GBIF Overview

GBIF-NZ Workshop 25 August 2025

25 August 2025

GBIF Global Biodiversity Information Facility

What is GBIF?

Intergovernmental network and data infrastructure

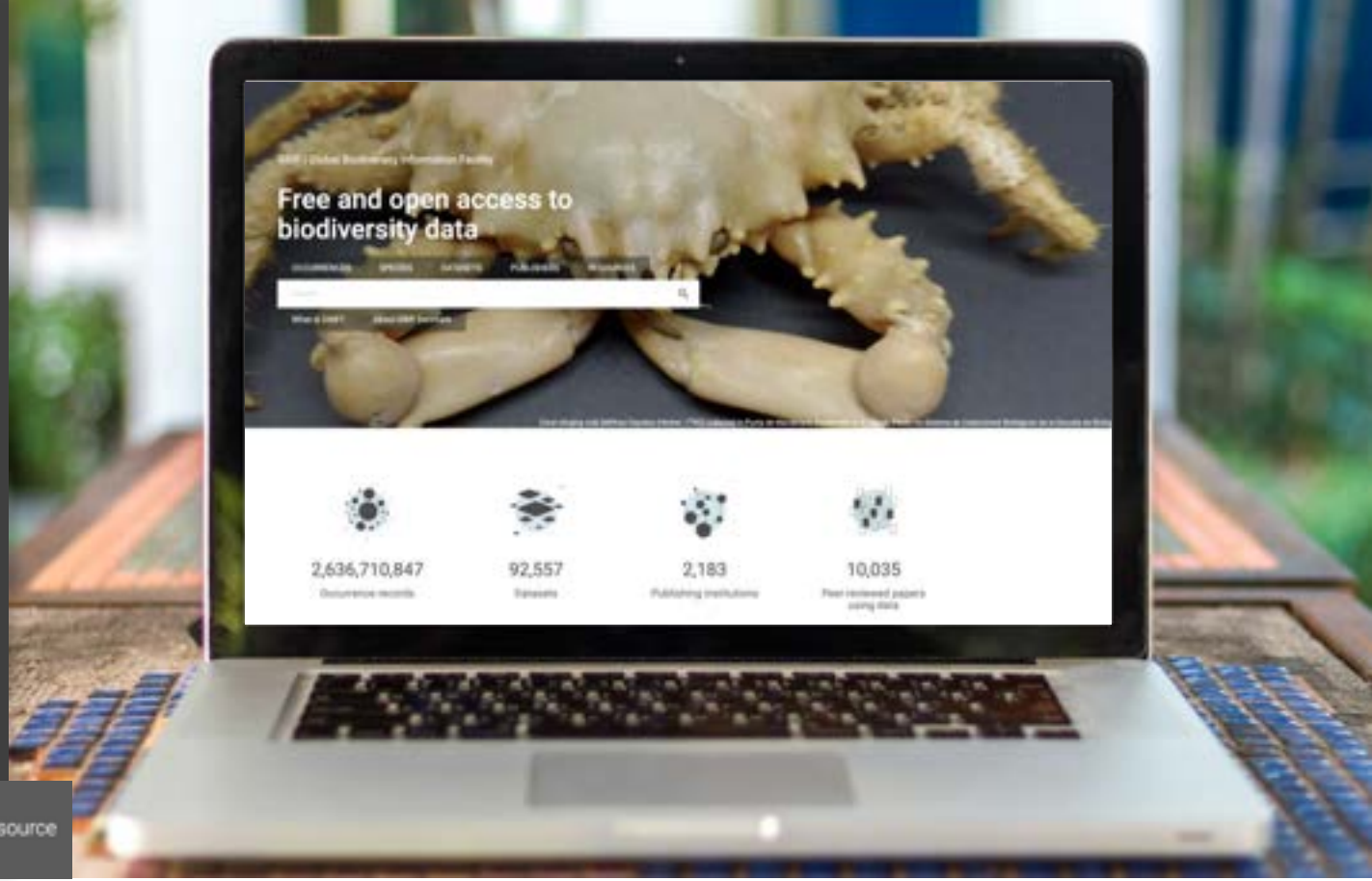
Provides anyone, anywhere, free and open access to data about all types of life on Earth

Voluntary collaboration through Memorandum of Understanding

Participant nodes, Secretariat in Copenhagen, DK

GLOBAL CORE BIODATA RESOURCE

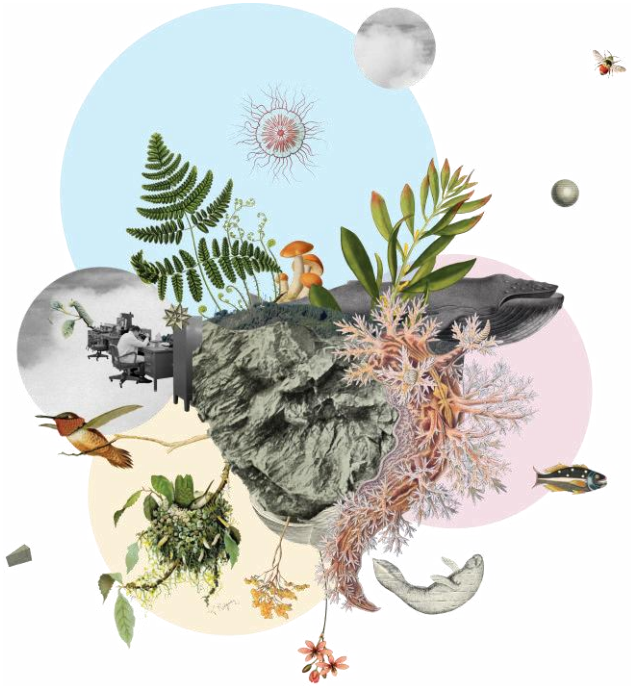
GBIF is a Global Core Biodata Resource



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

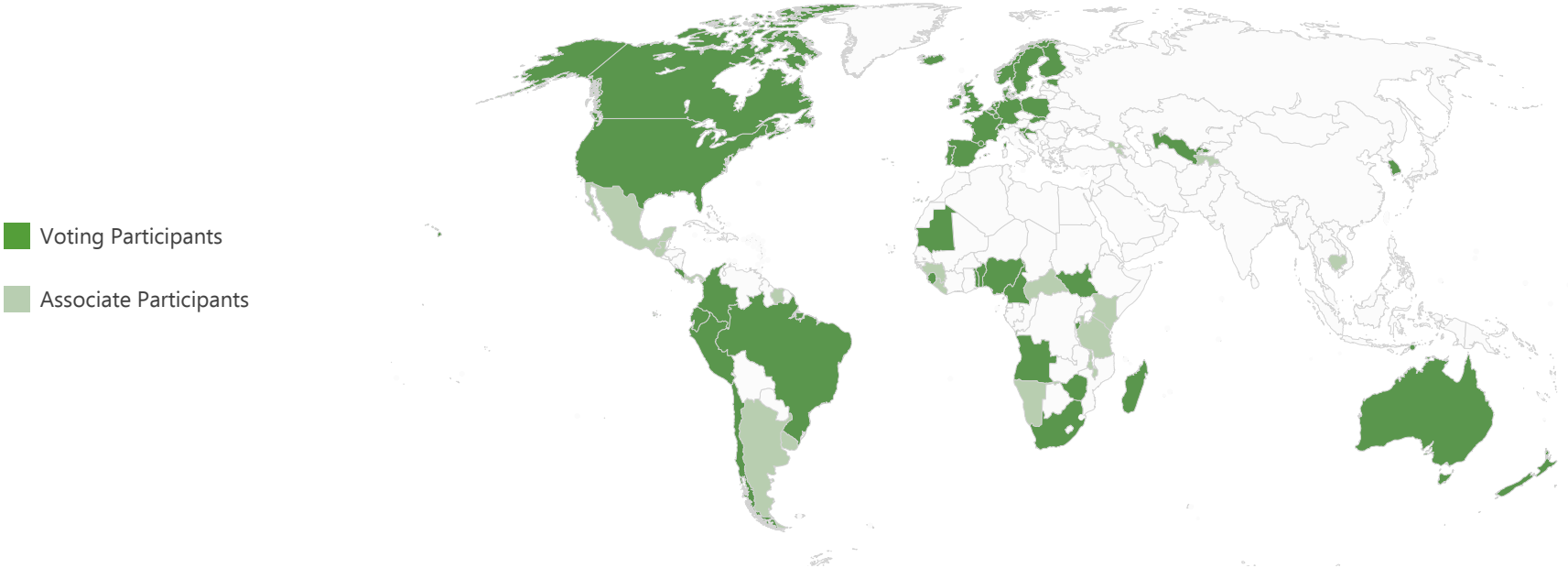
• Vision

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



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

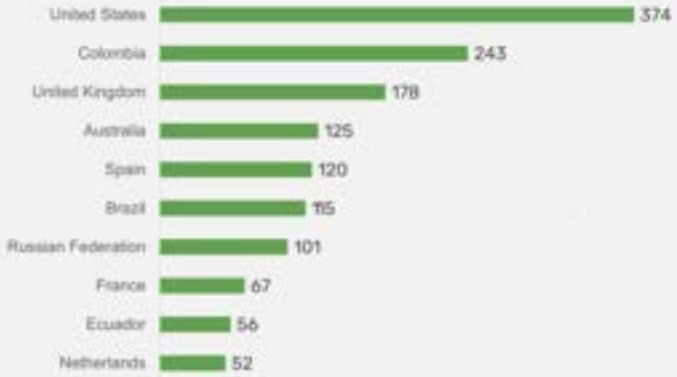
GBIF Participant countries



https://www.gbif.org/the-gbif-network

GBIF network of data publishing institutions

146 countries/areas with institutions sharing data through GBIF

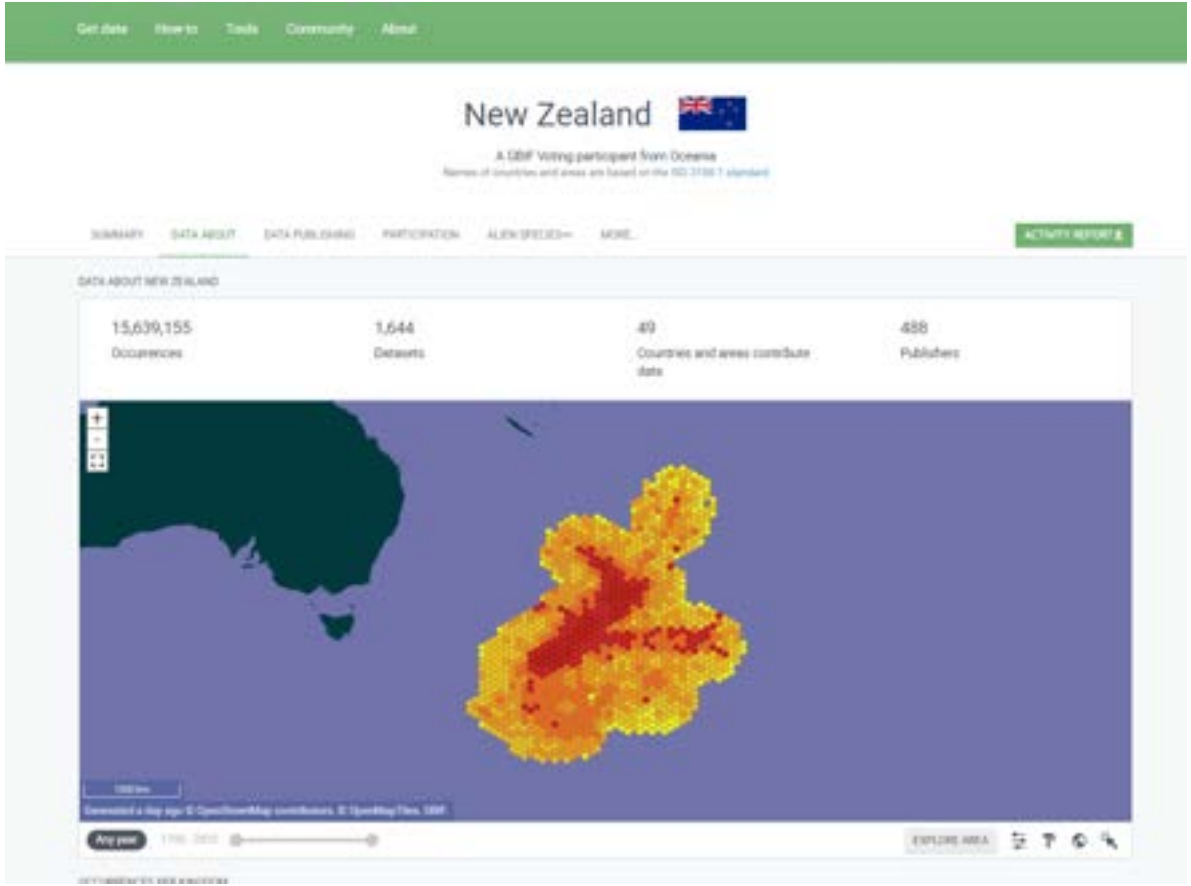


https://www.gbif.org/publisher/search

GBIF Global Biodiversity Information Facility

Free and Open Access to Biodiversity Data

GBIF New Zealand



GBIF New Zealand

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

- **Lead Agency: MBIE:** Jane Baxter
- Leads GBIF participation on behalf of the NZ Government

Environment Canterbury Regional Council
Kaunihera Taiao ki Waitaha

- **Head of Delegation:** Meredith McKay
- Provides national leadership, ensures commitments are met, and represents New Zealand's position in GBIF decision-making.

BIOECONOMY SCIENCE INSTITUTE

- **Node Manager:** Aaron Wilton
- Connects stakeholders, mobilises biodiversity data, and drive technical and community collaboration across the GBIF network

GBIF New Zealand

MINISTRY OF BUSINESS, INNOVATION & EMPLOYMENT
HĪKINA WHAKATUTUKI

MBIE Strategic Science Investment Fund - Infrastructure

Why:

- Enables excellent science through access to world-class infrastructure
- Delivers benefits to agencies, councils, CRIs, and universities
- Single portal access makes data searchable and shareable
- Cost savings – no need for each organisation to host data

What:

1. Funds NZ's annual GBIF membership @ $45K NZ
2. Appoints NZ representatives
3. Supports programme delivery
4. Funds Node Manager attendance at global meetings and some tech activities

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1. Node Manager time - BIS
2. HoD time and travel - ECAN

BIOECONOMY SCIENCE INSTITUTE

Environment Canterbury Regional Council
Kaunihera Taiao ki Waitaha

GBIF Oceania

GBIF also has six regional networks.

Purpose
- Coordinate and support collaboration
- Build capacity and alignment
- Amplify regional voice in GBIF governance

GBIF Oceania;
- Australia
- New Zealand
- SPREP
- Tonga
- *Timor-Leste

GBIF Global Role

Interconnected collaboration with leading biodiversity and sustainability organisations

GEO BON
Group on Earth Observations Biodiversity Observation Network

Uses GBIF data to model trends and gaps in biodiversity observations.

Convention on Biological Diversity

Collaborates with GBIF on policy frameworks and biodiversity targets.

THE IUCN RED LIST OF THREATENED SPECIES™

Draws on species observations essential for assessments

GBIF Global Biodiversity Information Facility

Food and Agriculture Organization of the United Nations

Supports agrobiodiversity data sharing and sustainable development integration.

TNFD Taskforce on Nature-related Financial Disclosures

GBIF supports businesses' growing interest in nature-related data public data facility

GBIF contributes data essential for SDG tracking and reporting (especially SDG 15).

ipbes
Science and Policy for People and Nature

Draws on GBIF data for global biodiversity assessments and indicators.

GBIF and The Convention on Biological Diversity (CBD)

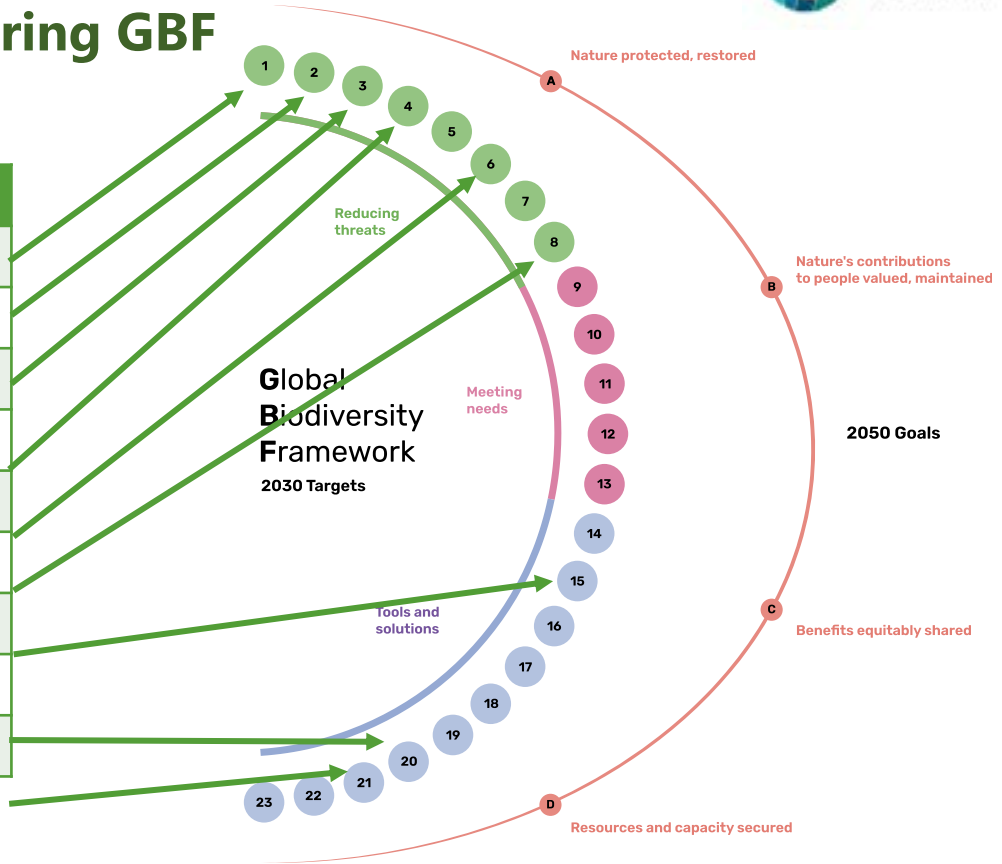
The Convention on Biological Diversity (CBD) has issued Notification 2025-037, encouraging member countries to join or strengthen engagement with the Global Biodiversity Information Facility (GBIF) to aid in monitoring and implementing the Kunming-Montreal Global Biodiversity Framework (GBF).

Convention on Biological Diversity

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

One example
Headline indicator 6.1: rate of invasive alien species establishment

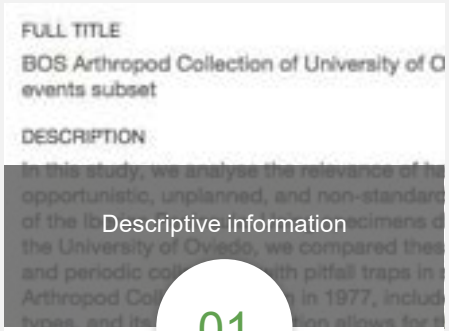
- Addresses component of Target 6 to reduce the rate of IAS introduction and establishment by 50 per cent by 2030
- Methodology developed by McGeoch et al. via GEO BON
- Depends on GRIIS and GBIF to estimate date of establishment via first records of invasive species per country
- Factsheet - Indicators for the Post 2020 Global Biodiversity Framework | Indicator Repository
- **Relies on data to GBIF**

https://doi.org/10.1111/conl.1298

How GBIF works

GBIF Infrastructure

Data richness levels supported by GBIF



Descriptive information

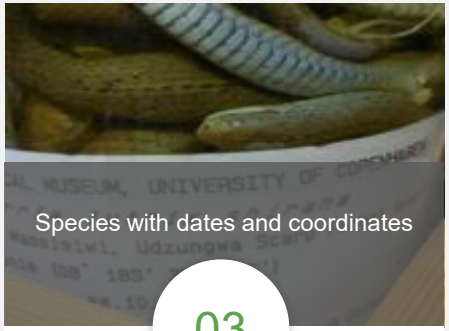
01

Dataset metadata

Species in countries and areas

02

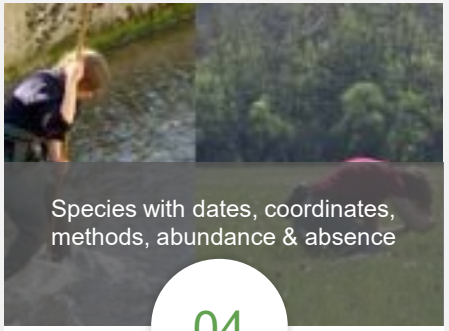
Species checklists



Species with dates and coordinates

03

Occurrence-only data

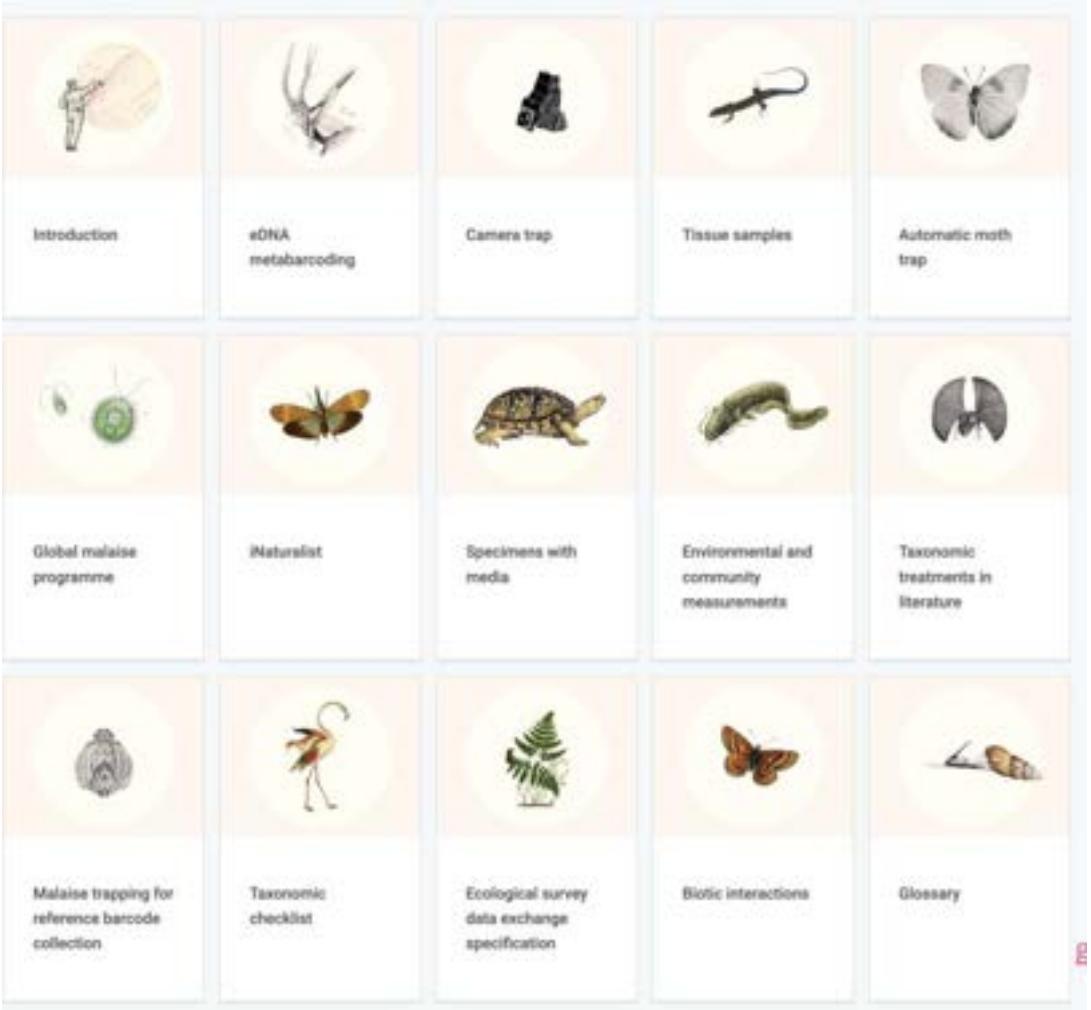


Species with dates, coordinates, methods, abundance & absence

04

Sampling-event data

Data Types


Introduction
eDNA metabarcoding
Camera trap
Tissue samples
Automatic moth trap
Global malaise programme
iNaturalist
Specimens with media
Environmental and community measurements
Taxonomic treatments in literature
Malaise trapping for reference barcode collection
Taxonomic checklist
Ecological survey data exchange specification
Biotic interactions
Glossary

Guidance and Documentation

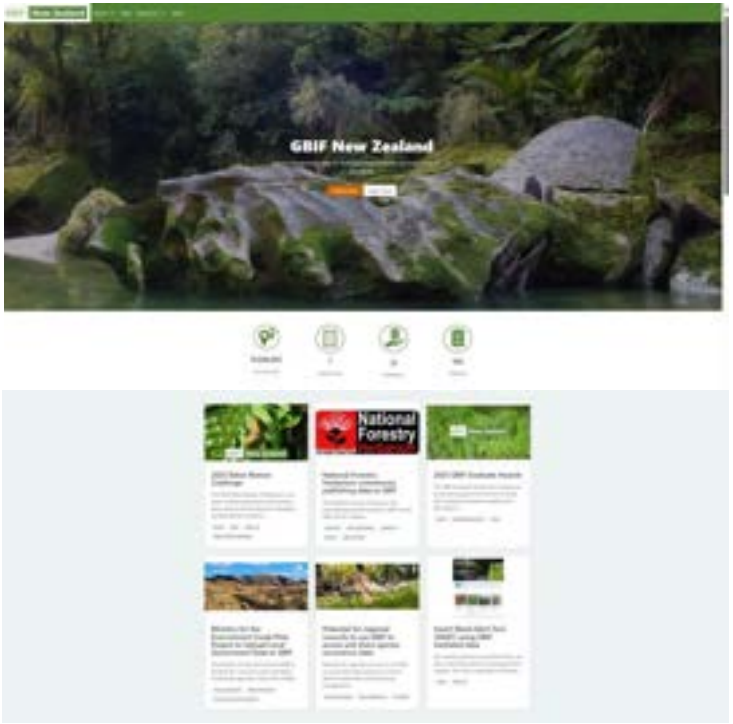
Generalizing Sensitive Species Occurrence Data

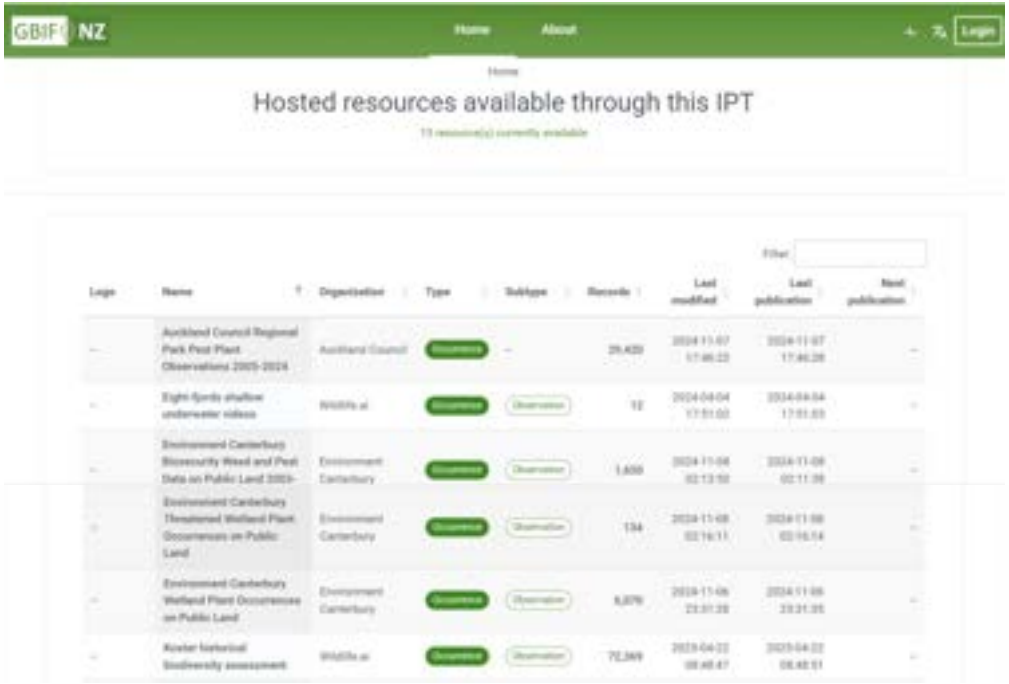
Georeferencing Best Practices

Georeferencing Quick Reference Guide

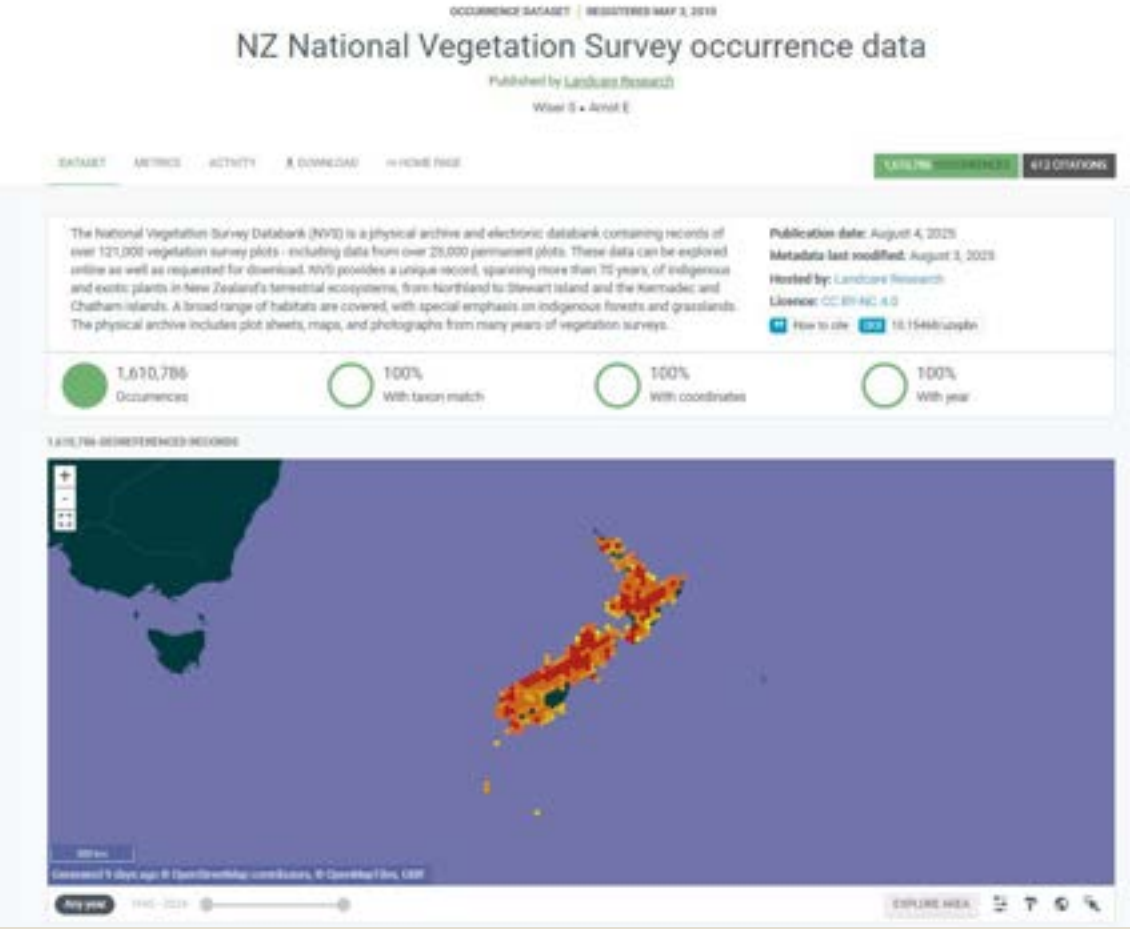
Guide to cleaning biodiversity data with OpenRefine (available in Spanish only)

Publication





One example


NZ National Vegetation Survey occurrence data
Published by Landcare Research
DATASET
METRICS
ACTIVITY
DOWNLOAD
HOME PAGE
612 CITATIONS
The National Vegetation Survey Databank (NVS) is a physical archive and electronic databank containing records of over 121,000 vegetation survey plots - including data from over 29,000 permanent plots. These data can be explored online as well as requested for download. NVS provides a unique record, spanning more than 70 years, of indigenous and exotic plants in New Zealand's terrestrial ecosystems, from Northland to Stewart Island and the Kermadec and Chatham islands. A broad range of habitats are covered, with special emphasis on indigenous forests and grasslands. The physical archive includes plot sheets, maps, and photographs from many years of vegetation surveys.
Publication date: August 4, 2025
Metadata last modified: August 3, 2025
Hosted by: Landcare Research
Licence: CC BY-NC 4.0
How to cite
1,610,786
Occurrences
100%
With taxon match
100%
With coordinates
100%
With year
Any year
EXPLORE AREA

In summary GBIF Provides

- Standards
- Federation
- Repository
- Data access
- Tools
- Data use tracking
- Citation tracking
- A community of practice

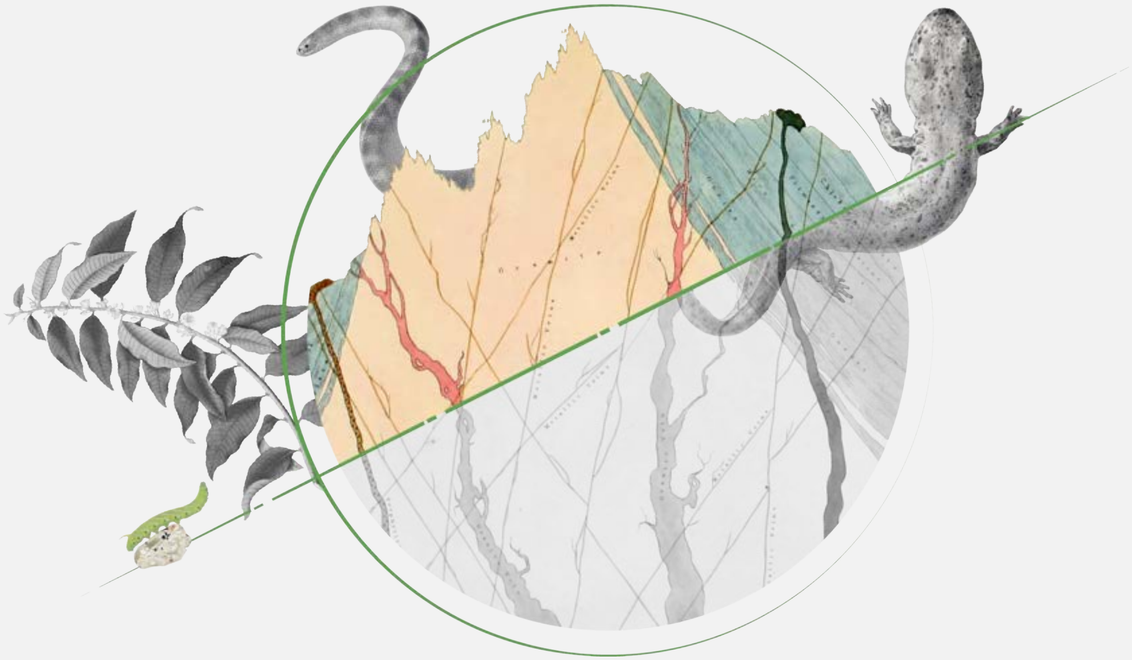
Questions?

The value of GBIF

https://www.gbif.org/value

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

Economic dividend from GBIF -mediated data

For every €1 invested in GBIF
there are €3 of benefits to users
and up to €12 to society

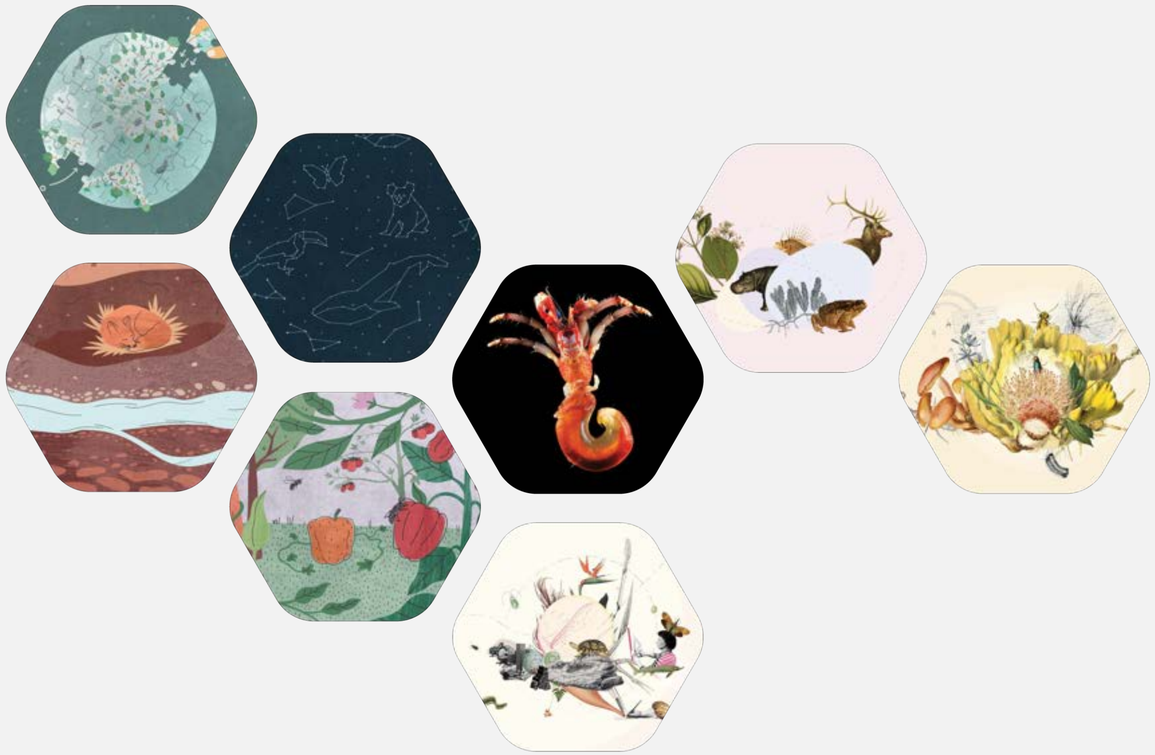
https://www.gbif.org/value

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

Thematic communities



Fostering focused collaboration and knowledge exchange among experts in specific biodiversity domains, these communities serve as dynamic hubs where people come together to address shared challenges.

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

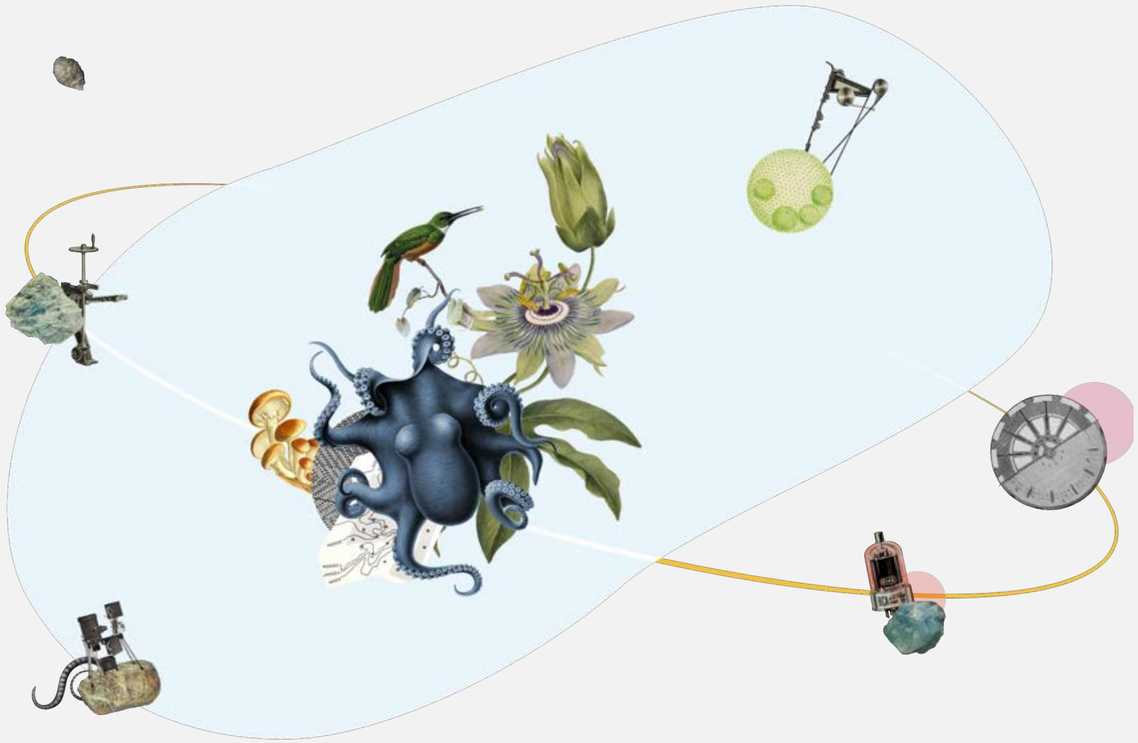
Capacity enhancement

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

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.”

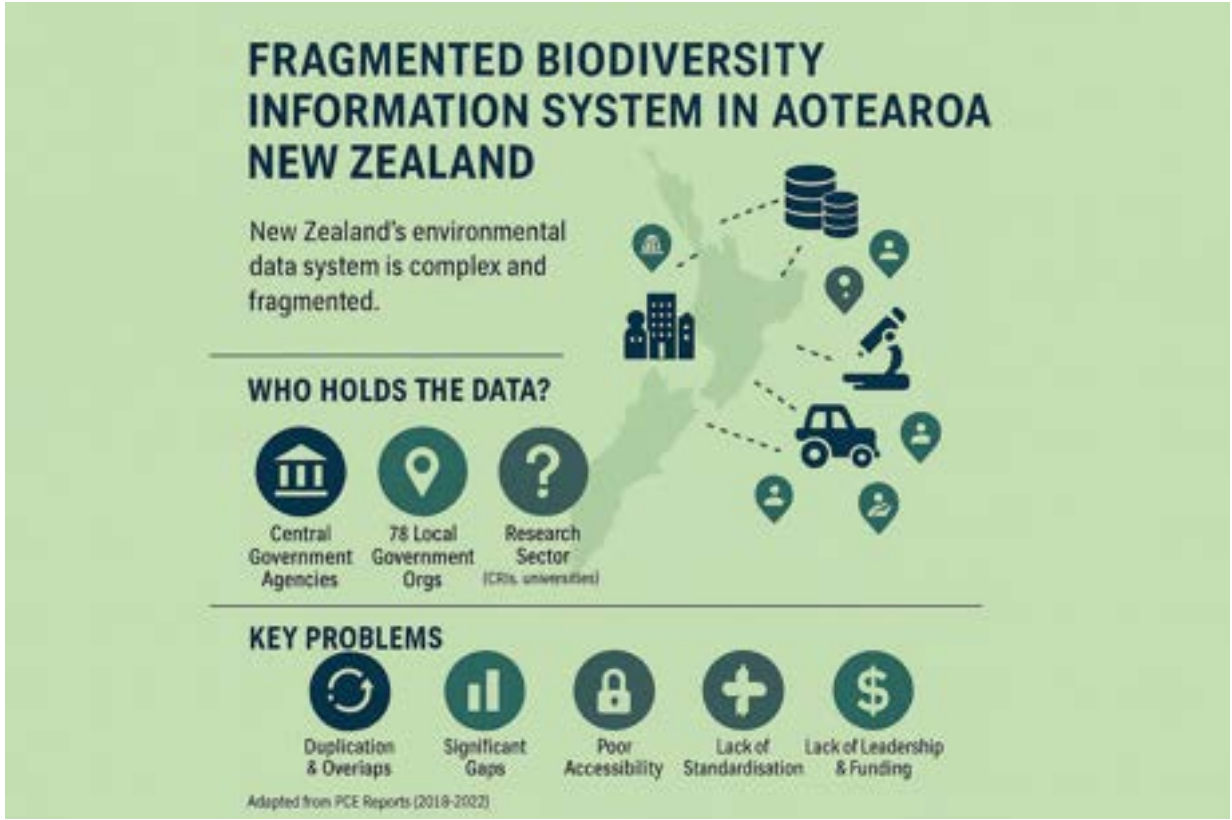
Committee on Data of the International Science Council (CODATA)

https://www.gbif.org/value

GBIF - Current NZ issues and emerging needs

GBIF Global Biodiversity Information Facility

Current Biodiversity Data Challenges



Recent Example

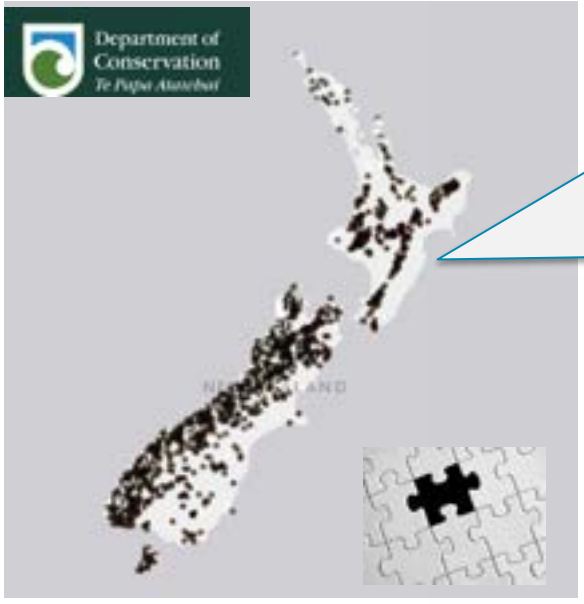
Abundance and distribution of ungulates

our-environment-2025.pdf

Ministry for the Environment
Manatū Mō Te Taiao

Stats NZ
Tatauranga Aotearoa

Hooved animals increased in occupancy (distribution) on public conservation land



Data gaps across domains limit understanding of environmental systems and hinder effective modelling and decision-making.

Auckland Council
Kaunihera o Tāmaki Makaurau

Otago Regional Council

Environment Canterbury Regional Council

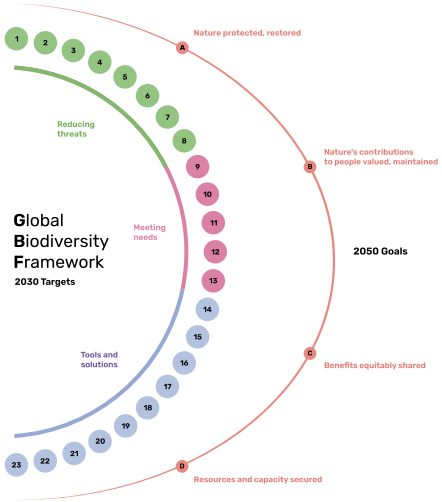
Taranaki Regional Council

Domestic drivers

International Drivers

Kunming-Montreal
GLOBAL BIODIVERSITY FRAMEWORK

Monitoring Framework for the Kunming-Montreal Global Biodiversity Framework

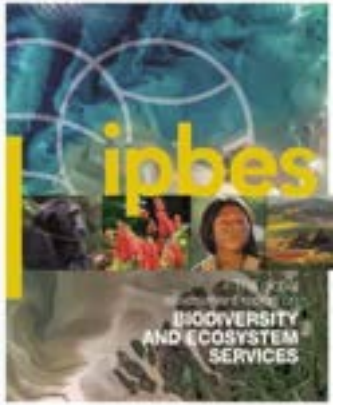


SUSTAINABLE DEVELOPMENT GOALS

BON IN A BOX

RED LIST

IUCN



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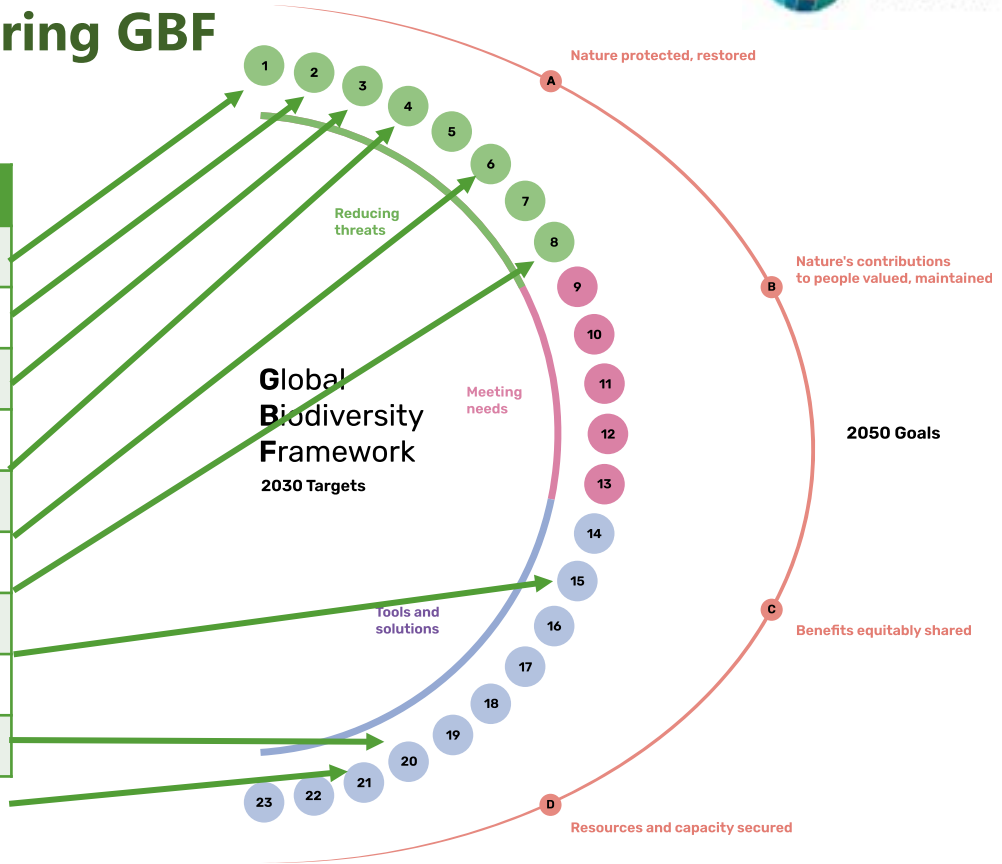

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- **Relies on data to GBIF**

https://doi.org/10.1111/conl.12981

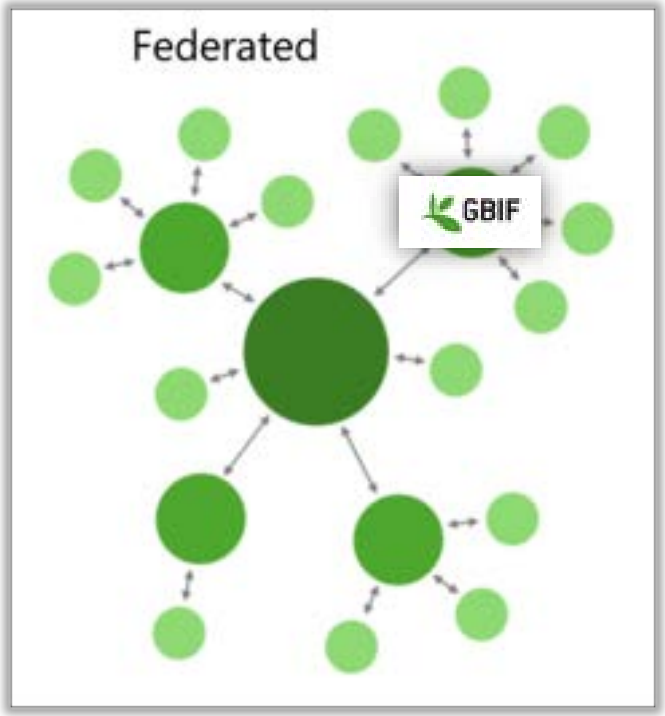
Our Q – Can GBIF help to…

Strengthen biodiversity knowledge and reporting through a trusted, global platform?

We think so as

- Proven Global Infrastructure - avoids reinventing the wheel
- Federation of Data
- Free and Open Access
- Standards & Best Practices
- Full-Service Ecosystem
- Promotes national coordination/collective action

We look forward to exploring this with you today



Pātai | Questions?

GBIF Strategy and Mobilisation Workshop

Geoffroy Lamarche – Chief Science Advisor

25 August 2025

Parliamentary Commissioner for the Environment
Te Kaitiaki Taiao a Te Whare Pāremata

Parliamentary Commissioner for the Environment
Te Kaitiaki Taiao a Te Whare Pāremata

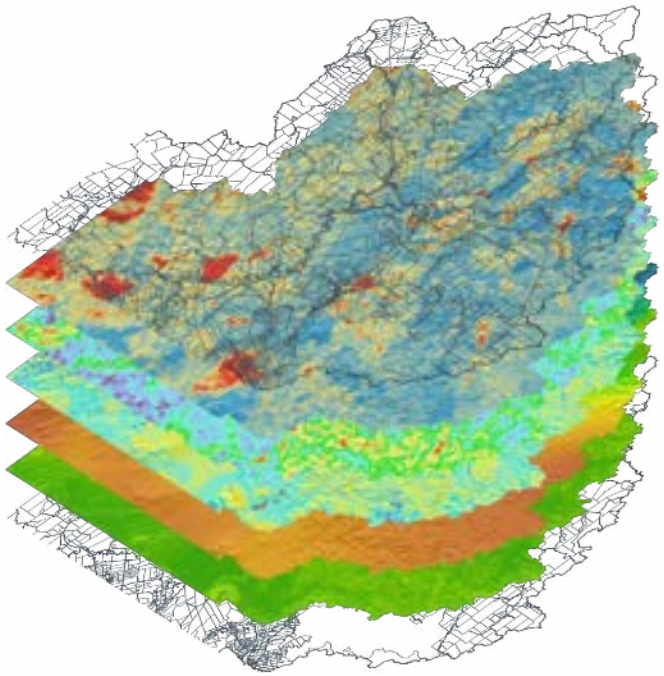
Dataset

→ **Database**

→ **Model output**

→ **Data portal**

→ **Collection**



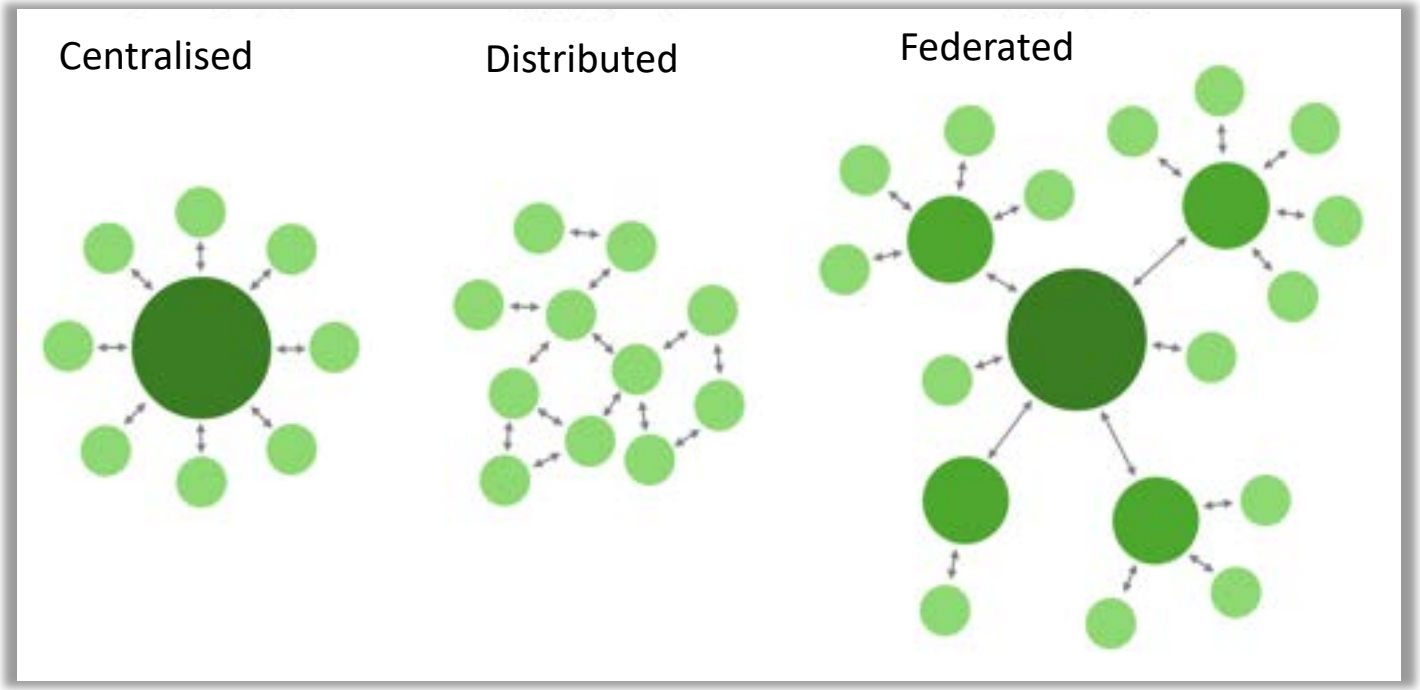
Shortcomings of New Zealand's environmental information system

- Complex, Fragmented and Dispersed
- Plagued by duplication and overlaps
- Plagued by significant gaps
- Opaque
- Poorly accessible
- Lacking in strong leadership
- Lack of standardisation or compatibility

What makes a well-functioning data ecosystem?

- ✓ Reliable, scalable and maintainable
- ✓ Trustable
- ✓ Quality assurance processes
- ✓ Data sovereignty

- ❑ Governance
- ❑ Infrastructures
- ❑ Engagement
- ❑ Technology



Parliamentary Commissioner for the Environment
Te Kaitiaki Taiao a Te Whare Pāremata

GBIF – NZ; History and work to date

GBIF Global Biodiversity Information Facility

GBIF New Zealand 2001–2021

- 2001 – GBIF Formed and NZ joins
- Significant progress in early years
- 2004 – New Zealands main collections and databases mobilized
- 2004- NZ hosts GBIF Global meeting and GB9
- 2005 – Dr David Penman elected GBIF Chair

- By 2021 New we had 7 publishers and 141 datasets!
- And we had plateaued

GBIF New Zealand Reset 2022–present

- 2022 – Workplan reset under current HoD & Node Manager
- 2023 – GBIF releases Economic valuation - Oceania lowest data use/downloads

Table A.4 Summary of data downloads by region, 2021

Region	Number of downloads
North America	41,675
Europe	69,127
Latin America	73,812
Asia	56,907
Africa	7,059
Oceania	4,438
Total	253,029

2023 Gap Analysis

15,036,460
Occurrences

7
Species lists

15
Publishers

148
Datasets

Top data contributors about biodiversity in New Zealand

Rank	Country or area	No. of occurrences
1	New Zealand	10,939,768
2	United Kingdom	1,280,396
3	United States of America	570,307
4	Australia	142,952
5	Germany	58,056
6	International organization or unknown country	53,757
7	Estonia	52,362
8	Netherlands	39,179
9	Sweden	19,207
10	France	16,729

Table 1. Ranking of countries or areas contributing data about New Zealand

Top datasets contributing data about New Zealand

EOD – eBird Observation Dataset. *5,070,851 occurrences in New Zealand.* (Last updated 20 Aug 2023)

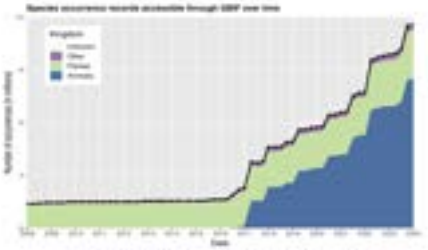
NZ National Vegetation Survey occurrence data. *1,578,543 occurrences in New Zealand.* (Last updated 5 Jun 2023)

iNaturalist Research-grade Observations. *1,236,027 occurrences in New Zealand.* (Last updated 2 Jan 2024)

New Zealand fish and squid distributions from research bottom trawls 1964-2008. *488,166 occurrences in New Zealand.* (Last updated 14 Feb 2020)

New Zealand research tagging database. *405,406 occurrences in New Zealand.* (Last updated 8 Aug 2018)

▸ Data mobilization



Number of records published by institutions in New Zealand, categorized by kingdom

Most recent datasets from publishers in New Zealand

First record of male freshwater eels (Anguilla dieffenbachii) caught at sea. *Published by The National Institute of Water and Atmospheric Research (NIWA)*
https://doi.org/10.15468/pvnc7n

Recent (post-1930) changes in the extent of subtidal seagrass (Zostera muelleri) beds of the eastern Bay of Islands, New Zealand. *Published by Southwestern Pacific Ocean Biogeographic Information System (OBIS) Node*
https://doi.org/10.15468/a5y8wt

Three recorded Ostreopsis spp. (Dinophyceae) in
to 1997. *Published by The National Institute*
https://doi.org/10.15468/h3su5n

New Zealand Arthropod Collection - Sym
https://doi.org/10.15468/g9uhgy

New Zealand Garden Bird Survey
https://doi.org/10.15468/b8mn6z

New Zealand Garden Bird Survey 20
https://doi.org/10.15468/c2mkxk

Biggest Mobilisation & Use Gaps??

Central Govt
Regional Govt
Private Sector

GBIF Country Report NZ

GBIF

2023 GBIF NZ Work Programme

Deloitte's report

Gap Analysis

DRAFT Strategy – Roadmap - workplan

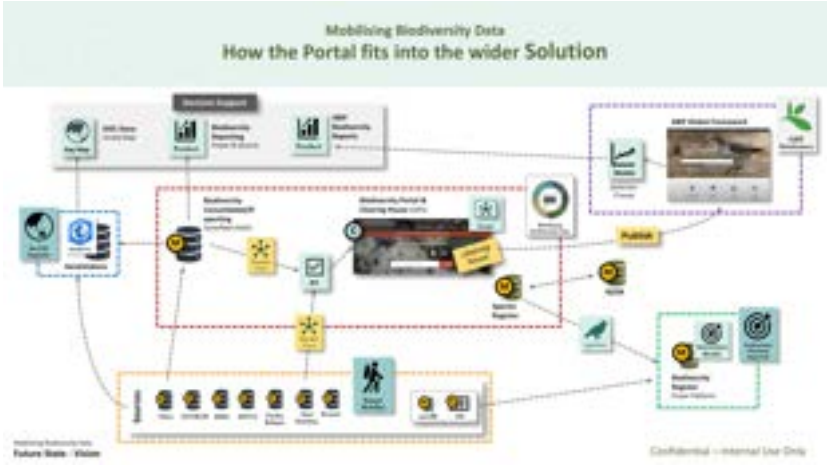
Kickoff - Strategic alliances (e.g. ANZBS - DOC/MFE/MPI)

Priority Gap filling Projects

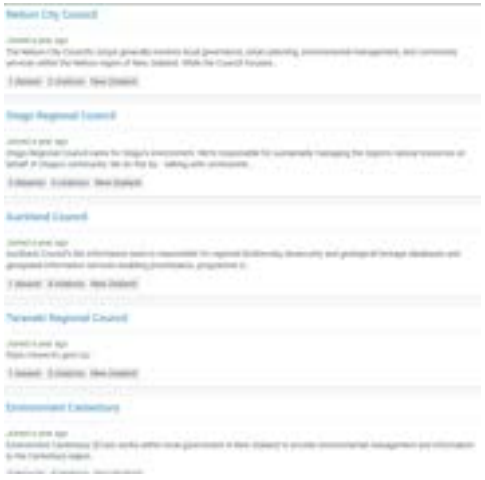
Priority Gap filling Projects

- DOC Mobilisation Bio Data (& Clearing House Mechanism)
- MFE / Reg Councils
- MBIE /Envirolink
- MPI/DOC weeds (SWAT)
- DOC Tier 1 & MFE LUCAS
- DOC/MFE Monitoring Network Catalogue
- DOC & PF2050
- MFE/DOC/NZOR – Checklists

Priority data:monitoring & eDNA



Progress made



- ✓ GBIF-NZ hosted portal
- ✓ IPT – Mechanism
- ✓ 11 new publishers – Regional councils and DOC
- ✓ Many more occurrences records

GBIF NZ Work Programme

Our Strategic initiatives

- ✓ GBIF Oceania Regional meeting
- ✓ GB31 – NZ interventions approved
  - ✓ Working group on Indigenous Data Governance and
  - ✓ Local Context pilot

Partner Perspectives – Next Steps

- MFE
- Regional Councils
- MPI
- DOC
- OBIS

Pātai | Questions?

GBIF Future Plans and Opportunities

25 August 2025

GBIF Global Biodiversity Information Facility

GBIF New Zealand Priority Areas & Activities

- Aligned with the **GBIF Global Work Programme**.
- Translates global priorities into a **New Zealand-specific plan**.

- Ensures NZ's biodiversity data mobilisation and use reflects both **international obligations** and **domestic needs**.

GBIF New Zealand Priority Areas & Activities

Priority Area 1: **Science and Research**	Improving biodiversity evidence for scientific research and understanding
Priority Area 2: **Policy and Partnerships**	Developing partnerships that benefit policy and society
Priority Area 3: **Community and Capacity**	Developing the GBIF network to meet future needs and challenges
Priority Area 4: **Infrastructure and Data**	Products; Maintain and evolve infrastructure to advance biodiversity-related knowledge

Science and Research

Mobilize and use biodiversity data in priority thematic areas

Initial focus on those supporting regional, national and international reporting (e.g., RMA, ANZBS, CBD-GBF)

Advance biodiversity modelling.

Scope modelling pilots using GBIF data cubes and workflows (e.g. species distribution - Bon in a Box).

Increase capacity to share survey and monitoring data.

Mobilise monitoring datasets (E.g. National Biodiversity and Carbon Monitoring programme (Tier 1/LUCAS))

Improve integration of taxonomic data - DNA/eDNA data/Camera/ARD....

Mobilise eDNA data (E.g. Wilderlabs) working with Oceania Instance of MDT

Policy and Partnerships

Support the science-policy interface

Develop a strategy with agencies for GBIF NZ contribution to national efforts to fulfill the commitments within the Kunming-Montreal GBF

Kunming-Montreal GLOBAL BIODIVERSITY FRAMEWORK

Develop specific indicator/use-case pilots with agencies (e.g., Target 6 and GRIIS lists)

Target 6
Reduce the Introduction of Invasive Alien Species by 50% and Minimize Their Impact

GRIIS
GLOBAL REGISTER OF INTRODUCED AND INVASIVE SPECIES

Support nature-positive outcomes for business, finance, and production sectors.

Develop specific NZ pilots; NZ Biodiversity Credits, TNFD and EIAs data publication.

Community and Capacity

Support and strengthen nodes.

Expand GBIF-NZ Node capacity to provide technical, coordination, and governance support.

Develop skills and capacity

Develop Ambassador programme —sector representatives to champion GBIF-NZ in their domains.

Expand and strengthen participation.

Explore funding and investment (direct and in-kind) to support mobilisation of priority datasets (collective action)

Infrastructure and Data Products

Strengthen support services for publishers and users

Indigenous Data Governance (IDG) guidance: Publish GBIF guidance / develop NZ-specific guide

CARE Principles for Indigenous Data Governance

Local Contexts labels; Support NZ pilot testing application of Local Contexts Traditional Knowledge and Biocultural Labels

Local Contexts

Biocultural Labels

Traditional Knowledge Labels

Strengthen support services for publishers and users cont...

- Sensitive Data: develop NZ-specific guidance for managing sensitive species data.
- Intellectual Property & Licensing: create NZ-specific guidance to support clear licensing and IP management.

Current Best Practices for Generalizing Sensitive Species Occurrence Data

ChecklistBank adoption; develop data pipelines for NZ taxonomic checklist to ChecklistBank

Pātai | Questions?

Ministry for the Environment
Manatū Mō Te Taiao

MfE perspective and priorities on GBIF and environmental data systems

Cross-Agency Workshop – 25th August 2025

Our Why?

Ministry for the Environment
Manatū Mō Te Taiao

Our strategic priority is improving environmental evidence and reporting as a foundation for better decision-making.

We want i**nteroperability, consistency, and accessibility…**

So GBIF is the natural ready-made solution for biodiversity data

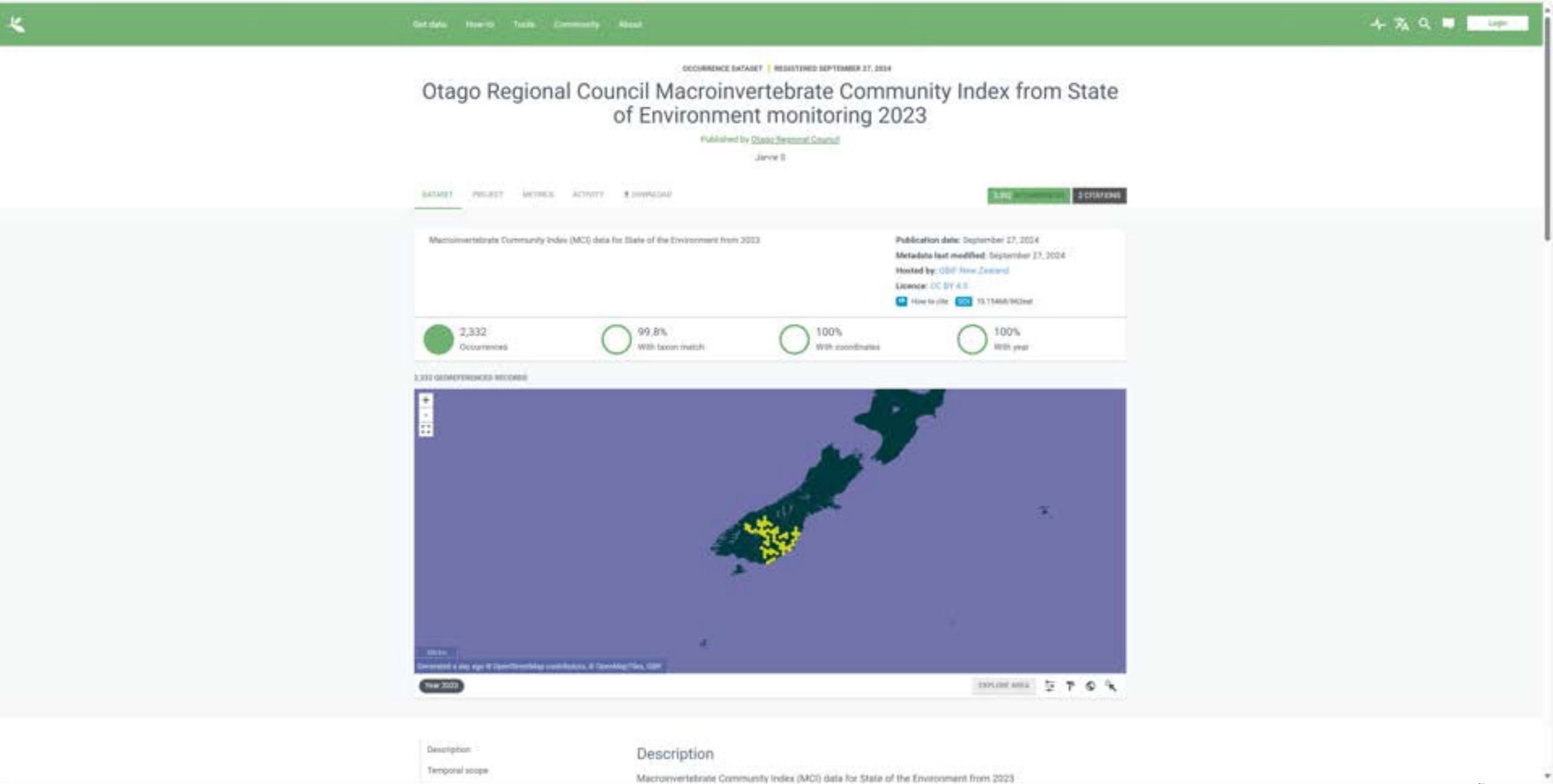
Active work areas requiring good data:

- Environmental reporting (including carbon accounting)
- Biodiversity Credits Market Policy
- RM including NPS-IB, NPS-FM, and new system development (limits)
- Red-listing (of naturally uncommon ecosystems)

What we have done so far:

What we have done so far? The Council Pilots

Council	Contact	Data
Auckland Council	Craig Simpkins	Regional Park Pest Plants 2005-2024
Environment Canterbury	Miles Burford	Wetland plant occurrences from public land Biosecurity Weed and Pest Data on Public Land 2003-2024
Nelson City Council	Philip Cochrane & Todd Dennis	Avian point data in Nelson reserves
Otago Regional Council	Scott Jarvie	Macroinvertebrate Community Index (MCI) data for state of environment 2023-2024 Algae samples from state of the environment monitoring 2023 Lake Submerged Plant Index 2020-24
Taranaki Regional Council	Kerry Lukies & Halema Jamieson	Pukekura Park and Brooklands Key Native Ecosystem species occurrence data 2016-23



[Otago Regional Council Macroinvertebrate Community Index from State of Environment monitoring 2023]

What we are doing now?

1. Engaging the Community
2. Building an eDNA Bridge
3. Getting Over It (the eDNA Bridge)
4. Getting the Taxonomic Foundations Right (NZOR)
5. Walking the Talk (by mobilising MfE data)
6. Scoping next FY work program

What we are doing now?

1. Engaging the Community
Engaging with GBIF NZ, NZOR, Wilderlab, researchers, DOC, MfE, MPI, HBRC, ORC, Biodiversity SIG, and Environmental Data SIG to ensure buy in and shared vision.

2. Building an eDNA Bridge *(Epi)*
Enabling eDNA data uploads directly from lab (Wilderlab) to GBIF to save on transaction costs and make it easier to share data.

3. Getting Over It (the eDNA Bridge)
Understanding decisions around sharing (or not sharing) eDNA data to identify how MfE can best support local government to share.

4. Getting the Taxonomic Foundations Right *(TBD MWLR)*
Exploring the integration of national taxonomy into GBIF, with a pilot focused on freshwater biodiversity to support consistent and authoritative species data.

5. Walking the Talk
Working towards mobilising MfE LUCAS plot data (from private land) from NVS to GBIF by updating land owner permission processes.

1. Setting up pipelines for NZ eDNA data to go onto GBIF

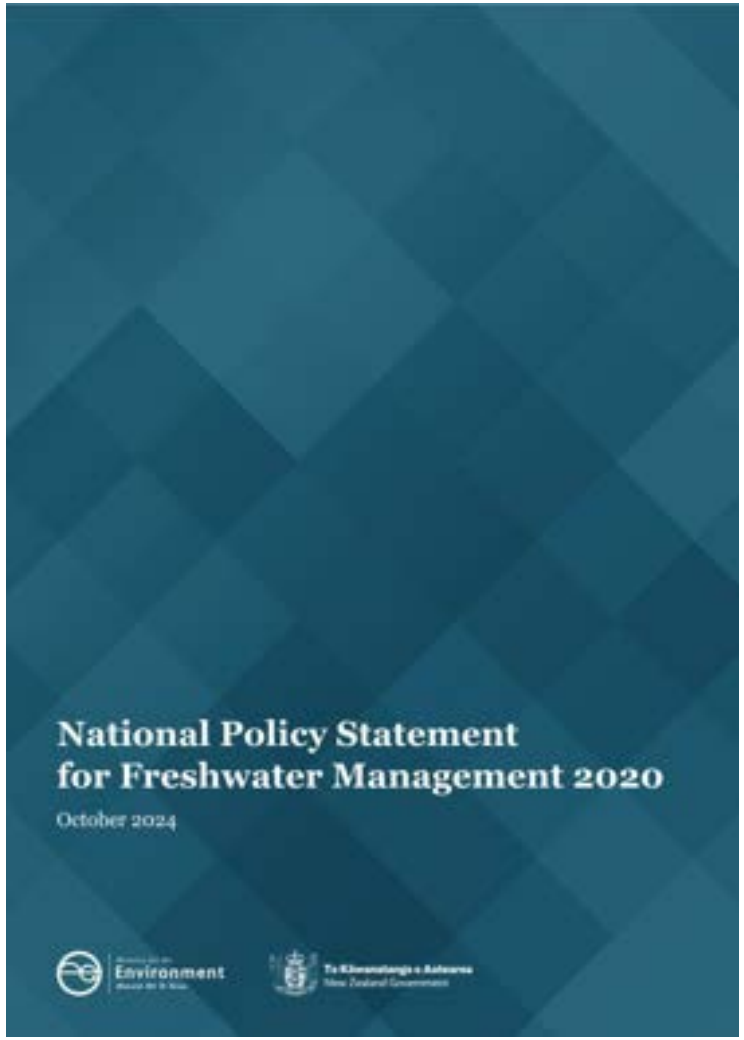
Create standards and code to automate the upload of eDNA data (water samples) analysed by WilderLab (a private company that analyses almost all NZ eDNA) up to GBIF.

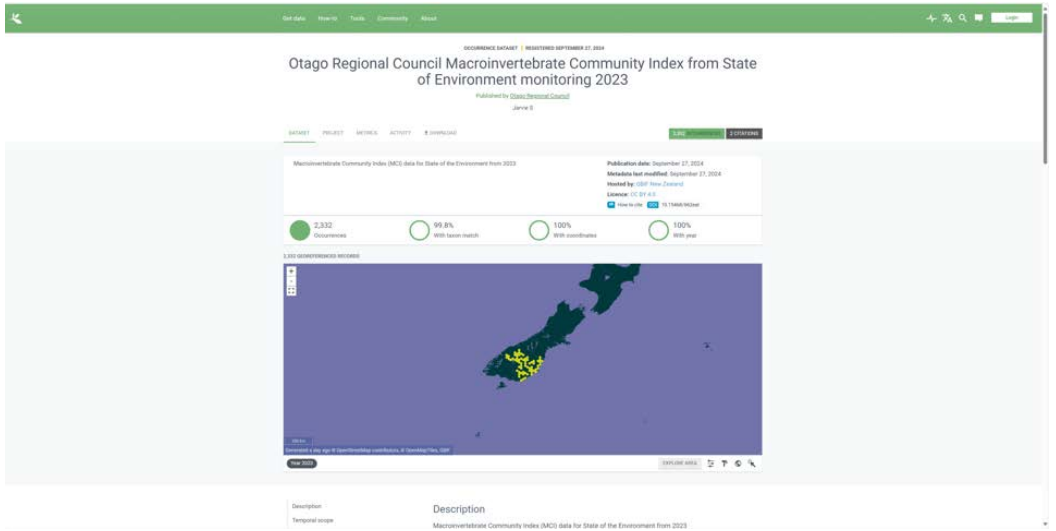
Use the eDNA samples collected from Hawkes Bay for Cyclone Gabrielle as a test case to create standards and code to upload existing eDNA data to GBIF.

Present the work to an online session to interested stakeholders including eDNA data holders that may wish to also mobilise.

[Explore — wilderlab]

2. Uploading NZOR MCI taxonomy into GBIF checklists



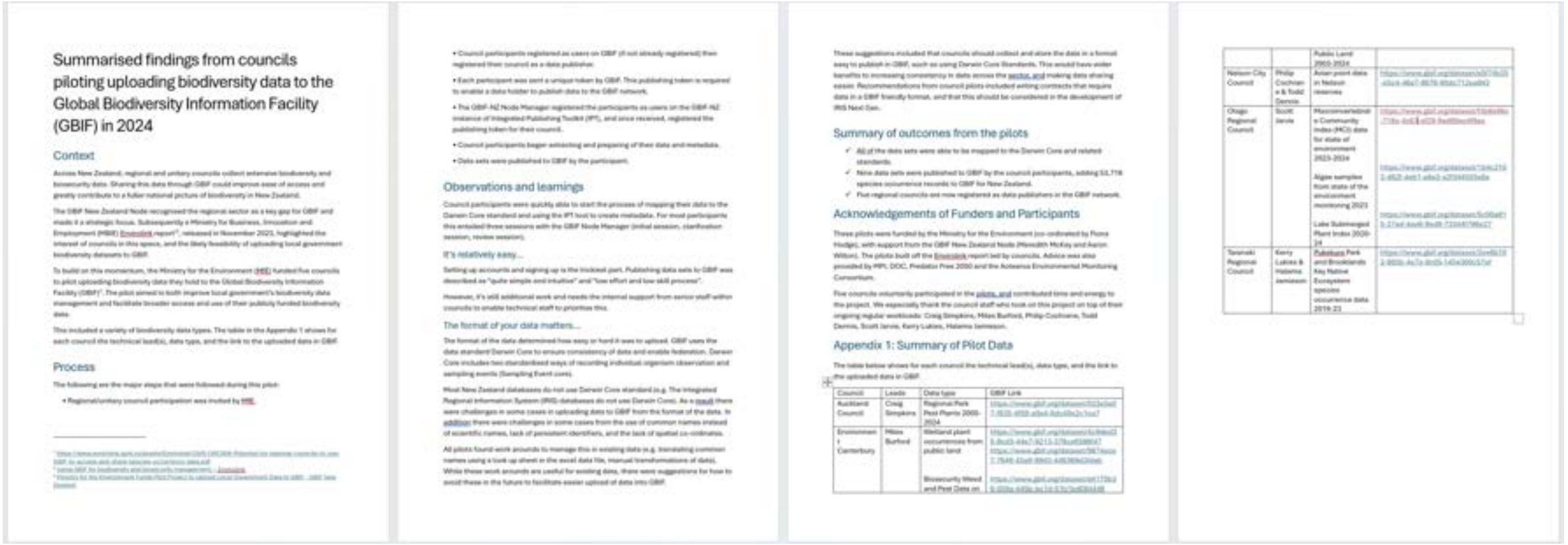


Upload the NZOR macroinvertebrate taxonomy required for the marcoinvertebrate community index (MCI) into the GBIF checklist bank and explore how this affects existing and new MCI data in GBIF.

Present the work to an online session to interested stakeholders that may be interested in mobilising MCI data to GBIF, or working on NZOR and taxonomy in general.

Note MCI is an attribute in the NPS-FM National Objectives Framework and councils are required to monitor and report on this.

We have summarised their findings in a four page PDF I can share.



Summarised findings from councils piloting uploading biodiversity data to the Global Biodiversity Information Facility (GBIF) in 2024

Context

Process

Observations and learnings

The format of your data matters...

Summary of outcomes from the pilots

Acknowledgements of Funders and Participants

Appendix 1: Summary of Pilot Data


Ministry for the
Environment
Manatū Mō Te Taiao

Regional and unitary councils should adopt GBIF as a primary means of preparing, sharing, and accessing publicly available species occurrence data

Te Uru Kahika

Regional and Unitary Councils Aotearoa

Release of Envirolink report:

championed on behalf of the Biodiversity Working Group

Te Uru Kahika
Regional and Unitary Councils Aotearoa

Manaaki Whenua
Landcare Research

Potential for regional councils to use GBIF to access and share species occurrence data

Envirolink Grant: 2340-ORC006

Prepared for: Otago Regional Council

November 2023

Regional and unitary councils collect biodiversity and biosecurity data under the Resource Management Act 1991 and Biosecurity Act 1993

Resource Management Act 1991

Public Act	1991 No 69
Date of assent	22 July 1991
Commencement	see section 1(2)

Biosecurity Act 1993

Public Act	1993 No 95
Date of assent	26 August 1993
Commencement	see section 1(2)


Addressing New Zealand's
Biodiversity Challenge
A Regional Council thinkpiece on the future
of biodiversity management in New Zealand
Enfocus


Space invaders:
A review of how New Zealand manages weeds
that threaten native ecosystems


Environmental reporting, research
and investment
Do we know if we're making a difference?


TE MANA O TE TAIAO
AOTEAROA NEW ZEALAND
BIODIVERSITY STRATEGY 2020
SUMMARY

GBIF New Zealand

About Data Resources News

Ministry for the Environment Funds Pilot Project to Upload Local Government Data to GBIF

Opportunities for GBIF to add value to council biodiversity, biosecurity, and environmental data mobilisation

Regional threat assessments

Informed by:

RED LIST

Current barriers or challenges where GBIF support could help

- **Benefits to regional sector**
  - Documents on why we should upload our species occurrence data and how we can benefit from it

- **Technological barriers**
  - Documents with accompanying pipelines on how to upload data
  - Documents for our IT and Environmental Monitoring Teams on how to overcome barriers

- **Data sovereignty and indigenous knowledge**
  - Documents for our councillors, managers, planners and policy makers

Pātai | Questions?

Te Uru Kahika

Regional and Unitary Councils Aotearoa




Data mobilisation and digital enablement for pest management

New Zealand Established Pests Portal


Biosecurity New Zealand
Ministry for Primary Industries
Manatū Ahu Matua

Michael Berardozzi

Previous relevant pieces of work

PCE Report on Environmental Weeds - 2021

Recommendation 6:

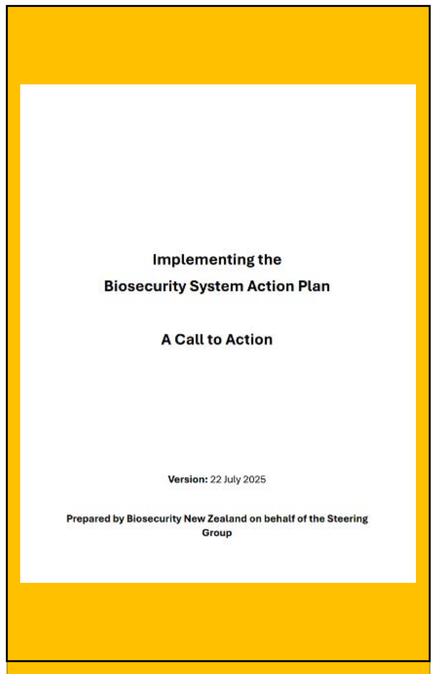
"*MPI should work with DOC, MBIE, regional councils and relevant CRIs to develop, administer and maintain a single authoritative and publicly accessible database of all exotic plants in New Zealand*"

Biosecurity 2025 – Strategic Direction 3 - 2016

2025 Target to drive action:

"A publicly-accessible network enables electronic access to organism data held by central government agencies, regional councils and Crown research institutes.
Organism data, linked together from multiple sources and including information on species name, distribution and impact, is crucial to identify and manage biosecurity risks"

Alignment with overarching Biosecurity/Biodiversity frameworks



Biosecurity System Action Plan (BSAP)

Actions 3

- Improve the integration, management and use of biosecurity data for continuous system improvement

Aotearoa New Zealand Biodiversity Strategy (ANZBS) - 2020

Objective 4 and 2025 goals:

"Improved systems for knowledge, science, data and innovation inform our work.

4.2 National, agreed common data standards and open data agreements are ensuring that everyone has access to a federated repository of biodiversity information

MPI s12A Biosecurity Act responsibilities

Director-General

Heading: replaced, on 18 September 2012, by section 13 of the Biosecurity Law Reform Act 2012 (2012 No 73).

12A Director-General provides overall leadership

(1) The Director-General provides overall leadership in activities that prevent, reduce, or eliminate adverse effects from harmful organisms that are present in New Zealand (**pest management**).

(2) The ways in which the Director-General provides leadership include—

(a) promoting alignment of pest management within the whole biosecurity system:

(b) overseeing New Zealand's systems for pest management and measuring overall system performance:

(c) facilitating the development and alignment of national pest management plans and national pathway management plans:

(d) promoting public support for pest management:

(e) facilitating communication, co-operation, and co-ordination among those involved in pest management to enhance effectiveness, efficiency, and equity of programmes.

Section 12A: inserted, on 18 September 2012, by section 13 of the Biosecurity Law Reform Act 2012 (2012 No 73).

Simplified overview

Lists of species

Status under Biosecurity Act (ONZPR) ; NPPA

MPI

International Lists

Environmental weeds

DOC

RPMP Pest status

TUK

MPI files

Identification, control and best practice info

Ref. sites

WEEDBUSTERS

AgPest from agresearch

MARINE BIOSECURITY PORTHOLE

MPI National Programmes

MPI

Geospatial info (occurrences)

DOC programmes

DOC

RPMP Pests

TUK

Weed data 2024 Envirolink/ MfE funded pilot

GBIF Global Biodiversity Information Facility

Biosecurity work

LINZ/ NZTA/ Others

Communities work

Citz. Science

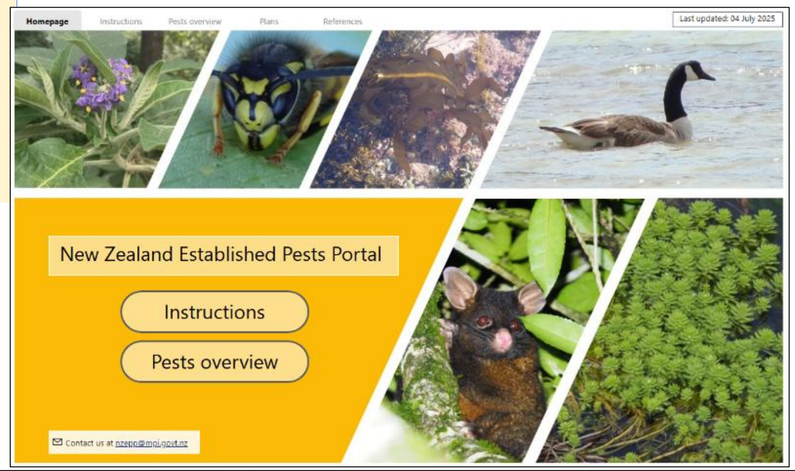
CRI/ PRO

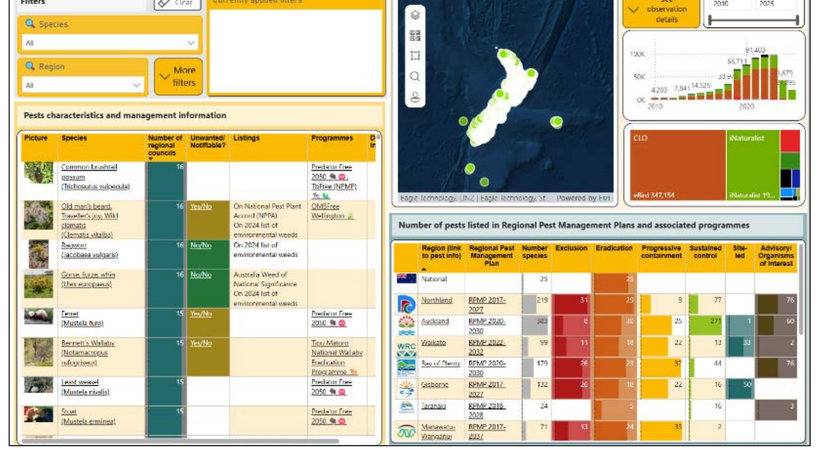
Univ./ Collec.

Private sector

NZEPP
New Zealand Established Pests Portal

Connected via API : "Live" connection, requiring limited maintenance





Filters Clear

Species: All

Region: All

More filters

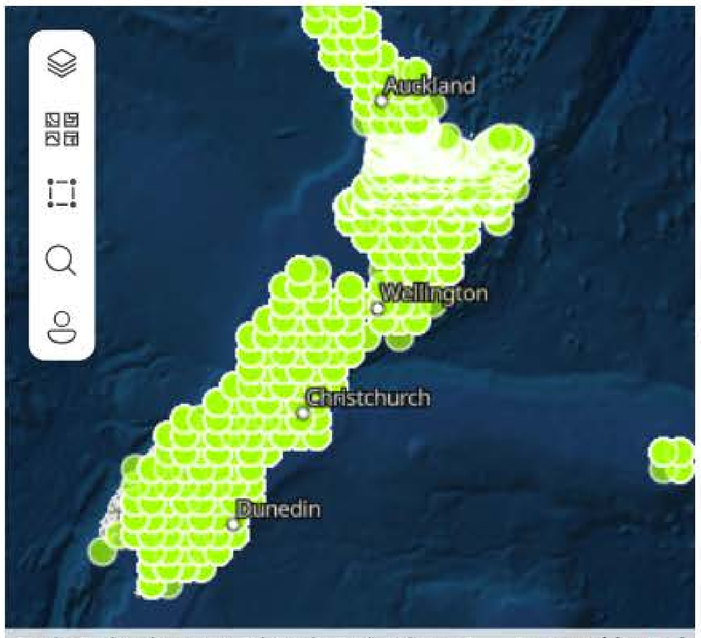
Currently applied filters

Pest type = Pest plants/Weeds

Pests characteristics and management information

Picture	Species	Number of regional councils	Unwanted/ Notifiable	Listings	Programmes
	Old man's beard, Traveller's joy, Wild clematis (Clematis vitalba)	16	Yes/No	On National Pest Plant Accord (NPPA) On 2024 list of environmental weeds	OMBFree Wellington
	Ragwort (Jacobaea vulgaris)	16	No/No	On 2024 list of environmental weeds	
	Gorse, furze, whin (Ulex europaeus)	16	No/No	Australia Weed of National Significance On 2024 list of environmental weeds	
	Broom (Cytisus scoparius)	15		Australia Weed of National Significance On 2024 list of environmental weeds	
	Chilean needle grass (Nassella neesiana)	14	Yes/No	On National Pest Plant Accord (NPPA) Australia Weed of National Significance On 2024 list of environmental weeds	Chilean Needle Grass
	Nodding thistle (Carduus nutans)	14	No/No		
	Boneseed (Chrysanthemoides monilifera)	14	Yes/No	On National Pest Plant Accord (NPPA) Australia Weed of National Significance	

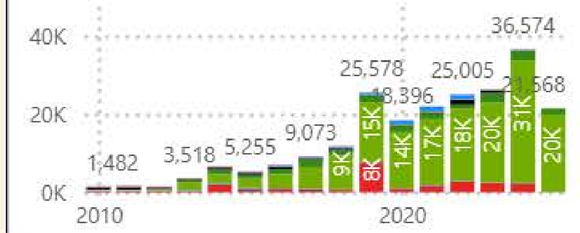
Recorded distribution of pests [source: (GBIF)]



Advanced map view: ON

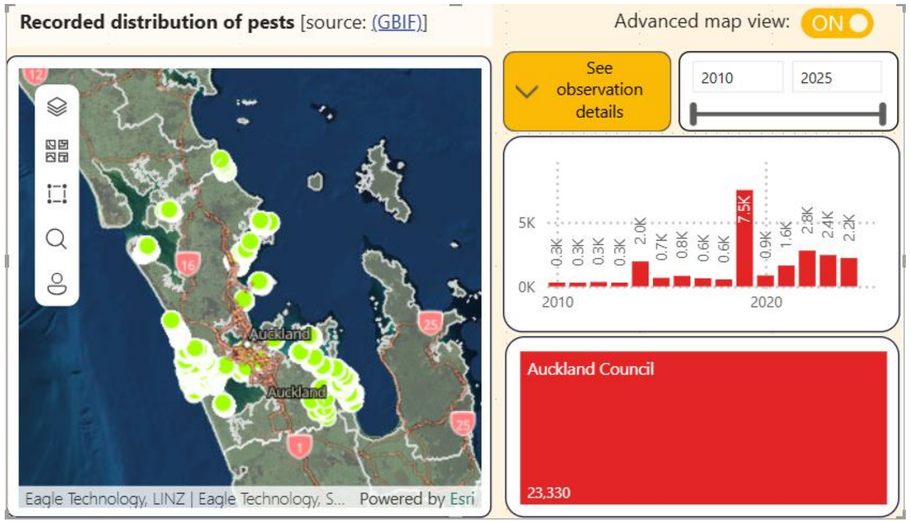
See observation details

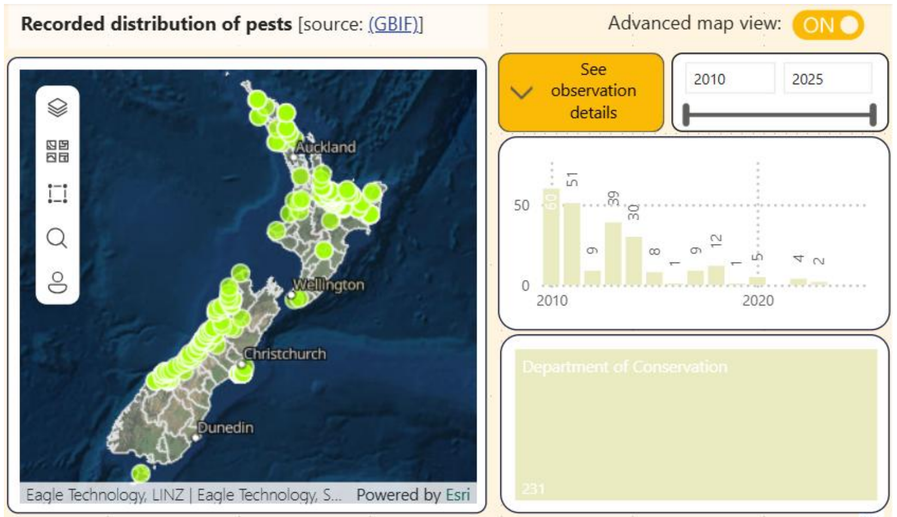
2010 — 2025

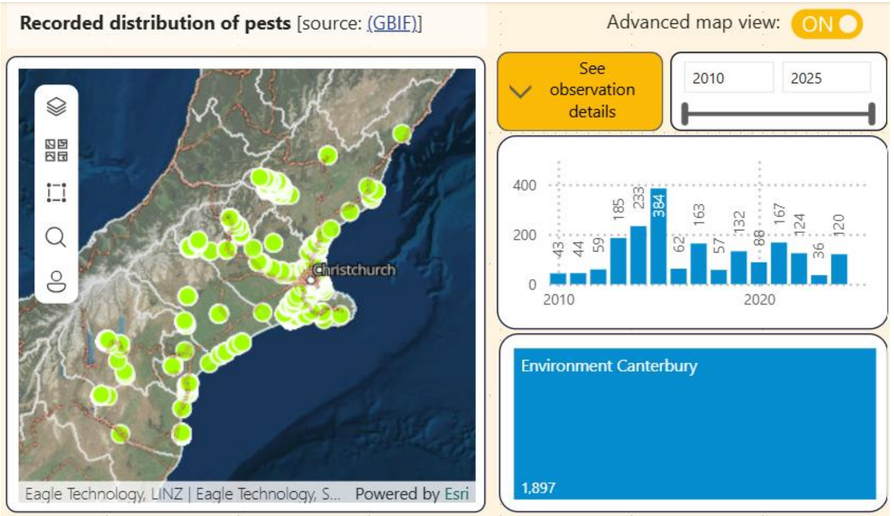


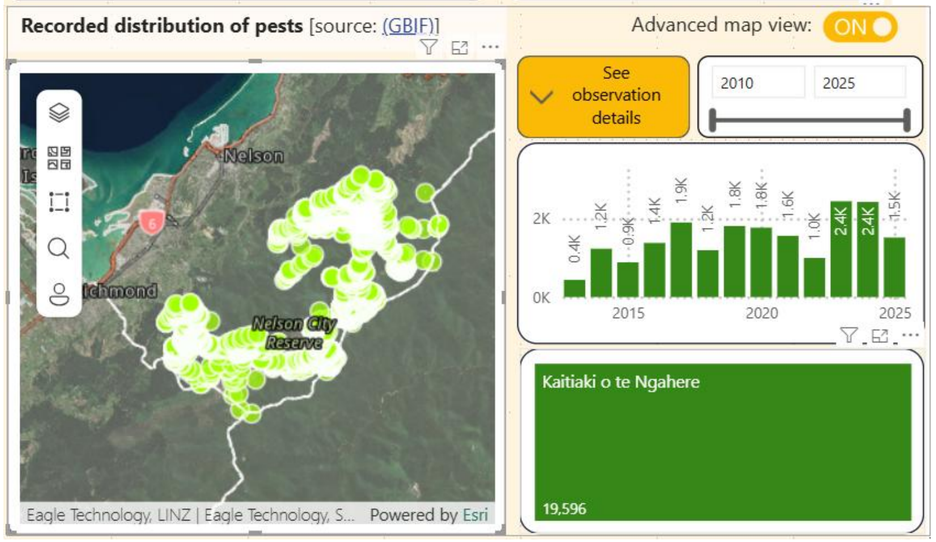
Number of pests listed in Regional Pest Management Plans and associated programmes

	Region (link to pest info)	Regional Pest Management Plan	Number species	Exclusion	Eradication	Progressive containment	Sustained control	Site-led	Advisory/ Organisms of Interest
	National		11		11				
	Northland	RPMP 2017-2027	139	15	25	5	55		41
	Auckland	RPMP 2020-2030	316	1	20	19	219		59
WRC	Waikato	RPMP 2022-2032	73	7	17	21	8	20	
	Bay of Plenty	RPMP 2020-2030	135	12	17	23	40		57
	Gisborne	RPMP 2017-2027	90	16	15	20	10	29	
	Taranaki	RPMP 2018-2028	19		5		12		2
	Manawatu-Wanganui	RPMP 2017-2037	66	11	23	33			





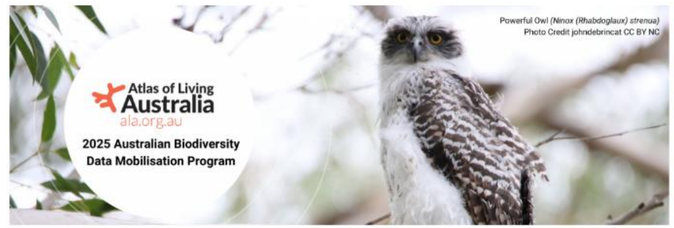




Recently added weed datasets (2024 to 2025)

Which datasets next?

- *Many possibilities, important to build focus and momentum to deliver practical benefits → weeds as good example of consistent "theme"*
- *Useful to explore data mobilisation programme similar to Australian example?*



Applications for the 2025 round of the ALA Australian Biodiversity Data Mobilisation Program have now closed. Recipients will be announced soon, and we expect to launch the next round of the program in early 2026.

The Australian Biodiversity Data Mobilisation Program (ABDMP) funds projects that improve access to biodiversity data via the Atlas of Living Australia (ALA). By digitising and mobilising biodiversity records, we enhance:

- Conservation efforts – Supporting environmental management and policy decisions.
- Scientific research – Filling critical gaps in species distribution and ecological data.
- Public accessibility – Making biodiversity data freely available for future generations.

For the 2025 round, we are offering two funding streams:

- Main Funding Stream – Supporting data mobilisation from institutions, researchers, and collections.
- Citizen Science Funding Stream – **NEW!** Supporting community-driven biodiversity data contributions.

Details on the main funding stream appear first, followed by citizen science-specific information further down this page.

White-edged Nightshade

White-edged nightshade is subject to a **Sustained Control** programme as part of the Regional Pest Management Plan 2018 (RPMP). It has a relatively limited distribution with higher densities confined to a contiguous area of regenerating scrubland in Beatrix Bay. The long term goal is to ensure the infestations are maintained at low levels surrounding the containment area.

White-edged nightshade on hillside.

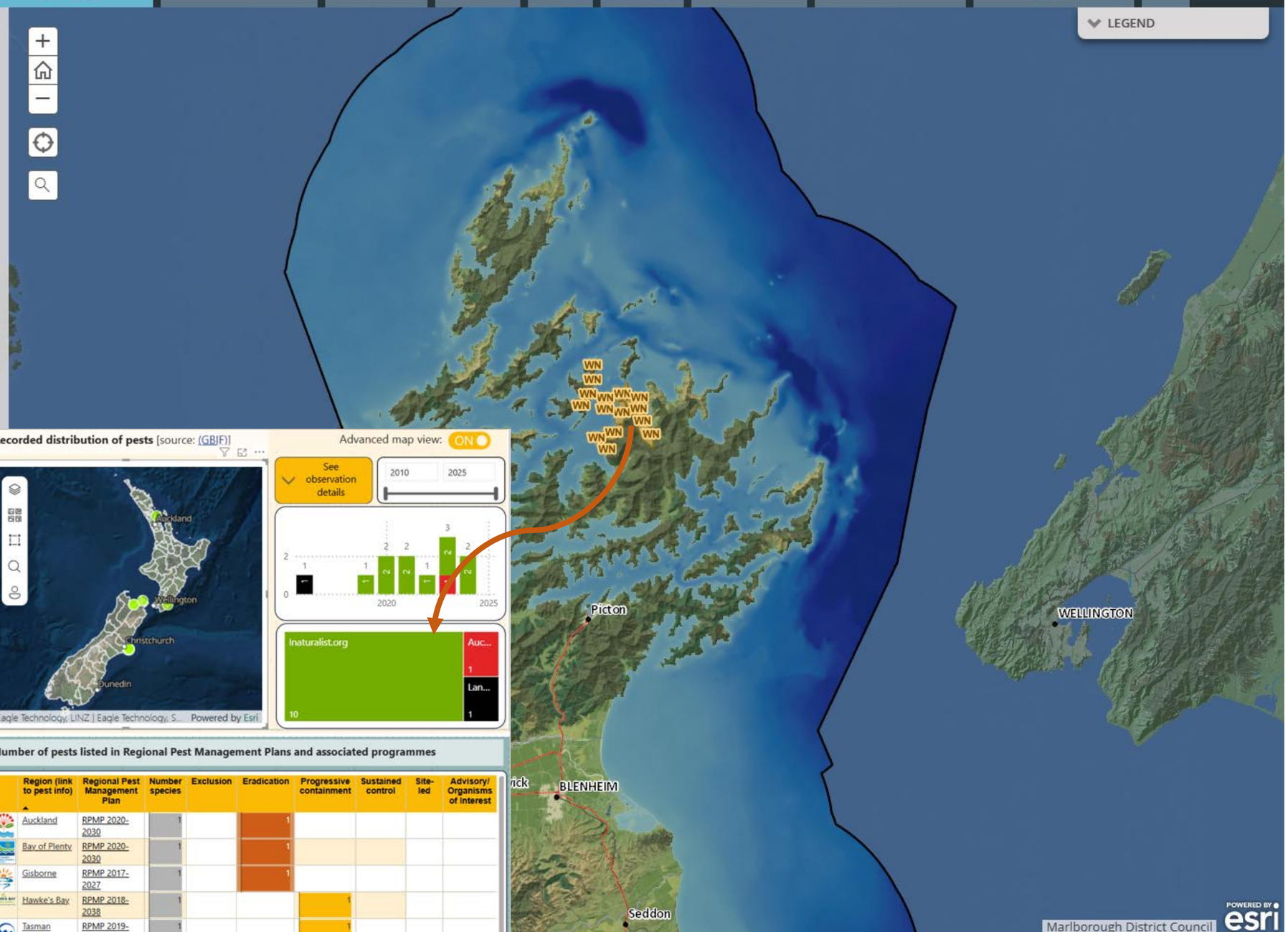
White-edged nightshade on hillside.

Land occupiers with white-edged nightshade on their property are required to destroy all plants before they produce seed each year. An exception of areas that fall within a Containment Area, where all plants within 50m of the Containment Area boundary must be destroyed before they produce seed.

Council can work with occupiers to develop and agree on a Management Plan for their man

Go t

Fur



Homepage | Instructions | **Pests overview** | Plans | References

Filters Clear

Species: White-edged nightshade (Solanum marginatum)

Region: All

More filters

Currently applied filters

Species = White-edged nightshade (Solanum marginatum)
Pest type = Pest plants/Weeds

Pests characteristics and management information

Picture	Species	Number of regional councils	Unwanted/ Notifiable	Listings	Programmes	Da int
	White-edged nightshade (Solanum marginatum)	9	Yes/No	On National Pest Plant Accord (NPPA) On 2024 list of environmental weeds		

Recorded distribution of pests [source: (GBIF)]

Advanced map view: ON

See observation details

2010 2025

Number of pests listed in Regional Pest Management Plans and associated programmes

Region (link to pest info)	Regional Pest Management Plan	Number species	Exclusion	Eradication	Progressive containment	Sustained control	Site-led	Advisory/ Organisms of interest
Auckland	RPMP 2020-2030	1		1				
Bay of Plenty	RPMP 2020-2030	1		1				
Gisborne	RPMP 2017-2027	1		1				
Hawke's Bay	RPMP 2018-2038	1			1			
Tasman	RPMP 2019-2029	1			1			
Marlborough	RPMP 2018-2028	1				1		
West Coast	RPMP 2018-2028	1	1					
Canterbury	RPMP 2018-2038	1					1	

Homepage | Instructions | **Pests overview** | Plans | References

Filters Clear

Species: All

Region: All

More filters

Currently applied filters

Programme = National Interest Pest Responses (NIPR)

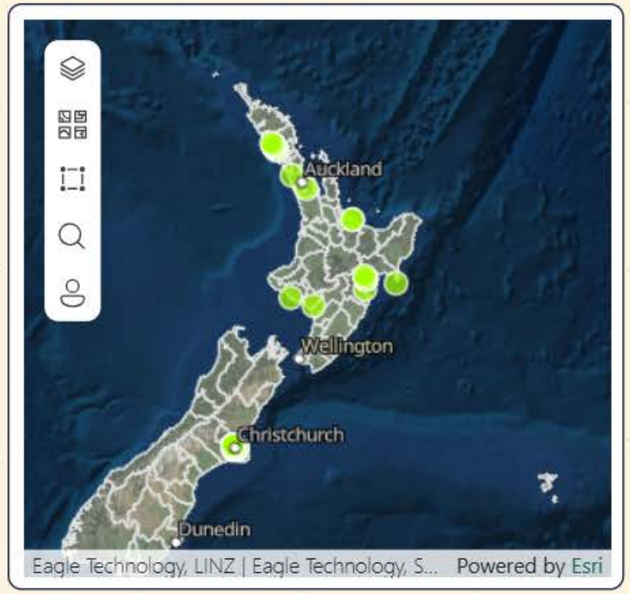
Programme lead = Ministry for Primary Industries (MPI)

Pests characteristics and management information

Picture	Species	Number of regional councils	Unwanted/ Notifiable	Listings	Programmes
	Phragmites (Phragmites australis)	7	Yes/Yes	On National Pest Plant Accord (NPPA)	National Interest Pest Responses (NIPR)
	Cape tulip (Moraea flaccida)	6	Yes/Yes	On National Pest Plant Accord (NPPA) On 2024 list of environmental weeds	National Interest Pest Responses (NIPR)
	Manchurian wild rice (Zizania latifolia)	6	Yes/Yes	On National Pest Plant Accord (NPPA) On 2024 list of environmental weeds	National Interest Pest Responses (NIPR)
	Water hyacinth (Eichhornia crassipes)	6	Yes/Yes	On National Pest Plant Accord (NPPA) Australia Weed of National Significance	National Interest Pest Responses (NIPR)
	Salvinia (Salvinia ×molesta)	5	Yes/Yes	On National Pest Plant Accord (NPPA) Australia Weed of National Significance	National Interest Pest Responses (NIPR)
	Hydrilla (Hydrilla verticillata)	4	Yes/No	On National Pest Plant Accord (NPPA)	National Interest Pest Responses (NIPR)
	Johnson grass (Sorghum halepense)	3	Yes/Yes		National Interest Pest Responses (NIPR)
	White Bryony (Bryonia dioica)	2	Yes/Yes	On National Pest Plant Accord (NPPA) On 2024 list of	National Interest Pest Responses (NIPR)

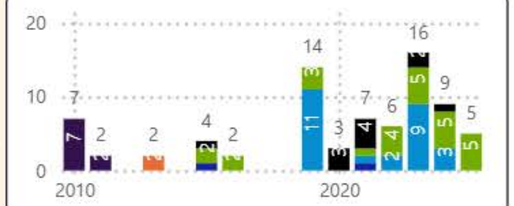
Recorded distribution of pests [source: (GBIF)]

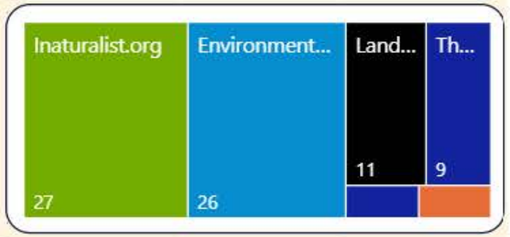
Advanced map view: ON



See observation details

2010 2025





Number of pests listed in Regional Pest Management Plans and associated programmes

Region (link to pest info)	Regional Pest Management Plan	Number species	Exclusion	Eradication	Progressive containment	Sustained control	Site-led	Advisory/ Organisms of Interest
National		9		9				
Northland	RPMP 2017-2027	6	1	3	1			1
Waikato	RPMP 2022-2032	1					1	
Gisborne	RPMP 2017-2027	3	1	2				
Manawatu-Wanganui	RPMP 2017-2037	2	2					
Hawke's Bay	RPMP 2018-2038	6		1				5
Wellington	RPMP 2019-2039	9						9
Tasman	RPMP 2019-2029	4	4					

[Build in MPI data on the National Interest Pest Responses Programme?]

CBD and Global Biodiversity Framework

NZ's Monitoring and Reporting Obligations

25 Aug 2025

Department of Conservation
Te Papa Atawhai

New Zealand Government

Convention on Biological Diversity

- Adopted in 1992, the United National Convention on Biological Diversity promotes the development of global targets, strategies and action plans for the conservation and sustainable use of biodiversity.
- It has three main objectives (set out in Article 1):
  - **conservation of biological diversity**
  - **sustainable use of its components**
  - **fair and equitable sharing of benefits arising from genetic resources.**
- With 196 Parties, the Convention has near universal participation among countries.

NZ’s obligations under the CBD

As a party to the CBD, New Zealand is required to:

- have a **national biodiversity strategy and action plan (NBSAP)** as a statement of our national contribution to global efforts to sustainability manage biodiversity; and

- Submit a **national report** to the CBD on our progress towards our national strategy & action plan, and the global goals and targets (NZ’s next National Report is due in **February 2026**, then July 2029).

Te Mana o te Taiao – Aotearoa NZ Biodiversity Strategy (ANZBS) **is our NBSAP**

Our NBSAP is the **primary mechanism** through which New Zealand delivers its obligations under the Convention – expressing our commitment to stem the loss of biodiversity worldwide.

A new Global Biodiversity Framework

- CBD Parties adopted the '**Kunming-Montreal Global Biodiversity Framework'** at the 15th Conference of the Parties (COP15) in Montreal, Canada on 19 December 2022.

- The new Global Biodiversity Framework will guide the **next decade of global action** on biodiversity.

- The GBF aims to catalyse, enable and galvanize **urgent and transformative action** by Governments and subnational authorities, with the involvement of all of society, to halt and reverse biodiversity loss.

The 23 targets cover the whole economy

1. Reducing threats to biodiversity

Target 1 – **Land/Sea-Use Change** / Habitat Loss / Spatial Planning

Target 2 – **Ecosystem Restoration**

Target 3 – **Protected Areas**

Target 4 – **Species Conservation**

Target 5 – **Species Overexploitation**

Target 6 – **Invasive Alien Species**

Target 7 – **Pollution**

Target 8 – **Climate change**

* Informal target names only

2. Meeting people's needs through sustainable use and benefit-sharing

Target 9 – **Sustainable Species Use**

Target 10 – **Sustainable Agriculture** / Productive Ecosystems

Target 11 – **Ecosystems Services,** including **NBSs**

Target 12 - **Urban Green Spaces**

Target 13 – Fair and Equitable Benefit Sharing from **Genetic Resources**

3. Tools and solutions for implementation and mainstreaming

Target 14 – **Biodiversity Mainstreaming**

Target 15 – **Sustainable Production** by Business

Target 16 – **Sustainable Consumption**

Target 17 – **Biosafety**

Target 18 – **Environmentally Harmful Subsidies** / **Incentives**

Target 19 – **Finance**

Target 20 – **Capacity Building**, Technology Transfer and Scientific Cooperation

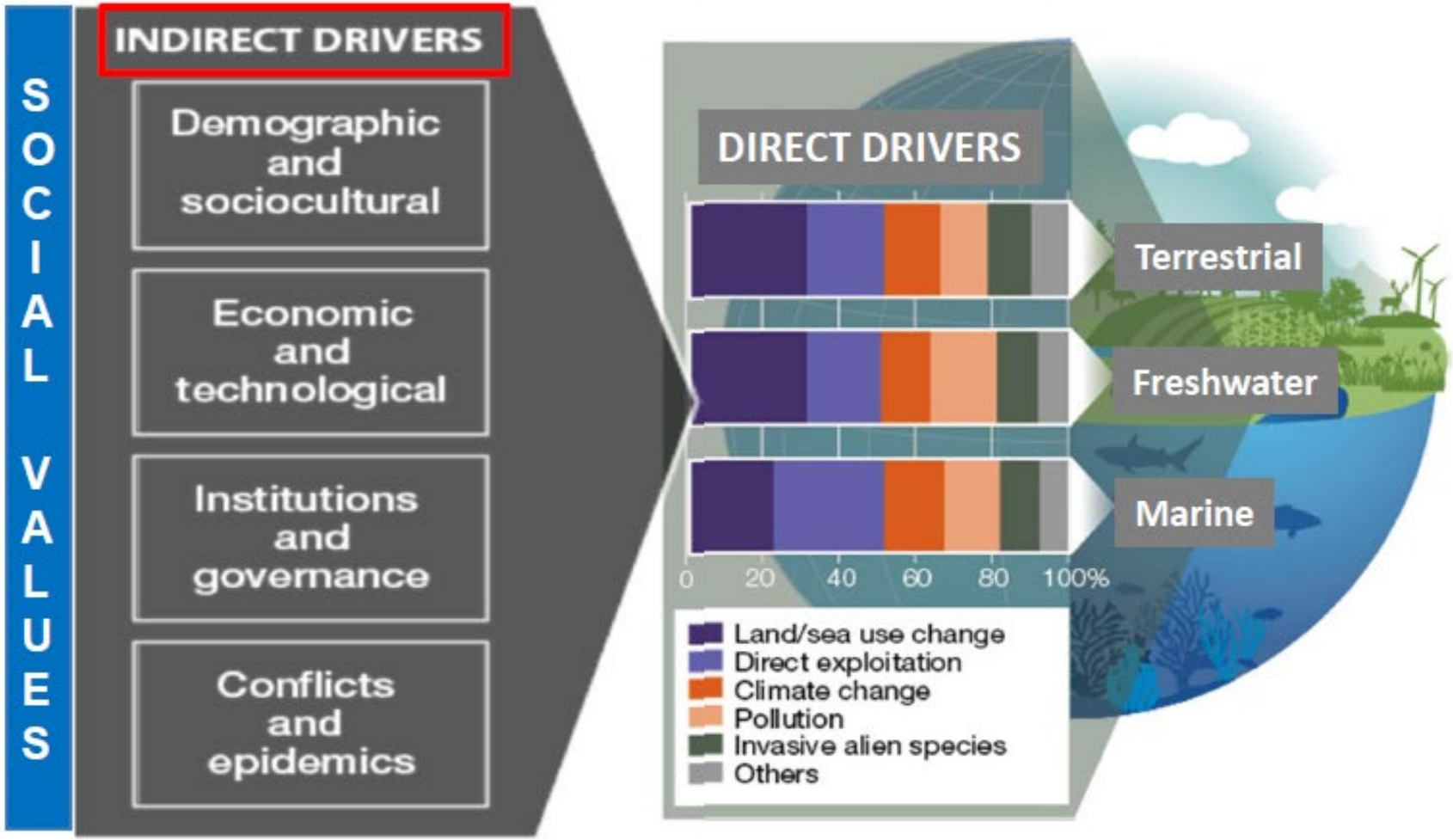
Target 21 – **Knowledge for Biodiversity Management**, including **Traditional Knowledge**

Target 22 – **Equitable Participation** in Biodiversity Decision-Making, especially by **Indigenous Peoples**

Target 23 – **Gender Equality** in Biodiversity Action

The GBF is based on latest IPBES science

Underpinning the proximate causes of deterioration in nature are the root causes, or indirect drivers of change.



IPBES Global Assessment

Components of the Global Biodiversity Framework

- The GBF comprises 6 Decisions:
  - Decision 15/4 - **Kunming-Montreal Global Biodiversity Framework**
  - Decision 15/5 - **Monitoring framework** for the Kunming-Montreal Global Biodiversity Framework
  - Decision 15/6 - **Mechanisms for planning, monitoring, reporting and review**
  - Decision 15/7 - **Resource mobilization**
  - Decision 15/8 - **Capacity-building** and development and technical and scientific cooperation
  - Decision 15/9 - **Digital sequence information on genetic resources**

Why enhanced global biodiversity monitoring?

Te CBD trying to improve national and global Monitoring framework and mechanisms for reporting and review:

- Experience with the 2010 Aichi biodiversity targets (the predecessors of the GBF targets), suggested that targets without clear and quantitative indicators tend to be inadequately addressed.

- As a result, major global efforts have been made to develop the new global monitoring framework and the mechanisms for reporting and reviewing national and global progress towards the targets.

New national biodiversity monitoring requirements

The GBF includes a new **global biodiversity monitoring framework** to track national and global progress against each goal and target.

- Countries are requested to **monitor progress** against each of their national biodiversity targets **using the GBF indicators** for each global goal and target.
  - This is a **key point of difference** from previous global biodiversity targets – and seeks to drive successful alignment with and achievement of the new framework.
- Countries must also report internationally every 4 years on their national progress, by reporting against an agreed set of global biodiversity "Headline Indicators".
  - Parties can also choose from a list of additional 'optional' component and complementary indicators, and use national indicators.
- Together, these new expectations suggest a stronger role for **national biodiversity monitoring systems.**

GBF Indicator groups

Countries' **national biodiversity monitoring systems** are expected to use 3 levels of indicators:

Group 1 - Headline indicators + 'Binary' indicators

A minimum set of high-level indicators which captures the majority of the overall scope of the goals and targets. For tracking national and global progress. Includes "binary" (yes/no) questions on policies, where major gaps.

*+ Optional **disaggregations** are also identified and encouraged*

Group 2 - Component indicators – *optional*

For monitoring each component of each goal and target. For tracking national and global progress.

Group 3 - Complementary indicators – *optional*

For thematic or in-depth analysis, may be less relevant some countries, but may be highly relevant for global analytical products.

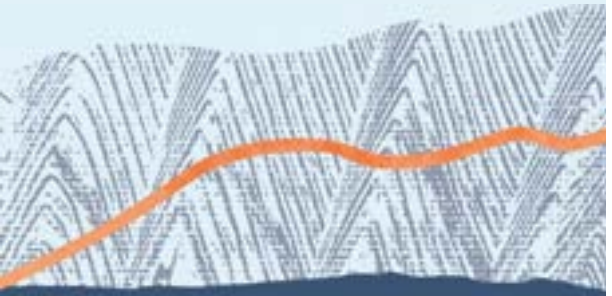
Headline Indicators for each global goal and target

(See COP16 decision for details)

TABLE 1. HEADLINE INDICATORS FOR THE KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

Goal/target	*Headline or binary indicator*
A	A.1 Red List of Ecosystems A.2 Extent of natural ecosystems A.3 Red List Index A.4 The proportion of populations within species with an effective population size greater than 500
B	B.1 Services provided by ecosystems
	B.b Number of countries with policies or actions for implementing and monitoring the sustainable use of biodiversity and the maintenance and enhancement of nature's contributions to people, including ecosystem functions and services
C	C.1 Monetary benefits received in accordance with applicable internationally agreed access and benefit-sharing instruments
	C.2 Non-monetary benefits arising from applicable international access and benefit-sharing instruments 13.b Number of countries that have taken effective legal, policy, administrative and capacity-building measures at all levels, as appropriate, to ensure the fair and equitable sharing of benefits from the utilization of genetic resources and from digital sequence information on genetic resources, as well as traditional knowledge associated with genetic resources
D	D.1 International public funding, including official development assistance for conservation and sustainable use of biodiversity and ecosystems D.2 Domestic public funding on conservation and sustainable use of biodiversity and ecosystems D.3 Private funding (domestic and international) on conservation and sustainable use of biodiversity and ecosystems
1	A.1 Red List of Ecosystems A.2 Extent of natural ecosystems
	1.1 Percentage of land and sea area covered by biodiversity-inclusive spatial plans 1.b Number of countries using participatory, integrated and biodiversity-inclusive spatial

GBF has 3 **levels of Indicators** for each global target



(See COP16 decision for details)

Annex II

Optional disaggregations of the headline indicators and voluntary component and complementary indicators in the monitoring framework for the Kunming-Montreal Global Biodiversity Framework*

Goal/target	*Headline or binary indicator*	*Optional disaggregations*	*Component indicator*	*Complementary indicator*
A	A.1 Red List of Ecosystems	For indicator A.1: By realm, biome and ecosystem functional group (Global Ecosystem Typology levels 2 and 3 or equivalent) By indigenous and traditional territories By protected areas or other effective area-based conservation measures By drivers (matched to the International Union for Conservation of Nature Threats Classification Scheme)	A.CT.1 Ecosystem Intactness Index A.CT.2 Ecosystem Integrity Index A.CT.3 Species Habitat Index A.CT.4 Biodiversity Habitat Index A.CT.5 Biodiversity Intactness Index A.CT.6 Protected Connected Index A.CT.7 Protected Area Representativeness and Connectedness Indices A.CT.8 Number of extinctions averted A.CT.9 Evolutionarily Distinct and Globally Endangered Index A.CT.10 Living Planet Index A.CT.11 Wild Bird Index	A.CY.1 Forest area as a proportion of total land area A.CY.2 Rate of tree cover loss A.CY.3 Mountain Green Cover Index A.CY.4 Continuous global mangrove forest cover A.CY.5 Mangrove forest fragmentation A.CY.6 Mangrove extent A.CY.7 Global salt marsh extent A.CY.8 Wetland Extent Trends Index A.CY.9 Forest Fragmentation Index A.CY.10 Forest Landscape Integrity Index A.CY.11 Global Vegetation Health Products 8.CT.2 Bioclimatic Ecosystem Resilience Index A.CY.12 Relative magnitude of fragmentation A.CY.13 Ocean Health Index A.CY.14 Extent of physical damage to predominant seafloor habitats A.CY.15 River Fragmentation Index A.CY.16 Mean species abundance 3.CT.2 Species Protection Index A.CY.17 Changes in plankton biomass and abundance A.CY.18 Comprehensiveness of conservation of socioeconomically and culturally valuable species 4.CT.1 Number of (a) plant and (b) animal genetic resources for food and agriculture secured in either medium- or long-term conservation facilities 4.CT.4 Proportion of local breeds classified as
	A.2 Extent of natural ecosystems	For indicator A.2: By realm, biome and ecosystem functional group (Global Ecosystem Typology levels 2 and 3 or equivalent) By indigenous and traditional territories By natural and seminatural ecosystem, if feasible		
	A.3 Red List Index	For indicator A.3:[17] By realm, biome and ecosystem functional group (Global Ecosystem Typology levels 2 and 3 or equivalent)		

Gaps in Headline indictors are addressed through “Binary” (yes/no) type indicators

(See COP16 decision for details)

Annex III
List of binary indicator questions

Goal B: Biodiversity is sustainably used and managed and nature’s contributions to people, including ecosystem functions and services, are valued, maintained and enhanced, with those currently in decline being restored, supporting the achievement of sustainable development for the benefit of present and future generations by 2050.	
Indicator: Number of countries with policies or action plans for implementing and monitoring the sustainable use of biodiversity and the maintenance and enhancement of nature’s contributions to people, including ecosystem functions and services.	
B.1 Does your country have policies and/or action plans aimed at ensuring the maintenance, enhancement and restoration of nature’s contributions to people, including of ecosystem functions and services?	(a) No (b) Under development (c) Partially (d) Fully
B.2 Does your country have policies and/or action plans aimed at ensuring the sustainable use of biodiversity?	(a) No (b) Under development (c) Partially (d) Fully
B.3 Does your country monitor the sustainable use of biodiversity?	(a) No (b) Under development (c) Partially (d) Fully
B.4 Does your country monitor the maintenance, restoration and enhancement of nature’s contributions to people, including ecosystem functions and services for the benefit of present and future generations?	(a) No (b) Under development (c) Partially (d) Fully
Target 1: Ensure that all areas are under participatory, integrated and biodiversity-inclusive spatial planning and/or effective management processes addressing land- and sea-use change, to bring the loss of areas of high biodiversity importance, including ecosystems of high ecological integrity, close to zero by 2030, while respecting the rights of indigenous peoples and local communities.	
Indicator: Number of countries using participatory, integrated and biodiversity-inclusive spatial planning	

Te Mana o Te Taiao - ANZBS within a global context

CBD and GBF

International Agreement:
Convention on Biological Diversity (CBD)

New Zealand's response

Global Framework

Global Biodiversity Framework:

- 2050 Vision
- 2030 Mission
- 4 goals (2050)
- 23 Global Targets (2030)

NZ's International Obligations

National Biodiversity Strategy & Action Plan (NBSAP)

(Supported by a National Biodiversity Finance Plan or similar)

Global Monitoring Framework

NZ NBSAP Reporting

New Zealand's NBSAP

Te Mana o Te Taiao - ANZBS 2020-2050 (completed 2020)

Implementation Plan to 2030

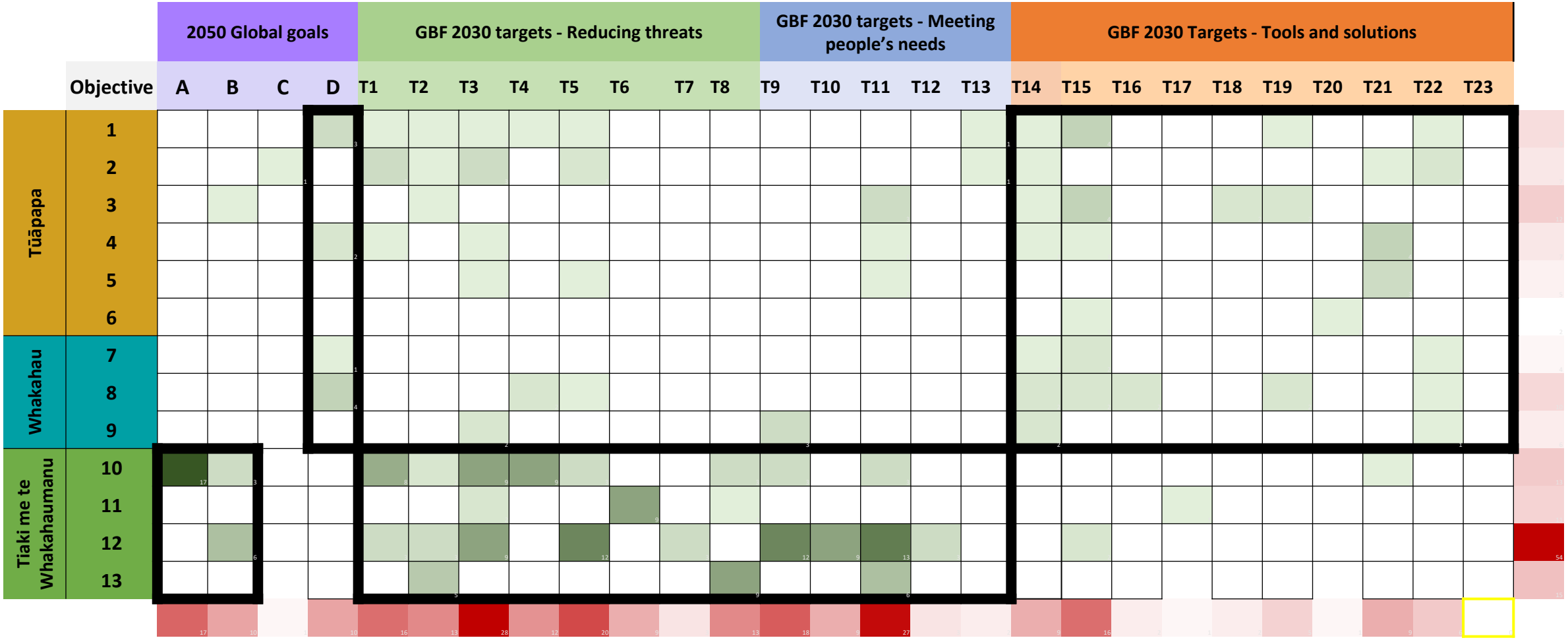
National Targets for 2030 (Oct 2024)

ANZBS Implementation Plan Annex

ANZBS Outcome Monitoring Framework (OMF)

National Report (due 2026)

Linking GBF with Te Mana o te Taiao



Target 23: gender equality not covered by Te Mana o te Taiao

The GBF Monitoring Framework relies on national biodiversity monitoring systems

- **Monitoring & Reporting:** The GBF monitoring indicators will help track progress toward the GBF goals, at national and global levels.
- **National Implementation:** Countries are requested to use the headline indicators in their national reports to show progress against the GBF, and encouraged to report against optional indicators where appropriate.
- **In-depth Analysis:** The component and complementary indicators allow for more detailed tracking of how different aspects of the global targets are being implemented.
- **National monitoring approach:** Countries are asked to describe their ‘National Biodiversity Monitoring Systems’ in their CBD National Report (due Feb 2026).

See the CBD website for full details of the Kunming-Montreal Global Biodiversity Framework:

https://www.cbd.int/meetings/COP-16

https://www.cbd.int/gbf

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

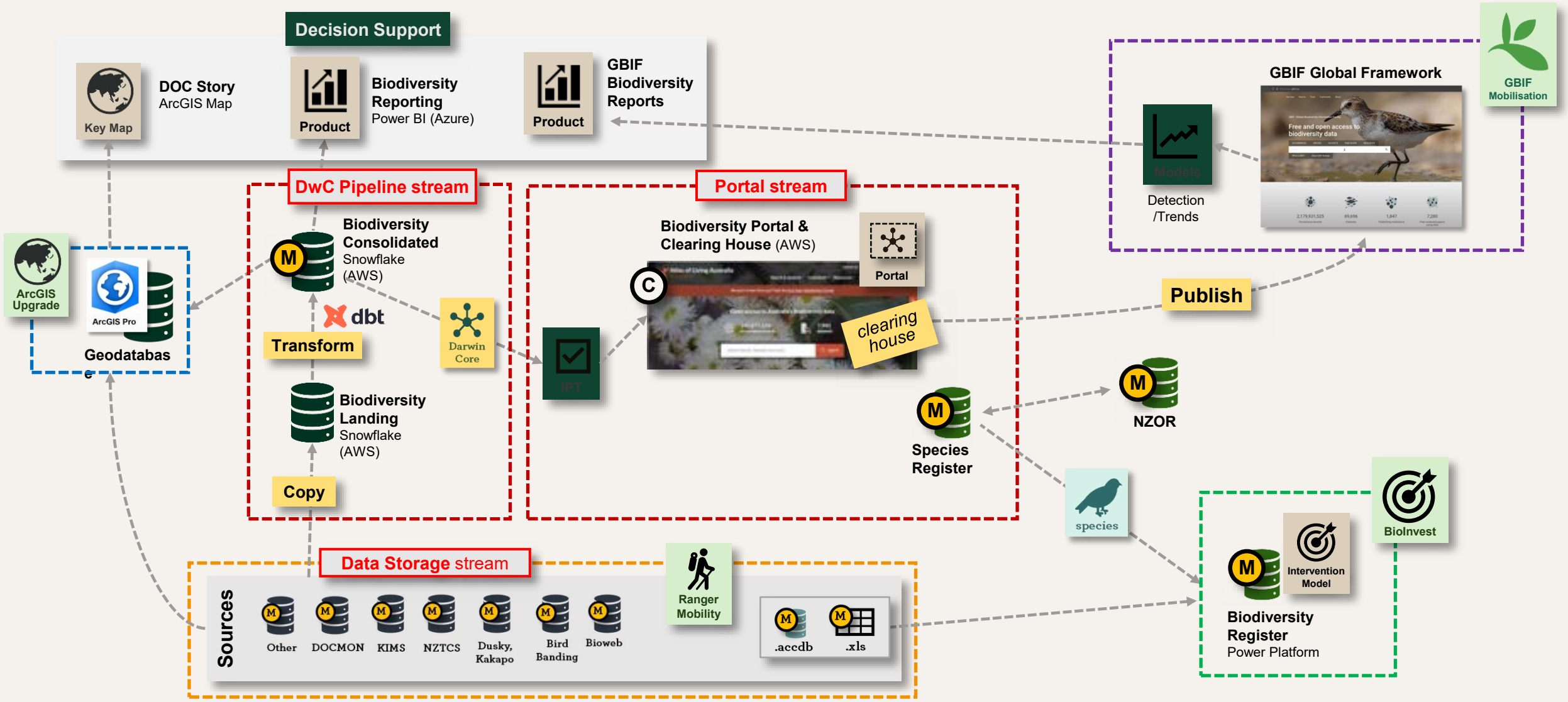
GBIF preparedness and implementation

- Firstly establish the foundational data layer – UDM for future state data layer
- Assess priority datasets for GBIF preparedness
- Prepare datasets for UDM and test transformation pipeline
- Test specific dataset mobilisation to DwC for GBIF publication – WEEDS, NatMonNet

Department of Conservation
Te Papa Atawhai

Te Kāwanatanga o Aotearoa
New Zealand Government

Mobilising Biodiversity Data



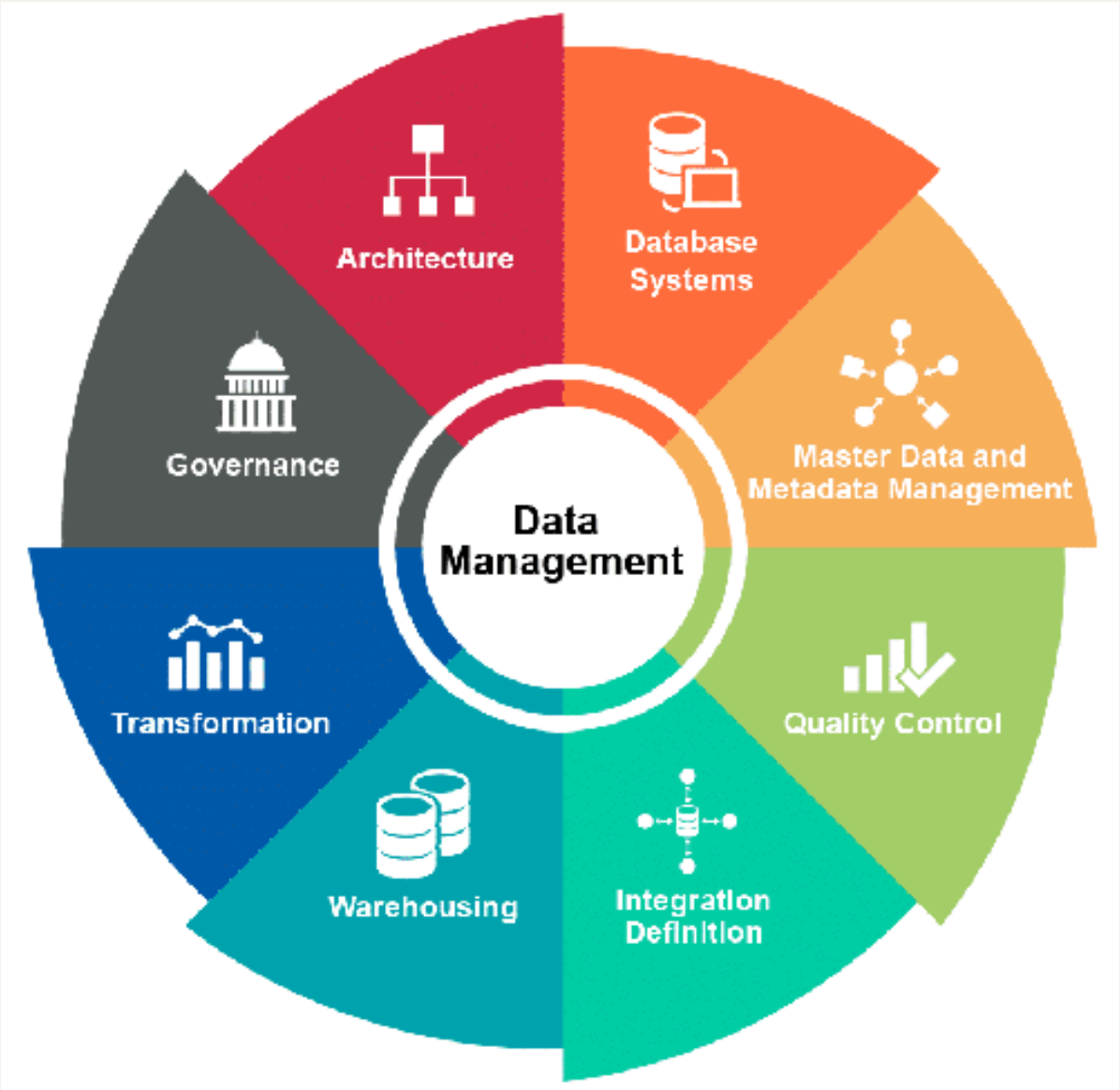
Learnings from first phase

Datasets have complications and inefficiencies

Data capture and monitoring design teams can make updates and improvement

Each phase comes with challenges but the techniques applied can be replicated and each phase is faster than the previous

The process will drive the modernisation of data capture systems, metadata design and quality control



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Te Kāwanatanga o Aotearoa
New Zealand Government

Opportunities

Addressing data sovereignty through using Local Context tags.

Applying CARE principles, data generalisation guidelines and relational data contexts into our data handling.

Developing better connection to Outcomes Monitoring Frameworks, Outcomes reporting and delivering evidence based reporting.

Developing a functional node as part of a federated data system. Giving power and agency to our environmental data.

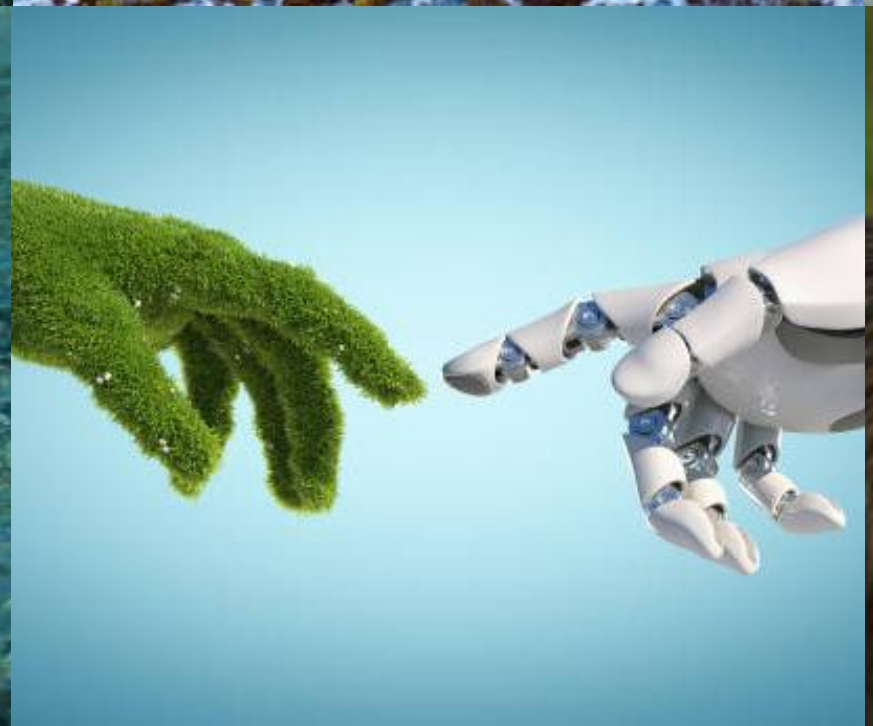
Photo: © Lorem ipsum dolor sit

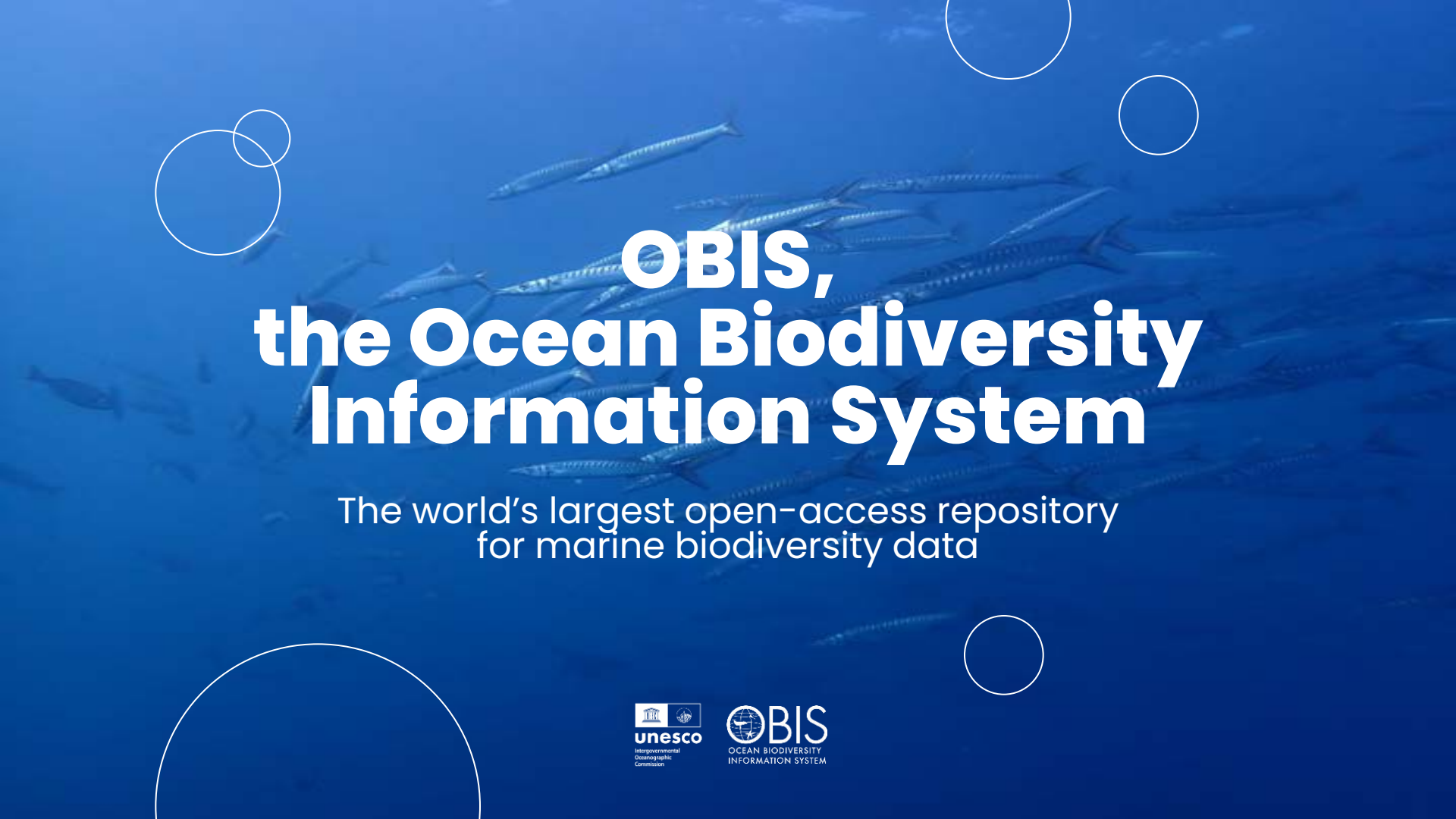
Department of Conservation
Te Papa Atawhai

Te Kāwanatanga o Aotearoa
New Zealand Government









OBIS,
the Ocean Biodiversity
Information System
The world's largest open-access repository
for marine biodiversity data
unesco
Intergovernmental
Oceanographic
Commission
OBIS
OCEAN BIODIVERSITY
INFORMATION SYSTEM

We are a global community

OBIS is the world's largest open-access repository for marine biodiversity data.

We are a global community of 30 Regional and 7 Thematic Nodes representing over 1,000 institutions and over 6,000 scientists and data managers from 99 countries.

OBIS's mission is to standardize, quality control, integrate and share marine biodiversity data with a global community of researchers, policymakers, and the public.

unesco
Intergovernmental Oceanographic Commission

OBIS
OCEAN BIODIVERSITY INFORMATION SYSTEM

OBIS delivers 1 new dataset per day,
>1 million new records per month

Since 2000, OBIS provides high impact data on marine biodiversity

161,400,000
occurrences records

200,000
marine species

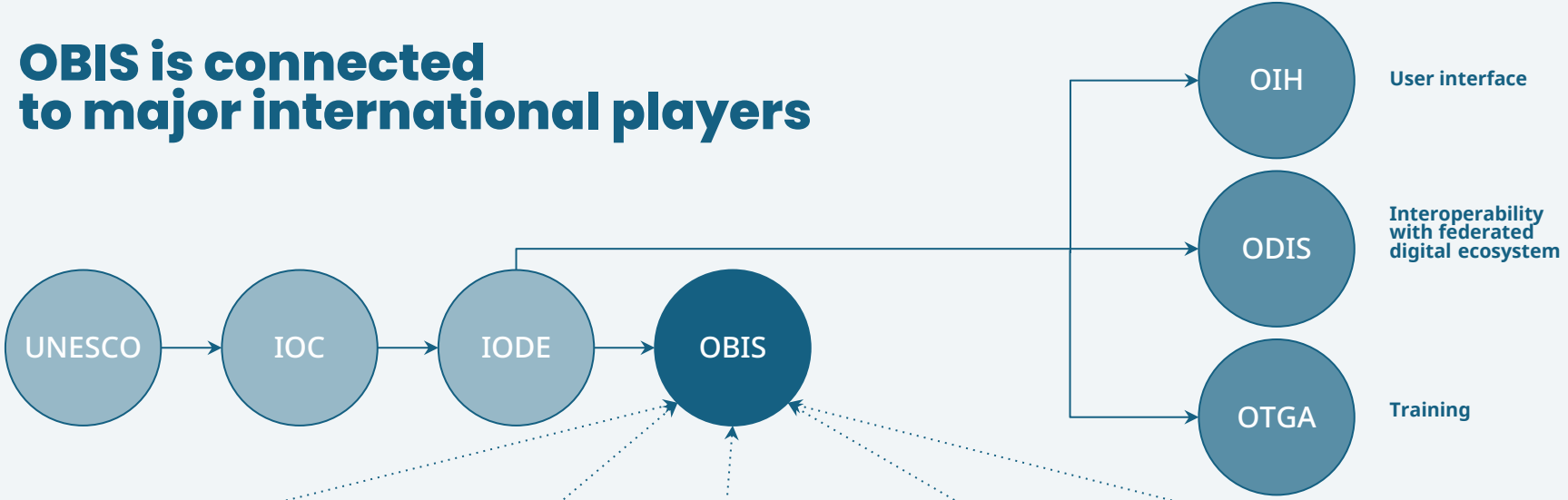
6,650
datasets

200
scientific papers/year

unesco
Intergovernmental Oceanographic Commission

OBIS
OCEAN BIODIVERSITY INFORMATION SYSTEM

OBIS is connected to major international players



Partnership for Observation of the Global Ocean

Technological Innovation, capacity development, outreach and advocacy

Global Ocean Observation System

EOVs, setting requirements and coordination of obs networks

Global Biodiversity Information Facility

Training, standards, Interoperability

Marine Biodiversity Observation Network

R&D and implementation of observation networks

Projects

EMODnet
MARCO-BOLO
MPA Europe
BioEcoOcean
eDNAqua-Plan
PacMAN
eDNA expeditions

OBIS data supports

crucial global & regional ocean assessments
to enable science-based decision making

unesco
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Oceanographic
Commission

OBIS
OCEAN BIODIVERSITY
INFORMATION SYSTEM

OBIS–GBIF Partnership (2024–2030)

Objectives

→ Provide FAIR/CARE-aligned marine biodiversity data for science & policy.
→ Secure long-term archiving & sustainability of both networks.

Joint strategy

Runs to 2030, renewed annually via action plan.

Focus on technical integration (standards, data models, tools) and community & capacity building (training, mobilization, engagement).

Guided by an implementation committee; focal points: Andrew Rodrigues (GBIF) & Ward Appeltans (OBIS).

2024 Action Plan

Technical focus
- Development of shared standards & vocabularies
- reinforcement of GBIF/OBIS interoperability
- user access improvement.

Community focus
- Joint data mobilization campaigns & data papers
- Regular community meetings & joint conferences
- Shared training curricula (e.g. OTGA)
- Guidance for GBIF nodes to engage marine stakeholders.

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Explore our data and our community

obis.org

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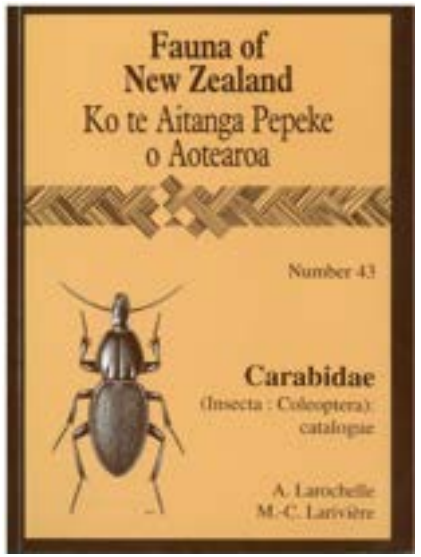
Checklists – a use case

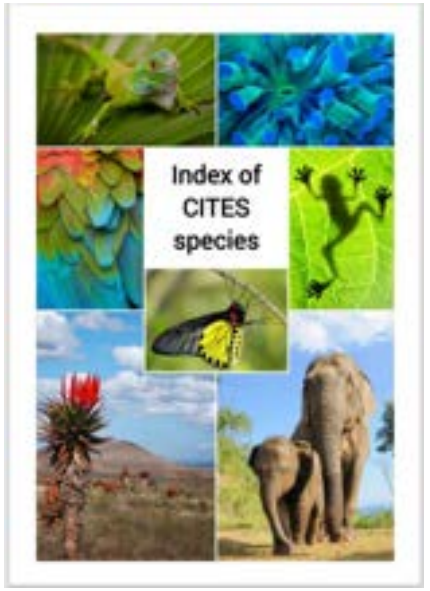
Aaron Wilton, 25 August 2025

GBIF New Zealand

Checklists

- List of the organisms
- Vary in scope
  - Geographical
  - Taxonomic group
  - Taxonomic level
  - Ecological
  - Management status
- Vary in content
  - Scientific names
  - Vernacular names
  - Classification
  - Associated literature
  - Distribution
  - Origin and Occurrence





Organism names are the key to biological information

But…

- Complex relationships
  - mapping of vernacular to scientific names
  - Between scientific names
  - Misapplications
  - Taxonomic differences
- High error rates
- Varied and specialised abbreviations and formatting

f. = *fil.* = *filius* (son of) ≠ forma = fo. = **f.**

GBIF NZ

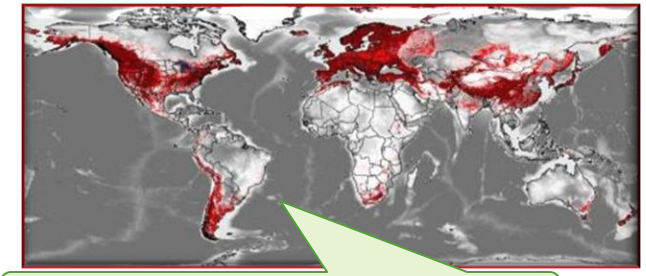
Sarracenia psittacine not ***Sarracenia psyttacina***
Zoopsis flagelliformis not ***Zoopsis flagelliforme***

L. = Linn. = Linnaeus

Zoology: *Sardia rostrata pluto* (Kirkaldy, 1906)

Botany: *Asplenium appendiculatum* (Labill.) C.Presl subsp. *appendiculatum*

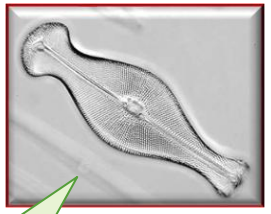
Adiantum trapeziforme L. ≠ Adiantum trapeziforme G.Forst. (= Adiantum cunninghamii Hook.)



Didimosphenia geminata

AAAAAGCTCGTA**GTTGGATTTGTGATGGA**
ATTTGAATACTTTTAAAGTGTT**CTAGAAAC**
TGTCATCCGTGGGTGGAATTTGTTTGGCA
TTAGGTTGTCAGRCAGAGGATGCCTATMCT
TTACTGTGAAAAAATCAGTGCGTTCAAAGC
AG**ACTTACGTCGATGAATGTATTAG**CATG
GAA

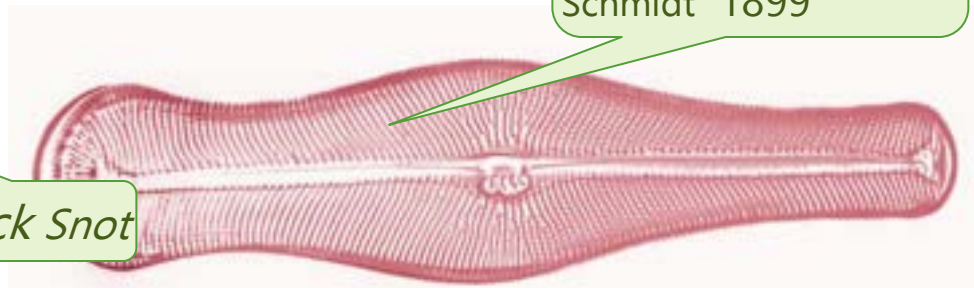
didymo



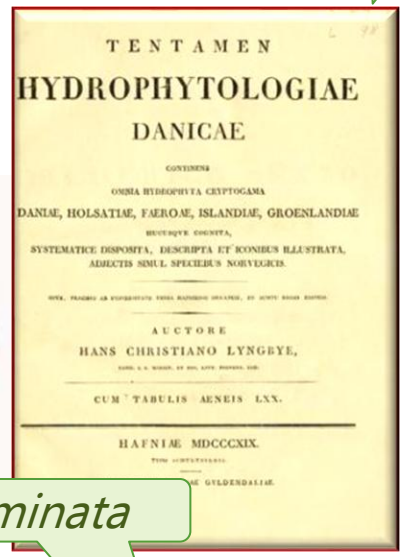
Gomphonema vulgare Bréb.

Echinella geminata

Rock Snot



Didymosphenia geminata (Lyngbye) Schmidt 1899

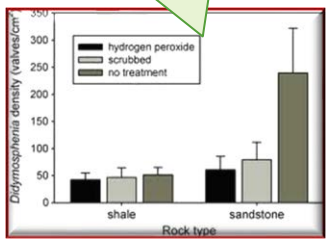

TENTAMEN
HYDROPHYTOLOGIAE
DANICAE
CONTINENS
OMNIA HYDROPHYTA CRYPTOGAMA
DANIAE, HOLSATIAE, FAEROAE, ISLANDIAE, GROENLANDIAE
HUCUSQUE COGNITA,
SYSTEMATICE DISPOSITA, DESCRIPTA ET ICONIBUS ILLUSTRATA,
ADJECTIS SIMUL SPECIEBUS NORVEGICIS.
AUCTORE
HANS CHRISTIANO LYNGBYE,
CUM TABULIS AENEIS LXX.
HAFNIAE MDCCCXIX.

didymo

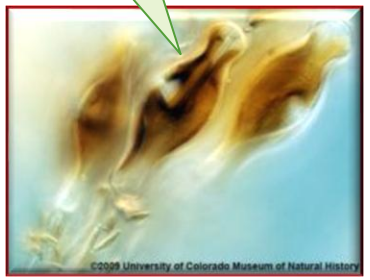
Didymosphenia geminata (Lyngbye)


Vorläufige Erläuterungen
A. Schmidt's
Atlas der Diatomaceenkunde

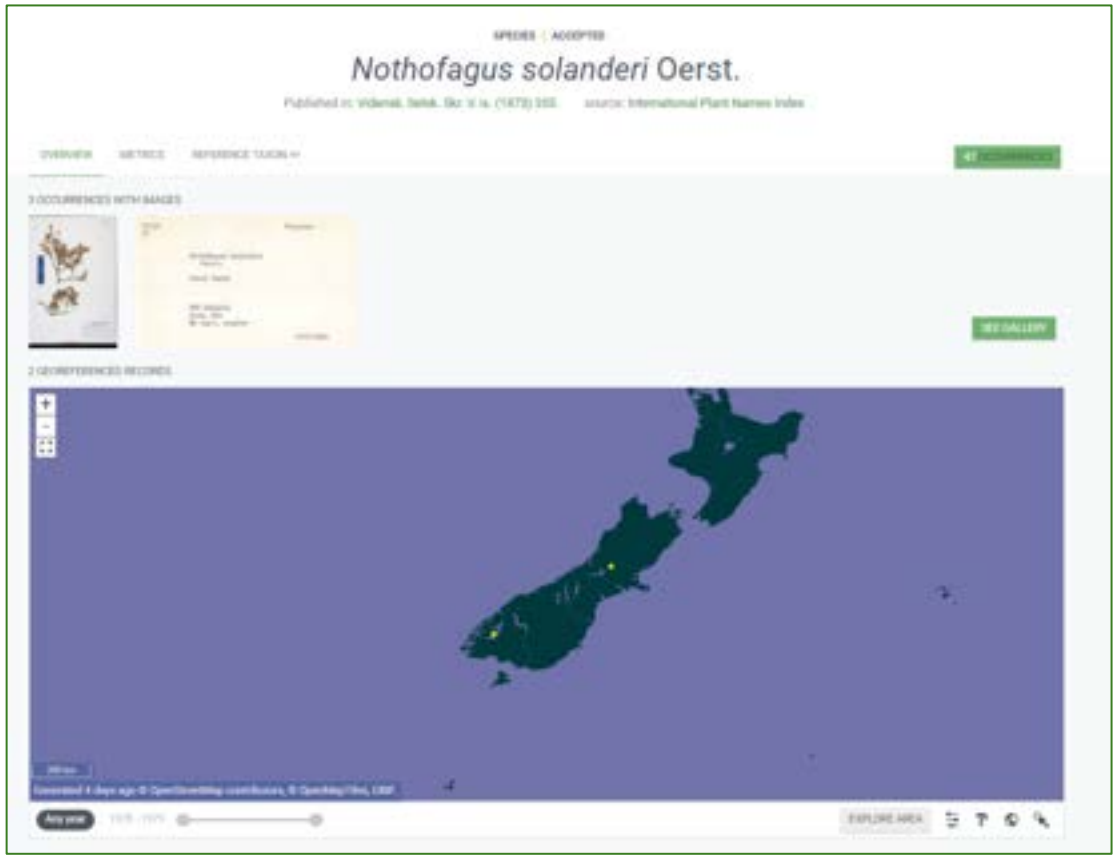
Didymosphenia geminata

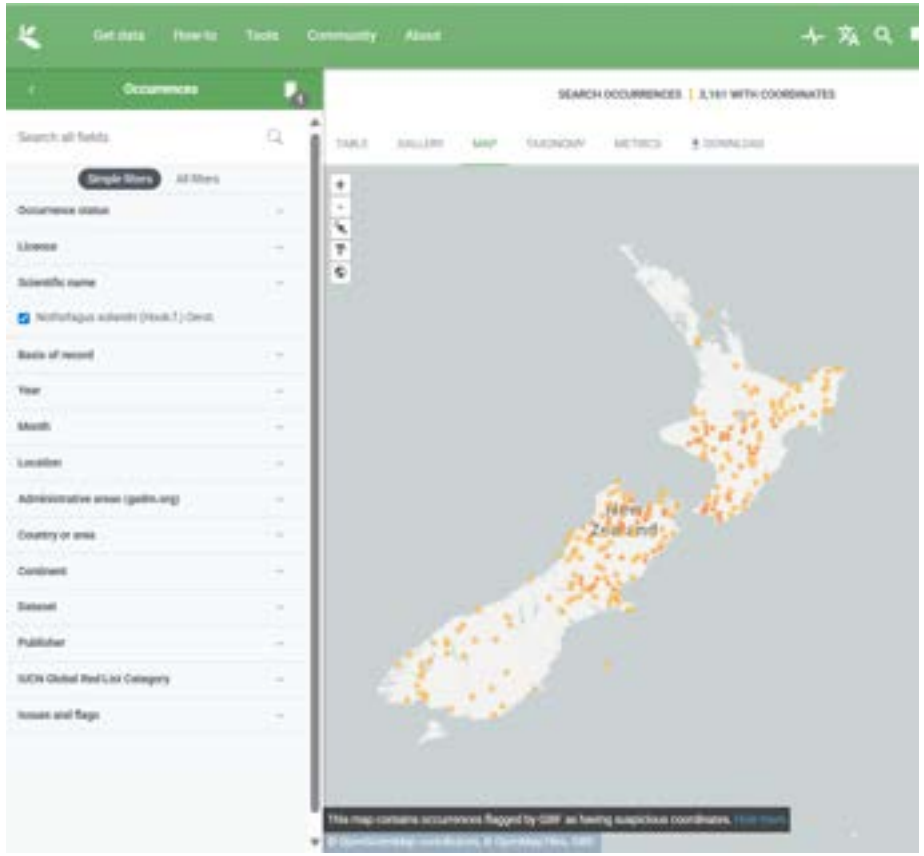


D. geminata



Slide credit: Jerry Cooper





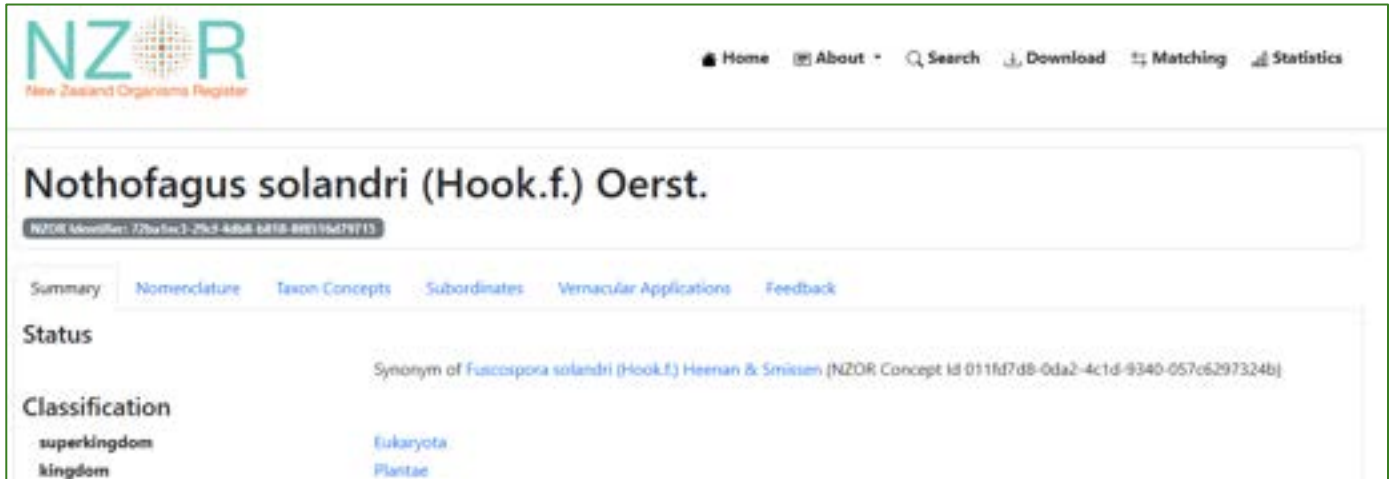
GBIF NZ

APPEARS IN 3 CHECKLIST DATASETS:

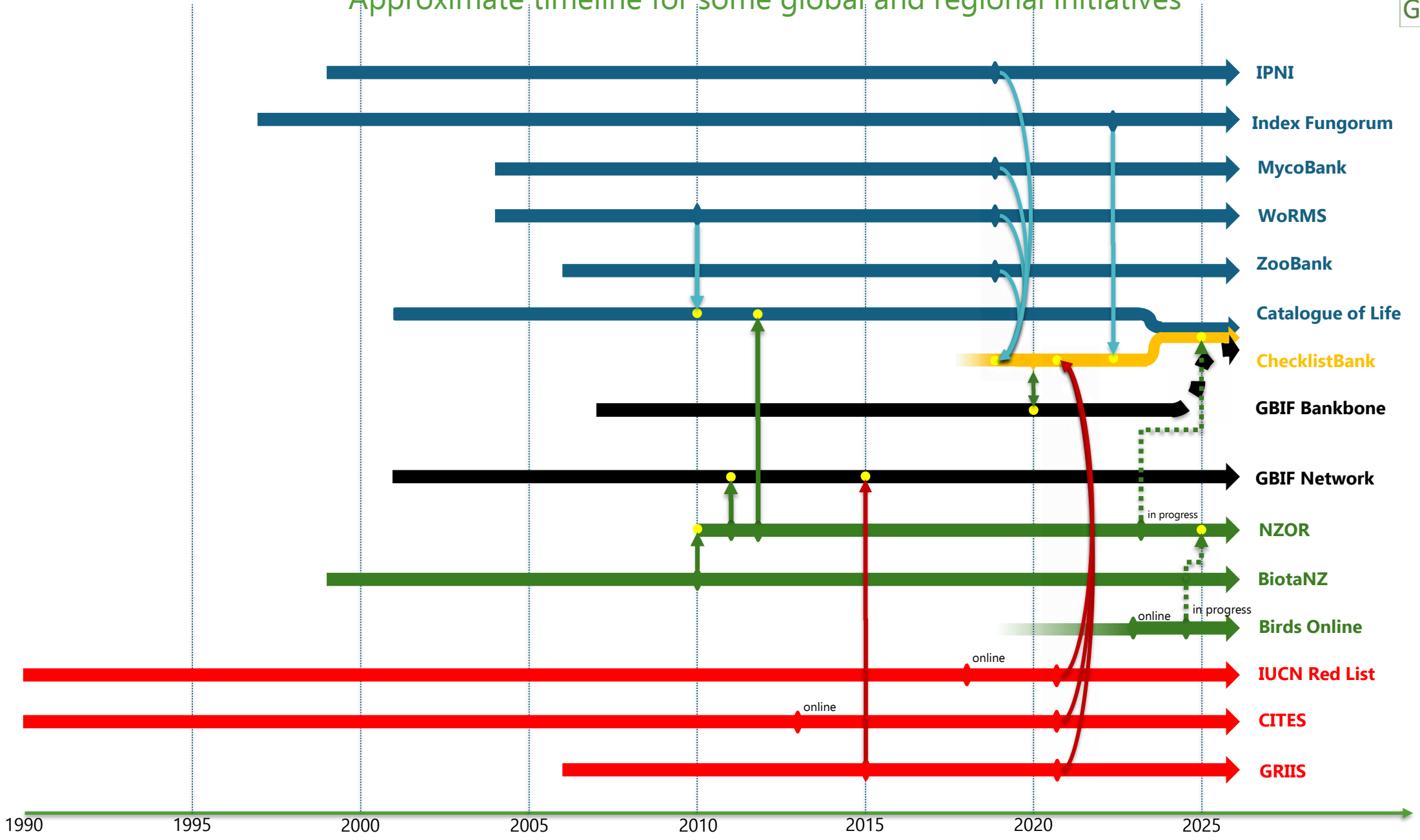
GBIF Backbone Taxonomy
As Nothofagus solanderi Oerst.

Catalogue of Life
As Nothofagus solanderi (Hook.fil.) Oerst.

International Plant Names Index
As Nothofagus solanderi Oerst.



Approximate timeline for some global and regional initiatives



About

Introduction

Contribute

Formats

API

Datasets

Tools

Name matching

Cross dataset search

Taxonomic alignment

Dataset comparison

Metadata generator

Archive validator

Vocabularies

WoRMS

Species in Catalogue of Life	Name Usages in ChecklistBank	Datasets in ChecklistBank	Latest COL Checklist
2,230,054	226,482,641	61,117	2025-08-20

The Catalogue of Life (COL) and GBIF aim to support the publication and curation of checklists and to provide a platform for their consistent discovery, use and citation. GBIF has for some time maintained a checklist index and supported the network of repositories for its community to share checklist data. COL and GBIF have united their capabilities to make ChecklistBank a consistent foundation and repository for all COL datasets and any other openly licensed species lists, inluding those mobilized and registered through GBIF.

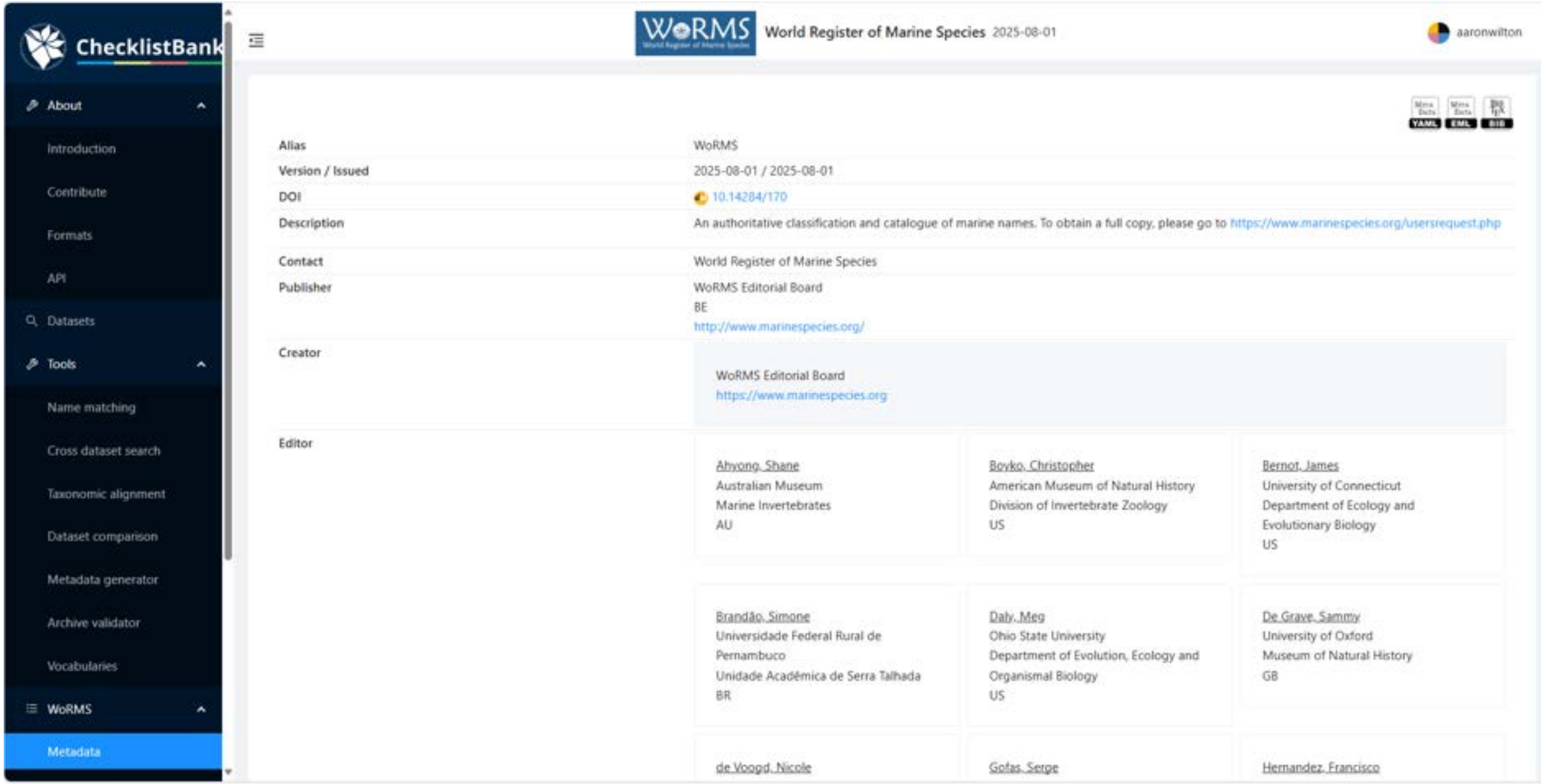
The taxonomic community can publish a checklist to ChecklistBank using ColDP or any other supported format.

Regardless of the original data format, ChecklistBank generates a standardised interpretation. All datasets can be searched, browsed, downloaded or accessed programmatically via the ChecklistBank API.

In order to use all functions of ChecklistBanks you will need to login with a GBIF user account. You can learn more about ChecklistBank in our introduction pages or our user and project tutorials.

Latest datasets added

- Anchusella cretica (Boraginaceae): a new genus and species record for the flora of Kosovo (Southeast Europe) (Aug 23rd 2025)
- The cavernicolous freshwater prawn in China, with description of two new species (Decapoda, Palaemonidae, Macrobrachium) (Aug 22nd 2025)
- A taxonomic revision of Garcinia section Discostigma (Clusiaceae) in Thailand (Aug 22nd 2025)


ChecklistBank
About
Introduction
Contribute
Formats
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Datasets
Tools
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Taxonomic alignment
Dataset comparison
Metadata generator
Archive validator
Vocabularies
WoRMS
Metadata
WoRMS World Register of Marine Species 2025-08-01
aaronwilton
YAML
EML
BIB
Alias
WoRMS
Version / Issued
2025-08-01 / 2025-08-01
DOI
10.14284/170
Description
An authoritative classification and catalogue of marine names. To obtain a full copy, please go to https://www.marinespecies.org/usersrequest.php
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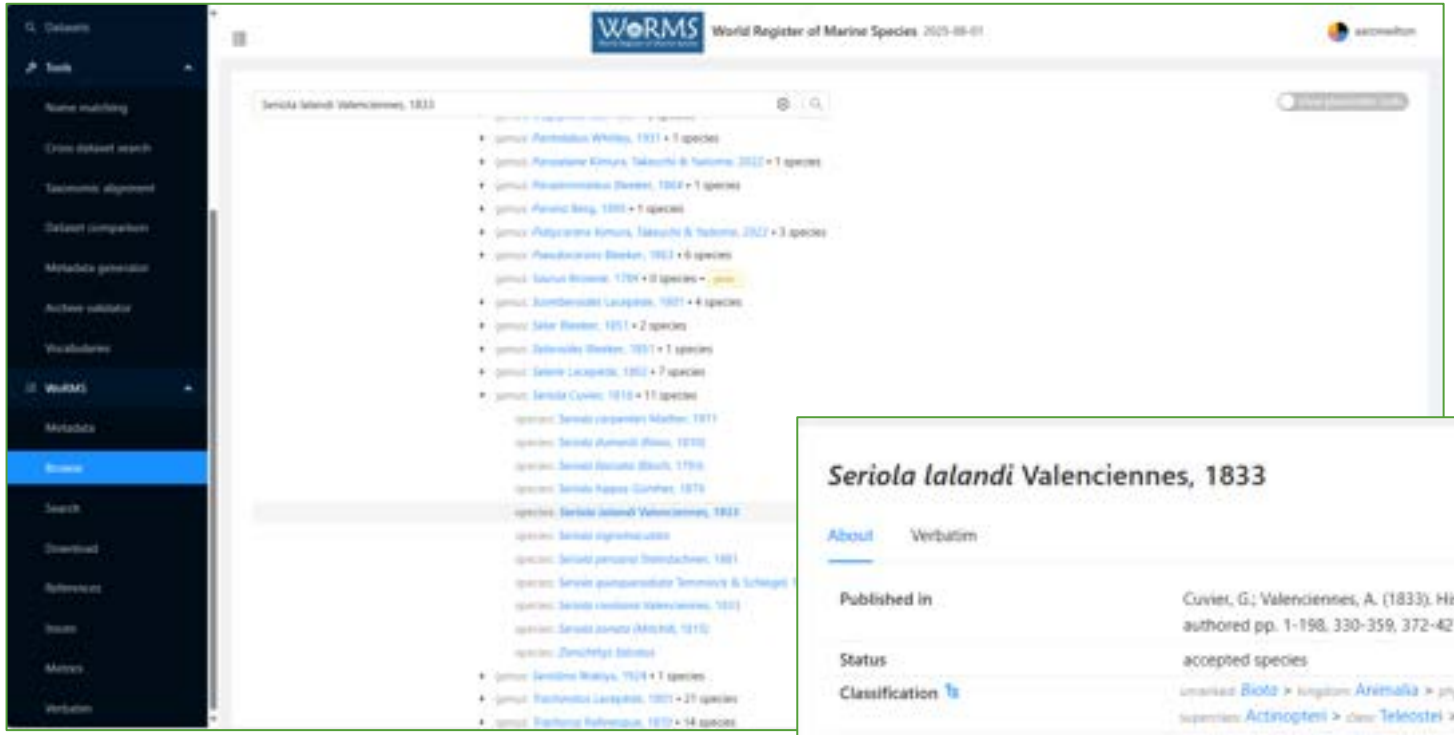

Seriola lalandi Valenciennes, 1833

Name details

About | Verbatim

Published in	Cuvier, G.; Valenciennes, A. (1833). Histoire naturelle des poissons. Tome neuvième. Suite du livre neuvième. Des Scombéroïdes. v. 9: i-xxix + 3 pp. + 1-512, Pls. 246-279. [Cuvier authored pp. 1-198, 330-359, 372-427; Valenciennes the balance. i-xxiv + 1-379 in Strasbourg edition. Pp. 429-512 contains additions and corrections for vols. 2 through 5.].
Status	accepted species
Classification	unranked *Biota* > kingdom Animalia > phylum Chordata > subphylum Vertebrata > infraphylum Gnathostomata > parvphylum Osteichthyes > gigaclass Actinopterygii > superclass Actinopteri > class Teleostei > order Carangiformes > family Carangidae > genus *Seriola* >
Synonyms and combinations	= *Seriola bonisteri* Smith, 1959 [TO] [4] = *Seriola kincki* Oelfin, 1903 [14] = *Seriola kinki* Oelfin, 1903 [14] = *Seriola mazatlana* Steindachner, 1876 [TO] [4] = *Seriola grandis* Castelnau, 1872 [MO] [4] = *Holotractus dorsalis* Gill, 1863 [14] = *Lichia pappei* Bleeker, 1859 [TO] [14] = *Seriola aureovittata* Temminck & Schlegel, 1845 [TO] [4] = *Seriola dorsalis* (Gill, 1863) [14] = *Seriola ialandi* Valenciennes, 1833 [14] = *Seriola lalandei* Valenciennes, 1833 [14] = *Seriola lalandei dorsalis* (Gill, 1863) [14] = *Seriola lalandi* Valenciennes, 1833 [14] = *Seriola pappei* (Bleeker, 1859) [14]
Environments	marine
Vernacular names	Name | Transliteration | Language | Country | Ref | Remarks

24478	ISSG24478	Global Register...	2020-09-10		Rakaj M., Paga...		Invasive Species Specialist Group ISSG	Pagad S.	external	Pagad S.	other	cc by
24479	ISSG24479	Global Register...	2025-03-08		Champion P., ...		Invasive Species Specialist Group ISSG	Pagad S.	external	Pagad S.	other	cc by
		23						Journal		P.		
24480	53131	IUCN	The IUCN Red ...	2025		International U...			Tarr S., Blissett ...	external	Hilton-Taylor C.	oth
	310627	Hicham2025	Checklist of vas...	2025-06-26		El Zein H., Fois ...		PhytoKeys		external	El Zein H.	artic
	53147	GBIF	GBIF Backbone...	2023-08-28		Döring M.		GBIF Secretariat		external	Döring M.	taxo

Global Register of Introduced and Invasive Species - New Zealand

New Zealand

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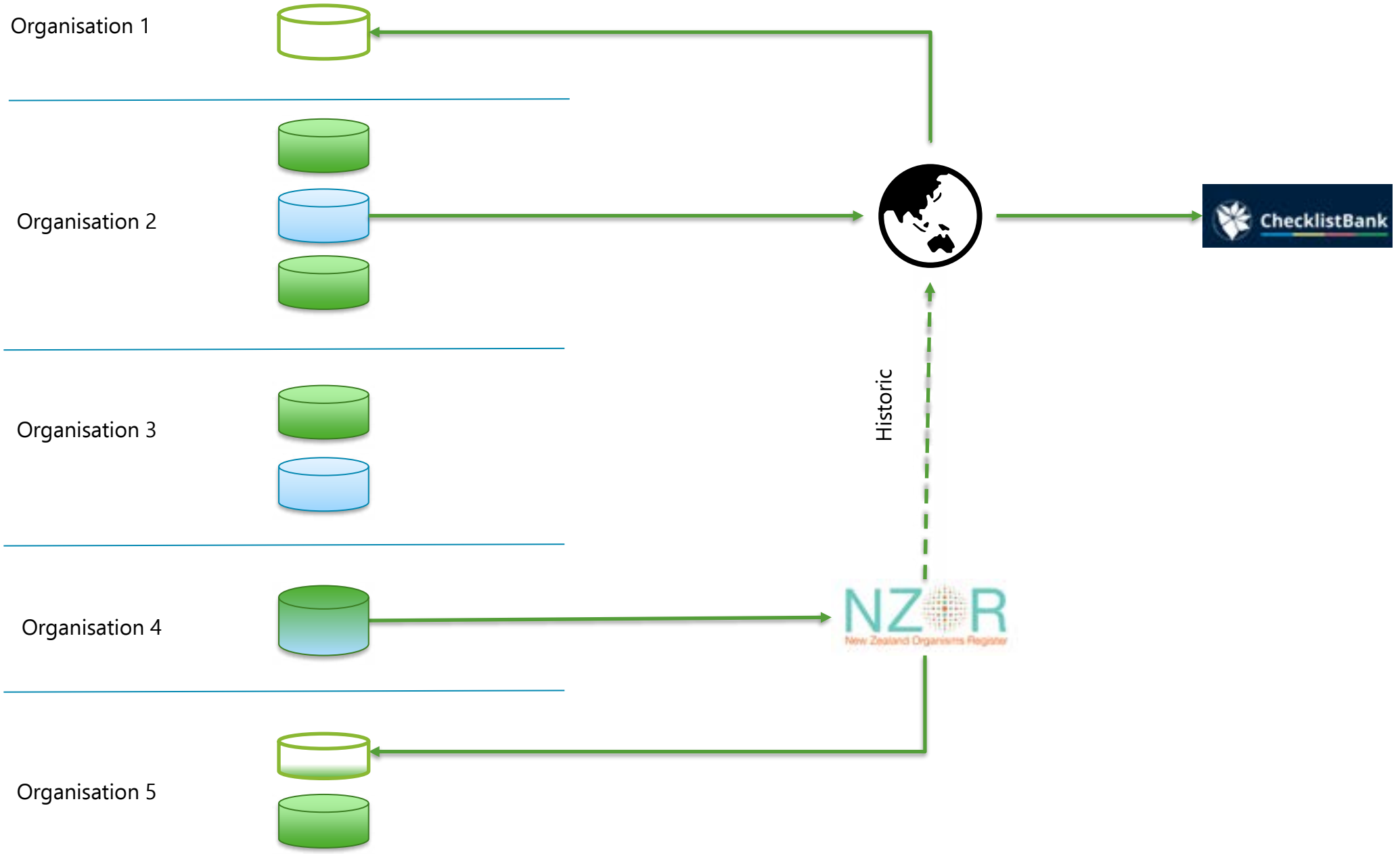
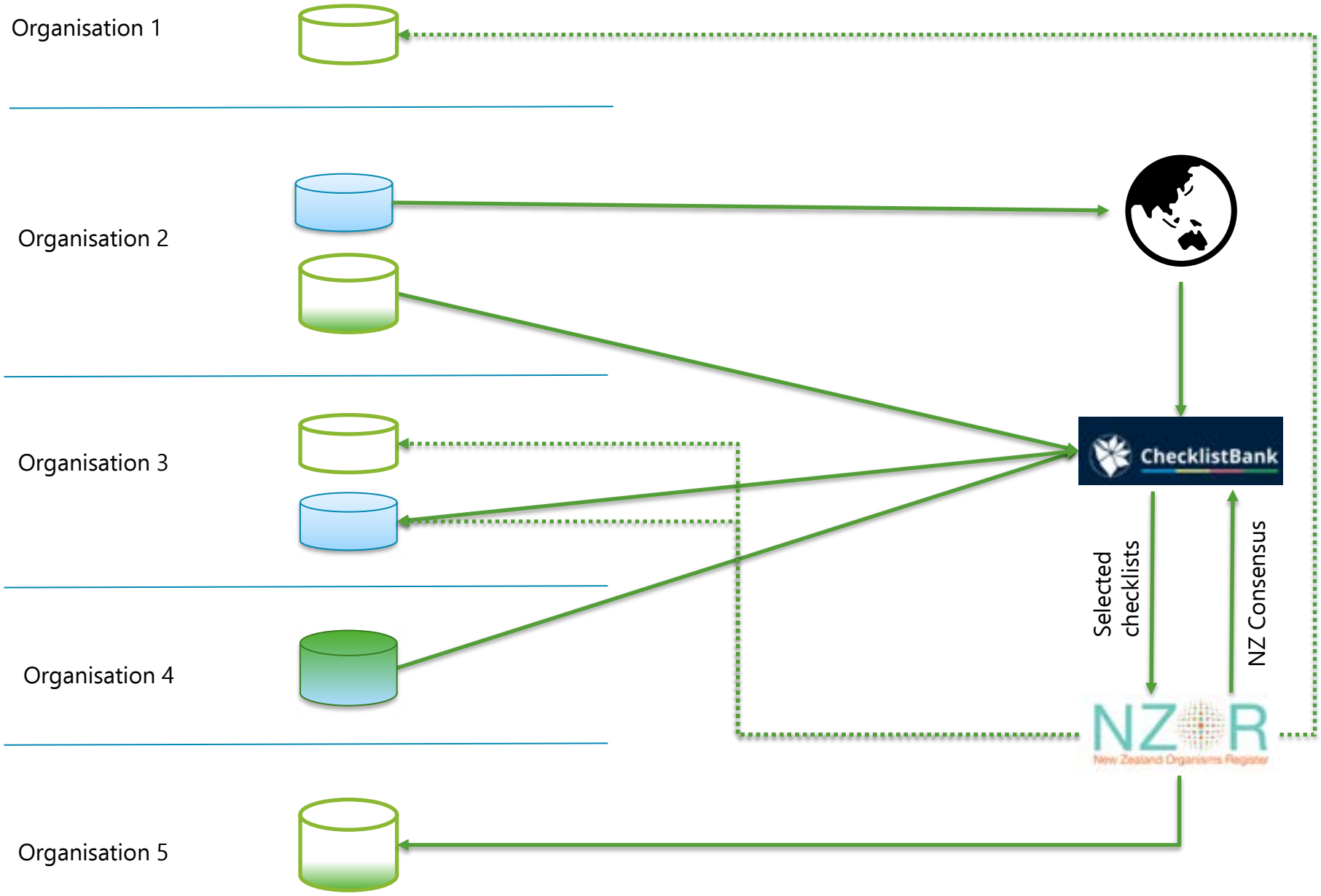
Recently visited: WoRMS | IPNI | Index Fungorum | MycoBank | ZooBank

1 - 50 of 496

Key	Alias	Title	Version	Logo	Creator	Editor	Publisher	Contributor	Origin	Contact	Type	Licens
49058	Pawson2007	Heteromolpadi...	1732845776807		Pawson D. L., V...		Plazi.org taxonomic treatments database		external	Sautter G.	article	cc0
50174	Hosie2008	First records of ...	1732818270143		Hosie A., Ahyo...		Plazi.org taxonomic treatments database		external	Sautter G.	article	cc0
43979	Ahyong2013	Munidopsis kar...	1732853569248		Ahyong S. T.		MagnoliaPress via Plazi		external	Sautter G.	article	cc0


Organisation 1
Organisation 2
Organisation 3
Organisation 4
Organisation 5
Historic
ChecklistBank
NZOR
New Zealand Organisms Register


Organisation 1
Organisation 2
Organisation 3
Organisation 4
Organisation 5
ChecklistBank
Selected checklists
NZ Consensus
NZOR
New Zealand Organisms Register

SWAT: a Smart Weed Alert Tool to detect new weeds early

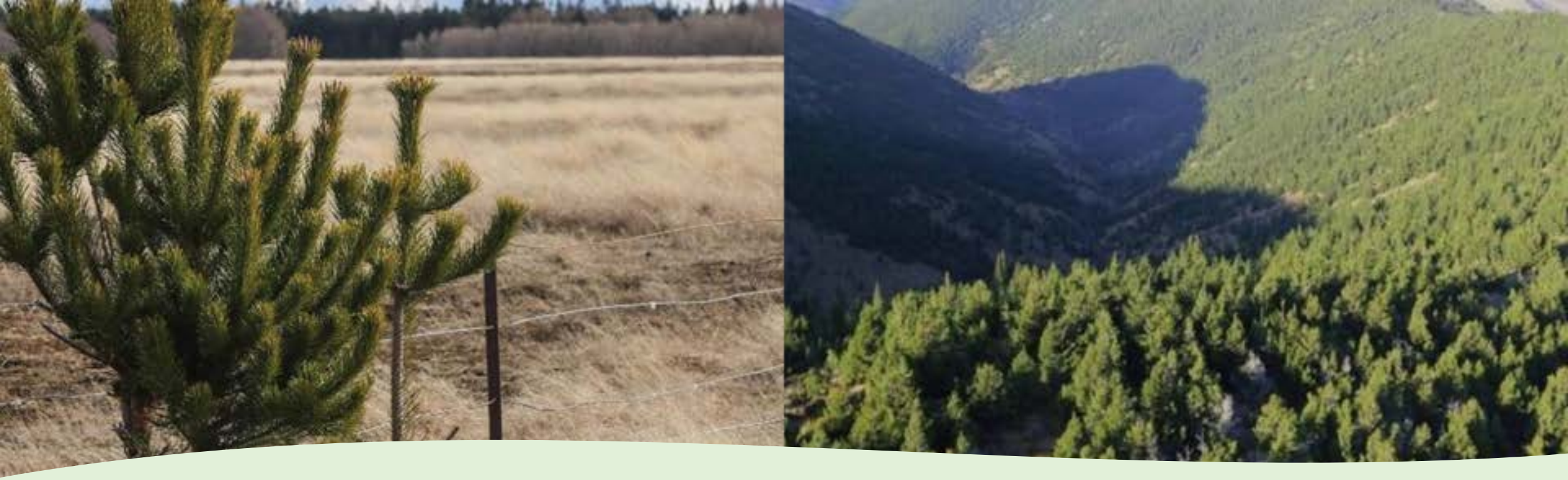
Kate McAlpine and
Nigel Charman

Department of Conservation
Te Papa Atawhai

New Zealand is very weedy!

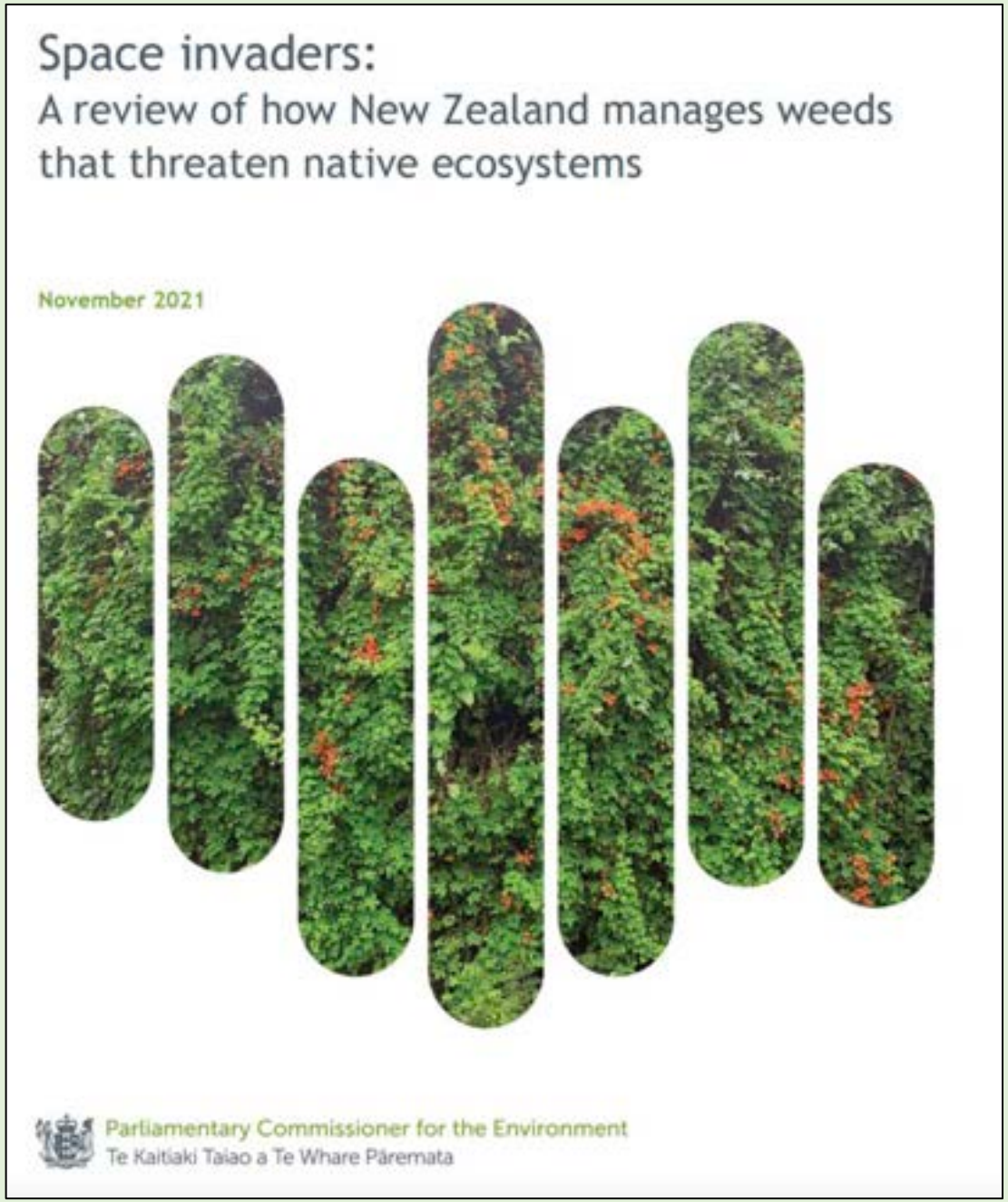
- ~400 environmental weeds
- ~2000 plant species starting to naturalise
- ~25,000 other exotic plant species already in New Zealand

Early detection is key!



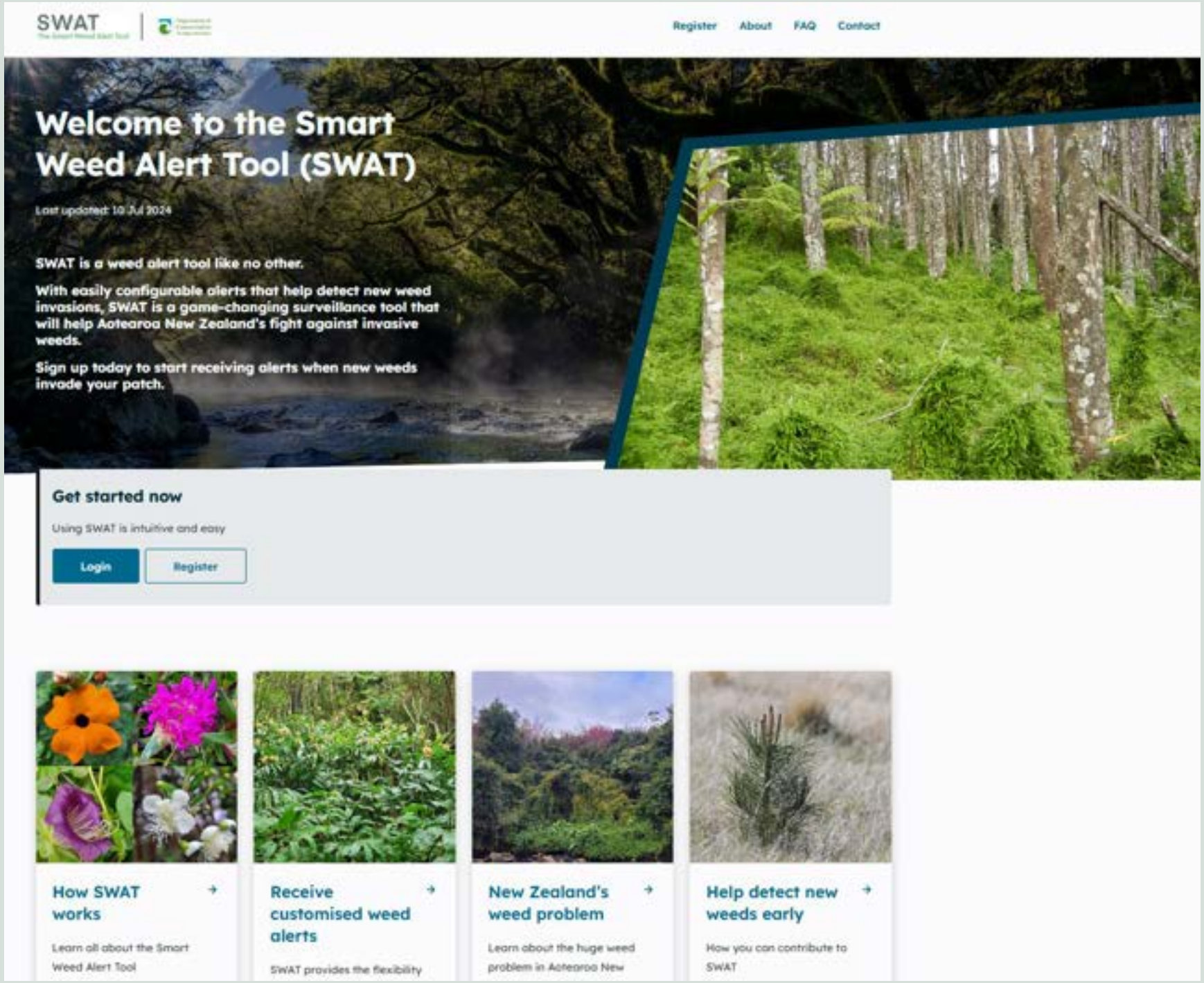
- Early detection = early control is possible
- Early control = cheaper, easier
- Early control = fewer biodiversity / ecosystem impacts


But we have no system for early detection of new weeds – we rely on luck



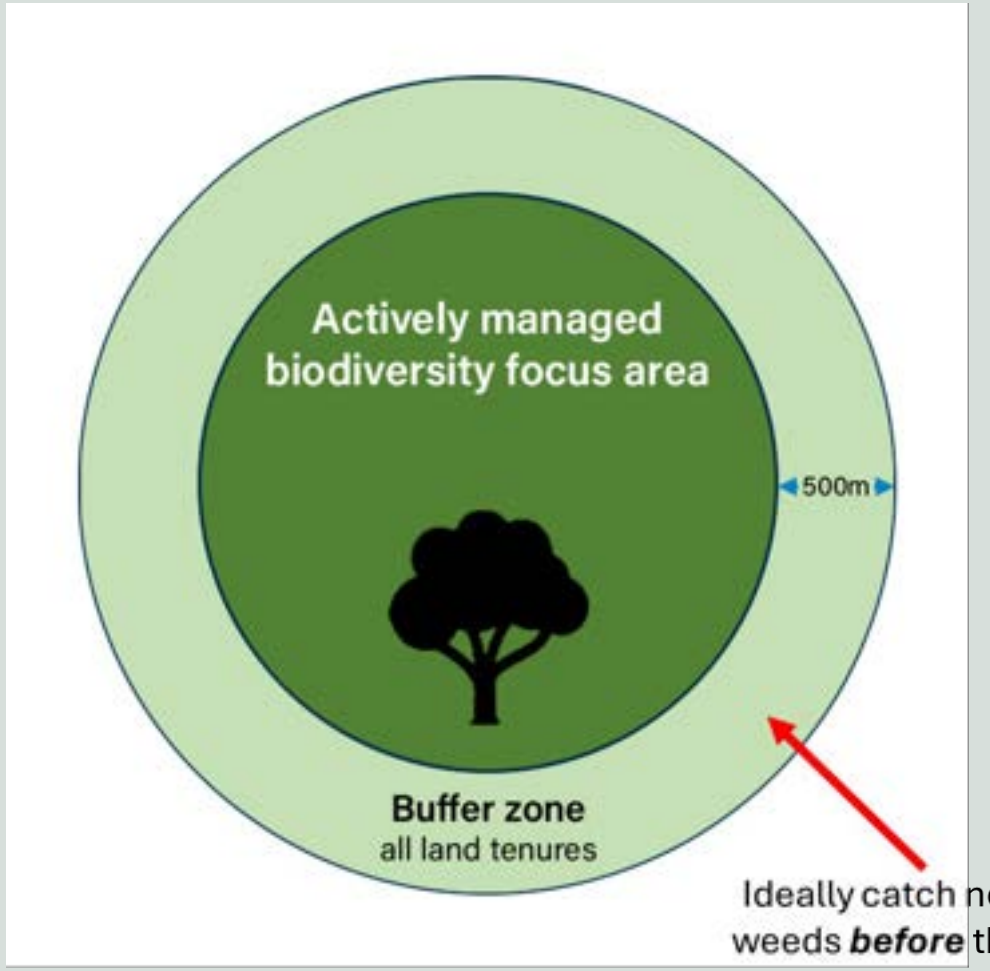
- Weed surveillance is patchy and relies on luck
- There is no systematic surveillance for the tens of thousands of exotic plant species already in New Zealand
- No regular scanning of iNaturalist for new possible incursions
- Need a better system to detect new and emerging weeds

- The Smart Weed Alert Tool (SWAT) will use GBIF data to improve early detection of new weeds
- A gamechanger for weed surveillance



Users can set up highly specific weed alerts based on their criteria of interest

- Type of weed
  - New or uncommon
  - Particular category
  - Particular species
- Geographic area
  - Whole of New Zealand
  - Region, district, suburb
  - Community group, iwi area
  - User-defined area
- Buffer zone



Examples of SWAT alert scenarios

Anyone managing weeds

- First record of a species in selected area/region/place

DOC

- Environmental weed within 200m of Operations District

Regional Councils

- RPMP species in region – and/or neighbouring region, + buffer
- Can refine by programme (e.g. Exclusion and Eradication species)

MPI

- NIPR species, Notifiable Organisms anywhere in NZ

Iwi, community groups, QEII etc

- Environmental weed recorded within 100m of their area boundary

Alert criteria/functionality	SWAT	Find-A-Pest	GBIF Alert	iNaturalist alert tool	Australia Living Atlas (ALA) Alert	WeedScan (not live yet)	NatureMapr
User can set up own alerts	✓	✗	✓	✓	✓	✓	✗
Species info							
Select species of interest	✓	✓	✓	✓	✓	✓	✓
Don't have to define/select species of interest	✓	✗	✗	✗	✗	✗	✗
Select RPMP species	✓	✗	✗	✗	✗	✗	✗
Select UO or NO species	✓	✗	✗	✗	✗	✗	✗
Select species on Environmental Weed List 2024	✓	✗	✗	✗	✗	✗	✗
Select NPPA species	✓	✗	✗	✗	✗	✗	✗
Select NIPR species	✓	✗	✗	✗	✗	✗	✗
Record threshold							
First record of a species (in defined area)	✓	✗	✗	✗	✗	✗	✗
First 10 (or user-defined number) records of a species	✓	✗	✗	✗	✗	✗	✗
Every time a species is recorded	✓	✓	✓	✓	✓	✓	✓
Spatial							
Define region	✓	✓	✓	✓	✓	✓	✓
Define Regional, District or City Council boundaries	✓	✗	✗	✓	✓	?	?
Define DOC region or EMU	✓	✗	✗	✗	✗	✗	✗
Define iwi boundary	✓	✗	✗	✗	✗	✗	✗
User-defined boundary	✓	✗	✓	✓	?	✗	?
Include buffer zone around defined area	✓	✗	✗	✗	✗	✗	✗
Information included in alert email							
Species, date, location	✓	✓	✓	✓	✓	✓	✓
NZ legal or management status info	✓	✗	✗	✗	✗	✗	✗
Distance to nearest (other) record of alert species	✓	✗	✗	✗	✗	✗	✗
Location accuracy on each record	✓	✗	✗	✗	✗	✗	✗
Weediness information	✓	✗	✗	✗	✗	✗	✗
MPI and RC information relevant to alert species	✓	✗	✗	✗	✗	✗	✗

How does SWAT work?

Pulls in new exotic plant records from GBIF – daily

Scans new records – match any users' alert criteria?

Yes – send user an alert (email)

Alert includes summary of the records that have triggered the alert (species, place, number of previous records for the species)

Full alert page in SWAT – lots more info, including maps

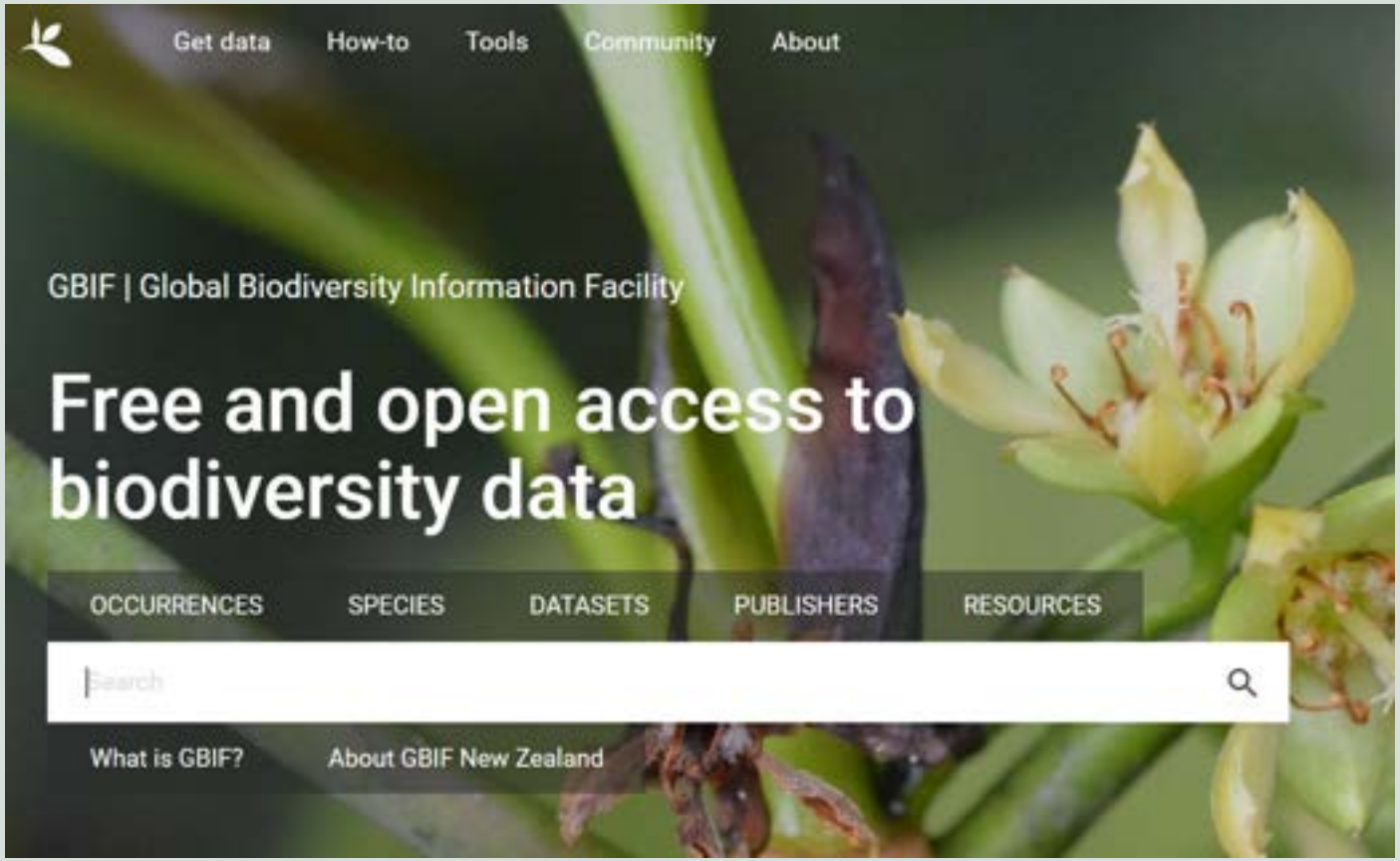
Full species page in SWAT (17,000 so far) – legal status, weediness info, control info, lots more

Plus…

...a distribution map with slider to go back and forth in time

- National or regional scale
- New record in red
- How cool?!

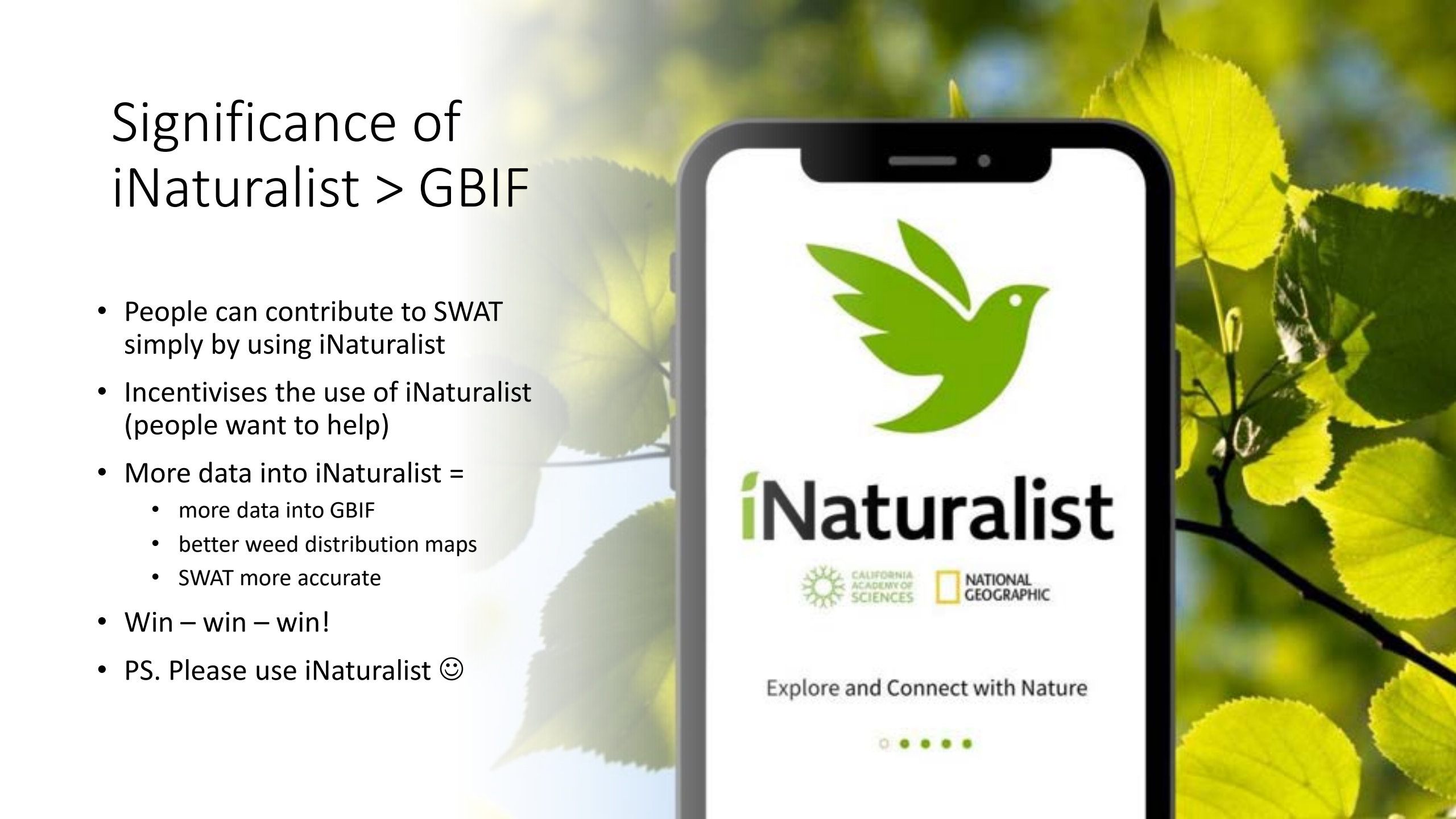
SWAT will use GBIF data



- iNaturalist observations
- Herbarium data
- National Vegetation Survey (NVS) data
- ~30 other data sets
- Regional Councils and DOC working on getting data into GBIF

Significance of iNaturalist > GBIF

- People can contribute to SWAT simply by using iNaturalist
- Incentivises the use of iNaturalist (people want to help)
- More data into iNaturalist =
  - more data into GBIF
  - better weed distribution maps
  - SWAT more accurate
- Win – win – win!
- PS. Please use iNaturalist ☺



Using GBIF data means SWAT will be easily adapted to other organism types




And other countries (the whole world will be interested!)

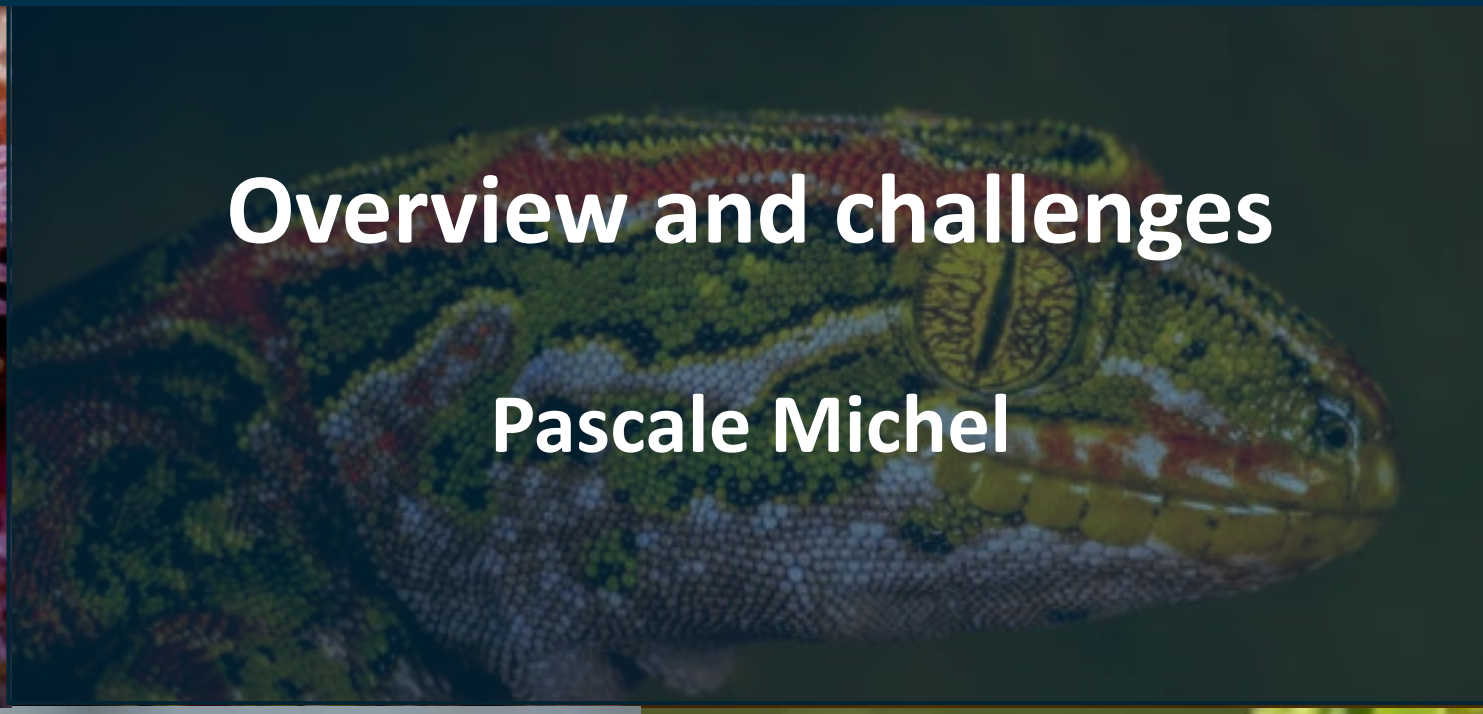
Questions?

Department of Conservation
Te Papa Atawhai

@katemcweedatwork

tree lomatia (*Lomatia fraseri*)

THREATENED SPECIES LISTINGS



Overview and challenges

Pascale Michel

Department of Conservation
Te Papa Atawbai

THREATENED SPECIES LISTINGS

Conservation status of species
based on species distribution, abundance and trends

LISTING	IUCN – Red List of Threatened Species	New Zealand Threat Classification (NZTCS) [Regional TCS]
EXTEND	Global	National
CATEGORIES & CRITERIA	7 categories	14 categories + qualifiers Weighted criteria thresholds
TAXONOMIC UNIT Based on morphology, genetics and ecology	Species Subspecies? Taxonomically determinate [e.g. *Charadrius obscurus* – red-breasted plover]	Species, subspecies, varieties, forms Taxonomically determinate + Taxonomically unresolved (including "tag names" [interim]) [e.g. *C. o. aquilonius*, *C.o. obscurus* – southern and northern NZ plover; *Craspedia* aff. *minor* (AK 228074; Chatham Island)]

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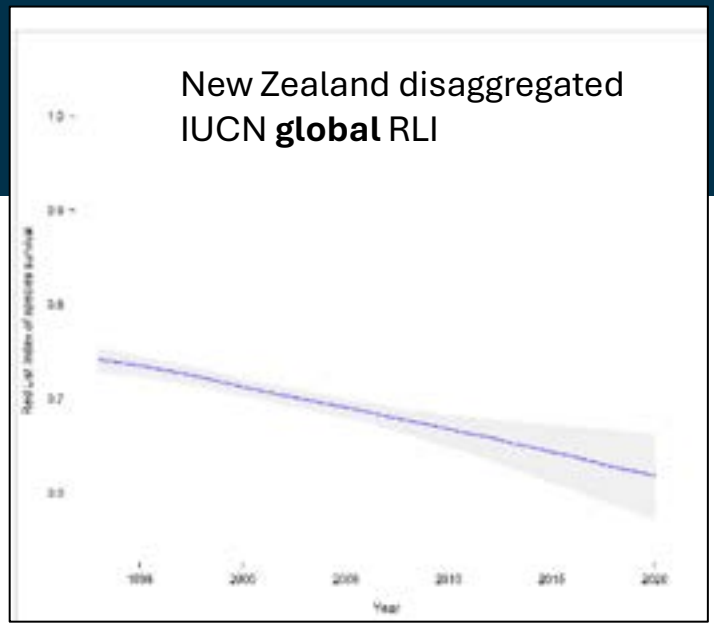
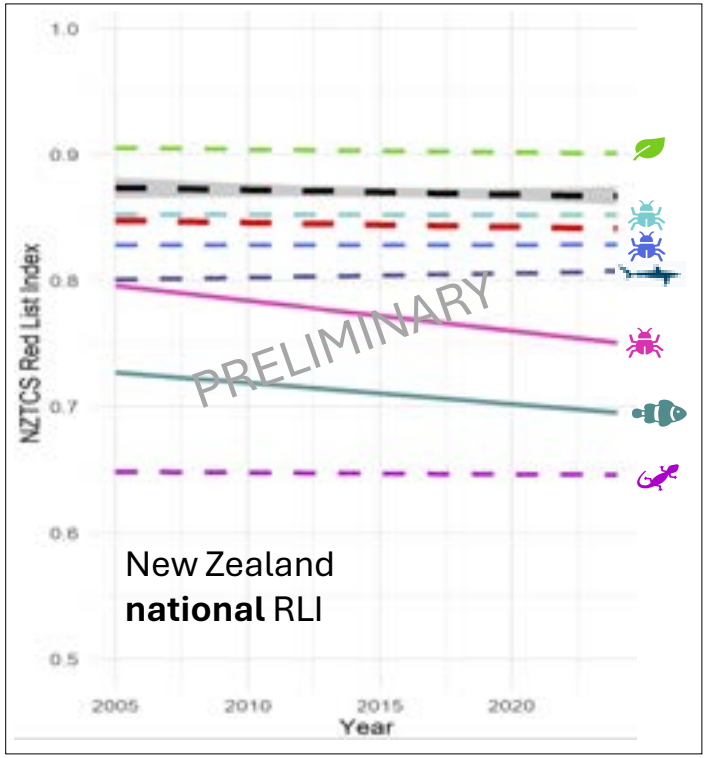
THREATENED SPECIES LISTINGS

Measuring change in conservation status over time

NUMBER OF THREATENED TAXA		Annual reporting: National (ANZBN outcome 2) international (e.g. OCDE)
RED LIST INDEX based on genuine improvement	IUCN - Global RLI CBD indicator A.3 Country's contribution to global extinction risk Based on 298 spp. from 4 taxonomic groups (mammals, birds, amphibians, corals)	NZTCS - National RLI ANZBN outcome 2 CBD Goal A – indicator A.3 National extinction risk for the proportion of species' population occurring within the country's boundary Based on ~ 8,000 taxa from >20 taxonomic groups.
NE 500 INDICATOR		Genetic Diversity Index CBD indicator A.4





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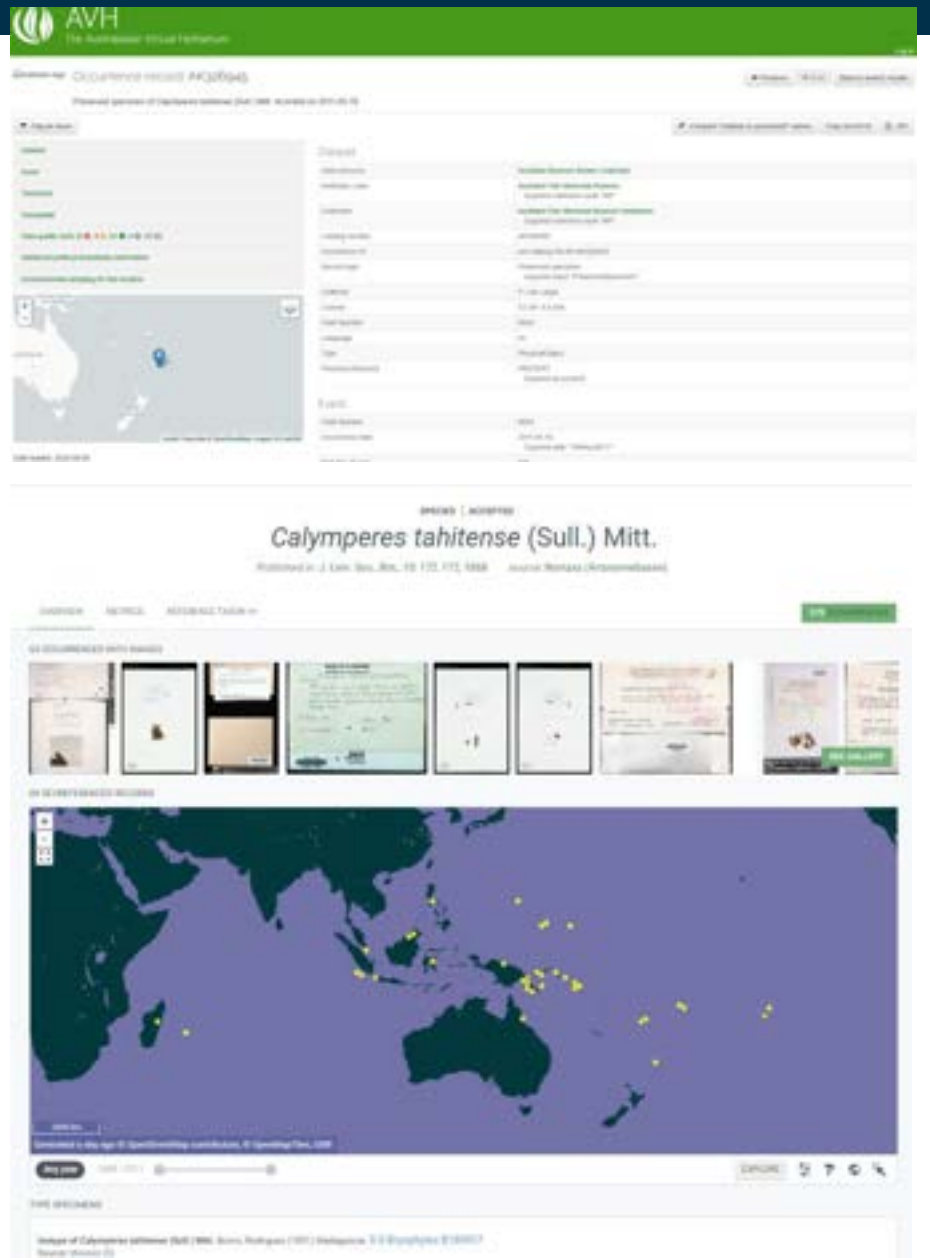
THREATENED SPECIES LISTINGS

Data sources

CHALLENGES	NEEDS
Multiple sources of data: international platforms, national and regional databases, private data sources, non-digitalised collections and experts knowledge	Centralised platform
Taxonomic inconsistency - Taxonomic up-dates - Unresolved taxa (NZTCS = 51 unresolved taxa)	One point of truth (e.g. NZOR) Flexibility in taxonomic level and definition
Exporting format for analysis - Access to granular level information - Estimates of trend and abundance	Standardised datasets



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THANK YOU

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Data mobilisation and digital enablement for pest management

New Zealand Established Pests Portal


Biosecurity New Zealand
Ministry for Primary Industries
Manatū Ahu Matua

Michael Berardozzi

Lists of species

Status under Biosecurity Act (ONZPR) ; NPPA

MPI

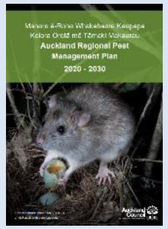
International Lists

👍 **Connected to ONZPR via API : "Live" connection, requiring limited maintenance other than species key equivalence, accommodates for changes**

Environmental weeds

DOC

MPI files



RPMP
Pest status

TUK

😞 **Manual conversion of 16 .pdf documents in various formats into an Excel spreadsheet, no processes for updates**

27 May 2025	Minor changes approved by council 27 May 2025	Table 4.1 Organisms declared as pests Section 6.4 Sustained control plants Rule 6.4.6 Rule 6.4.7	Substitution of Madagascar ragwort (*Senecio madagascariensis*) for gravel groundsel (*Senecio skirrhodon*) on the basis of initial misidentification, resolved through DNA analysis.

Opportunity to have RPMP lists uploaded onto GBIF as checklists?
Lots of groundwork done already for weeds in particular and all established pests in general

Species identification challenge: Example : Moth plant

Source	Name used	
iNaturalist	*Araujia sericifera* (Moth plant)	
Auckland Council	*Araujia sericifera* syn. *Araujia hortorum* – Moth plant	
Waikato Regional Council	Moth plant (*Araujia hortorum*)	
Bay of Plenty Regional Council	Moth plant – *Araujia hortorum*	
Gisborne District Council	*Araujia sericifera* - Moth plant	
National Pest Plant Accord (MPI)	*Araujia hortorum* (Moth plant)	
Official New Zealand Pest Register (MPI	*Araujia sericifera* (synonym *Araujia hortorum*) Mothplant	

- Ideally, everyone uses one same taxonomic name for identification in their systems/documents

- Realistically, there are differences due to opinions, difference in timing updates, system limitations, etc..

→ Need a stable solution allowing for those practical differences and potential changes

Moth Plant

NZOR New Zealand Organisms Register

GBIF Global Biodiversity Information Facility

Synonyms

NzorId	NzorFullName
17d2fd96-3aa1-4871-8dd0-7b22a812f6be	*Araujia albens* (Mart.) G.Don
★ *b7b2caa8-cdbd-4f16-aeb3-976d5c435237*	★ *Araujia sericifera* Brot.
★ ***14f33dad-e5fe-431a-b681-0b53a619e471***	★ ***Araujia hortorum* E.Fourn.**
a7e05a6f-cad6-4fa0-b39a-c274c3124100	*Araujia sericifera* botanists New Zealand botanists
1fa70d9b-cbdd-4f9a-8c53-9051d2d24792	*Araujia sericifera* var. *hortorum* (E.Fourn.) Malme

Synonyms

SCIENTIFIC NAME	TAXON KEY
Araujia calycina Decne.	3580105
Araujia albens (Mart.) G.Don	3580125
★ ***Araujia sericifera* Brot.**	★ **3170442**
Araujia hortorum E.Fourn.	3579928
Araujia sericifera f. calycina (Decne.) Malme	3579877
Araujia sericifera f. hortorum (E.Fourn.) Malme	6416831
Araujia sericifera var. *hortorum* (E.Fourn.) Malme	3579858
Araujia sericofera Brot.	3170443
Physianthus albens Mart.	3576154

Accepted taxon KEY

3170442

SPECIES KEY

3170442

One key to rule them all?

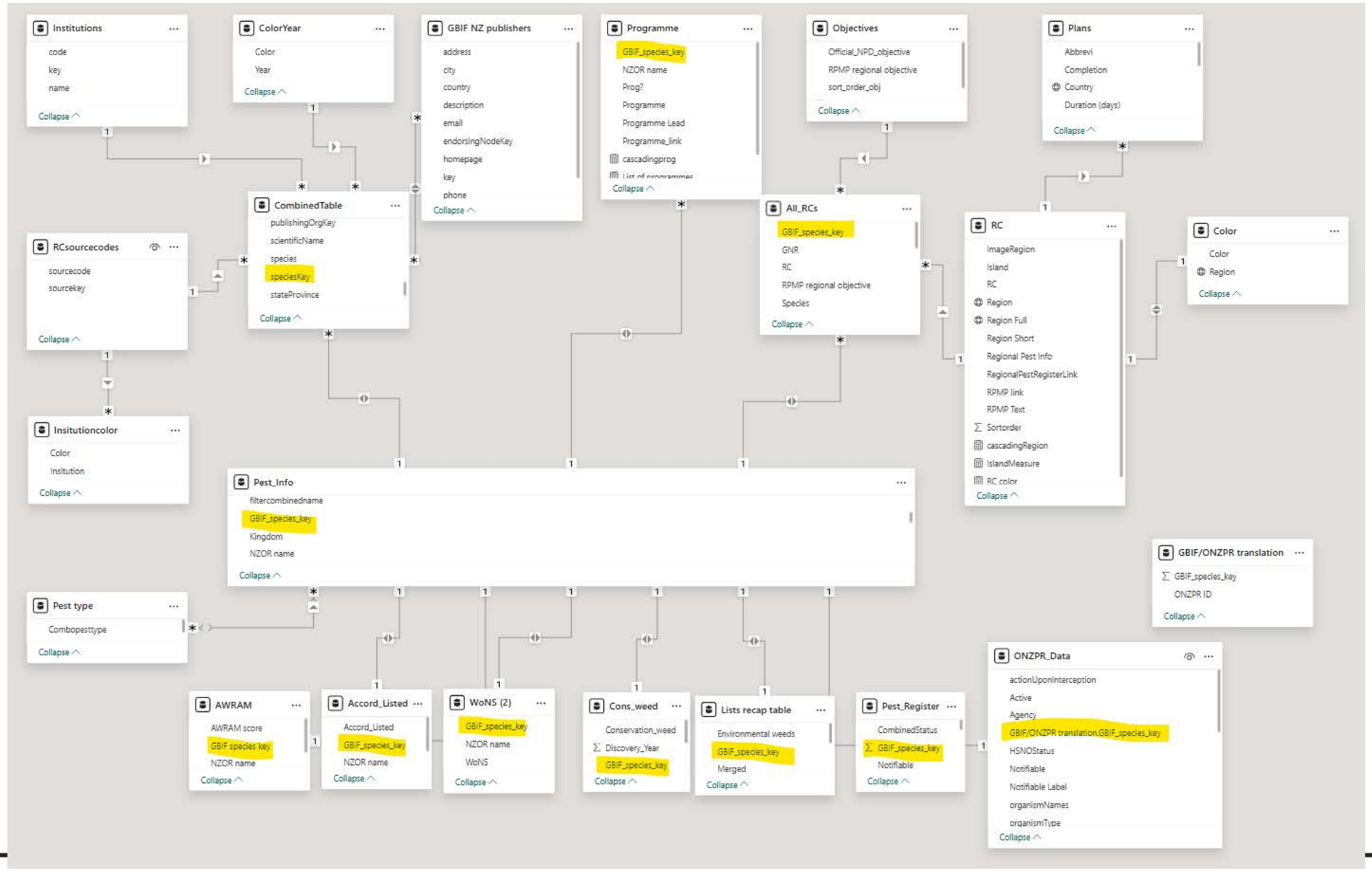
★ Preferred (=current) name within synonym group

api.gbif.org/v1/occurrence/search?taxonKey=3579928

Example : Moth plant

Scientific name	Taxon key	Species key	Number of occurrences
Araujia hortorum E.Fourn.	3170442	3170442	1,822
Araujia sericifera Brot.	3579928	3170442	4,476

Species identifiers – Use of GBIF species key



Filters Clear

Species: Moth plant, Moth vine, Cruel Plant (Araujia hortorum)

Region: All

More filters

Currently applied filters

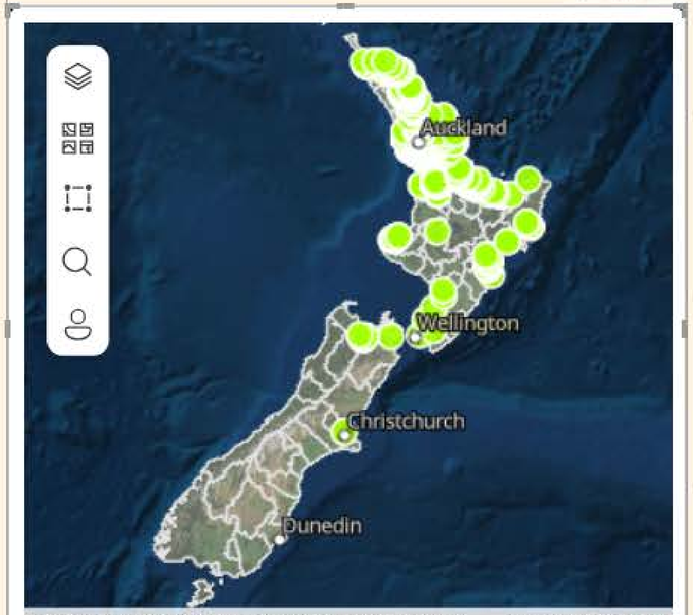
Species = Moth plant, Moth vine, Cruel Plant (Araujia hortorum)

Pests characteristics and management information

Picture	Species	Number of regional councils	Unwanted/ Notifiable	Listings	Programmes	Da int
	Moth plant, Moth vine, Cruel Plant (Araujia hortorum)	12	Yes/No	On National Pest Plant Accord (NPPA) On 2024 list of environmental weeds	Society Totally Against Moth Plant	

IT WORKS!!

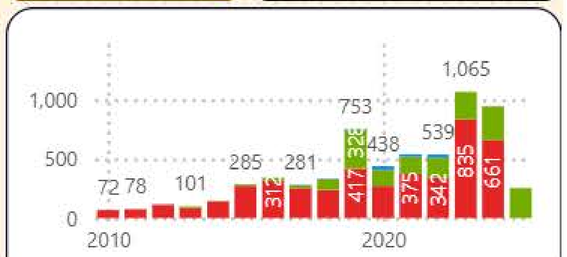
Recorded distribution of pests [source: (GBIF)]

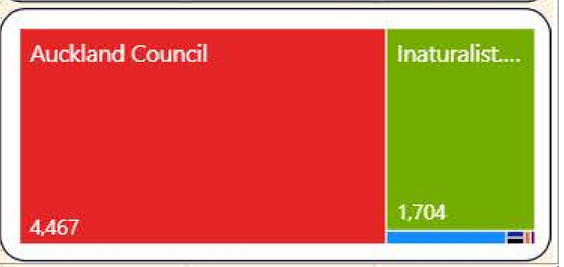


Advanced map view: ON

See observation details

2010 2025





Number of pests listed in Regional Pest Management Plans and associated programmes

	Region (link to pest info)	Regional Pest Management Plan	Number species	Exclusion	Eradication	Progressive containment	Sustained control	Site-led	Advisory/ Organisms of Interest
	Northland	RPMP 2017-2027	1						1
	Auckland	RPMP 2020-2030	1				1		
	Waikato	RPMP 2022-2032	1			1			
	Bay of Plenty	RPMP 2020-2030	1				1		
	Gisborne	RPMP 2017-2027	1			1			
	Taranaki	RPMP 2018-2028	1		1				
	Manawatu-Wanganui	RPMP 2017-2037	1			1			
	Hawke's Bay	RPMP 2018-2038	1						1

GBF Target 6

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Global Register of Introduced and Invasive Species - New Zealand

Checklist

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taxonID	country	countryCod	locationRemark	scientificName	GBIFKey	ernacul	taxonomicStatus	taxonRank	acceptedNameUsage	habitat	occurrenceStatus	establishmentMeans	Isinvasive	taxonRemarks	eventDate
??	New Zealand	NZ		Corbicula australis	5793994	ittle	ACCEPTED	SPECIES	Corbicula australis (Deshayes, 1830)	freshwater	present	introduced	invasive		2024
??	New Zealand	NZ		Corbicula fluminea	8190231	sian Gold	ACCEPTED	SPECIES	Corbicula fluminea (O. F. Müller, 1774)	freshwater	present	introduced	invasive		2023
??	New Zealand	NZ		Paederia foetida	2909527	kunk vine	ACCEPTED	SPECIES	Paederia foetida L.	terrestrial	present	introduced	invasive		2023
??	New Zealand	NZ		Steatoda nobilis	2157203	Noble false	ACCEPTED	SPECIES	Steatoda nobilis (Thorell, 1875)	terrestrial	present	introduced	invasive		2023
??	New Zealand	NZ		Paropsides calypso	4730521	illy Pilly	ACCEPTED	SPECIES	Paropsides calypso (Blackburn, [1898])	terrestrial	present	introduced	null		2023
??	New Zealand	NZ		Spodoptera frugiperda	5109855	all	ACCEPTED	SPECIES	Spodoptera frugiperda J.E.Smith, 1797	terrestrial	present	introduced	null		2022
165260	New Zealand	NZ		Didemnum patulum	4356301		ACCEPTED	SPECIES	Didemnum patulum (Herdman, 1899)	marine	present	introduced	null		2022
165755	New Zealand	NZ		Symplegma rubra	2332248		ACCEPTED	SPECIES	Symplegma rubra Monniot C., 1972	marine	present	introduced	null		2022
165173	New Zealand	NZ		Chaetodon auriga	2385390		ACCEPTED	SPECIES	Chaetodon auriga ForsskÃ¥l, 1775	marine	present	introduced	null		2022
	New Zealand	NZ		Dinoderus minutus	1095721	amboo	ACCEPTED	SPECIES	Dinoderus minutus (Fabricius, 1775)	terrestrial	present	introduced	null		2021
165150	New Zealand	NZ		Caulerpa brachypus	2643000	ea	ACCEPTED	SPECIES	Caulerpa brachypus Harv.	marine	present	introduced	invasive	Unwanted Organism	2021
165151	New Zealand	NZ		Caulerpa parvifolia	2643010	xotic	SYNONYM	SPECIES	Caulerpa brachypus f. parvifolia (Harv.) A.B.Cribb,	marine	present	introduced	invasive		2021
??	New Zealand	NZ		Ommatoiulus moreleti	4650395	ortuguese	ACCEPTED	SPECIES	Ommatoiulus moreleti (Lucas, 1860)	terrestrial	present	introduced	invasive		2021
165490	New Zealand	NZ		Mugilogobius platynotus	2376897		ACCEPTED	SPECIES	Mugilogobius platynotus (GÃ¼nther, 1861)	marine	present	introduced	null		2021
165543	New Zealand	NZ		Parablennius tasmanianus	2395799		ACCEPTED	SPECIES	Parablennius tasmanianus (Richardson, 1842)	marine	present	introduced	null		2021
165341	New Zealand	NZ		Goniodoris meracula	4596683		ACCEPTED	SPECIES	Goniodoris meracula Burn, 1958	marine	present	introduced	null		2020
165436	New Zealand	NZ		Lissoclinum perforatum	2329845		ACCEPTED	SPECIES	Lissoclinum perforatum (Giard, 1872)	marine	present	introduced	null		2020
??	New Zealand	NZ		Phyllurus platurus	2446976	road-tail	ACCEPTED	SPECIES	Phyllurus platurus (Shaw, 1790)	terrestrial	present	introduced	invasive		2020
	New Zealand	NZ		Tetranychus evansi	2130256	omato red	ACCEPTED	SPECIES	Tetranychus evansi Baker & Pritchard, 1960	terrestrial	present	introduced	invasive		2020
	New Zealand	NZ		Gryllodes sigillatus	1722299	ropical	ACCEPTED	SPECIES	Gryllodes sigillatus (Walker, 1869)	terrestrial	present	introduced	invasive		2020
??	New Zealand	NZ		Cladius grandis	4491463	oplar	ACCEPTED	SPECIES	Cladius grandis (Serville, 1823)	terrestrial	present	introduced	null		2019
??	New Zealand	NZ		Xylosandrus crassiusculus	1216925	ranulate	ACCEPTED	SPECIES	Xylosandrus crassiusculus Wood, 1982	terrestrial	present	introduced	invasive		2019
165087	New Zealand	NZ		Baseodiscus delineatus	2508277		ACCEPTED	SPECIES	Baseodiscus delineatus (Delle Chiaje, 1822)	marine	present	introduced	null		2019

GLOBAL REGISTER OF INTRODUCED AND INVASIVE SPECIES – GRIIS LIST NEEDS AND POTENTIAL APPLICATIONS

Shyama Pagad, Deputy Chair Information IUCN ISSG

GLOBAL REGISTER OF INTRODUCED AND INVASIVE SPECIES – POTENTIAL APPLICATIONS

- Under the auspices of the Convention on Biological Diversity a “Joint Work Programme to Strengthen Information Services on Invasive Alien Species as a Contribution towards Aichi Biodiversity Target 9” (UNEP/CBD/SBSTTA/15/INF/14) was developed to improve access to data and information related to alien and invasive species, during a workshop organized by the Global Biodiversity Information Facility (GBIF) in Copenhagen, Denmark in 2011.

- At the CBD -COP-11 the development of the Global Invasive Alien Species Information Partnership (GIASI Partnership) was welcomed and requested the Executive Secretary to facilitate its implementation (paragraph 22 of decision XI/28).

- The development of the Global Register of Introduced and Invasive Species (GRIIS) and a Pathway management Resource was identified as one of three priority activities of the Partnership.

- The IUCN ISSG was recognised to lead this activity with partners such as CABI.

- GRIIS continues to support national governments in the achievement of Biodiversity targets set in the Global Biodiversity Framework.

IUCN SSC Species Survival Commission ISSG Invasive Species Specialist Group

GLOBAL REGISTER OF INTRODUCED AND INVASIVE SPECIES – POTENTIAL APPLICATIONS

- The Global Register of Introduced and Invasive Species (GRIIS) presents validated and verified national checklists of introduced (alien) and invasive alien species at the country, territory, and associated island level.
- GRIIS checklists are based on a published methodology and supported by the Integrated Publishing Tool that jointly enable ongoing improvements and updates to expand their taxonomic coverage and completeness.
- The coverage of GRIIS is global including countries that are Party to the Convention on Biological Diversity (CBD), non-party countries and all overseas territories of countries, e.g. those of the Netherlands, France, and the United Kingdom. Limited numbers of checklists have also been developed for areas of high biodiversity value such as islands and protected areas.
- All kingdoms of organisms occurring in all environments and systems are covered.
- Checklists are reviewed by networks of country or species experts.
- Verified checklists, as well as those under review, are presented on the online GRIIS website in addition to being published through the GBIF Integrated Publishing Tool.

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GLOBAL REGISTER OF INTRODUCED AND INVASIVE SPECIES – POTENTIAL APPLICATIONS

- GRIIS supports national governments in the achievement of Biodiversity targets set in the Global Biodiversity Framework.
- The monitoring framework for the Kunming-Montreal Global Biodiversity Framework provides a set of headline, binary, component and complementary indicators for use in national biodiversity strategies and action plans and national reports. Parties to the Convention on Biological Diversity endorsed the technical updates to the headline and binary indicators at COP 16 (see CBD/COP/DEC/16/31).
- The GRIIS checklist datasets are identified as one of the key resources in the development of the headline indicator for Target 6 “Rate of invasive alien species establishment”.
- Data and information documented in a GRIIS checklist dataset has potential in its use for national monitoring, for e.g. use in the development of a State of the Environment Report
- The following two slides will describe a recently concluded 2-year project implemented for the Department of Agriculture, Fisheries and Forestry, Government of Australia

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GLOBAL REGISTER OF INTRODUCED AND INVASIVE SPECIES – POTENTIAL APPLICATIONS

The Global Register of Introduced and Invasive Species Inventory (Project CO8791)

- Annotated checklists of introduced and invasive species for a suite of geographical entities across Australia were developed, including an update of the national checklist.

- It is envisaged that these checklists will form the basis for an Essential Biodiversity Variables (EBV) triage tool and baseline data on the introduction, occurrence, and impacts of introduced and invasive species that can be disaggregated nationally, territorially and by protected areas and islands.

- The net benefit will allow for more accurate surveillance and monitoring of the Australian environment and its natural areas from the impacts of biological invasions

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GLOBAL REGISTER OF INTRODUCED AND INVASIVE SPECIES – POTENTIAL APPLICATIONS

The Global Register of Introduced and Invasive Species Inventory (Project CO8791)

- A comprehensive literature review was undertaken aimed at gathering data and information on the presence and distribution of introduced and invasive species and their impacts on native biodiversity and natural areas.

- Published literature was collated through online databases such as biological abstracts and Google Scholar. Researchers and agencies including herbariums were contacted for access to unpublished literature, and/or literature with limited access including reports, results of surveys, data gathered by researchers etc. Online Census and Flora Base tools were also consulted.

- Over 2,430 sources were consulted and close to 1,270 sources used to collate data and information

- Over 86,000 species records were created

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GLOBAL REGISTER OF INTRODUCED AND INVASIVE SPECIES – POTENTIAL APPLICATIONS

The Global Register of Introduced and Invasive Species Inventory (Project CO8791)

- A key achievement was the harmonising of data in terms of taxonomy, synonymy, interpretation of species occurrence and status across all the territorial authorities.

- Harmonised checklists provide a robust data foundation for any indicator development, monitoring and surveillance and as a decision support tool for management

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