

World Biodiversity and European Taxonomy  
*Strategies in Taxonomy: Research in a Changing World*  
National reviews guidelines

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Answers in blue, comments in red.

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?

Finnish experts were not quite sure what was meant by this question.

Red data books are based on taxonomic, faunistic and ecological knowledge together. Several related processes may be identified, but usually taxonomy is only a part of expertise needed.

1.2 Does your country have a national species checklist?

The number of separate checklists is vast. Probably no country has one checklist that covers the whole species diversity. In most countries these lists are maintained and updated by several authors. (This is the case in Finland – at least.) Finnish Museum of Natural history maintains large number of check-lists. Lists are not updated simultaneously, but rather depending on the activity of the author of each list. Also, museum maintains a list of www-links of check-lists.

Expert groups on different taxonomic groups maintain and update check-lists of their interest.

Some check lists are maintained by private enthusiasts.

When was it last revised and updated?

Lists from different taxonomic groups are not updated simultaneously. Rather, the update of lists is continuous work – in some groups the need to update may be occasional.

Is there any national assessment of which taxonomic groups in particular lack taxonomic information?

No

Did you submit a response to the GTI questionnaire on these issues?

Finnish experts were not quite sure what was meant by this question.

Understanding Patterns and Change: “Where is it, what’s happening to it, and where is it going?” Describe 1-2 flagship projects related to bullet points below and suggest some recommendations useful for meeting as a result from these projects:

1.3 Please outline any national taxonomy-based monitoring or surveys designed to establish the distribution, status and trends of any taxonomic group.

Finnish experts were not quite sure what was meant ‘taxonomy-based monitoring’. Is not all biodiversity monitoring taxonomy-based?

PUTTE- research program concentrates on poorly known groups of species.

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

No.

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

Yes, museum institutions have several such projects.

## **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?

I guess taxonomic research plays major role in this field.

2.1 Do you know projects involving taxonomists in the understanding of ecological functioning, or the assessment of ecosystem services?

No

2.2 What is the contribution of taxonomy in your country to the management of biological invasions?

Taxonomic knowledge is essential, but this type of research is more faunistic than taxonomic

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?

It is good to be able to identify the species but taxonomic research has no role in that.

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:

Recommendation: this type of taxonomic work is needed in other than well-developed countries.

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

Yes, plenty of such organisations.

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

Yes, however, monitoring at Natura sites is not based on single species. Some species, are forced to be monitored (according to Hab.Dir. Art 12).

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

Not known.

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?

Not known.

### **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?

Via internet.

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

There is a lot work to do. Only limited effort is provided at the moment. GBIF etc are not extremely friendly for the users, which decreases the attractiveness of them.

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

Rather good - probably one of the best in the world, but still there is enormous amount of work left!

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

Not known.

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

Absence of what?

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

There are no common standards but rather a diverse group of applications.

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

Digitization at the museums is huge work! We have estimated need for ca 150 years work to be left at the moment.

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

Some ongoing projects at the moment

Capacity Building in Biodiversity-rich Countries and Worldwide  
What is the state of training and education in systematics and are there any gaps in capacity?

Several gaps exists. This must be the case everywhere.

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

PUTTE research program of poorly known taxa in Finland.

3.9 Are there any sources of finance or policy actions in your country dedicated to applied taxonomy (e.g. identification tools, training for parataxonomists, i.e. field-trained biodiversity collection and inventory specialists recruited from local areas)?