

JNCC

NatureNews

The national and international conservation digest

Issue 21: Summer 2009

Turning the tide on invasives!



ALSO FEATURING

- + A new MD - A new era
- + Global Biodiversity Mechanisms
- + Eurobats
- + Geoconservation and climate change

Chair's Introduction



Welcome to our Summer edition of *Nature News*. As I write this, we are taking in a taste of the weather we are likely to have to get used to – nice for the beach but not so for the city. Some, as they say, like it hot, and if that suits you I hope you make the best of it. But it's another reminder that we live in times of turbulence, both environmental and economic. Building a readiness to undertake these will be a priority for us in the next few years, in partnership with our colleagues in the country conservation bodies. The inter-agency forum on climate change, under the guidance of Professor Michael Usher, is producing a new publication *Climate Change and Biodiversity Conservation: Inescapable Facts*. So look out for this soon on our website.

I am happy to report that the exercise to recruit a new Managing Director, which I mentioned in the previous issue, has been successful, with Marcus Yeo taking up the post in September. Marcus has very much come 'through the ranks' in JNCC, as well as spending some time out of Peterborough! Some may think internal appointments of this kind are easy, and avoid challenges. I am happy to report Marcus's appointment was from a very strong field, and shows the way the JNCC support company is able to manage and train its staff.

In turn, we say goodbye to Deryck Steer, who has very much stamped his own management style right through JNCC. Deryck's 'can do' attitude, combined with a bundle of sage advice for all and the right blend of caution and risk, is something that is admired internally and externally. Deryck leaves us with our good wishes for life's next challenges!

On the Committee front, I would like to welcome aboard Peter Archdale, Deputy Chair of the Council for Nature Conservation and the Countryside, who will be helping JNCC to keep Northern Ireland interests in focus. He replaces Dr Robert Brown and brings a wide and deep range of knowledge, leavened with super levels of enthusiasm! We also said goodbye to Professor Peter Doyle, who served us for two full terms of three years each, our "rock" for all things geological!

I was very pleased how well things went at the recent conference on global biodiversity mechanisms at The Strand Hotel in London in May. This was JNCC's first foray into helping to link up the UK's intelligence and thinking concerning the various Multilateral Environmental Agreements. Delegates came from the full spectrum of our stakeholders, and much lively debate and networking took place in some very amenable surroundings. Best of

all, the feedback we have had from the delegates has been extremely positive.

One of JNCC's latest publications is *UK Seabirds in 2008*, based on the most recent report from the Seabird Monitoring Programme. The headline statistic that, since 2000, the number of seabirds breeding around the UK has declined by over 600,000, or 9%, is uncomfortable reading. However, as with other bird declines this is not identical for all species. There are possibilities to halt or reverse these declines, and we hope that the uptake in JNCC's advice on this and other subject areas will continue to grow.

Finally, I hope you will be impressed with our latest *Annual Report*. It is one of our major publications every year. Once again it is substantial, for no other reason than we are involved in a wide range of issues. Dip into it, or even read it, for it's not the usual kind of annual report!

Enjoy this issue, and please feel free to contact the relevant project managers about the stories we feature this time round.

A handwritten signature in blue ink, which appears to read 'Peter Bridgewater'.

Peter Bridgewater, Chair, JNCC

Front cover images:

Nikki Chapman, Overseas Territories Fundraiser, diving at Little Cayman's Bloody Wall dive site.

SSSI selection guidelines have been published for the distinctive assemblages of fungi such as pink waxcap, associated with certain improved and semi-improved grasslands. © Lorne Gill/SNH

Under threat, the Tristan albatross. © Ross Wanless and Andrea Angel

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

New MD for JNCC



Marcus Yeo, JNCC's new Managing Director. © JNCC

JNCC has appointed its new Managing Director. Current Director of Policy and Resources Marcus Yeo will succeed Deryck Steer, who is retiring after 40 years' public service, from September.

Chair Peter Bridgewater noted of Marcus: "He has performed well as our Director of Policy and Resources for the last five years, a role which has brought him into contact with most of our stakeholders. In

that way he has undoubtedly helped in improving the standing we have with organisations we work with on a daily basis. He is fully committed to managing the process of change and evolution set in motion by our Committee, and I know from experience that he will be proactive towards forthcoming changes in the economic and political situation, both at home and globally."

Prior to his role as Director of Policy and Resources, Marcus was Head of Habitat Advice. Concerning his appointment, Marcus said: "JNCC is at a crucial point in its development, with the general public realising that the well-being of nature and our environment is the foundation of life on Earth. Our data and research provide the tools for decision makers, so that they can understand the cause and effect on flora and fauna. Nature conservation faces major challenges over the next few years, both within the UK and internationally, and I aim to ensure that JNCC plays a full part in meeting these challenges."

Multilateral Environmental Agreements

– common UK themes

JNCC continues to promote a thematic approach to the cross-cutting issues that arise in many of the various biodiversity agreements to which the UK is a Party.

Following a concentration in 2008 of meetings of biodiversity-related Multilateral Environmental Agreements (MEAs), JNCC hosted a one-day conference in May 2009 to review their outcome and provide feedback to UK stakeholders; 85 delegates attended, from a wide range of government departments, statutory agencies and non-government organisations.

The aim of the conference was not just to consider the outcome from each Convention but, rather, to approach the MEAs thematically, dealing with topics that cross MEA boundaries such as climate change and biodiversity, invasive alien species, ecosystem services, biofuels and the issues that affect islands, especially those of our Overseas Territories and Crown Dependencies. Thus a consistent and coherent UK approach might be developed towards future implementation of decisions, the consideration of emerging issues, and assessing the evidence we might need to inform the UK position at the next round of meetings.

The immediate outcome from the conference, including working group reports, presentations and background briefing is available at



One of the working groups at the MEA event in May 2009 – the Island Issues Working Group, chaired by Jack Ward, Director, Department of Conservation Services, Bermuda. © JNCC

www.jncc.gov.uk/MEA-Event. Issues that emerged include the need to build better links between science and policy sectors (an interface where JNCC should have a key role) and the need for greater involvement in MEA processes by Overseas Territories. In the medium term, the challenge for government and its partners is to develop a strategic approach to UK engagement in biodiversity MEAs, addressing the main themes that drive the loss of biodiversity and erode ecosystem services.

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JNCC Annual Report

2008/09

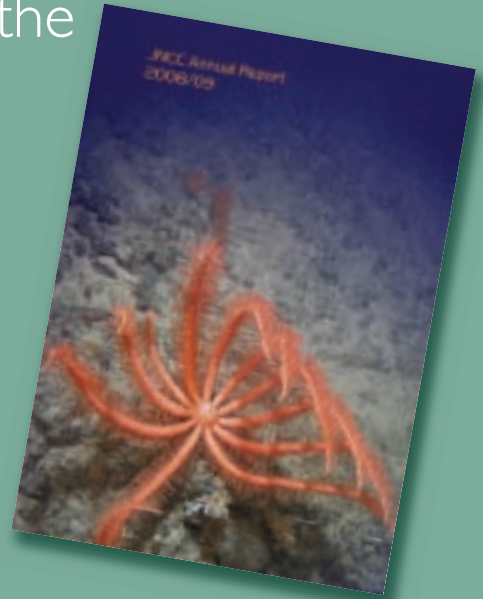
Design at the cutting edge, combined with the latest in 'green' paper stock

JNCC always looks to be innovative with the design and execution of its *Annual Report*. This year, the front cover was created using an experimental technique we believe has not been used elsewhere, in order to bring out the colour of the marine organism that is our 'cover star'.

Printed on a six-colour 'Hexachrome' press, the usual orange ink used on this machine was replaced with a fluorescent orange, to further bring out the qualities of the brisingid seastar – making it seem like it is glowing. Having set out to attract people's attention with our *Annual Report* covers, we think you'll agree that we have achieved our goal once again.

The Cocoon paper range, which is manufactured from 100% FSC-certified, recycled, de-inked pulp, is a recent launch by Arjowiggins Graphic. It is the material used for both the cover and the front half of the report.

Cocoon Offset is an uncoated offset paper with high levels of whiteness, even when compared with papers manufactured from virgin fibres. The range is produced using ecological technology at its Greenfield SAS mill. It is produced with a low-carbon footprint, making it suitable for those who put sustainability at the heart of their publications and marketing materials.



Cocoon includes environmental declaration sheets detailing the sustainability credentials of the range and providing printers with a guide to the product.

The back section of the report, the appendices, are printed on Cyclus Offset. Cyclus papers are 100% recycled, made entirely from 100% post-consumer waste. The Cyclus mill has a commitment to the environment – as well as the use of 100% de-inked post-consumer waste fibre, all waste materials created during the manufacturing process are recycled, and used in products such as cement, asphalt, wall panelling and even fertiliser!

Alex Gearns



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New Committee member Peter Archdale. © JNCC

New Committee member

New Board and Joint Committee member Peter Archdale was appointed on 1 March 2009.

Peter is Deputy Chairman of the Council for Nature Conservation and the Countryside, Northern Ireland. A retired naval officer with experience in oceanography, he is active in a wide range of natural heritage fields, including wetlands, woodlands and coastal issues.

Birds of Conservation Concern

– priorities for action

The changing fortunes of Britain's birds are followed by several long-term surveillance programmes, co-funded by JNCC and organised by partner organisations such as the British Trust for Ornithology and the Wildfowl & Wetlands Trust. The data from these schemes allow the population status of Britain's birds to be regularly reviewed. JNCC was pleased to join with a large number of other statutory and non-government organisations to recently launch a third national assessment of Birds of Conservation Concern (BOCC).

BOCC 3 reviewed most recent data on population and trends against established criteria so as to assess conservation priorities, with lists presented against the familiar 'traffic-light' scheme of red, amber and green status. Of particular interest in the BOCC 3 review was the first assessment of sub-species or races. This served to highlight the poor status of some races for which the UK has particular international responsibility, such as Greenland white-fronted geese which appear on the red list of BOCC 3 and have also been recently

assessed as Critically Endangered against global IUCN Red List criteria.

New data on seabirds at sea highlighted the importance of the seas off southern England for the globally threatened Balearic shearwater *Puffinus mauretanicus* (new to the BOCC red list), and significant numbers of these birds are now being seen in UK waters – a trend possibly linked to marine food shortages in seas further south.

Detailed analysis of the assessment reveals intriguing trends. Five of the 18 newly listed red-listed species (cuckoo, tree pipit, yellow wagtail, wood warbler and golden oriole) are long-distance Afro-Palearctic migrants, bringing the total of such migrants to 18. The declining status of these species is a cause for concern, and the underlying reasons – possibly on African wintering areas – remain poorly understood.

In contrast, the move of some species from red to amber lists gives some optimism. Woodlarks have benefited from improvements in the area and condition of lowland heathland and the management of forestry plantations, whilst increases of stone-curlews reflect major conservation efforts under the UK Biodiversity Action Plan to create and manage semi-natural grasslands as well as to provide suitable nesting plots within farmland.

BOCC 3 presents a wealth of new data and information on the changing status of Britain's birds. It is now important to assess the implications of this assessment for conservation policy.

Further details are available at: www.bto.org/images/news/bocc3.pdf for the BOCC 3 summary booklet, or at www.britishbirds.co.uk/BoCC3final.pdf for the full review paper.

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An international action plan is being developed for Greenland white-fronted geese *Anser albifrons* (left), a race newly red-listed by BOCC 3 and rapidly declining throughout its international range. © Rachel Stroud





South Atlantic's invasives

South Atlantic Invasive Species regional meeting (RSPB), Ascension. © Clare Stringer

Overview of JNCC's invasives programme

Invasive species are one of the main threats to biodiversity in the UK Overseas Territories. One of the areas of work under JNCC's Overseas Territories and Crown Dependencies programme focuses on invasive species, compiling species lists for each territory and exploring ways in which priorities for actions can be set. In March 2009 JNCC hosted a workshop on invasive species where a number of experts, including specialists from Anguilla, Turks and Caicos Islands and Cayman were brought together to give advice on

where JNCC could best add value to work on invasives in the UK Overseas Territories.

South Atlantic Invasive Species regional (SAIS) meeting (RSPB), Ascension

JNCC is a member of the South Atlantic Invasive Species Regional Advisory group. The project that this group advises on is a cross-territory European-funded initiative that links St Helena, Ascension, Tristan da Cunha, South Georgia and the Falklands. The European Development funding (EDF) for the project was awarded to

the St Helena Government; the RSPB coordinates the project management. This is the final year of the three-year project, and a milestone was to conduct a regional workshop to bring together the stakeholders in the project. The event was hosted on Ascension at the South Atlantic regional meeting in May 2009.

Three members of JNCC, Tara Pelembe, Nikki Chapman and Anton Wolfaardt, attended the the South Atlantic Invasive Species regional meeting providing input into the workshop, chairing JNCC side meetings and raising awareness of JNCC's role in Overseas Territories through presentations and networking.



Delegates at JNCC's Overseas Territories invasives workshop in Peterborough. © Cathy Gardner/JNCC

JNCC staff gave several presentations at the regional meeting:

- Tara Pelembe gave a short talk that outlined the overall aims and objectives of JNCC's Overseas Territories and Crown Dependencies Programme. The programme is divided into five projects: Advice and Communications, Funding and Research, Multilateral Environmental Agreements, Agreement on the Conservation of Albatrosses and Petrels (ACAP), and Sustainable Development (focusing on climate change, invasives and sustainable development).
- Nikki Chapman gave a brief overview of her role as Overseas Territories Fundraising Officer, and the processes

and techniques for the collation of funding sources and the development of the 'OT funding sources database'. The latter is a web-based search tool accessible for all interested stakeholders, which is ready for testing online at www.jncc.gov.uk/otfundingdatabase.

In addition a request was made for all government personnel to identify any funding training needs/support requirement by the completion of a questionnaire. This questionnaire is now also available on the webpage in PDF format. Responses to this questionnaire can be made directly to

Nikki.Chapman@jncc.gov.uk.

- Anton Wolfaardt delivered a presentation on ACAP, providing an overview of the project to co-ordinate and drive forward work by the UK and the South Atlantic Overseas Territories to implement ACAP. Anton indicated that there were a number of similarities and linkages between the ACAP work and the work of the South Atlantic Invasive Species Project, and that we should actively share experiences and lessons, and ensure a co-ordinated approach to both spheres of work.

One of the key priorities established from the South Atlantic Overseas Territories was the eradication of house mice from Gough. These mice are a threat to multiple endemic species but critically, prey on the chicks of several species including those of the endemic and critically endangered Tristan albatross. In the presence of mice, the Tristan albatross faces a higher risk of extinction.

South Atlantic regional meeting (JNCC), Ascension

A South Atlantic regional meeting was held at Ascension. The group usually meets every six months by teleconference, so it was great to have everyone together, face-to-face. Each of the Overseas Territories government departments gave summaries of three of their current main areas of focus. The meeting was also attended by the Department for International Development (DFID) who also gave a brief update. Current highlights include:

- Falklands' recently launched Biodiversity Action Plan www.epd.gov.fk;
- South Georgia's hydroelectric power (now around 99% self-sufficient in energy) www.sgisland.gs;
- Tristan da Cunha's invasives control projects;
- Ascension Island's endemic plant nursery and restoration activities www.ascensionconservation.org.ac;

- St. Helena's World Environment Day outreach activities.

These regional meetings provide a good opportunity for exchange of information across the South Atlantic Overseas Territories and increased awareness of the types of activities being focussed on in each territory. The meetings also provide links to what is happening in relation to nature conservation and Overseas Territories at UK and EU level.

Conservation focus: Ageing population of Ascension land crab *Johnnagarthia lagostoma*

Over the last five years a number of people from the Ascension Island Conservation Department, volunteers, and visiting scientists, including Stedson Stroud, Conservation Officer on Ascension, have been observing and monitoring the Ascension Island land crabs. Areas of focus include the migration of Ascension's land crabs from the mountains to their spawning grounds, counts of the total numbers of spawning crabs on the beach, and population structure, size and gender ratio.

Some of this research has shown that during a typical spawning session the females will lay their eggs in sand at the water's edge. After an incubation period, these eggs float out to sea and then, after a period, the fully developed juvenile crabs will come ashore and inhabit the mountains of Ascension.

During the last few years Stedson has noticed that few juveniles appear to be



Conservation concern – Ascension land crab *Johnnagarthia lagostoma*. © Anselmo Pelembe

replenishing the current, apparently ageing, population. His concerns are that the population will eventually fall below viable levels. One potential explanation for the lack of juveniles comes from one of his recent observations of 'sand cockroaches', in their thousands, attacking the spawning females' eggs at North East Bay. These 'sand cockroaches', approximately 15mm in length, lay buried in the sand and emerge to eat the freshly laid eggs. Stedson has even observed the eggs being devoured whilst they are in the process of being laid.

Future conservation efforts hope to include the investigation of the impact of the 'sand cockroaches' on the reproductive successes of the land-crab with the hope of providing a long-term solution to the apparently ageing and declining population.

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Tristan Mouse *Mus musculus* preying on an Albatross chick. © Ross Wanless and Andrea Angel





Atlantic puffin carrying sandeels. © Bob Perry

UK seabirds under pressure

UK seabirds have suffered a 9% drop in numbers since 2000, reveals *UK Seabirds in 2008*,* a report from the UK Seabird Monitoring Programme.

The recent decline (amounting to over 600,000 birds) follows years of poor breeding performance that have occurred with greater frequency since the mid-1990s. "These latest figures on breeding numbers demonstrate the magnitude of the effect these poor seasons have had on the UK seabird population," said Matt Parsons, Seabird Monitoring Programme Co-ordinator. "They represent a 'turning of the tide' for seabirds breeding in the UK, which increased in numbers from around 4.5 million in the late 1960s to 7 million by the end of the 1990s."

Species that have been particularly badly hit are those that feed on shoals of small fish such as lesser sandeels. For instance, there are now 40% fewer black-legged kittiwake and 33% fewer European shags breeding in the UK than in the late 1960s. The cause of these declines is almost certainly a shortage of food that has led to lower numbers of adults surviving from one year to the next, and not enough chicks being produced and surviving to replace them.

The reasons for the shortages of sandeels in recent years are complex and not fully understood. Over-fishing off eastern Scotland had a significant detrimental effect on the productivity of kittiwakes at nearby colonies during the 1990s, but little fishing has occurred within foraging range of these colonies since then. Fishing may be affecting the distribution and abundance of

sandeels across the entire North Sea, but it is not clear whether this has influenced the availability of sandeels to seabirds feeding closer inshore. There is a growing body of evidence that sandeel shortages are also caused by increasing sea temperatures as a result of climate change. Sea temperatures around the UK have been rising since the 1980s by around 0.2-0.9°C per decade. These rises are thought to have been responsible for striking changes in the abundance of plankton – the tiny floating organisms that sandeels and other small fish feed on.

Long-term declines in numbers of black-legged kittiwakes and other species that rely on sandeels are expected to continue unless the rises in sea-surface temperature are reversed. Reversing the recent warming of the oceans is reliant on the success of global efforts to combat climate change. However, the report identifies two other man-made pressures – from fishing and from the introduction of non-native mammals to island seabird colonies – that could be managed in the short-term to mitigate the impacts of climate change.

* *UK Seabirds in 2008* is a booklet summarising the results of the UK Seabird Monitoring Programme. An electronic version of the leaflet is available as a downloadable PDF file at www.jncc.gov.uk/page-4555.

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Conserving geodiversity in a changing climate

On 4 June 2009, the country conservation bodies, JNCC and the Geoconservation Commission of the Geological Society of London (www.geoconservation.com) convened a meeting to further the understanding of climate change and its effects on geodiversity*. The intention was to bring together a range of people that are involved in conserving geological and geomorphological sites – and soils. The geoconservation community offers invaluable experience to the climate change debate – with knowledge about its predicted effects on biodiversity as well as geodiversity, with evidence covering millions of years of climate change, ice-ages, and mass extinctions gleaned from the geological record. However, the focus of this meeting was to evaluate what additional steps may need to be taken to conserve geodiversity itself, in a world of rapidly changing climatic conditions.

In short, the outlook for the 21st century for the UK is that summers will be drier, winters will be wetter, and by the 22nd century, the sea level will be almost a metre higher. Storminess may increase, but the climate change models are imprecise here. During the conference, time was spent looking at the climatic models (USA, Australia, UK, Germany and Japan have the most developed models; for more information visit the UKCIP website at <http://ukcp09.defra.gov.uk>).

During the meeting, the focus was to think about what the impact of climate change will be on geoconservation. John Hopkins of Natural England made a presentation that helped stimulate discussion, based on bioconservation data; it is clear already that trees are coming into leaf earlier each year, and, for example, that warm-loving species of insects are gradually extending their range northwards into hitherto cooler territory. Sea level is going to rise – many capital cities (which are mainly sited at, or near,



Grangemouth oil refinery and the Firth of Forth. Geological evidence has shown us that after the last Ice Age, Scotland has been slowly and steadily rising above sea level, 'rebounding' after the ice's massive weight was removed when it melted. However, this uplift is now being outpaced by sea-level rise over increasingly larger areas of Scotland, threatening inundation of Scotland's heavily developed firths, and low-lying coastal areas. © P&A Macdonald/SNH

current sea-level) will be flooded in a century's time. So what now for conservation, bearing in mind that there will be a human response to climate change that will put more pressure on the natural world during an inward retreat from the coast?

The debate – for geodiversity – is in its early stages. But geoconservationists are not only looking to the geodiversity and its conservation, but also to the contribution that can be made by assisting in environmental forecasting, from the knowledge amassed of climate change that has been a part of our planet's history for many millions of years. Clearly coastal sites will be

suffering a faster rate of change, but possibly river systems and caves will change in their dynamics at a rate not seen for many thousands of years. More needs to be done in research – and in gathering of information to be able to predict how things will change. But, as a first step, in working out what is needed to be done and what information can be provided in the future in responding to how climate change affects both bio- and geo-conservation, the conference was an excellent start.

Neil Ellis



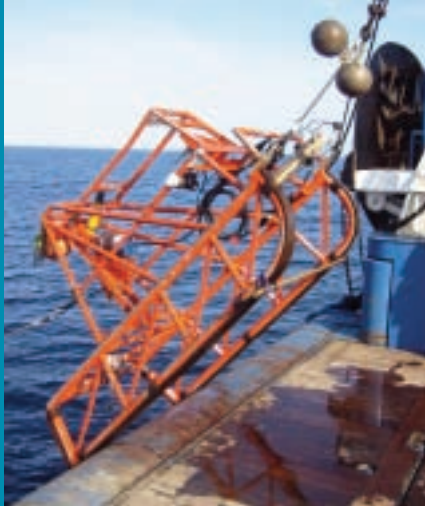
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*Geodiversity is defined as the natural range of geological (rocks, minerals, fossils), geomorphological (landforms, landscape-shaping processes) and soil features, although some extend the definition to the built (stone) heritage and historical geological literature. We conserve geodiversity principally for scientific, educational and cultural reasons. UK sites are of international significance, with many geological terms and principles used the world-over developed here.

New wave of marine work



A video sledge used for taking a closer look at the seabed. © Cefas

Brittlestar beds and soft coral on exposed bedrock. © JNCC

JNCC's marine teams are expanding into new areas of work. In the last issue of *Nature News* you read about the Marine and Coastal Access Bill, and the requirement it brings for the establishment of a network of Marine Protected Areas. As a consequence of this Bill and recent European marine legislation, the group formerly known as 'Marine Habitats Team' has expanded, and adopted a new name to reflect its three key areas of work - 'Marine Ecosystems Team'.

Monitoring and surveillance

A major new challenge for staff in Peterborough and Aberdeen is to develop a Marine Biodiversity Monitoring and Surveillance Strategy, and to implement an integrated programme of survey. JNCC is currently running a project with Natural England covering UK offshore marine areas and English territorial waters, which is funded by Defra. Discussions are underway about whether the project might be extended to cover all UK waters. The project includes monitoring requirements for offshore Natura 2000 sites. At this stage no decisions have been made about the monitoring and surveillance of other Marine Protected Areas.

JNCC's intention is that the Strategy will provide a framework for existing and future monitoring and surveillance. These activities will produce a picture of the condition of marine biodiversity that will be used to achieve the vision for 'clean, healthy, safe, productive and biologically diverse' seas as set out in *Safeguarding our Seas* in May 2002.



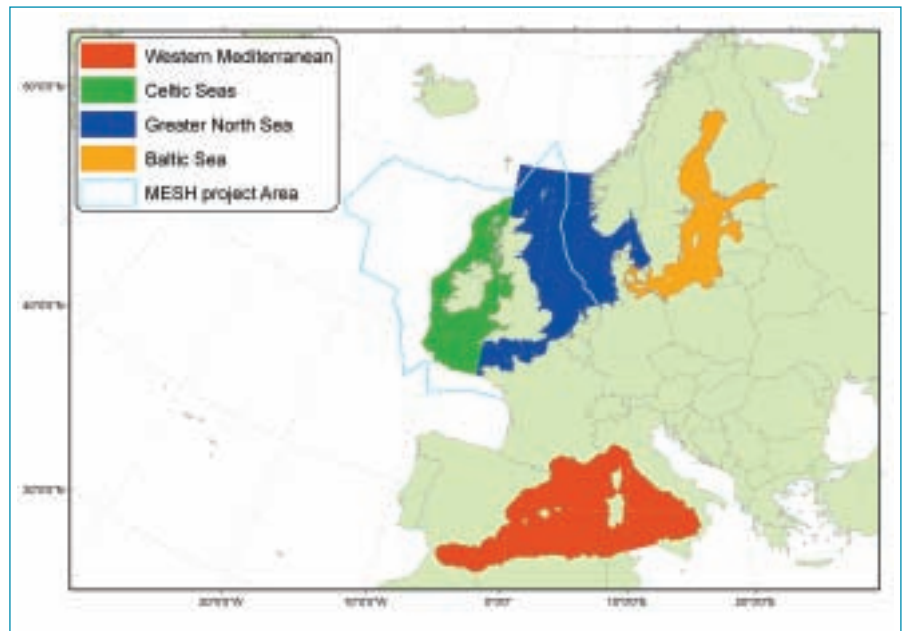
This work is driven by the monitoring requirements of the EU Habitats and Birds Directives, and those expected to emerge for the Marine Strategy Framework Directive (MSFD), the first European Directive covering all Member States' waters. This ambitious UK monitoring and surveillance strategy will also contribute to UK obligations as a contracting party to the OSPAR Convention, the Convention on Biological Diversity and the African-Eurasian Waterbird Agreement.

Mapping and impacts

A sampling strategy for monitoring seabed habitats will be based on existing knowledge of their distribution and quality. Amazingly, available habitat maps derived from survey data cover just 10% of the UK continental shelf, mainly limited to waters within 12 nautical miles of the coast. In terms of total surface area, imagine using a map of Wales to carry out a UK-wide assessment. JNCC needs to fill gaps by predicting broadscale seabed habitats from physical variables, such as depth and type of seabed sediment. With the foundations of the predictive approach laid by the INTERREG-funded MESH project and the UKSeaMap project, JNCC is now launching a project to enhance our broadscale maps. Funding for this work is provided by contributions made by the UKSeaMap project consortium. The resulting maps will be made available to the regional Marine Conservation Zone (MCZ) projects in late 2009, as described in the last issue of *Nature News*, to help develop their recommendations for regional MCZ networks.

Broadscale maps are also in great demand at a European scale. JNCC has been contracted by the European Commission to lead the EUSeaMap project, which began in spring 2009 and will develop harmonised seabed habitat maps for European waters. In the North Sea, Celtic Seas and Baltic Sea, outputs from the MESH project and a similar Baltic project (BALANCE) form a sound starting point for the work. This contract is funded by the Directorate-General for Maritime Affairs and Fisheries, with the primary aim to support the requirements of MSFD, specifically the initial assessments that all Member States must undertake in 2012.

JNCC also wants to know where habitats are threatened by human activities. This requires spatial information about such activities, from which standardised maps of pressures can be derived. The same pressure can have a different impact on different seabed habitats, dependent on the sensitivity



JNCC leads the EUSeaMap project which will develop consistent broadscale seabed habitat maps for the sea areas shown here.

of habitats to particular pressures. JNCC will bring together recent work in this area, carried out on behalf of Defra, and use this to direct fieldwork under the monitoring and surveillance project.

Assessing the status of marine biodiversity

JNCC staff are leading the preparation of four chapters (on seabed habitats, marine birds, turtles and cetaceans) for the *Healthy and Biologically Diverse Seas* status report. This report will provide a comprehensive overview of the status of marine species, habitats and ocean processes across UK waters. The findings from this, and two other expert reports, will contribute to *Charting Progress 2*, due for publication in May 2010.

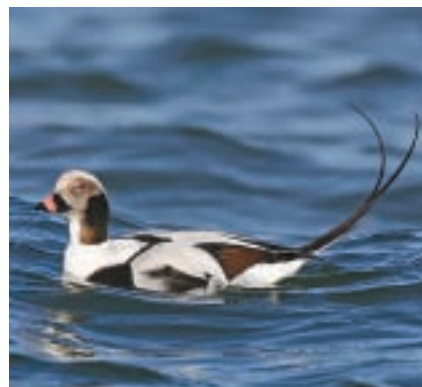
In preparing the seabed habitats chapter, JNCC organised a workshop in November 2008, bringing together experts from statutory agencies, academia, consultancies,

NGOs and others. These experts assessed the impact of human activities on seabed habitats in each of the UK's Regional Seas. For the first time we have been able systematically to assess the entire seabed area, using a methodology developed by researchers at the University of Liverpool and the Centre for Environment, Fisheries and Aquaculture Science (Cefas).

The experience and evidence gained in preparing the chapters for *Charting Progress 2* have also been used in the assessment of the status of species and habitats in the north-east Atlantic OSPAR area. JNCC helped to organise a workshop, held in Utrecht in February 2009, which adopted a similar methodology to that used in the UK; the results of the workshop form the biodiversity contribution to the OSPAR Quality Status Report (QSR), to be published in 2010.

Apart from their inherent importance, *Charting Progress 2* and the QSR are relevant as a test-bed for the upcoming Initial Assessments for the Marine Strategy Framework Directive, due in 2012. The assessment methodology highlighted areas for further development and information gaps. Better data collected under the monitoring and surveillance strategy will enhance the robustness of these assessments in the future.

Seaducks such as this long-tailed duck *Clangula hyemalis* will be included in the *Marine Biodiversity Monitoring and Surveillance Strategy*. © Wolfgang Wander



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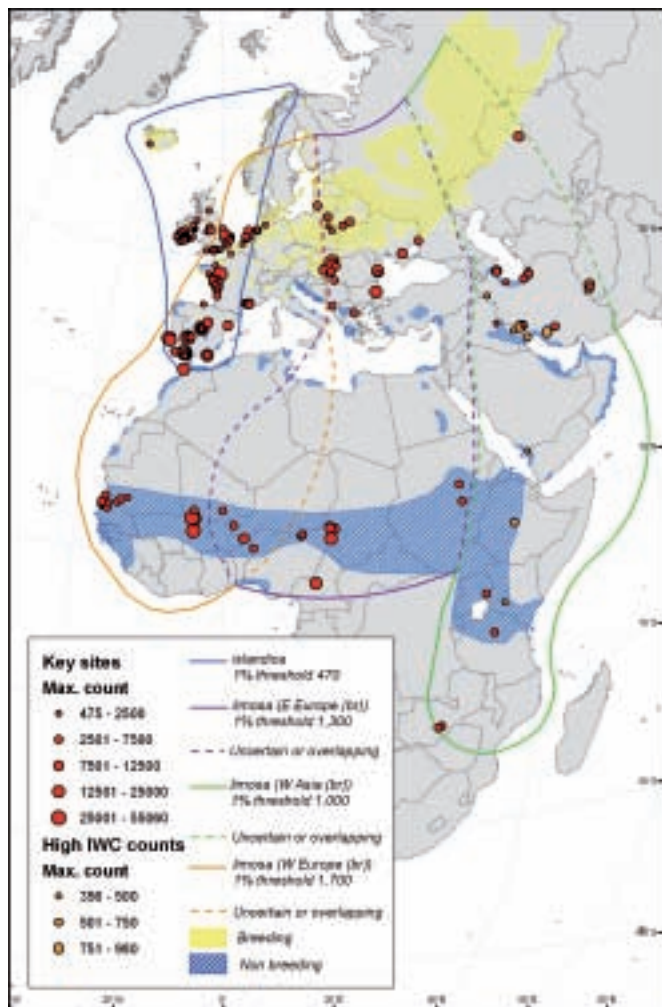


Baroness Barbara Young, who gave the keynote speech at the launch of the Wader Atlas, with (from left): Defra's Martin Brasher, Ramsar's Nick Davidson, Sergey Dereliev from the AEWA Secretariat and JNCC Chair Peter Bridgewater. © JNCC

Mapping our wealth of waders

The huge numbers of waders that seasonally visit Britain and Ireland's shorelines, grasslands and uplands are not only some of our most charismatic birds, but are also species for which we have particular international responsibility. The UK is especially

important for these migrants because of our temperate winter climate, highly productive estuaries and coasts, and a strategic location between arctic and sub-arctic breeding areas to the north and east, and ultimate wintering areas to the south.



Black-tailed godwit populations in Africa and Western Eurasia

Historically there has been much conservation effort to identify and conserve internationally important wetlands for these and other migratory waterbirds, and indeed this was the original stimulus for what became the Ramsar Convention on Wetlands in 1971.

Together with the governments of Belgium and the Netherlands, and many other partners, JNCC has been very pleased to support the development of an atlas of wader flyways by Wetlands International (WI). The atlas was launched by Baroness Young of Old Scone at a recent JNCC event held in London on 20 May [see article on page 3]. Preparing this major book has been a massive effort, being drafted over 11 years by more than 90 experts from the International Wader Study Group (WI's Specialist Group for waders), and summarising the counts of many thousands of volunteers in over 100 countries.

The *Wader Atlas* summarises current knowledge of all internationally important sites for waders in Africa, Europe and the Middle East, and sets these against the flyway distributions of 230 wader populations. Extensive information is presented on current population sizes and trends, and tables give much information on 876 key sites in 85 countries.

As with previous flyway atlases for other waterbirds, the *Wader Atlas* will be an indispensable source of information for governmental and other decision-makers, and will directly assist countries in implementing the Ramsar Convention, the African-Eurasian Waterbird Agreement and other relevant treaties.

Further details are available at www.wetlands.org/waderatlas. (See also www.wingsoverwetlands.org for data on key wetlands for waders).



The Egyptian fruit bat *Rousettus aegyptiacus* is the only fruit bat with populations in the current geographical scope of the Eurobats Agreement. Cyprus is the sole European Union country to host the species, which is listed on Annexes II and IV of the Habitats Directive. © Philippe Clement/naturepl.com

Best practice for bats

JNCC provided the UK representation at the 14th Meeting of the Advisory Committee to the Agreement on the Conservation of Populations of European Bats (EUROBATS), in Tochni, Cyprus in May 2009. EUROBATS came into force in 1994, covering 48 European Range States and currently has 30 Parties to the Agreement. The meeting in Cyprus was attended by 68 representatives and observers from 39 Parties and Range States, including, for the first time, Jordan, Syria, Israel and Turkey. JNCC was supported by the UK statutory conservation bodies and the Sovereign Base Areas Administration, Cyprus.

EUROBATS is an Agreement under the Convention on the Conservation of Migratory Species of Wild Animals, and aims to protect all 45 species of bats identified in Europe, through legislation, education, conservation measures and international co-operation. The UK is the Depository to the Agreement and hosted the First and Third Sessions of the Meeting of Parties (MoP) in 1995 and 2000, so has

a long history of engagement with EUROBATS.

The Advisory Committee works to an Action Plan, revised and agreed at each MoP and delivered by Intersessional Working Groups (IWG). Ten IWGs met during the meeting in Tochni, to discuss a range of issues including:

- The Year of the Bat in 2011;
- wind turbines and bat populations;
- using bats as indicators;
- sustainable forest management;
- autecological studies of bats;
- impacts of roads and other traffic infrastructures;
- light pollution;
- impacts of the use of anti-parasitic drugs for livestock;
- bat migration;
- conservation and management of critical feeding areas for bats.

There were also six ad-hoc working groups to discuss emerging issues such as producing a code of ethics for bat research, pan-European monitoring, developing new

projects, improving the reporting structure, emerging diseases such as white-nosed syndrome, and the expansion of the EUROBATS Agreement to cover the whole western Palearctic Region.

EUROBATS is also publishing a series of guidelines to encourage common approaches and best practice in bat conservation across Europe. *Protecting and managing underground sites for bats*, *Guidelines for consideration of bats in windfarm projects* and a *Bats and forestry* leaflet are already published, with *Surveillance and monitoring methods for European bats*, and *Guidelines for the protection of overground roosts* in the pipeline. The UK has made significant input to all these publications.

Further information can be obtained from the EUROBATS website: www.EUROBATS.org

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Fungi

SSSI Guidelines

The population of waxcaps declined across Europe after the late 1940s when grasslands were built on and agricultural fields treated more intensively with fertilisers. Unploughed and unimproved grassland became an increasingly rare habitat. © Lorne Gill/SNH

The colourful fungi known as waxcaps have recently become the focus for closer scrutiny when selecting Sites of Special Scientific Interest (SSSIs).

A supplement to the SSSI selection guidelines has been published dealing with the distinctive assemblages of fungi associated with certain unimproved and semi-improved grasslands.

These types of fungus-rich grasslands are commonly known as 'waxcap grasslands' after their most colourful and noticeable constituents – the waxcap fungi of the genus *Hygrocybe*. They can be found in both upland and lowland situations, but the best examples usually occur where

management has been traditional, with no recent ploughing, re-seeding or applications of inorganic fertilisers. Their significance has started to be recognised only in recent years, and there have been huge losses of this type of habitat, especially in Europe.

Conservation action in the UK has been impeded by the lack of suitable SSSI selection guidelines – often these grasslands are quite poor in flowering plants and would not qualify for SSSI selection on the basis of their botanical composition alone. To remedy this situation the conservation agency Chief Scientists asked the inter-agency Plant Conservation Working Group to produce supplementary SSSI guidelines. The task was undertaken by

a small working group consisting of David Genney (Scottish Natural Heritage), Alan Hale (Countryside Council for Wales) and Mark Wright (Department of the Environment Northern Ireland). Ray Woods from Plantlife also had significant input, and the wider mycological community was consulted.

The UK is of international importance for waxcap grasslands: the publication of these supplementary guidelines should facilitate the protection of the best remaining sites.

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JNCC helps least-developed countries in Africa with CBD reports

One of the key issues for the global biodiversity conventions, such as the Convention on Biological Diversity (CBD), is to understand how the discussions held by Conferences of the Parties (CoPs) are really being implemented. This is one of the functions of reports to conventions, which for CBD are due every four years.

JNCC was recently invited to contribute to a regional workshop to help 22 least-developed countries in Africa to understand the structure and contents of the next report, and to help them with drafting work. James Williams, from the Biodiversity Information Service, who has been involved in the last three UK reports to CBD, acted as a resource person at the workshop, held in Addis Ababa, Ethiopia from 4-8 May 2009.

The report format has four chapters. The first three focus respectively on: the state of biodiversity; state of national biodiversity strategy and action plan; and mainstreaming biodiversity into other sectors. The fourth chapter is intended to synthesise this information to assess progress towards the 2010 target and towards achieving the strategic plan of the Convention. These reports will be used as input to the next edition of Global Biodiversity Outlook, which will be considered by CBD CoP10 in Nagoya, Japan in October 2010.

JNCC's contribution to the workshop came as a result of our involvement in helping to prepare a draft Chapter IV of the 4th CBD National Report on behalf of the UK as a contribution to a sample report presented at CoP9 in May 2008 in Bonn. The UK's



During the workshop participants visited the genebank run by the Ethiopian Institute of Biodiversity Conservation. Seeds collected across the country are sorted, before checking the quantity collected and storage in freezers for later characterisation and use. © James Williams/JNCC

experience of creating biodiversity indicators is world class, and the sample chapter showed how these indicators would be used to show progress towards the 2010 target of "significantly reducing the current rate of biodiversity loss".

In parallel with this work JNCC has helped complete the UK's own report www.cbd.int/doc/world/gb/gb-nr-04-en.pdf, and an update of the UK biodiversity indicators www.jncc.gov.uk/biyp.

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JNCC's James Williams presenting at the workshop for 22 least developed countries in Africa. © Kieran Noonan-Mooney/Secretariat CBD

Conservation Conversation

In this issue we focus on Andrew Stott, JNCC's Director of Science. Andrew previously worked for 15 years at Defra (and formerly DETR) – most recently as Head of Biodiversity and Landscape in the Natural Environment Service Division.



Q What species inspired you as a child?

A I was inspired by streams and land-forming processes rather than wildlife. However, I do remember as a child we used to collect wimberries (bilberries) off the Yorkshire moors and make the most amazing pies. I had never realised how badly they were suppressed by overgrazing until revisiting childhood haunts in my home town of Rochdale to discover blooming heaths and oak/birch woodlands where previously sheep had roamed unchecked.

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

A My main concerns are the continuing population and economic growth that places unsustainable demands on natural resources and irreparable loss of biodiversity globally. Although some good progress has been made through international conventions and bilateral support, the policy response is not adequate to address the scale of the problems.

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

A I would invest in an overseas development project to conserve biodiversity and improve local livelihoods and well-being. A key part of such a scheme would be to build enduring capacity to enable people to manage their own issues and adapt to change.

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

A Fell running, orienteering, and cross-country running. I enjoy the camaraderie of competition as well as

being outdoors, experiencing the wilder part of the country.

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

A I want JNCC to have a real impact on government decision-making and influencing other national and international institutions to tackle conservation to make better (right) decisions for biodiversity and its sustainable use.

Q What is your favourite place?

A Dunraven Bay, Vale of Glamorgan. This is a fantastic coastal site including a *Sabellaria* reef exposed at low tide, Shore Dock on the strand line, cliffs, rock and waterfalls, fossils and a nudist beach (not to be confused). Nature in the raw!

Q Who is your human hero in the natural world?

A Bill Oddie or Johnny Kingdom. They make wildlife accessible to more people (but drive my mother-in-law mad!)

Q What's your pet hate in nature conservation?

A Nature conservation! The idea of drawing lines around the best areas for conservation, binding them in

regulations and trying to turn the clock back to some perceived former glory. Ecosystems and biodiversity are dynamic and unconstrained. We get many benefits from them and I think nature conservation should be about recognising and promoting these wider benefits, and allowing ecosystems and biodiversity to adapt while continuing to deliver these benefits. Tricky to achieve!

Q Desert Island disc?

A Anne McCue – “Nobody’s Sleeping” from the album *Roll*. A kind of fusion of indie/folk from Australia. She is a fresh, versatile Australian singer and the song I first heard on the radio when I was travelling to a CBD meeting in Montreal. I hired a car, bought the album and played the CD over and over again.

Q Place you'd most like to visit?

A Patagonia – slowly on a bike.

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

A A monk! (Not to be immersed in the everyday issues and focused on other things). Or maybe a Youth Hostel warden - I could go running every day...



Dunraven Bay, Vale of Glamorgan.
Nature in the raw!