



NFBR

NATIONAL FORUM
FOR BIOLOGICAL
RECORDING

Newsletter 57 – April 2019



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Welcome to Issue 57 of the National Forum for Biological Recording Newsletter.

In this edition we learn about some ways in which scientific research and technological development are being combined, both in the promotion of biological recording (pg. 6) and in the analysis of the data produced by biological recording (pg. 16).

We also hear about more resources being developed and improved to help with species identification (pg. 7 and pg. 23). And it is, as always, great to learn of new places and ways to get involved with recording (pg. 4, pg. 13 and pg. 18).

Many thanks to everyone who has contributed to the newsletter, I hope you all enjoy reading it and find some inspiration to augment the pleasures of recording in the coming summer months.

Elaine Wright (Editor) editor@nfbr.org.uk

As always, if you would like to make a contribution to a future newsletter, please get in touch at any time. The next edition will be released in October.





2019 Conference

The 2019 conference is fast approaching, with less than two weeks to go. If you are quick you may still have time to book a place - the deadline is 5pm on Thursday 2nd May. Full details including the programme and booking details can be found on [our website](#).



NATIONAL FORUM
FOR
BIOLOGICAL RECORDING

Conference 2019

Outside the honeypot: biological recording in the wider world

Thursday 9th May - Saturday 11th May 2019

BTO, The Nunnery, Thetford, Norfolk

Current NFBR Governance

NFBR has a board of six trustees who form the Executive Committee, plus an Advisory Council. You can learn more about the individual Trustees and Council Members on the NFBR website: <http://www.nfbr.org.uk/?q=about-us/governance>. Current members and positions held are as follows:

Trustees

Graham Walley
Clare Langrick
Paula Lightfoot
Simon Pickles
Sarah Whild
Elaine Wright

Advisory Council

Paul Brown
Teresa Frost
Martin Harvey
Martin Hicks
Maria Longley
Damian McFerran
Jodey Peyton

Steve Prentice
Zoe Randle
Chris Raper
David Slade
Craig Slawson
Alan Stewart
John van Breda
Jonathan Willet





Working together for biological records in BIAZA zoos

Tyrone Capel, Zoological Society of London

The British and Irish Association of Zoos and Aquariums (BIAZA) member zoos occupy large quantities of private land across the UK, with some having areas of SSSI or other protected areas as part of the of their sites where native wildlife can thrive. But of-

ten zoo keepers and staff are not equipped with the skills and knowledge to survey their zoos effectively, with typically the charismatic and easier to identify species being those recorded. As wildlife enthusiasts we understand the impact and importance of biological records, which is why we have begun an initiative to create better links between our zoological collections and our local biological recorders.

BIAZA is the professional body representing the best zoos and aquariums across the UK and Ireland, with more than 100 zoo and aquarium members who are committed to be at the forefront of conservation, education and research. Most people equate zoos and aquariums with holding and protecting animals that are exotic, with the animals they care for acting as ambassadors for their conservation efforts overseas. However, our members are just as passionate about protecting our wildlife at home with many focusing on native species and others actively involved in native species conservation projects.

In 2012 BIAZA established a campaign called BIAZA BioBlitz with the aim of encouraging and engaging zoos with their local native wildlife. A BioBlitz is an event that can engage any number of enthusiastic individuals with biodiversity, allowing them to get hands-on in wildlife surveying and monitoring. During these events BIAZA members have recorded over 1000 Floral species and 2000 Fauna species on our sites. While this is a big step in the right direction, we know there is much more we can do.

Creating links between BIAZA zoos and their local biological recorders is something we feel could have a huge impact on local biological records. Working alongside skilled and knowledgeable recorders will help gain better quality and quantity of records for our zoos and the county, and allow zoo staff, members, volunteers and visitors to develop new biological identification and recording skills that will hopefully translate into ongoing increases in records. There have been some great examples of local biological recording groups working alongside their local zoos. The Bedfordshire Natural History Society have been working closely with ZSL Whipsnade Zoo and Woburn Safari Park for a few years now, and the records gained have been astonishing. The zoo sites have provided the group with countless new county and national records of both flora and fauna. There has also been the discovery of a woodlouse species ([*Anchiphiloscia pilosa*](#)) recorded at ZSL Whipsnade zoo which is the first in the western Palearctic. This type of information is extremely useful, as it equips zoo with information that they can use to educate staff and visitors about the local wildlife on their site and surrounding area which can encourage engage-



Anchiphiloscia pilosa



ment with local wildlife. It also can result in additional protection for areas where species of particular interest or conservation importance are found. This has certainly been the case for bats, slowworms, great crested newts, along with dung and stag beetles.

The surveys have not only benefited the county with new records, but also allowed the recorders to access areas of the county that are normally strictly out of bounds and inaccessible. These include areas of ancient woodland, historic ponds, areas of SSSI, as well as the wackier elephant paddocks and animal enclosures and ponds along with many more normally inaccessible areas of the county. Working alongside the recorders during the surveys has inspired many keepers and zoo staff to get more involved with recording and species identification. I myself have worked alongside Alan Outen from the Bedfordshire Natural History Society organising these surveys and have seen the impact myself. The encouragement and support certainly helped cement my interest and drive for native wildlife, which subsequently has led to me taking a position as the Native Invertebrate Co-coordinator for the BIAZA Working Groups.



ZSL Staff at Whipsnade zoo engaging during an invertebrate survey with the Bedfordshire natural history society.

"The Bedfordshire Natural History Society and the affiliated Bedfordshire Invertebrate Group greatly values the relationship that has been established with ZSL, in particular Whipsnade, and with Woburn Safari Park. We have been delighted to gain access to such large areas including to parts of this not normally open to the public. We have been able to find many exciting species new to the County and also new to Britain, thereby enhancing our knowledge of the flora and fauna of the County. The areas of relatively undisturbed habits have yielded a rich biodiversity of Higher Plants, Lichens, Fungi and Invertebrates etc. Access to synanthropic habitats such as the Butterfly House and the old discovery centre at Whipsnade has been especially rewarding and interesting. The cooperation and interest by staff has been really superb and greatly appreciated as of further mutual benefit" – Alan Outen



This is the type of impact that we feel can benefit both parties and wish to promote and encourage. We are in the process of equipping our zoos with contact information for their Local Environmental Record Centres and recording groups to encourage them to get involved with biological recording, and to facilitate local recorders to gain records for previously unavailable areas of the county. We would also like to encourage the local recorders to reach out to their local zoos to try and create a link and working relationships that can benefit all involved. This can be assisting with their BIAZA BioBlitz event or conducting separate surveys around the zoo sites with zoo staff to encourage and support their enthusiasm for native wildlife.

If you'd like to help with this initiative, please contact local sites directly or if you would like to be put in contact with your local zoo you can email us at Tyrone.Capel@ZSL.org or jeff.lambert@cambria.ac.uk

Designing online species identification tools for biological recording: the impact on data quality and citizen science learning

Sharma N, Colucci-Gray L, Siddharthan A, Comont R, van der Wal R. 2019

Abstract

In recent years, the number and scale of environmental citizen science programmes that involve lay people in scientific research have increased rapidly. Many of these initiatives are concerned with the recording and identification of species, processes which are increasingly mediated through digital interfaces. Here, we address the growing need to understand the particular role of digital identification tools, both in generating scientific data and in supporting learning by lay people engaged in citizen science activities pertaining to biological recording communities. Starting from two well-known identification tools, namely identification keys and field guides, this study focuses on the decision-making and quality of learning processes underlying species identification tasks, by comparing three digital interfaces designed to identify bumblebee species. The three interfaces varied with respect to whether species were directly compared or filtered by matching on visual features; and whether the order of filters was directed by the interface or a user-driven open choice. A concurrent mixed-methods approach was adopted to compare how these different interfaces affected the ability of participants to make correct and quick species identifications, and to better understand how participants learned through using these interfaces. We found that the accuracy of identification and quality of learning were dependent upon the interface type, the difficulty of the specimen on the image being identified and the interaction between interface type and 'image difficulty'. Specifically, interfaces based on filtering outperformed those based on direct visual comparison across all metrics, and an open choice of filters led to higher accuracy than the interface that directed the filtering. Our results have direct implications for the design of online identification technologies for biological recording, irrespective of whether the goal is to collect higher quality citizen science data, or to support user learning and engagement in these communities of practice.

This abstract is taken from [PeerJ — the Journal of Life and Environmental Sciences](#)

The full article is open source and can be [read online here](#).





Rhogogaster viridis (photo © [Malcolm Storey/Bioimages](#))

Sawfly recording news

Martin Harvey, *Biological Records Centre (BRC)*

Sawflies seem to be having a moment! Historically this group of insects has been rather neglected, and although R.B. Benson produced comprehensive keys in the 1950s, it seems that rather few people took up the challenge dur-

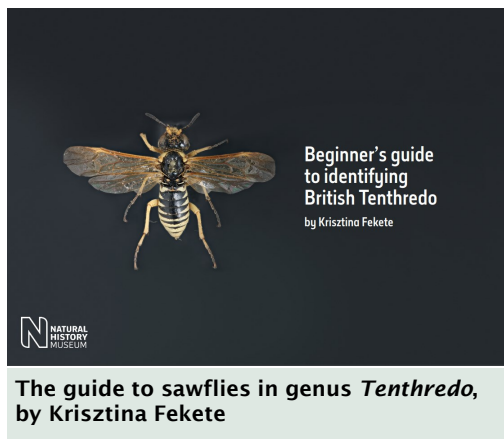
ing the second half of the 20th century (although those that did have been very active).

A national recording scheme is in place, led by Guy Knight, but sadly ill-health has prevented Guy from being as active as he would like. More recently a very busy [British and Irish Sawflies \(*Symphyta*\) group](#) has been established on Facebook, with the involvement of a number of county sawfly recorders. And new identification resources have started to appear, including a beautifully illustrated new guide to sawflies in genus *Tenthredo*, by Krisztina Fekete, which can be downloaded from [the Natural History Museum website](#) (pdf, large file at c. 150MB).

Last autumn BRC organised a meeting of sawfly recorders, to share ideas about how we can support the national recording scheme to further interest in, and recording of, sawflies. This was held at the NHM's [Angela Marmont Centre](#), and brought together a range of recorders and taxonomists. One output from this meeting was a list of sawfly-related resources, gathered together in a [resources list](#) (pdf) produced by BRC. This includes links to some fantastic Flickr photo galleries by Steven Falk, John Grearson and others.

County sawfly recorders are in place for a number of counties and regions, many of whom are working with records sent in via iRecord to update the available data for sawflies. Another outcome from the meeting was to start passing the verified iRecord data to the NBN Atlas, and this is now one of the datasets that is updated on a monthly basis; it can be seen via this [NBN Atlas link](#). Although this dataset does not represent the full recording scheme, it does allow an increasing number of records to be shared and to gain a clearer understanding of the distribution of sawflies.

Various other developments are under way: David Sheppard is working on a new book covering sawflies, and Andrew Green has started developing a new website (www.sawflies.org.uk) that will feature species information and identification resources. All of which means that it is an exciting time to take up sawfly recording and help add to our knowledge of this fascinating group!



The National Biodiversity Network Trust has been awarded £190,500 from the National Lottery Heritage Fund to

build its resilience and sustainability

The National Biodiversity Network Trust (NBN Trust), the charity that promotes and facilitates the collection, sharing and use of wildlife data, through the NBN, has received a National Lottery Heritage Fund grant of £190,500 to explore how it can become more sustainable.

In particular, the NBN Trust will have the resources to be more responsive to the needs of users of the NBN Atlas and keep up to date with rapidly changing technological advances, as well as enthusing and engaging more people about the wonders of British wildlife.

Currently the NBN Atlas holds approximately 220 million species records across 43,000 species in 800 datasets. It aims to be the single source of high-quality wildlife data at the national level, making it the leading website to share, view, analyse and use this data for everyone from school-children, students and academic researchers to commercial users, government agencies and the general public.

NBN Atlas News

In order to allow users to stay up to date with NBN Atlas developments we have created a NBN Atlas news page on [the NBN website](#).

We have also just issued our first NBN Atlas newsletter, which will be sent to all registered NBN Atlas users on a six-monthly basis. If you are not a registered user you can still sign up for the newsletter on [the NBN website](#).

Some of our most recent NBN Atlas news includes: Enhanced access to sensitive records, How to Flag an issue on an occurrence record, New editing rights for data partners and an update on Spatial layers.

Beta NBN Atlas Northern Ireland has launched for testing

We are delighted to welcome the NBN Atlas Northern Ireland into the family, as this newest Atlas goes live! [NBN Atlas Northern Ireland](#) brings together information on over 11,000 species from almost 3 million occurrence records, enabling the data to be shared, analysed and researched.

This new NBN Atlas is currently a beta version and we welcome comments and feedback as we prepare for a formal launch of the NBN Atlas Northern Ireland at the end of May 2019. Please add any feedback and comments to the [NBN Atlas NI Forum](#) by 13 May 2019. Please note that you will need to register with the Forum before you can add any comments. Thank you for your input.

NBN Trust has a new Chair

At the February 2019 Board meeting, Michael Hassell retired as Chairman of the NBN Trust and Neil Hodges was welcomed as the new Chair.

Neil's background is in law, having trained and practiced at the law firm Allen & Overy and subsequently holding senior in-house roles at Barclays and, most recently, Zurich Insurance where he was General Counsel for ten years. He has significant experience of governance, commercial, compliance and management issues at team,



executive and board levels. Reflecting his interest in the natural world and environmental issues, Neil is currently pursuing a post-graduate course on environmental law with a focus on biodiversity and species/habitat protection.

Call for nominations – Honorary membership of NBN Trust

The NBN Trust is seeking nominations for Honorary Members. Do you know someone who you think should receive this accolade?

Honorary Membership can be awarded to one or two persons each year and is agreed upon by the NBN Board of Trustees. They do not have to be a member or part of a member organisation to be nominated. Nominations must be received by Friday 7 June 2019. You can find out more on [the NBN website](#).

NBN Conference 2019

This year's NBN Conference is taking place on Wednesday 13 and Thursday 14 November and will once again be held at the Albert Hall in Nottingham. The theme is "Network, Knowledge and Narrative – sharing and using data across the NBN and beyond". The programme will be announced in due course, but for now - save the date!

NBN Awards 2019

These annual Awards, which recognise the unsung heroes of the wildlife recording world, will launch on 8 May and will be open for nominations until August. Keep an eye on the NBN website, Network News and social media for more information and how to nominate someone.

Research on range-shifting species establishing in the UK

Jamie Craston, a PhD student, co-supervised by the University of Exeter, the Biological Records Centre and the National Biodiversity Network, is currently working on a study exploring recorders' attitudes to new species establishing in the UK. Many species are currently shifting their ranges around the globe which may have important ramifications for UK ecology as well as biodiversity planning and management.

The starting point of this is a survey to gather some initial data which begin to characterise the broad considerations amongst recorders on the topic and maybe identify some differences.

Please [follow this link](#) if you are interested in completing the survey.

The survey takes between 10 and 30 minutes, depending on how detailed you might want to be in sharing your perspectives for the more open-ended questions. There are no compulsory questions to hold you up, but all the information is useful for the final analysis. During the survey, you'll see four species, two birds and two invertebrates (each randomly selected from a wider pool). These may not all be familiar to you, but any response, even "no opinion" is still useful data.

Anyone interested in seeing a copy of the final study or if there are any questions, please email Jamie on j.cranston2@exeter.ac.uk. Alternatively, you can follow Jamie on Twitter [@JP_Cranston](#), for more general updates.

Finally, if you know anyone else who records wildlife that might be interested in the topic and could let them know about this research that would be very much appreciated.





The Conchological Society

of Great Britain & Ireland

Recording Scheme Spotlight

Each issue the NFBR newsletter celebrates one of the many and varied National Recording Schemes in the UK. These schemes help to ensure accurate species identification, help with

dataflow and are an essential part of the British wildlife re-cording community.

This time we are featuring the Conchological Society of Great Britain & Ireland [Non-marine Scheme] with answers provided by Dr Ben Rowson.

Tell us a bit about the scheme

One of the Society's preoccupations, ever since it was founded in Leeds in 1876, has been the purposeful recording of geographical distributions of both marine and non-marine molluscs. Non-marine molluscs comprise terrestrial snails (now totalling approximately 150 species), terrestrial slugs (45 species) freshwater snails (40 species), and freshwater bivalves (30 species). A few of these are strictly coastal animals in which the boundary between a marine and non-marine life history is blurred – but only a few. The Society's two recording initiatives have thus been separate for over 140 years, although in practise many members are equally fond of both. Many mollusc species have to be collected and examined for accurate identification, so there is an strong overlap with the pastime of shell collecting and (as with other invertebrate schemes) with natural history museums.

The founding members enthusiastically adopted the Watsonian vice-county system for their "Census" of non-marine species. Several members were already keen Yorkshire recorders, but the Society's first record was of *Unio tumidus* (the Swollen River Mussel) from the River Frome at Stapleton, West Gloucestershire (VC34) by Miss F. M. Hele on 12 October 1876. A contemporary record would probably include a grid reference, and omit the "Miss", but the Scheme was otherwise off to an excellent start. All first vice-county records were strictly checked, and had to be supported by voucher specimens sent to the Society. Recording continued throughout both Britain and Ireland in this and supplementary ways, with the 10km grid square system being adopted in 1961. Michael Kerney's indispensable Atlas was published by the Society in 1976 and 1999, and included records dating back to 1670. Digitisation



Part of a collection of freshwater snails

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began in this era and now most records are received digitally. Twenty years later, the non-marine scheme now supplies over 275,000 accepted records at 10km or better resolution to the NBN Atlas. Here they are freely available and form the backbone of the distribution maps of virtually all our non-marine mollusc species.

One notable aspect of the Society's Non-marine Scheme is its inclusion of many records of Quaternary subfossil and archaeological records, useful in understanding change in our fauna. They also reflect a practical advantage of mollusc recording: empty shells can be found and collected at any time of year and in all weathers, and are usually a good indicator of a species' recent presence at a locality. This and other factors put non-marine molluscs among our best-recorded invertebrate faunas.

How is the scheme run?

The Scheme is coordinated by the Society's Honorary Non-marine Recorder, currently Ben Rowson (based at Amgueddfa Cymru – National Museum Wales, whose support is gratefully acknowledged). Nearly 6000 records were received and accepted by the Scheme in 2018, from all parts of the UK, and dozens of different recorders. A further 2500 records were verified and accepted on iRecord, and are awaiting incorporation. There is no formal regional or county Recorder system, but those wishing to contribute on this basis are welcome to get in touch. The Society is a registered Charity and is always keen to encourage new members. Members receive the Society's publications and access to a huge amount of encouragement and expertise at meetings.

Do you run events such as field days or training courses?

The Society runs both marine and non-marine field meetings around Britain and Ireland, as well as a programme of indoor meetings. An indoor Regional Meeting is held every year, with 2018's being held at Bristol City Museum and Art Gallery. Members are often involved with running training workshops on difficult mollusc groups.

Do you publish a newsletter and or journal?

Publication has been another ongoing activity of the Society since the 1870s. It publishes the Journal of Conchology, the world's oldest continuing journal on the subject, twice a year; and a magazine, Mollusc World, three times a year. These include contemporary articles, news and research papers on the British and Irish fauna, and also on molluscs overseas. These and other publications are available to members and others (details at www.conchsoc.net).



A recent non-marine field meeting (Stanner Rocks NNR, Radnorshire)



Can you tell us about a particular species that readers can look out for?

A significant number of non-native slug, snail and bivalve species, new to our fauna, have been reported in recent years. These form one of the most dynamic areas of recording. One conspicuous snail species that is established and has begun to spread, potentially to almost any populated area, is *Helix lucorum* (the “Turkish Escargot”). This very large and highly edible snail species is a close relative of the protected *Helix pomatia* (Roman Snail) of southern England, but can be distinguished by the colour and pattern of the shell. Found in west London in the late 2000s, it has also spread to Gloucestershire and Glamorgan. Records of this species are still being compiled, and can be submitted on iRecord or sent to the Recorder. Please note, however that photos or specimens are required to substantiate them.



50mm

© Amgueddfa Cymru - National Museum Wales

***Helix lucorum*, the “Turkish Escargot”**

Any highlights or achievements you would like to share from the past year?

The Society and its members have long been instrumental in helping people know more about our molluscan fauna. The Society offers a small number of research grants each year, and often provides advice to the media and conservation agencies. It is also a partner in a current project to research and produce a [new illustrated field guide to freshwater snails](#), based at Amgueddfa Cymru – National Museum Wales and supported by the National Lottery Heritage Fund. A small museum display and a number of ID training events in Wales are also part of this initiative. Good, up-to-date field guides are essential tools for recording and can often act as a stimulus.

How should readers get in touch if they wish to know more about your scheme?

The Non-marine Recorder can be contacted at nonmarine@conchsoc.net. The Society’s website, currently being redeveloped, is at www.conchsoc.net. A number of members are also active on iRecord, and on Facebook groups relating to molluscs.



Clubtail Count 2019

Eleanor Colver, British Dragonfly Society

The Common Clubtail is a red listed species that breeds in lowland rivers in England and Wales.

This beautiful dragonfly faces a number of threats including pollution, disturbance and habitat destruction.

To help save this species we first need to identify the location of its surviving populations, as well as which populations are most at threat, or already declining.

Adult Clubtail spend most of their lives hiding in the tree tops, making them hard to survey. The best way to identify breeding populations is to look for larvae undergoing emergence (transforming into adults) on river banks, as well as their exuviae (shed larval skins) they leave behind, and this is exactly what we want volunteers to do!

Surveys need to take place between May-July on warm, sunny days and ideally Clubtail Count volunteers will visit their survey area 3 times within this period. This year we are surveying the Rivers Dee, Severn, Avon, Teme, Vyrnwy, Wye, Tywi, Teifi, Thames, Kennet, Otter and Arun.

Common Clubtail and their exuviae are very easy to identify so the Clubtail Count is a great activity for beginners looking to learn more about dragonflies and get up close to river wildlife along the way!

For more information visit <https://british-dragonflies.org.uk/content/clubtail-count>

CLUBTAIL COUNT 2019



VOLUNTEERS NEEDED

to look for Common Clubtail on the River Dee, Severn, Avon, Teme, Vyrnwy, Wye, Tywi, Teifi, Thames, Kennet, Otter and Arun.

FIND AMAZING WILDLIFE

while completing an easy survey, walking along your local river bank on sunny days. No experience required!

HELP PROTECT A RARE SPECIES

Your results will help scientists identify the location of Common Clubtail populations and, as a result, protect their vital river habitat in the future.

Visit the Common Clubtail Project page at WWW.BRITISH-DRAGONFLIES.ORG.UK



#ClubtailCount2019



@BritishDragonflySoc



@BDSdragonflies



@britishdragonflysociety



A Review of the Biological Recording Infrastructure in Scotland

Rachel Tierney, Scottish Wildlife Trust

Many of you will, we hope, have seen (and perhaps read) the final output from the Scottish Biodiversity Information Forum (SBIF) Review “A Review of the Biological Recording Infrastructure in Scotland” which was [launched](#) on the 14th November 2018.

This business case provides a complete review of our biological recording community in Scotland and is an accumulation of almost two years of stakeholder engagement and information gathering, lead by Ellen Wilson, SBIF Chair. It has been a huge community effort and we are grateful to everyone who contributed their valuable insight into the biological recording community by sharing with us what works well, what isn’t working so well and how things can be improved.

24 Recommendations

The Review is a visionary blueprint for transforming Scotland’s biological recording infrastructure and details 24 recommendations on how we can achieve this transformation.

It sets out the need for increased investment in our biological recording infrastructure. We need to overcome the on-going challenges of uncertain and inadequate funding, so that Scotland can become a world leader in understanding, recording and protecting the natural world.

By 2025, the SBIF Review aims to:

- Improve geographical and taxonomic data coverage through supporting the network of biological recorders across Scotland who already do so much for our understanding of Scotland’s land, freshwaters and seas.
- Empower new biological recorders to build their taxonomic skills so they can contribute to our shared knowledge and understanding of Scotland’s changing environments in the future.
- Embrace the use of new technology to deliver efficient services so that we can relieve the pressure on key individuals in the network.
- Bring our data services together at a regional, national and central level so that those who need access to data can rapidly access consistent data services anywhere in the country.
- Champion a single, central repository for biological records and simplify data submission routes.

As set out in the strategy of the National Biodiversity Network, “we will grow our commitment to share biological data and information to provide a comprehensive, unparalleled and authoritative understanding of our natural world”. Together we need to ensure that our biodiversity information is sufficiently up-to-date, and accessible, so we can collectively inform sustainable action for the wildlife and people of Scotland.

How will the recommendations support recorders?

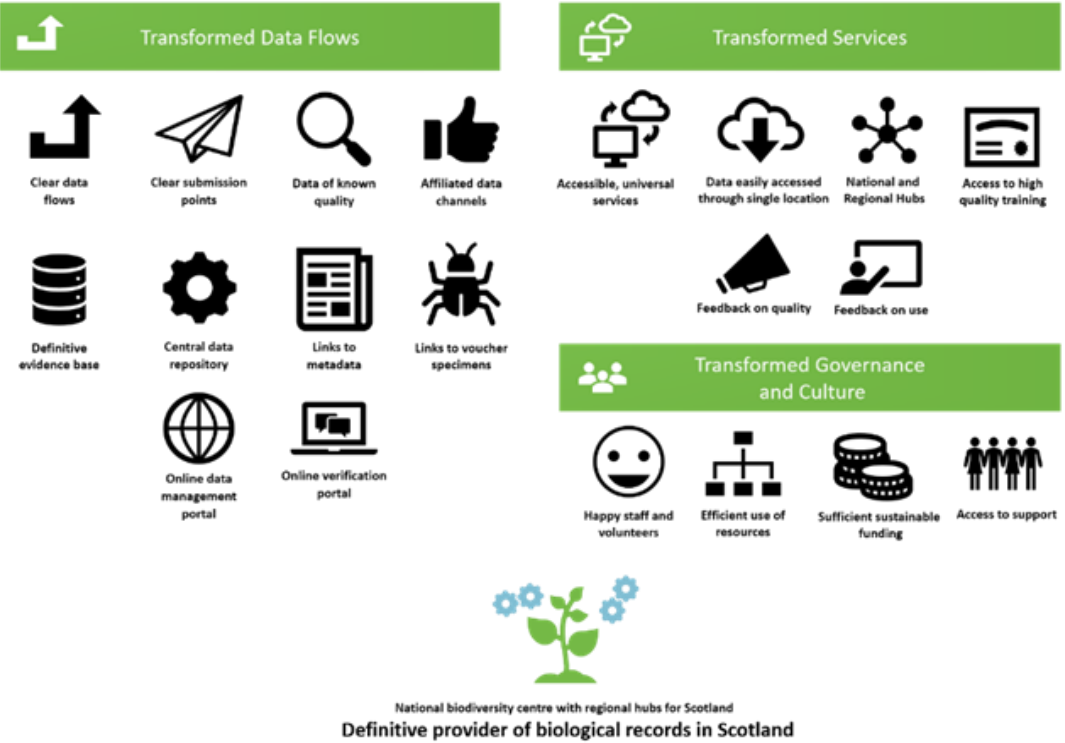
The Review is aiming to ensure everyone involved in biological recording, from indi-



vidual recorders and verifiers to local recording groups and National Recording Schemes, has consistent access to high quality training and support and that they feel valued for their contribution and their skills.

Data submission will be easier with clearer, affiliated data routes, eliminating confusion over where to submit records. Automated feedback systems will be built in to the NBN Atlas Scotland ensuring that that recorders are informed on how their records are being used.

It is recommended that a Community Fund is established to support recorders with travel, training and equipment. With more people empowered to engage in species identification and biological recording our collective knowledge will increase, and taxonomic and geographic data gaps will be reduced. Some of these recorders will become verifiers too, relieving pressure from our currently under-resourced verifier network.



The SBIF Review aims to bring about these benefits for the biological recording community.

Beaver away in Scotland

It has been a busy few months since the launch of the Review and we are grateful to Scottish Natural Heritage (SNH) for the extension of the SBIF Development Officer’s post for a further 12 months which is enabling us to keep momentum going. Rachel Tierney will continue to be hosted at Scottish Wildlife Trust in this role. Over the next year Rachel’s focus will be on supporting the SBIF Chair and SBIF Advisory Group

to communicate the recommendations of the Review, working closely with the Scottish LERCs, NBN Trust and BRC to identify priorities and opportunities for early or phased adoption of recommendations from the review.

The Review continues to gain traction with key stakeholders and in May we will be meeting with Gillian Martin, Convener of the Environment, Climate Change and Land Reform (ECCLR) committee in Holyrood to discuss the importance of a supported, sustainable definitive evidence base for biodiversity information across Scotland. At the time of writing we are still to receive a formal response from Scottish Government on the SBIF Review Recommendations, and we look forward to working with Scottish Government to plan our approach over the coming months.

So, how can you help?

Talk to us, tell us your ideas, and keep raising awareness of the SBIF Review within your circles and communities. This is a collaborative project and we need to have a unified, loud voice to ensure we keep on being heard.

If you fancy writing a short article for the [SBIF Blog](#) please get in touch. Additionally, we are populating our events schedule for the next few months and so, if you would like an SBIF update at any events, meetings or gatherings please get in touch and we will try and get out to you.

If you haven't yet seen the SBIF Review then please download a copy of the Review from the [SBIF pages](#) on the NBN website and please follow us on Twitter ([@SB_info_forum](#)) to keep up to date with latest progress.

We are looking forward to continuing to work with the biological recording community both in Scotland, and further afield to realise our vision and together, and make our community a world leader in collecting, sharing and using biodiversity information.



**Centre for
Ecology & Hydrology**
NATURAL ENVIRONMENT RESEARCH COUNCIL



UNIVERSITY OF LEEDS

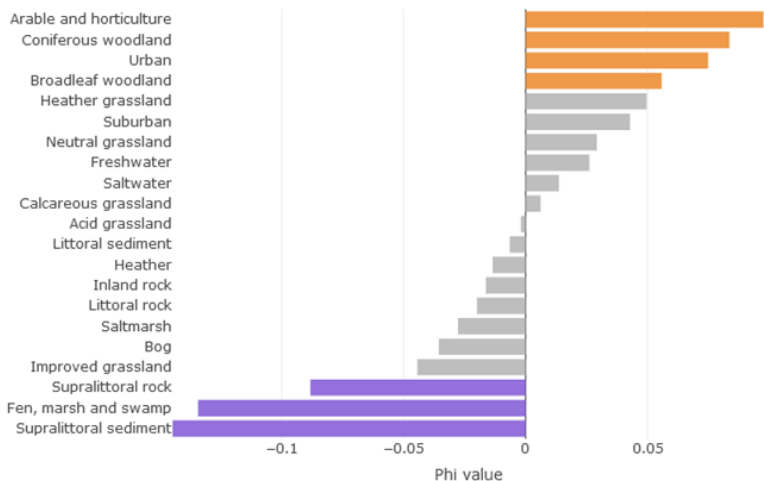
Ground beetle habitat preference

Jordan Chetcuti

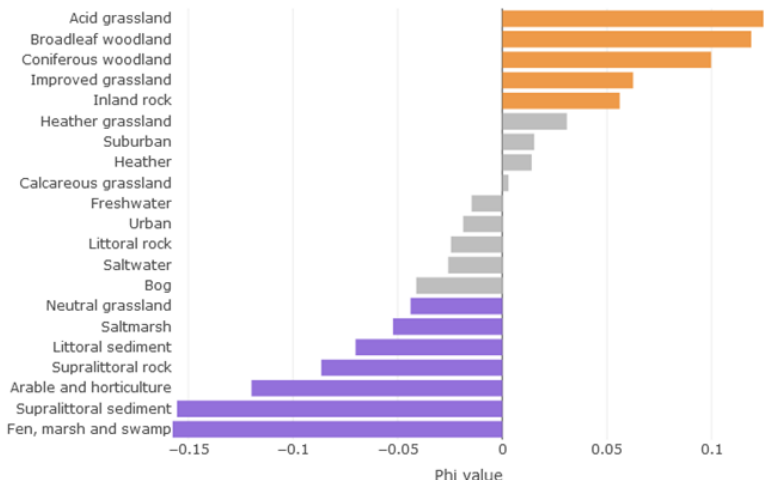
The preferences of different species for habitat are sometimes a foggy area. Species preferences are usually anecdotal or derived from small-scale scientific studies. Large-scale analysis allows for a less subjective understanding of habitat preference. Analysis also rarely looks at the habitats species do not like. Scientists at the Centre for Ecology and Hydrology (CEH) and the University of Leeds used 100 m ground beetle records from the NBN atlas and the CEH land cover map 2015 to look at preference of ground beetles across Britain. They were able to quantify both the habitat species like, but also those they were indifferent to and disliked.

The land cover map 2015 is a national scale dataset. The land cover broadly classifies land into the UK Biodiversity Action Plan Broad Habitats but does not include small or narrow areas of habitat including these areas in the surrounding habitat. The scientists were able to determine preference for species with more than 50 records,





Results showing habitat preference for *Bembidion lampros* including woodland habitat types. Preferred in orange with positive values and avoided in purple. The grey species are uncertain as to like or dislike.



Results showing potential preference for stream locations for *Bembidion tibiale*. Preferred in orange with positive values and avoided in purple. The grey species are uncertain as to like or dislike.

giving preference for 166 ground beetles.

Results for beetles were not always what would be typically expected. *Bembidion lampros*, a typically agricultural species, had woodland and urban as preferred habitat as well as arable. Not all species types were well classified. Those species usually only found in and around streams did not always have freshwater as preferred habitat. For example, *Bembidion tibiale* had acid and improved grassland and woodland as preferred habitats. This is likely because of the lack of small or narrow habitat in the input land-cover data. But, even in this case, this analysis provides insights into the locations of stream types this species prefers.

The results from this study can be found at <https://shiny-apps.ceh.ac.uk/CarabidData/>, where you can interactively look through the preferences of the ground beetles. The page also contains links to further information and to tools for doing similar analysis on different species types.



PoMS UK Pollinator Monitoring Scheme heads into its third year

Martin Harvey, Biological Records Centre

The UK Pollinator Monitoring Scheme (PoMS) is busy working with a team of brilliant volunteers to prepare for the 2019 pollinator season. Flower-Insect Timed Counts (FIT Counts) can be done anywhere from April to September, and are already under way. Our systematic sampling of 75 1km squares across England, Scotland and Wales starts up in May.

PoMS appears to be the only scheme in the world generating systematic data on the abundance of bees, hoverflies and other flower-visiting insects at a national scale. Together with long-term occurrence records collated by the [Bees, Wasps and Ants Recording Society](#) and [Hoverfly Recording Scheme](#), these data will form an invaluable resource from which to measure trends in pollinator populations and target our conservation efforts.

With reports of dramatic losses of insects occurring across the globe, and concern about what this means for wider biodiversity and ecosystem health, there has never been a more important time to document evidence of change in populations of pollinating insects.

Recruitment for the 1km square surveys has been going well, and we're grateful to everyone who has got involved. At the time of writing we are still seeking volunteers for the remaining sample sites, especially in parts of Wales and Scotland, as well as the English counties of Kent, Sussex, Somerset and Norfolk. Do drop us a line if you are interested: poms@ceh.ac.uk

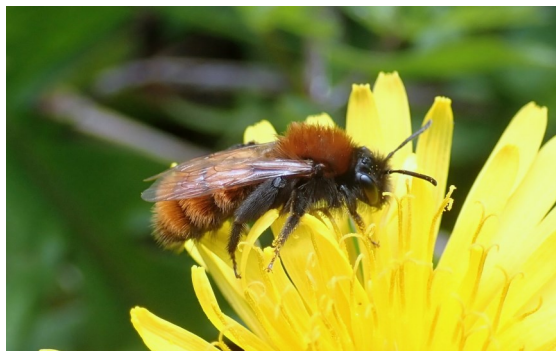
And you can join in the FIT Count by downloading the materials and identification guides. Full information and video guides are on our website at www.ceh.ac.uk/pollinator-monitoring and we're [@PoMScheme](#) on Twitter. The recent [PoMS newsletter](#) includes further reports from last summer's monitoring and from our project partners.

PoMS is part of the UK Pollinator Monitoring and Research Partnership, comprising the Centre for Ecology & Hydrology (CEH), the Bumblebee Conservation Trust, Butterfly Conservation, British Trust for Ornithology, Hymettus, the University of Reading and University of Leeds. It is jointly funded by Defra, the Welsh and Scottish Governments, JNCC and project partners.



Carrying out a FIT Count © Martin Harvey





Tawny Mining Bee (*Andrena fulva*) on a dandelion (*Taraxacum agg.*)

“Overall the experience was 100% positive and rewarding for many reasons, not least for the opportunity to be a part of a worthwhile and important piece of ecological research. I’m now keen to get more involved and am very much looking forward to undertaking next year’s surveys!”

Quote from a PoMS 1km square survey volunteer

1,307 FIT Counts
submitted to iRecord
by **168** recorders
across England,
Scotland and Wales

631 pan trap samples
collected in 2017;
731 in 2018

14,347 insect visits to
flowers recorded on FIT
Counts over both years

177 bee and hoverfly
species identified
from pan traps,
bringing new records
for many 1km squares

45 volunteers for PoMS
1km squares completing
107 survey visits in 2018

3 short ‘how to’ videos
available via the webpage,
along with all survey guides
and forms for the FIT Count



Local Environmental Records Centre Spotlight

Each edition the NFBR newsletter celebrates one of the Local Environmental Records Centres [LERCs] in the UK. These organisations are centres for the collation, management and dissemination of biodiversity data on a local scale, making biodiversity information available to decision makers throughout the UK, alongside supporting Biological Recorders in a myriad of ways. Answers provided by Ben Mullen.



BIODIVERSITY INFORMATION SERVICE
FOR POWYS AND BRECON BEACONS NATIONAL PARK
GWASANAETH GWYBODAETH FIOAMRYWIAETH
POWYS A PHARC CENEDLAETHOL BANNAU BRYCHEINIOG

BIS, the Biodiversity Information Service for Powys and Brecon Beacons National Park covers vice-counties VC47 Montgomeryshire, VC43 Radnorshire, VC42 Brecknockshire and intersects with VC35 Monmouthshire and VC44

Carmarthenshire in the national park and VC50 Denbighshire in Powys - some of the most remote and under populated areas of Britain, with many upland landscapes.

Our Brecon office is in an historic building above shops and a pub (we can often smell the pies being baked!) with the office building shared by the local wildlife trust. We are fortunate to have a meeting and training room equipped with microscopes and interactive whiteboard, where we hold ID workshops.

Tell us a bit about your LERC

BIS, established in 2000, was the first Local Environmental Record Centre (LERC) in Wales - one of 3 pilots. BIS is now one of four LERCs in Wales, forming the first national network of LERCs in the UK, known as Local Environmental Records Centre Wales (LERC Wales). BIS is a 'Private Company Limited by Guarantee Without Share Capital' and therefore a 'not for profit' organisation being funded by Service Level Agreements with our partners and by providing a professional commercial service to other environmental organisations and consultants.

Species records are entered through Recorder 6 which holds our 2.5 million+ records. These are merged into a joint database with the other Welsh LERC records. BIS has developed [Aderyn](#) (the Biodiversity Information Reporting Database) to provide an automated planning, reporting and commercial service. It also provides free access to information for the county recorders, education and the public. The public can access non sensitive species lists for each 1km square in Wales or produce a 10km species distribution map for Wales. Through Aderyn, data is now readily accessed by national partners such as Natural Resources Wales (NRW), Welsh Government (WG) and local partners including Powys County Council and the Brecon Beacons National Park.



Our Brecon office



Tell us about your team

BIS currently employs four members of staff, 2 of whom are full time. Janet Imlach has been BIS Manager since 2004, moving down from NESBReC. Janet specialises in botanical surveying and gained her MSc at Reading University. As IT Officer, Steve Goddard is the mastermind of Aderyn. Steve has been with BIS since 2012 and is now supported by John Robinson who works with Steve 1 day a week as IT support for Aderyn. Our Data Officer, Jo Milborrow, joined BIS in 2018 and is responsible for data management and enquiries. She is in her first year of an MSc in Biological Recording from Manchester Metropolitan University. Ben Mullen is our Communications Officer, a new post in 2017. Ben is responsible for promoting BIS, biological recording generally and supporting the recording community in the BIS area.



Jo, Steve, Ben, Janet & John are the team at BIS along with Ivy & Rowan

Tell us about the local recording scene

With a very low population Powys has a limited number of species specialists, but most engage well with BIS and we have 28 experts listed on the [BIS website](#). The BIS chairman Norman Lowe is the Brecknock moth recorder and his group are very active, utilising the [Brecknock Moth website](#) developed by Steve at BIS. The [Montgomeryshire Moth Group](#) have provided numerous records from their regular activities.

Over the last few years, BIS has worked with the Brecknockshire Plant recorder, Mike Porter, to mobilise over 151,000 of his records to produce a Brecknock Flora. These have now been exchanged with BSBI and have been used to create the County Red Data Plant List. BIS is very fortunate to have Ray Woods, the national lower plant expert, in its area and so has an exceptional number of lichen and bryophyte records many of which were entered by BIS under contract for the Countryside Council for Wales (now NRW). These NRW records are available at full resolution on the NBN Atlas for Wales. BIS was able to provide approximately 51,000 records to the British Bryophyte Society (BBS), many of which Ray recorded, and these were an important contribution to the BBS Atlas. The surveying and reporting on the state of flora and fauna by the [Montgomeryshire Field Society](#) over the last 60 years has played a large part in the formation of conservation policies in the area.

Tell us about how you support local recorders

BIS recently recruited a Communications Officer who expanded the support offered to the local recording community. Last year BIS ran 15 species ID training & recording days. Species ID training is delivered by local experts or in partnership with organisations such as BSBI, to encourage beginners and regular recorders to specialise and to



collect records at their local sites. Our Brecon training room is a great facility for this, but we also extend training to venues across the BIS area. Recording days are often on private land, giving an opportunity for local recorders to access new sites. The biennial BIS Recorders Forum brings local recorders together to hear about what's going on and how to get involved in recording.

Our recorders newsletter, with articles written by local recorders, has been produced by BIS since 2006. We now send a regular BIS bulletin email (using Mailchimp to more easily comply with GDPR!), keeping recorders informed of local and national events, conferences & training opportunities and to promote recording, a Spot this Species feature, recent notable records and our Survey a Square (SaSq) initiative. SaSq encourages recording in unrecorded monads and squares with no recent records. BIS is now engaging with a new audience on Twitter and Facebook and along with the BIS website provides all the information needed to collect and submit records.

Although BIS encourages the flow of records through the county recorders we have set up initiatives to make recording wildlife sightings easy for the general public with our on-line recording tool [WiReD](#) (Wildlife Recording Database). This has now been extended with the development of the [LERC Wales App](#) which has a fully bi-lingual user interface. It is funded by LERC Wales and launched in July 2018. Users can enter records on the go in the field and, if registered with an Indicia based on-line recording site, can see all their online and App records in one place.

What are the top three sites you would recommend to visiting wildlife recorders?

VC47 - [Dolydd Hafren](#) (SJ201000), Montgomeryshire Wildlife Trust's reserve, is not so easy to access (which could be a good thing!) but is the best in the area for seeing Brown Hare and Otters and for birders is hard to beat, especially during migration season.

VC43 - [Tylcau Hill](#) (SO137762), managed by Radnorshire Wildlife Trust, is a flower rich farmland supporting Mountain Pansy, Adder's-tongue Fern, Green Hairstreak & Small Pearl-bordered Fritillary.

VC42 - [Ystradfawr](#) (SN796108), the Wildlife Trust of South and West Wales reserve, is a great example of how nature has reclaimed the landscape to become one of the best sites in Wales for Marsh fritillary.

Any highlights or achievements you would like to share from the past year?

Aderyn has been the main focus of work for Steve and BIS over the last few years and it will soon be the main commercial enquiry system for SEWBRc and WWBIC. In 2018 LERC Wales was runner-up for the National Biodiversity Network Lynne Farrell Group Award which is given to a group or organisation which works in any environment - terrestrial and freshwater or marine and coastal. LERC Wales was nominated as a leading example of 4 LERCs working together to develop joint software to aid capturing and access to wildlife information.

Find more information about BIS online

Website: www.bis.org.uk

Email: info@bis.org.uk

Facebook: www.facebook.com/BISBrecon/

Twitter: [@BISBrecon1](https://twitter.com/BISBrecon1)



The Vegetative Key to Wetland Plants

This year Freshwater Habitats Trust is trialling a new ‘Vegetative Key to Wetland Plants’ and we’re looking for volunteers to use it, test it, and provide feedback. The key is a product of the HLF funded “*People, Ponds and Water*” [PondNet project](#), and we’ve been developing it for a couple of years, with the help of John Poland, author of the Vegetative Key to the British Flora.

During *People, Ponds and Water*, we ran a series of wetland plant identification workshops to help beginners on their learning journey, but many commented that the keys were very technical, or covered species they were not likely to encounter, or that they relied too much on flowers which can be inconspicuous or absent for much of the year.

The Vegetative Key to the British Flora by John Poland and Eric Element, published in 2009, has become an essential tool for field botanists. Unlike conventional guides which often rely on the characteristics of flowers or fruit, the vegetative key relies on other plant characteristics, ones that can be found throughout the growing season. The novel structure of the key also allows the relative beginner to be able to correctly identify a plant in just a few steps. With funding from the National Lottery Heritage Fund, Freshwater Habitats Trust approached John to produce a concise version of the Vegetative Key, a version which would only include the wetland plant species relevant to pond quality assessment surveys.

[Click here to download a copy of the vegetative key \(pdf\)](#)

We want the ‘Vegetative Key to Wetland Plants’, to be a useful tool for anyone wanting to learn new identification skills. We’ve produced a draft version initially, in the hope that beginners, intermediate and experienced botanists will try using the key during 2019 and provide feedback through the [Wetland Plants Vegetative Key Discussion group on Facebook](#). Join the group and join in the discussion. We’re looking forward to chatting with you!



Article and photo from the [Freshwater Habitats Trust website](#)

News Snippets

Elaine Wright, NFBR

A short round up of some news from the recording community throughout the UK

Open Access publications

The Chartered Institute of Ecology and Environmental Management (CIEEM) recently made older editions of their members' journal *In Practice* open access. Non-members can now view the back catalogue (issues over two years old) on [their website](#).

Dipterists Forum also allows non-members to access older editions of their Bulletin, you can read over 20 years of issues [online here](#).

Field Studies, the journal of the Field Studies Council, is freely available on [their website](#), with content dating back to 1955.

And of course you can find all back issues of the NFBR newsletter [on our website](#).

Other news

An excellent online resource to aid in the identification of Thrips (*Thysanoptera*) has been launched at https://keys.lucidcentral.org/keys/v3/british_thrips/index.html. The site includes a species account for each of the 177 species found in the British Isles.

Entocast is a an Entomology themed Podcast hosted by Liam Crowley and Nick Howe. Topics include insect declines, garden entomology and insects in Antarctica. Find the full back catalogue at www.entocast.com.

Mark Gurney has added to his excellent online weevil identification guides with Part 4. Broad-nosed Weevils. Click the image below for Part 4 or visit [Mark's Google Drive](#) for all his identification guides.

An identification guide to weevils of Britain and Ireland

Part 4. Broad-nosed weevils

Draft 1.0



© Mark Gurney



2019 is International Year of the Fly, with lots of events and activities planned. To find out more, go to the [new Dipterists Forum website](#), which has been developed and hosted by BRC in partnership with Dipterists Forum. There is plenty of #YearoftheFly activity from the Diptera recording schemes as well.

Calliphoridae and Rhiniidae Recording Scheme

Can you help trap some carrion flies? The recording scheme is running a new project using traps made from plastic water bottles, and baited with a small amount of liver. Blowflies and other carrion-feeding flies are attracted into the trap, and specimens are collected, frozen and posted back to the scheme. This project will add to our knowledge of these flies and the important ecological services they provide, with the results being analysed as part of a PhD thesis. For full details and how to take part see [the recording scheme web page](#).

Also, this recording scheme now has a slightly longer title! The migratory fly [Stomorhina lunata](#) was previously included in family *Calliphoridae*, but has been moved to family *Rhiniidae*, hence the new scheme name.

Botanical Society of Britain and Ireland

Botanical Society of Britain and Ireland has worked with BRC to add extra plant recording features to the iRecord website and app. The new website form was mentioned in a [previous newsletter article](#), and for further information on both the website and the app see this [article from BSBI News 140](#).

Freshwater recorders' meeting

Last October BRC and Buglife jointly hosted a meeting focusing on freshwater recording, with representation from many of the freshwater national schemes. [This link](#) provides a summary of the day and downloads of the presentations.

Aquatic Coleoptera Recording Scheme

Work on the third and final part of the water beetle atlas series is under way, with Garth Foster and colleagues collating the records for the remaining beetle families. The two previous atlases are available via the Field Studies Council, covering five families of the [Hydradephaga](#) and five families of the [Hydrophiloidea](#). To submit records see the details on the [recording scheme web page](#).

UK Ladybird Survey

The recording scheme has moved its website to become part of the UK Beetle Recording website that BRC maintains on behalf of the Coleoptera recording schemes, and can now be found at www.coleoptera.org.uk/coccinellidae/home

A new field guide to UK ladybirds by Helen Roy, Peter Brown and Richard Lewington is now available from [Bloomsbury Wildlife](#) and other booksellers. It includes distribution maps and species trends based on the recording scheme data.

British Bryological Society/Cambridgeshire Bryophyte Group

The Cambridgeshire Bryophyte Group have published a local Flora. See [this article](#) for more information.





NATIONAL FORUM FOR BIOLOGICAL RECORDING

The National Forum for Biological Recording is the premier UK organisation for practitioners engaged with biological recording across the UK. Membership includes individual naturalists, national organisations and recording societies, local records centres and their staff. This gives it a unique perspective and an important role.

Whether you are an experienced naturalist or taking your first steps in biological recording, we want to hear from you.

To offer an article for a newsletter, please contact our Newsletter Editor: Elaine Wright on editor@nfbr.org.uk

To join the NFBR, please contact our Membership Officer and Treasurer: Clare Langrick on membership@nfbr.org.uk

For all other enquiries about NFBR please contact our Chairman: Graham Walley on chairman@nfbr.org.uk

Join the discussion on [Facebook](#) and [Twitter](#).