



# iabin

Inter-American Biodiversity Information Network  
Red Interamericana de Información sobre Biodiversidad  
Rede Interamericana de Informação sobre Biodiversidade  
Réseau Interaméricain d'Informatio sur la Biodiversité

**IABIN Technical Working Group Meeting**  
**Knoxville, TN**  
**August 2010**

Ben Wheeler  
Mike Frame

# IABIN Catalog

  **iabin**  
Inter-American Biodiversity Information Network 

Results from your search: 853 Showing: 1 - 20

Sort by: Content Type

Search Text: protected area

- ALL Results (853)
- Datasets and Information Systems (4)
- Images (2)
- Internet Map Services (20)
- Laws and Regulations (3)
- Museum Collections (3)
- Organizations (3)
- Publications (638)
- Species Information (6)
- Tools and Software (0)

**IABIN Resources**

1	 <a href="#">Economic Values of Protected Areas - Guidelines for Protected Area Managers.</a> Gives and overview of how the economic values of protected areas can be assessed, providing new insights and inform the debate. The case studies identify those sites where protecting the environment h
2	 <a href="#">Protected area network in Indian Himalayan region: Need for recognizing values of low profile protected areas</a> In the aftermath of Convention on Biological Diversity and Caracas Congress on Parks (1992), maintenance and extension of the network of protected areas (PAs) has received impetus across the globe. In
3	 <a href="#">Towards Decolonisation of Australia's Protected Area Management: the Nantawarra Indigenous Protected Area Experience</a> Management of Australia's National Parks and Protected Areas originally developed according to the United State's "Yellowstone" model. Aimed primarily at preserving "wilderness" areas, this form of pr
4	 <a href="#">Bahamian protected areas Part II: Developing a marine protected-area system</a> The world has inherited a masterpiece - the Bahamas Archipelago and its surrounding waters - and protected areas worthy of any nation. However, the Bahamas that early European settlers disenfranchised
5	 <a href="#">International protected areas previous to year 2000, polygon dataset from the World Database of Protected Areas (WDPA-2003)</a> International Protected Areas established by the year 2000. The coverage has been generated from data extracted from the World Database of Protected Areas as compiled on the 12th of November 2003. Protected areas (PA's) have been selected from...
6	 <a href="#">International protected areas previous to year 2000, point dataset from the World Database of Protected Areas (WDPA-2003)</a> International Protected Areas established by the year 2000. The coverage has been generated from data extracted from the World Database of Protected Areas as compiled on the 22th of November 2003. Protected areas (PA's) have been selected from...
7	 <a href="#">Cousin Island Special Reserve: A case study of marine protected area management, area in partnership with an NGO</a> The island has been managed by the owners, BirdLife International, since January 1998 through its country office. Management authority is provided for by national legislation and implemented in consul
8	 <a href="#">Protected Area Visitor Impact Management (PAVIM) Framework: A Simplified Process for Making Management Decisions</a> Ecotourism and protected area visitation in Central and South America have resulted in ecological impacts, which some protected areas managers have addressed by employing visitor impact management fra
9	 <a href="#">Social science and protected area management: The principles of partnership</a> While most protected area managers have backgrounds in biological sciences or forestry, it is becoming increasingly clear that the management of protected areas in the 21st century is necessarily the
10	 <a href="#">Protected Area Management in the Tropics: Can We Learn from Experience?</a> This paper provides a brief overview of some key experiences from protected area management projects in Africa and Asia, to help set the scene for the new generation of transboundary protected areas.

**Hawk**

**and Oculopathologic Findings in Red-tailed Hawks and Cooper's Hawks with Naturally** [file ...](#) [new window](#) [preview](#)

... features and ocular lesions in red-tailed hawks and Cooper's hawks naturally infected with West Nile virus

**riginal study. ANIMALS:** 13 **hawks.** **PROCEDURES:** All **hawks** underwent complete ophthalmic examinations

**Publisher:** American Veterinary Medical Association  
**Language:** english, English  
[dx.doi.org/10.2460/javma.231.8.1240](#) - 3K - [cache](#) - NBII Web Resources Database

**2. Hawk moth pollinators in papaya-species account of the Hawk moth** [new window](#) [preview](#)

... significant method of pollination of papaya was by hawk moths (family Sphingidae)." The site discusses the results ... study and provides a species profile of the Hawk moth.

**Publisher:** Queensland Government, Department of Primary Industries and Fisheries  
**Language:** english, English  
[www2.dpi.qld.gov.au/horticulture/5330.html](#) - 1K - [cache](#) - NBII Web Resources Database

**3. Swainson's Hawk - Monitoring [ds5]** [new window](#) [preview](#)

... not represent a complete census of Swainson's **hawks** in the Department of Fish and Game's ... blocks was surveyed to find all Swainson's **hawks** in that particular block and in that particular ...

**Language:** english

**n**  **Biodiversity Information Network**

**Hawk**

**and Oculopathologic Findings in Red-tailed Hawks and Cooper's Hawks with Naturally** [file ...](#) [new window](#) [preview](#)

... features and ocular lesions in red-tailed hawks and Cooper's hawks naturally infected with West Nile virus

**riginal study. ANIMALS:** 13 **hawks.** **PROCEDURES:** All **hawks** underwent complete ophthalmic examinations

**Publisher:** American Veterinary Medical Association  
**Language:** english, English  
[dx.doi.org/10.2460/javma.231.8.1240](#) - 3K - [cache](#) - NBII Web Resources Database

**2. Hawk moth pollinators in papaya-species account of the Hawk moth** [new window](#) [preview](#)

... significant method of pollination of papaya was by hawk moths (family Sphingidae)." The site discusses the results ... study and provides a species profile of the Hawk moth.

**Publisher:** Queensland Government, Department of Primary Industries and Fisheries  
**Language:** english, English  
[www2.dpi.qld.gov.au/horticulture/5330.html](#) - 1K - [cache](#) - NBII Web Resources Database

**3. Swainson's Hawk - Monitoring [ds5]** [new window](#) [preview](#)

... not represent a complete census of Swainson's **hawks** in the Department of Fish and Game's ... blocks was surveyed to find all Swainson's **hawks** in that particular block and in that particular ...

**Language:** english



## Background - Major Products

---

Product 1: Multilingual IABIN BioBot Search Tool  
including software code, on-line help, and technical documentation (English only).

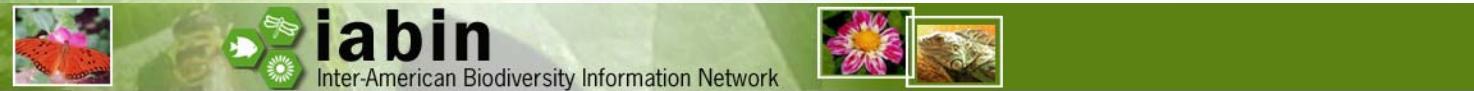
Product 2: Multi-lingual Thesaurus capabilities within Catalog and available to the Community.

Product 3: Software code/scripts for delivering relevant, subset IABIN BioBot results on Focal Points, Thematic Networks, country and other websites

Product 4: Data Content creation and integration grants



# Multilingual IABIN Catalog



Search Help

Within Results

Sort by: Content Type

Search Text: protected area

- ALL Results (853)
- Datasets and Information Systems (4)
- Images (2)
- Internet Map Services (20)
- Laws and Regulations (3)
- Museum Collections (0)
- Organizations (3)
- Publications (638)
- Species Information (6)
- Tools and Software (0)

## IABIN Resources

Results from your search: 853 Showing: 1 - 20

1		<a href="#">Economic Values of Protected Areas - Guidelines for Protected Area Managers.</a> Gives and overview of how the economic values of protected areas can be assessed, providing new insights and inform the debate. The case studies identify those sites where protecting the environment h
2		<a href="#">Protected area network in Indian Himalayan region: Need for recognizing values of low profile protected areas</a> In the aftermath of Convention on Biological Diversity and Caracas Congress on Parks (1992), maintenance and extension of the network of protected areas (PAs) has received impetus across the globe. In
3		<a href="#">Towards Decolonisation of Australia's Protected Area Management: the Nantawarra Indigenous Protected Area Experience</a> Management of Australia's National Parks and Protected Areas originally developed according to the United State's 'Yellowstone' model. Aimed primarily at preserving 'wilderness' areas, this form of pr
4		<a href="#">Bahamian protected areas Part II: Developing a marine protected-area system</a> The world has inherited a masterpiece - the Bahamas Archipelago and its surrounding waters - and protected areas worthy of any nation. However, the Bahamas that early European settlers disenfranchised
5		<a href="#">International protected areas previous to year 2000, polygon dataset from the World Database of Protected Areas (WDPA-2003)</a> International Protected Areas established by the year 2000. The coverage has been generated from data extracted from the World Database of Protected Areas as compiled on the 12th of November 2003. Protected areas (PA's) have been selected from...
6		<a href="#">International protected areas previous to year 2000, point dataset from the World Database of Protected Areas (WDPA-2003)</a> International Protected Areas established by the year 2000. The coverage has b World Database of Protected Areas as compiled on the 12th of November 2003.
7		<a href="#">Cousin Island Special Reserve. A case study of marine protected area management</a> The island has been managed by the owners, BirdLife International, since Janua authority is provided for by national legislation and implemented in consul
8		<a href="#">Protected Area Visitor Impact Management (PAVIM) Framework: A Simplified Guide</a> Ecotourism and protected area visitation in Central and South America have resulted in many challenges for protected areas managers. These challenges have addressed by employing visitor impact management frameworks
9		<a href="#">Social science and protected area management: The principles of partnership</a> While most protected area managers have backgrounds in biological sciences or management of protected areas in the 21st century is necessarily the
10		<a href="#">Protected Area Management in the Tropics: Can We Learn from Experience?</a> This paper provides a brief overview of some key experiences from protected areas management in the tropics that may help set the scene for the new generation of transboundary protected areas.



## Images from the Image Gallery

Asuncion Garden Plant (Platycerium bifurcatum) (2)	Asuncion Garden Plant (2545216)	Mil hombres (Cissampelos pareira)	Camalote (Victoria cruziana) (5)
Camalote (Victoria cruziana) (2)	Camalote (Victoria cruziana) (3)	Camalote (Victoria cruziana) (4)	Camalote (Victoria cruziana) (5)

Search Text: planta

- ALL Results (35)
- Datasets and Information Systems (0)
- Images (28)
- Internet Map Services (0)
- Laws and Regulations (0)
- Museum Collections (0)
- Organizations (0)
- Publications (5)
- Species Information (2)
- Tools and Software (0)

Results from your search: 28 Showing: 1 - 20



# Catalog Major Holdings

---

- Collections, Tools, Software, Documentation from IABIN Thematic Networks
- Published Literature
- Species Profiles
- Web Sites, Publications, Legislation related to IABIN Countries
  - **Total Holdings: 204,003 records**



# Sample Search Results

Within Results      [Search](#)      [Help](#)

Sort by: [IABIN Themes](#)

Search Text: Dominican Republic

- ALL Results (293)
- Ecosystems (0)
- Invasive Species (27)
- Pollinators (0)
- Protected Areas (3)
- Species & Specimen (227)

Query: Dominican Republic

		<a href="#">View this page in FGDC</a>											
Title:	<b>Caribbean Coral Reef, Seagrass and Mangrove Sites (CARICOMP).</b> (NODC Accession 0000501)												
Investigator(s):	Members of the CARICOMP Network:1) Cesar Cayman - Cayman Islands - Department of Environment;2) Belize, N.A. - Belize Marine Park Board, Belize;3) Barbara Phillips - Institute of Marine Research del Este, Dominican Republic - Universidad Autonoma de Santo Domingo;5) Turneffe Islands Atoll, Belize - University College of Belize, Marine Research Centre;6) Carrie Bow Cay, Belize - Smithsonian Institution;7) Sabana-Caraguay Archipelago, Cuba - Instituto de Oceanologia, Institute of Ecology and Systematics;8) Parque Nacional Morrocoy, Venezuela - Universidad Simon Bolivar;9) Bahia de Chengua, Parque Nacional Tayrona, Colombia - Instituto de Investigaciones Marinas y Costeras;10) Discovery Bay, Jamaica - University of West Indies, Center for Marine Sciences;11) La Gomera, Institute of Marine Sciences, Andalucia;12) San Salvador, Bahamas - Bahamas Field Station;13) Great Exuma, Bahamas - University of Girona;14) Bermuda - Bermuda Biological Station for Research;15) Isha de Providencia Y San Andres, Colombia - Corporacion para el Desarrollo Sostenible del Archipelago de San Andres;16) Saba, N.A. - Saba Marine Park;17) La Parguera, Puerto Rico - University of Puerto Rico;18) Puerto Morelos, Mexico - Universidad Nacional Autonoma de Mexico, Instituto de Ciencias del Mar y Limnologia;19) Isla de Margarita, Venezuela - EDIMAR Fundacion La Salle de Ciencia;20) Curacao, N.A. - Caribbean Research and Management of Biodiversity												
Status:	Complete												
Access Restriction:	None												
Data set Description:	NOAA National Oceanographic Data Center												
Distribution Contact:	1315 East-West Highway, SSMC3, 4th Floor City: Silver Spring State: MD Postal: 20910 Phone: 301-713-3277 or 3280 Email: ncdc.services@noaa.gov												
Data Center URL:	<a href="http://accession.nodc.noaa.gov/0000501">http://accession.nodc.noaa.gov/0000501</a>												
Data set Citation:	NODC Accession #0000501												
Keyword(s):	<table border="1"><tr><td><b>Theme Keyword Thesaurus</b></td><td><b>Theme Keyword</b></td></tr><tr><td>CorIS Theme Thesaurus</td><td>EARTH SCIENCE &gt; Biosphere &gt; Aquatic Habitat &gt; Coastal Habitat EARTH SCIENCE &gt; Oceans &gt; Coastal Processes &gt; Coral Reefs EARTH SCIENCE &gt; Biosphere &gt; Ecosystems &gt; Coral Reefs &gt; Reef Monitoring and Assessment EARTH SCIENCE &gt; Biosphere &gt; Ecosystems &gt; Zoology &gt; Gorgonians EARTH SCIENCE &gt; Oceans &gt; Coastal Processes &gt; Coral Reefs &gt; Coral Reef Ecology &gt; Hard Coral Cover Live percentage EARTH SCIENCE &gt; Biosphere &gt; Vegetation &gt; Algae EARTH SCIENCE &gt; Biosphere &gt; Vegetation &gt; Alge &gt; Algal Cover</td></tr><tr><td>none</td><td>Urchin Gorgonian species abundance Algal abundance Alge abundance Caribbean monitoring Caribbean research</td></tr><tr><td>CorIS Discovery Thesaurus</td><td>Numeric Data Sets &gt; Biology</td></tr><tr><td>ISO 19115 Topic Category</td><td>biota 002</td></tr></table>			<b>Theme Keyword Thesaurus</b>	<b>Theme Keyword</b>	CorIS Theme Thesaurus	EARTH SCIENCE > Biosphere > Aquatic Habitat > Coastal Habitat EARTH SCIENCE > Oceans > Coastal Processes > Coral Reefs EARTH SCIENCE > Biosphere > Ecosystems > Coral Reefs > Reef Monitoring and Assessment EARTH SCIENCE > Biosphere > Ecosystems > Zoology > Gorgonians EARTH SCIENCE > Oceans > Coastal Processes > Coral Reefs > Coral Reef Ecology > Hard Coral Cover Live percentage EARTH SCIENCE > Biosphere > Vegetation > Algae EARTH SCIENCE > Biosphere > Vegetation > Alge > Algal Cover	none	Urchin Gorgonian species abundance Algal abundance Alge abundance Caribbean monitoring Caribbean research	CorIS Discovery Thesaurus	Numeric Data Sets > Biology	ISO 19115 Topic Category	biota 002
<b>Theme Keyword Thesaurus</b>	<b>Theme Keyword</b>												
CorIS Theme Thesaurus	EARTH SCIENCE > Biosphere > Aquatic Habitat > Coastal Habitat EARTH SCIENCE > Oceans > Coastal Processes > Coral Reefs EARTH SCIENCE > Biosphere > Ecosystems > Coral Reefs > Reef Monitoring and Assessment EARTH SCIENCE > Biosphere > Ecosystems > Zoology > Gorgonians EARTH SCIENCE > Oceans > Coastal Processes > Coral Reefs > Coral Reef Ecology > Hard Coral Cover Live percentage EARTH SCIENCE > Biosphere > Vegetation > Algae EARTH SCIENCE > Biosphere > Vegetation > Alge > Algal Cover												
none	Urchin Gorgonian species abundance Algal abundance Alge abundance Caribbean monitoring Caribbean research												
CorIS Discovery Thesaurus	Numeric Data Sets > Biology												
ISO 19115 Topic Category	biota 002												
Abstract:	The Caribbean Coastal Marine Productivity (CARICOMP) Program is a Caribbean-wide research and monitoring network of 27 marine laboratories, parks, and reserves in 17 countries. This data set includes data collected from 42 stations at 29 sites in the Caribbean from 1993 to 1998. Line transects were used to determine the abundance of hard and soft corals, algae, sponges, urchins, and abiotic material such as substrate type.												
Site Information:	Site	North	West	South	East								
	Caribbean-wide with 27 institutions in 17 countries, extending from Belize to Barbados and from Bermuda to Venezuela	32.45839	-88.08334	10.86667	-59.64056								
Use Constraints:	Use of data is subject to the acknowledgement of CARICOMP as the source.												
Content Time:	Begin: 19930212 End: 19981015												
Metadata Reference:	Metadata Date: 20081217												
Information:	Metadata Review Date: Metadata Future Review Date: Metadata Contact Organization: Email: <a href="mailto:nodc.services@noaa.gov">nodc.services@noaa.gov</a> , or <a href="mailto:sherif.phillips@noaa.gov">sherif.phillips@noaa.gov</a> , or <a href="mailto:anthony.picciolo@noaa.gov">anthony.picciolo@noaa.gov</a> Phone: 301-713-3280 NOAA/NODC E/O/C1, SSMC3 4th Floor, 1315 East-West Highway City: Silver Spring State: MD Postal: 20910 Phone: 301-713-3280 Fax: 301-713-3302 Email: <a href="mailto:nodc.services@noaa.gov">nodc.services@noaa.gov</a> , or <a href="mailto:sherif.phillips@noaa.gov">sherif.phillips@noaa.gov</a> , or <a href="mailto:anthony.picciolo@noaa.gov">anthony.picciolo@noaa.gov</a>												



# Advanced Search



Mi página principal Bienvenido, navuser Mi cuenta Cerrar la sesión Ayuda Pantalla en el sitio: Español Text-Only Portal

**iabin** Inter-American Biodiversity Information Network

Configuración de búsqueda avanzada

Búsqueda ampliada

Introduzca el nombre común de especies o seleccione exacta si se introduce un nombre científico

Ecosistemas

Coincidencia exacta (sin nombre taxonómico de expansión)

Búsqueda geográfica

Mapa: Gulf of Mexico, Florida, Miami, La Habana, Cuba, Dominican Republic, Port-au-Prince, Puerto Rico, Guatemala, Honduras, Nicaragua, Costa Rica, Panama, Colombia, Ecuador, El Salvador, Estados Unidos, Costa Rica, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, París, República Dominicana, Saint Lucia y Nevis, Santa Venera y las Granadinas, Trinidad y Tobago, Uruguay, Venezuela.

Coordinates: N: 26.115985925, E: -64.3359375, S: -7.710991655, W: -95.2734375

Documento Idiomas

Mostrar registros en los siguientes idiomas:

Inglés  Español  Portugués

Tipo de Contenido

Seleccione los tipos de contenido específico a la búsqueda:

Listas de verificación y guías de identificación  Bases de datos y sistemas de información  Conjuntos de datos  Fichas técnicas  Imágenes  Mapa de Servicios de Internet  Leyes y reglamentos  Historias de vida y perfiles de especies  Museo de Colecciones  Organizaciones  Publicaciones  Herramientas y Software

IABIN Temas

Seleccionar los temas a la búsqueda de IABIN:

Ecosistemas  Especies Invasoras  Polinizadores  Áreas Protegidas  Especies y especímenes

- Ability to search by:
  - IABIN TN**
  - Map based interface**
  - Resource Type**
  - Language**
- Incorporates taxonomic expansion
- Future:
  - Thesaurus Expansion**
  - Place name Expansion**





# Catalog Content Grants

---

- **Universidad Tecnológica Nacional / Bahia Blanca--Argentina**
  - Create a tool in order to provide information to the I3N Catalog from distributed I3N databases, test the tools and make corrections to problems found and write a user manual
- **The Horus Institute for Environmental Conservation and Development--Brazil**
  - Make metadata accessible and interoperable through IABIN, the I3N and the IABIN Catalog and transfer information available on the I3N Brazil database to the IABIN Catalog to improve access to the data
- **Universidade de Sao Paulo – Images--Brazil**
  - Extract and provide metadata of 700 images of bees and plants from WEBBEE to the IABIN CATALOG
- **Universidade de Sao Paulo – References--Brazil**
  - Extract and provide metadata of 2,400 bibliographic references on pollination and pollinators from WebBee to the IABIN Catalog
- **Universidade de Sao Paulo – WebServices—Brazil**
  - Create Web-services of datasets and data providers using metadata standards Dublin Core and Federal Geographic Data Committee – Biological Data Profile (FGDC BDP)
- **International Center for Tropical Agriculture (CIAT)--Colombia**
  - Create 340 records of metadata in English and Spanish, make accessible through CIAT geonetwork all metadata created under the project and document all the processes required to generate it for different types of resources.
- **Corporación Selva Humeda—Colombia**
  - Digitize 500 metadata of the most pertinent topics with the IABIN thematic networks bout geospatial and taxonomic biodiversity from the ETN to the IABIN Catalog





# Catalog Content Grants (Cont)

---

- **Instituto Amazónico de Investigaciones Científicas SINCHI--Colombia**
  - Digitize, in the FGDC format, the metadata of 437 data groups from the SINCHI Institute flora from the non vascular plants and the threatened, invasive and introduced species maps databases by the Colombian Amazon Region Flora Program on the SINCHI Institute.
- **Instituto Nacional de Biodiversidad (INBio) – Multimedia—Costa Rica**
- **Instituto Nacional de Biodiversidad (INBio) – Webservices—Costa Rica**
- **Organización para Estudios Tropicales—Costa Rica**
  - Digitize metadata of 2000 scientific articles and the development of a new data base available in OET, IABIN and SG/OAS webpages
- **CONAP—Guatemala**
  - Digitize 1600 registries of vertebrate pollinators (birds and bats) of species and multiple taxons obtained by investigation projects of the chemistry and pharmacy sciences faculty and independent investigators/associates
- **Smithsonian Tropical Research Institute—Panama**
  - Guide the development of metadata and flora and fauna information for 4,000 of STRI's images from field work, as well as 4,000 images of specimens in STRI's collections.
- **Fundación Ciudad del Saber—Panama**
  - Promote the Web Service installed on the server on the University Tennessee granting users searching through the IABIN Catalog about the existent information at the ETN data base and access approximately 3000 records





# Multi-lingual Thesaurus

---

- Scope:
  - Translation and thesaurus development of ~12,000 biological/ecological terms
- Goal:
  - Improve Search Results while exposing multi-lingual content
- Approach
  - Staff:
    - Spanish Consultant
    - Portuguese Consultant
  - Deliver IABIN thesaurus to NBII for hosting and incorporation into IABIN Catalog
- Web-service TOR's created for these thesauri – allow use by TN's, Catalog, Countries





# Approach to Adding Spanish and Portuguese Capabilities

---

- Use Foreign Language Relationships available in MultiTes
- Using spreadsheets containing Spanish and Portuguese translations extract these in MultiTes load format
- MultiTes will continue to be used to manage terms.
- Use current extraction procedure to populate SQL Server database (includes guid generation)





## Web Services for Translation To/From English, Spanish, and Portuguese

- The first six web services have a single input and output (the name of the service specifies To and From language)
  - Input: **term to translate**
  - Output: **translated term**
- The six web services are named:
  - TranslateEnglishTermToSpanish
  - TranslateEnglishTermToPortuguese
  - TranslateSpanishTermToEnglish
  - TranslatePortugueseTermToEnglish
  - TranslateSpanishTermToPortuguese
  - TranslatePortugueseTermToSpanish





# A Generic Web Service

---

- *TranslateTerm*, the seventh web service is more generic and requires three inputs:
  - term to translate
  - input language (ENG, SPA, or POR)
  - output language (ENG, SPA, or POR)and one output:
  - translated term
- The initial plan is to convert these SQL statements into stored procedure(s) to handle the seven web services using SQL Server 2005's ability to expose a stored procedure as a web service.
- Modeled after “ITIS” web services.





# A Web Service To Display a Term Within Its Hierarchy

- For example: Given an input term of “amphibians” and a choice of seeing narrower terms, broader terms, or both (case shown below), the 10 records labeled (1) – (10) are returned

## Legend

. = Narrower Terms  
: = Broader Terms

amphibians

: :: <a href="#"><u>Animal Science and Animal Products</u></a>	(1)
: :: :: <a href="#"><u>Biological Sciences</u></a>	(2)
: :: <a href="#"><u>organisms</u></a>	(3)
: : <a href="#"><u>animals</u></a>	(4)
: <a href="#"><u>vertebrates</u></a>	(5)
amphibians	(6)
. <a href="#"><u>caecilians</u></a>	(7)
. <a href="#"><u>frogs</u></a>	(8)
. <a href="#"><u>salamanders and newts</u></a>	(9)
. <a href="#"><u>toads</u></a>	(10)

This example is from USDA National Agricultural Library web site.



# Initial Catalog Prototype Sources

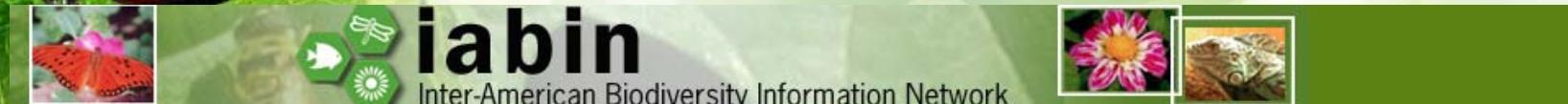
These sources have been queried:

- [Biodiversity Heritage Library](#) - Top 29 results retrieved out of 41,704 in 0.105 seconds.
- [ConserveOnline](#) - Top 29 results retrieved out of 1,544 in 0.02 seconds.
- [Cornell Ornithology Lab Birds of North America Online: Species List](#) - Top 29 results retrieved out of 746 in 0.191 seconds.
- [NBII FGDC Metadata Clearinghouse](#) - Top 29 results retrieved out of 87,684 in 0.205 seconds.
- [NBII Web Resources Database](#) - Top 29 results retrieved out of 47,426 in 0.134 seconds.
- [Natureserve Species Profiles](#) - Top 29 results retrieved out of 62,328 in 0.097 seconds.
- [Pew Center on Global Climate Change](#) - Top 29 results retrieved out of 342 in 0.086 seconds.
- [US Forest Service: Treesearch](#) - Top 29 results retrieved out of 28,427 in 0.173 seconds.
- [USGS Gap Analysis Program](#) - Top 29 results retrieved out of 13,243 in 0.12 seconds.



# Catalog Search Demo

[https://dev-nbii-search.cr.usgs.gov/search/cgi-bin/query-meta?v%3Aproject=usgs-iabin&query=\\*](https://dev-nbii-search.cr.usgs.gov/search/cgi-bin/query-meta?v%3Aproject=usgs-iabin&query=*>)



A screenshot of the iabin search interface. On the left is the iabin logo with the text "Inter-American Biodiversity Information Network". On the right is a search bar containing the query "invasive species in Brazil" and a "Search" button. Below the search bar is a yellow header bar with the text "Results 1-5 of 5 in Data".

**Topic Clusters**

**Top 11 Results**

- Alien, Plant and animal species found in Brazil (5)
- List Of Alien Invasive Species (2)
- Brazil National Survey On Alien Invasive Species (2)
- Other Topics (1)
- Data** (5)
- Other Topics (1)

1. [I3N Brazil Invasive Species Database](#) new window preview  
... occurrences, research projects, publications, and other information about **invasive species in Brazil**. A member of the Inter-American Biodiversity Information ...  
**Publisher:** Instituto Horus, Instituto Hórus de Desenvolvimento e Conservação Ambiental (Brasil)  
**Language:** english, Portuguese  
**Date:** 12/12/2008  
[i3n.institutohorus.org.br](http://i3n.institutohorus.org.br) - 1K - [cache](#) - NBII Web Resources Database
2. [IABIN Invasives Data Network](#) new window preview  
... pilot project to begin exchanging information on **invasive species** in the Americas. The **IABIN Invasives** Information Network (I3N) pilot project participants were Argentina, **Brazil**, Bahamas, Chile, Dominican Republic, Ecuador, El Salvador, Guatemala, ...  
**Publisher:** Clarin, Downtown Kingston Weekly  
**Language:** english  
[mercury.ornl.gov/...adata\\_mdata\\_IABIN\\_iabin\\_d\\_invasives.html](http://mercury.ornl.gov/...adata_mdata_IABIN_iabin_d_invasives.html) - 27K - [cache](#) - NBII FGDC Metadata Clearinghouse
3. [Tropical Soda Apple Invasion of the CSWGCIN Region](#) new window preview  
Tropical soda apple is native to **Brazil** and Argentina and was first reported in the United States in Florida in the late 1980s. Since then it has spread throughout the Southeastern United States and across the Gulf Coast into Louisiana and East Texas (reported in Jasper County, Texas in July 2004).  
**Publisher:** Central Southwest Gulf Coast Information Node, National Biological Information Infrastructure  
**Language:** english, English  
[cswgcin.nbii.gov/...D=2264&mode=2&in\\_hi\\_userid=2&cached=true](http://cswgcin.nbii.gov/...D=2264&mode=2&in_hi_userid=2&cached=true) - 1K - [cache](#) - NBII Web Resources Database
4. [IABIN Invasives Information Network \( I3N \)](#) new window preview

# Sample Content



Biodiversity Heritage Library

[Feedback](#) | [About](#) | [Tools](#) | [Tutorials](#) | [BHL Members](#) | [Copyright](#) | [Comments](#)

Search

All Categories

[Advanced Search](#)

Browse By: [Titles](#) | [Authors](#) | [Subjects](#) | [Names](#) | [Map](#) | [Year](#)

Published In: [\(Any Language\)](#)

For: [\(All Contributors\)](#)

Now Online  
42,754 titles  
82,501 volumes  
31,015,747 pages  
[Recent additions](#)

BHL Updates [Details](#)  
[Ingest Criteria Revised](#)  
[Book of the Week: Another](#)  
[Peek at Conservation](#)  
[Book of the Week: The Green](#)  
[Anole and Cuvier](#)  
[Biodiversity Heritage Library](#)  
[receives the ALCTS](#)  
[Collaboration Award](#)  
[New Feature: User-Submitted](#)  
[Requests for Scanning!](#)  
[Book of the Week: Spiders,](#)  
[Spiders and More Spiders](#)  
[Book of the Week: Species](#)  
[Highlight - The Eastern Painted](#)  
[Turtle](#)  
[BHL and Vienna BHL-Global](#)  
[Updates](#)  
[Conservation 101: Near](#)

## Les "Alpheidae," morphologie externe et interne, formes larvaires, bionomie.

[Report an error](#)

= show details for volume = read

**View:** [Expand All Scan Details](#)

[View Book](#)

[Brief](#) | [Detailed](#) | [MARC](#) | [BibTeX](#) | [EndNote](#)

**By:**

[Coutière, Henri, 1869-](#)  
[Chace, Fenner Albert.](#)

**Publication info:**

Paris, Masson, 1899.

**Call Number:**

QL444.M33 C87 1899

**Subjects:**

[Decapoda \(Crustacea\)](#), [Snapping shrimps](#)

[Find in a local library](#)

Done



# Sample Content



# iabin

Inter-American Biodiversity Information Network



Search

Results 1-10 of about 44 | [Details](#)

## Topic Clusters

### Top 30 Results

remix

- Article discusses (8)
- Bee Colony Collapse Disorder (2)
- Bees and Pollination (3)
- Beekeeping (3)
- Fall Dwindle Disease (3)
- Pollinators, Population decline, Diseases, Environmental (3)
- What Is Colony Collapse Disorder (2)
- Survey (2)
- Other Topics (6)

### 1. Honey Bee Colony Collapse Disorder Map of Affected States February 2007

[new window](#) [preview](#)

Map of US States where **Colony Collapse** Disorder (CCD) has been reported.

**Publisher:** Mid-Atlantic Apiculture Research and Extension Consortium

**Language:** english, English

**Date:** 06/09/2008

[maarec.cas.psu.edu/pressReleases/CCDMap07FebRev1.jpg](http://maarec.cas.psu.edu/pressReleases/CCDMap07FebRev1.jpg) - 1K - cache - NBII Web Resources Database

### 2. Bee Colony Colla

This article provides int  
the past. It also discuss

**Publisher:** Cornell Uni

**Language:** english, Er

[www.entomology.corne](http://www.entomology.corne)

### 3. Bees and Pollinatio

This site links to inform  
and literature.

**Publisher:** Ohio State

**Language:** english, Er

**Date:** 05/01/2007

bee colony collapse

## Bees and Pollination



## Colony Collapse Disorder

During 2006, an alarming number of honey bee colonies began to die across the continental United States. Subsequent investigations suggest these outbreaks of unexplained colony collapse were experienced by beekeepers for at least the last two years. Reports of similar die offs are documented in beekeeping literature, with outbreaks possibly occurring as long ago as 1896. The current phenomenon, without a recognizable underlying cause, has been tentatively termed "Colony Collapse Disorder" (CCD), and threatens the pollination industry and production of commercial honey in the United States. — [Colony Collapse Disorder Working Group](#)

### FAQ

- [USDA Agricultural Research Service FAQ on Colony Collapse Disorder](#)
- [Colony Collapse Disorder \(Wikipedia\)](#)
- [Colony Collapse Disorder \(National Biological Information Infrastructure\)](#)
- [CCD Frequently Asked Questions](#)
- [Silence of the Bees \(PBS Nature Oct. 28, 2007\)](#)
- [What's Wrong with the Bees? \(60 Minutes Feb. 21, 2008\)](#)

### Reports

- [USDA Announces Colony Collapse Disorder Research Action Plan](#) (July 13, 2007) ([plan PDF](#))
- [Ohio Info Bee Newsletter](#)
  - [October 2007](#)



# Sample Content



# iabin

Inter-American Biodiversity Information Network



flora de la América

Search

Results 1-10 of about 139 | [Details](#)

## Topic Clusters

-

### Top 56 Results

remix

- NatureServe Species Profile (29)
- Species, Plants (18)
- Por, Estudio (3)
- Nacional, Protected areas (5)
- La Fauna Y La Flora (2)
- Other Topics (3)

1. [Tratado elemental de botánica : adaptado al estudio de la flora de la América equinoccial / por Carlos Cuervo-Márquez.](#) [new window](#) [preview](#)

... Remainder of title: adaptado al estudio de la flora de la América equinoccial /Remainder of title page transcription/statement of

...

**Author:** Cuervo Márquez, Carlos, 1858-1930.

**Callnumber Loc:** QK47 .C79

**Subjects:** Plants, South America, Tropical plants

**Publication Info:** Bogotá :Impr. Eléctrica,1913.

**View:** Download: PDF | OCR | Images | All Contributing Library: New York Botanical Garden Sponsor: The LuEsther T Mertz Library, the New York Botanical Garden Date Scanned: 02/24/2010 --Copyright and Usage--

Rights:<http://www.biodiversitylibrary.org/termsuse.html> Due Diligence:<http://www.biodiversitylibrary.org/termsuse.html>

**Publisher:** Martes, 3 de agosto 2010  
Biodiversity |  
[www.biodiversitylibrary.org/biblio](http://www.biodiversitylibrary.org/biblio)

## Sistema de Información Botánica Andina



**Sistema de Información Botánica Andina [SIBA]** representa un esfuerzo para proporcionar información florística y sistemática de las fanerógamas (plantas con flores) de los Andes de Sud América. SIBA está desarrollando una red de base de datos para grupos de plantas andinas, incluyendo la flora costera de Perú y Chile, inventarios florísticos de bosques montanos del norte peruano, y estudios monográficos con imágenes.

La información contenida en [Andean Botanical Information System](#) se traduce a una versión en español. Retorne a este sitio a menudo. Accederá a la información de una variedad de categorías. [ver [Mapa de Sitio](#)].

¿Qué es Nuevo?



A new species of Magnolia (Magnoliaceae) from the Alto Mayo, San Martin, Peru 16(1): 07-12. 2009.

# Future Directions Geospatial Searching

## Primary Goals:

1. Provide Geospatial Querying of content
2. Geospatial (place based) results
3. Integrate Vivisimo with other Geospatial applications

**NBII National Biological Information Infrastructure**

**Clusters Sources**

**All Results** **remix**

- Page References (74)
- Exotic (34)
- Thistle (33)
- Aquatic Plants (38)
- Virginia, Invasive Alien Plant Species (41)
- SAVEM, Project (10)
- Autumn olive (21)
- Weed Management (9)
- Purple (20)
- Survey, Invasive species (33)

**more | all**

**Font size:** A A A A

**Refine Results**

Map View [\[enable\]](#)

Data & Maps

Images

cluster

Publisher

File Format

Search portal by Vivisimo

**Help Advanced Map**

**invasive plants**

**Map Legend**

**Top 500 unique results** [Details]

**SAVEM - Invasive Plant Significant Areas**  
Publisher: U.S. Geological Survey  
Source: NBII FGDC Metadata Clearinghouse  
[mercury.ornl.gov/...ntsna.html](http://mercury.ornl.gov/...ntsna.html)

**Zoom Here** **Result List** **Save Result**

**View in Data Explorer**

**Map** **Satellite** **Terrain**

**500 mi** **500 km**

**Results per page:** 10   1 2 3 4 5 6 7 8 9 10

Select/deselect all on this page **Save selected: 0**

**□ SAVEM - Invasive Plant Inventory and Monitoring Project - Franklin Project Area 2002**  ... Franklin Project Area 2002 is part of the **Invasive Plant** Inventory and Monitoring Project....  
Publisher: U.S. Department of Agriculture  
Source: NBII FGDC Metadata Clearinghouse  
Resource Type: Data & Maps  
[mercury.ornl.gov/...NBII\\_SAIN\\_nbii\\_sain\\_d\\_franklinplant.html](http://mercury.ornl.gov/...NBII_SAIN_nbii_sain_d_franklinplant.html) - 43K - cache

**□ Purple Loosestrife Locations Integrated By NBII-SAIN into NAWMA Format**  ... in the North American Weed Management Association (NAWMA) **invasive plant** mapping standard format....  
Publisher: Virginia Natural History Society  
Source: NBII FGDC Metadata Clearinghouse  
Resource Type: Data & Maps  
[mercury.ornl.gov/...NBII\\_SAIN\\_nbii\\_sain\\_d\\_lysa2nawma2006.html](http://mercury.ornl.gov/...NBII_SAIN_nbii_sain_d_lysa2nawma2006.html) - 81K - cache

**□ Japanese Honeysuckle Locations Integrated By NBII-SAIN into NAWMA Format**  ... in the North American Weed Management Association (NAWMA) minimal **invasive plant** mapping standard format....  
Publisher: NBII Southern Appalachian Information Node (ed.)  
Source: NBII FGDC Metadata Clearinghouse  
Resource Type: Data & Maps  
[mercury.ornl.gov/...NBII\\_SAIN\\_nbii\\_sain\\_d\\_japanesehon.html](http://mercury.ornl.gov/...NBII_SAIN_nbii_sain_d_japanesehon.html) - 84K - cache

**Virginia, Invasive Alien Plant Species (41)**

**Frankfort Lexington**

**SAVEM - Invasive Plant Significant Areas**  
Publisher: U.S. Geological Survey

**Data Explorer**

**Search Results**  
Visualized Search Result For: SAVEM - Invasive Plant Significant Areas

**Info Panel**

**Layer** **GAP Landcover** **PADUS Status**

**PADUS Management**

SAVEM - Invasive Plant Significant Areas

SAVEM - Invasive Plant Significant Areas

**Map** **Satellite** **Terrain**

**500 mi** **500 km**

**NBII Data Panel**

GAP Landcover  PADUS Status  PADUS Management

**Save XML** **Help ?** **Print**

standards format....

**Publisher:** NBII Southern Appalachian Information Node (ed.)  
**Source:** NBII FGDC Metadata Clearinghouse  
**Resource Type:** Data & Maps  
[mercury.ornl.gov/...NBII\\_SAIN\\_nbii\\_sain\\_d\\_japanesehon.html](http://mercury.ornl.gov/...NBII_SAIN_nbii_sain_d_japanesehon.html) - 84K - cache



# NBII-GBIF Services

---

- US Node for GBIF
- Hosts GBIF portal and database
- Various data extraction services and visualizations
- IPT prototype installation, trainings on setting up DiGIR and IPT
- UDDI service



# GBIF Data Portal



GLOBAL BIODIVERSITY INFORMATION FACILITY

SPECIES COUNTRIES DATASETS OCCURRENCES SETTINGS ABOUT

... free and open access to biodiversity data

Welcome to the GBIF Data Portal

Access millions of data records shared via the GBIF network. To learn how to use this site, please see [About](#). To tune this site for smaller displays, see [Settings](#). Version 1.2.6 - click here to see what is new!

Search species/country/dataset  Search

**Explore Species**  
Find data for a species or other group of organisms.

**Species**  
Information on species and other groups of plants, animals, fungi and micro-organisms, including species occurrence records, as well as classifications and scientific and common names.

**Example species:**  
*Puma concolor* (Linnaeus, 1771)

**Explore Countries**  
Find data on the species recorded in a particular country.

**Countries**  
Information on the species recorded in each country, including records shared by providers from throughout the GBIF network.

**See data for:**  
[United States](#)

**Explore Datasets**  
Find data from a data provider, dataset or data network.

**Datasets**  
Information on the data providers, datasets and data networks that share data through GBIF, including summary information on 10475 datasets from 313 data providers.

Layout & design © GBIF. Data providers retain all rights to data. Contact us

GBIF Site: <http://data.gbif.org>  
U.S. Mirror: <http://us.mirror.gbif.org>

World:

- 201,275,468 occurrence records
- 318 data providers

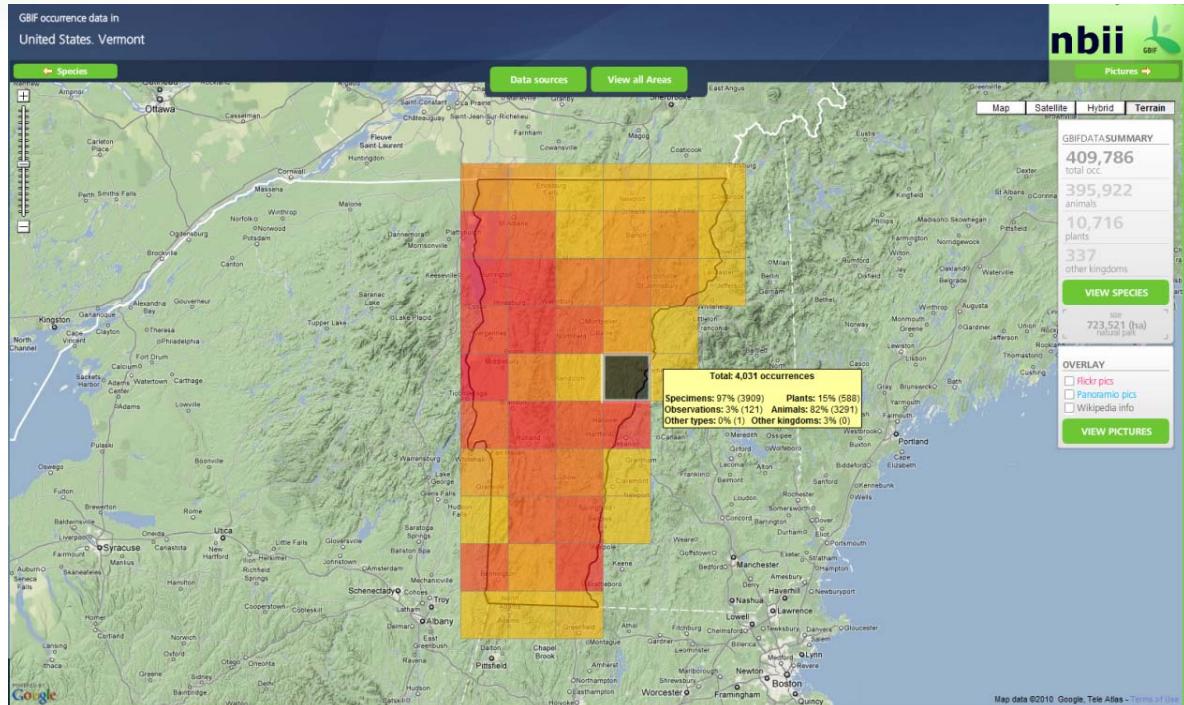
USA:

- 83,607,198 records
- 91 data providers



# NBII Customized widgets for exploring GBIF data

## GBIF Widget for Vermont Area

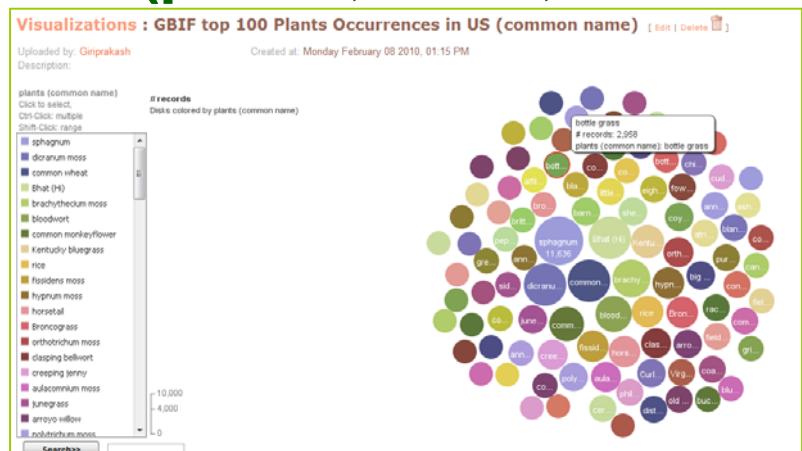
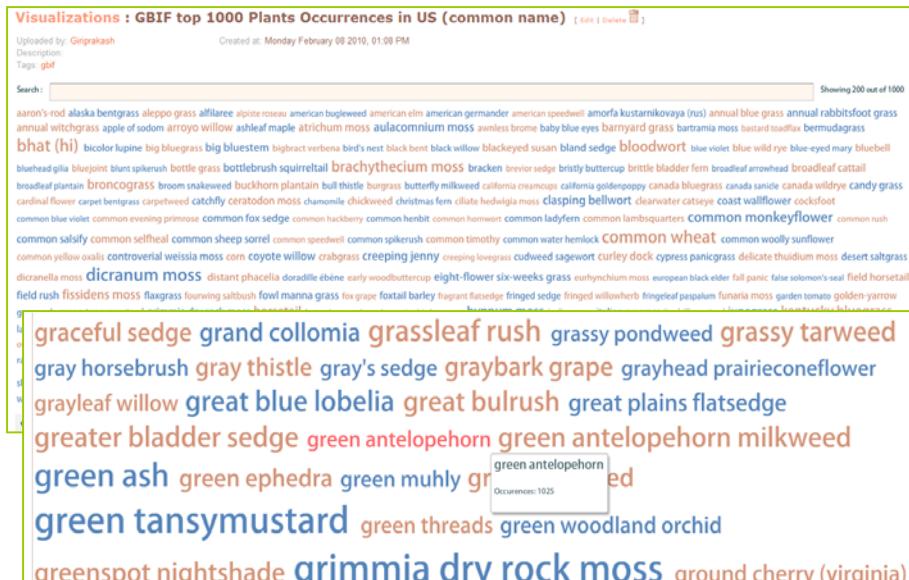


- Animalia
- Plantae
  - Equisetophyta
  - Lycopodiophyta
  - Magnoliophyta
    - Liliopsida
      - Alismatales
      - Arales
      - Cyperales
      - Eriocaulales
      - Hydrocharitales
      - Juncales
    - Liliales
      - Najadales
      - Orchidales
      - Typhales
  - Magnophyta
  - Pinophyta
  - Pteridophyta
  - Rhodophyta
  - Unknown



# GBIF Data Analysis And Extractions for NBII Partners

- Example GBIF Data Extractions:
  - Extract data for specific State(s), countries.
  - Extract data for list of species (plants, birds, butterflies etc..)



# GBIF Data Analysis

## Extractions Cont..

### Visualizations : GBIF top 1000 Plants Occurrences in US (common name)

Uploaded by: Giriprakash

Created at: Monday February 08 2010, 01:08 PM

Description:

Tags: gbif

Search :

Showing 200 out of 1000 -

aaron's-rod alaska bentgrass aleppo grass alfilaree alpiste roseau american bugleweed american elm american germander american speedwell **amorpha kustarnikovaya (rus)** annual blue grass annual rabbitsfoot grass annual witchgrass apple of sodom arroyo willow ashleaf maple **atrichum moss aulacomnium moss awnless brome baby blue eyes barnyard grass bartramia moss bastard toadflax bermudagrass bhat (hi) bicolor lupine big bluegrass big bluestem bigbract verbena bird's nest black bent black willow blackeyed susan bland sedge bloodwort blue violet blue wild rye blue-eyed mary bluebell bluehead gilia bluejoint blunt spikerush bottle grass bottlebrush squirreltail **brachythecium moss** bracken brevior sedge bristly buttercup brittle bladder fern broadleaf arrowhead broadleaf cattail broadleaf plantain **broncograss** broom snakeweed buckhorn plantain bull thistle burgrass butterfly milkweed california creamcups california goldenpoppy canada bluegrass canada sanicle canada wildrye candy grass cardinal flower carpet bentgrass carpetweed catchfly ceratodon moss chamomile chickweed christmas fern ciliate hedwigia moss clasping bellwort clearwater catseye coast wallflower cocksfoot common blue violet common evening primrose common fox sedge common hackberry common henbit common hornwort common ladyfern common lambsquarter common speedwell common spikerush common timothy comon controversial weissia moss corn coyote willow crabgras delicate thuidium moss desert saltgrass dicranella moss d coast wallflower  
Occurrences: 3393  
on wheat common woolly sunflower common yellow oxalis lovegrass cudweed sagewort curly dock cypress panicgrass instant phacelia doradille ébène early woodbuttercup eight-flower six-weeks grass eurhynchium moss european black elder fall panic false solomon's-seal field horsetail field rush **fissidens moss** flaxgrass fourwing saltbush fowl manna grass fox grape foxtail barley fragrant flatsedge fringed sedge fringed willowherb fringeleaf paspalum funaria moss garden tomato golden-yarrow green ash green tansymustard grimmia dry rock moss **horsetail** hotsprings panicum hummingbird trumpet **hypnum moss** indiangrass italian ryegrass jim hill mustard **junegrass** kentucky bluegrass lacepod mustard lescure's sphagnum leskeia moss leucodon moss little barley little bluestem maidenfern mintleaf beebalm neckweed old switch panic grass oldfield (prairie) 3-awn **orthotrichum moss** ovalleaf sedge owlfruit sedge peppergrass petticoat-climber **philonotis moss** pigweed polytrichum moss possumhaw poverty danthonia prairie sphagnum purple 3-awn purple love grass purpletop racomitrium moss rattlesnake fern ravine fescue red baneberry red maple **rice** rice cut grass rocky mountain trisetum rose milkweed rough barnyard grass rough bent sand dropseed scarlet gilia seductive entodon moss sensitive fern shallow sedge **shepardspurse** side oats grama silver sedge silvery lupine slender wheatgrass **sphagnum** stawcolored flatsedge thelia moss toothed plagiomnium moss torrey rush virginia wild rye wax currant whitetinge sedge yellow pincushion**



# Web services to query GBIF data

---

## OGC web services:

- Taxon data service: <http://us.mirror.gbif.org/ws/rest/taxon>
- Occurrence record data service: <http://us.mirror.gbif.org/ws/rest/occurrence>
- Occurrence density data service: <http://us.mirror.gbif.org/ws/rest/density>
- Dataset metadata service: <http://us.mirror.gbif.org/ws/rest/resource>
- Data provider metadata service: <http://us.mirror.gbif.org/ws/rest/provider>
- Data network metadata service: <http://us.mirror.gbif.org/ws/rest/network>
- More information:  
<http://wiki.gbif.org/dadiwiki/wikka.php?wakka=DeveloperAPIs>
- Web services to query US GBIF data (under development)





# Web Services to Query US GBIF Data

---

- Based on NBII CH/Lucene/Solr index
- Species occurrences query
  - [http://nbii-  
gbif.ornl.gov/us\\_solr/select?indent=on&version=2.2  
&q=scientific\\_name%3A%22Abildgaardia%22&start=0&rows=100&fl=latitude%2Clongitude&qt=standard&wt=standard&explainOther=&hl.fl=](http://nbii-gbif.ornl.gov/us_solr/select?indent=on&version=2.2&q=scientific_name%3A%22Abildgaardia%22&start=0&rows=100&fl=latitude%2Clongitude&qt=standard&wt=standard&explainOther=&hl.fl=)



# Simple Web Services Client to get occurrence counts

Get US GBIF count - Windows Internet Explorer provided by ORNL

http://mercury.ornl.gov/gbifUtility/

Favorites | [Map](#) Get US GBIF co

201,275,468 occurrence rec...

## US GBIF Species Occurrences

Enter Scientific Name:

Select a State: California

North: 42.51

West: -124.9    East: -113.61

South: 32.02

**Number of occurrences**

Moehringia macrophylla(N:42.51 S:32.02 E:-113.61 W:-124.9):  
**7**

<http://mercury.ornl.gov/gbifUtility/>

- Species Level xml files  
for NBII Catalog search



**GS**  
ping world



# Upcoming Year Tasks

---

- Full implementation of multi-lingual (3) Thesaurus web-services
- Implementation of new IABIN Catalog Search System
  - Additional Content
  - ITIS web-services
  - IABIN Thesaurus web-services
  - Multi-language Interfaces
  - On-line Help
  - Use of rss for streaming content\*
  - Geospatial Interface for Query and Results\*
- Provide maintenance and technical support
- Continued use of the US GBIF mirror to support IABIN
- Deploying Catalog Search on TNs site





# References and Contact Information

---

<https://dev-nbii-search.cr.usgs.gov/search/cgi-bin/query-meta?v%3Aproject=usgs-iabin>

**Questions / Comments / Advice / Opinions**

**Mike Frame:** [mike\\_frame@usgs.gov](mailto:mike_frame@usgs.gov)

