rather than confront the complex vocabulary and jargon of the Ecosystem Approach and Spatial Planning we have

a simpler conceptual framework within which to start crossing the divide in theory (Figure 3) (Carter and Scott 2011).

'Time' focuses on the need for taking a long-term view and vision, moving away from the pre-occupation with short-termism that creates uncertainty and reactive opportunism in favour of a long-term and inclusive vision that looks some 50 years ahead. Ironically that focus of planning is, seemingly, what all stakeholders want to aid long-term investment decisions which is good for people, place and the environment. However, as well as looking forward there is also the need to look back and learn lessons from past approaches in order to plan effectively.

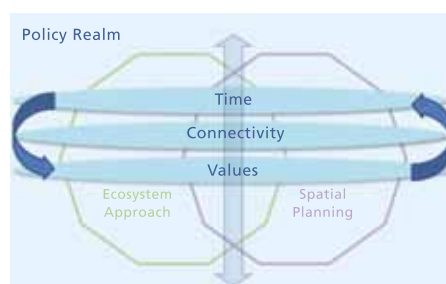
'Connections' is concerned with understanding the complex pattern of relationships between and within groups of people, places and the environment across the different scales of operation and governance. This shifts the focus of attention away from places to consider the flows and linkages that maintain and bind particular systems and environments together. So as well as negotiating across global, European, national, regional, landscape, local and neighbourhood scales, there is also the need to link across economic, environmental, social and cultural systems. This requires understanding the bigger picture and not focussing on any one single scale; in effect breaking down artificial boundaries.

'Values' are about understanding and unpacking the core norms and fundamental beliefs that we as a society hold, together with the professional values inherent within the built and natural environment professions, as well as the wider publics. Of particular importance is the current fixation on trying to impose economic values on the environment concomitant with the danger that we tend to only value what we measure as opposed to measuring what we actually value.

## Crossing the Divide

In the final section I want to illustrate three examples in our current research where we have crossed the divide linking the built and natural environment together using our framework (Figure 3). First, it is clear that we need to engage the public more effectively in planning and environmental debate. Consequently, we have developed a learning tool called RUFopoly.

Figure 3. Conceptual Framework to Cross the Built and Natural Environment Divide



This allows people to make their own journey of discovery across a hypothetical rural-urban fringe (RUFshire), encountering challenges and opportunities and making decisions in response to the square they land on (Figure 4). Players encounter questions relating to values, time, connections or spatial planning and ecosystem services that all reflect real issues encountered by our team over the course of the research. The game is usually played with a guide or can be self-recorded to document the decisions and supporting reasons of each player's journey. The game finishes with the player constructing their own vision for RUFshire based only on their previous decisions. This final step helps eliminate (implicit) priorities and/or biases within individuals. The learning involved allows people to experience the planning problems of an area and understand the range of pressure and opportunities facing the rural urban fringe. As such they are engaging with the core ingredients of spatial planning and the ecosystem approach.

Figure 4. RUFopoly game as showcased at the recent Relu conference in Newcastle



The second example concerns the use of Green Infrastructure (GI) and Concept Plans. GI is a powerful tool that does cross over the divide and is now widespread in planning and environmental policy. Worcestershire Green Infrastructure Partnership has developed concept statements to progress this. These set out the environmental constraints and functional opportunities for key development sites. The process has been led by the Strategic Planning and Environmental Policy team of the County Council and the plans have been endorsed by the GI Partnership members including statutory consultees. The Concept Plans are based on primary baseline data and the multifunctional characteristics of each site involving the identification and mapping of GI assets. The process included workshops involving key stakeholders to integrate GI within a masterplan development to maximise connectivity for people, place and environment. These Concept Plans represent a proactive planning tool which is now being included in Core Strategies.

A third example stems from the potential of the Community Infrastructure Levy (CIL).

This is a pot of money that will accrue from development that can be put to use to benefit the community in more flexible ways than the current Section 106 planning agreements allow. If we are able to better capture what the community values in terms of local biodiversity and environment, then it logically follows that, with the necessary community support, this money could be put to innovative uses to help maintain and enhance biodiversity. For example, moorlands provide carbon stores, clean water, flood protection, recreation and tourism and an awareness of the wide range of functions and the interdependencies are likely to lead to more sustainable management of the resource. At present our costing systems do not build these factors in; so the natural environment is unlikely to receive any CIL funding. However, by crossing the divide and using the National Ecosystems Assessment explicitly within spatial planning tools this can become a reality.

## Conclusion

At present we have a significant divide between the way we plan for the built and natural environments. This is hindering the delivery of biodiversity as plans and strategies are being developed in isolation from each other, creating disconnects and missed opportunities. It is important to recognise that the environment is part of the development jigsaw and not some add-on. We need to move away from agency insularity and use more inclusive processes and partnerships to help integrate the economy, society and environment as opposed to the current tendency to 'disintegrate' it. In this way we can start to see the bigger picture - but that requires a leap of faith through dialogue, understanding, listening and, above all, the ability to break down the artificial boundaries we all too often impose on our work practices. Our research on the rural-urban fringe is only the start of this process. Applying this to the specifics of the West Midlands it seems crucial that the emerging Local Enterprise Partnerships and Local Neighbourhood Plans cross fertilise; that there is a dialogue between the two faces of the divide.

It may well take the proverbial interdisciplinary bastard to do this but in our challenging times we need to start building more secure bridges in order to cross the divides and so deliver the kind of joined-up planning we all want and increasingly need.

## Acknowledgements

1. The arguments in this paper stem from research funded under the UK Research Councils Rural Economy and Land Use Programme 'Managing Environmental Change at the Rural-Urban Fringe'; a collaboration between the Economic and Social Research Council, the Natural Environment Research Council and the Biotechnology and Biological Sciences Research Council, with additional funding from Defra and the Scottish Government.
2. Thanks are due to Claudia Carter (Birmingham City University), who commented on an earlier draft.
3. RELU grant award for 'Managing Environmental Change at the Fringe' – ES/H037217/1

## Notes

1. Within England the natural environment is a complete misnomer as nothing is entirely natural. The conventional wisdom distinguishes between agriculture, forestry and biodiversity within the 'natural' domain.
2. Scott Report (1942) *Land Utilisation in Rural Areas Cmd. 6378*. London, HMSO.
3. Barlow Report (1940) *Report of the Royal Commission on the Distribution of Industrial Population Cmd. 6153*. London, HMSO.
4. Relu [www.relu.ac.uk](http://www.relu.ac.uk) is the Rural Economy and Land Use Programme which is an interdisciplinary research programme to maximise policy impact on pressing rural problems.
5. \*Carter and Schiessel recently joined the team as Co-Investigators.

## References

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### About the Author

Alister Scott is Professor of Spatial Planning and Governance at Birmingham City University. He is a social scientist, geographer and chartered planner with research interests centred around the changing nature of governance and partnerships. His research particularly focuses on the ways sustainable development has been conceptualised and operationalised. Alister's research work explores themes including specialist sustainable rural land use, spatial planning, public engagement and landscape problems. He is currently leading a research-council funded project 'Managing change at the rural-urban fringe' as part of the RELU initiative (Rural Economy and Land Use).

Contact Alister at:  
alister.scott@bcu.ac.uk

# The Biodiversity Planning Toolkit

**Andrew Williams**  
Defra

**Mike Oxford MIEEM**  
Association of Local Government Ecologists

**Ann Skinner CEnv MIEEM**  
Environment Agency

The Biodiversity Planning Toolkit is the first UK website to bring together in one place essential information and guidance on biological and geological diversity, presenting it in a user-friendly manner to promote understanding and ultimately reduce the impacts of built development on the natural environment.

Developed through a 3-year partnership, it is primarily aimed at ecologists, planning consultants, developers and local authority planners, but is available for use by anyone.

Accessible as a stand-alone tool on the internet ([www.biodiversityplanningtoolkit.com](http://www.biodiversityplanningtoolkit.com)) and via website links from the environment and nature conservation agencies of the four devolved administrations, it will also be promoted by the Government's Planning Portal in England and Wales.

The Toolkit gives guidance on dealing with biodiversity issues in forward planning and a wide range of different development scenarios. Using an interactive landscape as an innovative means of communication, graphics and animation help the non-expert audience access information on habitats and species. Written text highlights their value to society, sensitivity to the potential impacts of development and ways to avoid or mitigate damage.

The toolkit also uses the more traditional approach of written text to encompass different sets of legislation, regulations and policy across England, Wales, Scotland and Northern Ireland.

*"It is most impressive and comprehensive - having everything in one place is great. I find it easy to use and free of jargon."* John Box CEnv FIEEM, WS Atkins (August 2010)



The Interactive Landscape



Barn Conversion





[www.istockphoto.com](http://www.istockphoto.com)

## What does it cover?

The Toolkit explains the legal basis for habitat and species protection, and outlines measures to avoid harm, based on the most up-to-date information on ecological requirements, survey methods and mitigation techniques. It gives advice to Local Authority policy-makers on best practice for incorporating biodiversity into Local Plans, and explains the fundamental principles underlying ecosystem functioning and services. Users can interrogate a number of general development scenarios including wind farms and hydropower, large-scale urban regeneration and smaller-scale housing developments. The text on barn conversion, for example, explains how conversion may affect bats, barn owls and swallows, whilst clicking on areas of the illustration shows which parts of the building may be used and what measures might be used to reduce or avoid impacts.

A layer in the interactive landscape shows the different ecosystem functions and services provided by, for example, floodplains, saltmarsh and woodlands, raising awareness and understanding of

the concept amongst the target audience and the wider public. Links are provided to the most helpful and user-friendly guidance on the value of nature, giving people an insight into the role they can play in conserving and enhancing functioning habitats for the benefit of all.

Case studies are included to illustrate good examples of the various development scenarios and guide people towards best practice. Users are referred through hyperlinks to the most relevant key sites or publications so that they can drill down into more detailed information as and when they need to.

## Why is the Toolkit special and different?

It provides comprehensive advice and reference material on nature conservation relevant to planning for the whole of the UK, signposting information on ways to avoid, mitigate or compensate for any losses. By presenting habitats and species issues and solutions in visual form it

engages a wide non-technical audience. The net result should be better understanding and greater willingness to conserve and enhance nature from within the planning profession, amongst developers, consultants and the general public. By raising awareness and promoting best practice in this way, we hope the Toolkit will contribute to the conservation of biological diversity over the long-term and help to bring nature to more people.

## How will it be kept up to date?

The Toolkit will be kept up to date by regular review, to ensure it incorporates new legislation, regulations, understanding and techniques.

For more information on the Toolkit please contact Mike Oxford at [michaeloxford@btinternet.com](mailto:michaeloxford@btinternet.com).



Winter in Cumbria  
Photo by Katherine Drayson

# EcIAs: The Spirit Versus the Letter of the Law?

Katherine Drayson and Stewart Thompson MIEEM  
Oxford Brookes University

## Summary

Ecological Impact Assessments (EcIAs) are common components of Environmental Impact Assessments (EIAs), which are written up as reports known as Environmental Statements (ESs). These are submitted to Local Planning Authorities (LPAs) to ensure that they make a fully informed decision as to whether a development should go ahead.

ESs are required under EU law for certain built development projects, whether because of their type (such as nuclear power stations) or their likely significant effects on the environment. Under EU law, EIAs, and by extension their component EcIAs, are required to include certain information. This article examines whether that information is being included in English EcIAs and what the implications are for England's ecology.

## Context

Ecology is "*the scientific study of the interrelations between living organisms and their environment, including both the physical and biotic factors*"<sup>1</sup>. Over the past few decades ecology has gained in stature, to the extent that biodiversity is recognised and protected under EU law<sup>2</sup> and policy. Indeed, the EU, and by extension the UK, has committed to halting biodiversity loss and ecosystem service degradation by 2020<sup>3</sup>.

The EU's EIA Directive<sup>4</sup> is intended to ensure that projects "*likely to have significant effects on the environment*" are subject to an assessment of those environmental impacts prior to development consent being granted.

The EIA Directive is transposed into national law as the EIA Regulations<sup>5</sup>, which have recently been consolidated and modified<sup>6</sup>.

But where does ecology come into the EIA Directive? Article 3 states that EIAs should consider "*the direct and indirect effects of a project on... fauna and flora*" (i.e. living organisms, or biodiversity). In addition, there is a requirement to consider the interrelations between these and "*soil, water, air, climate and the landscape*" (i.e. their environment). This clearly specifies ecology, according to the definition above, as a necessary component of the majority of EIAs.



## EIA Information Requirements

Article 5 states that, with some exceptions, the developer must provide the information specified in Annex IV, all of which may have a bearing on the ecology of the proposed development site. The absolute minimum information that must be included in an ES, is;

- *A description of the project comprising information on the site, design and size of the project,*
- *A description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects,*
- *The data required to identify and assess the main effects which the project is likely to have on the environment,*
- *An outline of the main alternatives studied by the developer and an indication of the main reasons for his choice, taking into account the environmental effects,*
- *A non-technical summary of the information mentioned in the previous indents."*

## Exclusions

There are two potential exclusions to the information requirements of the EIA Directive.

The first is that the information may not be considered *"relevant to a given stage of the consent procedure and to the specific characteristics of a particular project or type of project and of the environmental features likely to be affected"*. In this article, it is assumed that inclusion of an EclA as part of the EIA indicates that the ecological information required under the EIA Directive is relevant and therefore should be included. Where information is not considered to be relevant, this should be clearly stated rather than just inferred.

The second potential exclusion is that *"a developer may [not be] reasonably... required to compile this information having regard inter alia to current knowledge and methods of assessment."* With respect to the information requirements of the EIA Directive, there are two that are likely to be particularly challenging and therefore have potential for exclusion.

The *"description of the aspects of the environment likely to be significantly affected by the proposed project"* requires adequate baseline ecological surveys, which may not be carried out due to developer budget and time constraints. However, they are possible with regard to current knowledge and methods of assessment, and so should be conducted appropriately with all limitations stated.

The *"description of the likely significant effects of the proposed project on the environment"* relies on the professional judgement of ecological consultants, as some impacts can be extremely complex to predict and characterise. However, the remainder of the requirements are relatively straightforward and certainly within the capacity of developers and environmental consultants to provide, with current knowledge and methods of assessment.



Bracken  
Photo by Katherine Drayson

## Study

An analysis of 42 EclAs (and the front-end chapters, which often contain information common to all the technical chapters to avoid repetition) was conducted to determine just how comprehensively EclAs include the information required under the EIA Directive. The EclAs in this study were submitted to English LPAs from 2000 onwards for built developments from a variety of sectors. All of the EclAs were for developments that had been granted planning permission, and therefore could be expected to have been thoroughly reviewed and corrected, where necessary.

From the information requirements outlined in the EIA Directive, a series of 14 questions was developed and asked of each EclA. For example, the question 'Is the development size indicated?' would be answered 'Yes', 'No', or 'Partially'. A simple index<sup>7</sup> was then applied to compare the EclAs. It takes into account incomplete answers to questions<sup>8</sup> and gives scores ranging from 0 (no questions answered) to 1 (all questions fully answered).

## Results

All of the EclAs examined in this study were for developments that had been granted planning permission, either directly from the LPA, or from the Secretary of State after public inquiry. As a result, they should have been reviewed at several levels by, for example, the LPA, the statutory consultees and the non-statutory consultees (including the public).

Despite this, these results indicate that there is a widespread information gap in English EclAs, calling into question their efficacy as a tool for the protection of ecology. The remainder of this article will focus on the information gaps identified and what implications these have for ecology in England.

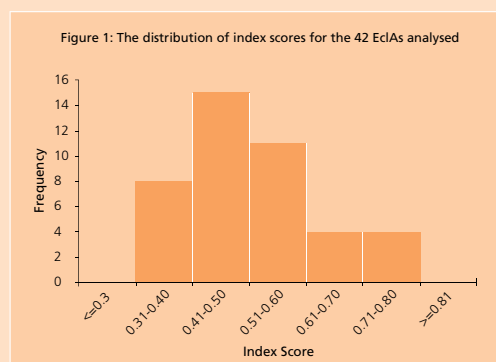


Figure 1 illustrates the frequency distribution of index scores across the EclAs analysed. Of the 42 EclAs analysed, the average index score was 0.55, with scores ranging from 0.32 to 0.73. More than half (54.76%) of the EclAs scored 0.5 or less, with none scoring greater than 0.75.

Frequency distribution of index scores across analysed EclAs



## Feature Article: EcIAs: The Spirit Versus the Letter of the Law? (continued)

### i) Size of the Development

Relatively few EcIAs (11.4%) completely failed to state the size of the development; three of these were for wind farm developments for which a definitive site area will be ambiguous, as the actual footprint of the development will generally be far smaller than the land included in the planning application. However, it is necessary to give some idea of scale and so estimates of the construction and operation footprints should be provided in these cases. Related to this, fewer than a fifth (18.2%) of EcIAs stated the area of each habitat type to be lost, greatly reducing the informativeness of the EcIA.

### ii) Off-Site Construction Areas

More worryingly, off-site construction areas are poorly described and characterised in EcIAs (just 4.5% described them), despite their being as much a part of the project as the final operational development. In many cases it was unclear whether there would be off-site construction areas at all. It is entirely possible that off-site construction areas support flora and fauna of equal importance as the site proper. Therefore, it must be made clear in the EcIA whether off-site construction areas will be needed, and if so, these areas must be included in the assessment of ecological impacts.

### iii) Alternative Sites

The consideration of alternative sites with regard to ecology is generally poor, with almost three quarters of EcIAs (73.81%) failing to provide this information. The analysis is mostly limited to a consideration of whether there are European designated sites, such as Special Protection Areas (SPAs), in the vicinity. In part, this is understandable, as the proposed site has often already been purchased, with other sites suitable for the development unavailable, particularly in the case of developments with restrictive siting requirements, such as wind farms. However, it does give the impression that ecology is of low priority and a more thorough consideration of alternative sites with regard to ecology might help to improve the development's 'eco-credentials'.

### iv) Alternative Processes

With regard to alternative processes, designs and/or methods, these tend to be limited to micro-siting of components of the development, rather than comprehensive re-evaluation of the masterplan. This could indicate one of three things:

- That the ecology present on site is not of sufficient importance for re-evaluation;
- That ecological consultants were brought in early enough that their input was instrumental in the development of the masterplan; or
- That the masterplan had already been developed to such an extent that the input of ecological consultants, brought in relatively late, could not change it significantly.

It may be overly cynical to suggest that the latter is the case in the majority of EcIAs, but a more comprehensive discussion of how ecology was considered in the design evolution would certainly help to dispel this view.

### v) Baseline Surveys

There are comprehensive guidance documents for almost every form of ecological survey. There are, therefore, few excuses for baseline surveys not to be conducted adequately, in accordance with named guidelines, and with their limitations clearly stated (such as poor weather conditions or a sub-optimal time of year for survey).

However, over a quarter (26.19%) of those EcIAs conducting ecological surveys did not conduct all of them according to named guidelines (although this is likely to be an over-estimate as the guidelines followed may simply have been omitted in some cases). Over a third (35.71%) of these EcIAs failed to state any of their limitations.

In practice, budget and time constraints on the part of the developer often limit the capacity for adequate baseline survey, which has consequences for the accurate description of *"the aspects of the environment likely to be significantly affected by the proposed project"*. However, where this is the case, the limitations need to be even more clearly stated.

### vi) Ecological Impacts

Reassuringly, none of the EcIAs reviewed considered that there would be no ecological impacts of the proposed development (it would be a truly unusual or innovative built development proposal that did not have any pre-mitigation impacts on ecology). This is a marked improvement, as an earlier study<sup>9</sup> found that 20% had failed to consider any impacts to ecology.

### vii) Direct and Indirect Impacts

Almost half (45.5%) of the EcIAs reviewed failed to clearly distinguish between direct and indirect impacts. Even where there was a distinction between the two types of impacts, more than 27% failed to explicitly describe indirect impacts. This is of concern, as it suggests many indirect effects are not being routinely taken into account in EcIAs. On occasion, indirect impacts can be of great significance (for example, pollution of a water course that drains into a wetland SPA), and so they need to be carefully considered, or at least clearly stated to be absent.

### viii) Economic and Social Impacts of Biodiversity Loss

Almost 93% of EcIAs failed to state any economic or social impacts as a consequence of biodiversity loss or loss of green space. There are demonstrable benefits to human health and well-being of both biodiversity and access to green space<sup>10</sup>, with consequences for NHS budgets. EcIAs that fail to address potential social and economic impacts of biodiversity loss and/or loss of green space on human beings, both socially and economically, are therefore not complying with the EIA Directive requirement to assess the interaction between *"human beings, flora and fauna"*. A simple reference to the socio-economics chapter of the ES, assuming ecology is included within it, would suffice.

### ix) Cumulative Impacts

Half of the EcIAs reviewed failed to explicitly consider cumulative ecological impacts. This may be an over-estimate, as in some of these cases there might have been no cumulative ecological impacts but this was simply not stated. Traditionally, cumulative impacts with regard to ecology have relied on information from LPAs regarding nearby planning applications or planning permissions. However, this is a restrictive approach and should be broadened to include, for example, the area's designation in the Local Plan or Local Development Framework, as well as climate change.

### x) Climate Change

Over 95% of EcIAs failed to mention climate change or global warming in their assessments. Given the incorporation of climate change into biodiversity policy<sup>11</sup>, at least a mention of climate change should be included and a reasonable attempt made at estimating its impact on the biodiversity of the area. This could also extend, for example, to recommending a more drought-tolerant plant species mix as a habitat creation mitigation measure.

### xi) Ecological Mitigation

A review conducted in 1997 found that 28% of EcIAs had failed to describe mitigation measures<sup>12</sup>. Reassuringly, all the EcIAs reviewed in this study described some form of ecological mitigation. However, it should be noted that the quality and level of detail of the mitigation measures has not been included in this assessment; it is likely that there are improvements to be made in this area.

### xii) Non-Technical Summary

Only one EcIA was not accompanied by a non-technical summary (NTS). Of the remainder, the great majority (over 97%) of the EcIAs reviewed were accompanied by a NTS that contained at least some ecological information. A more detailed analysis of the information within the NTSs revealed that over a quarter (29%) did not state the significant residual ecological impacts. This has implications in terms of public consultation, as many members of the public will be unable to fully understand or correctly interpret the EcIA.

## Conclusions and Recommendations

The EIA Directive sets out a series of information requirements that have direct and/or indirect relevance to EclAs and therefore should be included. However, this study has revealed a widespread failure of EclAs to include all, or even the majority, of this information, calling into doubt the effectiveness of EclAs for the protection of ecology.

This has, unfortunately, not appeared to have had major implications for the success of planning applications, as all of the EclAs studied had been granted planning permission. It has been stated in case law<sup>13,14</sup> that it is unnecessary to include every last scrap of environmental information; indeed, this has been incorporated into the IEEM EclA Guidelines<sup>15</sup>. However, it is necessary to ensure that the information requirements of the EIA Directive are met in order to allow LPAs to make a fully informed decision.

To this end, we recommend that a table briefly summarising the main findings of each chapter with regard to the EIA Directive information requirements be included at the end of each technical chapter of the ES. Ideally, the recommendations included in the IEEM Guidelines should also be included. This does not need to be more than two pages long and will aid both consultants (in refining the EclA and writing the NTS) and LPAs (in determining whether the EclA is sufficient). We have produced a draft table and would be happy to e-mail it to anyone interested.

There is an urgent need for developers, environmental and ecological consultants, and environmental and planning lawyers to co-operate to address the information gaps identified in EclAs, in order to help meet the UK's obligation to the EU's commitment to halt biodiversity loss and ecosystem degradation by 2020.



Rocky shore, Cornwall  
Photo by Katherine Drayson

## Notes

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### About the Authors

Katherine Drayson is a final year PhD student at Oxford Brookes University's Faculty of Health and Life Sciences, supervised by Dr Stewart Thompson. She previously worked as an ecological consultant for two years.

### Contact Katherine at:

09047584@brookes.ac.uk

Dr Stewart Thompson is a Reader in Ecology at Oxford Brookes University's Faculty of Health and Life Sciences.

### Contact Stewart at:

sthompson@brookes.ac.uk



# Using BREEAM Assessments to Deliver Benefits for Urban Wildlife

**David W Smith MIEEM**

Senior Consultant Ecologist, DF Clark Bionomique Limited

**John Day**

Urban Advisor (Countryside Conservation), RSPB

There is a range of species associated with urban habitats, some of which are either national or local Biodiversity Action Plan priority species. Yet there are few mechanisms to deliver conservation measures to benefit them. Through BREEAM assessments, including the Code for Sustainable Homes, consultant ecologists can influence improvements to the urban environment and its wildlife. This article provides guidance on the selection of 'urban prescriptions' for BREEAM assessments to benefit species associated with urban environments.

## What is a BREEAM Assessment?

BREEAM is the Building Research Establishment Environmental Assessment Method for buildings<sup>1</sup>. It is used to assess the environmental performance of new and existing buildings. For new housing the assessment is known as the Code for Sustainable Homes (CfSH). BREEAM covers nine categories of sustainable design, with 'Suitably Qualified Ecologists' (SQEs) being responsible for completing either the land use and ecology section (LE02 to LE05) or the ecology section (Eco1 to Eco4).

BREEAM LE04<sup>2</sup> and CfSH Eco2<sup>3</sup> require the SQE to make recommendations to enhance the ecological value of a site after development. The developer has to comply with these recommendations to gain credits. These enhancements have to be over and above that required to comply with UK and European legislation. The guidance associated with the BREEAM assessments provides limited information on ways to enhance the ecological value of a site and are unlikely to benefit urban species of greatest conservation priority.

IEEM does not currently endorse BREEAM because the Institute feels that it is inadequate. As a consequence IEEM are in discussions to improve this. This article does not offer any critical evaluation of the current assessment framework, but aims to encourage consultant ecologists to think creatively within the structure of the BREEAM framework to benefit urban and peri-urban species.



Deadwood

Photo by Jim Thompson



## Learning from Agri-Environment Schemes

Farmers and land managers are paid to encourage environmentally sensitive farming and land management. Decades of research have given rise to a plethora of agri-environment prescriptions to benefit a range of species. Farmers and their advisors can select prescriptions appropriate to the needs of the species present and the specific requirements of their farm.

In a similar way to the implementation of agri-environment schemes, consultant ecologists are potentially in a position to select suitable 'urban prescriptions' through BREEAM assessments to benefit a range of urban species whilst being sympathetic to their clients' requirements. It is already possible to utilise some of the agri-environment research and urban-based research to propose a limited number of 'urban prescriptions'. Further research and technical guidance combined with the corporate funding mechanism created by BREEAM and CfSH assessments could benefit a range of species, including those of conservation concern. Choosing appropriate prescriptions for individual projects could collectively deliver positive conservation benefits across urban landscapes.



Hay Meadow  
Photo by Richard Nairn

## Common Rules in the Selection of Urban Prescriptions

Clients wish to maximise credits in a cost-effective, pragmatic way. The current system encourages ecologists to recommend species rich habitats such as wild flower grasslands. However, the local conditions and commitment to long-term management may make these inappropriate and unsustainable. Ecologists should not apply the same recommendations to every project, nor be afraid to recommend relatively species poor habitats of high ecological value.

Improving the quality of 'urban prescriptions' through soft-landscaping schemes is likely to deliver more conservation benefits to urban species compared with simply recommending bat, bird and bug boxes in isolation. Consequently, the authors propose that for each prescription listed in Table 3, ecologists should recommend at least three soft-landscaping prescriptions from Tables 1 and 2. These are likely to benefit many more species and improve the quality of the urban environment for wildlife and people to enjoy.

Native species are generally considered to be of higher ecological value. However, a selection of non-native species and non-native varieties of native species are known to be of wildlife value and may sometimes be more appropriate because they are more likely to survive in the urban environment. For example, lavender varieties are drought tolerant, a good source of nectar, provides seeds for foraging birds and aesthetically smell and look good.

One of the most important considerations in making recommendations is the species present in the surrounding landscape. House sparrow boxes, for example, might not be appropriate if the nearest colony is over 2km away or the habitats present are unlikely to support the required diversity and abundance of invertebrate prey for adults to feed their chicks.

Ecologists' recommendations should include specific, simple, pragmatic and cost-effective management details. Inappropriate management could completely negate the potential value of a habitat.

Finally, green spaces in urban areas are not only important for people and wildlife. We recommend ecologists work with landscape architects, developers and, wherever possible, the community to create high quality spaces for both.

## Urban Prescriptions

Tables 1, 2 and 3 provide a summary of urban prescriptions. Detailed specifications for green and brown roofs are omitted as these are too complex to cover adequately. However, biodiversity roofs should be encouraged where appropriate. Detailed guidance can be found in Kadas (2010)<sup>4</sup>, the environment agency's green roof toolkit<sup>5</sup>, livingroofs.org<sup>6</sup> and Green Roof Consultancy<sup>7</sup>. Similarly, elements of the maintenance specifications likely to come into effect beyond the normal liability period are omitted, but, if made, would aid maintenance of the ecological value of habitats.

## Feature Article: Using BREEAM Assessments to Deliver Benefits for Urban Wildlife (continued)

Table 1. Grassland Urban Prescriptions

Grassland Prescriptions	Wildlife benefits	Establishment	Management
Grass (including wildflower meadow)	(see below)	Sow Sep/Oct or Mar/Apr. Where possible/applicable use native species rich seed mix.  Sowing rates may vary depending on soil type and quality, climate, previous land use etc. Typical rate 6 g/m <sup>2</sup> .  For SUDS and swales sow a chosen native species seed mix at rate of 6 g/m <sup>2</sup> . Choose species able to tolerate mixed hydrological conditions.	Cultivate and prepare seed bed as necessary using appropriate machinery and hand tools.  At a minimum height of 40-50mm lightly top sward to encourage tillering and prevent domination and spread of annual weeds.
Short grass - max/min height before/after cut 50/20mm	Ideal foraging for song thrush, starling, hedgehog.	(see grass).  Ideally located between paths and longer grass prescriptions.	Cut as often as necessary throughout the season.  Maintain mown strips of 1-2m between paths and long grass prescriptions.
Intermediate grass - max/min height before/after cut 150/50mm	Ideal foraging for finches (including house sparrow) and small mammals (including hedgehog).  Will provide habitat for a range of invertebrate fauna.  Many invertebrates that feed on leaves of woody vegetation need to pupate in grass.	Best grown against shrub beds, hedges and beneath trees grown in grass.	Cut as often as necessary throughout the season. Remove arisings. Aim to retain a minimum height of 150mm over winter.  If reptiles and amphibians, particularly great-crested newts, are present, adjust timing and height of cut as required.
Long grass - max/min height before/after cut 300/50mm	See intermediate grass.  Will increase cover and foraging opportunities (including for aerial predators such as dragonflies and bats), more nectar and seed provision.	See intermediate grass.	Cut as necessary between late Mar and late May/early Jun depending on precipitation (e.g. dry spring – late May, wet spring – June).  Resume mowing as necessary between Aug/Sept. Apply a minimal number of late summer cuts and aim to retain a minimum height of 150mm over winter. Remove arisings.  See intermediate grass re reptiles and amphibians.
Long rotation - min height after cut 50mm	See intermediate grass.  Will increase cover, nectar and seed provision.  Will benefit large bodied grassland invertebrates, which in turn provide more food for foraging birds (e.g. house sparrow) and bats.	See intermediate grass.	Cut in alternate or every third year. Cut in early/mid April depending on precipitation.  Where possible look to 'move' the long rotation prescription to a new area after each rotation. Ideally, adopting an area of equal size from the 'long grass' prescription.  See intermediate grass re reptiles and amphibians.
Wildflower meadow	Benefits as above, but greater seed and nectar resource.	7-10 g/m <sup>2</sup> for a native wildflower meadow.	Spring flowering: Leave uncut until late May/early June. Cut as per 'long grass' specification. Remove arisings.  Summer flowering: Cut per 'long grass' specification until mid/late Apr. Leave uncut from Apr until late-Aug/ mid-Sept, and then cut per 'long grass' specification. Remove arisings.  Aim to retain a minimum height of 150mm over winter.  See intermediate grass for reptiles and amphibians.



Table 2. Tree and Shrub Urban Prescriptions

Trees and shrubs including climbers	Wildlife benefits	Establishment	Management
<p><b>Trees</b></p> <p>Where possible use ‘feathered’ and or 8-10cm girth trees.</p> <p>Specimen trees may be 10-12cm or 12-14cm. When girths start to exceed 10-12cm mortality rates can increase considerably if they are not maintained. With excellent after care, very large trees can be successfully planted.</p> <p><b>Shrubs</b></p> <p>Most climbers and non-native shrubs invariably come in pots.</p> <p>2 litre pots are a manageable size.</p> <p>Some climbers such as ivy may come in smaller pots or biodegradable containers.</p>	<p>Species, age and structural diversity in woody vegetation benefits all associated wildlife, including invertebrates, amphibians, reptiles, birds and mammals.</p> <p>High humidity improves conditions for subsurface invertebrates which in turn provide food for associated predatory taxa.</p> <p>Thick dense shrubs provide shelter, foraging and breeding opportunities and movement corridors.</p> <p>Increased surface area of tree foliage benefits foliar feeding invertebrates and their associated predators.</p>	<p>Plant a range of species to create a diverse structure and to provide a protracted supply of nectar, fruits and seeds.</p> <p>Aim for a 70:30% ratio in favour of native species. Bias non-natives in formal locations where aesthetics are a priority.</p> <p>For shrubs, where possible, use ‘open ground’ or ‘bare rooted’ 60-90cm ‘whips’.</p> <p>Plant between Nov and Mar in weed free soil, incorporating suitable compost in cultivation.</p> <p>Plant at appropriate spacing’s. As a guide trees at 3-4m spacing and shrubs at 2-3 plants per m<sup>2</sup>. Mulch after planting.</p> <p>Use manual and or chemical weed control during the first year to aid rapid establishment and then ensure any vegetation within a metre diameter is removed by a hoe until year 3.</p>	<p>Replace dead plants within in the first available growing season.</p> <p>Shrubs: Leave whips during first year of growth and then start to prune in second to encourage dense, thick growth. Initially cutting may be more frequent, and overtime the period between management will be extended.</p> <p>Prune non-native shrubs as necessary to suit and encourage flowering depending on the individual species. If work during nesting season is unavoidable, conduct thorough nest checks prior to works commencing.</p> <p>If possible, specify long-term management regimes using best practice guidance.</p>
<p>Native hedges</p>	<p>Use hedges instead of fences along boundaries.</p> <p>Particularly valuable within high density housing developments where opportunity for green infrastructure is limited.</p> <p>All the wildlife benefits listed for trees and shrubs.</p> <p>Particularly valuable for invertebrates, birds and species that may use hedge as movement corridors.</p>	<p>Where possible plant mixed native hedges using 60-90cm whips. Choose species and mix ratios dependent on objectives.</p> <p>Possible mix option: hawthorn (50%), field maple (30%), hornbeam (10%), guelder rose (3%), dogwood (3%), spindle (2%) and dogrose (2%).</p> <p>When hedge adjacent to or between gardens, it may be necessary to use non-thorny varieties.</p> <p>If appropriate add ‘feathered’ or 6-8cm girth trees at 4m spacing along hedge.</p> <p>Use ‘open ground’ or ‘bare rooted’ plants.</p> <p>Plant between Nov and Mar in weed free soil, incorporating suitable compost in cultivation. Mulch after planting.</p> <p>Use mechanical and or chemical weed control during the first year to aid rapid establishment and then ensure any vegetation within a metre diameter is removed by a hoe until year 3.</p>	<p>Replace dead plants within in the first available growing season.</p> <p>Shrubs: Leave whips during first year of growth and then start to prune in second to encourage dense, thick growth. Initially cutting may be more frequent, and overtime the period between management will be extended.</p> <p>Cut outside the breeding bird season (Mar/Aug inclusive), and preferably in Jan/Feb. If work during nesting season is unavoidable, conduct thorough nest checks prior to works commencing.</p> <p>If possible, specify long-term management regimes using best practice guidance. Trimming and laying of hedges helps thicken them and improves their wildlife value.</p>
<p>Dead and decaying wood (laying and standing, both informal and formal)</p>	<p>Benefits range of species including mosses, lichens, fungi and invertebrates.</p>	<p>Retain existing deadwood on site when it is safe to do so. Unless construction is impeded, do not grind or remove tree stumps.</p> <p>Establish new deadwood by cutting and thinning work.</p> <p>Create informal dead wood piles by leaving materials in discrete locations within shrub beds.</p> <p>Create formal dead wood features in combination with nectar rich herbaceous plants by stacking horizontally (not exceeding 60cm in height) or ‘planting’ it vertically to create landscape features.</p>	<p>Both laying and standing deadwood is valuable and where possible it is better to retain.</p> <p>Provide deadwood across the light spectrum from full sun to shade.</p> <p>Liaise with qualified arboricultural consultants in deciding when it is safe to retain standing deadwood, dead limbs on trees etc. The safety of the public is of primary concern.</p>

## Feature Article: Using BREEAM Assessments to Deliver Benefits for Urban Wildlife (continued)

Table 3. Homes for Animals

	Specification and Fixings
Bug boxes and bee homes	Range of designs to benefit variety of invertebrates, including ladybirds, lacewings and bees. In general boxes should be placed in warm, dry places and sheltered from the wind and rain.
Nest boxes (general)	Face toward any easterly aspect and avoid direct sun, prevailing winds and rain.  Should be located adjacent to or in close proximity to meet the suitable habitat and food requirements of the species, particularly for non-aerial feeders.
Starling box	Should be located 4-6m high at no less than 4m spacing.  Can be located on mature trees in dappled shade or on suitable buildings, but critically within range of suitable short sward grassland habitat for foraging.  Boxes are approximately a third larger than conventional boxes and have a 45mm sized hole. Specialist boxes are available.
House sparrow box	House sparrows are slow to take to nest boxes and may take more readily to internal nest bricks, although this is not proven.  Nest provision can be from 3-5m high. If installing boxes/bricks, use single chamber nests (not the terrace type) and locate at 2m spacing. Ideally boxes should be located adjacent or close to thick dense shrubs and long grass.  A conventional box with a minimum 32mm hole is appropriate.
Swift bricks	Internal artificial nests are the preferred option because they are durable and will not rot.  Boxes/bricks require a minimum 5m clearance below and in front of the nest  A number of 'swift bricks' are available. Examples and details may be found at <a href="http://www.swift-conservation.org">www.swift-conservation.org</a> <sup>8</sup>
Black redstart	A number of open front boxes should be provided in order broaden available choices.  Boxes should be located beneath overhangs, gantries, behind Louvre vents, and accessible through a number of small holes and access points that prevent larger birds gaining access.
Hedgehog house	Should be located in relatively undisturbed areas, preferably against a bank, wall or fence. Entrance should not face north or north-east. Wood should not be creosoted or chemically treated. See <a href="http://www.britishhedgehogs.org.uk">http://www.britishhedgehogs.org.uk</a> <sup>9</sup> for more details.
Bat boxes	Bat roosting opportunities can be provided by bat bricks or roost spaces within buildings or using external bat boxes. Locate boxes in locations where bats known to forage and place 4-5m above the ground with a clear 1-2m drop from the entrance. On buildings place close to eaves as possible. They should be sheltered from strong winds and exposed to sun for part of the day. See <a href="http://www.bats.org.uk">www.bats.org.uk</a> <sup>10</sup> for more information.

### Successful Implementation of Recommendations

There are a number of factors that are likely to influence the successful implementation of ecologists' recommendations and perhaps more importantly the ecological value of the habitats provided.

Once the BREEAM or CfSH report is complete how do you ensure contractors successfully implement your recommendations?

Make specific recommendations tailored to the particular development and geographic location. Consider a wide range of factors that influences outcomes, from soil type to the level of funding and expertise required to manage a habitat or feature. In combination, this will increase the likelihood of recommendations being implemented successfully and habitats being viable in the long-term.

Generalised recommendations with generic planting schemes that are unrealistic may not only threaten the successful establishment of habitats, but may threaten species and habitats of conservation importance in the surrounding landscape. For example, non-native invasive species such as Buddleia and some Cotoneaster spp. should be avoided in areas close to chalk grassland. Consulting the Natural History Museum's postcode plants database<sup>11</sup>, as well as businesses and organisations specialising in providing native

wild plant mixes will help in selecting appropriate planting schedules.

Engage with the local community. Although this will not always be possible, the most successful recommendations are likely to be those that also consider social well-being, aesthetics and health. If the implemented schemes incorporate local views then the resultant features are more likely to be respected, increasing long-term viability and reducing management costs.

Initially clients may need to be enthused about the values and benefits of including particular features and it may be necessary to allay fears of issues such as bird mess and legislative implications of including bat roosting spaces in buildings. In increasing clients' awareness, you may be able to enthuse them to implement their increased understanding of wildlife in other development schemes.

Try to visit the site to monitor the creation, establishment and management of habitats, as well as the installation of features. Contractors may not be fully aware of your recommendations or have the skills and knowledge to make required adjustments to unforeseen changes to the local set of circumstances.

Hedgehog  
Photo by Nigel Reeve





## Concluding Remarks

The recommendations suggested should not be considered as finite but will hopefully stimulate debate and research. Ideally, a range of urban prescriptions and associated information should become available giving opportunity to benefit urban species.

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## Further Reading

### Landscape

Homes for Wildlife

[www.rspb.org.uk/hfw](http://www.rspb.org.uk/hfw)

Creating BAP habitats in and around developments  
<http://www.afterminerals.com/habitatselection.aspx>

Range of habitat management advisory pages, some with relevance to the built environment.

[www.rspb.org.uk/conservationadvice](http://www.rspb.org.uk/conservationadvice)

### Buildings

Nests in roofs

[http://www.rspb.org.uk/advice/helpingbirds/roofs/protect\\_nests.aspx](http://www.rspb.org.uk/advice/helpingbirds/roofs/protect_nests.aspx) and associated webpages

[www.rspb.org.uk/helpswifts](http://www.rspb.org.uk/helpswifts) and associated webpages

New nest site record forms for swifts

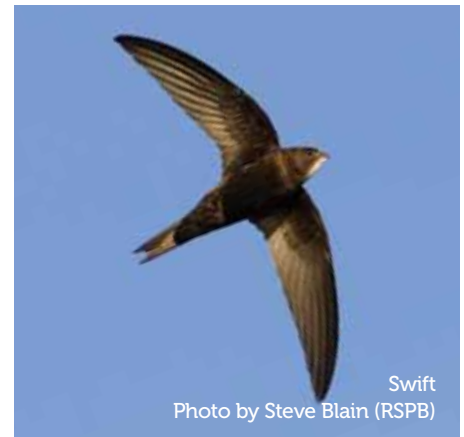
[http://www.rspb.org.uk/Images/Artificial%20swift-nest%20questionnaire\\_tcm9-252281.doc](http://www.rspb.org.uk/Images/Artificial%20swift-nest%20questionnaire_tcm9-252281.doc)

If you've provided a new artificial nest site, please tell us about it.

Williams, C (2010) *Biodiversity for low and zero carbon buildings: A technical guide for new build*. RIBA Publishing and Bat Conservation Trust.



breeam



Swift

Photo by Steve Blain (RSPB)



House sparrow

Photo by Ray Kennedy (rspb-images.com)



## About the Authors

David W Smith currently works as a senior consultant ecologist for DF Clark Bionomique and has completed BREEAM assessments for both small and large developments, including Barking Riverside, one of the most ambitious regeneration projects in the UK. He completed his PhD at the University of Reading studying the conservation value of agri-environment grass fields and margins, after which he established DWS Ecology. These experiences help him to blend private sector experiences with applied conservation research and its delivery.

### Contact David at:

[david.smith@dfclark.co.uk](mailto:david.smith@dfclark.co.uk)

John Day has worked within the RSPB Advisory team for 11 years, specifically providing urban management advice for the past five years. Having previously worked as an industrial landscaper and countryside ranger, coupled with a wide knowledge and understanding of natural history and the management of semi-natural habitats enables him to blend practical experience with academic knowledge to understand the opportunities and constraints of people's requirements to provide advice that is practical and focuses on bringing people and wildlife together.

### Contact John at:

[john.day.lodge@rspb.org.uk](mailto:john.day.lodge@rspb.org.uk)



# Backlash Against Bats?

Is the Current System Delivering Bat Conservation, or Is There a Better Way?

**Johnny Birks MIEEM and Lisa Kerslake CEnv MIEEM**  
Swift Ecology Ltd

**Richard Crompton CEnv MIEEM**  
Wildwood Ecology Ltd

**Lisa Hundt**  
Bat Conservation Trust

## Introduction

Last November, the Chancellor's Autumn Statement brought with it the announcement that the Habitats Regulations were next on the Government's so-called 'red tape challenge'. In it, the Chancellor criticised the burden of "*endless social and environmental goals*" imposed upon industry and described the Habitats Regulations, one of the primary pieces of legislation protecting some of the UK's most important wildlife sites and vulnerable species, including bats, as a "*ridiculous cost on British business*", claiming that they amounted to "*gold-plating*" on European legislation.

Standing alone, this alarming statement casts doubt on our Government's commitment to the future protection of UK wildlife. However, under the layers of rhetoric and sound bites lies a real issue, not with the Habitats Regulations themselves but with their implementation.

## What is the Issue?

A triumph of British nature conservation in the late 20<sup>th</sup> century was the transformation of public attitudes towards bats<sup>1</sup>, notably (following passage of the Wildlife and Countryside Act 1981) from 'nasty vermin' to a near-universal tolerance and general acceptance of bats and their legal protection, even though the latter extends into the places people live, work and worship. The subsequent adoption of the Habitats Regulations in 1994 provided the platform from which to drive conservation more effectively through regulatory systems, scientific monitoring and evidence gathering. However, that hard-won tolerance is fragile and easily destroyed by procedures that are perceived as unreasonable. As discussed in a previous article in *Mammal News* (Summer 2010, Consultants' Page), "*conservation is dependent on good will*".

As professionals dealing with bat conservation we are detecting a worrying backward shift in the attitudes held, and decisions made, by people who share their buildings with roosting bats. In this unusual situation, where protected species are heavily dependent upon man-made structures for roosting and breeding, the views of the public and developers will have a profound influence on conservation outcomes and on Government attitudes. But the role that planning authorities and consultants play in this should not be underestimated.

Although the legislation is necessarily robust, there are serious problems in delivery that inadvertently feed a renewed wave of intolerance and provide incentives to some unscrupulous developers. Integration of environmental objectives into local decision-making is fundamental to conservation.



Whiskered bat in roof  
Photo by John Martin

However, in some cases, a lack of expertise, clarity and flexibility from the authorities and the environmental consultants, combined with a failure of developers to engage with the environmental aspects of projects at an early stage, results in delays, extra expense and ineffective measures being applied. This results in the assumption, sometimes with some justification, that conserving biodiversity and the natural environment is typically a costly and arduous process producing only limited or no benefit. This is further exacerbated by a lack of evidence from post-construction monitoring on which to base future improvements, although efforts are being made by the Statutory Nature Conservation Organisations (SNCOs) to address this.

Whether from SNCOs, local authorities or consultants, the combination of inconsistency in advice, lack of experience, and the same blanket

approach being applied to all applicants regardless of size/impact of development or significance of bat roost is, in many cases, undermining rather than supporting the interests of bat conservation.

Of course a full suite of surveys and substantial mitigation are absolutely justifiable and essential in the case of proposed damage to roosts of conservation significance; they are harder to justify where individual or small numbers of common bats are involved, leaving clients struggling to understand the need for the same elaborate approach. Even in cases where more significant roosts are involved, the advice given and the procedures that are required to be followed can sometimes be out of all proportion to the details of the situation, with unfortunate consequences in the attitudes of affected people towards bats.

By way of examples of this, we have listed below a few cases where delays and/or additional expense involved could have been avoided if consistent, well informed, well timed advice had been given by consultants, SNCOs and planning authorities.

- A small lesser horseshoe night roost was repaired under European Protected Species (EPS) licence. One of the licence conditions was for a management plan requiring on-going visits for many years, almost doubling the cost of the licence.
- During supervised roof stripping, the precise locations of previously inaccessible bat roosting areas were identified. Minor amendments were therefore needed to the licence to better benefit the bats, by changing slightly the stated position of the bat access points in response to the new information. Full resubmission was required with a 30 day response time, even though the roof stripping was nearly complete.
- On the basis of an initial bat survey, undertaken in summer, planning permission was granted for the demolition of a house, with a new build designed to accommodate a disabled family member. The consultant had not mentioned the need for activity surveys and, in the absence of a local authority ecologist to pick this up, none were undertaken. The applicant approached a different consultancy in winter to prepare the licence application. The roost was of very small numbers of common species and there was ample space in unaffected buildings on the site to provide mitigation for any building-roosting species. Full activity surveys were required for the licence application, delaying the start of work until the following autumn.
- As an incidental result of another survey, signs of use by various species including an Annex II species were discovered in a barn due for conversion. Information was passed to Natural England and the Local Planning Authority (LPA) and the landowner commissioned an initial bat survey. No activity surveys were carried out and the consultant advised that the works could be carried out without an EPS licence, despite the fact that any roost areas would be damaged or destroyed by the conversion. No action has been taken by the authorities to enforce the law.
- An owner-occupier was advised by a consultant that an extension involving a minimal and temporary impact upon a bat roost would require an EPS licence, so this expensive course of action was followed; similar works elsewhere are routinely undertaken under method statements agreed with the LPAs.

In addition, we often hear of clients who have tried for months to get a planning application passed only to be told at the 11<sup>th</sup> hour that they need a bat survey, which, if activity surveys are required, it may not be possible to complete for many months. It is difficult to get any goodwill from a client when they are already frustrated before we speak to them.

As a result of these and many similar situations, consultants are receiving an increasingly angry and rebellious reaction from some clients – many of whom are influential local landowners. Some have been contacting other landowners in the area to try to find ways to prevent bats using any buildings on their land. Others have informed us that next time they will gut the building before applying for planning permission; in such a situation it is likely that there would be no proof that an offence has been committed regardless of any suspicions we might have. Other less forthright individuals have confined themselves to complaining bitterly, usually accompanied by comments indicating their love of wildlife but that the legislation is “*absurd*” and has “*gone too far*” - increasingly discussed in the letters pages and via ‘Bats stop progress!’ type articles in the national newspapers. In our day to day dealings with individuals we are seeing at first hand clear and growing evidence of this increasingly antagonistic attitude towards vulnerable species and the legislation that protects them.

## Raising the Bar

In order to avoid long-term adverse impacts upon bat populations arising from this shift in attitudes, more consistent, proportionate and better-informed advice is urgently needed from all of those involved in the implementation of the Habitats Regulations. This means that standards need to be raised, reviewed and enforced within the private sector, local authorities and SNCOs.

The following measures are required:

### LPAs:

- Must have direct access to experienced and well-trained ecologists to help them make informed decisions with confidence, either in-house or via service level agreements with neighbouring authorities.
- Must ensure that applicants likely to encounter biodiversity issues are made aware at the outset, not only of the requirements, but also of the likely processes and timescales involved before applications can be validated or approved.

### SNCOs:

- Must be properly funded so that well trained staff are available with the time and expertise to offer site/case-specific advice prior to the submission of licence applications. Constructive advice should be available on whether an EPS licence or a (non-licensed) method statement is appropriate, particularly where cases are marginal. Onerous and expensive monitoring requirements for low status roosts or individual bats will be avoided.

- Must continue to move away from the inflexible process that has made minor amendments to a licence disproportionately time consuming and wasteful. For example, the need to resubmit the entire application merely for a time extension or for minor changes to reflect conditions only discovered on site once work commences and then having to wait a further full 30 days for these to be decided.
- Must encourage consultants to employ working practices that are appropriate to the type of roost, species and impact, by using techniques other than a full suite of surveys **where this is appropriate**. For example, DNA analysis of bat droppings, or enhanced mitigation or compensation - thus maintaining goodwill and saving money and time for the applicant. It should be borne in mind that most clients are not intent on destroying wildlife. It should be acceptable to use ‘guidelines’ as they were surely intended - as guidance, rather than effectively having to regard them as a set of rules.
- Must re-assess the way the habitats regulations ‘three tests’ are implemented. There needs to be a more efficient way for LPAs and SNCOs to consider these without going through the process twice; at planning and then again at licence application stage. It is not clear why, at present, planning permission is not a suitable measure of satisfactory proof of ‘Overriding Public Interest’ (especially when many small schemes have no apparent ‘public interest’ whatsoever).

### Consultants:

- Must maximise their exposure to focused professional development, must bring in experienced sub-consultants for complex projects, and must not take on projects beyond their expertise.
- Must justify their recommendations in relation to favourable conservation status to help those reading their reports evaluate any likely impact.
- Must strive to find opportunities for biodiversity enhancement within every scheme, but must be supported in this by the regulatory authorities; otherwise those who operate on the basis of the bare minimum will be favoured by cost-cutting clients, disadvantaging those who genuinely aim to achieve biodiversity benefits.



Barn conversion containing extensive bat mitigation  
Photo by Lisa Kerslake/Swift Ecology



## Feature Article: Backlash Against Bats? (continued)

Also, there are several further measures that require the active co-operation and participation of all parties, including IEEM and other professional institutes:

- Professional standards must be more rigorously enforced by both professional membership bodies and licensing authorities.
- A formal and properly structured system for consultants to gain the required skills and experience must be developed; in tandem with this, better assessments should be made of individuals seeking to obtain personal EPS Licences.
- Post-construction monitoring and reporting standards must be improved to yield meaningful information that goes beyond the current statutory reporting and feed directly into the development of good practice.
- A proportional charge could be introduced for all EPS licences - the proceeds from which could be used to independently monitor all schemes to a common standard.
- Education of the general public is needed; £650,000 for a bat bridge over a highway may, with the correct research, be perfectly well justified and represent a tiny percentage of a total scheme cost, but without good positive awareness raising will always make damaging headlines.
- Information must be gathered and shared with practitioners on how the legislation is implemented in other European countries, so that we can learn from each other's experiences.
- Greater efforts must be made to engage with the construction industry, including allied professions such as architects, engineers, and landscape architects. Whilst some are superbly aware, others still need a lot of encouragement to accept that wildlife conservation and legislation is something that they must take into account.

### New Opportunities Ahead?

In Wales, the forthcoming merger of the Forestry Commission Wales, Environment Agency Wales and Countryside Council for Wales in 2013, with the associated legislative changes that will build on the *Natural Environment Framework - A Living Wales* (an ecosystem-based approach), will present many new opportunities, threats and an inevitable period of uncertainty. This might become an important precursor to future changes elsewhere in the UK.

The recent announcement by Natural England of the development of class licences is to be greatly welcomed, and could go a long way to resolving some of the matters raised above. However, the specific details of how class licences are administered and operated must be carefully thought out in consultation with the relevant bodies and practitioners, including IEEM, the Bat Conservation Trust (BCT) and others. In particular, the criteria to be met must be set at an appropriate level, to avoid either of the equally damaging extremes of making them too easy to obtain, or creating a very small band of 'elite' consultants.

It is hoped that the establishment of such licences, in combination with the forthcoming professional training standards from BCT and the emerging British Standard on Planning and Biodiversity, will prove a vital step in the right direction; further debate about the details will, however, be needed.

*The views expressed are the authors' own, and not necessarily those of their organisations.*

### Notes

1. Although in this article we deal specifically with bats, many of the same or similar issues apply to other protected species, such as great crested newts.

### Acknowledgements

Thanks to Louise Mapstone CEnv MIEEM for comments on the text.



Brown long-eared bats being transferred to replacement roost under licence  
Photo by Lisa Kerslake/Swift Ecology



Roof stripping of part of house roof for construction of extension, under non-licensed method statement  
Photo by Lisa Kerslake/Swift Ecology



### About the Authors

Dr Johnny Birks is a Director of Swift Ecology and has been involved with the study and conservation of British bats for 30 years while working for the Durham Bat Group, Nature Conservancy Council, English Nature, Vincent Wildlife Trust and Swift Ecology. He has taught courses on British bats for the Field Studies Council and IEEM. He takes an active part in several monitoring schemes for species such as lesser horseshoe and barbastelle and since 2008 he has held over 20 EPS development licences for bats.

Richard Crompton is founder and co-director of Wildwood Ecology Limited. He is a Chartered Environmentalist specialising in bat conservation and training and has been undertaking professional surveys since 1998. He started studying bats over 15 years ago and is licensed to work with bats in England and Wales. He is also an active licence trainer and co-tutor of the Bat Licence Training Course for consultants. His experience has been widely recognised, and he was selected as a member of the editorial board for *Bat Surveys – Good Practice Guidelines* (BCT 2007) and *Woodland Management for Bats* (Forestry Commission 2005).

Lisa Hundt is the Head of Biodiversity at the Bat Conservation Trust. She has spent time working for organisations involved in parliamentary lobbying and worked as a practical ecologist, scientific researcher and professional consultant. In her current role at BCT she leads on biodiversity issues, wildlife conservation policy and UK guidance. She is editor of the 2nd edition of the BCT's *Bat Surveys – Good Practice Guidelines* and sits on the British Standard Institute's committee on biodiversity management.

Lisa Kerslake is a Director of Swift Ecology, a Chartered Environmentalist and a founder member of IEEM. She sits on IEEM's Council and Professional Affairs Committee, represents IEEM on the British Standard Institute's committee on biodiversity, and is also Vice-Convenor of the West Midlands Geographic Section. She has previously worked for the Nature Conservancy Council, a local authority, a wildlife trust, and a biological records centre. She has worked with bats since 1988 but has undertaken most of her professional bat surveys in the last 6 years, including working on numerous EPS licences.

### Contact Lisa at:

[lisa.kerslake@swiftecology.co.uk](mailto:lisa.kerslake@swiftecology.co.uk)



Brown long eared bats, a widespread species in roofs  
Photo by Richard Crompton/Wildwood Ecology

# Ecology Legal Update

## Habitats Directive Site Protection Case Law

**Penny Simpson**

Environmental Lawyer, DLA Piper UK LLP

There have been two notable High Court decisions on Habitats Directive issues in the second half of 2011. Both cases focus on the site protection provisions of the Habitats Directive and are important reading for anyone involved in promoting or objecting to plans or projects with implications for European designated sites.

### **Stephen Hargreaves v Secretary of State for Communities and Local Government, Wyre Borough Council, Cornwall Light and Power Company Ltd [2011] EWHC 1999 (2nd August 2011)**

The first High Court decision related to a wind farm application by Cornwall Light and Power Company for two turbines at a site called Eagland Hill in Lancashire.

The application was refused by the Local Planning Authority in part due to the potential impact on pink-footed geese overwintering at Morecombe Bay Special Protection Area (SPA), 5km from the development site. The concern related to mortality of the geese at the site due to collision with the turbines, estimated at 50 casualties per annum. Cornwall Light and Power appealed the decision and won, whereupon a local resident (as part of a local objector group) brought a judicial review challenge of the decision to grant consent.

The claimant brought his case on two grounds relating to the EIA and Habitats Directives. For present purposes the Habitats Directive ground is of interest. The claimant argued that the inspector had erred in law by failing to carry out an Appropriate Assessment in accordance with the Conservation of Habitats and Species Regulations 2010 (2010 Regulations).

His challenge failed on both EIA and Habitats Directive grounds. The judgement makes a number of important observations:

#### **Mitigation vs Compensation**

Readers familiar with the Habitats Directive will be aware of the important distinction between 'mitigation measures' and 'compensatory measures'. Mitigation measures are measures proposed by, say, a developer which can be taken into account by the competent authority when deciding whether a proposed plan or project is "likely to have a significant effect on a European site" (regulation 61(1) of the 2010 Regulations) or whether it can be ascertained that a plan or project will not have an adverse effect on the integrity of a European site (regulation 61(5) of the 2010



Regulations). Compensatory measures, by contrast, cannot be taken into account in this way and are instead relevant only after a competent authority has concluded (under regulation 61(5)) that there will or may be an adverse effect on integrity of a European site from a proposed plan or project, whereupon the plan or project may only proceed if three derogation tests are met. One of the derogation tests is the provision of compensatory habitat "to ensure that the overall coherence of Natura 2000 is protected" (regulation 66 of the 2010 Regulations).

The EU Commission Guidance, *Managing Natura 2000 Sites* (2000), suggests that mitigation measures aim to minimise or cancel negative impacts on the site itself, whereas compensatory measures are measures independent of the project that are intended to compensate for the effects on a habitat affected negatively by a plan or project (see paragraph 5.4.1).



In this case the turbines causing the collision risk were 5km from the SPA. Similarly, the proposed offsetting measures (provision of 12.1 ha of extra geese feeding areas) were to be outside the boundary of the SPA. There were reportedly two separate aims of the offsetting measures: to deflect the geese (that would otherwise be killed) from coming into contact with the turbines; and to provide additional feeding grounds for the geese so that mortality arising from the turbines could be offset against other geese which in other circumstances would not survive the winter. The claimant argued that these offsetting measures should be regarded as compensatory measures, thereby triggering the need for an Appropriate Assessment. The developer argued that they should be regarded as mitigation measures.



The first point to note is that it was plainly accepted by the parties and the court that the development site, whilst 5km from the SPA, was nevertheless 'functionally-linked' to the SPA in that birds from the SPA were using the development site for feeding. As such, impacts on the birds at the development site were relevant to assessing impacts of the project 'on the European site' (i.e. the SPA) and needed to be taken into account.

The second point is that the judge ruled that the key to resolving whether the offsetting measures were to be regarded as mitigation or compensatory measures was recognition that the impact assessments required by Article 6(3)-(4) of the Habitats Directive (and Part 6 of the 2010 Regulations) for European sites relate to the European site itself rather than to the species.

On that basis the judge ruled that the provision of the new feeding areas outside the European site to make up for impacts outside the European site had to be regarded as 'mitigation', not compensation. The measures proposed would ultimately mean that there would be no adverse impact on the integrity of 'the European site'.

This conclusion is in my view correct. Nevertheless, I would argue that it is difficult to divorce 'the European site' from 'the species' in the way suggested by the judge. Indeed, if divorcing the two were the correct approach, it would not have been logical for the judge to accept (as he clearly did) that the functionally-related development site 5km from the SPA was relevant to assessing impacts on the SPA.

Taking other scenarios, where impacts (e.g. such as habitat loss) occur within the boundary of a European site then off-site offsetting measures could not be regarded as mitigation since 'the European site' is clearly impacted. This has been established since the well-known decision of the Secretary of State in relation to the Dibden Bay port application made this clear (reference P89/24/59, 20<sup>th</sup> April 2004). However, a more difficult issue is where a proposed activity will lead to habitat loss within the boundary of a European site and the developer proposes, as mitigation, to enhance remaining habitat within the boundary of the European site, perhaps on the basis that the habitat is presently 'non-functional'. An argument that such enhancement could be regarded as mitigation would now have support from this judgement. However, a developer putting forward such a scheme would still need to overcome the significant objection that the Member State is obliged in any event to restore/maintain the favourable conservation status of the species and habitats for which the European site is designated.

#### Assessment of 'Likely Significant Effect'

The judge followed the principle laid down in *R (Hart DC) v SSCLG* [2008] EWHC 1204 (the 'Dilly Lane' case), i.e. that mitigation measures are relevant to the Habitats Directive 'likely significant effect' screening test (regulation 61(1) 2010 Regulations). So where a competent authority determines that a proposal is not likely to have a significant effect on a European site due to the developer's incorporation of mitigation measures, then there is no requirement for an appropriate assessment to be carried out. The mitigation measures proposed in this case (i.e. the provision of new feeding areas for the geese) could therefore be taken into account in concluding that there was no likely significant effect.

It is to be noted that this approach is not consistent with the EU Commission Guidance (2000) and indeed the claimant in this case referred to correspondence with the EU Commission dated 2008 in which the Commission expressed concern at the principle established in Dilly Lane. The claimant tried to persuade the judge in this case to refer the issue

to the Court of Justice of the European Union, but failed. My view is that this point is likely ultimately to be ruled on by the Court of Justice. The Court may struggle with the Dilly Lane principle on the basis that the purpose/benefit of the two stage test of 'likely significant effect' followed by an appropriate assessment and judgment of 'adverse effect on the integrity of the site' in the Habitats Directive is somewhat lost following that decision, the practical effect of which is to encourage most developers to fight their cases on the basis of the first test only.

#### Reliance on Grampian Planning Conditions to Ascertain 'No Likely Significant Effect' on a European Site

Grampian planning conditions are 'negative' conditions which prevent development proceeding until specified criteria have been fulfilled. Grampian conditions can be used in relation to planning applications which are subject to the requirements of Art 6(3)-(4) of the Habitats Directive as long as their effect is not to leave over the assessment of the effects of the project on the European site to a point after granting of planning permission. The assessment must be carried out prior to permission being granted.

In this case the condition recommended by the inspector read (this is an excerpt):

*"No development shall take place until the developers' outline mitigation strategy for compensatory feeding grounds for pink footed geese has been worked up into a fully detailed mitigation scheme. The detailed scheme shall include arrangements for its implementation, management and maintenance for the lifetime of the proposed wind turbines. No development shall take place until the detailed scheme has been submitted to and approved in writing by the LPA. The turbines shall not be brought into use until the approved mitigation scheme has been implemented in accordance with approved details."*

The claimant argued that the inspector was not entitled to conclude that permission could be granted subject to this condition which (i) left the fine detail of the mitigation elements of the proposal to be agreed with the local authority following grant of consent; and (ii) where the scheme was not protected by a legally binding Section 106 mechanism under which funding for the mitigation would be secured. According to the Court of Justice's *Waddenzee* judgement [2005] Env. L.R. 14, the competent authority must be able to exclude on the basis of objective information the risk of significant effect in order to be able to conclude 'no likely significant effect'. How could this strict test be met when the mitigation had not been fully agreed or legally secured? Natural England had pointed out that it wanted to see the scheme secured by a "Section 106 agreement or similar" and that Natural England's assessment of 'no likely significant effect' was dependent upon that first happening.



The claimant failed in this argument. The judge took the view that, although the detail was not agreed, the outline of the scheme was nevertheless agreed and was referred to in the planning condition such that it was binding.

The judge took into account that:

- The essential scope of the mitigation elements of the scheme had been agreed between Natural England and RSPB.
- The condition refers to the outline scheme that had led RSPB and Natural England to conclude that significant risk to the SPA had been eliminated. The outline scheme also provided for funding.
- It could not therefore be credibly contended that the LPA could in effect reconsider the impact on the environment and depart from the essential elements of the mitigation of the scheme.
- Fine details of the mitigation scheme were matters of planning judgment for the Inspector, as was the decision on whether the scheme was to be legally secured via a Section 106 Agreement or planning conditions. It was not for the court to intervene in such issues.

I would suggest that the judge's decision is a little surprising. Given the level of certainty required by the *Waddenzee* decision in assessing whether there is 'no likely significant effect', it would seem reasonable to expect funding details for the mitigation scheme to have been fully detailed before consent is granted, so as to allow certainty that the mitigation scheme would be delivered. I would suggest that, despite this judgment, developers who seek to promote their schemes on this 'outline only' basis could expect legal challenges of resulting planning consents. This case should be regarded as the bare minimum which is acceptable.

### Cornwall Waste Forum v Secretary of State for Communities and Local Government, Cornwall Council, Sita Cornwall Ltd [2011] EWHC 2761 (13<sup>th</sup> October 2011)

This case related to a judicial review challenge of planning permission for an Energy from Waste plant at St Dennis near St Austell in Cornwall. The claimants (an objector group) brought the challenge on the ground that the inspector had erred by failing to address the requirements of Part 6 of the 2010 Regulations (in particular in relation to the impacts of air emissions on the site) by presuming that the Environment Agency (EA), responsible for granting the environmental permit, was the competent authority for the purpose of regulation 61 of the 2010 Regulations. The claimants won the case.

The claimants were concerned about air emission impacts on two Special Areas for Conservation (SACs) - the Breney Common SAC and St Austell Clay Pits SAC. The key issue in the case was the respective roles of the Secretary of State (granting planning permission) and the EA (granting an

environmental permit for operation of the plant) in assessing the air emission impacts.

Key to this case was regulation 65 of the 2010 Regulations (co-ordination where more than one competent authority is involved). Regulation 65 states that "nothing [in regulation 61(1)] requires a competent authority to assess any implications of a plan or project which would be more appropriately assessed under that provision by another competent authority".

In this case the inspector hearing the planning inquiry on behalf of the Secretary of State decided that, following regulation 65(2), the EA should be regarded as the competent authority which should more appropriately assess any implications of the project on the SACs. The inspector in his report therefore did not consider or make any findings as regards the evidence presented to him about the air emission impacts of the proposed plant on the SACs and the need for an Appropriate Assessment to be conducted. Instead the inspector simply accepted the views of the EA, which the claimants did not accept, that no Appropriate Assessment was required.

The judge disagreed with this approach, making clear that it is not appropriate for the authority responsible for planning permission to defer the question of impacts on European sites to the EA:

"[16] It is obvious that it is incumbent upon the authority responsible for the planning decision to consider whether the facility if constructed would inevitably be likely to have an adverse effect on an

SAC because if that is the situation then it is plain that permission should not be granted.

*Equally, as it seems to me, it has an obligation to consider whether without controls the facility would be likely to have such a significant effect because, again, it may be in a given case that conditions under the planning regime would be appropriate in order to ensure, so far as possible, that no damage was done. It would then of course be for the EA to consider what steps needed to be taken in the light of the material that was put before the competent authority, in this case the Secretary of State, to ensure that the emissions were kept at the lowest possible extent so as to avoid any damage being caused. [17] There is an obvious overlap, and it is not possible in my view to say in any given case that the planning considerations should defer, as it were, to control by the authority concerned with the grant of a permit. It has its own obligation."*

*"[57] There can be no doubt that the effect of the emissions on the SACs is a matter for the planning system.... The inspector was in my view wrong to state that air quality was, in relation to substances emitted from the chimney, wholly a matter for the EA. Since the contention was that the emissions were bound to have an effect so that an appropriate assessment was required it was a matter for the planning process. Thus the conclusion of the inspector ....that he was, as he put it, accordingly satisfied that the EA through the environmental permitting system was the competent authority is wrong."*

*"[73] ..... So the view that it is wrong for the Secretary of State to decide, without having the necessary expertise himself, against the EA is one which I do not find the least persuasive."*

This is an important decision because it will make much more difficult the argument made by some developers (which has sometimes been successful) that (i) planning permission authorises construction of a new facility and as such any impacts on European sites to be considered by the planning authority in the context of Part 6 of the 2010 Regulations should be limited to the impacts of construction; and (ii) operation of a facility will be regulated by the EA which should therefore consider the operational impacts on European sites under Part 6 of the 2010 Regulations. Objectors have in the past complained about such an approach which they say serves to 'salami slice' the assessment of the impacts of a project.

#### About the Author

Penny Simpson is an environmental lawyer with DLA Piper UK LLP and a specialist in natural environment issues. She advises a wide range of both public sector and private sector clients on a wide range of issues including protected sites, protected species, water issues, planning issues, prosecution, wildlife licensing and compliance issues.

#### Contact Penny at:

penny.simpson@dlapiper.com  
or on 0114 283 3353





# New Professional Development Opportunities

## New Masterclass

### Professional Ethics

These new Masterclasses will delve into the complex subject of Professional Ethics. Exploring the idea of professionalism in depth allows us to understand the issues that are specific to ecology and environmental management. This is particularly important for a sector that can struggle with external perceptions of its professionalism. A better understanding of ethical principles and values also facilitates more effective decision-making and relevant case studies will be used throughout the Masterclass to demonstrate

this practical approach to ethics. IEEM's Code of Professional Conduct will be used as a basis for many of the discussions, but attendees are also invited to bring along their own case studies for discussion.

Tuesday 3<sup>rd</sup> April 2012, London

Wednesday 17<sup>th</sup> October 2012, Birmingham  
(Each Masterclass will start at 1pm and finish at 5pm)

[www.ieem.net/masterclasses.asp](http://www.ieem.net/masterclasses.asp)

## New Training Events

### Ecological Impact Assessment for Beginners and Practitioners

These courses are aimed at environmental professionals looking to develop their knowledge and skills in undertaking Ecological Impact Assessments (EclA). The course is offered as a one-day Level 1 course aimed at those with little practical experience of undertaking EclA and a two-day Level 2 course aimed at those with some experience of EclA work who are looking to develop their understanding by looking at more complex examples.

#### LEVEL 1:

London, 12<sup>th</sup> March 2012  
Birmingham, 20<sup>th</sup> March 2012

#### LEVEL 2:

London, 13-14<sup>th</sup> March 2012  
Birmingham, 22-23<sup>th</sup> March 2012

### Improving IEEM Workshops: Train the Trainer

- Have you led a training day and wondered how to cope with the wide range of abilities in your group?
- Need ideas on how to teach species ID?
- Want to know how to deliver effective interactive sessions instead of dull lectures?

IEEM is committed to delivering high quality CPD workshops and this unique course is specially designed for ecologists delivering field as well as class tuition. IEEM intends that all its tutors will have completed this course, or some other recognised teacher or facilitator training.

The course is for anyone who wants to enhance their teaching skills, including novices and those with more experience. It includes designing sessions to cater for differences in the way people learn, tips on maximising information retention and how to design learner-centred group activities. Participants will also develop a session for use on their own course. Tutors are ecologists, trained teachers for adult education, and professional trainers certified by the Chartered Institute of Personnel and Development and the Institute for Learning.

The course will be held in London on Thursday, 3<sup>rd</sup> May 2012.

[www.ieem.net/workshops.asp](http://www.ieem.net/workshops.asp)



# Institute News

The year has got off to a very busy start for the Secretariat as we have been involved in the Coalition Government's review of the implementation in England of the European Habitats and Wild Birds Directives.

This review, which was announced by the Chancellor in his Autumn Statement at the end of November 2011, has been undertaken on a very short timescale and it has been necessary to place some other strategic work on hold as we attended meetings and submitted written responses to Defra.

Some of the issues raised regarding implementation were ones that members within the Institute have been discussing for some time and are also raised in articles in this issue of *In Practice*. Although we have concerns regarding some of the language being used (it was suggested that implementation of the Directives was being 'gold-plated' and therefore leading to unnecessary barriers to development) it was good to have an opportunity to demonstrate how fundamentally the Directives are invaluable but also to highlight examples of where a more flexible approach to implementation would be beneficial. We are grateful to those members who attended a meeting hosted by Arup in February to discuss these points and help formulate IEEM's response.

The Institute is increasingly being invited by Defra and the statutory agencies to take part in stakeholder workshops and discussions on policy matters relevant to our work. Recent examples include a Defra meeting on the biodiversity offsetting pilots, Defra's Green Infrastructure Partnership and an Environment Agency-led workshop to input into the development of the Climate Change National Adaptation Programme and the Agency's Adaptation Delivery Programme. Such meetings



Andy Tasker  
at the 2006 Medal ceremony

## Andy Tasker Obituary

It is with great sorrow that we report that Andy Tasker sadly passed away on 16<sup>th</sup> January 2012 as a result of recurring problems with cancer and pancreatic/liver disease.

Andy was IEEM President from 2006 to 2008 and led the Institute through a number of important changes, including initiating the first major review of the Institute's governance systems and significantly developing our business management approach.

Andy was very active in getting the Institute more involved in data and Local Record Centre issues, and also attended the IUCN World Conservation Congress as an IEEM ambassador in Barcelona in 2008. He also initiated the Institute Medal, our highest accolade and the first of which was presented to Sir David Attenborough.

Our thoughts are with his wife, sons, family and friends at this time of sorrow.

### Andy Tasker CEnv MIEEM

I am proud to display my IEEM membership certificate from 1997 on the office wall. That is a reflection of the personality and work of Andy Tasker, who made such a huge commitment to establishing and building our Professional Institute. His Presidency from 2006-2008 is a mark of that contribution.

Andy had boundless energy, drive and vision. He was a natural leader who enjoyed presenting even arcane subjects with a sense of fun, whilst challenging his audience to think hard and take action. Andy was a frequent animateur at Wildlife Trust meetings and he used his 22 years of experience as Director and then CEO of

Warwickshire Wildlife Trust (WWT) to prod his wayward colleagues into action. His 'Bluegrass Moment' when he was visiting the USA as GLOBE Director, led eventually to the Wildlife Trusts' UK Memorandum of Cooperation for better collective working. He loved to use the 'three dot' ellipsis to express these challenges.

Andy was not afraid of innovation and I greatly enjoyed working with him in establishing the Association of Wildlife Trust Consultancies in the early 1990s, for which he was Secretary. Middlemarch, the consultancy he established for WWT, has gone on to become an outstanding professionally-driven environmental business. Brandon Marsh, the WWT HQ, is also an exemplar of a great visitor centre, nature reserve and source of funds. Indeed, the Secretary of State, the Rt Hon Caroline Spelman MP frequently refers to the "outstanding Warwickshire Wildlife Trust".

Andy, your colleagues are very proud...

Gordon McGlone CEnv MIEEM  
Chief Executive, Gloucestershire Wildlife Trust

*"Andy preceded me directly as IEEM President, and was a hugely professional, highly respected and knowledgeable man who had a very large effect on the Institute's business ethos. However, his greatest assets of all were his human qualities of integrity, honesty and very genuine warmth that enriched the lives of everyone who came into his contact. He taught us to be more professional, but more so he taught us also how to be professional with dignity and humanity, and we will miss him greatly."*

Steve Ormerod FIEEM

offer a real opportunity for the Institute and its members to influence areas of policy and strategy that impact on our work so we would certainly encourage members to get involved by responding to consultations or offering

to represent IEEM at a policy level. A particular priority for us is to increase our engagement with policy-makers in Wales, Scotland and Ireland (including Northern Ireland) but we do need our members' help to focus our efforts.

## New Patrons

We are very pleased to announce that the Institute has two new Patrons.

**Professor Sir John Lawton FRS** is a population biologist with research interests in birds and invertebrate populations. Sir John founded the NERC Centre for Population Biology at Imperial College's Silwood Park and became Chief Executive of NERC in 1999. He became Chairman of the Royal Commission on Environmental Pollution in 2005 until its cessation in 2011. He has been actively involved in environmental NGOs including WWF-UK, RSPB and Yorkshire Wildlife Trust. Most recently Sir John led the review group that resulted in the publication of the influential Making Space for Nature report.

**Tony Juniper** is the former Director of Friends of the Earth (England, Wales and Northern Ireland) and a well-known environmentalist, campaigner and writer. He has had spells working for a local Wildlife Trust and Birdlife International and retains a strong interest in supporting the work of environmental NGOs. He is a Special Adviser to the Prince of Wales Charities' International Sustainability Unit, having previously worked as a Special Advisor with the Prince's Rainforests Project. He currently teaches in the Cambridge University programme for Sustainability Leadership, advises businesses on sustainability issues and works as an environmental adviser on projects that interest him.

We are very pleased to welcome both new Patrons and look forward to meeting them again at the Institute's 21<sup>st</sup> Anniversary Reception at the House of Lords in June.

## New Publications in the Technical Guidance Series

The latest publication, *Guidelines for Preliminary Ecological Appraisal* (GPEA), provides best practice guidance for those undertaking baseline ecological surveys and preliminary ecological appraisals. It sets out minimum standards and identifies basic requirements for these surveys and appraisals. It provides recommended terminology for consistency across baseline surveys and appraisals to aid developers and planning authorities. It also promotes the submission of biodiversity data to Local Environmental Record Centres.

Our thanks go to Ben Benatt CEnv MIEEM of Halcrow Group Ltd for proposing and developing this guidance through the Professional Affairs Committee on behalf of the Institute. This document can be downloaded from [www.ieem.net/gpea.asp](http://www.ieem.net/gpea.asp).

## Conferences

**Spring Conference – Planning and Biodiversity: Developing Opportunities Through Change**  
21<sup>st</sup> March 2012, Birmingham

The closing date for this timely and thought-provoking conference is coming up very shortly so if you have not yet booked your place please do so as soon as possible.

**Summer Conference – Soils and Biodiversity**  
13<sup>th</sup> June 2012, London

The finishing touches are being put to this conference programme and bookings will be open shortly.

**Annual Conference – Renewable Energy and Impacts on Biodiversity**  
7-9<sup>th</sup> November 2012, Cardiff

## In Practice Themes

If you would like to contribute to a future edition of *In Practice* please note the upcoming themes below.

Edition	Theme	Submission Deadline
76 - June 2012	"21st Anniversary Special Edition"	n/a
77 - September 2012	Soils and Biodiversity	18 <sup>th</sup> June 2012
78 - December 2012	Renewable Energy and Biodiversity	8 <sup>th</sup> October 2012

For more information please contact Jason Reeves ([jasonreeves@ieem.net](mailto:jasonreeves@ieem.net)) or download the guidance for authors document directly from [www.ieem.net/inpractice.asp](http://www.ieem.net/inpractice.asp).

## 2012 Professional Development Programme

Don't forget that the 2012 programme of workshops and training courses is now available. If you have mislaid your copy (included in the December 2011 issue of *In Practice*) then all of the courses can be viewed online at [www.ieem.net](http://www.ieem.net).

We are especially pleased to announce new courses led by industry experts. Details are on our website. New courses currently open for booking include:

- Ecological Impact Assessment
- Professional Ethics Masterclass
- Train the Trainer

We will be adding further courses and Masterclasses throughout the year so please keep an eye on our website for announcements.

## Royal Charter

One area of the Institute's work which is certainly not on hold is preparing our application for a Royal Charter. We are currently working on the draft petition and the necessary changes to our Constitution which will need to be approved by members at an Annual or Extraordinary General Meeting. This is an exciting step for the Institute and a fitting way to mark our 21<sup>st</sup> year.

## Staff Changes

Becky May, the Institute's Training and Professional Development Officer, left us in February after having done an excellent job in diversifying our Professional Development Programme. We hope to appoint her successor soon.

## External Training Supplement

Along with the June edition of *In Practice*, we will be publishing an external training supplement to be mailed out to all members. If you are interested in advertising in the supplement please see [www.ieem.net/advertising.asp](http://www.ieem.net/advertising.asp).

## In Practice Images

Members will have noticed that the new style of *In Practice* uses more images. As such we are always on the lookout for good quality images, either on the themes to the left or on any aspect of ecology and environmental management. If you have any suitable images that you would be willing to let the Institute use please contact Jason Reeves ([jasonreeves@ieem.net](mailto:jasonreeves@ieem.net)). We will of course credit all images used.



# Scotland

This year we say a fond farewell to Chris Spray, Duncan Lang, Peter Wright and Neville Makan, who have stood down from the Committee, and thank them for their valued contributions. Several members have renewed their commitment and we are pleased to welcome new members Erin Grieve, Phil Baarda and Claire Lacey. Below, please find an introduction to the current Committee members.

**Karen Dick CEnv MIEEM** is the Convenor of the Section and has served on the Committee since 2009. She has been a practising ecologist for 24 years, firstly in conservation research and then in consultancy for large multi-national organisations. She currently runs her own small ecological consultancy. Karen has experience of a wide range of ecological survey and assessment techniques and landscape scale ecology, while maintaining a specialist interest in the biology and management of bird populations.

**Nicola Tyrrell MIEEM** is Vice Convener of the Section and has served on the Committee since 2009. As an ecologist and environmental adviser over the last seven years she has promoted a positive approach to wildlife conservation within industry and land management. Nicola also volunteers with conservation and environmental education charities. Within the Scottish Committee, Nicola particularly enjoys facilitating collaborations between IEEM and other environmental organisations and supporting students to realise their career potential.

**Elaine Anderson GradIEEM** is Secretary of the Section and has served on the Committee since 2010. She graduated from Edinburgh University with a BSc Hons in Conservation and Ecological Management in 2010 and currently works as a Project Officer and Ecologist with Highland Birchwoods near Inverness. Her main interests cover woodland and riparian environments and their flora and fauna. Elaine has a passion for engaging the public, particularly children, in conservation and volunteers with the Scottish Wildlife Trust.



Photo Scottish Natural Heritage

**Marcus Cross MIEEM** has served on the Committee since 2009. He works for ScottishPower Renewables as an Environmental Manager providing ecological advice to their UK and international offshore business. In 2002 Marcus was awarded his doctorate in Environmental Parasitology and has worked in various positions in large and small ecological consultancies before starting his present position in 2010.

**Graham Rankin MIEEM** has served on the Committee since 2010. He works as an Associate Ecologist for WSP Environmental and Energy in Glasgow where he is responsible for leading a group of five ecologists on a range of renewable energy projects. Graham has 14 years of experience working as a professional ecologist in the UK private and voluntary sectors.

**Erin Grieve** joined the Committee in 2011. She is a mature student currently in her third year of a BSc in Ecological Science (Environmental Science) at the University of Edinburgh. As a student she understands the importance of guiding and improving standards in ecology and environmental management and recognises the importance of employability of graduates. She hopes that her new role with the Scottish Committee will contribute to these factors.

**Phil Baarda CEnv MIEEM** joined the Committee in 2011. He is a Woodland and Land Use Adviser based at Inverness and has been with Scottish Natural Heritage for the last five years. Prior to this, Phil has done a variety of things in a variety of places – an EU project manager with the Highland Birchwoods NGO in the Highlands, a nature reserve manager in East Dorset, a field officer with BTCV in Dorset, and a Biodiversity and Livelihoods Adviser with VSO in the Philippines. Phil has been a full member of IEEM since 1997 and sits on the Professional Affairs Committee.

**Claire Lacey MIEEM** joined the Committee in 2011. She qualified in Marine and Environmental Biology in 2002 and has worked ever since in the field of marine mammal ecology. Having previously worked for the charity sector she is currently an environmental consultant. As well as all marine aspects, she also has a keen interest in bats and looks forward to bringing her experience in these areas to the Scottish Section Committee. Her new role with the IEEM Scottish Committee will contribute to these factors.

Your new Committee held its first meeting in January to discuss and begin arrangements for an exciting programme of events in 2012. Look out for full details in forthcoming emails and In Practice. Please get in touch with your ideas of how we can make IEEM's 21st Anniversary a cause for celebration in Scotland.

**Karen Dick CEnv MIEEM** ([littlegreen@sky.com](mailto:littlegreen@sky.com)) and  
**Nicola Tyrrell MIEEM** ([nicola.m.tyrrell@gmail.com](mailto:nicola.m.tyrrell@gmail.com))



A non native Rhododendron  
Photo by Sean Hathaway

# South East England

## Planted Trees and Shrubs

On 22<sup>nd</sup> September 2011, John Poland CEnv MIEEM, senior author of the *Vegetative Key to the British Flora*, provided an excellent opportunity for IEEM members to learn how to identify a wide range of non-native plant species.

With the increasing demand for ecological recommendations for land management and planting schemes, it is essential to ensure that habitat enhancement and protection is undertaken correctly. This requires an aptitude for correct identification of non-native species and varieties to safeguard quality habitat.

John started proceedings with an introduction to vegetative identification, followed by a guided walk around his local patch in Southampton. The site contained over 60 species of introduced trees and shrubs and the session aimed to show attendees ways in which to identify and differentiate these species. John explained the techniques required to identify each species through use of key features. Many quick identification techniques were

demonstrated, such as the adpressed buds found on *Salix* species and the absence of an interpetiolar ridge of the Oleaceae family. Separating tricky groups such as *Cotoneaster* and *Populus* was also completed vegetatively with remarkable ease.

The often subtle differences between native and non-native varieties were also critically examined. For example, non-indigenous planted specimens of Field Maple *Acer campestre* exhibit leaves which have terminal lobes that are longer than they are wide. Information of this kind can be used to determine whether a hedgerow is ancient or has been recently 'in-planted'.

After much new information being imparted, the evening concluded with a question and answer session before retiring to a nearby public house where further networking was undertaken.

For more information on the South East England Geographic Section please see the IEEM website or contact the Convenor, **Toby Gibbs CEnv MIEEM** ([tohy.gibbs@amec.com](mailto:tohy.gibbs@amec.com)), directly.



Members at the  
John Poland workshop



# Partnership News

## IEEM Overseas Territories Special Interest Group

We recently asked members if they would be interested in an Overseas Territories Special Interest Group which would work jointly with the UK Overseas Territories Conservation Forum (UKOTCF) and the Joint Nature Conservation Committee (JNCC). We are pleased to report that a good number of members came forward to express an interest and so we will be pursuing this in the coming months. If you are interested in becoming involved in this group please contact Jason Reeves ([jasonreeves@ieem.net](mailto:jasonreeves@ieem.net)).

## European Network of Environmental Professionals

ENEP has recently applied for an EU funding grant of just less than €200,000 through the LIFE+ funding stream. The funding, if successful, will be used for both specific projects and capacity building. Also, if the application is successful, some of the money will be used specifically for IEEM-led projects.

In February, ENEP held a meeting of the secretariats of the member organisations at which better collaboration and communication was discussed. It is used that this will help to guide ENEP's future activities by aligning them with the priorities of the member associations.

[www.environmentalprofessionals.org](http://www.environmentalprofessionals.org)

## Europarc Federation

The Alfred Toepfer Natural Heritage Scholarships 2012 are now open for applications. The award provides three young European conservationists with €3,000 to undertake a study visit to one or more protected areas in European countries other than their own. They are awarded by the Alfred Toepfer Foundation and the Europarc Federation. The deadline for applications is Friday 11<sup>th</sup> May 2012.

The €3,000 gives successful scholars the chance to gather experience and strengthen their networks. Applicants must be under 35, of European nationality, and themes for applications must be connected to the management of natural areas. Some guidelines to what these should be are provided. Applications can be filled in online at [www.europarc.org](http://www.europarc.org). The scholarships are awarded at the annual Europarc Conference, which will be held in Genk, Belgium on 22-25<sup>th</sup> October 2012.

In 2011, the scholarships were awarded to three individuals from Hungary, Scotland and Belgium. The topics the scholars are currently researching are: management techniques in protected areas, the creation of European partnerships and information sharing in the field of grazing management, and improvement of communication between marine World Heritage Sites in the Mediterranean Sea.

[www.europarc.org](http://www.europarc.org)

## CIRIA

IEEM and CIRIA, the construction industry research and information association, recently met to discuss current priorities and potential future collaboration. This could potentially be a useful partnership for the Institute with the discussion including accreditation, joint conferences and events and contributing to each others publications.

Environmental management is one of CIRIA's core topic areas. Their projects and work cover green infrastructure, ecosystem services, biodiversity, environmental good practice on site and working with wildlife. Their work aims to promote and improve environmental practice within the industry. For those working on construction sites it is crucial that they consider the environmental, social and economic aspects of sustainable construction that will deliver a project that minimises the impact of the surrounding environment, reduces the unnecessary use of resources whilst still working within the regulatory framework.

The construction industry has a key role to play in helping to deliver environmental improvements and CIRIA provides a diverse range of guidance, training and networks to help organisations improve their environmental management and achieve best practice.

IEEM members may be interested in CIRIA's forthcoming BITE (Business Improvements Through Ecology) Toolkit, an online tool for senior managers and non-ecologists, and a number of new publications, including *Working with Wildlife: guidance for the construction industry* and *Delivering biodiversity benefits through green infrastructure*.

[www.ciria.org](http://www.ciria.org)

## IUCN-UK

The latest version of the *Putting Nature on the Map* handbook from the Protected Areas Working Group can now be downloaded from the IUCN-UK website ([www.iucn-uk.org/Portals/0/INOTM%20IDENTIFYING%20PROTECTED%20AREAS%20IN%20THE%20UK.doc](http://www.iucn-uk.org/Portals/0/INOTM%20IDENTIFYING%20PROTECTED%20AREAS%20IN%20THE%20UK.doc)).

This handbook is designed to help identify the full range of the UK's protected areas according to the IUCN definition and assign to them a management category and governance type.

A draft of the report was compiled by Helen Miller CEnv MIEEM and the late Andy Tasker CEnv MIEEM. Additional material came from the Project Steering Group, particularly Roger Crofts FIEEM, Nigel Dudley, Chris Mahon, Adrian Phillips, Sue Stolton and UNEP-WCMC. The final version was edited for the IUCN National Committee for the United Kingdom by Adrian Phillips, Sue Stolton and Nigel Dudley.

[www.iucn-uk.org](http://www.iucn-uk.org)

## Society for the Environment

A delegation of 75 SocEnv board members and special guests were joined by Dr Peter Bonfield, Chief Executive of the Building Research Establishment (BRE) and key sustainability advisor to the Olympic Delivery Authority (ODA) at the Christmas Reception in December 2011.

Dr Bonfield has led for ODA on construction products, playing a key role in ensuring that the significant quantities of materials required to construct the games are sustainably procured, delivered and perform as required. He explained how environmental considerations have been at the heart of the development of the project, to help make this Olympics the "first sustainable Olympic and Paralympic Games" and to illustrate how the future delivery of sustainable buildings and communities can be achieved.

As the most high-profile event in the world in 2012, the London Olympic Games will provide an opportunity to prove that incorporating sustainability into business strategy can not only be entirely viable, but can also can bring economic and social benefits too, cementing the concept of the three pillars of sustainability.

The Institute is also very please to announce the following recently admitted Chartered Environmentalists: Mr Lee A Bagnall, Dr Jasmin Barwig, Mrs Hannah M Corcoran, Mr Matthew E Fasham, Miss Victoria L Forder, Miss Victoria Gilbey, Dr Graham W Hopkins, Mr Paul K Parsons, Mr Guy M Stone, Mr Matthew Tooby.

[www.socenv.org.uk](http://www.socenv.org.uk)



# Applicants

If any existing Member has any good reason to object to someone being admitted to the Institute, especially if this relates to compliance with the Code of Professional Conduct, they must inform the Chief Executive Officer by telephone or letter before 9<sup>th</sup> April 2012. Any communications will be handled discreetly. The decision on admission is usually taken by the Membership Admissions Committee under delegated authority from Council but may be taken directly by Council itself. IEEM is pleased to welcome applications for membership from the following:

### Applications For Full Membership

Associates applying to upgrade to Full membership were listed previously for their Associate application and are not listed again.

Miss Amy Beard, Dr Paul Beckett, Mrs Hannah Broughton, Ms Alanna Cooper, Ms Stacey Cougill, Mr Jack Crump, Mr Kevin Doidge, Ms Isabelle de Geofroy, Mr Matthew Harding, Dr Alison McCarthy, Mr Edmund Parr Ferris, Mrs Joanna Saich, Dr Thomas Tew

### Applications For Associate Membership

Mrs Hannah Boylan, Miss Eleanor Cooper, Mr Craig Greenwell, Mr David Hunt, Miss Nicola Murray, Mr Simon Tapley

### Applicants Wishing to Upgrade to Associate Membership

## ADMISSIONS

IEEM is very pleased to welcome the following new members:

### Full Members

Mr Peter Akers, Mr Ben Aston, Mr Richard Facey, Mrs Sally Hayns, Mr Richard Knight, Ms Emily Meilleur, Miss Rachel Melbourne, Miss Lizzy Peat, Miss Angela Peters, Mrs Donna Radley, Mr Nigel Smith, Dr Erica Spencer, Mr Arne Swithenbank, Miss Bryony Townhill, Mr David Warburton

### Associate Members

Mr Karl Forkasiewicz, Miss Emma Jennings, Mr Muhammad Khan, Miss Lucy Plumb

### Graduate Members

Miss Kirstin J Aldous, Miss Emmanuelle Amiral, Miss Esther Auzmendi, Miss Susan EV Bamber, Mr Mathew K Barnes, Miss Emma Baxter, Mrs Faidra F Bazigou, Miss Heather JC Beaton, Miss Laura JC Bennett, Mr Robert P Best, Miss Grace Booth, Mr Oliver Chope, Mr James Cobb, Miss Emma J England, Miss Rachel L Falkingham, Miss Rachel C Folkes,

Mr Andrew J Francis, Mr Aidan T Green, Mr Michael A Hackett, Mr Steven Heathcote, Ms Catherine M Highfield, Mr Timothy J Hutchison, Miss Stephanie Jones, Miss Louisa A Jones, Mr Robert J Kay, Ms Emily H Kearns, Miss Kristen Keyes, Mr Piotr Koryl, Mr Charles M Kotoko, Mr Ben Lansbury, Dr Jacob Laws, Miss Eva Laysan, Mr Steven W Leckey, Miss Holly M Lewis, Ms Carole Lowther, Miss Rosanna K Marston, Mr John G McCarthy, Miss Francesca McEvoy, Miss Isla McGregor, Miss Faye Midmore, Mr Michael Murfin, Miss Stephanie Nash, Mr Robert Nussey, Mr Gareth W Parry, Miss Michelle Phillips, Miss Claire Pickett, Mr Steven Piggott, Mrs Elizabeth A Porter, Mr James Porter, Miss Lucetta E Price, Mr Mark S Prina, Miss Sophia R Puntenev, Mr David Rees, Miss Amy E Simpson, Miss Elizabeth Slingsby, Miss Clare Smith, Ms Susan A Smith, Miss Nicola Stone, Miss Amy Telford, Miss Elizabeth Tinsley, Mr Daniel H Veigas, Miss Heidi Wade, Mr Grant Walker, Miss Fiona HA Wallis, Miss Rachel Ward, Mr Dominic Williams, Mr Craig Williams, Dr Francis Williams, Mr Ian Woodward, Mr Benjamin Wright

### Affiliate Members

Mr Christopher Baines, Miss Carly Elsom, Mr Stuart Godden, Mr Stuart Pryke

### Student Members

Miss Robyn Ablitt, Miss Helen L Allister, Mr Christopher Arthur, Miss Rosmund L Benbow, Mr MD Mamunur R Bhuiyan, Mr Benedict J Bower, Miss Jessica M Breedon, Miss Lucy Collins, Mr Richard A Cook, Mr Paul Cooper, Mr Peter Cowley, Miss Lauren Crabb, Mr Robert Day, Miss Rebecca Dicks, Mr William R Dommett, Mr Franklin Duruiheoma, Mr Joshua Entwistle, Ms Caitriona Fenton, Mrs Anna Field, Mr James Glendenning, Miss Jennifer Gomez Molina, Miss Maria Grant, Miss Lorna FK Griffiths, Mr Mohammad E Haque, Mrs Vera Hugues Salas, Mr Christopher Ilori, Mrs Tania Islam, Miss Georgina Knibbs, Mr Nhuong Q Le, Miss Hannah R Mitchell,

Mrs Amanda J Moore, Miss Sarah J Moore, Mr Philip J Newberry, Miss Sophie Nicholls, Miss Sandra Owusu-Gyamfi, Mrs Julie Player, Mr Kenneth Porter, Mr Luke A Quenby, Miss Rose Revera, Miss Lucy E Ridding, Ms Sam Rogers, Miss Dawn L Rothwell, Miss Hannah E Rowe, Mr Finbarr Ryan, Mr MS Hossain Sawkat, Miss Elizabeth Seabourne, Ms Rachael Sibson, Mr Daniel M Small, Miss Amy Sneap, Miss Joanna Uglow, Mr Gavin S Wagstaffe, Miss Sarah White, Miss Georgina Whittaker

## UPGRADES

The following have successfully upgraded their membership:

### Upgrades to Full Membership

Mrs Sarah Armstrong-Stacey, Ms Rebecca Beale, Mrs Victoria Bicknell, Ms Lorraine Broaders, Dr Graeme Down, Miss Lucy Fay, Mr Valentine Gateley, Mr Leonard Griffiths, Miss Megan Hooper, Mrs Helen Lundie, Ms Mai Nielsen, Ms Laura Palmer, Miss Anna Price, Mrs Katie Rogerson, Mr Ellis Selway, Miss Jenny Simcock, Dr Daniel Simpson, Miss Sophie Smith, Mr Jack Sykes, Mr James Webster, Miss Dianne Wood, Miss Amy Wright, Mr Luke Young

### Upgrades to Associate Membership

Miss Rosalind Atienza, Mr Jonathan Bannon, Mr Paul Barnes, Miss Kate Bennett, Miss Natasha Burdis, Miss Victoria Burton, Dr Lindsey Defew, Miss Helen Fletcher, Mr Tom Gray, Miss Gemma Hannant, Mr Matthew Lakey, Miss Rhian Lewis, Dr Anna McGrath, Miss Laura Moody, Mr Richard Pearce, Mr Andrew Southcott, Mrs Patricia Vaux, Miss Ruth Walker, Mr Nicholas Wright

### Upgrades to Graduate Membership

Miss Rebecca J Blamey, Mr Douglas J Blease, Miss Ruth Bramwell, Miss Michelle JM Bullock, Dr Christopher P Cockel, Mr Jonathan Crewe, Miss Lisa Davies, Mr Rhodri T Jones, Miss Anna Lewis, Miss Victoria K Newlove, Mr Timothy Precious, Miss Amanda J Scott, Mr James Tristram, Mr Joel N Walley, Miss Zoe Webb



# Applying for Fellowship

**Sally Hayns MIEEM**  
Chief Executive Officer, IEEM

Fellowship of the Institute is the most senior membership grade and recognises an individual's expertise and contribution to the profession. Whilst Fellowship brings personal reward and recognition, the Institute also benefits by having the most highly respected people in our profession as Fellows.

It was with this in mind that last year IEEM's Council reflected on the small number of applicants coming forward and concluded that the criteria, guidance and application process for Fellowship should be reviewed. Institute member (and RTPI Fellow!) David Tyldesley, who was one of the principal architects of the current scheme, kindly agreed to lead a Working Group to undertake the review.

This Group reported back to Council in December 2011 and, as a consequence, the guidance on eligibility and the application process has been clarified and revised.

We very much hope that this will encourage suitable candidates to put themselves forward for consideration as a Fellow. The full guidance is available to download on our website but a summary is included here to 'tempt' those thinking of applying.

## The Role of the Institute's Fellows

We hope that Fellows will be willing to contribute to the work of the Institute when called upon to do so, or when opportunity arises. Such opportunities will vary over time and from Fellow to Fellow. There are many different roles that Fellows can fulfil as shown below.



Institute Fellows,  
Penny Anderson (left) and John Box

### To act as:

- Ambassadors
- Chairs for conference sessions, working parties, panels, etc.
- Judges for particular awards
- Mentors to other IEEM members
- A sounding board for some of the more delicate issues facing the Institute

### To participate in:

- Meetings of Fellows
- Special occasions, receptions, etc.
- Assessing and reviewing the assessment of Fellowship applications
- Disciplinary Boards/Panels
- Professional interviews
- Advising Council and/or the Secretariat about issues which they feel that IEEM should be addressing

### To contribute to:

- IEEM publications
- Institute Committees
- Special Projects where their experience and expertise is relevant
- Position Statements and other key documents
- Fellows lectures

Fellows are invited to take part in as much or as little of the Institute's work as they wish, or have time available, although it is certainly not a requirement of Fellowship.

## Eligibility

The principal criterion is that each Fellow should have made an **'outstanding contribution'** to the profession of ecology and environmental management. It is in recognition of that contribution that the Institute elects members to its Fellowship. Candidates should also be **highly respected** and have **unimpeachable integrity**, which will be confirmed by the sponsors and supported by the evidence in the testimonial and application documents. Candidates should have attained a position of **seniority** and **substantial experience** within the profession, although seniority and experience alone are not sufficient. The most challenging criterion to define (and therefore for assessors to judge) is that of **'outstanding contribution'**. What does it mean in practice? For the purposes of Fellowship, outstanding contribution has been defined as a significant record of achievement in one or more of the following:

- i. Research which has practical application in the profession of ecology and environmental management
- ii. Establishing or raising professional standards through developments in training, quality standards or methods
- iii. Influencing the evolution of policies or legislation relating to the natural environment
- iv. Promotion of ecological professionalism among employers, organisations, companies and other institutes
- v. Innovation through establishing new partnerships, leadership, techniques or awareness for ecological professionalism
- vi. The practical application of the principles of ecology and environmental management
- vii. Biodiversity conservation

An outstanding contribution in any one of these areas is sufficient and candidates do not need to provide evidence of achievement in other areas. However, a candidate's achievement in more than one area can be taken into account to build an overall picture of outstanding contribution. Work undertaken on behalf of the Institute may be taken into account but alone is usually insufficient to qualify a candidate for Fellowship without evidence of an outstanding contribution to the areas identified. However, in exceptional cases, it may be the work of the candidate for the Institute over many years that was or is the vehicle for the candidate's outstanding contribution to the profession.

To contribute to the roles of Fellows of the Institute, and to underline their seniority and substantial experience, successful candidates are also likely to be able to demonstrate in their application that they have attained other professional qualities or attributes such as those listed below. These are not 'criteria' to be met and, of course, not every candidate will be expected to have all of them, but these qualities and attributes strengthen the Fellowship and would help a candidate fulfil the role of a Fellow for the Institute:

- a) Expertise, which in this context may be defined as a deep, comprehensive, authoritative and leading knowledge and understanding in their respective field(s)
- b) Wisdom, insight and sound judgement
- c) The ability to apply their knowledge and experience in practical ways to help the Institute in its internal and/or external affairs
- d) Personal presence, dignity, seriousness of purpose and 'gravitas' when called for
- e) The ability to act as a fair and well informed arbitrator or judge in a variety of situations, 'a steady hand'
- f) High levels of oral and/or written communication skills

## Application Process

An applicant must be a Full member of IEEM at the time of making the application for election as a Fellow. Applications for Fellowship can be made at any time and applications are assessed by a 'Panel' consisting of two current Fellows and a non-Fellow member (usually the Chair if not a Fellow) of the Membership Admissions Committee.

Applications should comprise the following:

- The application form and testimonial signed by all three sponsors who should all be either Full members or Fellows of IEEM. No more than one sponsor should be from the practice, company or organisation where the applicant currently works and they should not be the lead-sponsor
- An expanded CV
- A description of achievements in at least one of the areas of professional practice in ecology and environmental management set out in (i) to (vii) above
- A list of relevant publications and/or significant written work for clients or employers (which must be substantially the work of the applicant)
- A list of any honours, awards or other forms of professional recognition
- Appendices containing any other material which the candidate considers would be appropriate as evidence
- A description of any service to or on behalf of the Institute if appropriate

It is important to remember that it is up to the applicant to make the case for Fellowship. The assessors will not be able to 'read between the lines' or rely on their awareness of the applicant so this is not a time to be bashful!

The Panel's recommendations for Fellowship will then be submitted to the next meeting of Council for approval. Successful applicants will be announced in *In Practice* and a certificate presented at a suitable opportunity such as a Conference or President's event.

To ensure that high standards are maintained and that applications are treated fairly and consistently, a Fellowship Review Panel will be established to review all decisions.

The Fellowship Review Panel may examine some applications in more detail as frequently as necessary, depending on the flow of applications.

The Fellowship Review Panel will comprise three Fellows and three Members of the Institute drawn from the Membership Admissions and Professional Affairs Committees or, if necessary to meet the required composition, co-opted from the Fellowship. The Fellowship Review Panel will appoint a Chair from amongst its members who will briefly report to Council on its findings.

The Panel is not an 'appeal' process for unsuccessful candidates, nor a complaints procedure for members who may be aggrieved about an election or rejection of a candidate. It will not have the power to change any decision as to an election to Fellowship or otherwise. However, the Panel may make such observations and recommendations about the assessment and encouragement of future applications as it thinks fit. The Panel will also consider suggestions from members, Geographic Sections and Special Interest Groups as to worthy candidates who might be encouraged to submit an application for Fellowship.

Further details regarding the eligibility criteria and application process can be found on our website at [www.ieem.net](http://www.ieem.net).

Council would like to take the opportunity to thank David Tyldesley FRTPi MIEEM for chairing the Fellowship Review Working Group and Keith Ross CEnv MIEEM, Richard Graves CEnv MIEEM, David Collins CEnv MIEEM, Philip Edwards CEnv FIEEM, Nigel Bell CEnv FIEEM, Peter Beale CEnv FIEEM and Robin Field MIEEM for their contributions.

### Sally Hayns MIEEM

Chief Executive Officer, IEEM

### About the Author

Sally Hayns has been CEO of IEEM since June 2010. Prior to joining the Institute she was Head of People and Wildlife at the Hampshire and Isle of Wight Wildlife Trust.

### Correspondence:

[sallyhayns@ieem.net](mailto:sallyhayns@ieem.net)





# IEEM Spring Conference

## Planning and Biodiversity: Developing Opportunities Through Change

21<sup>st</sup> March 2012, Birmingham

Our natural capital underpins our economy, health and well-being, so why is biodiversity apparently not recognised as a valuable asset to be protected and enhanced through the planning process? How can biodiversity gains be effectively incorporated into sustainable social and economic development?

The reform of the planning system could provide an opportunity for a win-win outcome for both the natural environment and the economy. This conference will consider the challenges and opportunities involved and provide examples of what can be achieved through effective partnerships.

To view the full programme and book your place please visit:  
[www.ieem.net/ieemspringconference2012.asp](http://www.ieem.net/ieemspringconference2012.asp)



IEEM Summer Conference  
**Soil Ecology and Biodiversity**  
13<sup>th</sup> June 2012, London

More information on this conference  
will be added to the website shortly.



## Recent Publications & Journals



### Britain's Plant Galls: A Photographic Guide

**Author:** Michael Chinery  
**ISBN-13:** 9781903657430  
**Price:** £14.99  
**Available from:** [www.nhbs.com](http://www.nhbs.com)

This handy-sized photographic field guide aims to help both beginners and experts alike to learn more about some of the conspicuous, picturesque and even bizarre

galls and what causes them. The book also features colour plates showing typical views of each type of gall featured (approx. 200 photos), detailed gall profiles covering key identification features and where to find them, and also a useful index of host plants. The publication has been prepared by members of the British Plant Gall Society with the aim of encouraging an augmented interest in the topic and an increase in younger naturalists.



### Statistics for Ecologists Using R and Excel

**Author:** Mark Gardener  
**ISBN-13:** 9781907807121  
**Price:** £29.99  
**Available from:** [www.nhbs.com](http://www.nhbs.com)

This is a book about the scientific process and how we apply it to data in ecology. It explains how to plan for data collection, how to assemble data, how to analyse data and

finally how to present the results. The book uses Microsoft Excel and the powerful Open Source R program to carry out data handling as well as producing graphs. Students of ecology and environmental science will find this book aimed at them although professionals will find the text useful as the principles and data analysis are the same in many disciplines. No prior knowledge is assumed and the reader can develop their skills up to degree level.



### Living Planet: Connected Planet

**Author:** Tiina Kurvits *et al.*  
**ISBN-13:** 9788277010984  
**Price:** Free download  
**Available from:** [www.grida.no/publications/rr/living-planetv](http://www.grida.no/publications/rr/living-planetv)

This superbly illustrated publication covers the current status of many migratory species, the reasons for their decline and

recommendations to reverse this trend. Over ten thousand species numbering millions of animals travel around the world in a network of migratory pathways. The basis of these migratory species is their connection to places and corridors across the planet. The loss of a single point in their migration can jeopardise the entire population, while their concentrations make them highly vulnerable to, for example, overharvesting and poaching, underwater noise from offshore energy production, naval sonar and shipping, and fences, roads and other infrastructure blocking their migration routes. We are also only just beginning to grasp the consequences that climate change is having on migratory animals and how important it is to have functional networks of habitats to allow species to adapt.



### The Economics of Ecosystems and Biodiversity in Business and Enterprise

**Author:** Joshua Bishop  
**ISBN-13:** 9781849712514  
**Price:** £39.99  
**Available from:** [www.earthscan.co.uk](http://www.earthscan.co.uk)

This book is a further key output of TEEB (The Economics of Ecosystems and Biodiversity). It provides important new

evidence of growing corporate concern about biodiversity loss and offers examples of how some leading companies are taking action to conserve biodiversity and restore ecosystems. The publication covers: indicators and drivers of biodiversity loss and ecosystem decline; changing consumer preferences; recent initiatives to enable businesses to measure, value and report their impacts and dependencies on biodiversity and ecosystem services; risks and opportunities to business; practical tools to avoid, minimise and mitigate biodiversity and ecosystem service risks; emerging commercial business models seeking to deliver biodiversity benefits and ecosystem services; and frameworks needed to stimulate investment and entrepreneurship.



### The Flora of Staffordshire

**Author:** JE Hawksford and JJ Hopkins  
**ISBN-13:** 978-0-9549385-2-9  
**Price:** £45.00 plus P&P  
**Available from:** [www.staffs-wildlife.org.uk/page/publications](http://www.staffs-wildlife.org.uk/page/publications)

Published by Staffordshire Wildlife Trust, this is the first fully documented Flora for Staffordshire, and is an essential reference for anyone interested in the natural history of Staffordshire, including professional

ecologists, land managers, amateur naturalists, botanists and students. It contains: a beautifully illustrated colour section covering the major habitats, geology and climate; 2,600 taxa covered in written accounts; over 1,000 taxa with 2x2km square (tetrad) distribution maps; a separate colour map overlay for key features; and a comprehensive history of botanical recording in Staffordshire. The publication covers vice-county 39, including all of the administrative county plus part of the Black Country and part of Wyre Forest.



### Delivering Biodiversity Benefits through Green Infrastructure

**Author:** Kathy Dale CEnv FIEEM *et al.*  
**ISBN-13:** 9780860179135  
**Price:** £90.00  
**Available from:** [www.ciria.org](http://www.ciria.org)

This guide aims to give clear messages about the goals and objectives of Green Infrastructure (GI) for the construction

industry. It also seeks to serve as a tool to enable construction professionals to work together with other disciplines to maximise the opportunities presented by civil engineering and building projects, to enhance biodiversity and ecosystem services through GI, whilst minimising any negative effects on the environment.





Great tit  
Photo by Jean-  
Daniel Echenard

### Variation in personality and behavioural plasticity across four populations of the great tit *Parus major*

NJ Dingemanse *et al.*

Journal of Animal Ecology 2012 **81**: 116–126

In this study, the authors assayed 'exploration behaviour' among wild-caught individual great tits *Parus major* when exposed to a novel environment room in four populations across Europe. The authors quantified levels of individual variation within and between populations in average behaviour, and in behavioural plasticity with respect to (i) repeated exposure to the room (test sequence), (ii) the time of year in which the assays were conducted and (iii) the interval between successive tests, all of which indicate habituation to novelty and are therefore of functional significance. Consistent individual differences in behaviour were present in all populations; repeatability did not vary between populations. Exploration behaviour was also plastic, increasing with test sequence – but less so when the interval between subsequent tests was relatively large – and time of year; populations differed in the magnitude of plasticity with respect to time of year and test interval. Finally, the between-individual variance in exploration behaviour increased significantly from first to repeat tests in all populations. Individuals with high initial scores showed greater increases in exploration score than individuals with low initial scores; individual by environment interaction with respect to test sequence did not vary between populations. The findings imply that individual variation in both average level of behaviour and behavioural plasticity may generally characterise wild great tit populations and may largely be shaped by mechanisms acting within populations.

This paper is freely available at <http://onlinelibrary.wiley.com/doi/10.1111/jane.2011.81.issue-1/issuetoc>

Correspondence: [ndingemanse@orn.mpg.de](mailto:ndingemanse@orn.mpg.de).

### The Role of Natural History Institutions and Bioinformatics in Conservation Biology

J Drew

Conservation Biology 2011 **25**: 1250–1252

This paper highlights how natural history institutions are positioned to benefit conservation biology in the future in three major ways: development and expansion of collection-based research projects and cultivation of the taxonomic expertise necessary to evaluate collection data; expansion of digitisation of collections; and engagement of the public through new education and outreach programs. There are however several challenges facing natural history institutions and their role as nodes within a large, far-reaching bioinformatic network. Some of these, such as lack of funding for both infrastructure and primary research and dwindling taxonomic knowledge, represent serious and chronic challenges for the long-term sustainability of natural history institutions. The paper is freely available at <http://onlinelibrary.wiley.com/doi/10.1111/cobi.2011.25.issue-6/issuetoc>  
Correspondence: [jdrew@fieldmuseum.org](mailto:jdrew@fieldmuseum.org).

### Assessing woodland history and management using vascular plant indicators

B Wright and ID Rotherham

Aspects of Applied Biology 2011 **108**: 105–112

This paper reports progress in studies to investigate current use of botanical indicators in historical research and to inform UK planning policies. As part of this process a comprehensive review of field survey techniques was undertaken and a hybrid system of survey is proposed. This includes a walkover transect with the ability to incorporate point monitoring in the form of standing quadrats. Because of the nature of this approach, a similarly novel approach to analysis is also discussed. One of the key issues raised from the review was a general lack of accounting for the internal variation of woodlands when obtaining or interpreting species lists. Many authors acknowledge the need to accommodate internal variation, but rarely propose any systematic method for dealing with this issue. This issue is considered here, with a primary aim to provide survey and analysis that can be applied by historians to interpret woodland history and evaluate woodlands subject to planning policy.

Correspondence:

[barry.wright@adas.co.uk](mailto:barry.wright@adas.co.uk) / [i.d.rotherham@shu.ac.uk](mailto:i.d.rotherham@shu.ac.uk)

### The December 2011 edition of *Conservation Biology* was their 25<sup>th</sup> Anniversary Special Edition.

It contained a number of highly interesting invited essays that are well worth a read and are freely accessible at <http://onlinelibrary.wiley.com/doi/10.1111/cobi.2011.25.issue-6/issuetoc>.

Essays that will be of interest to IEEM members include:

- Conservation Biology through the Lens of a Career in Salmon Conservation
- Conservation Means Behavior
- Finding Balance between Human Need and Global Stewardship
- A Vision of Conservation from School

- Competing Cultures of Conservation
- Cultivating a Constituency for Conservation
- Land, Food, and Biodiversity
- Biodiversity Offsets and Infrastructure
- Marine Protected Areas and the Governance of Marine Ecosystems and Fisheries
- The Future of Payments for Environmental Services
- Climate Change, Connectivity, and Conservation Success
- Future Human Intervention in Ecosystems and the Critical Role for Evolutionary Biology



Peak District  
moorland  
Photo by  
Simon Harrod

### Factors affecting moorland plant communities and component species in relation to prescribed burning

MPK Harris *et al.*

Journal of Applied Ecology 2011 **48**: 1411–1421

Where prescribed fire is used, ecologists need to know the impact on biodiversity (post-fire recovery) and on provisioning and regulating services such as water collection and carbon sequestration. The authors assessed the effect of prescribed burning on plant community composition and its component species at the regional scale of the Peak District. They found two major results of importance to policy-makers and land managers: (i) that prescribed burning maintains species diversity in the immediate post-burn phase, and (ii) as the vegetation ages and increases in height, most species disappear and the vegetation becomes dominated by *Calluna vulgaris*. From a policy perspective, prescribed burning (or some other disturbance) is needed to maintain burning and a no-burn policy will result in a low-diversity, *C. vulgaris*-dominated vegetation. As vegetation height is the easiest measure for land managers to use in judging when to burn, we recommend moorland vegetation be burned before it reaches 25cm in height to maintain the pre-burn complement of plant species. If the rotation allows the vegetation to become much taller (>40cm), then most species will be lost and they will have to colonise after subsequent fires from the seedbank or from the surrounding area.

Correspondence: [calluna@liv.ac.uk](mailto:calluna@liv.ac.uk)

### Biological flora of the British Isles: *Orchis anthropophora* (L.) All. (*Aceras anthropophorum* (L.) W.T. Aiton)

H Jacquemyn, R Brys and MJ Hutchings  
Journal of Ecology 2011 **99**: 1551–1565

This account presents information on all aspects of the biology of *Orchis anthropophora* (L.) All. (Man Orchid) that are relevant to understanding its ecological characteristics and behaviour. The following topics are presented within the framework of the Biological Flora of the British Isles: distribution, habitat, communities, responses to biotic factors, responses to environment, structure and physiology, phenology, floral and seed characteristics, herbivores and disease, history, and conservation. The full paper is freely available at:

<http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2745.2011.01897.x/abstract>

### Surveying and assessing vascular plants in hedgerows to inform historic interpretation, planning decisions and conservation strategies

B Wright and ID Rotherham

Aspects of Applied Biology 2011 **108**: 123–132

This paper addresses the survey and interpretation of botanical data in relation to the historic context of hedgerows in England. It also describes a more detailed survey method suitable for submitting to the Historic Environment Record (HER) to document hedgerows potentially scheduled for removal. This process also provides information essential to inform a mitigation or translocation strategy. The survey technique describes three levels of detail that can be recorded to satisfy different purposes and questions. These techniques require a novel approach to analysis that concentrates on interpreting the botanical data in terms of what information the species themselves can provide about the history and the significance of their location and abundance, both at a landscape level and within individual hedgerows. The significance of groupings of species in both landscape and hedgerows is also considered.

Correspondence:

[barry.wright@adas.co.uk](mailto:barry.wright@adas.co.uk) / [i.d.rotherham@shu.ac.uk](mailto:i.d.rotherham@shu.ac.uk)

### The January 2012 edition of *Journal of Ecology* (Volume 100, Issue 1) marks 100 years for the journal.

This special edition contains a number of papers, all freely available at <http://onlinelibrary.wiley.com/doi/10.1111/jec.2011.100.issue-1/issuetoc>, that members will find of interest:

- JM Bullock *et al.* (pages 104 – 115) Modelling spread of British wind-dispersed plants under future wind speeds in a changing climate
- AT Moles *et al.* (pages 116 – 127) Invasions: the trail behind, the path ahead, and a test of a disturbing idea
- S Lavorel and K Grigulis (pages 128 – 140) How fundamental plant functional trait relationships scale-up to trade-offs and synergies in ecosystem services
- AJ Tanentzap *et al.* (pages 171 – 183) The more stems the merrier: advantages of multi-stemmed architecture for the demography of understorey trees in a temperate broadleaf woodland
- AC Newton *et al.* (pages 196 – 209) Structure, composition and dynamics of a calcareous grassland metacommunity over a 70-year interval



## Recent Publications & Journals (continued)

### Scientists' Opinions on the Global Status and Management of Biological Diversity

MA Rudd

Conservation Biology 2011 25: 1165–1175

The large investments needed if loss of biological diversity is to be stemmed will likely lead to increased public and political scrutiny of conservation strategies and the science underlying them. It is therefore crucial to understand the degree of consensus or divergence among scientists on core scientific perceptions and strategies most likely to achieve given objectives. The author therefore developed an online survey designed to elucidate the opinions of conservation scientists. Although some heterogeneity of opinion was evident, results of the survey show a clear consensus within the scientific community on core issues of the extent and geographic scope of loss of biological diversity and on elements that may contribute to successful conservation strategies in the future. The full paper is freely available at <http://onlinelibrary.wiley.com/doi/10.1111/cobi.2011.25.issue-6/issuetoc>.

Correspondence: [murray.rudd@york.ac.uk](mailto:murray.rudd@york.ac.uk)

### Linking ecological processes with spatial and non-spatial patterns in plant communities

C Brown *et al.*

Journal of Ecology 2011 99: 1402–1414

This study systematically investigated the spatial and non-spatial signals of simulated ecological processes. The authors included neutral, niche, lottery, Janzen–Connell and heteromyopia models, deriving and comparing first- and second-order measures for the patterns they generate. They found that the species abundance distribution (SAD) is unable to distinguish reliably between underlying models, with random variation in its shape concealing any systematic differences. A new second-order summary measure of spatial structure derived in this paper, in contrast, proves highly sensitive to the type of ecological interaction being modelled, and is robust to random variation. The potential for answering important ecological questions using spatial statistics, particularly concerning mechanisms of coexistence in diverse communities, appears to be great.

Correspondence: [calum@mcs.st-and.ac.uk](mailto:calum@mcs.st-and.ac.uk)

### Securing the future of the natural environment: using scenarios to anticipate challenges to biodiversity, landscapes and public engagement with nature

GS Kass *et al.*

Journal of Applied Ecology 2011 48: 1518–1526

People's values and attitudes are crucial in determining the future, yet they are rarely placed at the centre of scenario exercises. Novel methods have been developed to fully integrate people's world views into scenario planning. The ethnographic futures framework focuses on how changes occur through human agency and how they will be felt by society in the future. The three horizons approach considers how different ideas and paradigms become more, or less, dominant in society over time. Natural England carried out a scenario planning

process using these novel approaches. The scenarios consider a wide range of global and local factors and investigate their impact upon the natural environment in England, to 2060. A set of four contrasting scenarios was produced. Despite their differences, nature was always highly valued in some form; ultimately, the state of the natural environment was determined not by natural forces but by societal choice. Scenario planning allows the development of key visions for the future. These can be used to establish, and influence, the direction of future trends and their impacts on the natural environment, particularly in the context of a shifting basis for conservation policy that seeks to enhance ecological resilience.

Correspondence: [david.macdonald@zoo.ox.ac.uk](mailto:david.macdonald@zoo.ox.ac.uk)



Ornamental garden  
Photo by  
Jim Thomson

### Determining non-invasiveness in ornamental plants to build green lists

K Dehnen-Schmutz

Journal of Applied Ecology 2011 48: 1374–1380

This paper argues that knowledge gained from studies designed to identify invasive traits of species and factors contributing to their invasion success can also be used to identify species with a low invasion risk that can be recommended to the horticultural trade, landscaping sector and gardeners for safer use. The criteria identified for non-invading species to be listed in a green list include sufficiently long residence time, high propagule pressure, no records of invasive occurrences elsewhere and an indication of some robustness to climate change. Species not yet assessed which may have the potential to become invasive in the future can then be more easily avoided. This list would be particularly useful in large-scale plantings and landscaping projects.

Correspondence: [K.Dehnen-Schmutz@warwick.ac.uk](mailto:K.Dehnen-Schmutz@warwick.ac.uk)



Donna Nook  
salt marsh  
Photo by  
Lee Bailey

### Colonization of a newly developing salt marsh: disentangling independent effects of elevation and redox potential on halophytes

AJ Davy *et al.*

Journal of Ecology 2011 **99**: 1350–1357k

The re-activation of a salt marsh by managed coastal realignment at Brancaster, Norfolk provided an opportunity to investigate the large-scale manipulation of environmental effects on halophyte distribution in a situation where the usual relationships between environmental characteristics,

elevation and succession had been partially uncoupled. The study found that *Salicornia europaea* occurred predominantly at lower elevation but was not influenced by redox potential. *Puccinellia maritima* favoured low redox potentials independently of elevation. In contrast, *Suaeda maritima* tolerated a wide range of elevations but was absent from areas with low redox potential. *Atriplex portulacoides* was apparently more averse to low redox potential than to low elevation. *Elytrigia atherica* was restricted to both high redox potential and high elevation. Smaller independent effects of sediment depth, salinity, water content, nitrate concentration, shear strength and loss on ignition were apparent for some species. Although much of the elevational zonation of species on salt marshes is mediated by differential tolerance of the consequences of co-linearly varying variables, particularly sediment anoxia and elevation, these variables have independent effects that are quantifiable in the field. The authors conclude that Hierarchical Partitioning provides a valuable tool for distinguishing the mechanisms underlying species zonations on environmental gradients, especially where large-scale environmental manipulations have partially decoupled the usual co-linear variation.

Correspondence: a.davy@uea.ac.uk

### Could our fisheries be more productive? Indirect negative effects of bottom trawl fisheries on fish condition

JG Hiddink *et al.*

Journal of Applied Ecology 2011 **48**: 1441–1449

This study assessed the impact of bottom trawling on the food availability of fish by comparing the condition of fish in an area that had a steep commercial bottom-trawling gradient in the Irish Sea but otherwise homogeneous environmental conditions. The authors found that the condition of the important commercial flatfish plaice *Pleuronectes platessa* was negatively related to trawling frequency, and this could be explained by a reduced production of the infaunal invertebrates they feed on. Density-dependent changes in competition over food could not explain this difference. No effect of trawling on the condition of the flatfish dab *Limanda limanda* was detected. Whiting *Merlangius merlangus* feeds primarily on fish, and therefore, no effect of bottom trawling on its condition was expected or detected. The study indicates that bottom trawl fisheries may have a negative effect on the condition of some of their target species, but not others, by reducing the abundance of their benthic prey.

Correspondence: J.Hiddink@bangor.ac.uk



Blue tit. Photo by Ben Fredericson

### Female plumage coloration is sensitive to the cost of reproduction. An experiment in blue tits

C Doutrelant *et al.*

Journal of Animal Ecology 2012 **81**: 87–96

This paper investigated whether carry-over effects of reproduction might ensure the honesty of plumage colour signalling of a bird species with conspicuous UV-blue and yellow coloration, the blue tit *Cyanistes caeruleus*. Reproductive effort was manipulated by removing clutches, thereby forcing both sexes to reproduce twice and to raise chicks later in the breeding season when food is less abundant. In the year following this manipulation, the authors investigated the change in plumage in experimental and control males and females. The change was measured in the two putative feather ornaments, the UV-blue cap and the yellow breast, and another feather trait probably less likely to be sexually selected: the wing length. They also tested whether higher-quality females had

their coloration less affected by the experiment. The study found that control but not manipulated males and females increased their signal towards UV. In addition, in the manipulated group, females that were able to lay more eggs had their UV-blue coloration less affected by the treatment. For yellow coloration, the authors found that manipulated yearlings but not manipulated adults decreased their yellow chroma in comparison with control. Lastly, the results show that the condition of the manipulated females tended to be positively correlated with yellow chroma. The results show that the trade-offs between reproduction and signalling can ensure the honesty of conspicuous plumage traits in female and male blue tits. In addition, they suggest that female traits have the potential to evolve under sexual selection in this and other bird species. This paper is freely available at <http://onlinelibrary.wiley.com/doi/10.1111/jane.2011.81.issue-1/issuetoc>.

Correspondence: claire.doutrelant@cefe.cnrs.fr



## Tauro-Scatology and a New Web Domain

This issue of In Practice sees Basil O'Saurus, our very own Professor of Tauro-Scatology, returning to one of his favourite topics: raising the profile of the profession. What's on your mind this time, Prof?

I'm wondering how we make ecology and environmental management into an exciting career prospect for modern teenagers who are growing up in the modern world of the internet and social media.

Is this about how we make the Institute's website more attractive for younger browsers? More information to support GCSE and A-level syllabi, for example?

An excellent idea, except that this will just mean that teachers will tell their kids to visit the site, which will mean that it is, fundamentally, uncool. No, we need to think outside the box. Let's start with the domain name: *www.ieem.net*. It is not very eye-catching, is it?

So what do you propose?

A complete overhaul of IEEM's online presence. We'll start this at *www.urbandictionary.com*.

What's that?

If you don't know, you haven't got teenage children. They use it all the time to keep up to date with the latest slang and street talk. Parents can use it to find out what the hell their children are on about, but will soon wish that they hadn't.

Give us an example.

OK. What does 'hippocampus' mean to you?

It is an area of the brain, isn't it?

Not according to Urban Dictionary. Apparently 'hippocampus' is slang, in the USA, for "any college or university campus in Mississippi, Alabama or Tennessee, where over 30% of the student body is significantly obese". That's the palatable end of Urban Dictionary content, by the way. The first thing we need to do is to check that 'IEEM' is not an acronym that will make adolescents smirk. We can check this on Urban Dictionary and, I'm pleased to say that 'IEEM' is in the clear, at least for the moment.

All this means, however, is that teenagers are unlikely to find our site by chance?

Exactly. So now we need to get proactive and find ways of bringing them to our site.

Do you have any ideas?

A new domain extension. '.net' is so passé these days. How about *www.ieem.xxx*? The '.xxx' wraps the IEEM in an aura of sexual mystique that no teenage boy will be able to resist.

Don't these kids have parental controls on their computers?

Possibly, but learning to circumvent parental controls is virtually a rite-of-passage these days. We're just latching onto the zeitgeist. I'm not absolutely convinced that '*www.ieem.xxx*', alone, will lure many more punters to our site. And that is why I am also proposing a separate domain name to act as a portal to the main IEEM site. One that will draw in an audience of younger people with a fascination for the intricacies of natural selection and plant-animal interactions. We'll set up a site dedicated to the study of orchids.

Why orchids?

Consider the bee orchid. It has a highly-evolved floral structure and mimics female insect pheromones, encouraging pollinating insects to approach and attempt to mate with it.

But how does this help IEEM's online presence?

Think laterally: one way of looking at the bee orchid is that it is one of the glories of natural selection; another is to think of it as the inflatable sex toy of the insect world.

In other words...

Goodbye *www.ieem.net*; hello *www.raunchyorchidbabes.xxx*.

In the process, we trade in our image as a serious professional body in a vain attempt to develop an image that appeals to spotty adolescent males?

Not quite. *www.ieem.net* will still be the main site and we can ramp up the mystique of *www.raunchyorchidbabes.xxx* yet further by making it pay-per-view.

Won't our pimply friends be disappointed when they tap in their card details only to find that they are taken to a site that really is about floral structure of the Orchidaceae?

Most probably. But by this stage, we'll have their money and they'll be too embarrassed and ashamed to warn their mates to avoid the site. Internet porn is a highly profitable business. If people can make money from virtual pornography, maybe we can make money from virtual virtual pornography. We can use this to fund serious education and outreach projects. Everyone wins.

Except the punters?

They are older and wiser.  
So they win too.

Naturally.

Thanks again for your time, Prof.





# Forthcoming Events

For more information on these events please see [www.ieem.net](http://www.ieem.net).

## Conferences

Date	Title	Location
21 <sup>st</sup> March 2012	<b>IEEM Spring Conference</b> Planning and Biodiversity: Developing Opportunities Through Change	Birmingham
13 <sup>th</sup> June 2012	<b>IEEM Summer Conference</b> Soil Ecology and Biodiversity	London
7-8 <sup>th</sup> November 2012	<b>IEEM Autumn Conference</b> Renewable Energy and Impacts on Biodiversity	Cardiff

## Training Courses

Mon 12 <sup>th</sup> March	Lichens, Fungi and Bryophytes: Ecology, Survey Techniques and Mitigation	Cleeve, Bristol
Mon 12 <sup>th</sup> March	Ecological Impact Assessment for Beginners	London
Tues 13 <sup>th</sup> - Wed 14 <sup>th</sup> March	Developing Practical Skills in Ecological Impact Assessment	London
Tues 20 <sup>th</sup> March	Making the Most of BREEAM and the Code for Sustainable Homes	London
Tues 20 <sup>th</sup> March	Ecological Impact Assessment for Beginners	Birmingham
Thurs 22 <sup>nd</sup> - Fri 23 <sup>rd</sup> March	Developing Practical Skills in Ecological Impact Assessment	Birmingham
Wed 22 <sup>nd</sup> March	Evaluation and Impact Assessment in Ecology	Sheffield
Sat 24 <sup>th</sup> March	Great Crested Newt Survey and Interpretation	Brockenhurst, Hampshire
Mon 26 <sup>th</sup> March	Great Crested Newt Survey and Interpretation	Brockenhurst, Hampshire
Tues 27 <sup>th</sup> March	Habitat Management for Reptiles	Hadleigh, Essex
Tues 27 <sup>th</sup> March	Crayfish in Britain: Natives and Invasive Non-Natives	Bayfordbury Field Station, University of Hertfordshire
Wed 28 <sup>th</sup> March	Evaluation and Impact Assessment in Ecology	Perth
Thurs 29 <sup>th</sup> March	Architectural Features and How They Relate to Bats	South Warwickshire
Thurs 29 <sup>th</sup> March	Working in Rivers: EA Permitting and Practice Standards	Sheffield
Fri 30 <sup>th</sup> March	GPS Field Data Collection	Cambourne, Cambridgeshire
Tues 3 <sup>rd</sup> April	Professional Ethics Masterclass	London
Wed 11 <sup>th</sup> April	Mosses and Liverworts of Heath, Mire and Acid Woodland	Newbury, Berkshire
Thurs 12 <sup>th</sup> April	Sampling and Identification of Freshwater Macroinvertebrates	Nottingham
Mon 16 <sup>th</sup> April	Bat Basics - Where and How to Find and Survey Bats	near Polegate, East Sussex
Tues 17 <sup>th</sup> April	Upland Farming for Ecologists and Environmental Managers	Hathersage, Hope Valley
Tues 17 <sup>th</sup> April	Introduction to Habitats Regulations Assessment	Chester
Tues 17 <sup>th</sup> - Wed 18 <sup>th</sup> April	Reptile Survey	Horndean, Hampshire
Thurs 19 <sup>th</sup> - Fri 20 <sup>th</sup> April	Introduction to Badgers and Badger Survey Techniques	Axminster, Devon
Mon 23 <sup>rd</sup> April	Bat Mitigation - Licensing Development	near Polegate, East Sussex
Tues 24 <sup>th</sup> - Wed 25 <sup>th</sup> April	Reptile Mitigation	Horndean, Hampshire
Wed 25 <sup>th</sup> - Thurs 26 <sup>th</sup> April	Beginning Professional Bat Work	Burnley
Mon 30 <sup>th</sup> April	An Introduction to Bat Survey	Dunblane, Scotland

## Geographic Section Events

Thurs 15 <sup>th</sup> March 2012	<b>Using Quality Compost in Landscape and Regeneration</b> South East England Section Event	Olympic Park, London, 1pm
Thurs 15 <sup>th</sup> March 2012	<b>Flowing Water Habitats: Basic Description and Assessment</b> Yorkshire and Humber Section Event	ECUS Ltd, Sheffield, 7-9pm
Sat 24 <sup>th</sup> March 2012	<b>Site Visit to Bewick Moor</b> - Is there a Caledonian Pine Forest in Northumberland? North East England Section	Beanley, Northumberland, 10:30am

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## Countryside Jobs Service

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