

JNCC

# Nature*News*

The national and international conservation digest

Issue 15: Summer 2007



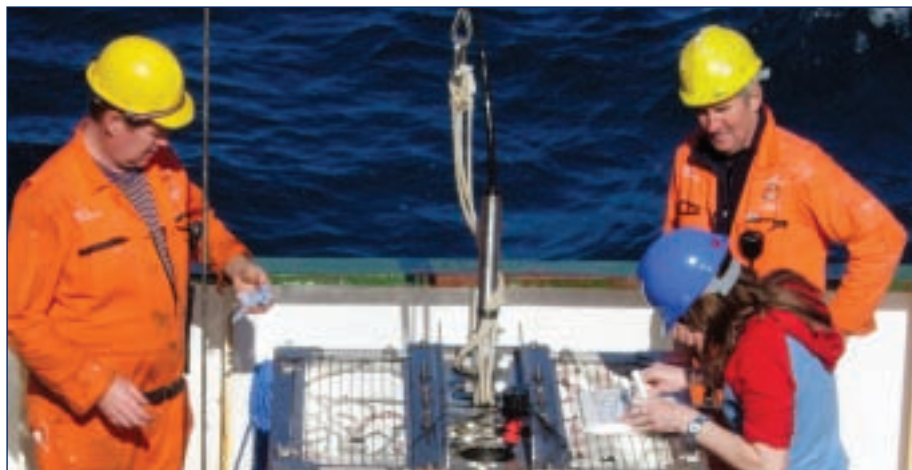
## Bird's-eye view of Overseas Territories



### ALSO FEATURING

- + Offshore comes to the fore
- + Biodiversity – climate interactions
- + Lowland grasslands

# Featured in this edition...



## All at sea

JNCC's Marine Team were involved in a survey to explore the deepwater canyons at the edge of the continental shelf, 320 km off Land's End directly between the UK, Ireland and France.

Day-to-day life on the survey vessel is revealed in Neil Golding's 'Deepwater Diaries'.

8



Striated caracara. © Stuart Ball/JNCC

## Conservation Conversation

Q & A with independent Committee member Professor Michael Usher.

16



## Mass movement

The latest title in the Geological Conservation Review (GCR) series, *Mass Movements in Great Britain*, provides an insight into the potential changes that the British landscape may incur in the future.

6



## UK Overseas Territories

As part of the work with the UK Overseas Territories, JNCC hosted an invasive species workshop for Overseas Territories governments and Non Governmental Organisations (NGOs).

10

## Green Transport Initiative

To cut carbon emissions produced by staff commuting to work, JNCC has introduced initiatives to reduce its environmental footprint.

4



This is one of a range of publications published by the Joint Nature Conservation Committee. JNCC advises the UK Government on national and international wildlife and conservation issues on behalf of the Countryside Council for Wales, Natural England, Scottish Natural Heritage and the Council for Nature Conservation and the Countryside.

*Nature News* is published three times a year, and informs its readers of the current work and projects being carried out by JNCC. Comment and feedback is much appreciated, so please email: [communications@jncc.gov.uk](mailto:communications@jncc.gov.uk), tel: +44 (0)1733 866839, fax: +44 (0)1733 555948 or write to: JNCC, Monkstone House, City Road, Peterborough PE1 1JY, UK.

You can find out more about the work of the JNCC by visiting our website at [www.jncc.gov.uk](http://www.jncc.gov.uk)

ISSN 1479-3857

© JNCC 2007

Printed on Evolution Satin, 75% recycled post-consumer waste paper, Elemental Chlorine Free.

Designed and printed by [statusdesign.co.uk](http://statusdesign.co.uk), 2M.

Front cover image: Variable hawk at Gypsy Cove, Falkland Islands. © Stuart Ball/JNCC

# Chairman's Intro



© JNCC

Welcome to the 15th edition of *Nature News*, JNCC's journal for all our customers and partners. Our extensive work with the Overseas Territories is featured in this issue, including the publication of *Valuing the Environment in Small Islands - An Environmental Economics Toolkit*, a joint project with the Overseas Territories Environment Programme (OTEP). JNCC also hosted a

workshop on invasive species in the UK Overseas Territories, involving representatives from the UK and OT governments, and non-governmental organisations.

The Offshore Marine Conservation Regulations will come into force shortly, and JNCC will be responsible for identifying suitable SACs and SPAs in offshore waters. Rare, endangered or vulnerable natural habitats and species will, for the first time, fall under the protection of the Habitats and Birds Directives. Another significant area of marine work has been the exploration of deep underwater canyons at the edge of the Continental Shelf. Neil Golding, a member of JNCC staff, has contributed a 'deepwater diary' to this issue, taking a look at life on an exploratory cruise, 320 km off Land's End between the UK, Ireland and France.

This will be the last time I am writing as Chairman of JNCC and I will be very sorry to leave. I have enjoyed the last three years greatly and have found JNCC a wonderful organisation to work for. Before I became Chairman, I knew of its high reputation for scientific rigour and technical expertise, but I had not appreciated how much fun it would be to work with such a gifted and dedicated staff.

I have been fortunate to preside over a very exciting time for JNCC with the establishment of the new support company, as well as the enlargement of its role to cover the whole of the United Kingdom, and the addition of two new independent members. It has been an exciting time for the country agencies too, with the creation of Natural England, and political changes in Wales, Scotland and Northern Ireland. At the UK level there has been rather too much political change. I have been answerable to four different Ministers in my three year term. Nature conservation is a long-term business and I hope that JNCC's present work on our vision for UK nature conservation will convince Government that it needs long-term commitment and a continuity of approach.

I will end by thanking all the staff and members of the committee for their support and by wishing my successor and JNCC all the best for the future.

Adrian Darby OBE  
Chairman, JNCC

## NEWS

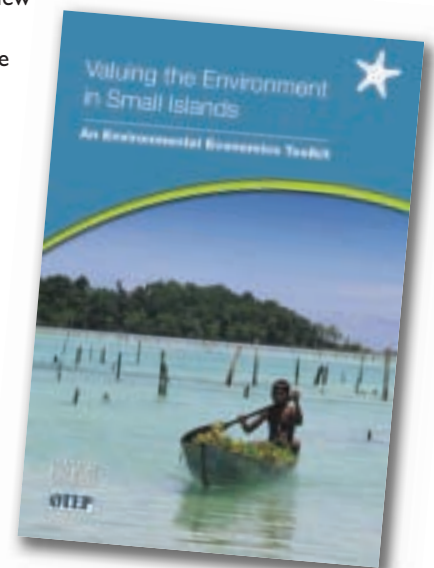
# Making a big difference in Small Islands

*JNCC publishes an Environmental Economics Toolkit*

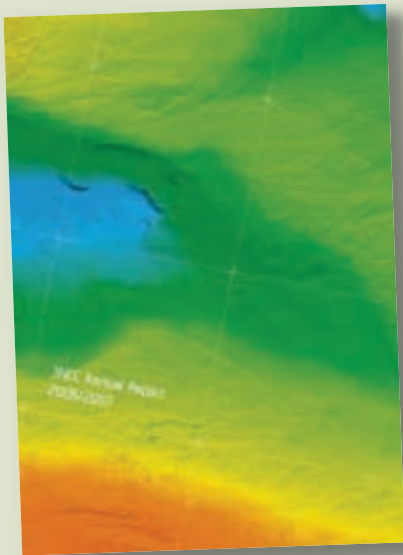
A new report has been jointly published by JNCC and the Overseas Territories Environment Programme (OTEP), entitled *Valuing the Environment in Small Islands - An Environmental Economics Toolkit*. This toolkit provides clear guidance on how the value of the environment can be estimated and incorporated into planning and development decisions. It is tailored for small islands, using illustrative case studies and customised tools. The toolkit is designed to be accessible and user-friendly for stakeholders without previous experience in this area. Although a large number of guides already exist on aspects of environmental valuation, none of these references specifically focus on the issues and needs of small islands. The toolkit was developed to fill this gap.

This work is part of JNCC's Environmental Economics with the Overseas Territories in the Caribbean (EEWOC) project, in partnership with a number of UK Overseas Territories in the Caribbean and OTEP. EEWOC will help stakeholders to address environmental issues by developing and providing training and technical support in environmental valuation and environmental economics. In the initial phase of the project, the toolkit was developed in collaboration with a group of pioneering partners in Bermuda, the Cayman Islands and Montserrat. These UK Overseas Territories plan to undertake environmental valuation studies over the next few years, but have no, or only limited, knowledge of environmental economics.

This work was jointly funded by JNCC and the Overseas Territories Environment Programme of the UK Foreign & Commonwealth Office and Department for International Development.



 Emily McKenzie  
Environmental Economics Adviser  
Tel: +44 (0) 1733 866918  
Email: [emily.mckenzie@jncc.gov.uk](mailto:emily.mckenzie@jncc.gov.uk)



## The full story and pictures

JNCC's *Annual Report 2006/2007* is now available. The cover may look extra-terrestrial in origin, but it is actually part of Earth's 'inner space'. It features an image created using bathymetry - the science of sounding, or measuring depths in the sea. The location featured is the Wyville Thomson Ridge in the Scottish Continental Shelf / Faroe-Shetland Channel Regional Seas. This image was obtained through a joint survey, forming part of the UK Department of Trade and Industry's offshore energy Strategic Environmental Assessment programme (funded and managed by the DTI and coordinated on their behalf by Geotek Ltd and Hartley Anderson Ltd). It is a contribution to the survey of areas of potential reef to support the implementation of the EU Habitats Directive in UK offshore waters (funded by Defra and managed on Defra's behalf by JNCC).

The *Annual Report* once again charts a hectic and rewarding year of activity at JNCC, as well as providing all the financial details of our performance as a comprehensive set of appendices. Copies are available free of charge upon request. If you would like a copy, please contact our Communications Team.



Communications Team  
Tel: +44 (0) 1733 866839  
Email: [communications@jncc.gov.uk](mailto:communications@jncc.gov.uk)

# Cycle to work scheme

Coinciding with Bike Week, 16-24 June ([www.bikeweek.org.uk](http://www.bikeweek.org.uk)) JNCC was delighted to announce the availability of a Government-approved scheme open to all its permanent employees to purchase a bicycle, free of tax, for commuting to work on. Considerable interest has been shown by staff in taking up this scheme, part of the Green Transport Initiative, which aims to cut carbon emissions produced by people commuting to work. Dovetailing in with this

is the installation of showers in the JNCC Peterborough offices, providing further support to those people who are able to cycle, jog or walk to work! Malcolm Vincent, Director of Science said, "I welcome these introductions which will lower JNCC's environmental footprint, whilst encouraging healthier and more motivated employees. JNCC has a commitment to lead by example, and we hope to encourage other companies to follow suit."



© JNCC

## New challenge for plants

Following a conference in 2006, an update report on progress in meeting the UK Plant Diversity Challenge has been published. *Plant Diversity Challenge* is the UK response to the Global Strategy for Plant Conservation. The new publication identifies successes and challenges from the last three years of work, and provides ten recommendations to help in meeting the targets by 2010. Among these recommendations, there is a particular emphasis on the need for landscape-scale conservation initiatives, including within production lands, in order to increase ecological resilience and help landscapes adapt to climate change and other impacts. There is also a greater need to examine the UK ecological footprint on plant resources around the world. The report was launched at an international meeting in Paris, at which an in-depth review of the Global Strategy for Plant Conservation was taking place.



Chris Cheffings  
Plants Adviser  
Tel: +44 (0)1733 866805  
Email: [chris.cheffings@jncc.gov.uk](mailto:chris.cheffings@jncc.gov.uk)

# Offshore comes to the fore



The European Habitats and Birds Directives have been the driving force behind the protection of many rare, endangered or vulnerable natural habitats and species within the UK, through their designation of Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). Together there are over one hundred such sites with a marine component. However, because legislation did not fully transpose the Habitats or Birds Directive beyond UK territorial waters (up to 12 nautical miles from shore), the offshore zone beyond that has not yet fully benefited from such protection.

Defra have worked hard over the last few years to remove this anomaly through the Offshore Marine Conservation Regulations 2007 (the 'Offshore Regs'), which are due to come into force on 21st August 2007. Under this legislation JNCC will be responsible, among other things, for identifying suitable SACs and SPAs in offshore waters, advising these to Government, handling the formal public consultation on the sites, and providing ongoing conservation advice to Competent Authorities for these areas.

JNCC has been working for some time on a programme to identify areas which qualify as SACs for their habitats in UK offshore waters. Seven of these (see diagram) will be put forward in the first round of consultations on offshore marine SAC sites at the end of 2007. For information on this formal consultation process see [www.jncc.gov.uk/marineconsult](http://www.jncc.gov.uk/marineconsult).

After this process the sites will be put forward to the European Union for designation as Sites of Community Importance, SCIs, and eventually will be adopted by the UK as SACs. Once the sites are submitted by UK Government to the European Commission, the sites fall under the protection of the Offshore Regs, with activities which might impact on them being carefully controlled by the competent authorities, which issue licenses or regulate activities within or adjacent to the SACs.

The identification of areas potentially suitable as SACs has been supported by several collaborative surveys to date (for example the MESH cruise, see centre pages) and there is an ongoing survey programme to provide information to enable us to complete a network of offshore sites. Additional work is attempting to identify areas which would qualify as SACs due to them containing habitats vital to species listed by the Habitats Directive; and areas which would qualify as SPAs to protect species listed by the Birds Directive. The process of identification of SPAs wholly or partly offshore is currently at a very early stage, and none will be put forward for consultation in 2007.

When the Offshore Marine Conservation Regulations come into force rare, endangered or vulnerable natural habitats and species in the vast UK offshore area will – for the first time – fall under the protection of the Habitats and Birds Directives. Not only will this provide much needed protection through careful management, but it will also be the fruition of much hard work by both JNCC and its partners.

## *Habitats or SACs in the offshore area*

 Charlotte Johnston  
Marine Sites and Strategy  
Tel: +44 (0) 1733 866905  
Email: [charlotte.johnston@jncc.gov.uk](mailto:charlotte.johnston@jncc.gov.uk)

## *Species protection measures*

 Mark Tasker  
Head of Marine Advice  
Tel: +44 (0) 1224 655701  
Email: [mark.tasker@jncc.gov.uk](mailto:mark.tasker@jncc.gov.uk)

# Landslides for JNCC

*Mass Movements in Great Britain, Volume 33 of the GCR series, published*

The latest volume of the GCR series, *Mass Movements in Great Britain* (by RG Cooper), has been published. Mass-movement features are associated with the down-slope movement of material – sediment and rock – at or near the land surface; the larger movements are generally described as 'landslides'; cliff falls are a type of mass movement. Describing over 30 sites across Great Britain, this new book provides information on relict and active mass movements that have been important in developing our understanding of the processes at work. The features range from

relatively minor, small-scale and gradual occurrences to large-scale, episodic and catastrophic events. Some of these events have even reached the headlines, having caused disruption to railways and roads as seen at Folkestone Warren and Mam Tor, or having led to the destruction of homes, businesses and agricultural land.

Several of the sites described have great historical importance, such as the Bindon Landslide of 1839, considered to be the most renowned area of landslipping in Britain and described as 'the most

dramatic landslide ever to occur in Great Britain'. The Bindon Landslide was the first ever landslide to be recorded scientifically and it was a key event in the understanding of the nature of landslides. On Christmas Eve, 1839, a massive section of cliff – some 100 m wide, 50 m deep and 100 m long – tore free from the mainland and slid seaward, causing a great chasm to form at the back of the landslide. Small-scale landslides still occur in this area, and indeed mass movements are prevalent at numerous locations along the Dorset coast, and other cliffed coasts, today.

## Getting real on greenhouse gases

*JNCC makes the links between Climate Change and Biodiversity*

**Climate change is unequivocal. These words from the Intergovernmental Panel on Climate Change (IPCC) have reverberated throughout the world as the most definitive warning of the impact humans are having on the global climate. The Stern Report, the G8 and the UN have all reiterated this. As climate change continues to move up the agenda we must remain focused on the task at hand: support actions to mitigate greenhouse gas emissions and actions towards adaptation.**

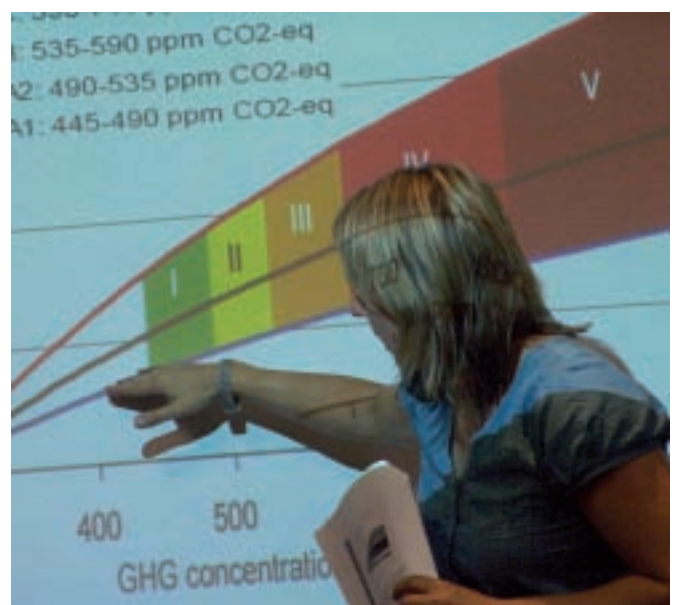
Biodiversity and climate change are intimately linked. Ecosystems such as forests, peatlands, oceans and wetlands soak-up and store vast amounts of greenhouse gases, and land use changes in these systems account for between 18 - 25% of global greenhouse gas emissions. Likewise biodiversity plays an important role in enabling adaptation to a changing climate. Coral reefs, mangroves and wetlands protect coastal zones against storms. Genetic diversity of, for example, agricultural crops will enable diversification under a changed climate. Conserving and sustainably managing biodiversity will better prepare our planet to adapt to the future stresses of climate change.

The importance of biodiversity and climate interlinkages was highlighted at an international workshop at the Royal Society, reported separately in this edition of *Nature News* (see page 13). JNCC also recently hosted a workshop in celebration of International Biodiversity Day, to raise awareness of these interlinkages, as well as providing an overview of the IPCC reports.

Coupled with existing drivers of biodiversity loss, climate change will have a dramatic impact on our environment and the way we manage it. JNCC is working through the Inter-Agency Climate Change Forum (with members from the four country agencies) to examine ways we can collectively address this issue in the UK. In the UK Overseas Territories, JNCC is supporting work to mainstream adaptation in the Caribbean region while drawing upon the ecosystem approach.

Climate change is real. Climate change will get worse. We need to manage our environment with this in mind. We need to adapt. We need to be innovative in our solutions in mitigation, and ensure that such solutions are not detrimental to the wider environment. We need to work together with scientists and policy makers to ensure our future trajectory is a sustainable one.

 Karen Dickinson  
Climate Change Adviser  
Tel: +44 (0) 1733 866916  
Email: karen.dickinson@jncc.gov.uk



JNCC's Climate Change Adviser Karen Dickinson © JNCC

The volume is intended to be a stimulus to those involved in the study of the evolution of the landscape and those involved in land management. Of particular importance is its demonstration of how mass movements, active in earlier periods, have been reactivated by both environmental changes and anthropogenic interventions. As such, it provides an insight into the potential changes that the British landscape may incur in the future.

RG Cooper, *Mass Movements in Great Britain*  
 ISBN-10: 1 86107 481 6  
 ISBN-13: 978 1 86107 481 2

Price: £45. Available from [www.nhbs.com](http://www.nhbs.com)

 Emma Durham  
 GCR Production Editor  
 Tel: +44 (0) 1733 866908  
 Email: [emma.durham@jncc.gov.uk](mailto:emma.durham@jncc.gov.uk)



Mam Tor © Mick Murphy/Natural England



Harvesting glass eels on the River Parrett  
 © Andy Don/ Environment Agency

Species subject to commercial fishery or timber harvests dominated much of the agenda. Ultimately, amongst the seven fish and aquatic invertebrate proposals, only two taxa were listed, namely all the sawfish (*Pristidae*) on Appendix I (with one species on II) and European eel on Appendix II. Advice on such proposals is provided by an independent specialist panel appointed by the Food and Agriculture Organisation of the United Nations (FAO) – it is no coincidence that these two taxa were the only ones recommended for adoption by the panel. European eels have declined significantly over recent years and adoption of the listing proposal coincided with the adoption by the European Community of an Action Plan for the species. The listing will come into force in March 2009, and will have significant implications for EC CITES authorities – much of Europe's catch of glass eels is exported live for aquaculture to eastern Asia. Instead of our typical role as an importer of CITES species, the UK will become a significant exporter of wild-caught specimens.

Otherwise, the CoP was notable for its renewal of the CITES strategic vision with reference to reducing the rate of biodiversity loss, the recognition that CITES needs to take account of the impact on livelihoods of any decisions it reaches and, perhaps most significantly, a pan-African consensus on a way forward over the ivory trade. The ivory trade issue is particularly divisive, but the agreed compromise will allow, with conditions, the four southern African countries with elephants on Appendix II to include ivory stockpiled up until 1 January 2007 to the one-off sales volumes agreed in 2002, followed by an agreed resting period of nine years during which no more ivory will be traded. The impact of the one-off sales will be monitored, and a decision-making mechanism will be established for future trade in ivory. The next few Conferences may not be as dominated by ivory as in the past, and may enable African countries to engage more fully in other aspects of the CITES debate.

## CITES CoP 14 at The Hague

The 14th Conference of the Parties (CoP) to CITES met at The Hague, The Netherlands, in June 2007. The event attracted over 1,200 participants representing over 150 governments and a broad suite of inter- and non-governmental organisations. On the agenda were 37 proposals to amend the Appendices and 70 other items. Vin Fleming and Alison Littlewood from JNCC advised the Defra-led UK delegation on scientific issues relating to fauna. An innovation at this CoP, for CITES, was a ministerial segment which addressed CITES' role in enforcement and the regulation of trade in fisheries and timber species. Barry Gardiner MP, Minister for Biodiversity, participated in this for the UK.

 Vin Fleming  
 Global Programme Leader  
 Tel: +44 (0) 1733 866870  
 Email: [vin.fleming@jncc.gov.uk](mailto:vin.fleming@jncc.gov.uk)

# Candid canyon camera captures coral

Earlier this year, JNCC's Marine Team conducted a survey to explore the deep underwater canyons at the edge of the continental shelf, 320 km off Land's End, directly between the UK, Ireland and France. This collaborative cruise, within the MESH project ([www.searchMESH.net](http://www.searchMESH.net)), tested the standards and protocols developed under that project and will add marine habitat information for a previously unmapped area, plus feed vital information into the process of identifying areas suitable for being put forward as Special Areas of Conservation under the European Marine Natura 2000 programme. The survey, conducted in association with the British Geological Survey and the Irish Marine Institute, was an excellent example of the transnational cooperation work supported by the INTERREG funding programme, [www.nweurope.org](http://www.nweurope.org).

The survey vessel Celtic Explorer © Neil Golding/JNCC



## The Golding Deepwater Diaries

Marine Sites Survey Manager Neil Golding kept a diary of his time at sea....

### Tuesday 5th June

Rudely awoken at 5am by the sound of the ship's engines. Escorted out of Cobh harbour by dolphins jumping off the bow; hopefully a good omen. Spent day testing and setting up equipment. Two stowaway pigeons joined us on board (and stayed until the end of the survey).

### Wednesday

Glorious weather... sunny and calm. Equidistant from Ireland, UK and France (approx 200 nautical miles away). First shift of multibeam operations (sophisticated acoustics to 'see through' the water used to look at the shape and structure of seabed) started at 9:30.

### Thursday

Multibeam data collected overnight looks amazing. Prepared for video work tomorrow (can't wait to get a close-up look).

### Friday

Up at 6:45am to prep the camera gear. The first site was the shallowest at 200 m, on what we suspected as a sediment plain on Brenot Spur. All went well... and then the camera started cutting out. After the last photo, when we reached the 500 m tow mark, the system shorted completely!

### Saturday

After several attempts the camera was fixed and we did six camera tows (one was down to 1,000 m)... long day, 17 hours.

## MESH seabed success



Representatives from JNCC's Marine Team (from left): Neil Golding (Marine Sites Survey Manager), Natalie Coltman (Marine Mapping Scientist), Beth Stoker (Marine Support Officer) and David Connor (Head of Marine Habitats). © Gez Thulbourn/ JNCC

Just as accurate maps of ecological habitats are essential to assist land-based project planning and avoid environmental damage, so detailed marine habitat maps are becoming increasingly important. Marine industries, such as oil and gas exploration, aggregate extraction, fishing, aquaculture and coastal activities of all kinds, place increasingly significant demands on our marine resources. Underwater habitat mapping is essential for the protection of Special Areas of Conservation (SACs), and plays a key part in the move towards an ecosystem approach to holistic resource management. Seabed mapping is now a major tool to assist decision-making in the marine environment, and the move towards marine spatial planning has created a greater demand for seabed habitat maps.

Mapping European Seabed Habitats Project (MESH) has addressed this need by producing the first unified seabed habitats maps for north-west Europe. Delivered via the MESH webGIS, an online web mapping tool ([www.searchMESH.net/webGIS](http://www.searchMESH.net/webGIS)), it is producing guidance on best practise for future seabed mapping studies. Now nearing the end of the three-year project, the MESH Project Partners, led by JNCC, organised an international

## Sunday

Continued camera work (to validate the multibeam view of the seabed with a visual inspection).

One of the camera tows targeted an area of "mini mounds" (10 m high and 80 m wide). We recorded many trawl marks around them and regular patches of coral debris – may have been coral mounds but had been trawled in the past. There may have been similarities between these mounds and the Darwin mounds.

Beautiful sunset: a pod of five or so pilot whales spotted off the stern.

## Monday 11th June

Multibeaming until after lunch, followed by camera work. The last camera site was amazing, with sheer cliffs and crevasse of limestone, with a dusting of silt.

## Tuesday

Major drama, almost lost the camera in a deep tow at 900 m! We suspect it was snagged on an 'obstruction' mid-water. Luckily after much nervous manoeuvring for an hour we managed to retrieve it! Multibeaming overnight.

## Wednesday

Finally struck gold...or coral. There was a lot of dead coral on which living coral was growing; possibly *Madrepora* and *Lophelia*. Got some excellent pictures with the stills camera – although there was a lot of tension in the air as we were hovering above the reef, trying to get close for good pictures but not so close as to risk damaging the reef.

## Thursday

Final set of multibeaming commenced – to be finished by lunch tomorrow, before camera work to be done for the remainder of the time – including some overnight camera work.

## Friday

On the night shift from 8pm to 8am. Very tired, although the night went fairly quickly, and managed to get eight camera tows done.



Interpreting data on board the Celtic Explorer © Neil Golding/JNCC

## Saturday

Finished up survey with camera drops in the Irish sector. Wrapped up camera work at 00:45, with camera back on board just before 1am. After downloading the images, managed to get to bed just before 2am.

## Sunday

Steaming back to Galway. Spectacular scenery as we passed the SW coast of Ireland. Spent the day archiving data onto the portable hard drives from the network.

## Monday 18th June

Up early to see the boat sail into Galway harbour: a really tight squeeze! Unloaded, debriefed and then went for a well deserved beer, the first in 15 days. Here's to a really successful survey!

Joint copyright © 2007 Defra, JNCC, Marine Institute, BGS. These data were recorded during a collaborative survey involving the Joint Nature Conservation Committee, the Marine Institute and the British Geological Survey. Defra Natural Environment Group Science Division (CRO 361) made a financial contribution to this work. This work contributes to the MESH project ([www.searchmesh.net](http://www.searchmesh.net)) that receives European Regional Development Funding through the INTERREG III B Community Initiative ([www.nweurope.org](http://www.nweurope.org)).

conference hosted by the Marine Institute in Ireland. This promoted the common framework developed by MESH for seabed habitat mapping. Over 200 delegates from more than 20 countries gathered at Dublin Castle in March 2007, to hear presentations, see demonstrations of MESH outputs, and review displays, on a broad range of marine mapping subjects, from both Project Partners and Stakeholders.

Keynote speaker, Professor Gary Greene (Moss Landing Marine Laboratories, USA), opened the conference with an inspiring presentation describing how habitat mapping has supported environmental management in the US. Over two days, delegates heard a diverse range of presentations, from the use of maps in a European policy management context, to how to scope and plan surveys, to the benefits of transnational cooperation. Professor Greene concluded:

*"The products that have been produced in MESH are truly remarkable. Conversion of all those maps that we saw yesterday is just a daunting task and to do that, even tackle that problem, is very amazing. The products you have produced, the guides, the tool kits and all that, are going to be valuable, not only here in Europe but they are going to be valuable in the US as well".*

The conference provided a valuable insight into the progress and developments emerging from this successful European project. These will have many implications for decision making and marine management in the years to come, particularly in view of emerging marine policy. Deryck Steer, JNCC's Managing Director closed the conference, commenting:

*"MESH have created a momentum and it's with a wider partnership ... that stretches across many countries... I think it is powerful enough to become a lasting momentum and has started a wider debate on the importance of marine information".*

The conference presentations, minutes and proceedings are available to download from the MESH website:

[www.searchMESH.net/conference](http://www.searchMESH.net/conference)

MESH is partly funded through the North West Europe INTERREG IIIB Fund.



Sarah Young  
Marine Ecologist (MESH & OSPAR)

Tel: +44 (0) 1733 866842

Email: [sarah.young@jncc.gov.uk](mailto:sarah.young@jncc.gov.uk)

Website: [www.searchMESH.net](http://www.searchMESH.net)





JNCC's invasive species workshop. © JNCC

# Action on overseas invaders

*JNCC plays host to workshop on invasive species in the UK Overseas Territories*

**In June 2007, 35 people from various UK and Overseas Territories (OTs) governments and Non Governmental Organisations (NGOs) gathered at the Peterborough headquarters of JNCC. The occasion was a workshop on invasive species in the UK Overseas Territories, with the main body of discussions divided into three sessions.**

The first, a general overview, looked at the way in which the work carried out on

*Blue iguana. © Vin Fleming/JNCC*



invasives in the UK might have relevance to the OTs. Potential funding sources, and possible methodologies for strategic prioritisation, were high on the agenda.

The second session considered current and potential future regional invasive species projects in the OTs. Presentations included:

- St Helena's EU 9th European Development Fund (EDF) funded, Royal Society for the Protection of Birds (RSPB) managed, South Atlantic Invasive Species Project (SAISP);
- Royal Botanic Garden Kew's work in the Caribbean; and
- CABI's Global Environment Facility (GEF) regional Caribbean project.

Those assembled also considered a review of invasives in the tropical Atlantic that had relevance to the OTs.

The third session looked at tools and cases studies. The main tool under consideration was the OT invasives database, and how it might be improved. Case studies were presented on:

- the Gough island mouse eradication feasibility study, where mice are currently eating young albatross chicks alive;
- an overview of invasives in the Falkland Islands,
- invasives in the Cayman islands, where three invasive species have three native counterparts making public awareness incredibly difficult – this example has become known as 'the good iguana versus the bad iguana'.

Throughout the day, there were lively discussions and interesting thoughts on possible ways forward. All of the information will be fed back to the participants, as well as governments and NGOs in the Overseas Territories. Working groups will be formed to move forward some of the key action areas identified.

For more details about the workshop please visit the JNCC website – [www.jncc.gov.uk/page-4079](http://www.jncc.gov.uk/page-4079)

 Tara Pelembe  
JNCC Overseas Territories Officer  
+44 (0) 1733 866820  
Email: [tara.pelembe@jncc.gov.uk](mailto:tara.pelembe@jncc.gov.uk)

# “Mind the gaps” urge biodiversity experts

**JNCC is at the forefront of efforts to improve coordination of biodiversity research, providing the Secretariat for the UK Biodiversity Research Advisory Group (UK BRAG, [www.ukbrag.org](http://www.ukbrag.org)) and the Global Biodiversity Sub Committee (GBSC, [www.ukgecc.org/dvl\\_Biodiversity.htm](http://www.ukgecc.org/dvl_Biodiversity.htm)) of the UK Global Environmental Change Committee (GECC). UK BRAG addresses issues at a UK and European level, while GBSC focuses on the contribution that the UK science community can play to tackling global biodiversity issues.**

UK BRAG has completed a three-year programme of work, identifying knowledge gaps and biodiversity research priorities for a series of cross-cutting issues:

- Socio-economic issues.
- The role of biodiversity in ecosystem function.
- Monitoring and surveillance of biodiversity and evaluation of actions.
- Habitat and ecosystem management.
- Conservation of genetic diversity.
- The impact of non-native species.
- Climate change and adaptation.

A summary report for policymakers is currently in preparation, and a new website has been launched to provide users with access to key reports and research papers associated with these themes ([www.ukbrag.org](http://www.ukbrag.org)).

A Country Liaison Sub-Group has been established, to maintain a link with the UK BAP groups in each country, ensuring that their research needs are addressed; and further sub-groups are being convened to consider marine biodiversity and the provision of goods and services, and deriving policy benefits from EU Framework Programmes.

The GBSC has recently collaborated with The Royal Society, to organise an international workshop on the interactions between biodiversity, climate and human livelihoods (see separate article on page 13). This builds upon previous work by the GBSC, which looked at biodiversity research needs associated with the Millennium Ecosystem Assessment, and demonstrates the group's commitment to establishing networks across research and policy disciplines. The GBSC has also collated information on UK leads and scientific input to international conventions, in order to clarify the actions of various organisations and government departments and improve their effectiveness.

In addition, the GBSC has completed work to identify the state of knowledge and research needs associated with ocean acidification, recognising that significant gaps still exist. A similar exercise on invasive non-native species highlighted their particular importance as a driver of biodiversity loss in island ecosystems, and has led to new work to identify the research priorities and capacity issues for the UK's Overseas Territories.

For further information on the GBSC's activities, visit their website at [www.ukgecc.org](http://www.ukgecc.org)

 Richard Ferris  
Biodiversity Research Coordinator  
Tel: +44 (0) 1733 866820  
Email: [richard.ferris@jncc.gov.uk](mailto:richard.ferris@jncc.gov.uk)

 Elizabeth Moore  
Biodiversity Officer  
Tel: +44 (0) 1733 866861  
Email: [elizabeth.moore@jncc.gov.uk](mailto:elizabeth.moore@jncc.gov.uk)



# A touch of habitat classification

## Lowland Grasslands in Europe and the UK

The EU Habitats Directive Annex I habitat, *Molinia meadows*. © John Rodwell

How do you identify habitats and sites for conservation? The answer is that you need a robust, widely accepted method of **habitat classification**, which has to be both:

- detailed enough to capture key differences, and link them meaningfully to site management and history; and
- comprehensive enough to be able to use to evaluate and compare sites.

In Great Britain, at least for terrestrial habitats, the core tool is the National Vegetation Classification scheme (NVC), which was developed in the 1980s and published by JNCC and Cambridge University Press in the 1990s. It has since become the benchmark for site evaluation and in many academic studies.

Ideally any classification system should be comparable to those used in neighbouring countries, and because NVC is based on data collected to a consistent standard it is proving itself fit for this purpose too.

The report, *The European context of British lowland grasslands*, has a principal author who took the lead on development of the NVC, and is a distinguished expert on European habitats. It covers habitats of crucial importance for nature conservation in farmed landscapes, and explores and compares the characteristics of lowland grasslands in the UK. It puts the different types, and the conservation challenges facing them, into a pan-European context and outlines ways in which the UK could contribute to developing networks and partnerships.

The report also puts these grasslands into their policy context. Maps of the UK show the different NVC communities as components of Biodiversity Action Plan (BAP) priority habitats (for example *Molinia meadows*). Maps of the European Union show coverage of the protected Habitats Directive grasslands in the *Nature 2000* network of European protected sites.

We believe that this is the first time that maps have been published of two key datasets:

- coverage of particular habitats in Natura 2000 across Europe; and
- occurrence of NVC grassland communities or their nearest counterparts in Northern Ireland.

The preparation of this report was funded by English Nature and Natural England, and datasets were contributed by specialists in all four UK country conservation agencies. Vegetation specialists across Europe also participated in the study.

Rodwell, JS, Morgan, V, Jefferson, RG & Moss, D. 2007. *The European context of British Lowland Grasslands*. JNCC Report No 394. Downloadable from [www.jncc.gov.uk/page-3922](http://www.jncc.gov.uk/page-3922).

 Vicky Morgan  
Senior Habitats Adviser  
Tel: +44 (0)1733 866830  
Email: [vicky.morgan@jncc.gov.uk](mailto:vicky.morgan@jncc.gov.uk)

## Mammal pilots on trial!

### Tracking Mammals Partnership – 2007 update

The Tracking Mammals Partnership (TMP) is now in its fifth year of existence and a 'UK Mammals Update 2007' has been published with funding provided by JNCC, giving recent trend information (since 1995) for 35 terrestrial mammals, around 55% of our land mammal fauna, including 26 native species and nine introduced species. For some of the species not currently covered by national surveillance schemes, trends can sometimes be estimated or inferred from other sources.

Thirteen native species, mole, greater horseshoe bat, lesser horseshoe bat, Natterer's bat, Daubenton's bat, common pipistrelle, stoat, weasel, badger, otter, pine marten, polecat and roe deer have increasing populations. However, five of the most invasive introduced species, grey squirrel, common rat, sika deer, fallow deer and muntjac also have increasing populations, which in some cases can pose a threat to native wildlife. There is bad news for some of our native species with continued declines since 1995 for hedgehog, water vole, hazel dormouse, wildcat and red squirrel.

Whiskered bat, Brandt's bat, serotine, noctule, soprano pipistrelle, brown long-eared bat, brown hare, mountain hare, Irish hare, house mouse, feral cat and red deer all have stable populations. For fox and mink the situation is unclear at present with conflicting results from surveillance schemes.

Small mammals (voles, shrews and mice) are the most important gap in the surveillance effort, given the functional niche they fill and their potential to indicate important environmental changes. Pilot surveillance is underway in an attempt to provide information on this group of species.

Habitat loss and alien invasive species are the most obvious continuing pressures on UK mammals. Habitat loss and fragmentation are thought to be major contributors to the continuing (or probable)

# Biodiversity-climate interactions: adaptation, mitigation and human livelihoods

**In June, the Royal Society hosted a meeting to investigate the potential role for biodiversity management in climate change mitigation and adaptation. The meeting brought together experts from the biodiversity, climate change, and sustainable development policy and scientific communities to identify opportunities to maximise ecosystem management to benefit climate change, biodiversity, and human well-being policy objectives.**

The meeting was hosted in collaboration with The Global Biodiversity Sub Committee of the UK Global Environmental Change Committee (GECC-GBSC) to which JNCC provides the Secretariat. The Committee was represented by JNCC, Defra, Department for International Development (DFID), The Royal Botanic Gardens Kew, and National Environment Research Council (NERC), with additional support from the Hadley Centre for Climate Research.

The meeting:

- Raised the profile of biodiversity as a key component within the climate change issue and encouraged decision makers to consider biodiversity, climate change and human livelihoods together when developing strategies for sustainable development, the protection of biodiversity, and reducing the impacts of climate change.
- Identified key areas in which biodiversity, climate change, and sustainable development science and policy can be coordinated.
- Explored the role and function of biodiversity and ecosystems in the climate system.
- Considered the interactions between human livelihoods, the biosphere and climate in terms of functions and impacts.
- Considered the role that biodiversity should play in climate change adaptation and mitigation strategies.

The meeting was attended by policy and science specialists from countries including some of the least developed nations, such as Sudan, Tanzania, Bangladesh and the Philippines. Keynote speeches

decline of water shrew, hedgehog, hazel dormouse, water vole and harvest mouse and could be a problem for other small mammal species. The threat posed by a number of invasive alien mammals (grey squirrel, mink, feral cat, sika deer, muntjac) to native mammals such as red squirrel and water vole and other components of UK biodiversity is a serious problem to habitats and species alike.

JNCC is working in partnership with other organisations to provide data from multi-species schemes including the Bat Conservation Trust/JNCC National Bat Monitoring Programme, the Game Conservancy Trust National Gamebag Census, and the British Trust for Ornithology/JNCC/RSPB Breeding Bird Survey. Single species schemes such as the National Dormouse Monitoring Programme and Water vole Key site Monitoring are run

*The fox is one of our most common and widespread carnivores. There have been long-term increases in populations, but the trend since 1995 is unclear and could be stable or declining. © Colin Seddon/naturepl.com*

through a partnership between Natural England and People's Trust for Endangered species. JNCC continues to provide major support to the partnership through the TMP coordinator role.

For more information see the Tracking Mammals website  
[www.trackingmammals.org](http://www.trackingmammals.org).

 Jessa Battersby  
Tracking Mammals Project Coordinator/  
Species Adviser  
Tel: +44 (0) 1733 866808  
Email: [jessa.battersby@jncc.gov.uk](mailto:jessa.battersby@jncc.gov.uk)



Attendees at the Royal Society meeting (from left): Chris Ellis from the Royal Botanic Garden, Edinburgh, the Met Office's International Business Manager Philip Beauvais and Marcus Yeo, JNCC's Director of Resources and External Affairs. © Richard Ferris/JNCC

were provided by Barry Gardiner MP, Minister for Biodiversity, Landscape and Rural Affairs and Dr Ahmed Djoghlaif, Executive Secretary, Convention on Biological Diversity.

A summary of the outcomes of the workshop was presented at a side event of the July meeting of the Convention on Biological Diversity's Subsidiary Body on Scientific, Technical and Technological Advice. The summary was submitted as an information document at the meeting and is available at [www.cbd.int/doc/meetings/sbstta/sbstta-12/information/sbstta-12-inf-19-en.pdf](http://www.cbd.int/doc/meetings/sbstta/sbstta-12/information/sbstta-12-inf-19-en.pdf). A science report, produced by The Royal Society will be available at the United Nations Convention on Climate Change (UNFCCC) Conference of the Parties in December 2007. Copies of the speakers' presentations will be available shortly at [www.royalsociety.ac.uk](http://www.royalsociety.ac.uk)

 Richard Ferris and Elizabeth Moore  
UK BRAG and GBSC Secretariat  
Tel: +44(0) 1733 866820/866861  
Email: [richard.ferris@jncc.gov.uk](mailto:richard.ferris@jncc.gov.uk) / [elizabeth.moore@jncc.gov.uk](mailto:elizabeth.moore@jncc.gov.uk)



# Updating the register

## Seabird database gets a facelift after 21 years

In 1986, the then Nature Conservancy Council launched, with the Seabird Group, the Seabird Colony Register (SCR) – a database of all the seabird colonies in Britain and Ireland. Twenty one years later the SCR has been revamped and published online at [www.jncc.gov.uk/smp](http://www.jncc.gov.uk/smp) (to access the information you'll need to go through a simple registration process). The New SCR now contains over 38 years of data (1969-2006) and will soon be updated with the latest counts from 2007, conducted as part of UK's Seabird Monitoring Programme (SMP) coordinated by JNCC in partnership with ten other organisations. Seabirds are long-lived – many still around today are older than the SCR, therefore it is important that we maintain such long-term datasets, against which future trends can be assessed.

Users of the new SCR will be able to view maps and satellite images of the exact locations of where the data were collected. Earlier this year, contributors to the SMP were, for the first time, able to enter their counts online and some 1,500 records counts have so far been entered in this way. Online recording is helping to reduce the amount of paper records and increase the speed and consistency of data submission. It will also allow for publications based on the SMP, including *Seabird numbers and breeding success in Britain and Ireland* and *UK Seabirds*, to be published more efficiently, thus getting the results to the end-users quicker. Future enhancements to the site will enable users to make interactive data searches and will provide summary tables and plots of the data.



A sample page from the database.

## UK Seabirds update – new fish on the block are hard to swallow!

In May, JNCC published *UK Seabirds in 2006*, the latest edition of a leaflet summarising the results from the Seabird Monitoring Programme. Seabirds on the west coast of Britain had their second successive poor season; for some colonies it was the worst on record. This was surprising since these colonies appeared unaffected in 2004, when colonies on the east coast experienced widespread breeding failures



that made front-page headlines. Throughout the rest of the UK, breeding seabirds were only slightly more successful in 2006 than they were in 2004 and 2005, which were the worst seasons on record. Guillemots suffered from widespread poor breeding success, although those in the Northern Isles fared better than in 2004 and 2005. Kittiwake breeding numbers in the UK reached a new record low and breeding success was generally poor. In contrast, shag numbers started to recover from the effects of a large mortality event in the North Sea in early 2005 and they bred relatively successfully. The previously scarce snake pipefish appeared in the diets of many species in some regions in 2006 (Harris *et al.* 2006. *A major increase in snake pipefish (Entelurus aequoreus) in northern European seas since 2003: potential implications for seabird breeding success. Marine Biology Vol. 151, No 3 / May 2007, pages 973-983*). This fish is thought to be much less nutritious than the seabirds' normal diet and causes some chicks to choke to death; despite this, seabirds repeatedly but unsuccessfully fed them to their chicks. The reasons for the appearance of snake pipefish in UK waters and the implications for the marine ecosystem are unknown, but seem not to be related to increases in sea temperature.

Brown rats were successfully eradicated from the Isle of Canna (NW Scotland) in 2006; it is hoped that this will lead to a recovery of Manx shearwaters, which formerly bred there in large numbers.

At the time this *Nature News* went to press many seabirds were still at the height of breeding, but the latest information from some of the biggest colonies suggests that seabirds in 2007 are again experiencing difficulties. For example, guillemots in some Scottish colonies are likely to raise very few chicks – probably due to insufficient food supply – and breeding numbers are suppressed. The indigestible pipefish has again appeared in seabirds' diets, further suggesting a shortage of their preferred high-energy prey such as sprats and sandeels. Puffin burrows have been flooded by the heavy rains in some areas. Preliminary data from Wales indicate that birds are faring better there, with high-quality fish being fed to chicks.



Matt Parsons

Seabird Monitoring Programme Coordinator

Tel: +44 (0) 1224 655715

Email: [matt.parsons@jncc.gov.uk](mailto:matt.parsons@jncc.gov.uk)

# Data analysis for the birds

*Bird Numbers 2007 Monitoring for Conservation and Management: International Conference of the European Bird Census Council, Italy 2007*

**The European Bird Census Council (EBCC) is an association of expert ornithologists who cooperate with the aim of improving bird monitoring to better inform management and conservation of birds in Europe. EBCC hosts a themed international conference every three years to encourage the sharing of expertise (including advances in statistics and programming) and spark both new collaborations and ideas. As a supporter of many of the UK's bird surveillance schemes, JNCC benefits from these international gatherings as they allow us to keep up-to-date with developments across Europe, and to initiate debate and collaboration on surveillance areas on which we lead.**

Ian Mitchell, JNCC's Seabird Colony Team Leader, presented an overview of seabird monitoring in Europe, focusing on the existing programmes in 28 countries based on the results of a questionnaire survey. In a special round-table session, organised in collaboration with Birdlife International, he outlined plans for the development of a seabird indicator for Europe using the available monitoring data, and using analytical methods recently developed by JNCC's Seabird Colony Team in Aberdeen. Initial feedback was positive, and it is hoped to develop a useful indicator in the near future.

For each conference, the EBCC works hard to encourage contributions from outside of Europe, and there was a strong USA delegation. Speakers from the Patuxent Wildlife Research Centre, US Forest Service, National Audubon Society and Hawk Mountain Sanctuary gave a range of talks covering:

- theoretical approaches to collecting data for informing conservation management;
- the importance of monitoring life history traits of bird populations;
- using data from national schemes to produce composite indicators using hierarchical modelling methods;
- the ways in which counts from raptor migration 'hot-spots' across the US and central America are being used to produce a Raptor Population Index.

Several talks referenced the Pan-European Common Bird Monitoring Scheme (PECBMS), which was set up by EBCC and Birdlife International in 2002 and is now funded by the European Union (EU) and the Royal Society for the Protection of Birds (RSPB). PECBMS collates bird monitoring data from 20 countries, which are used to create European bird indicators ([www.ebcc.info](http://www.ebcc.info)) that have been adopted within a suite of European Biodiversity Indicators (i.e. SEBI 2010). Another indicator adopted by SEBI 2010 uses butterfly monitoring data and Tom Brereton, from Butterfly Conservation, gave a colourful presentation on how the indicator was developed.

An interesting presentation by RSPB/Birdlife/Biomathematics and Statistics Scotland Research Institution (BioSS) focussed on whether the EU Birds



JNCC's Seabird Colony Team Leader Ian Mitchell.  
© JNCC

Directive was working. And to the authors' surprise – it is! In the original 15 Member States, trends of Annex I species during 1990-2000 were more positive than during 1970-1990, and more positive than non-Annex I species. Also, the mean national trend across all species was more positive in countries with a higher proportion of land area designated as SPAs.

 Helen Baker  
Nature Conservation Adviser  
Tel: + 44 (0) 1733 866816  
Email: [helen.baker@jncc.gov.uk](mailto:helen.baker@jncc.gov.uk)

 Ian Mitchell  
Seabird Colony Team Leader  
Tel: +44 (0) 1224 655717  
Email: [ian.mitchell@jncc.gov.uk](mailto:ian.mitchell@jncc.gov.uk)

*Northern fulmars.*  
© Matt Parsons/JNCC



# Conservation Conversation

In this issue we focus on independent Committee member **Professor Michael Usher**, previously **Chief Scientist of Scottish Natural Heritage** and an **English Nature** council member. He is currently a trustee of the **Royal Botanic Garden Edinburgh** and the **Woodland Trust**.



**Q** Species that inspired you as a child?

**A** Butterflies – I particularly remember a swallowtail and a female brimstone. Also, wildflowers.



Above: Professor Usher by a kauri pine *Agathis australis*; this one is *Yakas*, the fourth largest kauri in New Zealand.

Below: Glen Falloch – (the final remnants of our ancient pine forests, and very well worth conserving).



**Q** What concerns you most about the natural world in the next two decades?

**A** So many things, but biodiversity in a changing environment, and whether we will wake up to adapting to the changing environment in time.

**Q** What would you do with a £1 million grant for nature conservation?

**A** It's too much money for mini-projects but not enough for large projects. I would run a small competition for Non-Governmental Organisations (NGOs), to support two of them, so they could have £500,000 each, as they could really benefit. Or else, I would find a way to tackle the problem of invasive, non-native species in the Overseas Territories.

**Q** What would you like to achieve in your time at JNCC?

**A** Fostering a greater understanding of how ecosystems, including both the soil and the sea, can be protected in a changing world.

**Q** Who is your human hero in the natural world?

**A** I haven't got just one. The heroes are the many thousands of amateurs and volunteers who do the biological recording and conservation work in the UK. They are the real unsung heroes.

**Q** What is your favourite place?

**A** Up high in the hills in the summer, it makes you feel so small in the vastness of nature. In the winter it's woodlands, as not everything goes

to sleep in them during the colder time of the year.

**Q** What's your pet hate in nature conservation?

**A** Too much bureaucracy – strategies, plans, etc, when nothing is getting done on the ground.

**Q** Desert Island Disc?

**A** Vaughan Williams – Antarctic Symphony. It highlights the vastness of that continent.

**Q** What do you do when you're not saving the world?

**A** Thoroughly enjoy gardening, walking and photographing.

**Q** Porritt, Attenborough or Titchmarsh?

**A** For me it tends to be the great thinkers, such as Charles Darwin and Arthur Tansley, or great observationists, such as Jean-Henri Fabre.

**Q** Place you'd most like to visit?

**A** The remainder of the Overseas Territories that I haven't visited yet, such as Tristan da Cunha, St Helena and the Pitcairn Islands.

**Q** When I'm reincarnated, I'm coming back as.....?

**A** Either a straight-forward reincarnation as me, or a queen termite as she has a life of luxury, being totally looked after by her colony of workers.