

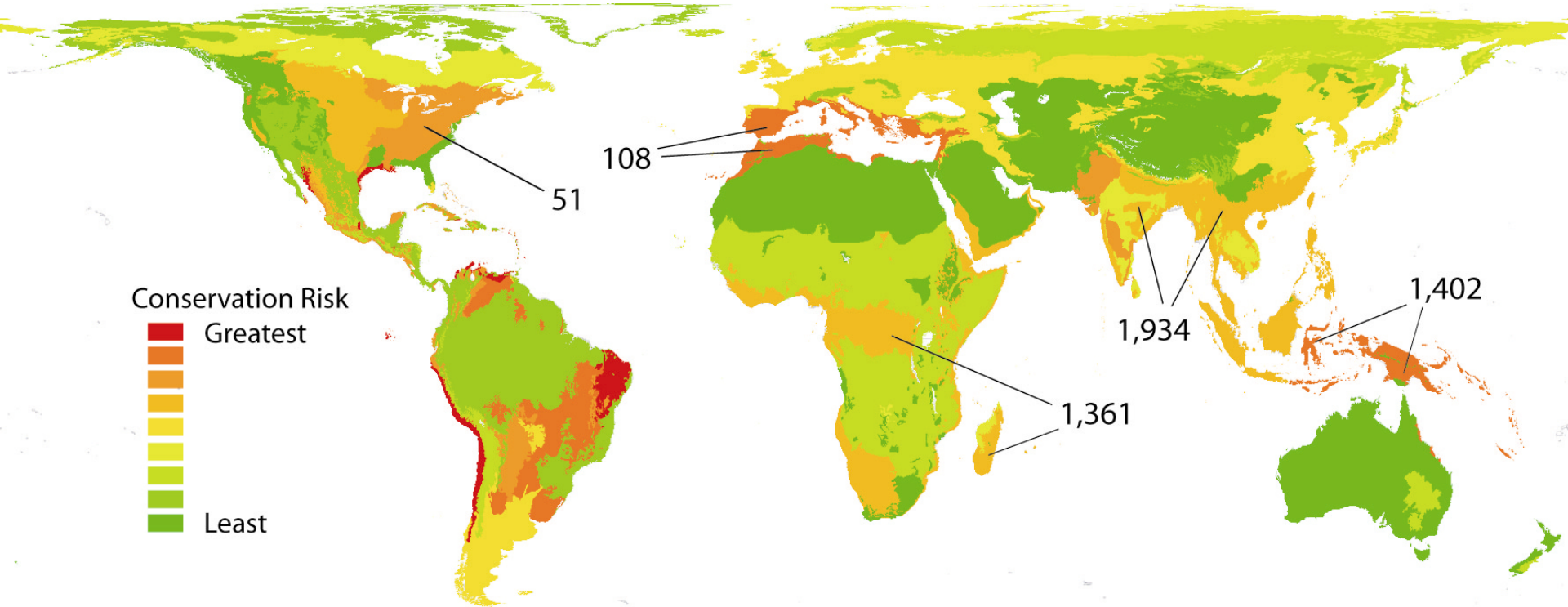
The importance of taxonomy to conservation

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Global conservation risk



Lee and Jetz, 2008

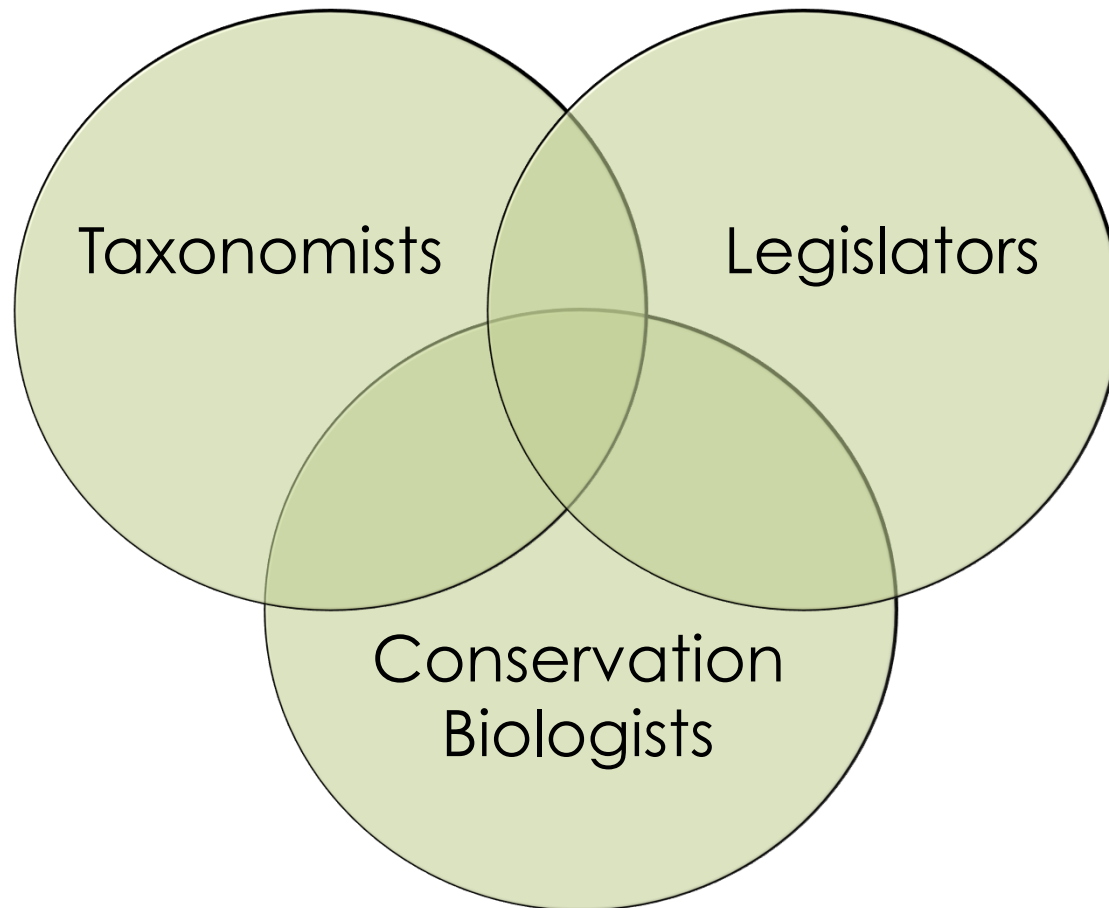
Conservation needs taxonomy

- Where should protected areas be established if we do not know what is being protected?
- Which are harmful invasive species and which are native species?
- How can a country benefit from their biodiversity if they do not know what that biodiversity is?

“Taxonomic Impediment”

- Lacking completeness of understanding of biodiversity
- Uncertainty in organismal identity

Species conservation requires...

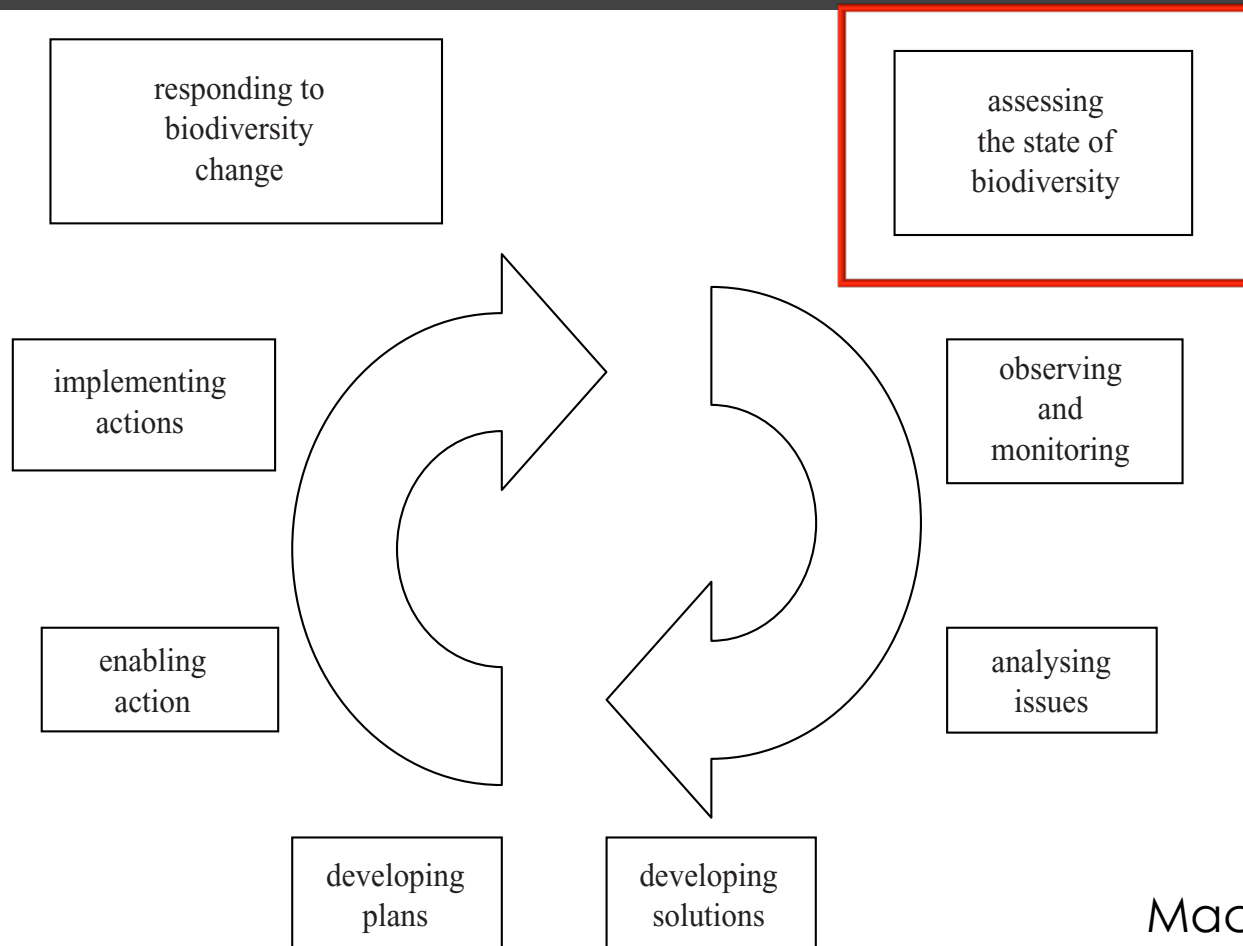


Species conservation requires...

1. Set of practical rules to standardize species units included on lists
2. Taxonomic units chosen for conservation recovery planning which recognizes dynamic nature of natural systems

→ Need more taxonomists!

Cycle of conservation activities



Mace, 2004

What can taxonomists do?

1. Provide lists of species

- International environmental or management agreements
 - CITES
 - Convention on Migratory species
 - Trade agreements
- National level protection of species
 - Endangered Species Act (USA & Canada)
 - Biodiversity Action Plan (UK)

Effects on local level action

- Placing species on lists may be prerequisite for direct action
 - Habitat protection and restoration
- Cannot have species recovery plans without a proper species
 - Formally name the species
 - Determine what are limits of the “species”

2. Clarify how “species” was defined

- State methods of species delimitation clearly
 - Allows new candidates to be assessed easily
- Why?
 - Enforce stability of species
 - Reduce noise from changing species concepts or new information
 - Maintain credibility of lists

3. Collect other forms of data

- Collect and provide data for other researchers
 - Ecological
 - Behavioral
 - Conservation context (e.g. hunting)

4. Network

- Lack of society specifically devoted to promotion and defense of taxonomy
 - Results in under-representation in bodies that govern scientific policy, budgets, and priorities
- Communicate taxonomic revisions to conservation biologists

Cycle of conservation activities

