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ABOUT US

The National Biodiversity Network Trust (NBN Trust) is a small charity with a big plan – to make data work for nature. For more than twenty years we've been making biodiversity data accessible, to support better decisions about the natural world and to connect people with nature. This Impact Report showcases the difference we have made in the past year, from April 2021 to March 2022.

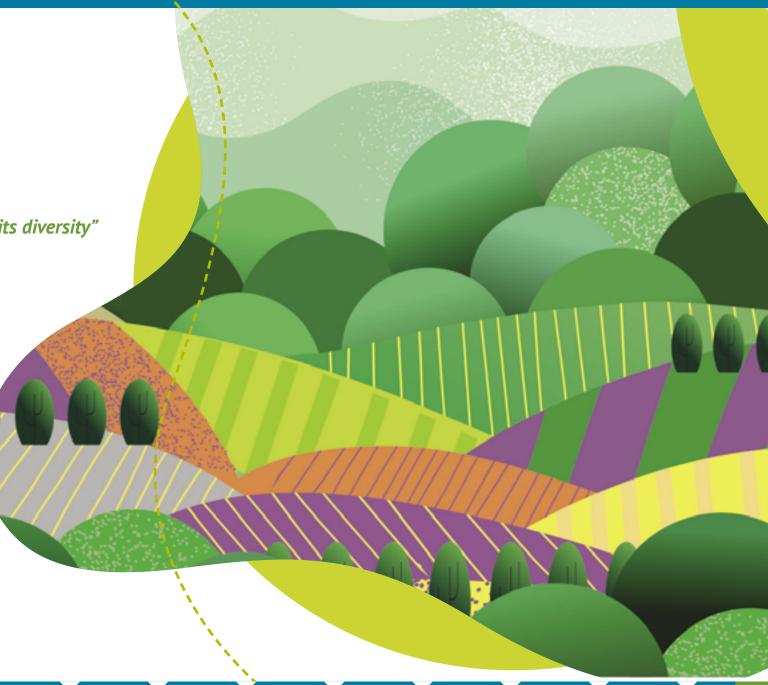
Our vision is:

"Nature thriving everywhere in all its diversity"

Our mission is:

"Making data work for nature"

To achieve these, we work through our National Biodiversity Network (NBN): a dedicated community of over 200 organisations who are passionate about the positive impact of wildlife data.



CHAIR AND CEO REPORTS

Chairman's Report

A warm welcome to the NBN Trust's Impact Report for 2021/22.

Stabilise. Renew. Springboard. Those are the words that come to mind as I look back over the year.

A year ago, our new CEO, Lisa Chilton, joined us and immediately set about stabilising. First, the team, who were, like everyone else, still living through the challenges of Covid and considering how to transition working patterns and the organisation to the (hopefully) post-Covid hybrid-working world. Second, the NBN Atlas, our world class, globally connected, platform required some TLC. Lisa and the team attacked these challenges with determination and the resulting stability positioned us well by the end of the financial period.

The state of nature in the UK makes it ever more important that we renew and accelerate the work of the Trust and the National Biodiversity Network. It's the same old issues, but there's greater urgency than ever. As noted by the House of Commons Environmental Audit Committee¹ in June 2021: "A significant proportion of the best wildlife habitats inside and outside protected sites remains in an unfavourable condition" and "many species groups are in long-term falls". This requires continued action and effective collaboration. It is important that we renew our efforts to ensure biodiversity data is used in decision making for the benefit of nature. This may not be a new story, but our ambition increases in line with the challenge, something that is reflected in our 2022-2027 strategy.

The new strategy, launched in May 2022, follows detailed conversations with stakeholders and the board about the NBN Trust's role. We believe it provides the necessary springboard for action and success. It will leverage the NBN Trust's unique position to help mobilise the collection, sharing and use of biodiversity data across the UK to create impact. It can enable us to play our part in the opportunities ahead, whether those are the potential benefits that follow from the Environment Act 2021 or the hoped for focus on nature in education. Ultimately, across the UK, we believe our strategy will enable us to meet our mission of "making data work for nature".

Our strategic ambitions reflect the breadth of work across the biodiversity recording community. This was on show at our second online NBN Annual Conference in November. We heard from many experts about evolving approaches and tools available for quality data gathering and the network was urged by Craig Bennett, CEO of The Wildlife Trusts, among other things, to "sweat the assets", embrace citizen science and ensure a purposeful use of data. We were all inspired by the NBN Awards winners and nominees who gave us an insight into the dedication of the biodiversity recording community. We hope to see as many of you as possible at this year's conference in November which we will be holding face-to-face for the first time in three years and which will provide more insights and a wonderful networking opportunity.

All this work needs to be wrapped within a framework of good governance. At the start of the year, we welcomed both a new CEO and five new Trustees who all threw themselves into their roles with gusto and worked effectively as a team. I was reassured that the board's decision making benefited from the breadth of experience and skills around the table.

I would like to thank all those involved with the NBN Trust for their support during 2021/22. Close to home, this is the staff and Trustees, notably including outgoing Trustee Andrew Wood, who had given 14 years of generous service to the Trust. More broadly, it is all the participants in the National Biodiversity Network, from the volunteer biodiversity data recorders to our members, partners and funders. In partnership, stability and a springboard for success should help us to overcome the challenges faced by the natural world as we renew our efforts in championing biodiversity data.

Neil Nodegoes



Message from the Chief Executive

Welcome to our 2021/22 Impact Report. I hope it uplifts and inspires you just as your work – across the National Biodiversity Network – inspires us here at the NBN Trust.

I'd like to start by saying a few words about impact.

The NBN Trust is a nature conservation charity. Though we're not on the front line – reintroducing beavers or restoring peat bogs – our work is every bit as vital.

Wildlife data is essential for making good decisions for nature. It's why we're here. It's why our charity was created 22 years ago, and it's why our role is more important now than ever. We believe that wildlife data should be accessible to all, forever, so that it can be used and re-used and re-used again. So that it can have the greatest possible impact. Through the National Biodiversity Network, we work with partners to set their data free and share it with the world, where it can inform, educate and inspire, for generations to come.

So how do we measure and demonstrate the difference we're making? 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-thescenes service to the entire conservation community, it can be difficult to demonstrate our impact in a meaningful way. Firstly, we can ask our data partners and data users to provide testimony, explaining why they value the service we provide. We can also share facts and figures about our activity - for example, the number of new records shared via the NBN Atlas. Each new dataset is unquestionably a success to be celebrated. However, it's only the start of the story. How is the data subsequently used? And what difference has it made? What has been achieved with that data that wouldn't otherwise have been possible? Of course, it's usually other organisations – NGOs, agencies, universities and businesses – that are using the data we share to create impact, so we need to get much better at finding and telling their stories. Your stories.

In this year's Impact Report, we've included partners' testimonials and new insights into the data held on the NBN Atlas. We've also started to explore the stories behind the data, but there's much more we can do, and we hope you'll work with us in the coming year to share your stories and shine a light on the impact of accessible biodiversity data.

2021/22 was my first year at the Trust, and the start of what has already been an extremely rewarding and enjoyable experience. It feels wonderful to be at the heart of the UK's recording community. and a privilege to work in partnership with so many inspiring and passionate people. I've loved meeting new colleagues across the Network and reconnecting with others I'd not seen in years. Although at the Trust we're rightly proud of the 'stuff' we do, not least our flagships, the NBN Atlas and iNaturalistUK, they're worth nothing without the remarkable people we work with – yes, that's you! – and the relationships we build to make the world a better place for wildlife. For that reason, we've included for the first time a special 'thank you' page to pay tribute to those who made extraordinary contributions in 2021/22 to our mission of making data work for nature'.

Thank you for all that you do for nature. And if you're not already a member of the Trust, we'd love you to join us.



HIGHLIGHTS OF THE YEAR

April 2021



We launched iNaturalistUK in partnership with the Biological Records Centre and Marine Biological Association. Leading the UK hub for the hugely popular iNaturalist app gives the Trust a closer connection to the recording community and a greater role in shaping UK citizen science for biodiversity.

Lisa Chilton became the NBN Trust's new CEO, bringing experience from 25 years in nature conservation, public engagement and fundraising across the voluntary, public, academic and private sectors.

We celebrated the fifth anniversary of the launch of the NBN Atlas, the NBN Atlas Scotland and NBN Atlas Wales. The NBN Atlas is the UK's largest collection of publicly accessible biodiversity records, and one of the largest in the world.

May 2021



Sophia Ratcliffe, NBN Atlas Data Manager, was appointed Co-chair of the UK Environmental Observation Framework's Data Advisory Group, with Richard Ostler from Rothamsted Research. The Group provides a forum for organisations to discuss data sharing initiatives at the UK and international level to enable the UK environmental data and information resources to be used effectively.

June 2021



A report to the UK Government's Cabinet Office that we contributed extensively to – "Mapping the Species Data Pathway" – was published, highlighting the importance of biodiversity data to underpin environmental policy, planning and delivery.

We joined the Project Advisory Group for the Scottish Marine Biodiversity Data Review, making recommendations for improving access to marine records. We also joined the Project Partnership Board for the G7 Legacy Project for Nature Recovery, helping shape this ground-breaking Cornish project.

September 2021



Lisa Chilton chaired the keynote panel discussion at the Communicate 'On the road to COP15 and COP26' Conference.

We launched the iNaturalistUK User Group, bringing together organisations and individuals to share good practice and problem-solve.

February 2022



We launched our monthly "Rebooted" blog, written by Lisa Chilton, charting her re-immersion into wildlife recording.

November 2021



Our NBN Conference was held online in collaboration with the Open University and iSpot. We had the highest ever number of delegates – almost 300!

We proudly announced the NBN Award winners and honoured Lynne Farrell's contribution to the recording world through NBN Trust Honorary Membership.

Thank you!

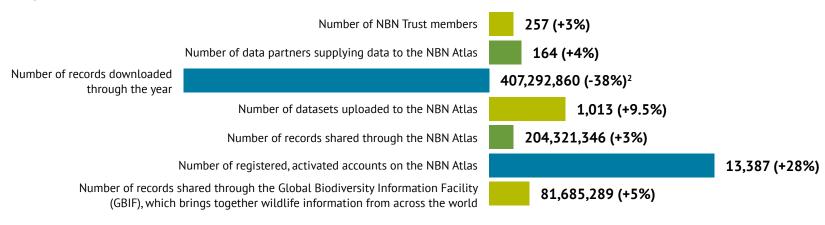
March 2022



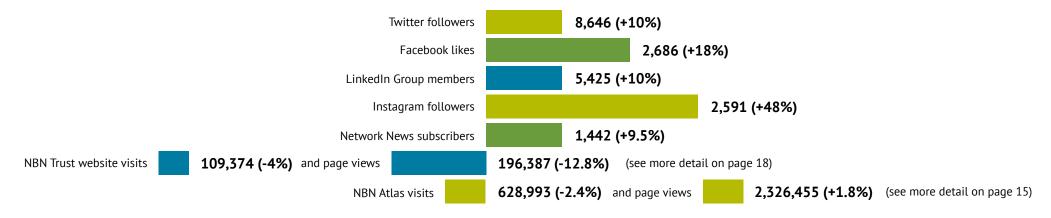
We launched the NBN Atlas Fit for the Future project. This 18-month project will upgrade and enhance the digital platform, improving its performance and equipping it for future innovation and growth.

NETWORK NUMBERS

Key metrics



Communications



Thank you!

²This could be the result of the new overview tab which means that people are filtering out the CC-BY-NC records if they don't need them or that people are getting more familiar with the filters. There is no definitive way of knowing the reason for the decrease.

PROGRESS AND IMPACT

In this section of the Report, we review the progress made during the financial year 2021/22 towards the Ambitions set out in our new Strategy.

Ambition 1: The NBN Atlas is the 'go to' place for sharing, finding and accessing UK biodiversity data

Our impact during the year

164 organisations sharing their data via the NBN Atlas has created an unrivalled resource for conservation and research. Without the NBN Atlas much of this data would be inaccessible and unused.

J By working closely with our data partners, we published 271 new or updated datasets to the NBN Atlas. This increased the number of species records on the NBN Atlas by 5.7 million.

J Thanks to our data partners, the NBN Atlas is one of the largest publicly accessible sources of biodiversity data in the world. It is now larger than its 'parent' platform, the Atlas of Living Australia, and larger than any of the 22 other nations' Living Atlases worldwide.

We have demonstrated our ability to develop and build "award winning" bespoke NBN Atlas portals, as shown by the Beautiful Burial Ground Portal.

NBN Atlas data partners and those recording what they see (often volunteers), are the lifeblood of the Network. Without them we would not be able to realise our vision and the Network would not function. Nature would lose out.

We made significant progress in 2021/22 working with data partners to mobilise their data and make it publicly accessible. We were delighted to bring onboard seven new data partners, bringing the total to 164. That's 164 organisations sharing their data via the NBN Atlas, creating an unrivalled resource for conservation and research.

Our new data partners are:

Northumberland Wildlife Trust

Nottinghamshire Wildlife Trust

Herefordshire Wildlife Trust

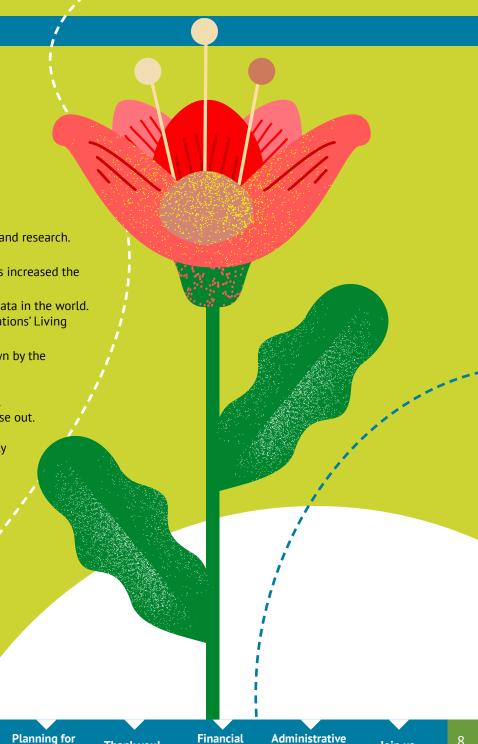
Game & Wildlife Conservation Trust

Leeds Museums and Galleries

Natural History Museum, London

Newcastle University

Welcome aboard!



Ambition 1 continued

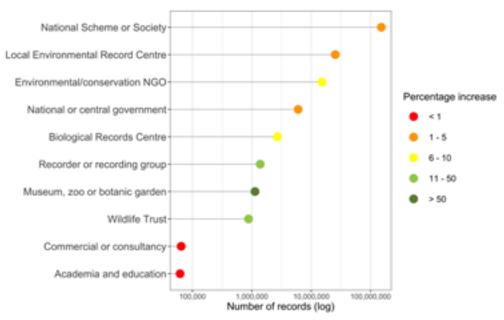
New and updated datasets

Thanks to the ongoing commitment of our data partners, we uploaded 271 new or updated datasets over the last year. Highlights include:

- Setting up a regular transfer of new and updated UK-based datasets from the Marine Biological Association's data portal (DASSH) to the NBN Atlas.
- Securing datasets from natural history collections, including new datasets from the Natural History Museum in London, the Leeds Museums and Galleries, and National Museums Liverpool.
- Receiving datasets from five county/local Wildlife Trusts as part of their Nature Counts project.

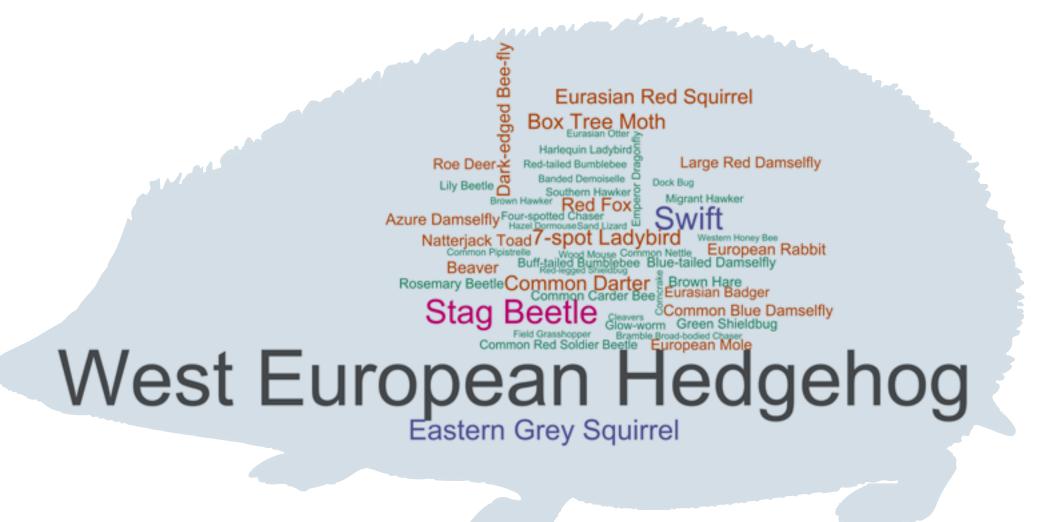
We value the vital contributions of our data partners enormously. A complete list of those contributing can be found on the <u>NBN Atlas</u>.

Percentage increase in record counts by data provider type



This highlights the tremendous impact of collaboration with our data partners to share new and updated records. The 770% increase in the number of records from museums, zoos and botanic gardens is particularly exciting. The figure also illustrates the need for greater engagement with potential data partners in the commercial and academic sectors.



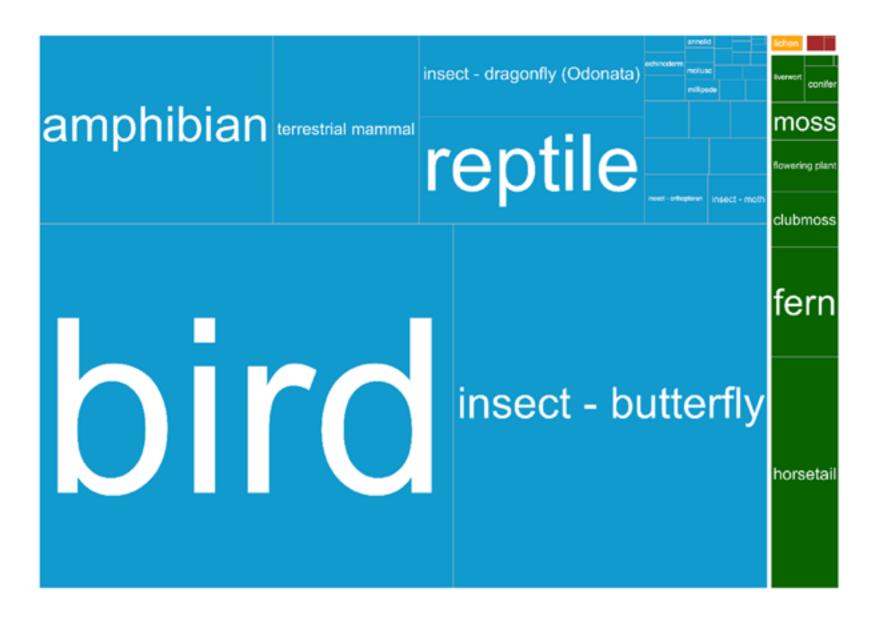


Word cloud showing the top 50 common names of species recorded

This word cloud shows the top 50 common names of species recorded during the year, based on the date of the occurrence (not the date that they were shared with the NBN Atlas).

We were intrigued to see that the most commonly recorded species this year was the hedgehog, and we'd be very interested to know more about the reasons for this. It could be due to dedicated hedgehog recording projects, or simply that there is greater public

awareness of the decline in hedgehogs and the need to record sightings. Understanding patterns and trends in recording activity is another important use for the data held on the NBN Atlas.



Word tree showing bias in species records' taxonomic groups

As you might expect, data held on the NBN Atlas is dominated by records of birds, butterflies and other groups that are more accessible to observe and identity. In fact, there are 3,000 times more butterfly records than cockroaches on the NBN Atlas, 164 times more bird records than records of annelid worms, 97 times more bird records than mollusc records and 7 times more flowering plant

records than moss records. We know not everyone is going to rush out and record the supposedly "less charismatic" groups, but we are keen to work with others to help address gaps and biases in the data.

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Thank you!

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Ambition 1 continued

NBN Atlas technical updates

Five years ago, we launched the NBN Atlas as a state-of-the-art online biodiversity database. Our Atlas was created by adapting the Atlas of Living Australia (ALA) software and introducing customisations for our UK community – for example, to incorporate Ordnance Survey grid references. Thanks to our fantastic data partners, the NBN Atlas is now larger than its Australian 'parent' and larger than any of the many other 'offspring' in the global community of Living Atlases. In fact, it's one of the largest publicly accessible sources of biodiversity data in the world.

As with all complex digital systems, the NBN Atlas needs to be regularly updated and upgraded, ironing out bugs and adding enhancements and new functionality. In 2021/22, we commenced a major project to upgrade the Atlas and take advantage of the latest suite of enhancements from the ALA team. The NBN Atlas Fit for the Future project, which will take place incrementally over 18 months, will improve the performance and stability of the NBN Atlas and provide an up-to-date and robust platform for its longer-term evolution and development.

Other technical work carried out through the year includes:

1. Notable NBN Atlas enhancements

- A new improved Advanced Search page was released on the records.nbnatlas.org pages of the NBN Atlas. The re-design, which improved the layout, was carried out with the help of feedback from David Hepper of the British Dragonfly Society Recording Scheme. The improved functionality includes:
 - o Additional fields to search by LERC (Local Environmental Records Centre) boundary, grid reference and vice county
 - o More options for searching by record date

- The busy spinner and "Please wait, searching ..." were implemented. This is a message that is displayed while the search for occurrence records is being carried out. It's a welcome improvement in the user experience as it lets the users know that a search is ongoing.
- The green dot was released. The little green dot lives on records.nbntlas.org. It turns red and displays a message if there is a problem with the NBN Atlas system, for example an issue that is causing the searches to time out. Before the green dot, users had no idea if there was an issue with the NBN Atlas except for the occasional error message or, more usually, a misleading report of "zero records found".

2. Work with Amazon Web Services (AWS)

At the beginning of the year, AWS agreed to fund a Well Architected Framework Review of the NBN Atlas. Such a review helps organisations implement and learn architectural best practices for designing and operating secure, reliable, efficient, cost-effective, and sustainable workloads in the AWS Cloud. The review was carried out in February 2022 by CirrusHQ, who are official partners for AWS. The review identified opportunities to improve the NBN Atlas infrastructure. Many of these changes were then completed free of charge by CirrusHQ, and the NBN Atlas team was advised how to implement the remaining improvements. This process has helped the NBN Atlas team greatly through learning new strategies to better manage the complex NBN Atlas infrastructure.



Ambition 1 continued

3. Beautiful Burial Ground Portal

On behalf of Caring for God's Acre, we added some new requirements for the Beautiful Burial Ground Portal. We are thrilled that the Portal has since won the Best Practice Award for Knowledge Sharing at the 2022 CIEEM (Chartered Institute of Ecology and Environmental Management) Awards.

4. Licensing

The number of records on an open licence continues to increase, with 52,730,510 (+9%) records having an OGL, CCO or CC-BY licence at the end of 2021/22.

There are valid reasons why data partners choose to apply restrictions to how their data may be used, but we're delighted that many opt for open licences.





Ambition 2: Biodiversity data is providing the evidence needed for nature's recovery

Our impact during the year

- Working with other key stakeholders, we strongly advocated the need for good quality biodiversity data, influencing policy decisions and approaches to the implementation of new conservation tools and strategies.
- Through the NBN Atlas, we provided a platform that is being used by more than 13,000 registered users to access high-quality biodiversity data to inform conservation, natural history, scientific research, urban and rural planning, journalism, art and much more besides. The NBN Atlas enabled the downloading of more than 400 million species records.
- NBN Atlas datasets were utilised in studies that culminated in more than 200 peer-reviewed scientific publications this year. Through our activities we advanced science and strengthened the evidence base that's essential for nature's recovery.

In May 2021, the Geospatial Commission published its report to the UK Government's Cabinet Office on the English species data pathway. The report was the culmination of extensive consultation, and we had been a key contributor. The report highlighted the importance and value of biodiversity data to conservation decision-making, and set out a lengthy series of recommendations for securing and enhancing data flows and accessibility.

Following the publication of the report, we engaged with other key stakeholders, including Defra, Natural England, the Biological Records Centre, the Association of Local Environmental Records Centres and the National Forum for Biological Recording to discuss how to take forward the recommendations.

We also took part in consultations and dialogue relating to Biodiversity Net Gain and Local Nature Recovery Strategies, seeking to ensure that these tools deliver results for species conservation and that best use is made of species data.

Biodiversity Net Gain (BNG) sits within the Environment Act and is an approach used to improve a site's biodiversity value. Local Nature Recovery Strategies are a new mandatory system of spatial strategies for nature established by the Environment Act 2021. They are designed as tools to encourage more coordinated practical and focused action.

Following the G7 Summit in Cornwall, we were invited by Defra to join the Project Partnership Board for the G7 Legacy Project for Nature Recovery, chaired by Lord Teverson and led by Cornwall Wildlife Trust. We were delighted to contribute our advice on biodiversity evidence to this ambitious project which aims to drive forward nature recovery in Cornwall, delivering outcomes for nature, for climate and for people.

We also participated in the Project Advisory Group for the Scottish Biodiversity Information Forum Marine Biodiversity Data Review. This project is reviewing the ways that marine wildlife data is collected and shared across Scotland and will make recommendations to improve data accessibility.



Ambition 2 continued

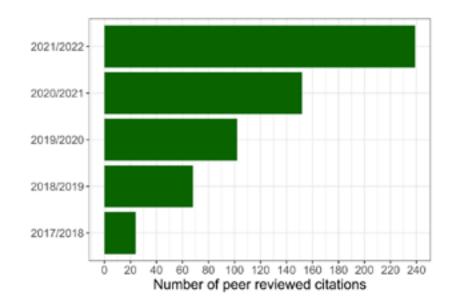
Providing the evidence

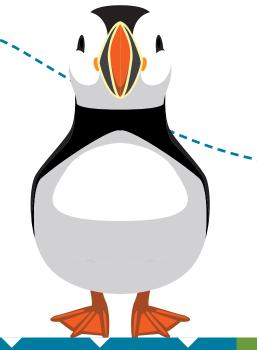
The number of registered users of the NBN Atlas continued to grow in 2021/22, exceeding 13,000 by April 2022. There was steady growth across all categories of users, with the greatest increases in the education and research communities.

In addition to registered users needing to download data, the NBN Atlas is an important resource for people wishing to view biodiversity data and information online. It is more difficult to determine the number of these casual users, but we can use the number of page visits as an indicator (recognising that these will include visits by registered users). In 2021/22, the NBN Atlas home page was visited 628,993 times and the "Explore your area" page had 117,000 page views.

In 2021/22, more than 400 million records were downloaded from the NBN Atlas and more than 200 peer-reviewed publications cited their use of NBN Atlas datasets, which had been shared via the NBN Atlas with the Global Biodiversity Information Facility (GBIF). These include:

- A paper in the Journal of the Marine Biological Association reviewing the global biogeography of estuarine fish and identifying the regions with the highest species richness. The study, which utilised 158 datasets from the NBN Atlas, was a collaboration between researchers at the Department of Agriculture, Environment and Rural Affairs (Northern Ireland) and the South African Institute for Aquatic Biodiversity.
- A paper in PLOS Biology looking at global and national trends and gaps in biodiversity data coverage for terrestrial vertebrates, and the challenges these present for nature conservation. One of the findings was that, globally, more than 1,000 times more records were made of birds than of mammals, reptiles and amphibians. The paper makes recommendations for improving coverage and sampling strategies so as to increase the value of biodiversity data for conservation. The authors are researchers at Yale and Leipzig universities, and utilised 701 datasets from the NBN Atlas.





Ambition 3: Citizen science is valued, supported and expanded as a major source of biodiversity data

Our impact during the year

- We opened up wildlife recording to a wider audience by launching iNaturalistUK. By the end of the year, more than 74,000 people had shared over 2 million records of UK wildlife on the new platform.
- By creating an iNaturalistUK User Group, we were able to build a core iNaturalistUK community to gather user feedback and influence the development of the UK and global iNaturalist platforms.
- Through the NBN Awards for Wildlife Recording we recognised and rewarded the young people, adults and groups who are actively enhancing our understanding of the natural world.

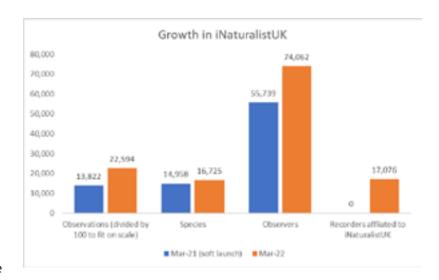


In April 2021 we launched iNaturalistUK, the UK platform of the global nature recording website and app, with the aim of increasing public participation in wildlife recording. We are thrilled to report that by the end of March 2022, 74,062 observers had shared 2,259,496 observations across 16,725 species on iNaturalistUK! This has clearly demonstrated the desire that people have to be out in nature, recording what they see, and we are delighted to be encouraging more people to get involved.

We work on iNaturalistUK in collaboration with the Biological Records Centre and the Marine Biological Association, to help steer the project and implement appropriate data pathways. As a result, a daily upload of records from iNaturalistUK to iRecord has been introduced, to better mobilise iNaturalistUK records within the UK recording community. Once iNaturalistUK records have been uploaded to iRecord, the verifiers - those who painstakingly check the records - set to work to confirm that a species is indeed what an observer thinks it is. All verified records are now shared with the NBN Atlas, meaning that the records are more widely accessible.

We recognise the vital contribution of all the verifiers across the UK, and thank them wholeheartedly for their commitment to ensuring highquality, accessible data. We know that the flow of iNaturalistUK data onto iRecord has increased the verifiers' workload. We are keen to work with the iNaturalistUK community and the Biological Records Centre to assist in this process and make the most efficient use of their and the verifiers' expertise.

Increasing number of iNaturalistUK users and records through the year:



It should be noted that, on the launch of iNaturalistUK, all UK records that had previously been added via the global app became available via iNaturalistUK. This explains the high starting figures, but does not detract from the impressive growth through the year.

Thank you!

Join us

Ambition 3 continued

iNaturalistUK Engagement

We have established an <u>iNaturalistUK User Group</u> which has four main aims:

- Establish how iNaturalist / iNaturalistUK is currently used in the UK
- Explore what organisations want to use iNaturalistUK for in the future
- Identify how the NBN Trust, as the UK lead, can help users make best use of iNaturalistUK
- Discover what general improvements users would like to see.

The group, which is open to all, met twice during the year with more than 30 participants each time, comprising organisations and individual recorders. Key topics of discussion included data flows, licensing and general ideas for improvement. As well as finding solutions at a national level, the NBN Trust participates in the international iNaturalist Steering Group, representing the views of the UK iNaturalist community and helping shape the direction and development of the global recording platform.

We also played a leading role in promoting iNaturalistUK to new audiences throughout the year. This includes giving help and advice to users, from small community groups to large national organisations.

City Nature Challenge

Started in 2016 as a competition between San Francisco and Los Angeles, the City Nature Challenge has grown into an international event, motivating people around the world to find and document wildlife in their cities. It is one of the world's largest mass participation citizen science events, taking place over a long weekend in late April, and the majority of sightings are recorded using iNaturalist. We co-ordinate the UK's activity, in partnership with the Natural History Consortium. This year, there were 12 UK Cities represented and over 2,000 people across the UK took part. In total they made 59,032 observations of 3,444 species, The most commonly recorded species was Garlic Mustard, with more than 550 observations, while the rarities included 4 records of Stoat, Nosy Pill Woodlouse and Snakelocks Anemone. The leading recorders were Amanda Cogan Barber (recording as 'mandapanda'), who was a runner-up in our wildlife awards (see opposite), Steve McWilliam and Ben Deed, who together amassed almost 6,000 records over the four days of the event.

Recognising the unsung heroes of wildlife recording

The NBN Awards for Wildlife Recording recognise and celebrate the outstanding contributions adults and young people are making to wildlife recording and data sharing. to help improve our understanding of the UK's biodiversity.

The five 2021 winners and runners up were:

Young Person's Award

Winner – Izzy Fry Runner up – Alfred Dudley-Warde

NBN Newcomer Award

Winner – Dakota Reid Runner up – Leah Cox

NBN Award for Wildlife Recording - Marine

Winner – Kate Lock Runner up - Paul Blanchard

NBN Award for Wildlife Recording - Terrestrial

Winner – Andrew Graham Runner up – Amanda Cogan Barber

NBN Group Award

Winner - Marden Wildlife Runner up – Croxteth Park Volunteer Group

We were delighted that two of our 2021 NBN Award recipients, Izzy Fry and Amanda Cogan Barber, were featured in BBC Wildlife magazine as a result of their endeavours in wildlife recording and their resulting Awards.

In addition to the publicly nominated awards, the 2021 John Sawyer NBN Open Data Award was presented to the British Dragonfly Society in recognition of its ongoing commitment to sharing wildlife data openly.

We were very grateful for the generosity of our prize sponsors – Opticron, Habitat Aid, Field Studies Council, Michael Hoppen Gallery, Bird Photographer of the Year, William Collins, British Wildlife and NHBS.









Ambition 4: The National Biodiversity Network is a well-connected and highly collaborative community with a united voice on key issues

Our impact during the year

- We raised awareness of the National Biodiversity Network and, as evidenced by our growth on social and electronic media, successfully encouraged more people to follow our work and get involved. Without the NBN Trust, we believe there would be far more 'silo working' and fewer opportunities to communicate, share and learn from each other.
- We brought together at the NBN Conference almost 300 people with an interest in data collection, sharing and use. Our delegates were treated to motivational keynote speeches, a host of news and views from across the network, and the inspirational contributions of our student presenters. All the conference presentations are available to watch online.

Through the National Biodiversity Network, we lead the UK's largest partnership for nature, bringing together more than 200 organisations with a shared interest in biodiversity data. Through our well-established communication channels, we promote the work of our members and data partners from across the network and grow the NBN community. We also promote collaboration and learning by sharing stories of how, individually and collectively, we are all making data work for nature.

Our communication channels:

Network News

Our monthly electronic <u>newsletter</u> is sent to almost 1,500 subscribers.

NBN Trust website

The <u>website</u> is the hub for all our communications and regular news updates. Traffic since 2018 - 2019 has significantly increased with home page visits +27% and page views +16% in 2021/22. This could indicate the increasing use of online resources as a result of the pandemic; however, it

could also show the increasing profile of the NBN Trust, particularly following the State of Nature Report 2019, which we hosted on the NBN website. This also explains the higher increase in traffic in 2019/20 when page visits were +44% and page views +49%.

Social media

We regularly post on the main platforms. See our year-on-year statistics on page 10.

Partner Newsletters

We have regular updates in the National Forum for Biological Recording (NFBR) newsletter and Biological Recording in Scotland (BRISC) news. We also contribute to other newsletters including Ecological Continuity Trust, Countryside Jobs Service and Field Studies Council newsletters.

Presentations

Our staff and Trustees regularly promote our work and that of the network through presentations at external events. During 2021/22, panel participations and presentations we made included:

- "Citizen Science for Nature". A presentation for Somerset Wildlife Trust's Wilder Somerset public event, celebrating the launch of the Wildlife Trust's new strategy.
- "From local to global scaling up the impact of island biodiversity data". A presentation at the Inter-Island Environment Meeting hosted by the Jersey Biodiversity Centre.
- "Making Data Work for Nature". A presentation at the annual conference of the Association of Local Environmental Records Centres.
- "Making Data Work for Nature". A guest lecture on the Environment, Politics & Practice MSc course at University College London.
- "The NBN Trust maximising the impact of biological records". A presentation to members of the Ecological Continuity Trust.
- "Using the NBN Atlas Scotland to inform species recording". An online NBN Atlas workshop for The Wildlife Information Centre.
- "Next steps for ecosystem services and the use of natural capital accounting for asset use, protection, and business cases". An online panel discussion as part of the Westminster Energy, Environment & Transport Forum conference on "Natural Capital protection and restoration in England next steps for policy, regulation, land management, ecosystem services and nature-based solutions".

Ambition 4 continued

NBN Conference

The highly regarded, annual NBN Conference has been running since 2001. To begin with, it was aimed primarily at national recording schemes and societies, and our first event at the Natural History Museum attracted around 80 delegates. For the last few conferences, before Covid affected our ability to hold face to face events, we were regularly attracting 160+ delegates and the audience was from across the conservation sector, from the statutory country agencies, conservation NGOs, national and local recording schemes and local environmental records centres to ecological consultancies, commercial businesses and academics.

In 2021, we held our second online conference, with the invaluable help of the Open University and iSpot, and were pleased to welcome just under 300 delegates! Sixteen presentations were made, on the theme of "Biodiversity data – from collection to use", including the keynote address from Craig Bennett, CEO of The Wildlife Trusts. The Sir John Burnett Memorial Lecture was given by Professor Rosie Hails, Nature and Science Director at The National Trust. Topics ranged from eDNA to global data sharing and 'precision' citizen science. As well as presentations from professional ecologists and conservationists, and a series of short videos from selected partners, we included our usual focus on student research. Each presentation highlighted research that had utilised the NBN Atlas as a key data source, including work on Yellowhammers, Glow-worms and the flora of ancient woodlands.

Delegates took to Twitter to discuss the day's proceedings, here are a few examples of what our followers said:

Section FSC Biodiversity – "There have been some really engrossing discussions at this morning's #NBNConf21 - thanks to all the great speakers so far! Interesting to hear from @ebioatlas about eDNA and biodiversity monitoring! It will be good to see how data access and sharing improves in the future."

North East Yorkshire Ecological Data Centre – "A focus on the importance of collaborative community science to meet the needs of the #biodiversity crisis is a clear theme so far. Good to see wider discussion happening on the importance of LERCs & our role in data access & supporting of active recording."

Anon – "Fascinating + stimulating morning of talks + discussion on 'biodiversity data-from collection to use' @NBNTrust @WildlifeTrusts @NatureMetrics need to harness advances in technology including eDNA to improve data collections, sharing, + reuse" Guernsey Biological Records Centre – "Wow. What a fantastic day @NBNTrust Thank you to all the speakers and organisers for the engaging and informative talks and presentations we've all enjoyed today - lots to think about!"

A WORD FROM OUR MEMBERS

The NBN Trust is a membership charity. Our members are diverse, with their own aims and objectives, but they each play their part in supporting our mission to "make data work for nature".

Our organisational members include statutory bodies, charities, Local Environmental Records Centres, wildlife groups and societies and many more.

We were delighted by the growth in our individual membership this year, as more and more people recognised the impact they could have by supporting the Trust. We cannot thank you enough.

We would also like to acknowledge the long-standing support of our founding members:

- Environment Agency
- Joint Nature Conservation Committee (JNCC)
- Marine Biological Association
- National Forum for Biological Recording
- Natural England
- Natural History Museum
- Natural Resources Wales
- NatureScot
- NERC through the work of UKCEH and the Biological Records Centre
- RSPB
- The Wildlife Trusts

A list of NBN Trust members can be found on the NBN website.

Member type	Number of members at 31 March 2022
Organisational members	113
Corporate supporters	6
Individual members	94
Honorary members	17
Lifetime members	27
TOTAL	257

What two of our individual members say:

"We live in a time of unprecedented environmental change. Without knowing species' past and present distributions we have no hope of being able to make well-founded plans for future environmental conservation. The NBN Trust curates and makes available Britain's unrivalled species record collection. I am a member of the NBN Trust to help support its vital work."

Chris du Feu

"Biological Records are vital to modern evidenced conservation from deciding what wildlife needs help and how to go about best delivering it. The NBN remains the focal point for data in the UK and improves the visibility and use of both information and the organisations and people who make the Network function.

We are at our strongest for nature when we work together and I believe the NBN Trust provides us with the means to do so not just via the NBN Atlas, but perhaps more importantly as a collaborative Network. I choose to continue to be a formal member of the NBN Trust and help where I can, to make that ideal a reality."



On the following pages we bring you reports from three NBN Trust members who explain why they are members and how they are making data work for nature.

Bristol Regional Environmental Records Centre (BRERC) Written by Tim Corner, BRERC Manager

Bristol Regional Environmental Records Centre (BRERC) was set up by and employed within Bristol Museum & Art Gallery in 1974.

The early 1970s saw Museum officers, Charlie Copp and Anne Hollowell, propose and produce a White Paper for Government. The proposal was a plan for a national network of environmental records centres across the UK. Charlie, who was an early Manager of BRERC, helped produce the national standards for species recording and develop relational databases for managing that data. He went on to become a major influence in the setting up of the National Biodiversity Network (NBN), later becoming an Honorary Member of the NBN Trust.

BRERC's remit is to gather data of wildlife and geology in the West of England to place the Museum's natural history collections into a current context. Additionally, the data is made available for the public and professionals as well as local authorities, government agencies and conservation bodies.

In addition to income from service level agreements and projects, BRERC depends on bespoke data search services to construction developers and consultancies to make up the 50% shortfall in our operating costs.

At the creation of the NBN Gateway website, later superseded by the NBN Atlas, many data custodians were suspicious of the national motivation for it and anticipated competition for limited funds.

In 2006, despite concerns, BRERC became the first Local Environmental Records Centre to enable anyone in the world to access our records via the NBN Gateway and view them in a national context.

Of the many millions of species records that BRERC holds, about three million have been digitised. We currently provide all records to the NBN Atlas at their full resolution, apart from Notable Species records that are younger than 10 years old, which are uploaded at 1km resolution. All are downloadable, but no sensitive records are supplied.

Because the data is made accessible publicly at a high resolution, they are also made available via the NBN Atlas to the Global Biodiversity Information Facility (GBIF).

BRERC data available via the NBN Atlas and GBIF has been used in several hundred citations relating to published academic papers, particularly in European institutions.

Thousands of users download and use the data in maps and reports and in one year alone BRERC data was downloaded multiple times to the equivalent of 13 million records.

We are not resourced to provide the level of exposure to our data the NBN Atlas provides, but through the Atlas, BRERC records can help to establish species distribution across the globe and raise awareness of declines and the spread of non-native species.

We cannot know how much extra income from data search services we might have made since 2006 had we not uploaded the data. However, that income has increased from about £7-10,000 per year to around £60,000 and therefore has significantly increased, rather than decreased as was expected by many.

I hope we will eventually be able to upload habitat data and help develop exciting new ways for anyone to access and interrogate wildlife data to meet the ecological emergency and climate crisis we have collectively dragged ourselves into. The NBN Atlas should be a conduit for this, and with some reassurance on the question of potential loss of income to those who otherwise want to share their data, it could be an even more important tool.



The Bumblebee Conservation Trust

Written by Richard Comont, Science Manager

The Bumblebee Conservation Trust is the UK's only charity dedicated solely to the conservation of bumblebees. Our range of projects includes direct habitat conservation, public engagement, training & mentoring, and research, but all of them are dependent on good data – you can't conserve something if you don't know where it is or how it's doing!

We're very fortunate to have access to excellent distribution data from the Bees, Wasps & Ants Recording Society (BWARS) to base a lot of decisions on. But we wanted to know more about what was happening with bumblebees now, and in particular to emulate the immense success of the Butterfly Conservation/UK Centre for Ecology & Hydrology's Butterfly Monitoring Scheme in driving research into the group. So, in 2008 the Trust began trials of a new standardised, transect-based, abundance-monitoring citizen science recording scheme, BeeWalk. After a few scoping years, and three years using it as data collection for a PhD project, things really kicked off in earnest in 2013 and it's been fantastic to see the project grow over the years since.

So, we had our own data coming in – great! But what to do with it all, and how should we maximise the benefit of collecting it all? We were in the happy position of not having to sell access to our data to survive; indeed, we were (and remain) keen for the data to be as widely available as possible. Data collection – 'even' volunteer-collected citizen science data – is expensive, and environmental organisations are perpetually short of cash. There was absolutely no point in hoarding our data, locking it away in a BBCT silo like the data equivalent of Smaug, so that others would need to repeat the data collection. Especially when we were already benefitting from the data-sharing largesse of others. So, in 2016 we sent our first BeeWalk dataset through to the NBN Gateway (as it was then), with the aim of updating it every year.

This seems like something of a one-way transaction – provision of expensively-attained data for free, but in fact the Bumblebee Conservation Trust has gained plenty from it. First and foremost, visibility: the NBN Atlas acts as a shop window for UK wildlife recording. If your data isn't on there, it – and by extension your organisation – might as well not exist to a lot of searchers. We collect the data in order for it to be used: having it

on display at the NBN Atlas (and at GBIF with no extra work required) available for anyone searching for bumblebee data was a no-brainer. Of course, providing data on request is time-consuming, and difficult with large datasets. Putting your data in the shop window generates a lot of work! So, one of the other advantages for us is having the data downloads effectively outsourced. In the past year alone, more than ten million records have been downloaded from the BeeWalk dataset: 36 publications have cited the dataset in the six years that it has been public.

The Bumblebee Conservation Trust is a member of the NBN Trust for all these reasons, plus access to the hive-mind of wildlife data managers at the NBN Conference, plus supporting an organisation that helps us speak with one voice about the importance of good data to underpin decision-making. Why wouldn't we be members?!





The Ecological Continuity Trust

Written by Ben Sykes, Executive Director, Ecological Continuity Trust

The Ecological Continuity Trust (ECT) became an NBN Trust member in March 2021, following a period of reciprocal communications activities in which both our organisations came to understand our shared goals around data curation in environmental science. Membership was also borne out of the realisation that relatively little is achieved alone in our sector and that partnership is essential if we are going to make those 'big gains' in data sharing and policy that will make our world a better place – be it improvements in UK biodiversity or our response to changing climate.

The ECT is a unique charity in the UK, being the only organisation (charitable or otherwise) solely dedicated to preserving, maintaining and 'championing' the UK's resource of long-term ecological field experiments (LTEs). We maintain a register of over 70 LTEs at various stages of their lifecycle, involving true manipulations of different environmental variables against monitored controls across a wide range of different habitats. Some manipulate climate conditions for example, whilst others manipulate grazing behaviour or the addition/deposition of various nutrients, but all are long-term. Two of the LTEs on ECT's register have been running continuously for over a century, including Park Grass at Rothamsted in Hertfordshire, with others now several decades long. The Buxton Climate Change Impacts Laboratory (BCCIL, pictured) in Derbyshire is the longest-running climate change manipulation experiment in the UK at 29 years. Plant biodiversity is often at the heart of the parameters measured on LTEs, particularly in grassland habitats where, for example, restoration from arable use may be the goal.

LTEs produce valuable long-term data whose importance and value to science and conservation only increases with each passing year. Persuading the owners and managers of LTEs to store their data safely and in a way that is accessible to others is a constant challenge to ECT, requiring of both time and financial support. Our present strategy in this area is to use our Small Grants scheme to encourage the owners of the most vulnerable LTE datasets to render their data secure and available. Two recent examples include data curation awards to the Palace Leas LTE in Northumberland, running for 126 years, and the Somerford Mead LTE in Oxfordshire whose dataset runs back to 1985. Plant biodiversity assessments have been integral to both these experiments and this data may well find an additional secure home in the NBN Atlas.

Although we are still a relatively new member of the NBN Trust, we look forward to working through the NBN to find new ways of financing and encouraging the owners and managers of LTEs to curate their long-term data more securely, using the NBN Atlas where applicable. ECT is also carefully expanding its remit to include long-term monitoring studies where they add scale and value to nearby LTEs, an initiative likely to only increase our obligations to promote data curation and sharing from long-term studies.



Thank you!

PLANNING FOR THE FUTURE

The NBN Trust is at an exciting time in its development. We have a new strategy to drive our ambitions over the next five years; we have a skilled and committed team who are dedicated to our cause; and we have a Board of Trustees who provide excellent support and wise advice.

Despite this, we know we will face challenges in achieving our new ambitions, and the way in which the Trust is financed will need to be a continued area of focus. However, we believe our clear strategy provides the right springboard for success. We know, with the ongoing support of the Network, we can all contribute to nature's recovery by making data work for nature. Will you join us in our mission?

Our focus for 2022-23

Ambition 1: The NBN Atlas is the 'go to' place for sharing, finding and accessing UK biodiversity data.

- We plan to introduce access controls on the NBN Atlas to give those data providers who want more control of their data the ability to restrict its availability where necessary.
- We will upgrade the NBN Atlas and realign it with the Atlas for Living Australia through the Fit for the Future Project.

Ambition 2: Biodiversity data is providing the evidence needed for nature's recovery.

- We will launch the Better Biodiversity Data Project, taking forward recommendations from the Scottish Biodiversity Information Forum.
- In England, we will promote and implement key recommendations from the 2021 Geospatial Commission Report and Defra's Natural Capital and Ecosystem Assessment programme.

Ambition 3: Citizen science is valued, supported and expanded as a major source of biodiversity data.

As the lead for iNaturalistUK, we will support the growing community of users and increase the volume, quality and impact of the records. This will include developing "how to" guides to help new and existing observers. Ambition 4: The National Biodiversity Network is a well-connected and highly collaborative community with a united voice on key issues.

- We will review and update the NBN Trust membership scheme to provide value to our members and income for the Trust.
- Through the development of a communications strategy, to support the main NBN Trust strategy, we will clearly identify our key audiences and how we will engage with them.

Our four ambitions are underpinned by the following commitments to sustainability:

Financial – Securing the future of the NBN Trust by growing and diversifying our income streams.

Social – Helping to achieve equality, diversity and inclusion in the biodiversity data sector. Prioritising wellbeing and ensuring the Trust is a great place to work.

Environmental – Minimising the Trust's environmental impacts and working towards Net Zero for carbon.

In 2022/23 we will:

- Secure grant funding for core costs and new projects and begin to develop a commercial income stream.
- Identify ways in which we can develop iNaturalistUK to engage under-represented groups in wildlife recording.
- Increase our understanding of our environmental impact and how to minimise it.



THANK YOU!

As a Network-focused charity, we're nothing without you – our members, partners and supporters. We're grateful to each and every one of you that contributes in your myriad ways to our mission of making data work for nature. We'd like to highlight some of those who have helped make the greatest difference in the past year.

Funders, members and supporters

We are deeply grateful for the support of all those who have made a financial contribution to the work of the Trust this year via membership subscriptions, donations, sponsorship and grants. The following organisations have each contributed £1,000 or more in 2021/22:

£1,000-£19,999

- British Ecological Society
- Caring for God's Acre
- Environment Agency
- Habitat Aid
- Isle of Man Government
- National Lottery Heritage Fund
- Natural History Museum
- Natural Resources Wales

£20,000 and over

- Esmée Fairbairn Foundation
- Joint Nature Conservation Committee (JNCC)
- NatureScot
- Natural England
- Natural Resources Wales
- Northern Ireland Environment Agency

We'd love you to consider joining the Trust (if you haven't already) and making a donation towards our important work. If you'd like to discuss a gift of any size, please contact us at support@nbn.org.uk Thank you!

Data partners

Your data makes our world go round – and we help set your data free, to live its best life! Together we're a force for good, providing the evidence base for nature's recovery. Thank you.

Volunteers

Our Board of Trustees are volunteers, each of whom makes an invaluable contribution to the sound and sustainable governance of the Trust. This year we waved goodbye to Andrew Wood after 14 years of exceptional service. We welcomed five new Trustees - Peter Bridgewater, Terence Jagger, David Slawson, Camilla Taylor and Pete Tomlin – though sadly Peter Bridgewater stepped down mid-way through the year due to relocating to Australia. We also benefited enormously from the skills and experience of Mike Prince, who joined us for three months to assist us with the development of the NBN Atlas Fit for the Future project. Thank you all.

Staff

The NBN Trust is a small, tight-knit and industrious team that delivers an extraordinary amount with minimal resources. We'd like to acknowledge and thank all of the team for their skill and dedication. Four staff left the Trust this year, each leaving their own mark and legacy: Christine Johnston, Caroline Van Dierkson, Justin Dee and Katie Oliver, Besides our new Chief Executive, we welcomed two new staff to the team: Helen Manders Jones (Lead Developer) and Keith Raven (Developer with DevOps). Helen and Keith are a formidable team and we're extremely fortunate to have them onboard. Thank you all.

And finally...

Thank you again for your wonderful support, and for taking the time to read this Impact Report. There's so much more we can achieve together for nature. and we're looking forward to working with you in 2022/23 and beyond. Our vision is of nature thriving everywhere, in all its diversity. Let's make it a reality!

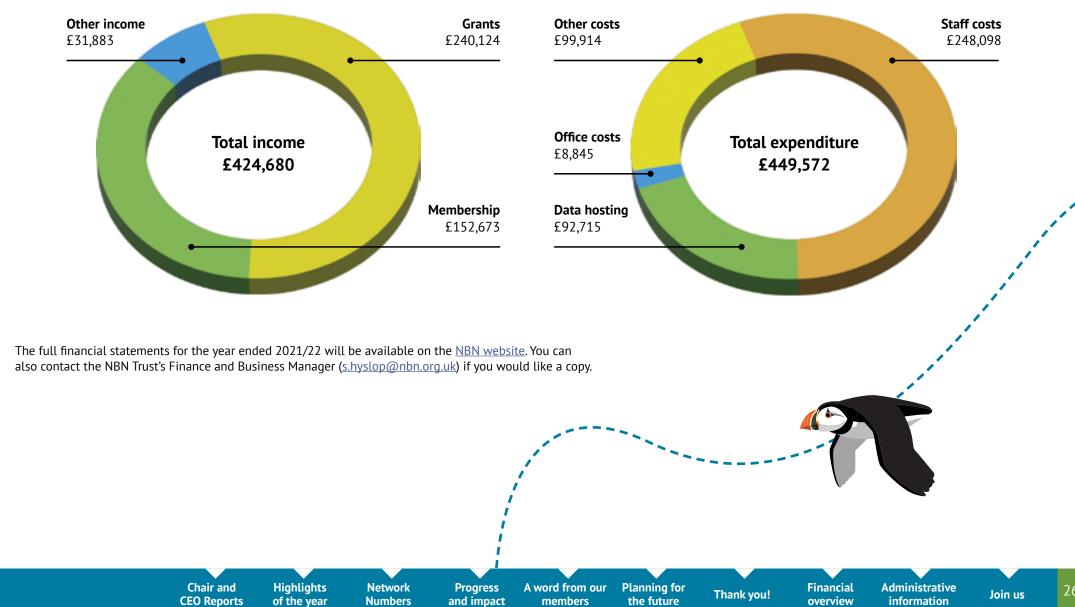


Thank you!

Join us

FINANCIAL OVERVIEW

Financial summary for the year ended 31 March 2022



ADMINISTRATIVE INFORMATION

The National Biodiversity Network Trust is a charitable company limited by guarantee, incorporated on 3 April 2000 and registered as a charity on 25 August 2000. The company was set up under a Memorandum of Association, which established the objectives and powers of the charitable company and is governed under its Articles of Association.

Directors / Trustees for the year ended 31 March 2022

The Trustees, who are also the Directors for the purpose of company law, and who served during the year and up to the date of signature of the financial statements were:

Dr R Fairley (Treasurer) Ms M Rudd Mrs W Harper Mr M Postles Dr B Howell Mr T Jagger (Appointed 1 June 2021) Ms C Taylor (Appointed 1 June 2021) Mr P Tomlin (Appointed 1 June 2021) Dr D Slawson (Appointed 1 June 2021)

Mr N Hodges (Chair)

Ms L J Chilton - Chief Executive Officer (Appointed 19 April 2021) Ms M Henshall - Interim CEO (1 February to 16 April 2021)

Charity number: 1082163

Company number: 03963387

Registered office:

Unit F, 14-18 St Mary's Gate, Lace Market, Nottingham NG1 1PF

Independent examiner: Rogers Spencer, Newstead House,

Pelham Rd, Nottingham NG5 1AP

Bankers: TSB, 11 Low Pavement, Nottingham NG1 7DO

Acknowledgements

The NBN Trust would like to thank the following people and organisations for their contributions to this report:

Tim Corner – Bristol Regional Environmental Records Centre. Richard Comont - Bumblebee Conservation Trust. Ben Sykes - Ecological Continuity Trust.

Image credits

John Sawyer, p5, p6, p27. Allan Drewitt, p6, p14. Bristol Regional Environmental Records Centre, p20, p21. Richard Comont, p22.

Paula Lightfoot, p6, p13, p19, p28. Brian Eversham, p6, p25.





Join us

We'd love you to join us in our mission to make data work for nature.

You can join us by:

Becoming a member of the NBN Trust

Sharing and accessing data on the NBN Atlas

Recording wildlife and sharing your data

Find out more at nbn.org.uk

Contact us

You can get in touch by email - support@nbn.org.uk or phone – 0115 850 0177.

Follow us















Thank you!