NATIONAL FEDERATION FOR BIOLOGICAL RECORDING

NEWSLETTER 41

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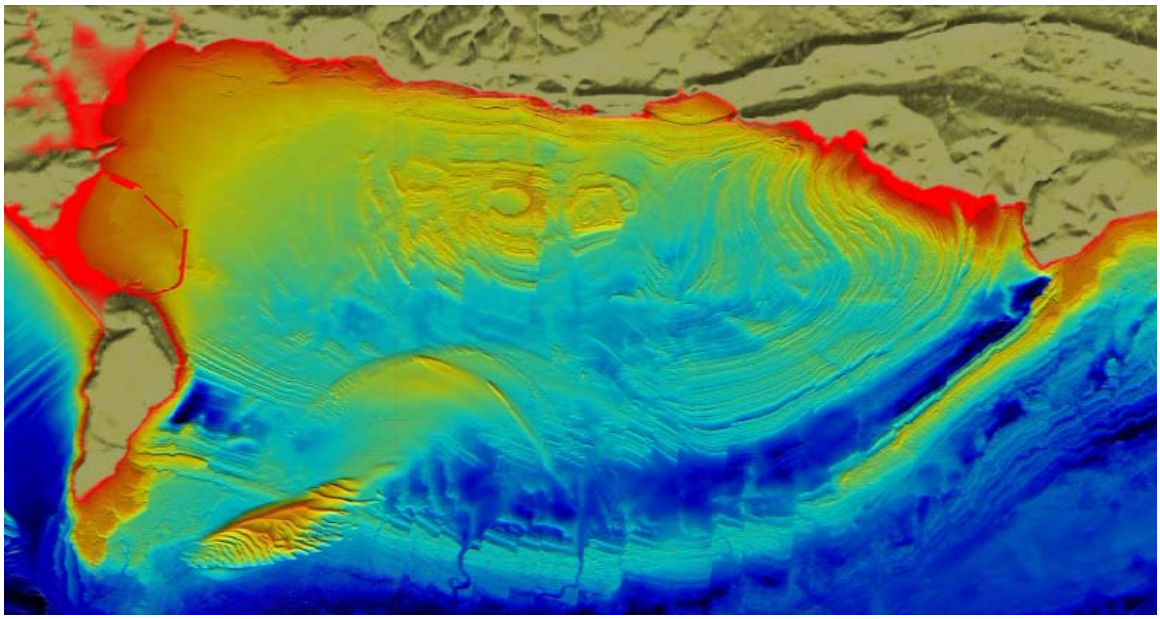

Are there new depths to marine recording in Dorset?

NFBR

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* amended since the AGM

NATIONAL FEDERATION FOR BIOLOGICAL RECORDING

Newsletter Contents

Note from the Editor

After a very full summer newsletter with articles on the conference presentations, this newsletter is somewhat slimmer. It has provided an opportunity to set out the background to the NFBR strategic plan and ask for comments from the membership. There will be more on this at the AGM and on the web-site. In addition we have two contributions on marine recording, an update on ALERC, an introduction to iSpot, book reviews and our first app review. I hope there will be something for everyone.

Thank you to everyone who supplied articles for this issue. The next newsletter will be put together following our AGM and conference in April. Anyone interested in contributing to the newsletter, particularly along the theme of the conference, is very welcome to contact me directly.

Carolyn Steele

Front cover image: Dorset Coast (DORIS)

The images of Lulworth Banks shown on page 9 , and the image on the front cover were produced using data from DORIS (DORset Integrated Seabed survey), a collaborative project involving Dorset Wildlife Trust, Maritime and Coastguard Agency, Channel Coastal Observatory and Royal Navy, with major funding from Viridor Credits Environmental Company. Other partners include Natural England, Dorset Strategic Partnership, University of Southampton and the National Oceanography Centre.

Thoughts on the Future of Biodiversity Information in the UK – Introducing NFBR's Strategic Plan 2011-15

Steve Whitbread, NFBR Vice-chair

Biodiversity information - encompassing simple to complex biological records and other observations of the natural world and our impacts on it - has come a long way in the last quarter century. Never has it held such prominence in official mindsets, policies or procedures – although many would suggest that its use has yet to become properly ingrained in every day decision-making, with real world influence and outcomes rather variable thus far. *But what of the future?*

Projected climate and population change impacts and the increasingly urgent need for proportional, pre-emptive responses make it vital that the necessary environmental and biodiversity information will be available, utilised and acted upon. Unfortunately, this unparalleled need for evidence to guide strategic policy and local decision-making towards sustainability coincides with major cuts in public sector finances. The cumulative and knock-on effects over the next several years will pose serious obstacles and threats to the supply of high quality biodiversity information and to the voluntary and professional networks that sustain its flow. Although Coalition Government statements have placed high importance on the natural environment and a new White Paper is imminent, those services relating to the natural world - countryside, parks, local records centres, museums *et al.* - from the local to national level, have been consistently treated as soft targets of low priority whenever budgets have been slashed in the past. In the short to medium term there will definitely be less funding all round and, sadly, fewer posts directly or indirectly involved with biodiversity information supply. It is essential to ensure that the inevitable pruning circumvents irreparable harm whilst actively translating these various pressures into drivers of a future recording renaissance. This should also help to address a wide range of existing issues, some of them long-standing and still unresolved.

As a whole, though by no means in all instances, biological recording in the UK owes a vast amount to volunteer effort: casual, enthusiastic, or highly skilled; acting independently or in combination; collaborating with, or co-ordinated by, paid staff. The Big Society has a lot to learn from and ought also to benefit the Recording Community - provided adequate weight is given to biodiversity information need. Whereas official funding will be targeted primarily at what are perceived as key targets: supporting the NBN network; BAP priorities; continuation of long-term surveillance and monitoring *etc.*, it must also support initiatives that will maximise the benefits of voluntary networks and bring wider, lasting benefits, e.g. via development of web-based tools that can be quickly tailored to many different needs.

Although its individual threads may be quite simple, biological recording across the UK forms a richly coloured, complicated and somewhat tangled tapestry. It encompasses a multitude of individuals and organisations, paid staff and volunteers, the public, private and third sectors, institutes, agencies, academia and all sorts of partnerships between them; and an enormous swathe of biodiversity across the aquatic, marine and terrestrial environments. Sampling and recording methods - formal and informal - are hugely varied. Various sequences of processes lead from a record being made in the field to its contributing to a report, an atlas or some decision. There is a plethora of uses to which collected data may be put.

The reasons for which records are made vary hugely too. Personal interest, shared purpose, commercial need, professional requirement, research, education and legal obligation may all play a part. On top of this are the development of individual recorders, the roles they play, and the contributions they can make over time plus a tradition stretching back over two centuries. Furthermore, the success of all this recording effort depends in turn on other activities: validation, verification and management of datasets; the promotion and coordination of surveys; the publication of findings; education, training and mentoring; production of identification keys; access to well managed, museum collections and, increasingly, website and newsgroup management – as well as the resources to develop and maintain these.

How can the various networks of recorders, data managers and information users be supported to greatest effect? That is the first of many questions that need to be framed and answered. *What information – for different purposes - is vital, important or 'merely' interesting? How can we ensure that priority information needs are met – in relation to support for recording activity and*

survey organisation, data checking, collation and analysis and the policing of statutory obligations? How can it be ensured that this trickles down into support for activities, which make the different stages of this process, e.g. the training of volunteers, local record centres, and museum collections? What then are key targets for funding not covered by the public purse? How might initiatives and ideas be communicated across the entire biological recording community, so that the outcome of effort and resources is maximised? How can I be sure that the records I submit will be managed effectively and put to best use?

There will certainly be a kaleidoscope of views relating to the goals and experiences of individuals and organisations within different sectors of the biodiversity information spectrum. There needs to be an evaluation of the accessibility, value and shelf-life of the information we already have, of what we need to know now and for the future, and the extent to which particular schemes may meet this need for different environments, habitats, taxonomic groups and all parts of Scotland, Wales, England and Northern Ireland. This will be a vital step towards tackling gaps and overlaps, streamlining as appropriate and directing resources accordingly. One particular advantage will be in highlighting where funding bodies and other organisations can have greatest impact in sustaining voluntary efforts, not least with the recruitment and training of the next generation of recorders, the development of new tools and initiatives. In short, we need to identify, quantify and prioritise biodiversity information needs. Some information, for particular areas or species groups is already known but there is currently no crosscutting framework for biodiversity information supply. Perhaps the first step to be taken is to work out how the multitudinous threads can be drawn together, and how the spectrum of knowledge, views and ideas might be woven into an effective biodiversity information strategy.

Following discussion of ideas aired at our April 2010 conference, NFBR has produced a draft strategy – ***From Recording to Revelation*** – to give focus to our activities in promoting biological recording over the next five years. You can download it from our website and we encourage you to comment on the outline proposals – and their implementation – helping to guide their final form prior to their adoption at our 2011 AGM.

Central to the draft plan is the concept of a more unified, strategic approach to recording and biodiversity information supply that will benefit - and in turn benefit from – a strengthening of all aspects of biological recording in the UK. What is needed is an amalgam of different systems that further individual, county, national, scheme, or organisational objectives, with each informed by and designed to benefit wider biodiversity information needs. Exactly what form different elements should have will be up to individual parties to propose and to discuss with their various data partners or representative bodies. We envisage a holistic, collaborative approach that is flexible enough to encourage the active participation of all sectors or interested parties to the extent they wish to be involved. This might range from supporting its principles in general to taking the lead in developing approaches relevant to the interests of their sector or pursuing independent initiatives that might also inform, contribute to or form a key part of this approach, which we hope to be able to take forward under the banner of ***Joining the Dots***.

You can read an initial *Joining the Dots* document on the website. We will be pursuing this initiative - to which the theme of our twenty-fifth anniversary conference is closely tied - across all sectors of interest in 2011.

Joined up whiting? Harmonizing marine data access in the UK

Becky Seeley, Marine Biological Association

On the 12th November 2009 the Marine and Coastal Access Act came into being and was given royal assent, followed in March 10th 2010 by the Marine (Scotland) Act. These pieces of legislation provide a new framework for managing our marine environment.

However, this year the Charting Progress 2 report also noted that geological and habitat maps derived from survey data cover less than 10% of the UK Continental Shelf, and access to biological data has long been considered a major limitation in the process of coastal planning (Cowling, 1996).

As we move into a new era of Marine Spatial Planning and the protection of marine areas of conservation importance, good marine environmental data has never been so important. This article highlights the work of the marine sector to pull together its data and how this fits into the wider picture of geospatial data in the UK and Europe. It also aims to highlight how the considerable amount of marine data held by schemes, societies or LRC's fits into this marine picture.

"Hubble bubble, toil and trouble" - Problems with the reuse of data

Traditionally collating large datasets on the marine environment has meant first struggling to find out what data exists and then pulling together the data you have managed to access. The problems don't just end with getting data, which have been gathered independently, for different purposes, and are of different standards and quality. Once you have data it is inevitable that you will have to reformat, readjust, re-project, fill in missing gaps and quality assure it before you can use it. Much potentially useful data may have to be discarded because a key piece of important information is missing. This is a time-consuming and often frustrating process.

"Singing from the same hymn sheet" - The Marine Environmental Data Information Network (MEDIN).

To attempt to resolve some of these problems the Marine Environmental Data Information Network (MEDIN) was formed (www.oceannet.org). MEDIN is open to all those with an interest in marine data and has over 30 partners across the whole sector. It covers all kinds of data from multibeam sonar and bathymetry to cetacean sightings and drop-down video of deep-sea trenches. Several national Data Archive Centres (DACs) have been established according to MEDIN principles and are based on data themes such as oceanography, geology, biodiversity or bathymetric data. These DACs liase with data providers, giving support for data management and data archiving facilities.

Shore Thing surveyors © Fiona Crouch

MEDIN is currently addressing a number of key issues including:

Lack of consistent metadata

Metadata or 'data about the data' is vital in understanding whether a dataset is fit for the purpose that you need. The metadata record gives users information about who collected data, and why and how they were collected. The MEDIN discovery metadata standard was developed to meet the requirements of UK and European initiatives in a way that is meaningful for marine data. The MEDIN metadata portal will provide a 'one stop shop' for access to metadata about all marine geospatial data. All organizations holding marine data are invited to create and send metadata to be published on the MEDIN portal.

Low level of interoperability between data from different sources

Data is usually collected for an individual project or study and the methods and techniques used are project specific. In order to make it easier to re-use data, MEDIN has supported the development of a series of data guidelines based on different methodologies including grab and core sampling, archiving still images, or water sampling for biology and chemistry. The guidelines are provided in a

standard format and specify for each data type the core information to be recorded, which includes key points of the collection methodology, using a standard format, reducing the costs of data management and improving interoperability between systems.

Need for common, core reference datasets

Base reference data layers are those required by most users which provide the context for many analyses. The Ordnance Survey map is a classic example of such a reference dataset on land, but to understand environmental data you also need many other datasets. For the marine environment not all such datasets exist yet and MEDIN is working to develop these base layers including, a definitive marine infrastructure dataset and a marine gazetteer. MEDIN already maintains catalogues of tide and sea level and wave data, available through the website.

Mayflower marina © Keith Hiscock

Data Archive Centre vs Local Record Centre - is there an issue?

How does this new national framework for marine data fit in with the existing network of Local Record Centres (LRCs) and the work of national schemes? Well, think of MEDIN and the DAC framework as a shop window for LRC and recording scheme marine data, helping other people find out more easily about local or specialised resources and providing advice about managing marine datasets.

DASSH, the archive centre for biodiversity, is already working with a number of LRCs to help archive and publicise their marine data including;

•Metadata creation of LRC marine record holdings and working with the NBN to create MEDIN compliant metadata via the NBN;

•Marine data archive copy;

•DASSH providing its publically available data to help with marine data requests;

•Advice on marine data holdings including help getting marine data onto the National Biodiversity Gateway;

•Filling in data gaps.

For more information on any of these contact: dassh.enquiries@mba.ac.uk

Scad © Becky Seeley

Beyond the sea – National and European strategies for geospatial data

Environmental issues occur across national boundaries and to fully understand many of these problems you may need to look at a European or global level. The need to harmonise environmental geospatial data has been recognized and INSPIRE (www.inspire.eu) is a European directive creating standards for government agency data in the EU. The **UK Location Programme (UKLP)** is a pan-government initiative to improve the sharing and re-use of public sector location information. Relevant data from MEDIN will feed into these wider projects.

A recent initiative from government is the creation of an Open Government License for public information, which should make it easier to share and access public data, which will include Ordnance Survey and UK Hydrographic Office datasets previously not available.

The Natural Environment Research Council which cover environmental research in the UK is also currently running a consultation regarding access to data held in the NERC data centres and are looking for feedback from data users.
http://www.nerc.ac.uk/research/sites/data/consultation/

Dreaming of a marine data Utopia...

It will take some time and effort to get data up to these new standards, but the days when you can spend more time analyzing the data than in getting the data in and ready for analysis are closer than you think. In an ideal situation:

- Marine data would be archived as a matter of course.
- Dissemination would be through web portals (including National Biodiversity Network, DAC websites and the MEDIN metadata portal) with appropriate licensing and protection for sensitive data.
- Dissemination tools would allow for local schemes to access and display local records.
- Data would be shared (subject to licensing) and government policy would be based on all available data.
- Data ownership would be clearly identifiable and problems with data could be reported quickly to feed back to the holder of a single master copy. Regular updates of this master would ensure data is as accurate as possible.

…these things are all possible NOW! By adopting the standards and best practices developed and promoted by MEDIN and engaging with the accredited Data Archive Centres the management of marine datasets can be greatly simplified; access can be improved, and we can ensure decisions relating to the marine environment are supported by robust, quality-assured data.

Becky Seeley is Biological Records Officer at the Marine Biological Association. She works with the DASSH marine biodiversity Data Archive Centre and sits on the MEDIN standards group.

DORset Integrated Seabed study - visioning the seabed

Kathryn Dawson, Marine Survey and Data Officer for Dorset Wildlife Trust

Over the course of the past century or so, there has been huge advancement in how much we know about the marine environment and in particular, the seabed. Scuba diving has delivered a vast amount of information about this hidden world and has opened up many secrets about the behaviour of marine life, but there is still much that remains hidden.

The very nature of the marine environment means that survey efforts are labour intensive and subject to weather, tides, underwater visibility and bottom time if using SCUBA divers. Charts and maps, whilst essential for navigation, can not highlight areas of biological diversity, or represent changes in habitats over time. Whilst our seas face ever growing pressures from development, pollution, over-extraction and damage from industries such as commercial fishing, drilling and aggregate dredging, gathering evidence to implement necessary protection is a demanding but essential process.

Under the new Marine and Coastal Access Act, the UK now has the ability to implement Marine Protected Areas (MPAs) for a greater suite of species and habitats than those provided for under current European habitat protection laws. There is also provision under the Marine Act to initiate more seabed mapping so that we can provide the fundamental information needed for MPAs and for marine spatial planning - another tool for sustainable use and protection of the marine environment.

Whilst many regions in the UK are still waiting for plans to deliver this seabed information, in 2008 Dorset Wildlife Trust (DWT) initiated a project to map a large area of Dorset's seabed. With the promise of the Marine Act and the ongoing designation of European Marine Protected Areas, there were many who felt that the time was right to gather this information so that we had a better chance of getting it right when it came to our MPAs and marine spatial planning.

The principle funding came through DWT's bid to Viridor Environmental Tax credits for a project to deliver a large scale, high-resolution habitat and bathymetric seabed map- DORIS or Dorset Integrated Seabed study. By chance the Marine Coastguard Agency (MCA) was also looking to map part of the seabed in Dorset in order to update navigation information. It then became apparent that the Channel Coast Observatory (CCO) was looking to update their seabed information in the area. A collaborative project was formed between DWT, the MCA and the CCO, with further input from Southampton Oceanographic Centre and additional funding from Dorset Strategic Partnership and Natural England.

Surveys for DORIS started in 2008 using vessels tracing transects up and down the coast between the eastern edge of Lyme Bay and Old Harry's Rocks near Poole. The vessels were equipped with acoustic-multi-beam survey equipment. From the boat acoustic beams are directed at the seabed. The receiver on the boat detects the strength of the reflected signal, thereby calculating the depth from which it was reflected as well as the type of substrate it was bounced off. The results, once the data was cleaned up and analysed, were two maps, one showing the depth contours and another illustrating the types of substrate present. Over all, we received over 800 km^2 of high-resolution seabed information.

To complement the physical data, biological surveys were carried out by a local consultancy, SeaStar Surveys. SeaStar used drop-down video and photographs along strategic transects in the study area. The images returned from their 84km of transects were of stunning quality and allowed an ecologist to pick out individual species, as well determining the habitat type. From this information the consultants were able to assign a biotope to each image and still from the video. Biotopes were classified, according to the Marine Nature Conservation Review key, to show the habitat type and the type of biological community present.

Overall from the study we have a very detailed, very high-resolution map of the seabed, overlain with habitat descriptions,

geology types and some localised biotope assessments. Another additional layer outlines where there are specific species or habitats of conservation interest.

The features that we have been able to identify from the study are incredible and in some places, beyond what we imagined we could find. Valleys and peaks, ancient riverbed channels and coastlines have all become visible in astonishing detail.

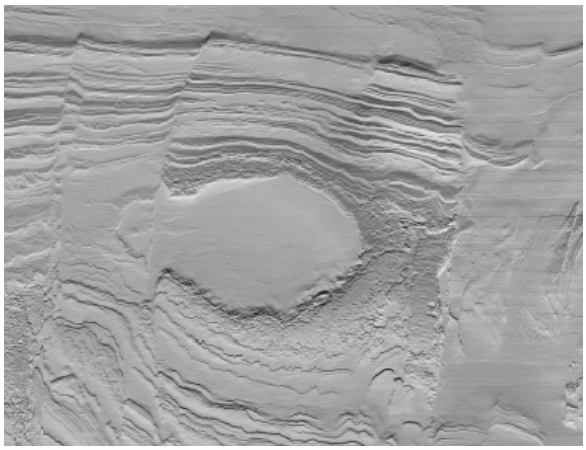


Image: Lulworth Banks (DORIS)

For Dorset Wildlife Trust, the revelations of particular interest have been some of the habitats revealed. In areas where loose gravel and boulders were anticipated, photographs showed a consolidated, stable habitat, bound together by encrusting fauna such as sponges and tunicates. At the edges of the gullies around the western tip of Portland Bill, where there are known deep, drop-offs, a series of shallow cliffs were revealed above the Portland Deeps, all encrusted with life and burrowed into by boring creatures. To the east of the Bill, where mussels have been long harvested, photographs revealed the true extent of the mussel beds and the associated marine life they support, including monster-sized whelks.

Other areas of particular interest included a patchy seagrass meadow within Worbarrow Bay, a sandy cove protected from prevailing conditions by a low reef at the entrance to the bay. Using the photograph transects as locators, we used divers to go back and explore the seagrass and made some very intriguing finds. Whilst the meadows did not get any denser further inshore and remained quite sparse, they clearly supported juvenile fish, pipefish, little cuttlefish and anemones.

Another biotope that was mapped extensively and of particular value, was a 'fragile sponge and anthozoa' community. Populated with tall, branching sponges, delicate bryozoa and pink sea fans in some places, this habitat has been identified as one for protection under both European and UK law for MPAs. Not only were the surveys able to map the distribution but they also provide beautiful images of this diverse reef habitat.

Overall, DORIS has helped us to identify some key areas of conservation interest and provided vastly more information on some key species than we could have acquired any other way. There are several new biotopes in addition to the MNCR list, waiting to be described and accepted, including an infralittoral kelp biotope and one based on Ampelisca mats - areas where tube dwelling amphipods have modified the habitat with their structures. One of the biggest successes from the mapping has been the identification of the extent of the rocky reef in the area. This map has been used to redefine the proposed marine Special Area of Conservation that initially missed some key sections of reef habitat out of this new MPA. This marine SAC will hopefully be accepted in 2011, providing protection for the incredibly diverse and colourful reefs of Dorset. DWT are also using the data to feed into the Marine Conservation Zone planning process and the pilot marine spatial plan for Dorset, being led by the partnership C-SCOPE (Combining Sea and Coastal Planning).

The DORIS project has been labour-intensive and ambitious but it has paid off through the collaborative effort and we are further ahead in our marine planning process than most regions. The information we have recorded over the past three years has given us a wealth of physical and biological data to use for more effective marine conservation in Dorset. DWT hope that DORIS can also provide advice or a template for the future seabed mapping projects that must surely follow around the UK.

An update from the Association of Local Environmental Records Centres (ALERC)

Gary Lewis, ERCCIS

Since the launch of ALERC in October 2009 ALERC has made significant moves forward:

- The Director base has representation from across England and Wales and work is in hand to recruit a Director from a Scottish LRC.
- A website has been created, www.alerc.org.uk and is in the process of a significant upgrade.
- A successful inaugural conference was held in 2010 with over 100 LRC personnel attending. Plans for the 2011 conference will be advertised on our website once confirmed.
- Accreditation criteria have been developed in partnership with Natural England and a trial of the process will be underway early in 2011.

The Directors of ALERC are also looking ahead to future projects including:

- The development of a communication strategy to ensure members are consulted and kept informed.
- The further development of relationships with key external organisations – NBN Trust, Natural England, NFBR, Wildlife Trusts, Local and Central Government.
- To ensure any introduction of accreditation is equitable for all LRCs and does not place an excessive burden on LRC staff.
- To continue to represent the interests of the LRC network at every opportunity.
- To work, with external stakeholders, to achieve sustainable funding for the LRC network to enable them to deliver their outputs to the highest level possible.

The Association of Local Environmental Records Centres (ALERC) was launched in October 2009. It is set up as a Community Interest Company and is managed by group of Directors who formulate policy under the guidance of a Chairman and with the support of a Company Secretary; the Directors meet at least 3 times a year.

The key objectives of ALERC are:

- To promote and encourage the completion of a UK-wide network of Local biodiversity and geodiversity Records Centres.
- To promote and develop good standards of practice in the collation, management, dissemination and analysis of biological and geological records.
- To promote Local Records Centres regionally, nationally and at a UK level to potential users and suppliers of data.
- To provide full representation of the UK with country specific solutions and equal emphasis on the individual countries requirements.
- To develop and promote accreditation schemes for biodiversity and geodiversity records centres and their staff.
- To encourage and facilitate networking between Centres to enable exchange of good practice.

To date ALERC has about 60 LRCs as members and is working to encourage the remainder to join. LRCs are charged an annual fee, dependant on their size, and this fee will be used to promote ALERC, the LRC community, and to work towards the key objectives.

PUBLICATIONS REVIEW

The Flora of County Tyrone
Ian McNeill. National Museums Northern Ireland.
ISBN 978-1-905989-17-1
pp 374. Paperback 275 x 220 mm

Tyrone may not be the first Irish county that comes to mind when contemplating a holiday, but this book goes a long way to encouraging us to make a visit and enjoy its wild flowers. It includes a gazetteer of place names, with occasional pronunciation hints and there is a handy list of sites for a visiting botanist with limited time. It is a heavy book, due to the use of glossy paper necessary to do justice to the exceptional photographs, so you would not want to take it out into the soft days of the Irish climate. But to call it a coffee table book gives the wrong impression – it is also a serious flora.

The author starts with an amble through the county describing the topography, stopping from time to time to record a short list of plants to whet the appetite. Fuller detail of the habitats is provided in a later chapter. The pictures in this "habitat gallery" give a good idea of the county to those who do not know it and a pleasing sense of recognition to those who do. Other chapters cover the climate, geology and history of recording before getting down to the systematic listing of the species with their status and distribution maps, interspersed with the lovely portraits of the species that are characteristic of this book.

The mapping unit chosen for the distribution maps is the quadrant (5 x 5 km grid square). More precise details are provided for the location of plants in fewer than 10% of the quadrants.

Regrettably all books of this sort are out of date by the time they are published because new finds are made during the period between writing and printing. Soon after publication even more new records appear as readers succumb to the human urge to prove they know better and go out to look for new sites, or people realise their favourite site is not mentioned. This is, perhaps, the most useful outcome of publishing a flora or though it is rarely the primary reason for doing so. Books published this year have an additional reason for being immediately out of date. The publication of the third edition of Stace's New Flora of the British Isles (2010), with its fully revised nomenclature derived from genetic data, leaves behind floras like this that follow the second edition of Stace (1997). Nevertheless, many readers will be much more comfortable with the older scientific names and the vernacular names for years to come.

So far as I can tell, the flora is comprehensive for vascular plants. There are meagre surveys of *Rubus* and *Taraxacum*, but at least they have been attempted, and the author admits to more work being need on *Euphrasia*. A map of the number of taxa recorded in each square shows that the richest squares are near the author's home. Coincidence perhaps, or did he choose to live in the best spot. Alternatively, does this reveal a common bias due to more intense recording?

Although Ian McNeill is the author of this book, recording the county has clearly been a family effort and this shines through the easy, personal style of writing; a refreshing departure from many floras. Both his sons have been very active in Tyrone, secure in the knowledge that no matter how dreary the weather, there would be "a hot meal on the table to welcome the weary botanist home", thoughtfully provided by Ian's wife, Eila and daughter, Margaret. David is now the BSBI recorder for Co. Antrim and it was his finding of a marsh helleborine late one July evening in 1980 just as they were returning home that led to a lifetime of botanising and to this book. The stunning, full-page photograph included in the book will show anyone not familiar with this beautiful species why it would have been exciting even if it had not been the first record for the county.

With digital databases of almost infinite size available on home computers, one might imagine the day of the county flora is over. The new flora of Co. Tyrone reminds us what a pleasure it is to have a well written and illustrated book. There is a lot more to our flora than lists of grid references, dates and recorders.

Robin M. Walls
Consulting Scientist

British Scraptiidae
by Brian Levey. Published for the Royal Entomological Society by the Field Studies Council. 2009. Soft back £7.50. ISBN 978-0-90154-689-0. 32pp. 245 x 175mm

Perhaps not the most engaging of our beetle fauna, however, the Scraptiidae comprises a small number of species which are somewhat of a challenge to identify correctly and this latest RES Handbook updates that part of Volume V Part 9 published in 1954 which was devoted to the genera *Scraptia* and *Anaspis*.

Three *Scraptia* species have been recorded in Britain, one of which is only known from a single record over 150 years ago and which may now be extinct, whilst the other two are very local and rare. With about 70 species of *Anaspis* found in Europe we should perhaps be grateful that only 13 have so far been recorded from Britain. Two of these are of doubtful status whilst a further species – *A.* (*Nassipa*) *flava* (L.) could occur here.

Following the usual introduction, brief larval notes and a systematic checklist, pages 5-23 contain fully notated keys to all species accompanied with marginal explanatory diagrams to supplement the descriptive text. Published *Anaspis* keys rely substantially upon male sexual characters and these are repeated here. However a separate and very welcome key to identify the females is also provided. Brief notes on each species give information relating to the colour variations found within some species, to British/European distribution, abundance, adult phenology and larval hosts where known. The Handbook concludes with a bibliography of references, index and four representative excellent colour plates (although no accreditation appears to be given).

For reasons of continuity it would perhaps have been logical if Volume V part 9 could have been updated and revised in its entirety thereby avoiding a fragmented proliferation of parts. However this small Handbook is a very welcome contribution to our knowledge and understanding of the smaller beetles and indispensible to any coleopterist with aspirations to accurately identify this group.

John Badmin

Silent Summer: The State of Wildlife in Britain and Ireland.
Edited by Norman Maclean. 765pp, (Cambridge University Press, 2010). Hard cover £27.99. ISBN 978-0-521-51966-3.

This book could certainly not have been compiled without the dedication and expertise of thousands of field biologists across Britain and Ireland. Despite the oft-highlighted shortcomings of our data storage and retrieval systems, collectively we have assembled a huge metadata base to enable us to critically assess the state of our flora and fauna. This book takes its name from an earlier best seller, *Silent Spring* by Rachel Carson who painted an idyllic picture of wildlife in harmony with its surroundings eventually destroyed by 'modern' farming practices. However even the best prophesies are prone to error, and today, people in industrialised countries are better fed than ever before and visiting the countryside in ever-increasing numbers to take advantage of its many benefits – silent countryside it ain't. This has largely been a one-way process with towns expanding onto green field sites, endless road building, more efficient agriculture and fisheries intensification in our coastal waters gradually reducing the extent and quality of the rich diversity of semi-natural habitats that have evolved here since the last ice age. Degradation, reduction and loss of habitats and loss of animal and plant species appear to be reaching a critical phase and there is a distinct quietness to be heard in some corners of the countryside. This book is a timely review of the state of our wildlife today, ten years into the twenty-first century.

A similar review was attempted ten years ago, but at £150 a copy, failed miserably to reach its target audience and sadly is rarely cited. The editor of

A similar review was attempted ten years ago, but at £150 a copy, failed miserably to reach its target audience and sadly is rarely cited. The editor of *Silent Summer*, Professor Norman Maclean, Emeritus Professor of Genetics at Southampton University, with a strong interest in river management and wildlife conservation, has not made the same mistake, and has brought together national experts on a very wide range of taxa groups to summarise their knowledge in hardback form at an affordable price (£28).

As an entomologist I welcome the fact that for once there are more chapters on insects and other invertebrates than the usual four-legged / feathery animals which can seriously skew our perception of the natural world. We should continually remind ourselves that small to medium-sized animals are the norm on this planet. One reviewer complained (quite rightly) that fungi had been omitted and that perhaps one less chapter on insects might have provided a better balance. Try telling this to Alan Stubbs of Buglife who had the herculean task of summarising information on three of the largest insect Orders in the UK covering more than 15,000 animal species.

Factors driving changes in wildlife abundance are discussed first. Tim Sparks and colleagues set the scene with a chapter on 'Climate Change' and how this has affected species abundance, latitudinal and altitudinal shifts in distribution and phenology over recent decades. There are very informative papers on 'Agriculture, woodland and semi-natural habitats' by Ken Norris, 'Urbanisation and Development' by Kevin Gaston and Karl Evans; 'Water pollution' by Michael Hughes and Carl Sayer and the 'Impacts of hormone-disrupting chemicals on wildlife' by Charles Tyler and Rhys Goodhead. There are also chapters on the impacts of plant and vertebrate animal introductions which we are all familiar with and a fascinating account of recent trends and effects of recreational angling.

The second section deals with conservation in action and summarises the progress we have made in implementing conservation measures across the UK (with some notable successes), our role in international conservation and in particular our government's responsibility for looking after globally rare and endangered species in UK Overseas Territories.

The third section, the real meat of the book, comprises 21 chapters and deals with the state of our wildlife, group by group. Vertebrates are split into mammals, bats, birds, fishes, reptiles and amphibians with a special chapter devoted to the conservation of the grey partridge.

Several chapters slice across taxa and cover habitats such as freshwater, the littoral zone, offshore waters, and a novel one on aerial plankton (Richard Harrington, Chris Shortall and Ian Woiwod). Declines and losses and increases and additions to each taxa group are reviewed and discussed in relation to contributing factors such as habitat degradation, climate change, light pollution, water quality and pesticides and herbicides. The oft-quoted amounts of pesticides used in our gardens are way out of date and clearly overstated, but acquiring commercial figures is difficult.

Much of what the authors have written about should be fairly common knowledge to anyone reasonably acquainted with their group of interest, but having all the information on so many groups in one place means that we can reach a much more balanced assessment of the overall state of our country's wildlife and this is the great strength of this book. It appears we have lost far more native species than we have gained and that this process may be accelerating. Besides direct human impact, introduced species such as deer have deleterious effects at a range of scales and trophic levels, altering vegetational structure and composition and severely disrupting the abundance of associated plant herbivores such as insects and their parasitoids. Aquatic habitats are not immune: river systems are invaded by introduced crustaceans and

predatory fish. Fragmentation of the landscape and climate change also exert changes.

This book is a rich source of information about the state of our fauna and flora and a copy should find its way onto the bookshelf of every field biologist in the UK. With such knowledge we should be able to make better informed judgements about the future management of our countryside. The editor, Norman Maclean, is to be congratulated for publishing an excellent book.

John Badmin

OTHER RESOURCES

British and Irish butterflies App
by Adrian Riley. iTunes app version, 2010. £4.99. Available via http://itunes.apple.com/gb/app/british-irish-butterflies/id376331398?mt=8#.

This latest app, entitled "British and Irish Butterflies" is an abridged version of the book of the same name by Adrian Riley. Its most important feature is a set of easily accessible photographs and descriptions of all 59 species of butterfly known in the UK including subspecies and forms (108 taxa). There are useful field tips on when and where to locate species including OS grid references. Drilling down further, for each species there is information on general distribution, flight period, larval food plants, habitat requirement and key identification characters. Great care has been taken to show the user how to separate closely related species such as the various blues. The adoption of common names for local races may be a tad contentious: for example, Irish Brimstone *Gonepteryx rhamni* ssp. *gravesi* Huggins or Burren Grayling *Hipparchia semele* ssp. *clarensis* de Lattin.

This butterfly identification app is the most comprehensive I have come across, but no doubt following Badmin's rule that the number of ID guides is inversely proportional to the number of taxa described we can expect a lot more in the years to come as e-technology improves.

John Badmin

Advance notice

National Federation of Biological Recording 2011 AGM and Conference

The Future of Biological Recording in the UK
7th/8th April 2011

To be held at The Holiday Inn, Filton Bristol BS16 1QX

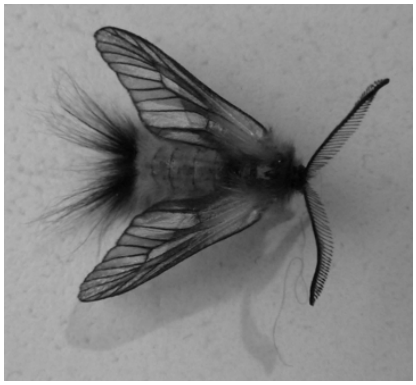
The full programme and invitations will be sent out to members and details will be available on our website.
Bookings: John Newbould

Wildlife Recording at www.ispot.org.uk

Bob Ford, iSpot Biodiversity Mentor South Region (r.a.ford@open.ac.uk)

iSpot is an online forum for wildlife enthusiasts to share their observations and photos and take part in discussions about all sorts of topics related to wildlife and the environment. Devised by the Open University, it is part of the Imperial College's Open Air Laboratories Project (OPAL), funded by the National Lottery through the Big Lottery Fund.

Launched in the summer of 2009, the site has quickly attracted thousands of users from all over the UK and of all ages – including a six year-old girl from Berkshire who found a species of moth never seen before in the UK!
The site caters for beginners who would like help with identifying their sightings as well as experts willing to share their knowledge and experience with others. Users just have to go through a 5-minute registration process before uploading their own wildlife observations and adding their own comments on sightings made by others.



Euonymus Leaf Notcher (*Pryeria sinica)* – a species new to Britain!

By putting observers in contact with experts, iSpot is very efficient at getting sightings identified. Of the 25,000 observations that had been submitted by November 2010, 96% had received an identification. Over 3,000 species have been identified in this way, forming a set of reliable data that can be browsed by any visitor to the site – whether or not they have registered.

Because of these remarkable features the site was recently awarded the ARKive New Media Award, one of the Wildscreen Festival Panda Awards. iSpot has also been shortlisted for the Times Higher Education Awards 2010.

The BBC has been featuring iSpot heavily in 2010 with regular mentions on Springwatch and Autumnwatch on BBC1 and on Saving Species on Radio 4.

The basic process behind iSpot is simple:

- It all starts when you come across something interesting and take a photo.
- Back home log on to iSpot and upload your photo.
- You will be prompted to add various other details such the date, location and what you think the species might be.
- As soon as you click the SAVE button your sighting will start to be commented on by naturalists all over the UK.
- You may have alternative identifications suggested, or your original ID may be confirmed.
- As you continue to add confirmed observations, you will gain reputation points.
- Once you have enough points you will be able to confirm the identifications of other users, a feature which makes iSpot a virtually self-regulating community.

Known experts have already been given sufficient points to confirm identifications, and in addition there is a team of ten Open University Mentors whose job it is to provide help with users on the site and at events organised all over the UK.

If you're involved with a wildlife recording group or society iSpot can give you an icon (a badge) that links to your website. Other features on the site include Neighbourhood Nature, a new course from the Open University that provides an introduction to local wildlife and new online identification keys. These keys use an innovative Bayesian approach, making the keys easier to use and suitable for use in the field on devices such as mobile phones.

Why not log-on to iSpot (www.iSpot.org.uk) and see the latest observations?