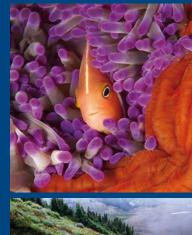


# bioDISCOVERY

Monitoring, assessing and predicting biodiversity change

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### Introduction



#### Policy

Using knowledge from assessments and other sources to promote the conservation and sustainable use of biodiversity, e.a. CBD

#### Assessments

Assessment Structures e.g. IPBES, GBO. IPCC

Scientific syntheses of the status, current trends and projections of biodiversity and ecosystem change. Analyses of pathways for conserving and sustainably using biodiversity

Focus 2:

Improving

observation

and

understanding

of biodiversity

change

 $\Delta$ LN

GB03, GB04

Focus 1:

Strengthening

biodiversity

assessments

"Synthesis & Assessments"

#### TRY

Operational Observation Systems e.g. GEO BON **Biodiversity** Observation

Systems for global and regional monitoring of biodiversity and ecosystems

"Observing Systems" "Data Systems"

### Biodiversity Scenarios

Model projections of biodiversity change based on plausible future trajectories of key drivers, e.g. land use, climate

"Earth System Modelling"

TRY, EcoEvol, HarmBio, BBS Novel Model. **Tipping Points** 

> Focus 3: Improving biodiversity projections

Linking biodiversity to ecosystem services and human well-being (ecoSERVICES) Understanding mechanisms of the origins and maintenance of biodiversity (bioGENESIS)

Contributions from other Future Earth projects & initiatives

bioDISCOVERY activities

## bioDISCOVERY as incubator



- Integrate indicators and guiding their use in assessments
  - provide fundamental science to integrate observation, data and modelling
  - facilitate integration of metrics and indicators into modelling
  - identify of new indicators, especially for policy actions and short term projections
- Making linkages between work for different conventions
  - provide tools for analysis of current pattern and projection
  - contribute to developing scenarios on biodiversity futures
  - integration of marine and freshwater issues, e.g. coral reefs (link to climate research)
- Mobilise funding to move from brainstorming to implementation and operationalisation





### **New Contributions**



- Global Trait Database(s)
  - "Expansion" of current TRY plant database to network of global trait databases
- GBO-4 follow up
  - Developing indicators for specific and key targets, linking different streams
  - Aligning Indicators for Aichi Targets with other conventions, e.g. IPBES and IPCC
  - Integrating IPBES and IPCC scenarios
- Vulnerable systems coral reefs, coastal zones (estuaries and mangroves) and deep sea systems
  - Integration of indicators, data and modelling
  - Interfacing observation and policy, modelling and assessment
  - Providing links to policy on global scale
- Scenarios & models of biodiversity and ecosystem services
  - Exploring variation of biodiversity in space and time
    - Reconstruction of historical data
    - Comparison of data across space and time





