

Czech EPBRS Meeting

World Biodiversity and the European Taxonomy

Strategies in taxonomy: research in a changing world

Spanish Review

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National reviews guidelines

The aim of national reports and e-conference is to bring together potential users of taxonomy in Europe. The EPBRS meeting under the Czech Presidency is designed to investigate what the users of taxonomic information see as the main issues that taxonomists should focus on. Encouraging taxonomy users to participate actively in the e-conference and the meeting itself might also help to strengthen the policy bit of the science-policy interface.

The following headings will be used to structure the work of the EPBRS in the e-conference and during the meeting.

1-Taxonomic Information: Strategy and Methods

Inventory and Identification: “What is it, and how does it fit among its relatives?”

- 1.1 Does your country use taxonomy-based tools for biodiversity assessments and policy making? What are these tools?

Yes. Online databases as those included in the Spanish GBIF node (see <http://www.gbif.es/MasDatos.php> or <http://data.gbif.org/datasets/resource/3367/> for endangered species), the Anthos project on floristic data (<http://www.anthos.es/>) and the national projects Fauna Iberica (see <http://www.fauna-iberica.mncn.csic.es/>) and Flora Iberica (see <http://www.floraiberica.org/>) as well as the database resources on biodiversity of the Ministry of Environment (http://www.mma.es/portal/secciones/biodiversidad/banco_datos/)

- 1.2 Does your country have a national checklists? When were they last revised and updated? Is there any national assessment of which taxa in particular lack taxonomic information? Did you submit a response to the GTI questionnaire on these issues?

Reference lists sponsored by the Ministry of Environment for more visible groups. Better lists are work in progress (from scientific projects national in scope; e.g. Fauna Iberica (see <http://www.fauna-iberica.mncn.csic.es/>) or Flora Iberica (see <http://www.floraiberica.org/>))

Regional lists also available, e.g.:

<http://biodiver.bio.ub.es/biocat/>

<http://bdb.cth.gva.es/>

<http://www.juntadeandalucia.es/medioambiente/site/web/menuitem.504860762adc832f99bea88060425ea0/?vgnnextoid=178411a12a7ae010VgnVCM1000000624e50aRCRD>

<http://www.biodiversidad.navarra.es/>

<http://www.ipe.csic.es/floragon/>

<http://www.sivim.info/sivi/>

<http://www.gobiernodecanarias.org/cmayerot/medioambiente/medionatural/biodiversidad/bancodatos/>

Other interesting web resources are those related with list of invasive species (see

<http://www.sea-entomologia.org/PHORON/generales.htm> or

<http://hidra.udg.es/invasiber/>).

- 1.3 Describe 1-2 flagship projects related to bullet points below and suggest some recommendations useful for meeting as a result from these projects: Please outline any national taxonomy-based monitoring or surveys designed to establish the distribution, status and trends of any taxonomic group.

Up to our knowledge there is not any multidisciplinary study at national or regional level within Spain on taxonomy-based monitoring or surveys designed to establish the distribution, status or trend of any taxonomic group. There are only some singular studies about the relationship between some global change drivers and some plants and animals.

See <http://www.mma.es/portal/secciones/biodiversidad/inventarios/inb/index.htm>

- 1.4 Is there any coordinated effort in your country regarding bar-coding for identification or the assessment of biodiversity?

There is not a national coordinated effort for barcodes in Spain, but some individual projects and an informal platform for internal coordination for a possible future coordinated project. This topic in Spain is under discussion and only some scientists support it. Most of them have the opinion that this is a matter for biodiversity conservation managers. There were an attempt in organising the Spanish node for barcoding "HispaBOL" (Spanish Barcoding of Life), included or related to iBol and ECBOL, but still unclear.

- 1.5 Are you aware of any major efforts (or projects) in your country to integrate morphological and molecular taxonomy?

We ignore the existence of any national initiative on this topic, but there are some individual projects dealing with this topic. For example: "Origin and evolution of morphological novelties in plant lineages. An approximation evo-devo" developed at the Royal Botanical Garden of Madrid (RJB-CSIC).

2-Taxonomy as a basis for ecological research and sustainable management of the biodiversity

Ecological functions and services: “What does it do, and what does it interact with?”

How does taxonomic research contribute to better understanding of the functions and attributes of species, and to the management of biodiversity?

- 2.1 Do you know projects involving taxonomists in the understanding of ecological functioning, or the assessment of ecosystem services?
- 2.2 What is the contribution of taxonomy in your country to the management of biological invasions?

See <http://www.europe-aliens.org/regionFactsheet.do?regionId=SPA-SP>

and

<http://www.sea-entomologia.org/PHORON/generales.htm> or <http://hidra.udg.es/invasiber/>)

- 2.3 What is the contribution of taxonomy in your country to efforts to understand the status and trends of key functional groups such as pollinators?

There are only some few local studies

Taxonomy, biodiversity and its conservation: “How to manage it in sustainable way?”

Describe 1-2 flagship projects related to bullet points below and suggest some recommendations useful for meeting as a result from these projects:

- 2.4 Are there also non-professional organisations recording biodiversity data collections (e.g. ornithologists) involved in the decision process of land use planning etc.?

Yes, the most important one is the SEO (<http://www.seo.org/>)

- 2.5 Are there some indicators (or red-list species) monitoring Natura 2000 sites for delimitation and management of nature reserves used in your country?

For conservation of biodiversity that requires a prior knowledge about the distribution of habitats and wildlife, the Spanish Ministry of Environment has developed a project on “National Inventory of Biodiversity”. Moreover, it is also necessary to understand their state of conservation and the evolution of their populations, the most important areas to ensure their survival and provide for updating this.

This project aims at achieving and maintaining long-term continuity of an inventory of Spanish biodiversity, structured in a series of Atlas, by taxonomic groups.

See: <http://www.mma.es/portal/secciones/biodiversidad/inventarios/inb/index.htm>

- 2.6 Which taxonomy-related research (standardized taxonomic metadata, delivery of checklist building tools, building expertise network) in developmental non-European biodiversity-rich countries is supported by policy-makers from your country based on your national expertise and experience?

- 2.7 Is there a National Needs Assessment of GTI in your country? If yes, what are your specific needs, e.g. for conservation, protected areas, CITES/customs, dealing with invasive species etc?

3- Taxonomy, potential users and capacity building of experts

Open access to information: "How to find out about it?"

How does taxonomic information get from where it resides to where it is needed elsewhere in the world?

- *Bioinformatics*

- 3.1 To what extent is taxonomic research in your country contributing to international biodiversity initiatives and projects (e.g GTI, GBIF, PESI, EOL, Etc...)

See <http://www.gbif.es/>

- 3.2 What is the state of the art in biodiversity informatics in your country? (e.g. e-taxonomy and e-science tools)

- See <http://www.gbif.es/>

- 3.1 Has there been a national assessment of best practices for taxonomic data quality and validation?

See <http://www.gbif.es/formaciondetalles.php?IDForm=46> (mostly in Spanish)

- 3.2 Do you have any national guidelines on how to approach the proof of absence?

- 3.3 What are the taxonomic standards used in the databases (TDWG, Darwin core, COL, PESI, etc...)?

See http://www.gbif.es/Recursos3_in.php

- 3.4 Could you identify the major digitization efforts for biodiversity data (e.g. collections, observations, species checklists, etc...)?

See http://www.gbif.es/Financiacion_in.php

And <http://data.gbif.org/datasets/provider/57>

- 3.5 Is there any effort in your country to make taxonomic information especially identification services easily accessible and useful to practitioners?

Capacity building in biodiversity-rich countries and worldwide:

- 3.6 Are there any policy initiatives in your country to orient capacity building in taxonomy?

- 3.7 Are there any sources of finance or policy actions in your country dedicated to applied taxonomy (e.g. identification tools, training for parataxonomists)?