



NBN Trust

ANNUAL REPORT



2010/2011



Introduction

The National Biodiversity Network is a partnership of organisations which are all committed to establishing agreed standards for the collection, collation and exchange of the UK's wildlife information and to improve public access to it. The NBN Trust is the body which promotes and facilitates these aims.

These are challenging times with many of our partner organisations facing changes over the months and years ahead, which will inevitably affect us all. The NBN Trust's report for 2010/2011 therefore has a central theme of change and the future as we all look to new ways of working and sharing experiences. It also focuses on how the NBN and the services it provides are being used and how they are being developed for the future.

The aims of the NBN Trust are:

To enable people to find out about the wildlife of the UK, so that they can better appreciate, understand and conserve it.

To ensure that the Network will provide the most accessible, reliable and comprehensive source of biodiversity information, whether locally, regionally or nationally, to which people can turn.

To help individuals, and organisations of all kinds, contribute data and participate in the Network so that the information is the best available, keeping pace with changes in wildlife.

The NBN Trust's vision for the NBN is:

Making all biological records freely and easily available to everyone.



NBN Trust

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Chairman's Report



The past year has been exceptionally important and busy for the NBN. On the one hand, the NBN has ambitious plans to increase its impact and usefulness; on the other it is operating in a very demanding financial environment. On top of this, there has of course been a change in Government and this has led to changes in Government policy priorities. Despite these external factors, it is a pleasure to report that the NBN has had a very successful year, as you will see from this Annual Report.

“...although none of us in the NBN believes that the next few years will be easy, we are confident that the NBN will deliver an increasingly important and useful service to the country.”

The number of records on the Gateway continues to rise rapidly, and topped 60 million earlier this year. The number of people inputting data to the Gateway has risen and the usage of the Gateway has continued to grow. Our membership has grown, our financial base remains modest but solid, and our future is promising. As we celebrated our 10th anniversary in 2010 culminating in a splendid conference held at the Royal Society it became increasingly clear that the NBN is well-established, well-regarded, and here to stay.

In 2010 the NBN took the important step of publishing its strategy for the next ten years. It can be found on our web site with all our [publications](#). I wrote about this strategy in my Chairman's report last year. The strategy sets out the NBN's main goal which is to make all biological records in the UK freely available to everyone. The strategy has been very well received and we are encouraged by the number of new organisations, both in the private and the public sector, who want to engage with the NBN as it implements its strategy.

One of the key stakeholders for the NBN is the Department of Environment, Food and Rural Affairs (Defra). Defra not only funds the NBN direct under a contract by which we deliver particular services to them, but also indirectly through funds that flow through other organisations that are themselves members of the NBN. Defra has

been reviewing its funding streams, and we are currently awaiting the outcome. Although we cannot be sanguine about the outcome, it is clear from comments that we have received that Defra regards the NBN favourably and sees us as delivering important environmental information and services that fit well with Government policies set out in the discussion paper “An invitation to shape the nature of England”, leading to the Natural Environment White Paper. Equally there is encouraging support from the devolved administrations in Scotland, Wales and Northern Ireland. As a consequence, although none of us in the NBN believes that the next few years will be easy, we are confident that the NBN will deliver an increasingly important and useful service to the country.

The large number of people dedicated to biological recording form a very important part of the NBN. In 1995 a report by the then Department of the Environment estimated that some 60,000 people in the UK were involved in collecting records of wildlife. Many of these recorders now input their data to the NBN Gateway, through natural history societies devoted to the study of particular groups of organisms, or through their local record centres. The NBN is deeply grateful to all of these recorders for their invaluable work. The NBN is working with both local record centres and with national schemes

and societies to ensure that the working relationship between the NBN and biological recorders is as mutually fruitful and beneficial as possible.

Finally, I would like to thank Jim Munford, the NBN's indefatigable Chief Executive, and his staff, for all the work they do. They deserve a huge amount of credit for having developed the NBN so effectively during the first ten years of existence. I would also like to thank the NBN's Trustees, who give so willingly of their time. They have steered the NBN expertly during the last ten years, and I am certain that they will continue to do so during the next ten years. The NBN has a strong and effective team, and, as you will see from this report, it is making great strides to achieve its mission.

Neil Chalmers

Chief Executive's Report



“ Even in the financially constrained times we are now facing, the NBN is seen as an important tool in evolving our response to the new threats that our biodiversity faces. ”

Of all the variety of people who make up this nation of ours, it should be biologists who are most comfortable with, indeed embrace, evolution and change. Having said that, I note that in last year's Chief Executive's report, there was a focus on a period of calm, of introspection and review.

The continuing development of the NBN inevitably raises new challenges to the established order as far as biological recording is concerned; a new Government and the new economic environment have focussed our attention on resolving these challenges. A Venn diagram of the NBN would show that it is founded on two overlapping major domains; recorders and users of biological records. Our focus, initially on recorders and adding records to the NBN Gateway, has shifted towards users and uses of the data. This shift of emphasis is clearly articulated in the *Strategy for the National Biodiversity Network: 2010-2020* published by the NBN Trust in June 2010. This shift in emphasis will not come at the expense of

the existing work maintaining and developing the NBN, or ensuring the supply of good quality biological records, but we recognise the importance of the user community in shaping the future of the NBN.

A key stakeholder in the NBN is the Government itself, principally through Defra. As I write this, and as mentioned in the Chairman's Report, we anticipate the publication of the Natural Environment White Paper and related biodiversity strategy for England. These are likely to determine how Government works with the NBN, but we will also be guided by the discussions we have with the devolved administrations of Scotland, Wales and Northern Ireland. It is clear that all of these administrations have closely watched the development of the NBN and have their own ideas about how the improved access to biodiversity records can be used to further their policies and objectives for the environment. Even in the financially constrained times we are now facing, the NBN is seen as an important tool in evolving our response to the new threats that our biodiversity faces. It is probably too early to say anything about climate change, but invasive species are an already present and increasing threat.

As I have reported previously, early on in the development of the NBN, we were able to work with the late Mike Majerus, with his team in Cambridge, and offer help in monitoring and mapping the spread of the Harlequin Ladybird. The online recording tool,

Indicia, (developed as part of our contribution to the OPAL, Open Air Laboratories, citizen science programme financed by the Big Lottery Fund) allowed us to work with the *Non Native Species Secretariat* through the RISC (Recording Invasive Species Counts) project. Our involvement in the OPAL programme has made us very aware of the potential of the general public as recorders. New partnerships have been forged through this programme which will continue long after the OPAL programme itself closes. The Open University has developed *iSpot* which allows members of the public to submit their observations as photographs and improve their identification skills with the help of expert mentors. The links between the NBN and *iSpot* continue to grow, with *iSpot* now being the top referring site for the NBN Gateway, and some *iSpot* data (Hemiptera) now being submitted to the Gateway. We are developing a major citizen science project in conjunction with local record centres to test further how we can use this huge human resource (but more of this next year) – the RSPB already submits its Big Garden Birdwatch data to the NBN Gateway; over 600,000 participants submitted records this year! The Big Society Agenda is already alive and well as far as biological recording is concerned.



Chief Executive's Report



The challenge is to ensure that LRCs, rapidly becoming major data contributors to the NBN Gateway, can extract direct benefit from the services now available from the NBN.

The Comprehensive Spending Review which took place against the backdrop of severe pressure on the public purse will inevitably affect the NBN and the pace at which it can rise to the challenges that we face. Volunteer recorders, who are the core of the NBN, are clearly resilient. To be the inheritors of over 150 years of quality biological recording speaks volumes. How the reduction in public funds will affect the ability of recorders to rise to the new challenges remains to be seen. The future of the NBN is likely to be strongly influenced by the Government's Natural Environment White Paper, and we will need to reflect on its content to determine how the various components might evolve in the future and how the sustainability of the system can be assured.

In partnership with the Association of Local Environmental Records Centres (ALERC), the NBN Trust has prepared a discussion document on local record centre evolution. The local use of data through local record centres to underpin the planning system is well understood. The challenge is to ensure that LRCs, rapidly becoming major data contributors to the NBN Gateway, can extract direct benefit from the services now available from the NBN. We will work closely with ALERC and others to firm up our thinking and

promote our vision over the next period. Local record centres are a vital part of the NBN. We have recently published an advocacy document which explains the relevant environmental legislation and showcases LRC services using real data search outputs based on the professional standards defined under the [ALERC accreditation system](#). See more about this under the Defra contract information on page 9. Gary Lewis, manager of the Environmental Records Centre for Cornwall and the Isles of Scilly (ERCCIS), and chairman of ALERC has joined the Board of the NBN Trust and will bring his expert knowledge to Board discussions.

Above, I suggested that the NBN had two major domains, users and recorders. This is of course an extremely simplified picture. The NBN is a complex beast, national schemes and societies are both recorders and also users of data, as are public sector agencies, local record centres, environmental consultants or the commercial sector members. The flows of data (and finances) are complex. We have set up a Strategy Implementation Group to coordinate and integrate all this effort and to prioritise the objectives and outputs articulated in the published NBN Strategy. Somehow this complex partnership works and makes significant progress; I cannot help but note that the NBN Gateway now gives access to over 64 million biological records.

One of the presentations at our annual conference reviewed the difficulties of using NBN supplied data in a systematic and statistically robust way; a clear sign of the increasing maturity of the NBN. One of our members, the British Ecological Society set up a panel of ecological scientists under the chairmanship of Professor Tim Blackburn, Director of the Institute of Zoology, ZSL, London. This panel looked critically at the potential scientific use of the NBN and identified strategies for greater uptake. This informative and helpful report, together with the clearer articulation of uses for the NBN coming from public sector funders, sets a challenge for the future. The way forward lies with systematic wide coverage surveillance

and monitoring, and more open access to quality current records. I suspect that we shall have to invest in greater interpretation of the data to give predictive models of distribution – not so much what is there, but what could be there given land management and environmental changes.

Our greatest challenge will be sustainability in a difficult financial climate. Recording and biological recorders have a long history, certainly over 150 years. My team and I take heart from this, we have our first ten years behind us and we have an increasingly clear vision of where the next ten years will take us.

Jim Munford



Technical developments

Developing tools

The main priorities for the year were to develop tools to improve record quality, provide new ways of exploring data geographically, and to assist NBN Gateway data administrators. We have also extended the range of NBN Web Services as part of the release of Version 3.5 of the [NBN Gateway](#) in November 2010 (see the section on Web Services on page 8 for further details).

Outside of this reporting period, but important to note, in May 2011 the NBN launched Record Cleaner – a tool designed to assist individual recorders, and organisations such as local record centres and recording schemes, to check their data against “Rulesets” and spot common problems. This should aid the process of data cleaning and ensure the quality of datasets passed on to others – including the NBN Gateway. “Rulesets” have been developed for birds, vascular plants, butterflies and marine species; these help recorders to check the details of individual records such as species identification, date and location. In addition to the Record Cleaner functionality, there is now also a facility for users to comment on individual records hosted by the NBN Gateway, and to pass these comments on to the data provider.

We have completely redesigned our interactive mapping system, and made this a key part of the updated NBN Gateway (Version 4.0 was released on



4 April 2011). This presented our development team with a series of major technical challenges, and has required the adoption of innovative web-mapping technologies. This single point of access to wildlife information enables users to explore datasets, species, sites and designations. Records can be viewed against a choice of backdrops including BING® aerial photography. The improved mapping tool gives users several different ways of viewing wildlife data, and they can then drill down to see the detail of individual records. It is now possible to visualise the species density of an individual species dataset, and view these against a backdrop of BAP priority habitats or known boundaries such as SSSI or Vice-Counties. This allows easy identification of biodiversity hot spots within a chosen area. We are confident that this mapping tool will lead to increased use of the NBN Gateway and we will be developing this further over the coming year in response to feedback from users.

The NBN Gateway now incorporates information on [species designations](#), enabling users to filter and map all species covered by a designation and also to see all of the designations pertaining to an

The improved mapping tool gives users several different ways of viewing wildlife data, and they can then drill down to see the detail of individual records.”

Technical developments

individual species. The range of BAP priority habitats shown on the NBN Gateway has also been extended (from 12 to 25 layers) also it is now possible to view the attributes of individual habitat polygons.

Data administrators from over 150 organisations have a critical role in making their data accessible via the NBN Gateway, and it is important that they have the tools to make their job as straightforward as possible. Following feedback and suggestions from administrators, we have developed a number of improvements to the NBN Gateway as part of the June 2010 release (Version 3.41). This includes an automated monthly email summary of outstanding data access requests, a requirement for users to be more precise in their access requests, improved tools for managing access requests and efficiently handling comments made through the "record commenting" facility.

The NBN is a major contributor to the Global Biodiversity Information Facility (GBIF). During the year, the Development Team worked closely with GBIF to deliver an automated transfer of information from the NBN Gateway to the [GBIF data portal](#).

MAIN ACHIEVEMENTS

- New versions of the NBN Gateway released
- New interactive mapping tool launched

Growing records

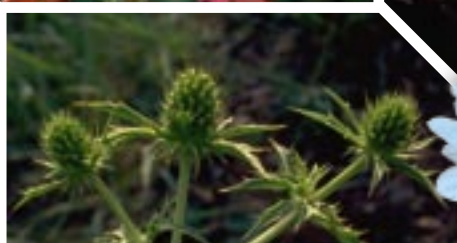
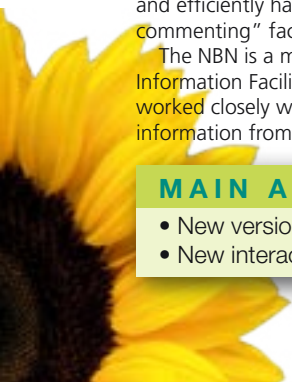
With **79 organisations** contributing 250 new or updated datasets, this year has seen a continued rise in the number of datasets submitted to the NBN Gateway. A third more datasets have been loaded this year compared with the previous year, increasing the number of records on the NBN Gateway by 14 million to 64 million. This increase has resulted in records for an additional 2,500 species, increasing the total number of species with records available through the NBN Gateway to 42,500.

Over the year new datasets have been made available through the NBN Gateway from a range of differing organisations. Royal Society for the Protection of Birds, National Trust, Royal Horticultural Society, John Muir Trust and People's Trust for Endangered Species have all supplied new species datasets. With RSPB increasing its number of datasets by half this year, over 60 of its species datasets have now been made available through the NBN Gateway. National and local schemes and societies have also contributed a number of datasets. Butterfly Conservation submitted 2 million butterfly records collected since 2005, 3/4 million Scottish plant records have been mobilised through the NBN Gateway by the Botanical Society of the British Isles, and Hertfordshire Natural History Society Floral Group contributed 160,000 plant records collected as part of the production of its local atlas. Other societies contributing datasets included the Anthomyiidae Study Group (family of flies), Aquatic Coleoptera Conservation Trust (water beetles), Porcupine Marine Natural History Society, Berkshire Reptile and Amphibian Group and Terrestrial Heteroptera Recording Scheme (shieldbug and allied species). This latter scheme provided records originating from iSpot, which is another Opal project. Read more about OPAL on page 14.

Records for additional species groups were also submitted through the Biological Records Centre (BRC). These included records for Coleoptera (beetles), Cerambycidae (longhorn beetles), Coccinellidae (ladybirds) and Tipuloidea (craneflies). BRC and Butterfly Conservation also submitted 600,000 moth records collected as part of the dataset "Moths – John Heath Lepidoptera recording scheme macro-moth data from BRC". This was the first national Lepidoptera (moth and butterfly) mapping scheme, run for 15 years from 1967. Mobilisation of species records through local record centres has continued this year, increasing the number of records provided directly through LRCs by half to 15 million. In addition, three Wildlife Trusts have provided new datasets and over 10,000 non native species records were submitted by the Norfolk Non-native Species Initiative.

MAIN ACHIEVEMENTS

- 64 million records
- 79 organisations contributing data
- Records from iSpot on the Gateway



Technical developments

Web services

The use of [NBN web services](#) has continued to steadily increase this year with over 30 professional organisations and voluntary recording schemes now using them to view species distribution maps, or data, directly within their own websites or applications. This increase has been supported by further development of the NBN web services, with the addition of new web services, improvement of existing ones and extension of the online web service documentation. The latest release of web services has also incorporated the use of a registration key so that users can be notified of any changes to these services in the future.

This year's development of the NBN web services now provides new ways of exploring the biodiversity information provided through the NBN Gateway. Species density "hot spot" maps for a particular area, or species designation of interest, can be produced from the counts of the number of species recorded in a particular grid square. Spatial querying of protected sites can return details of these protected sites within a particular area of interest, and, following the incorporation of species designation information on the NBN Gateway, species designations can now be included in the species information returned through the taxonomy web service.

Improvement to the online documentation, incorporating examples for the use with .NET programming language, and this year's new developments in NBN web services, provide the



NBN web services have also started to be used within new and expanding technologies as provided through iPhone and iPad applications. BirdGuides, for example, have used records supplied by Butterfly Conservation through the NBN Gateway to produce species distribution maps for an iPad and iPhone application aimed as a guide to moth and butterfly species within Britain and Ireland. This continued improvement and development of NBN web services, in conjunction with their increasing use within existing and developing technologies, enables the NBN to continue to provide an effective and flexible method for the sharing and use of biological records.

MAIN ACHIEVEMENTS

- Increasing use of web services
- Improvement to online documentation
- Used by Pond Conservation's Million Ponds project
- iPad and iPhone applications

NBN web services have also started to be used within new and expanding technologies as provided through iPhone and iPad applications.

necessary information needed for existing and new developers using the NBN web services within their own websites or applications. This year an example of the way NBN web services have been used includes the provision of species distribution maps within the recently developed online atlas of the British and Irish flora, produced by the Botanical Society of the British Isles and the Biological Records Centre. NBN web services have also been used to display the presence of pond-associated Biodiversity Action Plan species in a local area, encouraging the protection of existing and creation of new clean water ponds as part of Pond Conservation's Million Ponds Project.



Defra Contract 2008-2011 Summary of work

March 2011 saw the conclusion of the latest tranche of funding from Defra. The contract ran from 2008 providing funding for a range of projects across three operational themes. It provided the finance to pay for some key members of staff and funding to a whole range of partner organisations, large and small.

Developing and extending use

Work in this area has included contributions from many partner organisations. Over the past three years we have made the shift towards the promotion of operational use in several key areas.

Work with Natural England is paving the way for data from the NBN Gateway and partnership to be incorporated into the process for assessing grant applications from farmers to support better biodiversity management.

This work has highlighted the need for us to identify strategically important datasets and allocate the necessary resources to secure their availability from our volunteer organisation partners. In addition it has allowed us to dip our toe into the world of interpreted information in the shape of modelled species to habitat associations.

The incorporation of biodiversity information from the NBN into operational processes carried out by Government agencies allows us to demonstrate the effectiveness of our own infrastructure, and the value of the information gathered by the organisations which make up the National Biodiversity Network.

On a similar theme, the planning screening work, which has been taken forward by Greenspace Information for Greater London (GiGL) and Natural England, provides us with the opportunity to engage with those who make development decisions.

That work has shown us that whilst we may have the technical infrastructure and data sources in place to help influence decisions, political and cultural issues around how long the assessment process is allowed to take, and the availability of staff with the appropriate skills, can hamper the decision making process disproportionately. We need to learn from the work so far to identify where best in the planning process our information products can be deployed to influence the decision makers without reducing their efficacy.

Supporting data provision

The contract has allowed us to support data providers in various ways over the past three years. We have had data capture and flow

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contracts with partners including RSPB, British Trust for Ornithology, Marlin, Botanical Society of the British Isles, British Lichen Society and Butterfly Conservation. Through these we have added to the availability of records and learned some valuable lessons around quality and data flow.

Whilst increasing the availability of data is important, a significant proportion of this theme's focus has been the maintenance and development of the NBN Gateway. Over the past year, we have been lucky enough to have our strongest team of developers and support staff working at CEH Lancaster and JNCC. Development highlights include a mid-year release of the Gateway, and work towards the completion of a new interactive mapping interface and record cleaning toolset (all mentioned on page 6).

Engagement with the wider public

A significant achievement of the past three years has been our involvement with the Non Native Species Secretariat and the development of the Recording Invasive Species Counts (RISC) project.

MAIN ACHIEVEMENTS

- Engagement with development decision makers
- Important data capture and data flow contracts
- Key LRC projects
- Significant development of the NBN Gateway
- Engagement with the public and media



The map shows where local work took place:

1. Yorkshire and Humber Environmental Data Network
2. The Wildlife Information Centre
3. Cumbria Biodiversity Data Centre
4. Greater Manchester Local Record Centre
5. Lancashire Environment Record Network
6. Merseyside BioBank
7. RECORD
8. Local Record Centres in South East England

North West Pilot Project

Local record centres play a key role in the NBN, working closely with local data providers to capture and deliver up-to-date information on species, habitats and sites. This highly localised and detailed information, particularly with regard to protected species and designated sites, is of direct relevance to planning and land management. It supports local BAP partnerships and is essential for Local Authorities and public bodies to fulfil their statutory duties in relation to biodiversity conservation.

Nevertheless, awareness of LRC services and of the need to consult biodiversity data is low in some Local Authorities and regional public sector organisations. LRCs spend a substantial amount of time supporting the volunteer recording community and working with

“**One of the outcomes of this project was an interactive advocacy document aimed at biodiversity data users in the public sector.**”

local experts to validate and verify county datasets. Consequently, many LRCs lack the time and resources to market their services to current and potential data users. This is a cause for concern because LRCs are run on a not-for-profit basis and rely on income from data provision services to fund their operating costs. Furthermore, information held by LRCs is not being used consistently to inform local and regional plans and development control decisions.

In 2010-11, the NBN Trust worked with local record centres in North West England on a project funded through the Defra contract to advocate the role of LRCs and demonstrate the value of their services to existing and new data users in the region.

One of the outcomes of this project was an interactive advocacy document aimed at biodiversity data users in the public sector. It explains the relevant environmental legislation and showcases LRC services using real data search outputs based on the national



and support local volunteers enables them to deliver highly cost-effective ecological and geological data services while helping to achieve Big Society objectives.

The document has been publicised via the [NBN website](#) and [ALERC public forum](#) and is already being used by the North West local record centres to promote their services. As an editable pdf document, it can be updated as required and adapted for different audiences.

This project formed part of the North West Pilot, a collaborative venture between the NBN Trust, Natural England and the five LRCs in North West England: Cumbria Biodiversity Data Centre, Greater Manchester Local Record Centre, Lancashire Environment Record Network, Merseyside BioBank and RECORD, the Biological Records Centre serving Cheshire, Halton, Warrington and Wirral. The North West Pilot also incorporated projects to increase data capture from ecological consultants,

professional standards for LRC services defined in the ALERC accreditation system.

Using real case studies and quotes from local people, the document illustrates the wider socio-economic benefits provided by local record centres. It demonstrates that LRCs' capacity to engage

to encourage volunteer recorders to monitor Local Wildlife Sites and to improve the efficiency of data submission to LRCs. These complementary projects were successfully completed under the leadership of Natural England with support from the Defra Fund for Innovation in Local Biodiversity Recording.





Local record centre led data provider training

Under the theme of 'meeting the needs of data providers', the Defra contract provided funding to help local record centres to deliver training and support to data providers in their region. Within each region, the network of local record centres worked together to identify how the funding should be used most effectively to compliment their existing training programmes.

The overall aim of the training fund was to improve the capture and mobilisation of high quality data. With this remit, groups of local record centres collaborated to organise and deliver a wide variety of training events; some convened conferences and workshops to identify and address barriers to data flow, others produced guidance material to encourage and facilitate data mobilisation; some delivered training on survey methodologies and species identification for under-recorded taxa, while several focussed on increasing the use of biological recording software and online recording.

The data provider training fund not only increased data capture by LRCs from recorders in both the voluntary and commercial sector,

Participants in species identification and data mobilisation workshops organised by The Wildlife Information Centre in partnership with four other local record centres and centres for biological recording throughout Scotland.



it also improved the recording community's understanding of the NBN and the Gateway, raised the profile of the NBN as a partnership and provided a valuable opportunity for local record centre staff, volunteers and recorders to get together to discuss issues, learn new skills and make new contacts. All agreed that the training was beneficial and they would welcome the opportunity to run similar events in future.



"The workshop leader was excellent at communicating the information in an understandable and enjoyable way."

Participant in Dragonfly recording workshop

"This was a most worthwhile and helpful course and probably the best one I have ever been on."

Participant in Harvestman recording workshop

"The other thing that made the workshop extremely useful was to meet like-minded souls. This 'networking opportunity' has already resulted in me being in contact with two other attendees to meet up and hunt for dragonflies together later this year."

Participant in Dragonfly recording workshop



The 'Life Cycle of LRC data' from online guidance developed by local record centres in South East England to encourage and facilitate data sharing by ecological consultants.



Data quality and data flow

The Defra fund enabled the NBN Trust to award contracts to the Botanical Society of the British Isles (BSBI), British Trust for Ornithology (BTO), the Marine Biological Association (MBA) and Butterfly Conservation to develop verification rules for NBN Record Cleaner. These rules were developed using the national recording schemes' extensive datasets, expert knowledge and input from county recorders. They provide baseline data on the temporal and spatial distribution of species, against which new records can be checked. They also classify species according to the level of expertise required to make an identification, enabling Record Cleaner to highlight records of the more inherently 'difficult' species. The verification rules are available to download from the NBN website along with the Record Cleaner tool and reports produced by BSBI, BTO, the MBA and Butterfly Conservation on the preferred processes of verification, validation and data flow.

Significant progress has been made on the mobilisation of lichen data by the British Lichen Society under the Defra contract, with supplementary funding provided by Natural England, the Countryside Council for Wales, the Welsh Biodiversity Partnership and the Environment Agency. A series of data digitisation and database consolidation projects have been successfully completed, increasing the number of lichen records available to data users in the UK and around the world, improving the detail and quality of lichen data to

maximise their usefulness in supporting decision-making, research and education, and improving our understanding of trends in the distribution and status of lichens.

As a result of this work, 790,000 lichen records are currently available on the NBN Gateway and the Global Biodiversity Information Facility (GBIF) with another 750,000 due to be uploaded soon. The Threatened Lichens Database comprising 35,000 records of our rarest species is now available to Natural England, Countryside Council for Wales and the Environment Agency at full resolution. Lichen data supplied by the British Lichen Society has supported a wide range of research projects and investigations, including:

- Joint Nature Conservation Committee / Open University Nitrogen project
- Centre for Ecology & Hydrology / Leeds University biodiversity upscaling project
- Natural England English Lichen List
- Natural England Wood Pasture and Parkland inventory project
- Natural England, Farming & Wildlife Advisory Group and others for Higher Level Stewardship and Site management planning
- Consultancies re planning applications (including the Olympics)
- Local wildlife trusts and others for BAP/HAP planning
- University of East Anglia project on the Norfolk Broads
- AEA Technology Ltd / Scotland & Northern Ireland Forum for Environmental Research air pollutants project



Nick Moran, BTO BirdTrack Organiser, demonstrating BirdTrack to local ornithologists at a recording day organised by the Yorkshire and Humber Environmental Data Network in partnership with the Yorkshire Naturalists' Union.

- Distribution maps for books including Dobson's Lichens of Britain and Ireland, The Lichen Identifier, and a New Naturalist, all in preparation
- Student projects

Further Engagement

The final theme under the Defra contract sought to enable engagement with the wider public, with three specific requirements:

- Support the greater involvement of the general public in biodiversity recording
- Develop a new generation of biological recorders
- Increase the use of online data entry and photographic verification, piloted by the Harlequin Ladybird Project





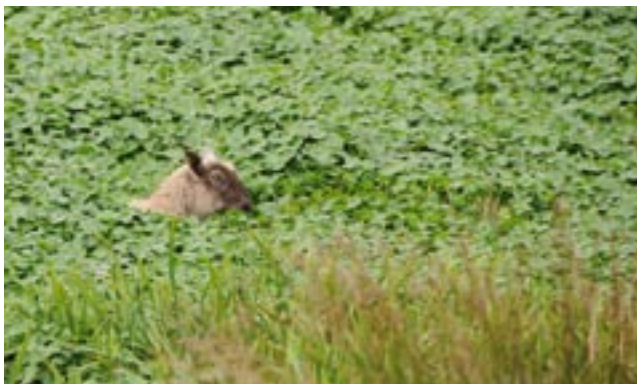
Recording Invasive Species Counts (RISC)

From the outset, the RISC project had several aims:

- To encourage the public to record a selection of (initially 6) invasive non-native species
- To build on the success of the Harlequin Ladybird Survey, which has been successful primarily due to the involvement of the public
- To run this outreach project in tandem with the [GB Non Native Species Information Portal](#) in order to encourage greater public engagement with invasive non-native species over time
- To involve national societies & schemes in the project to ensure the verification of records and their capability for handling the data
- To utilise online recording (ultimately leading to the use of Indicia)
- To increase non-native species data to the NBN Gateway

The project, which is jointly managed by the NBN, Biological Records Centre at the Centre for Ecology and Hydrology, Anglia Ruskin University and the GB Non-Native Species Secretariat launched on 22nd March 2010 at the Linnean Society of London. The project caught the imagination of the media with some excellent coverage in the press and on TV and radio, including The Guardian, Daily Mail, BBC Countryfile.

The project had a mini re-launch in August 2010 with the addition of four more species. There will be a further re-launch later in 2011 when 4 more species will be officially added into the project.



The fourteen species now included in the project are:

- Water primrose *Ludwigia grandiflora*
- Muntjac deer *Muntiacus reevesi*
- American skunk cabbage *Lysichiton americanus*
- Chinese mitten crab *Eriocheir sinensis*
- Zebra mussel *Dreissena polymorpha*
- Tree of heaven *Ailanthus altissima*
- American bullfrog *Lithobates catesbeianus*
- Water fern *Azolla filiculoides*
- Floating pennywort *Hydrocotyle ranunculoides*
- Citrus longhorn beetle *Anoplophora chinensis*
- Southern green shieldbug *Nezara viridula*
- Wakame *Undaria pinnatifida*
- Western conifer seed bug *Leptoglossus occidentalis*
- Rhododendron leafhopper *Graphocephala fennahi*

A key aspect of RISC has been to involve national societies and recording schemes in the project and establish with them the suitability of the chosen species: The People's Trust for Endangered Species, the Mammal Society, the Marine Biological Association, the Conchological Society, the Botanical Society of the British Isles, The Food and Environment Research Agency, Amphibian and Reptile Conservation, the

A key aspect of RISC has been to involve national societies and recording schemes in the project and establish with them the suitability of the chosen species

Auchenorrhyncha Recording Scheme and Terrestrial Heteroptera Recording Scheme are all pivotal to the success of the project. One of the concerns with publicly gathered data is the reliability of the records. In the case of RISC, and in order to ensure that high quality records appear on the NBN Gateway, recorders are asked to upload a photograph of their sighting, which is then checked and verified by the relevant society.

The project also utilises Indicia (being developed through OPAL) for the online recording aspect and all of the information is housed on the [Non-Native Species Secretariat website](#). On the site there is a wealth of supporting material available for the target species including a link to the NBN Gateway for a distribution map and aids for identification and photographs.

It is hoped that this sort of engagement with the public is an area that can be further developed in the future and it is likely that more species will be added to RISC in the long term.



Contracts

The Darwin Guide to Recording Wildlife

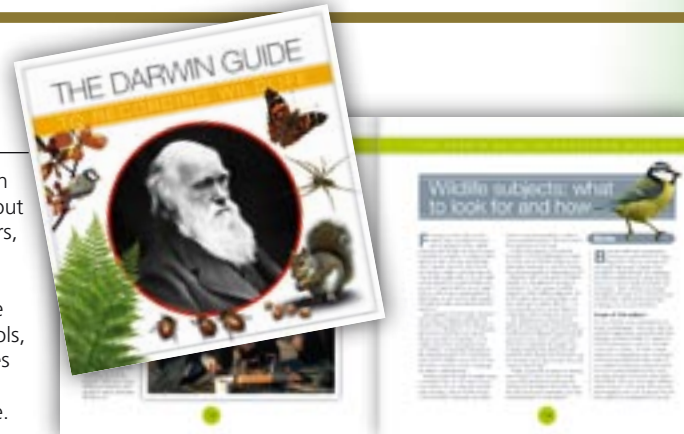
The production of The Darwin Guide to Recording Wildlife, through the Defra contract, aimed to stimulate interest and specifically set out to encourage those with an interest in wildlife, especially youngsters, to get more actively involved.

We reported more fully on the Guide in last year's Report, but interest in the Guide has continued throughout 2010-2011 and we have so far sent out just under 2,500 copies to UK secondary schools, colleges, Wildlife Trusts, The Field Studies Council, national schemes and societies, local record centres and individuals.

The [Guide](#) can be downloaded or ordered from the NBN website.

What next?

We have recently opened discussions with our colleagues in Defra to establish an outline work plan for the next package of funding. The priorities will be derived from the NBN Strategic plan and the requirements identified in the Natural Environment White Paper. In addition, we continue to explore funding opportunities in Scotland, Wales and Northern Ireland.



OPAL

The [OPAL \(Open Air Laboratories\) project](#), funded by the Big Lottery Fund, has been reported on in previous years and is now entering its fourth year.

In 2010 – 2011 we saw Indicia, developed by the NBN as part of its contribution to this programme, being utilised by more organisations for their online recording projects. Perhaps most notably the [BBC 'Breathing Places' website](#) and the [Recording Invasive Species Counts \(RISC\) website](#), both of which are aimed at engaging the broader public in reporting wildlife, have used this new tool. [Nature Spot](#), the website for the wildlife and nature of Leicestershire and Rutland, is the newest user of Indicia.

Also, the NBN Gateway is now capable of holding and reporting on species data that may be supplied by OPAL partners, and is also capable of reporting, including via using web services, on site-related habitats held on the Gateway.

In the coming year we will promote the uptake of NBN web services by working closely with selected key users of these, and by developing and demonstrating further model applications.

Another key objective was to develop and launch the new interactive mapping tool which makes habitat data available, which as mentioned on page 6, happened early into the new financial year.

MAIN ACHIEVEMENTS

- Use of Indicia
- Launch of new interactive mapping tool, which makes habitat data available



“Developing our online recording system using Indicia will put the Dragonfly Recording Network at the forefront of biological recording schemes. Using the building blocks of Indicia enabled us to produce our system of choice in a very short time and on a far smaller budget than if we had developed the system independently.”

Stephen Prentice, Dragonflies in Focus Officer,
British Dragonfly Society

Communications

Communications will become an even more important part of our work in the coming year. With changes taking place, as a result of the comprehensive spending review, it has been an uncertain time for many organisations, and this is true of our communications in terms of knowing how best to communicate, what to communicate and who to communicate with. We have therefore taken a general approach to communicating with all our partners, but this is something we should target more strategically to each of our audiences in the future.

Arising from our own financial review and with a view to making savings, in Spring 2010 we made some significant changes to our publications and moved away from quarterly printed newsletters to a monthly eNews. There was apprehension about this to begin with and it is still difficult to establish whether printed or e-communications are preferred, but what the eNews does show is the rise in visits to the NBN website immediately after an eNews is sent out. It also allows us to communicate more frequently and with more current news.



Our Annual Report was produced in electronic format only for the first time last year. Again, it is hard to know whether this is well-liked or not, but we have received no negative feedback and what we can be sure of is that it is not sitting unread in an in-tray or on a shelf or unopened in an envelope on someone's desk.

One document that we did believe should be produced as a hardcopy was "A Strategy for the National Biodiversity Network:



2010-2020", which defines our key objectives and activities for the next ten years. This was not done in isolation by the Trust, but by consulting with representatives across our partners and partner organisations. It will be vital for ongoing consultation and communication to continue as we strive to meet the objectives laid out in the strategy.

As well as the strategy, we launched our new membership scheme in Summer last year. We wanted to create a scheme which would appeal to a broad membership and offer something for everyone. Supporter level for instance offers 100% discounted membership for those individuals and organisations that supply and maintain their data through the NBN Gateway. Silver level membership is aimed at larger voluntary and commercial organisations. Gold level is aimed



It will be vital for ongoing consultation and communication to continue as we strive to meet the objectives laid out in the strategy.

at corporate organisations, and offers benefits such as in house training and support as well as opportunities for input to the strategic direction of the Trust.

Our major event of the year was the Tenth NBN Conference "Opening opportunities for biodiversity - working with the NBN". Held for the first time at The Royal Society, the conference saw us celebrate our tenth anniversary and acknowledge the 50 millionth record, *Mompha ochraceella* (Buff Cosmet) to be uploaded to the NBN Gateway. The annual Sir John Burnett memorial lecture was delivered by Dr Andy Clements of the British Trust for Ornithology.

The NBN was pleased to be a partner in the International Year of Biodiversity in 2010, with the launch of RISC (see page 13) being a significant event for the year. We continue to promote and support International Day for Biological Diversity on 22nd May each year.

Finally, we will be making much greater use of social media in the future. We have demonstrations of Gateway mapping on You Tube and will be doing far more tweeting from now on, so make sure you follow us @NBNTTrust and "like" us on Facebook!



MAIN ACHIEVEMENTS

- Complete change to mode of communication
- Publication of ten year strategy
- Launch of new membership scheme
- Ten year anniversary

People

In these changing times, the NBN Trust has seen probably the most changes to its personnel in recent years.

In August 2010 Paula Lightfoot joined as Data Access Officer, a role previously filled by Oliver Grafton. Paula's experience working as a Local Authority Biodiversity Officer, local record centre employee and Wildlife Trust Project Officer has already proved invaluable in her defining and shaping the role as her own. As an active recorder herself, she is able to understand the issues and concerns faced by other partners in the recording community.

Also in August, Chris Johnson joined the team as OPAL developer. Specifically, Chris is developing web-based databases and applications, focusing on geographic data on habitats and species. He has also been involved in the development of the new mapping functionality now available on the Gateway.

In the last year, there have been some significant changes within the NBN Trust Secretariat. One of the major changes was the departure of Jo Purdy, who left her role as Company Secretary in September 2010, after 11 years with the Trust. Jo was instrumental in setting up the administrative and financial functions of the Trust, as well as, latterly, the re-design of the NBN website and membership scheme. On Jo's departure, Kathryn McAuley took on the financial side of Trust business in addition to her role as Events Officer, but Kathryn also moved on from the Trust, in January 2011.

Sarah Hyslop joined the team as Business Administrator in April



Paula Lightfoot



Chris Johnson



Sarah Hyslop

2011, so we look forward to Sarah making this role her own in the coming months as she becomes the main contact for all financial and administrative matters.

Our latest Honorary Membership was awarded to Derek Lott in September 2010*.

Always a staunch supporter of the NBN and its concept, Derek's Coleoptera datasets are available on the NBN Gateway. This award was a popular choice and unanimously approved by the Board of Trustees.

Changes to staff can undoubtedly create periods of uncertainty. These sort of changes can however, often be for the good as new initiatives are introduced and original ideas put forward; the Trust will always embrace creativity and inventiveness, so we look forward to our new staff making their own marks on the future of the NBN.

MAIN ACHIEVEMENTS

- Honorary membership award
- Service maintained through significant personnel changes

**We are sorry to note the sad passing of Derek Lott in June 2011*

Financial Review

The accounts have been prepared under the historical cost convention and in accordance with the Financial Standard for Smaller Entities (effective April 2008) and Charities SORP 2005.

Member and associated organisations provide most of the services for the Trust's activities. Each year, for the purposes of these accounts, every support organisation produces a schedule of costs incurred in carrying out these services. These services are costed by the support organisation on the basis of an equitable sharing of its costs, or, where such figures are not readily available, at standard charge-out rates. These figures are shown as intangible income under "Donated services and facilities" (see note 10). We received intangible income, mainly in the form of staff resources and associated costs expended on NBN projects. The intangible income figures also include work undertaken by partners that have been funded by Defra through BioD Services Ltd (see below).

Reserves policy

The Board of Trustees, through its Finance and Management Committee (FMC), has established a policy whereby a 'free reserve' of £100,000 is maintained. At this level, the FMC of the National Biodiversity Network Trust considers that it would be able to continue the current activities of the charity should there be a significant drop in funding or loss of in kind contributions as identified by the risk register (see below). The reserves are currently held in a Charities Aid Foundation (CAF) Gold investment account with instant access.

Risk register

The 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.

National Biodiversity Network Trust

Statement of Financial Activities (incorporating the Income and Expenditure Account) for the year to 31 March 2011

	Notes	2011 Unrestricted Funds £	2010 Unrestricted Funds £
Incoming Resources:			
Subscriptions		168980	176150
Donations and grants		67277	129582
Miscellaneous income		3160	1841
Interest received		279	290
Donated Services and Facilities	(10)	3178473	2077731
Total Incoming Resources		3418169	2385594
Resources Expended:			
Costs of generating funds	(1)	-0	-0
Charitable Expenditure:			
Cost of activities in furtherance of the charity's objects	(2)	3311877	2249674
Management and administration	(3)	97872	132892
Total Resources Expended		3409749	2382566
Net incoming resources for the year		8420	3028
Balance at 1 April 2010		149455	146427
Balance at 31 March 2011		157875	149455

Balance Sheet as at 31 March 2011

	Notes	2011 £	2010 £
Fixed Assets:			
Tangible Assets	(4)	-0	-0
Current Assets:			
Debtors and prepayments	(5)	33596	27506
Cash at bank and in hand		167335	210015
		200931	237521
Creditors:			
Amounts falling due within one year	(6)	43056	88066
Net Current Assets		157875	149455
Capital and Reserves:			
General Fund		157875	149455

Notes

	2011 £	2010 £
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1. Costs of Generating Funds

Staff costs	-0	-0
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2. Cost of activities in furtherance of The Charity's Objects

Staff costs (see note 10)	3178473	2077731
Project Staff Costs	75242	83067
Web site development	1252	5949
Promotional materials	3106	1520
Opal Project costs	53804	81407
Total	3311877	2249674

3. Management and Administration

Staff costs	44085	55357
Insurance	1078	982
Printing, postage and stationery	4620	24752
Secretariat office expenses	14396	8790
Meeting and conference expenses	11503	12383
Legal and Consultancy fees	13886	22032
Accountancy	3462	2232
Training Costs	-0	945
Sundry	1373	501
Travelling expenses	2766	3509
Trustees travel and subsistence	703	1409
Total	97872	132892

	2011 £	2010 £
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4. Tangible Fixed Assets *Software*

Cost: At 1 April 2010		1107
Additions		-0
At 31 March 2011	1107	

Depreciation: At 1 April 2010		1107
Charge for year		-0
At 31 March 2011	1107	

Net Book Values: At 31 March 2010		-0
At 31 March 2011	-0	

5. Debtors and Prepayments

Trade Debtors	30790	25127
Prepayments	2806	2379
Total	33596	27506

6. Creditors: Amounts falling due within one year

Trade Creditors	4581	34673
Other Creditors	38475	53393
Total	43056	88066

7. Called up Share Capital

The company is limited by guarantee.		
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	2011 £	2010 £
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8. Payments to Trustees for Expenses

Four trustees were reimbursed for their travel and subsistence expenditure in the year. This is referred to in Management and Administration Note (3).

No trustee received any salary during the year.

Trustees travel and subsistence expenses reimbursed.	703	1409
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9. Transactions with Members and Associated Organisations

The Trust has been billed by some of its members for various services supplied as follows:

Consultant Services

Staff Costs and Overheads	13886	15541
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Natural England

Staff Costs	-0	27548
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Natural Environment Research Council/ Centre for Ecology and Hydrology

Staff Costs and Overheads	53804	81407
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Joint Nature Conservation Committee

Staff Costs and Overheads	51981	39697
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Scottish Natural Heritage

Staff Costs	25500	15000
Total	145171	179193

Notes

	2011 £	2010 £
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10. The Trust received donated services and facilities, mainly in the form of staff, contributing to Trust objectives. The member organisations provided services costed by themselves, using criteria provided by Trustees as follows:

	2011 £	2010 £
Environment Agency	6862	18830
Natural History Museum	77519	32060
Royal Society for the Protection of Birds	-0	71072
Scottish Natural Heritage	163043	163043
Countryside Council for Wales	162830	256875
Joint Nature Conservation Committee	909000	97000
Centre for Ecology and Hydrology	468653	446109
Natural England	1131000	703036
Department of Environment, Food and Rural Affairs	-0	80000
British Trust for Ornithology	4500	-0
Department of Environment, Food and Rural Affairs with BioD Services	203566	160500
Marine Biological Association	51500	46500
British Lichen Society	-0	2156
Greenspace Information for Greater London	-0	550
Total	3178473	2077731

BioD Services Ltd

BioD Services Ltd was set up to help the 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. BioD Services Ltd will be donating over £25,218 to the charity from this year's profits, which will be used by the Trust to buy extra services to advance the work of the charity.

The fees billed are mainly attributable to the one principal activity

of the company and consist of invoiced sales of services to Defra. BioD Services Ltd also sells Ordnance Survey map tiles for use in Recorder, the data entry and exchange tool, on behalf of the NBN Trust. The financial information below shows the total income against expenditure.

More detailed financial statements are available for either the NBN Trust accounts or BioD Services Ltd. Please contact the NBN Trust's Business Administrator on 0115 959 6433 for your copy.

Detailed Trading and Profit and Loss Account for the year ended 31 March 2011

	2011 £	2010 £
Fees billed and project contribution	174866	202000

Less Project Costs:

Gateway	25000	49678
Staff Salary	58757	48920
General Sub Contract Work	19266	23055
Total	140480	121653
Surplus on Projects	34386	80347

Profit on OS Map tile UK CD sets

Sales	121	164
Less Cost of Sales	43	48
Total	78	116

	2011 £	2010 £
Other Income		
Bank Interest	33	32
Total	34497	80495

Less Overheads:

Website costs (Defra requirements)	628	4318
Postage, Stationery and Printing	2599	478
Travel and subsistence	2232	13676
Meeting Expenses	-0	2400
Accountancy	945	900
Legal and professional	60	45
Bank charges	128	289
Sundry	1223	1247
Depreciation	2220	2373
Total	10035	25726

Surplus for the year	24462	54769
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Administrative Information

The National Biodiversity Network Trust is a charitable company limited by guarantee, incorporated on 3rd April 2000 and registered as a charity on 25th August 2000.

The company was set up under a Memorandum of Association, which established the objectives and powers of the charitable company and is governed under its Articles of Association. Under those articles, one third of the members of the Board of Trustees must retire at the AGM and may be re-appointed. The Board of Trustees is made up of fourteen people nominated from each member organisation. They meet three times a year and their AGM is in July. No Trustee may serve more than ten years in office in total without the approval of the members given by ordinary resolution.

Directors/Trustees

for the year ended 31st March 2011

Sir Neil Chalmers *Chairman*

Andrew Wood *Treasurer*

Mark Bailey

Dr Peter Carey

Dr Mark Diamond

Paul Harding MBE

Gary Lewis - co-opted February 2011

Hugh Lucas

Alan McKirdy

Dr David Parker – resigned May 2010

Martin Parkinson- co-opted Nov 2010

Dr Anne Powell OBE

Paul Rose - co-opted July 2010

Adam Rowe – resigned February 2011

Professor Philip Rainbow

Dr Johannes Vogel

Dr Barry Wyatt



NBN Trust

NBN Trust
3-5 High Pavement
Lace Market
Nottingham
NG1 1HF



Other information

Chairman: Sir Neil Chalmers

Chief Executive: Dr James Munford

Company Secretary: Dr James Munford

Registered Office: 3-5 High Pavement
Lace Market
Nottingham
NG1 1HF

Charity Number: 1082163

Company Number: 3963387

Auditors: Barker Maule & Co.
27 & 33 Castle Gate
Newark
Nottinghamshire
NG24 1BA

Bankers: NatWest
51 Market Place
Long Eaton
Nottinghamshire
NG10 1JP

Solicitors: Manches LLP
9400 Garsington Road
Oxford Business Park
Oxford
OX4 2HN

For more information on the National Biodiversity Network and to search the NBN Gateway visit:
www.nbn.org.uk

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NBN Trust