

Where do most taxonomists work, and does it matter?

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The Taxonomic Impediment

The "taxonomic impediment" is an important issue in biodiversity studies. It constitutes the

- incomplete knowledge of taxa
- dearth of taxonomists worldwide

Most taxonomists may be based in developed countries, but much of the biodiversity occurs in tropical, developing countries. Thus, the taxonomic impediment is particularly acute in developing countries.

Convention on Biological Diversity (CBD)

The acuteness of the problem in developing countries could be partly alleviated in two ways:

- Increased study of taxa in developing countries by taxonomists in developed countries
- "Capacity building" in developing countries.

The mechanisms of the CBD govern both approaches, but most taxonomists are little aware of the ethical and socio-political issues that underlie this new global "regime" that affects their professional lives.

The CBD and US Taxonomists

The US signed, but did not ratify, the CBD. However, US taxonomists become aware of the ramifications of the CBD, e.g., when:

- they must obtain permits to collect in countries where previously these had not been required ("access to genetic resources")
- countries they visit require them to involve local students in the research ("capacity building")

If not seen in the larger socio-political context, these requirements may be viewed merely as annoying bureaucratic hurdles whose ethical dimensions are invisible (*NY Times quote*).

Where are the US Taxonomists?

Do they mostly work in academic or non-academic institutions?

The answer to this question can help to shape policy decisions to help overcome the taxonomic impediment by, for example,

- raising awareness of the CBD and its emphasis on capacity building
- building institutional structures to help ease the process of globalization of taxonomy under the CBD regime

Data

- World Taxonomist Database (<http://www.eti.uva.nl/Database/WTD.html>)
- Society of Systematic Biologists (SSB) membership

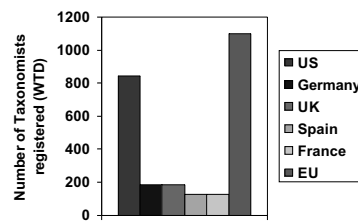
Analyses

Individuals were classified into five classes: University, Museum, Herbarium & Botanic Garden, Research Institute, or Government Agency.

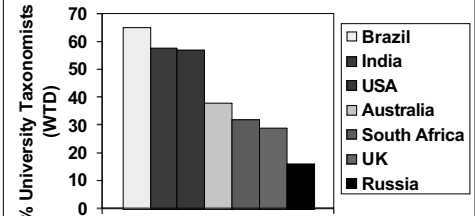
Relative frequencies of these classes were computed separately for the two databases.

"If you request a permit, you have to provide coordinates for all sites to be visited and have to have the approval from all the communities that live in those areas. I am still waiting after 14 months for a permit...."
New York Times, May 7, 2002

USA has highest proportion of taxonomists



Institutional Affiliations of Taxonomists vary across countries



Does it matter? How?

If something is to be done about the "taxonomic impediment," then the US has to shoulder a large part of the responsibility because the highest proportion of taxonomists is based there.

If the US decides to shoulder this responsibility, then Universities and University taxonomists need, at a minimum, to be educated about the CBD and its ramifications.

If this awareness is created, then Universities, University taxonomists and funding agencies will work toward building institutional support to address CBD-associated issues, e.g.,

- collaborations and training now required by many countries
- navigating the maze of rules and regulations associated with collection of biological material

Unless this happens, the majority of US taxonomists (who are at Universities) will be left behind. As a result, a smaller proportion of US taxonomists overall will participate in the characterization of the world's biodiversity.

The majority of taxonomists in the US work at Universities

