

**GBIF Regional Nodes**  
**Preparatory Survey for the**  
**6th European Nodes Meeting**

edited by André Heughebaert

## **Introduction**

### ***Purpose***

This survey is a preparatory exercise for the 6th European Node Meeting, April 8-10, Brussels. The questionnaire contains 10 questions grouped in two scopes: **Node** and **Europe**.

### ***Audience***

Nodes managers from National Nodes or other Participants based in Europe.

### ***Guidance***

This survey is an opportunity for you to describe your Node current status and activities. Please answer with free text. References to existing documents or web pages are strongly encouraged.

### ***Process***

Please send your input before March 19th to André Heughebaert ([aheugheb@ulb.ac.be](mailto:aheugheb@ulb.ac.be)). All answers will be published on GBIF Community Site. A compilation of all the answers will be presented as an introduction to the European nodes meeting.

# Questionnaire

## **Part 1: Your Node**

- Q1: What is your Node Strategy?
- Q2: What are the top 3 projects you are working on?
- Q3: What level of engagement have you made with your funders?
- Q4: What are the strengths & weaknesses of your Node?
- Q5: What are your partners & competitors?

## **Part 2: European scope**

- Q6: What are the top 3 broader projects or initiatives you are involved in?
- Q7: What can you offer to other European Nodes?
- Q8: Do you have concrete collaborations with other GBIF Nodes?
- Q9: Who are the key Biodiversity actors in Europe?
- Q10: What should/could we achieve together in Europe?

## **Participation**

The questionnaire was sent to 22 national nodes and 13 associated participants in March 2014. Some 16 countries took the survey: [Andorra](#), [Belgium](#), [Denmark](#), [Finland](#), [France](#), [Germany](#), [Ireland](#), [Luxembourg](#), [Netherlands](#), [Norway](#), [Poland](#), [Portugal](#), [Spain](#), [Sweden](#), [Switzerland](#) and [United Kingdom](#); 6 countries did not participate: Austria, Estonia, Iceland, Israël, Slovakia and Slovenia. None of the associated participants took the survey: BGCI, Biodiversity Int'l, CETAF, Diversitas, EEA, ETI, ILTER, NORDGEN, SCAR, SMEBD, SP-2000, UNEP-WCMC and Wildscreen.

## **Andorra**

### **Q1: What is your Node Strategy?**

The year 2014 and 2015 Andorran don't have a budget destinate for develop specific projects for the GBIF. We estimate to increase the database of GBIF this year and the followings.

### **Q2: What are the top 3 projects you are working on?**

We work on different projects related to GBIF in order to improve the GBIF database. The most relevant are:

- Last February our Institution presented the book «little mammals and bats of Andorra». The next step is adding occurrences the book at GBIF database.
- Every year CENMA coordinates the project "Butterfly Monitoring Scheme of Andorra". Since 2004, we collected a lot of data for preparing the database for butterflies.
- Next year we will work on the new birds atlas of Europe, therefore we collect regional data.

### **Q3: What level of engagement have you made with your funders?**

We don't have any funders. We only received the budget by the Andorran government.

### **Q4: What are the current strengths & weaknesses of your Node?**

We highlight the strength that Andorra is a little country and therefore it is easy to evaluated most of the biodiversity data and connect to most of data producers (entities, researchers, etc.). The most important weakness is that we do not have budget destination exclusive for GBIF node.

### **Q5: What are your partners & competitors?**

We do not have competitors. The partners are other government departments, independent researchers, and foreign research institutions.

### **Q6: What are the top 3 broader projects or initiatives you are involved in?**

We participate in some European projects related to the collection of biodiversity data: for eg. Bufferfly Monitoring Scheme or European Bird Breeding Areas (Atlas).

### **Q7: What can you offer to other European Nodes?**

We can explain our project and our case, and we can exchange some data.

### **Q8: Do you have concrete collaborations with other GBIF Nodes?**

Initially GBIF-Spain helped to start editing datasets of GBIF Andorra (2011). Another year (2012) we could participate the course "Calidad de datos sobre biodiversidad" that it was organized for the Node GBIF-Spain.

### **Q9: Who are the key Biodiversity actors in Europe?**

Big one Institutions like IUCN, GBIF, etc. and moreover the government to support the numerous local initiatives.

### **Q10: What should/could we achieve together in Europe?**

We could increases the databases and above all improve the systems to manage the data. For us will be very important to develop the NPT project.

Marta Domènech (Institut d'Estudis Andorrans)

## Belgium

### Q1: What is your Node Strategy?

Our strategic goals are translated into the following set of operational objectives, related to three work areas:

Area 1: Strengthen biodiversity e-infrastructures

- Objective 1: Foster and support the publication, accessibility, and use of biodiversity data through appropriate means.
- Objective 2: Promote and contribute to the development and application of internationally accepted standards and infrastructures for the exchange and use of biodiversity information.

Area 2: Foster biodiversity research

- Objective 3: Foster inter- and trans-disciplinary research by encouraging communication and discussion amongst scientists, and between scientists, policy makers and other stakeholders, through the animation of Communities of Practice in topical areas in biodiversity research.
- Objective 4: Inventorize and analyse biodiversity related research and resources on topical issues in Belgium.

Area 3: Improve biodiversity science-policy Interaction

- Objective 5: Interface between the Belgian biodiversity research community and relevant national and international scientific, policy and science-policy organisations and initiatives.
- Objective 6: Promote the engagement of Belgian experts in scientific and technical support activities of biodiversity-related conventions and initiatives.

### Q2: What are the top 3 projects you are working on?

- [5th DigitCall](#)
- [AlienAlert](#)
- [Belgian Ecosystem Services \(BEES\)](#)

### Q3: What level of engagement have you made with your funders?

We are a Belgian Federal Science Policy Office (BelSPO) initiative that works in cooperation with Belgian federated authorities. BelSPO manages the Platform.

### Q4: What are the current strengths & weaknesses of your Node?

Strengths: Belgian Node is well established with long collaborations with key biodiversity institutions. The Belgian Biodiversity Platform offers a wider scope of activity: Data publishing, science-policy interface, animation of Communities of Practice, links to IPBES, BiodivERSA,...

Weakness: Our distributed structure and erratic contracts.

### Q5: What are your partners & competitors?

Our main partners are:

- Federal Institutions: RBINS & RMCA
- Regional administrations dealing with biodiversity: INBO & DEMNA
- Universities
- Flemish institutes: Meise (National) Botanical Garden & VLIZ (EurOBIS)

As we occupy a specific niche in Belgium, we do not have explicit competitors, though coordination of activities may be needed with regional/federated entities.

### Q6: What are the top 3 broader projects or initiatives you are involved in?

- [Bio-GR](#), protected species within the Great Region
- Benelux cooperation on Invasive Alien Species
- [Biodiversity Knowledge](#)
- [BiodivERSA](#)

### Q7: What can you offer to other European Nodes?

IT support/helpdesk support on GIS, Databases, Web2.0

**Q8: Do you have concrete collaborations with other GBIF Nodes?**

Mentoring with Mauritania and Togo

**Q9: Who are the key Biodiversity actors in Europe?**

LifeWatch, European Environment Agency, EU-BON

**Q10 : What should/could we achieve together in Europe?**

Demonstrate GBIF benefits through a Regional+topical portal using GBIF new webservices, eg on Invasive Alien Species.

André Heughebaert (Belgian Biodiversity Platform)

## Denmark

### Q1: What is your Node Strategy?

Its currently in Danish. We have three strategic goals / pillars for our work:

1. International: Handles Denmark's participation in the international GBIF community
2. National: Is centrally located in the "engine room" of Danish biodiversity informatics
  1. Brings together all data on biodiversity housed in Denmark, on both global and national occurrences
  2. Provides access (through IPT-installation) to occurrence data for all who wish to use them
  3. Is a resource that brings together and makes visible knowledge about biodiversity
3. Coordinates the Danish national consensus species list allearter.dk - the standard for both science and public authorities

These goals are the foundation of our core business & associated activities:

1. Mobilise biodiversity data housed in Denmark and publish for search through the GBIF portal,
  - a) currently with emphasis on data concerning Danish species
  - b) Assist data owners to prepare and disseminate data in GBIF
  - c) Process and update existing data sets
  - d) Identify and acquire 'hidden' data sets
  - e) Provide assistance and organise digitisation of legacy data
2. Promote knowledge of usability and increase the actual use of GBIF data
  - a) Nursing and collaboration with data-owners and -users in Denmark
  - b) E-mail information service; Articles and press releases; Take part in Biodiversity related events and projects; University lectures etc. - <http://danbif.dk/formidling/>
3. Collect and maintain inventory of all species occurring in Denmark - the Danish national consensus species list [www.allearter.dk](http://www.allearter.dk) and a specialised search function (<http://allearter-databasen.dk/>) with advanced filtering; vernacular names; EOL link; Management and conservation categories; Taxonomy & Classification; Literature ref.
4. Disseminate knowledge about biodiversity on several web portals, main: <http://www.danbif.dk>

### Q2: What are the top 3 projects you are working on?

1. Mobilising atlas of Danish Fungi - linking the database of the project to our SQL-table serving data to GBIF
2. Revising and migrating current version of the project allearter (Species inventory for Denmark - <http://www.allearter.dk>) website to a new web-CMS-environment at the university - having recently completed the same rebuilding of DanBIF's major website <http://www.danbif.dk> and other websites we host and organise.
3. Finalising year-report to our funders (university deans) with the finale version of our strategy, current activities, results obtained, with benchmarking, and plans for coming activities - including a very thorough plan for major data sets to mobilised this year and next.

### Q3: What level of engagement have you made with your funders?

Very close engagement and direct collaboration on planning our work. We are funded by the science faculties of the three universities of Denmark - they each have members on the DanBIF board, one member also being the Danish Head of Delegation in GBIF. DanBIF-Secretariat & websites are housed / hosted by SNM - University of Copenhagen, DanBIF-IT data-hub is hosted by Aarhus University.

### Q4: What are the current strengths & weaknesses of your Node?

++Very close direct collaboration with (i.e. funded by the institution shaving) the major data holders and providers in Denmark. Sole organiser of a national check-list.

--Too little staff to:

- Mobilise data
- Engage more in regional nodes collaborative work and efforts
- Engage more with GBIF work where nodes are needed
- Disseminate use and usability of GBIF-enabled data, e.g. by arranging hands-on sessions with data-users / -providers on e.g. use of GBIF portal, database design according to Darwin Core standards
- Engage directly with major institutional / strategic partners of data users in Denmark
- Encourage and organise more involvement from Danish data-users and -providers in GBIF community
- Strategic focus on mobilising data from Greenland and Faroe Islands
- Broad public promotion of GBIF (e.g. websites [www.videnskab.dk](http://www.videnskab.dk) etc.

**Q5: What are your partners & competitors?**

DanBIF has Network of members and & other interested parties: Around 200 people in 65 museums, research institutions, public admin., companies and organisations in Denmark, Faroe Islands and Greenland.

No known competitors.

**Q6: What are the top 3 broader projects or initiatives you are involved in?**

EU BON

**Q7: What can you offer to other European Nodes?**

Currently nothing

**Q8: Do you have concrete collaborations with other GBIF Nodes?**

No

**Q9: Who are the key Biodiversity actors in Europe?**

The ones mentioned during the global nodes meeting - very informative and fulfilling list presented at that meeting. Don't have time to look them up and list them here. Danish node does not currently really deal with them.

**Q10: What should/could we achieve together in Europe?**

Sorry, I don't know how to pinpoint that exactly in this small report

Isabel Calabuig (Natural History Museum of Denmark)

## **Finland**

### **Q1: What is your Node Strategy?**

The Finnish Node aims at establishing a national biodiversity data centre or "species gateway", which will serve both the biodiversity research community and the environmental administration.

### **Q2: What are the top 3 projects you are working on?**

1. Saving & documenting old datasets from researchers, who are already retired or getting close to retirement.
2. Applying external funding for executing our plan of becoming national species gateway
3. Describing the species gateway ICT-infrastructure with Enterprise Architecture (as a method/framework, not the software)

### **Q3: What level of engagement have you made with your funders?**

None

### **Q4: What are the current strengths & weaknesses of your Node?**

Strengths: Strong ICT team working on the national species gateway and collection management

Weaknesses: The controversy of the Node being based on a national museum yet only funded by a local university. We do not have any separate GBIF budget, but function solely on the basic funding of the museum and some external project funds. Still we have national duties and goals...

### **Q5: What are your partners & competitors?**

Partners: Environmental services - SYKE, Centre for Scientific Computing - CSC, Ministry of Forestry and Agriculture, NGOs, other Universities and Nat. Hist. Museums

Competitors: financial crisis in Europe

### **Q6: What are the top 3 broader projects or initiatives you are involved in?**

1. Trying to absorb more EU-funding (ie LifeWatch Nordic)
2. Collaborating with other biodiversity networks, such as BioCASE, LifeWatch and LTER

### **Q7: What can you offer to other European Nodes?**

- sharing knowledge of using enterprise architecture as a framework
- knowledge exchange with semantic web technologies and vocabularies

### **Q8: Do you have concrete collaborations with other GBIF Nodes?**

Not at the moment. Baltic diversity project was collaboration between Swedish, Finnish and Estonian (and Danish) biodiversity communities and OpenUp! a broader collaboration, but both projects have come to an end.

### **Q9: Who are the key Biodiversity actors in Europe?**

BGBM-GBIF Germany, LifeWatch Nordic (currently Norway and Sweden)

### **Q10: What should/could we achieve together in Europe?**

- Collaborate more seamlessly with LifeWatch (and LTER) networks
- Clarify the roles of these networks in relation to one another.

Hanna Koivula (University of Helsinki)



## France

### Q1: What is your Node Strategy?

- We usually try to follow the GBIF work program.
- We put specific efforts on promoting the increase of the francophone community in GBIF via mentoring project and/or CEPDEC projects (SEP-CEPDEC project ended in 2012 and currently working on a second phase : SEPDD which should begin this summer)
- At national level, we interact with the other french initiatives dealing with biodiversity to try to harmonise the data flow.
- Communication : in 2014, we want to focus on broader communication and visibility. We begin in 2013 with the organisation of a GBIF day the 9 of december.

Each year, there is a national meeting where we decide the node strategy. Most of the french institution working on biodiversity are represented : Ministries, research organisations, museums, universities...

### Q2: What are the top 3 projects you are working on?

Collaboration with these french projects:

- e-Recolnat: national support for digitalisation and management of collection (16 millions for 5 years): digitisation, crowdsourcing (les herbonautes), data collection portal
- SINP/INPN (French ministry of Ecology): creation of a new environmental data portal. INPN (National Inventory of natural Heritage) identifies observational data and creates maps of distribution at national level.
- FRB and research ministry: ECOSCOPE inventory of research data and metadata and development of interaction with the CESAB (centre for synthesis and analysis of biodiversity)

### Q3: What level of engagement have you made with your funders?

Since 2013, and for 3 more years, the nodal point of GBIF France is funded by an ANR project called e-ReColNat. The GBIF France is integrated in the Direction des collections at the MNHN in Paris. The French subscription is payed by the Ministry of Research each year but it is not secured.

### Q4: What are the current strengths & weaknesses of your Node?

Strength:

- Launch of the national **GBIF user group** and Development of stronger cooperation at national level.
- **SEPDD** project should be approved (to continue SEP-CEPDEC efforts) in april
- **Funding of the French GBIF node** via e-Recolnat for the next 3 years

Bottleneck:

- **Non-permanent position** = difficulty to maintain the staff, lost of knowledge
- **Complexity and lack of governance** for the **national data flow**
- **Future funding for the French subscription**

### Q5: What are your partners & competitors?

Partners are: Museums, Ministry of Research and research organisations, associations, Universities, Ministry of Ecology (INPN-SINP)...

These partners can become competitors when ministries must prioritize funding.

### Q6: What are the top 3 broader projects or initiatives you are involved in?

- OpenUp! but it just ended in february 2014
- Organisation of trainings with BioVel
- Discussion with EUBON to become an associate partner (with MNHN as legal institution). As Archambeau will go to the EUBON meeting (30 March -3 April 2014).
- Discussion at national level to be part of LIFEWATCH (meeting the 20 March

with national institutions and ministries)

**Q7: What can you offer to other European Nodes?**

Development of tools:

- "simple-harvest" tool for indexation (available in GBIFLab)
- "SAGG" for Statistics and Analyses of Gaps on GBIF. This tool provides statistics and new data visualization to evaluate the biases in the results of the requests.
- training material that can be translate
- see Q8 mentoring

**Q8: Do you have concrete collaborations with other GBIF Nodes?**

**Mentoring France - Spain - Portugal:**

The node partners involved have identified complementary weaknesses and strengths. This mentoring aim to enhance capacities and impact of the involved nodes by leveraging on their capacities. The areas identified are:

- Data visualization
- Crowdsourcing
- Training & e-learning
- Data quality tools and procedures
- Persistent Identifiers
- Data paper procedures

The nodes involved have well-built linkages with their own overseas language communities, which involve key countries in terms of biodiversity richness and related challenges; These nodes also have a strong tradition of scientific cooperation with these countries in and outside GBIF (e.g. SEP-CEPDEC, I3B, etc.). The potential involved in enhancing these specific aspects of the partner nodes for the GBIF network at large is, at least, significant.

**IT Development:**

The french ITs are working in collaboration with Canadensys on the « DarwinCore Validator ». First step : specifications were done in 2013 (<https://github.com/gbif/dwca-validator/wiki/Guideline>). Second step, development, will take place in 2014.

**Q9: Who are the key Biodiversity actors in Europe?**

- GBIF!
- European commission, by providing funds for biodiversity project.
- EU BON, european contributor of GEO BON, all european GBIF nodes not already involved should become associate members (France will do that)

**Q10: What should/could we achieve together in Europe?**

We could focus on communication, GBIF is not enough known by the potential actors and users. We could try to take part in most of european meetings about biodiversity. At least having a list of meeting and knowing who goes where. Better recognition by EC should be great.

We should try to involved more countries, lack of countries is directly correlated with lack of data. Content: raising the number of data and trying to fill the gaps must stay a priority So organising Digit call when possible should go on.

Anne-Sophie Archembeau ( Natural History Museum Paris)

## Germany

### Q1: What is your Node Strategy?

The German node is a "node system" consisting of six institutions focussing on different taxonomic or thematic groups, respectively (<http://www.gbif.de>). To provide data to the global GBIF network and to other special interest networks the ABCD standard and the BioCASE technology are used for natural history collections (Holetschek et al. 2012; <http://wiki.bgbm.org/bps/>) and mostly also for observation datasets. We are aiming at doubling the German GBIF contribution in the current project phase (2011-2014). Our strategy includes broadening quantity and quality of data delivered to special interest networks via the BioCASE technology, as e.g. for DNA specimens within the DNA bank network / GGBN.

### Q2: What are the top 3 projects you are working on?

- Data mobilisation (GBIF-D, <http://www.gbif.de>)
- Preparations for a national digitisation initiative
- BiNHum (Biodiversitätsnetzwerk des Humboldt-Rings, <http://wiki.binhum.net/web/>) (for EU projects see part 2)

### Q3: What level of engagement have you made with your funders?

Our main funder is the Federal Ministry of Education and Research (BMBF). The German Research Foundation (Deutsche Forschungsgemeinschaft, DFG) is funding projects that add on to GBIF efforts, for example GfBio (German Federation for the Curation of Biological Data, <http://www.gfbio.org/>), AnnoSys (<https://annosys.bgbm.fu-berlin.de/>), rebind Biodiversity Needs Data, <http://rebind.bgbm.org/>), and a new project dealing with metadata harvesting from specimen images and another one that will revise and update the ABCD (Access to Biological Collection Data) standard. We are regularly and actively submitting funding proposals which include infrastructure, data mobilisation and/or provision to the GBIF network.

### Q4: What are the current strengths & weaknesses of your Node?

Strengths: strong links to different communities (specialists for certain taxonomic groups, natural history museums, Federal Agency for Nature Conservation, BfN, societies in the field of natural history), expertise in many fields

Weakness: dependent on project funding, no long term funding available (current funding phase ends in April 2014)

### Q5: What are your partners & competitors?

Partners: German natural history museums (organized in different structures, Deutsche Naturwissenschaftliche Forschungssammlungen DNFS, Humboldt-Ring, Deutscher Museumsbund), University collections, Federal Agency for Nature Conservation (BfN), data aggregators for citizen science data (e. g., anymals+plants, <http://anymals.org>; naturgucker.de, <http://naturgucker.de/>). Competitors: other data infrastructure projects not related to biodiversity research (competitors for funding resources)

### Q6: What are the top 3 broader projects or initiatives you are involved in?

- Consortium of European Taxonomic Facilities (CETAF, <http://www.cetaf.org>)
- EU BON (<http://www.eubon.eu/>)
- BioCASE ([www.biocase.org](http://www.biocase.org)) and connected to that OpenUp! (<http://open-up.eu/>) and GGBN (<http://ggbn.org/>)/SYNTHESSYS-3 (<http://www.synthesys.info/>)

### Q7: What can you offer to other European Nodes?

- BioCASE technology including provider software, provider support and portal software (<http://www.biocase.org>)
- ABCD and extensions (<http://wiki.tdwg.org/twiki/bin/view/ABCD/>)

- Annotation System AnnoSys (Tschöpe et al. 2013, <https://annosys.bgbm.fu-berlin.de/>)
- EDIT Platform for Cybertaxonomy (Berendsohn 2010; <http://cybertaxonomy.eu/>, <http://cybertaxonomy.eu/download/>)
- OpenUp! Pipeline to deliver natural history multimedia-objects to Europeana (Berendsohn & Güntsch 2012, <http://www.europeana.eu/>)
- reBiND (Biodiversity Needs Data) offers an efficient archiving workflow for rescuing legacy databases. It focusses on small neglected but scientific valuable databases, which are not integrated into institutional data curation. The workflow comprises an archiving database, a semi-automatic data correction tool and an interface connecting the data with GBIF and BioCASE. (<http://rebind.bgbm.org/>)
- IT development of the GBIF Harvesting and Indexing Toolkit (HIT) within the BinHum project for usage as of 2015 and within the OpenUp! Project

**Q8: Do you have concrete collaborations with other GBIF Nodes?**

- via EU funded projects: OpenUp!, EU BON, SYNTHESYS-3
- within the Information Science and Technology Commission (ISTC) of CETAF
- direct exchange of information regarding digitization with France, Finland, the Netherlands

**Q9: Who are the key Biodiversity actors in Europe?**

- Consortium of European Taxonomic Facilities (CETAF) in the field of Natural History Collections
- Genome Biodiversity Network GGBN (<http://ggbn.org/>) in the field of DNA resources

**Q10: What should/could we achieve together in Europe?**

- Digitization of natural history collections (exchange of experience, e.g. technology, crowd sourcing)
- Involving the biodiversity research community in data quality control and usage of GBIF data

References

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Sabine von Mering (BGBM)

## **Ireland**

### **Q1: What is your Node Strategy?**

Our Node has developed a 5-year Strategic Plan (2013-2017) in seven key strategic objective have been identified. These are -

1. Mobilising data: Serve as a national hub for the storage, display and dissemination of biodiversity data through the online data portal Biodiversity Maps.
2. Tracking change: Identify the need for, and assist the production of, high quality, scientifically robust data to track changes in Ireland's species and habitats.
3. Informing decision-making: Facilitate and promote the use of biodiversity data to inform public policy and decision-making through data analysis, interpretation and reporting.
4. Developing strategic partnerships: Support and collaborate with the Data Centre's partners to assist efficient delivery of their objectives.
5. International collaboration: Facilitate the provision of Irish biodiversity data to international initiatives.
6. Communicating: Communicate the value of Ireland's biological diversity and raise awareness of how it is changing.
7. Strengthening the recording base: Support the recorder and citizen science network to increase the quantity and quality of biodiversity data generated in Ireland.

The Strategic Plan can be downloaded at

<http://www.biodiversityireland.ie/wordpress/wp-content/uploads/Strategic-Plan-2013-final1.pdf>

### **Q2: What are the top 3 projects you are working on?**

The top three projects are probably:

- Development of National Biodiversity Indicators
- Mobilisation of data
- Engagement with data partners, ie. Principally citizen scientists and academics.

### **Q3: What level of engagement have you made with your funders?**

Direct and regular engagement. At an institutional level, a Management Board has been established by our funders which meets quarterly to review progress with delivery of the agree work programme. This has a representative of the main funding organisation. The Node produces an Annual Report which is approved by the main funder each year.

### **Q4: What are the current strengths & weaknesses of your Node?**

Strengths -

- Have core staff with significant ecological and data management skill set that can provide valuable services to our partners.
- The Node is identified as an independent body that is well placed to carry out independent reporting on behalf of Ireland's statutory nature conservation agency.
- Have strong capacity in the ICT and ecology fields

Weaknesses -

- Shortage of funding to enable the Node to address some strategically important work areas

### **Q5: What are your partners & competitors?**

Our key partners are state bodies, academics, non-Governmental Organisations & citizen scientists. We have established the Node in such a way that we try to provide services to our potential competitors to avoid competition.

### **Q6: What are the top 3 broader projects or initiatives you are involved in?**

- GBIF

- Invasive Species
- European Vegetation Studies

**Q7: What can you offer to other European Nodes?**

Training opportunities - particularly in areas of strategic planning and ICT development.

**Q8: Do you have concrete collaborations with other GBIF Nodes?**

No, but are open to such collaborations

**Q9: Who are the key Biodiversity actors in Europe?**

Has to be the European Commission, and to a lesser extent, the European Environment Agency (though the latter could be seen as a competitor)

**Q10: What should/could we achieve together in Europe?**

Demonstration of a pan-(or almost pan-)European infrastructure that can provide an effective service to the European Commission to assist policy implementation in the EU.

Liam Lysaght (National Biodiversity Data Centre)

## **Luxembourg**

### **Q1: What is your Node Strategy?**

Governmental institute with the mission to assemble, study and preserve natural history collections including databases. The Natural history Museum of Luxembourg is the national GBIF node and has the mission to centralise all biodiversity datasets from Luxembourg and to ensure their long term storage.

### **Q2: What are the top 3 projects you are working on?**

National bioersvity monitoring, digitization of the Museums collections, integration of datasets from regional record centers.

### **Q3: What level of engagement have you made with your funders?**

We have no private funding as a governmental institute. We have a commitment by law to store biodiversity data.

### **Q4: What are the current strengths & weaknesses of your Node?**

The strengths is that within a small country it is more easy to become a central data provider. Another strength of the Museum is that we conserve the national reference collections and that we establish the national taxa checklists and Red Lists. However some taxonomical groups like the birds are stored in a different record centre. The main problem we are facing today is that have no full time jobs within the Museum to run the Luxembourg GBIF node. We urgently need one person more.

### **Q5: What are your partners & competitors?**

Our partners are private scientific collaborators of the Museum, local record centres (mainly biological field stations) and public research centres which may also be competitors because they are collecting biodiversity monitoring data and there is often an important time lag before the data are transmitted to the Museum.

### **Q6: What are the top 3 broader projects or initiatives you are involved in?**

BioCase and GBIF

### **Q7: What can you offer to other European Nodes?**

Knowhow to digitize natural history collections and offer the collections management addin for the Recorder 6 software. We can also share our knowledge of setting up citizen science projects and online recording tools using the open source INDICIA toolbox.

### **Q8: Do you have concrete collaborations with other GBIF Nodes?**

Yes some collaboration with the German, French UK and Belgian GBIF nodes.

### **Q9: Who are the key Biodiversity actors in Europe?**

GBIF UK, GBIF Germany.

### **Q10: What should/could we achieve together in Europe?**

We should aim to become the most comprehensive biodiversity portal of Europe (I think GBIF is already there). The main adavantage of the network is that foreign datasets concerning Luxembourg are also acessible through GBIF. The construction of downsized regional or national portal offering a query toolbox would be very useful. One example of this kind is the BIOGRE portal of the Greater Region.

Guy Colling ( Natural History Museum Luxembourg)

## **Netherlands**

### **Q1: What is your Node Strategy?**

The NLBIF strategy is to build on the efforts of others. We invest in the infrastructure of Dutch partners and create a distributed data and facility infrastructure in this way. NLBIF is now opportunistically using the open data movement to provide services to new data providers. Important element of our strategy is to demonstrate the virtues of open data for e-science developments.

### **Q2: What are the top 3 projects you are working on?**

- Enhancing the NLBIF website (info graphics, fully bilingual, fine-tuning RSS feeds, newsletter, blogs).
- Preparing for GBIF data visualisation in Netherlands e-science facility.
- Framing the Dutch biodiversity landscape, in terms of data, projects and data-use, and defining our best niche.

### **Q3: What level of engagement have you made with your funders?**

Excellent, direct communication, structural support.

### **Q4: What are the current strengths & weaknesses of your Node?**

Strength is our independent and "neutral" position.

Weakness is the governance structure of the Node that does not seem to support our mission.

### **Q5: What are your partners & competitors?**

Our partners are mainly the scientific institutes and (part of) the governmental bodies that are involved in monitoring activities. These organisations sympathise with NLBIF because they do see the benefit of data sharing (Science) or support the growing "open data" policy (governmental bodies). Competitors are the organisations that build a business model around the use and marketing of high quality biodiversity data. (Whether this is competition depends on the ambitions you have as a GBIF Node.)

### **Q6: What are the top 3 broader projects or initiatives you are involved in?**

1. LifeWatch
2. BiodivERSA (through the National Science Foundation)
3. -

### **Q7: What can you offer to other European Nodes?**

- Experience on Node positioning and strategies
- Experience on IPT implementation
- Drupal modules for Node websites

### **Q8: Do you have concrete collaborations with other GBIF Nodes?**

Not really but good and regular contact with many.

### **Q9: Who are the key Biodiversity actors in Europe?**

EEA (EUNIS, BISE (<http://biodiversity.europa.eu>)), PESI, BioVel, LifeWatch, EU-BON, EPBRS, BiodiversityKnowledge / KNEU.

### **Q10: What should/could we achieve together in Europe?**

- At least act as a unit and speak with a single voice when it comes to policy matters, strategic developments and interaction with the GBIF secretariat.
- Divide tasks.
- Establish some thematic cooperating groups.

Cees Hof (NIBIF)



## Norway

### Q1: What is your Node Strategy?

**Vision** - A society where policy decisions and science are based on a deep understanding of nature, obtained through competent analysis of patterns in freely and universally available nature diversity information.

The strategy for GBIF-Norway is a sub-part of the strategy document of the Geo-Ecology research group at the Natural History Museum at the University of Oslo 2014 to 2018.

<http://www.nhm.uio.no/english/research/groups/geco/vision-and-main-goals/>

### Q2 : What are the top 3 projects you are working on?

#### 1. PIDs

Stable and unique identifier keys for Norwegian herbaria, natural history collections and other occurrence data from Norway. So far we have established resolvable PURL-UUID PID-keys for 42 791 occurrences with expected rapid progress. Online resolver at: <http://gbif.no/resolver/>.

#### 2. Transcription of label information from digitation

GBIF-Norway have contributed to the implementation of a local prototype copy of the Notes from Nature transcription portal. We have also contributed to the digitation (imaging) of specimens of East African origin from the Lichen herbarium at the Natural History Museum in Oslo, a total of approximately 2500 images. This local Notes from Nature portal will be released in April this year as a prototype experiment.

#### 3. Data portal for Norwegian natural history collections.

GBIF-Norway has contributed to the development of a new data portal for individual Norwegian collections of natural history. Each portal will serve one institute or other subsets of occurrence data following the Darwin Core standard. The data portal will be further developed with improved and user-friendly functionality to load and update occurrence from a set of Darwin Core archives. Online portal for the University museum in Bergen at: <http://gbif.no/uib/>

### Q3: What level of engagement have you made with your funders?

GBIF-Norway has good contact and coordination with the head of delegation from Norway, representing the Norwegian Research Council, which provides the funding for GBIF-Norway and the membership fee to the global GBIF budget. We also have positive and regular meetings with our partner: the Norwegian Biodiversity Information Centre (Artsdatabanken).

### Q4: What are the current strengths & weaknesses of your Node?

The fulfillment of the GBIF mandate in Norway is shared between the Norwegian Biodiversity Information Centre (Artsdatabanken) and GBIF-Norway hosted by the Natural History Museum at the University of Oslo. This partnership can be seen as a strength because the close coordination and efficient sharing of responsibilities. However, GBIF-Norway has only two persons in a total of one and a half position funded. This lack of work capacity is only possible because of the close collaboration and sharing of tasks with Artsdatabanken. Artsdatabanken has a national mandate for mobilisation of biodiversity data including occurrence data, while GBIF-Norway focus on the IT infrastructure for occurrence data and to publish these datasets to the global GBIF infrastructure.

### Q5: What are your partners & competitors?

GBIF-Norway is hosted by the Natural History Museum at the University of Oslo (NHM-UiO) and funded by the Norwegian Research Council. The role of GBIF-Norway in the Norwegian biodiversity informatics landscape is well defined and we do not have any real competitors. Some of our closest partners are :

- The **Norwegian Biodiversity Information Centre (Artsdatabanken)** share the responsibility for mobilisation of Norwegian biodiversity data with GBIF-Norway. Artsdatabanken also maintain a focus on making Norwegian biodiversity data (including occurrence data) available and relevant to national institutes and other national data users.  
<http://www.biodiversity.no/>
- **Museum IT (MUSIT)** is a collaboration between the university museums in Norway. MUSIT provide and maintain the databases for the museum collections including the natural history collections. GBIF-Norway has a close collaboration with MUSIT and publish all the relevant databases to the global GBIF infrastructure.  
<http://www.musit.uio.no/musit/musitweb/html/english.html>
- The **Norwegian Institute for Nature Research (NINA)** provides a national research institute to guide policy-decisions on the basis of biodiversity information. NINA is an important institute for utilization of GBIF-mediated biodiversity information in Norway. NINA also contributes in collaboration with GBIF-Norway to the strategic development of a national biodiversity (IT) infrastructure and to the development and implementation of biodiversity information standards.

Other key partners include all of the national data owners providing the biodiversity data we publish to the global GBIF network,  
<http://www.gbif.org/country/NO/publishing>.

**Q6: What are the top 3 broader projects or initiatives you are involved in?**

- **LifeWatch**, in partnership with NINA and Artsdatabanken.
- **EU BON**, GBIF-Norway contribute to the participation from Artsdatabanken.
- **Crop wild relatives conservation** in Europe together with the Norwegian Genetic Resource Centre and Birmingham University in the UK.
- **IPBES**, mentoring program for biodiversity camera trap India in collaboration with NINA.

**Q7: What can you offer to other European Nodes?**

Experience with persistent identifiers (http PURL UUID) and transcription of label information from digitized specimens. Sharing of tasks and responsibilities in contact with the thematic network for conservation of crop wild relatives and other plant genetic resources in Europe.

**Q8: Do you have concrete collaborations with other GBIF Nodes?**

The Nordic GBIF-nodes has maintained an informal collaboration named as, NorBIN.

**Q9: Who are the key Biodiversity actors in Europe?**

GBIF, the natural history museums (such as NHM London, Naturalis, Museum fur Naturkunde) and the botanical gardens (such as the Berlin Botanical Garden), European Environment Agency (EEA), International Union for Conservation of Nature (IUCN), European Commission Environment (EU), Pensoft publishers, Bioversity International (CGIAR), Global Crop Diversity Trust.

**Q10: What should/could we achieve together in Europe?**

- Real collaborative projects, perhaps seek EU project funding together?
- Approaching data owners in European countries not yet members and offering to endorse datasets from non-member European countries for GBIF.
- Perhaps approaching data owners also in non-European non-member countries?
- Continue the proposal from the previous European regional nodes meetings on a joint project for providing informatics solutions for conservation crop wild relatives in Europe.
- Identify or seek (permanent) funding for a EU GBIF nodes coordinator position.
- Simply sharing experiences and continue to build a close contact network between the European GBIF nodes.

Dag Endresen (NHM, University of Oslo)

## **Poland**

### **Q1: What is your Node Strategy?**

I am afraid that I cannot say much about strategy. Until now we have been totally dependent on a few grants providing financial resources for organizing network. The initial phase of our activities involved spreading seed money for creating and linking numerous databases from the local network partners. With a few exceptions, this tactics did not yield any long-lasting sources of data. Currently, the only activity that could be called strategy is creating tools for acquisition of biodiversity data for professionals and amateur scientists. We slowly follow this route.

### **Q2: What are the top 3 projects you are working on?**

There is one project, called « Biodiversity Map », aimed at integration of data on certain groups of taxa - occurrence, taxonomy, bibliography, biology. The financial support for the project has already ended but we work on it and hope to find a new grant for it.

### **Q3: What level of engagement have you made with your funders?**

There are no funders currently.

### **Q4: What are the current strengths & weaknesses of your Node?**

Strengths:

- good contacts and support by a part of scientific community,
- a reasonable potential for mobilization of biodiversity data in more favourable financial circumstances.

Weaknesses:

- no long-term funding plan due no structured governmental involvement and support,
- no engagement in any European biodiversity projects and programmes

### **Q5: What are your partners & competitors?**

Partners: natural history museums and universities.

Competitors: maybe some governmental environmental agencies; on the other hand they could be also partners.

### **Q6: What are the top 3 broader projects or initiatives you are involved in?**

n/a

### **Q7: What can you offer to other European Nodes?**

It depends on what they would find interesting. As a scientifically oriented node, we pay attention to scientific quality, having experience in integrating different data types. Our local network comprises specialists at many groups of organisms and could be a good basis for finding partners in different thematic areas.

### **Q8: Do you have concrete collaborations with other GBIF Nodes?**

No.

### **Q9: Who are the key Biodiversity actors in Europe?**

Those who run big European projects, I guess. (I am sorry, being outside this community I have little knowledge in this area)

### **Q10: What should/could we achieve together in Europe?**

I believe there is a place for a pure scientific or applied project in which European GBIF nodes could play a crucial role as centres for acquisition and integration of data. Many nodes are located at universities so they could also easily find staff for conducting a scientific part of such a project.

Piotr Tykarski (University of Warsaw)

## Portugal

### Q1: What is your Node Strategy?

Identify and mobilize data

- Ensure data mobilization from national institutions, providing support to all types of biodiversity primary data.

Response to user needs

- Ensure response to user needs and adaptation to changes in data use.

Cooperation

- Ensure networking within the GBIF community, data users and CPLP countries

Informatics Facility

- Ensure reliable service to user needs and adaptation to technological changes

### Q2: What are the top 3 projects you are working on?

- Research Infrastructure PORBIOTA - Portuguese E-Infrastructure for Information and Research on Biodiversity
- Translation of GBIF's manuals and documentation to Portuguese
- Data mobilisation at national level

### Q3: What level of engagement have you made with your funders?

The funding of the node is covered by a protocol

([http://www.gbif.pt/sites/default/files/background/Protocolo\\_IICT.pdf](http://www.gbif.pt/sites/default/files/background/Protocolo_IICT.pdf), in portuguese) between the national research council (FCT) and the host institution of the Node (IICT), covering half of the budget until the end of 2016.

### Q4: What are the current strengths & weaknesses of your Node?

Strengths

- Good engagement of the community, which is willing to participate

Weakness

- Shortage of human resources, either at the Node or at the providers  
Difficulty in finding funding sources for nodes' activities.

### Q5: What are your partners & competitors?

Partners

- NatCol - portuguese consortium for the valorization and scientific use of Natural History Collections, and the participant institutions of PORBIOTA

Competitors

### Q6: What are the top 3 broader projects or initiatives you are involved in?

Mentoring France-Portugal-Spain

LifeWatch

### Q7: What can you offer to other European Nodes?

Outputs from the Portuguese Node to the ES-FR-PT Mentoring Project Contribute as beta-tester of informatic tools, discussion of documents and translation to Portuguese.

### Q8: Do you have concrete collaborations with other GBIF Nodes?

Yes, mentoring project France-Portugal-Spain

### Q9: Who are the key Biodiversity actors in Europe?

European commission, national environmental and biodiversity conservation agencies

### Q10: What should/could we achieve together in Europe?

GBIF constitutes one of the most advanced global infrastructures available. It has a strong user base record and already has proven its implementation. The European Nodes contributed significantly to this, however they failed to

position themselves as a a competitive consortium for applications to EC funds. This is probably related to the fact that many nodes do not have a legal entity, so they can only apply through their host institution. European GBIF nodes should organize themselves to apply funds for research infrastructures (e.g. H2020-EINFRA-2014-2 <http://ec.europa.eu/research/participants/portal/desktop/en/opportunities/h2020/topics/2137-einfra-1-2014.html>). Nodes' actions fit to several of the activities identified in the call, and a proposal can be underpinned in the work already done by them. The proposal should be presented as a consortium of european GBIF nodes, even if the legal entity behind each node is the host institution, in order to raise up the profile of GBIF and GBIF nodes.

Rui Figueira (Instituto de Investigação Científica Tropical)

## Spain

### Q1: What is your Node Strategy?

To support all entities and projects that produces, administrates or compiles biodiversity information to fulfil their missions; in the understanding that they will make public the information they control to extend it is not detrimental for them or for biodiversity itself.

To cooperate with fellow nodes to become more efficient, and relevant, as a node and as a global initiative

### Q2: What are the top 3 projects you are working on?

- National Data portal based on [www.ala.org.au](http://www.ala.org.au)
- Data publication campaigns on « heterodox » datasets (LTER, Polar, Marine, administrations)
- Species level information framework (portal, standards, procedures, content)

### Q3: What level of engagement have you made with your funders?

Formal arrangement; legally binding, between Ministry of Science (funder) and CSIC (implementer)

### Q4: What are the current strengths & weaknesses of your Node?

strengths

- Robust national network > <http://www.gbif.es/Participantes.php>
- Strong international linkages
- Unique position in the country regarding technical expertise and capacity building capabilities

Weaknesses

- Financial uncertainties,
- Lack of support for data digitalization and publication

### Q5: What are your partners & competitors?

Partners: Many universities, research institutes and administrations > <http://www.gbif.es/Participantes.php>

Competitors (still trying to figure out whether they are partners or competitors): LTER network, Lifewatch

### Q6: What are the top 3 broader projects or initiatives you are involved in?

- EU-BON (collaterally)
- Lifewatch (collaterally)
- GBIF Mentoring (FR, PT, ES)

### Q7: What can you offer to other European Nodes?

Technical expertise, contacts, training facilities, e-learning platform, etc. you name it

### Q8: Do you have concrete collaborations with other GBIF Nodes?

GBIF Mentoring project involving France, Portugal and Spain  
Ibero-American Infrastructure for Biodiversity Information > <http://www.recibio.net/home-i3b/>

### Q9: Who are the key Biodiversity actors in Europe?

EEA, CETAF, EU-BON

### Q10: What should/could we achieve together in Europe?

A common platform; demonstrate capacity to get things done;

A H2020 project

Paco Pando (Real Jardín Botánico - CSIC)

## Sweden

### Q1: What is your Node Strategy?

The overarching aim of GBIF-Sweden is to create free and easy access to global biodiversity information through a portal to distributed databases. Early in the history of GBIF, interest was mainly concentrated on retrieval and presentation of specimen data from natural history collections, but since then the amount of available observational data has increased dramatically and presently the majority of the contents presented consist of recently collected observation records.

### Q2: What are the top 3 projects you are working on?

We're presently

1. finishing work on a new Swedish portal ([www.gbif.se](http://www.gbif.se)) with functionalities on data search, downloading, presentation (list, map), news etc.,
2. preparing an application for funds to organize a project on large-scale digitization of all natural history collections in Sweden (treating a backlog of 25 out of altogether 33+ million objects),
3. reorganizing and updating our set of databases in accordance with up-to-date information on institutions, collections and sub-collections.

### Q3: What level of engagement have you made with your funders?

GBIF-Sweden is funded 2012-2016 by the Swedish Research Council (SRC) equal to 2,25 person equivalents staff members and in-kind (workspace, secretarial services etc.) by the Swedish Museum of Natural History. The Research Council also pays the membership fee to GBIF, and provides our Head of Delegation.

### Q4: What are the current strengths & weaknesses of your Node?

GBIF-Sweden is strong in leading a well-organized and funded national node, in being staffwise integrated with other international informatics projects, and in presenting 40 million biodiversity records. Among weaknesses, we are understaffed and sensitive to the whims of our funding agency as regards what direction biodiversity informatics in Sweden will take. As an infrastructure Biodiversity Informatics is considered relatively small.

### Q5: What are your partners & competitors?

The Swedish GBIF node is integrated within the Bioinformatics and Genetics unit at the Swedish Museum of Natural History (SMNH). This unit leads and participates in several national and international endeavours within the field of bio- and biodiversity informatics (AquaMaps, Baltic Diversity, DINA, EU BON, GEO BON, PESI, Swedish LifeWatch a.o.). The SRC recently urged GBIF-Sweden to coordinate governance with Swedish LifeWatch (likewise funded by the SRC), thereby improving existing links to the Species Information Centre, WRAM, CAnMove and a number of Swedish universities).

The situation where GBIF-Sweden competes with Swedish LifeWatch for resources and recognition is somewhat troublesome as activities within the SMNH tend to have international scope, whereas most of the activities undertaken in collaboration with Swedish LifeWatch at the Species Information Centre/Swedish University of Agricultural Sciences remains a national interest.

### Q6: What are the top 3 broader projects or initiatives you are involved in?

As mentioned above (nationally): DINA, the Species Information Centre, Swedish LifeWatch.

As mentioned above (internationally): AquaMaps, EU BON, GEO BON.

### Q7: What can you offer to other European Nodes?

We may offer technical assistance/collaboration in regard to node portal development.

**Q8: Do you have concrete collaborations with other GBIF Nodes?**

Ongoing talks and sharing of knowledge and ideas with GBIF-France. Otherwise no concrete collaborations with other GBIF Nodes, but we see ourselves as being highly integrated into the greater global community of biodiversity informatics.

**Q9: Who are the key Biodiversity actors in Europe?**

As above: Catalogue of Life, EU BON, EDIT-ISTC, ENBI, GBIF, European LifeWatch, PESI...

**Q10: What should/could we achieve together in Europe?**

Again; The overarching aim of GBIF is to create free and easy access to global biodiversity information kept in distributed databases, and by combining efforts from within and among the above projects/initiatives this should be achieved. Together we are probably at the edge of biodiversity informatics in the world, and in so being responsible for the maintenance and furthering of knowledge and skills gained so far. We must match this accordingly into the global scene. We should use existing networks and funding possibilities, and broaden our perspective in policy making in order to bring more candidates into GBIF worldwide. On the flip side of the coin we must provide more "best practice" examples and feed these into such organizations that once initiated and contributed to setting GBIF up (IUCN, IPBES...).

Anders Telenius (Swedish MNH)



## Switzerland

### Q1: What is your Node Strategy?

- Switzerland's signature of the MoU as a voting member
- National Data Network (specimen and observational data). Centralized architecture, homogeneous data quality, multilingual infrastructure

### Q2: What are the top 3 projects you are working on?

- Use of GBIF.ch concepts and strategy in order to ensure interoperability and data flow at all levels (regional, national, international).
- Ensuring professional data acquisition related to prioritized biodiversity objectives of the Swiss Confederation
- To structure and deliver metadata on Swiss institutions active in biodiversity (natural history collections, national data centers), the biodiversity collections managed and activities.

### Q3: What level of engagement have you made with your funders? -

Service contract, Federal Office for the Environment

### Q4: What are the current strengths & weaknesses of your Node?

- Uncertainties regarding terms and conditions of funding for the Swiss GBIF initiative
- Lack of necessary human and financial resources in order to achieve our objectives

### Q5 : What are your partners & competitors?

Partnerships : Swiss Confederation, natural history collections, national data centers

### Q6: What are the top 3 broader projects or initiatives you are involved in?

SwissBOL : Barcode of Life initiative

### Q7: What can you offer to other European Nodes? -

Exchange of (very practical) experience related to completed projects (e.g. ethical framework, data digitization, data validation/verification of data coherence)

### Q8: Do you have concrete collaborations with other GBIF Nodes?

None

### Q9: Who are the key Biodiversity actors in Europe?

Regional and/or national data centers, united within the international GBIF initiative

### Q10: What should/could we achieve together in Europe?

Review and define a common strategy regarding the explosion of biodiversity data capture / data management platforms (content quality, data flow), defending the international GBIF network as primary source for reliable biodiversity data.

Pascal Tschudin (Centre Suisse de Cartographie de la Faune)

## **United Kingdom**

### **Q1: What is your Node Strategy?**

The strategy is focused around the mobilisation of data particularly from the voluntary sector (there is a lot of citizen science within the UK) and data collected by the public nature conservation sector. There is close links into a range of use sectors especially research (which makes extensive use of the data) and nature conservation. Both of these sectors can see needs that stretch beyond the UK (i.e need data from elsewhere to support) but it has been very difficult to get agreement on mobilisation to support these. As a result some research has included the mobilisation in its cost. Movement within the museums has been slow. The costs here are high and investment is typically where there is a UK priority. There is work on-going to look at a more strategic approach to this but no concrete plans.

### **Q2: What are the top 3 projects you are working on?**

Very ephemeral. Some current ones are :

- Non-native species - early warning of arrival and action to tackle (within the UK)
- Advising on location of chicken farms (big source of eutrophication)
- informing the creation of habitat layers using remote sensed data (aerial imagery, satellite data and other sources including species)

### **Q3: What level of engagement have you made with your funders?**

very strong. Roughly ten meetings per year to look at aspects of UK strategy and progress towards delivery.

### **Q4: What are the current strengths & weaknesses of your Node?**

- Very significant data holdings - a very large proportion of the data that exists within the UK.
- There are some fairly complex business models within the UK around the reuse of data and this is affecting the accessibility of the data and in particular whether it can be used commercially. Tackling this is one of our priorities over the next couple of years.
- Engagement with some sectors (e.g. museums) is weak but need more

### **Q5: What are your partners & competitors?**

Main « competition » is with the Local Record Centres that see on-line delivery of data and reporting as a threat to their business models. There is also some tension with some of the big data holders (birds and butterflies / moths) who see openness around data as a threat to their competitive advantage (re. Publications). In theory they are also partners. All the other data providers across the UK are also partners. The umbrella over the whole initiative includes all the major data holders and users across the UK.

### **Q6: What are the top 3 broader projects or initiatives you are involved in?**

- Non-natives - there has been significant UK engagement here around research, the new directive and the availability of data more generally.
- Reporting under Natura directives - Article 17 relied heavily on a data feed. Birds less so.
- INSPIRE - just rounding off the publication of species distribution data under INSPIRE.

### **Q7: What can you offer to other European Nodes?**

Primarily we would see this as being data supply (of UK held data). We have a reasonable degree of flexibility assuming that a shared focus can be identified.

### **Q8: Do you have concrete collaborations with other GBIF Nodes?**

Very limited.

**Q9: Who are the key Biodiversity actors in Europe?**

We would see this as being the European Commission. Effectively reporting obligations will ultimately emerge from here. These should reflect genuine priorities across Europe which in turn would be expected to influence research.

**Q10: What should/could we achieve together in Europe?**

There needs to be a focus and a guarantee of capacity from each partner to work towards it. I am not too worried what that focus is (as long as it is real). I am most concerned about capacity across the partners. There is no point in maintaining a central funding of the GBIFS if we do not have capacity for data mobilisation in the countries.

Steve Wilkinson (JNCC)