

## "SHARING ENVIRONMENTAL INFORMATION: ISSUES OF OPEN ENVIRONMENTAL DATA IN LATIN AMERICA".

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**Poncet, Laurent** - The organisation, validation and dissemination of biodiversity data in France

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### 1. The French context

The French Ministry of Ecology is responsible for the over-arching governance of biodiversity information. There are two key inter-linked programmes:

- *The Information System for Nature and Landscape* which organises the production and dissemination of information on French biodiversity
- *The National Biodiversity Observatory* which aims to establish robust and straightforward biodiversity indicators to guide actions to promote biodiversity conservation.

To implement these biodiversity programmes, the Ministry is supported by public bodies, including the French Natural History Museum which is responsible for scientific consistency and validation of biodiversity data, as well as its national dissemination. To organise and disseminate biodiversity information the French Natural History Museum established a national information system in 2003, called the National Inventory of Natural Heritage (INPN).

### 2. What are the key issues for the INPN?

The INPN aims to answer the 'what', 'where' and 'when' questions in relation to French biodiversity. The 'What' relates to: fauna, flora, habitats, protected areas and soon geological heritage. The 'Where' relates to all French territory including overseas territories, encompassing both marine and terrestrial areas. The 'When' relates to all time periods.

Our aim is to be able to respond at a national level to questions such as:

- What species and habitats are present in France, and where are they found?
- What status do these features have?
- What are the associated distributions?
- What taxonomic groups?
- What types of protected areas exist?

### 3. Main programmes

To be able to respond to these questions we rely on a number of programmes from which we draw information. This information is consolidated and managed at a national level, whilst maintaining close contact with regional and national bodies.

Three distinct categories of programs:

- 1) Programmes which maintain taxonomic registers and provide information on the status of species and habitats.
  - a) The French national taxonomic register 'TAXREF'  
The objective of this programme is the maintenance of a national taxonomic register which is complete, accessible and coherent for all French territory.
  - b) The French regulations register  
Linked to TAXREF, this register holds an up-to-date list of species regulations and contains more than 130 legal texts from a regional to an international level.
  - c) National Red Lists  
In partnership with the French IUCN committee, we evaluate the degree to which Red List species are threatened across French territory.
  - d) National habitat classification systems  
The objective of this programme is the establishment of connections between habitat classification systems to ensure scientific and methodological consistency in the generation of habitat data.

All the information within these programmes is available for download so that external bodies can also use, manage and distribute it as they see fit.

- 2) Next up are programmes which aim to identify and characterise specific areas of biodiversity interest:
  - a) The ZNIEFF programme: this programme identifies and describes those areas of significant ecological and biological value across French territory.
  - b) The 'Protected areas' programme: identify, describe and bring together information on all types of areas regulated for biodiversity conservation across France.  
The Natura 2000 programme: In contrast to the other two programmes I've just mentioned, this programme only covers mainland France (not overseas territories) and is the result of the implementation of two European Directives: the Habitats Directive and the Birds Directive. The aim of this programme is to establish a coherent network that will ensure the long-term survival of species and habitats of European importance.
- 3) Finally, the third type of programme aims to evaluate distributions of species and habitats in France.
  - a) First up is the 'national (species/biodiversity) inventory' programme which aims to identify all the different species inventory programmes across French territory and consolidate their operation and resulting data. Based on this data, up-to-date, validated maps can be produced and made publicly available.
  - b) Finally, a programme similar to the 'national inventory' programme was launched in 2010, the difference being that this new programme is based on *historic* as opposed on *present-day* information. It is hoped that this programme will improve our understanding of historic species distributions using, for example, data from archaeological excavations.

#### **4. Organisation, data quality and validation**

Firstly, all these programmes have differing objectives and therefore use different organisational approaches and methodologies, and have links with different types of partner organisations. However, all respect the same over-arching principles, which are:

- The use of a methodology that clearly defines

- Partners whose role consists of *either* data production *or* data validation, but not both
- One of more governance body which ensures the proper operation of the programme
- A structured approach to data consolidation and dissemination within the INPN

Exactly how we evaluate the quality of data and whether it is 'fit for purpose' for a particular programme, depends on which rules were applied and met during the validation process. If the whole validation process was completed and all the prescribed rules met, the data is considered to be valid at a national level. On the other hand, if the entire validation process was not completed, the data will be considered 'validated' only to a certain degree.

I should clarify that these 'rules' or 'protocols' are specific to each programme and consist of two elements: an automatic validation process and a validation process led by experts within partner programmes.

## **5. Data dissemination**

Via the INPN, all the information produced and managed within these programmes is disseminated. Different types of queries can be made via the INPN web portal, using two main entry points: either querying within a programme type OR by querying cross-cutting data pertinent to multiple programmes – for example data on species, habitats or protected areas. In the context of the French Information System for Nature and Landscape, we are currently working on criteria to help identify sensitive data that should not be made publically available. The aim is to establish a list of species and habitats for which data should not be disseminated, because this dissemination might threaten the species or habitats in question. It's also important to bear in mind the legal aspects of data dissemination.

We work with the Global Biodiversity Information Facility of France (GBIF) to facilitate the diffusion of French data internationally, and equally to ensure that data on French biodiversity held by international organisations can be entered into the INPN. We are also working to set up data exchange standards in the context of the SINP, including the use of unique identifiers to improve the traceability of data.

## **6. General issues**

As we have seen, the organisation of French biodiversity data involves multiple stakeholders at different levels – both regional and national. This raises several challenges:

Firstly, the issue of scale and aggregation:

- Local needs are not necessarily the same as regional or international needs.
- Given the number of stakeholders operating at multiple different levels in France, difficulties linked to the inconsistent application of methodologies or different rates of progress of biodiversity programmes.
- technical issues during data exchange procedures. Essentially, the large number of stakeholders involved means that not all are sufficiently trained in the technical skills needed for data exchange operations according to the established standards.

- Moreover, many French biodiversity stakeholders operate on a voluntary basis through various associations, and it can be difficult for state institutions to impose strict methodologies.

To conclude, within France, improving the dissemination of biodiversity data in both a qualitative and quantitative sense has been considered important for several years. However, this improvement remains somewhat slow because of interlinked political, scientific and technical challenges.