



NFBR

NATIONAL FORUM
FOR BIOLOGICAL
RECORDING



Newsletter 64: Autumn 2022

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Welcome to Issue 64 of the National Forum for Biological Recording Newsletter.

You may notice this issue is rather shorter than normal - but recording work continues apace in all sectors of our community! It is great to learn about the work being done by the British Mycological Society (pg. 4) and to hear about all the recording scheme news from CEH (pg. 12).

There are some things to look forward to in 2023 as winter marches towards us. entoLIVE promises a fascinating series of webinars (pg. 10), and we are working hard behind the scenes to get the 2023 NFBR conference on its feet (our first in Wales since 2004!).

Elaine Wright (Editor)

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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 out in spring 2023.

I would particularly like to hear from LERCs and National Schemes and Societies who would like to be featured.





Sarah Whild sadly made the decision to step down as Chair of NFBR during the summer. We are extremely grateful for all the great work Sarah carried out as Chair, and are very happy that she is remaining on the Executive Committee so we don't lose her excellent knowledge and connection to the recording community. A new Chair will be appointed at the AGM in April.

SAVE THE DATE!

We are pleased to announce that our 2023 conference will take place on:

Thurs 20th April - Fri 21st April - Sat 22nd April

The conference will be in Wales, in partnership with [LERC Wales](#). Further details and booking information will be released in the new year.

NFBR is a member of [Wildlife and Countryside LINK](#), with council members joining the various working groups, including Jodey Peyton as a member of the Invasive Non-native Species Working Group, who discuss issues of INNS and policy. Jodey also represents NFBR, with Simon Pickles, on the [Equality, Diversity and Inclusion Working Group](#). You can sign up for updates from [Wildlife and Countryside Link here](#).

Current NFBR Governance

NFBR has a board of 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](#).

Current members and positions held are as follows:

Trustees

Position vacant (Chair)
Jodey Peyton (Vice Chair)
Clare Langrick (Treasurer)
Sarah Whild
Graham Walley
Simon Pickles
Elaine Wright
Teresa Frost

Advisory Council

Martin Harvey
Martin Hicks
Damian McFerran
Steve Prentice
Kieron Brown
Zoë Simmons
Liam Olds
Chris Raper
David Slade
Alan Stewart
John van Breda
Zoë Randle
Chris McInerny
Imogen Cavadino





British Mycological
Society promoting fungal science

Recording fungi with the British Mycological Society

Stuart Skeates, FRDBI Manager

The British Mycological Society (BMS) has been collecting fungal records using evolving formats ever since its formation in 1896. For many years the records were published in Transactions of the British Mycological Society, a past publication which is still available on [Science Direct](#) and [Cyberliber](#) today. The early reports often contained very detailed and colourful accounts of the forays, describing not only the fungi that were found but also the people and places they visited.

Change came with the advent of computers allowing for these and other records to be transferred to digital format and, in 1986, the 'BMS Foray Records Database' was created by Paul Kirk and Jerry Cooper. The database was managed and funded by the BMS but hosted on the servers at the Centre for Agriculture and Bioscience International (CABI) and also in a room at Paul Kirk's home. Although initially the data came from BMS foray records and publications, it was soon expanded to include records from other sources such as the JNCC (Joint Nature Conservation Committee). With the advent of affordable and powerful home computers, independent [local recording groups affiliated to the BMS](#) were soon contributing their records in a digitised format.

At a 2006 meeting of BMS-affiliated fungus groups, it was decided to change the name of the database to reflect the diversity of the contributors, not all of whom were connected to the BMS. At a vote, the name [Fungal Records Database of Britain and Ireland](#) (FRDBI) was chosen.

With the growing interest in finding and recording fungi it was necessary to find a new home for the database and, in 2015, after considering various options, it was decided to host the database at the Biological Records Centre (BRC) in Wallingford, Oxfordshire. The BRC now looks after 20 million biological records for many organisations including those for the [iRecord](#) system and has a permanent staff developing and maintaining the underlying software - [Indicia](#). Management of the software to support recording, processing, backing-up and displaying data is taken care of by the BRC staff while allowing the various user groups to each have their own interface.

Whereas previously all FRDBI records were submitted to the BMS database manager for processing and adding to the FRDBI, contributors can now add, edit and download their own records giving them a flexibility not previously possible. Although the BMS-affiliated fungus groups continue to provide most of the records, other individuals are now contributing significantly.

Because most fungi have a special relationship with plants and other organisms, the database enables recording of any organisms associated with the fungus as a



First time users click 'Create New Account' otherwise enter username / email address and password.

Username or e-mail *

Password *

Create new account
Request new password

[Log in](#)



NEW search page

A much anticipated [search page](#) is now available giving improved speed and enhanced search capabilities. There is a [helpful guide](#) describing this functionality

New look FRDBI

The Fungal Records Database of Britain and Ireland has been given a new interface with many new features including entering directly, use of maps, setting up groups. There are several more modules under development which will be released as soon as possible



Favourite sites

You can now create and save boundary outlines of the sites you visit, making it easier to review and download the records on that site. You can share your site outlines with other recorders.

Handy maps

Use a map to help you to verify your locations and grid references. Initialise the map to start up where you usually record.



Form a record sharing group

You can form your own group or join others and share records together or take part in a [bioblitz](#) or research project.

Helpful hints

Receive some helpful hints about the species you are entering from Ken's Checklist of the British and Irish Basidiomycota and NBN alerts.



Upload images

You can upload images to accompany your record and receive comments from others about your find.

The records on this FRDBI website are made available under a Creative Commons [BY-NC-SA](#) Attribution - Non-Commercial - Share Alike license. Please read the conditions associated with this license before any text or images are included in other web sites.

British Mycological Society

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Registered Charity No. 270503
© British Mycological Society 2016-7



separate piece of data - and then links the two together. This provides a powerful tool for analysing these relationships in both directions, for example: plants associated with a given fungus or fungi associated with a given plant.

The FRDBI accepts records of the 14,000 fungus species that have been studied by mycologists across three kingdoms: fungi, protozoa (slime moulds) and chromista (mildews). Although most of the records are of the larger macrofungi ('toadstools') some recorders devote their time to the more numerous small rot-



ters, crusts, plant pathogens and microscopic fungi. Fungi are a challenging but rewarding group of organisms: although a few hundred can confidently be identified in the field, many require further microscopic examination and even DNA analysis, which is enabling identification of yet more species new to science.

The BMS supports affiliated local fungus groups and individual recorders through a series of workshops, residential field meetings, [a Facebook Group](#) and website documentation. Fungus finds are also described in the BMS's quarterly publication *Field Mycology*, which is free to BMS members in digital format. Additionally, the affiliated groups support their members through their own field meetings, workshops and online support.

During the last year, the FRDBI has been a major contributor of data to a [Natural England](#) study of our grassland species, a habitat for which the United Kingdom is of European and global importance. The striking appearance of brightly coloured red, yellow, orange and green fungi in undisturbed short grassland in late autumn instantly attracts and enthral the passing observer. Fungi enthusiasts of all levels of expertise can and have helped to find and identify the fungi dwelling in this jewel of our countryside, even if further microscopical expertise is required to identify some of the finds. If anyone is interested in looking at this group of fungi, the Sussex Biodiversity Records Centre hosts an [online key](#) to help with identification. This study is just one example of how FRDBI data is used to support organisations and researchers across the country.

To support the recording process, a group of enthusiasts and academics are updating the list of fungal names on the [UK Species Inventory](#) (UKSI) held by the Natural History Museum. The UKSI in turn supplies many databases in the UK with fungal data including iRecord, the [National Biodiversity Network](#) (NBN) and [Recorder 6](#). To maintain the list of names is no mean feat, mainly due to the rapid changes occurring as DNA analysis reveals new information. Many fungus group leaders are also county recorders, working with local record centres to increase awareness of the diversity and importance of fungi.

There are all too few naturalists interested in fungi to be able to provide widespread coverage of all groups of fungi in all areas of the country, which means there is always a warm welcome to anyone wanting to join in and study the vast diversity of life in the fungal kingdom! We encourage anyone interested and able to contribute to recording fungi in Britain and Ireland to do so directly via the FRDBI or by joining a local fungus group.

Find out more:

British Mycological Society website: www.britmycolsoc.org.uk/

Fungal Records Database of Britain and Ireland: www.frdbi.info/

Facebook Group: www.facebook.com/groups/18843741618

Twitter: [@BritMycolSoc](#) / [@UKFungusDay](#) / [@BMS_Scientific](#)

YouTube: www.youtube.com/c/BritmycolsocOrgUk



NBN Conference 2022

There's still time (just!) to book for this year's NBN Conference. It's being held at the Natural History Museum, London on Wednesday 9 November and the theme is "Making data work for nature".

There are sixteen presentations each of which links to the NBN Trust's new strategic ambitions. The NBN Awards for Wildlife Recording will also be part of the day.

[Find out more and book today via the NBN website!](#)

NBN Trust Annual Impact Report 2021/22

In a change to previous Annual Reports, this review of 2021/22 has a specific focus on looking at the impact we have made during the year.

For a charity, impact is everything. It's why we exist, it's how we attract funders and supporters, and it's what motivates our team to strive for more. But for a charity like us, a charity that provides a behind-the-scenes service to the entire conservation community, it can be difficult to demonstrate our impact in a meaningful way. We've started to do this and with you, our partners, we're sure we can do even more in the future to show our collective value and impact.

[You can download the report from the NBN Trust website.](#)

NBN Atlas – Fit for the Future Project

The NBN Trust's Fit For The Future project is upgrading the NBN Atlas to re-align it with the Atlas of Living Australia. The new NBN Atlas will be easier to maintain and able to adapt to the NBN's future needs. You can keep up to date with progress on [the NBN Atlas](#).

New report - Scottish marine biodiversity data review

NatureScot has published a report with recommendations from a stakeholder review to make marine species and habitat data in Scotland more available and accessible.

The review was commissioned for Scottish marine biodiversity data as an adjunct to the original SBIF Review for terrestrial and freshwater data. The aim was to explore and determine limitations to the existing infrastructure and ultimately to allow better informed decisions for marine conservation to be made.

You can find the recommendations and full report via [this link on the NBN website](#).

iNaturalistUK User Group

The latest User Group meeting took place online on 22 September.

In this session we had three speakers who are exploring ways to ensure the **data on** iNaturalistUK is of the most benefit.

You can find out more, watch the recordings of the day and sign up for the User Group via [this link on the NBN website](#).



AI holds key to improving biodiversity by Britain's railway tracks

UK Centre for Ecology & Hydrology

Originally appeared on [the UKCEH website](#)

Trials in using artificial intelligence (AI) to identify species of trees and other plants, from photographs taken by on-train cameras, have proven that lineside vegetation can be monitored safely, cheaply, quickly and at scale.

Monitoring flora and fauna by railway track, in order to support better management of lineside habitats, is extremely difficult due to safety concerns, the size of Britain's 20,000-mile rail network and the number of expert surveyors required.

However, the UK Centre for Ecology & Hydrology (UKCEH) and technology firm Keen AI have been working with Network Rail, to develop innovative solutions to remotely monitor biodiversity. They have demonstrated that AI can identify invasive species by the track as well as native trees that are potentially at threat due to disease such as ash dieback.

This information would then enable railway workers to carry out appropriate action to better manage lineside vegetation, as part of Network Rail's commitment to achieve biodiversity net gain on its land by 2035.

UKCEH and Keen AI have created AI software that can identify ash trees as well as Japanese knotweed (a source of complaints to Network Rail by its neighbours every year), Himalayan Balsam and the poisonous plant Ragwort.

They are now developing camera equipment capable of taking clear photographs of vegetation on a high-speed train, and have held two successful trials – return trips between Birmingham and Aberystwyth, and between Weymouth and Moreton in Dorset.

Dr Tom August, a computational ecologist at UKCEH, explains: "The trials demonstrated that we will be able to monitor lineside vegetation safely, cheaply, quickly and at scale.

"Our equipment was able to take thousands of clear images from a train travelling at up to 80mph, and our AI software can identify ash and other species to a high level of accuracy."

Amjad Karim, chief executive of Keen AI, explains the work on the railway builds on a separate, previous project, funded by Innovate UK, to photograph and identify roadside vegetation.

He says: "Network Rail spends £200 million each year on vegetation management; in order to keep the network operational. The aim of our work is to give staff at Network Rail the tools they need to safely and accurately identify where action may be required.

"We've been pushing the boundaries of what is possible when it comes to the speed of the camera, quality of images and size of the system, all while keeping





On-train cameras took thousands of images of lineside vegetation, from which AI software then subsequently identified tree and other plant species. © Keen AI

it flexible and low-cost.”

In the coming months the team will be improving the system, increasing the rate of image capture and ensuring each is precisely mapped to where it was taken, even at speeds of up to 100mph. This will ensure the vast majority of trees and plants along a track are recorded.

Another way in which AI can potentially monitor lineside biodiversity is by identifying animal species from sound recordings or photographs taken by remote monitoring stations, without the need for surveyors on the ground.

UKCEH has trialed the use of biodiversity monitoring stations to record bird song and bat calls, which existing AI software was able to identify accurately. Globally, AI software to classify animal species from photographs is still in development.

Network Rail says the AI work will support its [sustainability strategy](#) which outlines significant changes to the way it manages its land, in order to strike a better balance between running a safe, reliable railway and helping nature thrive.

Dr Neil Strong, Network Rail’s Biodiversity Strategy Manager, says: “With 52,000 hectares of land to manage and seven million people living close to our railway, monitoring, maintaining and improving the biodiversity of our land effectively is a monumental and vital task which requires forward-thinking solutions.

“The partnership with UKCEH and Keen-AI has shown that using AI can be a safer, quicker, more-cost-effective and more comprehensive way of monitoring land surrounding the railway, and we’re excited to see how this technology can be developed further to help us realise our ultimate goal of achieving a biodiversity net gain by 2035.”

Other innovative, safe, ways that UKCEH is helping Network Rail to measure lineside biodiversity include using high-resolution imagery from satellites and aircraft to produce a detailed national map of all lineside habitats. Its scientists then analysed records of species in similar habitats in each region to predict what animals and plants are likely to be present there.





entoLIVE – Free invertebrate science Webinars

Keiron Derek Brown

The conservation, ecology and marine sectors all rely on scientific research in order to inform policy and guidance, and for practitioners to undertake evidence-based actions that improve habitats for wildlife. Despite the need for access to research outputs, many practitioners, recorders and volunteers are unable to access these due to journal paywalls or technical language (such as complicated statistical analysis).

As a non-academic that has worked in the conservation and environmental education sectors for 10+ years, I have experienced these barriers personally. entoLIVE is a new series of webinars launching in 2023 that will aim to bring invertebrate scientists together with naturalists and biological recorders. Each webinar will be presented by a scientist and focus on interpreting a research area for a non-academic audience, with a chance for the audience to ask questions following the presentation. And every webinar will be completely free to attend.

As National Recorder for Earthworms, I'm passionate about ensuring the often-overlooked invertebrates are given the spotlight they deserve. entoLIVE will go beyond the usual insect groups covered and cover subjects on any and all invertebrate groups. Season 1 of entoLIVE is scheduled for February to May 2023, with 20 fascinating invertebrate research topics on the menu and four of these have a specific focus on molluscs.

Season 1 of entoLIVE is scheduled for February to May 2023, with 20 fascinating invertebrate research topics on the menu.

The very first talk will, unsurprisingly, focus on the National Earthworm Recording Scheme. In particular, this talk will explore how biased research data is towards agricultural habitats and look at what we have learned about species-specific habitat associations.

The Marine Conservation Society will be giving 2 webinars regarding their marine recording efforts. Amy Worley will explore how jellyfish sightings are being used in turtle conservation and Dr Angus Jackson will report on the efforts of divers to monitor the crawfish (also known as the spiny lobster) as part of the highly successful Seasearch project.

The Conchological Society of Britain will report on 100 years of the Marine Mollusc Recording Scheme and Imogen Cavadino will present the result of her PhD on recording slugs in British gardens.



Bees will feature heavily in the first season, with webinars on how citizen science has highlighted bumblebee declines, the National Honey Monitoring Scheme and what this tells us about risks to wild bees, and how mapping honeybees against forage habitat in London brings up questions about the sustainability of beekeeping in the capital.

Other recording-focused webinars include dragonflies, riverflies, wasps, ladybirds and work by Oxford University and partners to sequence invertebrates for the Darwin Tree of Life project.

All 20 entoLIVE season 1 webinars are now open for bookings on [Eventbrite](#).

Please note that spaces are limited so book early to avoid disappointment.

ento
LIVE

**Wriggling
Into
Recording**

10 Years of the
National Earthworm
Recording Scheme

Keiron Derek Brown
02 Feb 2023 13:00 – 14:00



Image: Keiron Derek Brown

ento
LIVE

**No Brain,
No
Problem?**

20 Years of the
National Jellyfish
Survey

Amy Pilsbury
06 Feb 2023 19:00 – 20:00



Image: Kirsty Andrews

ento
LIVE

**Slipping
Under The
Radar**

Recording Slugs in
British Gardens

Imogen Cavadino
24 Apr 2023 19:00 – 20:00



Image: Imogen Cavadino / Royal Horticultural Society

ento
LIVE

**Bumblebees
& Their
Differing
Habitats**

How a Decade of Citizen
Science Has Increased Our
Knowledge

Dr Penelope Whitehorn
25 May 2023 13:00 – 14:00



Image: Nick Russell

Recording scheme news

UK Centre for Ecology & Hydrology

Originally appeared on [the UKCEH website](#)

It's been a while since our last update and as usual there has been lots of recording scheme activity taking place. Here are some examples of new schemes and new projects since 2020. Thanks to the many volunteers who organise and contribute to recording schemes.

Zoological recording schemes

Marine Isopods

This is one of the four recording schemes under the umbrella of the British Myriapod and Isopod Group, and has been reinstated in 2020 following a brief period of activity in the 1970s. Warren Maguire leads the new scheme, and has provided information about the scheme and the species it covers on the [BMIG website](#).

Marine isopods are extremely under-recorded, so anyone submitting records will be contributing towards our understanding of the distribution and habitat preferences of these fascinating organisms. All records, even those for common species or those that don't add new 'dots' to the maps, are valuable. They can be added to iRecord or sent direct to the scheme.



Marine isopod, Eurydice pulchra, a small, fast-swimming predator / scavenger found in the intertidal zone of sea shores. © Warren Maguire

Rove Beetles (*Staphylinidae*)

There are new scheme organisers in place for the [Rove Beetle \(*Staphylinidae*\) Recording Scheme](#): Don Stenhouse and Alison Thornhill have taken this on, building on the work of the late Peter Hammond. Initially they are focusing on processing the backlog of around 15,000 records on iRecord. Don and Alison hope to encourage recorders to send in enough detail and supporting evidence to enable records to be verified for this group of beetles that are often considered to be a challenge for identification. Photos can be very helpful for some species, while specimens and dissections may be needed to confirm others. Where recorders have examined specimens in detail it's helpful to add comments explaining how the identification has been arrived at, e.g. stating whether or not the specimen was checked under a microscope and which keys were used.

No doubt a number of other recording schemes would make the same plea for records to be sufficiently detailed to enable a safe verification decision to be made, and this is something that BRC is keen to support.

Oil Beetles

This new scheme was set up by Liam Olds in early 2021 to focus on the recording and conservation of oil beetles. This family of beetles contains just eleven species, which are parasitoids of other insects groups, mostly bees. The beetles are associated with high quality habitats that support healthy populations of wild bees, and are an important part of the species diversity that is linked to the ecology of plants and pollinators. Three species are considered extinct in the UK, and some others are declining, and records (via iRecord or



Oil beetle Meloe violaceus © Liam Olds

direct to the scheme) are needed to monitor what is happening. More information and an ID guide is available from the scheme page on the [UK Beetle Recording website](#).

Lesser Dung Fly (Sphaeroceridae) Study Group

This new study group has been set up as part of Dipterists Forum to focus on the lesser dung fly family. This is a fairly large family of 141 currently recognised UK species, but has been rather neglected in the past due to challenges around the identification and taxonomy. The new group aims to bring together information and make these flies more accessible for wider study. More information is available from organisers Andrew Cunningham and Mark Welch via the group's page on the [Dipterists Forum website](#).

Kelp Flies

Launched in 2020, the Kelp Fly recording scheme covers a small group of five UK species in three families. All are associated with shoreline habitats and can be found on rotting piles of seaweed anywhere around the coastline of the Britain and Ireland. The scheme page on the [Dipterists Forum website](#) has further info from organiser Donald Smith, and some links to identification resources. Records are collated via iRecord and shared with NBN Atlas.

Sawflies

Considerable progress has been made over the last couple of years to bring together available records for the Sawfly Recording Scheme, building on the work started by Guy Knight, who has been joined by Andrew Green and a team of additional recorders and verifiers. A new website provides a great set of resources and species accounts, and records are being collated via iRecord and shared with the NBN Atlas. For links and further details see the scheme page on the [BRC website](#).



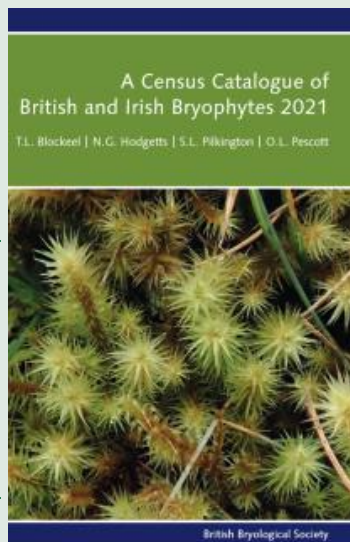
Botanical recording schemes

British Bryological Society (BBS)

There have been over 92,000 records of bryophytes submitted to the [BBS](#) database in the past two years. Last year saw the publication of A Census Catalogue of British and Irish Bryophytes 2021 ([Blockeel et al., 2021](#)), which details the known distribution of all our bryophytes by Watsonian Vice-County.

National Plant Monitoring Scheme (NPMS)

The [NPMS](#) have launched a new series of webinars to help scheme participants identify habitats they survey within randomly selected 1 km squares. For further information and booking details see [Training webinars](#).



Species atlases and status reviews

Two new beetle atlases have been published by BRC via the [Field Studies Council](#) since our last newsletter, each packed with information on the natural history and distribution of the species groups they cover.

- [Atlas of water beetles of Britain and Ireland - smaller families of Polyphaga](#). G.N. Foster, D.T. Bilton, M. Hammond and B.H. Nelson, 2020.

The third in the series of water beetle atlases covers 85 of the smaller species, including the minute moss beetles and the variegated mud-loving beetles. Although small, many of these species are indicators of habitat quality and all have their own fascinating natural histories.

- [The Histeridae, Sphaeritidae and Silphidae of Britain and Ireland](#). S.A. Lane, C.B.H. Lucas and A.L. Whiffin, 2021.

This book contains not only atlas maps and species account but also a beautifully illustrated set of identification keys, making it a key work for the continued study and recording of clown beetles and carrion beetles. Many of the beetles in this group play important roles as predators in dung or decomposing fungi and carrion. The group includes some large and charismatic beetles, some of which regularly turn up in light traps.



"The Histeridae, Sphaeritidae and Silphidae of Britain and Ireland" co-author Ashleigh Whiffin



Two further BRC atlases are in the late stages of preparation, and these will cover centipedes (by Tony Barber) and click beetles (by Howard Mendel). Watch this space for news!

BRC has also worked with the Mammal Society to support the recent mammal atlas and a subsequent paper on long-term trends:

- [Atlas of the Mammals of Great Britain and Northern Ireland](#) (D. Crawley et al. 2020, Pelagic Publishing)
- [Using biological records to infer long-term occupancy trends of mammals in the UK](#). (F.G. Coomber et al. 2021. Biological Conservation 264: 109362)

The Earthworm Society has published an [online atlas](#) using mapping tools developed by BRC.

The British Dragonfly Society has published a (beautifully illustrated) review of the conservation status of the UK species, in partnership with UKCEH/BRC:

- [State of Dragonflies in Britain and Ireland 2021](#). (P. Taylor et al. 2021.)

Butterfly Conservation have produced a new Red List assessment of British Butterflies, using data gathered by volunteers through the UK Butterfly Monitoring Scheme and Butterflies for the New Millennium recording scheme:

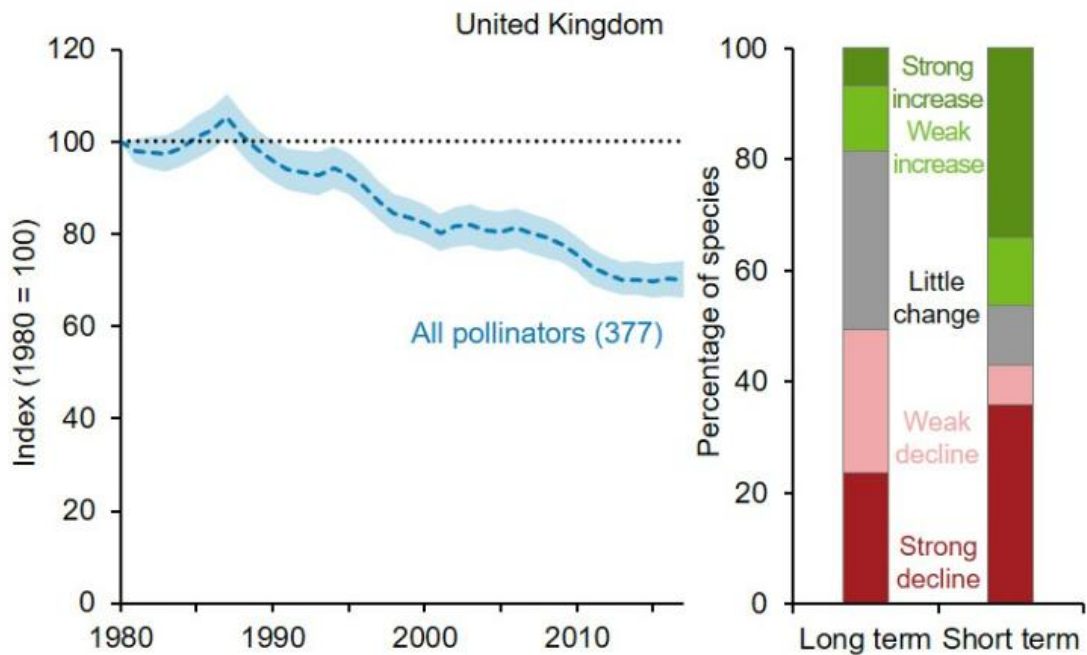
- [A revised Red List of British butterflies](#). (R. Fox et al. 2022. Insect Conservation and Diversity, 1–11)

Conservation status reviews for a number of other species groups are in progress and BRC has worked with a number of recording schemes to ensure that relevant data is made available to the review process. Most recently this has included work on ladybirds and sawflies. For an update of status reviews see the [JNCC website](#).

Data management and use

A huge amount of biological recording data is shared by the recording schemes and BRC, including via [regular uploads to the NBN Atlas](#) and by the schemes themselves. BRC works with the schemes to support this process, and to carry out analysis of the data to provide information on species trends and indicators, and how these relate to their environmental change. Recent and ongoing work includes:





Change in the distribution of UK pollinators, 1980 to 2017, from the UKBI, Section D1c: Status of pollinating insects, [available here](#).

- The project "[Drivers & Repercussions of UK Insect Declines](#)" (DRUID) is working with a number of insect recording schemes and many other data sources to undertake a major assessment of the drivers of change in terrestrial and aquatic insect populations and communities and fully quantify the links between these populations and natural capital. In a separate project, "[GLobal Insect Threat-Response Synthesis](#)" (GLiTRS) is looking at global patterns and consequences of insect decline.
- As in previous years, data from a number of recording and monitoring schemes formed the basis for analysis leading to the 2021 [UK Biodiversity Indicators](#) (see figure above).
- BRC continues to work with recording schemes to support, where needed, their data management processes and to ensure that records are available for research and conservation as agreed with the schemes. Several schemes are working with us to transfer their full datasets from older databases into the Indicia data warehouse that enables online sharing and verification via iRecord, with recent work being carried out to support data migrations for the Soldierflies and Allies, Shieldbug and Ground Beetle schemes.



News Snippets

Elaine Wright

A short round up of some news from the UK biological recording community and other items of interest.

Maria Justamond and David W. Williams have created “A Guide to the Micro Ladybirds of Shropshire”, which will undoubtedly be useful beyond that county as well. You can [download it here](#).

The [Database of Pollinator Interactions](#) (DoPI) has been created as a central location to document the associations between pollinators and plants: *“Despite the vital importance of pollinator-plant interactions, remarkably little is known about the flower preferences of many pollinator species, or which insects pollinate many flower species, and how these interactions change in space and time. To fill this gap we have created, to our knowledge, the world's first online, open access, pollinator-plant interaction database. We hope that DoPI will prove to be a useful tool and source of information for researchers and conservationists, and perhaps also farmers, horticulturalists, gardeners, and beekeepers.”*

The developers are seeking additional records for the database, you can find out more about the [record criteria here](#).

[PTES Wildlife Conservation Internship grants](#) are now available for work on any UK species.

The [British Leafminers website](#) continues to be expanded, [find the latest updates here](#).

Steven Falk has added [Pompilidae \(spider wasps\)](#) to his excellent [Flickr](#) galleries.

The Biological Records Centre have added [Ladybirds to their “Targeting Revisits Map” project](#), which also covers Grasshoppers, Craneflies, Ground Beetles and Soldierflies.

The Biological Records Centre has also been involved with the development of [ROBITT, ecology's first “risk of bias” tool](#).

[Garden Moth Scheme](#) is seeking new people to help run the scheme, including assistance with maintaining the website, editing the newsletter, recruiting new participants and dealing with the data. Please get in touch at norman@enviro-consulting.com if you think you could help





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 Chair: (currently vacant) on chairman@nfbr.org.uk

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