

BatLit.org - Mobilizing Bat Literature

through existing Collaborations, platforms, and open source tools

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2024-10-25

Guiding Questions

How do *you* access/reuse literature collection?

How do *you* organize your literature collection?

How do *you* share your literature collection?



Jorrit Poelen (GloBI) Wednesday at 4:17 PM

@Cullen Geiselman @Aja Sherman @Nancy Simmons
@Ariadna Morales @Kendra Phelps @DeeAnn M. Reeder
@Hernani Fernandes Magalhães de Oliveira
@Cecilia Montauban @Nancy Simmons et al. Any

recommendations for the top-5 influential/inspirational bat
papers published before 2000 ? (edited)

12 replies



Jelle Zijlstra Wednesday at 4:19 PM

Andersen, K.C. 1912. [Catalogue of the Chiroptera in the collection of the British Museum. Volume I: Megachiroptera.](#) British Museum (Natural History), British Museum Catalogue, 854 pp. <https://www.biodiversitylibrary.org/part/91323>.



Andersen, 1912: An Influential Bat Work

Andersen, K.C. 1912. Catalogue of the Chiroptera in the collection of the British Museum. Volume I: Megachiroptera. British Museum (Natural History), British Museum Catalogue, 854 pp. <https://www.biodiversitylibrary.org/part/91323>.

Finding Andersen, 1912

The screenshot shows the Biodiversity Heritage Library (BHL) website. At the top, the browser address bar displays the URL <https://www.biodiversitylibrary.org/part/91323>. The BHL logo and navigation links (About, Help, FAQ, Feedback) are visible. A red banner across the top of the page content area reads: "Internet Archive is currently down. As a result, page images are not displaying in BHL. For the latest updates, follow @internetarchive". Below the banner is a blue navigation bar with "Browse by:" and buttons for Title, Author, Date, Collection, and Contributor. To the right of these buttons is a search bar with the text "Search the catalog and full-text" and a magnifying glass icon. Above the search bar are links for "Full-text", "Catalog", and "ADVANCED SEARCH". Below the navigation bar, the page title is "Book: Catalogue of the Chiroptera In the collection of the British Museum. Volume I: Megachiroptera". The main content area is divided into two columns. The left column contains a table with the following information: Title: "Catalogue of the Chiroptera In the collection of the British Museum. Volume I: Megachiroptera", By: "Andersen, Knud, 1867-1918", Type: "Book". The right column contains a "Cite This Publication" button, a "Book access" section with a "View Book" link, a "Copyright & Usage:" section stating "Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.", and a "Download:" section with a PDF icon.

Please read BHL's Acknowledgment of Harmful Content

Internet Archive is currently down. As a result, page images are not displaying in BHL.
For the latest updates, follow [@internetarchive](#)

Browse by:

[Title](#) [Author](#) [Date](#) [Collection](#) [Contributor](#)

[Full-text](#) [Catalog](#) [ADVANCED SEARCH](#)

Search the catalog and full-text

Book: Catalogue of the Chiroptera In the collection of the British Museum. Volume I: Megachiroptera

Title
Catalogue of the Chiroptera In the collection of the British Museum. Volume I: Megachiroptera
By
Andersen, Knud, 1867-1918
Type
Book

Cite This Publication

Book access

[View Book](#)

Copyright & Usage:

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

Download: [PDF](#)

Figure 1: Internet Archive Down Banner on Biodiversity Heritage Library. Accessed at <https://www.biodiversitylibrary.org/part/91323> on 2024-10-16.

Finding Andersen, 1912

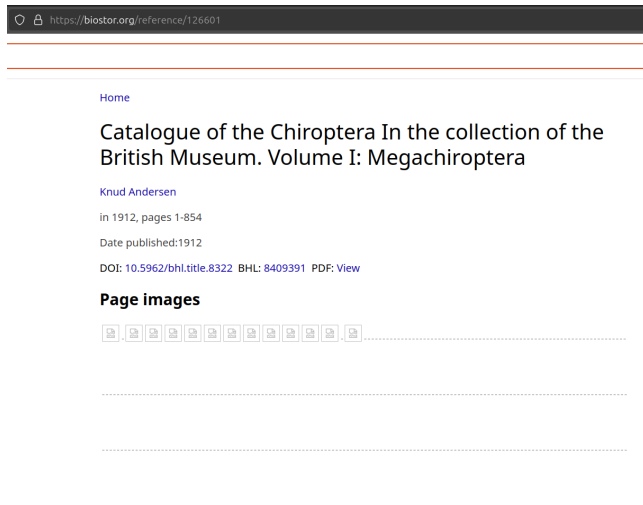


Figure 2: Andersen 1912 as seen at <https://biostor.org/reference/126601> on 2024-10-22.

Finding Andersen, 1912

Like this?



Figure 3: AMNH Department of Mammalogy Library. 2024-10-03. Photo by Nancy Simmons

Finding Anderson, 1912

Or, like this?

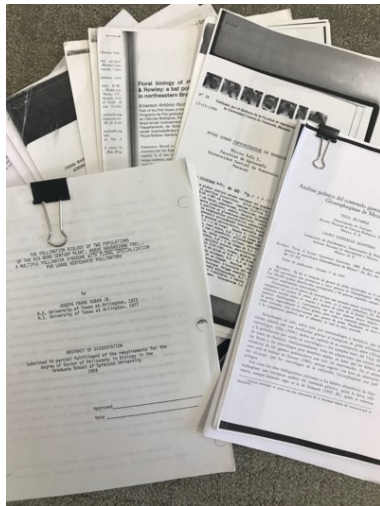


Figure 4: Bat Papers on Cullen's Desk. 2024-10-03. Photo by Cullen Geiselman

Finding Anderson, 1912

Or perhaps like this?



Figure 5: Pile of Paper in Nancy's Office. 2024-10-03. Photo By Nancy Simmons

Finding Anderson, 1912

The screenshot shows the Zotero web interface. On the left, a sidebar lists group libraries, with 'Bat Literature Project' selected. Below it, a list of tags is visible, including '??-Glucan', '*229-E-like bat coronavirus', '*adenovirus', '*Africa', '*Alphacoronavirus', '*Angolan free-tailed bat', '*Angolan free-tailed bats', '*animal capture', '*animal care', '*Animal Distribution', '*animal housing', and '*animal marking'. A 'Filter Tags' button is at the bottom of the sidebar.

The main area displays a list of items. The selected item is 'Catalogue of the Chiroptera in the collection of the ... Museum' by G.E. Dobson, 1912. The detailed view of this item is shown on the right, with the following fields:

Field	Value
Item Type	Book
Title	Catalogue of the Chiroptera in the collection of the ... Museum / By G.E. Dobson.
Author	Andersen, Knud.
Author	British Museum (Natural History).
Author	Dobson, George Edward.
Place	London,
Publisher	[s.n.]
Date	1912
URL	http://www.biodiversitylibrary.org/bibliograp...
Accessed	11/9/2023, 10:22:16 AM

Figure 6: Members only Zotero record in the Bat Literature Project as accessed at https://www.zotero.org/groups/5435545/bat_literature_project/items/P825HKF3 on 2024-10-22

Finding Andersen, 1912

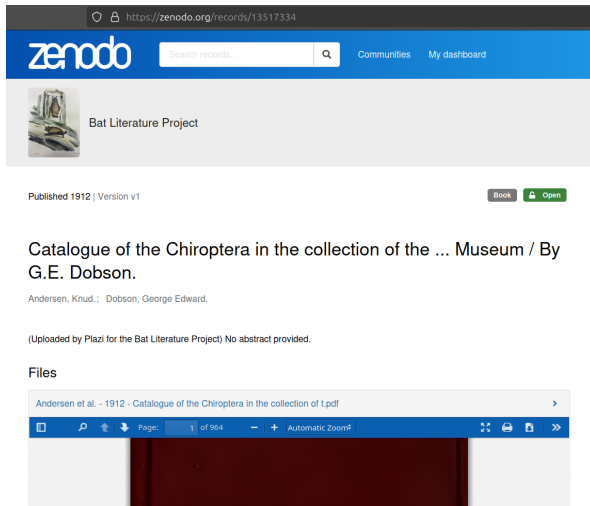


Figure 7: Digital Copy of Andersen 1912 as seen at <https://zenodo.org/records/13517334> on 2024-10-22

Finding Andersen, 1912

 <https://zenodo.org/records/13517334>  

Additional details

Identifiers	URL hash://md5/56384a6778e2c67bbd8ebe4d63f770cf URN urn:lsid:zotero.org:groups:5435545:items:P825HKF3
-------------	--

▶ Related works	Has version hash://md5/56384a6778e2c67bbd8ebe4d63f770cf (URL) hash://sha256/a38352c608bafdb87cd6d77211dadffa460c0f7978ae5ed3fa38f9ba4d16836c (URL) Is compiled by Software: 10.5281/zenodo.1410543 (DOI) Is derived from zotero://select/groups/5435545/items/P825HKF3 (URL) https://zotero.org/groups/5435545/items/P825HKF3 (URL) https://linker.bio/cut:hash://md5/5b5b42413228fe3497802a6b8600efe3/b39507-41976 (URL) Is part of hash://md5/26f7ce5dd404e33c6570edd4ba250d20 (URL)
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▶ Biodiversity	Class  Mammalia
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Figure 8: Identifiers associated with Digital Copy of Anderson 1912 as seen at <https://zenodo.org/records/13517334> on 2024-10-22

Finding Anderson, 1912

So, some webpage

... at <https://zenodo.org/records/13517334> ...

... as accessed on 2024-10-22

... claims that Anderson, 1912

... is associated with a digital fingerprint

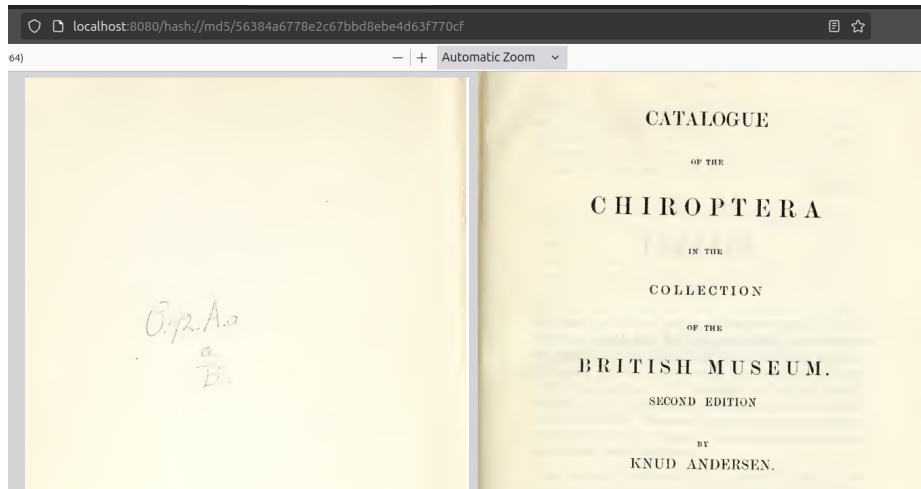
... <hash://md5/56384a6778e2c67bbd8ebe4d63f770cf>

... that uniquely identifies a “physical” digital copy

... of the seminal Andersen, 1912 work.

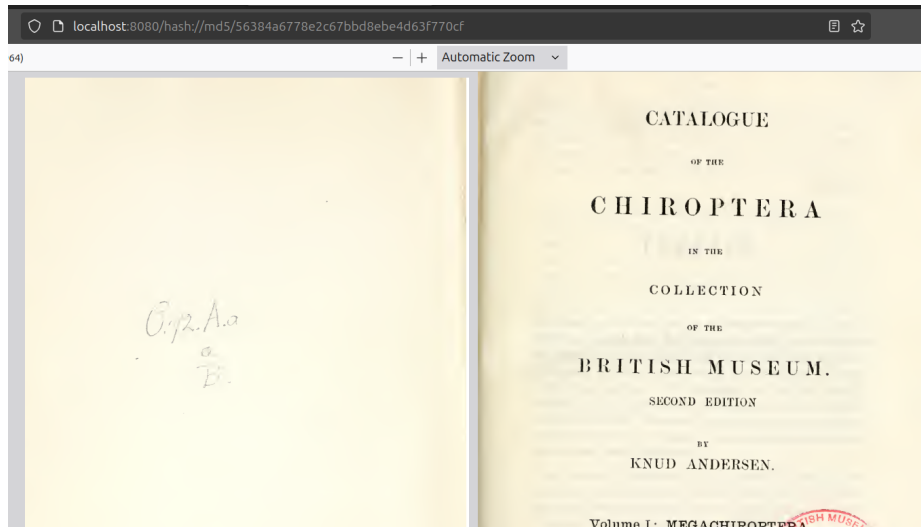
Found Andersen, 1912 at 30,000 ft

(screenshot made of Jorrit's laptop screen at 30,000 ft on UA6135 IAH to GDL on 2024-10-22 using: Sherman, A.C. et al 2024. BatLit.org v0.6 hash://md5/db73e659e8cf16ef50e82bb5e72ae97b)



Found Andersen, 1912!

Note to self: next time, add a **digital content fingerprint** to identify the *exact* digital copy of Anderson, 1912 you'd like to reference.



Citing Andersen, 1912 pre-Internet

Andersen, K.C. 1912. Catalogue of the Chiroptera in the collection of the British Museum. Volume I: Megachiroptera. British Museum (Natural History), British Museum Catalogue, 854 pp.

Citing Andersen, 1912 in the Age of the Internet

(with internet locations)

Andersen, K.C. 1912. Catalogue of the Chiroptera in the collection of the British Museum. Volume I: Megachiroptera. British Museum (Natural History), British Museum Catalogue, 854 pp. **<https://www.biodiversitylibrary.org/part/91323>**
<https://doi.org/10.5962/bhl.title.8322>

Citing Andersen, 1912: Beyond the Internet

(with internet locations and non-internet identifiers)

Andersen, K.C. 1912. Catalogue of the Chiroptera in the collection of the British Museum. Volume I: Megachiroptera. British Museum (Natural History), British Museum Catalogue, 854 pp. <https://www.biodiversitylibrary.org/part/91323>
<https://doi.org/10.5962/bhl.title.8322>
hash://md5/56384a6778e2c67bbd8ebe4d63f770cf ¹

¹Elliott M.J., Poelen, J.H. & Fortes, J.A.B. (2023) Signing data citations enables data verification and citation persistence. *Sci Data*. <https://doi.org/10.1038/s41597-023-02230-y>
hash://sha256/f849c870565f608899f183ca261365dce9c9f1c5441b1c779e0db49df9c2a19d

How Was Jorrit Able to Access This Paper at 30,000 ft?



Figure 9: Jorrit bought a 128GB SD Card for ~\$25 USD at the Target on 2500 E Lake St, Minneapolis, Minnesota before NASBR 2024

How Was Jorrit Able to Access This Paper at 30,000 ft?



Figure 10: Jorrit copying BatLit v0.6 hash://md5/db73e659e8cf16ef50e82bb5e72ae97b on 2024-10-21

How Was Jorrit Able to Access This Paper at 30,000 ft?



Figure 11: SD Card carrying $> 400k$ pages of bat literature contained in BatLit v0.6
hash://md5/db73e659e8cf16ef50e82bb5e72ae97b on 2024-10-21

Wishing you had 20k bat papers at your fingertips?



Figure 12: Cecilia Montauban catching bats in Ghana while writing a Bat Conservation International student scholarship application Ghana in October 2021

BatLit Bits and Pieces

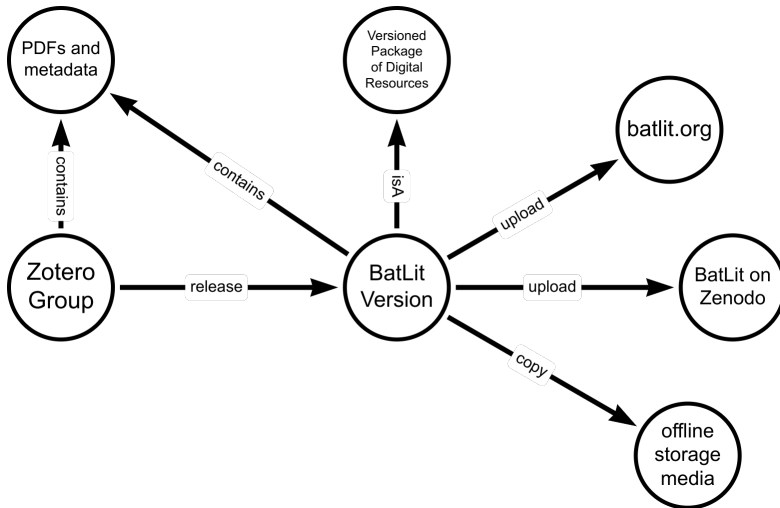


Figure 13: Zotero is used for managing a collection of literature references. Versioned snapshots of this collection are securely packaged in a BatLit version. This version is then mobilized using a website, the Zenodo batlit community, and on offline storage media.

BatLit Versions

version	date	size	# pages	# references	fingerprint
v0.6	2024-09-19	44.7GiB	427,105	19,038	
v0.5	2024-08-16	50.9 GiB		20,145	
...	...	...	...	...	
v0.1	2024-04-26	7.9 GiB		2,929	

How Was Jorrit Able to Access Andersen, 1912?

Through Work of CETAF/GBatNet Eco-Interactions working group activities spanning 4.5 years in which:

- ▶ goals were identified
 - ▶ (G1) make bat interaction data digitally accessible,
 - ▶ (G2) align bat taxonomic names to uncover their meaning, and
 - ▶ (G3) provide open-access to bat literature.
- ▶ Plazi provided a legal framework via their Biodiversity Literature Repository ².
- ▶ BatBase ³ provided curatorial support.
- ▶ Jorrit reused open source software ⁴ to track, package and version bat literature metadata and their pdfs.
- ▶ Researchers like you shared their literature collections.

²<https://plazi.org>, <https://zenodo.org/communities/biosyslit/records>

³Bat Eco-Interactions Project, <https://batbase.org>

⁴<https://github.com/bio-guoda/preston>

Next Steps

Further develop governance model to help sustain BatLit.

Improve BatLit depth, mobility, and access for the benefit of the bat research community.

Use BatLit as a digital foundation for associated projects.

Want to know more?

Visit <https://batlit.org>, or chat/reach out to members of the GBatNet Eco-Interactions working group (in no particular order):

Aja Sherman, Nancy Simmons, DeeAnn Reeder, Nathan Upham, Cullen Geiselman, Cecilia Montauban, Hernani Oliveira, Ariadna Morales, Jelle Zijlstra, Quentin Groom, Donat Agosti, Kendra Phelps, Anna Willoughby, or Jorrit Poelen.

Thank you / Acknowledgments

BatLit would not have been possible without the tremendous amount of work done by you, your fellow bat researchers, and those that proceeded us.

Guiding Questions

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How do *you* organize your literature collection?

How do *you* share your literature collection?

Extra

BatLit Workflow



Figure 14: BatLit Workflow

BatLit Workflow Steps

1. Curator Adds Digital Copy to BatLit Project on Zotero ⁵
2. Periodically, Archivist takes a snapshot of all Zotero records in BatLit, including bibliographic metadata and the “physical” digital copy (pdf).
3. Archivist puts the snapshots in a signed digital archive (box) and signs the provenance logs
4. Signed Digital Archive (or a batlit corpus version) is mobilized by translating and upload them to Zenodo, GitHub Pages, and various other network attached storage media
5. Signed Digital Archives is stored on offline enabled media (sd card, external hard disk)
6. Corpus is transmitted and discovered by students researchers
7. Corpus is reused by students and researchers, enabling both manual (e.g., reading, annotation) and automated (e.g., raw material for language model training) workflows
8. Reuse promotes improvement and further awareness

⁵https://www.zotero.org/groups/5435545/bat_literature_project

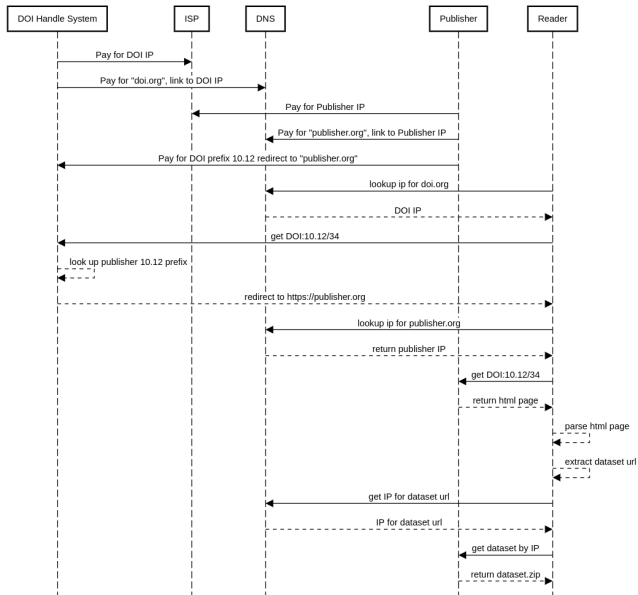
Accessing content associated with DOIs

Take 2.

- ▶ turn on the internet (still there?)
- ▶ open a web browser
- ▶ load <https://doi.org/10.5962/bhl.title.8322>
 - ▶ and rely on a delicate and complex socio-technical network
- ▶ inspect page
- ▶ use mouse to click on a link that looks like a bug picture
- ▶ download image and **trust** its authenticity

DOI Economics and Redirection

steps to use DOI to download dataset



Internet Is Designed For *Exchanging* Information

*The internet is a powerful tool for exchanging digital information. But the Internet's contents changes constantly: websites are launched and taken down, webpages change, and content gets archived or lost.*⁶

⁶Jorrit Poelen. 2024. Unleashing Digital Knowledge Into The Future. Accessed on 2024-02-06 at <https://linker.bio>
line:hash://sha256/8ac18eb75ff20d40d1d60bb6ad5a745eb528093d1ffbe373e3847c13146091eb!/L12

Internet Is *Location-based*

*By design, a web address, or Uniform Resource Locator (URL), points to a specific internet location from which a resource, like a webpage, can be retrieved. However, a URL does not provide a way to verify that a retrieved webpage was the one we asked for.*⁷

⁷Jorrit Poelen. 2024. Unleashing Digital Knowledge Into The Future. Accessed on 2024-02-06 at <https://linker.bio>
line:hash://sha256/8ac18eb75ff20d40d1d60bb6ad5a745eb528093d1ffbe373e3847c13146091eb!/L14

Finding Content By Their Location Is ... Tricky

Imagine using a URL-like reference to find a book at a library: instead of locating a book by what it is (e.g., title, author), you refer to a book by its location (e.g., third shelf on the second row next to the window). With this, a book becomes unfindable if moved to another shelf. And, if you do manage to find a book at the referenced location, how would you know you've found the book you are looking for? ⁸

⁸Jorrit Poelen. 2024. Unleashing Digital Knowledge Into The Future. Accessed on 2024-02-06 at <https://linker.bio>
line:hash://sha256/8ac18eb75ff20d40d1d60bb6ad5a745eb528093d1ffbe373e3847c13146091eb!/L16

Finding Content By Their (Summarized) Content Is ... What Librarians Do

*Instead of pointing to where books are located, librarians point to them using a bibliographic reference. For practical reasons, only a few identifying clues are included in such a reference (e.g., author, year of publication, title, and publisher). **So, librarians refer to content by what it is, and knowing where it may be located is secondary.***⁹

⁹Jorrit Poelen. 2024. Unleashing Digital Knowledge Into The Future. Accessed on 2024-02-06 at <https://linker.bio>
line:hash://sha256/8ac18eb75ff20d40d1d60bb6ad5a745eb528093d1ffbe373e3847c13146091eb!/L18