

CO-OP 4 CBD Training and Networking Meeting

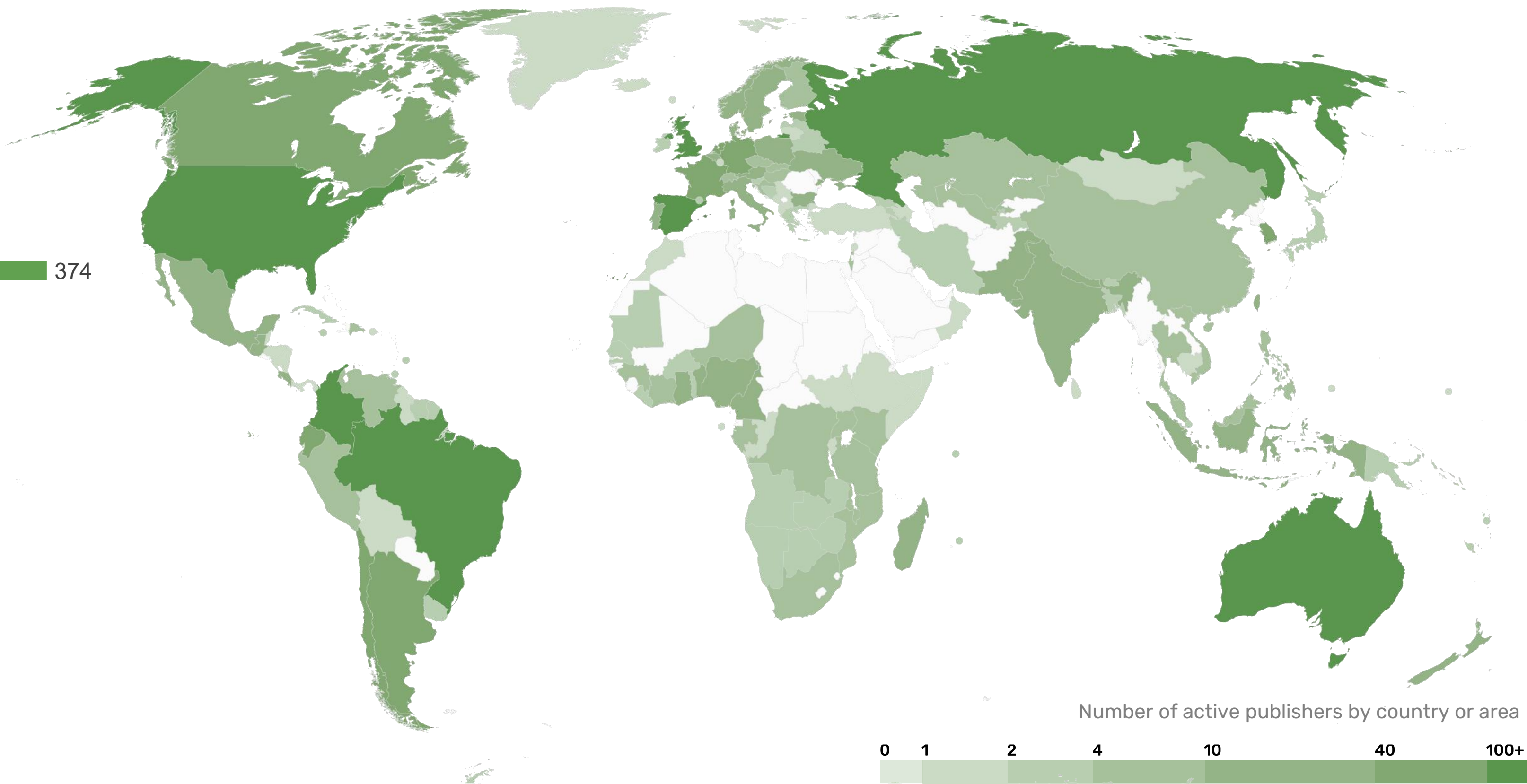
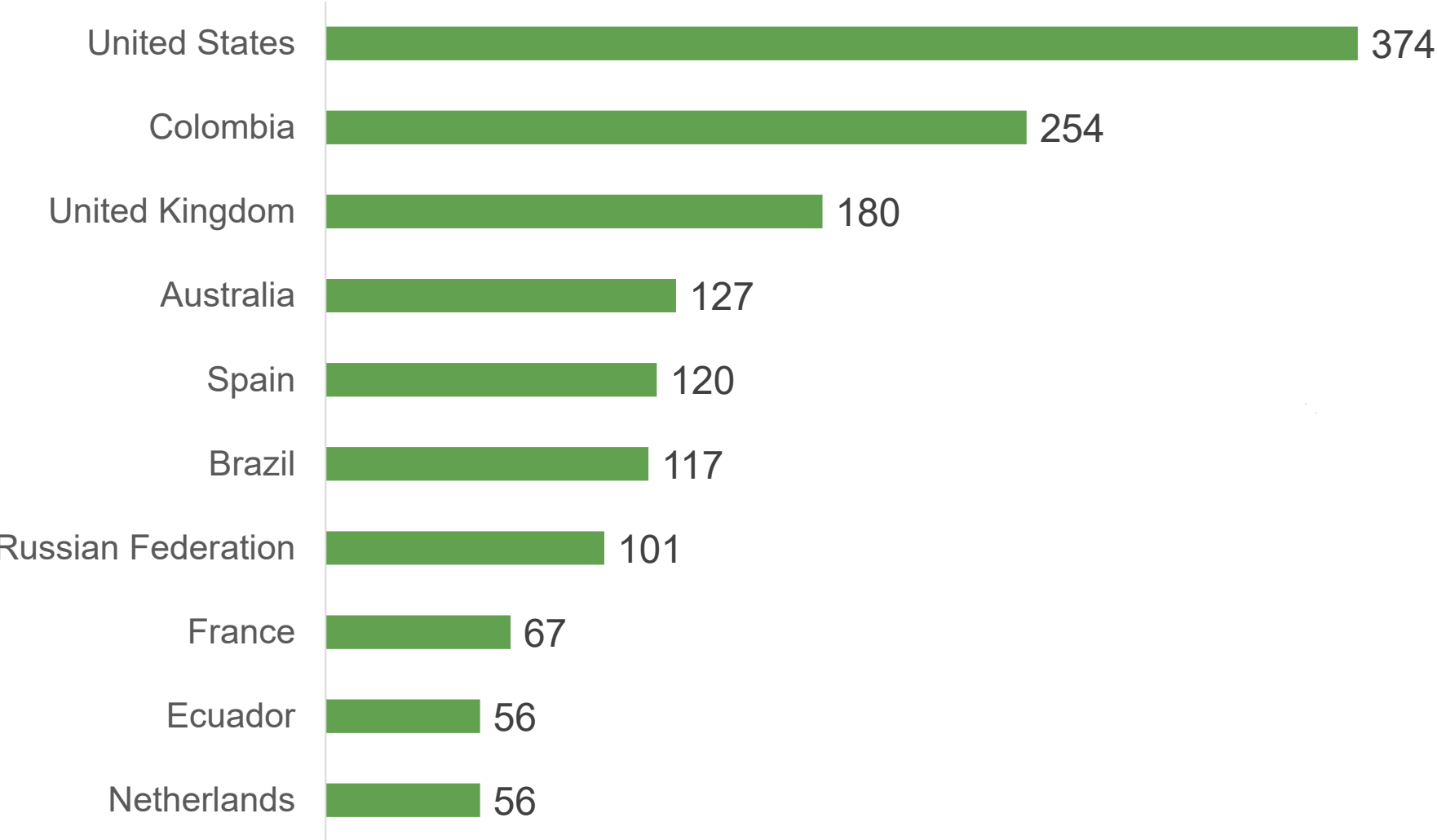
Hilary Goodson | Partnerships





GBIF network of data publishing institutions

149 countries/areas with institutions sharing data through GBIF



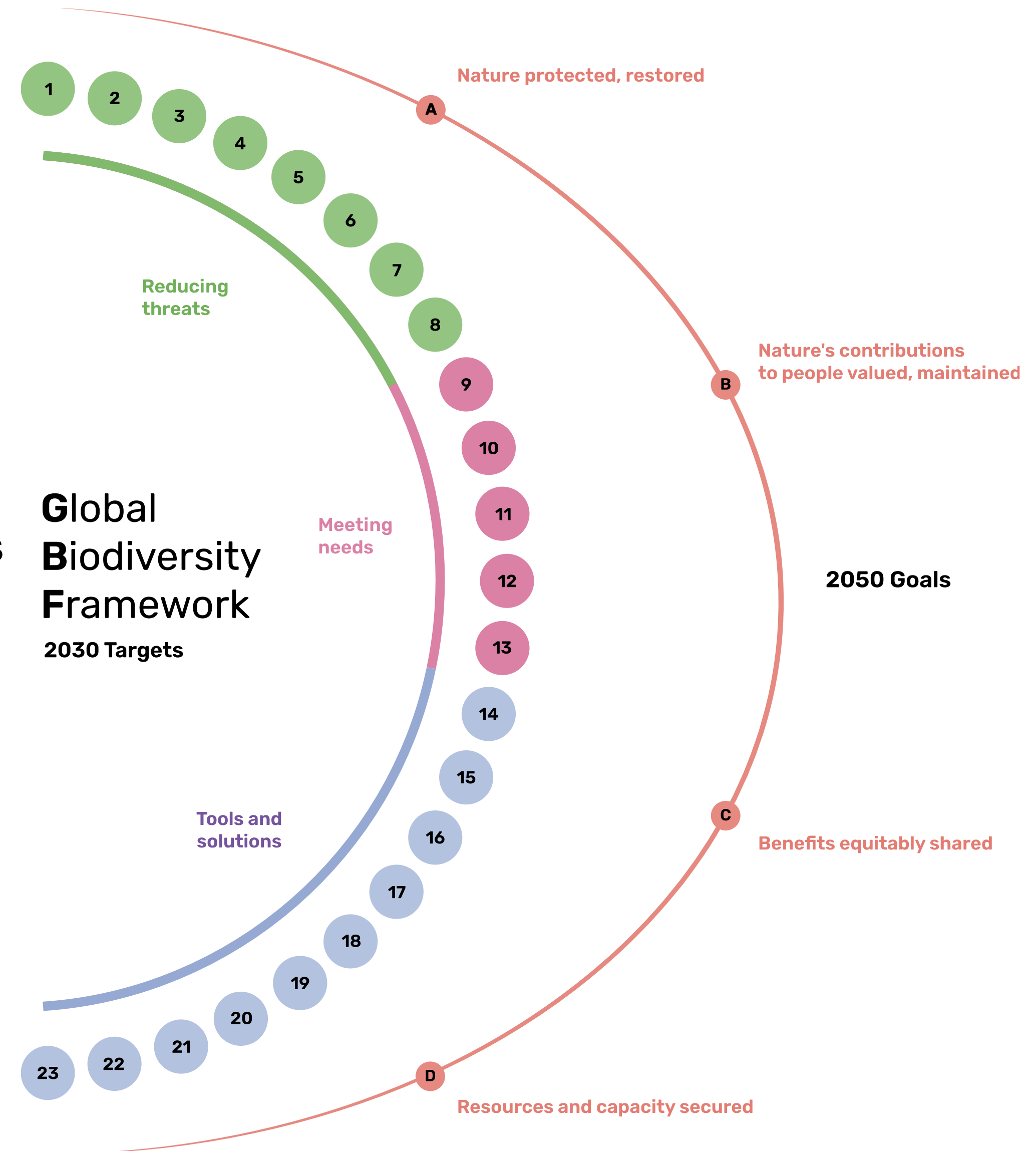
GBIF relevance to KMGBF

- GBIF as a mechanism to fill data gaps across the KMGBF monitoring framework

Relates directly to target 21

“Ensure that the best available data, information and knowledge, are accessible to decision makers, practitioners and the public...and, also in this context, traditional knowledge, innovations, practices and technologies of indigenous peoples and local communities should only be accessed with their free, prior and informed consent...”

- Work on community metrics in progress to provide better tools for identifying data gaps



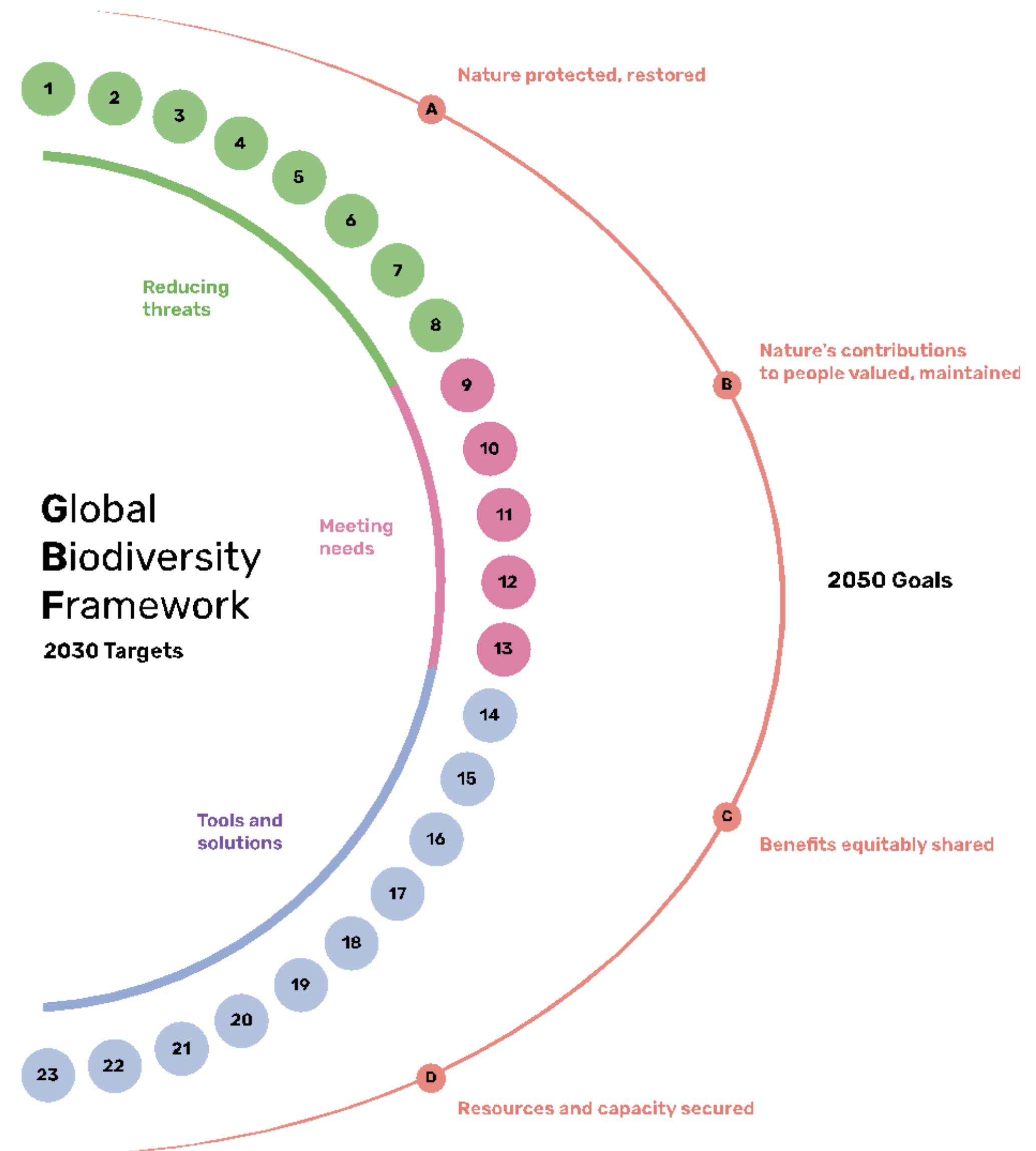
GBIF relevance to KMGBF

GBIF supporting indicators as direct data component

- Headline, binary, component and complementary indicators
- Includes data flows to existing indicators and potential flows to indicators under development

Headline indicator guidance with specific mention of GBIF

- A.4: The proportion of populations within species with an effective population size > 500 (“Ne indicator”)
- 6.1: Rate of invasive alien species establishment
- 15.1: Number of companies disclosing their biodiversity-related risks, dependencies and impacts
- 21.1: Indicator on biodiversity information for monitoring the global biodiversity framework



GBIF & the UN Convention on Biological Diversity

”

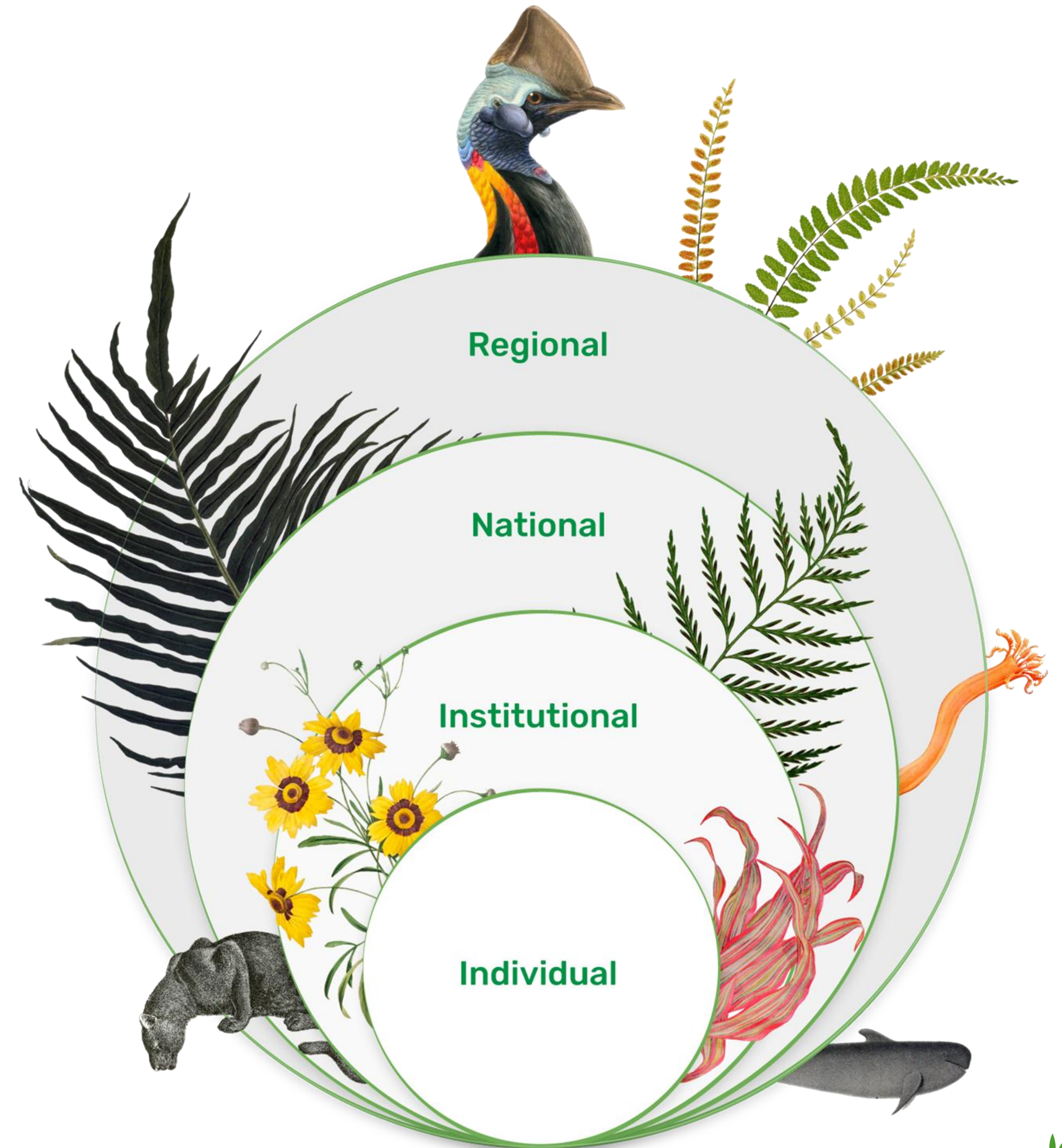
“Given the relevance of the work undertaken by GBIF to the implementation of the Kunming–Montreal Global Biodiversity Framework and to the Convention on Biological Diversity generally, I encourage all Parties to join GBIF as national participants”

Astrid Schomaker
Executive Secretary
–CBD Notification 2025-037



Scalable capacity for national nodes

- Introduction to GBIF
- Biodiversity Data Mobilization
- Using GBIF-mediated data
- Establishing Biodiversity information facilities
- Regional collaboration
- Funded programmes: BID, CESP



Infrastructure to support national reporting



8
Institutional



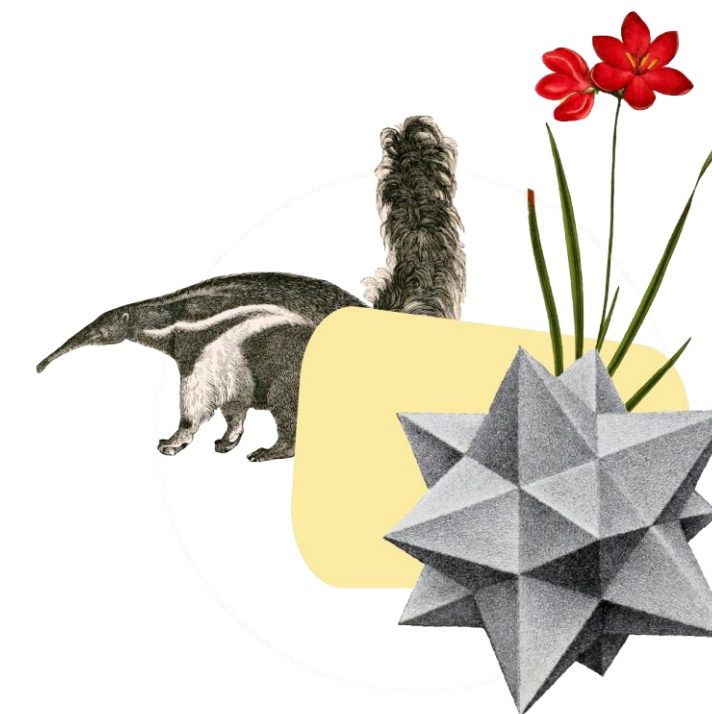
14
GBIF national
Participants and
regions

56

Hosted portals in
production



27
Scientific journal



7
Networks/thematic
networks





Explore the Biodiversity of South Africa

SANBI-GBIF aims to support and grow a network of partners in biodiversity informatics through data mobilisation, capacity enhancement, publication and use. The Node provides access to biodiversity occurrence records published by South African Institutions.

Start exploring

About

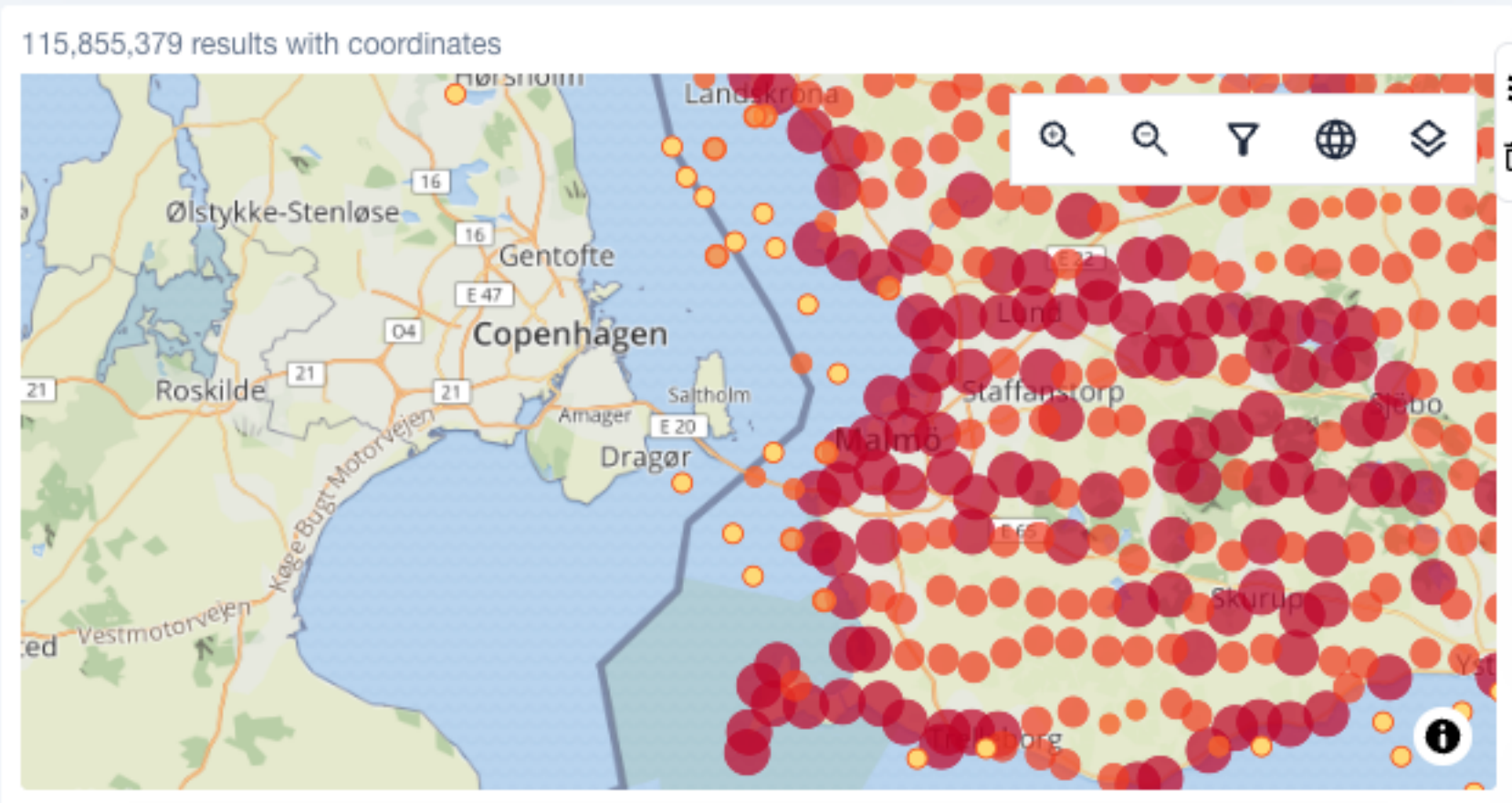
41,213,616

20,930

127

12

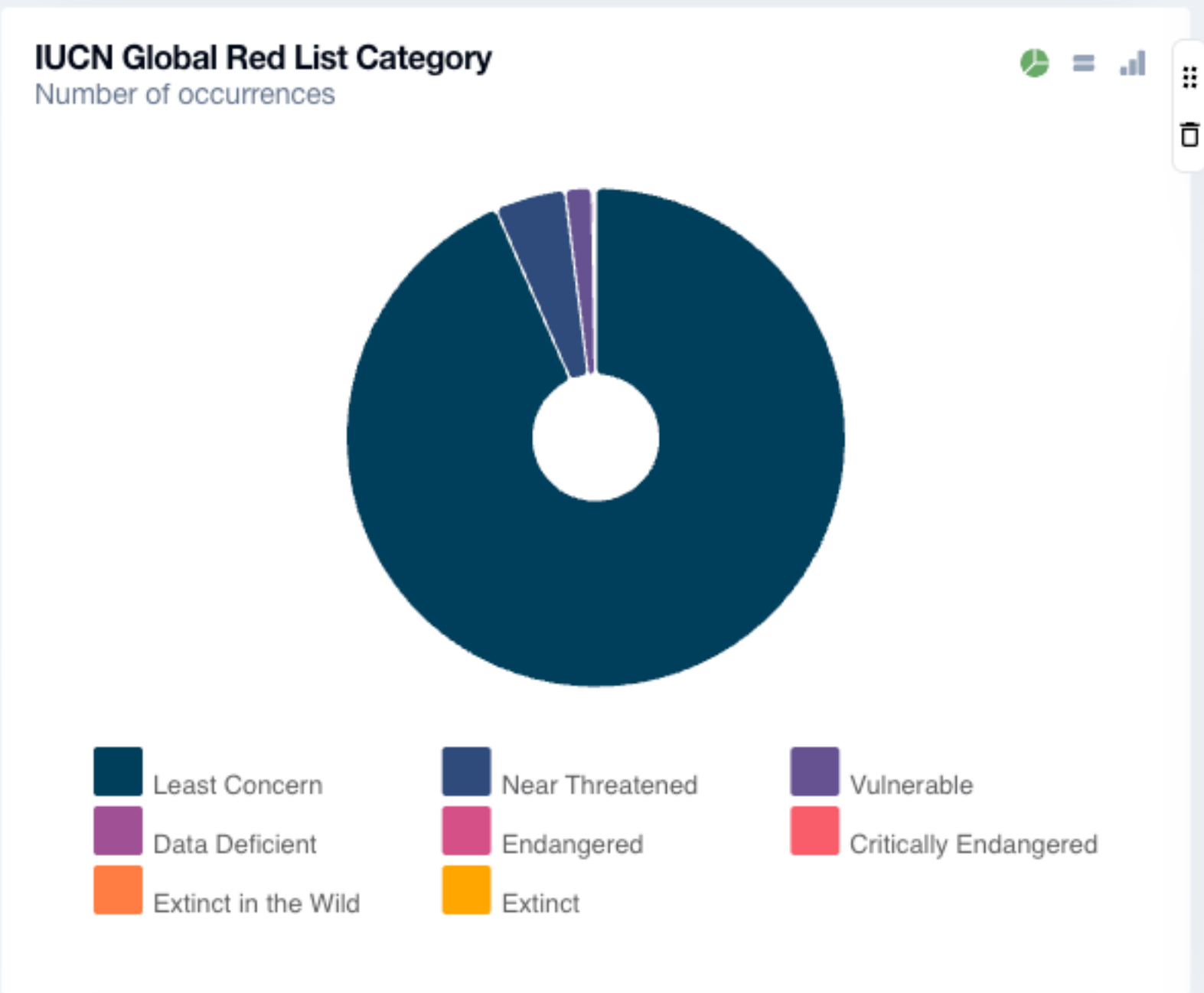




Statistics	
Occurrence records	115,855,379
Species	43,146
Distinct names	53,679
Taxa	61,494
Year range	From 1625 to 2025

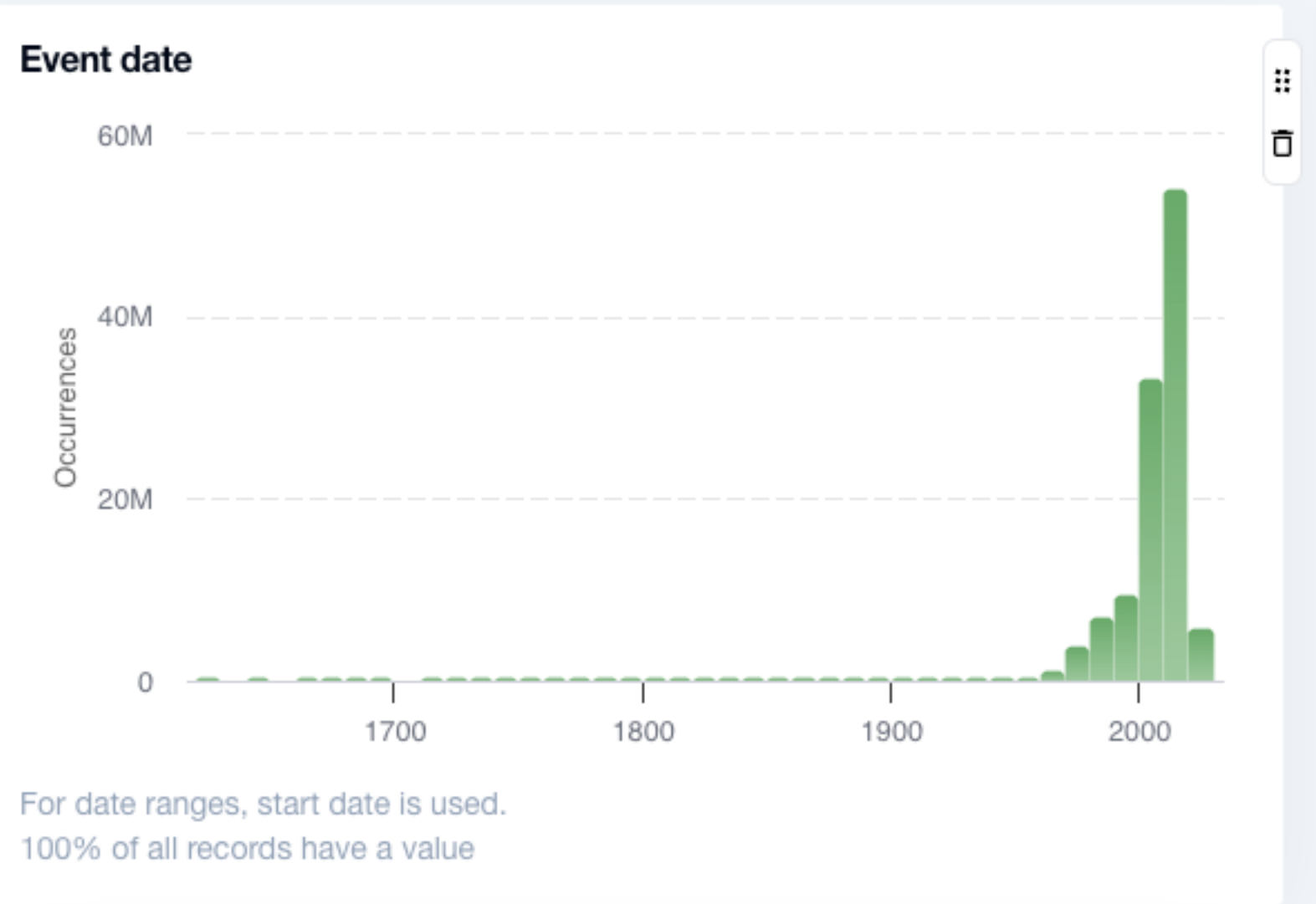
Issues and flags	
Number of occurrences	
5 results	
Institution match none	1,468,806
Recorded date mismatch	157,944
Continent coordinate mismatch	53,102
Country coordinate mismatch	4,716

Data richness	
Identified to species	113,673,584
With coordinates	115,855,379
With year	112,835,676
With collector	115,854,800
With media	0
Sequenced	0



IUCN Red List Category

Species that are categorized as Near Threatened (NT) or at higher risk according to the



Recorded by	
Number of occurrences	
724,965 results	
Via Mora Aronsson	1,421,963
Richard Bergendahl	940,930
Via Margareta Edqvist	939,143
Hans Rydberg	798,246
Magnus Hallgren	408,676
Ragnar Hall	401,738
Christer Olsson	355,812
Ingemar Johansson	323,488
Via Stefan Grundström	312,617
Berndt Söderlund	305,352

Data publisher support

Resources to support data publishers

- Guides w/ publishing template
 - Quick start
 - Comprehensive
- Humboldt extension manuscript
- Resources to facilitate community discussion

SAM hub: <https://gbif.link/SAM-hub>

1. Data model development

Biological surveys and monitoring

By integrating and standardizing systematically collected data about the presence, absence and abundance of species over time, GBIF provides an essential reusable resource for understanding and evaluating changes to life on Earth

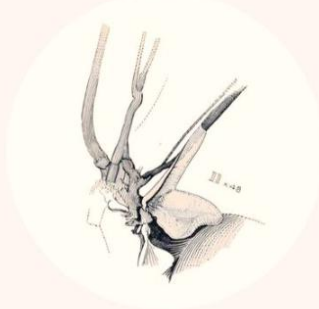
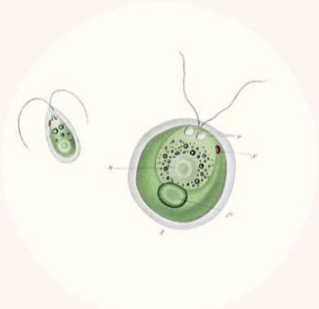


Our planet's biodiversity faces unprecedented pressures, making biological surveys and monitoring efforts more essential than ever. Whether driven by scientific inquiry, conservation needs, national and corporate reporting, or natural curiosity, the systematic collection data about the presence, absence and abundance of species over time is indispensable for assessing biodiversity patterns and processes, informing science, policy and action, and understanding how organisms, assemblages and ecosystems respond to change.

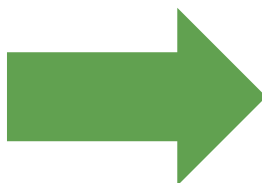
In response to growing global demand, the GBIF network and its robust infrastructure enable researchers and institutions to share and discover high-quality standardized ecological data that is free, open and FAIR. The widely adopted [Darwin Core standard](#) and its extensions—most notably the [Humboldt extension for ecological inventories](#)—ensures that users have access to essential data on survey design, sampling effort, scope, and methods, enabling them to assess datasets' relevance and reliability and base their analyses on a more complete view of global biodiversity.



Continual infrastructure evolution

				
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	Recording absence data

Active work

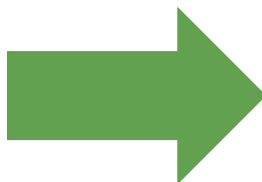


Collection Management Systems

A family of use cases related to collection management systems from the perspective of the material and associated digital objects.

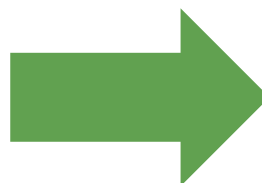
Biotic Interactions

Covers Events that provide evidence of interactions at the primary, organismal level (not at the derived taxonomic level).



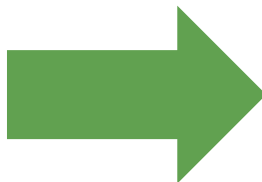
Camera Traps

Monitoring of an area, related sequences of images, machine generated annotations.



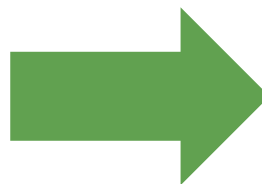
Phylogenetic trees

Covers links between specimens, sequences, material citations, and phylogenetic trees with the objective of enabling phylogenetic-based search and discovery.



Environmental DNA

Covers sampling design and material subsampling; DNA based sequences to infer taxon occurrences.



Ecological Inventories

A family of use cases related to hierarchical inventory and monitoring-related events supporting observed presence, inferred absence and abundance.