GBIF Global Biodiversity Information Facility

The Global Biodiversity Information Facility

Melianie Raymond and Maheva Bagard Laursen Community & Capacity Team, GBIF Secretariat

What is GBIF?

Intergovernmental network and data infrastructure

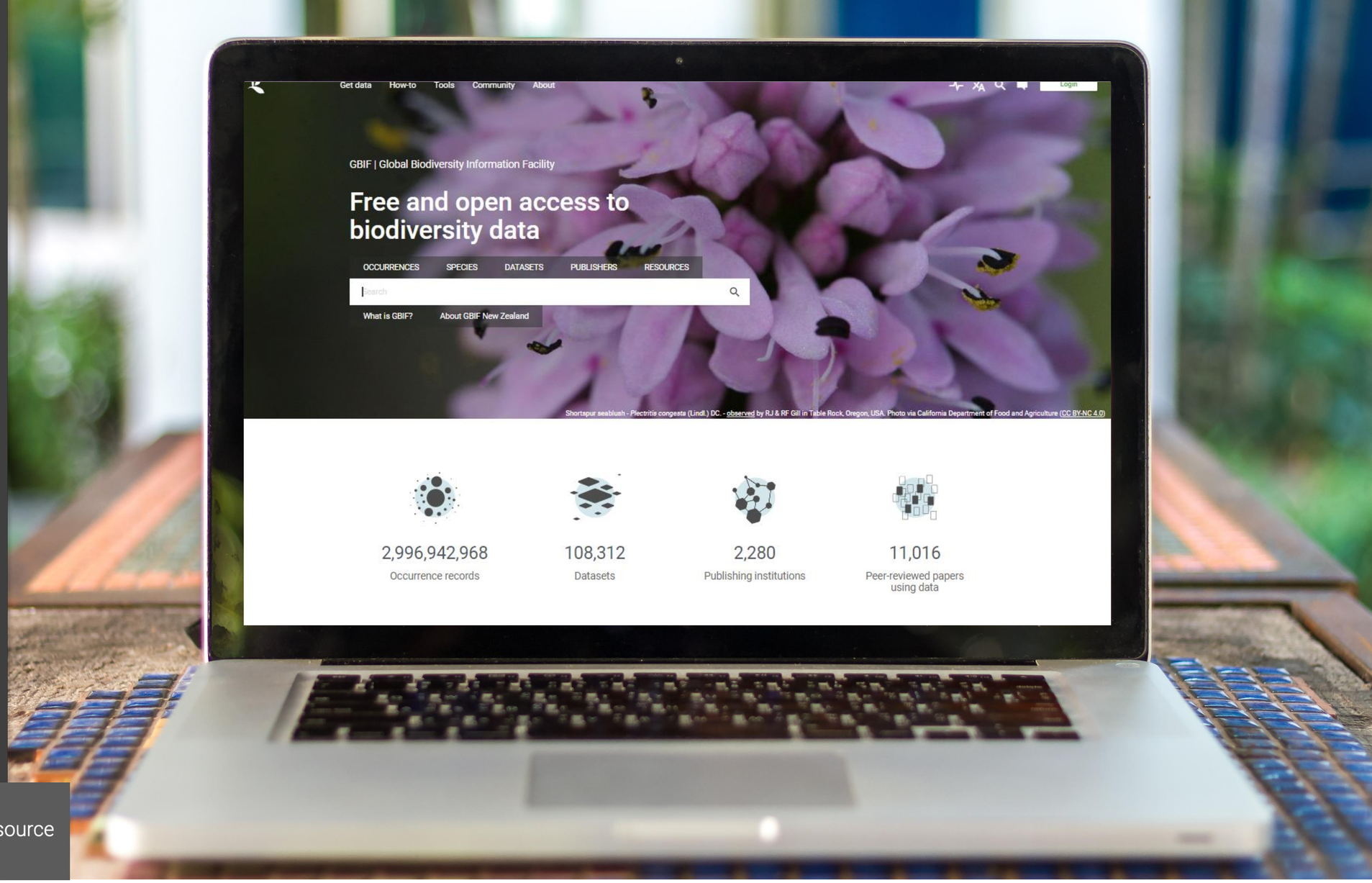
Provides anyone, anywhere, free and open access to data about all types of life on Earth

Voluntary collaboration through Memorandum of Understanding

Participant nodes, Secretariat in Copenhagen, DK

GLOBAL CORE BIODATA RESOURCE

GBIF is a Global Core Biodata Resource



https://www.gbif.org/ https://www.gbif.org/news/6PHdgoyIF6RmI7u4VOouuD/gbif-named-a-global-core-biodata-resource

Vision

A world in which the best possible biodiversity data underpins research, policy and decisions.

Mission

To mobilize the data, skills and technologies needed to make comprehensive biodiversity information freely available for science and decisions addressing biodiversity loss and sustainable development

https://www.gbif.org/strategic-plan

Datasets

107,542

Hosted portals

21

Country Participants

63

Peer-review papers using data

10,934

Organizational Participants

43

Average records downloaded per month (2024)

201.5 billion

Publishers

2,275

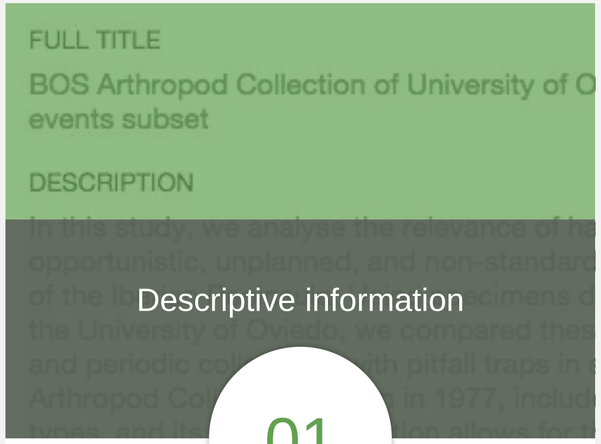
Species occurrence records

2,990,731,508

By the numbers | 1 July 2024

www.gbif.org

Data richness levels supported by GBIF



Descriptive information

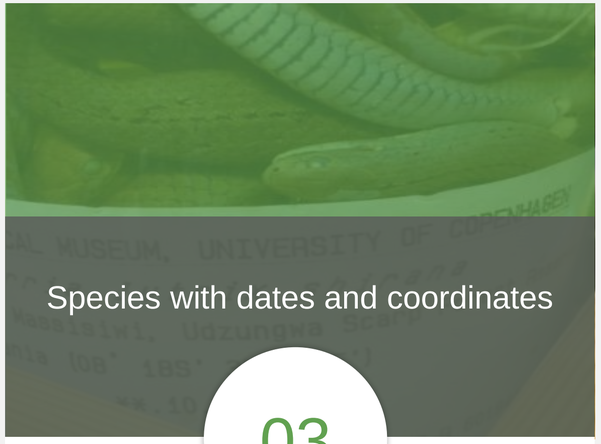
01

Dataset metadata

Species in countries and areas

02

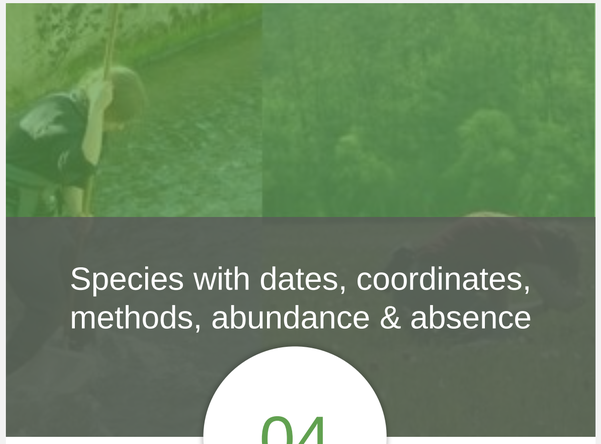
Species checklists



Species with dates and coordinates

03

Occurrence-only data

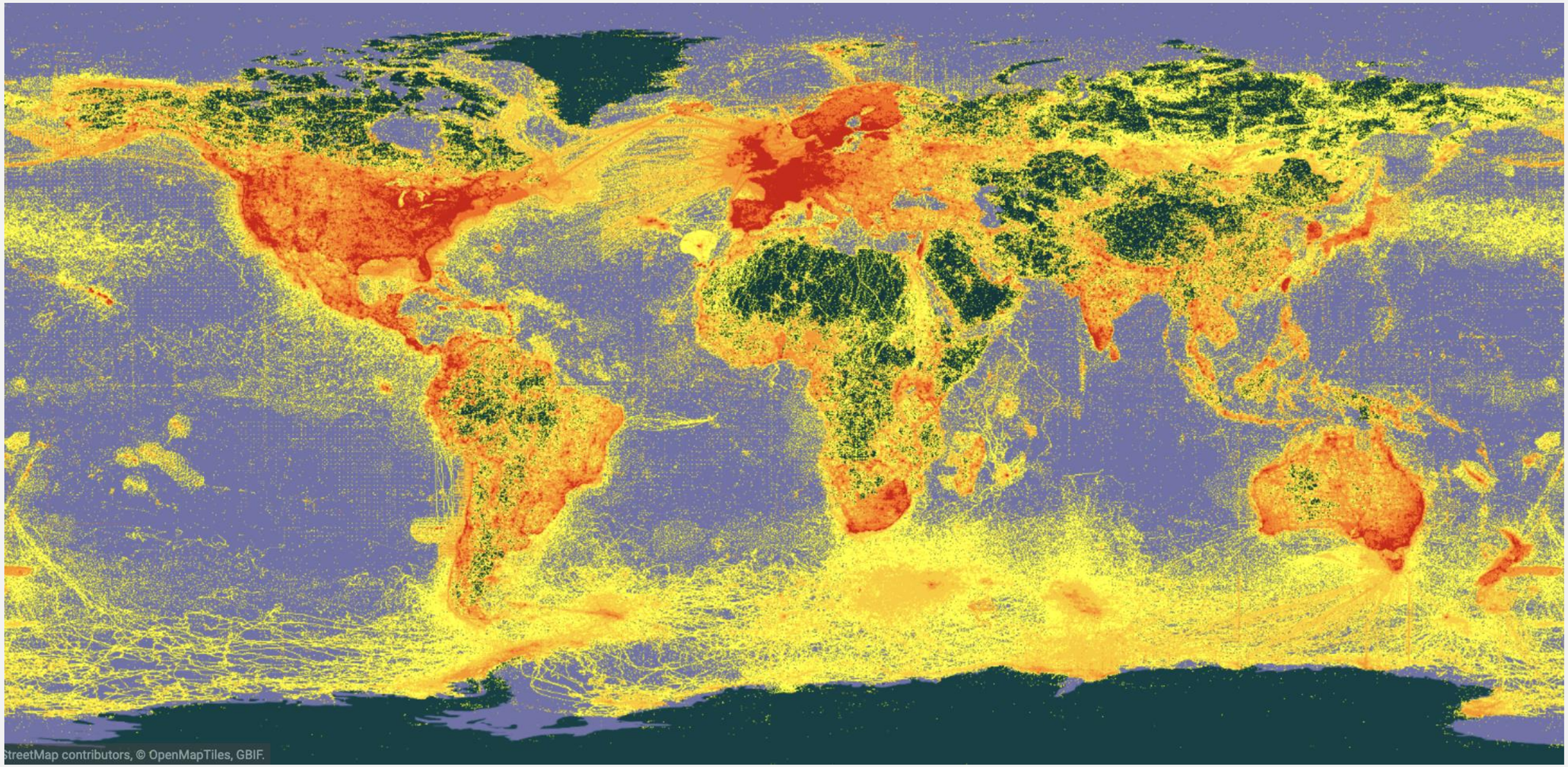


Species with dates, coordinates, methods, abundance & absence

04

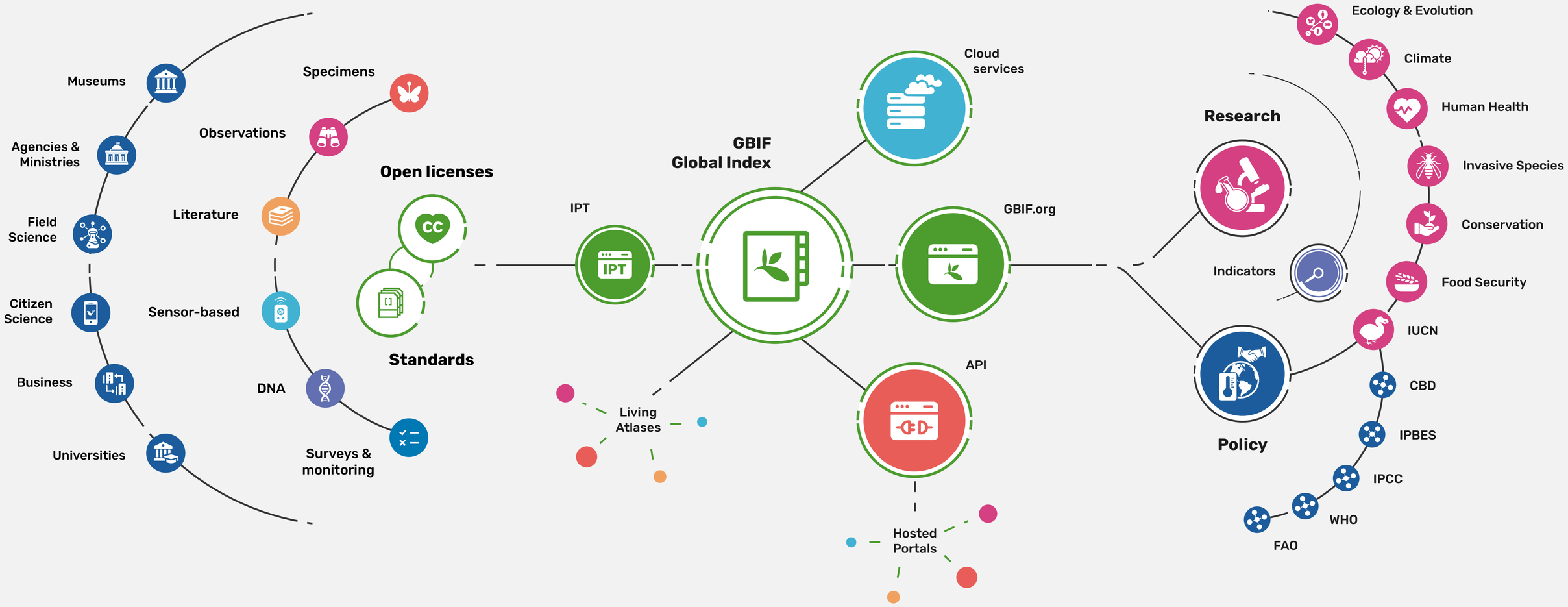
Sampling-event data

Distribution of data on species occurrences published through GBIF



https://www.gbif.org/

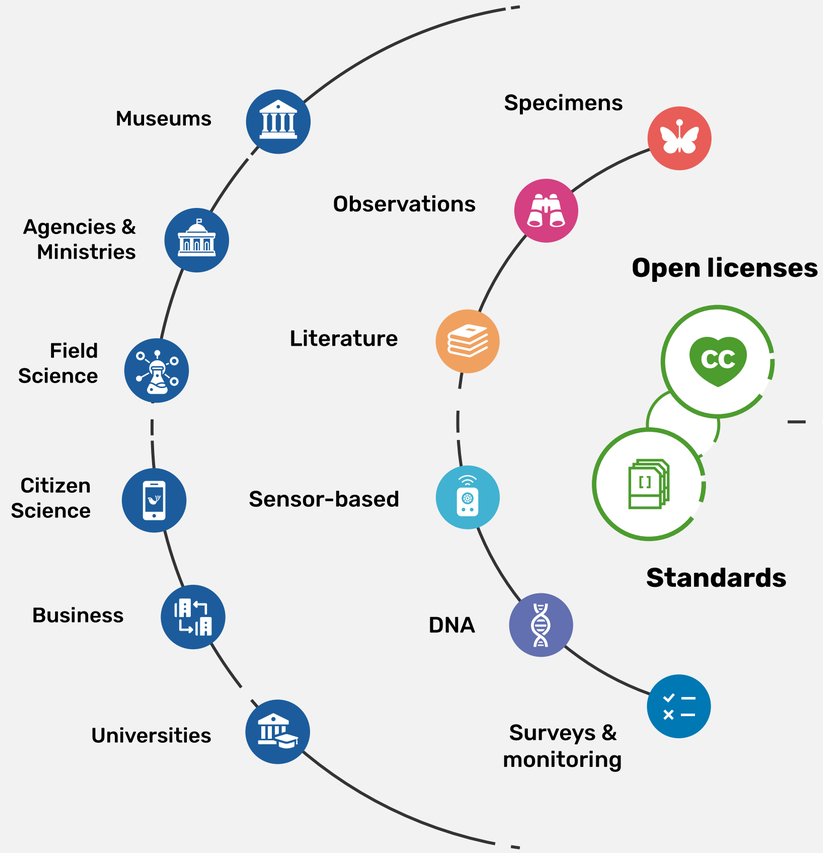
Providing biodiversity evidence for research and policy



Sources of biodiversity evidence

Create

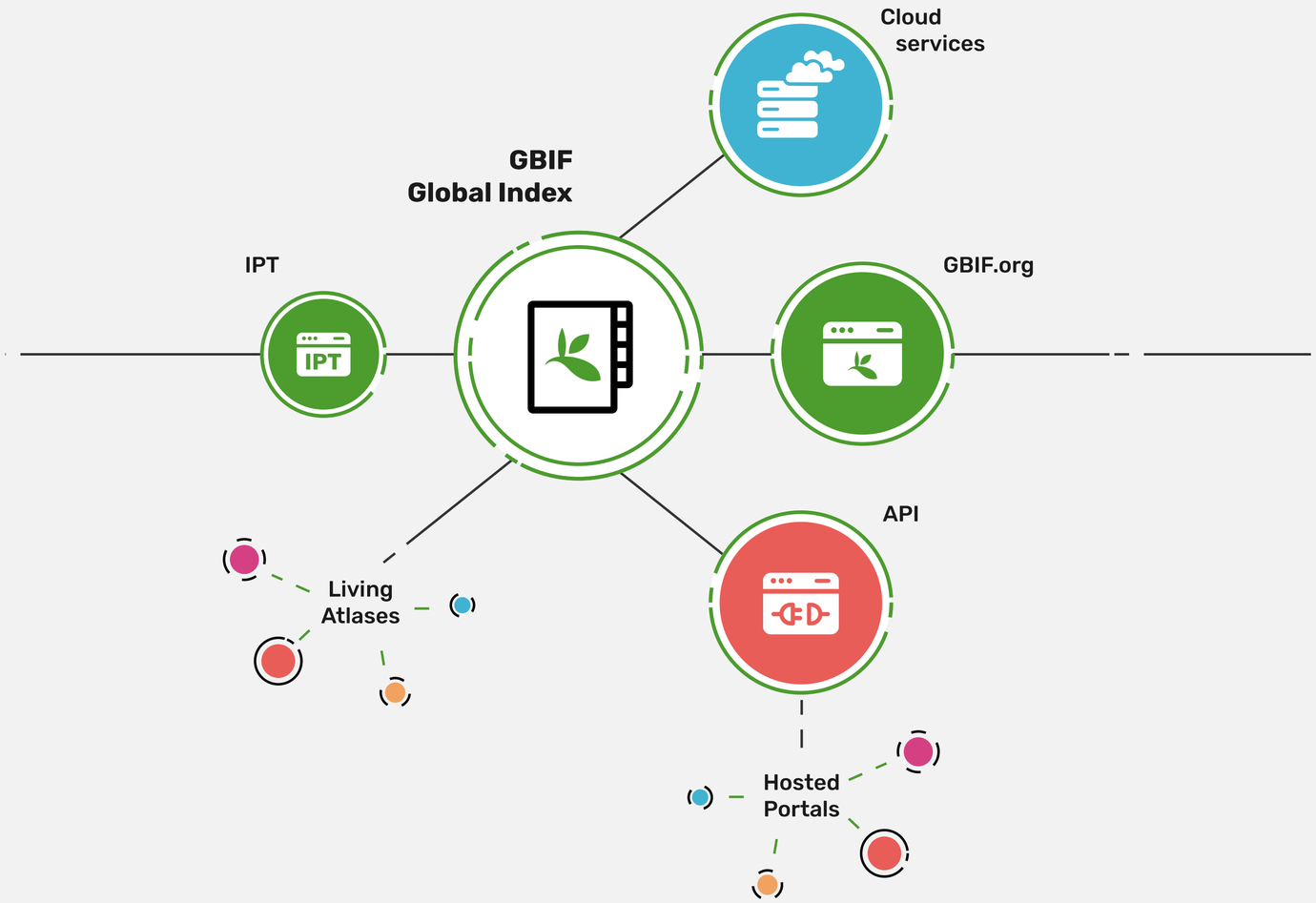
Combine sources of evidence



Access to biodiversity evidence

Share

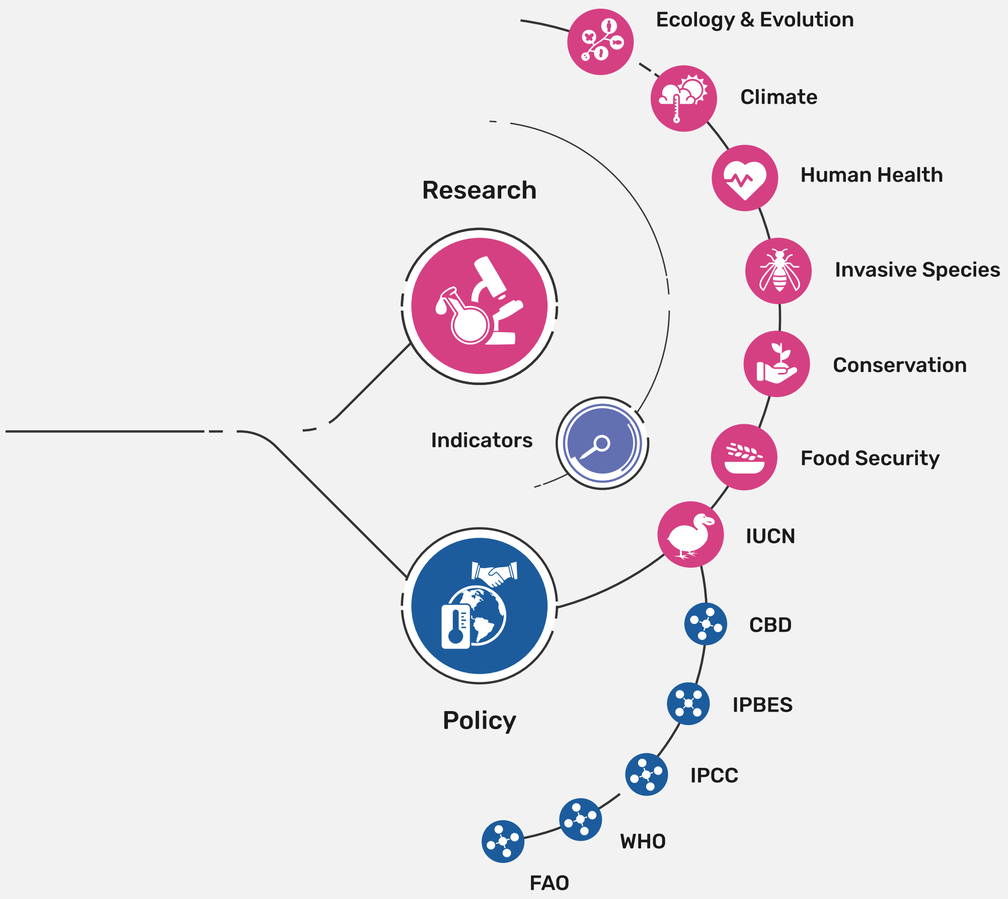
FAIR and open access



Uses of biodiversity evidence

Transform

Apply and use data



The value of GBIF

https://www.gbif.org/value

The economic value and impact of the GBIF network

For every **€1 invested** in GBIF,
users receive €3 of benefits while
society gains up to €12

https://www.gbif.org/value

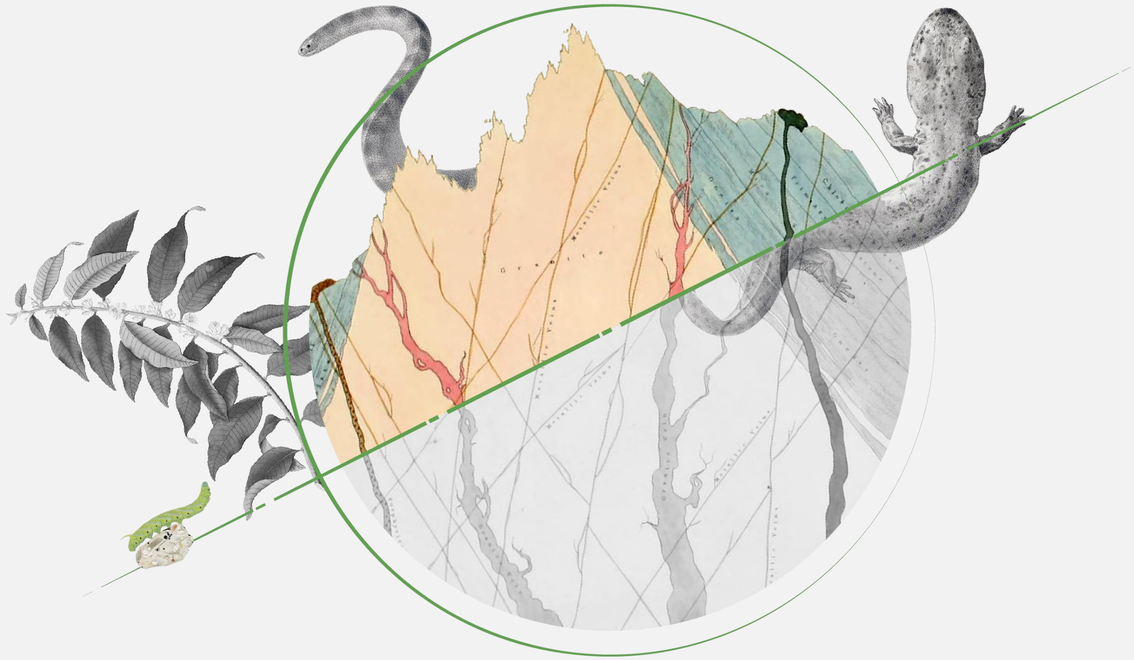
Research and policy

GBIF empowers its community of users to unlock new insights, enabling ground-breaking scientific studies and facilitating evidence-based policy decision-making.

https://www.gbif.org/data-use

GBIF expands the scope of what is possible

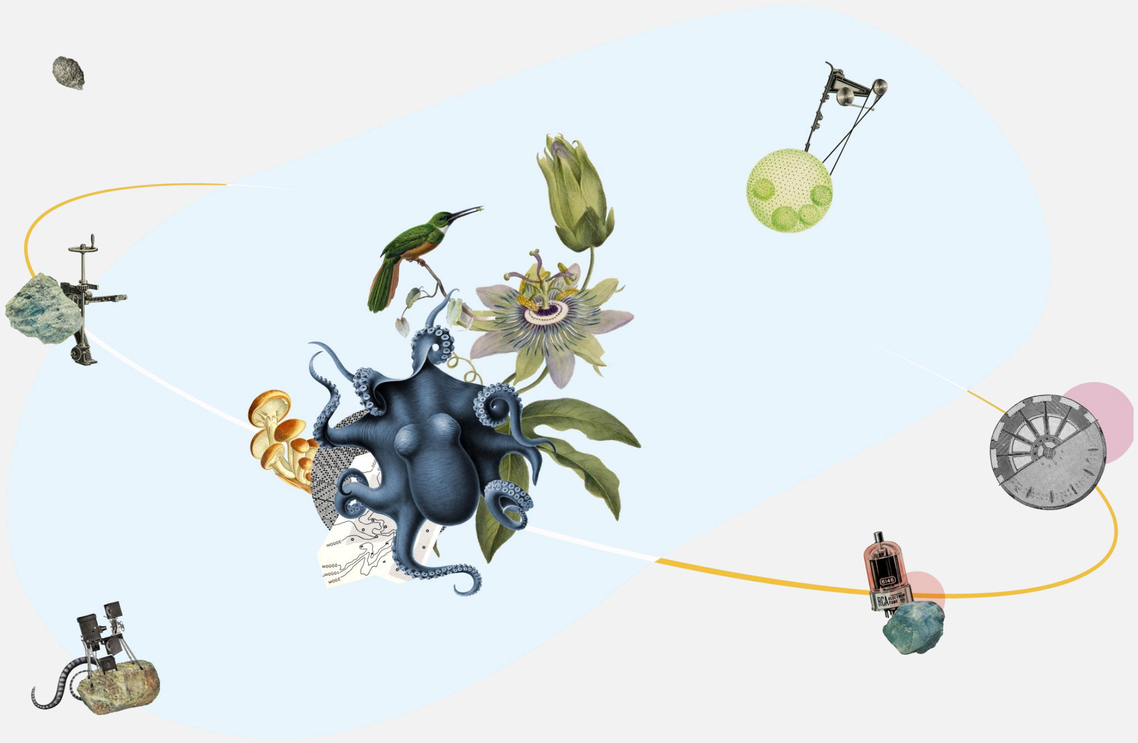
Almost half of GBIF users would have found it impossible to achieve the same outcome in the absence of GBIF.



https://www.gbif.org/value

Shared infrastructure

By embracing a hosted framework, GBIF's infrastructure democratises access to biodiversity data, promotes collaboration, facilitates data harmonisation, and fosters innovative research.



https://www.gbif.org/value

Shared infrastructure

“the most comprehensive, openly available, application-agnostic (most unbiased), easiest-to-use, and modern access point to known digital species occurrence data.”

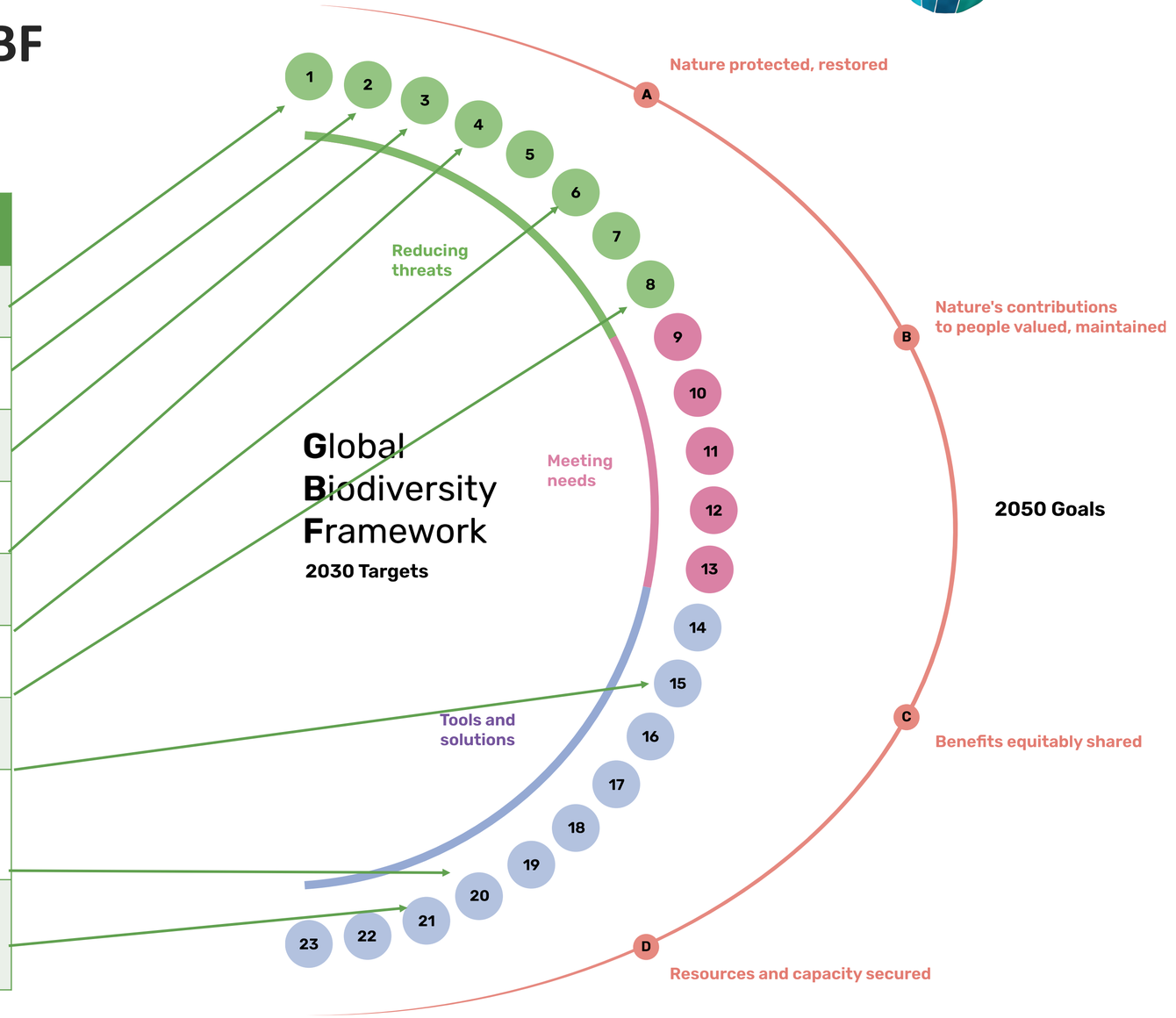
Committee on Data of the International Science Council (CODATA)

https://www.gbif.org/value

Primary data as foundation for implementing and monitoring GBF

THE BIODIVERSITY PLAN
For Life on Earth

GBIF relevance (illustrative)
Data to identify key biodiversity areas
Data to monitor restoration
Data to locate, monitor protected areas
Data for species conservation
Data on invasive species occurrence
Data to model climate change impacts
Platform for sharing EIA data
Capacity programmes for data mobilization and use
Making data available for implementation



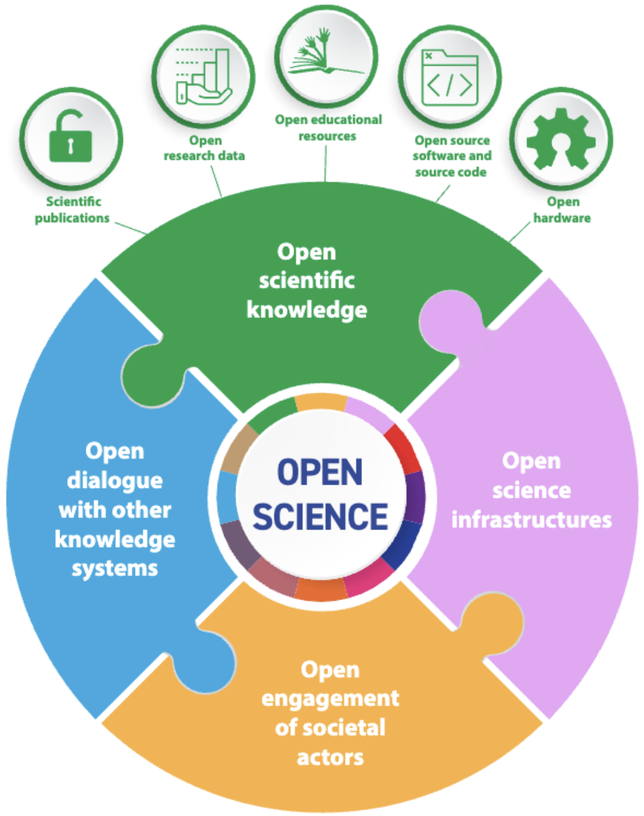
https://www.cbd.int/gbf/

GBIF and a sustainable future

Almost all GBIF users, 92%, identified that their use of GBIF-mediated data was linked to achieving Sustainable Development Goals

https://www.gbif.org/value

GBIF supporting open science



Open research data are available in a timely and user-friendly, human- and machine-readable and actionable format, in accordance with principles of good data governance and stewardship, notably the FAIR (Findable, Accessible, Interoperable, and Reusable) principles, supported by regular curation and maintenance.

https://www.unesco.org/en/open-science/about

Multiple ways to work with the GBIF network

- GBIF nodes
- Regional support teams
- GBIF Secretariat

Capacity enhancement

By focusing on people, GBIF recognises that the success of data sharing and conservation efforts relies on individuals' skills, knowledge, and engagement at various levels.

https://www.gbif.org/value

GBIF Global Biodiversity Information Facility

The BID programme

Funded by the European Union

Sharing knowledge

Enhancing capacity to mobilize FAIR and open data on Biodiversity to increase knowledge

To support Science and Policy

Enhancing capacity to use open data on biodiversity in research and policy to address key needs for the benefit of society

Previous action under the BID programme: 2015 - 2023

BID | Biodiversity Information for Development

+1.8 million

Species occurrence records

Data used in

1,315

Peer-reviewed publications

165

Publishing institutions

GBIF Global Biodiversity Information Facility

Funded by the European Union

BID | Biodiversity Information for Development

Capacity enhancement -
supported by the BID regional support team

+100
Data skill badges

+43
Mentor and trainer badges

+100
Replications

12
GBIF workshops

GBIF Global Biodiversity Information Facility

Funded by the European Union

BID | Biodiversity Information for Development

BID PACIFIC

+386,593
Species occurrence records

Data used in
540
Peer-reviewed publications

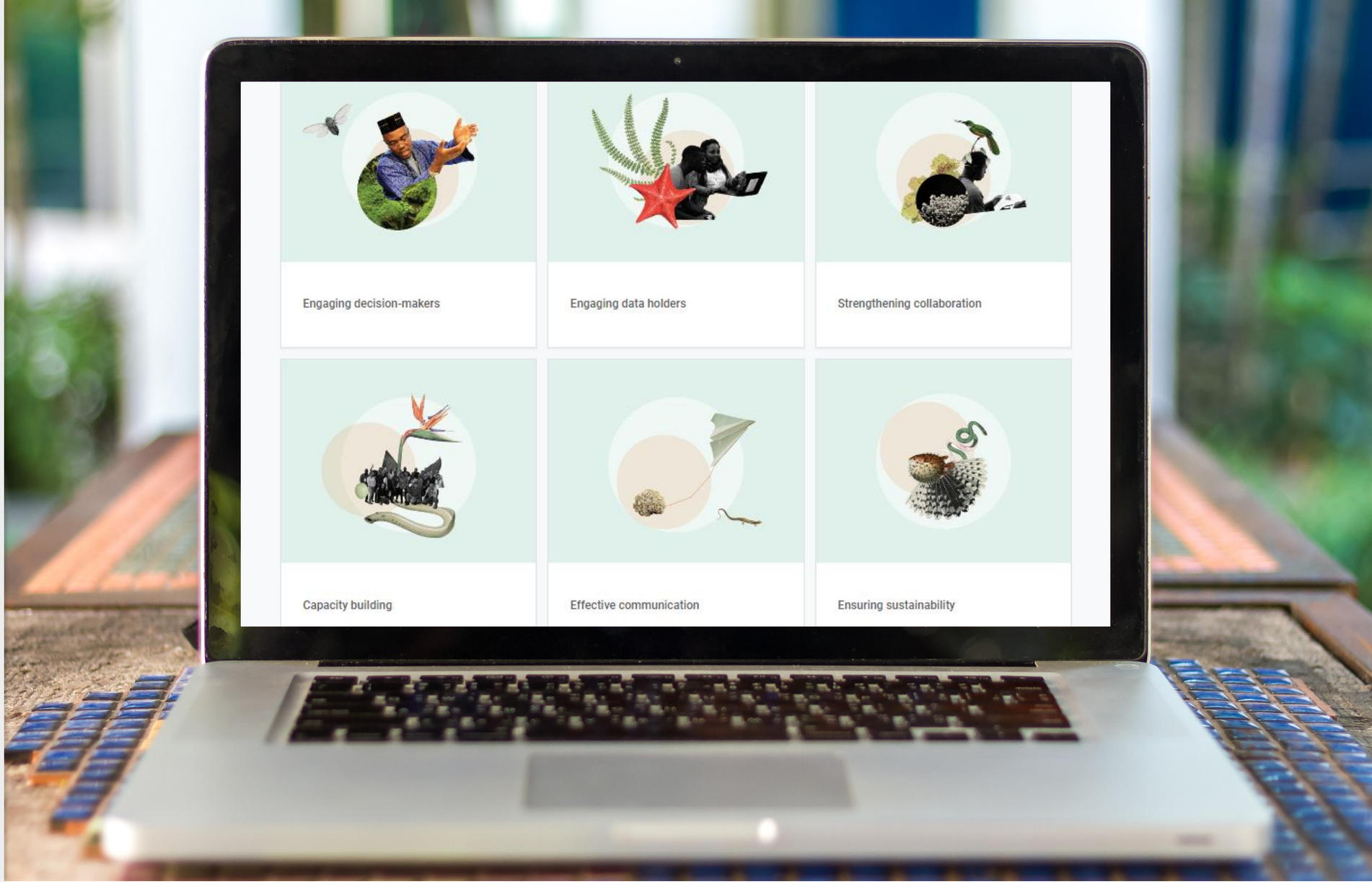
20
Publishing institutions

GBIF Global Biodiversity Information Facility

Funded by the European Union

Best practices for mobilizing policy-relevant data

Highlight best practices developed by project teams to address common challenges to inspire organizations considering similar activities



BID 2024 - 2029

Duration: 60 month

Broad geographic focus: Africa, Latin America and the Caribbean and Pacific

Start date: 09th August 2024

Main objective

Significant improvement of the availability and accessibility of data, information, and knowledge for decision-making

Key outcome

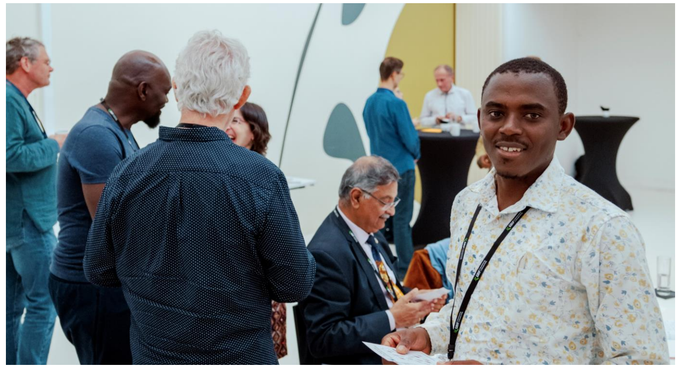
Enhanced capacity to meet the knowledge needs of the Kunming-Montreal Global Biodiversity Framework through the mobilization of the required skills, collaborations and technologies

Focus on supporting the knowledge needs of the Global Biodiversity Framework (GBF)

Keys outputs and related activities

Mobilization of biodiversity data

- Contracting of regional support teams
- Organization of one call for proposals for biodiversity data mobilization projects in each of the target regions
- Setting up or maintenance of open hosted data publishing infrastructure



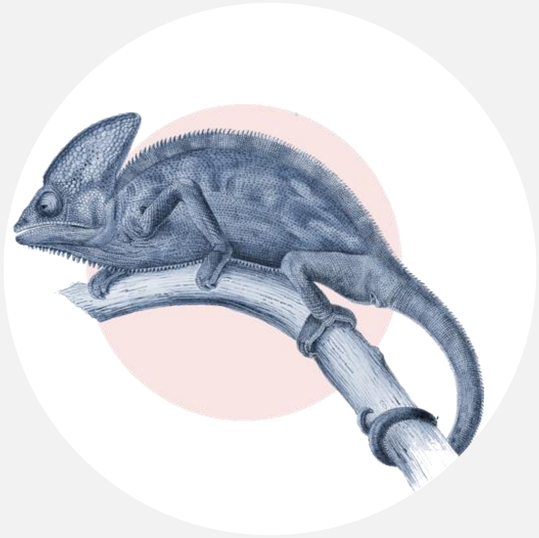
Robust communities of practice in open data mobilization and use

- Development and consolidation of open training materials on biodiversity data mobilization and use
- Organization of at least one capacity building workshop within each of the target region

Scientific research and decision processes apply open biodiversity data in the target regions

- Organization of a regional meeting
- Tracking citations of the use of data mobilized through BID in research and decision-making
- Promotion of results to international science-policy initiatives

Tentative timeline for Key activities



2024

Organization of regional meetings in the target regions to identify key regional capacity and information needs

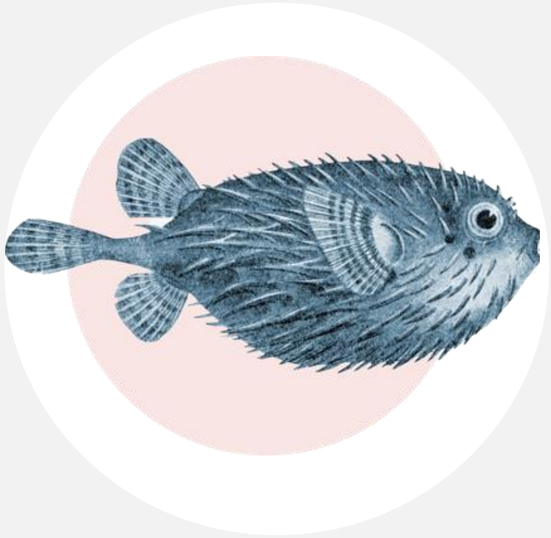
Contracting of regional support teams

2024 - 2025

Determination of the intervention strategy for each of the target regions based on knowledge gaps analysis, recommendations provided by regional stakeholders and analysis of GBF indicators

2025

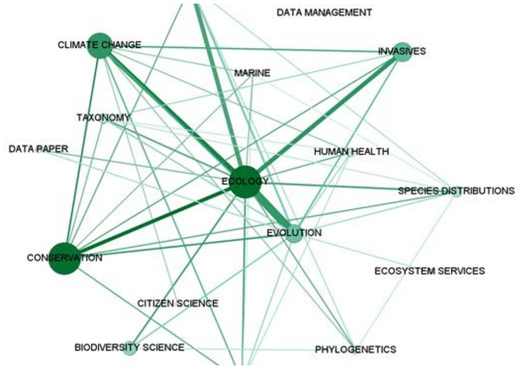
New round of BID calls for proposals in the target regions

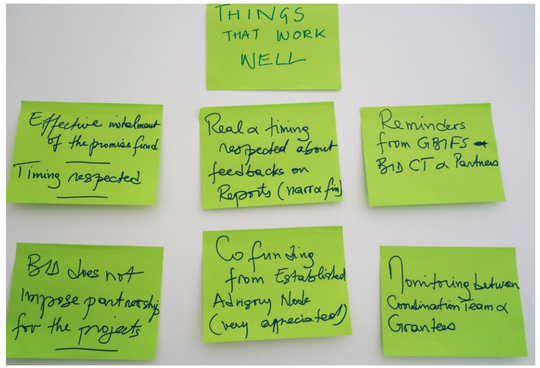


2026

Start of the 2-year implementation period of the projects selected under the BID calls for proposals and organization of capacity development events in the region

Consultative process guiding the development of BID





External evaluation of the BID programme:

- Assess the impact of BID
- Draw recommendations for future phases

BID Showcase event & workshop:

- Capture practical experiences and recommendations from nodes and grantees
- Explore ideas to strengthen capacity development on the regional level

Global Node Meeting:

- Explore and identify recommendations on how nodes should be involved in BID

BID regional meetings:

- In parallel of regional nodes meetings whenever possible
- Aim to identify regional information needs to inform BID selection criteria

External evaluation of BID: https://capacity4dev.europa.eu/library/evaluation-biodiversity-information-development-bid-programme_en
Recommendations from the Global Nodes Meeting: https://docs.google.com/document/d/1HjBvK68yX6ZahLIDzLrS9OjYMKK4Ou_sSfZm-ElZL1w/edit#heading=h.lsuwhylt2esa

GBIF Global Biodiversity Information Facility

BID Pacific Engagement Meeting for the Biodiversity Information for Development Programme

Funded by the European Union

Objectives of the meeting

Share regional progress updates and best-practices

Identify key regional capacity and information needs to inform the development of the upcoming BID call for proposal

Identify opportunities for synergies between existing and upcoming regional initiatives and the BID programme

Encourage broad participation in the calls for proposals, including applicants, reviewers, mentors, trainers, and partners

Expected output: Draft meeting report including

THE BIODIVERSITY PLAN
For Life on Earth

Regional recognition of BID as contribution to targets 20 and 21 of the GBF

Recommendations from the region on priority impact areas within

- Data mobilization
- Capacity needs for effective biodiversity data management
- Delivering biodiversity data for use

Mechanisms for addressing regional priorities within:

- Calls for proposals
- Capacity enhancement workshops
- Knowledge sharing

Additional opportunities to strengthen and sustain the impact of BID via synergistic action across programmes and initiatives in the region

The draft meeting report will be circulated for further input and sign-off by the meeting participants and other stakeholders

Thank you!

mraymond@gbif.org

mblaursen@gbif.org

The BID programme from the perspective of previous grantees – SPREP

Pacific Engagement Meeting for the Biodiversity Information for Development Programme

Ainsof So'o

Systems Developer and Analyst, SPREP
Node Manager, SPREP

OUTLINE

- Brief outline of your project(s) and key results achieved within the implementation period
- Post-project reflections on the long-term impacts of your project(s)
- Lessons learnt for implementing data mobilization projects and maximizing their impact
- Recommendations for future BID applicants and GBIF for the next phase of the programme in the Pacific

SPREP
Secretariat of the Pacific Regional Environment Programme

ABOUT SPREP

- Secretariat of the Pacific Regional Environment Programme (Est 1993)
- Headquarters: Apia, Samoa
- Type: Intergovernmental organization
- Mission: To promote cooperation and support protection and improvement of the Pacific environment
- Member Countries: 21 Pacific island countries and territories + 5 developed countries
- Key Focus Areas:
  - Climate Change Resilience
  - Island and Ocean Ecosystems
  - Waste Management & Pollution Control
  - Environmental Monitoring & Governance
- Role: Regional hub for environmental management, sustainable development, and climate change action in the Pacific
- Activities: Capacity building, technical assistance, policy development, and regional coordination

SPREP
Secretariat of the Pacific Regional Environment Programme

BID PROJECTS

- BID-PA2020-002-INS (1 July 2021 - 30 June 2023)
  - https://www.sprep.org/news/an-introduction-to-the-global-biodiversity-information-facility
  - https://www.gbif.org/project/BID-PA2020-002-INS/building-capacity-at-sprep-for-data-mobilization-and-use
- BID-PA2020-003-USE (1 July 2021 - 30 June 2023)
  - https://www.sprep.org/news/enhancing-capacity-in-the-pacific-to-digitise-biodiversity-data
  - https://www.gbif.org/project/BID-PA2020-003-USE/using-invasive-species-and-biodiversity-data-for-decision-making-in-the-pacific-region
- BID-PA2016-0005-REG (1 July 2017 - 31 January 2019)
  - https://www.gbif.org/project/83306/regional-and-national-alien-and-invasive-species-data-mobilization-and-capacity-building-in-the-pacific

SPREP
Secretariat of the Pacific Regional Environment Programme

BUILDING CAPACITY AT SPREP FOR DATA MOBILIZATION AND USE (BID-PA2020-002-INS)

SPREP
Secretariat of the Pacific Regional Environment Programme

- 1 July 2021 - 30 June 2023
- Institution-level biodiversity data mobilization grant

MAIN OBJECTIVES

1. Mainstream data processes at SPREP
2. Institutionalize data mobilization and use processes
3. Engage SPREP staff on data mobilization and use for decision making
4. Upgrade induction process for new SPREP staff to include data policy and mobilization
5. Raise awareness across the Pacific about data mobilization and use

SPREP
Secretariat of the Pacific Regional Environment Programme

KEY RESULTS

- Updated contract templates
- Updated Environmental Data Policy
- Staff engagement and training
- Improved induction process
- Increased awareness
- Data mobilization
- Institutional changes

SPREP
Secretariat of the Pacific Regional Environment Programme

LONG TERM IMPACTS

- Institutionalization of data sharing
- Improved contract management
- Enhanced organizational culture
- Increased regional capacity
- Sustainable data practices
- Broader awareness
- Potential for increased data availability
- Regional collaboration

SPREP
Secretariat of the Pacific Regional Environment Programme

LESSONS LEARNT

- <u>Need for local representation</u>

- ICT support via the Node Manager
- Value of existing structures
- Dedicated project team
- Phased approach to regional projects

SPREP
Secretariat of the Pacific Regional Environment Programme

RECOMMENDATIONS FOR FUTURE BID

- Enhanced local representation

- Tailored engagement strategies
- Integration with existing workflows
- Phased implementation
- Regional networking

SPREP
Secretariat of the Pacific Regional Environment Programme

Ainsof So'o • You
Systems Developer and Analyst, SPREP | Software Architect | Full Stack Develo...
1yr • Edited •

Super seki 💯👌 week of knowledge sharing and data mobilisation during the Pacific Regional #GBIF workshop last week. We managed to:

📑 Publish 6 new datasets (including 522 biodiversity records)

🏅 Endorse 3 new pacific data publishers including first country publishers 🇲🇭 Marshall Islands and 🇹🇻Tuvalu

🏝️ Contribute new datasets for 9 Pacific Island Countries and Territories (🇨🇰Cook Islands, 🇵🇫French Polynesia, 🇰🇮Kiribati, 🇳🇺Niue, 🇼🇸Samoa, 🇹🇰Tokelau, 🇹🇴Tonga, 🇳🇨New Caledonia, 🇻🇺Vanuatu)

The intense week of learning covered data standards (darwin core), data mapping, data cleaning and data publishing to mention a few. So proud 😊 of the participants from 🇫🇯Fiji, 🇫🇲FSM, 🇲🇭Marshall islands, 🇼🇸Samoa, 🇸🇧Solomon Islands, 🇹🇴 Tonga, 🇹🇻Tuvalu, and 🇻🇺Vanuatu for stepping up and providing much needed data for better decision making in the Pacific.

The PBIF 'āiga will continue collaboration online and mobilise more data sets in the coming weeks. #opendata #bid

SPREP IT support was provided by the Systems Developer and Analyst (Mr. Ainsof So'o) who helped facilitate the workshop. He is also the Node Manager for the SPREP GBIF Node and assisted participants with registering as publishers and publishing data.

SPREP
Secretariat of the Pacific Regional Environment Programme

EUROPEAN UNION

European Union funded (and co-funded)

BIODIVERSITY PROGRAMMES

in the Pacific Island countries

Name of presenter: Andreja Vidal,
Programme Manager, Delegation of the
European Union for the Pacific

10 -13 September 2024
GBIF Oceania Regional Nodes Meeting &
Pacific Engagement Meeting for the
Biodiversity Information for Development Programme
Wellington, New Zealand

Priority Areas of the Multi-Annual Indicative Pogramme for the Pacific 2021-2027

PRIORITY AREA 1

Climate Action and Environmental Sustainability (45%)

- Climate Action
- Adaptation, Resilience and Recovery
- Environmental Protection and Sustainable Management of Natural Resources

PRIORITY AREA 2

Inclusive and Sustainable Economic Development (40%)

- Green and Blue Growth
- Economic Governance

PRIORITY AREA 3

Fundamental Values, Human Development, Peace and Security (10%)

- Strengthening Democratic Institutions, the Rule of Law and Protection of Human Rights
- Mainstreaming Gender and Addressing Violence against Women and Children

Support Measures (5%)

Measures in favour of civil society

Cooperation Facility (national / multi-country level)

EUROPEAN UNION

List of programmes on biodiversity

Programme /Project Name	Implementation Dates	Amount EUR	Benefitting Zone	Implementing Partner
Biodiversity and Protected Area Management (BIOPAMA II)	24/8/17 – 30/9/25	43.9 M	African, Caribbean and Pacific countries	IUCN
Pacific Biodiversity and Sustainable Land-Seascapes (Pacific BioScapes) Programme	22/12/2021 – 22/12/2026	12 M	Pacific 11 countries	SPREP
Kiwa Initiative (multi-donor)	31/03/2020 – 31/07/2028	77 M (19.9 M EU contribution)	Pacific (including OCTs)	AFD (in cooperation with IUCN, SPC and SPREP)
Biodiversity Information for Development (phase 2)	09/2024 – 08/2029	4 M	Africa, Latin America, the Caribbean and Asia -Pacific	GBIF

Oceans

Pacific-European Union Marine Partnership Programme (PEUMP)	01/09/2018 – 31/03/2025	45 M (35 M EU contribution)	Pacific	SPC, SPREP, FFA (co-delegation agreement), USP
Global Climate Change Alliance (GCCA+) initiative for climate adaptation and resilience building in Samoa	21/12/2018 - 30/06/2023	1.1 M	Samoa	IUCN

EUROPEAN UNION

30 YEARS SPREP PROE

Pacific BioScapes

Pacific BioScapes Programme

Introduction

- Pacific Island countries have identified many critical issues and national priorities to protect biodiversity, communities and ecosystems in our region.
- In response, the **Pacific Biodiversity and Sustainable Land-Seascapes (Pacific BioScapes) Programme** is implementing regional initiatives and specific activities in 11 countries.
- Funding: European Union (12M €)
- Programme duration: 5 years (2022-2026)

EUROPEAN UNION

SPREP
Secretariat of the Pacific Regional Environment Programme

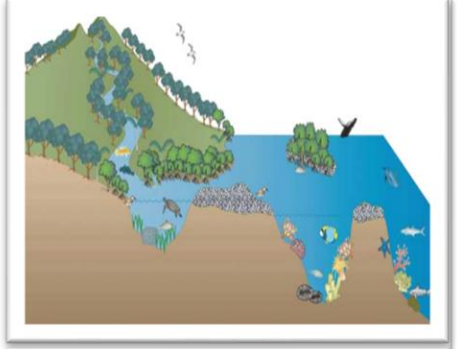
Pacific BioScapes

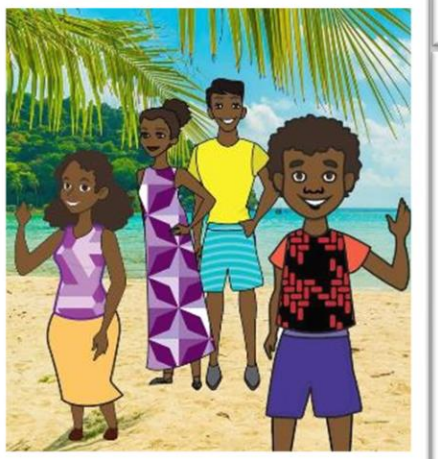
Pacific BioScapes Programme

= 30 projects at (sub)regional level (15) or in-country (15) …

… classified in four streams:

- #1: Improved planning, management, policies, regulations and data/information
- #2: Species conservation
- #3: Conservation and sustainable use of marine, coastal and terrestrial ecosystems and resources
- #4: Education, awareness and outreach





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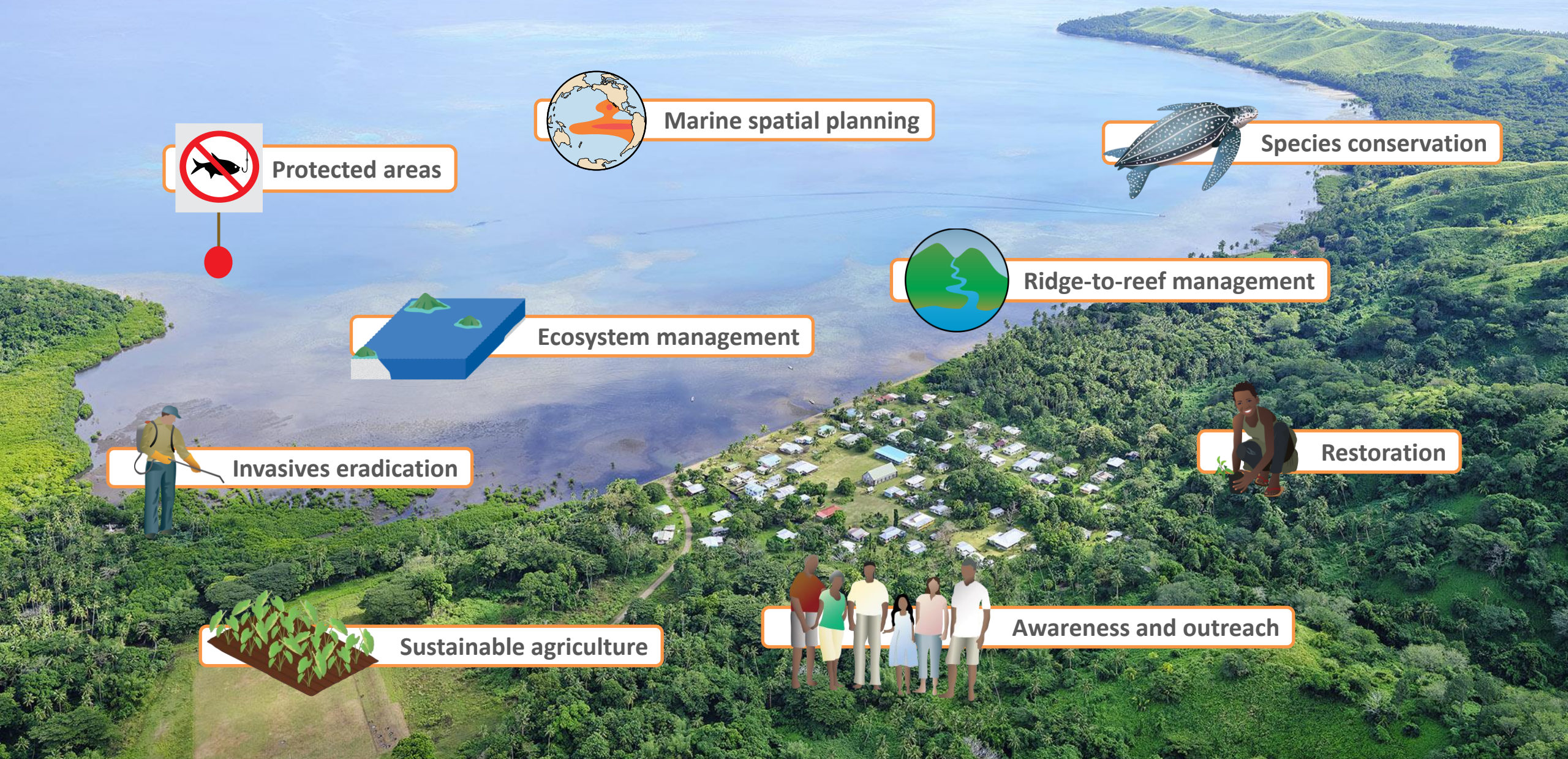
Secretariat of the Pacific Regional Environment Programme

Pacific BioScapes

The **Pacific Biodiversity and Sustainable Land-Seascapes (Pacific BioScapes) Programme** (2022-2026) is supporting 30 regional initiatives and in-country activities in 11 countries.



KIWA INITIATIVE

Nature-based solutions for climate resilience

Strengthening the climate change resilience of Pacific Island ecosystems, economies and communities by promoting and supporting **Nature-based Solutions**

The Kiwa Initiative in a nutshell

- Launched in **March 2020,** the Kiwa Initiative aims to **strengthen the climate change resilience of Pacific Island** ecosystems, economies and communities by promoting and supporting **Nature-based Solutions** (NbS).
- 5 International donors: **France, European Union, Canada, New Zealand, Australia**
- **18 eligible Pacific Island Countries and Territories**: 15 Pacific islands countries + 3 French territories
- Evolution of the Budget : from 30,5M€ in 2020 to **77,1M€ as of July 2024**

- The Agence française de developement (AFD) is in charge of the **implementation of the Kiwa Initiative** and is responsible for managing all the Kiwa funds
- The Kiwa Initiative include 3 implementing partners in the region (SPC, SPREP and IUCN-ORO)
- AFD is assisted by a **Secretariat** based at AFD's Pacific Regional Office in New Caledonia

THIS INITIATIVE IS FUNDED BY:

EUROPEAN UNION · AFD · in partnership with Canada · Australian Aid · NEW ZEALAND FOREIGN AFFAIRS & TRADE Aid Programme

IN PARTNERSHIP WITH:

Pacific Community / Communauté du Pacifique · SPREP · IUCN

What are Nature-based Solutions (NbS)? (1/2)

- **Nature-based Solutions (NbS) are** defined by IUCN as "actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively"

  - Ecosystem-based management
  - **Ecosystem-based adaptation**
  - Ecosystem-based disaster risk reduction
  - Green infrastructure (e.g. in urban settings)
  - Natural infrastructure (e.g. for integrated watershed management)
  - Holistic or regenerative landscape management

Video #NbS

https://youtu.be/bwpFgca2w3Y

Unique opportunities for project funding and technical assistance (1/2)

	REGIONAL PROJECTS	LOCAL PROJECTS
Technical Assistance	SPC - SPREP - Kiwa Initiative Secretariat	IUCN-ORO
Funds	€1,5M to €5M	€25,000 to €400,000
Condition	Involve at least 2 eligible countries and/or territories	Involve a single eligible country or territory
Open for	Local or national authorities, public institutions, regional organizations recognized by the Pacific Island Countries and Territories, international and national NGOs	Local or national authorities, public institutions, civil society organisations, community organisations, local associations, international and national NGOs

18 ELIGIBLE COUNTRIES AND TERRITORIES

Federated States of Micronesia - Fiji - French Polynesia - Kiribati - Nauru - New Caledonia - Niue - Marshall Islands - Palau - Papua New Guinea - Solomon Islands - Samoa - Timor Leste - Tokelau - Tonga - Tuvalu - Vanuatu - Wallis & Futuna

A Call for Regional projects is open until 15 December, 2024

22 Launched Kiwa projects

A great diversity of NbS projects addressing key challenges

- **Food gardens and agroecology for food security and health**
- **Improved management, protection and restoration and protection of coral reefs, locally-managed marine areas (LMMAs)**
- **Community-based resource management**
- **Coastal protection through native trees and mangroves planting**
- **Watershed and riparian systems management and restoration for water security, human health and to limit erosion**

From Knowledge to Action for a Protected Planet

Support to the Global Biodiversity Framework

CBD COP 11 Decision XI/24:

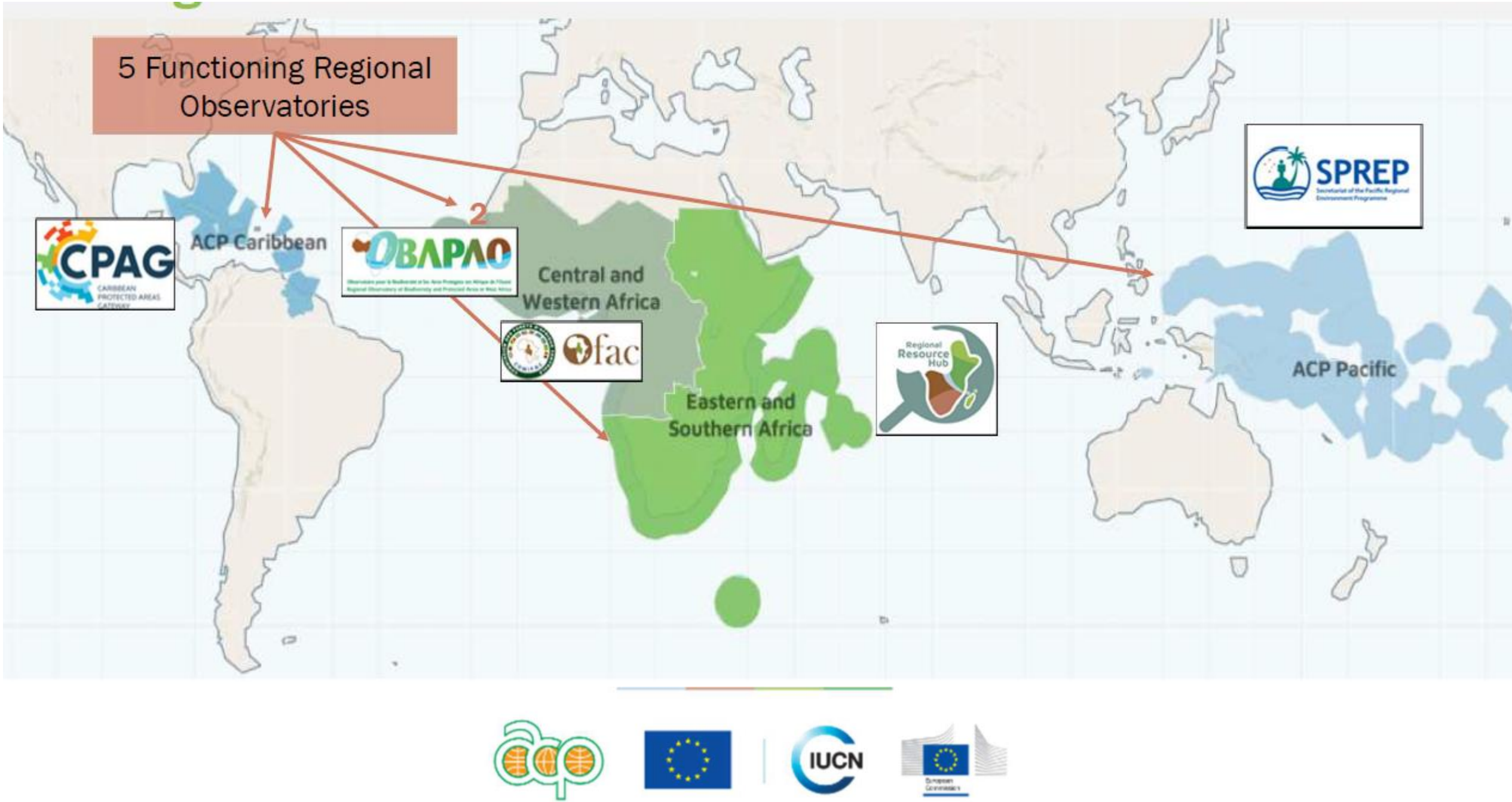
….. calls on initiatives such as BIOPAMA "to align capacity-building so as to further support implementation of national action plans for the programme of work on protected areas, and to continue to develop technical guidance to achieve the full scope of Aichi Biodiversity Target 11."

<u>The BIOPAMA-established Regional Observatories</u>

- partnerships and mechanisms for capacity development, knowledge management and technology transfer to support GBF;
- support translation of knowledge into action;
- contribute towards monitoring and reporting against GBF Goals and Targets.

<u>The BIOPAMA grant-making facility</u> supports governments and non-governmental actors to effectively and sustainably contribute to achieving the 2030 goals by:

- mobilising additional resources.
- facilitating access and utilisation of data and information.
- promoting learning and capacity building (knowledge management on grant-making and their impact).


5 Functioning Regional Observatories
2
CPAG
CARIBBEAN PROTECTED AREAS GATEWAY
ACP Caribbean
OBAPAO
Central and Western Africa
fac
Eastern and Southern Africa
Regional Resource Hub
SPREP
Secretariat of the Pacific Regional Environment Programme
ACP Pacific

Pacific (September 2019 – 2023)

5
Call for proposals

4
Types of grants

114
Proposals received

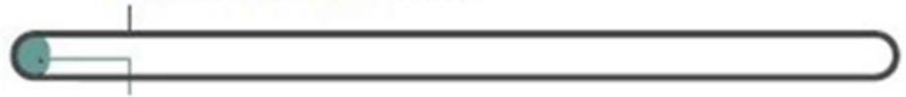
17
Projects approved

8
countries

€ 3,500,000
Total buget allocation

€ 2,572,977
Total signed contracts
the end of July 2023

641
PCAs in the Protected
Planet Database



31
PCAs reached under the
BIOPAMA Action Component

Key capacity development areas through BIOPAMA

sustainable financing for conservation	OECMs	Protected area management and governance	Application of PAME and PAGE tools
Use of the Regional Observatories' tools	PCA data management	Monitoring and reporting on MEAs	Conservation grants management
EU financial and technical management	Environmental and social management systems	Support to Parties on GBF implementation	Knowledge management and capitalisation

BIOPAMA
From Knowledge to Action for a Protected Planet

Thank you for your attention.

Further information:

https://www.eeas.europa.eu/delegations/fiji_en?s=139

https://kiwainitiative.org/en/about-kiwa-initiative

https://www.sprep.org/bioscapes

https://biopama.org/

Pacific regional data needs relating to Invasive Alien Species

Target 6 - Kunming-Montreal Global Biodiversity Framework

BID Pacific Engagement Meeting

Wellington, NZ, September 2024

David Moverley-SPREP Invasive Species Adviser

THE BIODIVERSITY PLAN

For Life on Earth

GBF HOME // TARGET 6

Target 6

Reduce the Introduction of Invasive Alien Species by 50% and Minimize Their Impact

Eliminate, minimize, reduce and or mitigate the impacts of invasive alien species on biodiversity and ecosystem services by identifying and managing pathways of the introduction of alien species, preventing the introduction and establishment of priority invasive alien species, reducing the rates of introduction and establishment of other known or potential invasive alien species by at least 50 per cent, by 2030, eradicating or controlling invasive alien species especially in priority sites, such as islands.

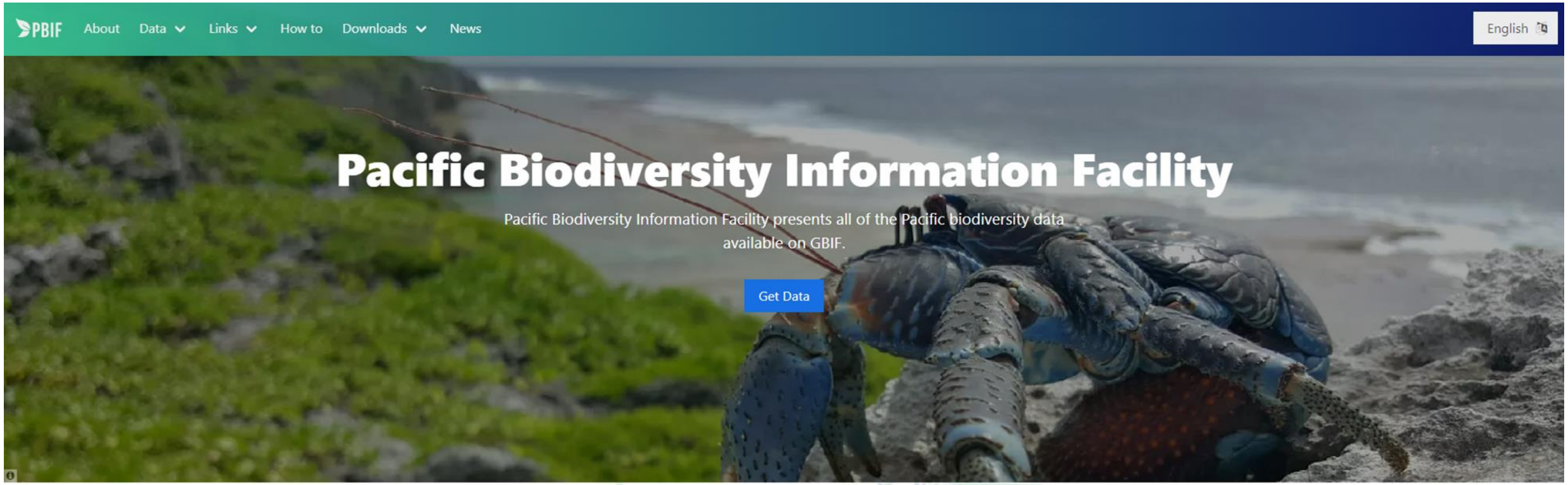
Identifying and managing IAS pathways

Preventing the introduction and spread of priority IAS

(50% by 2030)

Eradicating or controlling IAS especially in priority sites such as islands

SPREP
Secretariat of the Pacific Regional Environment Programme



10,079,063
Occurrences

119
Dataset

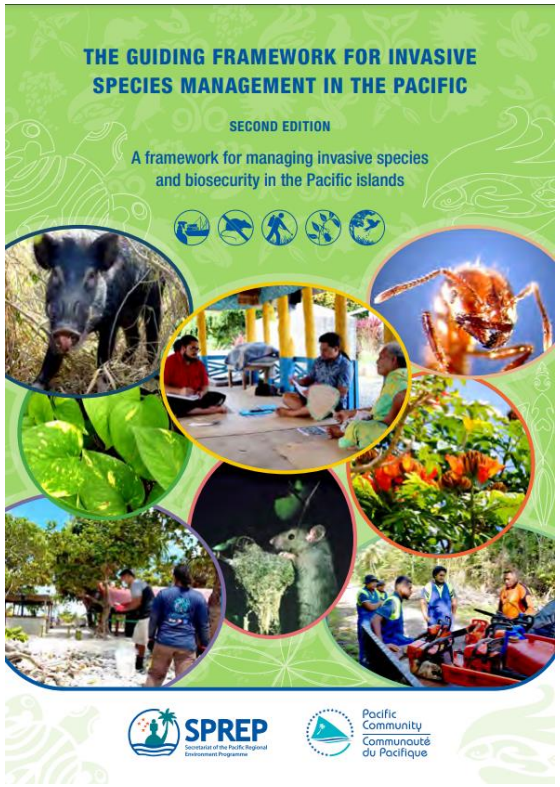
63
Invasive Species Specialist Group Checklists

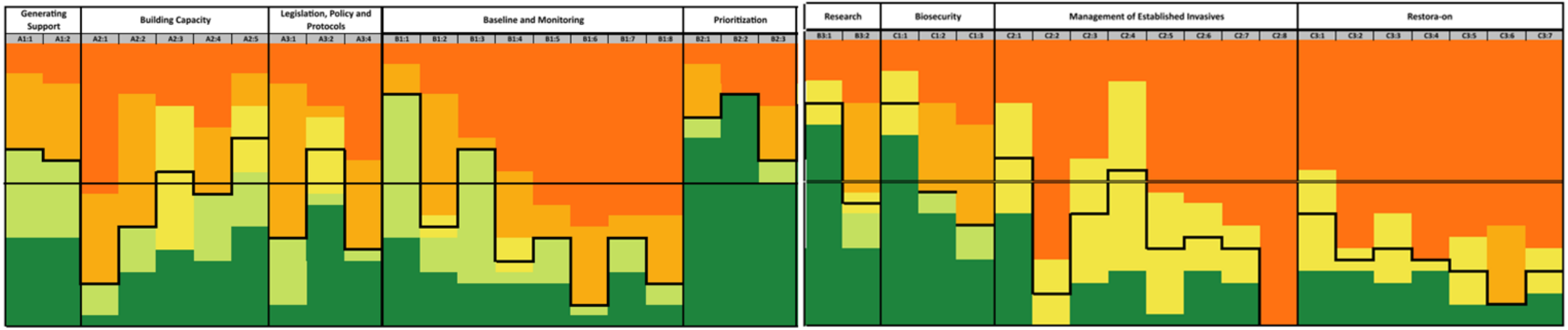
23
Pacific Publishers

80
Literature

SPREP
Secretariat of the Pacific Regional Environment Programme

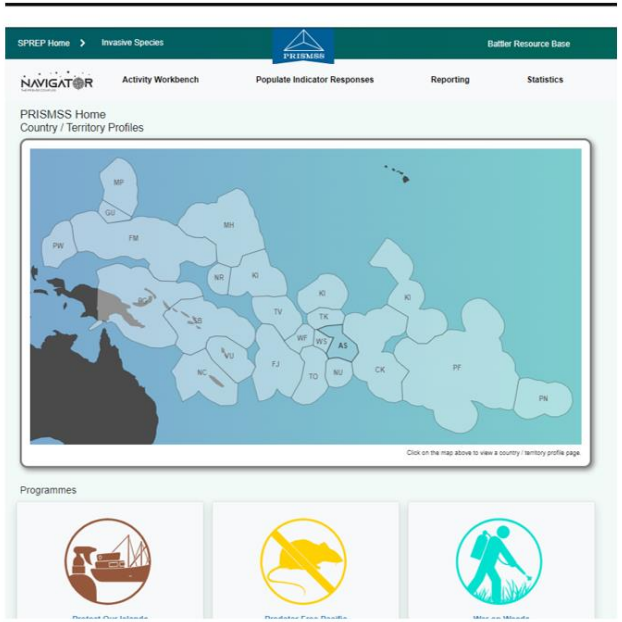
Pacific Invasive Species Indicators

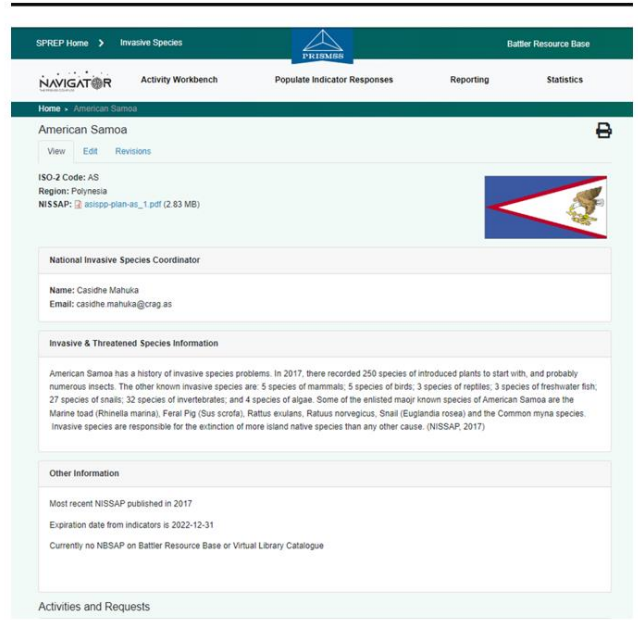




NAVIGATOR

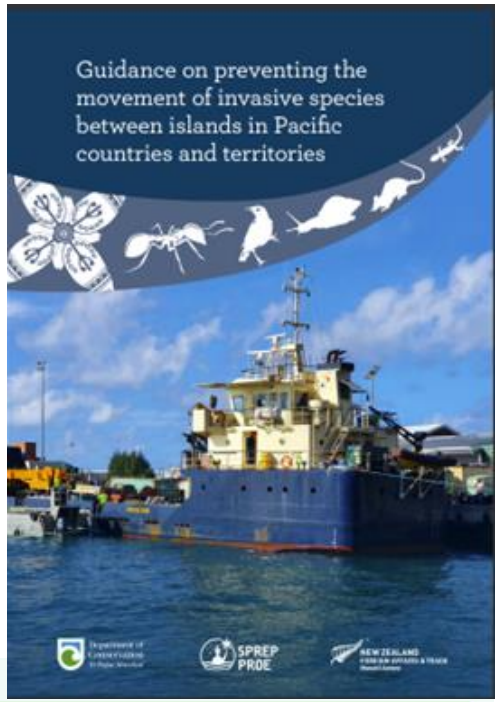
THE PRISMSS COMPASS





SPREP
Secretariat of the Pacific Regional Environment Programme

Identifying and managing IAS pathways



B2 - Prioritisation

Code	Indicator	Response	
B2.1	Priority Invasive species identified	Priority invasive species are identified with the Action Plan Last updated: 2023	
B2.2	Pathways Identified	Pathways have been Identified Last updated: 2023	
B2.3	Priority biodiversity sites identified	Priority biodiversity sites are identified with the NISSAP Last updated: 2023	

C - Management Action

Code	Indicator	Response	
A3.1	Invasive species legislation	No Invasive species legislation Last updated: 2023	
A3.2	National Invasive Species Strategy Action Plan (NISSAP) (current year)	National Invasive Species Strategy Action Plan (NISSAP) structured to guidelines and being implemented Last updated: 2023	
A3.3	NISSAP Date of expiration (current year)	2022-12-31 Last updated: 2023	
A3.4	Ballast water and hull-fouling protocols	National Ballast Water Management Strategy exists OR a Party to the Ballast Water Management Convention Last updated: 2023	

C1 - Biosecurity

Code	Indicator	Response	
C1.1	Environmental issues are incorporated into National biosecurity	National biosecurity incorporates identified environmental risks into their border control operations Last updated: 2023	
C1.2	Early Detection Rapid Response	Priority risk species from countries connected by pathways are identified Last updated: 2023	

Code	Indicator	Response	
C1.3	Inter-island biosecurity	Priority risk species from neighbouring islands identified Last updated: 2023	

Preventing the introduction and spread of priority IAS (50% by 2030)

C - Management Action

C1 - Biosecurity

Code	Indicator	Response	
C1.1	Environmental issues are incorporated into National biosecurity	National biosecurity incorporates identified environmental risks into their border control operations Last updated: 2023	
C1.2	Early Detection Rapid Response	Priority risk species from countries connected by pathways are identified Last updated: 2023	
C1.3	Inter-island biosecurity	Priority risk species from neighbouring islands identified Last updated: 2023	

B2 - Prioritisation

Code	Indicator	Response	
B2.1	Priority Invasive species identified	Priority invasive species are identified with the Action Plan Last updated: 2023	
B2.2	Pathways Identified	Pathways have been Identified Last updated: 2023	
B2.3	Priority biodiversity sites identified	Priority biodiversity sites are identified with the NISSAP Last updated: 2023	

B1 - Baseline and Monitoring Change

Code	Indicator	Response	
B1.1	Terrestrial invasive species baseline surveys	Terrestrial invasive species baseline survey results captured in a geo-referenced digital format. (Structured spreadsheet, GIS, etc) Last updated: 2023	
B1.2	Percentage of priority terrestrial invasive species monitored this year	Up to 25 percent of priority terrestrial invasive species monitored this year Last updated: 2023	
B1.3	Terrestrial priority biodiversity sites baseline surveys	Terrestrial priority biodiversity sites baseline survey results captured in a geo-referenced digital format. (Structured spreadsheet, GIS, etc) Last updated: 2023	
B1.4	Percentage of terrestrial priority biodiversity sites monitored this year	Between 76 and 100 percent of terrestrial priority biodiversity sites monitored this year Last updated: 2023	
B1.5	Marine invasive species baseline surveys	Marine invasive species baseline survey results captured in a geo-referenced digital format. (Structured spreadsheet, GIS, etc) Last updated: 2023	
B1.6	Percentage of priority marine invasive species monitored this year	Up to 25 percent of priority marine invasive species monitored this year Last updated: 2023	

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Eradicating or controlling IAS especially in priority sites such as islands

C2 - Management of established invasives

Code	Indicator	Response	
C2.1	Number of priority invasive plant species under management (this year)	**12** Governor's Biodiversity Office: removed 1587 mature Tamaligi trees	
C2.2	Number of invasive plant species that have been eradicated	**0** None Last updated: 2023	
C2.3	Number of invasive plants with biocontrol agents in place	**2** List:	
C2.4	Number of priority invasive animal species under management (this year)	**4** 1. Feral pig – Sus scrofa 2. Feral dog – Canis familiaris 3. Myna bird – Acridotheres fuscus 4. Bulbul Last updated: 2023	
C2.5	Number of priority invasive animal species that have been eradicated	**0** None Last updated: 2023	

Code	Indicator	Response	
C2.6	Number of islands with rats eradicated	**1** List: Rattus exulans Notes: Polynesian rat Rattus exulans (Rose atol,1990) Last updated: 2023	
C2.7	Number of priority marine invasive species under management	**2** Acanthaster planci (COTS), Valonia fastigiata (algae). Both of these are native nuisance species, we don't have any truly invasive marine species. Last updated: 2023	
C2.8	Number of priority marine invasive species that have been eradicated	**0** None Last updated: 2023	

Priority sites / restoration

C3 - Restoration

Code	Indicator	Response
C3.1	Number of sites under restoration (this year)	**17** Governor's Biodiversity Office: Malota village, Pago Pago village, Atu'u village, Fatumafuti village, Leloaloa village, Nuu'uli village, Mapusaga village, Mesepa village, Amaluia village, Taputimu village, Vaipito stream, Fagatogo stream, Vaitele stream, Saino stream, Amalie stream, Sagamea stream, Papa stream DMWR: Swains CRAG: Aua Last updated: 2023
C3.2	No. of hectares with a restoration plan	**5000** Governor's Biodiversity Office Last updated: 2023
C3.3	No. of hectares under invasive plant management this year	**535** Governor's Biodiversity Office Last updated: 2023

Code	Indicator	Response
C3.4	No. of hectares with predator control this year	**2500** Governor's Biodiversity Office Last updated: 2023
C3.5	No. of plants planted this year	**0** Last updated: 2023
C3.6	No. of plants planted to date	**20452** Last updated: 2023
C3.7	Number of native species reintroduced this year	**34** Last updated: 2023

- Over the past decade the Pacific region has focused on monitoring simple lowest denominator measures that address our regional strategy.

- This ensures that we can all tell our story (good or bad), using indicators or groups of indicators. E.g. PRISMSS programmes, regional reporting

- Although international MEA's and their measures change, we need to be able to consistently collect data to tell these stories.

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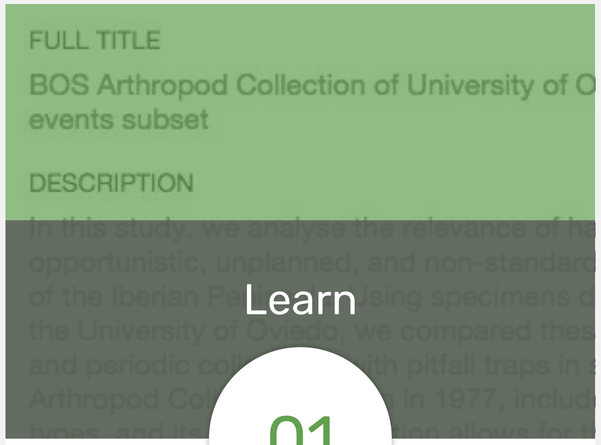
Secretariat of the Pacific Regional Environment Programme

Perspectives on Capacity Development as a GBIF Mentor

David Bloom / VertNet, TDWG, GBIF Mentor

GBIF Global Biodiversity Information Facility

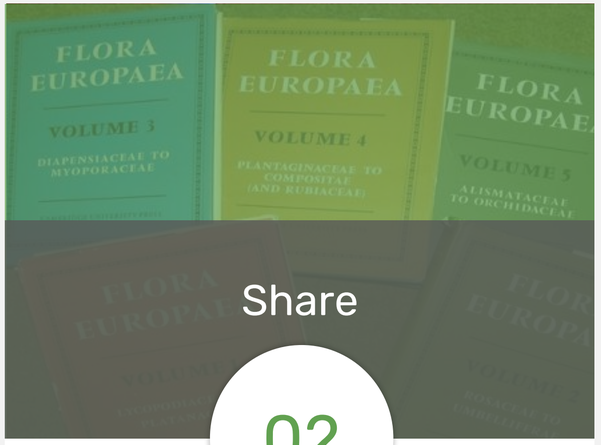
GBIF Mentorship - https://www.gbif.org/mentors



Learn

01

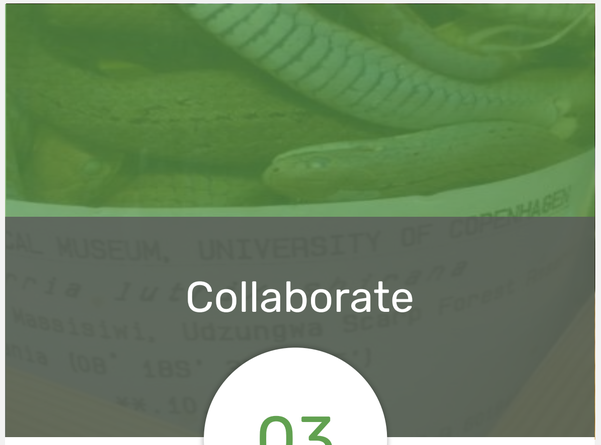
Come to the table with an open mind and open ears to learn about local challenges, goals and resources



Share

02

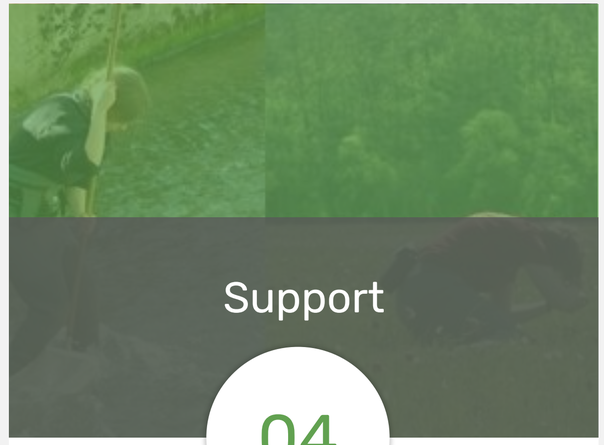
Apply and share personal experience and knowledge about GBIF and data to the challenges at hand



Collaborate

03

Work together with local people and projects to find solutions that promote mastery, celebrate diversity and maximize effectiveness



Support

04

Build lasting relationships that transcend time and geography through continue the learning, sharing and collaboration

Experience in the Pacific Region

- Served as both mentor and trainer
- Multiple workshops in Samoa, Fiji, and Tonga
- Lots of email and Zoom (occasional dancing)
- Supported publication efforts from:
  - Samoa, Fiji, Tonga, Vanuatu, PNG, Yap, Wallis and Futuna, Solomon, Cook, Marshall Islands, Kiribati, New Caledonia, Tuvalu, Tokelau, Niue, and NZ.

Lessons

- Interest is high
- Support is uncertain
- Simple is always better
- Growing awareness of data types and quantity
- Enthusiasm is contagious

Opportunities

- Need for dedicated support
- Local expertise is growing
- More value and benefit to demonstrate

Importance of BID for Developing Capacity and Target 20

- Shared goal for the region to clean, publish and maintain data.
- Healthy competition and renewed ownership
- Identified data sources
- Identified local mentors

Thank you!

Surf Crab (Ovalipes *australiensis*) Photo Credit Josie Jones CC BY NC

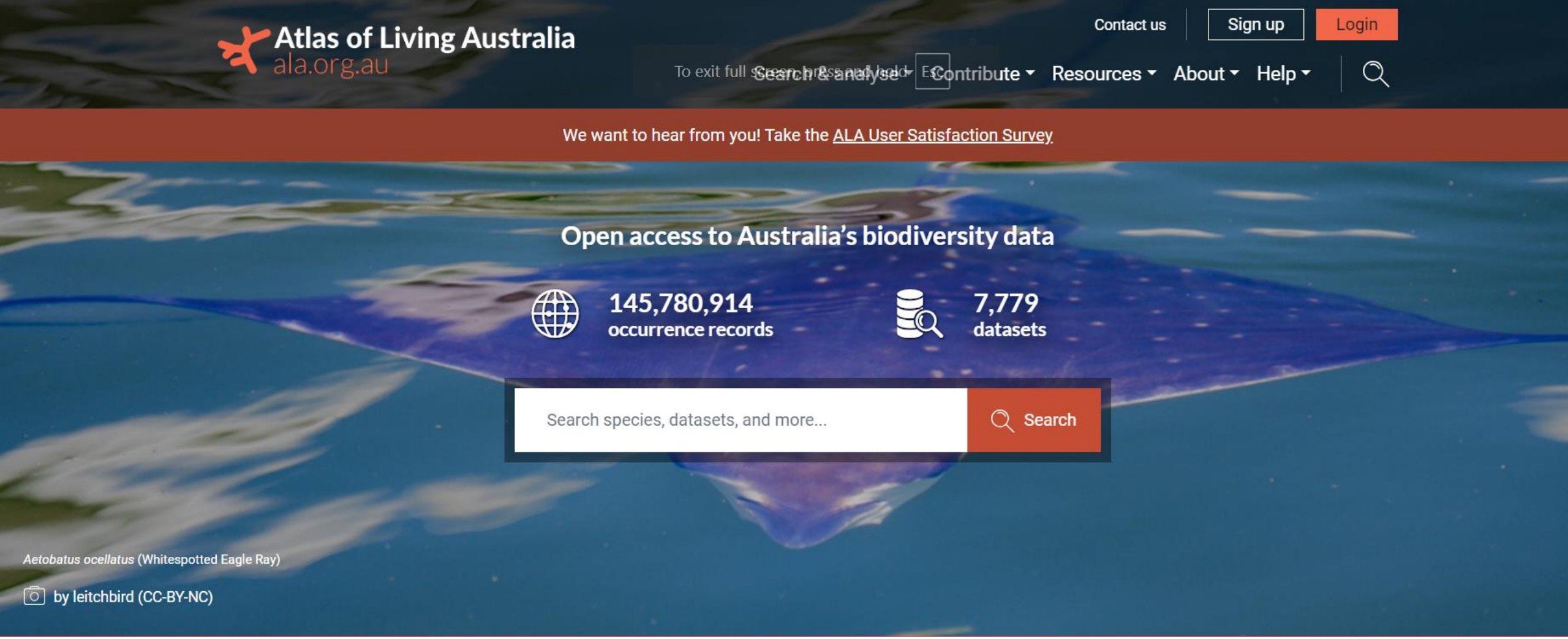
The Role of Collections in supporting the Kunming-Montreal Global Biodiversity Framework

Ely Wallis | Engagement Team lead / Collections Community Engagement Manager
Chair, TDWG Executive

Atlas of Living Australia
ala.org.au

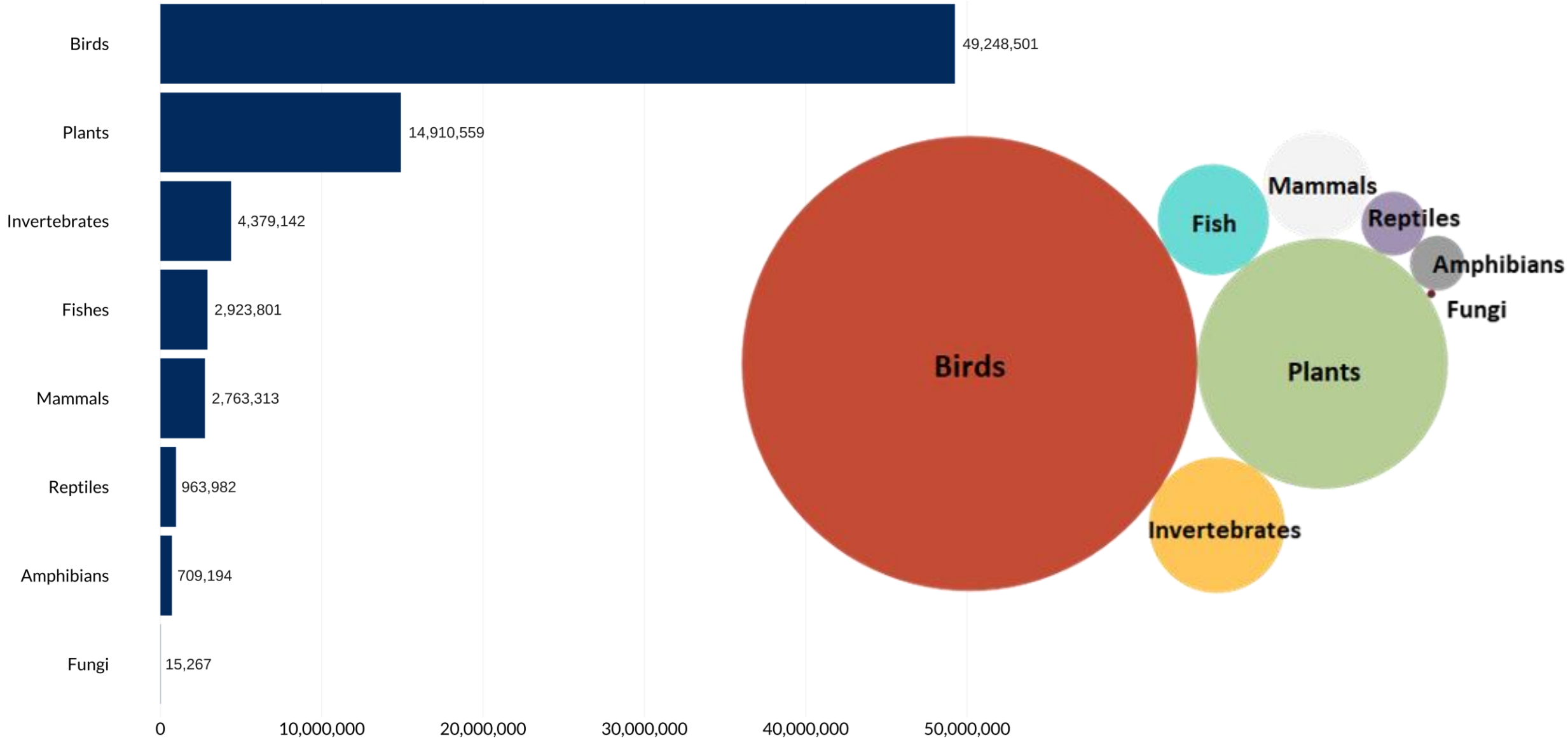
CSIRO

NCRIS
National Research Infrastructure for Australia
An Australian Government Initiative



https://ala.org.au

Uneven spread by taxa



Specimens continue to be valuable sources of new knowledge

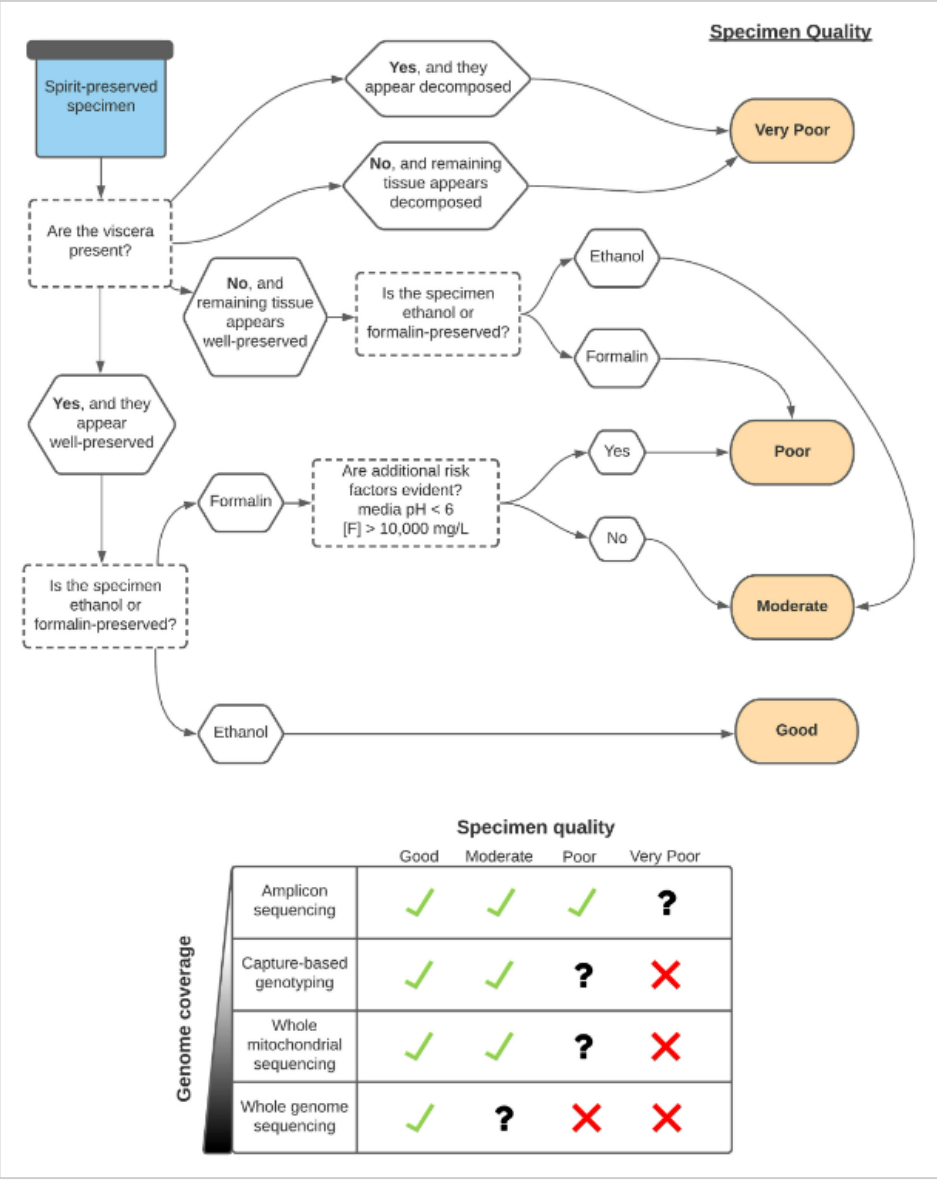
Phalacrocorax melanoleucos melanoleucos, taxidermy mount - Little Pied Cormorant, Gunbower and Kow Swamp area, 1857

Photographer: Jon Augier
Museums Victoria
https://collections.museumsvictoria.com.au/specimens/465104

Ducula bicolor spilorrhoa, Torres Strait Pigeon, skeleton. Registration no. B 33612

Unknown photographer
Museums Victoria
https://collections.museumsvictoria.com.au/specimens/1710974

New data from very old specimens



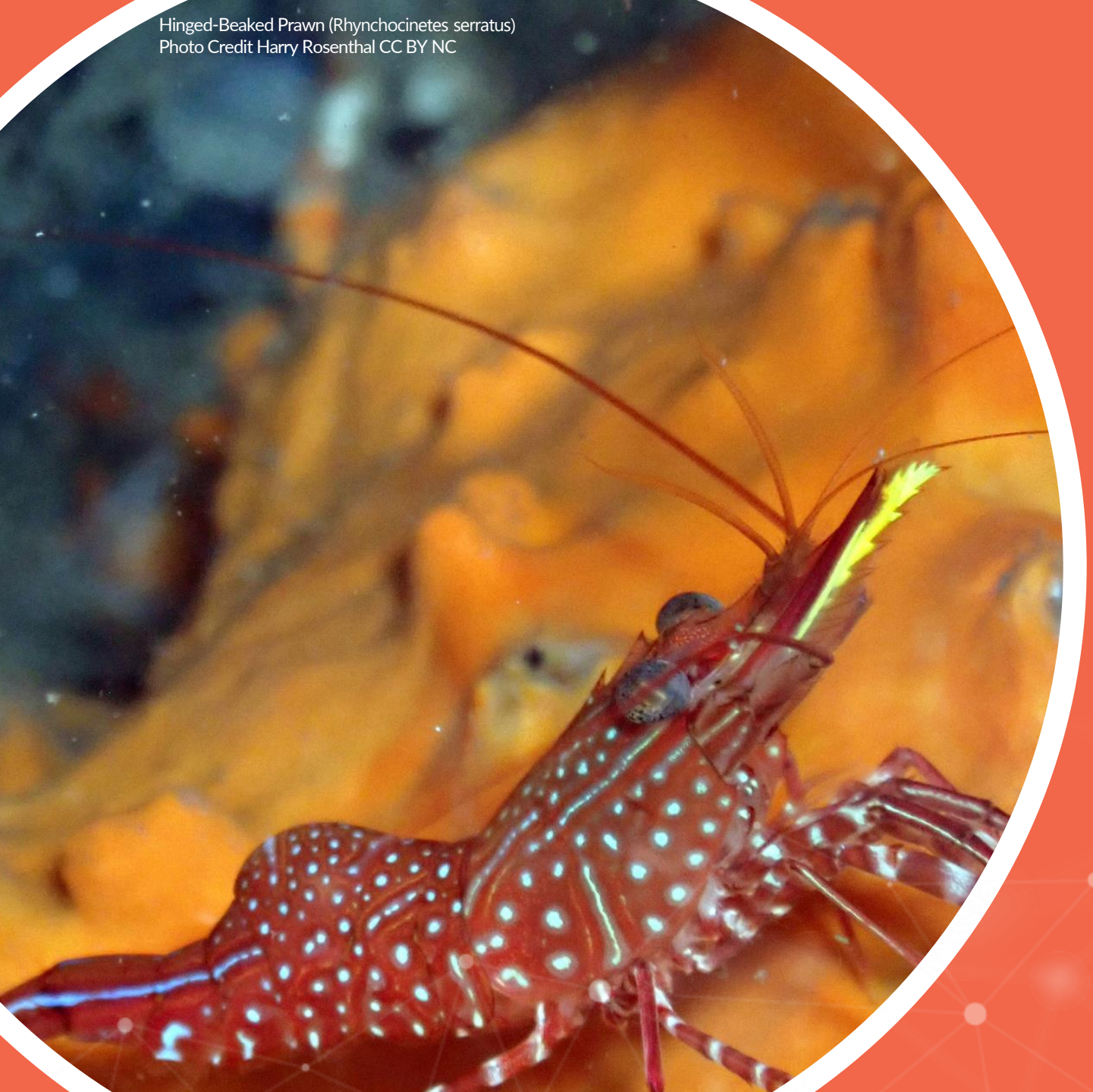
https://blog.csiro.au/recovering-species-specimens-data/

Unlocking inaccessible historical genomes preserved in formalin
Erin E. Hahn, Marina R. Alexander, Alicia Grealy, Jiri Stiller, Donald M. Gardiner, Clare E. Holleley
First published: 22 September 2021
https://doi.org/10.1111/1755-0998.13505

Newly identified challenges

Target 1 – Plan and manage all areas to reduce biodiversity loss
Target 20 – Strengthen capacity building
Target 21 – Ensure knowledge is available and accessible to guide biodiversity action

Correa reflexa var. lobata
Type: HOLOTYPE
By: Muir, T.B.
Date: 1959-06-27
Supplied by: Royal Botanic Gardens Victoria
Rights holder: Royal Botanic Gardens Board



Hinged-Beaked Prawn (Rhynchocinetes serratus)
Photo Credit Harry Rosenthal CC BY NC

Atlas of Living Australia
ala.org.au

Thank you

Ely Wallis
Engagement Team Lead and Collections
Community Engagement Manager

e: Ely.Wallis@csiro.au

Atlas of Living Australia
ala.org.au

CSIRO

NCRIS
National Research Infrastructure for Australia
An Australian Government Initiative

GBIF Global Biodiversity Information Facility

The Global Biodiversity Information Facility

Melianie Raymond and Maheva Bagard Laursen Community & Capacity Team, GBIF Secretariat

What is GBIF?

Intergovernmental network and data infrastructure

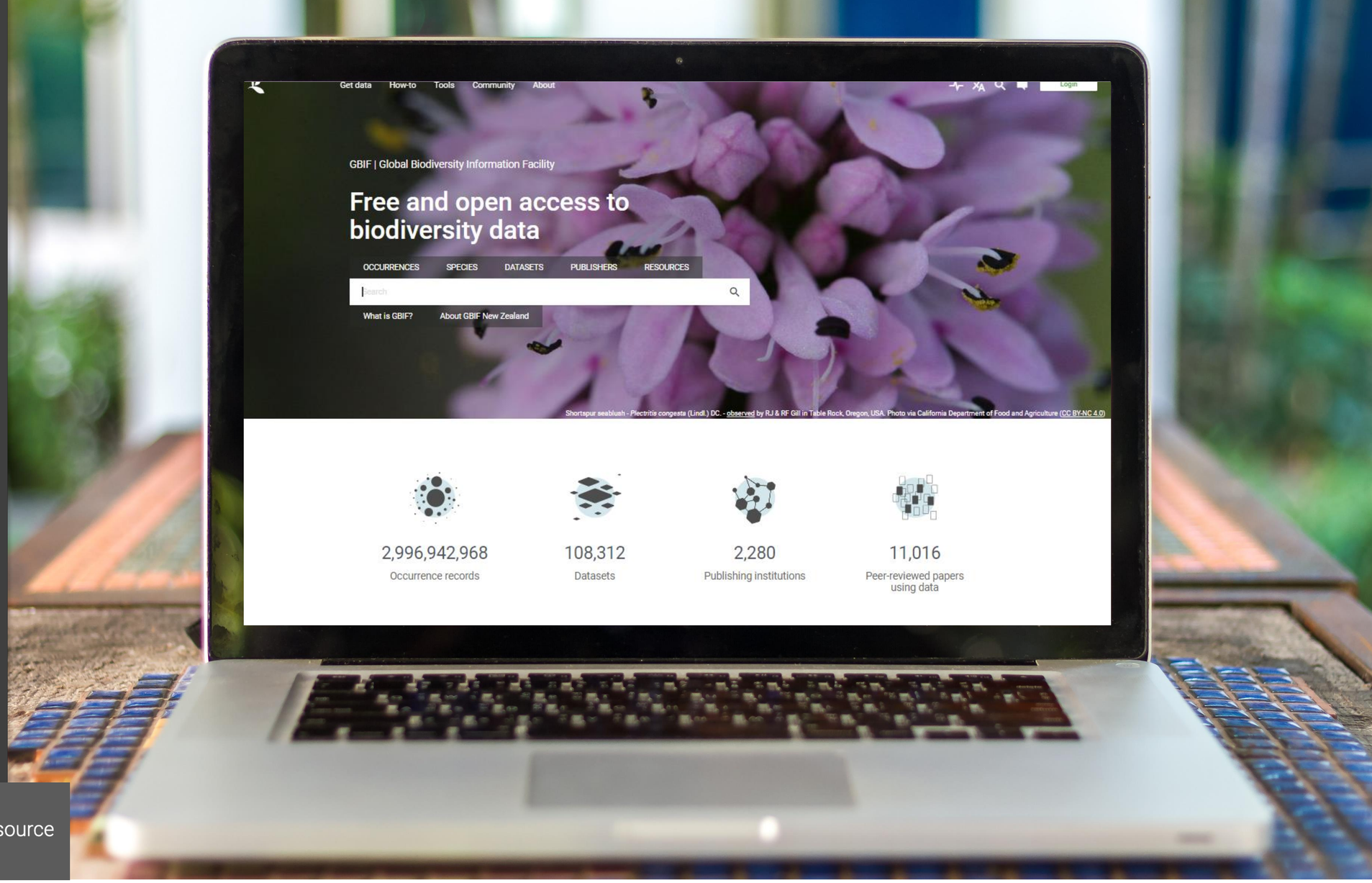
Provides anyone, anywhere, free and open access to data about all types of life on Earth

Voluntary collaboration through Memorandum of Understanding

Participant nodes, Secretariat in Copenhagen, DK

GLOBAL CORE BIODATA RESOURCE

GBIF is a Global Core Biodata Resource



https://www.gbif.org/ https://www.gbif.org/news/6PHdgoyIF6RmI7u4VOouuD/gbif-named-a-global-core-biodata-resource

Vision

A world in which the best possible biodiversity data underpins research, policy and decisions.

Mission

To mobilize the data, skills and technologies needed to make comprehensive biodiversity information freely available for science and decisions addressing biodiversity loss and sustainable development

https://www.gbif.org/strategic-plan

Datasets

107,542

Hosted portals

21

Country Participants

63

Peer-review papers using data

10,934

Organizational Participants

43

Average records downloaded per month (2024)

201.5 billion

Publishers

2,275

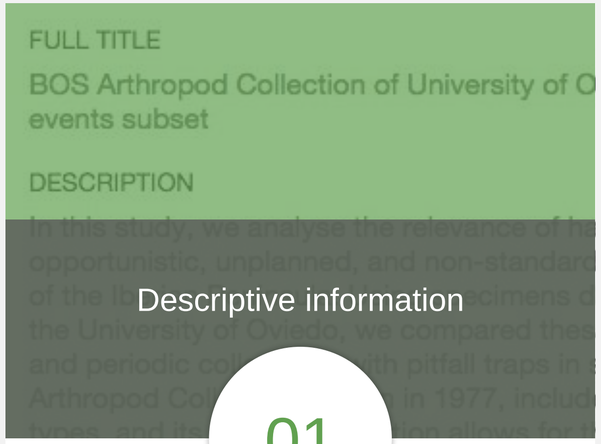
Species occurrence records

2,990,731,508

By the numbers | 1 July 2024

www.gbif.org

Data richness levels supported by GBIF



Descriptive information

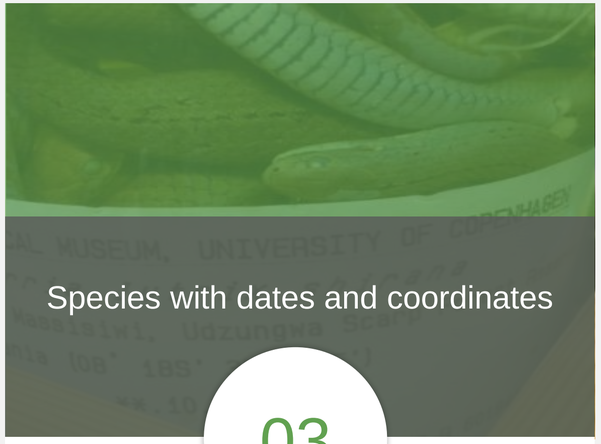
01

Dataset metadata

Species in countries and areas

02

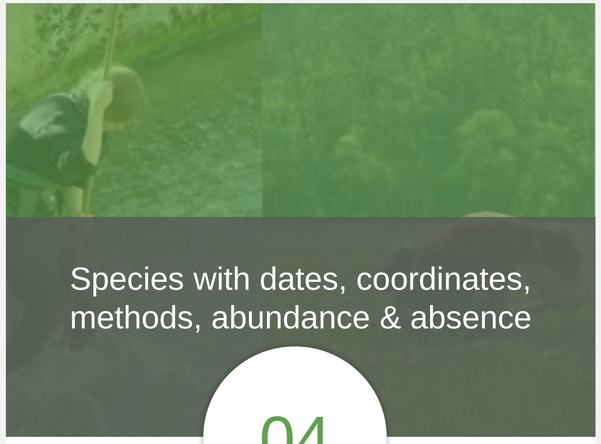
Species checklists



Species with dates and coordinates

03

Occurrence-only data

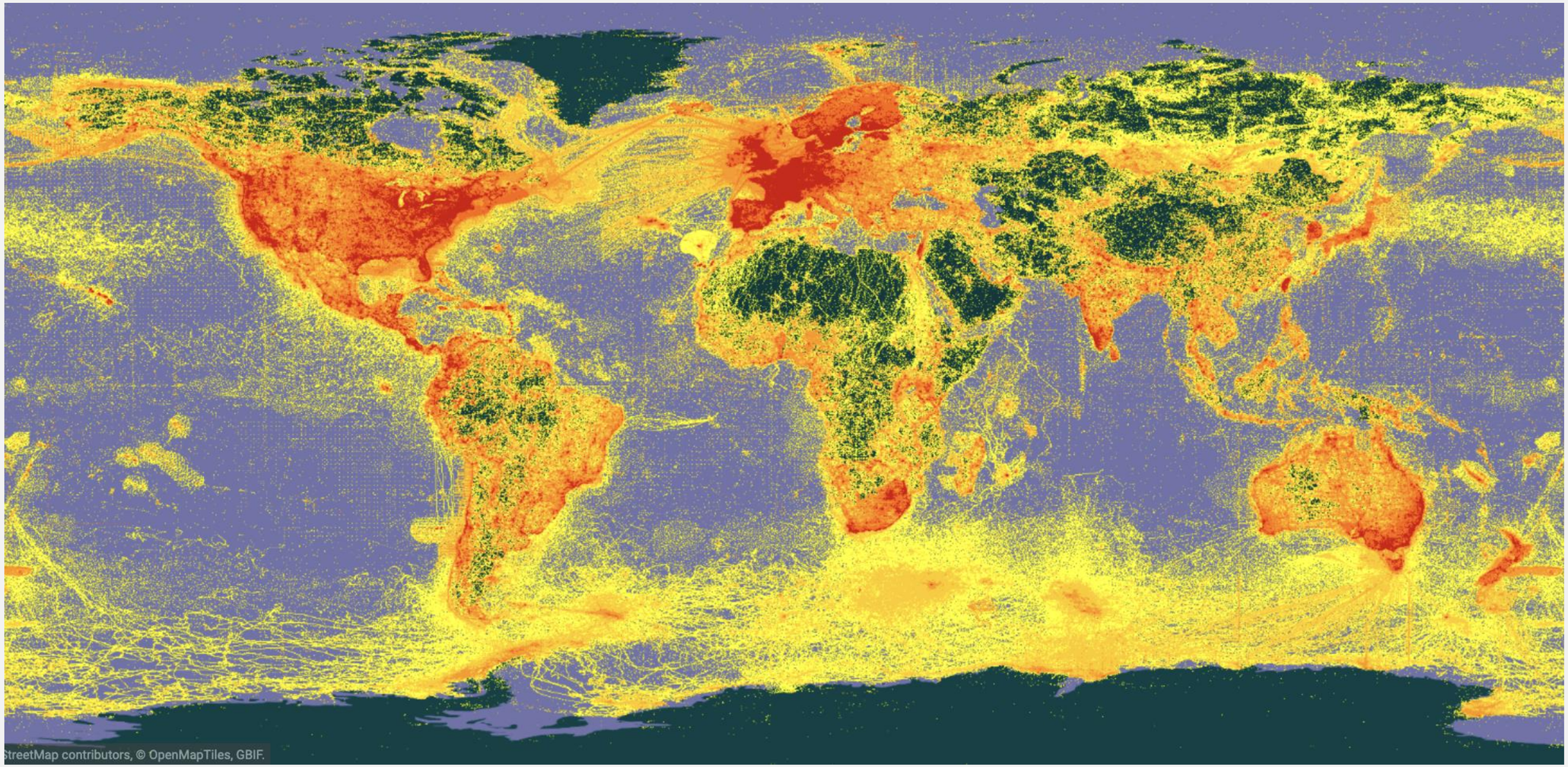


Species with dates, coordinates, methods, abundance & absence

04

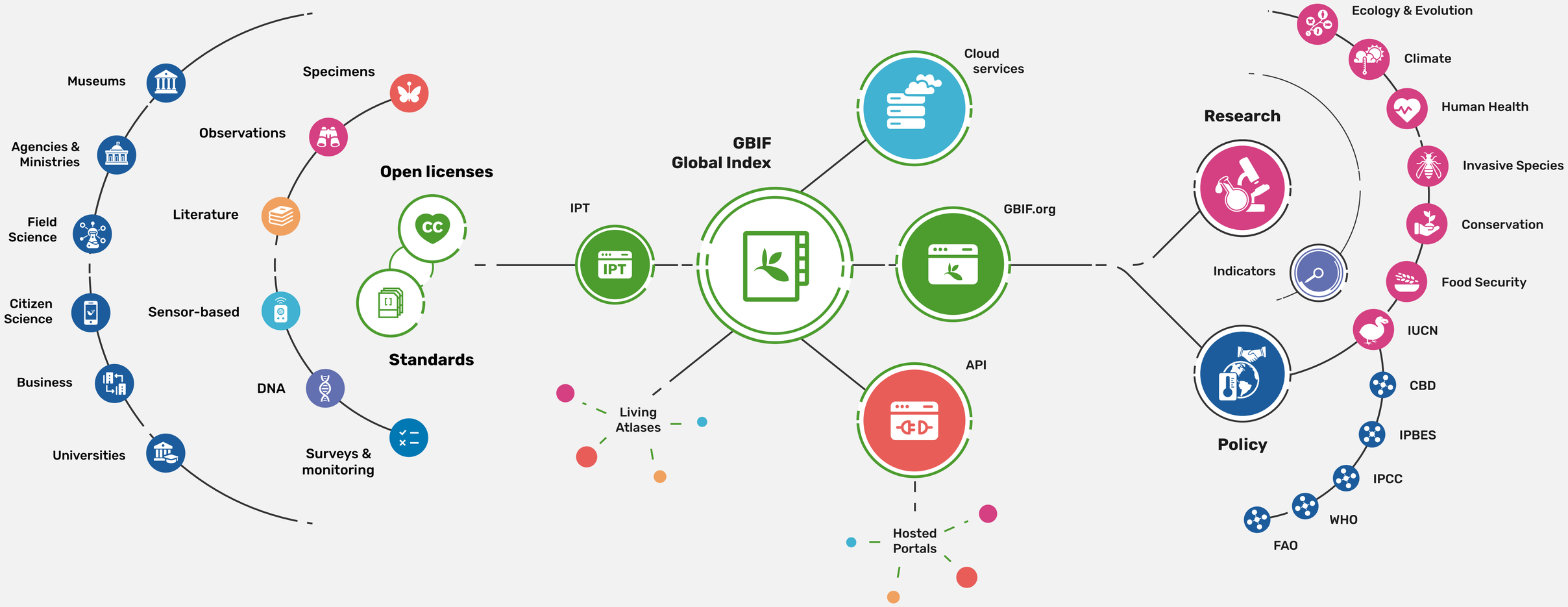
Sampling-event data

Distribution of data on species occurrences published through GBIF



https://www.gbif.org/

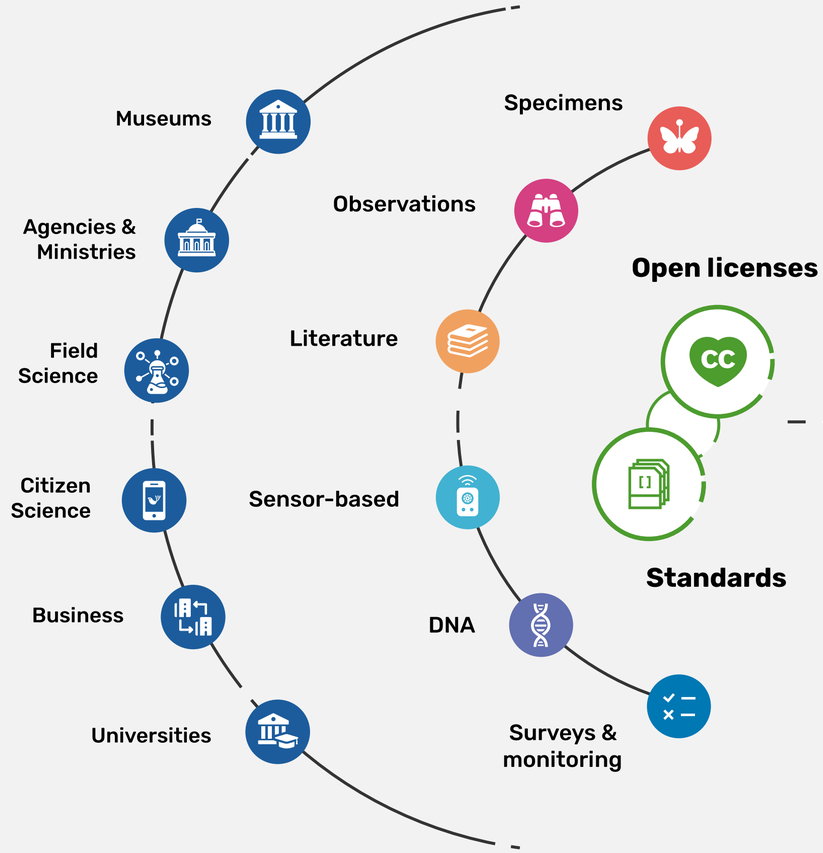
Providing biodiversity evidence for research and policy



Sources of biodiversity evidence

Create

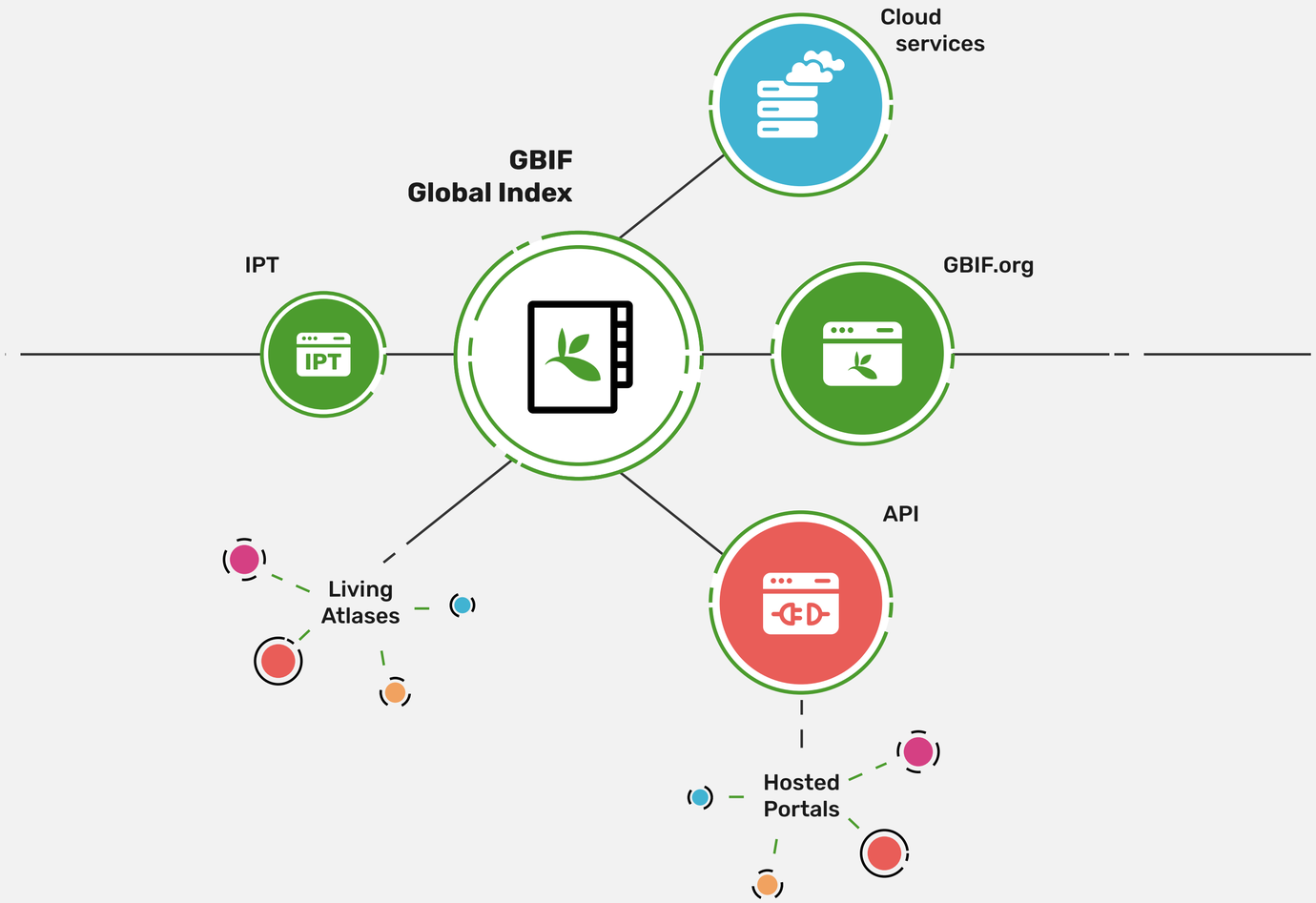
Combine sources of evidence



Access to biodiversity evidence

Share

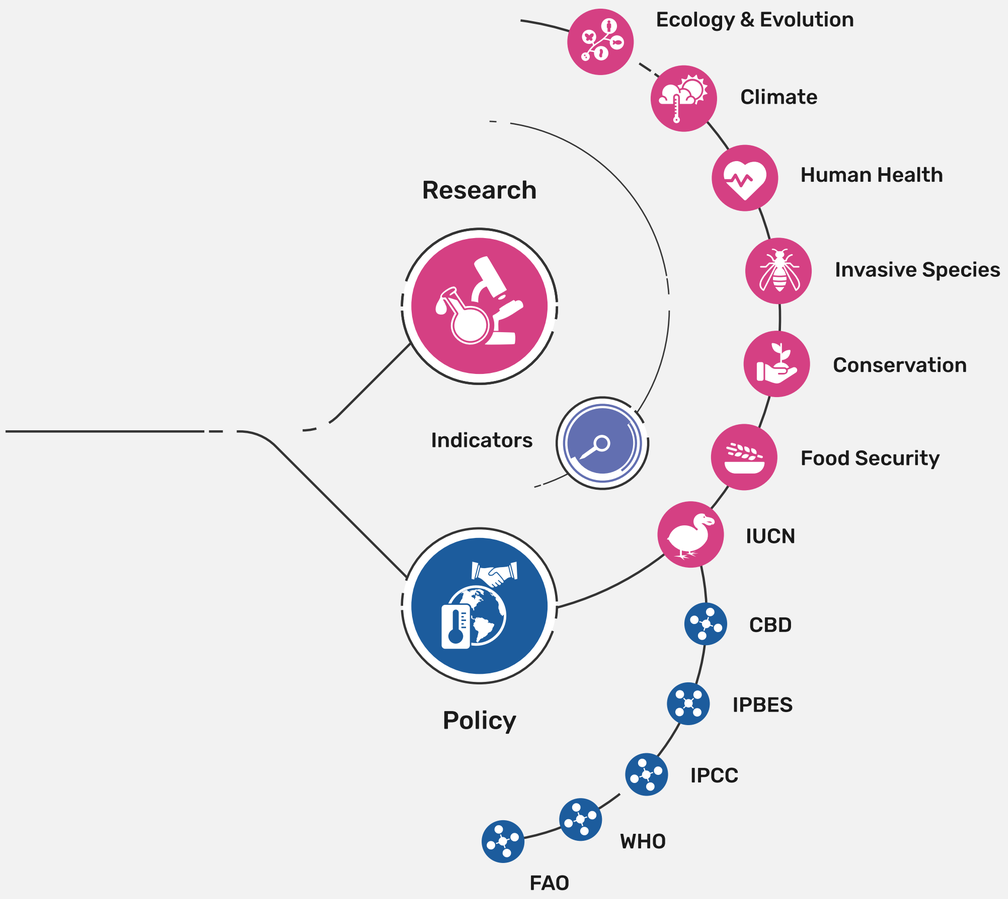
FAIR and open access



Uses of biodiversity evidence

Transform

Apply and use data



The value of GBIF

https://www.gbif.org/value

The economic value and impact of the GBIF network

For every **€1 invested** in GBIF,
users receive €3 of benefits while
society gains up to €12

https://www.gbif.org/value

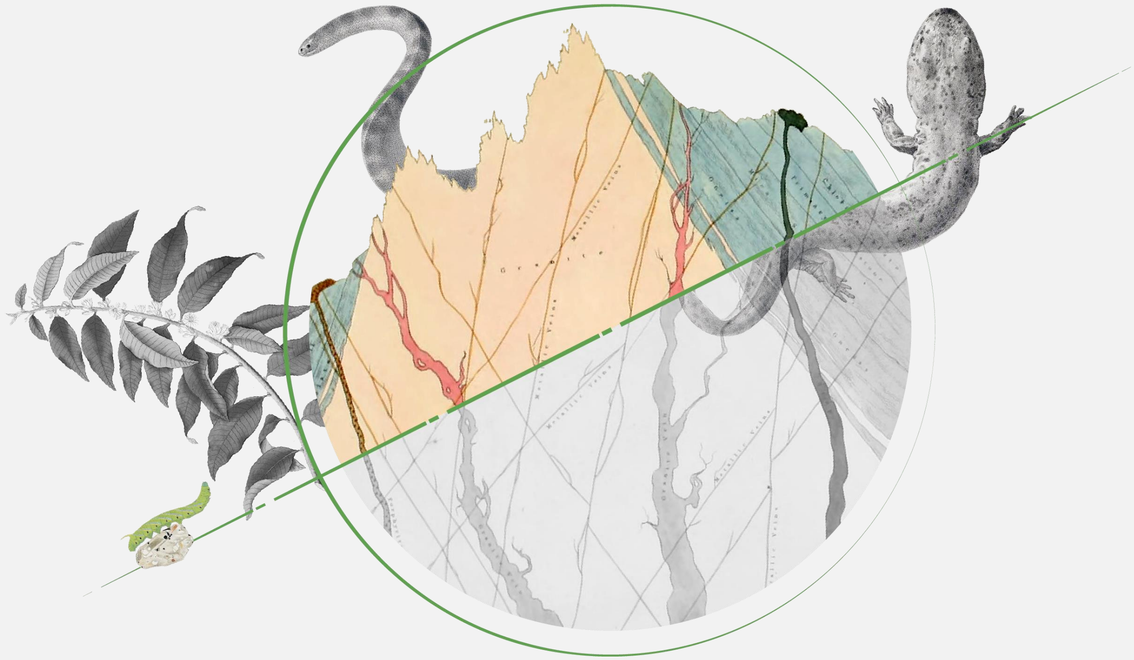
Research and policy

GBIF empowers its community of users to unlock new insights, enabling ground-breaking scientific studies and facilitating evidence-based policy decision-making.

https://www.gbif.org/data-use

GBIF expands the scope of what is possible

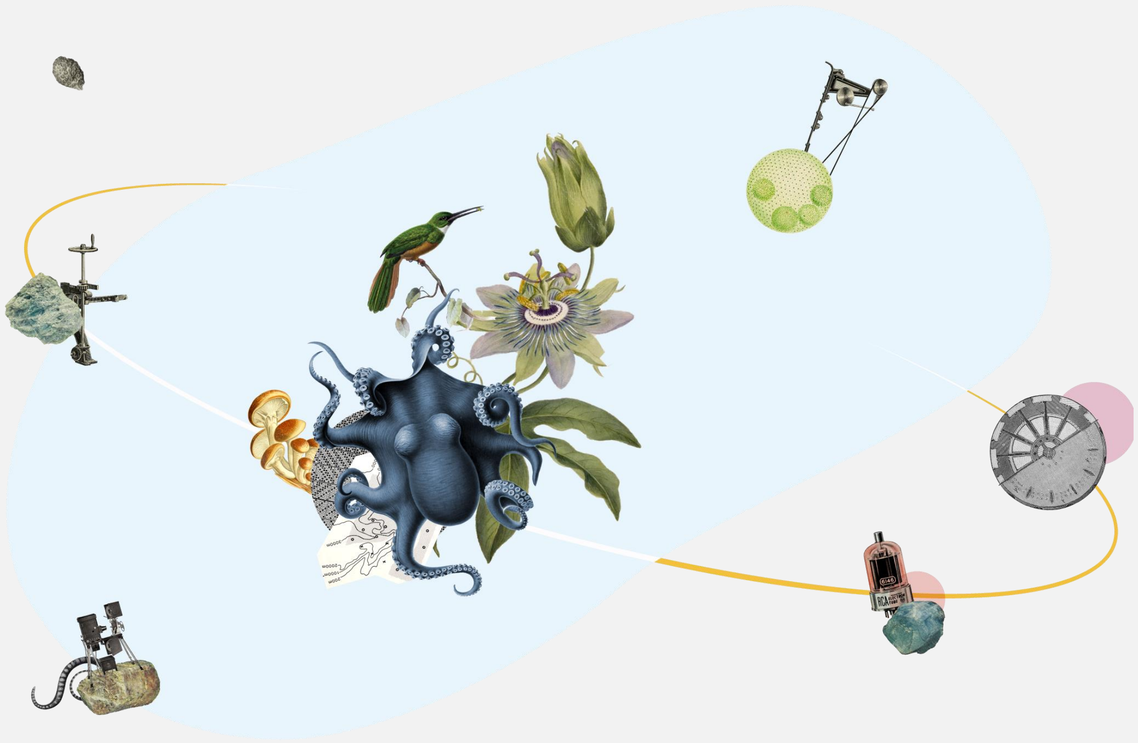
Almost half of GBIF users would have found it impossible to achieve the same outcome in the absence of GBIF.



https://www.gbif.org/value

Shared infrastructure

By embracing a hosted framework, GBIF's infrastructure democratises access to biodiversity data, promotes collaboration, facilitates data harmonisation, and fosters innovative research.



https://www.gbif.org/value

Shared infrastructure

“the most comprehensive, openly available, application-agnostic (most unbiased), easiest-to-use, and modern access point to known digital species occurrence data.”

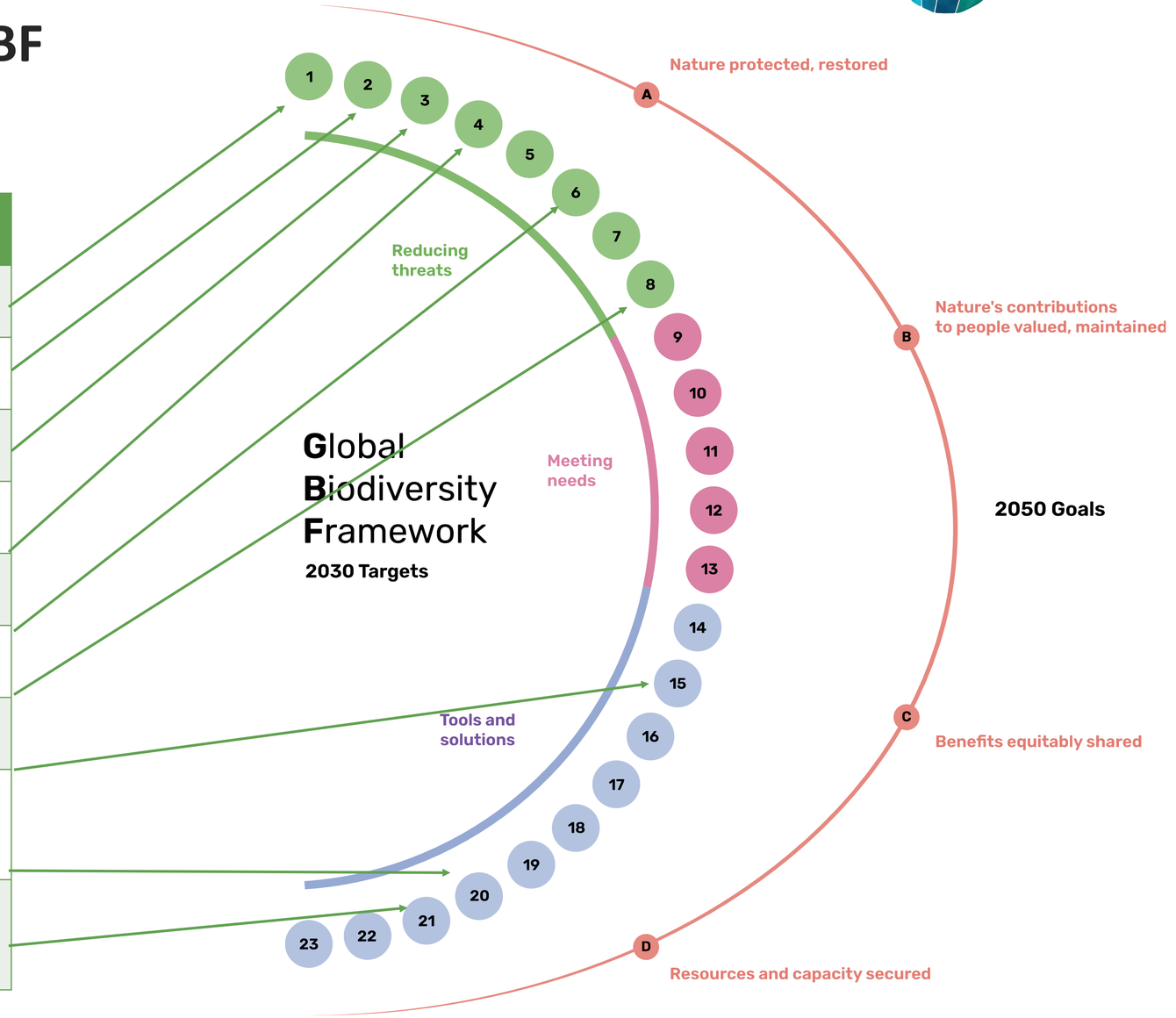
Committee on Data of the International Science Council (CODATA)

https://www.gbif.org/value

Primary data as foundation for implementing and monitoring GBF

THE BIODIVERSITY PLAN
For Life on Earth

GBIF relevance (illustrative)
Data to identify key biodiversity areas
Data to monitor restoration
Data to locate, monitor protected areas
Data for species conservation
Data on invasive species occurrence
Data to model climate change impacts
Platform for sharing EIA data
Capacity programmes for data mobilization and use
Making data available for implementation



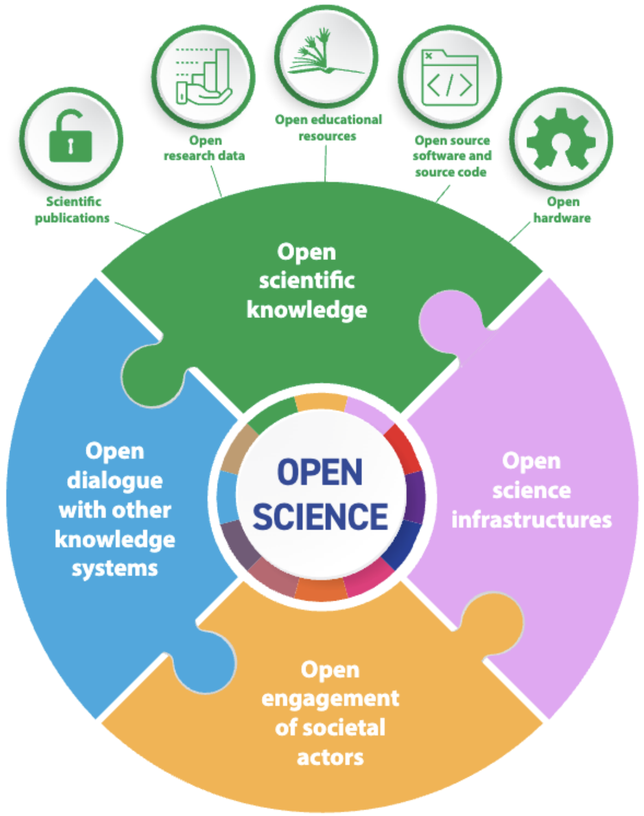
https://www.cbd.int/gbf/

GBIF and a sustainable future

Almost all GBIF users, 92%, identified that their use of GBIF-mediated data was linked to achieving Sustainable Development Goals

https://www.gbif.org/value

GBIF supporting open science



Open research data are available in a timely and user-friendly, human- and machine-readable and actionable format, in accordance with principles of good data governance and stewardship, notably the FAIR (Findable, Accessible, Interoperable, and Reusable) principles, supported by regular curation and maintenance.

https://www.unesco.org/en/open-science/about

Multiple ways to work with the GBIF network

- GBIF nodes
- Regional support teams
- GBIF Secretariat

Capacity enhancement

By focusing on people, GBIF recognises that the success of data sharing and conservation efforts relies on individuals' skills, knowledge, and engagement at various levels.

https://www.gbif.org/value

GBIF Global Biodiversity Information Facility

The BID programme

Funded by the European Union

Sharing knowledge

Enhancing capacity to mobilize FAIR and open data on Biodiversity to increase knowledge

To support Science and Policy

Enhancing capacity to use open data on biodiversity in research and policy to address key needs for the benefit of society

Previous action under the BID programme: 2015 - 2023

BID | Biodiversity Information for Development

+1.8 million

Species occurrence records

Data used in

1,315

Peer-reviewed publications

165

Publishing institutions

GBIF Global Biodiversity Information Facility

Funded by the European Union

BID | Biodiversity Information for Development

Capacity enhancement -
supported by the BID regional support team

+100
Data skill badges

+43
Mentor and trainer badges

+100
Replications

12
GBIF workshops

GBIF Global Biodiversity Information Facility

Funded by the European Union

BID | Biodiversity Information for Development

BID PACIFIC

+386,593
Species occurrence records

Data used in
540
Peer-reviewed publications

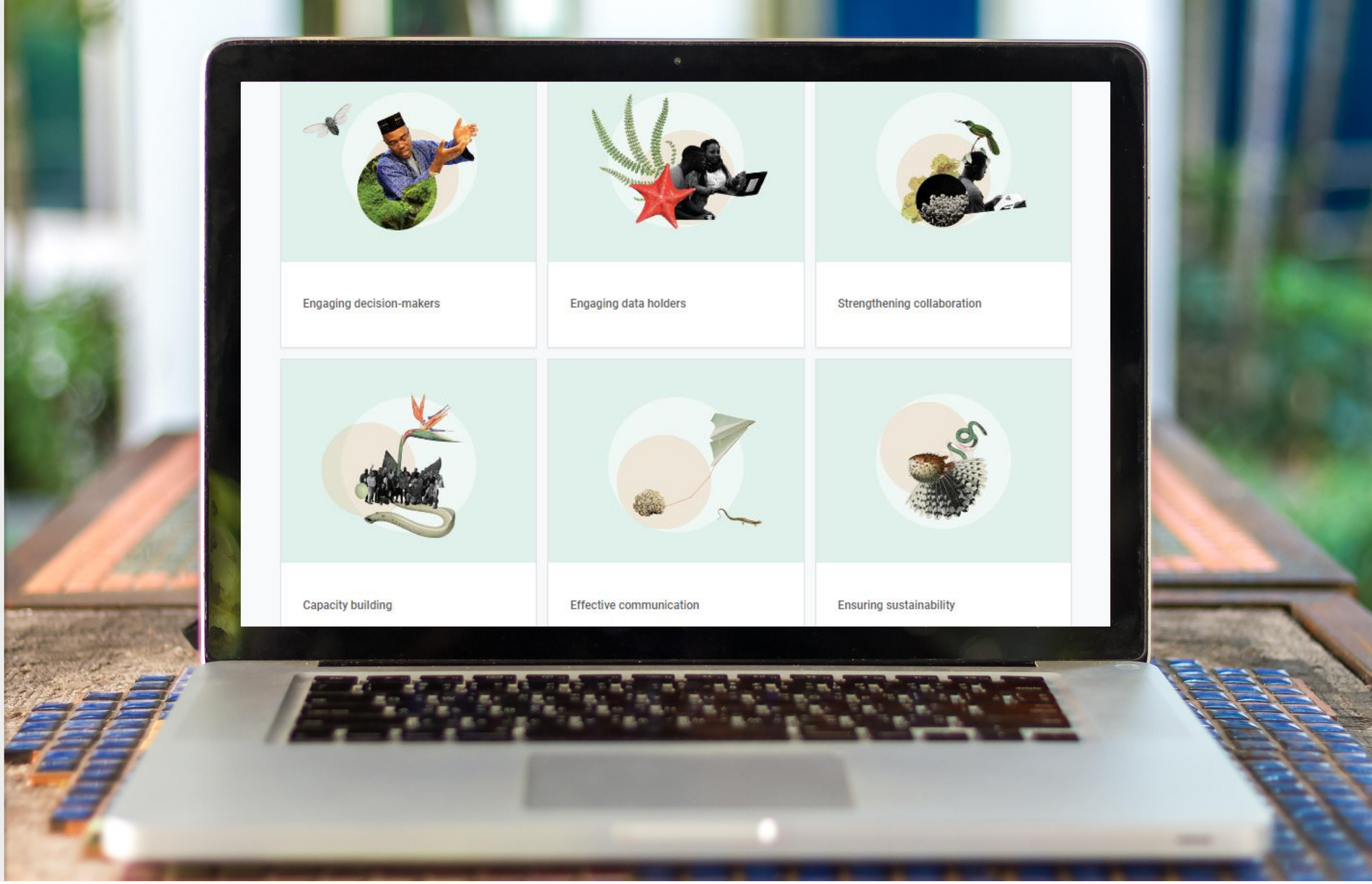
20
Publishing institutions

GBIF Global Biodiversity Information Facility

Funded by the European Union

Best practices for mobilizing policy-relevant data

Highlight best practices developed by project teams to address common challenges to inspire organizations considering similar activities



BID 2024 - 2029

Duration: 60 month

Broad geographic focus: Africa, Latin America and the Caribbean and Pacific

Start date: 09th August 2024

Main objective

Significant improvement of the availability and accessibility of data, information, and knowledge for decision-making

Key outcome

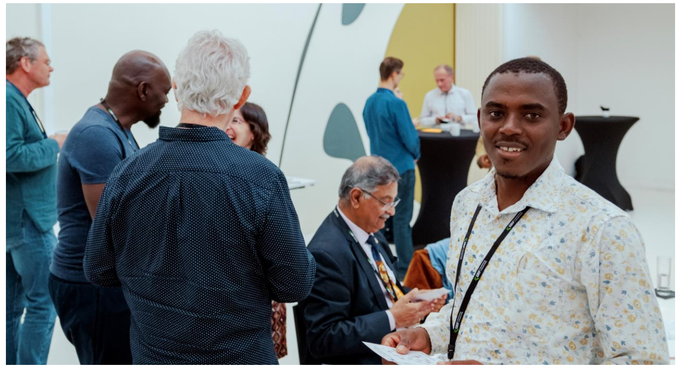
Enhanced capacity to meet the knowledge needs of the Kunming-Montreal Global Biodiversity Framework through the mobilization of the required skills, collaborations and technologies

Focus on supporting the knowledge needs of the Global Biodiversity Framework (GBF)

Keys outputs and related activities

Mobilization of biodiversity data

- Contracting of regional support teams
- Organization of one call for proposals for biodiversity data mobilization projects in each of the target regions
- Setting up or maintenance of open hosted data publishing infrastructure



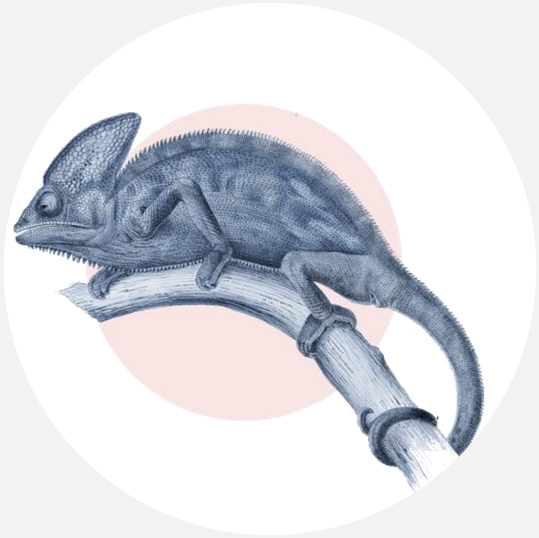
Robust communities of practice in open data mobilization and use

- Development and consolidation of open training materials on biodiversity data mobilization and use
- Organization of at least one capacity building workshop within each of the target region

Scientific research and decision processes apply open biodiversity data in the target regions

- Organization of a regional meeting
- Tracking citations of the use of data mobilized through BID in research and decision-making
- Promotion of results to international science-policy initiatives

Tentative timeline for Key activities



2024

Organization of regional meetings in the target regions to identify key regional capacity and information needs

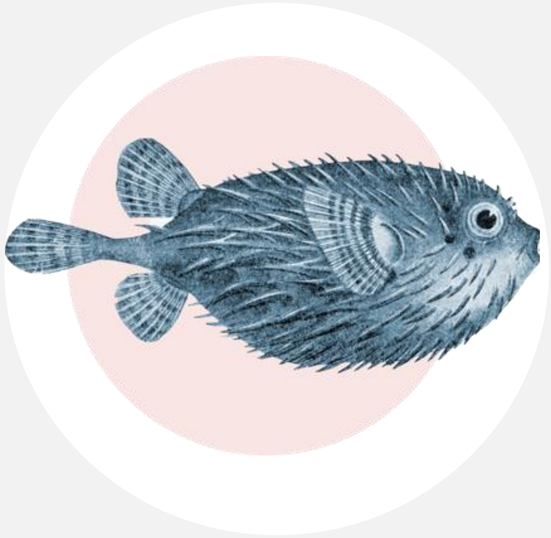
Contracting of regional support teams

2024 - 2025

Determination of the intervention strategy for each of the target regions based on knowledge gaps analysis, recommendations provided by regional stakeholders and analysis of GBF indicators

2025

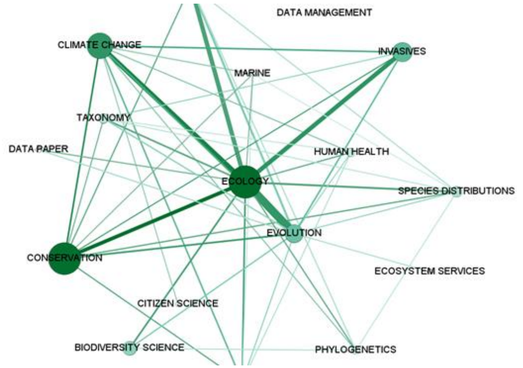
New round of BID calls for proposals in the target regions

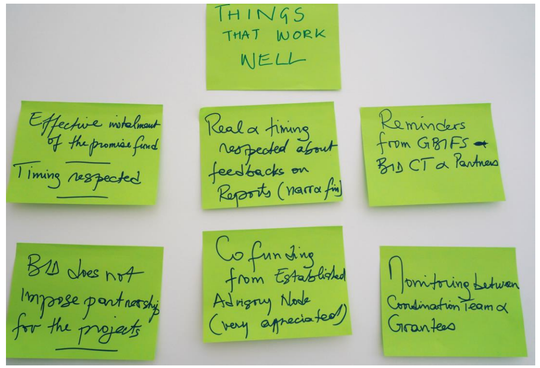


2026

Start of the 2-year implementation period of the projects selected under the BID calls for proposals and organization of capacity development events in the region

Consultative process guiding the development of BID





External evaluation of the BID programme:

- Assess the impact of BID
- Draw recommendations for future phases

BID Showcase event & workshop:

- Capture practical experiences and recommendations from nodes and grantees
- Explore ideas to strengthen capacity development on the regional level

Global Node Meeting:

- Explore and identify recommendations on how nodes should be involved in BID

BID regional meetings:

- In parallel of regional nodes meetings whenever possible
- Aim to identify regional information needs to inform BID selection criteria

External evaluation of BID: https://capacity4dev.europa.eu/library/evaluation-biodiversity-information-development-bid-programme_en
Recommendations from the Global Nodes Meeting: https://docs.google.com/document/d/1HjBvK68yX6ZahLIDzLrS9OjYMKK4Ou_sSfZm-ElZL1w/edit#heading=h.lsuwhylt2esa

GBIF Global Biodiversity Information Facility

BID Pacific Engagement Meeting for the Biodiversity Information for Development Programme

Funded by the European Union

Objectives of the meeting

Share regional progress updates and best-practices

Identify key regional capacity and information needs to inform the development of the upcoming BID call for proposal

Identify opportunities for synergies between existing and upcoming regional initiatives and the BID programme

Encourage broad participation in the calls for proposals, including applicants, reviewers, mentors, trainers, and partners

Expected output: Draft meeting report including

THE BIODIVERSITY PLAN
For Life on Earth

Regional recognition of BID as contribution to targets 20 and 21 of the GBF

Recommendations from the region on priority impact areas within

- Data mobilization
- Capacity needs for effective biodiversity data management
- Delivering biodiversity data for use

Mechanisms for addressing regional priorities within:

- Calls for proposals
- Capacity enhancement workshops
- Knowledge sharing

Additional opportunities to strengthen and sustain the impact of BID via synergistic action across programmes and initiatives in the region

The draft meeting report will be circulated for further input and sign-off by the meeting participants and other stakeholders

Thank you!

mraymond@gbif.org

mblaursen@gbif.org

Biodiversity data relating to fisheries

GBIF Oceania Regional Nodes Meeting & Pacific Engagement Meeting for the Biodiversity Information for Development Programme

10-13 September 2024, Wellington, New Zealand

Franck Magron, Coastal Fisheries Information & Database Manager, Pacific Community

Fisheries related data collection in PICTs

Pacific Island Countries and Territories (PICTs) fisheries agencies collect fish and invertebrate data for species of commercial interest/consumed (~1000 species in total)

Fisheries independent surveys

- Underwater Visual Census surveys (fish & invertebrates) (mainly sea cucumbers surveys since 2008)

Fisheries dependent surveys

- Market surveys (catch for sale at the market)
- Landing / community catch surveys
- Aquarium trade data (fishes, invertebrates, corals)

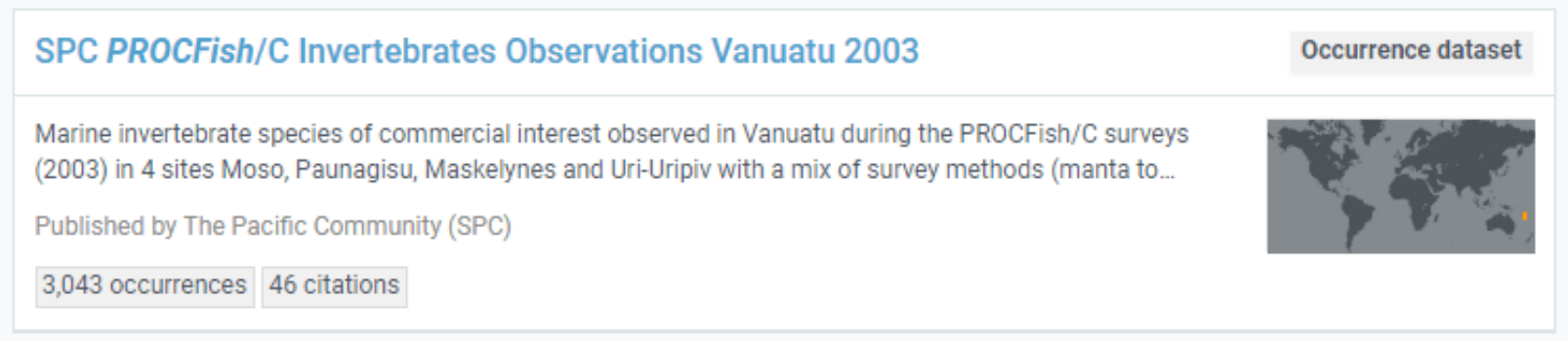
Pacific Community provides databases & tools to PICTs to collect, store & analyze that data. SPC FAME policy applies for data held by the Pacific Community

SPC FAME Data Policy for PICTs data

Data hosted by SPC Fisheries, Aquaculture and Marine Ecosystems division belong to their respective owners (national fisheries authorities, organizations etc.) and is not public by default

https://purl.org/spc/digilib/doc/o4wf6

Yet we can help the data owners to publish their data
(as we did for UVC PROCFishC/ & CoFish data)



Publishing fisheries related data in GBIF

Case 1 : Underwater Visual Census data (commercial fish & invertebrates)

- Surveys conducted by SPC scientists and country counterparts during the PROCFish/C & CoFish projects (2002-2008) in 14 countries
- Permission obtained from countries to make these datasets public
- Data prepared (cleaning, metadata) and published in 2018 in GBIF

14 countries, 34 datasets, 129,908 occurences

Case 2 : Zooplankton/Mikronekton

- Survey conducted by SPC scientists in pelagic waters of New Caledonia in 2014
- Data prepared and published in 2018 in GBIF

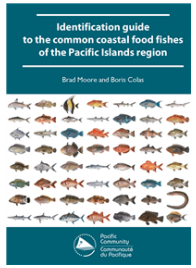
1 datasets, 12,454 occurences

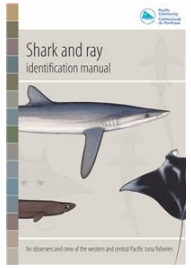
Current data collection for fisheries management

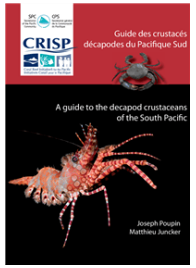
- Coastal fisheries data collection is mainly conducted by PICTs at the market or landing, focusing on length data of common species, often with a photo attached
- Photos allow taxonomy check in case of doubt and an AI model trained on existing photos helps data collectors to measure and identify species
- Uncommon species still need to be validated by a taxonomic expert

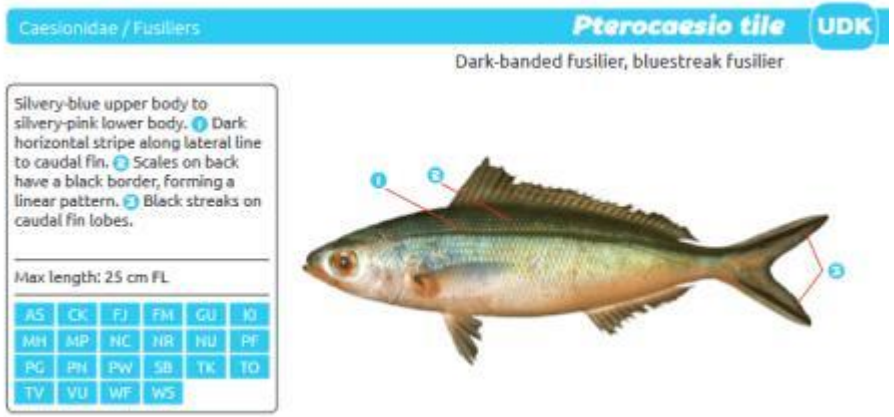
Use of biodiversity data for fisheries management

- World Register of Marine Species (WoRMS) is used as reference
- Taxonomic database filtered to species referenced in GBIF for the Pacific region (PICTs + Australia and New Zealand)
- Identification guides of common species







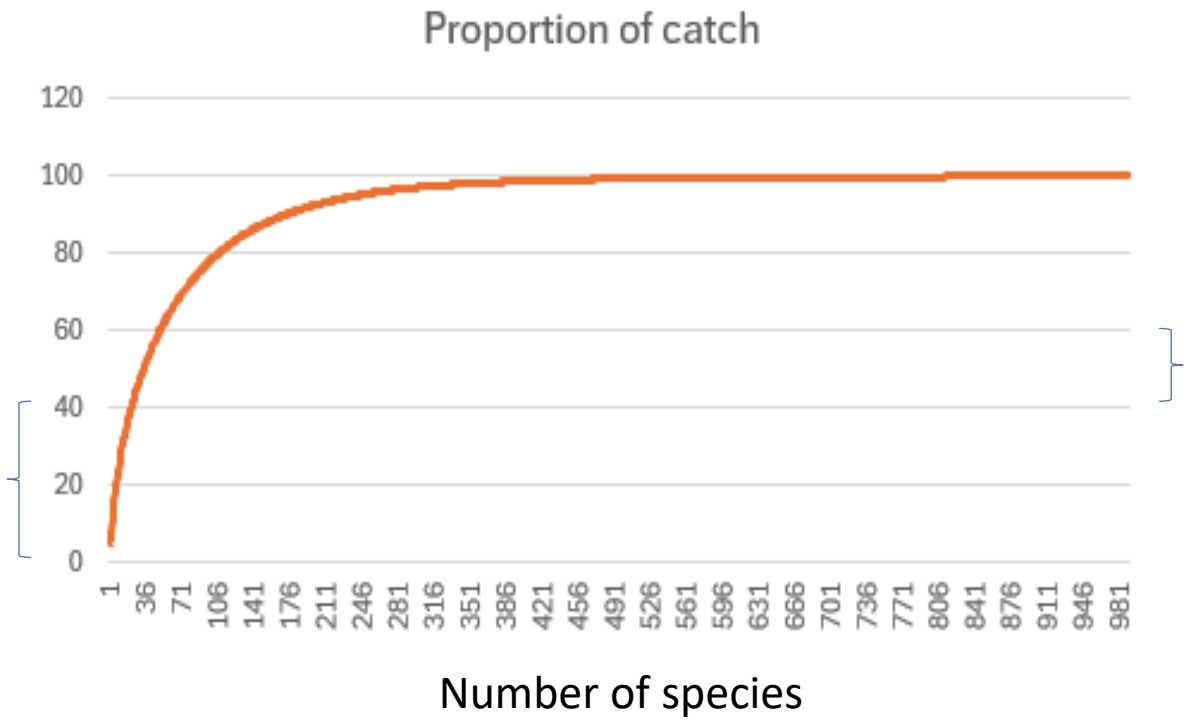


Identification guides and biodiversity data helps validating presence of species in each country

Data collection for fisheries management

100 species account for 79% of the reported coastal fisheries catch

Lutjanus gibbus
Acanthurus lineatus
Naso unicornis
Acanthurus xanthopterus
Ctenochaetus striatus
Siganus canaliculatus
Siganus argenteus
Hipposcarus longiceps
Lethrinus atkinsoni
Naso lituratus
Albula glossodonta
Siganus lineatus
Gerres sp.
Scarus rubroviolaceus
Lethrinus obsoletus
Rastrelliger kanagurta
Parupeneus barberinus
Crenimugil crenilabis
Lutjanus adetii
Lethrinus nebulosus
Acanthurus nigricauda
Polydactylus macrochir
Chlorurus microrhinos
Lethrinus olivaceus

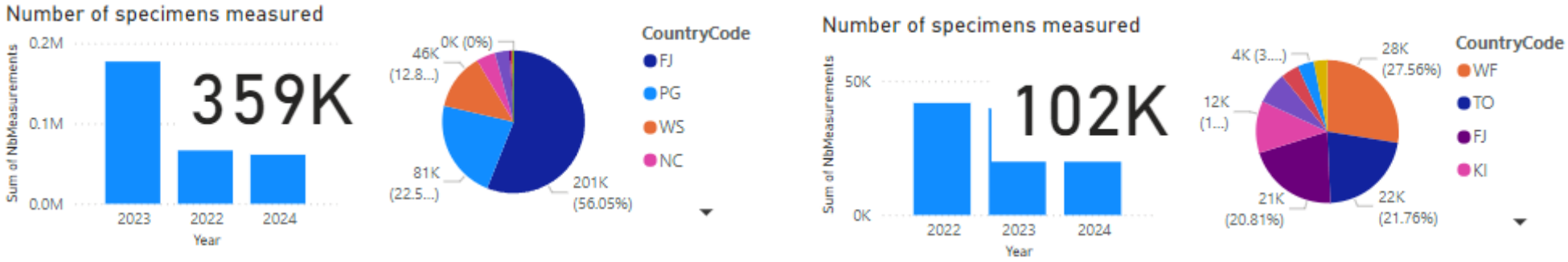


Caranx melampygus
Lethrinus harak
Panulirus penicillatus
Scylla serrata
Euthynnus affinis
Sargocentron spiniferum
Scarus oviceps
Myripristis sp.
Scarus ghobban
Caranx sexfasciatus
Chlorurus spilurus
Selar crumenophthalmus
Lutjanus fulvus
Lethrinus xanthochilus
Lutjanus bohar
Tylosurus crocodilus crocod
Sphyraena forsteri
Caranx papuensis
Ellochelon vaigiensis
Siganus punctatus
Crenimugil seheli
Monotaxis grandoculis
Siganus spinus
Plectropomus leopardus
Naso hexacanthus
Lutjanus kasmira
Acanthurus triostegus

Very little data is available for uncommon species

Regional perspectives on data needs

While more data is now collected on coastal fisheries in PICTs, this is a data-poor sector and stock health is usually determined through LBSPR analysis using available length data



Market & landing data

This requires biological information on size at maturity & life history traits. This information is generally not available for many countries and species.

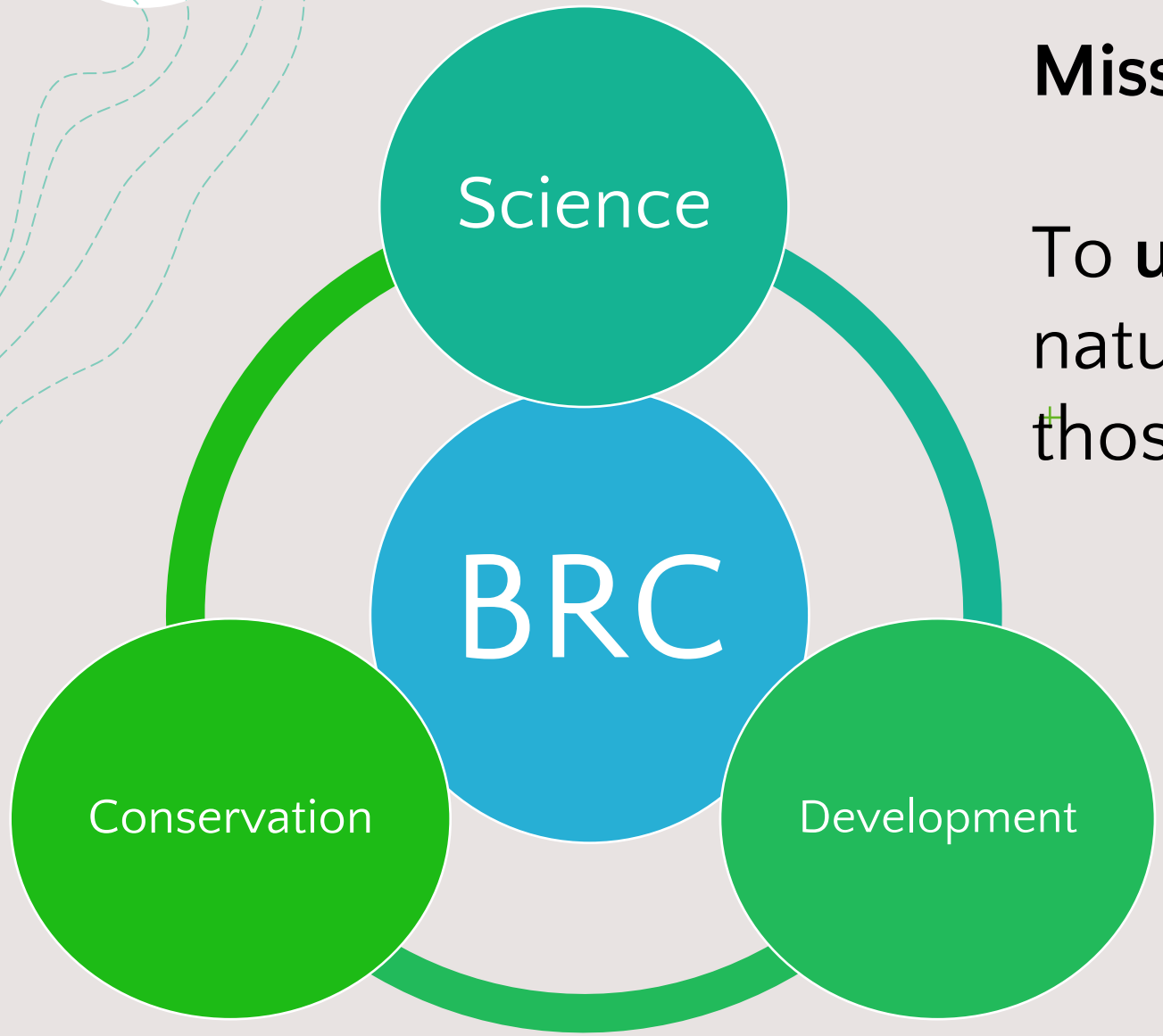
That is all for now

Heoi anō tāku mō nāianei

New Guinea Binatang Research Center

Connecting Science, Conservation and Development

Presenter: Mr. Gabriel PETUEL



Mission

To **understand** and **protect** the natural world while **empowering** those closest to it.

Challenges

Science

- Rainforests among the least understood systems
- Tackling threats to biodiversity and climate must be evidence driven

Conservation

- Requires skills and a sustainable approach
- All too often is overseas driven

Development

- Communities in the most biodiverse areas are also the most underdeveloped
- Fair distribution of resources, education, income and benefits

Solutions

Science

- Advocate for and deliver fundamental and applied research
- Synthesise and communicate findings to key stakeholders

Conservation

- Training, education and capacity building
- Fostering confidence and independence in local researchers and indigenous communities

Development

- Provide foundations upon which communities can grow
- Promote equality and demonstrate its benefits

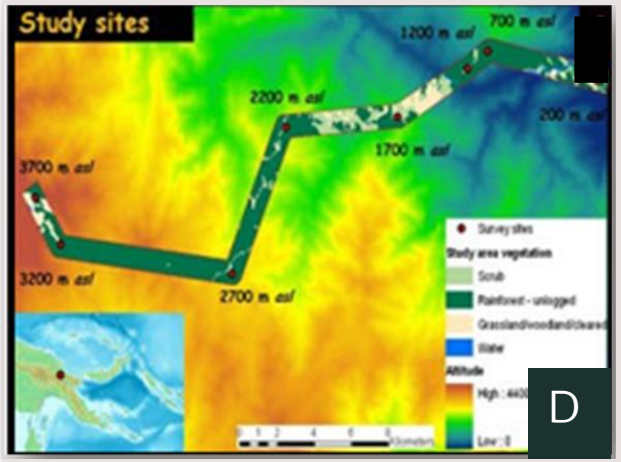
Aim to generate long term impacts

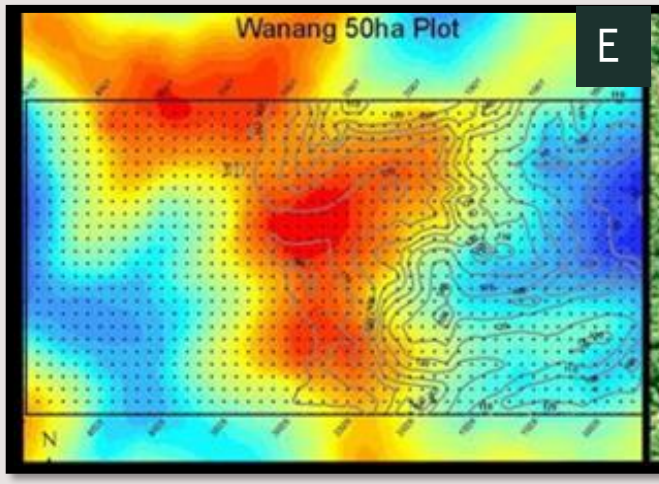
+ Help mitigate environmental and biodiversity catastrophes
+ Secure areas for biodiversity to exist
+ Place in the hands of those who understand local needs
+ Ensuring the custodians are rewarded for this key work
+ **Ultimately seeking greater knowledge and sustainability in an uncertain and unsustainable age**

Science

+ **Key facilities in PNG**
  - Headquarters in Madang; Labs, Herbarium, Accommodation, IT facilities, more+
+ **Field sites**
  - Wanang Conservation Area, Mt Wilhelm Conservation Area, Kau WMA
+ **National leaders**
  - Most scientifically productive in biological sciences including fundamental and applied research

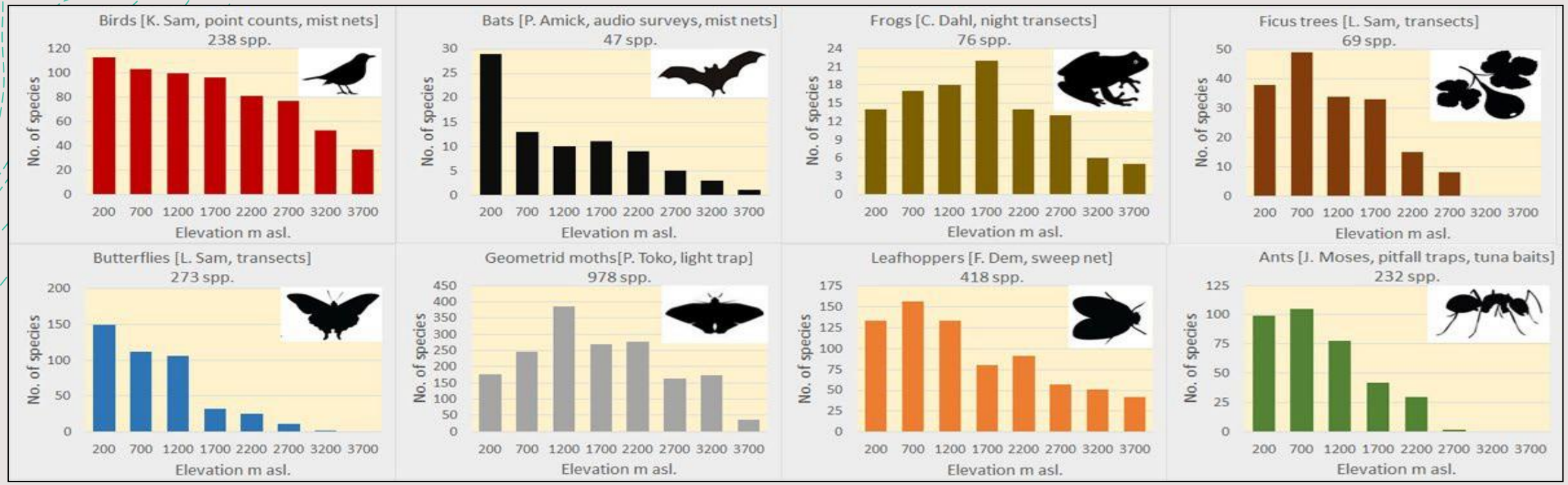
Research Infrastructure





Fundamental Research

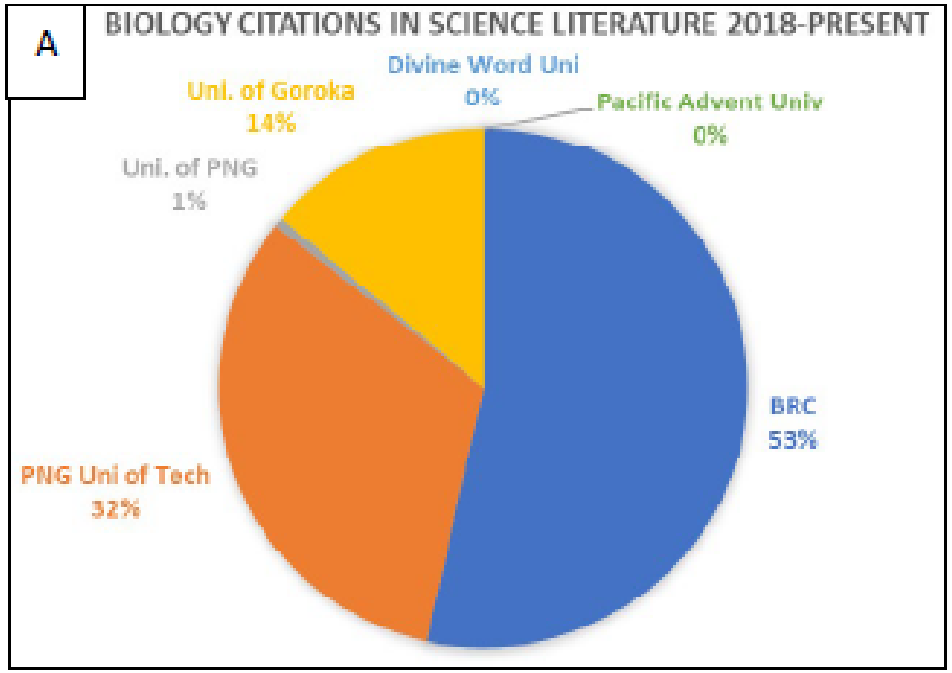
Fundamental Research



Applied Research and Monitoring

Scientific Productivity

A



B

Rank	Name	Institution/University
1	Bonny Koane	BRC
2	Kenneth Molem	BRC
3	Savitha Dr Britto	Uni. of Goroka
4	Mentap Sisol	BRC
5	Pagi Toko	BRC
6	Martin Mogia	BRC
7	Sentiko Ibalim	BRC*
8	Gibson Sosanika	BRC*
9	Billy Bau	PNG Uni of Technology**
10	Bradley Gewa	BRC
11	Challis Pulotu	Pacific Adventist

Figure 1: Data from Ad Scientific Index 2018-2024 on (A) Biology research citations from all major sources across PNG and (B) Top PNG biologist rankings according to quality and output of publications.

Training at BRC

Training at BRC

+ Student and Junior Researcher

- In residence postgraduate and undergraduate programs
- Overseas PhD programs
- Field Courses

+ Paraecologist, Conservationist and Industry

- Vocational training
- Field Courses
- Workshops

+ Community Training

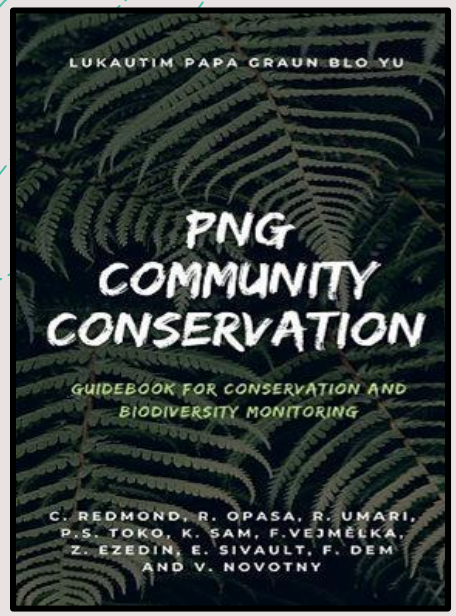
- Community Programs on scientific literacy, conservation, health and agriculture
- Environmental Education for schools

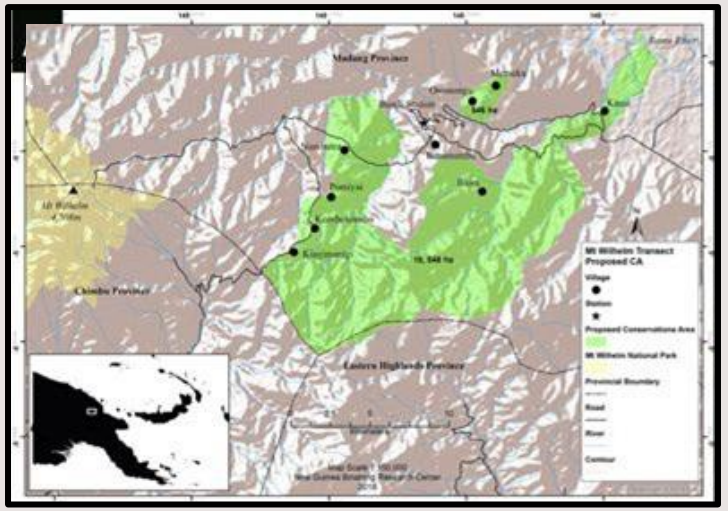
BRC Graduates and Overseas Students

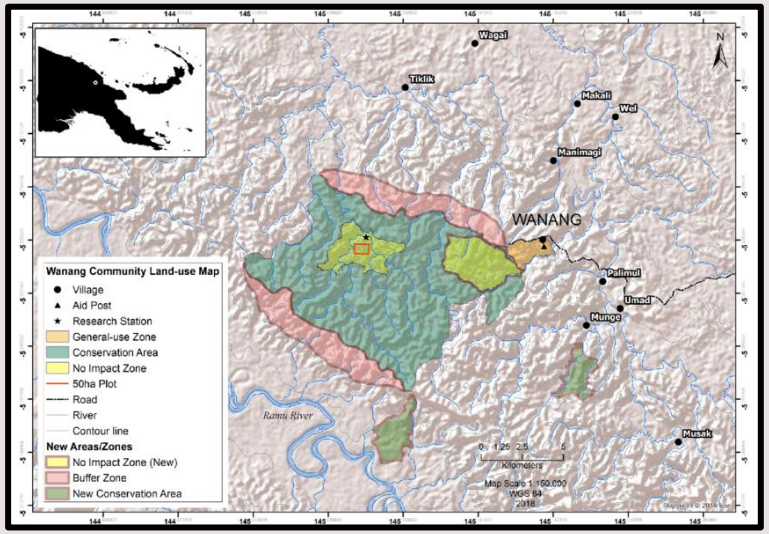
Courses for Students, Conservationists, and Women in Biology

Workshops for Professionals

Conservation and Development at BRC

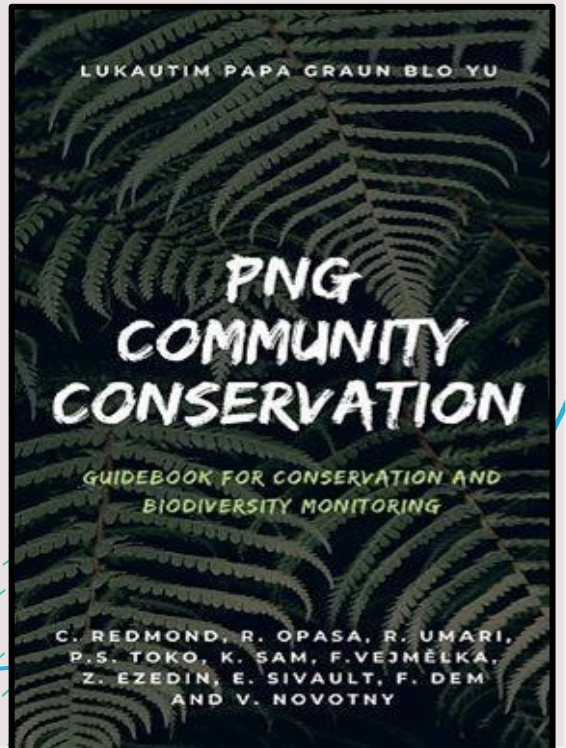




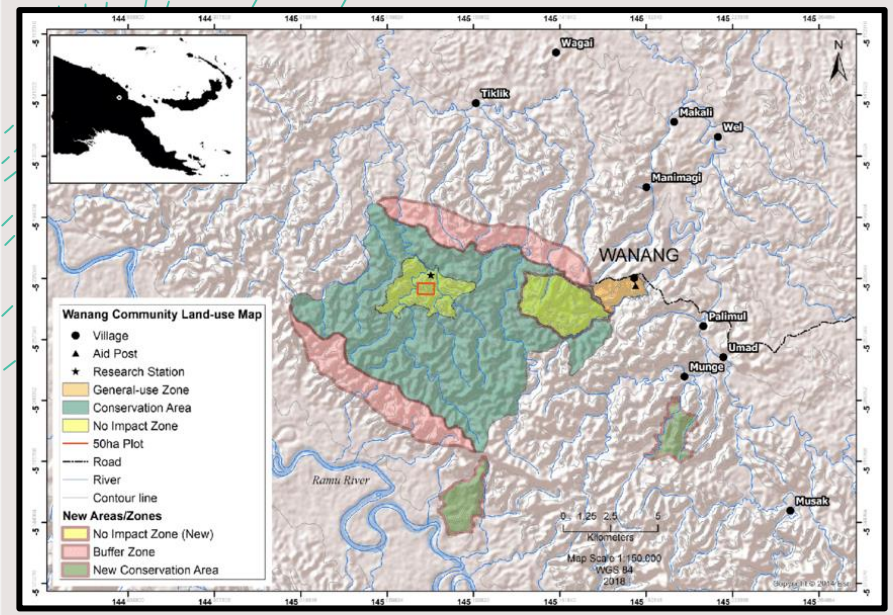


Community Conservation and Development

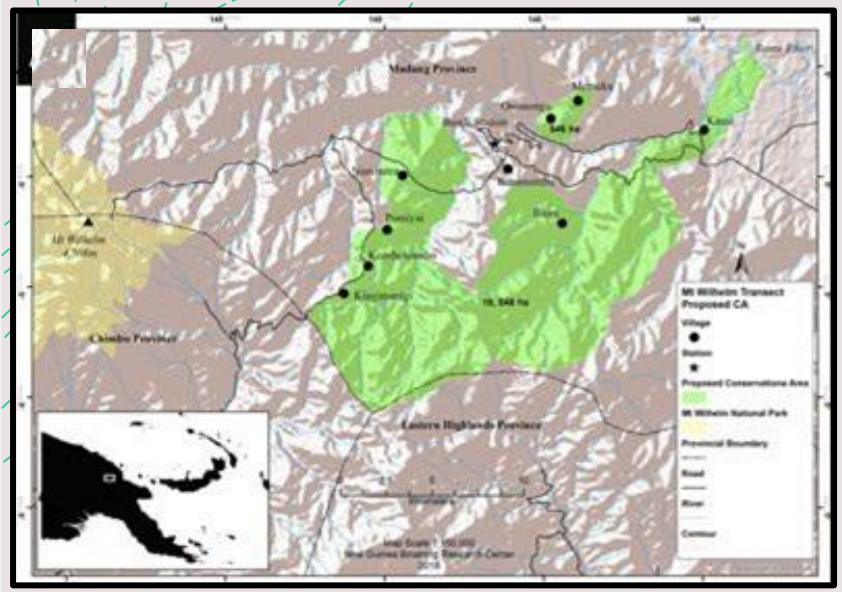
+ **Community Conservation**
  - Wanang Conservation Area
  - Mt Wilhelm Conservation Area
  - Kau Wildlife Management Area
  - Ten Communities in Network with 660,000ha under protection
+ **Conservation Education**
  - Courses and Workshops; Field Courses, In-Village Training
  - Guidebooks and Info packs
+ **Community Training**
+ **Community Development**
  - Education
  - Health
  - Agriculture

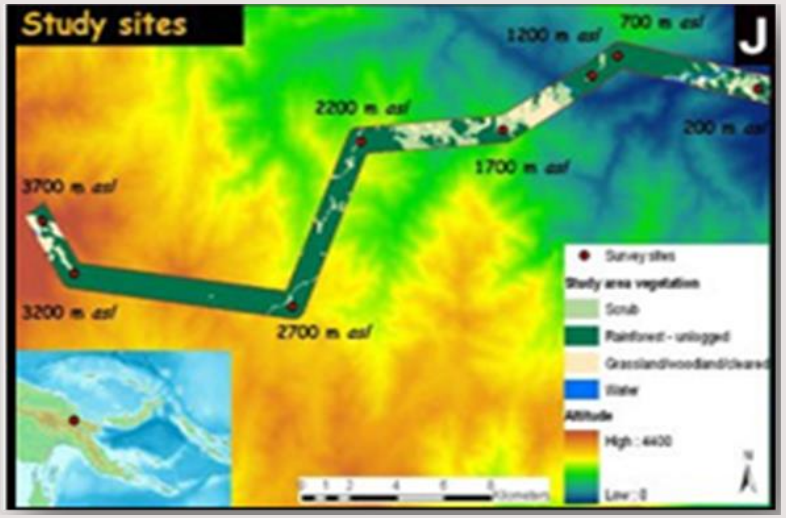


Wanang Conservation Area (WCA)
10,081ha



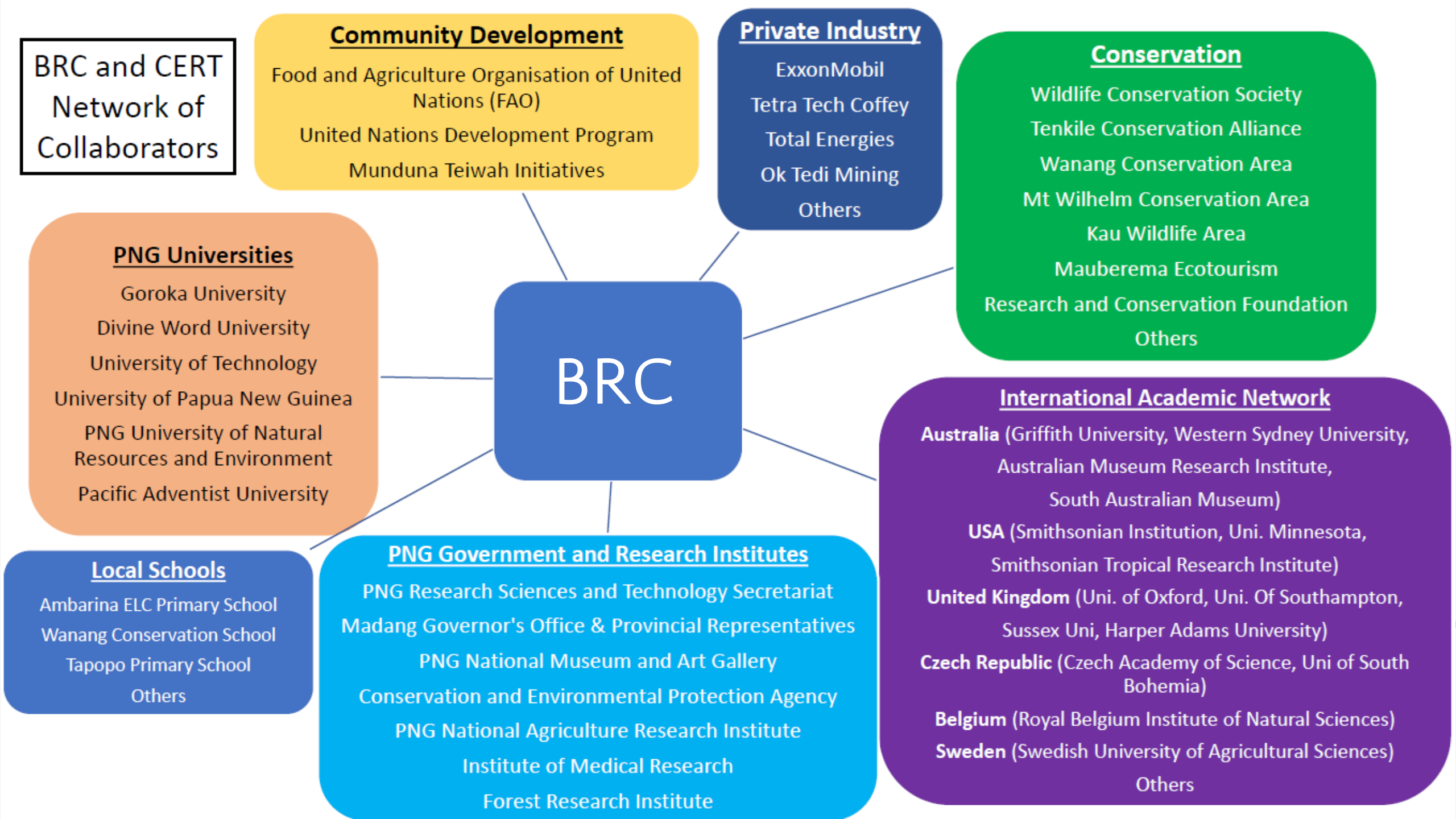
Mt Wilhelm Conservation Area (MWCA)
19,092ha





BRC is key player in PNG

BRC and CERT Network of Collaborators



Keep us in mind

+ Always happy to work with other organisations
+ Feel free to reach out about collaboration

GBIF presentation

Data needs for some current work in New Zealand

Elaine Wright
Principal Science Advisor (DOC)

Elaine Wright and Peter Bellingham

11 September 2024

Peter Bellingham
Senior Researcher
Ecosystems & Conservation
(Manaaki Whenua)

Department of Conservation
Te Papa Atawhai

Ministry for the Environment
Manatū Mō Te Taiao

Manaaki Whenua
Landcare Research

Red Listing of ecosystems

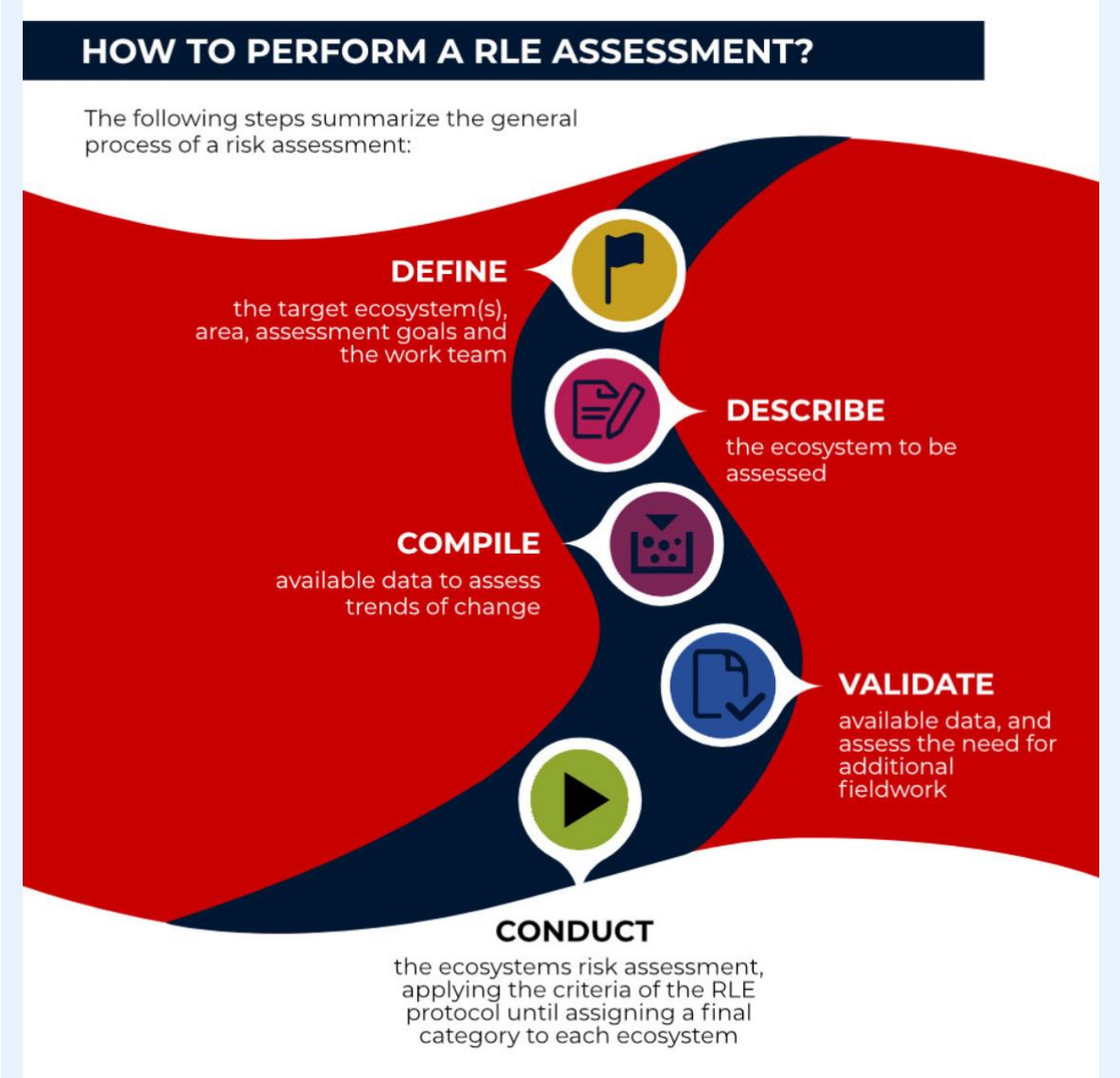
- A framework for integrating data on multiple biodiversity values or metrics to assess the risk of collapse of a given ecosystem, and aspects of its integrity and resilience.
- Adopted by IUCN in 2014 as the global standard for assessing risk of ecosystem collapse for terrestrial, freshwater and marine ecosystems
- Obligatory Headline Indicator for reporting Global Biodiversity Framework Goal A and Target 1
- Proposed Core Indicator for national reporting (MfE)
- Being developed for ecosystems types under threat in Aotearoa: dunes, wetlands, lowland forests, coasts and estuaries

https://www.nzgeo.com/stories/swamp-kauri/
Photo credit: Olivia Burge

Red Listing of ecosystems: data needs

Data are needed to:

- Inform ecosystem typologies (describing ecosystems)
- Assess change within ecosystems (e.g., any evidence of ecosystem collapse)
- Set a plan for any additional data, requiring fieldwork, remote imagery, etc.

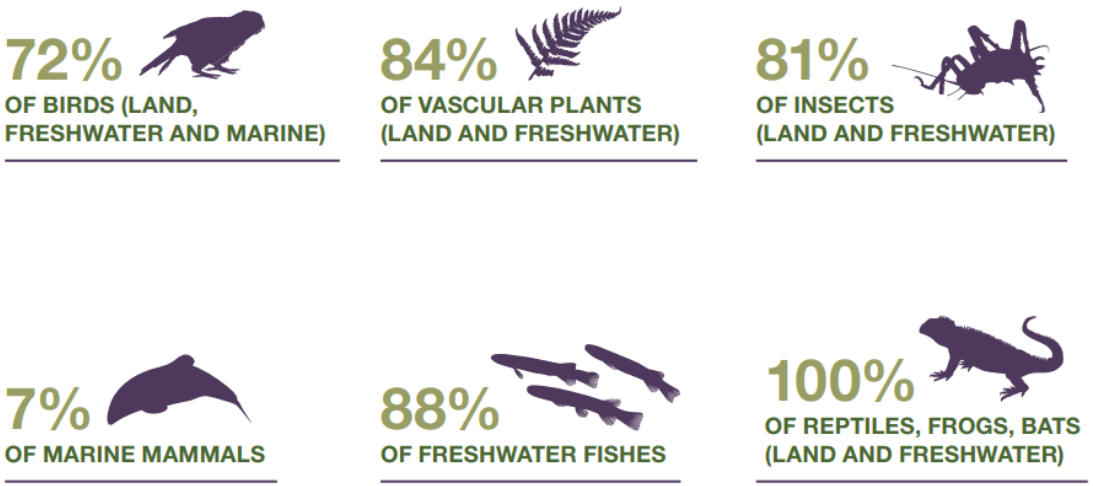


https://iucnrle.org/what-is-the-rle

Red Listing of species

- A framework for integrating data on multiple biodiversity values or metrics to assess the risk of collapse of a given ecosystem, and aspects of its integrity and resilience.
- Adopted by IUCN in 2014 as the global standard for assessing risk of ecosystem collapse for terrestrial, freshwater and marine ecosystems
- Obligatory Headline Indicator for reporting Global Biodiversity Framework Goal A and Target 4
- No national legislative imperative but informs all resource planning decisions and law.
- Very high endemism in most biota.

New Zealand's endemism



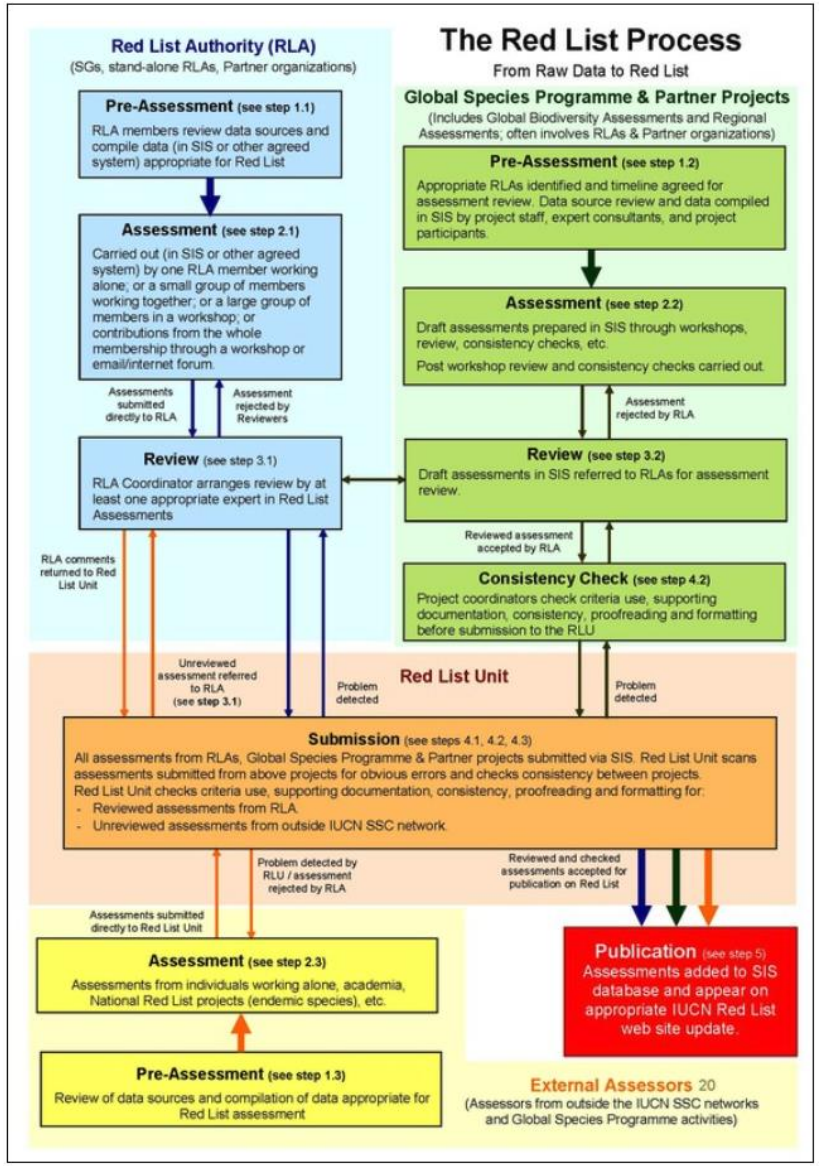
Department of Conservation 2020

Red Listing of species: data needs

- NZ Threat Listing process run by Department of Conservation.
- Expert committees for taxon groups.
- Siloed process. Evenness? Links to Red List Authority?

Data are needed to inform:

- Distributions (occurrence data)
- Status over time (abundance data, repeated measures)
- Species status (many are undescribed, many employ ‘tag names’)
- Many are “data deficient”



https://www.iucnredlist.org/assessment/process

Weeds

- New Zealand has more naturalised non-native than native plant species, and many more in cultivation that may yet naturalise.
- Some ecosystems are dominated by weeds
- Weeds are a major economic impact in agriculture, horticulture, plantation forestry

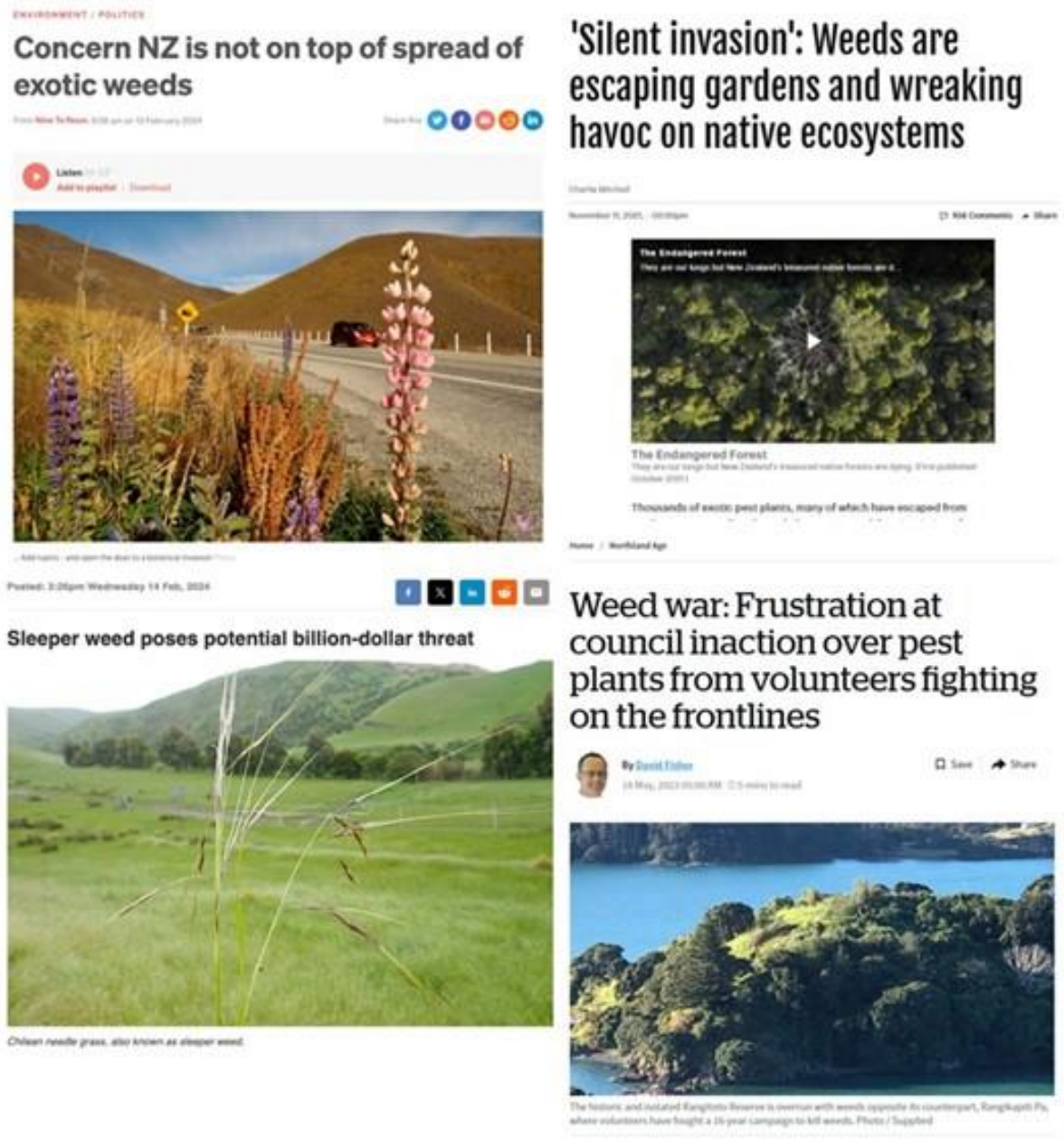


Image: Rowan Sprague, Manaaki Whenua

Weeds: data needs

Report by the NZ Parliamentary Commissioner for the Environment recommends

Clear direction on national priority weeds by:

- robust, transparent prioritisation process
- regular, coordinated surveillance and monitoring of them.

Informed by a single authoritative, publicly accessible database of all non-native plants in New Zealand, which requires:

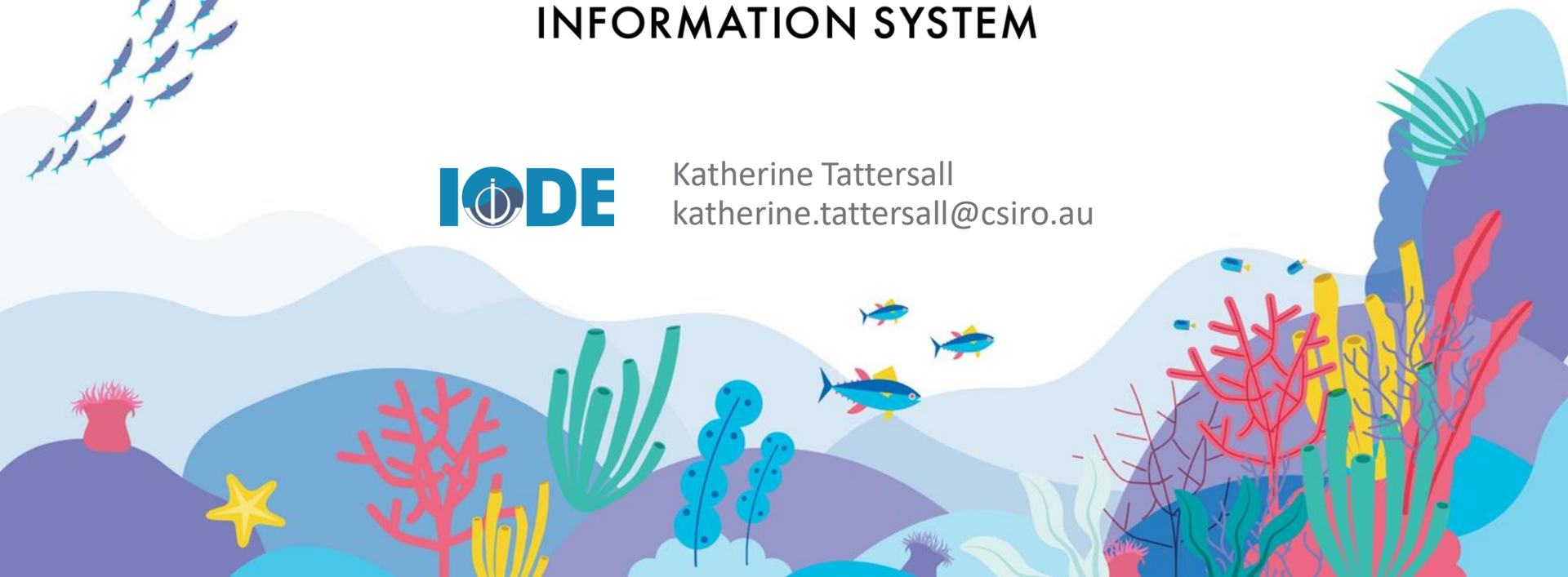
- an agreed taxonomy that copes with species name changes and synonyms
- being maintained so it provides an up-to-date, authoritative list of plant species present in New Zealand, including spatial data that is maintained and improved over time) on plant status, distribution, rate of spread, impacts, methods of spread, and management and control around the country (how, where and by whom).

unesco
Intergovernmental
Oceanographic
Commission

OBIS
OCEAN BIODIVERSITY INFORMATION SYSTEM

IODE

Katherine Tattersall
katherine.tattersall@csiro.au



1. Regional perspective on data mobilisation and data gaps from OBIS network

2. Role of biodiversity data in addressing Target 3 for marine areas

3. GBIF-OBIS joint strategy and action plan for marine biodiversity data

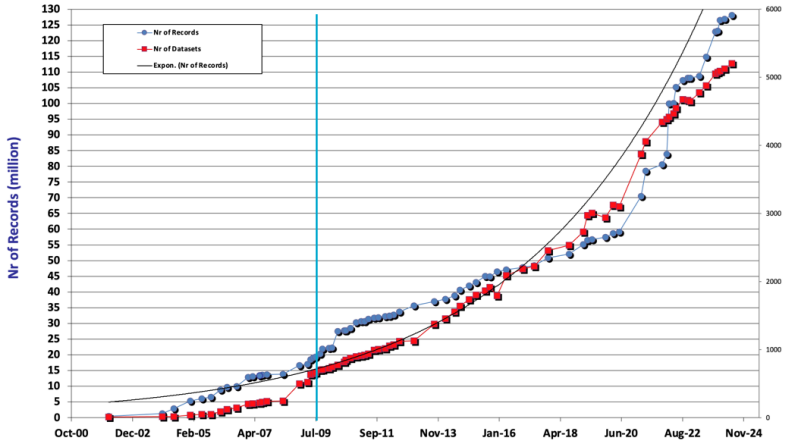
4. Possible synergies between BID and OBIS-led capacity development action

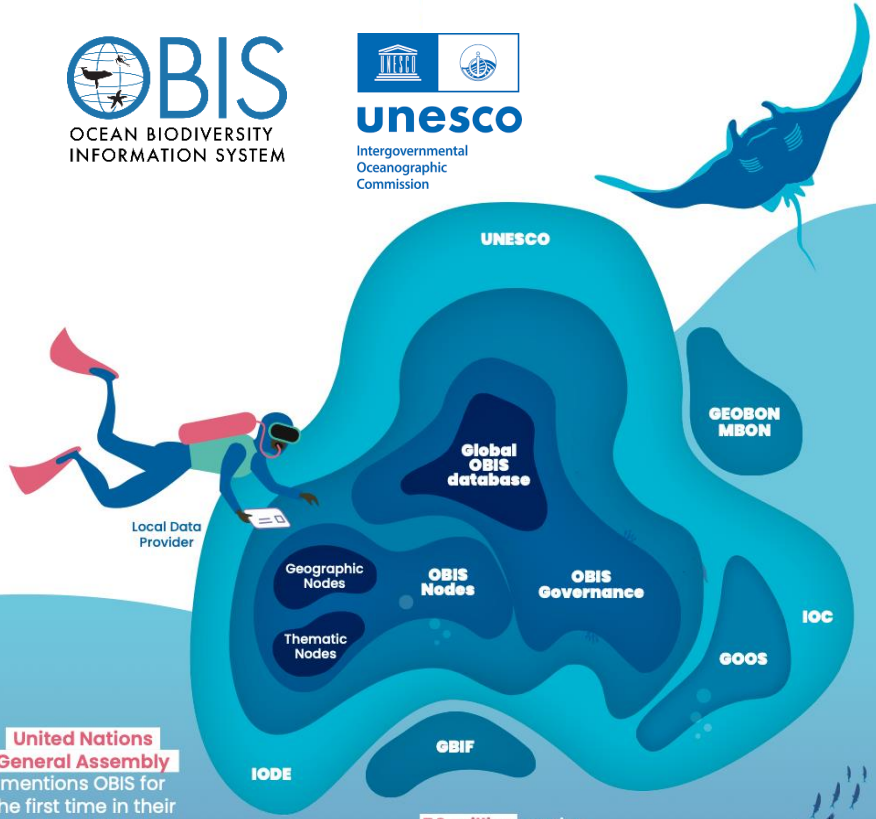
CSIRO

Marine National Facility

OBIS OCEAN BIODIVERSITY INFORMATION SYSTEM

unesco Intergovernmental Oceanographic Commission





Origins, History and Achievements

1997 — **OBIS concept starts being developed** by the *Census of Marine Life*

2001 — OBIS International **Committee meets** for the first time

2006 — **10 million** marine species occurrence records

2009 — Adopted by IOC-UNESCO as part of its **IODE programme**

2010 — **30 million** marine species occurrence records

2014 — **United Nations General Assembly** mentions OBIS for the first time in their Resolution

2016 — 1000 journal **publications** have cited OBIS

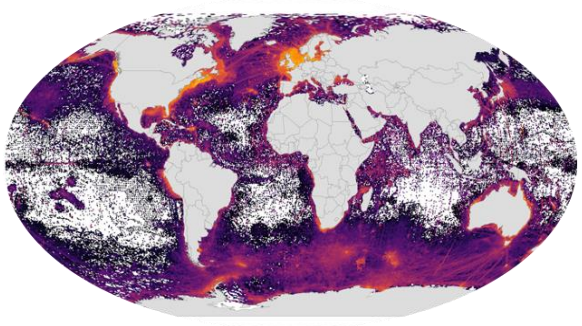
2017 — **50 million** marine species occurrence records

2020 — **OBIS** celebrates 20 years

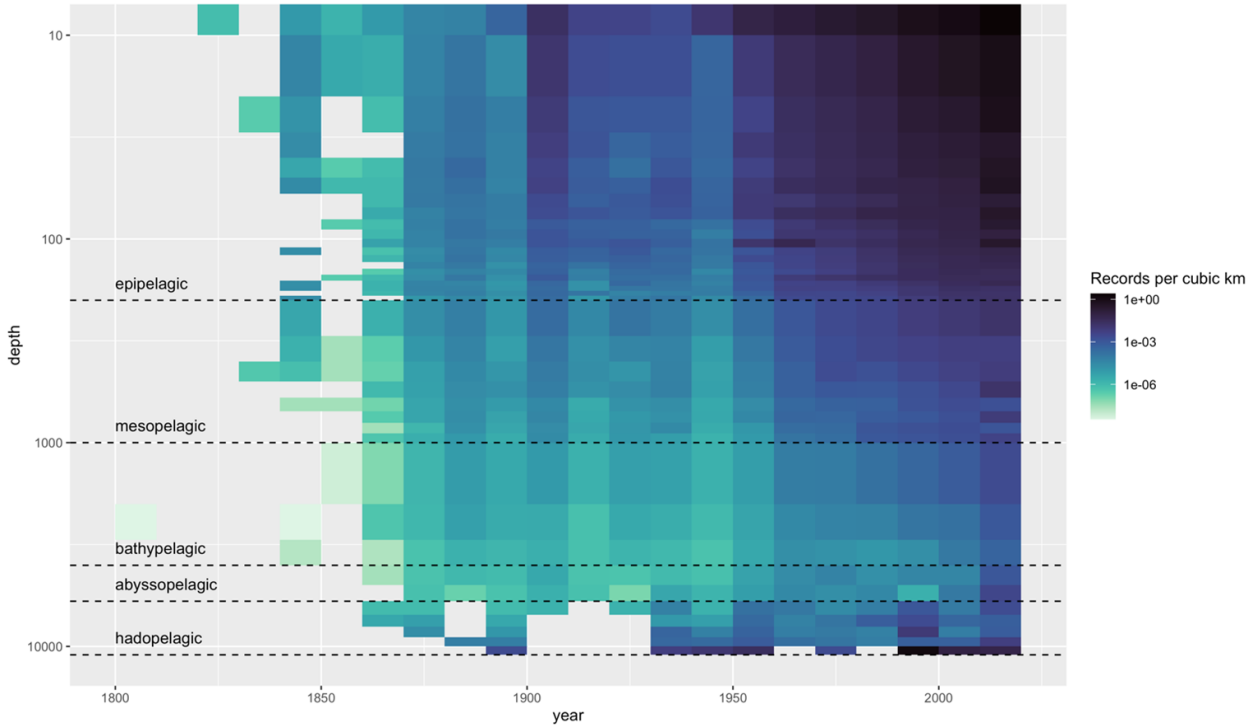
OBIS by numbers

OBIS OCEAN BIODIVERSITY INFORMATION SYSTEM

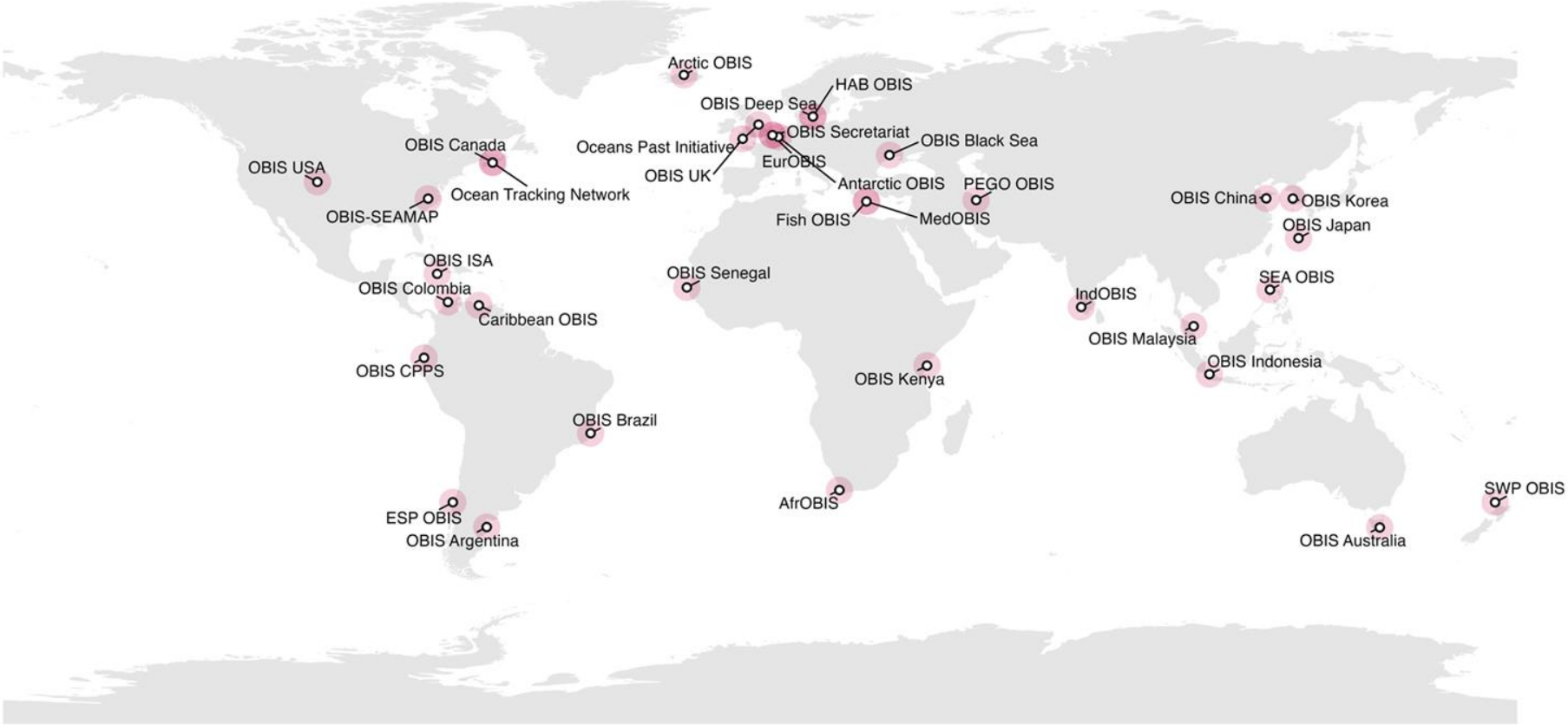
128 million records
172 million measurements
23.5 million DNA sequences
5,187 datasets
186,000 marine species



species observations per ocean volume



OBIS Nodes


Arctic OBIS
HAB OBIS
OBIS Deep Sea
OBIS Secretariat
Oceans Past Initiative
OBIS Black Sea
EurOBIS
OBIS UK
Antarctic OBIS
PEGO OBIS
Fish OBIS
MedOBIS
OBIS Canada
OBIS USA
Ocean Tracking Network
OBIS-SEAMAP
OBIS China
OBIS Korea
OBIS Japan
OBIS ISA
OBIS Colombia
Caribbean OBIS
OBIS Senegal
IndOBIS
SEA OBIS
OBIS Malaysia
OBIS Indonesia
OBIS CPPS
OBIS Kenya
OBIS Brazil
AfrOBIS
SWP OBIS
ESP OBIS
OBIS Argentina
OBIS Australia


12th Session of the OBIS Steering Group
Hosted by MABIK
Organized by OBIS OCEAN BIODIVERSITY INFORMATION SYSTEM
Sponsored by Ministry of Oceans and Fisheries
March 25-29, 2024 | MABIK & Ramada Gunsan Hotel
12th Session of the


Ward Appeltans
w.appeltans@unesco.org
Project Manager since 2012


Pieter Provoost
p.provoost@unesco.org
Technical coordinator since 2015


Saara Suominen
s.suominen@unesco.org
eDNA project since 2020


Elizabeth Lawrence
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Consultant since 2022

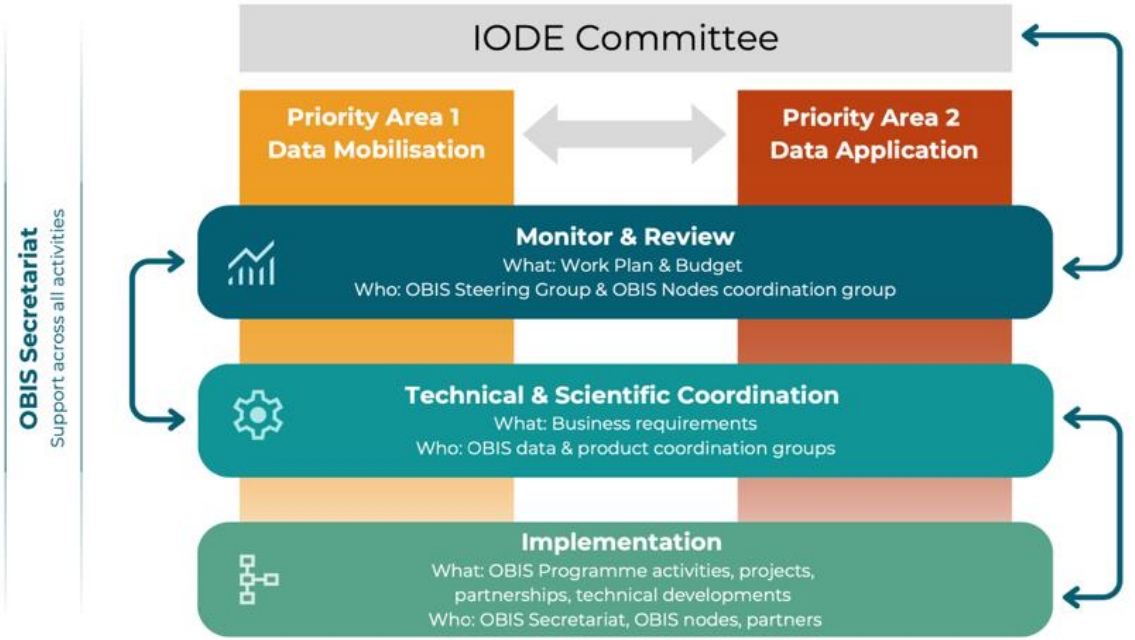

Lisa Benedetti
l.benedetti@unesco.org
75% Consultant since 2023


Silas C. Principe
s.principe@unesco.org
Products & models since 2023


Emilie Boulanger
e.boulanger@unesco.org
Consultant since 2024



Admin assistant 30% support



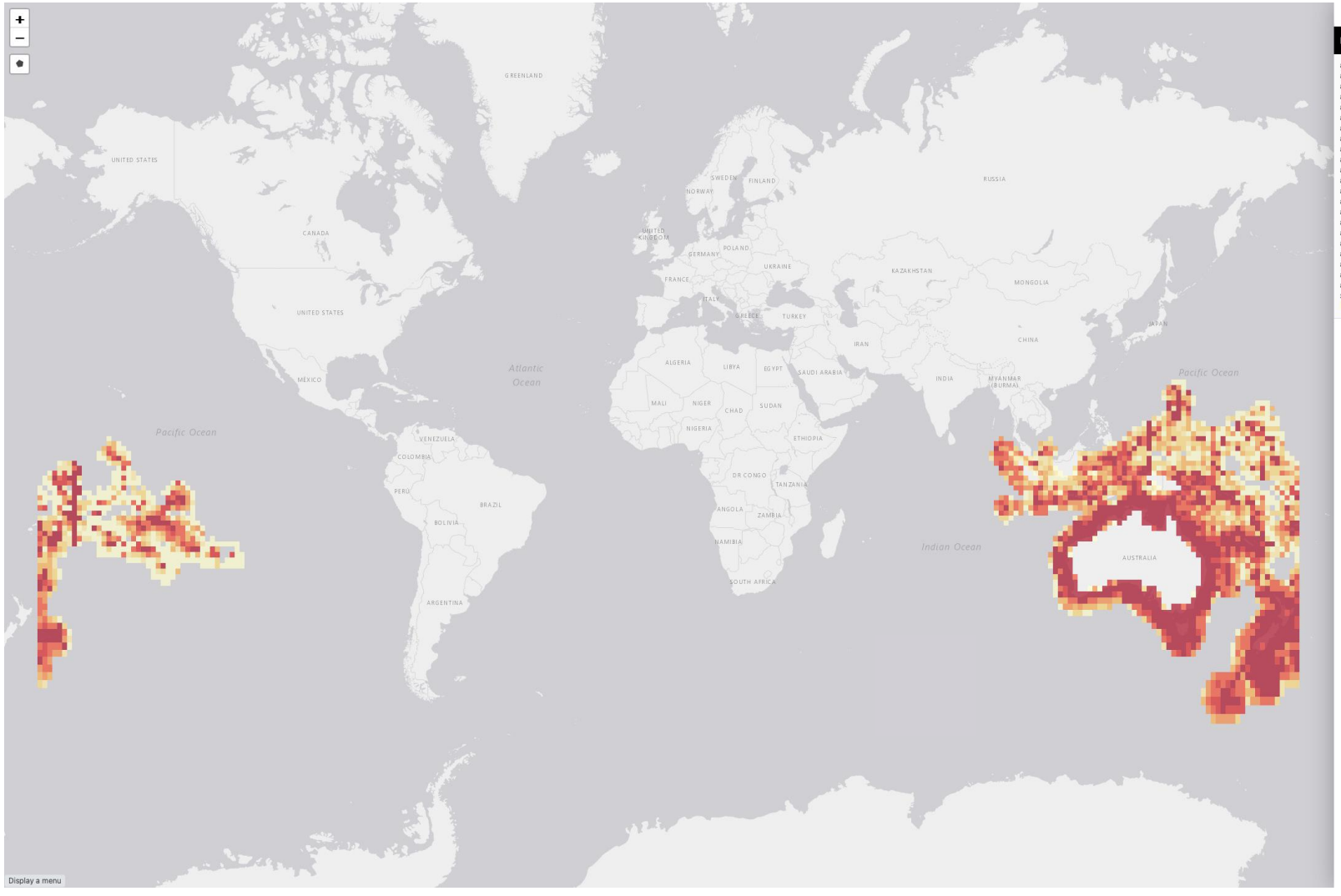
OBIS NETWORK:

OBIS Steering Group

- Nodes Coordination Group
- Data Coordination Group OPEN MEMBERSHIP
- Product Coordination Group OPEN MEMBERSHIP

1. Regional perspective on data mobilisation from OBIS Network

- OBIS-AU (Australia)
- SWP OBIS (New Zealand)
- Data from other OBIS nodes



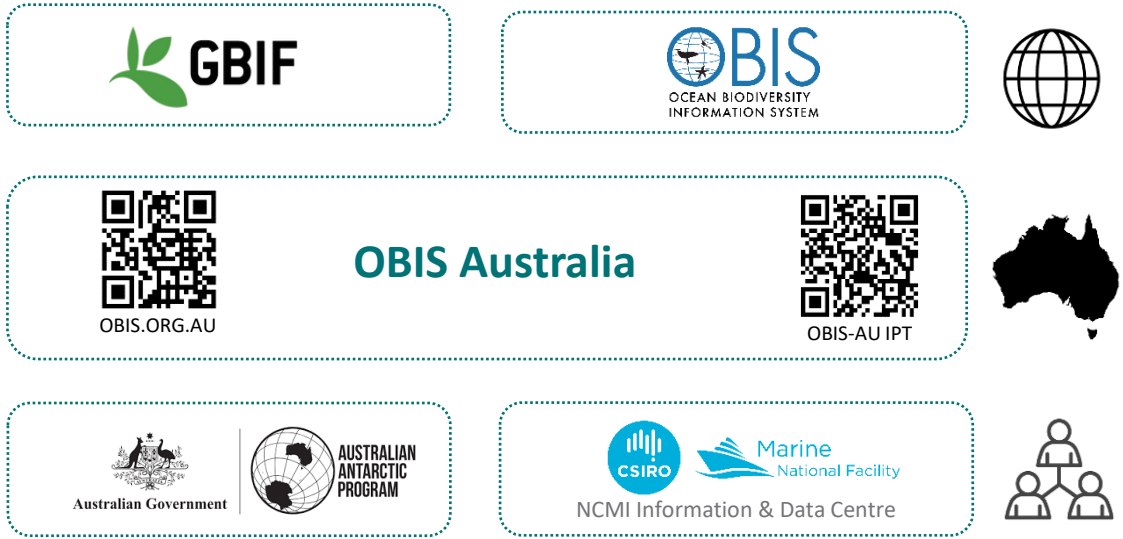
Layers

area 185 Palau
area 273 United States: Northern Mariana Islands and Guam
area 143 Marshall Islands
area 149 Micronesia
area 189 Papua New Guinea
area 158 Nauru
area 216 Solomon Islands
area 279 Vanuatu
area 85 France: New Caledonia
area 68 Fiji
area 244 Tuvalu
area 132 Kiribati
area 171 New Zealand: Tokelau
area 208 Samoa
area 267 United States: American Samoa
area 240 Tonga
area 169 New Zealand: Cook Islands
area 76 France: French Polynesia
area 259 United Kingdom: Pitcairn
area 9 Australia: all
area 168 New Zealand: all
area 115 Indonesia
30,706,439 records

Display a menu

Data mobilisation OBIS Australia

- OBIS-AU (OBIS Australia)
  - Regional node of the OBIS (Ocean Biodiversity Information System)
  - Hosted by the NCMI, CSIRO (National Collections and Marine Infrastructure, Commonwealth Science and Industrial Research Organisation)
  - Local data access point for marine species distribution data
    - Australian region and adjacent seas
  - AADC (Australian Antarctic Data Centre) data from the Australian Antarctic Program
    - Southern Ocean from 30°E to 155°E and from Hobart to the Antarctic continent



OBIS-AU data variables

The Global Ocean Observing System

OCEAN BIODIVERSITY INFORMATION SYSTEM

To deliver ocean forecasts & early warnings, climate projections & assessments and protect ocean health & its benefits, it is vital to measure Essential Ocean Variables (EOVs)

GOOS Essential Ocean Variables (EOV)	Dataset count	Occurrences
Benthic invertebrate biomass and diversity	11	104 k
Hard coral cover and composition	22	75 k
Marine mammals abundance and distribution	18	257 k
Fish abundance and distribution	227	6.8 m
Marine birds abundance and distribution	41	2.8 m
Marine turtles abundance and distribution	5	239 k
Macroalgal cover and composition	1	41 k
Mangrove cover and composition	5	131 k
Microbe biomass and diversity	20	21 m
Phytoplankton biomass and diversity	12	528 k
Seagrass cover and composition	20	1.8 m
Zooplankton biomass and diversity	18	736 k
No applicable EoV	16	70 k

- BRUVs (CameraTrapDP)
- eDNA
- Animal Tracking (acoustic receivers/biologging)
- Observations
- Specimens/ samples/ collections

OBIS-AU Capacity Development

OBIS-AU has intensified its efforts in communication and collaboration with local data providers

SCOR working groups

IMOS Animal Tracking Network

Minderoo Foundation

National Research Collection Australia

AODN TAG Meetings

National Environmental Science Program

This includes participation in conferences and outreach to data managers, researchers, and students

Conferences/Meetings

- TDWG 2024
- AMSA 2024
- OBIS Steering Group & Executive Committee

Capacity development

- UNESCO IOC Internship
- CSIRO Vacation studentship

OBIS-AU aims to enrich the Australian biodiversity data publishing landscape by promoting resources

OBIS manual

Training sessions

OBIS GitHub repositories

Jupyter notebooks

eDNA tools

Offering 1-1 support

OBIS Field Projects

PacMAN

Pacific Islands Marine Bioinvasions Alert Network

- Detecting pathogen and invasive species using new technologies (eDNA, qPCR).
- Building scientific capacity in using **Marine Genetic Resources** for biosecurity in Small Islands and Developing States.
- Involvement of local authorities in co-designing the decision support tool that will act as an early-warning system for marine invasive species in the South Pacific.

https://pacman.obis.org/

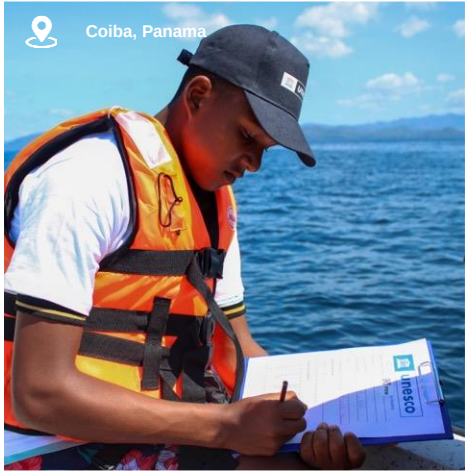
All data, protocols and code will be open-source and available through OBIS

Environmental DNA Expeditions in UNESCO marine World Heritage sites


unesco
EE0322
Scandola Reserve, France


unesco
Everglades, USA

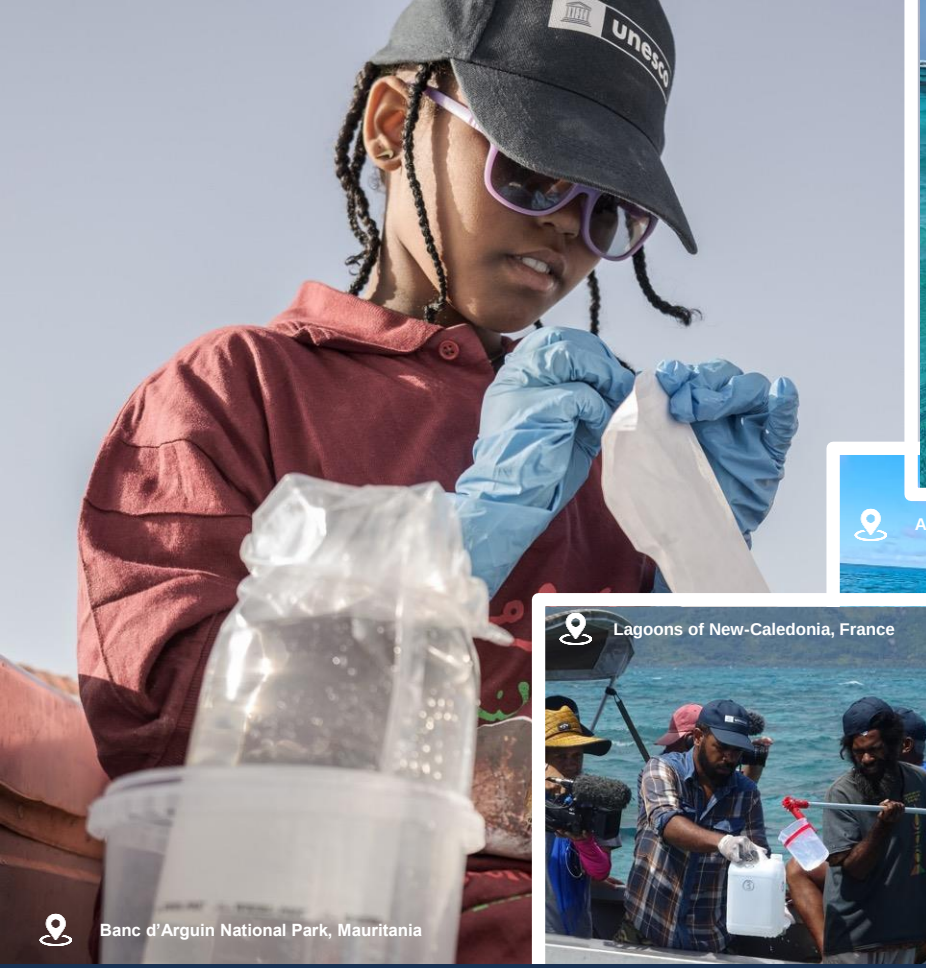

unesco
Dungonab Bay, Sudan

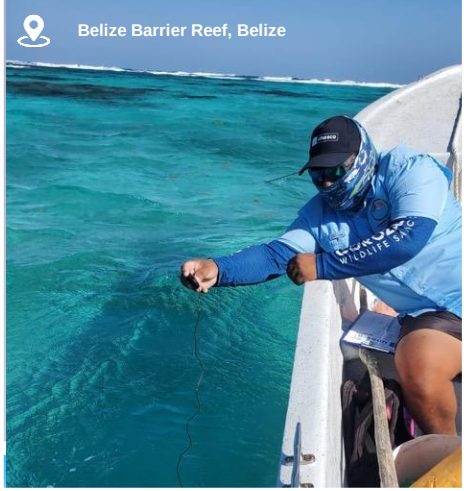

Coiba, Panama


unesco
Wadden Sea, Germany

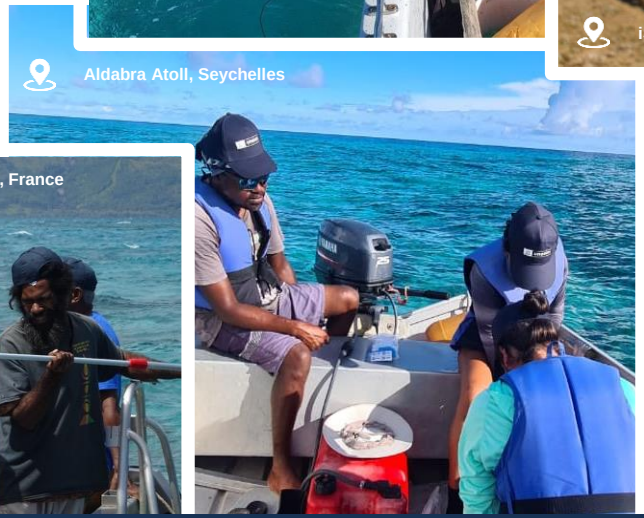

unesco
Shark Bay, Australia

unesco


Banc d'Arguin National Park, Mauritania


Belize Barrier Reef, Belize


iSimangaliso, South Africa

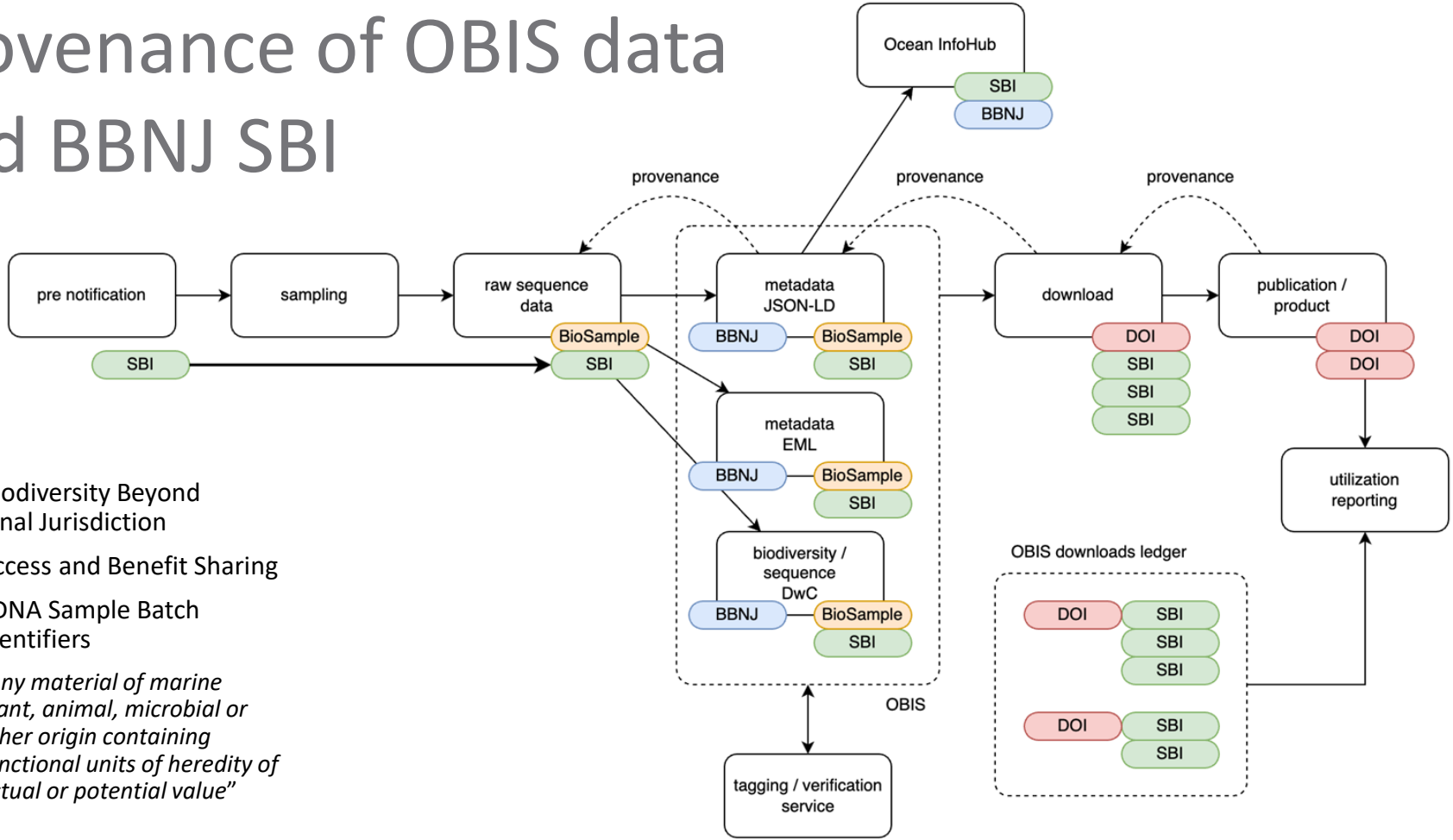

Aldabra Atoll, Seychelles


Lagoons of New-Caledonia, France


French Austral Lands, France

unesco

Provenance of OBIS data and BBNJ SBI



UN Biodiversity Beyond National Jurisdiction

- Access and Benefit Sharing
- eDNA Sample Batch Identifiers
- "*any material of marine plant, animal, microbial or other origin containing functional units of heredity of actual or potential value*"

2. Role of biodiversity data in addressing CBD Target 3

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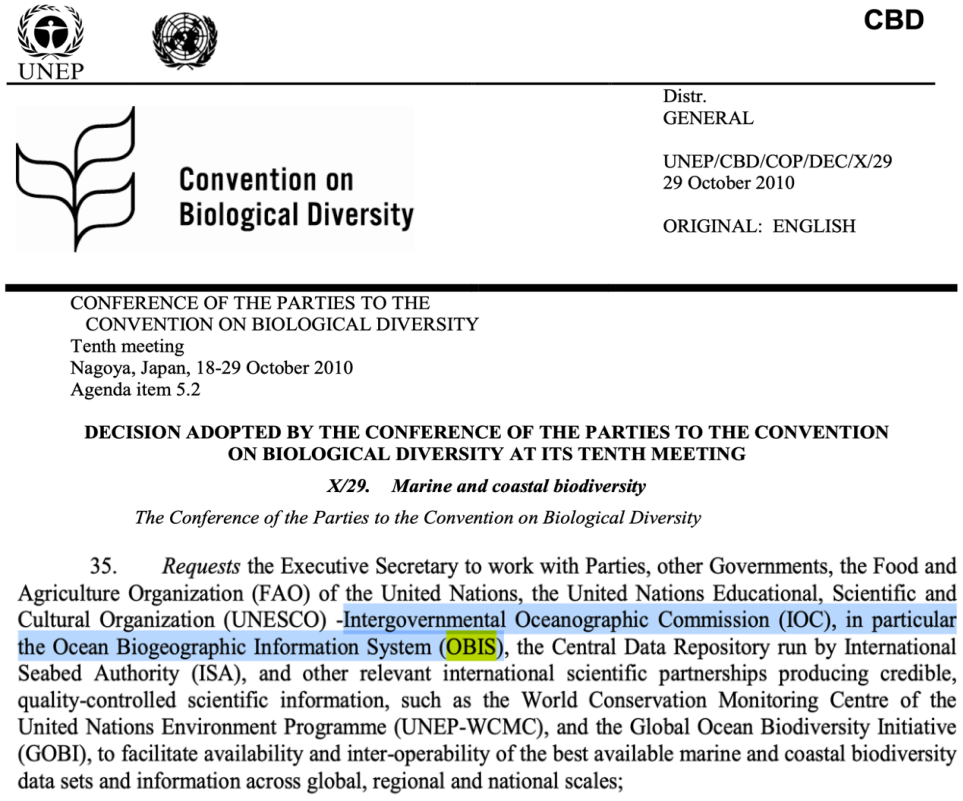
CBD Target 3

- Conserve 30% of Land, Waters and Seas by 2030
- *…at least 30 per cent of terrestrial, inland water, and of coastal and marine areas,* ***especially areas of particular importance for biodiversity and ecosystem functions and services****, are effectively conserved and managed through ecologically representative, well-connected and equitably governed systems of protected areas and other effective area-based conservation measures, recognizing indigenous and traditional territories where applicable…*



UNEP

CBD

Convention on Biological Diversity

Distr.
GENERAL

UNEP/CBD/COP/DEC/X/29
29 October 2010

ORIGINAL: ENGLISH

CONFERENCE OF THE PARTIES TO THE
CONVENTION ON BIOLOGICAL DIVERSITY
Tenth meeting
Nagoya, Japan, 18-29 October 2010
Agenda item 5.2

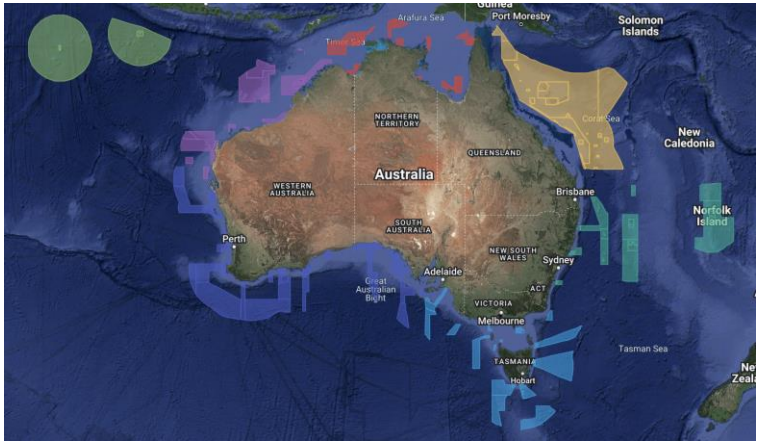
DECISION ADOPTED BY THE CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY AT ITS TENTH MEETING

X/29. Marine and coastal biodiversity

The Conference of the Parties to the Convention on Biological Diversity

35. *Requests* the Executive Secretary to work with Parties, other Governments, the Food and Agriculture Organization (FAO) of the United Nations, the United Nations Educational, Scientific and Cultural Organization (UNESCO) -Intergovernmental Oceanographic Commission (IOC), in particular the Ocean Biogeographic Information System (OBIS), the Central Data Repository run by International Seabed Authority (ISA), and other relevant international scientific partnerships producing credible, quality-controlled scientific information, such as the World Conservation Monitoring Centre of the United Nations Environment Programme (UNEP-WCMC), and the Global Ocean Biodiversity Initiative (GOBI), to facilitate availability and inter-operability of the best available marine and coastal biodiversity data sets and information across global, regional and national scales;

Research data from Australian MPAs to OBIS-AU IPT



unesco OBIS OCEAN BIODIVERSITY INFORMATION SYSTEM

HOME ABOUT DATA MANUAL RESOURCES ACTIVITIES CONTACT

Marine fauna sightings within Australian marine parks during surveys by the company BMT, Western Australia (2019)

URL	https://www.marine.csiro.au/ipt/resource?r=bmt_mfo
Repository URL	https://www.marine.csiro.au/ipt/
Node	OBIS Australia
Published	2023-06-28 05:35
Abstract	Marine fauna sightings during surveys within Australian Marine Parks by the company BMT (www.bmt.org). The license conditions for the survey require the data to be published to OBIS.
Citation	Bevilaqua A (2023): Marine fauna sightings within Australian marine parks during surveys by the company BMT, Western Australia (2019). v1.12. CSIRO National Collections and Marine Infrastructure (NCMI) Information and Data Centre (IDC). Dataset/Occurrence. https://www.marine.csiro.au/ipt/resource?r=bmt_mfo&v=1.12
Rights	This work is licensed under a Creative Commons Attribution Non Commercial (CC-BY-NC) 4.0 License
Keywords	Occurrence, Observation, Occurrence
Contacts	Creator Adelaide Bevilaqua BMT

48% of oceans: parksaustralia.gov.au

Federal, State and Territory governments

Guideline:

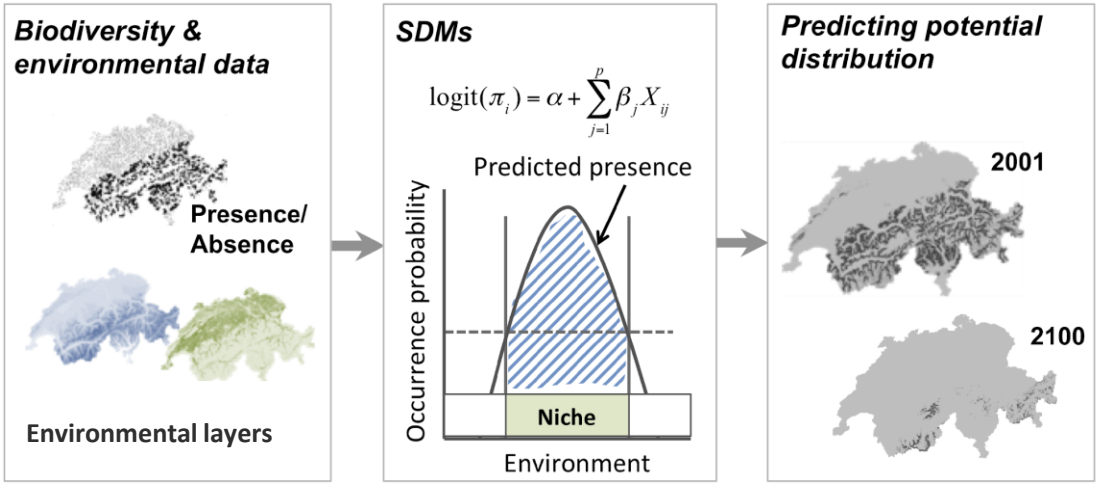
As a requirement of a Parks Australia research permit, contractors must

- Publish to OBIS-AU all quality-controlled occurrence data *compatible with this service*
- QC includes WoRMS/CAAB mapping
- Provide OBIS-AU the URL for a relevant Parks Australia metadata record, and work with us to transform/publish

- https://obis.org/dataset/471d3cf0-5c70-4355-9906-19a92774257c
- https://www.gbif.org/dataset/a5a3193e-691f-4844-a438-dc068ed0b817

MPA Europe SPECIES & HABITAT DISTRIBUTION MODELLING

OBIS OCEAN BIODIVERSITY INFORMATION SYSTEM



Zurrel 2022

Distribution maps for ~15,000 marine species from Europe

Biogenic habitat maps, based on SDMs

Species range shifts

Occurrence information from OBIS and GBIF (new pipelines for seamless data integration between both providers)

Environmental data from Bio-ORACLE v3 (high-resolution ~5 km)

New CMIP6 scenarios SSP1, SSP2, SSP3, SSP4 and SSP5

Two periods: 2050 / 2100

Distribution models, biogenic habitat models and biodiversity metrics

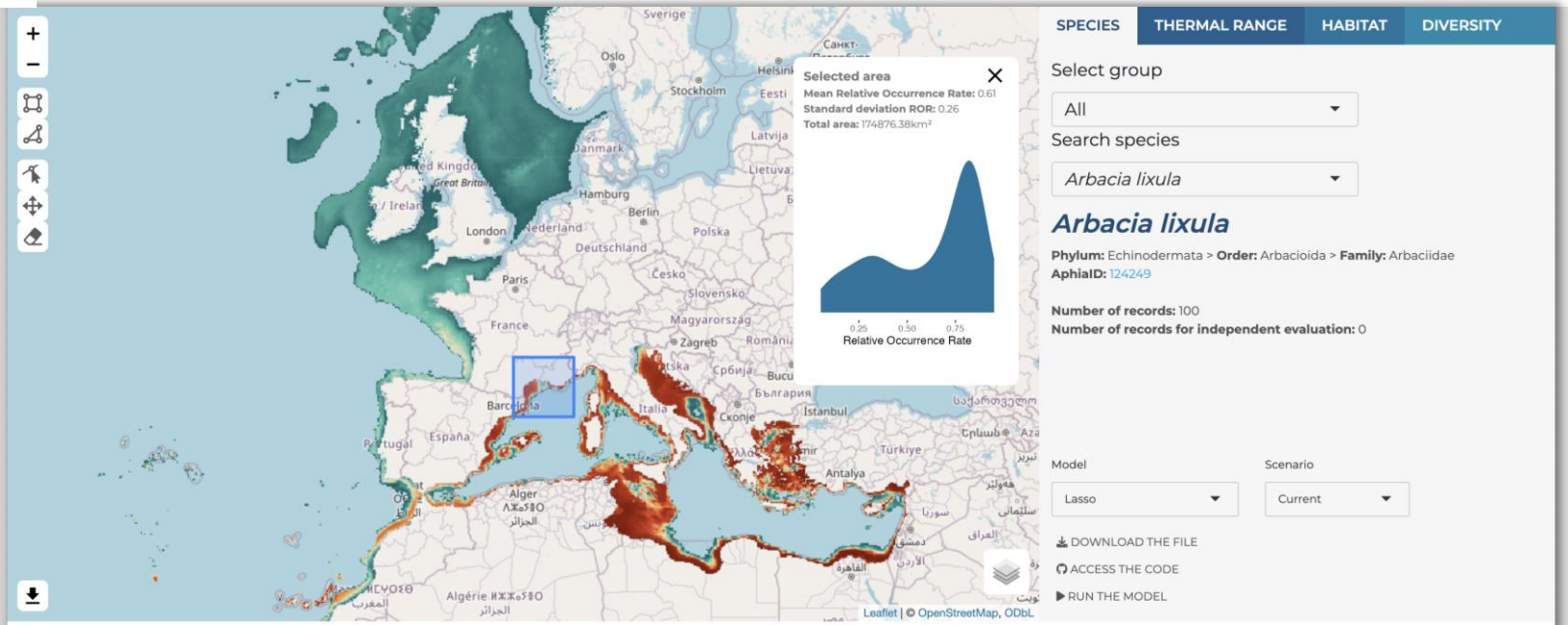
https://shiny.obis.org/distmaps/

Other outputs:

- Additional ingestion of datasets in OBIS
- List of conservation status of species and habitats in Europe
- Open-access framework for development of SDMs
- New quality control pipelines
- **Biogenic habitat maps**

OBIS OCEAN BIODIVERSITY INFORMATION SYSTEM

Species models: platform



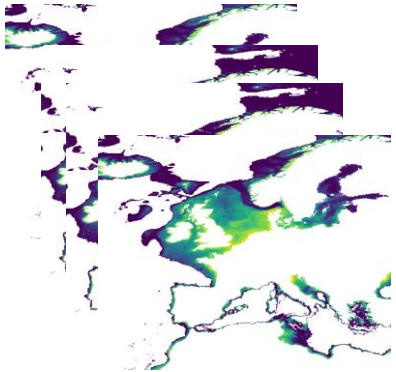
OBIS OCEAN BIODIVERSITY INFORMATION SYSTEM

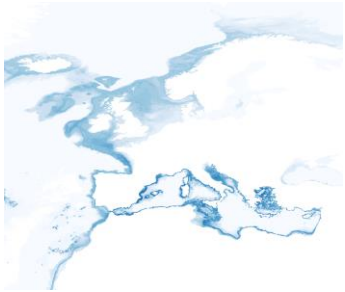
Biogenic species

Increase structural complexity

Stacked SDM

Species that compose a certain habitat → potential changes in future





iobis.github.io/mpaeu_docs :: Documentation

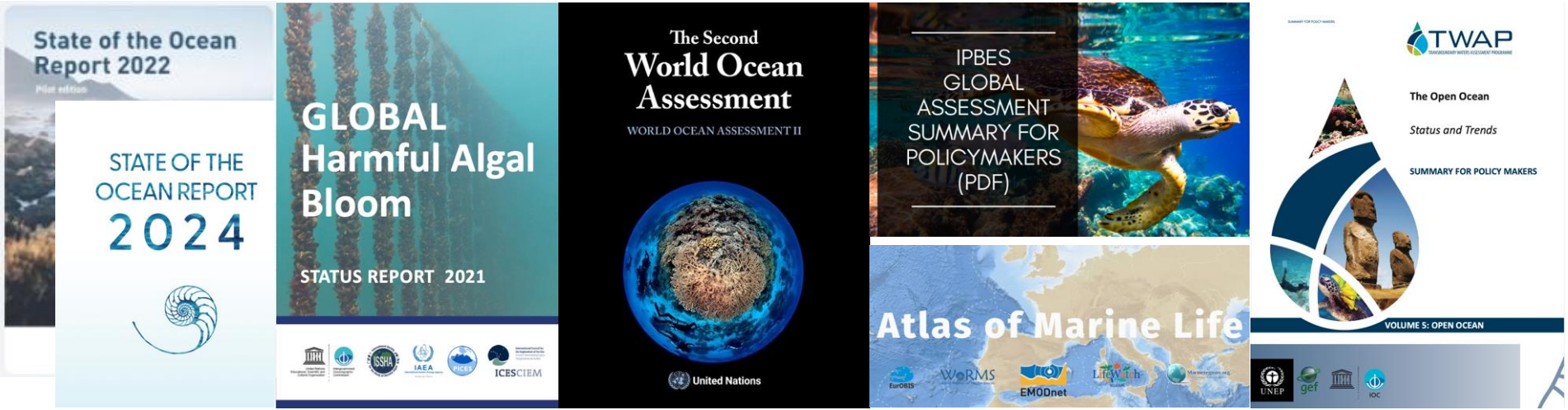
github.com/iobis/mpaeu_sdm :: Modeling

shiny.obis.org/species_distribution :: Maps

github.com/iobis/mpaeu_* :: Other developments

Through models and data products, OBIS supports

Several global & Regional Ocean Assessments…

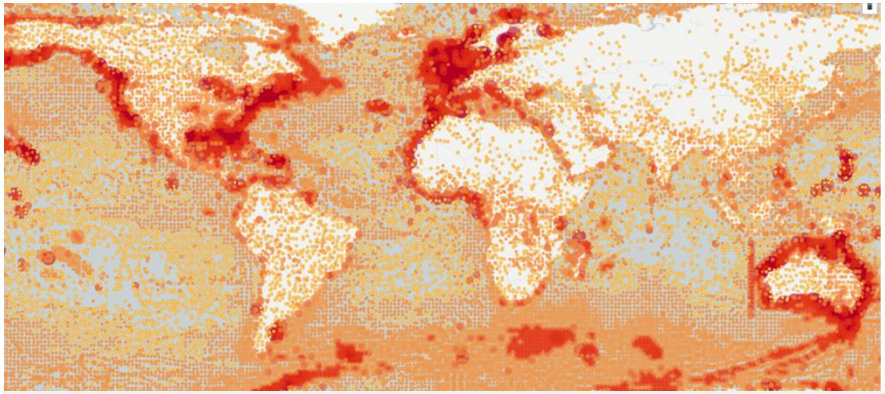


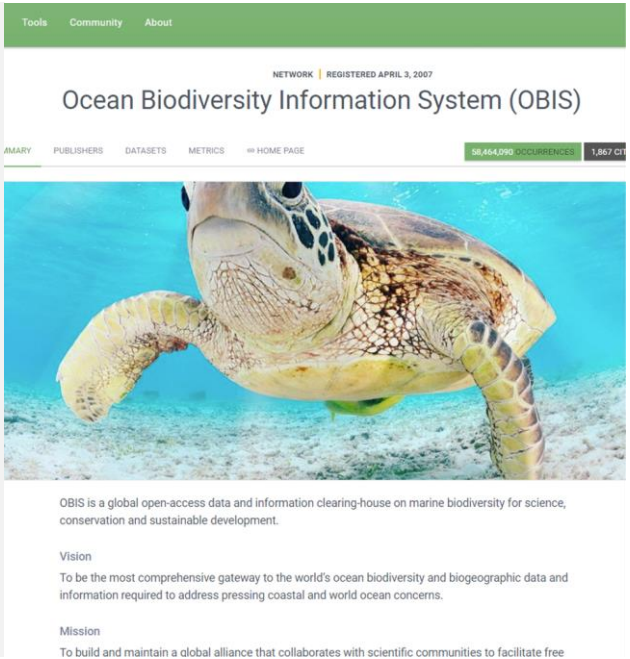
… to enable science-based decision making

3. OBIS-GBIF Joint Strategy for Marine Biodiversity Data

https://www.gbif.org/news/7w0xoodpNZRwnt1SjWfML0/obis-and-gbif-endorse-joint-strategy-and-action-plan-for-marine-biodiversity-data

OBIS in GBIF





- OBIS became an official associate partner to GBIF in June 2001 – and was recognised as the marine sister network.
- In 2004 OBIS was the primary marine data provider to GBIF
- Oct 2014: IOC/OBIS and GBIF signed first 5-year cooperation agreement:
- Sept 2020, IOC/OBIS and GBIF renewed 5-year cooperation agreement

GBIF and OBIS Networks

Joint OBIS-GBIF meeting in Ostende, February 2024
- GBIF and OBIS Secretariats
- EurOBIS
- Scientific Committee Antarctic Research SCAR/Antarctic OBIS
- OBIS Australia
- GBIF-US/OBIS USA
- GBIF Norway
- GBIF France

Strategy: Objectives

GBIF and OBIS will collaborate and seek efficiencies where possible, **respecting the vision, mission and values of each**, supporting the mandates and **nurturing the strengths and expertise of their respective networks and communities of practice**.

This collaboration aims to achieve the following objectives by 2030 and set the stage for requirements post-2030:

The **best available marine biodiversity data, respecting FAIR and CARE principles**, is available to meet the needs of all relevant users, supporting the goals and targets of the UN Ocean Decade, including the OBIS 2030 UN decade project, the Kunming-Montreal Global Biodiversity Framework, the 2030 Agenda for Sustainable Development, the future UN High Seas Treaty and other international policy objectives

Marine biodiversity data is securely archived and our respective networks persist and can operate sustainably into the future

Strategy: Areas of Collaboration

GBIF and OBIS agree to collaborate in two focus areas:

Technical Cooperation

GBIF and OBIS will explore opportunities for technical cooperation, including the development of interoperability standards, data exchange protocols, and tools to facilitate the exchange, integration, visualization, and application and use of biodiversity data.

Community and Capacity

GBIF and OBIS will collaborate on capacity-building activities and resources to enhance the skills and expertise of data providers and users for data integration, biodiversity informatics and marine biodiversity research.

Strategy: Technical Cooperation

- Further develop biodiversity data standards
- Further develop the new GBIF data model to accommodate OBIS practices
- Support the development of Essential Ocean Variables, Essential Biodiversity Variables, Essential Climate Variables
- Implement traits-based filtering
- Improve representation of marine data in the GBIF portal
- Support download DOI services and citation tracking for OBIS
- Review of development options and specifications for shared infrastructure components

Strategy: Community and Capacity

- Joint data mobilization and data calls
- Enable coordination mechanisms between networks and communities of practice
- Develop clear messaging around the partnership
- Develop joint training resources
- Hosted portals for nodes (or any partner)
- Develop joint fundraising proposals

Strategy and Action Plan: Governance

- OBIS and GBIF will extend invitations to each other´s Steering Group and Governing Board
- We invite the initial working group to establish the Strategy Implementation Committee to monitor activities within the action plan
- Both the GBIF Nodes Steering Group and OBIS Nodes Coordination Group will regularly be updated on progress towards the objectives of this strategy and action plan by the respective Secretariat focal points
- Membership of the Implementation Committee will be reviewed annually

4. Synergies between BID and OBIS-led capacity development

- GOOS EOVs (SCOR ConCENSUS fish survey; animal tracking; macroalgae)
- GOOS BioEcoPortal
- PACMAN
- OBIS 2030 UN Ocean Decade Action
- WoRMS marine species taxonomy

- OBIS/UNESCO OceanTeacher Global Academy Training: online course, supported with assignments and feedback; certification
- eDNA data publishing
- OBIS Manual – online open access, including JuPyter notebooks

OBIS Training Resources

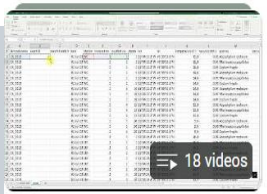
OBIS OCEAN BIODIVERSITY INFORMATION SYSTEM

Norad

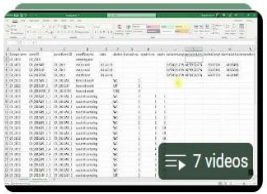
66,000 USD

Consistently updated & comprehensive **Manual**: https://manual.obis.org (169pp!)

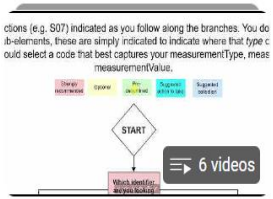
YouTube training **videos**



How-To: Using & Publishing Data with OBIS



(SPANISH) Formateo de datos para OBIS/Data Formatting for...



How-To: Using controlled vocabulary for measurement...

OBIS/OTGA Master **Course**

2023/2024: 239 participants enrolled

Marine Biological Data Mobilisation Workshop 2024

- **Collaborative** effort: Instructors and helpers representing different OBIS nodes and institutions
- **Learner-led**, virtual, hands-on workshop to address blockers & mobilize data to OBIS
- **Global** interest, attendees represented 5 continents, 18 countries (**+400 applications**)
- Special focus:

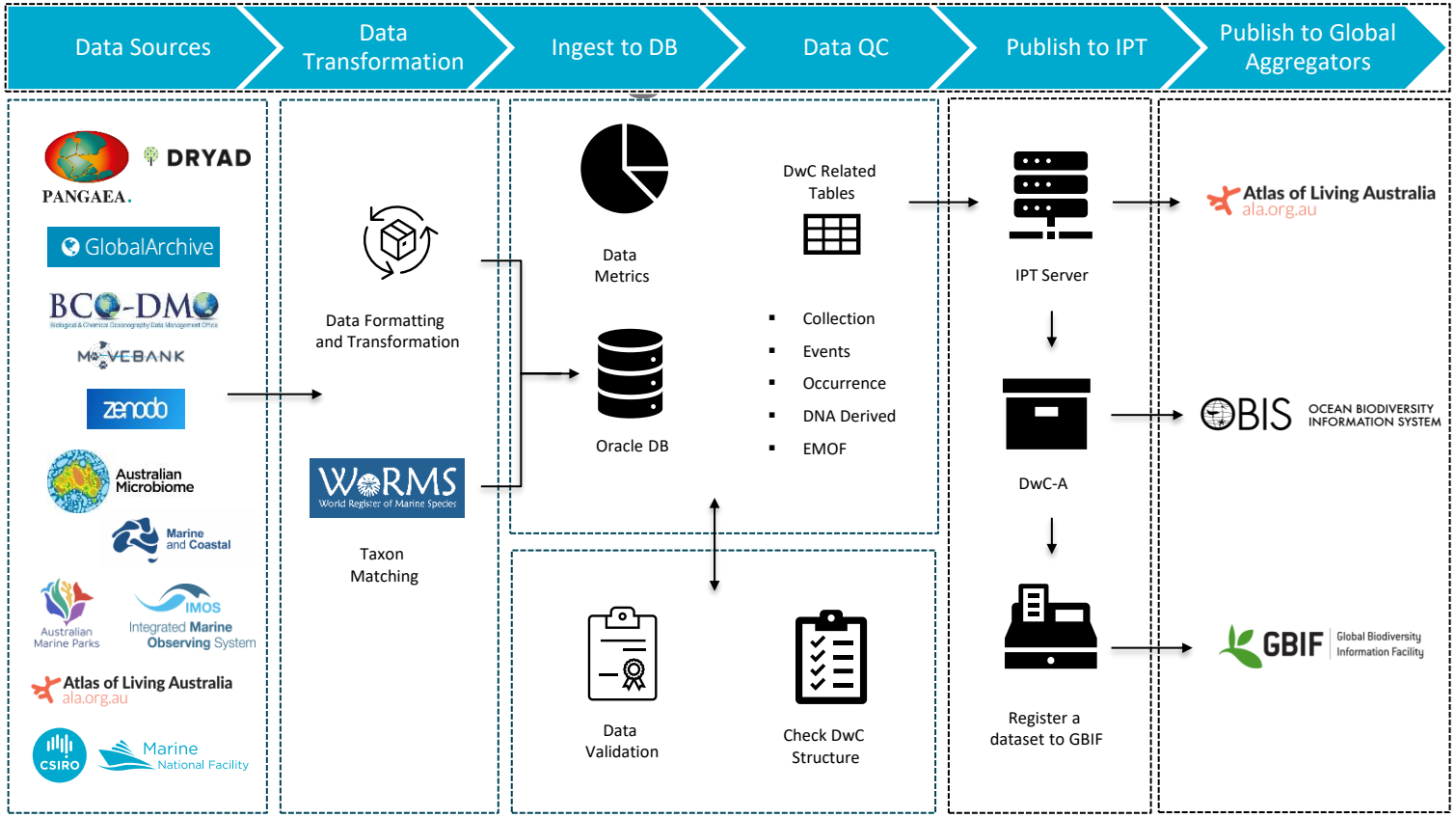
  Animal Telemetry data

  Dedicated Spanish-speaking breakout rooms
- **Strengthened community** of practice and facilitated mobilization of **>60 datasets**

Hakai, US-IOOS, CIOOS, MBON, OBIS (SEC, USA, Caribbean, OTN, Chile)

https://zenodo.org/records/11085142

OBIS Australia data pipeline



- OBIS-AU promotes the use of Darwin Core (DwC) as a standard for marine biodiversity data publishing
- Our workflow leverages centralised data transformation processes to ensure high-quality, standardised data outputs
- The publishing workflow for the Australian Node of OBIS has been very effective in mobilising data in our region

Aggregator	Dataset count	Occurrences
OBIS	486	36,626,320
GBIF	384	14,062,319
ALA (published to)	340	12,499,178
ALA (harvested from)	92	3,679,265

Inclusive metadata provenance

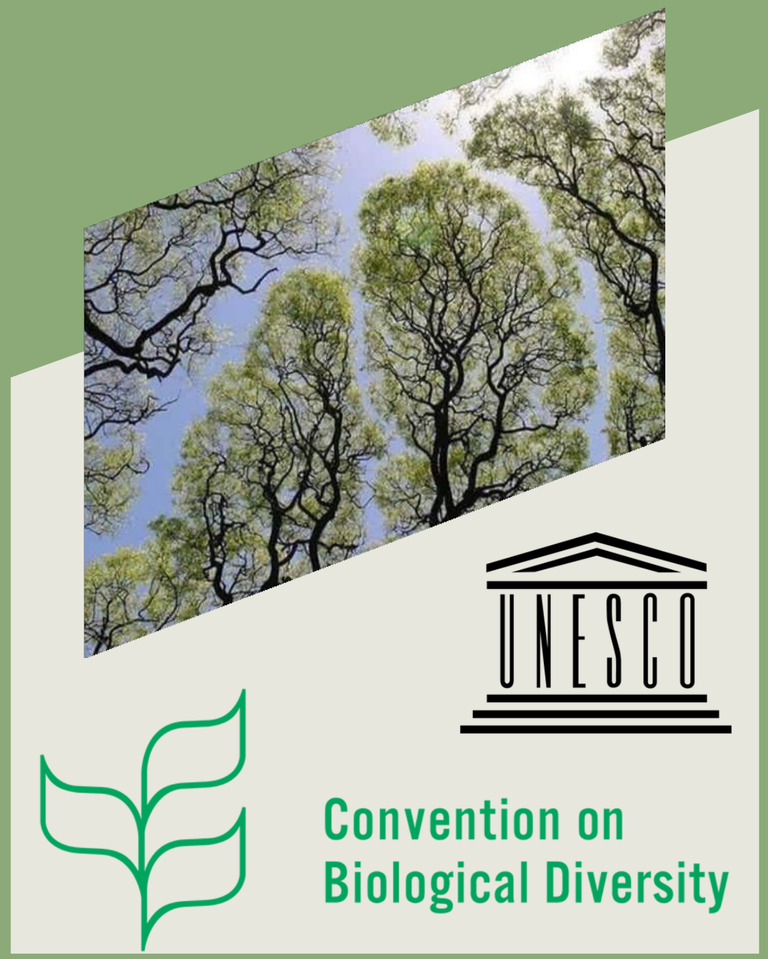
GBIF Presentation

11 September 2024

Presented By
KatieLee Riddle,

Local Contexts

Te Kotahi Research Institute



International Forecasting

- UN CBD curently set to recommend the inclusion of biocultural metadata in relation to DSI
- GRATK Patent Treaty requires disclosure of origin of TK, which cannot be done without accessible provenance information
- UNESCO recommendation on open science and UN CBD both refer to FAIR
- UN CBD also discussing CARE


Be
FAIR
Findable
Accessible
Interoperable
Reusable
and
CARE
Collective Benefit
Authority to Control
Responsibility
Ethics

Findable

- (Meta)data are assigned a globally unique and persistent identifier
- Data are described with rich metadata
- Metadata clearly and explicitly include in the identifier of the data it describes
- (Meta)data are registered or indexed in a searchable resource

Accessible

- (Meta)data are retrievable by their identifier using a standardized protocol
- The protocol is open, free and universal
- The protocol allows for authentication and authorization, as needed
- Metadata are accessible, even when the data are no longer available

Interoperable

- (Meta)data use a formal, accessible, shared and broadly applicable language
- (Meta)data use vocabularies that follow FAIR principles
- (Meta)data include qualified references to other (meta)data

Reusable

- (Meta)data are richly described with a plurality of accurate and relevant attributes
- (Meta)data are released with a clear and accessible data usage licence
- (Meta)data are associated with a detailed provenance
- (Meta)data meet domain-relevant community standards

https://www.go-fair.org/wp-content/uploads/2022/01/FAIRPrinciples_overview.pdf

CARE Principles for Indigenous Data Governance

Collective Benefit.

Data ecosystems shall be designed and function in ways that enable Indigenous Peoples to derive benefit from the data.

C1. For inclusive development and innovation
C2. For improved governance and citizen engagement
C3. For equitable outcomes

Authority to Control.

Indigenous Peoples' rights and interests in Indigenous data must be recognized and their authority to control such data respected.

A1. Recognizing rights and interests
A2. Data for governance
A3. Governance of data

Responsibility.

Those working with Indigenous data have a responsibility to share how those data are used to support Indigenous Peoples' self determination and collective benefit.

R1. For positive relationships
R2. For expanding capability and capacity
R3. For Indigenous languages and worldviews

Ethics.

Indigenous Peoples' rights and wellbeing should be the primary concern at all stages of the data life cycle and across the data ecosystem.

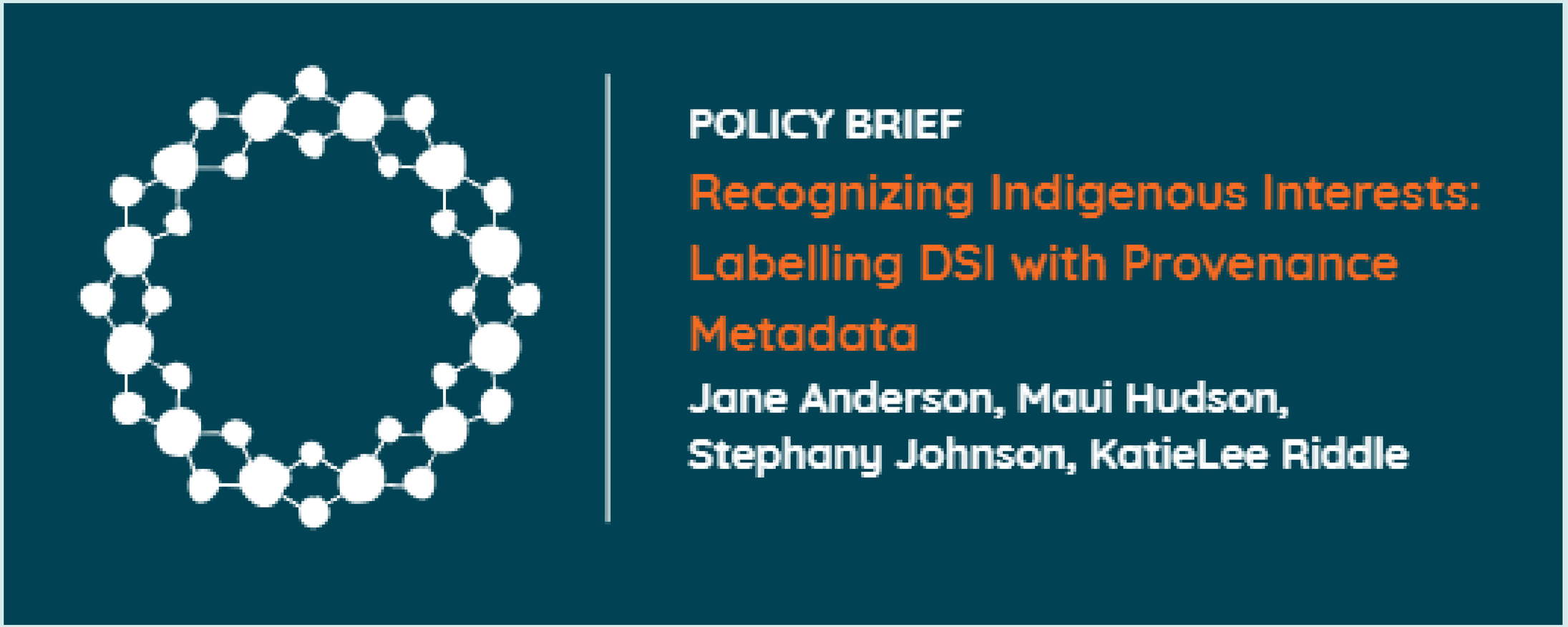
E1. For minimizing harm and maximizing benefit
E2. For justice
E3. For future use

What does this mean?

- creating mechanisms to enhance indigenous provenance metadata is key in order to stay up to date with developing international data standards
- Local Contexts is well placed to meet the needs of Indigenous peoples and create enhanced compliance with FAIR and CARE

More information:

https://zenodo.org/records/13127019



Te Kotahi Research Institute

THE UNIVERSITY OF WAIKATO
Te Whare Wānanga o Waikato

Ngā mihi ki a koutou!

Contact me:

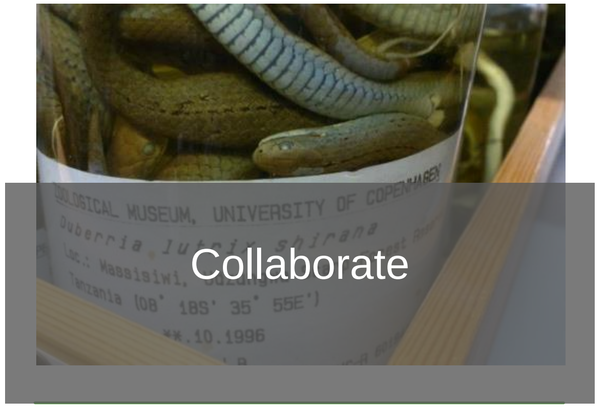
KatieLee Riddle
Kriddle@waikato.ac.nz

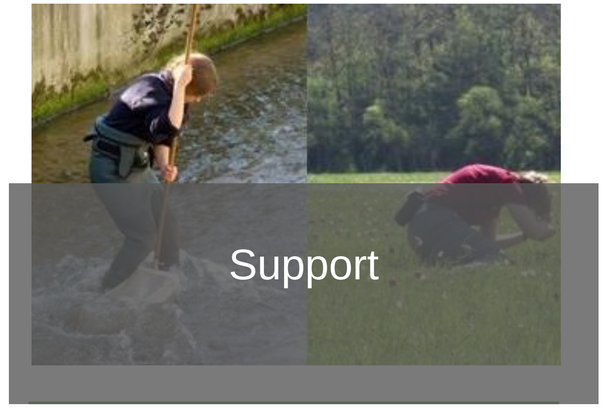
Perspectives on Capacity Development as a GBIF Mentor

David Bloom / VertNet, TDWG, GBIF Mentor

GBIF Global Biodiversity Information Facility

GBIF Mentorship - https://www.gbif.org/mentors





Come to the table with an open mind and open ears to learn about local challenges, goals and resources

Apply and share personal experience and knowledge about GBIF and data to the challenges at hand

Work together with local people and projects to find solutions that promote mastery, celebrate diversity and maximize effectiveness

Build lasting relationships that transcend time and geography through continue the learning, sharing and collaboration

Experience in the Pacific Region

- Served as both mentor and trainer
- Multiple workshops in Samoa, Fiji, and Tonga
- Lots of email and Zoom (occasional dancing)
- Supported publication efforts from:
  - Samoa, Fiji, Tonga, Vanuatu, PNG, Yap, Wallis and Futuna, Solomon, Cook, Marshall Islands, Kiribati, New Caledonia, Tuvalu, Tokelau, Niue, and NZ.

Lessons

- Interest is high
- Support is uncertain
- Simple is always better
- Growing awareness of data types and quantity
- Enthusiasm is contagious

Opportunities

- Need for dedicated support
- Local expertise is growing
- More value and benefit to demonstrate

Importance of BID for Developing Capacity and Target 20

- Shared goal for the region to clean, publish and maintain data.
- Healthy competition and renewed ownership
- Identified data sources
- Identified local mentors

Thank you!

What do we have?

Floristics: older floras, grey literature & modern accounts

Collections, databases & digitisation

Research

Peter Heenan

Director, Allan Herbarium; Senior Scientist

Manaaki Whenua Landcare Research

MWLR Nationally Significant Biological Collections

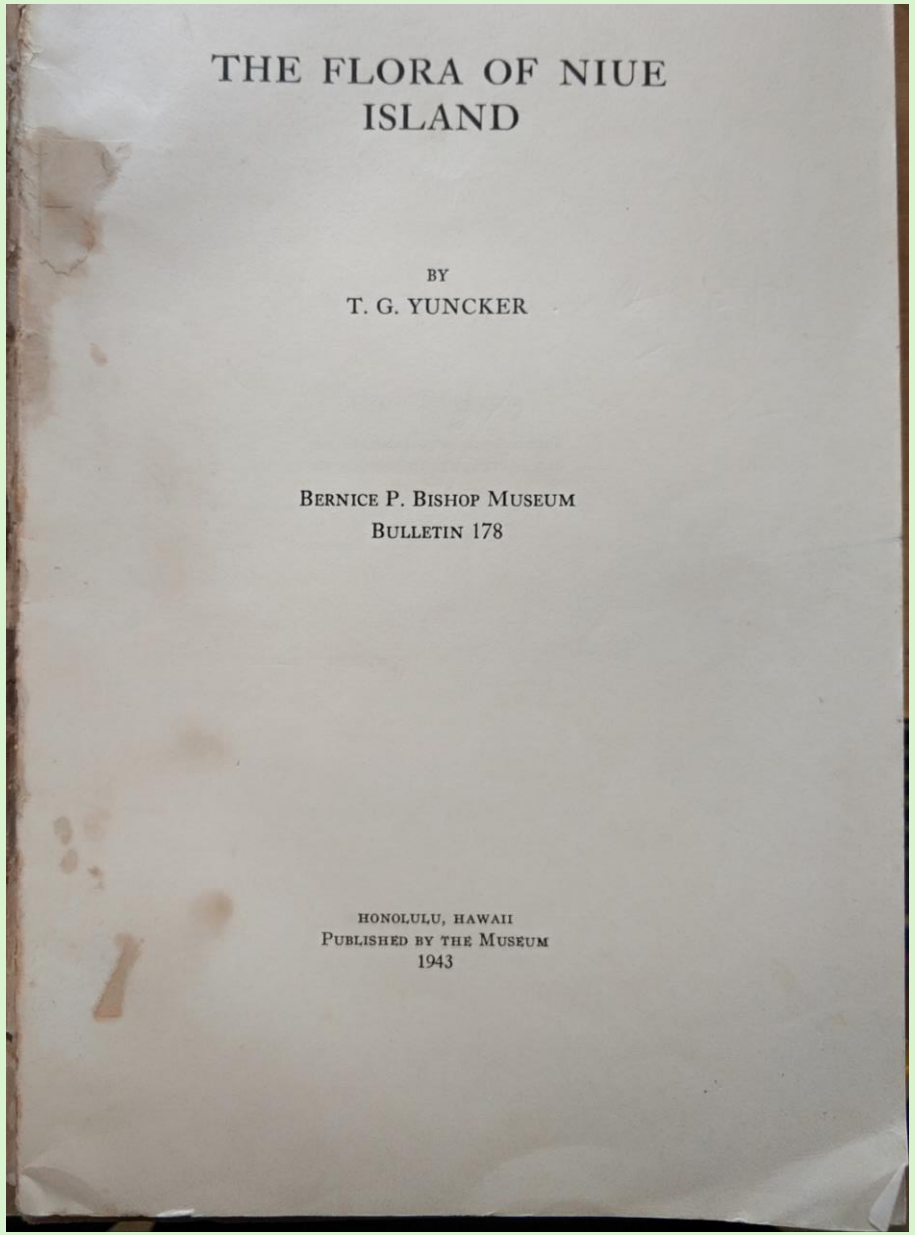
CHR: Allan Herbarium – Te Kohinga Tipu o Aotearoa

ICMP: International Collection of Microorganisms from Plants – Te Kohinga Moroiti o Aotearoa

NZAC: New Zealand Arthropod Collection – Ko te Aitanga Pepeke o Aotearoa

PDD: New Zealand Fungarium – Te Kohinga Hekaheka o Aotearoa

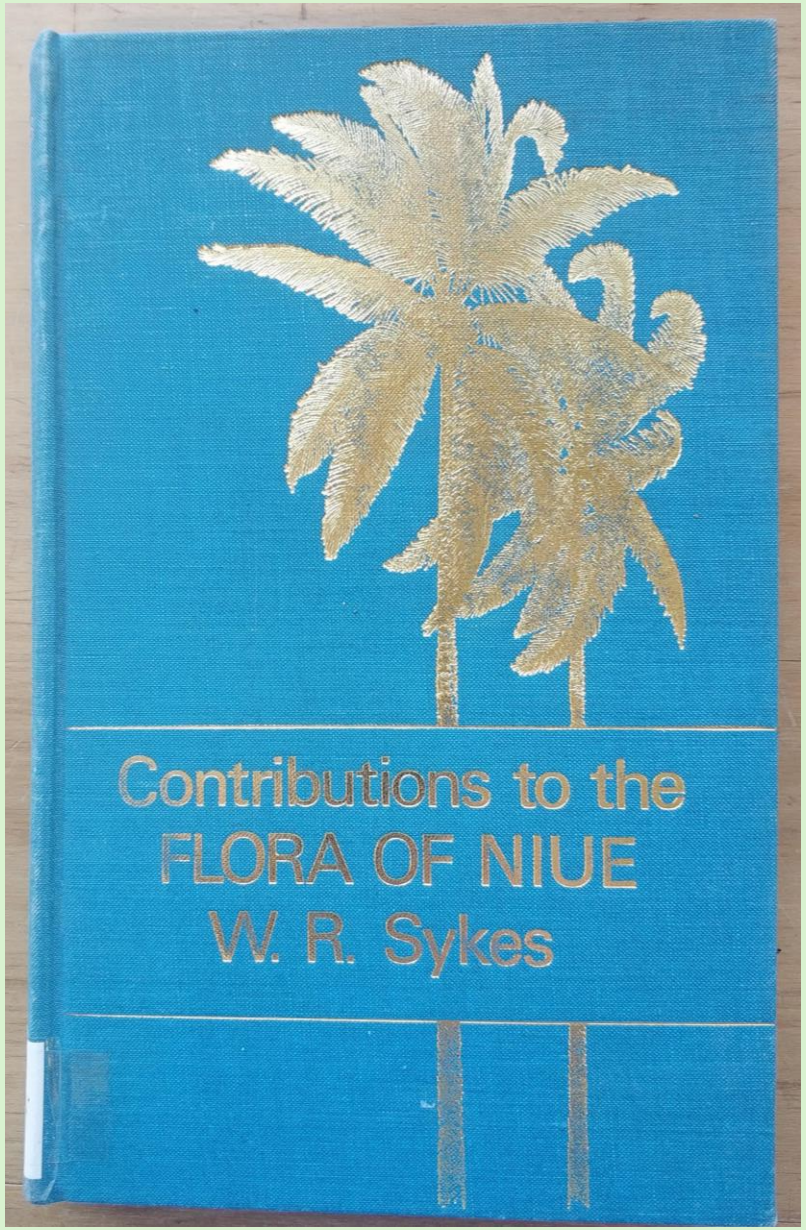
Plants of Niue

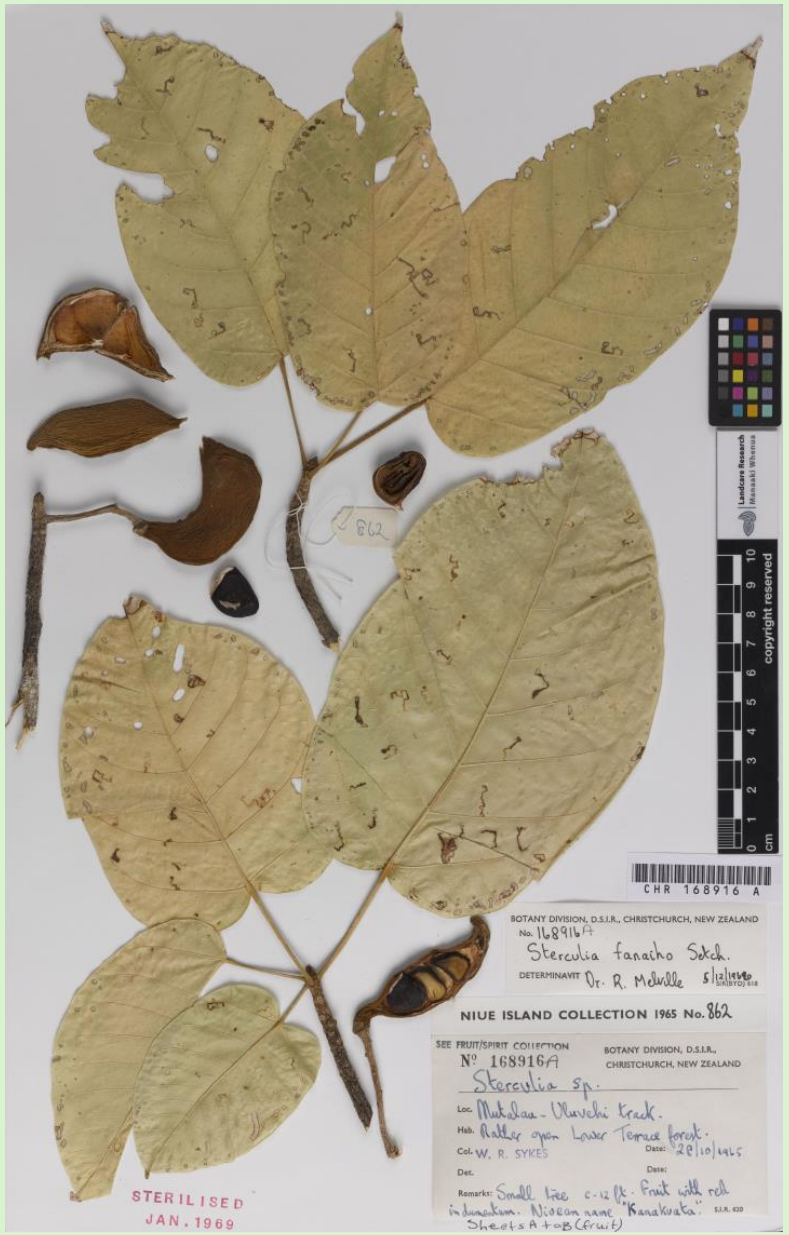

THE FLORA OF NIUE ISLAND

BY
T. G. YUNCKER

BERNICE P. BISHOP MUSEUM
BULLETIN 178

HONOLULU, HAWAII
PUBLISHED BY THE MUSEUM
1943





Systematics Collections Data

CHR Niue

Search help

Facets

Main taxon

- Ascomycota (137)
- Bidens pilosa L. (14)
- Asplenium laserpitiifolium (13)
- Homalanthus nutans (G.Forst.) Guill. (11)

Results

Showing 1 to 500 of 1747 records

Sort by Most relevant Ascending

1 2 3 4 Next page >

List view Grid view Map view

Floras are never static: new records & information

Botanical Survey
of the
Huvalu Forest Conservation Area
Niue

by

Art Whistler
Isle Botanica
Honolulu, Hawaii

and

James Atherton
François Martel & Associates
Apia, Samoa

December 1997

Christella parasitica (L.) Lev.

Medium-sized terrestrial fern with clustered stipes, a bipinnatifid* lamina, basal veins united, yellow glands on the lower surface, and indusiate sori*. Probably indigenous, but a new record for Niue. Voucher no. 10755.

Bishop Museum Herbarium:
Not databased or digitised

Royal Botanic Gardens Kew | Plants of the World Online

Christella parasitica (L.) H.Lév.

First published in Fl. Kouy-Tchéou: 473, 475 (1915)

This name is a synonym of *Thelypteris parasitica*

Native to:

Assam, Bangladesh, Borneo, Caroline Is., China South-Central, China Southeast, Fiji, Hainan, India, Japan, Kazan-retto, Korea, Laos, Lesser Sunda Is., Malaya, Maluku, Marianas, Marquesas, Myanmar, Nansei-shoto, New Caledonia, New Guinea, Norfolk Is., Ogasawara-shoto, Philippines, Pitcairn Is., Queensland, Samoa, Solomon Is., Sri Lanka, St.Helena, Sulawesi, Taiwan, Thailand, Tonga, Tuamotu, Tubuai Is., Uganda, Vanuatu, Vietnam, Zaïre

Niue ???

Introduced into:

Hawaii

Occurrences 2

Search all fields

Simple filters | All filters

Occurrence status

Licence

Scientific name

- [x] Christella parasitica (L.) H.Lév.

Basis of record

Year

Month

Location

Administrative areas (gadm.org)

Country or area

Search

- [ ] United States of America 309
- [ ] Australia 122
- [ ] New Caledonia 109
- [ ] French Polynesia 56
- [ ] Cook Islands
- [ ] Norfolk Island 30
- [ ] Papua New Guinea 22
- [ ] Guam 18
- [ ] Samoa 15
- [ ] Fiji 12

Niue ???

Scientific name	Country or area	Coordinates	Event date	Occurrence status	Basis of record	Dataset	Kingdom
Christella parasitica (L.) H.Lév.	New Caledonia	22.0S, 166.5E	2016 Sep 19	Present	Preserved specimen	WELT Herbarium at Museum of New ...	Plantae
Christella parasitica (L.) H.Lév.	New Caledonia	21.6S, 165.8E	2016 Sep 22	Present	Preserved specimen	WELT Herbarium at Museum of New ...	Plantae
Christella parasitica (L.) H.Lév.	New Caledonia	21.6S, 165.8E	2016 Sep 22	Present	Preserved specimen	Auckland Museum Botany Collection	Plantae
Christella parasitica (L.) H.Lév.	Cook Islands	21.3S, 159.8W	2016 Dec 20	Present	Preserved specimen	Auckland Museum Botany Collection	Plantae
Christella parasitica (L.) H.Lév.	Australia	30.7S, 153.0E	2015 Apr 14	Present	Human observation	NSW BioNet Atlas	Plantae
Christella parasitica (L.) Lév.	United States of Ame...	22.1N, 159.7W	2015 May 18	Present	Preserved specimen	University of Vermont, Pringle Herbar...	Plantae
Christella parasitica (L.) Lév.	Tonga		2014 Feb	Present	Human observation	List of flora species recorded in Vava...	Plantae
Christella parasitica (L.) H.Lév.	Tonga	18.6S, 174.0W	2014 Feb 13	Present	Preserved specimen	Auckland Museum Botany Collection	Plantae
Christella parasitica (L.) H.Lév.	Tonga	18.6S, 174.0W	2014 Feb 24	Present	Preserved specimen	Auckland Museum Botany Collection	Plantae
Christella parasitica (L.) H.Lév.	Cook Islands	21.2S, 159.8W	2014 Aug 27	Present	Preserved specimen	Auckland Museum Botany Collection	Plantae
Christella parasitica (L.) H.Lév.	Norfolk Island	29.0S, 167.9E	2013 Apr 19	Present	Preserved specimen	Centre for Australian National Biodiv...	Plantae
Christella parasitica (L.) H.Lév.	United States of Ame...	19.7N, 155.1W	2013 Jun 25	Present	Human observation	iNaturalist Research-grade Observati...	Plantae
Christella parasitica (L.) H.Lév.	Australia	26.4S, 152.8E	2013 Jul 23	Present	Occurrence	WildNet - Queensland Wildlife Data	Plantae
Christella parasitica (L.) H.Lév.	Australia	28.4S, 153.5E	2013 Nov 28	Present	Living specimen	PlantBank Records	Plantae
Christella parasitica (L.) H.Lév.	Australia	28.4S, 153.5E	2013 Nov 28	Present	Preserved specimen	NSW BioNet Atlas	Plantae
Christella parasitica (L.) H.Lév.	Australia	28.4S, 153.5E	2013 Nov 28	Present	Preserved specimen	NSW AVH feed	Plantae
Christella parasitica (L.) H.Lév.	Australia	26.3S, 152.8E	2012 May 10	Present	Occurrence	WildNet - Queensland Wildlife Data	Plantae
Christella parasitica (L.) H.Lév.	United States of Ame...	21.6N, 158.0W	2012 Jun 19	Present	Human observation	iNaturalist Research-grade Observati...	Plantae

NEW ZEALAND JOURNAL OF BOTANY
https://doi.org/10.1080/0028825X.2024.2385658

Taylor & Francis
Taylor & Francis Group

RESEARCH ARTICLE

New records for the flora of Niue: *Crepidomanes saxifragoides* (C.Presl) P.S.Green (Hymenophyllaceae), *Erigeron bellioides* DC. (Asteraceae) and *Psidium cattleyanum* Sabine (Myrtaceae)

Peter B. Heenan [a], Huggard Tongatule[b], Ioane Mamaia[c], Shiloh Pasisi[b], Wayne Kifoto[b], Terrence Lakatani[b], McKendrick Talaiti[b], Ireena Mautama[b] and David S. Glenny[a]

[a]Allan Herbarium, Manaaki Whenua Landcare Research, Lincoln, New Zealand; [b]Department of Environment, Ministry of Natural Resources, Alofi, Niue; [c]Department of Agriculture, Forestry and Fisheries, Ministry of Natural Resources, Alofi, Niue

ABSTRACT

Recent field surveys of the flora of Niue have identified three new species records for the island. *Erigeron bellioides* DC. (Asteraceae) and *Psidium cattleyanum* Sabine (Myrtaceae) are new naturalised

ARTICLE HISTORY
Received 21 June 2024
Accepted 24 July 2024

HANDLING EDITOR


Crepidomanes saxifragoides


Erigeron bellioides


Psidium cattleyanum

Systematics Collections

Data

CHR 691252 – Erigeron bellioides DC.

Location:	car park, Matapa Chasm track, Hikutavake Village
Georeferences:	Latitude and Longitude (WGS84): 18.964969 S 169.883676 W (WGS84 -18.964969 -169.883676)
Verbatim locality:	car park, Matapa Chasm track, Hikutavake Village
Verbatim collector:	P.B. Heenan
Standardised collector:	Peter B. Heenan
Verbatim	28 Jan 2024

Lichens Niue: under-studied


1994: Two species collected
2024: 60+ taxa collected
Many new records for Polynesia

Systematics Collections Data

CHR | Ascomycota Niue

Facets

Main taxon

Ascomycota (137)

Ramalina Ach. (3)

CHR 691150 : Ascomycota

Data provider: CHR Collection: Herbarium Specimen type: Packet Country: Niue

Standard locality: East of Vaipapahi on Vaipapahi-Toi Road

CHR 691151 : Ascomycota

Data provider: CHR Collection: Herbarium Specimen type: Packet Country: Niue

Standard locality: East of Vaipapahi on Vaipapahi-Toi Road

CHR 691208 : Ascomycota

Data provider: CHR Collection: Herbarium Specimen type: Packet Country: Niue

Standard locality: Huvalu Forest Conservation Area (HFCA), Hakupu

CHR 691209 : Ascomycota

Data provider: CHR Collection: Herbarium Specimen type: Packet Country: Niue

Standard locality: Huvalu Forest Conservation Area (HFCA), Hakupu

Systematics Collections Data

CHR | Ascomycota Niue

Facets

Main taxon

Ascomycota (137)

Ramalina Ach. (3)

CHR 691150 : Asc

Data provider: CHR

Standard locality: E

CHR 691151 : Asc

Data provider: CHR

Standard locality: E

CHR 691208 : Asc

Data provider: CHR

Standard locality: H

CHR 691209 : Asc

Data provider: CHR

Standard locality: H

Lichens of Niue: a preliminary checklist

John A. Elix[1], Patrick M. McCarthy[2], Huggard Tongatule[3], Shiloh Pasisi[3], Peter B. Heenan[4,5]

[1]Research School of Chemistry, Australian National University, Canberra, ACT 2601, Australia
[2]64 Broadsmith St, Scullin, A.C.T. 2614, Australia
[3]Department of Environment, Ministry of Natural Resources, Alofi, Niue
[4]Allan Herbarium, Manaaki Whenua Landcare Research, Lincoln, New Zealand
[5]Corresponding author: heenanp@landcareresearch.co.nz

Abstract

A checklist is presented to the lichenised fungi of Niue, adding a significant number of new records to the two *Ramalina* species previously recognised. The checklist is based on a collecting effort undertaken during May 2024 when 130 collections were made over a 10-day period. Fifty-eight species are recognised and placed in 34 genera and 22 families. Six genera are represented by three or more species: *Coccocarpia* (5 species), *Graphis* (3), *Lepidocollema* (3), *Physcia* (6), *Pyrenula* (5), and *Ramalina* (3). In addition, fourteen collections were placed in the genera *Bacidia*, *Megalaria*, *Pertusaria*, and *Toninia* but

How do we manage historical and new information for the flora and mycota of Niue?

Plants & Fungi of Niue NaturaList

Share results | Pin search | View

You are viewing a draft version of the checklist only visible to you. Click on Manage to manage the data or refresh the page to show the current published data.

Manage

Plantae Show all Plantae

Anthophyta - Dicotyledon (kingdom Plantae) Show all Anthophyta - Dicotyledon

Acanthaceae (major group Anthophyta - Dicotyledon) Show all Acanthaceae

Barleria (family Acanthaceae) Show all Barleria

Barleria cristata L. (genus Barleria) Show all Barleria cristata

BIOSTATUS:
- Cultivated
- Naturalised

REFERENCES: Sykes 1970, POWO 2024, Tongatule et al. 2024

Barleria prionitis L. (genus Barleria) Show all Barleria prionitis

BIOSTATUS:
- Cultivated
- Naturalised

Kingdom	2	Major group	18
Family	217	Genus	647
Species	1071	Infraspecific taxon	138
Biostatus	8	Niuean name	352
English name	371	Rare species (Whistler 2013)	5
References	36		

Full-text search

← Back to search

You are viewing a draft version of the checklist only visible to you. Click on Manage to manage the data or refresh the page to show the current published data. Manage

Anacardium occidentale L. (genus Anacardium) Show all Anacardium occidentale

BIOSTATUS:
- Cultivated
- Naturalised

ENGLISH NAME: cashew nut

REFERENCES: Sykes 1970, Space & Flynn 2000, Tongatule et al. 2024

Mangifera (family Anacardiaceae) Show all Mangifera

Mangifera indica L. (genus Mangifera) Show all Mangifera indica

BIOSTATUS:
- Cultivated
- Naturalised

NIUEAN NAME: mago

ENGLISH NAME: mango

REFERENCES: Yuncker 1943, Sykes 1970, Thaman et al. 2004, Gardner 2020, POWO 2024

Spondias (family Anacardiaceae) Show all Spondias

Spondias dulcis Parkinson (genus Spondias) Show all Spondias dulcis

BIOSTATUS:
- Cultivated
- Naturalised

SYNONYMY:
- ***Spondias cytherea*** Sonn.

Mangifera indica

Kingdom Plantae
Major group Anthophyta - Dicotyledon
Family Anacardiaceae
Genus Mangifera

Search online | Media

- Vanuatu National Herbarium (PVNH)
- New York Botanical Garden Herbarium (NY)
- New Caledonia Herbarium (NOU)
- Paris Herbarium (P)
- Kew Herbarium (K)
- Missouri Botanical Garden (MO)
- Harvard University Herbaria (HUH: GH, A)
- Natural History Museum, London (BM)
- Smithsonian, US National Herbarium (US)
- Recolnat (Aggregator for French Herbaria)
- Australasian Virtual Herbarium (Aggregator for Australia, New Zealand)
- Consortium of Pacific Herbaria (Aggregator for Pacific)
- GBIF (Global Biodiversity Information Facility)
- Kew Plants of the World Online
- International Plant Name Index
- JSTOR Global Plants
- iNaturalist
- Google

Flora Treatments - new

Country	Publication year	Indigenous Plants	Introduced Plants
Niue	1943	Indigenous	Introduced
	1970	Indigenous	Introduced
Tonga	1959 (1971)	Indigenous	Introduced
Samoa	1943	Indigenous ferns	
	1935, 1938	Indigenous	Introduced
	2022	Indigenous flowering plants	
Cook Islands	1903	Indigenous	
	1931 (1971)	Indigenous	Introduced
	2016	Indigenous	Introduced
Wallis & Futuna	2017	Indigenous	
Tokelau	2018	Indigenous	

Flora Treatments - old

Country	Publication year	Indigenous Plants	Introduced Plants
Niue	1943	Indigenous	Introduced
	1970	Indigenous	Introduced
Tonga	1959 (1971)	Indigenous	Introduced
Samoa	1943	Indigenous ferns	
	1935, 1938	Indigenous	Introduced
	2022	Indigenous flowering plants	
Cook Islands	1903	Indigenous	
	1931 (1971)	Indigenous	Introduced
	2016	Indigenous	Introduced
Wallis & Futuna	2017	Indigenous	
Tokelau	2018	Indigenous	

Summary

- New flora research: published & accessible
- Collection databasing and digitisation essential
  - Can feed into GBIF, POWO, AVH etc
- Pacific, people and plants
  - Indigenous flora
  - Introduced plants (weeds/invasives, gardens, food)
- Need to be smart
  - Many shared species
  - Limited capability & capacity
- Other biota: invertebrates, macro fungi etc

EUROPEAN UNION

European Union funded (and co-funded)

BIODIVERSITY PROGRAMMES

in the Pacific Island countries

Name of presenter: Andreja Vidal,
Programme Manager, Delegation of the
European Union for the Pacific

10 -13 September 2024
GBIF Oceania Regional Nodes Meeting &
Pacific Engagement Meeting for the
Biodiversity Information for Development Programme
Wellington, New Zealand

Priority Areas of the Multi-Annual Indicative Pogramme for the Pacific 2021-2027

PRIORITY AREA 1

Climate Action and Environmental Sustainability (45%)

- Climate Action
- Adaptation, Resilience and Recovery
- Environmental Protection and Sustainable Management of Natural Resources

PRIORITY AREA 2

Inclusive and Sustainable Economic Development (40%)

- Green and Blue Growth
- Economic Governance

PRIORITY AREA 3

Fundamental Values, Human Development, Peace and Security (10%)

- Strengthening Democratic Institutions, the Rule of Law and Protection of Human Rights
- Mainstreaming Gender and Addressing Violence against Women and Children

Support Measures (5%)

Measures in favour of civil society

Cooperation Facility (national / multi-country level)

EUROPEAN UNION

List of programmes on biodiversity

Programme /Project Name	Implementation Dates	Amount EUR	Benefitting Zone	Implementing Partner
Biodiversity and Protected Area Management (BIOPAMA II)	24/8/17 – 30/9/25	43.9 M	African, Caribbean and Pacific countries	IUCN
Pacific Biodiversity and Sustainable Land-Seascapes (Pacific BioScapes) Programme	22/12/2021 – 22/12/2026	12 M	Pacific 11 countries	SPREP
Kiwa Initiative (multi-donor)	31/03/2020 – 31/07/2028	77 M (19.9 M EU contribution)	Pacific (including OCTs)	AFD (in cooperation with IUCN, SPC and SPREP)
Biodiversity Information for Development (phase 2)	09/2024 – 08/2029	4 M	Africa, Latin America, the Caribbean and Asia -Pacific	GBIF

Oceans

Pacific-European Union Marine Partnership Programme (PEUMP)	01/09/2018 – 31/03/2025	45 M (35 M EU contribution)	Pacific	SPC, SPREP, FFA (co-delegation agreement), USP
Global Climate Change Alliance (GCCA+) initiative for climate adaptation and resilience building in Samoa	21/12/2018 - 30/06/2023	1.1 M	Samoa	IUCN

EUROPEAN UNION

30 YEARS SPREP PROE

Pacific BioScapes

Pacific BioScapes Programme

Introduction

- Pacific Island countries have identified many critical issues and national priorities to protect biodiversity, communities and ecosystems in our region.
- In response, the **Pacific Biodiversity and Sustainable Land-Seascapes (Pacific BioScapes) Programme** is implementing regional initiatives and specific activities in 11 countries.
- Funding: European Union (12M €)
- Programme duration: 5 years (2022-2026)

EUROPEAN UNION

SPREP
Secretariat of the Pacific Regional Environment Programme

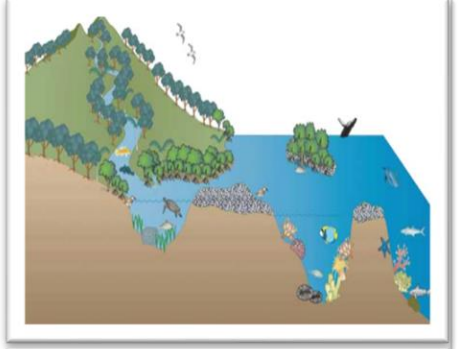
Pacific BioScapes

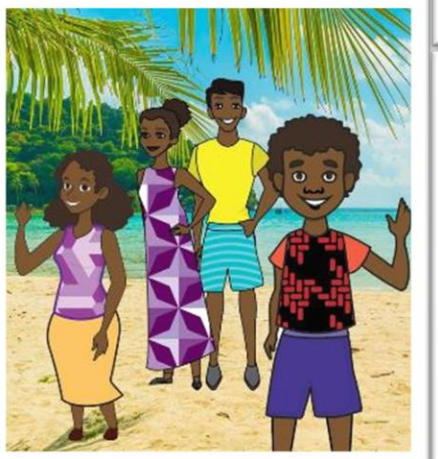
Pacific BioScapes Programme

= 30 projects at (sub)regional level (15) or in-country (15) …

… classified in four streams:

- #1: Improved planning, management, policies, regulations and data/information
- #2: Species conservation
- #3: Conservation and sustainable use of marine, coastal and terrestrial ecosystems and resources
- #4: Education, awareness and outreach





EUROPEAN UNION

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Pacific BioScapes

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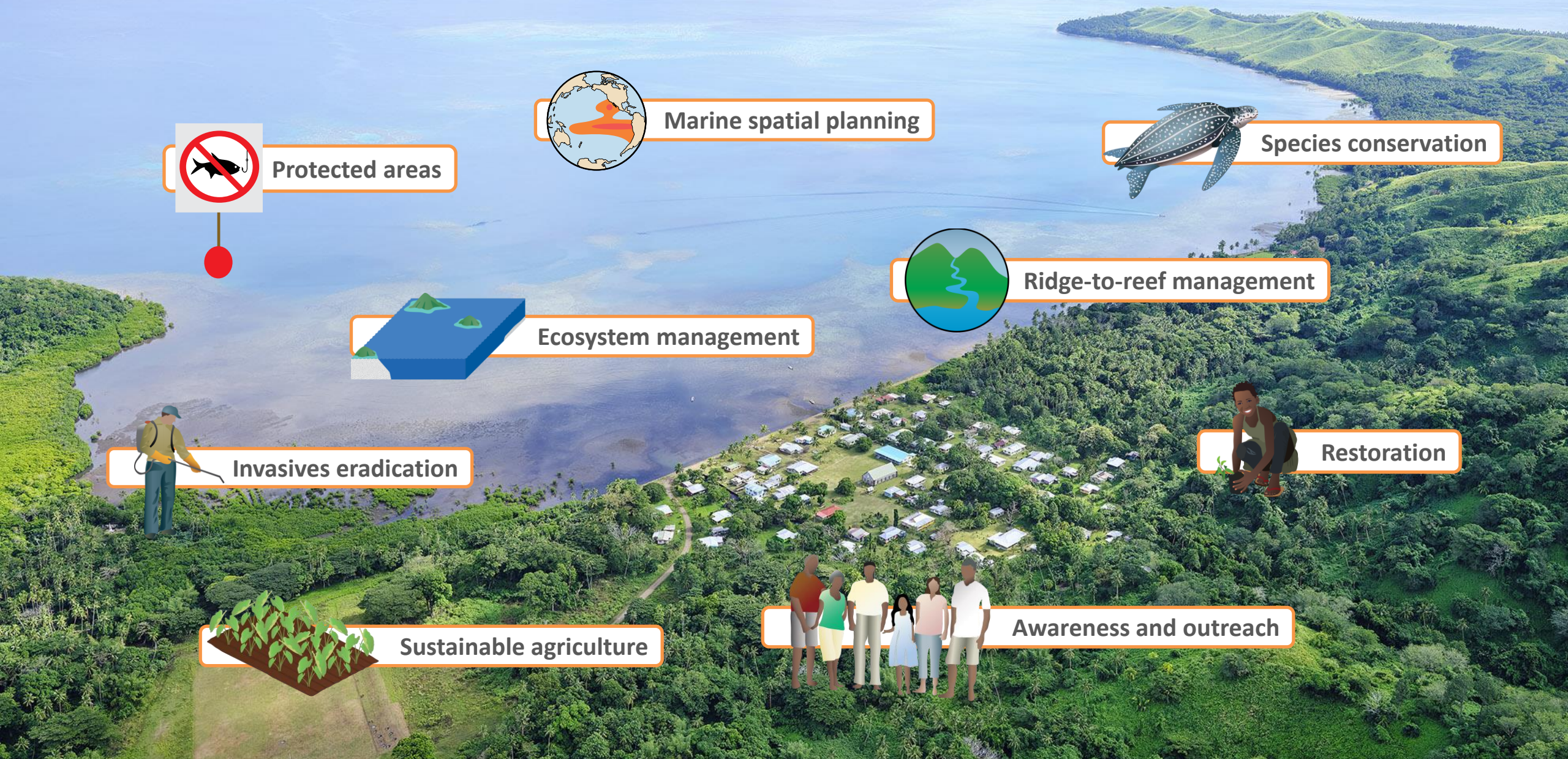


KIWA INITIATIVE

Nature-based solutions for climate resilience

Strengthening the climate change resilience of Pacific Island ecosystems, economies and communities by promoting and supporting **Nature-based Solutions**

The Kiwa Initiative in a nutshell

- Launched in **March 2020,** the Kiwa Initiative aims to **strengthen the climate change resilience of Pacific Island** ecosystems, economies and communities by promoting and supporting **Nature-based Solutions** (NbS).
- 5 International donors: **France, European Union, Canada, New Zealand, Australia**
- **18 eligible Pacific Island Countries and Territories**: 15 Pacific islands countries + 3 French territories
- Evolution of the Budget : from 30,5M€ in 2020 to **77,1M€ as of July 2024**

- The Agence française de developement (AFD) is in charge of the **implementation of the Kiwa Initiative** and is responsible for managing all the Kiwa funds
- The Kiwa Initiative include 3 implementing partners in the region (SPC, SPREP and IUCN-ORO)
- AFD is assisted by a **Secretariat** based at AFD's Pacific Regional Office in New Caledonia

THIS INITIATIVE IS FUNDED BY:

EUROPEAN UNION · AFD · in partnership with Canada · Australian Aid · NEW ZEALAND FOREIGN AFFAIRS & TRADE Aid Programme

IN PARTNERSHIP WITH:

Pacific Community / Communauté du Pacifique · SPREP · IUCN

What are Nature-based Solutions (NbS)? (1/2)

- **Nature-based Solutions (NbS) are** defined by IUCN as "actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively"

  - Ecosystem-based management
  - **Ecosystem-based adaptation**
  - Ecosystem-based disaster risk reduction
  - Green infrastructure (e.g. in urban settings)
  - Natural infrastructure (e.g. for integrated watershed management)
  - Holistic or regenerative landscape management

Video #NbS

https://youtu.be/bwpFgca2w3Y

Unique opportunities for project funding and technical assistance (1/2)

	REGIONAL PROJECTS	LOCAL PROJECTS
Technical Assistance	SPC - SPREP - Kiwa Initiative Secretariat	IUCN-ORO
Funds	€1,5M to €5M	€25,000 to €400,000
Condition	Involve at least 2 eligible countries and/or territories	Involve a single eligible country or territory
Open for	Local or national authorities, public institutions, regional organizations recognized by the Pacific Island Countries and Territories, international and national NGOs	Local or national authorities, public institutions, civil society organisations, community organisations, local associations, international and national NGOs

18 ELIGIBLE COUNTRIES AND TERRITORIES

Federated States of Micronesia - Fiji - French Polynesia - Kiribati - Nauru - New Caledonia - Niue - Marshall Islands - Palau - Papua New Guinea - Solomon Islands - Samoa - Timor Leste - Tokelau - Tonga - Tuvalu - Vanuatu - Wallis & Futuna

A Call for Regional projects is open until 15 December, 2024

22 Launched Kiwa projects

A great diversity of NbS projects addressing key challenges

- **Food gardens and agroecology for food security and health**
- **Improved management, protection and restoration and protection of coral reefs, locally-managed marine areas (LMMAs)**
- **Community-based resource management**
- **Coastal protection through native trees and mangroves planting**
- **Watershed and riparian systems management and restoration for water security, human health and to limit erosion**

From Knowledge to Action for a Protected Planet

Support to the Global Biodiversity Framework

CBD COP 11 Decision XI/24:

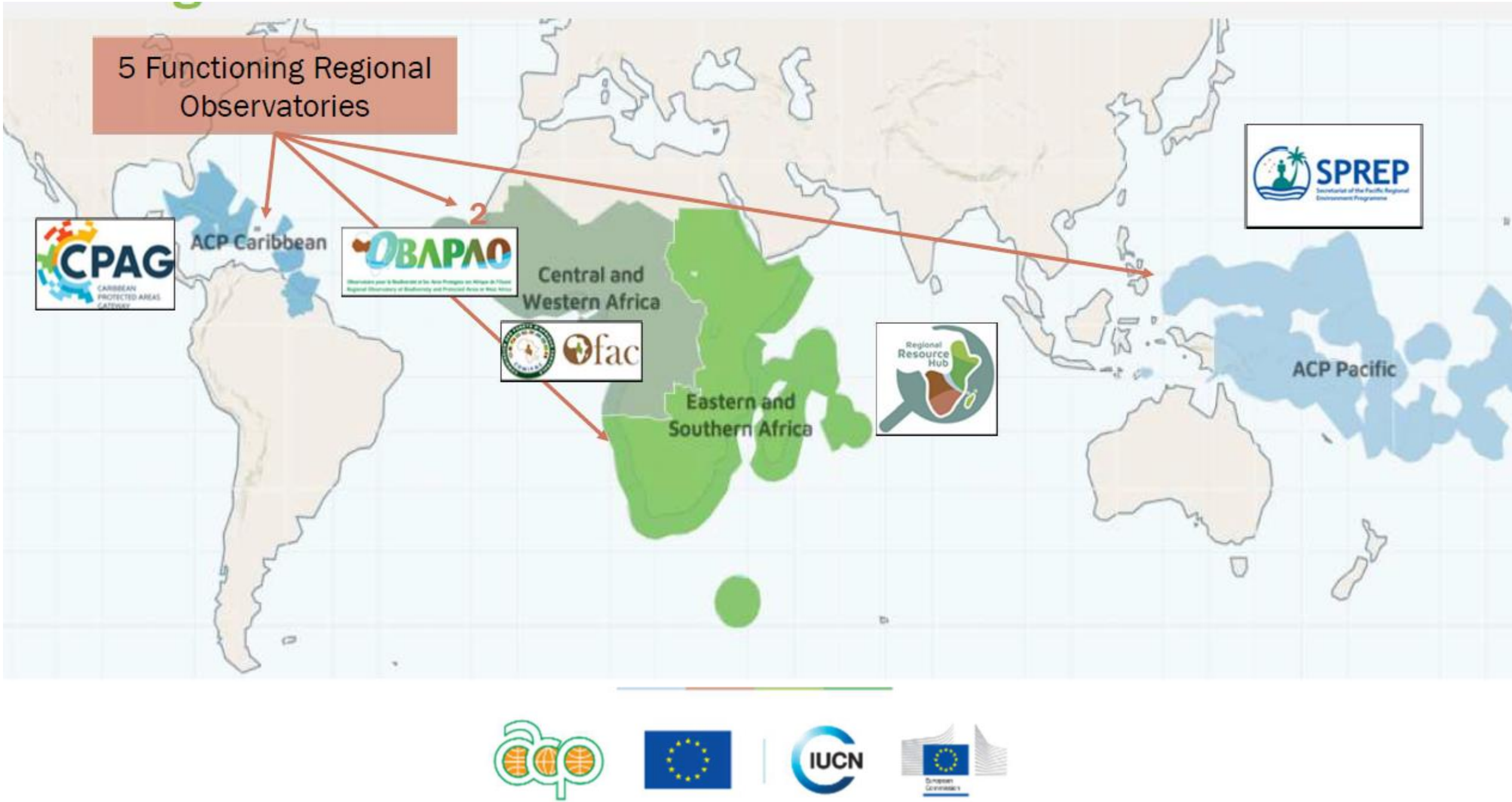
….. calls on initiatives such as BIOPAMA "to align capacity-building so as to further support implementation of national action plans for the programme of work on protected areas, and to continue to develop technical guidance to achieve the full scope of Aichi Biodiversity Target 11."

<u>The BIOPAMA-established Regional Observatories</u>

- partnerships and mechanisms for capacity development, knowledge management and technology transfer to support GBF;
- support translation of knowledge into action;
- contribute towards monitoring and reporting against GBF Goals and Targets.

<u>The BIOPAMA grant-making facility</u> supports governments and non-governmental actors to effectively and sustainably contribute to achieving the 2030 goals by:

- mobilising additional resources.
- facilitating access and utilisation of data and information.
- promoting learning and capacity building (knowledge management on grant-making and their impact).


5 Functioning Regional Observatories
2
CPAG
CARIBBEAN PROTECTED AREAS GATEWAY
ACP Caribbean
OBAPAO
Central and Western Africa
fac
Eastern and Southern Africa
Regional Resource Hub
SPREP
Secretariat of the Pacific Regional Environment Programme
ACP Pacific

Pacific (September 2019 – 2023)

5
Call for proposals

4
Types of grants

114
Proposals received

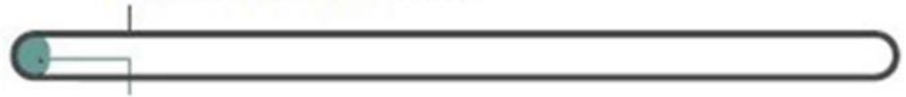
17
Projects approved

8
countries

€ 3,500,000
Total buget allocation

€ 2,572,977
Total signed contracts
the end of July 2023

641
PCAs in the Protected
Planet Database



31
PCAs reached under the
BIOPAMA Action Component

Key capacity development areas through BIOPAMA

sustainable financing for conservation	OECMs	Protected area management and governance	Application of PAME and PAGE tools
Use of the Regional Observatories' tools	PCA data management	Monitoring and reporting on MEAs	Conservation grants management
EU financial and technical management	Environmental and social management systems	Support to Parties on GBF implementation	Knowledge management and capitalisation

BIOPAMA
From Knowledge to Action for a Protected Planet

Thank you for your attention.

Further information:

https://www.eeas.europa.eu/delegations/fiji_en?s=139

https://kiwainitiative.org/en/about-kiwa-initiative

https://www.sprep.org/bioscapes

https://biopama.org/

Data use and needs for the private sector

NZ-specific

Sustainable Business Network

Sam Rowland

Programme Manager – Nature

Sustainable Business Network

Who is the Sustainable Business Network?

- Member network ~600 businesses of varying sectors and sizes
- Climate. Waste. Nature

- Regenerate Nature Programme
  - Research-based
  - 7 key focus areas – data
  - NZ's first Nature and Business Symposium

Sustainable Business Network

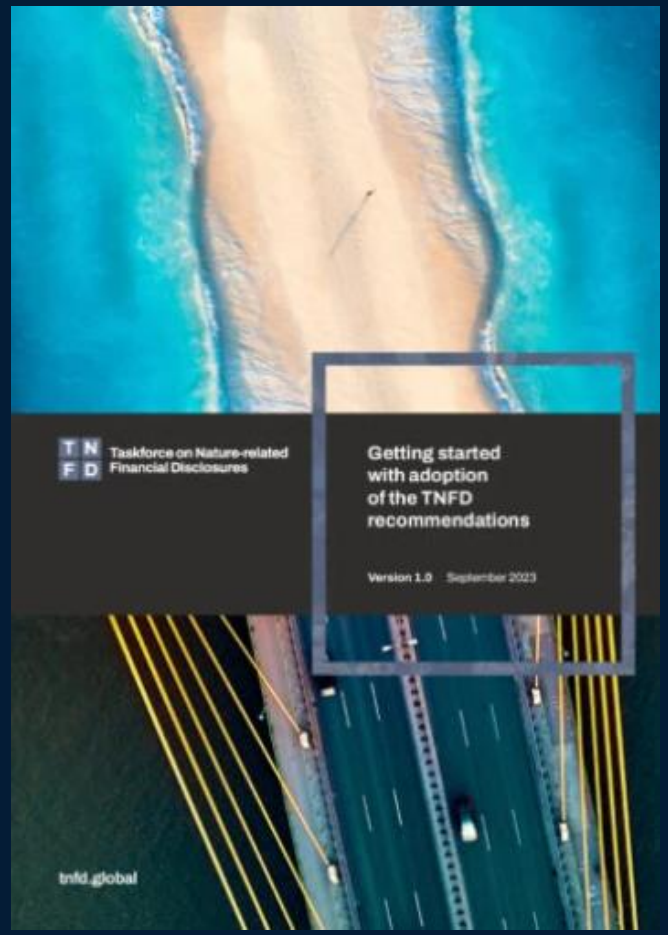
TARGET 15

Businesses Assess, Disclose and Reduce Biodiversity-Related Risks and Negative Impacts

INDICATOR

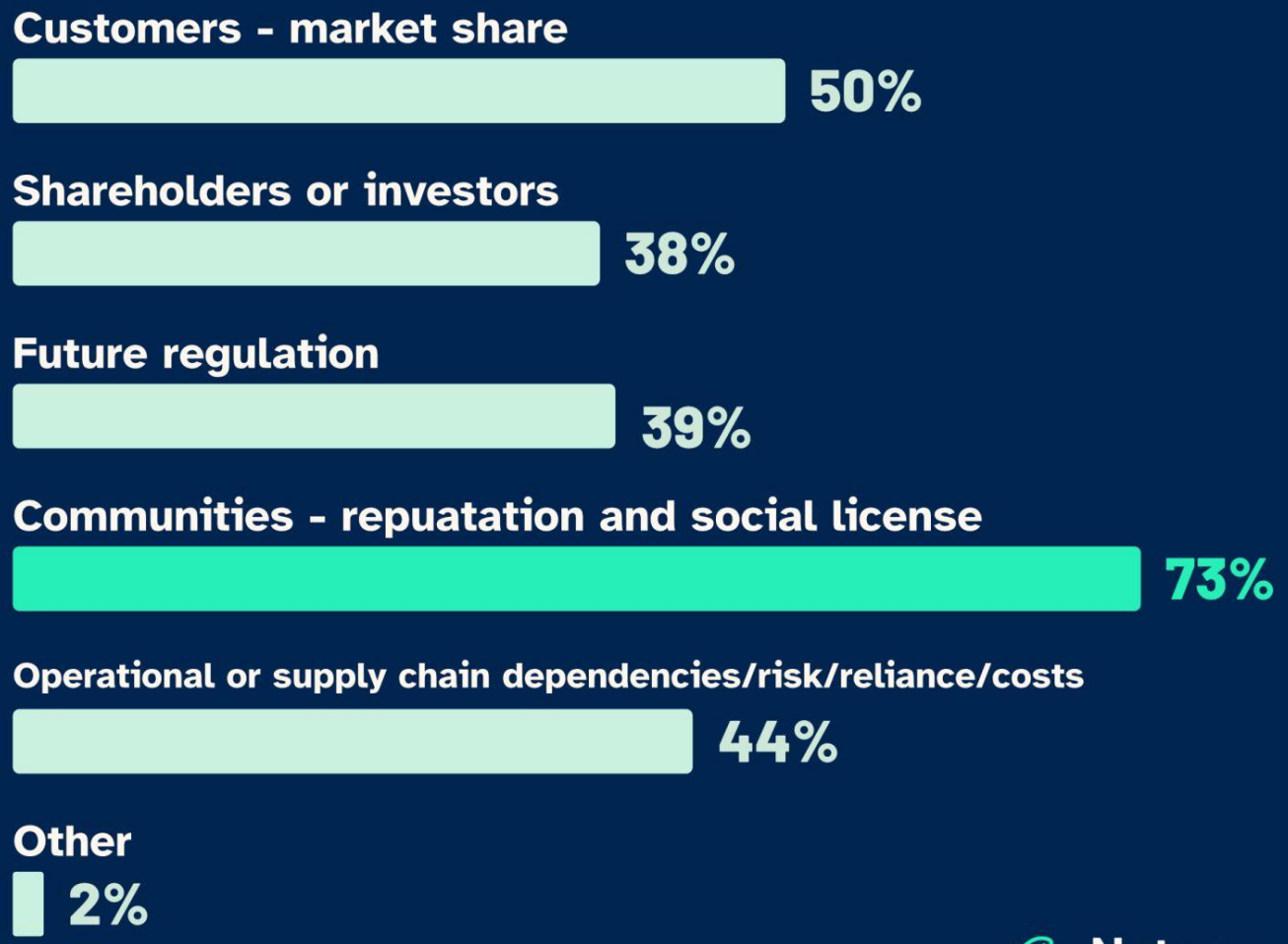
Number of companies reporting on disclosures of risks, dependencies and impacts on biodiversity.

- TNFD
- Sustainability reports



Sustainable Business Network

What's the key driver of the business case for nature?



Nature Positive

62%

of businesses want to understand species and location priorities for protection

DATA NEEDS

What is the state of nature in my locations?

How do I understand the effect of my business on these locations?

Sustainable Business Network

Natural Habitat Types

Lyttelton Port Company

Whakaraupō catchment

Terrestrial habitat types

- Kahikatea & Harakeke
- Kaikawaka
- Kowhai
- Matai
- Sea Rush

Marine Habitat types

- Benthic soft sediment
- Intertidal mudflats
- Intertidal rocky reef
- Subtidal rocky reef

Source: Terrestrial habitats mapped using Lucas & Associates Ecological habitats of Lyttelton Basin, developed by Colin Meurk. Marine habitats from DOC estuary mapping, verified using aerial photography.

DATA

TARGET SETTING

GAPS AND NEEDS

- Location-based guidance

  e.g. Habitat condition, indicator species, location targets, maps of significant habitats & species, key pressures
- Best practice monitoring methods
- Targets with examples of how to achieve these (prioritising action)
- Data systems for both cultural and ecological scores of conditions alongside each other

Sustainable Business Network

Thank you!

Sam Rowland

sam@sustainable.org.nz

Sustainable Business Network

GLOBAL BIODIVERSITY INFORMATION FACILITY

TONGA

SIOSIUA LATU
NODE MANAGER

11 SEPTEMBER 2024

STATUS OF THE IMPLEMENTATION OF THE GBIF

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- Aquaculture Advisory Committee provides the advice to the CEO for Fisheries. Members include: Fisheries, Environment, Trade and Economic Development, Marine & Ports and a representative from the Aquaculture Industry.

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INFORMATION FLOWS BETWEEN NATIONAL NODES AND SPREP

- Strengthen networking with SPREP team;
- Capacity building like attachment program;
- Financial Support

RECOMMENDATIONS AND CAPACITY BUILDING NEEDS

- Strengthen awareness of the benefits of the GBIF

- Conduct training and assessment needs for the relevant Ministries in Tonga;

- Mainstream biodiversity activities into stakeholder's corporate plans to be implemented;

- Increase investment in data collection and technology for continuous monitoring and effective data management.

Malo ‘aupito!

For more information, please email

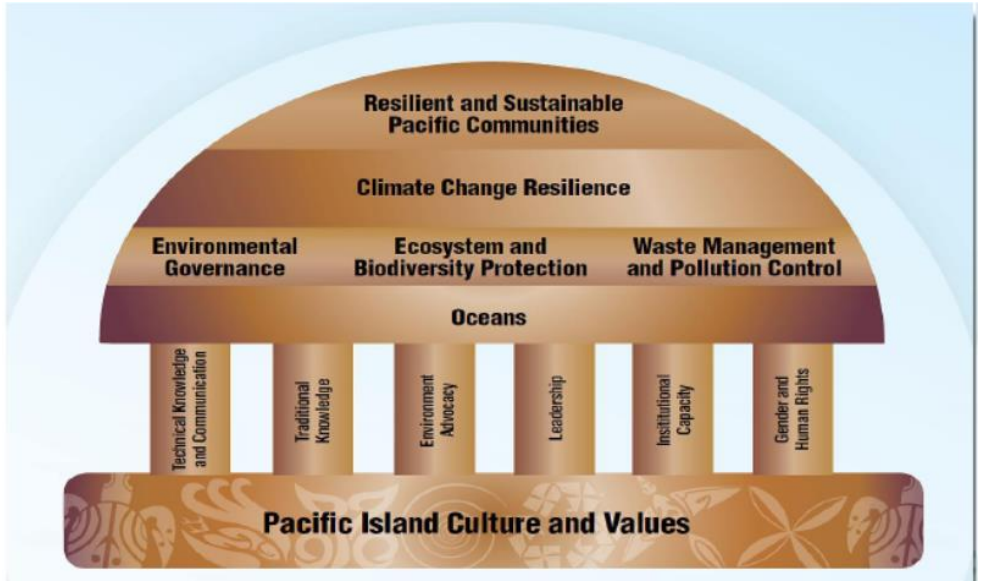
Mr. Siosiua Latu: siosiua.latu@gmail.com

SPREP
Secretariat of the Pacific Regional Environment Programme

SPREP - Biodiversity Monitoring in the Pacific

Tavita Su'a
Pacific Environment Portal Systems Developer and Analyst, SPREP

Secretariat of the Pacific Regional Environment Programme (SPREP)



- Intergovernmental organization established in 1993 based in Apia, Samoa
- Vision: "*A resilient Pacific environment sustaining our livelihoods and natural heritage in harmony with our cultures*"
- Regional hub for environmental management, sustainable development, and climate change action in the Pacific

SPREP
Secretariat of the Pacific Regional Environment Programme

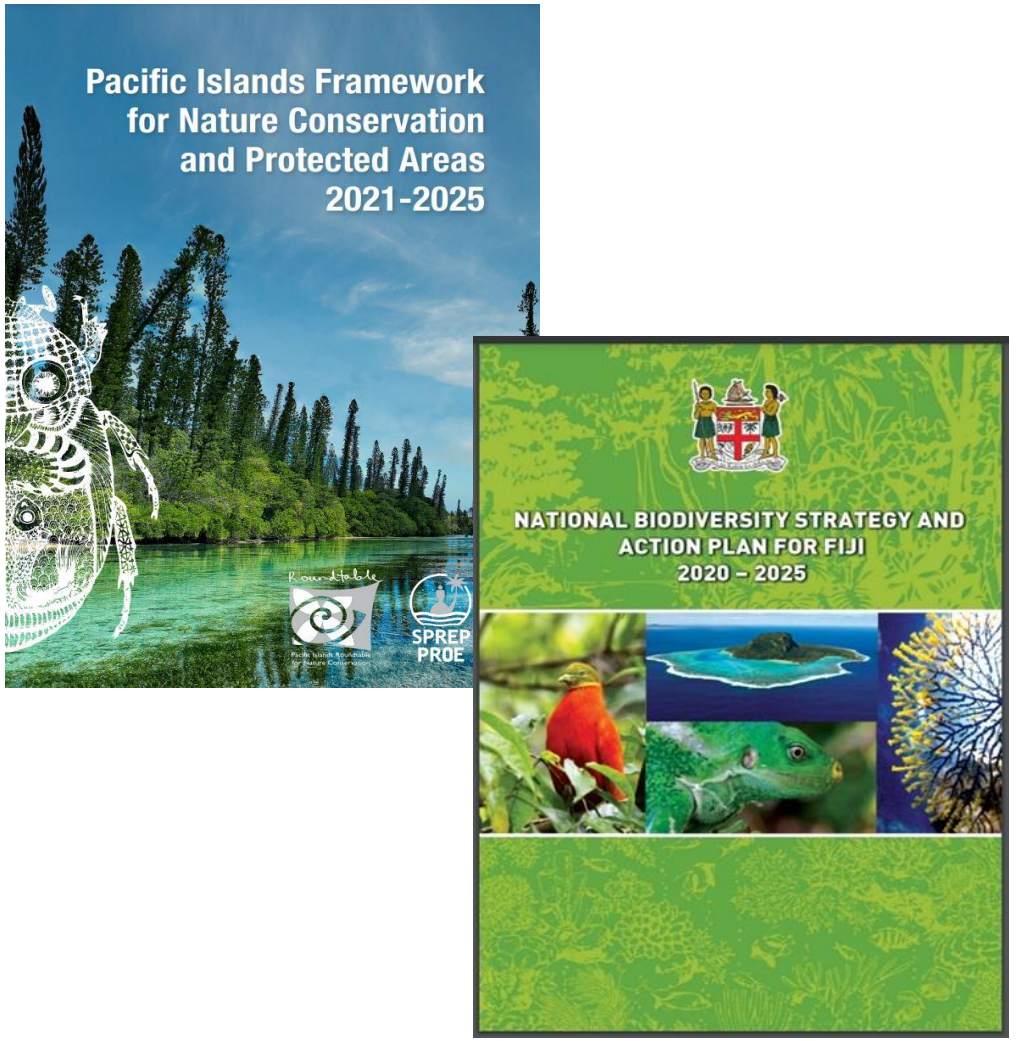
Biodiversity Monitoring – State of the Environment (SOE) Process

- A comprehensive national assessment of the state of the environment.
- Uses a suite of core environment indicators to track several environmental parameters - air quality, water quality, health of forests and marine resources.
- Uses the DPSIR framework (Drivers, Pressures, State, Impact, Response)
- Informs the development and focus of National Environment Management Strategies (NEMS) and National Development Plans/Strategies
- Should be completed/updated every 5 years (ideally).
- Regional report (SOEC) developed in 2020 - examines the status and trends of 34 regional environment indicators in 22 Pacific island countries and territories.

SPREP
Secretariat of the Pacific Regional Environment Programme

Links to regional frameworks and national strategies

- 2021-2025 Framework is a broad guiding framework - makes measuring progress significantly more difficult.
- The Framework deliberately avoids establishing quantifiable targets
- this is the right/responsibility of PICTs as part of their engagement with the CBD and their own national planning processes.
- Capacity constraints and avoidance of duplication
- Establishing systems for measuring progress - an enduring challenge for all previous Pacific conservation frameworks and action strategies.



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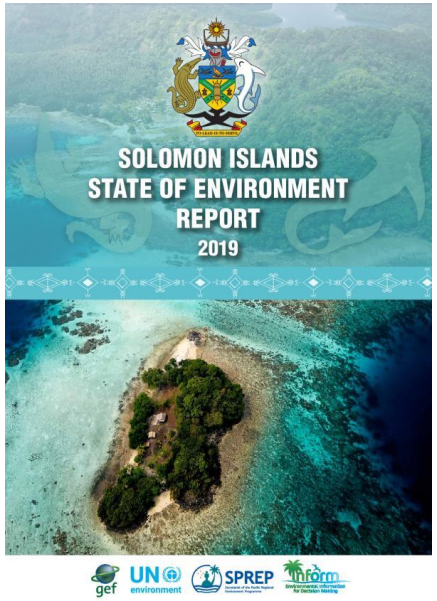
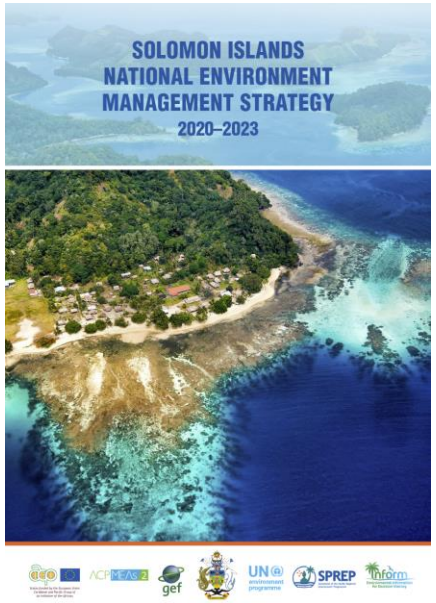
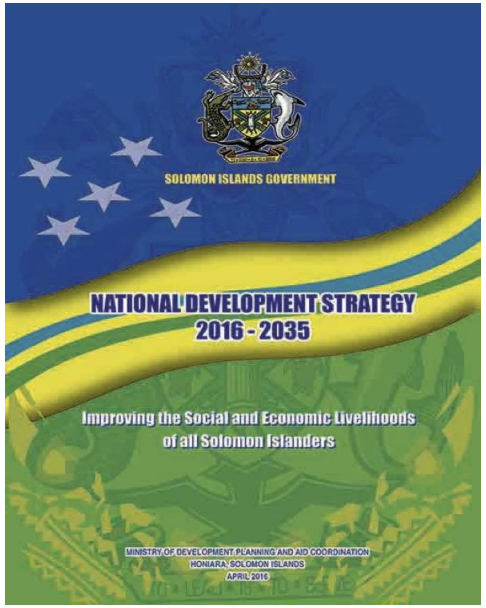
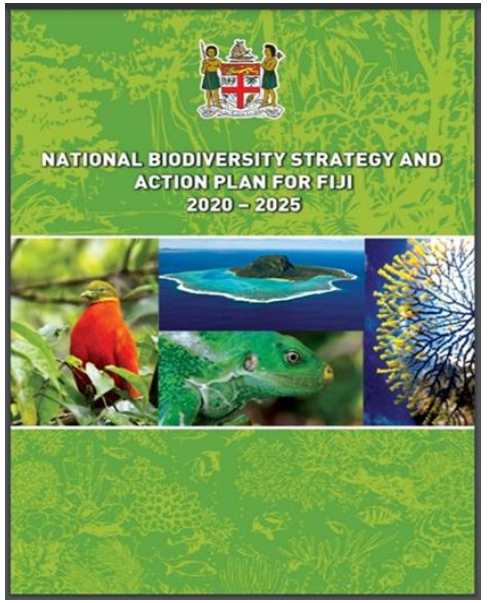
Secretariat of the Pacific Regional Environment Programme

Streamlining monitoring and reporting









SUSTAINABLE DEVELOPMENT GOALS

CBD

SoE → NEMS → NSDPs (National Strategic Development Plans) → International frameworks – SDGs, MEAs

Environmental Monitoring and Reporting tools

SPREP
Secretariat of the Pacific Regional Environment Programme

PACIFIC REGIONAL ENVIRONMENT INDICATOR	REGIONAL GOALS FOR THE ENVIRONMENT	FRAMEWORK FOR NATURE CONSERVATION	SDGs	GLOBAL CONVENTION(S)	REGIONAL COMMITMENTS	GBF
Wetlands - % cover of wetlands, mangroves, and seagrass	Objectives 2.1, 2.2	Objective 4	14.2, 14.5	Ramsar Convention on Wetlands SAMOA Pathway (Article 58e)	Noumea Convention	5, 15
Marine protected areas - % of EEZ formally protected for conservation.	Objectives 2.1, 2.2, 2.3	Objectives 3, 4	SDGs 6.6, 12.2, 14.2, 14.5, 15.1, 15.2, 15.5	UNCCD, Underwater Cultural Heritage Convention, SAMOA Pathway (58, 90), BBNJ Treaty	Noumea Convention	11
Invasive species under management or eradicated - % of invasive species eradicated from defined areas or under formal management.	Objectives 2.1, 2.3, 2.4	Objective 5	SDGs 6.6, 15.1, 14.c, 15.8	UN Convention to Combat Desertification SAMOA Pathway 95	Noumea Convention	9

SPREP - Regional Support Centre for the Pacific

- Capacity building and technical and scientific cooperation (TSC) support provided by SPREP on GBF:
  - Training Initiatives
  - Peer-to-Peer Knowledge Transfer
  - Joint Research Programmes
  - Partnership and Network Building
  - Technical assistance for CBD national reporting, regional preparations and engagement at the CBD COPs
- Biodiversity Data Needs
  - Alignment of regional and national environmental indicators to the GBF
  - Review of existing frameworks and reporting modalities on national priorities

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