



BIODIVERSITY DATA PUBLICATION AND RE-USE

Belmont Forum Workshop, 28 April 2017

by Andre Heughebaert

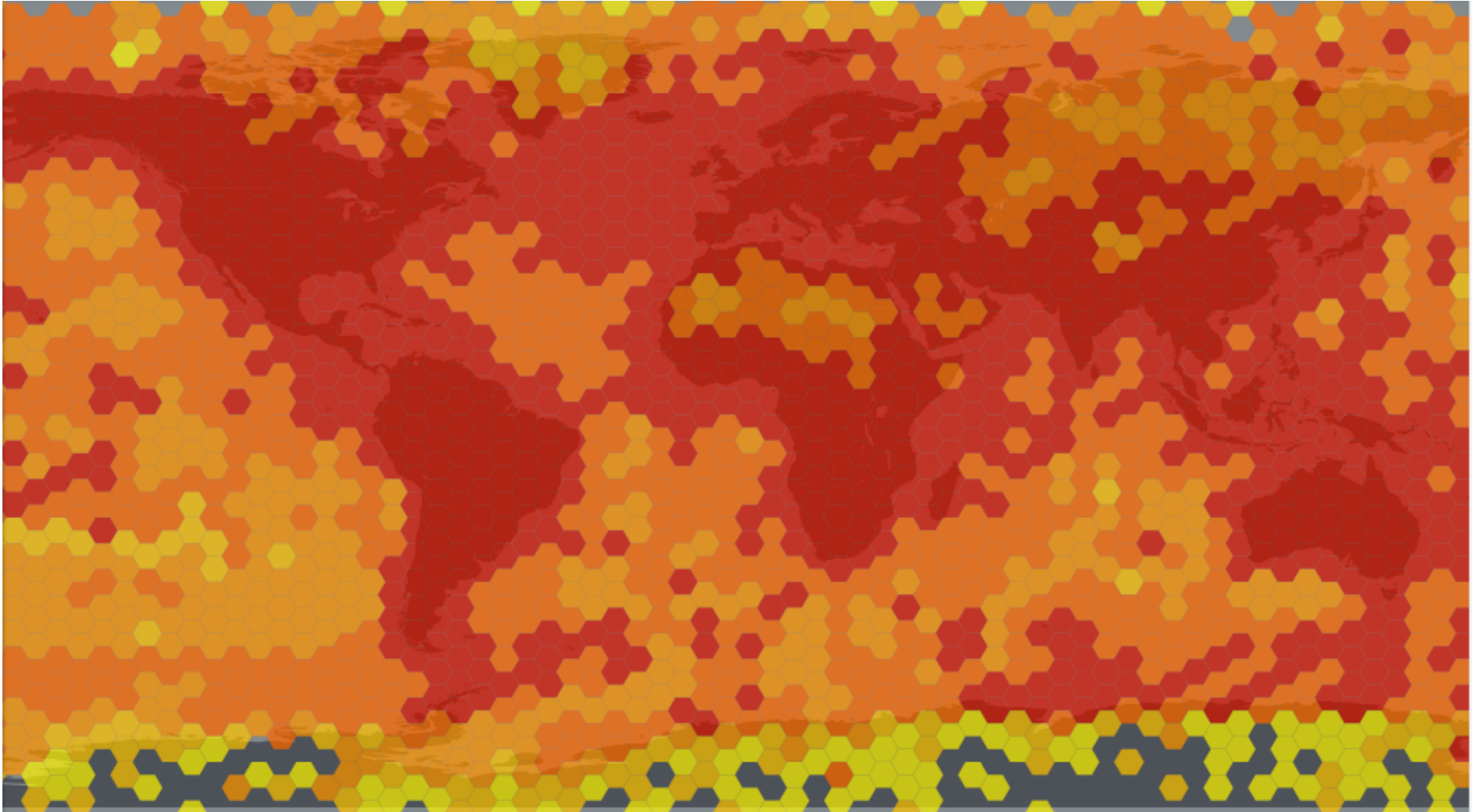
Nodes Committee Chair

Node Manager for Belgium

OECD Origins of GBIF

1999	OECD Committee for Scientific and Technological Policy at Ministerial Level in Paris on 22-23 June 1999 endorsed the recommendation of the Biodiversity Informatics Subgroup: “An international mechanism is needed to make biodiversity data and information accessible worldwide”
2001	GBIF was established in March 2001. Initial 5 years Memorandum of Understanding opened for signature
2003	Secretariat established in Copenhagen under country host agreement with Denmark
2012	New MoU offers open-ended participation to countries, economies, inter-governmental or international organisations.

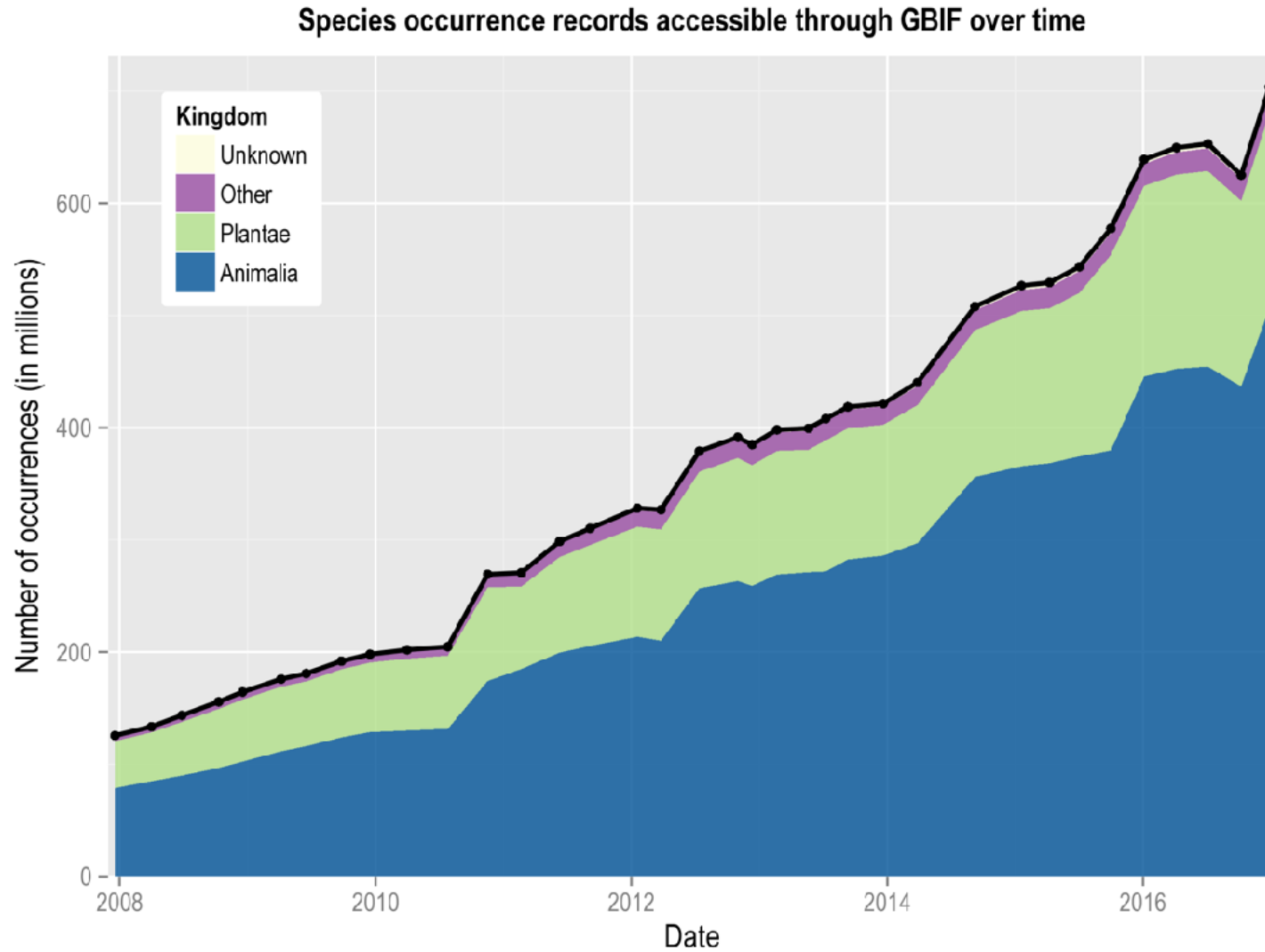
Data published through [GBIF.org](https://www.gbif.org) - density map



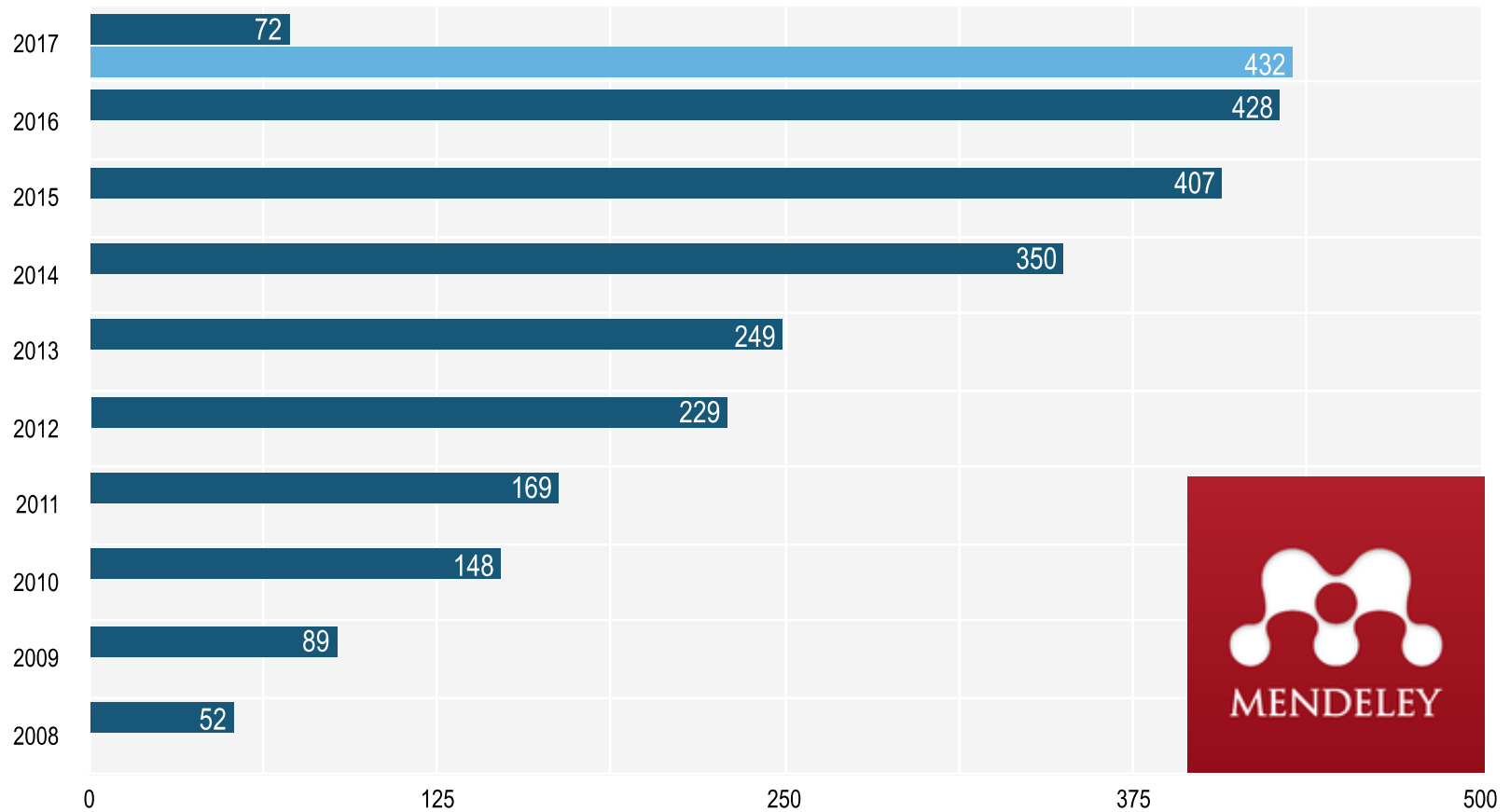
GBIF by numbers (April 2017)

Occurrence records	726,983,081
Species	1,643,948
Datasets	35,157
Publishers	888
Participant Countries	54
Participant Organisations	39
Records downloaded per month	26,7 billion
Unique visitors per month	105,729

Species occurrence records, over time

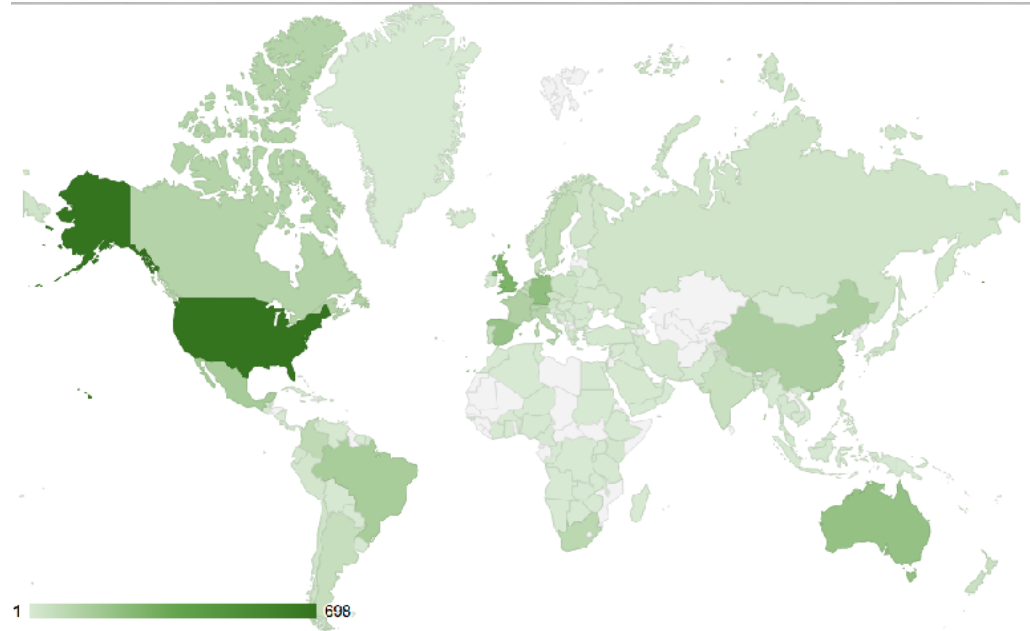


Peer-reviewed publications using GBIF-mediated data

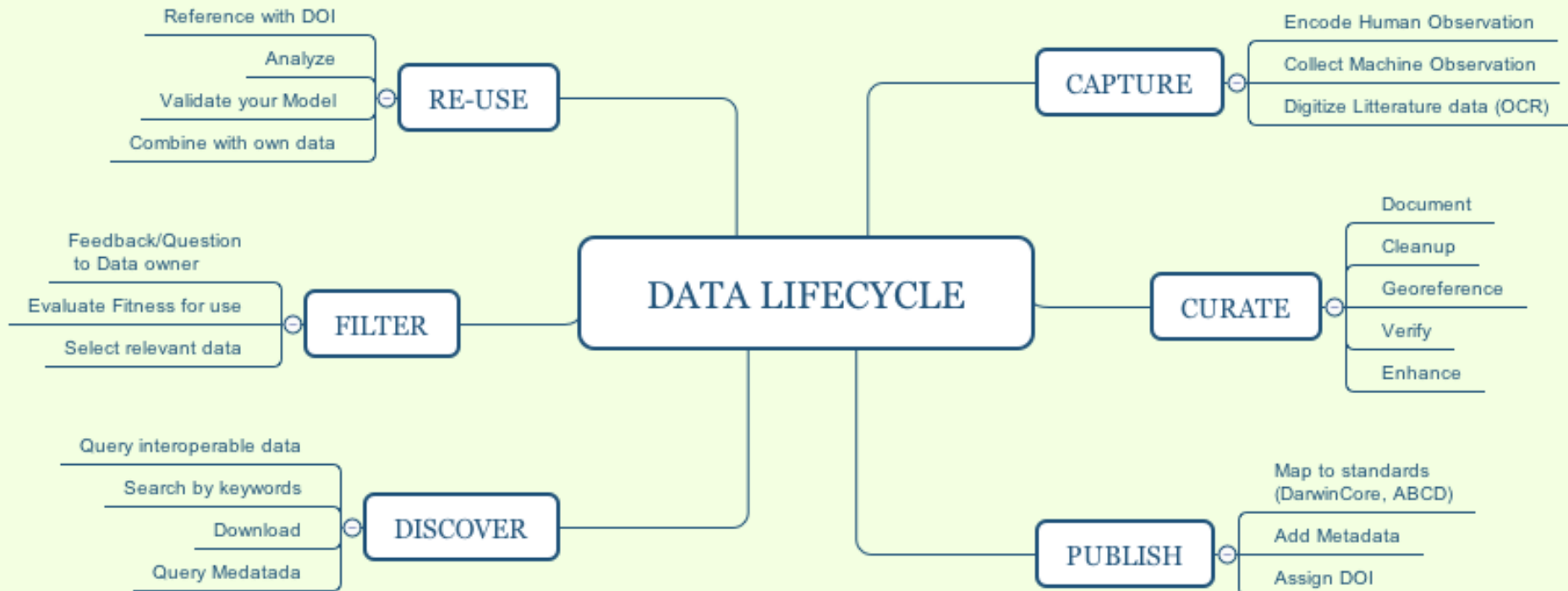


Location of GBIF enabled research papers





Country	Papers
United States	698
United Kingdom	283
Germany	227
Australia	208
Spain	201
Mexico	155
Brazil	149
China	136
France	126
Canada	111
Italy	108
South Africa	92
Colombia	84



From Data capture to Re-use, a complete lifecycle



GBIF way to Open Biodiversity Data

<p>Attribution</p> 	<p>Digital Object Identifiers assigned to:</p> <ul style="list-style-type: none"> • Published Datasets • User Downloads • Data papers
<p>Licensing</p> 	<p>Publishers choose appropriate license:</p> <ul style="list-style-type: none"> • CC-0 • CC-BY • CC-BY-NC
<p>Standards</p> 	<p>Data: DarwinCore, ABCD, DublinCore</p> <p>Metadata: Ecological Metadata Language (EML)</p>
<p>Accessibility</p> 	<p>GBIF.org global data portal</p> <ul style="list-style-type: none"> • interoperable queries • interactive maps • free downloads • web services
<p>Publication</p>	<p>Integrated Publishing Toolkit (IPT), BioCASE, Spreadsheet templates</p>

Digital Object Identifiers



Researcher



User searches for data through GBIF.org

GBIF download

Download DOI

Data

█	█	█	█	█
█	█	█	█	█
█	█	█	█	█
█	█	█	█	█

Data attribution

User cleans data

Cleaned data

Dataset DOI

Data

█	█	█	█	█
█	█	█	█	█
█	█	█	█	█
█	█	█	█	█

Data attribution

User publishes paper

Paper

Paper DOI

Published paper can give resolvable links to GBIF download and/or to cleaned dataset

User deposits cleaned dataset in a repository and gets DOI for dataset



GBIF.org

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Download history

Download 1

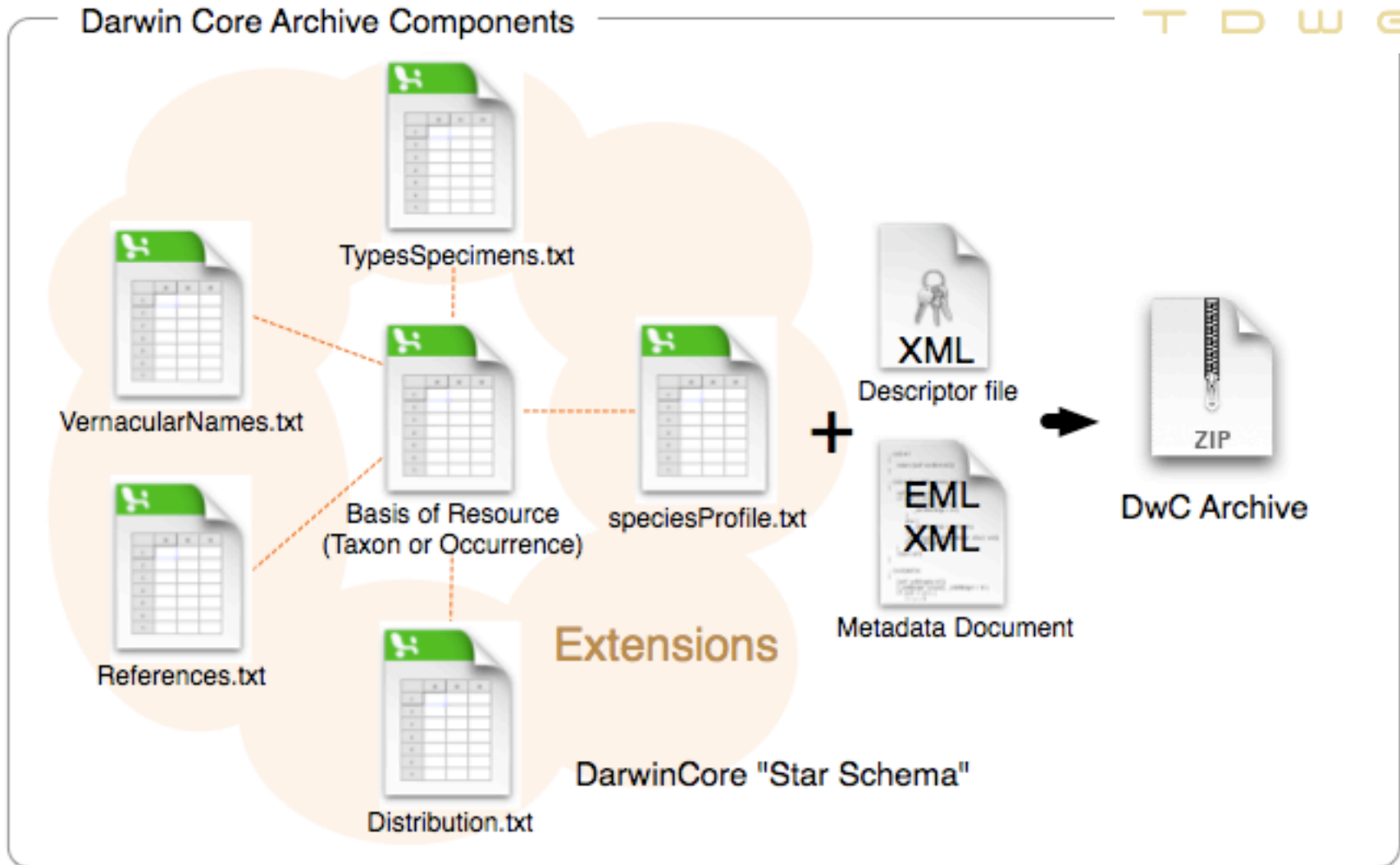
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GBIF.org creates a download data set

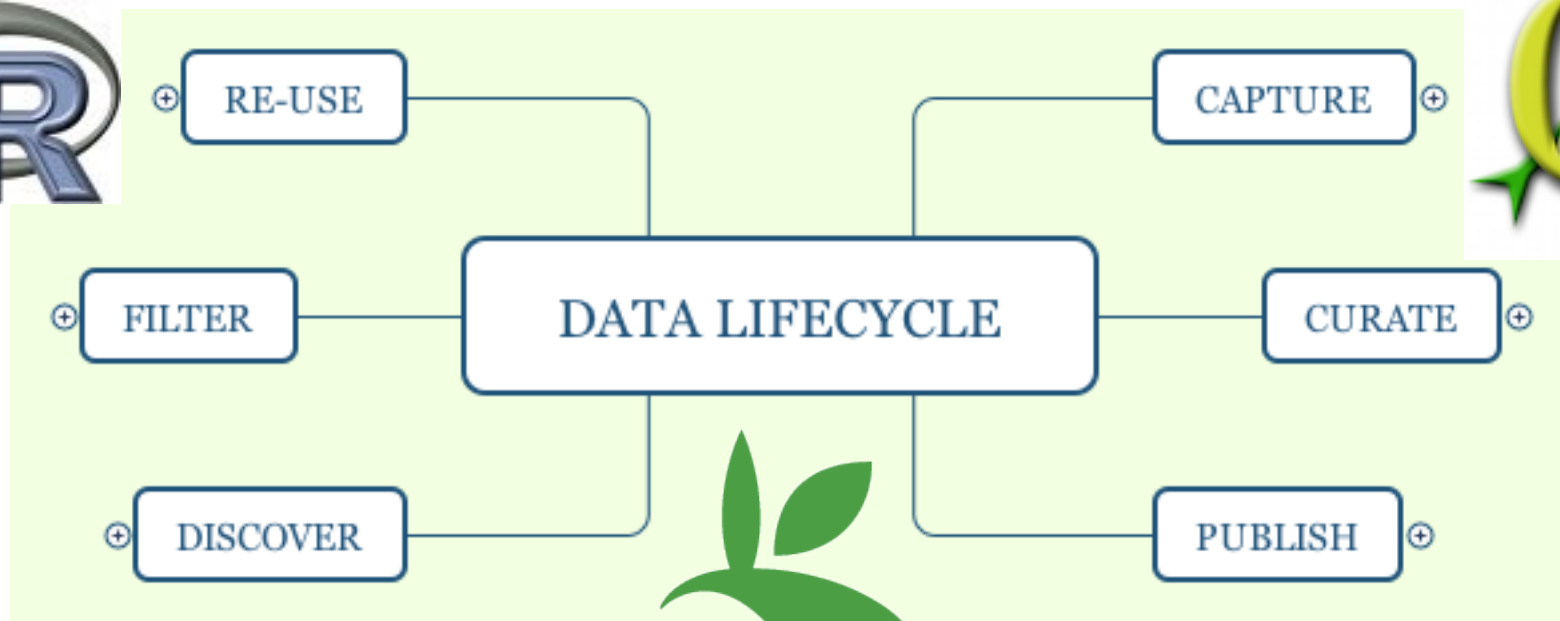
GBIF assigns DOIs to data downloads



Darwin Core - Archive format



Open Source Data Management/Visualisation Tools



GBIF.org

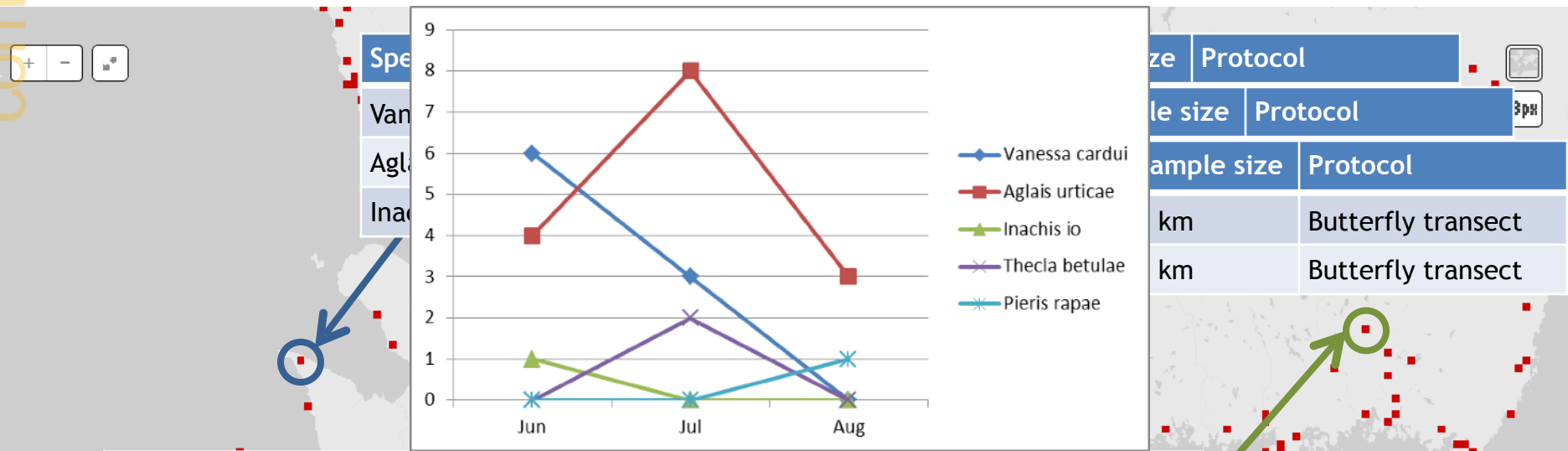
Building a community of practice



- Biodiversity Information for Development (BID) - a four-year programme to facilitate biodiversity data mobilisation and use in Africa, Caribbean and Pacific

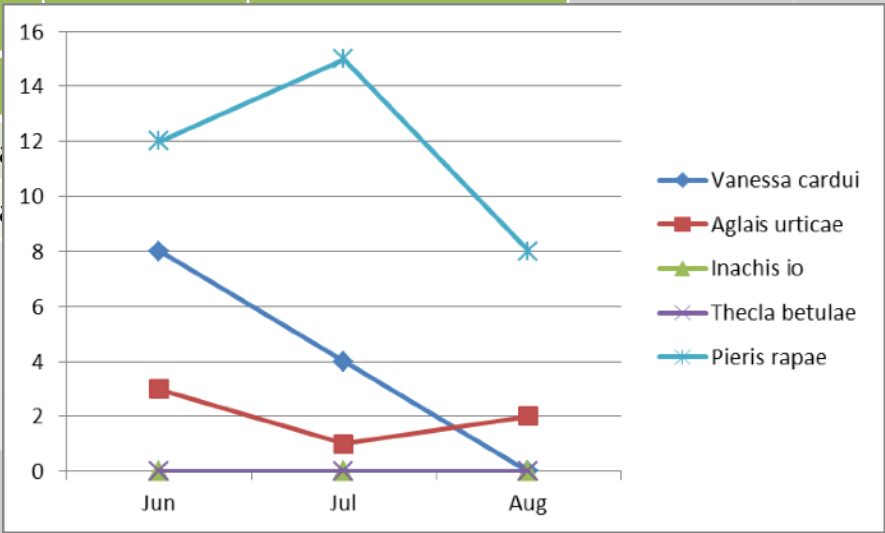


Extending standards to sampling-event data



Species	Event	Quantity	Sample size	Protocol
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Pieris	Species	Event	Quantity
Vanessa	Pieris	Species	Event
Aglais	Vanessa	Pieris rapae	PlotB-2014-08
Aglais	Aglais	Aglais urticae	PlotB-2014-08



Everything - Showing data from no date to 2020 (36789 records)

TOOLS adoption - Living Atlases (National Data Portal)

PORTAL DE DATOS DE BIODIVERSIDAD
Nodo Nacional de información en Biodiversidad

INSTITUCIONES COLECCIONES PROYECTOS
JUEGOS DE DATOS
DATOS GEOREFERENCIADOS

Busca en el portal de datos

Información accesible a través del Portal de Datos de GBIF.ES.
 + INSTITUCIONES: **14.370.951**
 + JUEGOS DE DATOS: **219**
 + INSTITUCIONES: **85**

Estimamos que algunas funcionalidades del portal. Encuentra los recursos que necesitas en línea para institucional.

CONTACTO GBIF España, UK y...

NATIONAL UNIVERSITY OF IRELAND GALWAY | NUI GALWAY | NUI GALWAY | SCOTLAND'S PORTAL

SEARCH

als atlas of living scotland

SPECIES EDUCATORS PARTNERS ANALYSE GET INVOLVED DATA AND PARKS ACCESS

The Atlas of Living Scotland is the country's largest collection of biodiversity information

Search the Atlas of Living Scotland

SEARCH THE ATLAS

ANALYSE DATA

Get involved

Feedback

Atlas Of Living Australia

Search the Atlas

Search the Atlas ...

You may see intermittent outages, slowness, or format changes with species pages, names, occurrence record views and search results for the next few days, while we work on migration to new components of the system.

Global Biodiversity Information System

LES DONNÉES FRANÇAISES SUR LA BIODIVERSITÉ

Explore the Atlas of Living Australia

Australia's species

Species by location

Collections

Sharing biodiversity knowledge

Contributed by Australia's academic, scientific, environmental communities and you.

Consultar los 304.000 registros de presencia

RECHERCHER

LES DONNÉES FRANÇAISES SUR LA BIODIVERSITÉ

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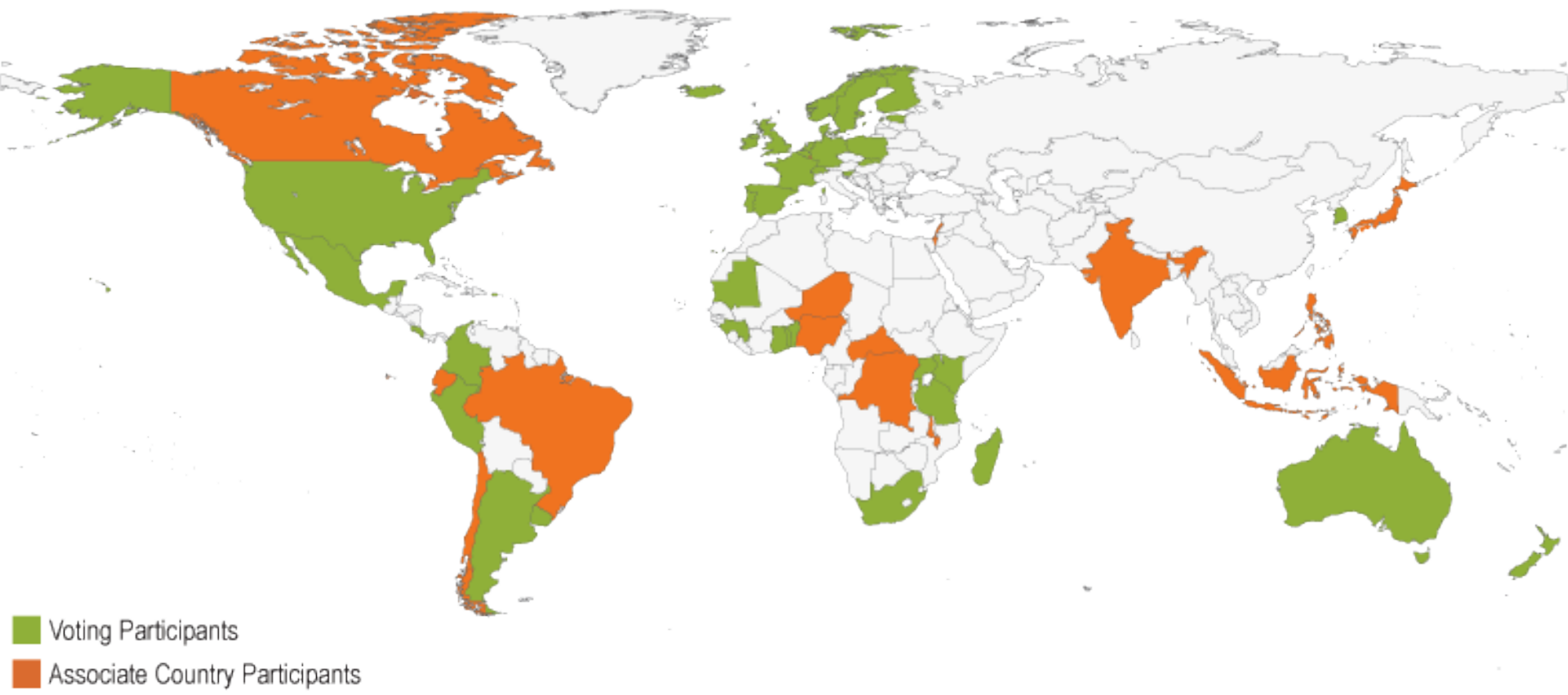
RECHERCHER

DATOS GEOREFERENCIADOS

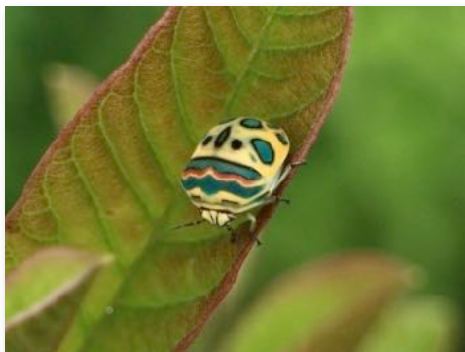
CONJUNTOS DE DATOS

COLECCIONES

Current national participants



Latest news



Final BID call for proposals seeks projects from sub-Saharan Africa

First stage of two-stage selection process under the EU-funded data mobilization programme in

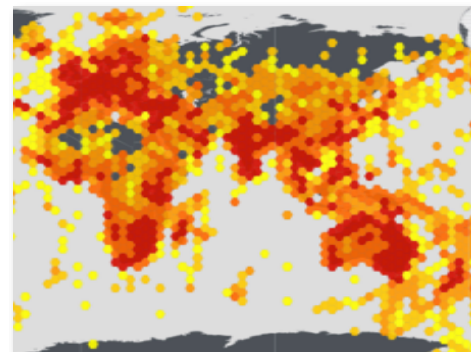
- [English](#)
- [Français](#)
- [Português](#)



Poland elevates commitment, becomes GBIF Voting Participant

Long-time Associate Participant is 39th full national member and 19th among European countries

[Read more](#)



63.8 million new records increase eBird total to 275 million

Annual dataset refresh grows by 30 per cent, with biggest gains in Asia and Europe

[Read more](#)

THANK YOU!



This presentation is re-usable

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