Biodiversity Heritage Library Climbing a 40-Million Page Mountain (& Living to Tell the Tale)

Rebecca Morin

Head Librarian

California Academy of Sciences San Francisco, CA



Biodiversity Heritage Library Special Libraries Association 2013 Annual Conference June 10, 2013



CALIFORNIA ACADEMY OF SCIENCES

A Global Digital Library for Science



About BHL Help

🖬 Like 🈏 Tweet

Q

Collection

Inspiring discovery through free access to biodiversity knowledge.

The Biodiversity Heritage Library works collaboratively to make biodiversity literature openly available to the world as part of a global biodiversity community.

BHL also serves as the foundational literature component of the Encyclopedia of Life (@@L).

Search across books and journals, scientific names, authors and subjects

Authors

Search

ADVANCED SEARCH

Browse Our Collection By:

Titles

Date

Help Support BHL

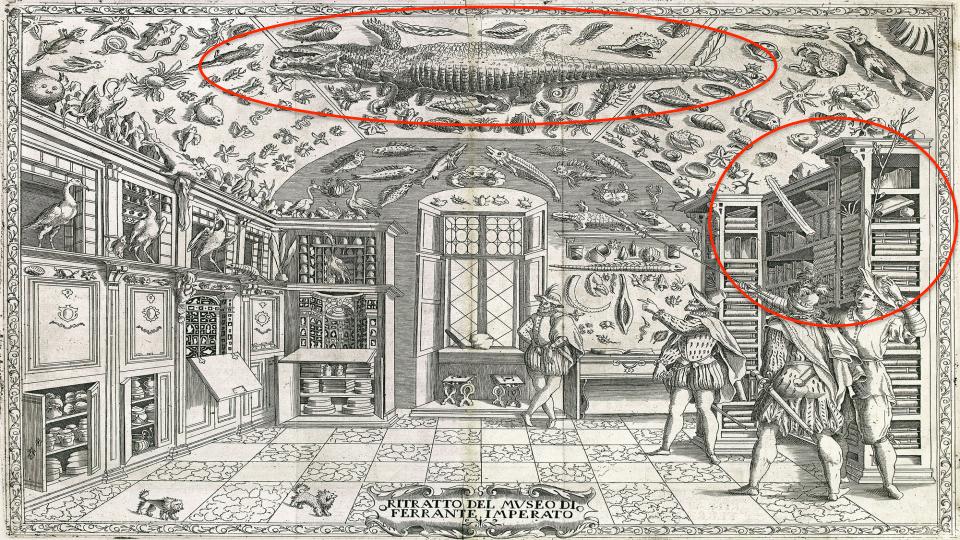
BHL's existence depends on the financial support of its patrons. Help us keep this free resource alive!

Donate Now

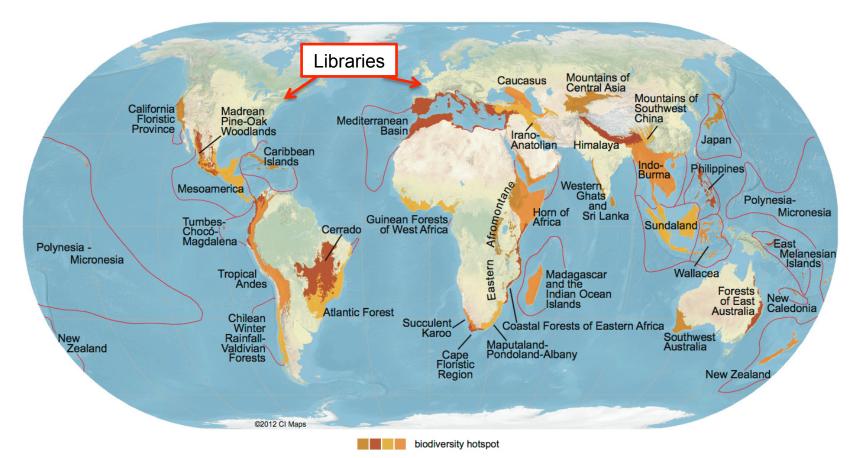
New on the
BHL BlogToday's Picks
Flickr StreamFeatured Collection
Curious and Bizarre
Creatures

Encyclopedia of Life

▼ ENGLISH DI	SCOVER HELP WHAT IS EOL? EOL NEWS DONAT	▼ ENGLISH	DISCOVE	R HELP WHAT IS EOL?	EOL NEWS · DONATE
Encyclopedia of Life	Become part of the EOL communi Voin EOL no Aiready a member? Sign	Encyclopedia of Life	Search EOL Co	Becom	e part of the EOL community <u>Join EOL now</u> Already a member? <u>Sign ir</u>
Trichobatrachus robustus Hairy Frog learn more aboutnames for this taxon Tweet O R Like 4 Overview Detail 10 Media 2 Maps Names Community Resource	add to a collection	Trichobatrachus re Hairy Frog learn more abo Tweet 0 PLike 0	ut names for this taxon	ure Updates	add to a collection
	Found in 4 classifications see al Species recognized by NCBI Taxonomy: Cellular organisms ± Eukaryota ± Opisthokomia ± Metazoa ± Eumetazoa ± Biatoria ±	Literature references Biodiversity Heritage Library	Biodiversity Heritage Library The following bibliography has been generated by automated services. BHL uses taxonomic intelligence tools to locate, verify, and record scientific names located within the text of each digitized page in the BHL digital collection. View Discovered Bibliography In BHL SORT BY Year Ascending :		names located
	Deuterostomia ± Chordata ±		Title	Year Details	References
	Craniata ± Vertebrata ± Gnathostomata ± Teleostomi ±		Proceedings of the Zoological Society of London. ; 1900	London :Academic 1833 Press, [etc.],1833- 1965.	3
	Euteleostomi ± Sarcooteryqii ± Ietrapoda ±		Proceedings of the Zoological Society of London. ; Index (1891-1900)	London :Academic 1833 Press, [etc.],1833- 1965.	1
Trichobatrachus robustus Boulenger, 1900 TFLISTED	Amphibia ± Batrachia ±		Proceedings of the Zoological Society of London. ; Index (1901-1910)	London :Academic 1833 Press, [etc.],1833- 1965.	2
Source: <u>African Amphibians Lifedesk</u>	Neobatrachia ±		Proceedings of the Zoological Society of London. ; 1901, v. 2 (May-Dec.)	London :Academic 1833 Press, [etc.],1833- 1965.	2
IUCN threat status: Least Concern (LC)	Arthroleptidae ± Trichobatrachus ± Trichobatrachus		Proceedings of the Zoological Society of London. ; 1901, v. 2 (May-Dec.)	London :Academic 1833 Press, [etc.],1833- 1965.	4
Comprehensive Description read full.			Proceedings of the Zoological Society of London. ; 1900	London :Academic 1833 Press, [etc.],1833- 1965.	3
aarn more about this article Summary	Reviewed by 1 curator learn how to curate		Archiv für Naturgeschichte. ; Jahrg. 69:bd. 1:heft 1-3 - Jahrg. 69:bd. 2:heft 1	1835 Berlin :Nicolai,1835-	1
<u>Trichobatrachus robustus</u> is a large, West African species that is well known for the hair-like derma papillae founds in males. This species is also notable for having claw-like terminal phalanges on the second second the second second the second s			Archiv für Naturgeschichte. ; Jahrg. 74:bd. 1:heft 1-3 - Jahrg. 74:bd. 2:heft 1	1835 Berlin :Nicolai,1835-	3



Documenting Biodiversity Page by Page



Members

- Academy of Natural Sciences of Drexel University
- American Museum of Natural History
- California Academy of Sciences
- Cornell University
- Field Museum
- Harvard University Botany Libraries
- Ernst Mayr Library of the MCZ
- Library of Congress
- Marine Biological Laboratory and Woods Hole
 Oceanographic Institution

- Missouri Botanical Garden
- Natural History Museum, London
- New York Botanical Garden
- Royal Botanic Garden, Kew
- Smithsonian Institution
- United States Geological Survey



Using BHL



About BHL Help



Q

Collection

Inspiring discovery through free access to biodiversity knowledge. The Biodiversity Heritage Library works collaboratively to make biodiversity literature openly available to the world as part of a global biodiversity community.

BHL also serves as the foundational literature component of the Encyclopedia of Life (COL).

Search across books and journals, scientific names, authors and subjects

Authors

Search

ADVANCED SEARCH

Browse Our Collection By:

Titles

Date

Help Support BHL

BHL's existence depends on the financial support of its patrons. Help us keep this free resource alive!

Donate Now

New on the
BHL BlogToday's Picks
Flickr StreamFeatured Collection
Curious and Bizarre
Creatures

Why Should I Use BHL?

Biodiversity Heritage Library About BHL	Help	Tweet		Search	ADVANCED SEARCH
Transactions of the Zoological Society	v of London.		v. 1 1833/35 v	E	Download Contents 🔻 🐹 🛕
Pages Table of Contents	к 🗅		— Fit to Width +	~ ~	Show OCR
Text Text Page 29 Page 30 Page 31 Page 32 Page 33 Page 34 Text Text Text Text Page 35 Show More URL for Current Page http://biodiversityilibrary.org/page/12864931		ngitarini (biditir dan pitarini (biditir dan pita bo pit ulimat bian sijott utarini	[29]		
Scientific Names on this Page Page 29 Carnivora [EOL] Cynictis [EOL] Proteles [EOL]		By THAT the work no hiatus existed completely apart	Communicated March 12, 1833. Communicated March 12, 1833. Constrained March 12, 1833. Constrained March 12, 1833. Communicated March 12, 1833. Communic	S., &c. in all its parts, that no individual stood nected by a uniform	

Why Should I Use BHL?



Why Should I Use BHL?



Native Reading & On the Go

945

FORNIA ACADEMY OF SCIENCES [PRoc. 4TH SER.

25%

TEMATIC ACCOUNT

1. NOMENCLATURE

ave been proposed for Galapagos tortoises,

	AUTHORITY	LOCALITY			
	Quoy & Gaimard	"California"			
rniana .	Quoy & Gaimard				
antopus	Harlan	Galapagos			
a	Duméril & Bibron				
cps		No locality			
		No locality			
phyes		No locality			
	Günther	No locality			
donii	Günther				
igoensis		Charles			
eri	Baur	No locality			
	Rothschild	North Albemarle			
cci	Rothschild	No locality			
	Rothschild				
	Van Denburgh				
	Van Denburgh				
	Van Denburgh				
tasticus	Van Denburgh	Narborough			

mes are based upon specimens whose oriwn. There can be no question as to the e names apply. The other ten, however, n with vague descriptions from examples be desired in respect both to history and ll be necessary to consider each of these termine, if possible, its proper use.

nigra Quoy & Gaimard. 1824

oplied by Ouov and Gaimard, in 1824, to e presented to M. de Freycinet by Captain on Eagle," while the "Uranie" and "Phy-Sandwich Islands, and said to have come wing to the small size of this tortoise the s are not developed. Rothschild, who retype in the Paris Museum, writes1 that oise with a carapace barely 101/2 inches ently preserved that it is absolutely impos-02, p. 618.

Vol. II. Pr. II VAN DENBURGH-GALAPAGOS TORTOISES

sible to say to what race it belongs. Dr. Albert Günther, who examined the specimen with me, is even more emphatic on this point than I am." The exact locality of origin being unknown. I think it impossible ever to decide which species it represents, and therefore follow Günther, Baur and Rothschild in ignoring the name Testudo nigra.

2. Testudo californiana Quoy & Gaimard. 1824

This name, also proposed by Quoy and Gaimard in 1824, evidently was based upon the specimen which they described as Testudo nigra. It is therefore a substitute name.

3. Testudo elephantopus Harlan. 1827

This name was first used by Dr. Richard Harlan in a paper published in the Journal of the Academy of Natural Sciences of Philadelphia, in 1827, and afterward reprinted in Harlan's Medical and Physical Researches (1835). The description was based upon a living specimen in the possession of Mr. Whitton Evans. Beyond the mere fact that it was from the Galapagos Islands, Dr. Harlan said nothing of the origin of this tortoise.

In 1874, Dr. Günther, recognizing the fact that Harlan's specimen belonged to one of the broad races, associated with the name Testudo elephantopus certain specimens of indefinite origin. The carapace which he figured is depressed, with somewhat elevated front, width over curve greater than length over curve, height to marginals low, and pectoral plates well developed.

In 1889, after having examined a specimen which he thought was the one described by Harlan, Dr. George Baur² stated his conclusion that the specimens which Dr. Günther had referred to Testudo elephantopus did not belong to the species represented by Harlan's type. It is probable that the specimen Baur examined is a South Albemarle tortoise of the vicina type, for Baur states that "a number of specimens collected by the 'Albatross' agree exactly with" this specimen "and the T. vicina of Günther.'

2Am. Naturalist, Dec. 1889, p. 1043.

Book viewer in the browser, or download Kindle, Epub, Daisy etc. files @ Internet Archive

ab Video Texts Audio Projects About Account 🖬 TVNews 🕮 OpenLibra

merican Libraries | Canadian Libraries | Universal Library | Community Texts | Project Gutenberg | Children's Library | Home

Biodiversity Heritage Library + GOD Advanced Search

Search:

View the book

Read Online PDF

B/W PDF

EPUB

Kindle

Daisy

DjVu

Full Text

All Files: HTTPS

Resources

Bookmark

Help reading texts

Ebook and Texts Archive > Biodiversity Heritage Library > Transactions of the Zoological Society of London

Transactions of the Zoological Society of London

Author: Zoological Society of London Volume: Volume 1 Publisher: London Year: 1835 Possible copyright status: NOT_IN_COPYRIGHT Language: English Digitizing sponsor: Natural History Museum Library, London Book contributor: Natural History Museum Library, London Collection: biodiversity Scanfactors: 77

Full catalog record: MARCXML

BHLThis book is available with additional data at Biodiversity Heritage Library

Incorporated by: Journal of Zoology : Series B

ZOOLOGY - Vol. 1-37 (1833-1984)

ENTOMOLOGY - 1833-1953 (incomplete)

TRING - Vol. 1-36 (1833-1983)

Vol. 1 (1833) - vol. 37 (1984)

(~560 pg)

(26.9 M)

(22.4 M)

(~560 pg)

(~560 pg)

(~560 pg)

(1.1 M)

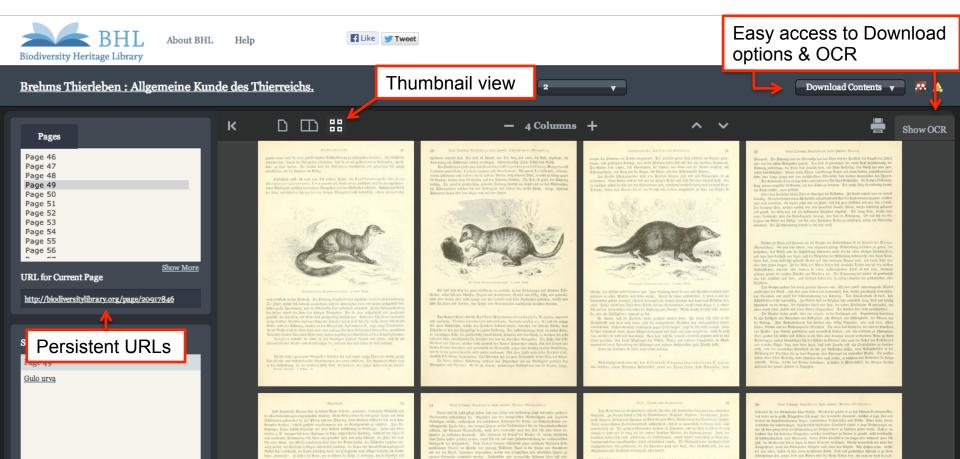
(12.9 M)

256 Itemid 124203

Itemid 124204

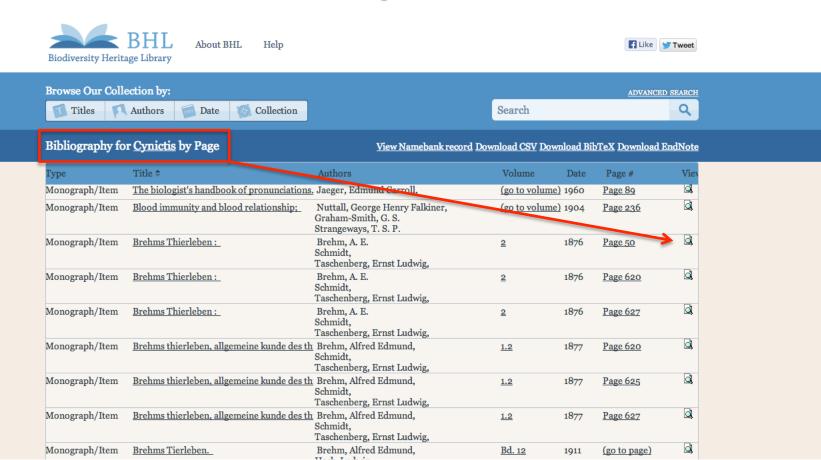
Description

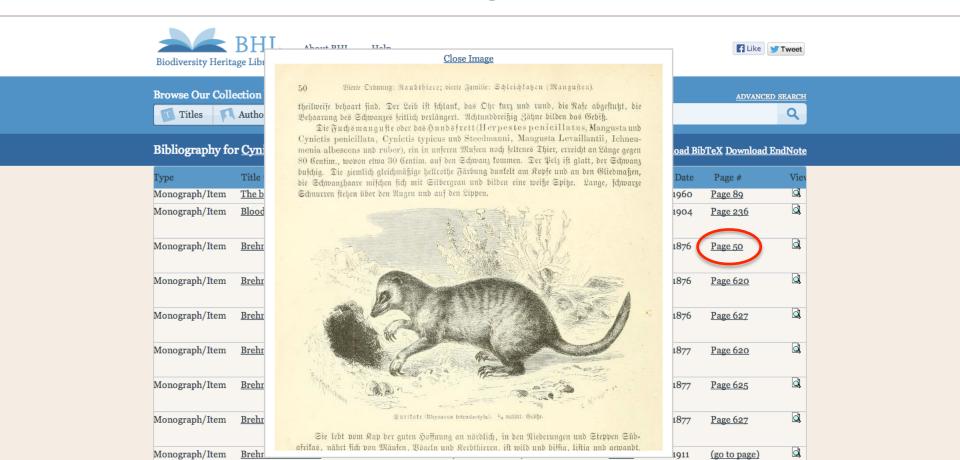
Tips and Tricks

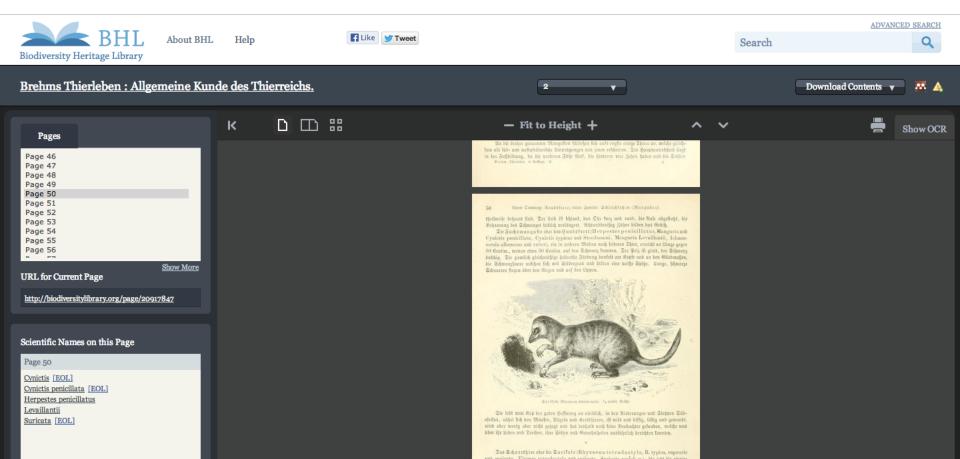


Biodiversity Heritage Library About BHL	Help	Like Tweet			Search	
Transactions of the Zoological Society	of London.		v. 1 1833/35 v		Downloa	d Contents 🔻 🔀 🔺
Pages Table of Contents	к 🗅 🖽) ==	— Fit to Width +	~ ~		Show OCR
Text Text Page 29 Page 30 Page 31 Page 32 Page 33 Page 34 Text Text Page 35 20 Show More URL for Current Page		and	[29]	T. JIM. Jack Such w	CS An interference interference Interference interference	
http://biodiversitylibrary.org/page/12864931 Scientific Names on this Page Page 29			s and Description of a new Grus of Cas. OGILBY, Esq., A.M., F.L.S., R. Ast. S.,		ulled Cynictis.	
Carnivora [EOL] Omictis [EOL] Proteles [EOL]		no hiatus existed am completely apart from	Communicated March 12, 1833. Creation was originally complete and per nong natural bodies, or, in other words, t m surrounding groups, but that all were diate forms and characters, is a law of nat	that no inc connected	lividual stood by a uniform	

gradation of interinetiate forms and characters, is a raw of natural instory which e







Open Content Open Data

Developer Tools and API

Wiki: Tips and Information for our Users

👔 Wiki Home

Recent Changes

🕞 Pages and Files

A Members

Discussion

🔎 Search

Main

About Visit BHL

VISIO

Contact and Feedback

BHL FAQ

Tutorials/Help

Documentation

Fechnical

Data Exports

Developer Tools and API

BHL & Gaming

Art of Life: Image

Developer Tools BHL is building APIs to allow individual users and data providers to remix and reuse BHL content. The following APIs

Would you like to download BHL data as MODS, EndNote, BibTex, or .txt? Please see our Data Exports page

BHL is building APIs to allow individual users and data providers to remix and reuse BHL content. The following APIs are currently available or under development. To suggest an API or enhancement, please use our Feedback ⁸.

APIs

The BHL Application Programming Interface (API) is a set of REST-like web services that can be invoked via HTTP queries (GET/POST requests) or SOAP. Responses can be received in one of three formats: JSON, XML, or XML wrapped in a SOAP envelope.

1. Version 2:

The documentation for the latest version of the API can be found at

http://www.biodiversitylibrary.org/api2/docs/docs.html & The first version of the API was limited to data related to scientific names found in the BHL collection; version 2 adds access to title, author, volume, and page information. Please note that

users are required to obtain an API Key from<u>http://www.biodiversitylibrary.org/getapikey.aspx</u> ⁽²⁾ in order to use version 2 of the API. This is the preferred version of the API. Version 1 (formerly the BHL Name Services): Updated documentation for the first version of the API can be found at <u>http://www.biodiversitylibrary.org/api/docs/docs.html</u>. This version of the API is provided solely to maintain backwards compatibility.

 Citation Linking: BHL provides access to its content via an OpenURL Resolver, as documented and described here: http://www.biodiversitylibrary.org/openurlhelp.aspx

BHL's OpenURL Resolver is a popular tool used by biodiversity databases for linking into citations and exact pages of scanned materials.

Data providers can also include links to literature using our stable URLs for scanned pages. The URL is displayed below "Link to this page". For example, to cite the original

guest | Join | Help | Sign In

....

Visit the Biodiversity Heritage Library collection

📡 Edit 🕂 50

 Table of Contents

 Developer Tools

 APIs

 Data Exports

 Scientific Names

 Bibliography by URL

 Image URLs

 Stable URLs

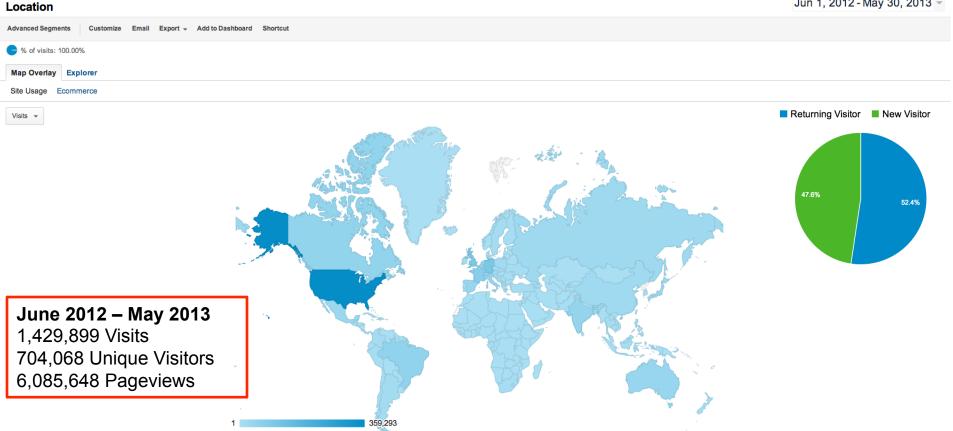
 OAI-PMH

 Upload

 Portal Administration Login

Who Uses BHL?

Jun 1, 2012 - May 30, 2013 -



Looking Back & Moving Forward



Stay Connected

Keep up to date with the latest news via these social media platforms



Join Our Mailing List

Sign up for the BHL Newsletter and get the latest updates



BHL on Twitter

BioDivLibrary Canavalia ensiformis. Icones plantarum rariorum v.3 Vindobonae :||Londini :||Lugduni Batavorum :||Ar pinterest.com/pin/4292500267... 2 daya ago favorite

BioDivLibrary Zamia pumila. Icones plantarum rariorum v.3 Vindobonae :||Londini :||Lugduni Batavorum :||Argentora pinterest.com/pin/4292500267... 2 days ago · favorite

BioDivLibrary When superstition and science collide! Read the BHL Blog & C what all the crazy illus. from the 1600's is all about! ow.ly/lmYqZ 2 days ago favorite

Now Online

59,890 titles

114,050 volumes

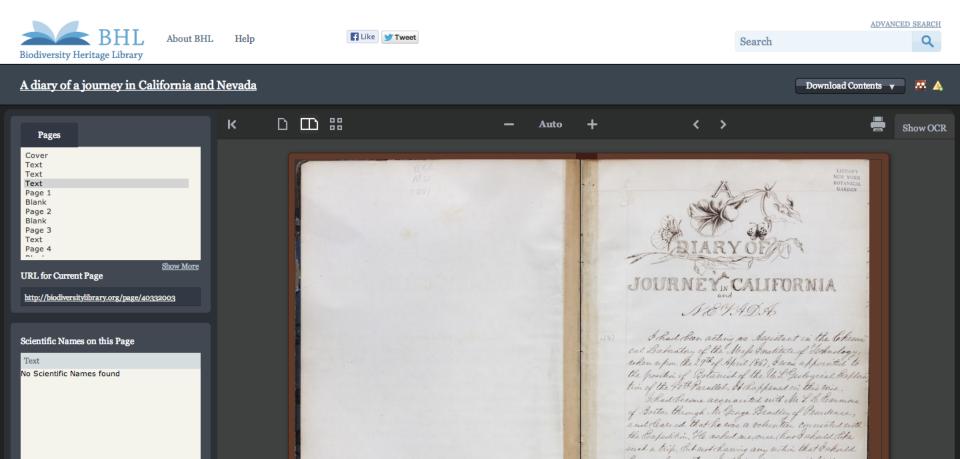
40,927,140 pages

Recent Additions

Visit Our Partners

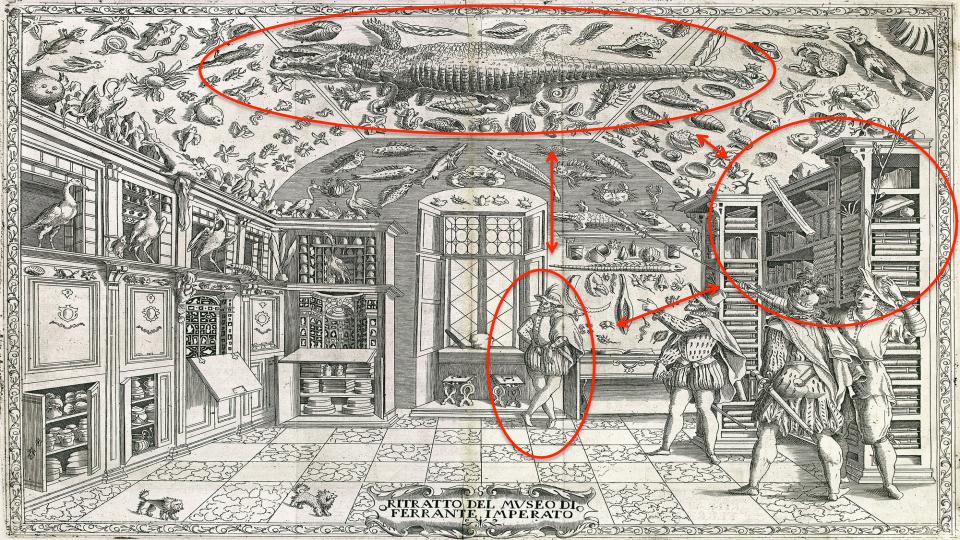
Encyclopedia of Life

New Materials

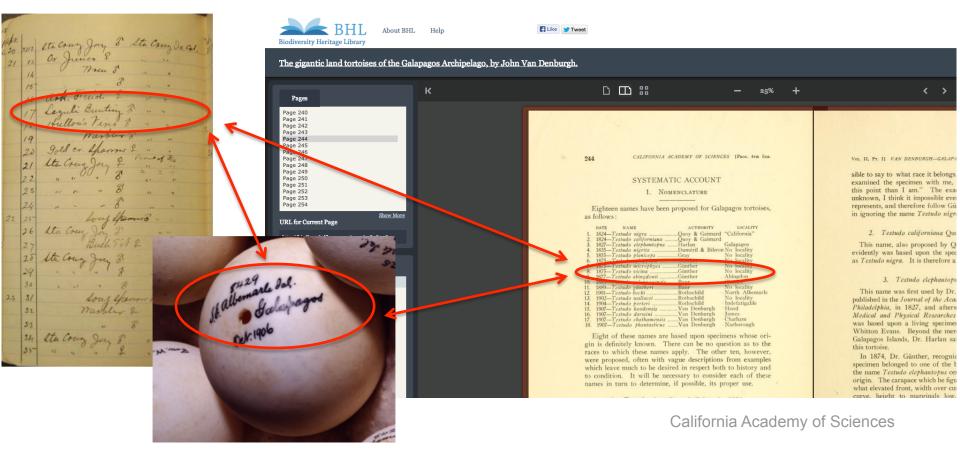


Connecting Content





Connecting Content



Enhanced Discovery

BHL Wiki: Tips and Information for our Users

👔 Wiki Home Recent Changes 📑 Pages and Files Members Discussion Search

lain	
About	
Visit BHL	

- Contact and Feedback

BHL FAQ

- Tutorials/Help
- Documentation

Data Exports

Developer Tools and API BHL & Gaming

Art of Tife: Image

Art of Life

The Art of Life: Data Mining and Crowdsourcing the Identification and Description of Natural History Illustrations from the Biodiversity Heritage Library

This project, which has been generously funded by the National Endowment for the Humanities and runs from May 2011-April 2014, seeks to liberate natural history illustrations from the digitized books and journals in the online Biodiversity Heritage Library (BHL) through development of software tools for automated identification and description of visual resources. BHL is an international consortium of the world's leading natural history libraries, including Missouri Botanical Garden Library, that have collaborated with publishers, rights holders, and other interested parties to digitize the public domain literature documenting the world's biological diversity within member libraries' collections. BHL has partnered with Internet Archive for -effective and efficient mass scanning and storage of its digital library, resulting in the standards-based digitization and open access dissemination of more than 110,000 volumes and 40 million pages of core historic literature.

Contained within BHL's digitized texts are millions of visual resources (plates, illustrations, figures, maps, and other images), many of which were produced by the finest botanical and zoological illustrators in the world, including the likes of John James Audubon, Georg Dionysus Ehret, and Pierre Redouté. These images are

currently minimally described at a structural page level, enabling citation resolvers and human users to navigate to http://www.flickr.com/photos/biodivlibrary/sets/8illustrations by page numbers, but the images lack sufficient descriptive metadata to enable dynamic filtering and inquiry based on factors like image type, color content, subject matter, or even names of the organisms depicted in the images.

Visit the Biodiversity Heritage Library collection 🕒 Ŧ 💟 🚥 🔐 🛅

Æ 58

....



A selection of illustrations from BHL's Flickr photostream

A full list of BHL sets at Flickr can be found at:

guest

Patron Care

Projects - BHLFEED: BHL Feedback -

New Item - Items - Email Alerts

BHLFEED-4403 - Scan Request from

Edit 🔄 | Move | Copy | Stop Watching | Vote | Print | Send | Refresh | Url < Item 20 of 89 item(s) >

Type: 📄 Bibliographic Issue

Priority: Trivial

Severity: Trivial

Status: (7) Assigned

Resolution: Unresolved

Resources: Becky Morin

Reported By: Web User

Component: Special Handling

Fixed In Version: None

Versions Affected: None

Risk Level: No Risk

Votes: 0

Visibility: Everyone

Start Date: ?

Due Date: ?

Percent Complete:

Created: 9/9/2010 3:32:58 PM Revised: 9/9/2010 4:16:52 PM



Type: Book Title: Neue Wirbelthiere zu der Fauna von Abyssinien gehörig Year: 1835-40 Volume: All 4 volumes OCLC: 9367659 Author: Rüppell, Eduard Publisher: Frankfurt am Main, In commission bei S. Schmerber Language: German

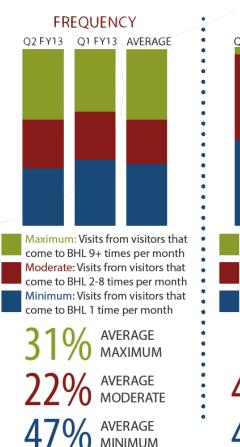
Note: Call #: RF-76-K Rare Folio, AMNH Library (4 v. in 2) Also Academy of Natural Science Library, Phila. [Amend]

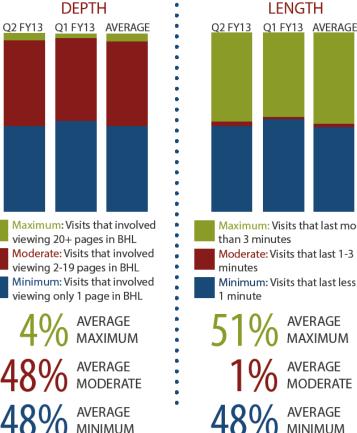
Comments (1) Attachments (0) Watchers (1) Hierarchy (0) Links (0) Time (0) Testing (0) History

"Heeding the Call: User Feedback Management and the Digital Library." Grace Costantino, Bianca Crowley, Rebecca Morin, and Erin Thomas. 2011. *Microform & Digitization Review* 40(4): 129-175. DOI:10.1515/mdr.2011.019

Rüppell, Eduard, 1794-1884.

Quality User Engagement





Maximum: Visits that last more than 3 minutes Moderate: Visits that last 1-3

Minimum: Visits that last less than

AVERAGE MAXIMUM

> **AVERAGE** MODERATE



VISITS TO BHL FROM SOCIAL MEDIA PLATFORMS APRIL 2011-MARCH 2012 VS APRIL 2012-MARCH 2013



VISITS TO BHL FROM SOCIAL MEDIA APRIL 2012-MARCH 2013 49,898 TOTAL VISITS

vs april 2011-march 2012

-199%

Be An Engaged User!

www.biodiversitylibrary.org/

biodivlib.wikispaces.com/About

blog.biodiversitylibrary.org/

www.facebook.com/BioDivLibrary

@BioDivLibrary

•• _v

www.flickr.com/photos/biodivlibrary



pinterest.com/source/biodiversitylibrary.org/



www.youtube.com/user/BioHeritageLibrary

Thank You!

- Rebecca Morin California Academy of Sciences (415) 379-5495
- rmorin@calacademy.org

Tiny_librarian

