

iDigBio Search Portal and API (Application Programming Interface)

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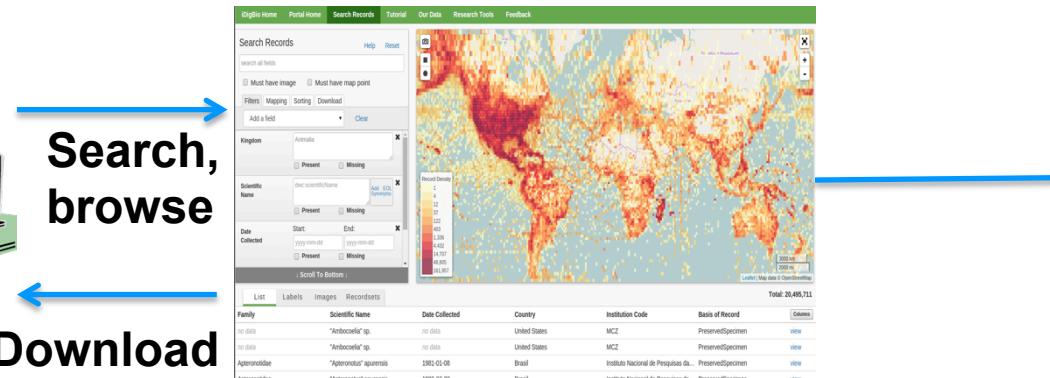


iDigBio is funded by a grant from the National Science Foundation's Advancing Digitization of Biodiversity Collections Program (Cooperative Agreement EF-1115210). Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.

iDigBio IT resources available for use of digitized data



Users



Search,
browse

Download

iDigBio Portal



Developers

HTTP,
R,
Python

Research tools

Search/mapping API



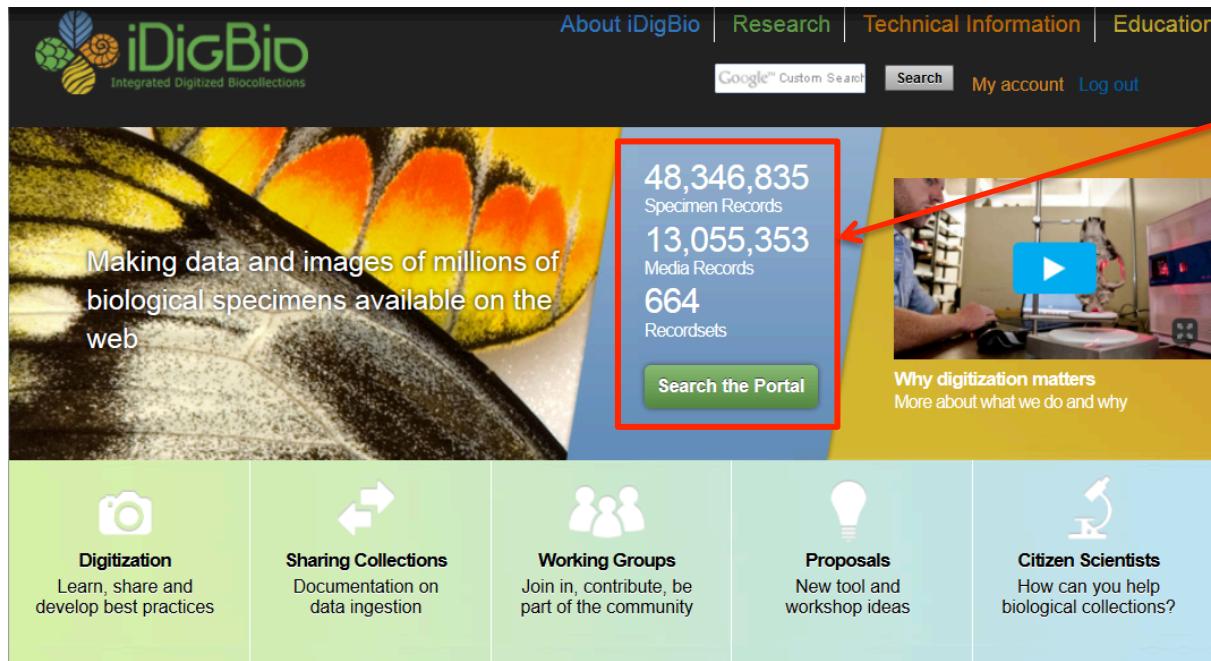
Storage cloud
Records
Media (images+)

Providers



Ingestion

iDigBio Website - www.idigbio.org



Making data and images of millions of biological specimens available on the web

48,346,835 Specimen Records
13,055,353 Media Records
664 Recordsets

Search the Portal

Why digitization matters
More about what we do and why

Digitization
Learn, share and develop best practices

Sharing Collections
Documentation on data ingestion

Working Groups
Join in, contribute, be part of the community

Proposals
New tool and workshop ideas

Citizen Scientists
How can you help biological collections?

Portal

Researchers
Learn about research directions



Collections Staff
Learn how your collection can benefit from our work



Teachers & Students
Download lesson plans about using digitized specimens



Upcoming Events
Promoting synergy in the innovative use of environmental data
12-02-2015 to 12-04-2015

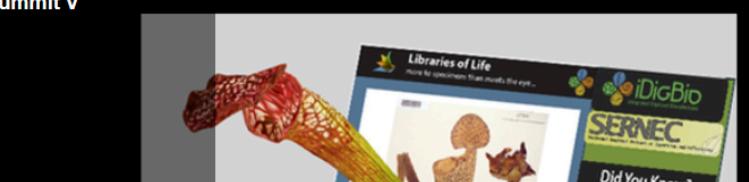
Using biodiversity specimen-based data to study global change
12-02-2015 to 12-03-2015

iDigBio Steering Committee Meetings 2015
12-07-2015

iDigBio Monthly Luncheon Series
12-07-2015

Libraries of Life
Launches at iDigBio Summit V

Libraries of Life
More to specimens than meets the eye..



Search across all data, all/individual fields, customize, use autocomplete, synonyms,...

[iDigBio Home](#) [Portal Home](#) [Search Records](#) [Tutorial](#) [Our Data](#) [Research Tools](#) [Feedback](#)

Search Records [Help](#) [Reset](#)

search all fields

Must have image Must have map point

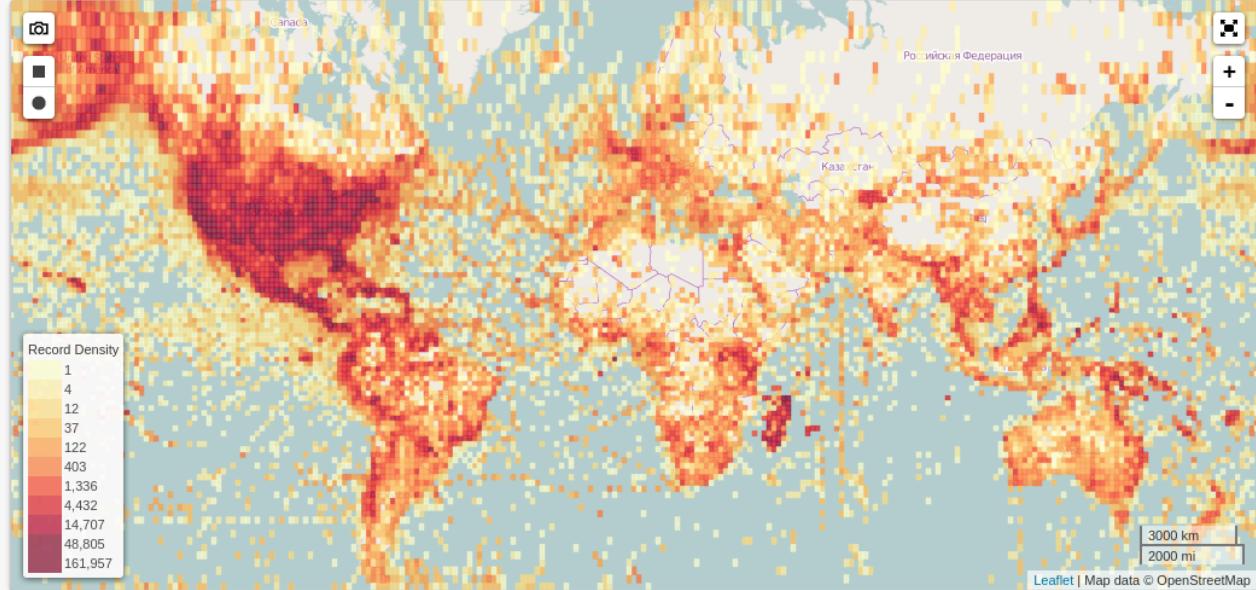
[Filters](#) [Mapping](#) [Sorting](#) [Download](#)

Add a field [Clear](#)

Kingdom	<input type="text" value="Animalia"/>	x
<input type="checkbox"/> Present <input type="checkbox"/> Missing		x
Scientific Name	<input type="text" value="dwc:scientificName"/> Add EOL Synonyms	x
<input type="checkbox"/> Present <input type="checkbox"/> Missing		x
Date Collected	Start: <input type="text" value="yyyy-mm-dd"/>	End: <input type="text" value="yyyy-mm-dd"/>
<input type="checkbox"/> Present <input type="checkbox"/> Missing		x

[Scroll To Bottom](#) ↓

[List](#) [Labels](#) [Images](#) [Recordsets](#)



Total: 20,495,711

Family	Scientific Name	Date Collected	Country	Institution Code	Basis of Record	Columns
no data	"Ambocoelia" sp.	no data	United States	MCZ	PreservedSpecimen	view
no data	"Ambocoelia" sp.	no data	United States	MCZ	PreservedSpecimen	view
Apteronotidae	"Apteronotus" apurensis	1981-01-08	Brasil	Instituto Nacional de Pesquisas da...	PreservedSpecimen	view
Apteronotidae	"Apteronotus" apurensis	1986-02-28	Brasil	Instituto Nacional de Pesquisas da...	PreservedSpecimen	view

View search results as table, labels, images...

Screenshot of the iDigBio search interface showing search results for *Euryopis scriptipes*.

The search results are displayed in three main sections:

- Search Records (Left Panel):** Shows search filters for Family (dwc:family), Scientific Name (euryopis scriptipes), and Date Collected (Start: yyyy-mm-dd). A blue arrow points from the "Date Collected" filter to the "Images" section below.
- Map (Top Right):** A world map showing collection locations for *Euryopis scriptipes*.
- Image Grid (Middle Right):** A grid of images for *Euryopis scriptipes*, with 10 thumbnails visible. The "Images" tab is selected at the top of the results area.

Below the search records, there are two rows of specimen cards:

Scientific Name	Date Collected	Collection Details	Image
<i>Euryopis scriptipes</i>	2005-08-04	United States, New Mexico, Sandoval, Santa Fe National Forest NORTH, Pitfall Trap 14 A5 Lat: 35°40' 16" Lon: -106°27' 48" NAUF, CPMAB, NAUF4A0008726, Robert Delp	
<i>Euryopis scriptipes</i>	2005-08-07	United States, New Mexico, Sandoval, Manzano Mountains SOUTH, Pitfall Trap 24 A5 Lat: 35°32' 42" Lon: -106°21' 36" NAUF, CPMAB, NAUF4A0008725, Robert Delp	
<i>Euryopis scriptipes</i>	2010-08-27	United States, Arizona, Coconino Lat: 35°35' 32" Lon: -111°38' 53" NAUF, CPMAB, NAUF4A0008024, K. Whitley & S. Jones	

At the bottom, there are links to social media and terms of use, along with logos for UF, Florida State Parks, Florida Museum, and NSF.

Total: 3

Columns

Family	Scientific Name	Date Collected	Country	Institution Code	Basis of Record	view
Theridiidae	<i>Euryopis scriptipes</i>	2005-08-04	United States	NAUF	PreservedSpecimen	view
Theridiidae	<i>Euryopis scriptipes</i>	2005-08-07	United States	NAUF	PreservedSpecimen	view
Theridiidae	<i>Euryopis scriptipes</i>	2010-08-27	United States	NAUF	PreservedSpecimen	view

Specimen record page with summary, details, flags, associated media, georeference and provider

Specimen Record

[Animalia](#) > [Arthropoda](#) > [Arachnida](#) > [Araneae](#) > [Theridiidae](#)

Euryopis scriptipes Banks

From [Colorado Plateau Museum of Arthropod Biodiversity](#)

Continent North America
 Country United States
 State/Province Arizona
 County/Parish Coconino
 Latitude 35.59239
 Longitude -111.64826

Institution Code NAUF
 Collection Code CPMAB
 Catalog Number NAUF 4 A 0008024
 Collected By K Whitley S Jones
 Date Collected 2010-08-27

[Data](#) [Flags](#) [Raw](#)

Taxonomy

Scientific Name	<i>Euryopis scriptipes</i>
Kingdom	Animalia
Phylum	Arthropoda
Class	Arachnida
Order	Araneae
Family	Theridiidae
Genus	<i>Euryopis</i>
Specific Epithet	<i>scriptipes</i>
Scientific Name Authors	Banks

Specimen

Identified By SL Brantley



Media



[Data](#) [Flags](#) [Raw](#)

Type	Description
geopoint_datum_missing	Geographic Coordinate Missing Geodetic Datum (Assumed to be WGS84).
idigbio_isocountrycode_added	iDigBio ISO 3166-1 alpha-3 Country Code Added.
dwc_continent_added	Darwin Core Continent Added.

Media records with metadata, other media, provider, links to specimen record, data set ...

Media Record

Animalia > Arthropoda > Arachnida > Araneae > Theridiidae

Euryopis scriptipes Banks [view specimen record](#)

From Colorado Plateau Museum of Arthropod Biodiversity



[Download Media File](#)

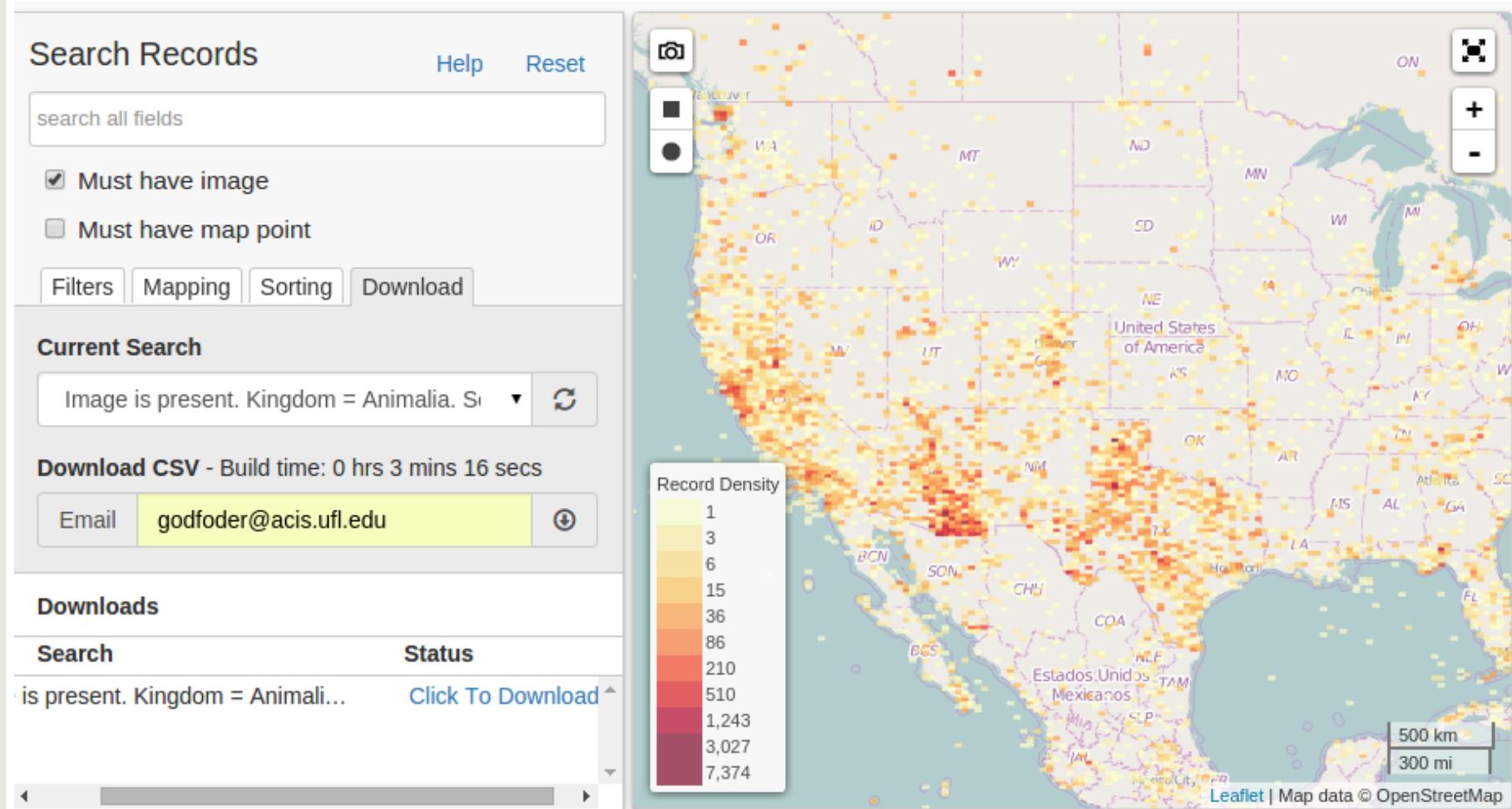
Other Media



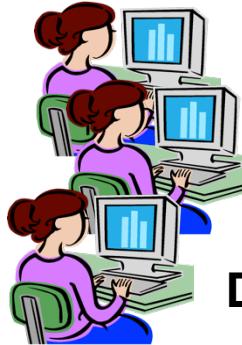
From Recordset

Colorado Plateau Museum of Arthropod Biodiversity
<http://www.bugs.nau.edu/>

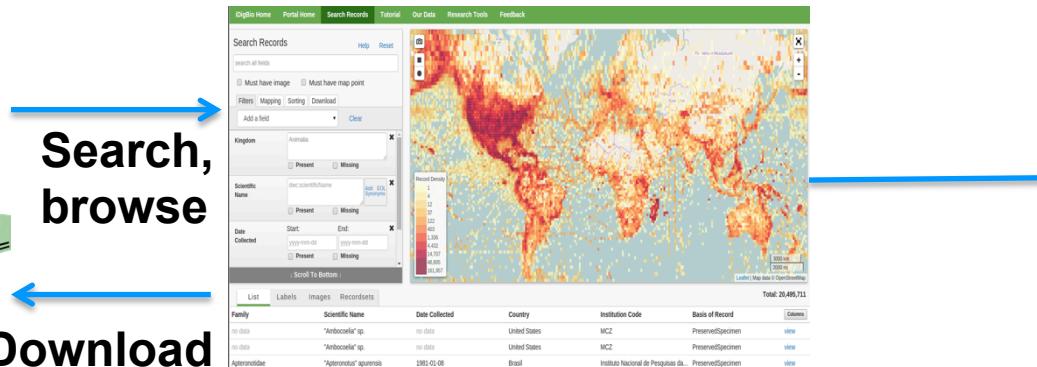
Results mapped/rendered and downloadable



iDigBio IT resources available for use of digitized data



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Ingestion

Search API

- Supports:
 - Record and media queries
 - Same search queries as in portal
 - Summary endpoints - top-N, count, lastModified
 - Top-N: “Top 10 scientific names for this query”; can be nested
 - Date histograms
 - Dataset statistics
 - Mapping
- Documentation:
<https://github.com/idigbio/idigbio-search-api/wiki>
- Client libraries:
 - R, Python

Download System

- No size limitation (can download all of iDigBio)
- Uses the same query format as the search API
- Builds a Darwin core archive for consumers
- Easiest way to get bulk data out of iDigBio

Example search API Query and JSON output

← → C <https://search.idigbio.org/v2/search/records/?rq=%7B%22scientificname%22%3A%22euryopis+scriptipes%22%2C%22hasImage%22%3A%22true%22%7D&limit=5>

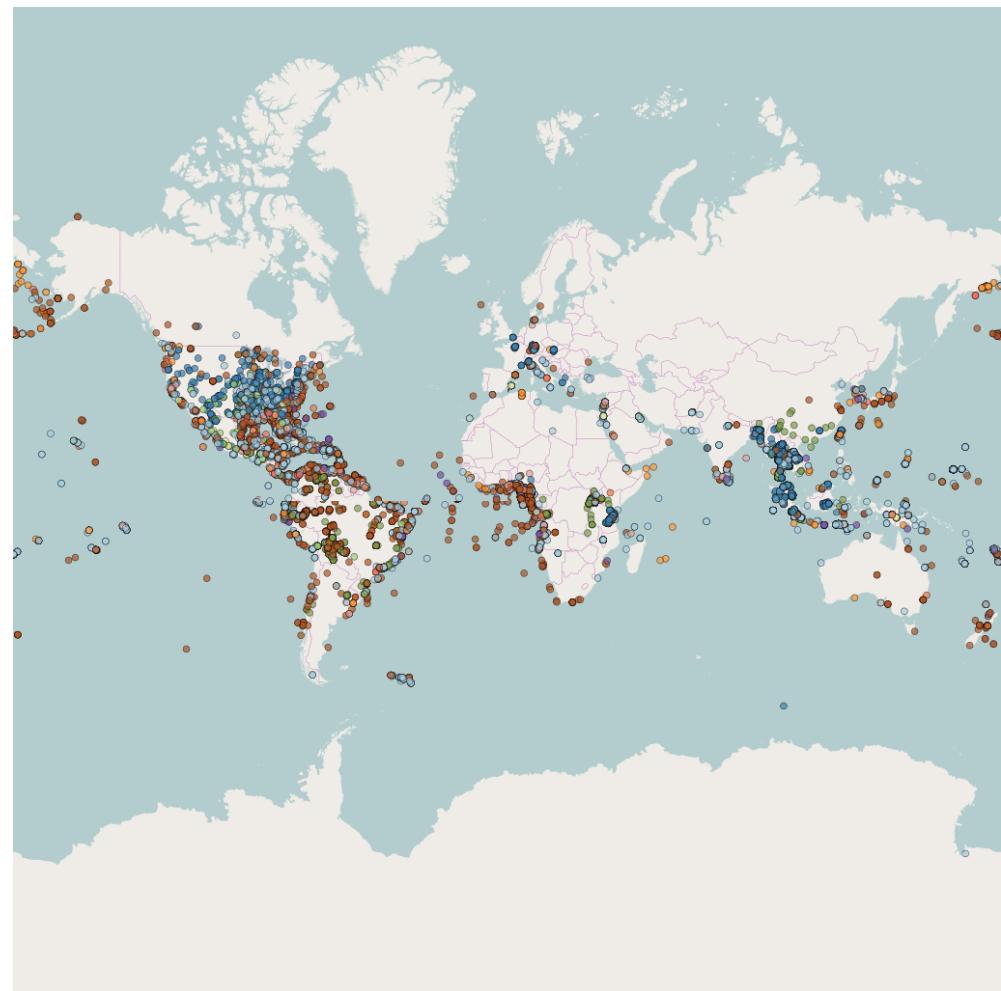
```
{  
  itemCount: 3,  
  lastModified: "2015-08-27T17:33:45.257Z",  
  - items: [  
    - {  
      uuid: "b798368d-7b20-4d6b-8326-8c5e3b689c20",  
      type: "records",  
      etag: "26ad448b83a610719c8c9ff68408c9b97c07def3",  
      - data: {  
        dwc:startDayOfYear: "216",  
        dwc:specificEpithet: "scriptipes",  
        dwc:county: "Sandoval",  
        dwc:recordedBy: "Robert Delph",  
        dwc:order: "Araneae",  
        dwc:habitat: "Juniperus monosperma",  
        dwc:scientificNameAuthorship: "Banks",  
        dwc:occurrenceID: "NAUF4A0008726",  
        id: "13104433",  
        dwc:stateProvince: "New Mexico",  
        dwc:eventDate: "2005-08-04",  
        dwc:collectionID: "c87a0756-fdd7-4cb6-9921-ca5774f8330e",  
        dwc:country: "United States",  
        idigbio:recordId: "urn:uuid:69db467a-3a1d-45bd-a633-42317a09edf6",  
        dwc:collectionCode: "CPMAB",  
        symbiota:recordEnteredBy: "jackiemettler",  
        dwc:kingdom: "Animalia",  
        dwc:decimalLatitude: "35.6713",  
        dwc:occurrenceRemarks: "NMS Low Mortality",  
        dwc:basisOfRecord: "PreservedSpecimen",  
        dwc:genus: "Euryopis",  
        dwc:preparations: "Ethanol",  
        dc:rights: "http://creativecommons.org/publicdomain/zero/1.0/",  
        dwc:identifiedBy: "CPMAB",  
        dwc:phylum: "Arthropoda",  
        dcterms:references: "http://symbiota4.acis.ufl.edu/scan/portal/collections/individual/index.php?occid=13104433",  
        dwc:locality: "Santa Fe National Forest NORTH, Pitfall Trap 14 A5",  
        dwc:institutionCode: "NAUF",  
        dwc:class: "Arachnida",  
        dwc:catalogNumber: "NAUF4A0008726",  
        dwc:month: "8",  
        dwc:decimalLongitude: "-106.4635",  
        dwc:family: "Theridiidae",  
        dcterms:modified: "2015-08-11 12:51:11",  
        dwc:scientificName: "Euryopis scriptipes"  
      }  
    }  
  ]  
}
```

Advanced Mapping API

Example:

FLMNH Ichthyology
Point map colored by Order

[{"styleOn":"order"}&type=points">https://search.idigbio.org/v2/mapping?
rq={"recordset":"c38b867b-05f3-4733-
802e-d8d2d3324f84","order":
{"type":"exists"} }
&style>{"styleOn":"order"}
&type=points](https://search.idigbio.org/v2/mapping?rq={)

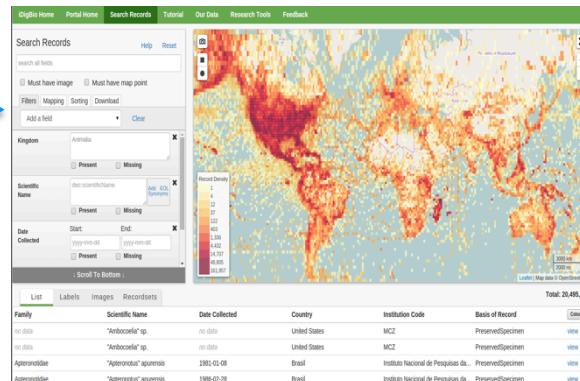


Looking forward: future capabilities



Users

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browse
Download



iDigBio Portal

Developers

Hue

Spark/
R

Cloudera/Spark
Batch data processing

Search/mapping API



Storage cloud
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Thank you!



www.idigbio.org



facebook.com/idigBio



twitter.com/idigBio



vimeo.com/idigbio

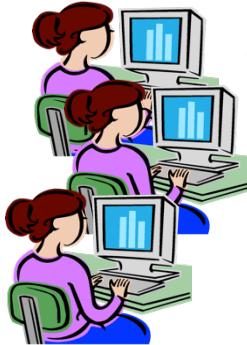


idigbio.org/rss-feed.xml

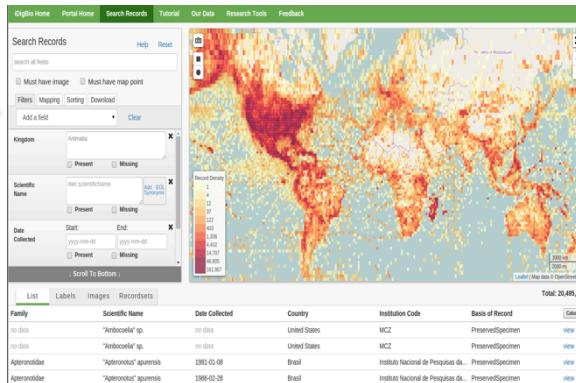


<webcal://www.idigbio.org/events-calendar/export.ics>

iDigBio IT resources available for use of digitized data



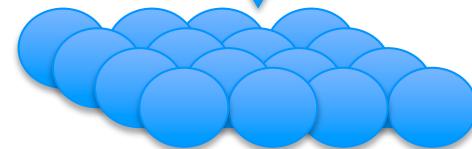
Search,
browse



iDigBio Portal

Users

Search/mapping API

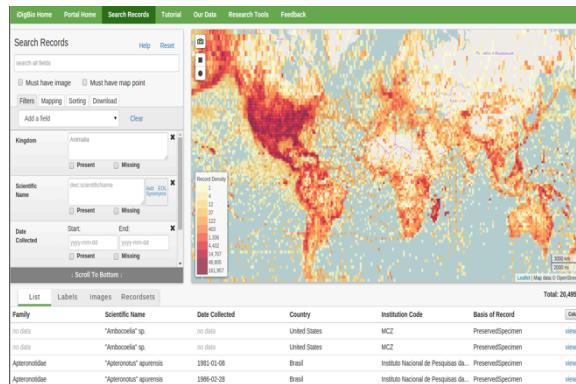


Storage cloud
Records
Media (images+)

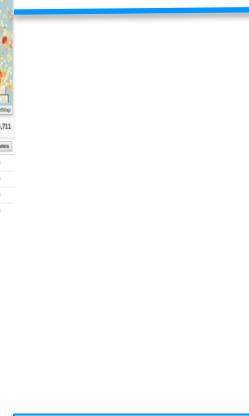
iDigBio IT resources available for use of digitized data



Download



iDigBio Portal

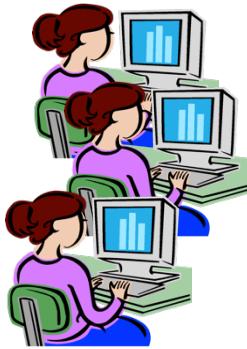


Search/mapping API



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