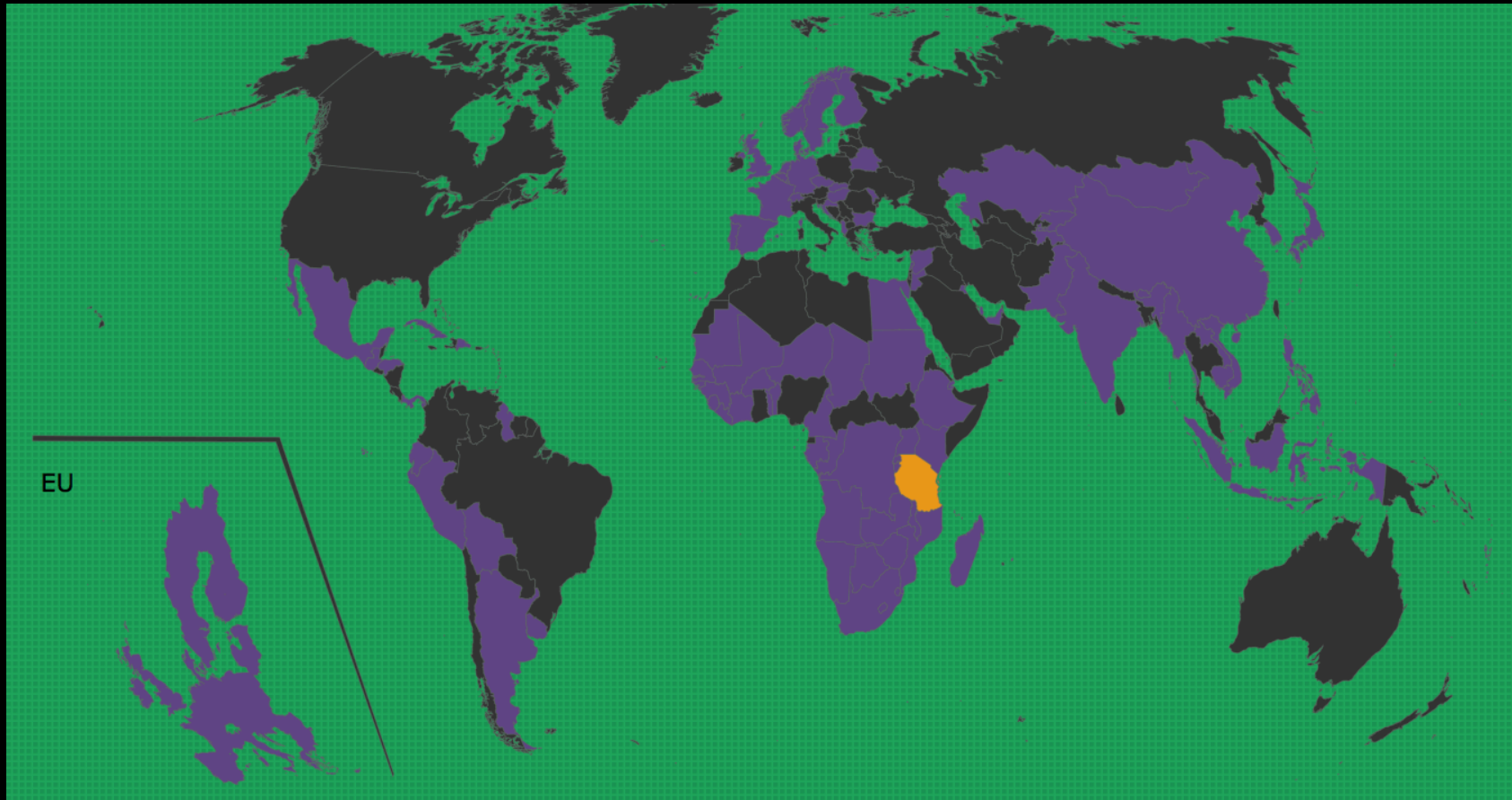


# New Horizons for Research and Collections: The Nagoya Protocol on Access and Benefit-Sharing



Breda M. Zimkus

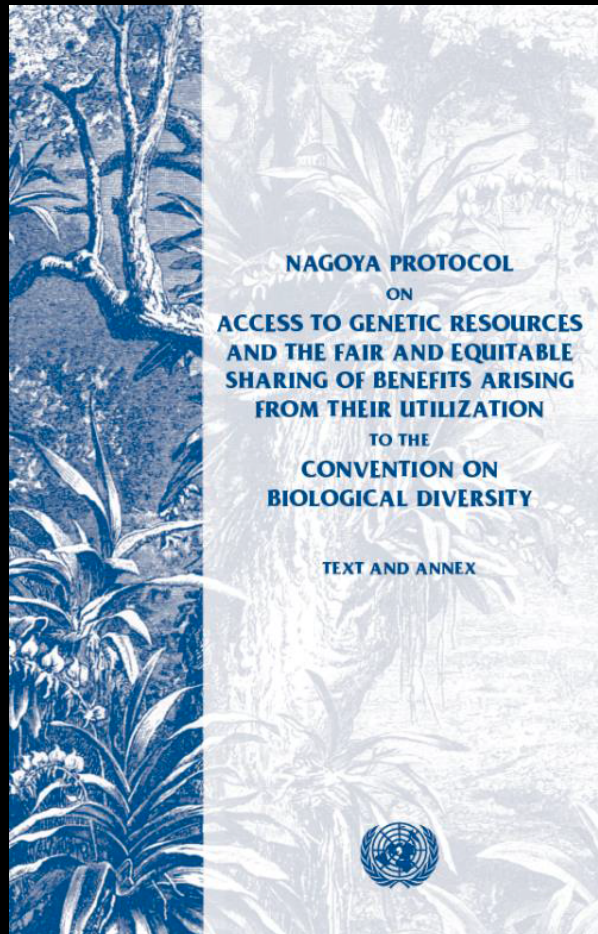
Museum of Comparative Zoology, Harvard University

# Access & Benefit-Sharing: History

- Convention on Biological Diversity (CBD, <https://www.cbd.int>)
  - Established in 1992 (in force since 1993) with 3 objectives:
    1. Conservation of biological diversity
    2. Sustainable use of its components
    3. Fair and equitable sharing of benefits arising from the use of genetic resources
- Paradigm shift due to biopiracy
  - Genetic resources no longer common heritage
  - States have sovereign rights over genetic resources



# Access & Benefit-Sharing: History

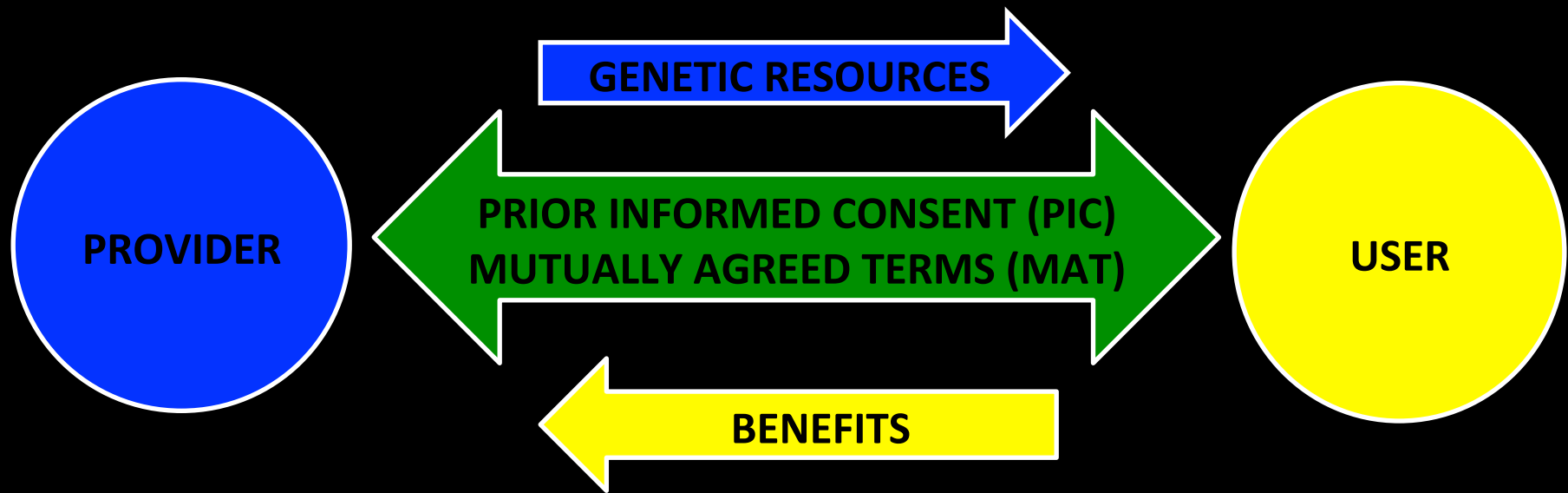


- Nagoya Protocol
  - Legally binding supplementary agreement to CBD
  - Adopted in 2010; came into force on 12 October 2014
  - Outlines obligations for genetic resources and associated traditional knowledge (**ABCs** of ABS):
    - **A**ccess regulated
    - **B**enefits from utilization shared
    - **C**ompliance measures required

# Access & Benefit-Sharing: Terms

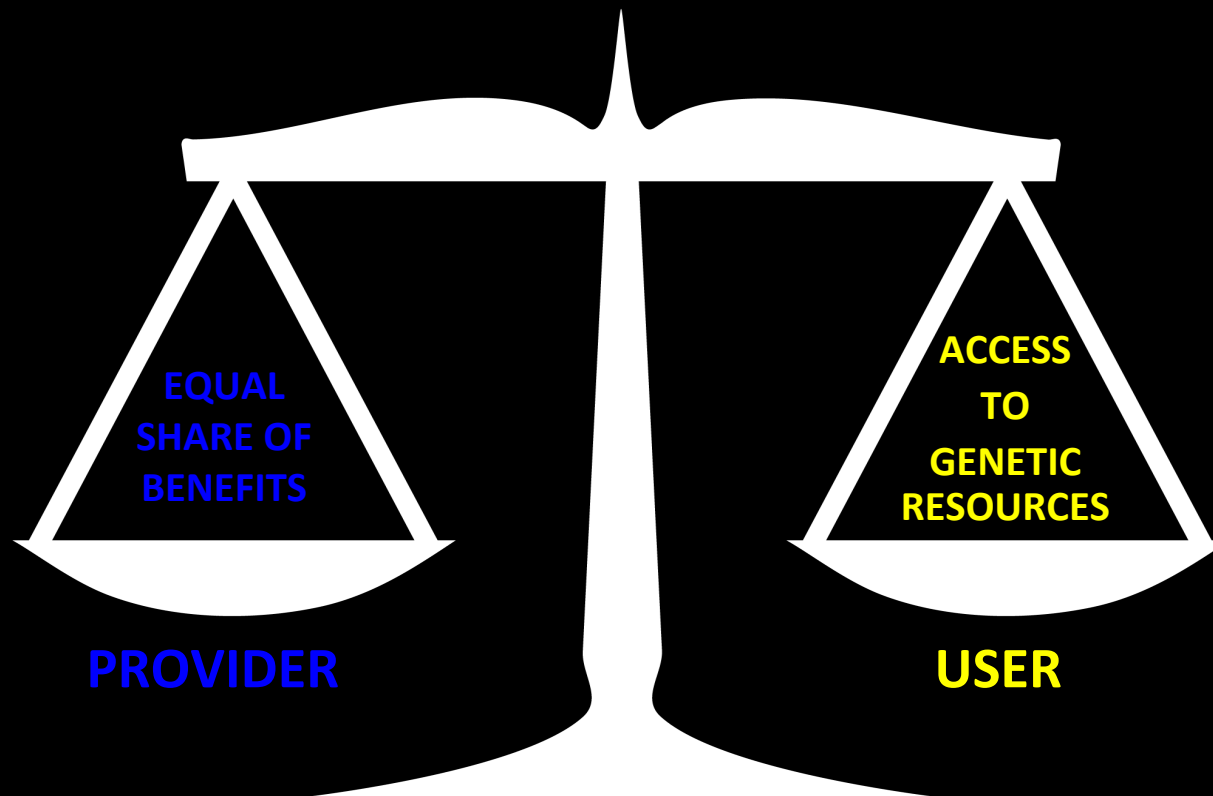
- Genetic Resources (defined in CBD)= any material of plant, animal, microbial or other origin containing functional units of heredity and is of actual or potential value, including:
  - Everything that contains DNA (living or dead material)
  - Wild species as well as breeding varieties
  - Material from in situ and ex situ sources
- Traditional Knowledge associated with genetic resources (included in Nagoya but not defined)
  - “Knowledge, know-how, skills and practices that are developed, sustained and passed on from generation to generation within a community, often forming part of its cultural or spiritual identity.” (WIPO 2010, <http://www.wipo.int/tk/en/tk/>)

# Access & Benefit-Sharing: Terms



- Prior Informed Consent (PIC) required before access
- Mutually Agreed Terms (MAT) must be established (if required), including terms for sharing benefits

# Access & Benefit-Sharing: Principles



- Equity relationship between access to genetic resources and benefits that arise from their use
- Users and providers both contribute to the conservation and sustainable use of biodiversity

# Access & Benefit-Sharing: Principles

- Benefit-sharing is subject to Mutually Agreed Terms (MAT)
- Benefits may be monetary or non-monetary, for example:



## – Monetary Benefits

- Access fee(s) per sample
- Commercial products
- Intellectual property ownership
- Milestone payments
- Licensing fees
- Royalties
- Salaries
- Up-front payments

## – Non-monetary Benefits

- Access to information for conservation
- Collaborative activities/research
- Education or training
- Intellectual property ownership
- Knowledge or technology transfer
- Research partnerships
- Research exchange
- Resources for capacity-building

# Access & Benefit-Sharing: Principles

- Parties must develop and enforce compliance measures with domestic legislation or regulatory requirements
  - Provide evidence that genetic resources have been accessed in accordance with applicable laws
  - Cooperate in cases of alleged violations
  - Monitor utilization of genetic resources, including designation of checkpoints within value-chain:





# Access & Benefit-Sharing: Compliance

- Applies to genetic resources and acquired from a Party since 12 Oct 2014 or later (when country became Party and established ABS measures)
- Some countries established access legislation before Nagoya Protocol (in response to the CBD) and use that date
  - National ABS laws that pre-date NP are legally-binding (even though compliance may not be enforced outside country)



29 Dec 1993  
Convention on  
Biological Diversity

12 Oct 2014  
Nagoya  
Protocol

# Access & Benefit-Sharing: Challenges



- Increased scrutiny on international biological research
- No uniformity regarding ABS among signatory countries
  - Different interpretations of Nagoya Protocol
  - Different stages of development of relevant laws
  - Different dates used for compliance
- Confusion about application of Nagoya
  - ABS legislation/regulations must be followed (e.g., PIC, MAT) even if researcher is from a non-signatory country
  - Nagoya still applies even if research is non-commercial

# Access & Benefit-Sharing: Implications for Collecting/Research

- Obtain PIC and establish MAT before collecting specimens
  - All must comply with domestic ABS legislation (even if from non-signatory country)
  - Ensure agreements reviewed and signed by designated institutional representative
  - Change in utilization (e.g., non-commercial to commercial) requires renegotiation of PIC/MAT



# Access & Benefit-Sharing: Implications for Collections

- Track all compliance documentation (e.g., permits, certificates, agreements)
- Implement procedures to share benefits as negotiated with providing country (if not done so already)
- Keep records of all instances of material use
  - Temporary use (e.g., loans) or permanent transfer can only take place if permitted by PIC/MAT
  - Any restrictions/requirements arising from MAT should be communicated to third-parties



Harvard Museum of Natural History and  
Museum of Comparative Zoology

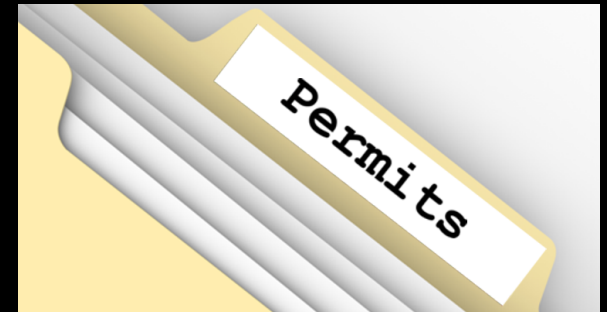
# Implications for Collections: Acquisition & Accession

- Acquisition and accessioning policies should be reviewed in regards to ABS
  - Originals (preferred) or copies of all compliance documentation must be obtained:
    - 1) Collecting permit(s) from country of origin
    - 2) Benefit-sharing agreements
    - 3) Export permit(s) from country of origin
    - 4) Import permit(s) into the U.S



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# Implications for Collections: Tracking Compliance Documentation



- Policies and procedures should be developed to increase transparency and access to “permits”:
  - Scanning and uploading “permits” to database
  - Tracking core information regarding “permits” (e.g., identifying number, issued by, issued to, dates) in database
  - Using controlled vocabulary to categorize “permit” types
  - Linking “permits” to transactions (e.g., accessions, loans) within database

# Access & Benefit-Sharing: Implications



- Researchers and institutions may risk research programs and reputations if they don't obtain PIC, negotiate MAT, and follow through with obligations
- The Lacey Act, regulating interstate commerce in illegally taken fish, wildlife, and plants, may force U.S. institutions to implement ABS measures on a voluntary basis
- Individuals and institutions could be held responsible for violations of the Lacey Act (although this has not yet occurred)



# Ways to Adapt to the New Landscape for Collecting/Research



- Determine country-specific permitting requirements (ABS-CH)
- Apply for permits as far in advance as possible
- Apply for permits for broadest scope possible
- Collaborate with in-country partners (may be required)
- Articulate how research can benefit providing countries in permit applications and benefit-sharing agreements

# Ways to Adapt to the New Landscape for Collections



- Review collection acquisition and accessioning policies in regards to ABS
- Develop policies and procedures to increase transparency and access to compliance documentation by tracking digitally

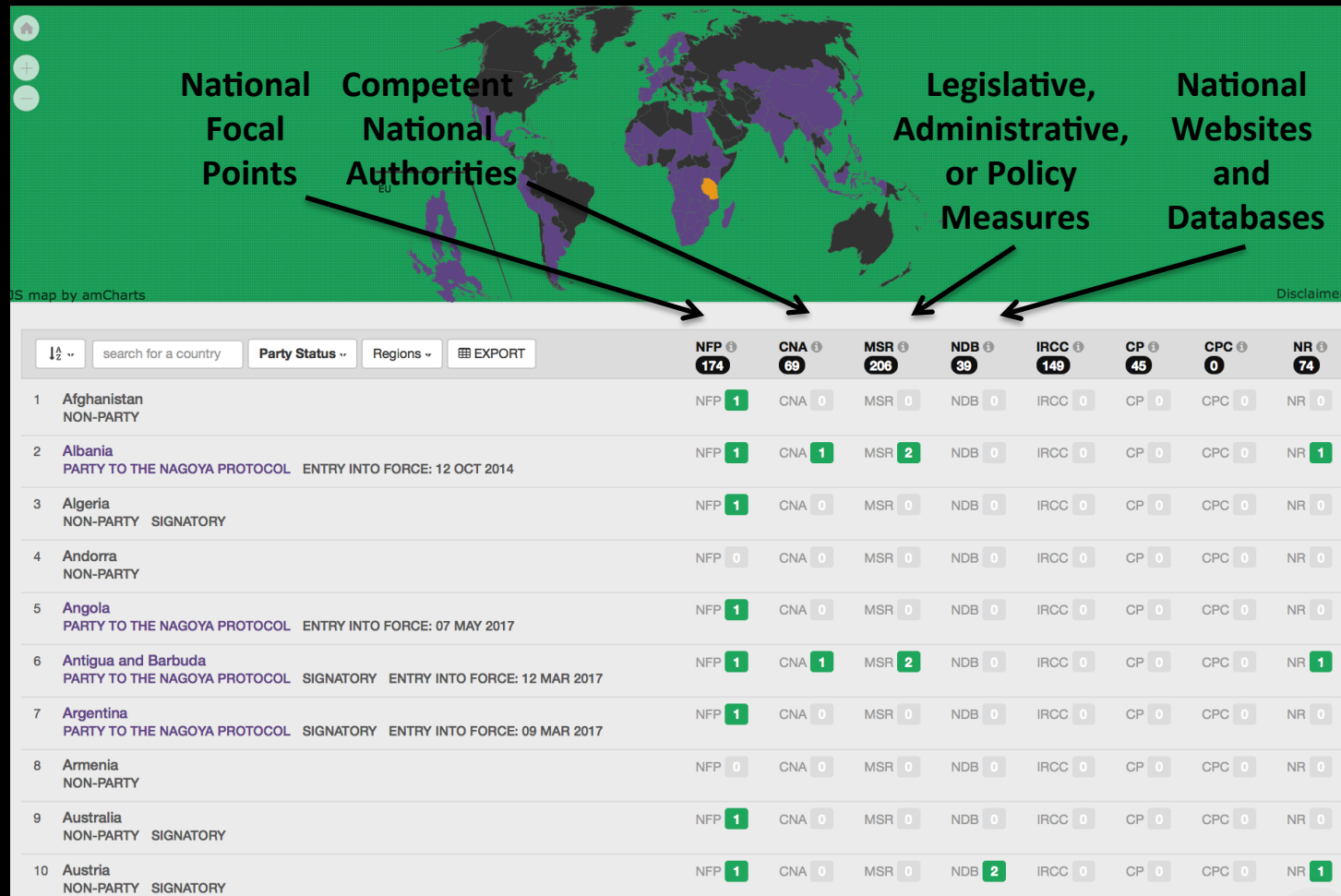
# Resources

The screenshot displays the ABSCH website interface. At the top, the logo for ABSCH (The Access and Benefit-Sharing Clearing-House) is shown alongside the Convention on Biological Diversity logo. A navigation bar includes links for Home, About the ABSCH, Search, Submit, Country Profiles, and National Reports. Below the navigation bar, a text box describes ABSCH as a platform for exchanging information on ABS and a key tool for implementing the Nagoya Protocol. The main content area features a world map where countries are color-coded: blue for Parties to the Nagoya Protocol (104 countries), red for Ratified, not yet Party (1 country), and grey for Non-Parties (94 countries). A callout box highlights Brazil on the map. A white box with a black border contains the URL <https://absch.cbd.int>. At the bottom of the map, there are statistics: 104 Parties to the Nagoya Protocol, 1 Ratified, not yet Party, and 94 Non-Parties. The map is credited to amCharts and includes a disclaimer.

- Web-based platform for information exchange associated with implementation of Nagoya Protocol
- Most relevant resource when institutions/researchers plan to access genetic resources or want to find country specific information

# ABS Clearing-House (ABSCH)

- Many parties do not have complete profiles BUT most parties and even non-parties have ABS National Focal Points that can be contacted



# Additional ABS Resources

- SPNHC Wiki Page  
<http://spnhc.biowikifarm.net>
- GGBN ABS Guidance, MTAs, ABS Fact Sheet & FAQs  
<http://wiki.ggbn.org/ggbn/Documents#>
- CETAF Codes of Conduct, Best Practice, MTAs  
[http://cetaf.org/sites/default/files/final\\_cetaf\\_abs\\_coc.pdf](http://cetaf.org/sites/default/files/final_cetaf_abs_coc.pdf)

The screenshot shows a wiki page with a table of contents and introductory text. The table of contents includes sections like 'Statement of Purpose', 'Contributors', and 'How are the Convention on Biological Diversity and the Nagoya Protocol Connected?'. The introductory text explains that these pages contain information about the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization (NP), which is a supplementary agreement to the Convention on Biological Diversity (CBD).

The screenshot shows the 'Documents' page on the GGBN Wiki. It features a search bar, a 'Log in' button, and a list of documents under the heading 'Contents (hide)'. The list includes '1 Governance', '2 Access and Benefit Sharing', '3 GGBN Brochure', and '4 GGBN Newsletters'. Below this, there are sections for 'Governance', 'Access and Benefit Sharing', 'GGBN Guidance on Access and Benefit Sharing', 'GGBN Example Material Transfer Agreements', and 'GGBN Access and Benefit Sharing Fact Sheet and Answers to Frequently Asked Questions'.

The cover of the 'CODE OF CONDUCT & BEST PRACTICES' document features the CETAF logo (Consortium of European Taxonomic Facilities) and the tagline 'Exploring and Documenting Diversity in Nature'. A yellow circle with the text 'ABS' is positioned on the left side. At the bottom, it states 'includes MATERIAL TRANSFER AGREEMENTS™ TEMPLATES'.

B. M. Zimkus (MCZ)

# 7 Stages of Grief

Shock

- Initial paralysis at hearing the bad news

Denial

- Trying to avoid the inevitable

Anger

- Frustrated outpouring of bottled up emotion

Bargaining

- Seeking in vain for a way out

Depression

- Final realisation of the inevitable

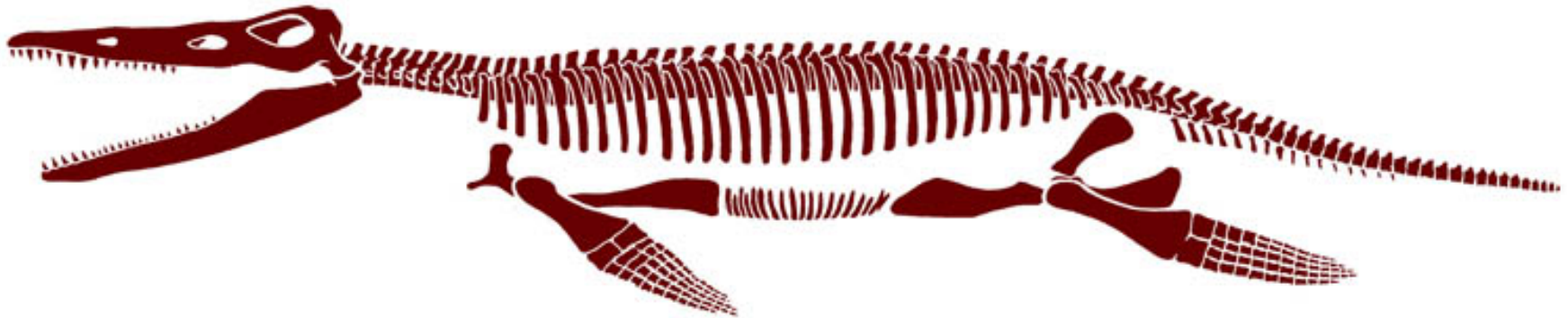
Testing

- Seeking realistic solutions

Acceptance

- Finally finding the way forward

# MUSEUM OF COMPARATIVE ZOOLOGY



HARVARD UNIVERSITY