



# The BID programme - Capacity Development within open biodiversity data mobilization and use

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# GLOBAL BIODIVERSITY INFORMATION FACILITY (GBIF)

## Vision:

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

## Mission:

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



## GBIF APPROACH TO CAPACITY BUILDING

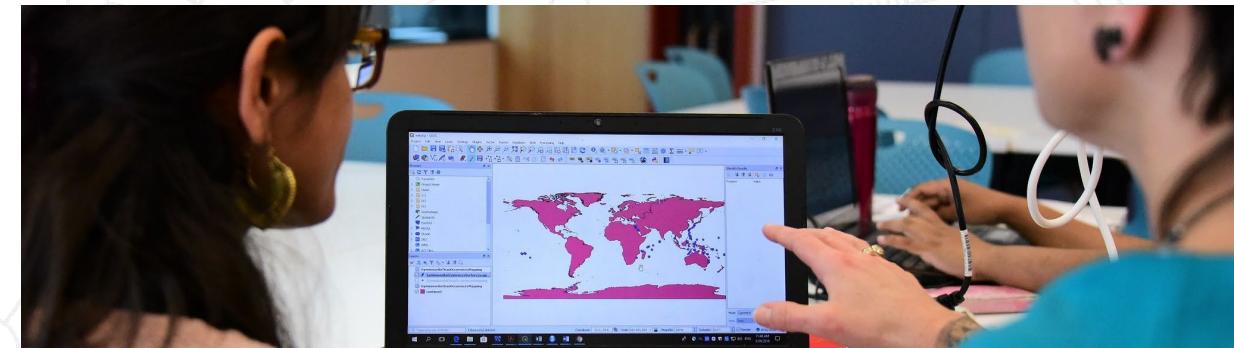


# CAPACITY DEVELOPMENT OBJECTIVES

**Developing the capacity to mobilize biodiversity data through GBIF**



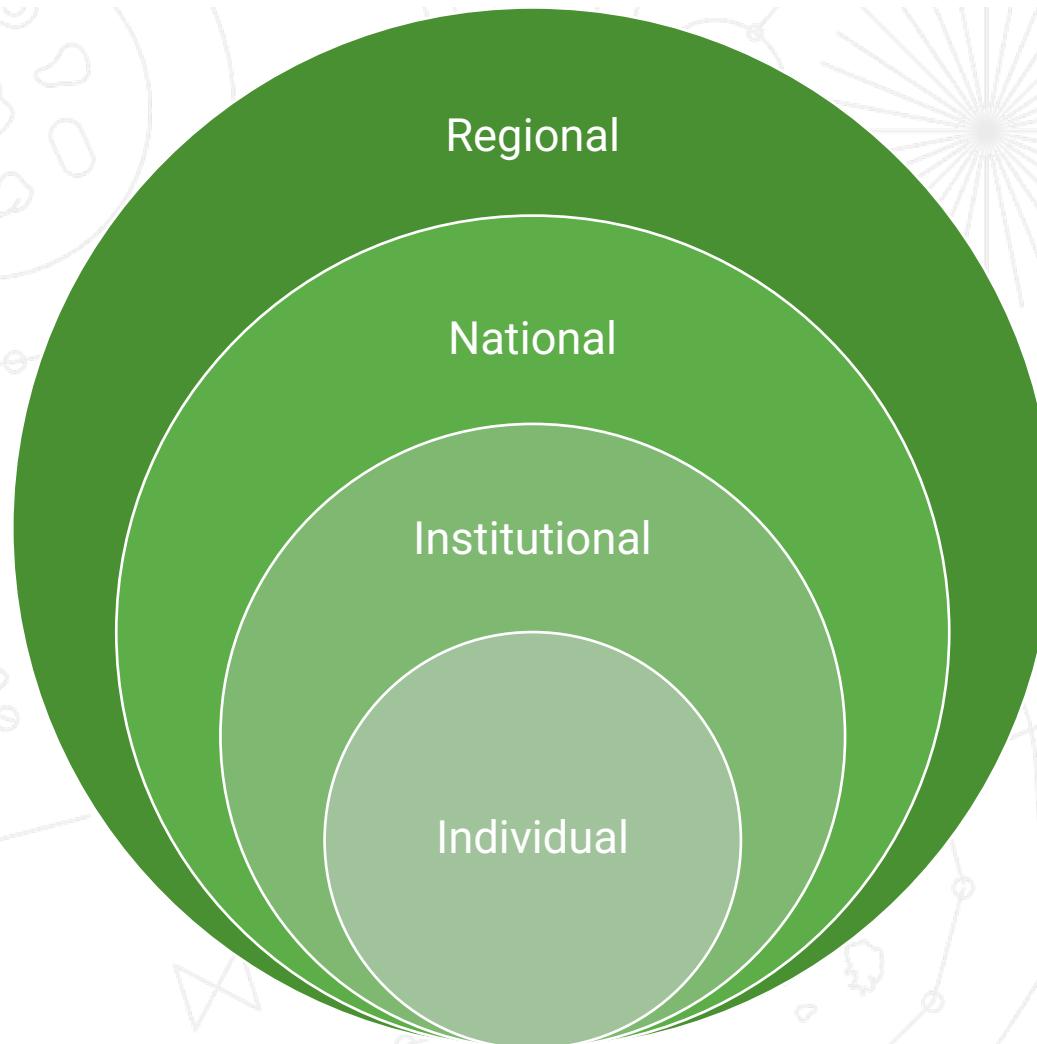
**Developing the capacity to use GBIF-mediated data**



the ability to manage biodiversity data, standardize and publish it through GBIF

the ability to access, analyze and use biodiversity data accessible through GBIF in scientific research and decision making

# CAPACITY DEVELOPMENT LEVELS



Coordinate and raise the visibility of the GBIF community of practice and network

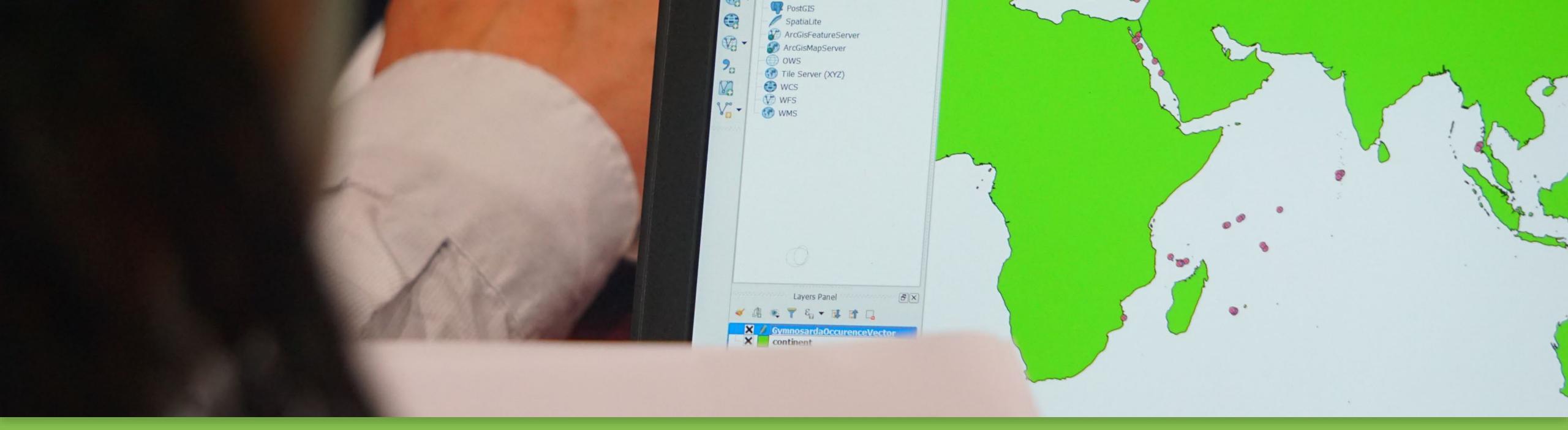
Develop national biodiversity information facilities

Build partnerships that drive the institutionalization of biodiversity data mobilization and use of GBIF-mediated data

Strengthen and grow GBIF's community of practice

## GBIF CAPACITY PROGRAMMES

- Respond to needs through open calls
- Build skills through training, mentoring
- Develop regional communities of practice
- Establish sustainable data flows, institutional networks





# THE BID PROGRAMME

Example of a GBIF-managed capacity programme



# THE BIODIVERSITY INFORMATION FOR DEVELOPMENT (BID) PROGRAMME



Multi-year programme launched in 2015 and developed through a grant from DG INTPA and managed by the GBIF Secretariat

## Geographic focus:

- Sub-Saharan Africa
- The Caribbean
- The Pacific

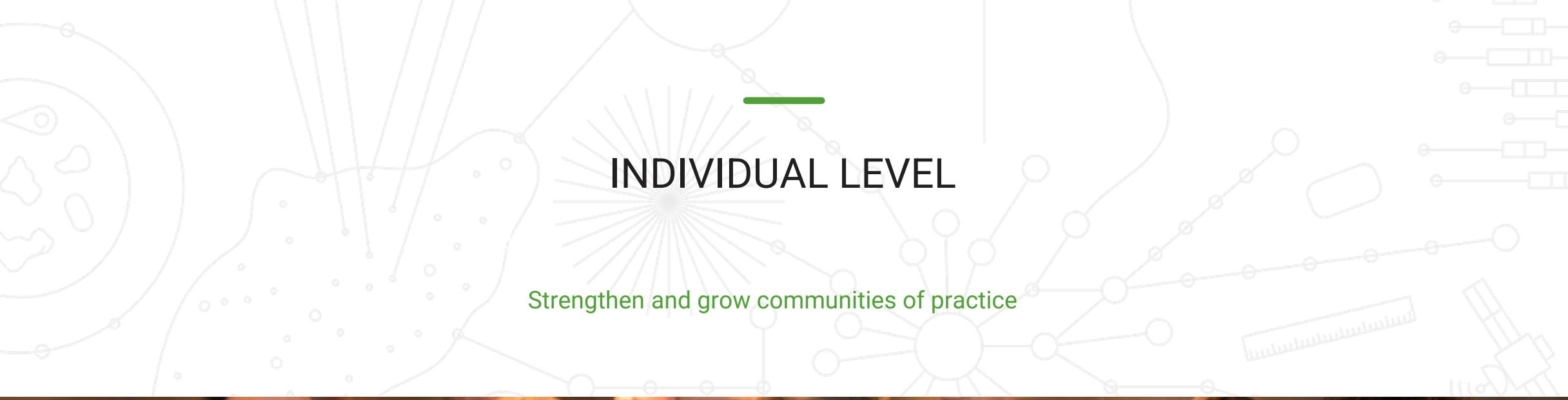
## objectives:

- Mobilise biodiversity data relevant to sustainable development
- Enhance capacities on data mobilization and management
- Integrate biodiversity information into policy and decision-making processes

7 calls for proposals in the ACP regions

107 projects implemented in 43 ACP countries

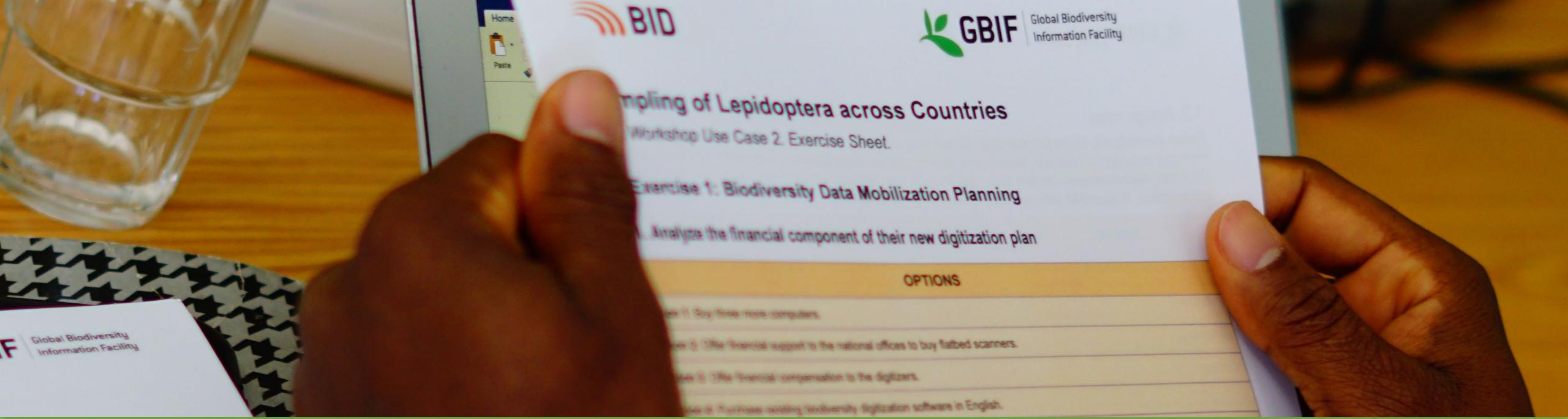
Overall BID beneficiaries in 77 countries



## INDIVIDUAL LEVEL

Strengthen and grow communities of practice





## CURRICULA DESIGNED FOR REUSE SUPPORTED BY TRAINERS AND MENTORS

For self-paced use, onsite or online workshops

- Introduction to GBIF
- Biodiversity data mobilization
- Biodiversity data use
- Establishing GBIF Participant nodes

# MULTIPLIER EFFECT

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- 11 “train the trainers” workshops organized by the BID programme trained over **250** professionals trained
- Increase of volunteer mentors and trainers: 35% of all registered volunteer mentors come from the BID target regions - Gradual increase over time
- Between one and three replication workshops targeting an average of 30 participants organized by BID projects (multiplier effect)



## INSTITUTIONAL LEVEL

Build partnerships that drive the institutionalization of biodiversity data mobilization and the appropriate use of GBIF-mediated data



## PARTNERSHIPS AND DATA MOBILIZATION

- 398 institutions have been involved in BID projects
- Multi-institutional consortia support the creation of a network of institutions dealing with Biodiversity data
- Data published by **106 institutions** located in the ACP regions, out of which **93 started publishing data as a result of the BID programme**
- Nearly 3 million occurrences records mobilized in 971 datasets

**Increased availability of open biodiversity data to reduce knowledge gaps and support the implementation of the GBF**



# ENHANCING CAPACITY TO MANAGE BIODIVERSITY DATA

Support the development of institutions' capacities to:

- Effectively manage data
- Share data via data repositories and GBIF's infrastructure
- Safeguard data and ensure their availability for future use

Example: Rescuing the knowledge base of Venezuela's marine biodiversity – BID project led by Fundación Caribe Sur (Venezuela)



# FAIR AND CARE PRINCIPLES

## FAIR principles:

Findable  
Accessible  
Interoperable  
Reusable

## CARE principles:

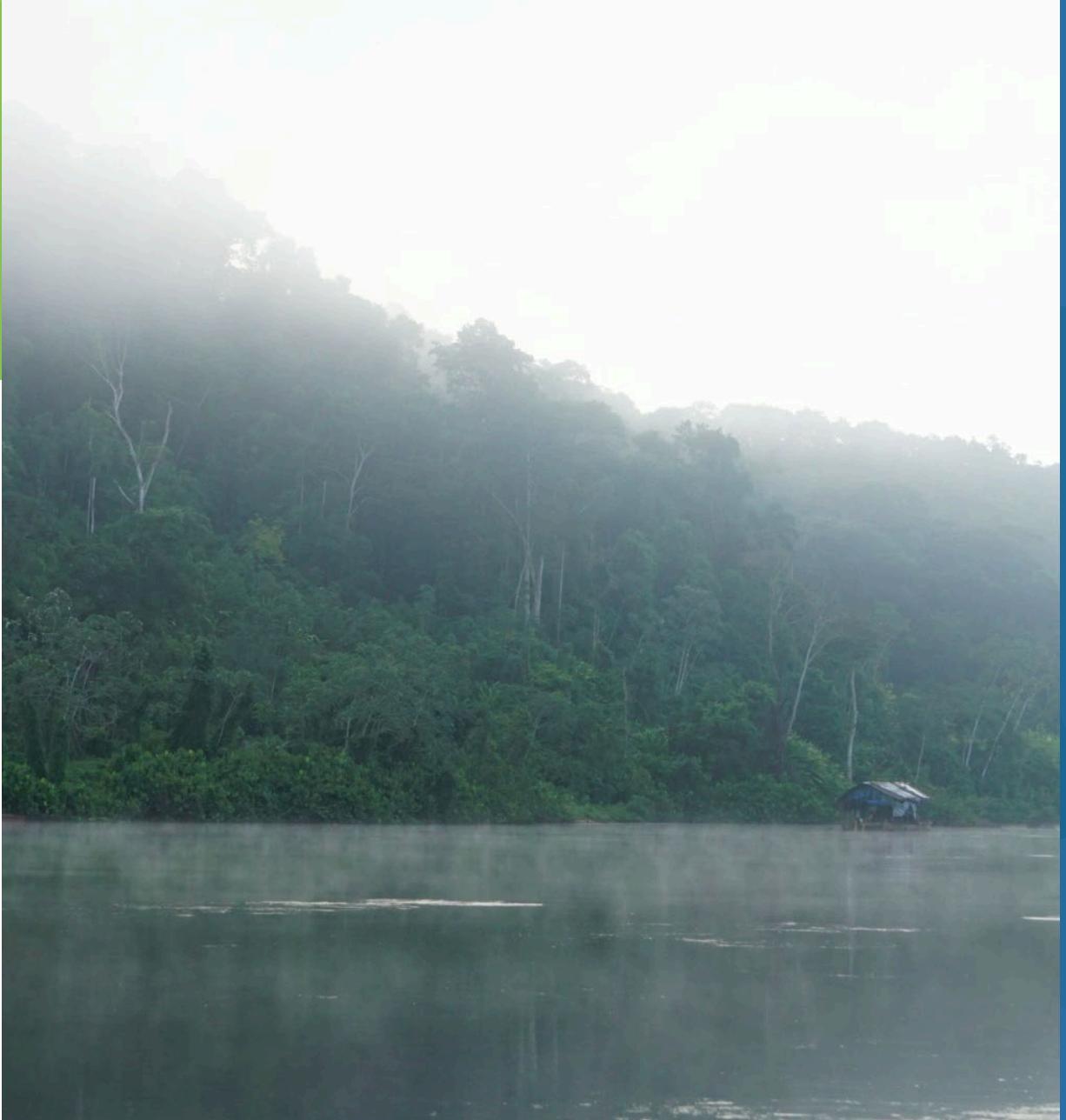
Collective Benefit  
Authority to Control  
Responsibility  
Ethics

In addition to the implementation of the FAIR principle, we are working toward guidance on how GBIF can implement the CARE data principles.

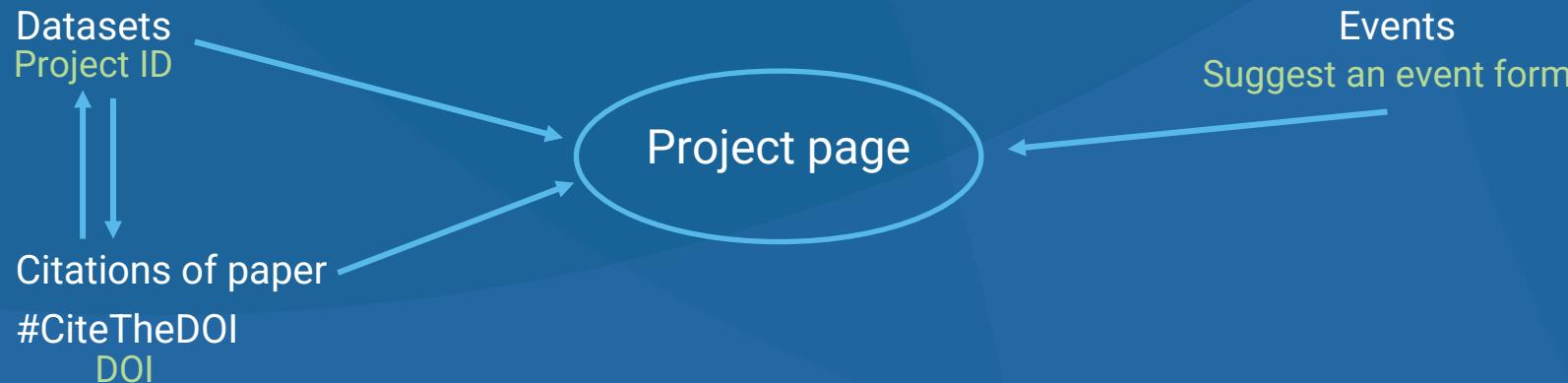
Example: Engaging local communities - BID project led by National Herbarium of Suriname

<https://www.gida-global.org/care>

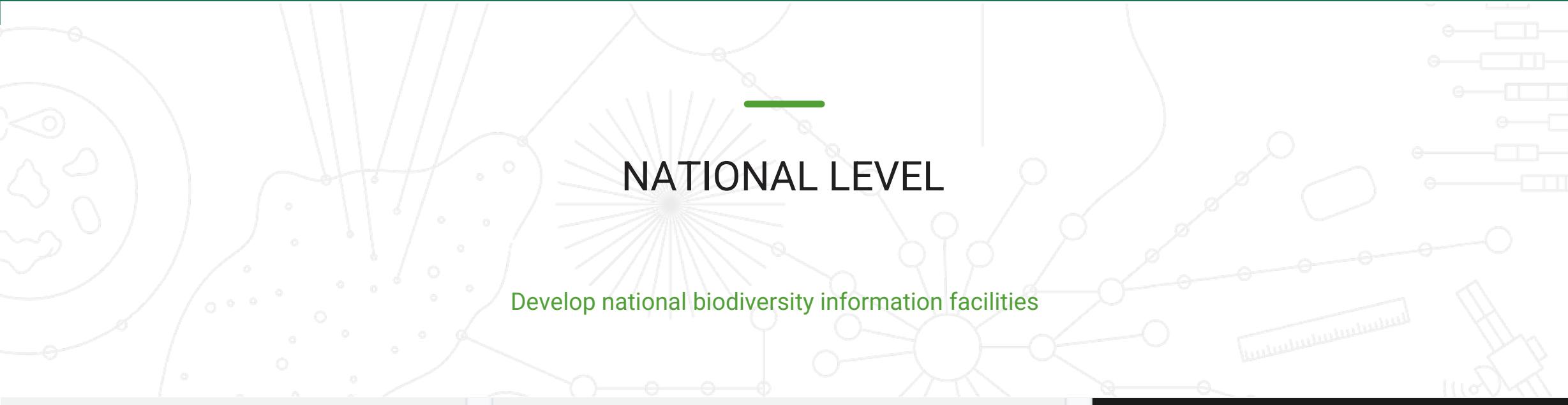
<https://www.go-fair.org/fair-principles/>



# TRACKING TANGIBLE OUTCOMES



- Three-quarters of insect species are insufficiently represented by protected areas** [Literature](#)
- Chowdhury, S., Zalucki, M., Hanson, J., Tiatragul, S., Green, D., Watson, J., ... - (2023) *One Earth*  
Insects dominate the biosphere, yet insect populations are plummeting worldwide. Massive conservation efforts will be needed to reverse these declines. Protected areas (PAs) could act as a safeguard against extinction, but documented coverage of insect representation across the PA estate is limited....
- [Journal article](#) [Peer-reviewed](#)  
Data referenced in study [DOI](#) 10.15468/dl.ihepwu [DOI](#) 10.15468/dl.rmb27u [DOI](#) 10.15468/dl.szp1si  
[DOI](#) 10.15468/dl.szyi7 [DOI](#) 10.15468/dl.tavumq [DOI](#) 10.15468/dl.vxfyj [DOI](#) 10.15468/dl.xt74fw  
[DOI](#) 10.15468/dl.yzulee
- Artificial Hotspot Occurrence Inventory ( AHOI )** [Literature](#)
- Feng, X., Park, D., Thammavong, H., Tulaiha, R., Xie, Y. (2022) *Journal of Biogeography*  
Aim Species occurrence records are essential to understanding Earth's biodiversity and addressing global environmental issues, but do not always reflect actual locations of occurrence. Certain geographical coordinates are assigned repeatedly to thousands of observation/collection records. This may r....
- bias • biodiversity • centroid • coordinates • duplication • georeferencing  
[Journal article](#) [Open access](#) [Peer-reviewed](#)  
Data referenced in study [DOI](#) 10.15468/dl.4q297z [DOI](#) 10.15468/dl.76jc24 [DOI](#) 10.15468/dl.cujmgz  
[DOI](#) 10.15468/dl.jh3u2u [DOI](#) 10.15468/dl.th5tn8
- Global gradients in the distribution of animal polyploids** [Literature](#)
- David, K. (2022) *Proceedings of the National Academy of Sciences*  
Whole genome duplications (WGDs) are one of the most dramatic mutations that can be found in nature. The effects of WGD vary dramatically but can have profound impacts on an organism's expression, cytoype, and phenotype, altering their evolutionary trajectory as a result. Despite the growin....
- [Journal article](#) [Peer-reviewed](#)  
Data referenced in study [DOI](#) 10.15468/dl.2jxpma [DOI](#) 10.15468/dl.6vtqy8 [DOI](#) 10.15468/dl.6xx873
- Reconstruction and variability of tropical pollination networks in the Brazilian Atlantic Forest** [Literature](#)
- Pereira, J., Ribeiro, M., Battiston, F., Jordán, F. (2022) *Community Ecology*  
Loss of biodiversity comprehends not only the extinction of individual species, but also the loss of the ecological interactions among them. Survival of species, continuation of ecosystem functioning in nature, and ecosystem services to humans depend on the maintenance of well-functioning networks o....
- Blockmodels • Ecological networks • Species co-occurrence • Species interactions  
[Journal article](#) [Open access](#) [Peer-reviewed](#)  
Data referenced in study [DOI](#) 10.15468/dl.bv6nuj



## NATIONAL LEVEL

Develop national biodiversity information facilities



# SUPPORTING NODES THROUGH COLLABORATION



# MOBILIZING BIODIVERSITY DATA TO INFORM NATIONAL PROCESSES – EXAMPLES

## Data mobilized by a BID project in Uganda

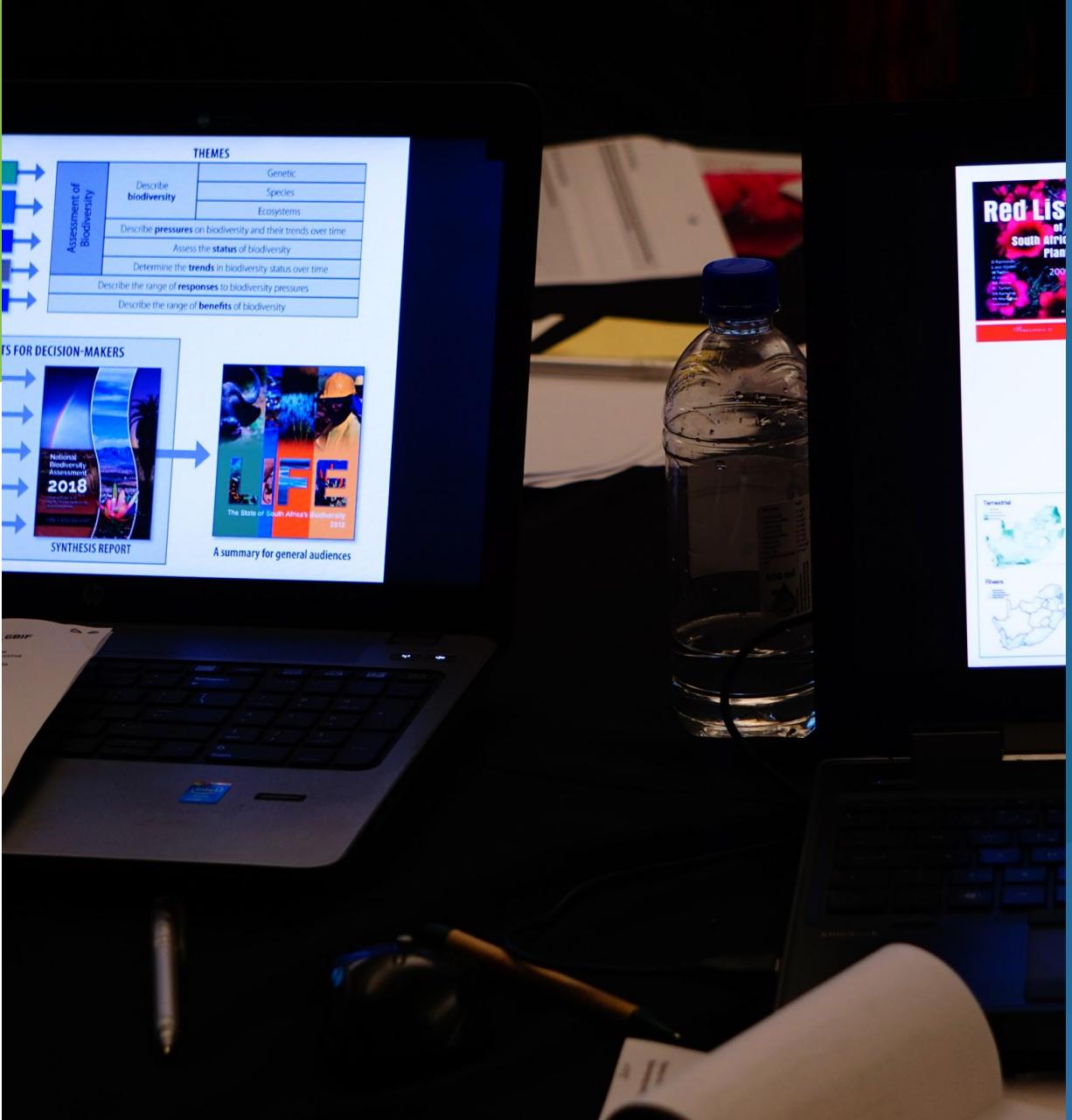
- Enabled the development of a freshwater biodiversity portal for decision-making bodies working on supporting sustainable use and conservation of aquatic biodiversity
- Informed the Uganda National State of the Environment Report
- Contributed to a National red list assessment on Freshwater biodiversity
- Informed indicators for mainstreaming biodiversity in the agricultural sector

## Data mobilized by a BID project in Togo

- Updated of Togo's National Strategy for Conservation of Biological Diversity (country's commitments under the Convention on Biological Diversity - CBD)
- Informed Togo's Sustainable Management of Forest Resources National Program (PNGDRF)

## Data mobilized by a BID regional project in the Pacific

- Informed the Resilient Ecosystem Resilient Communities (RERC) strategy
- Informed Predator Free Pacific (PFP) strategy and used to develop targeted actions for pest eradication in the Kingdom of Tonga





## REGIONAL LEVEL

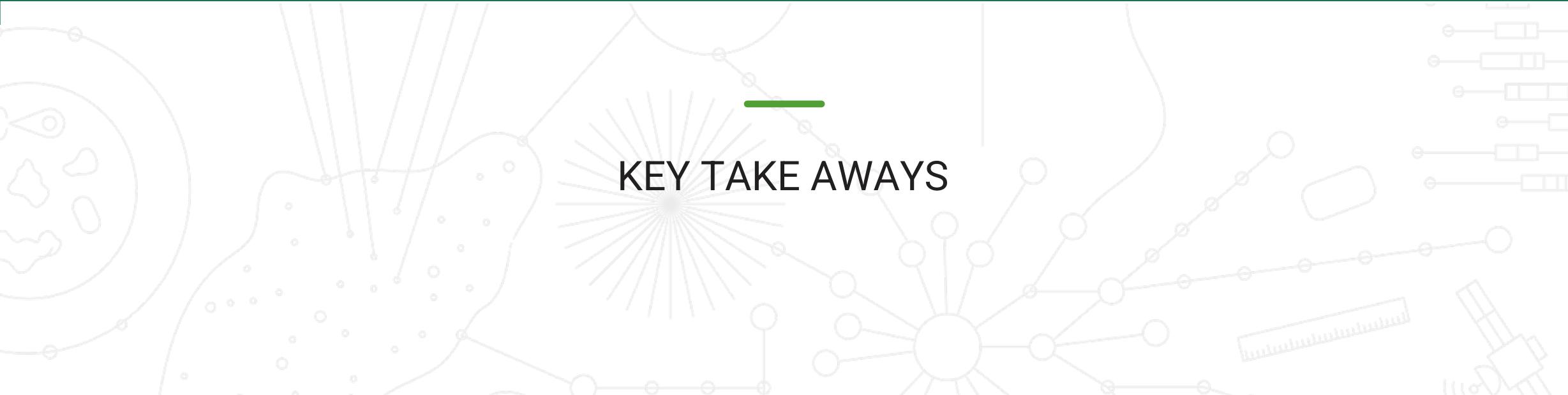
Coordinate and raise the visibility of the GBIF community of practice and network





## REGIONAL SUPPORT TEAMS

- Provide technical help-desk assistance, training and mentoring to support funded projects
- Facilitate exchange of expertise between funded project teams and the broader GBIF community
- Encourage engagement in the GBIF network
- Extending the capacity of the Secretariat to support the further development of a regional community of practice



## KEY TAKE AWAYS

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# SUSTAINABILITY OF BID FUNDED PROJECTS

- 
- Follow-up projects taking over the results achieved by BID projects
  - New collaborations between participants of different BID projects
  - Dissemination activities to raise awareness on biodiversity and open data access
  - Support from GBIF:
    - Regional data repositories
    - Regional support teams



## FEEDBACK FROM BID FUNDED-PROJECTS

Findings from an external evaluation of the BID programme highlighted that stakeholders particularly appreciated:

- BID calls for proposals' 2-steps application process
- Feedback from reviewers/selection panel
- Support from mentors/regional support teams
- Workshops
- Regional meetings



## ADDED VALUE OF THE BID PROGRAMME

- 
- Access to new funding opportunities (funding leverage effect)
  - Open access to more biodiversity data
  - Enhanced collaboration in biodiversity fields
  - Increase credibility and reputation of BID funded institutions (viewed as capable of carrying out complex projects)



# SUPPORTING THE IMPLEMENTATION OF THE KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

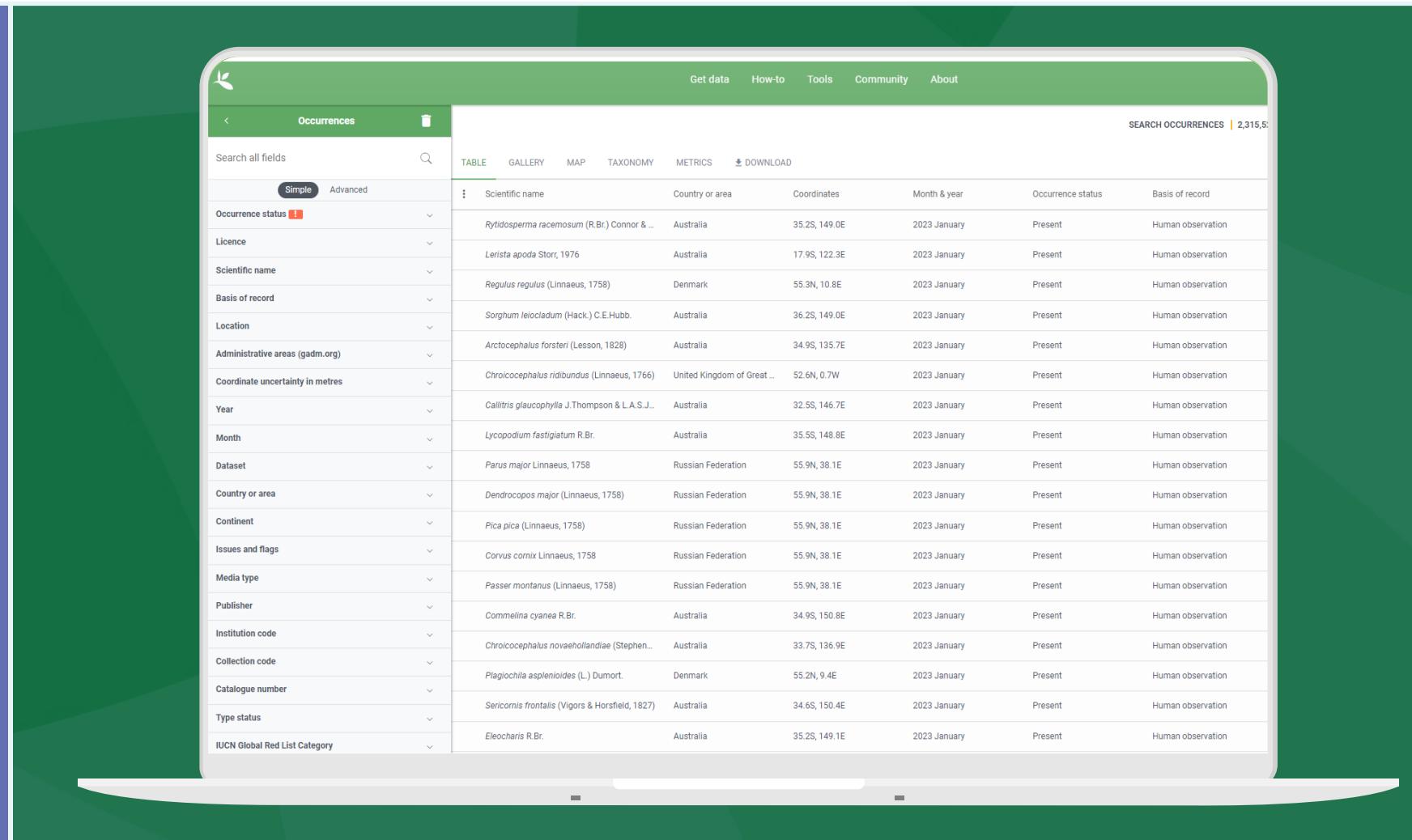


# RELEVANCE TO THE KUNMING-MONTREAL GLOBAL BIODIVERSITY FRAMEWORK

2030 Target	Theme	GBIF relevance
Target 1	Minimize loss of areas of high biodiversity importance	Data to designate key biodiversity areas
Target 2	Restore degraded areas	Data to monitor restoration
Target 3	Protect 30% of terrestrial, inland water, marine areas	Data to locate, monitor protected areas
Target 4	Significantly reduce extinction risk	Data for species conservation
Target 6	Reduce introduction/establishment of invasive alien species	Data on invasive species occurrence
Target 8	Minimize impact of climate change on biodiversity	Data to model climate change impacts
Target 15	Ensure business transparently discloses biodiversity impacts	Platform for sharing EIA data
<b>Target 20</b>	<b>Strengthen capacity for implementation of framework</b>	<b>Capacity programmes for data mobilization and use</b>
<b>Target 21</b>	<b>Ensure access to best available data, information, knowledge</b>	<b>Core business of GBIF</b>

# TARGET 21

Ensure that the best available **data**, information and knowledge are accessible to decision makers, practitioners and the public to guide effective and equitable governance, integrated and participatory management of biodiversity, and to strengthen communication, awareness-raising, education, monitoring, research and knowledge management 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, in accordance with national legislation.



The screenshot shows the GBIF Occurrences search interface. The top navigation bar includes links for 'Get data', 'How-to', 'Tools', 'Community', and 'About'. A search bar on the right shows 'SEARCH OCCURRENCES | 2,315,512'. The main interface has a sidebar on the left with a 'Occurrences' heading and a 'Search all fields' input. Below this are dropdown menus for 'Occurrence status', 'Licence', 'Scientific name', 'Basis of record', 'Location', 'Administrative areas (gadm.org)', 'Coordinate uncertainty in metres', 'Year', 'Month', 'Dataset', 'Country or area', 'Continent', 'Issues and flags', 'Media type', 'Publisher', 'Institution code', 'Collection code', 'Catalogue number', 'Type status', and 'IUCN Global Red List Category'. The main content area displays a table of occurrence data with columns for 'Scientific name', 'Country or area', 'Coordinates', 'Month & year', 'Occurrence status', and 'Basis of record'. The table lists various species and their locations, such as *Rytidosperma racemosum*, *Lerista apoda*, *Regulus regulus*, *Sorghum leiocladum*, *Arctocephalus forsteri*, *Chroicocephalus ridibundus*, *Callitris glauophylla*, *Lycopodium fastigiatum*, *Parus major*, *Dendrocopos major*, *Pica pica*, *Corvus cornix*, *Passer montanus*, *Commelinia cyanea*, *Chroicocephalus novaehollandiae*, *Plagiochila asplenoides*, *Sericornis frontalis*, and *Eleocharis*.

Scientific name	Country or area	Coordinates	Month & year	Occurrence status	Basis of record
<i>Rytidosperma racemosum</i> (R.Br.) Connor & ...	Australia	35.2S, 149.0E	2023 January	Present	Human observation
<i>Lerista apoda</i> Storr, 1976	Australia	17.9S, 122.3E	2023 January	Present	Human observation
<i>Regulus regulus</i> (Linnaeus, 1758)	Denmark	55.3N, 10.8E	2023 January	Present	Human observation
<i>Sorghum leiocladum</i> (Hack.) C.E.Hubb.	Australia	36.2S, 149.0E	2023 January	Present	Human observation
<i>Arctocephalus forsteri</i> (Lesson, 1828)	Australia	34.9S, 135.7E	2023 January	Present	Human observation
<i>Chroicocephalus ridibundus</i> (Linnaeus, 1766)	United Kingdom of Great ...	52.6N, 0.7W	2023 January	Present	Human observation
<i>Callitris glauophylla</i> J.Thompson & L.A.S.J...	Australia	32.5S, 146.7E	2023 January	Present	Human observation
<i>Lycopodium fastigiatum</i> R.Br.	Australia	35.5S, 148.8E	2023 January	Present	Human observation
<i>Parus major</i> Linnaeus, 1758	Russian Federation	55.9N, 38.1E	2023 January	Present	Human observation
<i>Dendrocopos major</i> (Linnaeus, 1758)	Russian Federation	55.9N, 38.1E	2023 January	Present	Human observation
<i>Pica pica</i> (Linnaeus, 1758)	Russian Federation	55.9N, 38.1E	2023 January	Present	Human observation
<i>Corvus cornix</i> Linnaeus, 1758	Russian Federation	55.9N, 38.1E	2023 January	Present	Human observation
<i>Passer montanus</i> (Linnaeus, 1758)	Russian Federation	55.9N, 38.1E	2023 January	Present	Human observation
<i>Commelinia cyanea</i> R.Br.	Australia	34.9S, 150.8E	2023 January	Present	Human observation
<i>Chroicocephalus novaehollandiae</i> (Stephens, 1821)	Australia	33.7S, 136.9E	2023 January	Present	Human observation
<i>Plagiochila asplenoides</i> (L.) Dumort.	Denmark	55.2N, 9.4E	2023 January	Present	Human observation
<i>Sericornis frontalis</i> (Vigors & Horsfield, 1827)	Australia	34.6S, 150.4E	2023 January	Present	Human observation
<i>Eleocharis</i> R.Br.	Australia	35.2S, 149.1E	2023 January	Present	Human observation

<https://www.gbif.org/occurrence/search>

Introduction to GBIF.org: <https://www.gbif.org/composition/4Xm5cVB4y9n7U1GIUtKx8Q/data-use-club-practical-session-1-recording-and-resources>

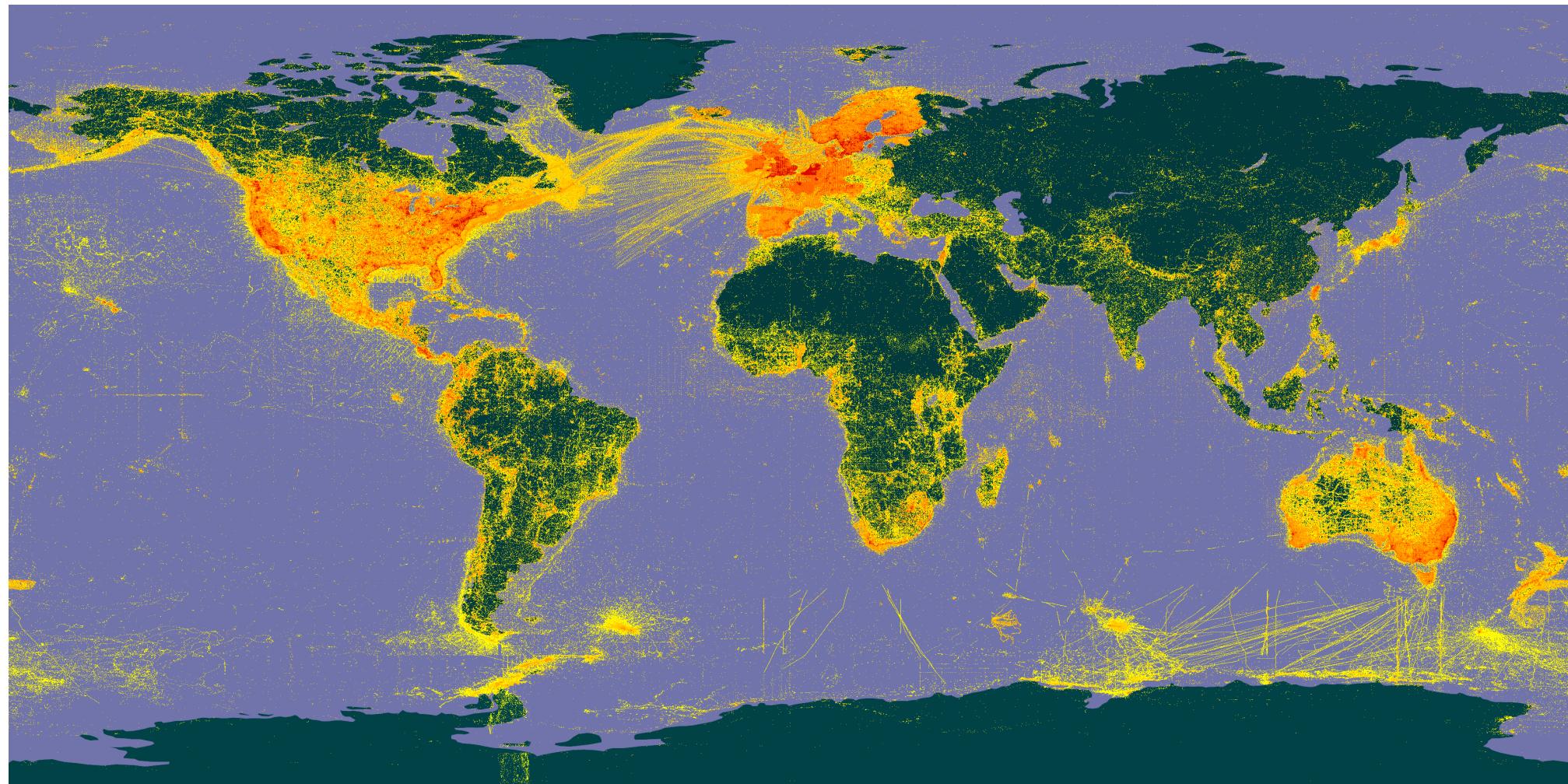


# GBF MONITORING FRAMEWORK

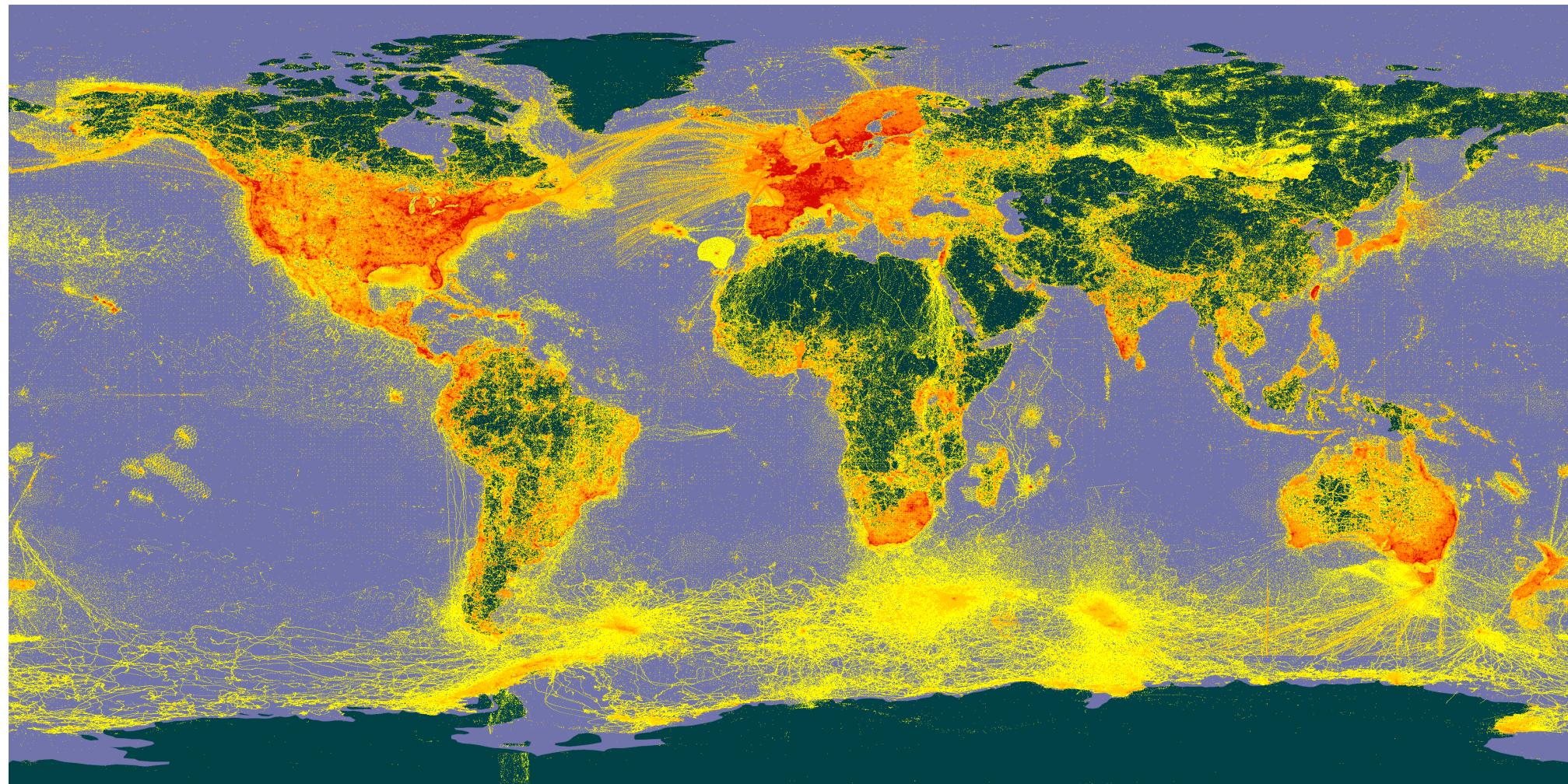
 ADVANCE UNEDITED	<b>CBD</b>
 Convention on Biological Diversity	Distr. GENERAL  CBD/COP/DEC/15/5 19 December 2022  ORIGINAL: ENGLISH
CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY  Fifteenth meeting – Part II Montreal, Canada, 7-19 December 2022 Agenda item 9B	
DECISION ADOPTED BY THE CONFERENCE OF THE PARTIES TO THE CONVENTION ON BIOLOGICAL DIVERSITY	
<b>15/5. Monitoring framework for the Kunming-Montreal Global Biodiversity Framework</b>  <i>The Conference of the Parties</i> 1. <i>Adopts</i> the monitoring framework for the Kunming-Montreal Global Biodiversity Framework in annex I of the present decision; 2. <i>Decides</i> to use the period from 2011-2020, where otherwise indicated, for reporting and monitoring progress under the Kunming-Montreal Global Biodiversity Framework, while noting that baseline desirable states or levels of ambition in goals and targets should, where appropriate, reflect current status, future scenarios of biodiversity and available resources; 3. <i>Also decides</i> to consider a review of the monitoring framework at its sixteenth meeting, and thereafter keep the framework under review; 4. <i>Notes</i> the value of aligning national monitoring frameworks with the Kunming-Montreal Global Biodiversity Framework with the International Statistical System for Environmental-Economic Accounting statistical standard in order to strengthen national monitoring systems to their national priorities and circumstances; 5. <i>Encourages</i> Parties and invites other Governments, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services and other relevant organizations to support the development of monitoring systems, recognizing the need for enhanced international cooperation, especially for developing countries; 6. <i>Invites</i> Parties and relevant organizations to support the development of monitoring systems, recognizing the need for enhanced international cooperation, especially for developing countries; 7. <i>Invites</i> the Statistical Commission, the Global Environment Monitoring System, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the Intergovernmental Oceanographic Commission, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the Biodiversity Indicators Partnership and other relevant organizations to support the operationalization of the monitoring framework for the Kunming-Montreal Global Biodiversity Framework.	21  <b>21.1 Indicator on biodiversity information for the monitoring the global biodiversity framework</b>  <b>Species Status Index</b> Extent to which (i) global citizenship education and (ii) education for sustainable development, including gender equality and human rights, are mainstreamed at all levels in: (a) national education policies, (b) curricula, (c) teacher education and (d) student assessments

- GBIF dependency in selected headline, component and complementary indicators
- Work with partners on new indicator development including biodiversity information indicator

# INCREASED ACCESS TO OPEN DATA - MAP OF GBIF OCCURRENCES – 2015



# INCREASED ACCESS TO OPEN DATA - MAPS OF GBIF OCCURRENCES – 2023



# Hosted portals

[gbif.org/hosted-portals](http://gbif.org/hosted-portals)

# BIODIVERSIDAD PARA TODOS

crear • compartir • transformar

[Consultar](#)

20,432,411

Registros biológicos



2,321

Conjuntos de datos



5,348

Fichas de especies



384

Listas de chequeo



191

Socios publicadores



Formación  
Gestión corporativa para la  
naturaleza



Recursos  
Nueva versión de la plantilla  
DwC



Recursos  
¡Qué ningún dato se te escape!

# THANK YOU

Contact: [mblaursen@gbif.org](mailto:mblaursen@gbif.org)

