

JNCC

NatureNews

The national and international conservation digest

Issue 22: Winter 2010



Rockhopping all over the world



ALSO FEATURING

- + Seabird Monitoring 20th anniversary
- + Blue Turtle award
- + Economics and ecology
- + Cold-water coral reefs



Chair's Introduction

Welcome to our Winter edition of *Nature News*. In this issue we have a feature by Deanna Donovan, our Environmental Economics Adviser. Deanna presented to the Joint Committee in September on the issue of JNCC preparing a proactive response to the economic downturn, and in her article she explains why nature conservation and economics are two sides of the same coin. Certainly as economics and ecology are derived from the same Greek word (οικος - meaning house or home), JNCC looks to foster ways of bridging these two disciplines. We are also looking to ensure that social and economic factors continue to be important within our forward thinking for nature conservation.

Sometimes, however, looking backwards has advantages for going forwards. This year we mark the 20th anniversary of the Seabird Monitoring Programme. In early November a Statement of Intent was signed by 18 signatories, pledging to share data on seabird numbers in a new web-based reporting system, uniting a wealth of data. This will be invaluable in ensuring that trends can be detected and recommended actions are as accurate and as useful as possible. And that leads me neatly to mention that the Marine and

Coastal Access Act has now received Assent, which means JNCC's work on marine issues will have new impetus. We look forward to working with the Marine Management Organisation as it is established, as well as reinvigorating work on marine issues with the country conservation bodies.

Moving further afield, into the Overseas Territories and Crown Dependencies, JNCC has launched an award for conservation action in these areas. The Blue Turtle Award, judging by the response we have, is already a much sought-after prize with nominations streaming in to our offices. Following a selection meeting, we will announce the winner in the next issue.

On a domestic note to conclude, we bade adieu to our outgoing Managing Director, Deryck Steer, at a surprise celebration in early September. It was a mammoth task to keep our plans secret, with Deryck at one point thinking not only that I but virtually his entire support staff had taken leave of their senses in our necessary subterfuge! It was certainly a well-attended event, showing the high regard in which Deryck is kept by everyone who worked with him, and we certainly wish him well for his next adventures.

Deryck's replacement as Managing Director, Marcus Yeo, is already well 'in harness' in his new role, and you can learn more about him with the *Conservation Conversation* article on the back page. This regular feature has proven extremely popular, and for good reason – it certainly shows the human side to those involved in nature conservation – something we really value in JNCC.

I hope 2010, the *International Year of Biodiversity*, will be a year in which we start to make real progress in managing and conserving our biodiversity better, both in the UK and internationally. It's an effort, combined with making progress on climate change, that we need to make, not just for us, but for our children and grandchildren. In that spirit, finally, please accept my compliments of the season to each and every one of you.

Peter Bridgewater, Chair, JNCC

Front cover images:

Rockhopper penguin. © Anton Wolfaardt/JNCC

Boulder completely covered in life: corals, brittlestars, anemones, glass sponges and the mushroom coral *Anthomastus*. © JNCC 2009

The *Blue Turtle Award*. © JNCC

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

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You can find out more about the work of JNCC by visiting our website

jncc.gov.uk

Workshop on 2010 indicators

As part of global preparations for the next Conference of Parties of the Convention on Biological Diversity (Nagoya, Japan, October 2010), a meeting was held in Reading on 6-8 July 2009 to review implementation of the global biodiversity indicators. Hosted by Defra, and run by the Convention Secretariat and the World Conservation Monitoring Centre, the workshop brought together over 70 participants including government-nominated experts and representatives of biodiversity-related conventions, UN and EU agencies, academic and research institutions and other non-governmental organisations. JNCC was represented by Andrew Stott (Director of Science) and James Williams (Indicators and Reporting Manager).

The report of the meeting (www.cbd.int/doc/meetings/ind/emind-02/official/emind-02-0709-10-workshop-report-en.pdf) documents the lessons learnt in production of the indicators to date, and makes recommendations on how indicators should be used in measuring the progress against any post-2010 target that will be agreed in Nagoya.

The main recommendations of the workshop included the need for clear communication of progress towards the post-2010 target through use of a small set of headline indicators. A framework of four 'focal areas' was proposed – threats to biodiversity; state of biodiversity; ecosystem services; and policy responses. Existing indicators should be aligned with this framework to maintain continuity and enhance their use. Capacity building for indicator development, data collection and information management should be further developed and properly resourced in order to strengthen countries' ability to develop, monitor and communicate indicators.

JNCC contributed to the funding of a preparatory review and participation of developing country participants.

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Claife Tarns and Mires, Cumbria. © Iain Diack

Getting on with fen management

Fens are magical places that bring together nature and generations of historic human activity. They are important both in terms of landscape and nature conservation and are home to a wide range of plants and animals. They also provide a range of ecosystem services, such as flood control.

Fens are at high risk from inappropriate management and vulnerable pollution. They are threatened by climate change; areas of wetland, including areas of fen, are already being lost along the east coast of England.

Members of the Lowland Wetland Lead Coordination Network (the LCN - which comprises members from the four UK country conservation bodies and JNCC) recognised that, currently, there is a lot less management guidance available for fens than is available for other wetland habitats such as bogs, wet grasslands and reedbeds. The information available is also widely dispersed and not always easy to understand at a practical level.

Together with representatives from the RPSB, the Environment Agency and the Scottish Environment Protection Agency, the members of the Lowland Wetland LCN formed a steering group, to oversee

the production of *The Fen Management Handbook*. The *Handbook* will cover a range of topics including fen plants and animals, hydrology, fen management, restoration, creation and monitoring. Also included are sections on people and fens which includes managing fens for people's enjoyment as well as the economic benefits well-managed fens can bring.

The *Handbook* is intended to provide guidance for those involved in management or re-creation. The implementation of both national and international drivers such as Biodiversity Action Plans, agri-environment schemes, the Water Framework Directive and the Habitats Directive, is requiring an increased understanding of wetlands, including fens, by those working in nature conservation, which the *Handbook* is hoping to provide.

The final product will be a web-based publication. It is hoped that this version, hosted by JNCC, will be available by early summer 2010.

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Grasslands under UK biofuel footprint



The UK's use of soya and rapeseed based biofuel is increasing land use pressure on temperate grasslands including those of Argentina, a major supplier of UK biodiesel. Temperate grasslands are the world's least protected major habitat and are under severe pressure from increased global demand for food and biofuels. © Yves Bilal/ardea.com

There is concern that the increasing use of biomass for biofuels will place yet another unwelcome pressure on global ecosystems. The use of Brazilian sugar and Asian palm oil has attracted attention to biofuels impacts in the tropical zone, particularly in tropical forests. A new JNCC report shows that the current UK biofuels consumption pattern, based on 90% imported fuels and a strong preference for biodiesel, is actually increasing pressures on temperate grasslands rather than tropical ecosystems.

As part of its commitment to reducing greenhouse gas emissions, the UK government introduced the Renewable Transport Fuels Obligation (RTFO) in 2008. The RTFO requires the partial replacement of diesel and petrol transport fossil fuels by their 'biological' equivalents, biodiesel and bioethanol. Approximately 3% of our land transport fuels currently come from these sources and if we are to meet EU targets this will need to rise to 13% by 2020.

Biofuels can reduce greenhouse gas (GHG) emissions but their production can have other potentially negative environmental impacts. Biodiversity risks from biofuel production arise through land use change, pollution, excessive use of water, damage to soil functions and the use of invasive/GMO crops. JNCC has undertaken a strategic overview of where in the world, and in which biomes*, these impacts are currently occurring or may occur in the future. The UK monitors its own biofuels use through the Renewable Fuels Agency (RFA) which requires suppliers of these fuels to report on the type of fuel, country of origin and the crops used to produce them. JNCC has combined RFA data with other information to make a quantitative assessment of the land required to produce the biofuels used by the UK under current and likely future biofuels consumption patterns.

The UK's current biofuels consumption pattern, which favours biodiesel over bioethanol, results in a UK biofuels land use 'footprint' being felt primarily in temperate grasslands of both

hemispheres. The significant use of soya-based biodiesel by the UK economy means much of this footprint falls on the temperate grasslands of the USA and Argentina. In the future, this footprint is likely to be extended to eastern European grasslands as the EU's near neighbours produce and export more biofuels. The use of Brazilian ethanol and Asian palm oil has received prominent publicity, but the limited consumption by the UK of fuels from these sources actually results in a modest current land use impact on tropical grasslands and forests.

Temperate grasslands are one of the most endangered global ecosystems and according to the IUCN have the lowest level of protection (around 5.5%) of all the world's terrestrial biomes. Their high productivity makes these grasslands attractive for food and bioenergy crop production, but our understanding of their ecosystem value is comparatively poor. The major remaining grasslands of the world – the North American prairies, the pampas of South America, and the steppes of Eastern Europe – will come under increasing pressure as global demand for biofuels and food increases.

The current pattern of UK biofuels consumption is relatively easy to analyse. Over the coming decade, as demand increases and more countries establish themselves as suppliers to the UK biofuels market, this pattern will become more complex. JNCC will continue to use RFA and other data to monitor the changing nature and distribution of our global biofuels footprint, providing an annual update on how, why and where our biofuel consumption is affecting biodiversity.

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*Large geographical areas of distinctive plant and animal groups



well as understanding how the lists will be quality assured. JNCC will then assess Red Lists with regard to process compliance.

What this means in practice is that JNCC will carry out a robust quality assurance assessment to ensure that draft Red Lists meet the strict scientific standards of the IUCN. This includes tasks such as ensuring the correct application of the IUCN Red List criteria, checking for scientific rigour and confirming that there has been expert peer review of the Red Listed species. JNCC will also provide guidance for those specialist societies wishing to develop or revise such lists. When these required standards are met, JNCC will offer endorsement of the work and publication on the JNCC website.

Our strong partnership with the IUCN Species Programme Red List Unit is invaluable in this quality assurance role, and JNCC staff have recently undergone training, provided by IUCN, to strengthen our capacity to undertake the quality assurance and guidance role.

For full details of the JNCC position, go to www.jncc.gov.uk/page-1773, where further resources on the role of Red List assessments and the application of IUCN Red List criteria can be accessed.

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How many where?

The Species Status Assessment project was established by JNCC in 1999, with the aim of assigning conservation status to British species. This task was undertaken in collaboration with the country conservation bodies, voluntary conservation organisations and leading specialists, and led to the production and revision of both Red Data Books and National Reviews. The most recent of these was *The Odonata Red Data List for Great Britain* (Daguët, C., French, G., Taylor, P., (eds)) published in 2008.

As part of a wider review of JNCC's work in support of UK conservation standards,

there is now greater clarity as to our role in the assessment of species' conservation status, specifically in relation to the production of Red Lists. Quite obviously there is still a clear need to know how threatened species are, so that appropriate conservation action can be planned.

JNCC continues to recognise the merit in Red Lists but will no longer initiate, lead, or produce the taxon-specific scientific content of Red Lists. Apart from meeting existing commitments, JNCC's role will change to one of helping the compilers of the lists to follow the IUCN process, as

Race for 'Blue Turtle' Award



There are many examples of incredible work being done to conserve biodiversity in the Overseas Territories and Crown Dependencies by the local populations. Most of this work is carried out without any blaze of publicity to show others what is possible.

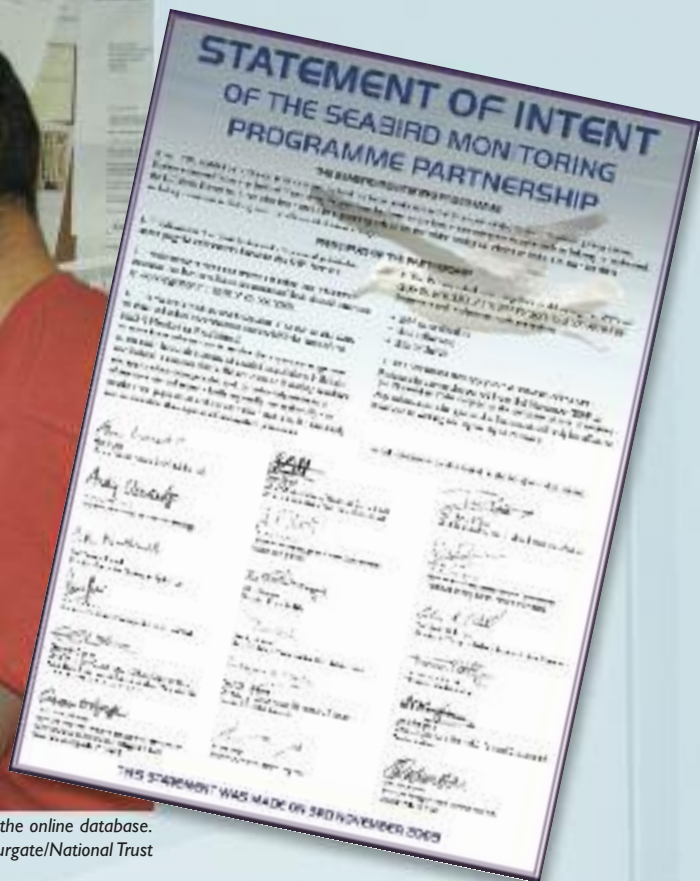
In order to recognise this, JNCC has launched the *Blue Turtle Award*. This is a new and prestigious annual award for nature conservation work undertaken by an individual or group from an Overseas Territory or Crown Dependency, who have made a valuable contribution to nature conservation in their area.

Nominations have been invited from governments, non-governmental organisations, the voluntary sector, the private sector and individuals. The work or project needs to have been in place for over a year, demonstrated innovation and have made a real difference. In addition to the trophy, the Award will be supported by £500 to the individual or group, and an additional £1,000 contribution to an Overseas Territory or Crown Dependency nature conservation project of their choice.

The winner will be announced at JNCC's December Committee meeting with the recipient invited to the UK for the presentation ceremony.



A partner of the Seabird Monitoring Programme submits records to the online database.
© Hugh Thurgate/National Trust



certificate for seabird conservation

Eighteen signatories representing 19 organisations with an interest in nature conservation have agreed on a new direction for joint working on seabird conservation. At Edinburgh Zoo on 3 November the Seabird Monitoring Programme partnership agreed a Statement of Intent that will pave the way for future data sharing and collaboration.

The agreement comes on the 20th anniversary of the start of coordinated seabird monitoring in the UK and Ireland, under the Seabird Monitoring Programme (SMP). Evidence derived from the SMP has been central to conservation actions, such as helping to implement the EU Birds Directive. It has also enabled the provision of advice on the wider ecological effects of various

human activities including commercial fishing and the effects of climate change.

The key commitments

- **Adding Value** – the Partners wish to work together in order to add value to their individual contributions and to fulfil the aims of the Seabird Monitoring Programme, namely:

Contribute information to enable the appropriate agencies to maintain favourable status of seabird populations in Britain and Ireland, ensure that sufficient data on breeding numbers and appropriate demographic and behavioural parameters of seabirds are collected – both regionally and nationally – to enable their population and conservation status

to be assessed, and to monitor the impacts of ecosystem pressures.

- **Sharing data and information** – the Partnership collects a vast amount of information on seabird abundance and demographic parameters, but the challenge is to effectively collate, store and share data – within and outwith the Partnership – so they can be put to best use.
- **Ensuring best practice** – in order for information on seabirds to be scientifically robust and effective, high and consistent standards of field methods, data storage, use and analysis need to be established and promulgated.

Who is involved? The 19 organisations from throughout Britain and Ireland (including Isle of Man and the Channel Islands) who are party to the agreement are: BirdWatch Ireland; British Trust for Ornithology; Centre for Ecology & Hydrology; Countryside Council for Wales; Department of Agriculture, Fisheries and Forestry (Isle of Man); Department of Environment, Heritage and Local Government (Republic of Ireland); States of Guernsey Government; Joint Nature Conservation Committee; Manx Birdlife; Manx National Heritage; The National Trust; National Trust for Scotland; Natural England; Northern Ireland Environment Agency; Royal Society for the Protection of Birds; Scottish Natural Heritage; Seabird Group; Shetland Oil Terminal Environmental Advisory Group; and the Scottish Wildlife Trust.

Did you know? During the 20-year history of the SMP, in Britain and Ireland...

- An arctic tern breeding in Shetland and wintering in Antarctica will have migrated over 700,000km, enough for it to have flown to the moon and back.
- Guillemots consumed over 4 million tonnes of fish, equivalent to eating the weight of 2,000 blue whales each year.
- Kittiwakes produced over 6 million chicks (though only a proportion will have survived to breed).
- The oldest known living wild bird, a Manx shearwater found breeding on Bardsey Island, NW Wales was already over 35 years old when the SMP started.
- It would take one person at least 1,000 breeding seasons to collect the 56,000 species records that have already contributed to the SMP.

- **Exchanging skills** – the depth and breadth of experience and skills within the Partnership will be focused on common goals and will help to deliver these most efficiently.

Functions of the Partnership

Identification of trends and vulnerable species - one fundamental question that we need to answer is 'what is the state of seabird populations?' In order to answer this we need to determine if numbers of seabirds are increasing or decreasing and if populations are functioning properly (e.g. are they producing enough young). This can only be achieved using a comprehensive, representative and robust dataset that can produce accurate trends in abundance and breeding success. The SMP partnership is working together to implement a sampling strategy that will enable trends to be discerned at various geographical scales appropriate to the remit of partner organisations, for use for example in the compilation of indicators (e.g. the UK Sustainable Development Strategy indicators).

Identification of causes of change – information from the SMP has been used in the scientific literature to investigate the causes of change in seabird populations. Examples include the role of changes in sea surface temperature and fishing in the breeding success and survival of kittiwakes, and the effect of non-native mammalian predators on the abundance of puffins.

Helping to implement national and international legislation – information from the SMP has, for example, been used to identify Special Protection Areas (SPA) under the EU Birds Directive. A crucial element of SPA management is the regular monitoring of population trends, to which the SMP contributes.

At the launch Partners were shown recent developments in web-based reporting and

recording. Information collated by the SMP will be presented in raw and analysed formats at www.jncc.gov.uk/seabirds, featuring up-to-date species-by-species presentations of trends in breeding abundance, success and other demographic parameters. Furthermore, contributors to the SMP now submit their seabird colony counts via

www.jncc.gov.uk/smp, allowing accurate and rapid submission and collation of the most recent information.

Matt Parsons



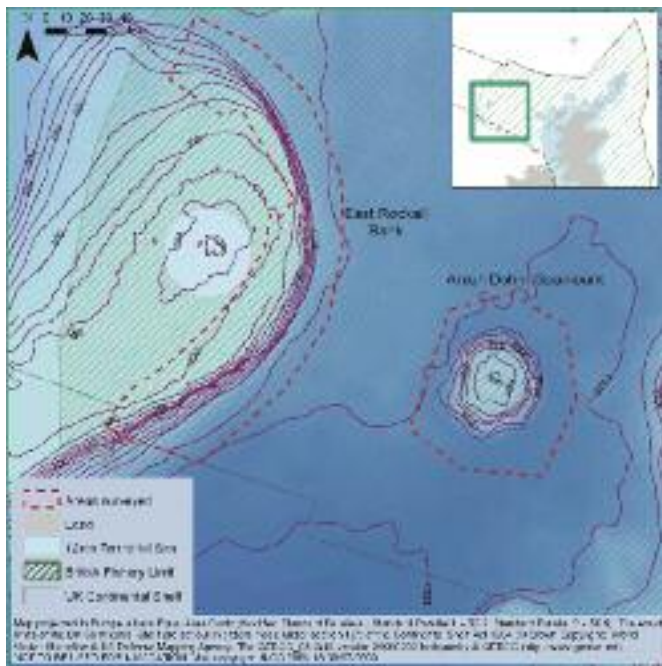
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Sven Rasmussen (seated) from the Scottish Wildlife Trust signs the Statement of Intent watched by Ian Mitchell (left) and Matt Parsons from JNCC. © JNCC





Location map showing Anton Dohrn seamount and East Rockall Bank. © JNCC 2009

Coral gardens in UK waters!

Five previously undiscovered cold-water coral reefs were found in the deep waters off north-west Scotland during a recent research survey commissioned by JNCC. For the first time, these five colourful coral reefs, teeming with strange and beautiful creatures, were captured on film.

In July this year, four staff from JNCC's marine team spent four weeks at sea exploring two Areas of Search for offshore Special Areas of Conservation, as part of JNCC's offshore Natura survey

A diverse range of hard and soft corals seen on Anton Dohrn seamount. Note the red sea spider (Pycnogonid sp.) in the foreground. © JNCC 2009



A white glass sponge with brittlestars surrounded by the coral *Lophelia pertusa* and gorgonians on Anton Dohrn seamount. © JNCC 2009

programme. One of these areas was Anton Dohrn seamount, an extinct underwater volcano rising more than 2,100m from the seabed, reaching its summit at a depth of 600m. This ancient volcano is in striking contrast to the surrounding flat seabed and creates ideal conditions for an abundance of fish, coral and sponges. The second area was around the eastern edge of Rockall Bank, where there are steep cliffs and pinnacles, shrouded in cold-water coral reefs with pink/purple brittlestars and yellow sponges.

JNCC worked with its contract partners the British Geological Survey, the University of Plymouth and Marin Mätteknik AB, and used state-of-the-art technology to map the seafloor in two of the least studied areas of our seas. Camera equipment was then lowered over a mile beneath the survey vessel to capture stunning high-resolution images of the life below. Neil Golding, JNCC's Offshore Data and Survey Manager said "Capturing these images over a mile down wasn't easy, but they're essential evidence needed to demonstrate these rare habitats that exist in the deep waters off our coast". As well as dense thickets of delicate and ornate sea fans, the reefs were formed by hard corals, similar to those that built Australia's Great Barrier Reef. In addition to the abundant corals, a wide range of animals, including sea urchins, basket stars, orange feather stars, yellow sponges and fish, were seen living on these reefs.

Despite having to run for cover to St Kilda in advance of a violent Atlantic storm heading in their direction, the survey team completed the work. Scientific analysis of thousands of images and many hours of video footage will now commence; a final report will be available from JNCC in March 2010. You can find out more details of the survey on our Marine Protected Sites web page www.jncc.gov.uk/page-4903.

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Better informed about species?

JNCC maintains a spreadsheet of conservation designations for species in the UK, and completed a substantial update to it in August 2009, in response to user feedback. This resource, available to download from www.jncc.gov.uk/page-3408, has expanded considerably since its origins as the Species of Conservation Concern listing produced as a part of the Biodiversity Action Plan process in 1999-2000. It now includes 19 categories of designations, including listings under international conventions/directives, national legislation, international and UK Red-listed species, and country species priority lists.

The August update has added the latest Birds of Conservation Concern list, European protected species, Natural Environment and Rural Communities Act Section 41/42 biodiversity lists, and has updated the status of a number of species on the Wildlife and Countryside Act 1981. The presentation of the spreadsheet has also been improved and a new 'Guidance for use' sheet incorporated into it.

The list is a useful first point of call for finding out species designation information. It can be filtered to view all designations associated with a particular species, or conversely, all species associated with a particular designation.

The updated list has also been made available to users of the Recorder software,



The Otter *Lutra lutra* has nine conservation designations listed on the spreadsheet. It is included in various international agreements, national legislation and country biodiversity lists. © Lynn M. Stone/naturepl.com

and is available as a filter for querying the National Biodiversity Network Gateway. This is of particular value for those carrying out Environmental Impact Assessments of sites, as it enables the user to restrict the records displayed to those of species from JNCC's collated list of designations.

"We plan to continue to update and expand the spreadsheet in the future, both to reflect changes to existing species statuses, and to increase the number of designation categories included in the collation," said Biodiversity Information

Officer Anna Robinson. "We are always pleased to receive feedback to help us to improve the spreadsheet and tailor it to user demands."

Anna Muckle, Assistant Wildlife Officer with Dorset Wildlife Trust, said: "It really is an excellent tool, combining all the important information into one incredibly efficient spreadsheet!"

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He's a jolly good fellow



JNCC's Chair, Peter Bridgewater, has been formally admitted as a Fellow of the Linnean Society of London, the world's oldest active biological society. Founded in 1788, the Society takes its name from the great Swedish naturalist, Carl Linnaeus (1707-1778) who developed the system of binominal nomenclature, the formal system for naming species. This system today provides the fundamental framework for knowledge of the biota of the Earth, supporting effective conservation measures and the sustainable use of biodiversity. Since 1829 the Society has been the custodian of the Linnaeus original library and collections, and is creating a digital archive, enabling full global access.

The Society's Fellowship is international and its Fellows are drawn from all walks of life, including professional scientists and amateur naturalists.

Peter Bridgewater shaking hands with Dr Vaughan Southgate, President of the Linnean Society, following the formal admission during which Peter signed the Roll and Charter of the Society.



Tristan da Cunha

The United Kingdom's 14 Overseas Territories are a diverse grouping. They range from the tiny Pacific island of Pitcairn with 47 inhabitants and a fragile subsistence economy based on fishing, horticulture and the sale of handicrafts, to Bermuda just north of the Caribbean, which has a population of more than 62,000 and is one of the world's major financial centres. They also include the Sovereign Base Areas on Cyprus, which are military bases.

The UK Overseas Territories have an amazing wealth of biodiversity. Of globally threatened species identified in the 2004 IUCN Red List, 74 critically endangered

JNCC's Anton Wolfaardt (right) and Norman Glass from the Tristan Conservation Department with a Tristan albatross chick. © Don Willis.



species occur in the UK Overseas Territories (compared to 10 in mainland UK) along with 49 endangered species (12 in mainland UK) and 117 vulnerable species (37 in mainland UK). Many of these species are endemic and so are found nowhere else in the world.

The Overseas Territories also hold regionally or globally important concentrations or gatherings of species. For example, Ascension Island supports the second largest green turtle rookery in the Atlantic; Gough Island (Tristan da Cunha) has been described as, arguably, the most important seabird island in the world; and the reefs of the Chagos Archipelago (British Indian Ocean Territory) are some of the most pristine and best protected in the Indian Ocean.

Tristan da Cunha

The Tristan da Cunha group comprises four islands; the main island of Tristan da Cunha, the neighbouring islands of Nightingale (with two islets, Stoltenhoff and Alex) and Inaccessible, and Gough Island approximately 380km to the south-east. Tristan da Cunha forms part of the UK Overseas Territory of St Helena, Ascension and Tristan da Cunha. The settlement of Edinburgh of the Seven Seas in the north-west of the main island of Tristan is its only permanently inhabited area.

Location

Tristan da Cunha is the most remote inhabited island in the world, lying 2,778km west of Cape Town and 3,947km from South America.

Size

An area of 178 sq km.

Population

Less than 275.

Climate

The climate is cool temperate oceanic but varies between islands. Mean annual temperatures vary similarly and range from 11.3°C to 14.5°C.

Topography

The islands are volcanic. The central peak in Tristan rises to 2,060m above sea level.

Biodiversity

At least 212 plant taxa have been recorded, including 35 indigenous ferns (14 of which are endemic) and 58 indigenous flowering plants (of which 27 are endemic). Alien species make up the rest. Seals are the only native breeding mammals. The islands support unique indigenous land-birds, including the Gough bunting and the rare Inaccessible rail, the smallest flightless bird in the world. Millions of seabirds, such as the yellow-nosed albatross and the great shearwater, breed – as do fur seals and elephant seals. Fourteen of Tristan's bird species are of global concern including the critically endangered Tristan albatross *Diomedea dabbenena*.

Main economic activities

The island relies on income from fishing and stamp and coin sales.

Interesting fact

The Tristan da Cunha Islands were discovered, and the main island named, by the Portuguese admiral Admiral Tristao da Cunha en route to the Cape of Good Hope in 1506.

Biodiversity and its conservation

The current population of Tristan da Cunha is considered to be the world's most isolated community. The entire population live on the main island of Tristan. The only other inhabited island in the group is Gough, where South Africa maintains a weather station under a lease agreement with the Tristan Government. The Tristan Government currently includes a Conservation Department, headed by Trevor Glass, and a Fisheries Department, headed by James Glass.

As is the case with most oceanic islands, the biodiversity of the Tristan Islands is characterised by a relatively low diversity of species, but high levels of endemism. The islands harbour the greatest number of endemic and globally threatened terrestrial species of all the UK Overseas Territories, and Gough Island is widely regarded as the greatest seabird island in the world. The conservation value of the islands has been formally recognised through the listing of Gough and Inaccessible Islands as a World Heritage Site, and as separate Ramsar sites.

Seabirds dominate the vertebrate fauna, and are the best studied of the islands' wildlife. About 8 million pairs of seabirds (most of these being burrow-nesting petrels) breed on the Tristan Islands, including four species that breed nowhere else in the world: the critically endangered Tristan Albatross, the Endangered Atlantic Yellow-nosed Albatross, the Vulnerable Spectacled Petrel, and the Endangered Atlantic Petrel. The first three of these are listed, together with three other resident seabirds, under the Agreement on the Conservation of Albatrosses and Petrels (ACAP). For many of the other seabird species the Tristan Islands support significant proportions of the global population.

Although other aspects of the islands' biodiversity have not received as much attention as the birdlife, it is clear that the avifauna is not the only component which makes the islands globally important for biodiversity conservation. The Tristan Islands, and especially Gough, are the global stronghold of the sub-Antarctic Fur Seal. In addition to the 11 endemic bird species, the islands support at least 27 endemic flowering plants, 14 endemic ferns and over 100 endemic macro-invertebrates. The marine environment is also of critical importance. The waters surrounding the islands support a



Trevor Glass, Tristan's Head of Conservation. © Anton Wolfaardt/JNCC

commercially important population of Tristan Rock Lobster, on which the economy of Tristan depends. Recent work has highlighted the high diversity and degree of endemism in the marine algae. It is likely that further studies will emphasise even more the biodiversity value of the islands, and lead to a better understanding of the functioning of the island ecosystems and the nature and extent of current and future threats to biodiversity.

What is already known is that the introduction and spread of invasive alien species, both plants and animals, pose a significant threat to the biodiversity of the Tristan Islands. For many of the seabird species, this is exacerbated by fisheries-related mortality. The fishery for Tristan Rock Lobster does not pose a particular threat to seabirds. However, given the wide-ranging nature of seabirds, fishing activities outside of Tristan's jurisdictional waters, and possible illegal longline fishing within the Tristan Exclusive Economic Zone, threaten Tristan seabirds, an issue that requires concerted international action.

Probably the greatest immediate threat to the biodiversity of the Tristan Islands is the impact of house mice on Gough Island. The mice were accidentally introduced by sealers in the 19th century. Recently, scientists from the

Royal Society for the Protection of Birds (RSPB) discovered that the mice have learned to prey on the chicks of a number of seabird species, including the endemic Tristan Albatross and Atlantic Petrel. Further studies by the RSPB and the University of Cape Town have confirmed that the Tristan Albatross (and other winter breeding seabirds) faces a high risk of extinction in the presence of mice.

Work has been carried out to assess the feasibility of eradicating mice from Gough. This work, undertaken as a partnership between the RSPB, the Tristan Government and the University of Cape Town, with financial support from the UK Government's Overseas Territories Environment Programme fund, has concluded that eradicating mice from Gough is technically feasible, but identified a few remaining areas of uncertainty. Research is presently underway to answer these uncertainties and inform a full operational plan.

JNCC is working to support the Tristan Government in meeting its obligations under ACAP, and in conservation matters more broadly.

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Making differences abroad

A conference on conservation in the UK Overseas Territories and Crown Dependencies was held on Grand Cayman from 30 May – 5 June 2009. Funded by the Department for International Development from the Overseas Territories Environmental Programme (OTEP), the conference was organised by the UK Overseas Territories Conservation Forum (UKOTCF) and the Cayman Islands Government and National Trust. It was the fifth such conference (the first was held in 1999 in London). Participation included representatives of the Overseas Territory and Crown Dependency governments and non-governmental organisations and the UK government.

JNCC representation

Four representatives from JNCC, Dr Deanna Donovan, Deborah Procter, Dr Nikki Chapman and Tara Pelembe, attended the conference. It proved an excellent opportunity to meet a number of present and potential collaborators from the UK Overseas Territories and Crown Dependencies with whom JNCC works.

Resources and side meetings

JNCC displayed a series of banners and distributed CDs and printed materials highlighting the current key areas of focus of the JNCC Overseas Territories and Crown Dependencies Programme. In addition, the opportunity was used to hold side meetings. The Overseas Territories Training and Research Steering Group

(www.jncc.gov.uk/page-4113) met face-to-face for the first time, with participation from Defra. A number of areas of the programme were discussed and short-term and web-based training courses were identified as priority areas. In addition, the Overseas Territories Funding Steering Group (www.jncc.gov.uk/page-4582) had their first face-to-face meeting and discussed future requirements such as raising awareness of the OTs and training requirements. A further bilateral meeting was held to discuss the Caribbean invasives European funding bid proposal.

JNCC presentations

Tara Pelembe gave a short presentation on the JNCC Overseas Territories and Crown Dependencies Programme at the conference, focussing on a recent (March 2009) JNCC contract and workshop on invasive species in the UK Overseas Territories. The workshop and research paper (delivered by Karen Varnham) both attempted to prioritise invasive species in the UK Overseas Territories.

Nikki Chapman's presentation, which served to launch the Overseas Territories Funding Database (www.jncc.gov.uk/otfundingdatabase), was particularly well received. She also used the opportunity to announce JNCC's forthcoming support for funding applications and provision of training opportunities focussed on improving grant-writing skills.



JNCC's Tara Pelembe (left) and Deanna Donovan in the field. © JNCC

Deborah Procter co-chaired, with Bruce Dinwiddie, a session on climate change in the UK Overseas Territories and Crown Dependencies and gave an outline presentation on climate change highlighting potential areas of support and advice available from JNCC. Papers were given by Darren Christie (South Georgia) on invasive species exploiting land areas recently exposed following glacial retreat, Andrew Casebow (Guernsey) on communicating climate change impacts to the public, and Lisa-Ann Hurlston-McKenzie (Cayman Islands) on the use of planning mechanisms, education and outreach to embed climate change awareness and action across society. This theme of practical responses, i.e. adaptive action, was taken up in general discussion following the presentations.

In addition, Deanna Donovan participated on the panel on climate change and engaged various Overseas Territories representatives in discussions regarding the possibility of using economic valuation techniques to provide information in support of environmental management and development of environmental decision and policy making. All found the conference an exceptionally good opportunity to establish and enhance connections with representatives from less frequented Overseas Territory and Crown Dependency members such as Gibraltar, Guernsey, Jersey and South Georgia, Pitcairn and others.

Throughout there was eager discussion of the possibility of expanded inter-island cooperation as well as the potential for enhanced support and collaboration with JNCC.

JNCC's Tara Pelembe presents at the conference. © JNCC



Conservation focus: Grand Cayman's critically endangered blue iguana *Cyclura lewisi*

Background and threats

The critically endangered blue iguana is endemic to the island of Grand Cayman. Once having a near island-wide distribution, the original wild population has been reduced to a near-extinct remnant confined to the extreme eastern end of Grand Cayman. The most comprehensive survey to date, undertaken in 2002, estimated a total wild population in the range of just 10-25 individuals. Their threatened status is a result of the combined influences of habitat conversion, historic hunting, the introduction of non-native predators (rats, cats and dogs) and road kill.

Blue iguana. © JNCC



An additional issue is the presence on Grand Cayman of the non-native green iguana *Iguana iguana*, which far outnumbers the blue iguana. Although no direct negative consequences of this introduction on the blue iguana are known, the situation confuses public attitudes and understanding.

Current recovery efforts

Recovery efforts for the blue iguana are now being implemented through the *Blue Iguana Recovery Programme* established in 1990, which operates under the auspices of the National Trust for the Cayman Islands, with local and international partners. The conservation strategy involves breeding the blue iguana in captivity, rearing them to two years old (an age where the likelihood of survival in the wild is high), and using them

to rebuild a series of wild subpopulations in protected, managed natural areas (currently the Salina Reserve, and the QE II Botanic Park). This is accompanied by field research, nest site protection, and monitoring of the released animals. To date, the scheme has proved highly successful with the restored subpopulations numbering some 290 individuals, which are breeding without human intervention.

Future conservation

Conserving blue iguanas in the wild will require active management into the indefinite future. The restoration effort must continue, together with habitat protection and invasive species control. To sustain such activity will require developing sustainable economic activities that benefit the species, successfully obtaining conservation grants, and the creation of a high profile image for the species both locally and internationally through continuation of an ongoing education and awareness effort (reference source www.blueiguana.ky).

With many thanks to Rachel White, JNCC's Overseas Territories intern, for her valuable contribution to *Conservation focus*.

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Karim Hodge from the Government of Anguilla, who chaired the meeting, is pictured with Biodiversity Officer Elizabeth Moore. © JNCC

Web conferencing technology brought together representatives from around the globe during an interactive, online meeting, part of a UK Overseas Territories Training and Research Programme Steering Group workshop.

The Steering Group has a core membership of 16 people from 14 different geographical locations. Steering group members come from the UK Overseas Territories in the Caribbean, Pacific, Mediterranean and South Atlantic.

Communicating across the globe

"It is neither practically, financially nor environmentally feasible to bring together the whole group face-to-face," commented Overseas Territories Officer Tara Pelembe. "For some of the more remote islands, it would mean a trip of up to one month away for a two-day meeting."

Over the last few months, JNCC has been exploring the best method for remote conferencing. 'Global Crossing' was trialled at this workshop. Remote participants spoke to each other by phone, but the interactivity of the process was enhanced by a web component which enabled all participants to be able to see documents or presentations in real time. In addition, participants could 'raise their hand' on screen if they wished to speak, and were able to 'chat' on screen as well.



Screenshot from meeting

The ability to directly input and amend the active document could also be handed over to each of the participants.

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31 SPA extensions!

Common guillemots are one of the seabirds which will benefit from increased protection at sea. © Ben Dean

The 31 Scottish seabird colony SPA marine extensions announced on 25 September 2009



Scotland's seabirds are to benefit from strengthened protection, after Scottish Government announced that 31 of Scotland's seabird breeding colony Special Protection Areas (SPAs) are to be extended to protect their adjacent marine habitats. The extensions, which came into force on 25 September 2009, will go out to 1, 2 or 4km, depending on which species are protected within the existing terrestrial SPA. Although there are already a number of coastal or island SPAs which have marine components, these are the first seabird SPAs in Scotland which will extend below the low mean water springs mark. Rathlin Island SPA in Northern Ireland has a substantial marine component, but there is currently only one wholly marine SPA in the UK (Carmarthen Bay in Wales, designated for its internationally important numbers of common scoter).

The announcement follows a consultation on the SPA extensions, carried out on behalf of Scottish Government by SNH in summer 2008, which recommended the extensions based on work carried out by JNCC's Marine SPA team. The seabirds for

which the SPAs are classified will benefit from protection against activities that would cause significant disturbance and their marine habitat will be safeguarded.

The 31 sites are: Canna and Sanday; Marwick Head; North Colonsay and Western Cliffs; Rum; St Abbs to Fast Castle; Ailsa Craig; Buchan Ness to Collieston; Calf of Eday; Cape Wrath; Copinsay; East Caithness Cliffs; Fair Isle; Fetlar; Forth Islands; Flannan Isles; Foula; Fowlsheugh; Handa; Hermaness, Saxa Vord and Valla Field; Hoy; Mingulay and Berneray; North Caithness Cliffs; North Rona and Sula Sgeir; Noss; Rousay; Shiant Isles; St Kilda; Sule Skerry and Sule Stack; Sumburgh Head; Troup, Pennan and Lion's Heads; and West Westray.

For more information, visit www.snh.org.uk/about/directives/ab-dir15j.asp

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Environment + society + economy

The National Ecosystem Assessment (NEA) is the first analysis to look at the UK's natural environment in terms of the benefit it provides to both society and the economy. On 9 September, the British Ecological Society (BES) and the UK Biodiversity Research Advisory Group, held a joint workshop, concurrent with the BES annual meeting at Hatfield University. The session aimed to inform the ecological community about the NEA and about opportunities for involvement and feedback to the NEA Secretariat, who were consulted and involved throughout. The outcome was a very successful event, attended by over 80 people.

The workshop started with a presentation from Professor Steve Albon, who, with Professor Robert Watson, is a joint Chair of the NEA. Prof Albon gave an overview of the NEA, talking about how it will provide the information with which to meet the challenges of sustainable development, climate change, food, water and energy security, and biodiversity loss.

Maintaining ecosystem function and health is integral to meeting these challenges; we need to better understand our ecosystems if we are to respond successfully. A biodiversity synthesis and UK, national and regional syntheses will be produced as an outcome of the NEA.

Prof Albon was followed by two further speakers. Dr Melanie Austin from Plymouth Marine Laboratory talked about the valuation side of the NEA, using specific examples from a marine context, as work on valuing the UK seas is much further advanced than that of valuing terrestrial habitats. Dr Austin went through some of the problems with assigning values to the environment, and how different populations view both monetary and non-monetary values. She was followed by Paul Morling, from the RSPB, who discussed policy options, and how the NEA could be used to shed light on some of the tradeoffs that policy makers have to consider, particularly in the current economic climate.

Following lunch, participants split into three groups to look at "Future Directions" – chaired by Prof Rosie Hails, "Status and Trends" – chaired by Prof Steve Ormerod, and "Valuation" – chaired by Prof Bridget Emmett. The groups highlighted how few data sets there are at the moment that actually cover whole ecosystems, but also how valuable the NEA could be in putting existing studies into context. It will also be an opportunity for promoting sharing of data and for ecological work to contribute to other areas such as economics.

Overall the workshop was a very positive look at how the NEA could bring research from different disciplines together.

Web sites: UK BRAG www.ukbrag.org
BES www.britishecologicalsociety.org
NEA uknea.unep-wcmc.org

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Three Acorns for JNCC Environmental Management System gains British Standard



Nature conservation may be the day job but does how we conduct our day-to-day operations support this?

JNCC has always felt that to support our work the way we conduct our business needs to be as sustainable as possible. During development of our Sustainable Development Action Plan, it was agreed that, to ensure our business operations support our core work, we should produce an Environmental Management System (EMS).

The EMS requires JNCC to look at our work practices, identify activities with the greatest environmental impact and actively manage them to reduce these impacts. However, environmental impacts can also

be positive, e.g. our core work, so the EMS helps ensure that we deliver our nature conservation objectives as sustainably as possible.


In June 2009, JNCC's hard work was rewarded when leading environmental auditors NQA came in to audit the EMS, and JNCC has received the British Standard BS8555 Phase 3 accreditation.

In September 2009, JNCC's Audit and Risk Management Committee (ARMC) reviewed the audit report. ARMC agreed that the EMS was the appropriate process to review, monitor and report our environmental performance, and that JNCC should continue working towards

the international standard ISO 14001 through the BS8555 phased route. Phase 4 will require JNCC to implement the management system and further document the internal auditing processes and recording requirements.

The British Standard was developed to enable small businesses to work towards ISO 14001 through a series of manageable phases. With six phases, the last being full ISO certification, BS8555 has allowed JNCC to work at an appropriate pace.

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Sherwood Forest National Nature Reserve attracts 400,000 visitors every year. © Ed Mountford/JNCC

The ecology of economics

In this issue's feature article, Deanna Donovan, JNCC's Environmental Economics Adviser, details why nature conservation has an important role to play in helping to solve the current economic crisis

What does economics have to do with ecology? If not outright questions, then certainly I get the looks. Both economics and ecology come from the same Greek root 'oikos', meaning house or household. Whereas ecology refers to the science or knowledge of the household – understood in the broadest sense as our environment – economics is about its management. And management is about making choices. So, to the extent that our choices reshape our environment and affect all living things in the environment, as well as our social and economic development, in fact economics and ecology are very much related as we are increasingly coming to realise in these times of economic crisis.

Over the past year the economy has taken some severe knocks, basically as a result of imprudent decisions of an ambitious few in

the financial sector. Threatened with the collapse of the banks, which provide the credit which lubricates commercial activity, government stepped in to the rescue. By selling government bonds it generated the capital needed to prop up the banks and keep the economy afloat, and committed to repaying these borrowed funds with interest in the coming years. With government income, mainly tax revenues, falling as a result of a depressed economy, and demands on government-supported social services – unemployment benefits, education payments, health services, among others – increasing for the same reasons, government at all levels is feeling the pinch. Significant cutbacks in government programmes are probably inevitable if the government is to restore fiscal health.

Historically conservation programmes have proved to be an easy target in times of

government financial stress. Natural resources may be overexploited in times of economic hardship as departments looking for cash seek to liquidate assets, with many people perceiving the natural environment as an open access resource free for the taking, and collecting what they can from the wild.

From the administrators' perspective, environmental protection and restoration may seem to be something that can be easily limited or postponed, especially in the face of the competing demands of social services. Too often it is forgotten that ecosystems and their goods and services underpin virtually all economic activity, if not directly then indirectly. The contribution of biodiversity to human welfare and economic development, for example through innovations based on physical, chemical and functional

characteristics of various species, is often ignored. The new fields of bio-mimicry, bioremediation, and ecological engineering provide us with some of our most exciting new materials and environmentally advantageous solutions. Despite this year's widespread publicity of the anniversary of Charles Darwin, the father of evolutionary theory, his observations on the natural world's adaptation to environmental change seems slow to permeate general thinking. A healthy environment with its diverse constituents having evolved and adapted over time to changing environmental conditions and a succession of diverse pressures, is a prime example of the adaptive capacity we need to help tackle climate change and a faltering economy.

Operating at the science-policy interface, JNCC has an important role to play in elucidating the potential for creating an institutional environment which will permit natural organisms to do, in effect, what they were built for. Environmental economists involved in The Economics of Ecosystems and Biodiversity (TEEB) international initiative and the UK's National Ecosystem Assessment (NEA), among others, are working to show what enormous benefit a healthy natural environment rich in biodiversity can contribute to human welfare and social progress, through a variety of ecosystem goods and services. Although a relatively small organisation, JNCC, with its broad range of scientists from diverse backgrounds, takes a panoramic view of environmental challenges, exploring the linkages between sectors and across disciplines.

Although economic recession is nothing new, and probably never to be unexpected, the present economic crisis has a particularly dramatic twist given climate change, perhaps the most significant environmental challenge of our times and, indeed, beyond. Facing the twin threats of climate change and economic recession, it is not surprising that government seeks to tackle these issues in tandem. It would behoove us, however, to beware of the hubris of depending too much on hard-engineered solutions to the detriment of the natural environment. Looking to enhance its impact through strengthening international collaboration, JNCC has an important role to play in communicating to a widening audience the role and value of biodiversity and nature conservation in addressing the key economic, as well as environmental, issues of the day.

Impacts of plant-damaging moulds

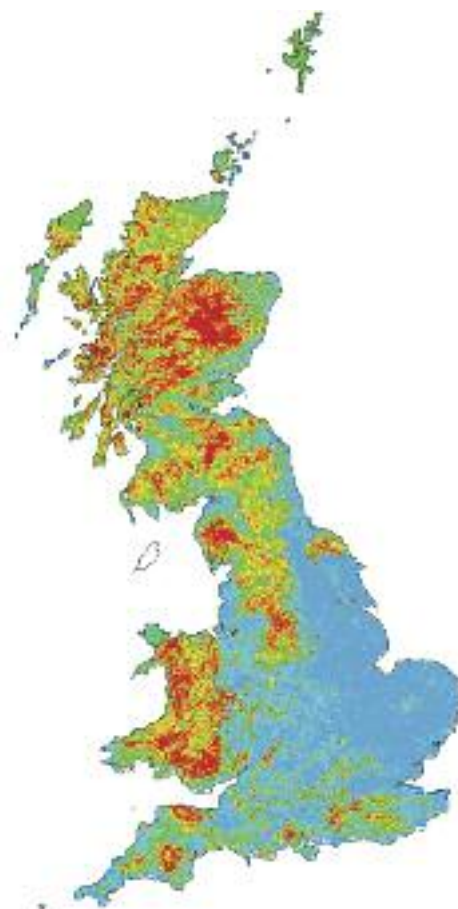
Phytophthora species are plant-damaging water moulds that are responsible for a number of notorious plant diseases, such as potato blight. Recently three new species have been identified in the UK, which are causing significant negative impacts to biodiversity. They are believed to be non-native, and may have been introduced via international horticultural trade. JNCC is working closely with partners to understand the impacts of *Phytophthora* on biodiversity.

The new species of *Phytophthora* can affect a wide range of native and garden plants. Until recently, 'wild' findings were restricted to infections of non-native species such as *Rhododendron ponticum*, but it has now spread to infect native bilberry. Laboratory testing undertaken by the Food and Environment Research Agency (FERA) shows that other native species such as heather, cowberry and bearberry may also be highly susceptible.

Once infections occur, they can spread very rapidly, as infected bilberry or *Rhododendron* produce very high numbers of spores. Some tree species are also affected and can be killed by the infection. However, most infected trees do not produce spores, and they will normally only become infected if they are in close contact with other infected plant species.

The biodiversity impact of *Phytophthora* infection is potentially extremely high. Infected bilberry suffers very extensive dieback. Over 60% of 10km grid squares in the UK contain native bilberry, and in many areas bilberry forms a dominant component of the vegetation. Heathlands, acid woodlands and uplands will be particularly affected. If other native species, in particular heather, were to become infected then potential impacts could be even more widespread.

Seven of the habitats listed on Annex I of the Habitats Directive contain bilberry as a major component of the vegetation. A large number of SSSIs contain heathland types as interest features, and the loss of bilberry would lead these features to be



Modelled distribution of bilberry across Great Britain, showing that there is a high probability of occurrence (brighter colours) over a very wide area

assessed as unfavourable. A considerable number of species are directly or indirectly dependent on bilberry. Over 100 insects feed directly on bilberry, and approximately 40 insects are mainly associated with highly susceptible plant species. Three of these insects are Biodiversity Action Plan priority species, including the heath fritillary butterfly.

JNCC is working with Defra, FERA and the country conservation bodies to help assess further the biodiversity impacts of *Phytophthora*, and to assist in finding appropriate control mechanisms. As a part of this work, JNCC is producing a leaflet describing the issue that will be available for download on the JNCC website:

www.jncc.gov.uk/page-3717

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Under the shadow of a volcano

JNCC's Alison Littlewood participated in a CITES training visit to the volcanic island of Montserrat, a UK Overseas Territory

Montserrat is located in the Leeward Islands, part of the Lesser Antilles in the Caribbean, and measures approximately 16km (10 miles) long and 11km (7 miles) wide, with a population of around 4,800; it was significantly affected by the major volcanic eruption that occurred in 1995-97. The Convention on International Trade in Endangered Species (CITES) was extended to Montserrat in 1976. CITES is one of a number of international biodiversity agreements on which JNCC provides technical advice to the UK Government and Overseas Territories governments.

A project to enable more effective implementation of CITES by Montserrat and to achieve compliance with CITES' national legislation project has been funded by the Foreign and Commonwealth Office and the Department for International Development, through the Overseas Territories Environment Programme. The project included a critical internal review of



Workshops gave delegates the chance to learn new skills including how to identify species in trade. © Charles Mackay

Montserrat's current legislation, systems and practices with recommendations for improvements, along with training in CITES implementation and enforcement.

As part of this project Alison Littlewood (Senior CITES Adviser, JNCC), together with colleagues from Animal Health (UK CITES Management Authority) and UK Border Agency, visited Montserrat in August 2009. Included in the visit was a three-day workshop aimed at building the capacity of its officials to effectively implement CITES. Representatives from government departments, enforcement authorities and non-governmental organisations attended the workshop which included a general introduction to CITES, as well as opportunities to learn new skills such as techniques for identifying species in trade. Representatives from other UK Overseas Territories within the Caribbean region (Anguilla, British Virgin Islands and Cayman Islands) also attended the workshop in order to share experiences and raise awareness of the types of activities being focussed on in each Territory.

JNCC, along with the other experts from metropolitan UK, also carried out a series of site visits to trade outlets and conducted interviews with key personnel from the different departments and non-governmental organisations. A review of reported and unreported trade in CITES-listed species, to and from, Montserrat was also conducted, and a risk assessment carried out for those species most likely to be in trade which should be the focus of attention by the authorities.

Following on from the visit it is intended that a stakeholder workshop will be organised to develop an action plan, to address the recommendations by the UK experts, and consider what practical measures are required to enhance CITES implementation and enforcement in Montserrat. JNCC, in its capacity as the UK CITES Scientific Authority for animals, will continue to offer scientific support and technical advice to the Montserrat authorities.

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Montserrat is home to many rare species of plant and animal, including the endemic orchid *Epidendrum montserratense* (listed on CITES Appendix II) whose habitat has been destroyed by pyroclastic flows from the volcano. It is now restricted to the forest of the Centre Hills and is vulnerable to collection by residents and collectors from abroad. Photo: Martin Hamilton © The Board of Trustees of the Royal Botanic Gardens, Kew

Recorder

New versions of software and the supporting website

Recorder is one of the leading software programmes for the collation and management of species and habitat data in the UK. It is currently used in the majority of Local Record Centres in the UK. Local Record Centres are regional centres that specialise in the collation of biodiversity data from organisations and individuals in their local area and comprise a network throughout the UK. Recorder is also used by a number of national recording schemes and societies, a range of organisations and individual recorders in the UK, as well as in a growing number of European countries.

Since its creation in the late 1980s, Recorder development has focused on supporting key standards in wildlife recording, ensuring that data held in, and exchanged between, recording organisations is of the highest quality. These standards and concepts have included comprehensive validation of data as it is entered, ownership of data (avoids data duplication) and key concepts from the National Biodiversity Network (NBN) such as descriptions of data (metadata) and a taxon dictionary (maintained by the Natural History Museum). The NBN Trust is a partnership between public and voluntary sector organisations, formed to promote the exchange and reuse of biological data for conservation, research and environmental management. Data submitted to the NBN is made available to all on its website (data.nbn.org.uk).

A new version of Recorder (6.14) was released in August 2009. Innovations include improved security, the ability to store a potentially unlimited number of local species and habitat records (essential for those who manage very large collations), faster imports of large datasets and additional enhancements which provide more powerful and reliable reporting, mapping and exporting. The additional functionality has created further efficiency savings and greatly improved the flexibility, reliability and standard of outputs produced by recording organisations, whether that is reporting on species designations for a local planning enquiry or increasing the ease and efficiency of data flow to the NBN for wider public use.

The latest version of the Recorder software is accompanied by a brand new website www.jncc.gov.uk/recorder. The site provides all the latest information about Recorder and includes details of the key features of the software, latest downloads (to upgrade the species dictionary, software or add-ins), a resource centre for additional help and online tutorials as well as background information, links to the



Recorder Wiki and NBN Forum, and a step by step guide to how to order and install the 1:50,000 Ordnance Survey map tiles.

The Recorder project is steered and funded by representatives from JNCC, Natural England, Countryside Council for Wales, Northern Ireland Environment Agency, National Parks and Wildlife Service, Scottish Natural Heritage, Musée National d'Histoire Naturelle du Luxembourg (Luxembourg), Zentrum für Biodokumentation (ZfB, Germany) and Bundesamt für Naturschutz (BfN, Germany). The project would also like to acknowledge the additional funding made available from Defra for key elements of the development of Recorder 6.14.

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Deryck Steer bids farewell

As advised in *Nature News* 20, Deryck Steer retired from JNCC in early September. A surprise celebration in Peterborough was attended by JNCC staff past and present, as well as many people from earlier in Deryck's career. There was a genuinely warm feeling throughout, and the speeches and presentations were both reverent and humorous. For JNCC, this day was seen very much as the end of the beginning, with Deryck having left a considerable legacy that will stand the organisation in good stead over the years to come.

Conservation Conversation

This issue we focus on JNCC's new Managing Director Marcus Yeo. Marcus previously worked as JNCC's Head of Habitats Advice and most recently Director of Policy and Resources.



Q Species that inspired you as a child?

A I've been interested in plants and animals ever since I can remember. I have vivid memories of collecting pictures of endangered animals from petrol stations when I was a child and can still recall the thrill of sticking them in the album. One of my favourites was the aye-aye – the mysterious nocturnal lemur from Madagascar.

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

A The reluctance of many sectors of society to accept the increasing body of evidence that a healthy natural environment is an essential prerequisite for a healthy society and economy.

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

A Purchase land in one of the UK's Overseas Territories – those far-flung outposts that support so many plants

Ben Macdui, the highest mountain in the Cairngorms.
© Bcollet/Dreamstime.com



and animals found nowhere else in the world. A condition of doing this would be that the area should be managed to also provide benefits for local inhabitants, a practical demonstration of how the 'ecosystem approach' can deliver multiple aims.

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

A Long-distance cycling, of 100 miles or more. One of my proudest achievements was completing Paris to Brest and back to Paris in 2007 – 1,200km in just under three days.

Q What would you like to achieve as Managing Director of JNCC?

A To create an organisation in which JNCC's staff can make the best use of their skills and enthusiasm, and so make a tangible difference to the conservation of biodiversity and geodiversity, on land and on sea, across the four countries of the UK, and internationally.

Q What is your favourite place?

A My favourite places are all associated with mountains. I love the epic scale of the landscapes and the sense of wilderness. If I had to choose, it would be the Cairngorms. I have wonderful memories of a backpacking holiday there, including wild camping by the shores of Loch Avon.

Q Who is your human hero in the natural world?

A John Clare, the 19th century poet, born in Helpston, near Peterborough (just a few miles from JNCC's main office). He lived during a period of great change in the landscape of lowland England, with the 'enclosure' of the extensive open commons,

leading to the patchwork of fields that is typical of much of our countryside today. Clare wrote evocative accounts of the environmental degradation wrought in the name of 'progress', and his poetry was informed by a strong sense of social justice. These themes are just as relevant today.

Q What's your pet hate in nature conservation?

A People who are so convinced that their opinions are correct that they are unwilling, or unable, to consider other points of view. The ability to put oneself in someone else's shoes is invaluable. It is through exploration of the grey areas that progress in nature conservation can usually be made.

Q Desert Island disc?

A *Just the Way I'm Feeling* by Feeder.

Q Place you'd most like to visit?

A Albania. It sounds like a fascinating country, and still relatively unspoilt by mass tourism.

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

A A deep-sea angler fish – a weird-looking creature that is fantastically well adapted to existence in an extremely hostile environment. It has a formidable set of teeth and an bioluminescent appendage that it uses to attract its prey.

Q X-Factor or Strictly Come Dancing?

A *Strictly*... I can't resist sequins and fake tans.