



A YEAR IN REVIEW

NBN Trust Annual Report 2017/18

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This review of 2017/18 highlights the work that has taken place over the last year to support the NBN Strategy 2015 – 2020.



BUSINESS REVIEW

INTRODUCTION

The National Biodiversity Network is a membership organisation built on principles of collaboration and sharing.

Our vision is that:

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Biological data collected and shared openly by the Network are central to the UK's learning and understanding of its biodiversity and are critical to all decision-making about nature and the environment.

To achieve that vision, the Network is working to deliver improvements to the recording, collection, verification, curation, aggregation, analysis and use of biological data in the UK.

The Network's priority is to grow the national commitment to sharing biological data and information. Through this we will provide a comprehensive, unparalleled and authoritative understanding of our natural world and will use that knowledge effectively to educate and inform.

This review of 2017/18 highlights the work that has taken place over the last year to support the **NBN Strategy 2015 – 2020**.

Our key focus for the year has been to deliver what the constituent parts of the Network want in terms of technical infrastructure, taking into account what is achievable with our available funds and resources. We have also been reviewing where we should go next with the NBN Atlas to meet user needs. The crux of all this work is the small team that makes up the NBN Secretariat and we therefore also focus on the people in the team this year.

Phrases or terms “National Biodiversity Network” and “NBN” refer to the people and organisations that are members of the NBN Trust or share data via the Network. The NBN Trust is the organisation that sets the strategic direction and facilitates and coordinates the NBN's growth and development. The team employed by the NBN Trust to perform these tasks is referred to as the “NBN Secretariat”. This Annual Report is produced by the NBN Secretariat.

CHAIRMAN'S REPORT



When I'm asked to write my Chairman's Report for the annual review of the NBN Trust's work, the first thing that comes to mind is how quickly the year has passed. It always feels like no time at all since I was writing the Report for the previous year!

Despite the feeling that time is passing at a rate of knots, I relish the opportunity to look back at what we have all achieved.

For this year's Report, our key message is that 2017/18 has been *"A year of delivery"*.

We have been delivering a technical infrastructure for the NBN and have sought to provide what the constituent parts of the Network want in relation to the NBN Atlas.

“As part of the development of the NBN Atlas, we have also been reviewing where we need to take it next in order to respond to user feedback and, of course, to meet user needs.

A fitting testament, in its first year, is that the NBN Atlas was a finalist in the CIEEM (Chartered Institute of Ecology and Environmental Management) Awards, at which it was highly commended. I see this accolade as a sign of good things to come.

An intrinsic part of the NBN Atlas is the ongoing technical support for users across the Network. We were therefore delighted to welcome Sophia Ratcliffe and Reuben Roberts, who became our technical team. Sophia and Reuben have been vital additions to the NBN Secretariat and have been providing the necessary help to our NBN Atlas users and are developing the portal further.

In addition to the technical work, we are also occupied by running the UK Awards for Biological Recording and Information Sharing, the annual NBN Conference, managing the Trust's finances, meeting and supporting our data partners, members and potential new funders, as well as running the Nottingham office. However, this is just a snapshot of some of our core tasks and the critical component for achieving our work is the small team that makes up the NBN Secretariat. So, when I say that I relish the opportunity to look back at what has been achieved over the course of the year.

“I would like to particularly note *how much* has been achieved by our small team.

In addition to the work we undertook last year on behalf of the Network, we also carried out a governance review and recruited some new Trustees to the Board. I look forward to working with all the Board members during 2018 / 19, as we review the NBN Five Year Strategy and our funding base. There is a great deal of enthusiasm within this new Board and I can't wait to see that channeled into new ideas for the Network and its further development.

Of course, all of our work has to be done within the constraints of what is physically and financially possible, something that is true for all of us in our day to day roles.

One of the highlights of the NBN year for me, is our annual Conference. I really enjoy the fact that we can bring together like-minded people, who all have the same aim, to share and use UK wildlife data. The 180+ delegates that came to Cardiff last November, demonstrates how well regarded the Conference is. The change in format from a one day event in London to a two day event which moves around the UK, has been entirely positive, as we attract more attendees each year. The Conference also allows me to present our Honorary Membership Award and UK Awards for Biological Recording and Information Sharing, both of which help to celebrate those who have been doing great work across our Network and beyond.

To foster the sense of partnership, which is the crux of the Network, we endeavour to promote the work of our members and data partners through our monthly Network News, through the NBN website and social media. The Annual Report gives us further opportunity to highlight our members each year and I would encourage you to read pages 34 to 41 to see what membership means to just a few of these organisations and individuals. As ever, we rely on the membership to support and fund our work and our sincere thanks go out to all our members, old and new.

There will undoubtedly be changes across the Network in the coming years and I sense exciting times ahead. One change that I can report on now is that, in 2019, I will step down as Chairman of the NBN Trust. After seven years at the helm, it is time to hand over the reins to someone new, someone who, I am sure, will help to make the NBN thrive into the future. Details of the new Chair will be announced later in 2018, but for now I would like to thank you all for your support of the NBN, the NBN Secretariat and of me. I will watch on with interest over the coming years and, I have no doubt that, our Network will continue to go from strength to strength.

Professor Michael Hassell

CHIEF EXECUTIVE'S REPORT



It has been another very busy year for the Trust, which has once again been dominated by the implementation of the NBN Atlas infrastructure. The year started with the launch of the **NBN Atlas** and the **NBN Atlas Wales** portal which joined the **NBN Atlas Scotland** portal, which launched in 2016/17. This was a major undertaking and step change for both the NBN Trust and the Network.

The NBN Trust took over the management and development of the Network's data sharing infrastructure for the first time, as the NBN Gateway was managed and developed by Joint Nature Conservation Committee (JNCC).

As with any major technological development, coupled with the hard deadline for launch, caused by the decision to decommission the NBN Gateway on the 31 March 2017, there were a few teething problems. This was exacerbated by a lack of technical staff within the NBN Trust. However, since our technical 'team' of Sophie Ratcliffe and Reuben Roberts joined in late 2017, we have really been able to move on at pace with fixing issues and making enhancements to the NBN Atlas. I would like to thank you all for your patience through this time and for providing feedback and suggestions for improvements and development, which we will hopefully be able to make more progress on in the coming months.

Away from the NBN Atlas, in collaboration with our members, we have been able to make great progress on a number of aims from the NBN Action Plan. We have reached agreement on the standardisation of verification terms and developed sensitive species lists for use across the Network.

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We have mobilised more data at a global scale, which has resulted in the UK being the second largest contributor to GBIF.

We have also continued to raise the profile of the NBN Trust and wider Network through attendance and presenting at diverse workshops and conferences as well as through social media.

Another big change for the NBN Trust came following a review of its governance procedures. This resulted in nine of the existing Trustees stepping down in February, many of these individuals had been board members for a long time and we are extremely grateful for their years of service. For the first time, new Trustees were selected using an application and interview process and six new Trustees with varied backgrounds and experience relevant to the Trust were appointed.

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The new Trustees have already had a positive impact on the Trust and I am excited about working with the board to drive the NBN Trust forward, make it more sustainable and deliver a strong, relevant Network that will have benefits for our members and for biodiversity in the UK.

I, and other members of the NBN Secretariat team, have been heavily involved in the SBIF Review this year. It has been a fascinating process to be a part of and has really highlighted the effort, enthusiasm and dedication of all involved in collecting, collating, sharing and using biodiversity data within the whole of the UK. The review has resulted in some ambitious recommendations that could revolutionise the biodiversity sector in Scotland. I look forward to the NBN Trust's continued involvement as SBIF moves from the review to the implementation phase.

Over the next few months the NBN Trust is going to be exploring options for its business model to provide the most secure and sustainable future for the Trust and, by extension, the wider Network. We have been discussing options with our key stakeholders this summer/autumn to determine how to strengthen our partnerships and collaborations for the benefit of all NBN members.

Most importantly, we want to ensure that we are able to fulfil our vision of making biodiversity data, collected and shared by the Network, central to the UK's learning and understanding of its biodiversity and critical to all decision making about nature and the environment.

This may involve changes to the way we work with our partners and will result in all partners being clearer about what they can expect from the NBN Trust and, in return, what the Trust can expect from its partners. We hope that you will provide constructive input into these discussions and that we will end up with a stronger, more resilient Trust and Network to ensure we can continue to improve the way biodiversity data is collected, shared and used in the future.

Dr Jo Judge











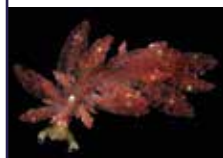




NBN IN NUMBERS

All figures relate to the end of the period 1 April 2017 – 31 March 2018 unless stated otherwise:

176	Network members
127	Data partners supplying data to the NBN Atlas
216 million	Records shared by Network members on the NBN Atlas at 31 March 2018
98	Datasets uploaded to the NBN Atlas
63	Species lists added to the NBN Atlas
19	Spatial layers added to the NBN Atlas
3 million	Just under 3 million records loaded onto the NBN Atlas in the year
3,219	Registered, active users of the NBN Atlas
7.4 FTE	Staff employed in the NBN Secretariat in the year 2017/18

TIMELINE 2017/18

2017	 <p>Jonathan Fenn starts an internship with the NBN Secretariat</p> <p>Recruitment for Technical & Data Partner Support Officer and a Systems Developer takes place</p>		 <p>Sophia Ratcliffe joins the NBN Secretariat as Technical & Data Partner Support Officer</p>	<p>Download limit on NBN Atlas is increased to 500,000</p> <p>Ten Years of the LERC Network in Wales</p> <p>NBN Trust CEO gives a presentation at Birdfair</p>	<p>UK Awards for Biological Recording and Information Sharing shortlist announced</p> <p>SBIF Review – Workshop on data flow options</p> <p>Update from NBN Atlas makes UK the second largest data publishing country to GBIF</p>	 <p>NBN Conference held in Cardiff</p> <p>UK Award winners announced</p>	 <p>Reuben Roberts joins the NBN Secretariat as Systems Developer</p> <p>Call for NBN Trustees</p>	2018	<p>New NBN Trustees join the board as nine Trustees step down</p>  <p>New NBN Atlas Documentation and Help Portal launched</p> <p>David Robertson youth award presented in Millport</p>	<p>NBN Secretariat gives an NBN Atlas update presentation to the 2018 Porcupine Marine Natural History Society's conference in Edinburgh</p>	
	APRIL	MAY	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER		NOVEMBER	DECEMBER	JANUARY
 <p>NBN Atlas and NBN Atlas Wales portal go live</p>  <p>SBIF Review questionnaire published</p>	<p>Results of NBN membership review published</p> <p>NBN Trust CEO participates in the GBIF European Node Managers' meeting</p> <p>NBN Trust CEO presents a webinar on the NBN Atlas for CIEEM members</p>	<p>NBN Atlas is highly commended at the CIEEM awards</p> 	<p>NBN Trust CEO takes part in the judging panel for the CIRIA Big Biodiversity Awards</p>	<p>Sensitive species workshop held</p> <p>BBC News article includes information about using the NBN Atlas to check for Japanese Knotweed prior to a house purchase</p> 	<p>NBN Trust CEO participates in the GBIF Global Node Managers' meeting</p>  <p>NBN Trust CEO presents at the Linnean Society</p>	<p>NBN Trust CEO gives evidence to the House of Lords Select Committee on the NERC Act</p>	<p>AGM held as part of NBN Conference for the first time</p> <p>NBN Trust office moves to a new address in Nottingham</p> <p>SBIF Review – Workshop on governance options</p> <p>Data Sharing Certificates issued to all data partners</p>	 <p>NBN Atlas helps in the discovery of a new species</p> <p>SBIF Review – Workshop on funding options</p>	<p>Draft NBN Sensitive Species Policy published</p> <p>Carla Hiams joins the team as Office Administrator to cover Sarah Hyslop's maternity leave</p>	<p>SBIF Review – Business case drafted</p> <p>NBN Atlas helps with the discovery of another new species for the UK</p>  <p>ID Trainers' programme finishes</p>	 <p>Professor RJ (Sam) Berry, NBN Trust Honorary member, dies</p>



DELIVERING

This section of the Report looks at the key activities carried out during the year and which of the NBN Strategic Aims they support

Strategic Aim 1:

RECORD, COLLECT, DIVERSIFY, ENHANCE AND MOBILISE BIOLOGICAL DATA

Mobilising data

In the year up to March 2018, many new datasets were added to the NBN Atlas from a wide range of data providers including Local Environmental Records Centres, Wildlife Trusts, government agencies, academic institutions and private individuals. Here are a few examples:

- Centre for Environmental Data and Recording (CEDaR) uploaded all its marine records
- Three Hagge Woods became a new data partner and uploaded invertebrate records from three year's worth of surveys
- Two new datasets from West Wales Biodiversity Information Centre: Mammal Records and Seatrout Cetacean Records (from Stena Ferry observations)
- The Marine Conservation Society supplied UK Basking Shark sightings from 1987 to 2016
- The Conchological Society extended its geographic coverage to the Channel Islands: Mollusc data for the Channel Islands
- Verified records provided from the National Plant Monitoring Scheme
- Environmental Records Information Centre North East (ERIC) – Combined dataset to 2017
- Scottish Beaver Trial observations 2009 – 2014
- In preparation for the launch of the NBN Atlas Isle of Man, we received Manx Biological Recording Partnership – Isle of Man historical wildlife records from 1990 to 1999

We also received three new datasets from the Earthworm Society:

- National Earthworm Recording Scheme Records (Channel Islands)
- Environment Agency *Eiseniella tetraedra* Records (England)
- Earthworm Research Group (UCLan) Earthworm Records (Great Britain).

Three new datasets verified via iRecord were supplied by the Biological Records Centre:

- Calliphoridae data from iRecord
- Bruchidae and Chrysomelidae beetle data from iRecord
- Longhorn beetle (Cerambycidae) data from iRecord

We also received datasets containing individual naturalist's and ecologist's records:

- Dr. Mary Gillham Archive Project from the South East Wales Biodiversity Records Centre (SEWBReC)
- Natalie Harmsworth's Records (2010 – 2016) and Ron McBeath Records (2010 – 2014) from The Wildlife Information Centre
- P.F. Entwistle Notebooks Dataset records (2010 – 2014) from the Highland Biological Recording Group
- Patrick Roper's Notebooks from the Sussex Biodiversity Record Centre

We also had the addition of records collected from citizen science projects, including:

- OPAL's New Zealand Flatworm Survey
- Project Splatler – UK Roadkill Records
- Ministry of Justice – BioBlitz records April – May 2017
- Marine Biological Association – 2017 North Devon Area of Outstanding Natural Beauty (AONB) Combe Martin Devon Bioblitz
- The Woodland Trust's 2017 Big Bluebell Watch records.

The NBN Atlas also hosts records collected as part of academic research. We have already received data from Masters' projects with data collected in postgraduate studies due to be provided. Individual recorder records have also been uploaded to the NBN Atlas and we continue to receive records from ecological consultants.

Diversifying

Apart from species data, the NBN Atlas can hold spatial layers such as boundary, habitat, soil and other environmental layers, and provides the user with the ability to interrogate the species records against the layers.

This year we have been focussing on boundary layers (such as protected areas) and habitat layers for all areas covered by the NBN Atlas, and in particular building the suite of layers for Northern Ireland and the Isle of Man. We have also been working in partnership with a group at the Edinburgh Parallel Computing Centre (part of Edinburgh University) that is investigating an automated route for the sourcing and uploading of layers and this will be a part of our future developments.

Data holding certificates

In November 2017, data holding certificates were sent out to all NBN data partners to summarise their data holdings on the NBN Gateway as of 31 March 2017.

First issued in 2015, the certificates summarise information such as the number of datasets and records on the NBN Gateway, and the data licences that had been applied to datasets.

Data partners have the option to make these certificates public on the NBN website, to show their contribution to the Network and to highlight areas where data flows could be improved. This also helps data contributors see how available their records are, when managed through an organisation or scheme. This annual initiative will continue with data holdings from the NBN Atlas.

Strategic Aim 2:

MAKE BIOLOGICAL DATA AND INFORMATION AVAILABLE TO EVERYONE

New NBN Atlas Documentation and Help Portal

In February 2018, we launched a specific **NBN Atlas Documentation and Help Portal**. The site brings together information and guidance for users of the NBN Atlas, NBN Atlas Scotland, NBN Atlas Wales, NBN Atlas Isle of Man and all subsequent NBN Atlas portals. It is organised to reflect why you might be using the NBN Atlas, with links to further information, which is provided in a clear way, with straightforward navigation to each of the subject areas.

The new site can be accessed by clicking on the Help link on the top right hand side of each of the NBN Atlas portals, and you will find step by step guides and videos for searching and analysing data, as well as general guidance for using, sharing and downloading data.



NBN Atlas finalist in CIEEM Awards

Last year, we were delighted that the NBN Atlas was a finalist in the CIEEM (Chartered Institute of Ecology and Environmental Management) Awards, which are a celebration of achievements in the sector.

Across a wealth of different categories, the awards recognise and celebrate lifetime achievement, best practice and individual excellence and the NBN Atlas was pleased

to be one of three finalists in the NGO Impact Award category.

Sadly, we lost out to Birmingham and Black Country Nature Improvement Area, but what a great indictment of the NBN Atlas, firstly to be nominated and then to be Highly Commended.

Update from NBN Atlas makes UK the second largest data publishing country to GBIF

In July 2017, new and returning NBN datasets added 47 million records to Global Biodiversity Information Facility (GBIF) meaning that the United Kingdom became the second largest national contributor of data to the global index.

This was especially exciting news as, following our work with data partners on the transition of data from the NBN Gateway to the NBN Atlas, in August 2016, GBIF and NBN withdrew 329 datasets from the system. These datasets contained 27.3 million records, which represented 72 percent of all occurrences published by UK institutions at that time.

So, the addition of the 47 million records meant that more than half of the withdrawn datasets were returned, restoring nearly 12 million records, and adding 484 new ones, holding more than 35 million occurrences. About two thirds of our data partners now choose to share data openly through the GBIF network.

Thanks to a reconfiguration in how the UK data is shared, it also means that each of these NBN data partners now appears in publisher search results on GBIF.org. This means they also receive clearer, more direct credit when their datasets contribute to published research.

Strategic Aim 3:

CAPTIVATE AND ENGAGE PEOPLE ABOUT WILDLIFE

NBN Conference – Data what is it good for?

With just over 180 delegates representing biodiversity organisations, local environmental records centres, recording schemes, government bodies, students and individuals, all concerned with biodiversity data and biological recording, the 2017 NBN Conference was the best attended to date.

For the first time in its 17 year history, the Conference took place in Wales where it was held at the National Museum Cardiff. With two keynote addresses, the annual Sir John Burnett Memorial lecture, 24 presentations and an afternoon of workshops we aimed to offer something for everyone.

As well as the well-liked opportunity to network at these events, social media buzzed for the two days, thanks to our active audience, and was also helped by the transmission of three Facebook Live broadcasts.

Media coverage and social media

Media coverage and social media output continued to be key in implementing NBN's aim to captivate and engage people about wildlife and to raise the public profile of the Network.

For the first time, in September, we announced a shortlist of finalists in each category of the 2017 UK Awards for Biological Recording and Information Sharing, ahead of the winners being announced at the NBN Annual Conference in November. This allowed us to achieve more coverage, particularly in the local media, as there were more biological recorders' achievements to publicise and celebrate. Overall, the third Awards campaign was covered in media as diverse as 'BBC Radio Suffolk', 'Barnsley News &

Sport', 'Keynsham Voice', 'Journal Newcastle' and 'New Nature' magazine. In addition, the Awards received coverage on various websites including iRecord, the Field Studies Council and Discover Wildlife (BBC Wildlife Magazine's website).

NBN's social media following continued to increase this year. Between 1 April 2017 and 31 March 2018 the number of NBN Facebook 'likes' increased by 15% from 975 to 1152. However, the reach of a typical Facebook post decreased by 73% from an average of 372 people in April 2017 to an average of 102 people in March 2018. This drop can be attributed to changes made to the Facebook algorithm for 'organic' (or free) posts. We can expect to see our Facebook reach continue to decrease unless we are able to find the resources for 'paid' posts. Any modest increase in our Facebook 'likes' next year (2018 / 19) is unlikely to be able to compensate for the reduced reach continuing to result from the revised Facebook algorithms.

Similarly, NBN's Twitter followers have increased by 10% from 4267 at the beginning of April 2017 to 4747 at the end of March 2018. However, the number of other people's Tweets mentioning the NBN has fallen by 32% from around 100+ mentions during April 2017 to 70+ mentions during March 2018. The number of Twitter followers visiting the NBN's Twitter profile page has also fallen by 52% from 1,165 visits during April 2017 to 555 profile visits during March 2018. The number of NBN's Tweets being seen by others (Tweet Impressions) has also decreased by 42% from 49.6K in April 2017 to 28.6K in March 2018.

So, taking all this into account, we will be reviewing our social media strategy in 2018/19.



UK Awards for Biological Recording and Information Sharing 2017

In their third year, the 2017 UK Awards for Biological Recording and Information Sharing once again celebrated the vital contribution that individual biological recorders and wildlife groups make towards monitoring the UK's biodiversity. Developed in partnership with the National Forum for Biological Recording and the Biological Records Centre, we were indebted this year to Opticron, Paramo Directional Clothing and the Field Studies Council for sponsoring the prizes.

2017 saw the introduction of a new Award category – that of the Adult Newcomer. Another change this year was that we announced a shortlist of finalists in each Award category in September 2017, ahead of announcing the winners in November at the NBN Conference in Cardiff.

We received 59 nominations:

- Two for the Gilbert White Youth Award for recording terrestrial and freshwater wildlife
- 17 for the Gilbert White Adult Award for recording terrestrial and freshwater wildlife

- Two for the David Robertson Youth Award for recording marine and coastal wildlife
- 11 nominations for the David Robertson Adult Award for recording marine and coastal wildlife
- 19 for the Lynne Farrell Group Award
- Eight nominations for the new Adult Newcomer Award.

The winners were:

- Jann Billker
– Gilbert White Youth Award
- Peter Hodge
– Gilbert White Adult Award
- Mhairi McCann
– David Robertson Youth Award
- Paula Lightfoot
– David Robertson Adult Award
- Dearne Valley Landscape Partnership
– Lynne Farrell Group Award
- Liam Olds
– Adult Newcomer Award.

In addition to the publicly nominated awards, the 2017 John Sawyer NBN Open Data Award was presented to Seasearch for their ongoing commitment to sharing wildlife data.

NBN Atlas helps in the discovery of two new species

Last November, Sophia Ratcliffe, Technical & Data Partner Support Officer at the NBN Trust, received an email from Dr. Manuel Caballer Gutierrez of the Muséum National d'Histoire Naturelle, France, which related to the possible discovery of the sacoglossan opisthobranch mollusc *Hermaea cantabra* in the UK.

Dr. Caballer had seen an image on the NBN Atlas labelled as *Hermaea bifida*, which he thought was *Hermaea cantabra*, a species he had previously authored in 2015. It was a species thought to be endemic to the Bay of Biscay, the type location being Santander, Spain.

The image on the NBN Atlas had been provided by David Fenwick who produces the website APHOTOMARINE, and who has kindly supplied 2,000 species images for use within the NBN Atlas.

On receiving the email, Sophia put Dr. Caballer and David in touch with one another. Subsequently, David supplied a higher resolution image, showing the full detail of the *Hermaea* in question. From this, Dr. Caballer was able to confirm that the species was indeed *Hermaea cantabra* and, perhaps more excitingly, that it was new to the UK.

Only a few months later, Dave was browsing some of his photographs and found unlabelled images of another *Hermaea* from different sites to those already listed for the species.

He once again sent the images to Dr. Caballer who confirmed that they weren't *Hermaea cantabra*, as originally thought, and were in fact *Hermaea paucicirra*!

So, as Dave said:

“The NBN has technically helped with two new species for the UK. Isn't that good!



The power of the media

In August 2017 we were contacted by a BBC journalist who was doing some research for an article on Japanese Knotweed. The resulting news story included information about using the NBN Atlas to check for Japanese Knotweed prior to a house purchase. This resulted in a huge increase in visits to the site, with the number of new users increasing from around 300 per day prior to the article being online, to 49,753 and 11,664 on the two days following.

Strategic Aim 4:

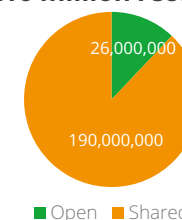
PROVIDE THE BEST BIOLOGICAL INFORMATION MANAGEMENT INFRASTRUCTURE

The launch of the NBN Atlas on 1 April 2017 really spans the reporting period of two Annual Reports. It was impossible to ignore it for last year's Report, as our work was leading up to it for the whole year, but it would be inaccurate not to mention it in this year's Report too! Therefore, here is a brief recap on the launch, some figures for the year and a summary of work that has taken place to develop things further this year.

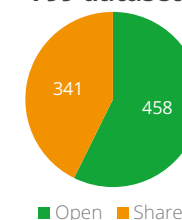
The first phase of the NBN Atlas, along with the NBN Atlas Wales portal, was live and available on 1 April 2017, to coincide with the decommissioning of the NBN Gateway. These two NBN Atlas portals joined the NBN Atlas Scotland portal, which had launched the previous year. Despite the tight timescales, we had a functioning information management infrastructure up and running, within budget, on time and with a massive 216 million species records available.

You can see some key statistics relating to the NBN Atlas, as at 31 March 2018, on page 11 and in the graphs below.

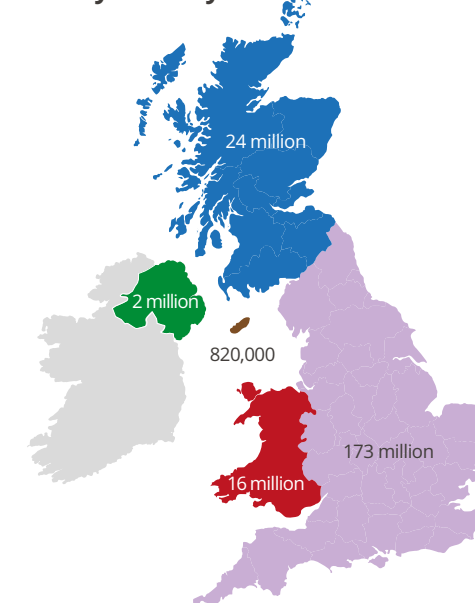
216 million records



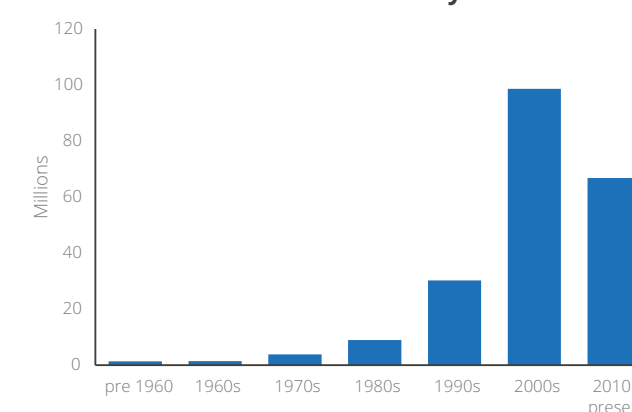
799 datasets



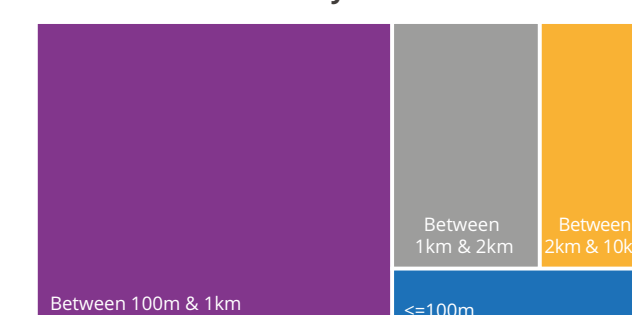
Records by country



Number of records by decade



Records by resolution



NBN Atlas one year on

So, what has happened in the year since the launch?

Various improvements were made to clarify the display of record data on the NBN Atlas.

“Data licence conditions are displayed more clearly, and users are reminded of these when viewing and downloading data.

The mapping of data was enhanced to indicate absence records, and now displays different colours on the map to differentiate between verified and unverified records. Dates with placeholder values (e.g. ‘1 January’ for a date where only the year was known) have been corrected to avoid anomalies in temporal search results and phenological charts.

As this was the first year the NBN Atlas was in full use, work has been ongoing to stabilise the server infrastructure and eliminate downtime, as well as to standardise the routine processes of dataset uploads and other back-office tasks.

Over the course of the year, 98 new datasets were loaded, 36 of which were CEDaR (Centre for Environmental Data and Recording) marine datasets. Two datasets with historical data from the Isle of Man and three invertebrate datasets from Three Hagge Woods-Meadow were also uploaded. Twelve datasets from the Welsh Government containing results from Tir Cynnal and Tir Gofal Monitoring and Evaluation programmes were also uploaded.

Launch of NBN Atlas Isle of Man Portal

Another big development in relation to helping provide the best information management infrastructure focused on a new addition to the NBN Atlas, the **NBN Atlas Isle of Man portal**. During the year, we were involved with lots of steering group meetings and carried out user testing in order to come up with a list of bugs and development suggestions that needed to be addressed ahead of the launch. The necessary work took place and the new portal launched on 1 April 2018.

Data upload templates and guidance

The NBN Atlas holds data in Darwin Core format. Darwin Core is an internationally recognised standard for biodiversity data, and we are proud to be following standards such as this as it will increase the accessibility to, and sharing of, our nation’s biodiversity data across the globe. To help our data partners, we created a suite of templates and guidance documents to give support to those wanting to share species occurrence records with the NBN Atlas in the new format.

Sensitive species workshop and policy

Last summer, we sent an open invite to the Network to attend a sensitive species workshop in August, in Birmingham. Those who attended included representatives from country agencies, alongside recording scheme members and NGO’s, as we discussed the criteria that should be used to define sensitive species and what should be included in the NBN’s new sensitive species policy. Following the workshop, the policy was drafted and circulated for comment, and made available for open review by the Network. This was then published, including the amended criteria, in January 2018. Experts from across the Network are now helping to review the sensitive species lists for the various taxonomic groups and the new sensitive species lists will be published as soon as all of the groups have been reviewed.

Maintaining our services

We also developed an EasyMap function for the NBN Atlas, in April 2017. The ‘shim’ meant that it could be used to “[support] a new API in an older environment”. This was needed as the creation of the NBN Atlas involved, not just a change to the website, but the development of a new backend server with different means of access. The old ways of programatically accessing data were replaced with a new API, but during development, the team solicited feedback regarding which features of the old API users felt would most benefit from targeted transitioning assistance. The EasyMap service emerged as a priority and this shim was developed to provide a stopgap measure to enable websites to continue to display NBN maps whilst they adapted to take advantage of the new API’s extended capabilities.



Strategic Aim 5:

SUPPORT THE DEVELOPMENT OF THE NBN, ITS BOARD AND ITS MEMBERS

Sponsorship and Funding

During 2017/18 the NBN was delighted to receive sponsorship from several organisations.

As already mentioned, we were very grateful to Opticron, Paramo Directional Clothing and The Field Studies Council, who provided prizes for the UK Award winners.

Habitat Aid has continually offered its support to the NBN Conference and its donation assists us to keep delegate fees down. This year we also received sponsorship and support from TEP and University of Exeter whose support allowed a number of students to attend.

Receiving sponsorship towards the NBN Conference is vital to ensure that we can keep delegate fees as low as possible. Our aim is to cover the costs and make the Conference affordable to as many people as possible. We will continue to work hard to attract sponsors and ask our Network to help and assist in accessing support.

Collaborative working in Scotland

The SBIF Advisory Group has undertaken to drive a Review and redesign of the biological recording infrastructure in Scotland. Through this Review, it aims to determine the optimum infrastructure for biological recording, an infrastructure that in turn will attract the necessary belief, commitment and investment by stakeholders to be sustainable and successful in fulfilling the original vision of SBIF:

“High quality species and habitat data will be collected and managed through a sustainable, co-ordinated and integrated local and national framework of organisations, partnerships and initiatives. These data will be available to ensure that Scotland’s biodiversity, ecosystems and people benefit.”

The Review aims to be cohesive across Scotland with support from all stakeholders and the willingness and energy to then make any desired transitions by 2025.

In order to gather initial information about how our biological recording infrastructure currently works, and in particular to understand what is working well and less well, the SBIF Review Working Group developed a questionnaire, open to all roles and sectors, and which closed in May 2017. From this, it was delighted to receive 290 responses.

At the same time, to engage with the most ‘influential and interested’ of its detailed major stakeholders, and to gain its detailed needs and ideas for an improved infrastructure, the Working Group held over 40 individual interviews with stakeholders from all roles and sectors.

The interviews followed the format of the same set of four questions (what roles do you hold, what systems and processes do you use in carrying out your roles, what problems do you have with these systems and processes, and what is your vision of the future) as the structure for each interview.

Following the questionnaire and the interviews, high-level planning by the Working Group suggested that identifying and evaluating options from the information gathered could be achieved through four workshops to co-create a design for an improved infrastructure for biological recording.

These workshops took place from September – December 2017 and covered:

- Workshop 1 – Data Flow Options
- Workshop 2 – Service Provision Options
- Workshop 3 – Governance Options
- Workshop 4 – Funding Options

The Review’s results and recommendations are currently being written up in a paper which is expected to be published by the end of 2018. Progress and updates can be followed on the Scotland pages on the **NBN website**, in articles published in the NBN’s Network News, and on Twitter @SB_Info_Forum.

Governance Review and new Board Members

During the year, the Board of Trustees undertook a governance review. This led to a number of changes to the Board as well as its structure. We would like to thank the following people, who stepped down from their role as Trustee in February 2018, for their valuable contribution to the Trust:

Dr Jen Ashworth

Mr John Davy-Bowker

Mr Mark Diamond

Dr Tim Hill

Professor Ian Owens

Dr Richard Pywell

Dr Alan Stewart

Mr Paul Rose

Dr Tom Webb

An open advert was placed for Trustees to join the NBN Trust Board. As a result, six Trustees, whose appointment will enhance and extend the range of skills across the Board, were recruited. Full details of the Board members can be found on the NBN website.

Membership Scheme Review – one year on

Following the review of our membership scheme, numbers have continued to grow. At 31 March 2018, we had 210 members of which 49 joined under our new category of individual membership, paying on average £19 per year. Despite this growth, we do recognise that there is a lot more to be done and will therefore be reviewing our membership options again during 2018/19.

Honorary Members 2017

As has become our tradition, we were delighted to bestow this year's Honorary Membership award during the NBN Conference. In 2017 the Board decided to award it to two very worthy recipients.



Helen Roy

The Board was keen to recognise Helen's unique contribution to biological recording via the running of the Ladybird Recording Scheme, as well as recognising her important role in the wider NBN data-provision process.

Helen supports a wide range of biological recording activities and is a great advocate of 'citizen science'. She has pioneered development and uptake of online recording, particularly iRecord and its associated developments. Her high public profile, especially in the area of insect recording, has benefited the NBN through engaging with very disparate groups of people.

Her advocacy for, and support of, the NBN's long-term aims has been crucial in maintaining engagement with the NBN through a period of change, when so much, especially invertebrate, data might not have made its way to the NBN Gateway and more recently the NBN Atlas.



Mark Hill

Mark has been recording bryophytes for over 50 years in association with the British Bryological Society and has made major contributions to the techniques for analysing biological records.

Mark's recording of bryophytes is reflected by his 48,580 records (including determinations and confirmations of specimens collected by others) which are freely available on the NBN Atlas.

Mark has been co-author of the three most recent bryophyte checklists and census catalogues. He is also the national expert on the large and important genus *Sphagnum*. While head of Biological Records Centre, and in his prior role within Centre for Ecology & Hydrology, Mark developed techniques for the analysis of biological records. His papers have devised methods to analyse the patterns of occurrence of flowering plants in Europe and of both flowering plants and bryophytes in Britain and Ireland, and to tease out the relative importance of air pollution, habitat loss and climate change in the changing distribution of British flowering plants and bryophytes.



DOING

Responsibility for the core work of the NBN rests with the NBN Trust Secretariat. Its office in Nottingham provides the finance, administrative and communications hub for the Network, but the small team works as its own mini-network with colleagues based in various locations across the UK and beyond!

Here we look at the main responsibilities of each individual in the team.



Jo Judge – Chief Executive Officer

“**My role involves setting the strategic direction for the NBN Trust, in conjunction with the NBN Trustees, in order to support and grow the NBN Trust and Network. I enable the board to undertake its governance duties to achieve the Trust’s vision. My role includes leading the Secretariat team in the day-to-day running of the Network as well as collaborating with our partners including via steering and working groups to set standards and protocols for the Network.**

- During 2017/18 my main responsibilities were:**
- Leading on the implementation and development of the NBN Atlas and its portals
 - Providing information, discussion and decision papers to the NBN Trust’s Board
 - Working with the Board to carry out a Board Governance Review
 - Implementing the strategic aims and objectives of the NBN Strategy 2015 – 2020 as detailed in the NBN Action Plan 2016 – 2020
 - Chairing the NBN Atlas Steering Group
 - Facilitation of, and participation in, the Verification Working Group
 - Presenting on the NBN and the NBN Atlas at various conferences and events throughout the UK
 - Involvement in the SBIF Review process
 - Working with our key stakeholders to strengthen, support and progress the policies and vision for the Network



Purba Choudhury – Communications Officer

“**My role involves supporting Mandy Henshall, the Senior Communications Officer, to jointly deliver NBN communications and raise the NBN’s profile. This involves communicating NBN’s key messages to new and existing audiences, so that the membership of the Network continues to grow and we are able to captivate and engage people about the importance of wildlife.**

- During 2017/18 my main responsibilities were:**
- Media relations
 - Social media
 - Promoting the annual UK Awards for Biological Recording and Information Sharing and providing administrative support to the Awards’ Committee
 - Supporting the organisation of the annual NBN Conference



Jonathan Fenn – Student internship

Jonathan Fenn, a student at the University of Nottingham, contacted the NBN Secretariat in November 2016, enquiring as to any placement opportunities at the Nottingham office in the summer of 2017. With the launch of the NBN Atlas taking place in April we were only too pleased to offer him a three month work placement, which would be completed as part of his PhD course.

- During the three months, Jonathan’s main responsibilities were:**
- To produce “How to” videos for users of the NBN Atlas
 - To produce “Step by Step” guides for users of the NBN Atlas
 - To assist with the promotion of the UK Awards for Biological Recording and Information Sharing
- Jonathan’s help and input at this crucial phase of the NBN Atlas’ development was invaluable and we wish him every success in the future.



Mandy Henshall – Senior Communications Officer

“**I am the central point of contact for all NBN communications. I ensure our work supports the NBN Strategy and as part of the review of the Strategy am also reviewing the NBN Communications Strategy. I report to the CEO and manage Purba Choudhury, our Communications Officer.**

- During 2017/18 my main responsibilities were:**
- Development of the NBN Conference programme and project lead for the event
 - Chairing UK Awards for Biological Recording and Information Sharing Committee and developing the Awards’ project plan and social media toolkit
 - Developing and project managing the NBN Atlas Documentation and Help Portal
 - Sourcing articles and writing the monthly NBN Network News
 - Maintaining and developing the NBN website
 - Coordinating, writing and editing the NBN Trust’s Annual Report



Carla Hiams and Katie Oliver – Administration Officer

Carla's role was to assist with the smooth running of the HR, business and office functions of the NBN Trust, during Sarah Hyslop's maternity leave. Sadly, Carla had to leave the team in April 2018 for personal reasons and was replaced by Katie Oliver, who joined us in May to take on this role.



Sarah Hyslop – Finance & Business Officer

“

My main role is to ensure the smooth running of the financial, business and office functions of the NBN Trust, including managing the running of the NBN Secretariat office in Nottingham.

During 2017/18 my main responsibilities were:

- Managing the NBN Secretariat move to new offices
- Managing the recruitment of my maternity cover
- Managing the NBN Trust's day to day finances and budgets
- Arranging and attending NBN Trust Board and Finance meetings



Christine Johnston – Scottish Liaison Officer

“

My role is to act as the principal contact between the NBN Secretariat and Network members, data partners and data users in Scotland. It also includes working across the NBN assisting with data provision and data use issues and helping to maintain the NBN's suite of data standards and tools. It also involves working towards increasing the openness of NBN data holdings, and supporting Network members in all stages of the Data Flow Pathway.

During 2017/18 my main responsibilities were:

- Ongoing work as part of the SBIF review
- Coordination of SBIF Working Groups
- Coordination and participation in SBIF Workshops
- Liaison on behalf of Scottish Natural Heritage in relation to required NBN Atlas development



Sophia Ratcliffe – Technical & Data Partner Support Officer

“

My role is to support the NBN's Data Partners and users to help them understand how to prepare and contribute their information to, and how to use the data on, the NBN Atlas. I also help organisations evaluate how to use the NBN Atlas and integrate it with their own working practices. With support from Reuben Roberts, I deal with feedback and issues raised by NBN Atlas users and provide advice to the NBN's Data Partners on technical issues.

I joined the NBN Trust in July 2017 and my main activities this year have been:

- General support of NBN Atlas data partners
- Formatting and uploading records and images
- Writing the guidance notes for data sharing
- Attending the International Living Atlases workshop 2018 in Madrid



Reuben Roberts – Systems Developer

“

My role is to take the lead in the design, development, testing, implementation and ongoing support and maintenance of the NBN Atlas.

I also provide technical advice and support to the NBN Secretariat team and work to build relationships with developers in our partner organisations and the wider NBN Atlas development community, including in other countries.

I joined the NBN Trust in December 2017 and my main activities this year have been:

- Attending the NBN Conference 2017 in Cardiff and the International Living Atlases workshop 2018 in Madrid
- Stabilising and adding monitoring tools to improve the reliability of NBN Atlas servers
- Improvements to the display of data licence conditions on the NBN Atlas
- Preparation of the NBN Atlas Isle of Man and Northern Ireland portals
- Loading new datasets and spatial layers into the NBN Atlas



Giselle Sterry – Membership and Business Development Officer

“

My main role is to develop the NBN Membership and increase funding streams into the Network. This involves me leading on the recruitment of new supporters and increasing awareness of the charity. I also support Network members and manage the membership renewal process. During the last quarter of 2017/18 I took on responsibility for the finance management of the NBN Trust, during Sarah’s maternity leave.

During 2017/18 my main responsibilities were:

- Review of budget management process
- Taking on finance management role
- NBN Atlas contract management
- Retaining and attracting new members



Ella Vogel – Project Development Officer

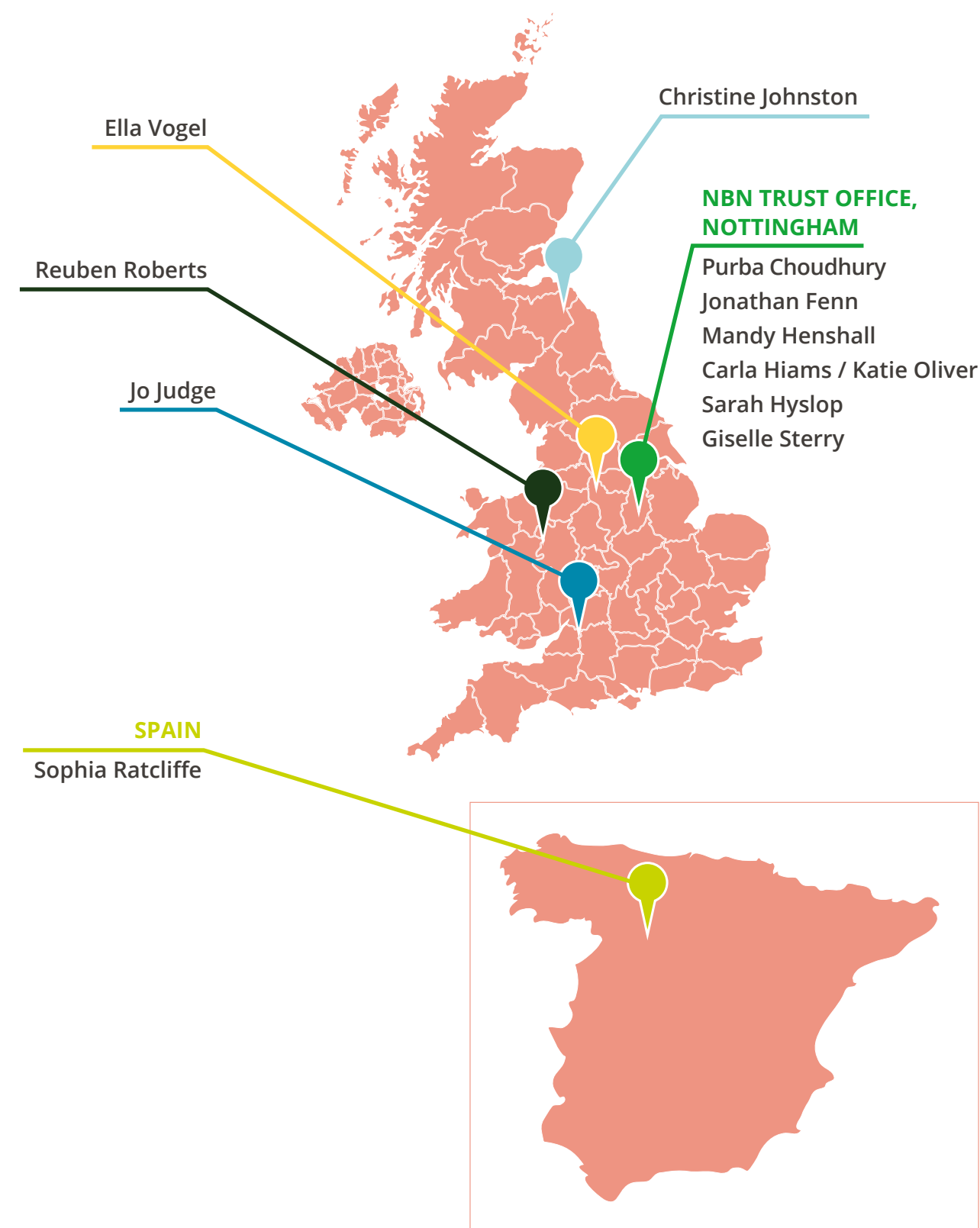
“

My role involves supporting core NBN projects, with the NBN Atlas portal developments being a key part of my work in 2017/2018.

During 2017/18 my main responsibilities were:

- Being the NBN lead for the development of the NBN Atlas Isle of Man and NBN Atlas Ireland portals
- Coordinating and leading a Sensitive Species workshop
- Developing the new Sensitive Species Policy and Sensitive Species List
- Running the NBN Atlas Wales Stakeholder engagement day
- Writing guidance for Darwin Core data submissions

NBN Trust Secretariat:





SUPPORTING

As mentioned in our main introduction to this report, the National Biodiversity Network is a membership organisation. Our members are diverse with their own aims and objectives, but they are playing their part in the Network through supporting the NBN Strategy and Vision and helping to contribute in additional ways to the work of the NBN Secretariat.

The Network is strengthened by the ability of its partners to work together and, as a charity, the NBN can only continue its work as a result of membership income.

Here we bring you reports from a cross section of our members who give their thoughts, in their own words, on what the NBN means to them.

Arcadis

Written by Aline Brodzinski and Neil Madden

Arcadis is extremely proud to be a Corporate Supporter of the NBN, which in turn supports the NBN Atlas. Our core values of collaboration and sustainability align well with the NBN Strategy (2015 – 2020), and in using the data shared with us, and by sharing data we collect, we strive to achieve our passion – to improve quality of life by enhancing biodiversity.

Over the past few years there appears to have been an increase in the appetite for data sharing. The NBN Trust worked hard to dispel the widespread concerns regarding data ownership and confidentiality that hindered data sharing in the past, and it seems that developers finally understand the value of being able to draw upon data (and indeed to share it) to support informed decision-making. Furthermore, as an industry, consultants appear to be more committed to passing on records.

As a team of over 65 ecologists we collect significant amounts of biological data and we strive to share all of our data with records centres to make sure that this information is widely available to others. Despite our efforts, there is still room for improvement, as, sadly, large volumes of useful data are still often 'lost' in archived data sheets and reports. Furthermore, providing the data in a usable format is often time consuming and can be hindered by a lack of consistency between record centres.

The NBN Atlas uses the Darwin Core, an internationally recognised standard for biodiversity data.

Through our close collaboration, Arcadis is focused on transforming the way we collect biological data; we are currently trialling the integration of the Darwin Core format into our digital survey forms and are seeking to increase data capture and mobilisation. As a result, we endeavour to contribute more promptly and efficiently towards sharing complex datasets – no longer will data be 'lost' to the archives.

Understanding the true impact of development work on the natural environment is critical, and the NBN Atlas is a valuable tool that allows us to do this with greater certainty, providing us with the knowledge, along with that of local environmental records centres, that we need to preserve our treasured species. As it is such a comprehensive array of biological data records (that is easily and quickly accessed), we use the NBN Atlas to inform tenders and projects across the UK; it allows us to better scope our survey work, discover what open data is available for use, contact others who hold relevant data and identify potential conflicts and constraints with efficiency and confidence, thus improving our ecological assessments and mitigation design.

What does the NBN Atlas mean to Arcadis? For us, it's all about innovation, collaboration and the provision of essential information to understand the wider context of proposed development. It provides the platform for us to be more responsible and accountable for the roles we play in society, specifically by contributing to more informed decision-making. Finally, it means efficient data sharing – more and faster.

www.arcadis.com/en/united-kingdom/



RSPB

*Written by Will George and
Tessa Coledale*

The RSPB is the UK's largest nature conservation charity, managing over 200 nature reserves across the UK for the benefit of the over 16,000 species which have been recorded there. We also conduct a range of surveys to monitor key sites and species outside our network often in partnership with others.

“

We are passionate advocates for the power of Open Data, and the NBN Atlas is an essential tool for allowing us and others to realise the full benefits of free flowing, high quality biological data.

The geographic and taxonomic breadth of the data we collect has meant that finding an efficient way of sharing them has been challenging, but the NBN provides an ideal solution, putting our records into a wider context and making them available to all as part of a conservation evidence base. It's a brilliant way of engaging with our supporters and funders and inspiring everybody to get out there and get involved.

Of course, it's not just a one way flow. The NBN gives us the ability to understand more about the land we manage by giving us access to vast amounts of biological data, which we can use to ensure that we're putting in place the right measures to benefit the key species present at each site. It's not only useful for accessing data on our reserves, but also potential new reserve sites, larger landscape areas where we carry out a lot of our partnership working and casework areas where we work to ensure vulnerable species and habitats are protected.

Over the past 12 months we've been involved with a range of work to ensure that this two way flow of data works as effectively as possible. We've been exploring data exchange through iRecord as a mechanism for speeding the flow of RSPB data onto the NBN Atlas, and to give us instant access to records from our estate. We've been involved in the SBIF review which has undertaken a wide-ranging assessment of the infrastructure and processes underpinning biological recording across Scotland, including the role of the NBN, and will be publishing its recommendations soon. These will look to ensure the long-term success of biological recording in Scotland through transformation of its infrastructure and funding.

NBN Trust staff are welcome to use RSPB desk and office facilities throughout the country and we have enjoyed working more closely with them. RSPB staff have also been involved with user testing of the new NBN Atlas and a number of the NBN's working groups. These have included looking into the verification of records, and, in particular, how this key information should be represented on the NBN Atlas to ensure species data is accurately portrayed, as well as looking into the display of sensitive species data, a topic of particular importance to the RSPB given the highly sensitive nature of some of the species data we collect.

www.rspb.org.uk/



Seasearch

Written by Charlotte Bolton, National Seasearch Co-ordinator, Marine Conservation Society

In my professional capacity as National Seasearch Co-ordinator, I support the NBN through our organisational membership and as a data provider. Seasearch is a project for volunteer scuba divers who want to get involved in learning about and recording the marine environment around the coasts of Britain and Ireland (including the Crown Dependencies of the Channel Islands and the Isle of Man). We train people to recognise what they see underwater and record their findings in a standardised way. All the data then gets checked a number of times before and after entry into the industry-standard Marine Recorder database and then onwards to the National Biodiversity Network, for the NBN Atlas, and other interested parties.

“**Seasearch is now the second-largest provider of marine data to the NBN Atlas, an amazing record for a citizen science data-gathering environment.**

Over 400 divers submit records to us every year on the standard Seasearch forms, and we're working hard to collect ad hoc sightings of *Palinurus elephas* to inform management of fisheries in the South-West. Creating different ways for people to get involved broadens the scope for engagement and education.

Harking back¹ to a previous life working in Cambridge with Dr. Peter Murray-Rust², I have a very firm personal belief that data should be made as open and accessible as possible, and this opinion aligns with the Seasearch volunteers who responded to our surveys in 2013 and again in 2017. One of the questions in the 2013 survey gauged the level of agreement with the following statement “I would like all organisations who make decisions that could affect the marine environment to have free and full access to my records”. Staggeringly, just over 90% of respondents agreed with this. The story of Seasearch and Open Data was presented at the annual Porcupine Marine Natural History Society conference in Edinburgh earlier this year³.

That commitment to Openness means that strategic decisions can't hide behind a defence of ignorance. It also highlights to the volunteers where their data is going – there's a great satisfaction for many in seeing their name attached to a record on a map. Academic collaborators can also use the data – for example, Stephen Pikesley at the University of Exeter analysed the spatial distribution and abundances of the pink seafan, *Eunicella verrucosa*, from the Seasearch dataset and compared it with the MPA network and management of bottom-towed gear in South-West England⁴.

Over thirty years of data collected under the Seasearch (and earlier, Underwater/Marine Conservation Society) banner provides an incredible resource for studies of long-term changes in broadscale biodiversity and distribution.



Periclimenes sagittifer
©Charlotte Bolton



Periclimenes sagittifer
©Charlotte Bolton

Seasearch volunteers have recorded first sightings of species (as range extensions in a changing climate, e.g. *Periclimenes sagittifer* under Swanage Pier in 2007⁵) and continue to provide the evidence to underpin Marine Protected Area designations⁶ and management measures^{7,8}.

In recognition of the project and on behalf of everyone who is, or has ever been, involved with Seasearch, I was privileged (and very surprised) to receive the John Sawyer NBN Open Data award in Cardiff last November⁹.

It's a beautiful object in its own right, leaving aside the significance, but the big slab of etched Welsh slate makes it very heavy!

I've been taking the award to various events and conferences to show it off and spread the word about Open Data, the NBN and Seasearch – so far it has racked up nearly 2500 miles by various modes of transport (car, bus, train, Tube, plane... Haven't managed it on the back of my bike yet!)

Since any dive can be a Seasearch dive, I'm looking forward to the next thirty years and hoping to spend a good proportion of them underwater... Any scuba divers out there who are interested in joining us, please visit the Seasearch website to find out what's going on in your area – we look forward to welcoming you!

www.seasearch.org.uk



¹ “How I became a marine biologist”, Bulletin of the Porcupine Marine Natural History Society, 9,66 (Spring 2018)

² https://en.wikipedia.org/wiki/Peter_Murray-Rust

³ <http://pmnhs.co.uk/meetings/pmnhs-annual-conference>

⁴ Pink sea fans (*Eunicella verrucosa*) as indicators of the spatial efficacy of Marine Protected Areas in southwest UK coastal waters, Pikesley S.K. et al. Marine Policy, 64, 38 – 45 (2016) <https://doi.org/10.1016/j.marpol.2015.10.010> (Open Access)

⁵ <http://www.seasearch.co.uk/downloads/Shrimp%20Survey%20Report%20Oct%2008.pdf>

⁶ http://www.seasearch.org.uk/downloads/SeasearchNI_MCS_pMCZ_response.pdf

⁷ see e.g. <https://www.gov.uk/government/news/offshore-reefs-new-protection-proposed>

⁸ see e.g. <https://secure.toolkitfiles.co.uk/clients/25364/sitedata/files/MCZ-Chesil-Beach-and-Stennis-Ledges-2-.pdf>

⁹ “Seasearch wins NBN awards!” Bulletin of the Porcupine Marine Natural History Society, 9,54 (Spring 2018)

Ian Wallace

Written by Ian Wallace of The UK Caddis Recording Scheme

For over 30 years I have been assembling distribution records for the UK Caddis (Trichoptera) as organiser of a Biological Records Centre (BRC) scheme. Whilst I have always been supported by BRC and allied schemes in the Riverfly Study Group, I am a one man band as far as running the scheme is concerned. I like to make the dataset available to anyone who would find it interesting. The best outlet is via the NBN Atlas and I am an individual member of the NBN Trust to register my support for the organisation and its work in achieving that for me. I can concentrate on caddis knowing that, for example, the tricky data ownership issues are being tackled on my behalf. I can also rely on their software expertise to make maps as meaningful and attractive as possible.

To interpret distribution, I want to see all UK caddis records, but not necessarily have them in my dataset.

“**If every organisation's caddis records were added to the NBN Atlas, the goal of a truly comprehensive map for each species could be achieved.**

It sounds simple, but the open data sharing network, with costs and benefits shared, has not yet been achieved and the appearance of the NBN Atlas maps is still not quite what I would like. However, by registering as a member I indicate my belief that the NBN can get there, and that it can count on me for support.

This year, I attended the annual meetings of the National Forum for Biological Recording and NBN, where it is so useful to meet other scheme organisers, and data users especially from the Local Environmental Records Centres.

Energy and innovation permeate the recording sector, but shortage of funds to support the basic infrastructure of the Network is always present.

There was no diminution in the number of caddis records being passed to me, the year closing with the dataset having nearly 425,000 entries. New recorders must be encouraged and iRecord is a popular and successful medium. I am fortunate that the volume of records sent to it for my verification is small enough for me to keep pace, and I always look forward to seeing the latest submissions – via iSpot too. The majority are adults with photographs, but there is no comprehensive guide to live adult caddis. I made a start on producing such a guide, to appear as an AIDGAP publication, and an early version was tested on a course at World Museum Liverpool. The NBN will also offer the opportunity to add biological accounts for each species to the maps and I am well underway writing them, but it is a big undertaking to cover the literature; access to the Freshwater Biological Association library has helped a lot.

On top of this, I am pleased to say that there was also time for some personal recording of species, from the very common to the very rare, with *Ironoquia dubia* from Norfolk, probably being the highlight this year.

<https://www.brc.ac.uk/schemes/RRS/trichoptera.htm>



Ironoquia dubia
from Norfolk. First UK record
for over 20 years and the first larvae
for over 40 years. © Ian Wallace



Recording caddis and showing them to others are major activities.
© Sharon Flint



DEVELOPING

THE YEAR AHEAD

The next financial year, 2018/19, provides an opportunity for a range of developments to the NBN Atlas. These include a mix of larger projects and refinements suggested by stakeholders and the NBN Atlas user community.

Some of the main developments we foresee for the NBN Atlas in 2018/19 are the launch of the NBN Atlas Northern Ireland portal (including data from the National Museums Northern Ireland's Habitas system), the development of an Invasive and Non-native Species portal for Wales and the development of the Beautiful Burial Grounds biodiversity portal for Caring for God's Acre.

In addition to these larger projects, a range of improvements are planned for the NBN Atlas. These include improvements to data search tools, particularly for advanced and spatial searches, and the provision of managed access to sensitive data. Data downloads will be improved and standardised as will the presentation of images across the NBN Atlas. Solutions to improve the species descriptions on the species pages will be investigated. From a data management perspective, the taxonomic backbone of the NBN Atlas will be updated to the latest UK Species Inventory provided by the Natural History Museum (with 6-monthly updates planned in future), and a process for automatic updates to spatial data is being developed in conjunction with the EPCC at the University of Edinburgh (The EPCC is formerly the Edinburgh Parallel Computing Centre, and is now a supercomputing centre).

“**Automatic update of datasets from iRecord is planned for the coming year and a project to harvest records from iNaturalist to iRecord and then to the NBN Atlas is also planned.**”

Finally, tools to allow users to flag possible issues with particular records will be implemented, providing a feedback mechanism to data providers.

Royal Botanic Garden Edinburgh (RBGE) Herbarium and National Museums Scotland both plan to submit records to the NBN Atlas in the coming year and the Manx Natural Heritage, with support of volunteers, is digitising their Calf of Man Bird observatory records, with a planned upload to the NBN Atlas.

NBN STRATEGY & SUSTAINABILITY REVIEW

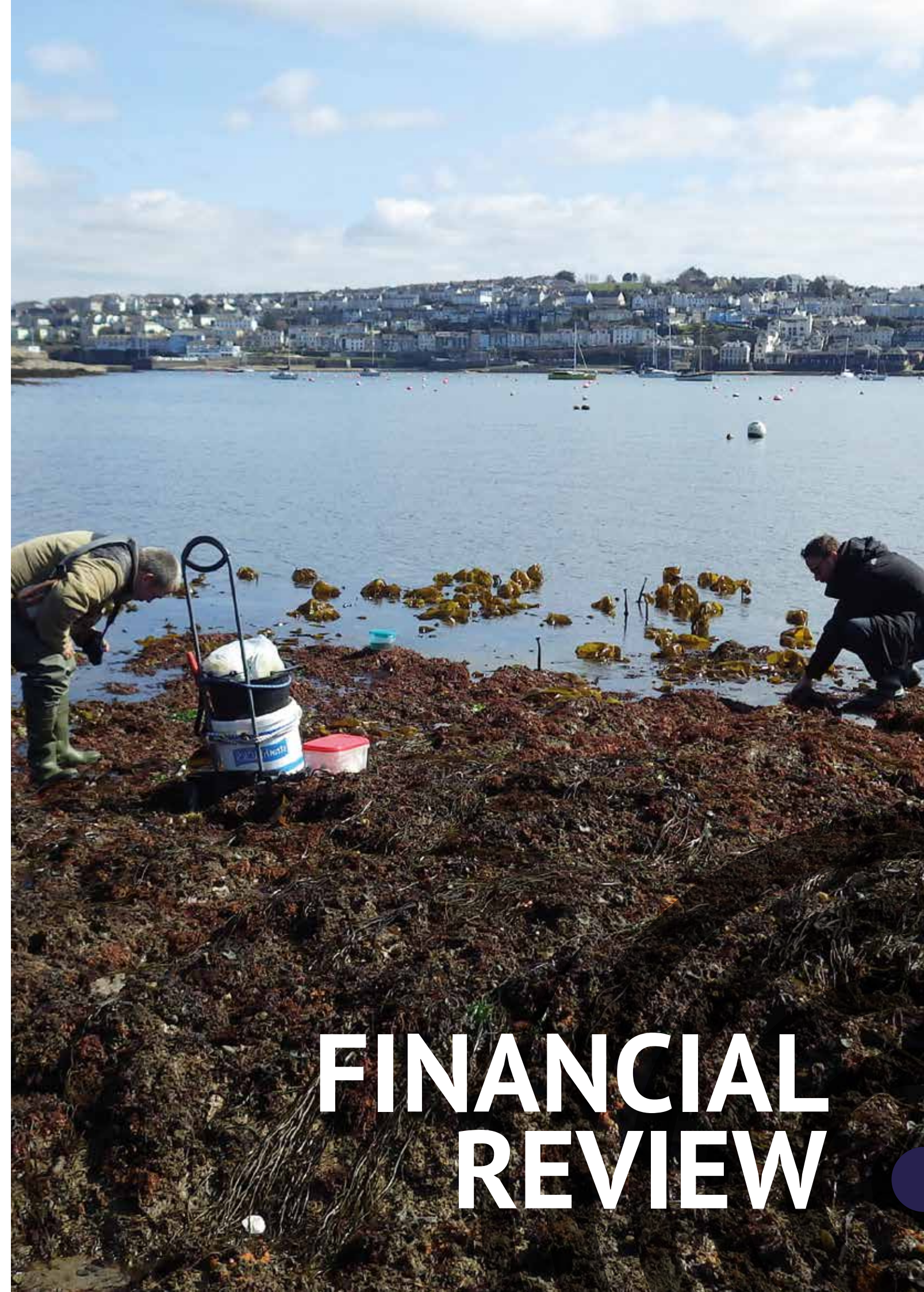
The changes following the board governance review and subsequent change in the number and experience of our Trustees presented an excellent opportunity for the Board to take a step back and review the NBN Strategy 2015 – 2020 and assess the sustainability of the NBN Trust and by extension, the Network.

The board agreed that the NBN Strategy is still relevant and there should be continued effort to implement it, in partnership with the wider Network as appropriate. Delivering the actions set out in the NBN Action Plan will continue to shape the work plan for the NBN Secretariat in the coming year.

We will also develop the NBN Atlas so that it can truly revolutionise the way wildlife data are shared, accessed and used in the UK. As a part of this work and these discussions we will also be investigating how to provide the most secure and sustainable future for the NBN Trust and the Network as a whole.

“

We will also be focusing on how the NBN Trust can strengthen its partnerships with NBN members to enable us to better fulfil our ambitions to make biodiversity data, collected and shared by our partners, central to all decisions that may have an impact on our natural world.



FINANCIAL REVIEW

Statement of Financial Activities (incorporating income and expenditure) for the year to 31 March 2018.

The Trustees are pleased to present their annual directors' report together with the financial statements of the charity for the year ending 31 March 2018 which are also prepared to meet the requirements for a directors' report and accounts for Companies House.

The financial statements comply with the Charities Act 2011, the Companies Act 2006, the Memorandum and Articles of Association, and Accounting and Reporting by Charities: Statement of Recommended Practice (SORP2015) applicable to charities preparing their accounts in accordance with the Financial Reporting Standard for Smaller Entities.

Financial summary for the year ended 31 March 2018

	Unrestricted funds	Restricted funds	Total 2018	Total 2017
Income and endowments from:				
Donations and legacies	201,875	188,706	390,581	346,368
Investments	846	-	846	568
Other income	24,791	-	24,791	442,317
Total income	227,512	188,706	416,218	789,253
Expenditure on:				
Raising funds	149	-	149	304
Charitable activities	196,945	209,268	406,213	819,005
Total resources expended	197,094	209,268	406,362	819,309
Net income/(expenditure) for the year	30,418	(20,562)	9,856	(30,056)
Fund balances at 1 April 2017	95,584	53,931	149,515	179,571
Fund balances at 31 March 2018	126,002	33,369	159,371	149,515

The Statement of Financial Activities includes all gains and losses recognised in the year.
All income and expenditure derive from continuing activities.

Risk Register

The Finance and Management Committee (FMC) has reviewed the major risks to the charity, and has systems designed to manage them. The main internal financial risks are minimised through procedures for delegation and appropriate authorisation of all transactions and projects and by ensuring consistent quality for all the charity's operations.

The FMC reviews the risks at every meeting. Risks related to external funding agreements have their own risk management policy.

NOTE: there has been a change in the format of the accounts and how these are presented due to a change in accounting standards from SORP 2005 to SORP FRSE. The full copy of the report and accounts can be found on the **NBN website**.

BIOD SERVICES LTD

BioD Services Ltd was set up to help the NBN Trust develop the Network through contractual work and was incorporated as a company limited by shares on 13 March 2001.

The Articles of Association allow the company to transfer profits or income to the NBN Trust as gift aid. For 2017/18 there were no profits from BioD Services to be donated over to the NBN Trust.

More detailed financial statements are available for either the NBN Trust accounts or BioD Services Ltd. Please contact the NBN Trust's Finance and Business Officer on 0115 850 0177 for a copy.

The financial information below shows the total income against expenditure.

Balance sheet as at 31 March 2018

	2018 £	£	2017 £	£
Current assets				
Debtors	2,025		809	
Cash at bank and in hand	11,491		13,016	
Total assets	13,516		13,825	
Creditors: amounts falling due within one year	(681)		(449)	
Net current assets		12,835		13,376
Capital and reserves				
Called up share capital		2		2
Profit and loss reserves		12,833		13,374
Total equity		12,835		13,376



ADMINISTRATIVE INFORMATION

The National Biodiversity Network Trust is a charitable company limited by guarantee, incorporated on 3 April 2000, registered as a charity on 25 August 2000 and accordingly does not have a share capital.

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.

Until February 2018 the Board of Trustees was made up of up to fourteen people nominated from member organisations. Following the governance review, nine Trustees stepped down and six new Trustees, with skills and experience relevant to the needs of the NBN Trust were appointed. The Board of Trustees is currently made up of eleven people. They meet three times a year and their AGM is in November when it is held as part of the NBN Conference. No Trustee may serve more than six years in office in total without the approval of the members given by ordinary resolution.

Every member promises, if the charitable company is dissolved while he or she remains a member, or within 12 months afterwards, to pay up to £10 towards the cost of dissolution and the liabilities incurred by the Charity while the contributor was a member.

Directors / Trustees for the year ended 31 March 2018

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:

- Mr. M Diamond (Retired 1 March 2018)
- Mr. A Wood
- Mr. P Rose (Retired 1 March 2018)
- Prof. M Hassell CBE FRS
- Prof. I Owens (Retired 1 March 2018)
- Dr. A Clements
- Dr. R Pywell (Retired 1 March 2018)
- Dr. R Fairley
- Dr. T Webb (Retired 1 March 2018)
- Mr. J Davy-Bowker (Retired 1 March 2018)
- Ms H Wilkinson
- Dr. J Ashworth (Retired 1 March 2018)
- Dr. A Stewart (Retired 1 March 2018)
- Dr. T Hill (Retired 1 March 2018)
- Ms. M Rudd (Appointed 1 March 2018)
- Mrs. W Harper (Appointed 1 March 2018)
- Mr. N Hodges (Appointed 1 March 2018)
- Mr. M Postles (Appointed 1 March 2018)
- Mrs. E Proctor (Appointed 1 March 2018)
- Dr. B Howell (Appointed 1 March 2018)

Registered office

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

Accountants

Rogers Spencer
Chartered Certified
Accountants
Newstead House
Pelham Road
Nottingham
NG5 1AP

Solicitors

DLA Piper
1 St Pauls Place
Sheffield
S1 2JX
and
Freeth
Cumberland Court
80 Mount Street
Nottingham
NG1 6HH

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The NBN Trust would like to thank the following people for their contribution to this Annual Report:

- Charlotte Bolton
- Aline Brodzinski
- Tessa Coledale
- Will George
- Neil Madden
- Ian Wallace

“

In collaboration with our members,
we have been able to make great
progress on a number of aims from
the NBN Action Plan



NBN Trust