

Scotland NBN Strategy Refresh Workshop

Edinburgh Park Management Suite, 23rd October 2014

Introduction

The National Biodiversity Network is refreshing its strategic direction in 2014. Drivers for this refresh include the recent changes in NBN Trust staff, technological advances for biological recording and data curation and the ever changing landscape of biodiversity activity in the UK. The current strategy, published in 2010, is now four years old so a refresh is timely. Preliminary work began on this strategy refresh over 18 months ago through two Extraordinary General Meetings (in Feb 2013 and Feb 2014) at which a draft skeleton structure for a new strategy was prepared.

The NBN Trust sought input from Network members and associates, from data providers and potential collaborators and NBN Gateway users throughout the UK via a Strategy Refresh Questionnaire. A summary of the 225 responses to this questionnaire can be found [here](#).

The NBN Trust organised a series of workshops throughout the United Kingdom (in Wales, England, Scotland and Northern Ireland) to gather a more country focussed perspective of the current state of the NBN, how people would like the NBN to work within each country, and what the different partners of the NBN, including the NBN Trust, could do to achieve the strategic aims.

The objective of this engagement was to ensure as many people were listened to during the course of the Strategy refresh (from the largest to the smallest recording schemes, from government agencies and non-government organisations to environmental planners and local authorities, and from universities and research institutes to ecological consultants). This work was to ensure the collaborative nature of the Network was truly reflected in the Strategy, that all voices were heard and that all participants had the opportunity to influence the development of the new 10 year Strategy.

Scotland Workshop

The following document summarises the outcomes of the first Strategy Refresh Workshop held on the 23rd October 2014 in Edinburgh. This workshop was attended by representatives from two Local Record Centres, RSPB, SBIF, SWT, SNH and NFBR. The workshop was facilitated by an external facilitator to allow all attendees, including the NBN Trust to be engaged with, and involved in, the discussions throughout the day.

Objectives for the workshops

- To provide feedback on the results from the strategy refresh questionnaire
- To highlight and discuss major issues and ensure all voices are heard
- To brainstorm ways forward for the NBN
- To detail the timeframe and process for the final stages of the refresh

This workshop also provided a forum for people to meet and network and to continue strengthening the collaborative nature of the National Biodiversity Network.

Delegates were:

Ellen Wilson	RSPB
Karlene Hill	Scottish Wildlife Trust
Teresa Frost	Cumbria Biodiversity Data Centre
Christine Johnston	SBIF Co-ordinator
Colin McLeod	Scottish Natural Heritage
Paula Lightfoot	National Forum for Biological Recording
Glenn Roberts	North East Scotland Biological Records Centre (NESBReC)
Bruce Philp	
John Sawyer	NBN Trust
Sarah Hyslop	NBN Trust
Sarah Keast	Sarah Keast Associates

Workshop Structure

The format of the day was structured around the five proposed Strategic Aims for the NBN. These are;

a. Capturing, diversifying and enhancing wildlife data

This is about supporting biological recording in the UK. It includes the development and maintenance of systems and processes to support the capture and verification of raw biological data through survey and recording and plugging gaps in data coverage.

b. Making wildlife information available to those who need it

This is about processing, organising and visualising data to create wildlife information for use by educators, researchers, planners, government agencies, NGOs etc. It includes increasing the interoperability of data and information.

c. Captivating and engaging people about wildlife

This is about communication about the UK's wildlife, what it is, why it is special, what it does for us. This is also about communicating the value of data and biological recording and being involved.

d. Providing the best wildlife information management

This is about ensuring the NBN technical data recording, storage and dissemination infrastructure is the best it can be (e.g., NBN Gateway, iSpot, iRecord, Indicia, local record centres etc).

e. Supporting the Network to support wildlife

This is about the administration of the NBN through supporting the on-going development of the NBN, its wider membership, and its business processes, the board and the NBN Trust.

These aims were discussed as a collective group with a particular focus on what is currently working well and what issues and challenges exist. Priority issues raised were then developed into objectives which formed the basis of afternoon discussions. Workshop attendees worked to determine what needed to be done, how it would be done (including options) and who would do the work.

The outcomes of these discussions will be used to inform the final NBN Strategy, making the Strategic Aims realistic and achievable and developing ownership of the NBN Strategy across the Network, as well as identifying areas where the NBN can have a more country focussed approach.

Workshop Outcomes

Feedback to the NBN Trust over the last five months is that the current level of ownership, and feeling of involvement and engagement with the NBN is extremely varied, and this was reflected at the Strategy Workshop. Themes which arose from the workshop discussions included

- **Membership** – What is membership? What does being 'a member' mean? Needs some clarification.
- **Conflicting business models** – The NBN model is currently conflicting with the business models of many of the partners within the Community. This needs to be resolved in order for the NBN model to work efficiently
- **Terminology** – Confusion around terminology (NBN, NBN Gateway and NBN Trust). To reduce the number of acronyms.
- **Roles and Responsibilities** - There is a requirement for agreed clarification as to the roles and responsibilities of the partners of the NBN to avoid duplication
- **Collaboration** – To create a greater sense of partnership, increased collaborative working would be beneficial.
- **Communication** - There is a need for greater promotion of the NBN network.

Issues with regards to the Strategy review process.

- It would be useful within the Strategy Consultation Questionnaire summary document to have a list of who responded and to chart the sector(s) represented by each respondent (it was acknowledged that many respondents represent several sectors).
- We would then know who didn't respond and can try and get their view / input. I.e. how many actual recorders / volunteers input into the review process?
- To ensure that all the work that has been done / being done by ALERC/SBIF/BRISC/NFBR etc is included and fed into this review process
- It is very important that the Strategy can be translated into effective action on the group and ultimately into getting records from individuals as well as organisations into the database.

Identification of current issues in Scotland

- **Turnout**
 - There is a low turnout for this workshop. A lot of data comes from volunteers but they were not well represented at this workshop, however there were at least three recorders present at this workshop. How do we get more recorders involved? There needs to be more engagement with all levels. It was noted that the Forestry Commission, TWIC, LORN, BRISC, SEPA and the Highland Recording Scheme are also not in attendance – however some attendees sit on and represent other groups i.e. BRISC/TWIC.

- **Duplication**

- In Scotland some of these discussions particularly around data flow have already started to happen within SBIF. Therefore, NBN and SBIF need to work together so that these priorities are captured and included.
- The WEIF group used to run and there are discussions to set this group up again. It was recognised that the Welsh workshop was attended by the four local record centres which have complete coverage across Wales – they have become more independent however they are working towards joining up again. This may not however work in Scotland or be as easy due to scale of the region.

- **Capacity of the NBN Trust**

- This was raised and worth noting as the Trust itself is very small (3.5 staff members) spread over the UK with some dedicated technical staff based at JNCC/CEH. There are 15 Trustees on the Board across members and Government agencies. The Trust itself cannot do it all but with the wider network more can be achieved. More funding would also lead to more work i.e. employ more staff etc. There are other ways to resource work such as hackathons. To keep expectations in place but to raise and discuss all ideas.

a. Capturing, diversifying and enhancing wildlife data

This is about supporting biological recording in the UK. It includes the development and maintenance of systems and processes to support the capture and verification of raw biological data through survey and recording and plugging gaps in data coverage.

The current issues that need to be overcome to realise the full potential of this Strategic Aim were discussed. They can be separated into the following;

- Data Flow
- Data Gaps
- LRC Network
- Scotland Biodiversity Information Resources

The high priority objectives were identified in the order below;

1. Data Flow

Issues

This area is complex and there are delays with the flow of data. There is a need for strong verification support to release blockages. The NBN Gateway also needs to be able to display unverified data, appropriately flagged as such. For some groups there may be many potential verifiers, although that does not mean they would be willing to be involved. For other groups there are only a few people who could do it and they are probably over committed already, but these groups may have a lower volume of records awaiting verification. Some reimbursement might help but doubtful this would make a great difference. There is also the question of the level at which the verifiers would operate - would it be at LRC, NBN, iRecord etc.? Better promotion of interoperability standards would also help with this issue. There are too many routes for data input and blockages to data getting to and from the NBN Gateway. The systems of

data transfer from Recorder to the Gateway and back are not simple. Some organisations are not releasing data e.g. consultants / NSS. Some taxa do not also have a dedicated scheme.

Possible solutions

Data flow 1 – data into the system

- To raise awareness of repositories
 - To collate a database of all existing schemes and repositories (BRISC, NBN, SNH and SEPA)
 - Promote these via NBN website, SBIF and via media and to target potential audiences e.g. scouts, hikers, schools etc. Could also have a repository of the week on the websites.
- Ensure complete coverage of repositories
- Demonstrate value / use of the data
- To build relationships with the recorders
- Putting the public in touch with the experts

Data flow 2 – data going through the system

- Ensure accurate and timely verification and build capacity and support for the verification network
 - To give salaries / payment for expertise* (Government / NBN)
 - Provide opportunities for verifiers to meet and network / learn (NBN / SBIF) Identify the verifiers in Scotland and ask what they want (SBIF)
 - Provide training and careers in verification** (Universities, FSC, NGO's, NBN)
 - Develop the capacity of the NBN Gateway to display unverified records with appropriate verification/determination status flags, including the outcome of Record Cleaner rule checks
 - *Conduct research to **quantify** the need for verification capacity before considering investment. How does the backlog of records break down taxonomically? What proportion of these records are 'unverifiable' i.e. insufficient information? How many of these records are of species that have Record Cleaner rules, and how many 'pass' the rules? Which groups have a reasonably fast rate of verification and how do they achieve it (is payment involved)? What level of taxonomic detail is required in biological records to inform environmental decision making? Useful data on functional groups can be recorded at high taxonomic levels (e.g. Open Farm Sunday Pollinator Survey).
 - **Conduct research to **quantify** the need for ID skills training, i.e. commercial courses run by CIEEM, FSC etc, cheap/free courses run by schemes and societies – how well attended are they, what proportion of attendees go on to become recorders?. Talk to experienced naturalists – how did they develop their skills? Was it through formal training, if so how was it funded?
- Build painless transfer systems for data upload to the NBN Gateway etc.
 - Fund support for web services development
 - Identify the blockages in the data transfer
 - Integration of Mapmate to the NBN e.g. UKSI
 - Promote good working systems e.g. LRC to NBN Gateway
 - Find an alternative to Recorder 6 if the funding for this is to stop
- Ensure useful web services for all data users

- Encourage all partners to mobilise existing / legacy data
 - To finish the consultants portal (NBN / CIEEM)
 - Conduct a review of data requirements to inform environmental decision making. Can any of these needs be met by as-yet-undigitised records? If so, consider funding data digitisation and mobilisation. Can this be crowd-sourced? (Government)
 - Demonstrate value of data sets (NBN)
 - LRC's raise awareness / dialogue about legacy data (NBN, SBIF, ALERC)
- Increase the clarity of ownership of the data
- To highlight the invisible data i.e. to tell people exactly what is hidden by the access controls and how they can apply for better access

2. Data Gaps

These included the problems resulting from the large gaps in the current data holdings, which includes the lack of negative record collection. Currently there are only 12% of data at full resolution on the NBN Gateway. Currently it is not possible to see from the NBN Gateway if an area with no record symbolises no species present, or just no data, or no publicly accessible data. The gaps in our data holdings are preventing us knowing what we don't know, which is hampering our ability to work efficiently. Other issues included the need for one portal for submission as data flows are currently too complicated as there are too many potential data pathways and confusion over how they interact. There is no habitats dictionary although there is the EUNIS Habitat Map of Scotland (HabMoS) Scotland habitat map which is being created as part of the Scottish Biodiversity Strategy. Although this is a work in progress, could it be made available via the NBN Gateway for people to ground-truth and give feedback as it develops? Can the Land Cover Map be made available on the Interactive Map? There are also government agencies not sharing data, which contravenes the INSPIRE regulations. Data flow is also an issue as this is complex and there is a real need for verification support. There are delays and better links and promotion is required.

Possible solutions

- To carry out a cost/benefit analysis of funding the complete coverage of record centres in Scotland (ALERC / SBIF / Government / SNH / Private)
- Identify how the NBN can support existing Scottish LRCs to expand their coverage to fill gaps, e.g. via use of web services and online recording
- To identify the key taxa for which we have no data e.g. earthworms, indicators, protected and invasive species.

3. LRC Network

A Scotland specific issue is that the area is so large area with no complete coverage of LRC's. There has to be some strategic relationship between the NBN and LRC's.

The consultants portal which is being developed could be used to upload data but need to ensure data flow through iRecord as it has to be available for access by all.

Many partners are engaged with the concept of the NBN, and the NBN model, but do not share data, or promote the model when working with certain audiences. There is a real need to build on the LRC network within Scotland to identify and fill gaps where possible and to review the funding models.

4. Scotland Biodiversity Information Resources

SNH strongly supports biodiversity recording and there are lots of passionate people who are keen on recording however research should be conducted into the demographics of the Scottish/UK recording community. The fact that many expert amateur naturalists are of advanced years is often bemoaned, but the fact is, it takes a lifetime of practice to achieve that level of expertise. Some ecological/taxonomic training schemes (e.g. Natural Talent Apprenticeships) tend to target young people, but equally important are the recently retired who may have more leisure time to spend on recording. Scotland is a large area and so a greater coordination is required.

Aim 2

b. Making wildlife information available to those who need it

This is about processing, organising and visualising data to create wildlife information for use by educators, researchers, planners, government agencies, NGOs etc. It includes increasing the interoperability of data and information.

Discussions around this Strategic Aim included how to address data quality, duplication and the use of data. In particular, how data is interpreted was seen as an important issue.

1. Data quality/ duplication and use of data

Suggestions on how to increase the use of NBN data

- Requesting access – it would be useful to know exactly how long access requests are going to take for example, if this is going to take longer than a week users wouldn't necessarily go through this process which would save time for the data providers.
- To improve user interface / experience – this includes stability of the NBN Gateway and web services.
- It was suggested that a scoring scheme e.g. gold star / standard for a data user who could then look at data right away without having to request enhanced access. This scoring system could be used for the data provider based on how long they take to respond to requests etc.
- To make it a legislative requirement to put data onto the consultants portal which in turn would be shared via the NBN Gateway.
- To have case studies on how data is being used i.e. data mash up. The Scottish Wildlife Trust for example needs to be able to demonstrate how they use data and show what they are doing.
- Users could have a customised profile with saved searches, filters etc.

2. Interpreting data

The question was asked whether the interpretation of data is an NBN Trust issue or a role for the LRC's, consultants, statutory nature conservation agencies, researchers and other environmental professionals? This is a big issue at policy level as decisions are being made on the data available and do we know if those who are making these decisions able to correctly interpret the data.

There is a Bat Conservation Trust project which is looking at this area. It is noted that ALERC and NBNT are not a main partner in this project. – Someone from the network should feed back to the Trust. This then asked the question if there are other projects that we do not know about?!
License agreements and charging for data – should people have to pay to get interpreted data from the NBN Gateway?

c. Captivating and engaging people about wildlife

This is about communication about the UK's wildlife, what it is, why it is special, what it does for us. This is also about communicating the value of data and biological recording and being involved.

It was suggested that this aim should read '**Captivating and engaging people about recording wildlife and the value of data**'

It was noted that RSPB are doing work here and moving into an online space.

- Need to know what organisations there are and where they fit within the network.
- To communicate what is special and why? What does the NBN do / provide?
- Communicating about the value of biological data to decision makers and funders etc to make this interesting and exciting.
- Real need to inspire a new wave of recorders

Throughout the morning's discussions the following were identified as key areas;

- Strategic relationships and influences
- New recorders

1. Strategic relationships and influences

There is a need to diversify and build on the relationships that we have.

2. New recorders

To move from basic to more advanced recording. Does NBN need to do something here? Local schemes are doing work here and the Hoverfly scheme are doing this well. There are also lots of projects within the Network such as Wildwatch North Pennines / Tomorrows Biodiversity (FSC) to also increase recording capacity and make it interesting. Do we know how many recorders we have?

The following point was also noted;

RSPB are waiting for all LRC's to have accreditation before they pass their data onto the LRC's to do planning applications. This has been discussed at the ALERC conference but the LRC's were not aware of RSPB's accreditation needs.

Disclosure / criminal record check for any risk areas – RSPB have data which is rare / sensitive e.g. Hen Harrier nests. This data could be shared with accredited data users if they have a gold star for example.

d. Providing the best wildlife information management

This is about ensuring the NBN technical data recording, storage and dissemination infrastructure is the best it can be (e.g., NBN Gateway, iSpot, iRecord, Indicia, local record centres etc).

It was identified that there is a requirement for streaming “fit for purpose” data from central databases to the NBN Gateway, which whilst this may create duplication of records, will make data flows and data sharing more efficient.

The high priority for this aim was identified as standards.

Issues

The NBN Exchange Format has clear mandatory information i.e. who-what-where-when but this could be extended to include more standard attributes. Attributes such as life stage, abundance, associations are not recorded in a standard way, but the technology now exists to support this if recording practices can be changed. Converting data to a flat file can result in loss of some detail from biological records. .

Should there be a set of standards which detail record types and fed into Record Cleaner? The Record Cleaner rules needs updating and ownership.

The NBN database is compatible with the Darwin Core Archive format. Use of standard exchange formats like this improve data interoperability.

Recorder / UKSI achieved standards that enable good data management with plenty of room for improvement. Commercial packages like Mapmate are user friendly so lessons could be learned here however this doesn't hold much metadata and does not support interoperability due to not using UKSI. A suggestion is that volunteers and organisations should be supported to adapt more cost effective processes before deciding on investment priorities.

Possible solutions

- To support pilot projects that develop systems based on standards e.g. web services / LRC's
- To have liaison between the NBN Trust and technical staff – need to restart / continue with regular meetings
- Do NBN have a tools and standards group? This was something that was going to be set up at one point. This needs to include people who share the NBN vision and to have a cross sector involvement.
- NBN Toolbox to contain free or open access tools / resources anyone can use. To develop web services and launch and brand
- To have a clear technical vision and road map.
- To remove restriction on commercial use of UKSI.

Other important areas to consider were identified as;

Training

There is a need to support and give training for the technological change

Web services

This is a game changer and there needs to be some strategy for this. There is support for this to embed the NBN systems within organisations wishing to create their own Gateway's but this needs further work and support. Should we put this out that people develop and implement their own? This is now built into the NBN Gateway 'find out more'

It was noted that this aim had a government lead in the past and maybe this needs to change. The government could use web services to embed their own Gateway with the 'Main' version being more user friendly.

Species / status

JNCC manage the collated spreadsheet of taxon designations, which feeds into the UKSI. NE want to review and the NBN needs to be involved with this.

Some issues were that there is a time delay with the species dictionary when this is updated being fed through the NBN Gateway. It was also noted that there are too many designations and categorisations and there is an opportunity for the NBN to play a role here. Suggestions were that species identifiers would be useful and to add GBNNSIP flag to UKSI (this is already in the workplan).

e. Supporting the Network to support wildlife

This is about the administration of the NBN through supporting the on-going development of the NBN, its wider membership, and its business processes, the board and the NBN Trust.

Discussions were held around membership, what does membership mean and what is the benefit of being a member. It is currently relatively cheap to join and there needs to be clear benefits for being involved. Need to also bear in mind data quality here. It was raised that it is important that the NBN is seen as more than the data and the Gateway and there needs to be less focus on this, and more on the partnership and sharing good practice. The NBN should be focusing on helping partners to function and connect with one another.

Issues

- The scheme is complex and needs simplifying
- Competition needs to be avoided where possible.
- We are currently enhancing synergies and there are positives. Open to change e.g. the current strategy review process, but need to be mindful of limitations e.g. low staff resource.
- To raise the profile of the NBN and be aware of the brand – NBN seen as just the Gateway!

Possible solutions;

- Cease competing government structures and redeploy funding to support ALERC / NBN so this can be dispersed.
- To establish a simpler government structure that has licenses to operate in each country.
- To establish a national data centre / BRC and data warehouse to provide a common LRC infrastructure so that LRC's and NSS don't have costs running their own. This should also help to avoid duplication
- To establish the level of funding for wildlife recording and sharing data in the UK – all need to be honest about what is spent – is money being spent against the right things / is there duplication? To focus funding deeply where it will be effective.
- Process mapping – analysis of how the future looks – engineering workshops to agree ways forward – need to be efficient.
- To have a central repository of data – reduce the journey that data has to go on. Data should be stored centrally for anyone to access who needs it.
- Need to develop NBN Gateway for all but wouldn't work as they couldn't meet all user needs – LRC's / NSS could use one common data pot located centrally to be stored and structured and all have a piece of the server.
- Some LRC's are embedded in Local Authorities – more restricted as to what they can do. Limits access to information on the internet – i.e. survey monkey.
- There needs to be more transparency / inclusiveness and opportunities to get involved either through workshops like these or through conferences / questionnaires.



Building Biodiversity Knowledge in Scotland

Refreshing the NBN Strategy Workshop

Thursday 23rd October, 10.00 – 16.00

Edinburgh Park Management Suite,
4 Lochside Place,
Edinburgh Park,
Edinburgh, EH12 9DF

Facilitator – Sarah Keast

Objectives for the workshops

- To provide feedback on the results from the strategy refresh questionnaire
 - To highlight and discuss major issues and ensure all voices are heard
 - To brainstorm ways forward for the NBN
- To detail the timeframe and process for the final stages of the refresh

These workshops will also be a forum for people to meet and network.

Morning Session

10.00		Registration & Coffee		
10.30	Introduction	Introduction to attendees and aims and objectives for the day	Sarah Keast	Sarah Keast Associates
10.45	The NBN and Strategy overview	Overview of the NBN and background and where we are now with revising the NBN strategy including responses and feedback received	John Sawyer	NBN Trust

11.15	Challenges and issues	What are the priority issues for Scotland - what is blocking progress?	Sarah Keast	Sarah Keast Associates
12.00	Setting knowledge objectives for Scotland	Brainstorm session to determine priority objectives for NBN	Sarah Keast	Sarah Keast Associates
<u>Afternoon Session</u>				
12.45		Lunch		
13.30	Breakout	Three breakout groups to tackle priority issues and objectives	Three facilitators (one for each group)	
14.30	Report Back and summary	Reporting back on the discussions and open floor question session	All	
15.15	Summary	Outcomes and actions from the day	All	TBC
15:30	Wrap Up	Closing remarks and summary	John Sawyer/ Sarah Keast	
16:00		Coffee & depart		