iDigBio
Integrated Digitized Biocollections

iDigBio is the Coordinating Center for the NSF's Advancing Digitization of Biodiversity Collections Program

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Goal of ADBC

- ***To remove the inaccessibility of specimen-based data in natural history collections***
  through **digitization**: information online for researchers, educators, policymakers, etc.

$100 million over 10 years
non-federal collections
(1st funding in 2011)

What does iDigBio do?

- Engage the collections community and facilitate digitization of biodiversity collections data
- Provide portal access to biodiversity data in a cloud computing environment
- Facilitate use of biodiversity data to address key environmental and economic challenges
- Plan for long-term sustainability of the national digitization network & effort

Thematic Collections Networks (TCNs)

Groups of non-federal institutions

- **Digitize specimen-based data around a research theme**

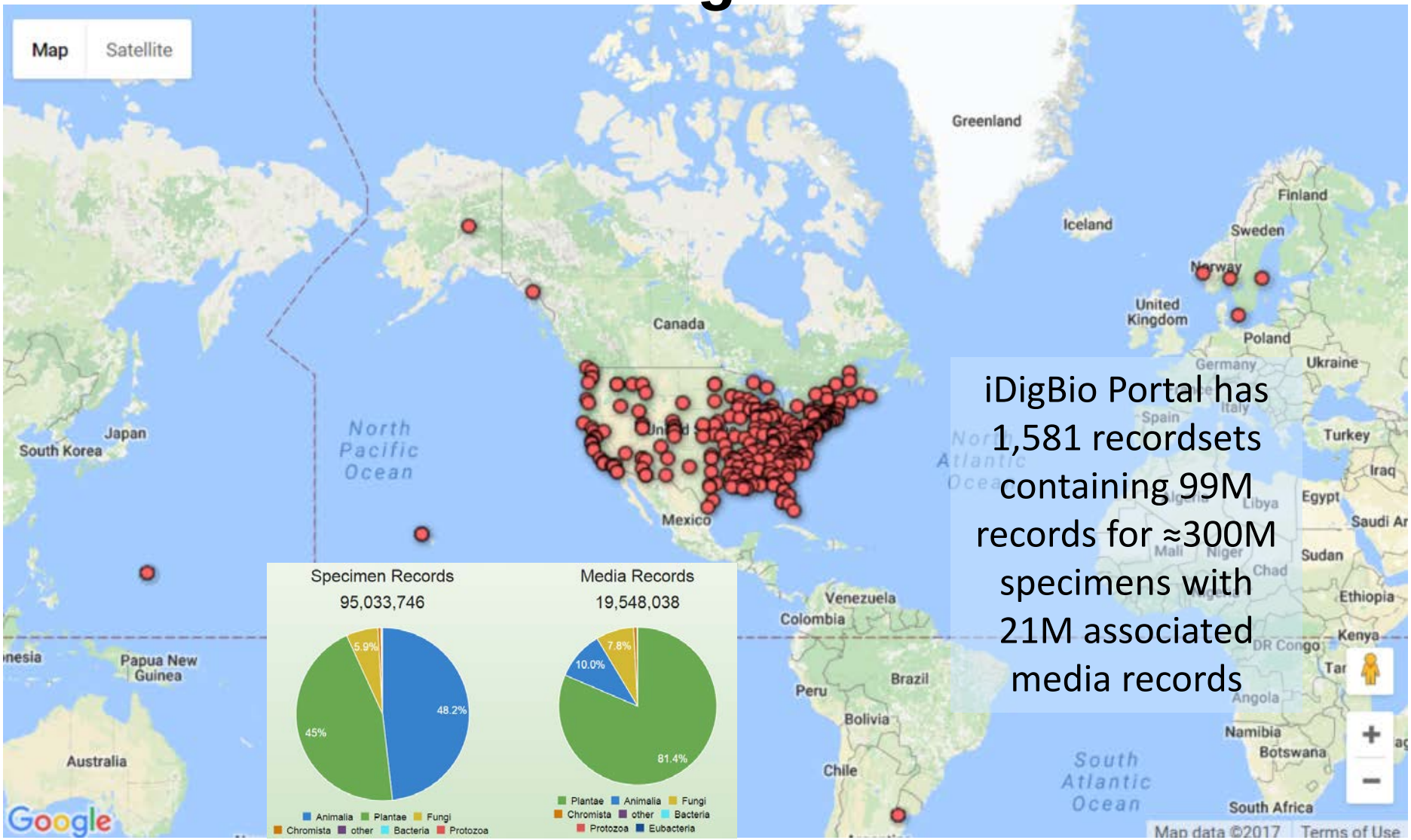
Digitizing = databasing, georeferencing, imaging

- **Provide data to iDigBio's search portal**

Thematic Collections Networks (TCNs)

- 18 TCNs funded
- 495 collections at 289 institutions

ADBC National Digitization Network



iDigBio Portal has 1,581 recordsets containing 99M records for ≈300M specimens with 21M associated media records

612 participating collections in 313 institutions

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Progress

- **Engage the collections community**
- **Facilitate digitization and mobilization of data**
- **Provide a search portal**
- Promote research and outreach

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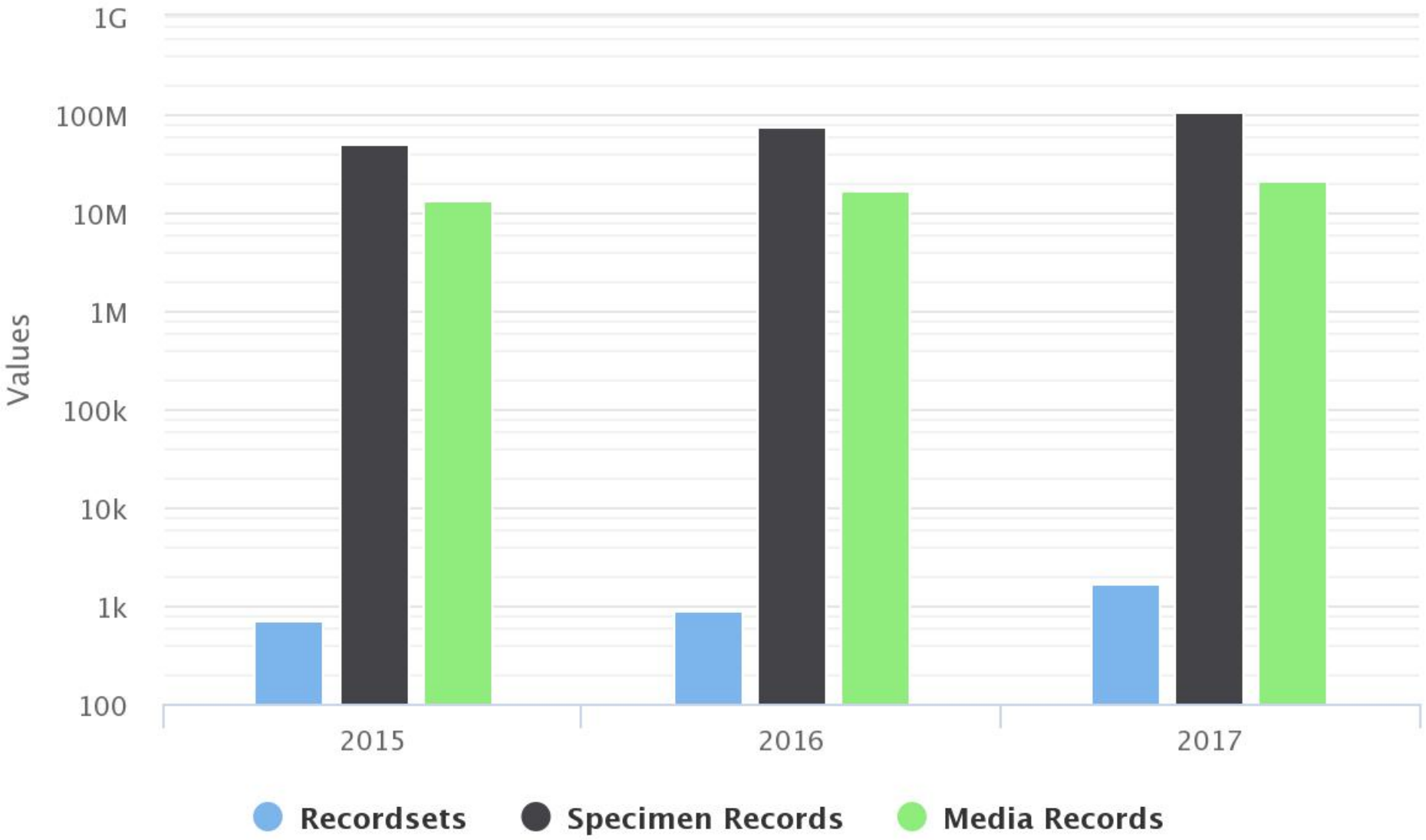
Cumulative Data Ingested by Year



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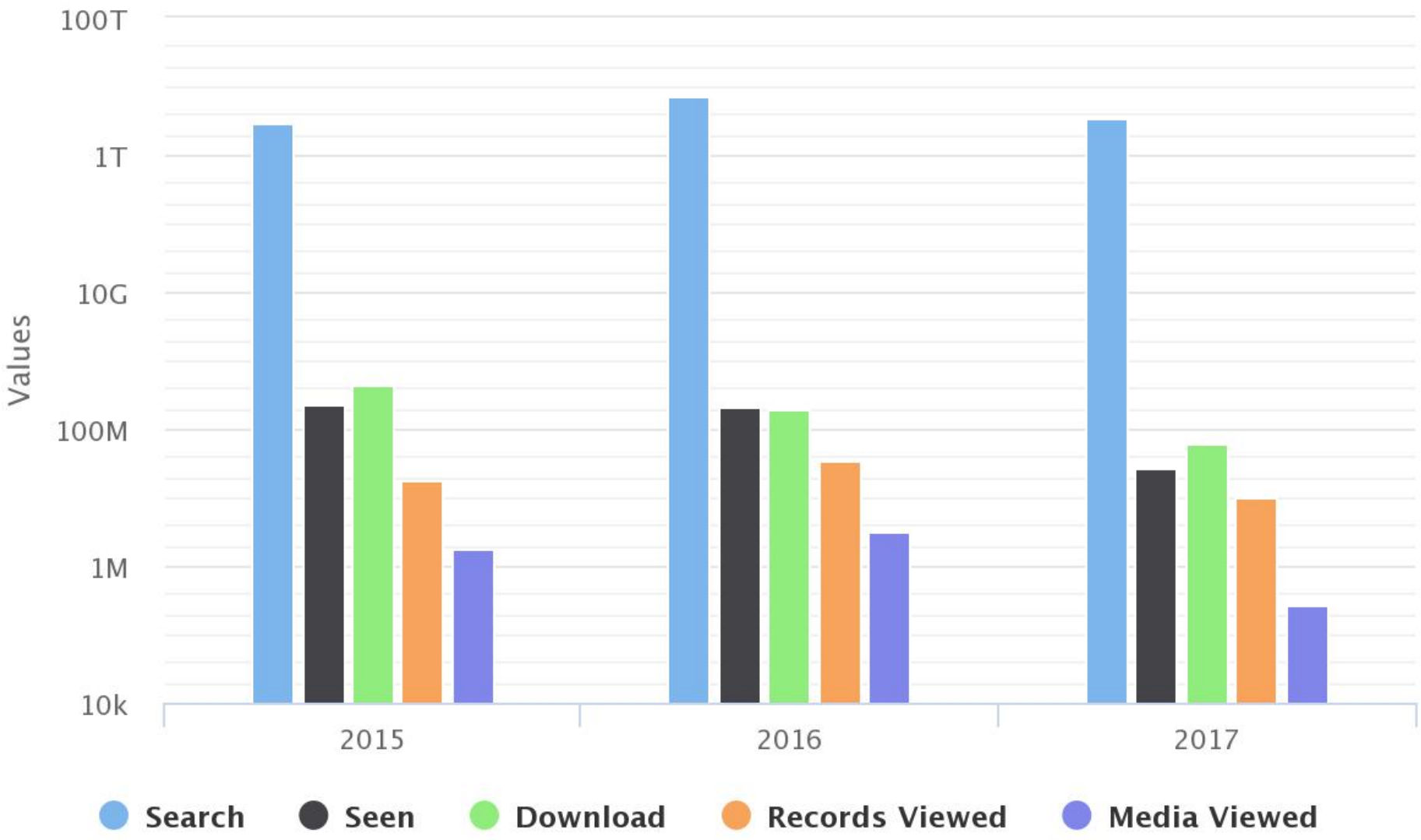
Data Use by Year



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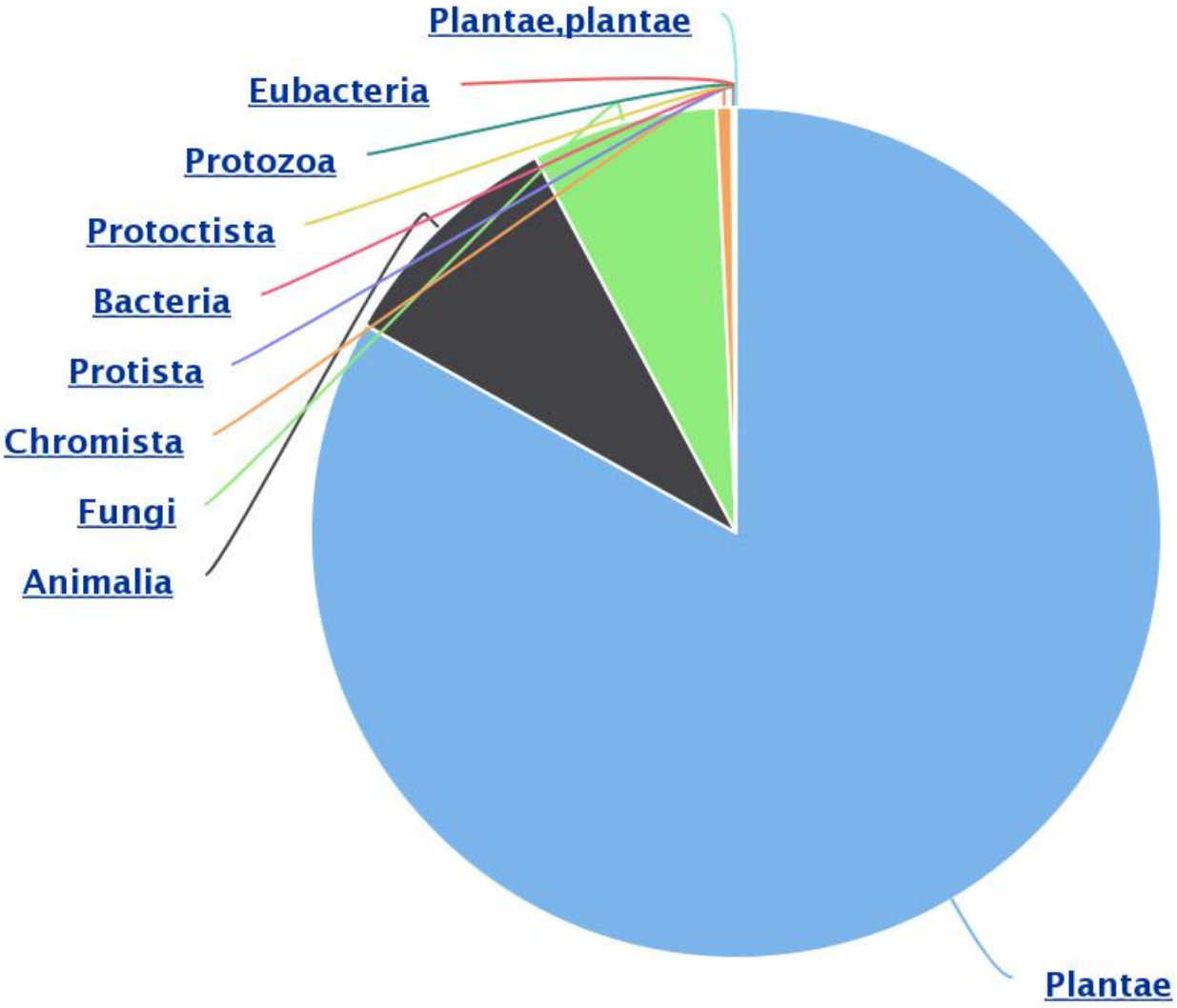
Top 10 Kingdoms and Families in Media Records



Highcharts.com

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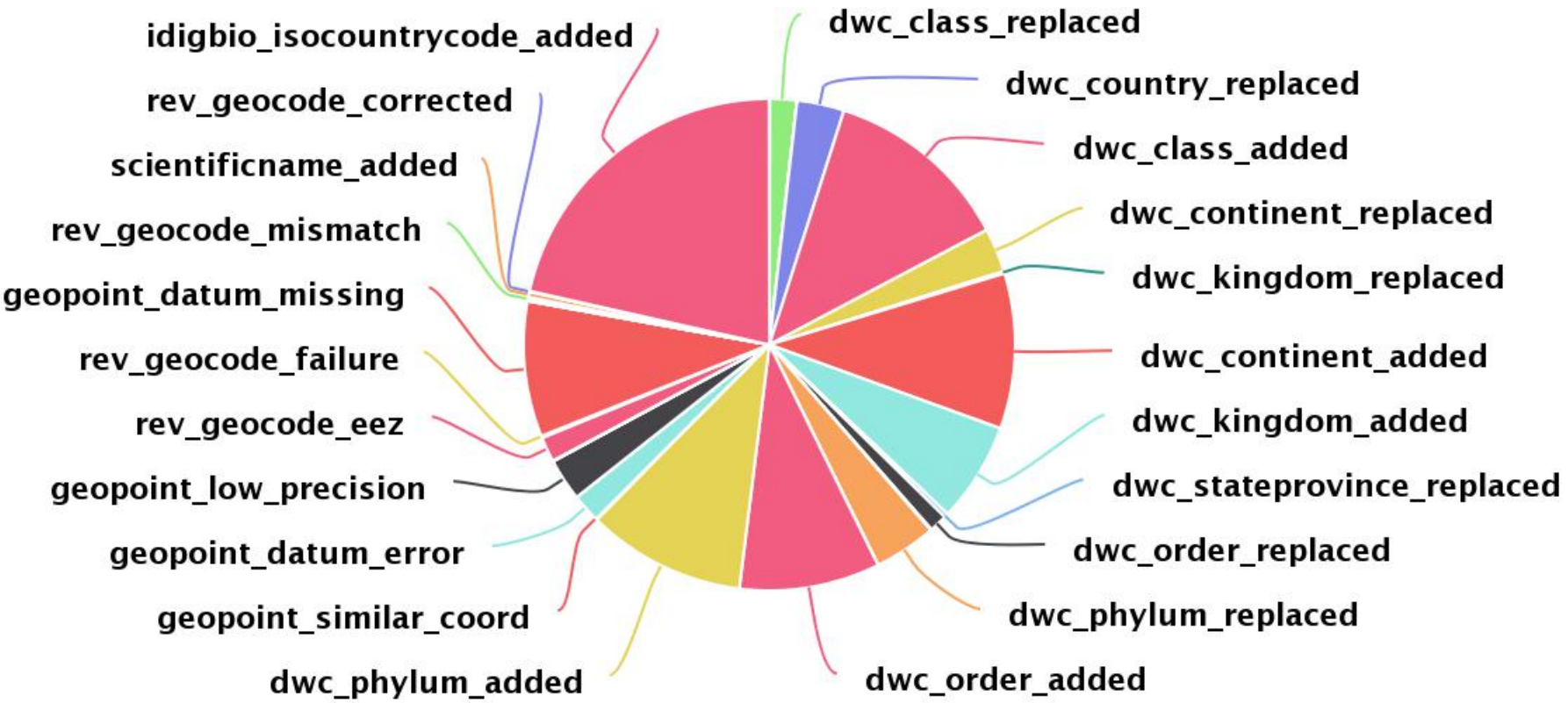
Records with Data Quality Flags



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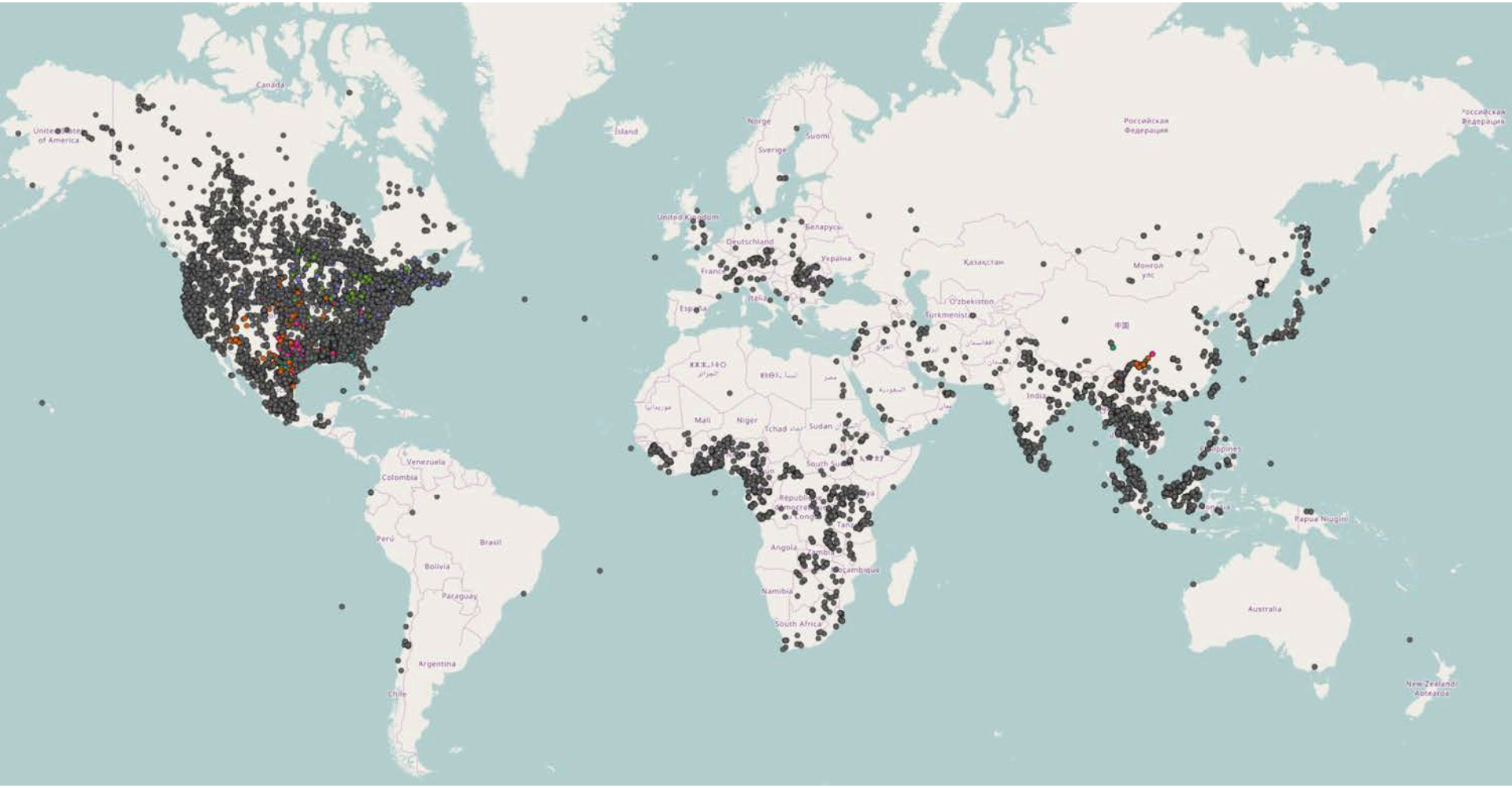

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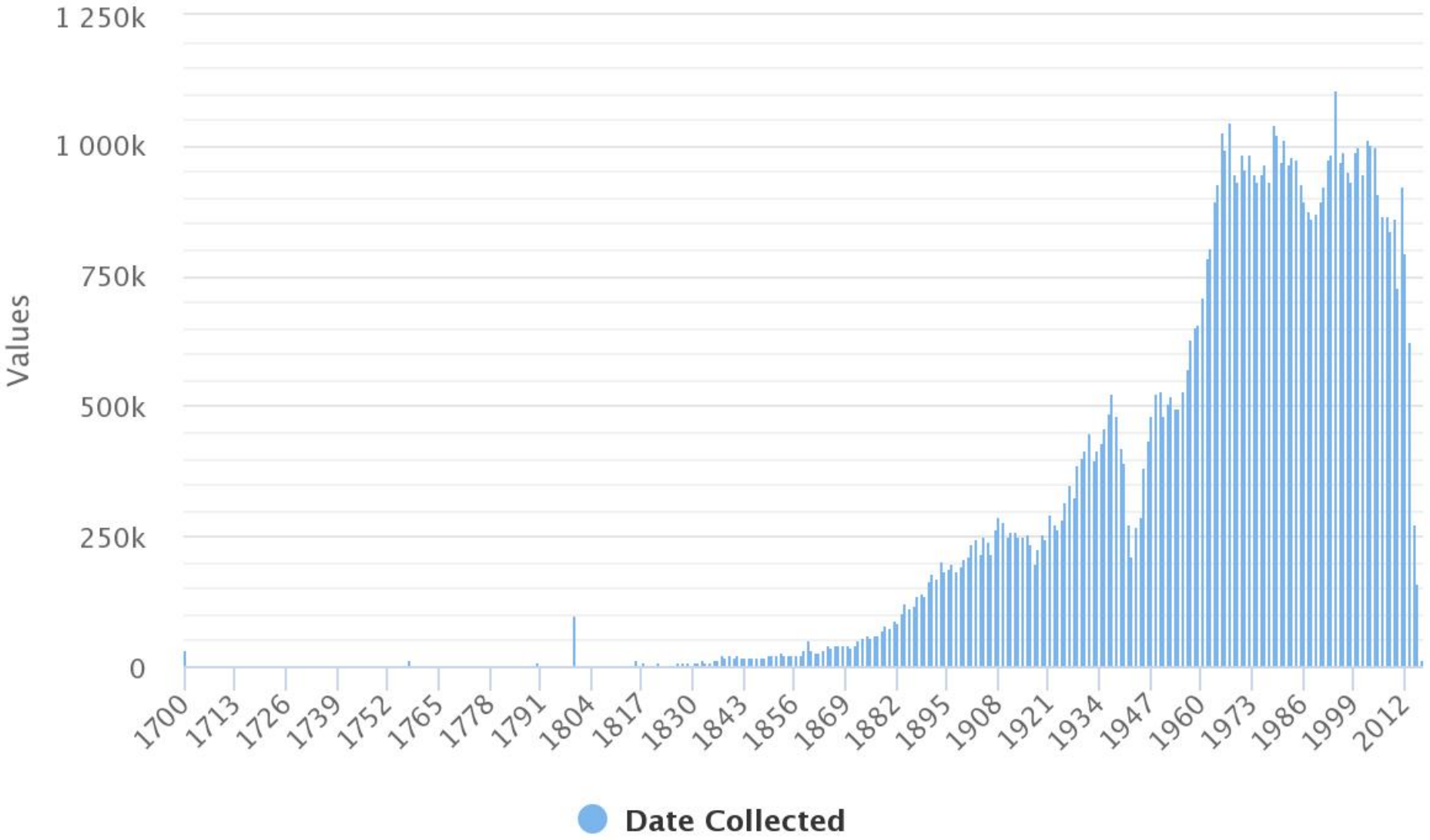
Temporal Coverage by Year



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Progress

- **Engage the collections community**
- **Facilitate digitization and mobilization of data**
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iDigBio
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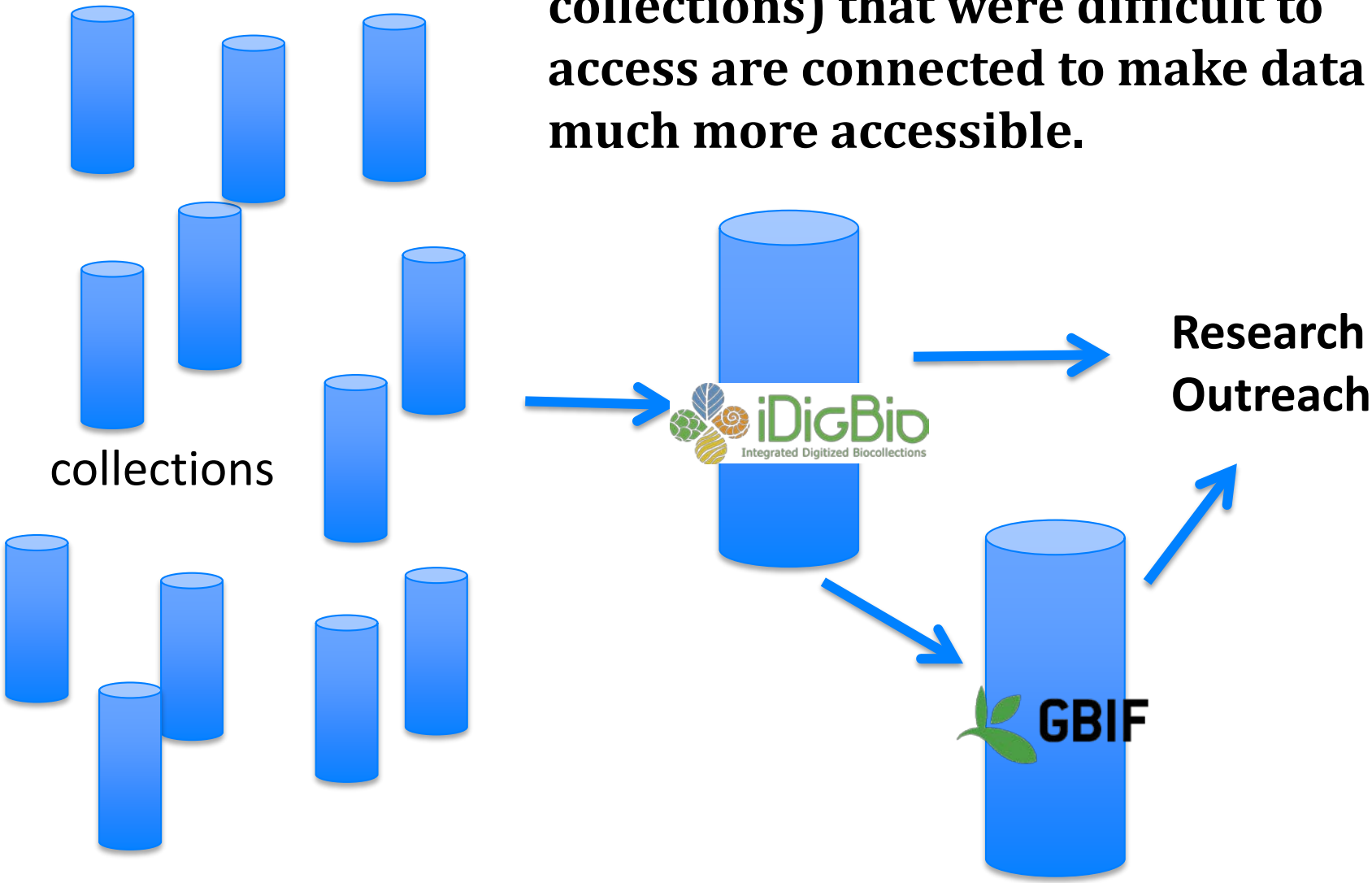
- Engage the collections community
- Facilitate digitization and mobilization of data

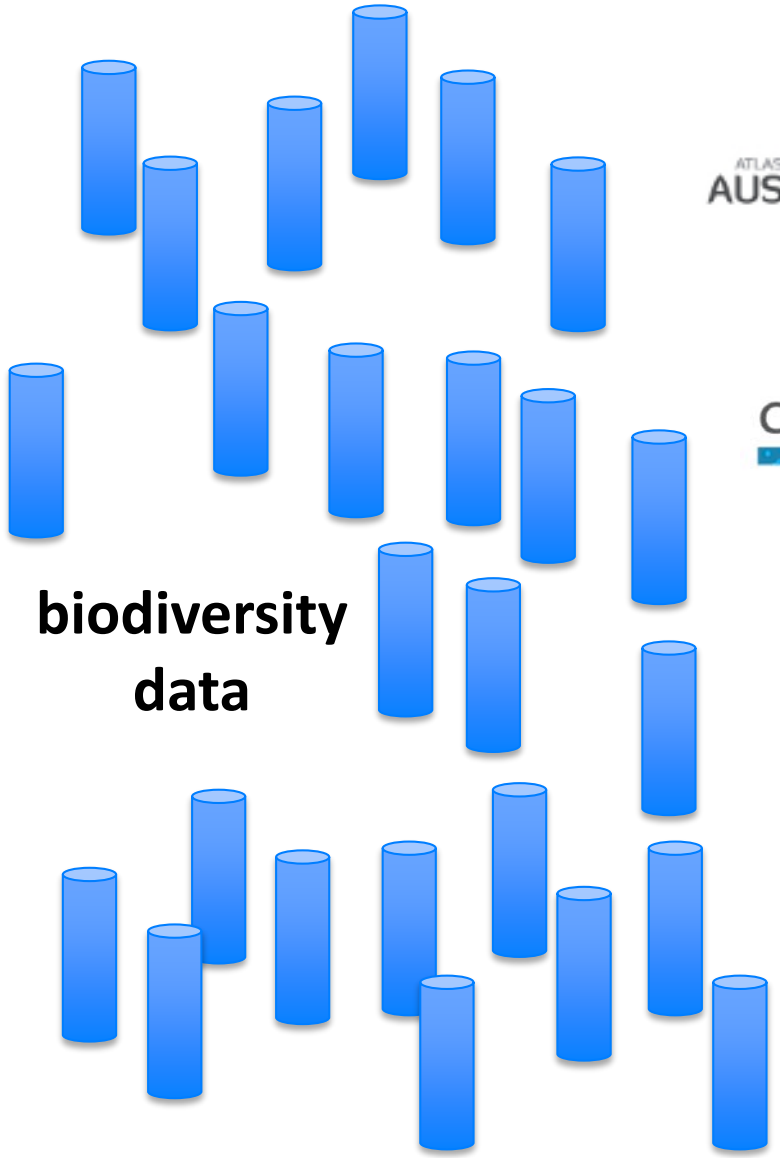
- 3,184 participants from 482 institutions at 85 workshops
- 2,586 participants at 78 webinars

Future

- ***Continue to engage collections community***
  - *Go international?*
- ***Improve quality of the data***
  - *(e.g. taxonomy; linking to other data)*
- ***Reward data providers***
  - *(Credit for use in publications, etc.)*
- ***Demonstrate value through research and outreach***
  - *(e.g., this conference)*

<u>Small silos of data</u> (institutional collections) that were difficult to access are connected to make data much more accessible.





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USGS science for a changing world

GBIF

iDigBio Integrated Digitized Biocollections

WoRMS World Register of Marine Species

Catalogue of Life

Biodiversity Information Systems

eol Encyclopedia of Life

GGBN

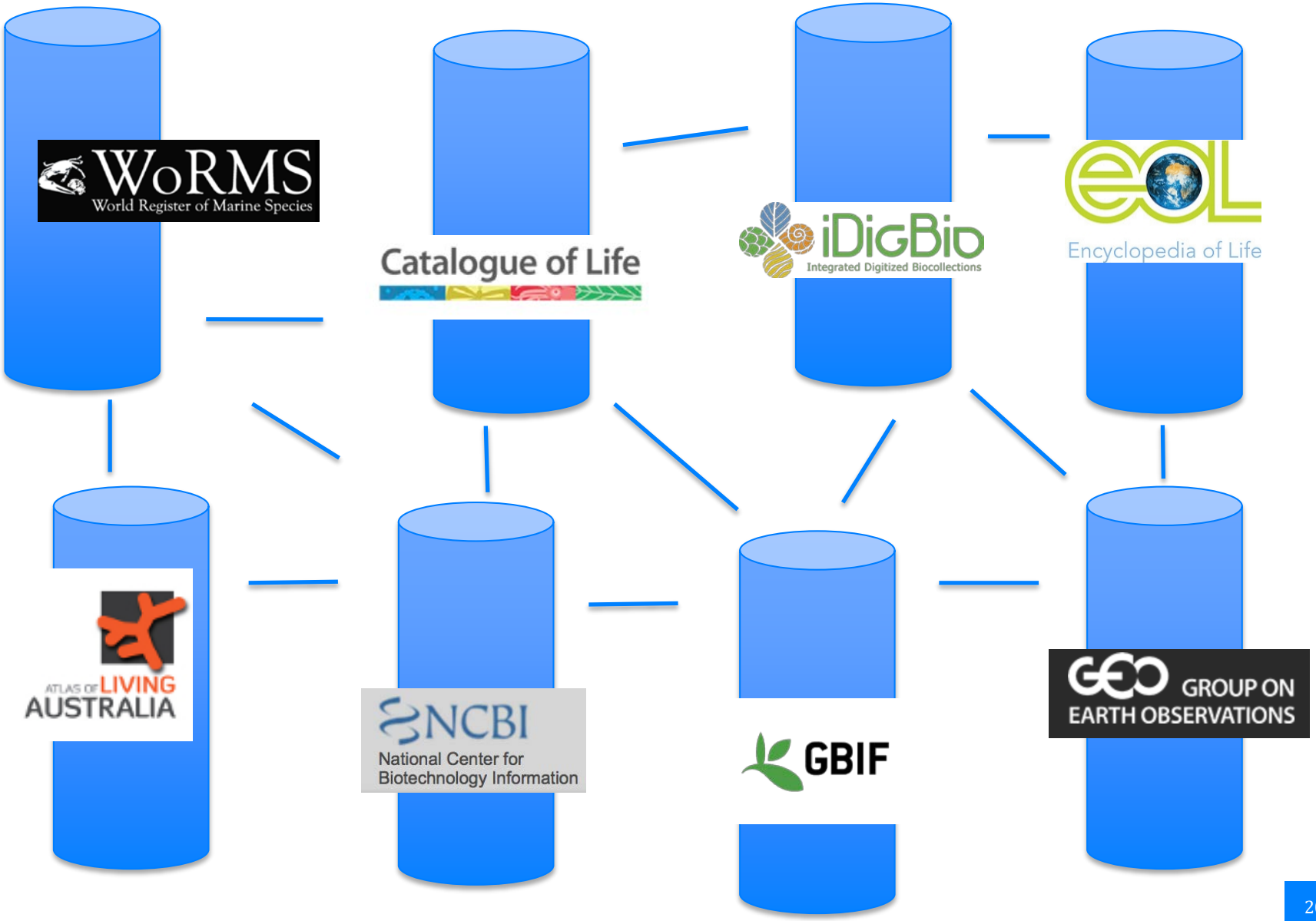
Canadensys

GEO GROUP ON EARTH OBSERVATIONS

NCBI National Center for Biotechnology Information

Good news:
Small silos of data (e.g., institutional collections) that were difficult to access are connected to make data much more accessible.

Bad news:
Small silos replaced by larger silos that are difficult to cross-search to combine data in ways required for integrative research.


WoRMS
World Register of Marine Species
Catalogue of Life
iDigBio
Integrated Digitized Biocollections
eol
Encyclopedia of Life
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NCBI
National Center for Biotechnology Information
GBIF
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International Collaborations

PENSOFT

neon
National Ecological Observatory Network

Exploring Synergies for Biodiversity Information Systems

GBIF

ROpenSci

- **Compare the structure and goals of the various BIS**
- **Enhance collaboration and interoperability,**
- **Globally connect information for research and outreach**

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Biodiversity Information Standards
TDWG

SPNHC
ADVANCING COLLECTIONS CARE

GEO GROUP ON EARTH OBSERVATIONS

eol
Encyclopedia of Life

Collaboration!