

NBN Action Plan Working Groups - next steps

Monday, October 19, 2015

Executive summary

1. Eight working groups are proposed to start the implementation phase of the NBN strategy and Action Plan.
2. Those groups will not be established immediately in all cases (see table below).
3. Scoping reports and terms of reference for each group are now being prepared. Two have already been drafted.
4. NBN Board members will be asked to chair the working groups.

Those eight groups are:

Working groups	Proposed lead
1. Quality control and record determination and verification	Scoping report and TOR prepared by Martin Harvey
2. Mobilising historic data	Rachel Stroud led workshop on 25 Sept 15. Action plan now in preparation.
3. Biological recording online	Scoping report and TOR prepared by Matt Davies. CEH and BTO to lead after that.
4. Improving biological data flows	Research initiative to evaluate current data flows.
5. Increasing use of our data	Initially John Sawyer and Rachel Stroud (NBN Secretariat)
6. Captivating and engaging people	Initially Mandy Henshall and Purba Choudhury (NBN Secretariat)
7. Network support and development	NBN Secretariat, FMC and Board of Trustees
8. Strategy for the UK Species Inventory	Chris Raper and John Tweddle (Natural History Museum)

Introduction

Following the release of the new NBN Strategy 2015-2020 in July 2015 the NBN Secretariat has begun work to facilitate its implementation through delivery of the NBN Action Plan 2015-2020. That Action Plan will be published in the very near future and sets out how the Network will deliver the five aims of the NBN Strategy.

Working groups

The NBN Secretariat has proposed that eight working groups be established to tackle priority actions as identified by Network members in the recent round of consultation. The full list of actions, ranked by order of commitment from Network members is provided in Appendix 1. Groups will run as long as they are needed and others may be established in due course to achieve other aspects of the action plan.

The eight working groups will be:

1. Quality control and record determination and verification
2. Mobilising historic data
3. Biological recording online
4. Improving biological data flows
5. Increasing use of our data
6. Captivating and engaging people
7. Network support and development
8. Strategy for the UK Species Inventory

The NBN Secretariat (and contracted staff) and the Natural History Museum are now preparing scoping reports and terms of reference for each group. Those documents will be circulated to all those who recently expressed interest in participating in actions falling within the remit of each group. A first meeting will then be organised to bring each of these teams together.

Less interest was shown in some high priority actions in the draft Action Plan (e.g., Strategic Aim 5 on Network support and development) and in those cases the NBN Secretariat will take the lead. Additionally, most actions under Strategic Aim 4 (Data infrastructure) are being addressed through existing systems and processes such as the Gateway Project Group, the Gateway User Group, and similar groups for the Atlas of Living Scotland pilot initiative. Much of the infrastructure work underpins the delivery of other aims so other working groups will also address this important area.

There is no obligation to be involved in the delivery of the NBN Action Plan. More details of the eight working groups are provided here.

Working Group 1: Quality control and record determination and verification

This working group will focus on increasing capacity for determining records in the UK to ensure quality control, through the use of NBN Record Cleaner rules and other tools, and to provide the ability to distinguish between data of varying quality. It will also focus on supporting the current network of verifiers, ensuring they have the resources and equipment they need. Finally, there will be a focus on succession planning.

This group will focus on the following actions:

- 1A.1 Increase verification capacity through establishment of a UK Verification Network to share best practice, celebrate success and recruit

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- 1A.6 Maintain and improve NBN Record Cleaner rule sets and identify quality of records across all NBN systems
 - 1E.4 Establish taxonomic group mentoring schemes
 - 3A.3 Attract new generations of biological recorders and motivate to increase recording and share data

Working Group 2: Mobilising historic data

A work programme focused on mobilising historic survey data is already underway. This includes development and promotion of online, citizen data capture systems to support volunteers in the digitisation of historic datasets. As a precursor to establishing a working group the NBN Secretariat has organised a free, one-day crowdsourcing data capture summit on Friday 25 September 2015 to be held in Manchester. This will bring together all those interested in using crowdsourcing to mobilise historic records.

Once established, this group will focus on the following action:

- 1B.3 Develop a UK strategy for mobilising historic survey data and secure resources for historic data digitisation and mobilisation.

Working Group 3: Biological recording online

This working group will focus on supporting, maintaining and improving online recording in the UK. This includes a focus on setting standards for recording systems, record verification, avoiding duplication, ensuring security of data curation, providing for interoperability of systems and ensuring that online infrastructure meets user needs. Finally it will ensure efficient data flows are occurring.

This group will focus on the following actions:

- 1A.7 Prepare an online recording strategy for the UK to ensure system consistency and standardisation
- 1A.9 Support sharing of biological data by ecological consultants (already being progressed with NBN Secretariat, CIEEM and ALERC)
- 4A.2 Secure investment in UK infrastructure for biological data management
- 4B.2 Increase the interoperability of NBN Trust member data systems, tools and infrastructure

Working Group 4: Improving Biological Data Flows

The NBN Secretariat will shortly release a Request for Tender for a research initiative exploring Network data flows. The project will focus on completing a time and motion exercise on all current data flows, traffic lighting data flows for all biological recording schemes and systems with the aim to identify blockages and potential solutions, and create a data flow ranking system.

The results of this project will inform the direction of a Data Flow Working Group that will focus on the following actions:

- 1C.1 Develop an agreed and simplified data flow model for the NBN family to ensure efficient and effective data flow at all spatial scales

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- 1C.2. Accelerate data flow through NBN systems by publicising the data flow model, establishing data flow agreements and creating a data flow tool to track records through the system

Working Group 5: Increasing the use of our data

This working group will examine how to increase use of biological data, with an additional emphasis on ensuring the infrastructure is fit for efficient data use. The scope for this group will include all biodiversity data services, tools and platforms. Areas of interest for this group will include: hackathons, data visualisation, use of Atlas of Living Australia platform, and tools such as qGIS, rNBN and NatureNearMe amongst others.

This group will focus on the following actions:

- 2A.5 Improve data interrogation and visualisation tools through: workshops with user groups, user-centred design, and interactive collaborative events such as hackathons
- 2C.2. Demonstrate how biological data can be applied and visualised
- 1B.4 Develop strategy for tackling recording bias, search effort and certainty of ID. Promote value of negative records and increase negative record data holdings
- 2A.1. Regularly assess data user needs and continuously improve the user interfaces of NBN products
- 2D4. Provide and use forums for discussion of user needs
- 2A.7 Provide users of NBN systems with a customised profile that can be saved
- 2C.8 Develop a new NBN data access framework
- 2B.3. Publish case studies to demonstrate how data are being used
- 2D.2. Provide data interpretation, analysis and visualisation services to meet NBN user needs
- 2C.2. Develop a spatial portal to integrate species and ecosystem data with environmental layers

Working Group 6: Captivating and engaging people

This working group will coordinate delivery of Strategic Aim 3. The NBN Secretariat has already begun delivering this aim through activities such as: the inaugural NBN awards, redesign of the NBN website, rebranding the NBN newsletter, and a research project on recorder motivation and demographics.

This group will focus on the following actions:

- 1E.1. Develop and support learning programmes and systems for biodiversity identification
- 1D.1 Increase feedback to recorders (e.g., through creation of a UK Recorder Newsletter and through use of automated natural language generation)
- 3A.2 Promote biological recording and the benefits of sharing data to everyone interested in the UK's biodiversity

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- 1D.3 Promote, develop and provide resources for recorders (handbooks, publications and tools)
 - 3A.3 Attract new generations of biological recorders and motivate to increase recording and share data

Working Group 7: Supporting and developing the Network

This work will be coordinated by the NBN Secretariat, and will be focused largely on actions that relate to the efficient running of the NBN Secretariat and the support and growth of the Network. The existing systems and processes of the NBN Secretariat (e.g., the NBN Board of Trustees and Finance Management Committee) may mean a formal working group is not required.

This group will focus on the following actions:

- 5A.6 Deliver a programme of training and events to support the network
- 5B.2 Raise the profile and awareness of the NBN and promote the benefits of being a NBN Trust member
- 5C.1 Promote the NBN Strategy as the vehicle for collaboration over biological data collection, sharing and use
- 5C.3 Develop sustainable business models for delivery of the NBN work programme (including national to local levels)

Working Group 8: UK Species Inventory

This working group will be led by the Natural History Museum in partnership with all organisations that expressed an interest in the development of a future strategy for the UK Species Inventory. This work will focus on the development of this important register. The inventory is central to online recording, data flows and verification so this work will influence many of the other working groups.

This group will focus on the following actions:

- 1A.10 Develop a strategic approach to maintain the UK Species Inventory as the primary organisms register in the UK.

Involvement in the NBN Action Plan

There is no obligation to be involved in the delivery of the NBN Action Plan, even if people have previously expressed an interest in participating.

Appendix 1: NBN Action Plan 2015-2020 – Summary table

This table provides a list of all actions in the NBN Action Plan 2015-2020. It describes the priority for each action and the number of people and/or organisations that expressed an interest in being involved in its delivery. Actions highlighted in bold will be addressed by the eight initial priority working groups.

	NBN Strategic Action	Priority	Total no of people and/or organisations expressing interest in delivery
1A.1	Increase verification capacity through establishment of a UK Verification Network to share best practice, celebrate success and recruit	High	25
1A.7	Prepare an online recording strategy for the UK to ensure system consistency and standardisation	High	22
1B.3	Develop a UK strategy for mobilising historic survey data and secure resources for historic data digitisation and mobilisation (including crowdsourcing data capture). This includes development and promotion of online citizen data capture systems to support volunteers in the digitisation of historic datasets	Moderate	21
1A.9	Support sharing of biological data by ecological consultants	Moderate	20
1C.2	Accelerate data flow through NBN systems by publicising the data flow model, establishing data flow agreements and creating a data flow tool to track records through the system	Mission Critical	20
1D.3	Promote, develop and provide resources for recorders (handbooks, publications and tools)	Low	20
3A.2	Promote biological recording and the benefits of sharing data to everyone interested in the UK's biodiversity	High	20
1A.8	Commission and support new data capture (especially structured, representative surveys)	High	19
1E.1	Develop and support learning programmes and systems for biodiversity identification	Moderate	19
1B.6	Create regional and national sensitive species lists	High	18

1B.7	Target taxonomic and geographic gaps in NBN data to increase overall coverage in UK (including keystone taxa for ecosystem services and ecosystem data for natural capital assessments)	Mission Critical	18
1C.1	Develop an agreed and simplified data flow model for the NBN family to ensure efficient and effective data flow at all spatial scales	Mission Critical	18
1D.1	Increase feedback to recorders (e.g., through creation of a UK Recorder Newsletter and through use of automated natural language generation)	Moderate	18
3A.3	Attract new generations of biological recorders and motivate to increase recording and share data	Mission Critical	18
2B.1	Make biological data more visible, freely and openly available (with reduced caveats on data use)	Mission Critical	17
1B.2	Develop and implement a programme of work to capture ecosystem and habitat data	Low	16
1E.3	Mobilise new audiences and demographics of recorders (e.g., through creating nature-recording ambassadors, promoting BioBlitz events, gamification and leader boards and promoting in education)	Low	16
2D.1	Build a spatial platform to provide integration of species and ecosystem data with environmental data layers	Low	16
1A.3	Review and improve NBN data exchange standards to provide for more attributes (such as life stage, abundance and associations), metadata, resolution and openness	Mission Critical	15
1A.6	Maintain and improve NBN Record Cleaner rule sets and identify quality of records across all NBN systems	High	14
1B.4	Develop strategy for tackling recording bias, search effort and certainty of ID. Promote value of negative records and increase negative record data holdings	Mission Critical	14
2A.1	Regularly assess data user needs and continuously improve the user interfaces of NBN products	High	14
2C.3	Diversify the range of data and information products to provide a strategic resource to support decision-making	Moderate	14
4B.2	Increase the interoperability of NBN Trust member data systems, tools and infrastructure	Mission Critical	14

4C.2	Develop a spatial portal to integrate species and ecosystem data with environmental layers	Moderate	14
1E.2	Research recorder motivation and demographics	Low	13
1E.4	Establish taxonomic group mentoring schemes	Low	13
2A.4	Communicate regularly with data users and promote their activities	High	13
2A.5	Improve data interrogation and visualisation tools through: workshops with user groups, user-centred design, and interactive collaborative events such as hackathons	Moderate	13
2C.2	Demonstrate how biological data can be applied and visualised	Moderate	13
3C.1	Promote the data infrastructure and the tools available and show how anyone can use them	Moderate	13
1A.1 1	Develop a strategic approach to improve the UK Habitat Inventory and the integration of habitat classifications in the UK	High	12
1A.4	Establish an NBN Data Management Accreditation Scheme to improve data quality assurance and promote best practice for data capture and curation systems	Low	12
1E.5	Create a learning pathway to improve 'new recorder' skill levels through training and support from Network members	Moderate	12
2C.4	Develop NBN Biodiversity Data services to provide for: biodiversity auditing, educational resources, ecological research, natural capital assessments, pollination services, invasive species management, state of the environment, planning and biodiversity offsetting	Moderate	12
2C.6	Build a Biodiversity Planning Screening Tool to aid environmental and planning decision-making.	Moderate	12
3B.3	Communicate regularly with data collectors to encourage data sharing	High	12
2A.2	Ensure NBN Trust systems meet the business needs and requirements of key user groups	Mission Critical	11
2C.5	Create biodiversity information products from the combined NBN data holdings	Moderate	11
2D.2	Provide data interpretation, analysis and visualisation services to meet NBN user needs	Moderate	11
3B.2	Demonstrate the power of aggregated data on NBN Trust systems for understanding changes in UK biodiversity	High	11

3C.2	Educate people about how they can view and access data on NBN systems (including NBN member systems)	Moderate	11
3C.3	Broaden the audience and demand for national biodiversity data	High	11
4A.2	Secure investment in UK infrastructure for biological data management	Mission Critical	11
1A.2	Streamline and standardise data capture processes and promote through use of league tables, data dashboards, summary statistics and data health checks	Moderate	10
2B.3	Publish case studies to demonstrate how data are being used	Moderate	10
2D.5	Continuously improve web services, support their uptake and develop a tool to allow the creation of a local cache of data, built off the NBN Gateway data	High	10
2E.1	Collaborate throughout the British Isles, across Europe and globally (to maintain relations and to ensure the Network is adhering to best practice and assisting the global community with biodiversity data management)	Moderate	10
3B.1	Promote and demonstrate the many different examples of how biological data can be used (through online tutorials and NBN eNews and other media)	High	10
4C.1	Prepare and implement a technical vision and strategy for NBN data infrastructure for data capture, management and dissemination (in conjunction with NBN Trust members and international partners)	Mission Critical	10
4C.5	Improve the user interface of NBN systems and improve mechanisms for publishing data to NBN Gateway	High	10
5C.8	Bring together individuals and organisations involved in biological recording, curation, aggregation, analysis and use of data through the networking and coordinating role of the NBN Trust	Mission critical	10
1A.10	Develop a strategic approach to maintain the UK Species Inventory as the primary organisms register in the UK	High	9
1B.5	Expand the network of NBN data providers	Mission Critical	9
1D.2	Celebrate the success of recorders through the development of an awards scheme for biological recording	High	9
2C.1	Improve research methods for use of ad-hoc	Low	9

	(casual) biological records		
2E.2	Work with members of the NBN to maximise visibility of UK biological data on international platforms	Moderate	9
2E.3	Work to repatriate biological data for the UK held in databases throughout the world (and vice versa)	Moderate	9
4A.1	Provide a stable platform for all databases and products in the NBN infrastructure family (including systems of all NBN Trust members)	Mission Critical	9
1B.1	Build platforms for sharing of data types beyond species and habitat data (e.g., to integrate data from Earth Observation, genetic sequencing and eDNA)	Moderate	8
2B.4	Develop and deliver incentives for visible, open data	Moderate	8
2D.3	Publish data quality measures for records and data sets	High	8
2D.6	Evaluate and adopt existing open source data visualisation systems	Moderate	8
2D.8	Create an NBN Toolbox for data analysis and interpretation and support tool creation	Low	8
4B.1	Provide training to users in how to make the most of the current infrastructure	Low	8
4C.4	Set standards for data sharing and develop a unique record code system for individual records and datasets in NBN Trust systems	Mission critical	8
5C.1	Promote the NBN Strategy as the vehicle for collaboration over biological data collection, sharing and use	High	8
5C.3	Develop sustainable business models for delivery of the NBN work programme (including national to local levels)	Mission Critical	8
1A.5	Create an NBN toolbox of data capture systems and tools that meet NBN standards	Low	7
2A.3	Support the research community (including establishing a national NBN student research grant scheme)	Low	7
2E.4	Establish and promote policies for open invasive species data across Europe.	Moderate	7
3D.3	Promote the value of NBN Trust membership through advertising the data providers, specific projects and events	High	7
4A.4	Hold regular meetings of the NBN Gateway Project	Mission	7

	Group and NBN Gateway User Group	Critical	
5A.6	Deliver a programme of training and events to support the network	Moderate	7
5B.3	Work with potential partners in research, environmental consultancy and the commercial sector to develop their understanding of how they can derive benefit from their participation in the Network	Moderate	7
2D.4	Provide and use forums for discussion of user needs	Moderate	6
3D.1	Promote the NBN by explaining what it is, by profiling member organisations and the important work they do and show how non-experts can participate	High	6
3D.2	Celebrate success through NBN awards for biological recording and “Volunteer of the month”	Low	6
4C.6	Develop an interconnected web between the NBN Trust family of projects and infrastructure (e.g., a unique login system for all NBN Trust data systems)	Mission Critical	6
5A.2	Maintain a Board of Trustees, representative of the NBN with the appropriate skills and required competencies in order to progress the NBN partnership	Mission Critical	6
5B.2	Raise the profile and awareness of the NBN and promote the benefits of being a NBN Trust member (i.e. not just access to the NBN Gateway)	High	6
5C.2	Engage and involve all NBN Trust members in delivering the Strategy	Mission Critical	6
2D.7	Organise events (hackathons etc.) to engage with data managers, developers and coders to develop new tools	Moderate	5
4A.3	Create and facilitate an NBN Technical and Innovation Working Group to oversee delivery of technical infrastructure	Mission Critical	5
4C.3	Establish a Tools Standards group to ensure interoperability of NBN Trust systems.	Low	5
5C.5	Develop alternative funding streams for NBN Trust and its members to reduce dependency on government funding	High	5
5C.6	Clarify Network roles and membership to promote ownership and engagement by the member organisations	Mission Critical	5
2B.2	Provide accreditation for data providers and data	Moderate	4

	users		
2C.7	Regularly publish information about NBN data holdings	Moderate	4
2C.8	Develop a new NBN data access framework	High	4
3D.4	Develop and promote the NBN brand	Mission Critical	4
5A.8	Research the priorities of NBN Trust partner organisations and ensure that the service provided is appropriate, cost effective and fit for purpose	Moderate	4
2A.6	Report on visitation to NBN family of data systems	Moderate	3
3A.1	Publish and implement a Communications Strategy for NBN Trust to increase awareness of the Network	High	3
5A.5	Provide support to NBN Trust members, donors, data providers and partners	High	3
5C.7	Develop NBN Trust data management and dissemination policy for UK	High	3
2A.7	Provide users of NBN systems with a customised profile that can be saved	Low	2
4A.5	Undertake regular security checks of all NBN Trust systems and tools (including member systems)	Mission Critical	2
5A.1	Provide strong financial and budget control of the NBN Trust funds	Mission Critical	2
5A.3	Review NBN Trust governance so it is fair, open and transparent	Moderate	2
5C.4	Develop and implement a sustainable funding model for the NBN Trust and prepare a medium-term financial strategy	Mission Critical	2
5A.4	Provide and maintain a safe and healthy environment for the Secretariat and visitors	Moderate	1
5B.1	Review the NBN membership scheme to ensure it is fit for purpose and accessible to all current and potential members with clear benefits	High	1
5A.7	Evaluate Network effectiveness in implementing the NBN Strategy through annual business plans and Board governance	High	0