

Autumn 2025

# Literature management with Zotero

Janina Radny

# Lib4RI Training series: Searching & Managing Scientific Information

- Module 1: Searching Scientific Information
- Module 2: Scientific Publishing
- Module 3: Open Access & Copyright
- Module 4a: Literature Management with Endnote
- **Module 4b: Literature Management with Zotero**
- Module 5: Getting started with LaTeX
- Module 6: Work on Your Own Project
- Module 7a: Research Data Management – The Basics
- Module 7b: Make your life easier with Git
- Module 8a: AI Made Easy
- Module 8b: AI in Research & Scientific Writing



## Searching & Managing Scientific Information

Training series

Spring 2024

### Modules:

- 1 Searching Scientific Information
- 2 Scientific Publishing –  
From Writing to Sharing
- 3 Open Access & Copyright
- 4a Literature Management with EndNote
- 4b Literature Management with Zotero (NEW)
- 5 Getting Started with LaTeX
- 6 Work on Your Own Project
- 7 Research Data Management – The Basics

### Course sites:

Eawag: Dübendorf  
Empa: Dübendorf  
PSI: Villigen  
WSL: Birmensdorf

### Online registration:

[www.lib4ri.ch/trainings](http://www.lib4ri.ch/trainings)

# Your feedback is appreciated!

- Help us improve our training by returning the feedback form enclosed in your documentation!
- The course slides and supplementary material are available online on our website at [www.lib4ri.ch](http://www.lib4ri.ch) > Learn> Trainings



**Course Evaluation**  
 Lib4RI Training Series: Searching & Managing Scientific Information  
 Module 4b: Literature Management with Zotero  
 Organisation: ☐ Eawag ☐ Empa ☐ PSI ☐ WSL  
 Session date: \_\_\_\_\_

Please rate the following statements...

|                                                                                          | strongly agree           | agree                    | neutral                  | disagree                 | strongly disagree        |
|------------------------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1 Content                                                                                | 5                        | 4                        | 3                        | 2                        | 1                        |
| a) Overall, the course fully met my expectations                                         | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) The knowledge provided is useful for my work                                          | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) The level of difficulty and the comprehensibility of the presentation was appropriate | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) There was a good balance between the course length and subject matter                 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) Examples shown during the live session were appropriate                               | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2 Which topics could be shortened or excluded?

3 Which topics were missing or should have been presented in more detail?

Please rate the following statements...

|                                                                             | strongly agree           | agree                    | neutral                  | disagree                 | strongly disagree        |
|-----------------------------------------------------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 4 Presentation and Organisation                                             | 5                        | 4                        | 3                        | 2                        | 1                        |
| a) The course was well structured and had a clear theme                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b) The group size was appropriate                                           | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c) The documents distributed are useful                                     | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d) The duration of the course and use of time were appropriate              | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e) The course announcement and the information given were clear and correct | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5 What did you like most?

6 What could be improved?

Terms of quality?

|  | Content                  |                          |                          |                          |                          | Presentation             |                          |                          |                          |                          |
|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
|  | very good                | good                     | neutral                  | poor                     | very poor                | very good                | good                     | neutral                  | poor                     | very poor                |
|  | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Future courses:

☐ E-Mail announcement

☐ Other: \_\_\_\_\_

if) with no distribution at the course

# Outline

|               |                                       |
|---------------|---------------------------------------|
| 9:00 – 9:15   | Introduction to literature management |
| 9:15 – 10:45  | Hands-On Zotero I                     |
| 10:45 – 11:00 | Break                                 |
| 11:00 – 12:30 | Hands-On Zotero II                    |

# Where are you in your PhD journey?

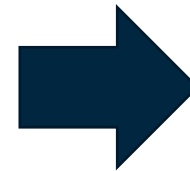
Just starting

Preparing your first publication(s)

Almost completed

Collecting information

Put your research in context



Collecting stuff is easy -  
finding it again can be difficult...

Adobe Firefly: “an unsorted pile of research papers on a messy table”

# Literature management software helps to:

## Organize

- Gather and import information
- Read, mark and annotate
- Group and connect resources

## Cite

- Compile a consistent bibliography
- Adapt citations to the journal style

## Collaborate

- Share references with your co-authors

## Open source



JabRef

## Commercial

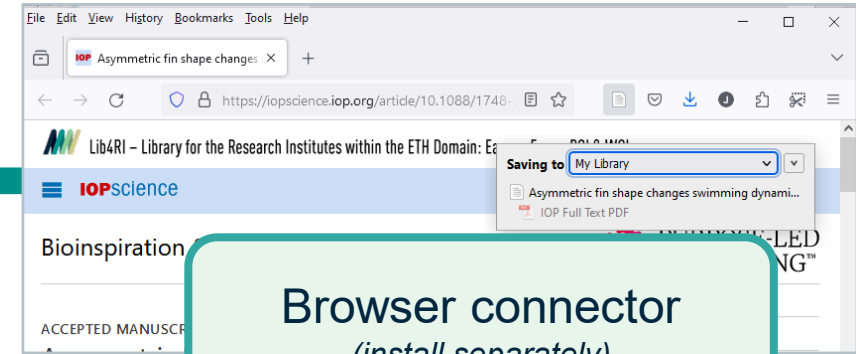
EndNote™



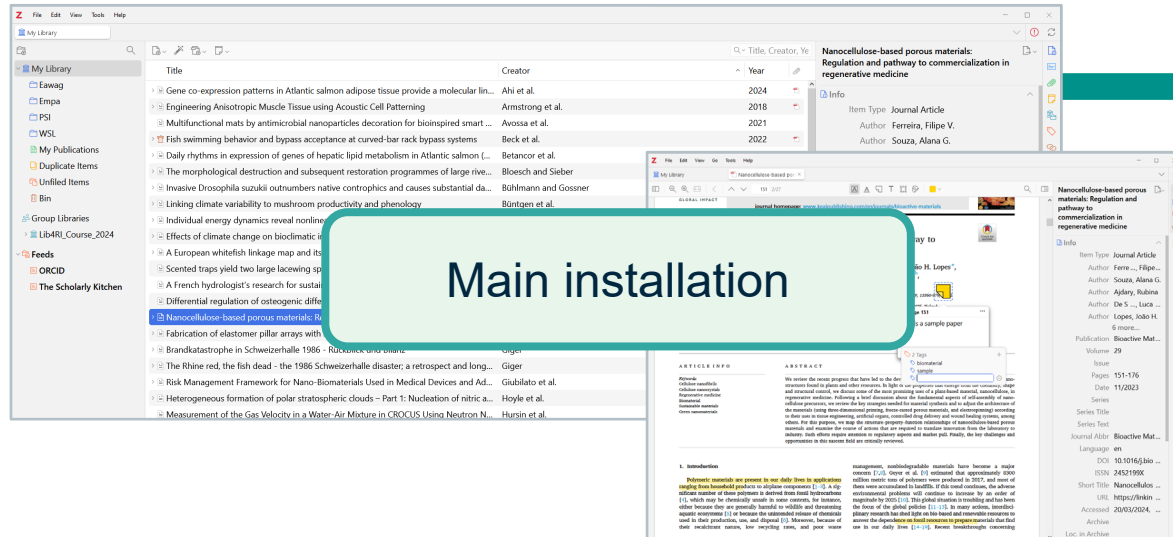
and many more...

# Zotero

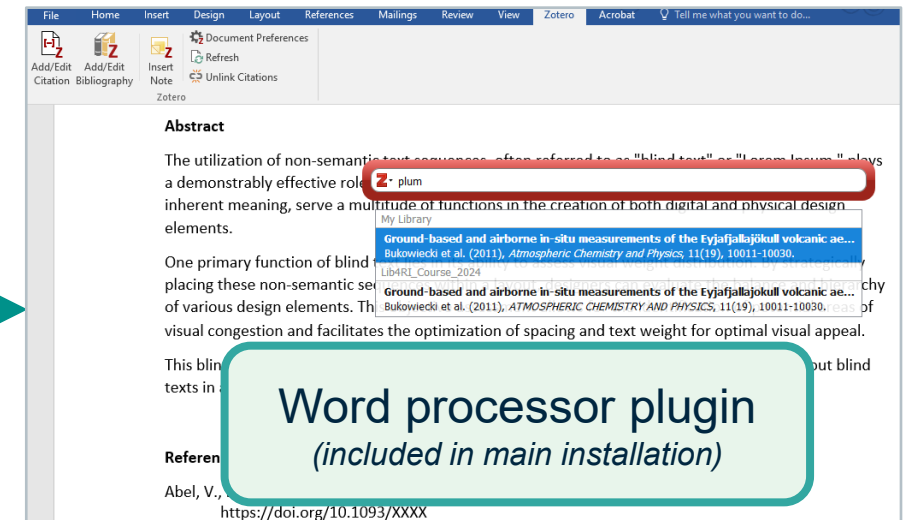
- Free and open source
- Well-structured interface and powerful integrated reader (V6 and higher)
- Import with one click
- Cite-while-you-write



Browser connector  
(install separately)



Main installation



Word processor plugin  
(included in main installation)

# System requirements

## Main installation

- Windows 7 or later, macOS 10.11 or later, Linux
- *Not tested: iOS, Android (Beta Version)*

## Browser connector

- Chrome 55 or later, Firefox 60 or later, Safari on macOS Big Sur or later

## Word processor / Writing

- MS Word 2010-2021, Office 365
- Word for Mac 2016-2021 or Office 365
- *Not tested: Libre Office 5.2 or later*

## Other options

- Google docs
- Overleaf (premium account or import \*.bib)
- Quarto (Rstudio & Positron), *Jupyterlab (not tested)*

Used for this lecture:

- Zotero 7
- Firefox 135
- MS Office 365

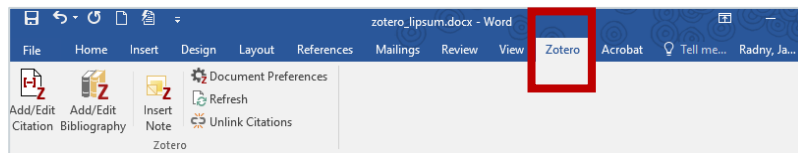
# Check your installation

## You should see:

- Desktop shortcut and/or menu entry to start main installation



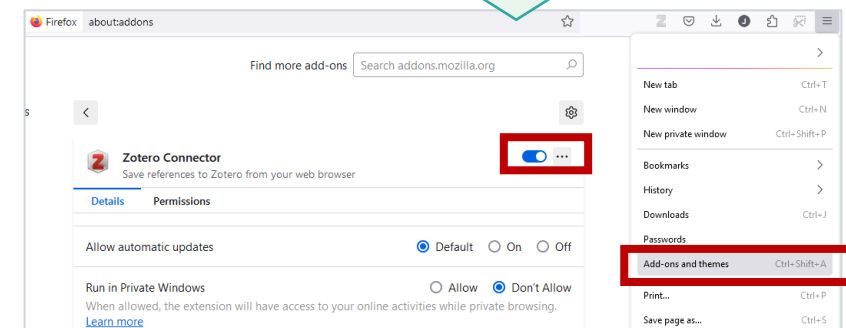
- Zotero tab in you text editor



- Symbol in your browser (varies with item type)



Not visible?  
Make sure the add-on is activated!



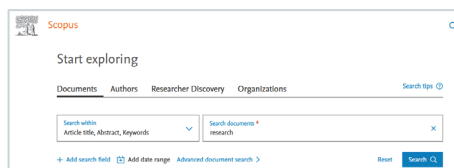
# Hands-on literature management

# Five step for literature management

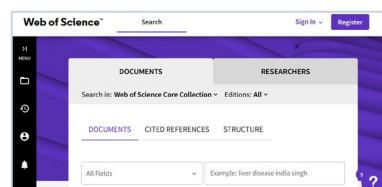
- **Step 1:** Get literature into Zotero
- **Step 2:** Organize your library
- **Step 3:** Read, annotate, summarize
- **Step 4:** Cite-while-you-write
- **Step 5:** Sync and collaborate

# Step 1: Get literature

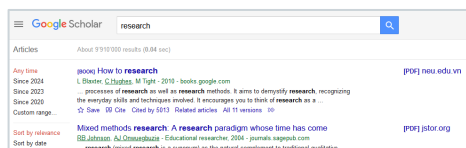
# Finding literature



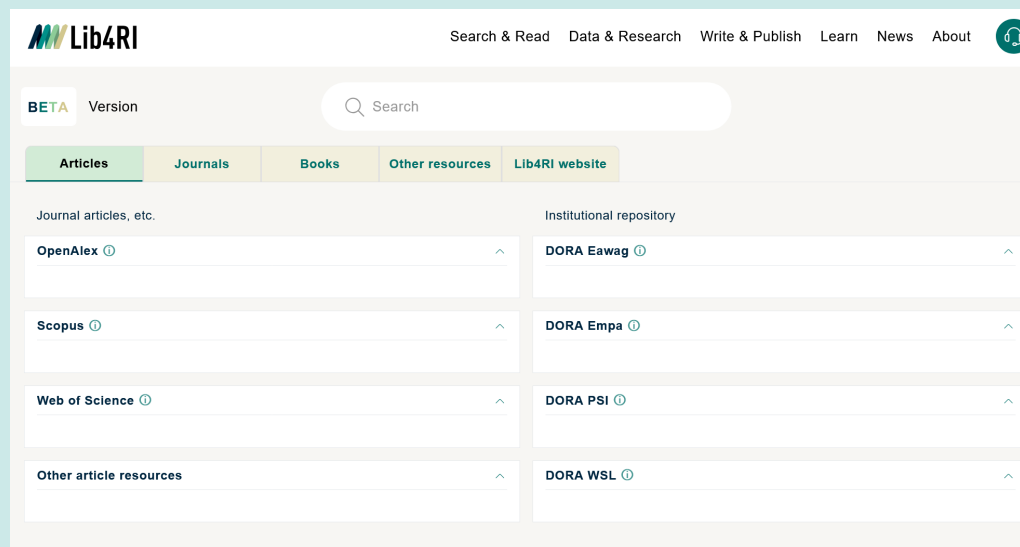
[scopus.com](https://scopus.com)



[webofscience.com](https://webofscience.com)



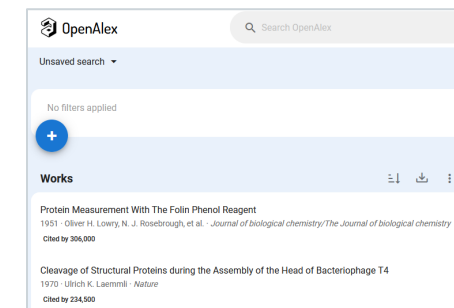
[scholar.google.com](https://scholar.google.com)



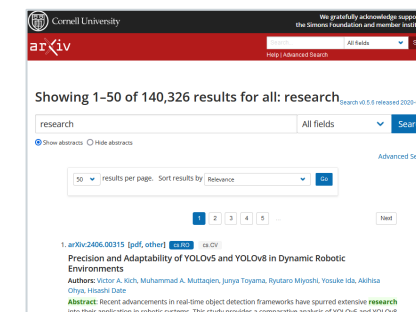
[lib4ri.ch](https://lib4ri.ch)

[dora.lib4ri.ch](https://dora.lib4ri.ch)

**Your institutional access point**

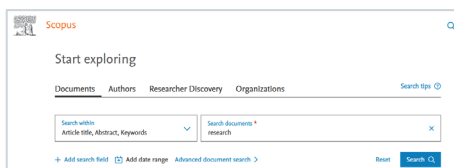


[openalex.org](https://openalex.org)

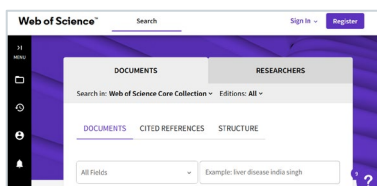


[arxiv.org/](https://arxiv.org/) (pre-prints)

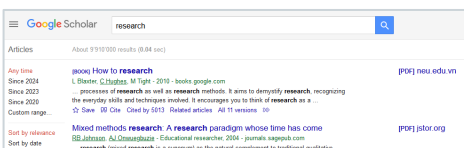
# Finding literature



[scopus.com](https://scopus.com)



[webofscience.com](https://webofscience.com)



[scholar.google.com](https://scholar.google.com)

## More info? Check out our resources!

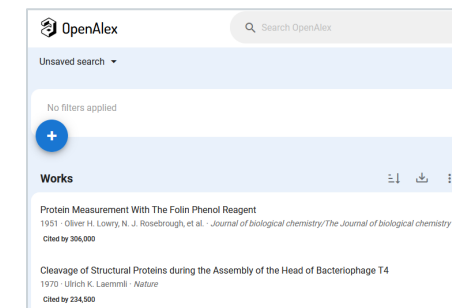
- Training: [Searching Scientific Information](#)
- Info sheet: [Topic Search](#)
- Website: [Systematic literature search](#)

... or ask your friendly librarian!

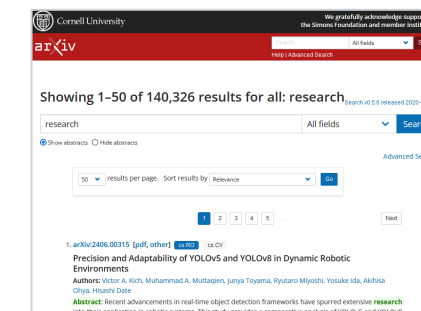


Let's go to the library

Source: Harris County Library via giphy.com

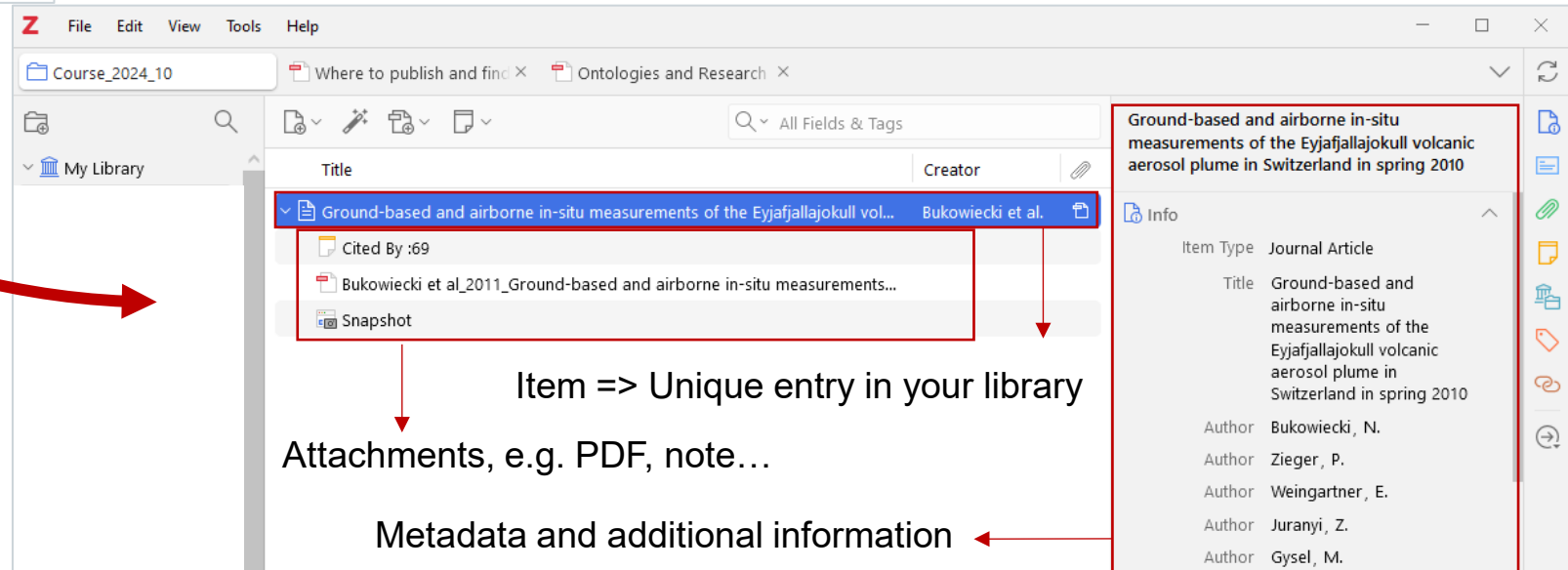


[openalex.org](https://openalex.org)



[arxiv.org/](https://arxiv.org/) (pre-prints)

# Import via browser connector



# Item types

- Depending on the item type, different metadata is included, e.g.
  - Publication (journal name) for articles
  - Edition number for books
  - Access date for web resources
  - ....






| Title                                                                                                                                                               | Creator           |                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------|
| >  Ground-based and airborne in-situ measurements of the Eyjafjallajökull vol... | Bukowiecki et al. |  |
| >  Icelandic volcano eruption sends lava flowing in visual spectacle             | McDaniel          |  |
| >  Eyjafjallajökull – Der unaussprechliche Vulkanfilm                            |                   |  |
|  Aerosol science: technology and applications                                    | Colbeck           |                                                                                       |
| >  Atmospheric Particle Nucleation                                               | Sipilä et al.     |  |

 Info

Item Type Book Section

Title Atmospheric Particle Nucleation

Author Sipilä, Mikko

Author Lehtipalo, Katrianne

Author Kulmala, Markku

Book Title Aerosol Science

Info

Notes

Tags

Related

Item Type

Title

Editor

Editor

Author

Abstract

Book Title

Series

Series Number

Volume

# of Volumes

Edition

Place

Publisher

Date

Pages

Language

ISBN

Short Title

URL

Accessed

Archive

Loc. in Archive

Book Section

Artwork

Audio Recording

Bill

Blog Post

Book

Book Section

Case

Conference Paper

Dataset

Dictionary Entry

Document

E-mail

Encyclopedia Article

Film

Forum Post

Hearing

Instant Message

Interview

Journal Article

Letter

Magazine Article

Manuscript

Map

Newspaper Article

Patent

Podcast

Preprint

Presentation

Radio Broadcast

Report

Software

Standard

Statute

Thesis

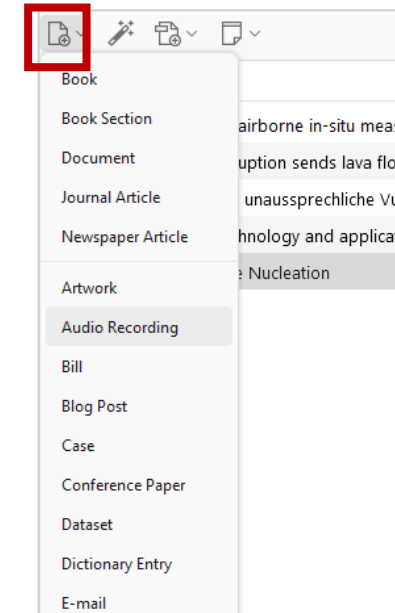
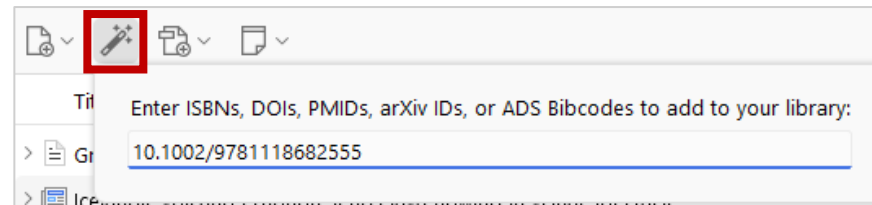
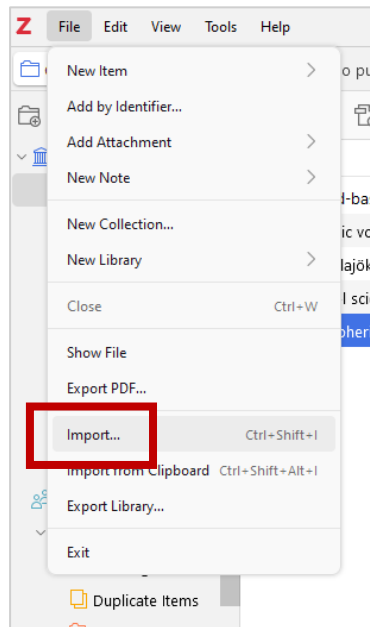
TV Broadcast

Video Recording

Web Page

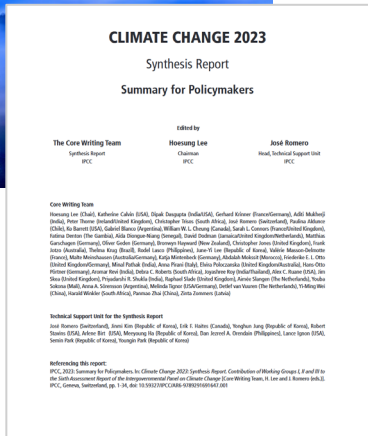
# Other import options I

- *File > Import* for collections, e.g. other reference managers (\*.bib, \*.ris)
- Import wizard for DOI, arXiv IDs etc (useful to import e.g. from [Zenodo](https://zenodo.org))
- Add by hand



# Other import options II

- Drag & Drop PDFs – metadata is searched and added
- Missing information can be added manually



IPCC, 2023: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland.

Info

Item Type Report

Title IPCC, 2023: Climate Change 2023: Synthesis Report. Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, H. Lee and J. Romero (eds.)]. IPCC, Geneva, Switzerland.

Contributor Lee, Hoesung

Author Calvin, Katherine

Author Dasgupta, Dipak

Author Krinner, Gerhard

Author Mukherji, Aditi

119 more...

Report Number

Report Type

Series Title

Place Intergovernmental Panel on Climate Change (IPCC)

Institution

Date 2023-07-25

Pages

Language en

Short Title IPCC, 2023

URL <https://www.ipcc.ch/report/ar6/syr/>

Accessed 31/03/2025, 14:32:06

Archive

Loc. in Archive

Library Catalogue DOI.org (Crossref)

Call Number

Rights

Extra Edition: First  
DOI: 10.59327/IPCC/AR6-9789291691647



Biodiversität und ökologischer Ausgleich auf Flugplätzen

Info

Item Type Journal Article

Title Biodiversität und ökologischer Ausgleich auf Flugplätzen

Author (last), (first)

Publication

Volume

Issue

Pages

Date 2019

Series

Series Title

Series Text

Journal Abbr

Language de

DOI

ISSN

Short Title

URL

Accessed

Archive

Loc. in Archive

Library Catalogue Zotero

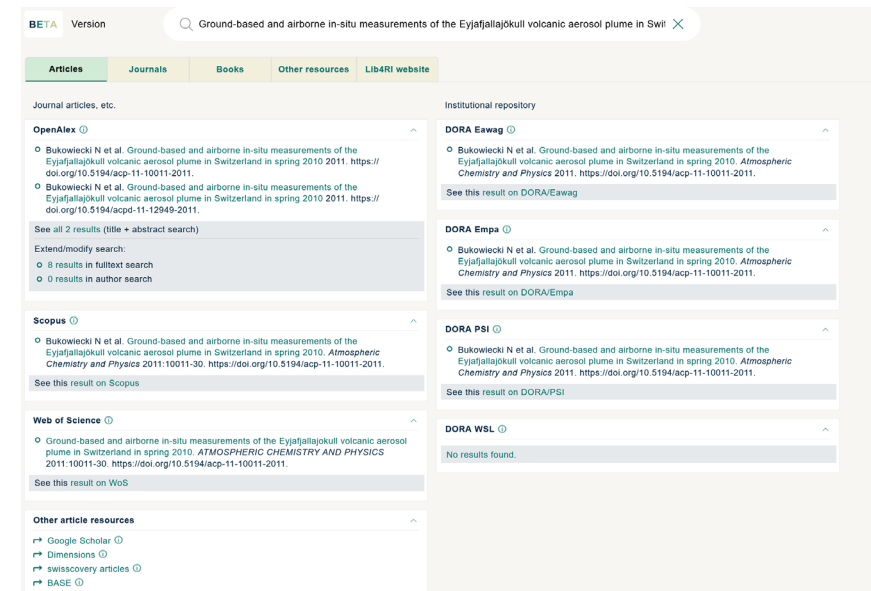
# Hands-On: Add literature

N. Bukowiecki *et al.*, **Ground-based and airborne in-situ measurements of the Eyjafjallajökull volcanic aerosol plume in Switzerland in spring 2010**, *Atmospheric Chemistry and Physics*, vol. 11, no. 19, pp. 10011–10030, Oct. 2011, doi: [10.5194/acp-11-10011-2011](https://doi.org/10.5194/acp-11-10011-2011).

## Task: Import to your Zotero library from

- Scopus
- Web of Science
- Google Scholar (directly from Google page, not through the link!)
- OpenAlex
- Zotero import wizard using the DOI number

- Can you detect any differences?



Hint: Get links directly via the Lib4RI search tool

## Metadata may differ between sources

- Google Scholar did not retrieve an abstract or DOI, but provides **author full names**
- Web of Science includes **keywords** (more: [support.clarivate.com](https://support.clarivate.com)), publication name is all caps
- Scopus provides **citation count** as note
- DOI import (via Crossref) provides **rights information – relevant for re-use and sharing!**  
See [lib4ri.ch/copyright-cc-licences](https://lib4ri.ch/copyright-cc-licences) for more information
- OpenAlex sometimes has messy metadata, but delivers results beyond articles

### Keep in mind:

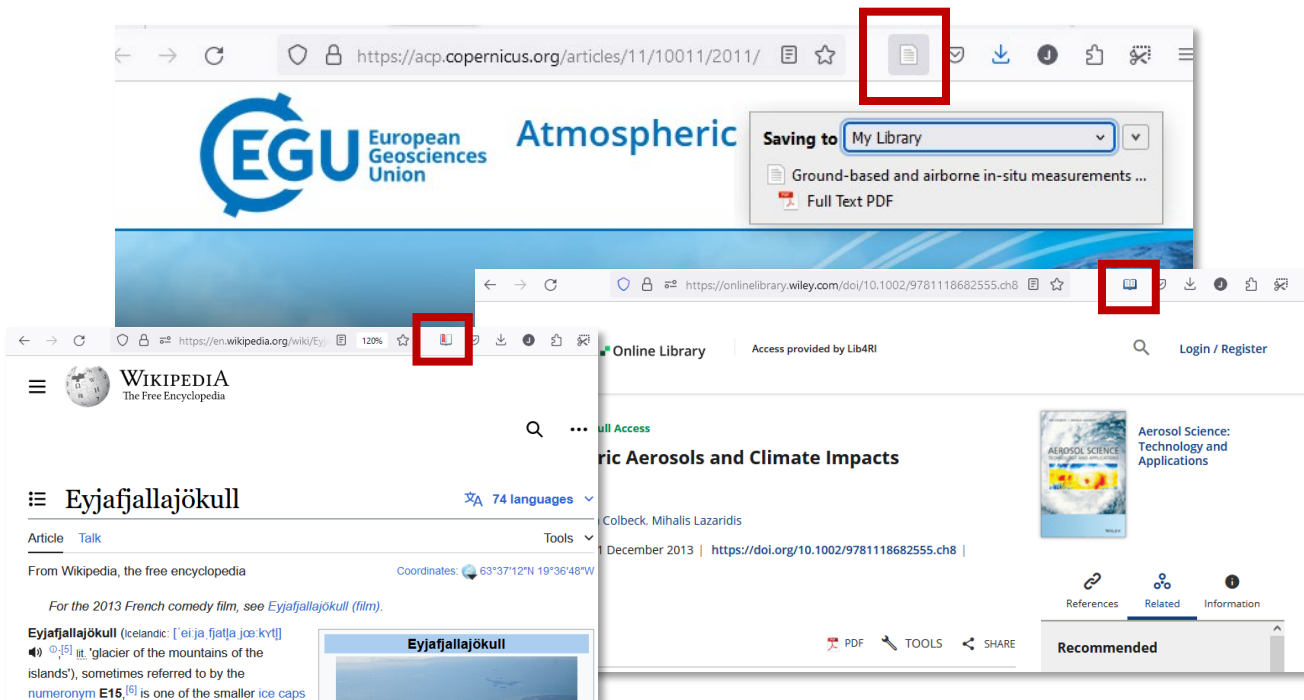
- Metadata can be incomplete
- Errors may happen, especially with third party sources
- Encoding or typesetting can be different (special characters, all caps...)

**Good news:** In general a minor problem and if necessary cleaning metadata is easy

| Type                                  |             |
|---------------------------------------|-------------|
| <input type="checkbox"/> article      | 203,900,000 |
| <input type="checkbox"/> book-chapter | 23,520,000  |
| <input type="checkbox"/> dataset      | 7,721,000   |
| <input type="checkbox"/> preprint     | 7,259,000   |
| <input type="checkbox"/> dissertation | 6,216,000   |
| More...                               |             |

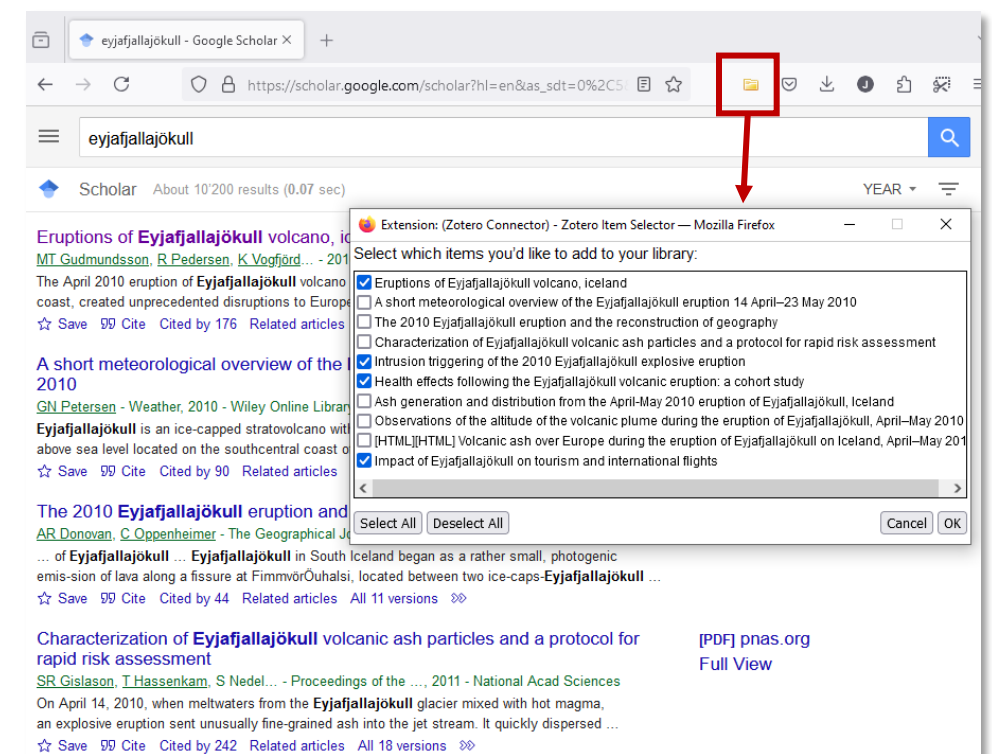
# Single import

- Only one item with metadata is available
- Various item types with different metadata entries



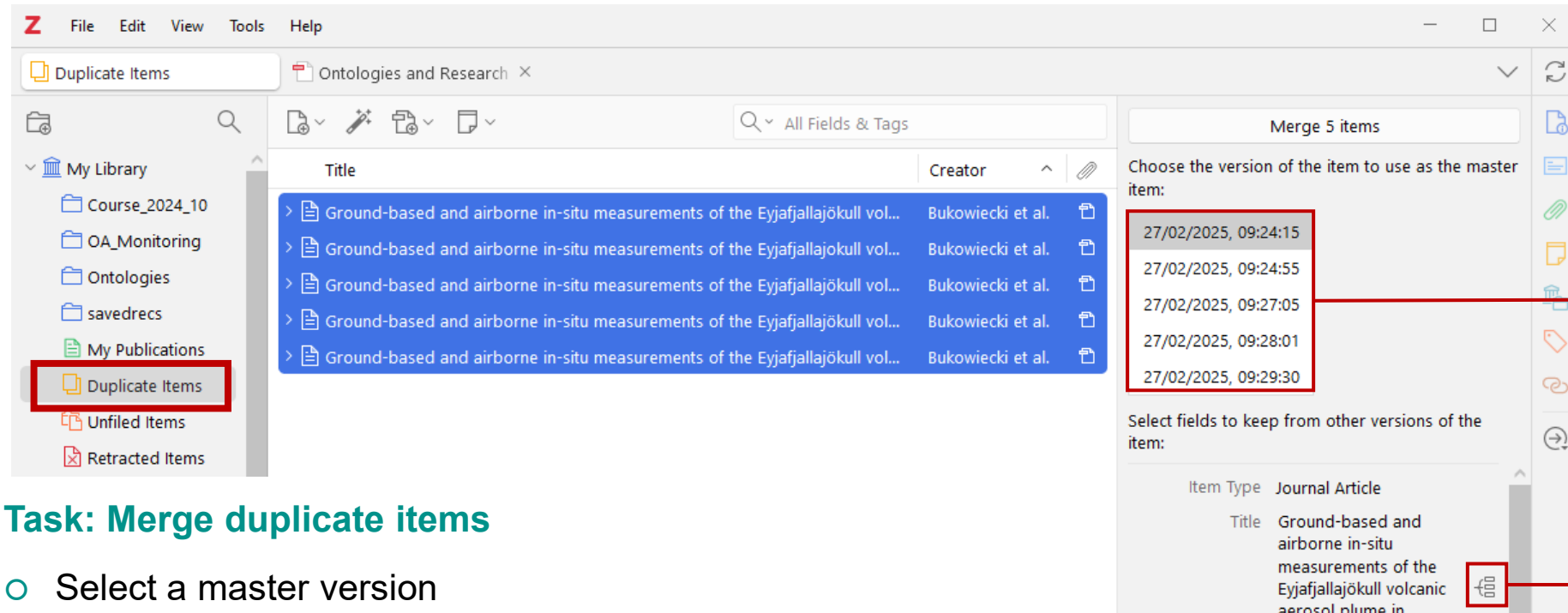
# Bulk import

- Several items with metadata are available
- Select the desired items



# Step 2: Organize your library

# Hands-On: Tidy-up your library



The screenshot shows the Zotero 'Duplicate Items' dialog box. The left sidebar has a red box around 'Duplicate Items'. The main list shows 5 duplicate items with the same title and creator. The 'Merge 5 items' button is highlighted. The 'Choose the version of the item to use as the master item:' section is highlighted, showing a list of timestamps. The 'Select fields to keep from other versions of the item:' section is highlighted, showing a list of fields for a 'Journal Article' type.

Master item  
defines all fields

Versions can be  
specified

## Task: Merge duplicate items

- Select a master version
- Specify field versions to include:
  - Author full names
  - Title with umlaut
  - Journal title is **not** all caps
  - Journal abbreviation
  - Rights information
  - DOI

# Notes on merging

## Current bug(?):

- Only shows *Info* to merge
- Depending on master version, abstract can be removed from metadata

## Matching:

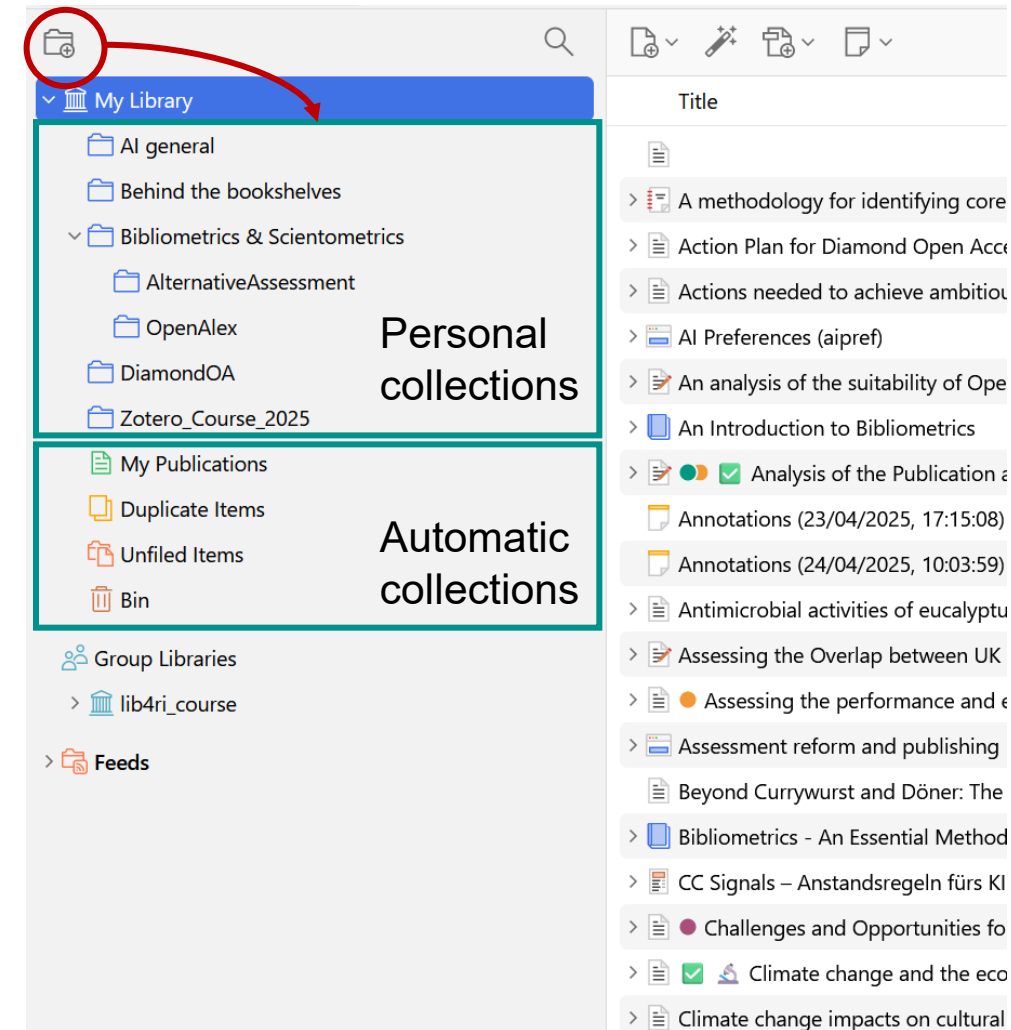
- Sometimes items are not recognized as duplicates (e.g. typos)
- Select items to be merged and right-click to enforce merging
- All items of the same type can be merged, e.g. journal article with journal article, but not book section

## Attachments remain after merging:

- Keywords and tags
- Notes
- In-text annotations are merged across PDFs

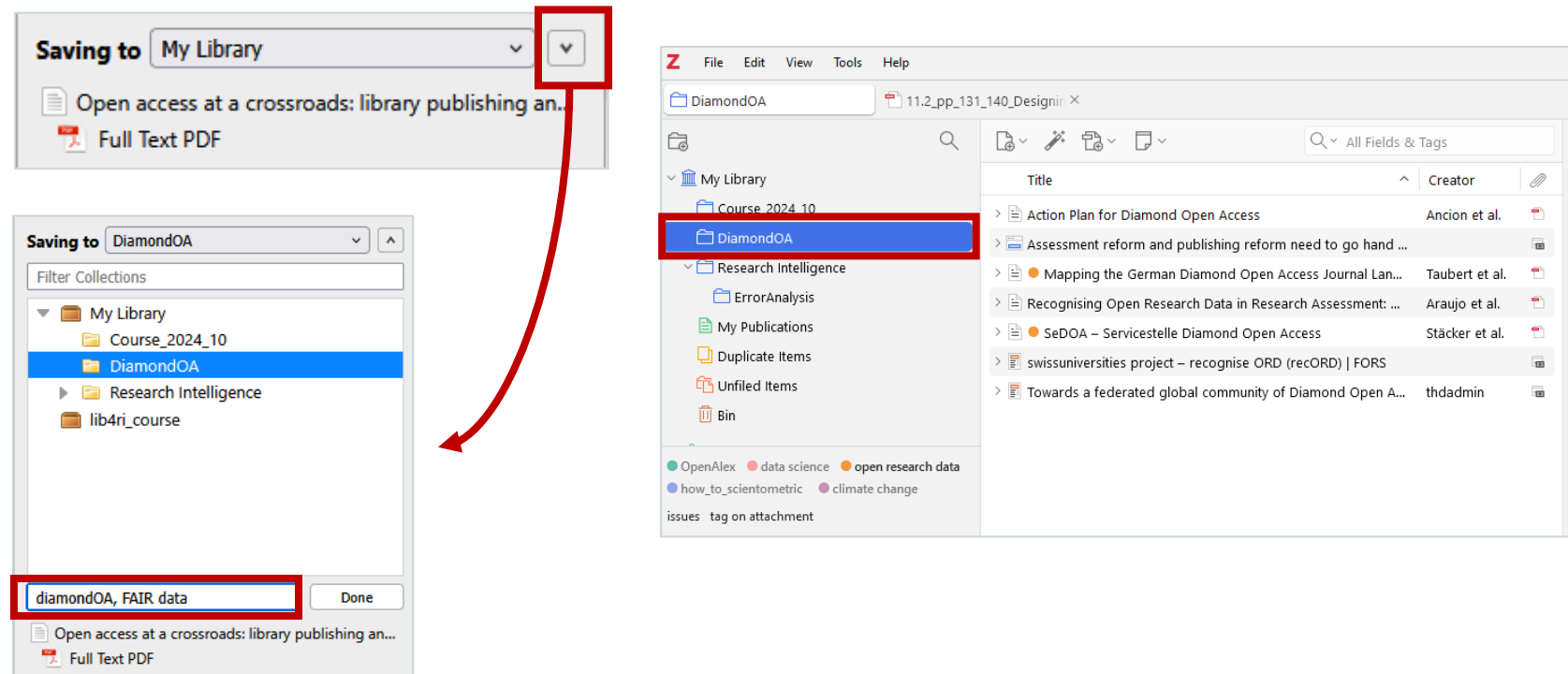
# Organizing your library

- Main and default: My Library
  - Cannot be deleted or renamed
  - Contains all items
- Organize items in personal collections
  - Drag & drop items to **copy** into any collection
  - Hold Shift (Win/Linux) or Cmd (Mac) to **move** items from one collection to another
- Automatic collections are created by Zotero
  - Add your own publications, if wanted
  - Unfiled items are not part of any collection
  - Retracted items spill a warning when you attempt to cite them (Information source: [retractionwatch.com](https://retractionwatch.com))



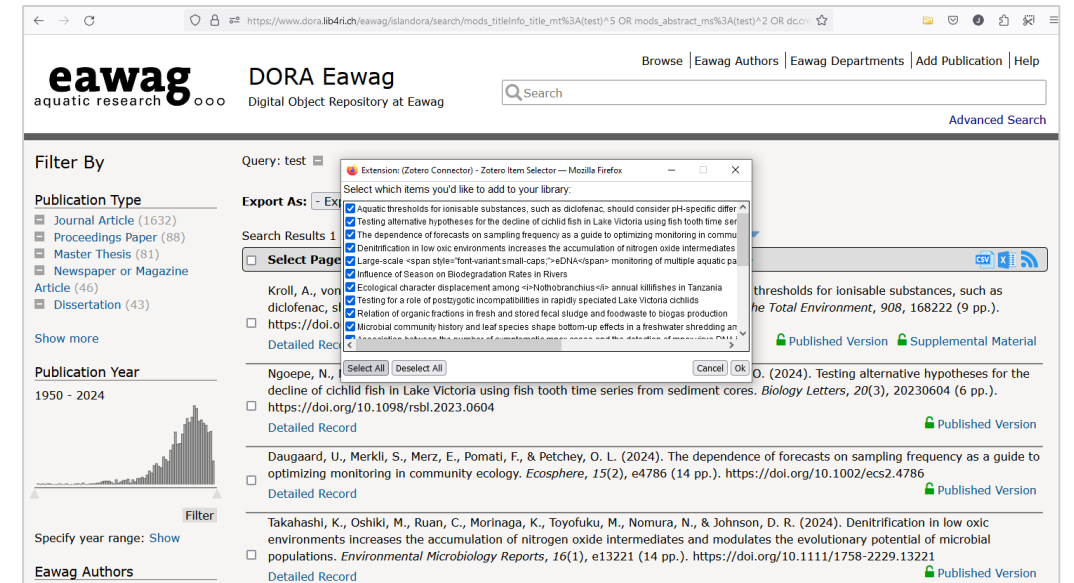
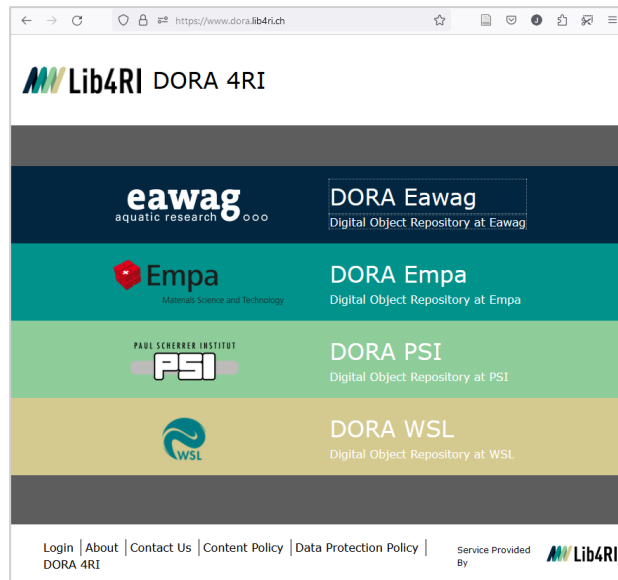
# Importing to collections

- Default: My Library
- Manually assign items to collections with the dropdown menu
- Select a specific collection to automatically assign items

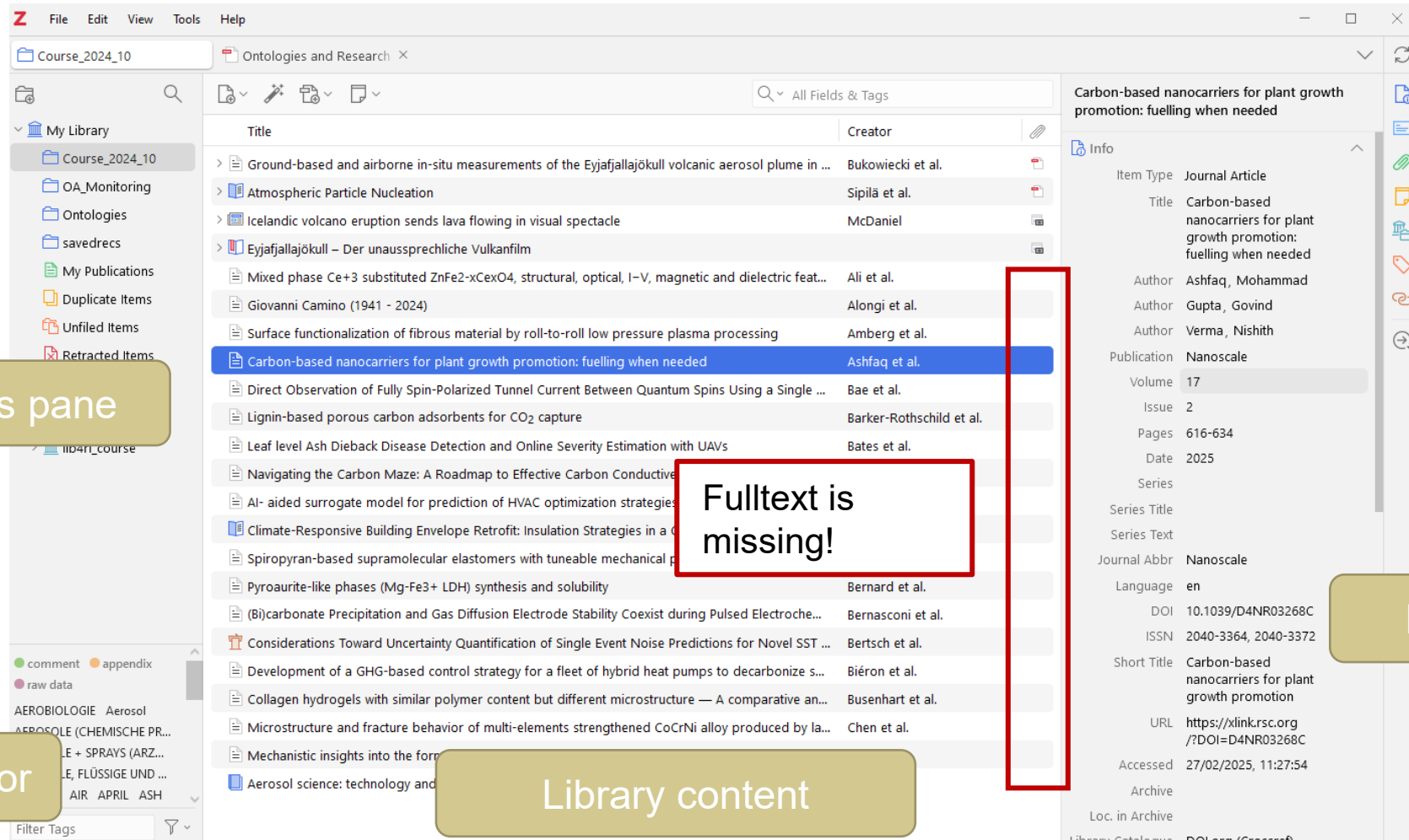


# Hands-on: Bulk import from DORA

- Create a collection “Zotero course”
- Go to [dora.lib4ri.ch](https://dora.lib4ri.ch) and search for a topic of your choice
- Import ten references after 2023 into the “Zotero course” collection



# Example library:



The screenshot displays the Zotero desktop application interface. On the left is the 'Collections pane' showing a tree view of the library structure, including 'My Library', 'Course\_2024\_10', 'OA\_Monitoring', 'Ontologies', 'savedrecs', 'My Publications', 'Duplicate Items', 'Unfiled Items', and 'Retracted Items'. The 'Course\_2024\_10' collection is selected. Below this is the 'Tag selector' showing various tags like 'comment', 'appendix', 'raw data', and 'AEROBIOLOGIE Aerosol'. The main area is the 'Library content' pane, which lists items with columns for 'Title' and 'Creator'. The item 'Carbon-based nanocarriers for plant growth promotion: fuelling when needed' by Ashfaq et al. is selected. A red box highlights the 'Fulltext is missing!' status for this item. On the right is the 'Item panes' section, which shows the 'Info' tab for the selected item, including details like 'Item Type: Journal Article', 'Title', 'Author', 'Publication', 'Volume', 'Issue', 'Pages', 'Date', 'Series', 'Journal Abbr', 'Language', 'DOI', 'ISSN', 'Short Title', 'URL', 'Accessed', 'Archive', and 'Loc. in Archive'.

| Title                                                                                                                         | Creator                  |
|-------------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Ground-based and airborne in-situ measurements of the Eyjafjallajökull volcanic aerosol plume in ...                          | Bukowiecki et al.        |
| Atmospheric Particle Nucleation                                                                                               | Sipilä et al.            |
| Icelandic volcano eruption sends lava flowing in visual spectacle                                                             | McDaniel                 |
| Eyjafjallajökull – Der unaussprechliche Vulkanfilm                                                                            |                          |
| Mixed phase Ce+3 substituted ZnFe <sub>2</sub> -xCeO <sub>4</sub> , structural, optical, I–V, magnetic and dielectric feat... | Ali et al.               |
| Giovanni Camino (1941 - 2024)                                                                                                 | Alongi et al.            |
| Surface functionalization of fibrous material by roll-to-roll low pressure plasma processing                                  | Amberg et al.            |
| Carbon-based nanocarriers for plant growth promotion: fuelling when needed                                                    | Ashfaq et al.            |
| Direct Observation of Fully Spin-Polarized Tunnel Current Between Quantum Spins Using a Single ...                            | Bae et al.               |
| Lignin-based porous carbon adsorbents for CO <sub>2</sub> capture                                                             | Barker-Rothschild et al. |
| Leaf level Ash Dieback Disease Detection and Online Severity Estimation with UAVs                                             | Bates et al.             |
| Navigating the Carbon Maze: A Roadmap to Effective Carbon Conductive                                                          |                          |
| AI- aided surrogate model for prediction of HVAC optimization strategies                                                      |                          |
| Climate-Responsive Building Envelope Retrofit: Insulation Strategies in a C                                                   |                          |
| Spiropyran-based supramolecular elastomers with tuneable mechanical p                                                         |                          |
| Pyroaurite-like phases (Mg-Fe <sub>3</sub> + LDH) synthesis and solubility                                                    | Bernard et al.           |
| (Bi)carbonate Precipitation and Gas Diffusion Electrode Stability Coexist during Pulsed Electroche...                         | Bernasconi et al.        |
| Considerations Toward Uncertainty Quantification of Single Event Noise Predictions for Novel SST ...                          | Bertsch et al.           |
| Development of a GHG-based control strategy for a fleet of hybrid heat pumps to decarbonize s...                              | Biéron et al.            |
| Collagen hydrogels with similar polymer content but different microstructure — A comparative an...                            | Busenhardt et al.        |
| Microstructure and fracture behavior of multi-elements strengthened CoCrNi alloy produced by la...                            | Chen et al.              |
| Mechanistic insights into the form                                                                                            |                          |
| Aerosol science: technology and                                                                                               |                          |

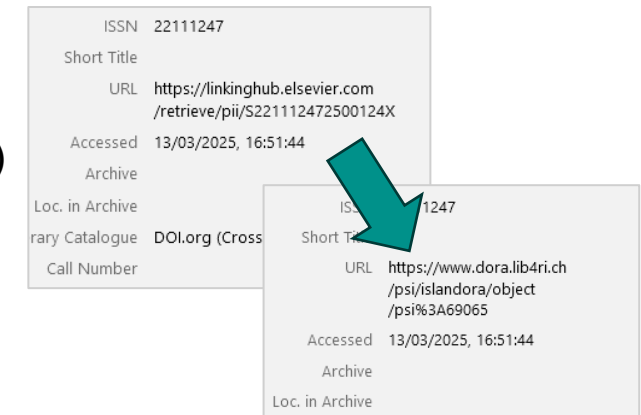
| Item Type         | Journal Article                                                            |
|-------------------|----------------------------------------------------------------------------|
| Title             | Carbon-based nanocarriers for plant growth promotion: fuelling when needed |
| Author            | Ashfaq, Mohammad                                                           |
| Author            | Gupta, Govind                                                              |
| Author            | Verma, Nishith                                                             |
| Publication       | Nanoscale                                                                  |
| Volume            | 17                                                                         |
| Issue             | 2                                                                          |
| Pages             | 616-634                                                                    |
| Date              | 2025                                                                       |
| Series            |                                                                            |
| Series Title      |                                                                            |
| Series Text       |                                                                            |
| Journal Abbr      | Nanoscale                                                                  |
| Language          | en                                                                         |
| DOI               | 10.1039/D4NR03268C                                                         |
| ISSN              | 2040-3364, 2040-3372                                                       |
| Short Title       | Carbon-based nanocarriers for plant growth promotion                       |
| URL               | https://xlink.rsc.org/?DOI=D4NR03268C                                      |
| Accessed          | 27/02/2025, 11:27:54                                                       |
| Archive           |                                                                            |
| Loc. in Archive   |                                                                            |
| Library Catalogue | DOI.org (Crossref)                                                         |

# Retrieve missing full text

- **Solution I:** Right-click for context menu -> Find available PDFs

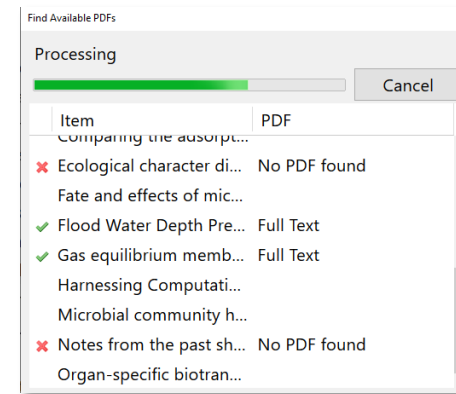
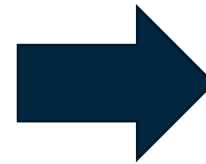
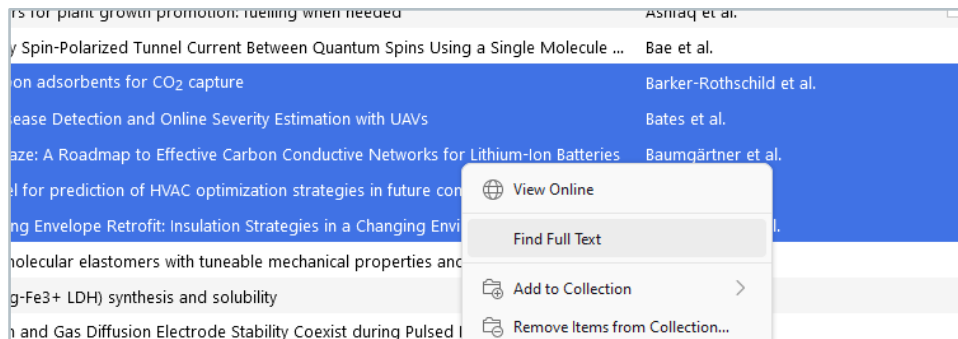


- **Solution II:** Retrieve PDF from source and attach via drag & drop
- **Solution III:** Change the URL in metadata to open repository (e.g. DORA)
- **Tip:** No chance to retrieve the PDF?  
Get in touch with the [Lib4RI document delivery service!](#)

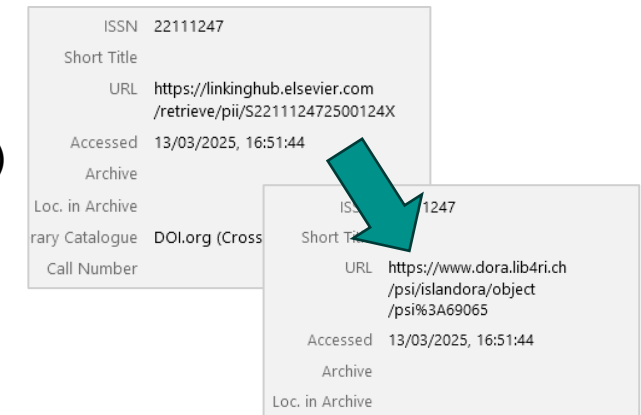


# Retrieve missing full text

- **Solution I:** Right-click for context menu -> Find available PDFs

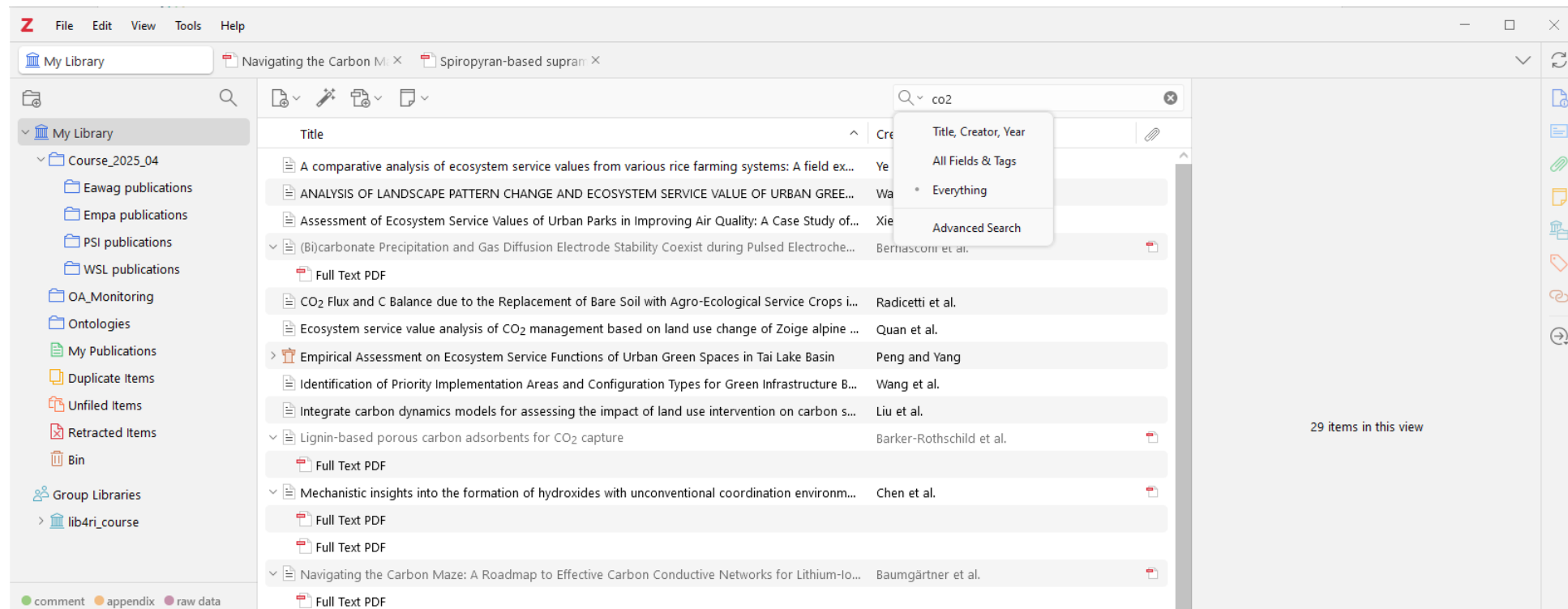


- **Solution II:** Retrieve PDF from source and attach via drag & drop
- **Solution III:** Change the URL in metadata to open repository (e.g. DORA)
- **Tip:** No chance to retrieve the PDF?  
Get in touch with the [Lib4RI document delivery service!](#)



# Finding items – Quick search

- Default: Search all fields and tags
- Refine or extend the quick search in the dropdown menu

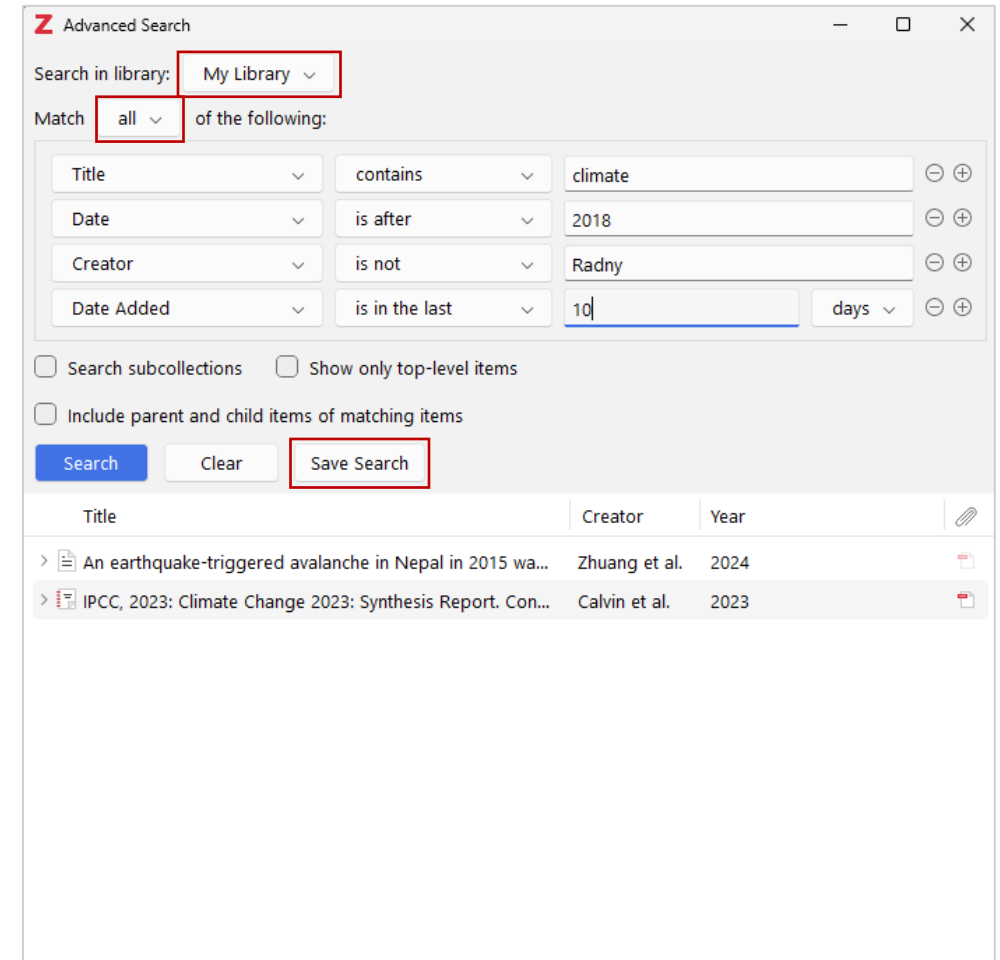


# Finding items – Advanced search

- Can be refined, e.g. for papers lately added (date added in the last xx days)
- Match all of the definitions or any (analogous to OR and AND)
- Results of the advanced search can be saved and will appear like a regular collection

## Hands-on:

- Create a collection from advanced search based on three conditions of your choice



**Z Advanced Search**

Search in library: **My Library** ▼

Match **all** ▼ of the following:

|              |                  |         |            |
|--------------|------------------|---------|------------|
| Title ▼      | contains ▼       | climate | ⊖ ⊕        |
| Date ▼       | is after ▼       | 2018    | ⊖ ⊕        |
| Creator ▼    | is not ▼         | Radny   | ⊖ ⊕        |
| Date Added ▼ | is in the last ▼ | 10      | days ▼ ⊖ ⊕ |

☐ Search subcollections
 ☐ Show only top-level items

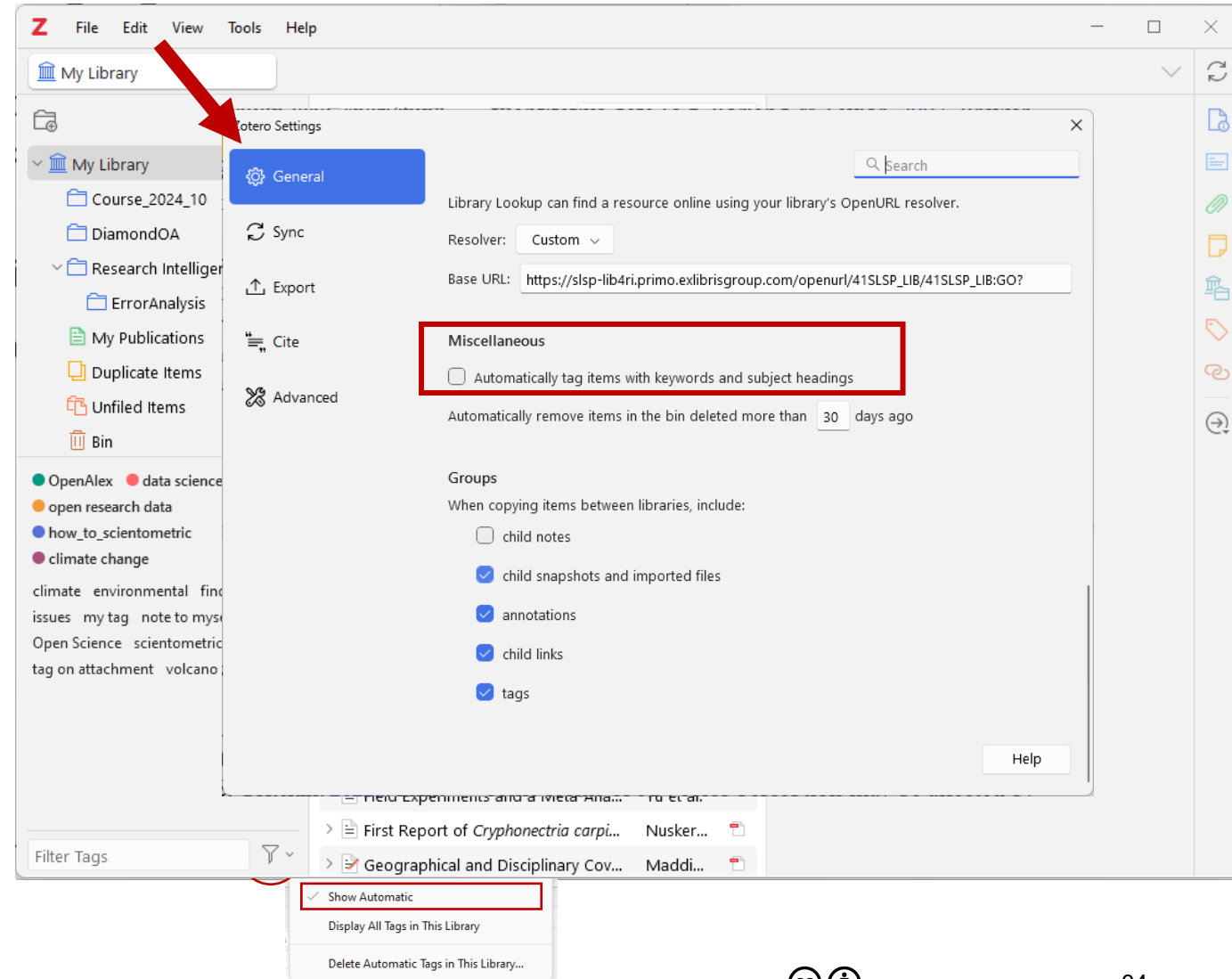
☐ Include parent and child items of matching items

Search Clear **Save Search**

| Title                                                              | Creator       | Year |        |
|--------------------------------------------------------------------|---------------|------|--------|
| > [icon] An earthquake-triggered avalanche in Nepal in 2015 wa...  | Zhuang et al. | 2024 | [icon] |
| > [icon] IPCC, 2023: Climate Change 2023: Synthesis Report. Con... | Calvin et al. | 2023 | [icon] |

# Finding items – Tags

- Create individual tags that fit your personal workflow or categorization
- Up to nine important tags can be assigned with a colour
- Library can be filtered for tags
- Tags are case sensitive!
- **Solution I:** Uncheck “show automatic”
- **Solution II:** Permanently disable auto-tagging: *Edit > Settings > General > Miscellaneous*



# Step 3: Read, annotate, summarize

# Document reader

- Works with most attachment types, incl. snapshots
- Document outline and search in text
- Cross-references (citations, tables, figures...)
- Mark sections to create annotations
- Tags and comments can be added to any annotation

The screenshot displays the Document Reader application. The main window shows a document titled 'Vertical distribution of microplastics in soil'. The text discusses the effect of microplastic concentration on plant growth, mentioning 'Allium' and 'Rillig et al. (2019c)'. A red box highlights a section of text: 'the shoot and root mass of spring onions may be among those not affected by 0.4 % PES under...'. A sidebar on the left shows a list of annotations and comments, including 'The shoot and root mass of spring onions may be among those not affected by 0.4 % PES under...', 'speak to XYZ about this!', 'note to myself', and 'Even though a significant difference was observed between the homogeneous treatment and Het 3 this is my own comment on the underlined text part'. A red box also highlights the 'my tag' and 'note to myself' buttons at the bottom of the sidebar.

the total biomass of spring onions when subjected to 0.2 % PES micro- however stating that the change was with in the belowground bulb. [Lehmann](#) crease in shoot and root mass in *Allium* S microfibers compared to the control. d and the source of microplastics differ, [vzano and Rillig \(2022\)](#) also tested the plants and stated that the effect might [sanayake et al. \(2022\)](#) confirmed that on species, soil, and microplastic prop- further emphasized that the impact on influenced by contamination, soil, and f spring onions may be among those not ogeous distribution. However, under MPs, they seem to show a different el of MP heterogeneity. The reason no nogeneous treatment, but a trend was : due to the higher MP concentration in hesized effect pathways of a possible unges in soil structure and bulk density al. (2019a) indicated that fibers might soil structure. Even though the mecha- bers may integrate into soil aggregates bers also may act as 'spacers' leading to ing root growth ([Rillig et al., 2019c](#)). e due to change in soil structure, which tion of MPs in the top layers, as MP s higher in heterogeneous treatments s one. However, since a trend was

the first three weeks of the experiment is visible in Figure S1(a); now- ever, no significant difference or trend was observed at the end of the three weeks or after two months, at the conclusion of the experiment (Table S4).

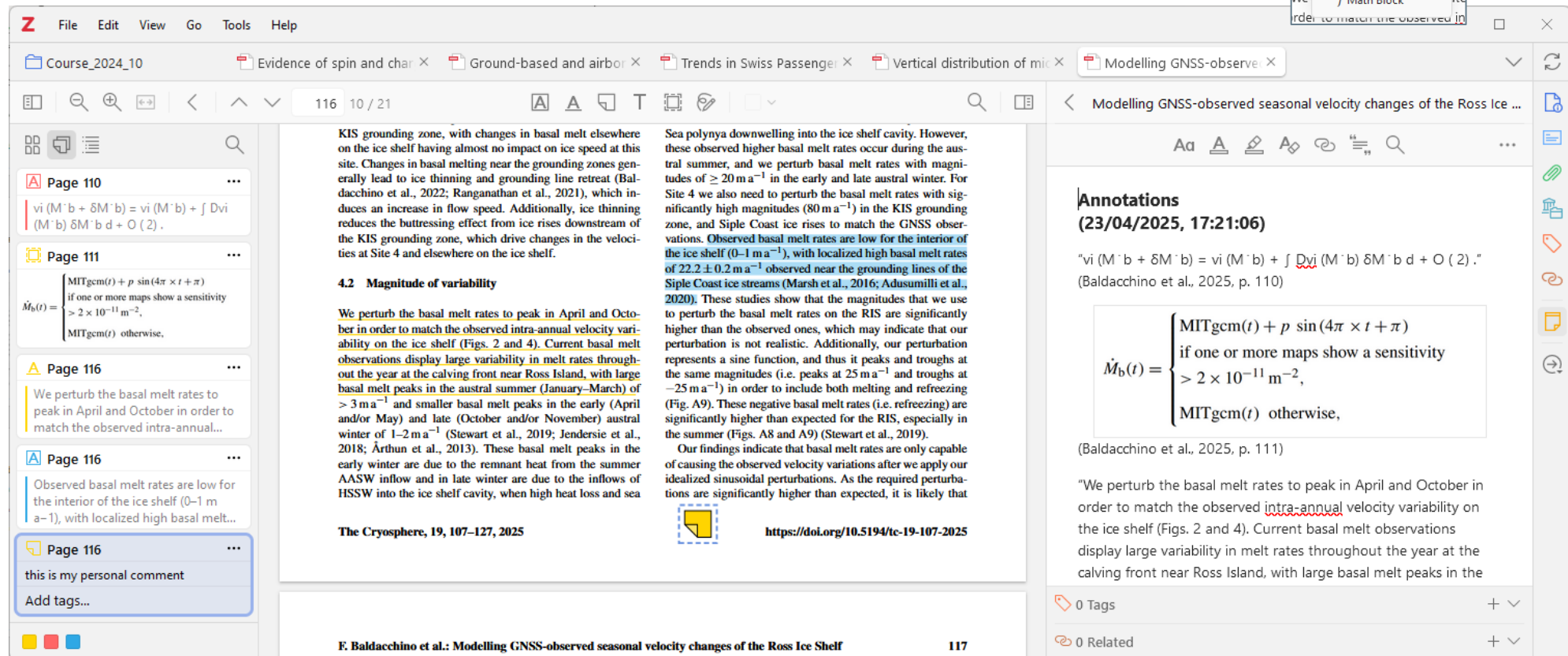
Carbon and nitrogen are essential for plants to perform routine and fundamental cellular activities. Therefore, maintaining an appropriate balance or ratio of these nutrients is crucial from a metabolic perspective ([Zheng, 2009](#)). The C:N ratio of the shoot of control treatment was found higher than in the homogeneous treatment, when there was no-drought conditions simulated, while no difference was found between homo- geneous treatment and Het 1 and Het 2, supporting the fact that the dis- tribution of MPs in soil may have a different impact on plant responses. Even though a significant difference was observed between the homo- geneous treatment and Het 3, this is because the homogeneous treat- ment has much lower C:N ratio. The C:N ratio of Het 3 is nearly the same as the control. This may be due to the fact that the plant may have adjusted or recovered after it reached the lower layers of soil, which has no MPs, while in the homogeneous treatment, this shift was not possible even though the MP concentration is lower in the top layer.

4.2. Responses under drought; effect of level of MP heterogeneity under drought conditions

For shoot mass under drought conditions, a significant increase was observed in all heterogeneous treatments (Het 1, Het 2, Het 3) compared to the homogeneous treatment under drought conditions (Table 1, Fig. 1A; drought conditions). The exacerbated effect; which was not visible under no-drought conditions, may be due to the increase in the number of factors, even though the tested factors do not have a

# Mark-down notes from annotations

- All annotations can be collected into one item note



The screenshot shows the Zotero browser extension interface. The main window displays a document titled "Modelling GNSS-observed seasonal velocity changes of the Ross Ice Shelf". The document content includes text about ice shelf grounding zones and a section titled "4.2 Magnitude of variability". A sidebar on the left lists pages 110, 111, 116, and 117. A red box highlights the "Annotations" section in the sidebar, which shows a list of annotations for page 116. The annotations include a mathematical equation for  $\dot{M}_b(t)$  and a paragraph of text. The document also includes a DOI link: <https://doi.org/10.5194/tc-19-107-2025>.

**Annotations (23/04/2025, 17:21:06)**

"vi (M' b + δM' b) = vi (M' b) + ∫ Dvi (M' b) δM' b d + O (2) ."

(Baldacchino et al., 2025, p. 110)

$$\dot{M}_b(t) = \begin{cases} \text{MITgcm}(t) + p \sin(4\pi \times t + \pi) & \text{if one or more maps show a sensitivity} \\ > 2 \times 10^{-11} \text{ m}^{-2}, \\ \text{MITgcm}(t) & \text{otherwise,} \end{cases}$$

(Baldacchino et al., 2025, p. 111)

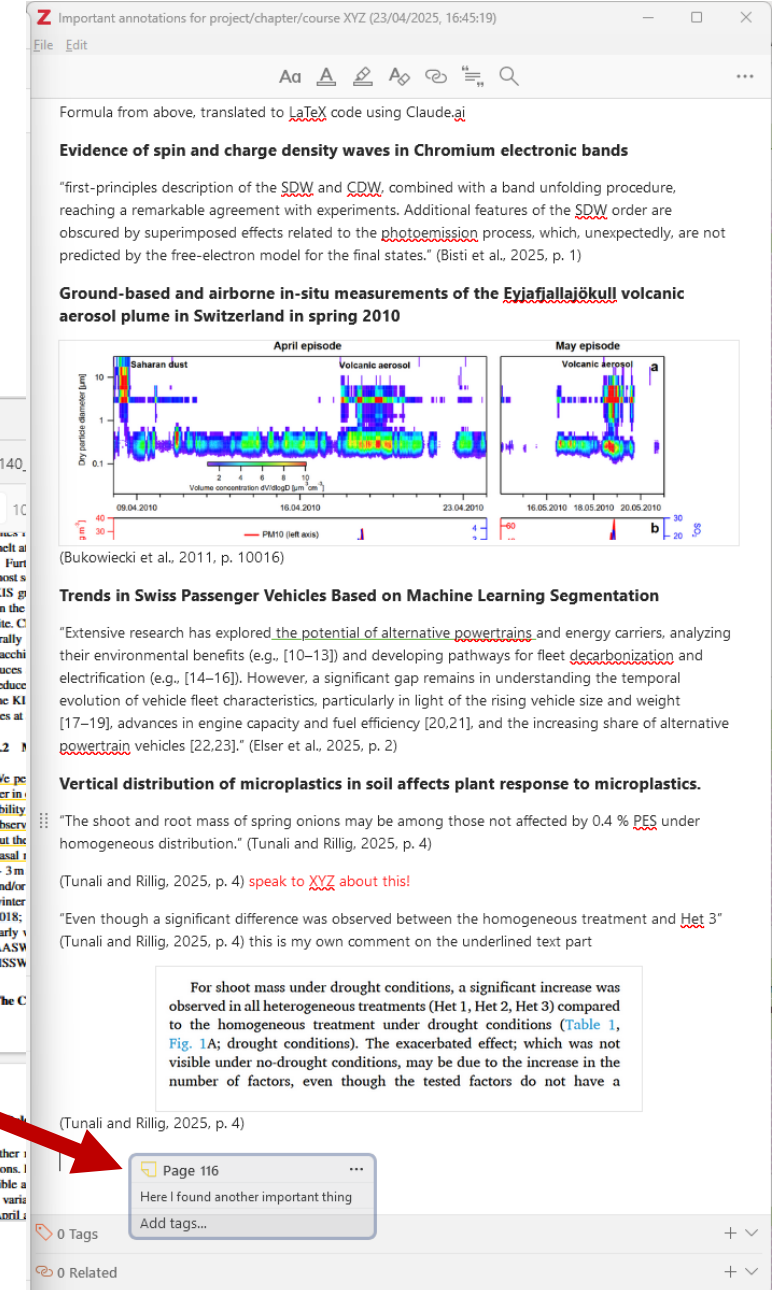
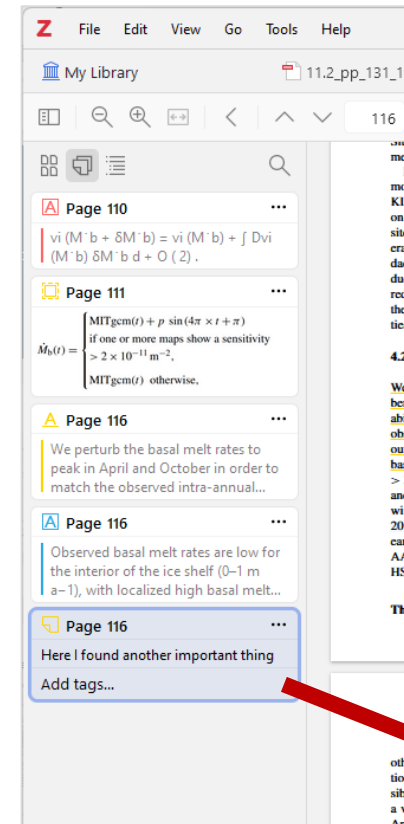
"We perturb the basal melt rates to peak in April and October in order to match the observed intra-annual velocity variability on the ice shelf (Figs. 2 and 4). Current basal melt observations display large variability in melt rates throughout the year at the calving front near Ross Island, with large basal melt peaks in the

0 Tags +

0 Related +

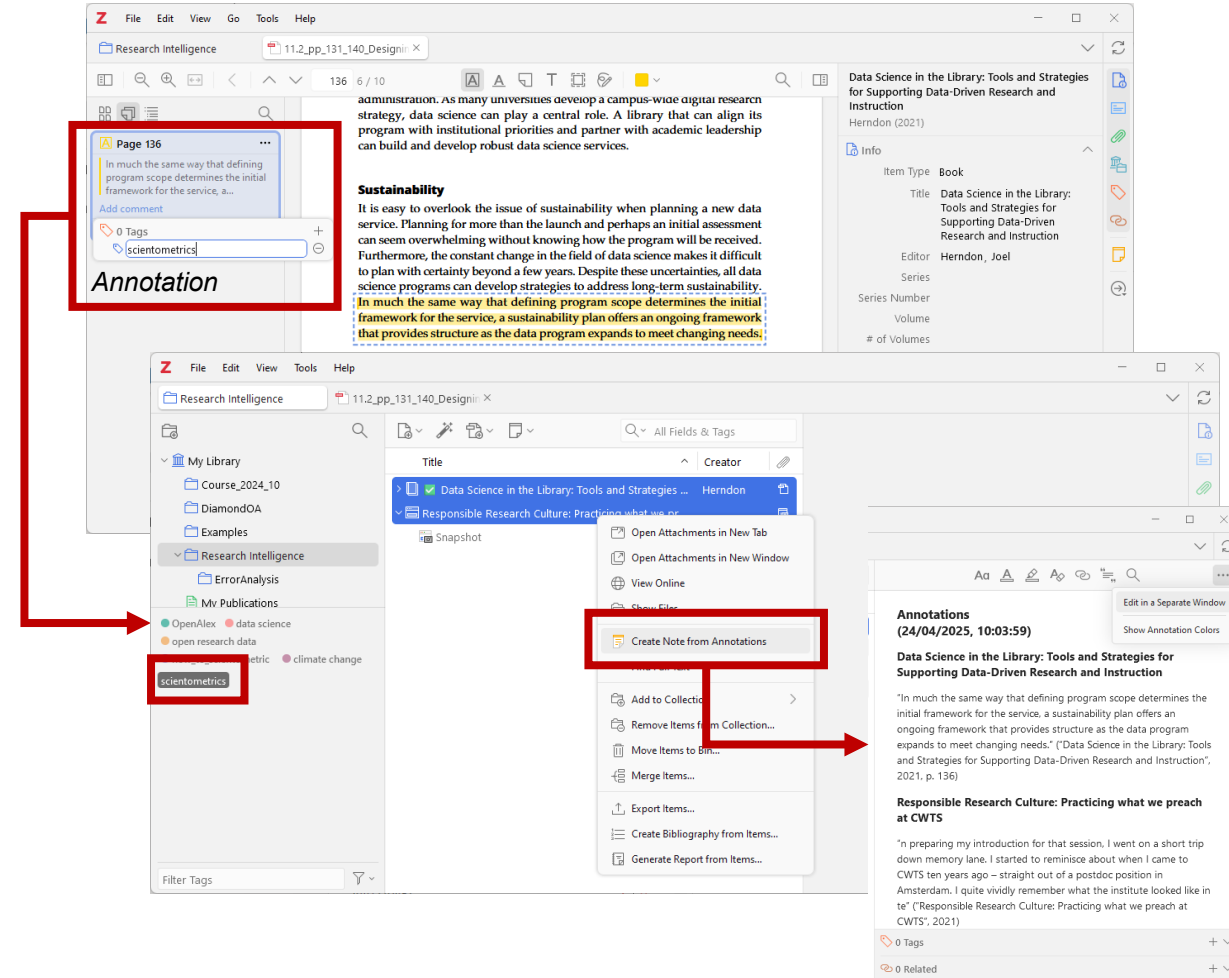
# Mark-down notes from annotations

- All annotations can be collected into one item note
- Works across documents, i.e. selected items, collections or entire library
- All notes have a reference and link to the exact position of the annotation
- Use it in a separate window by clicking “...” to work in other documents in parallel
- Drag and drop new annotations
- Saves great amount of time (and nerves) to find important passages again



# Hands-on: Create a summary on a topic of your choice

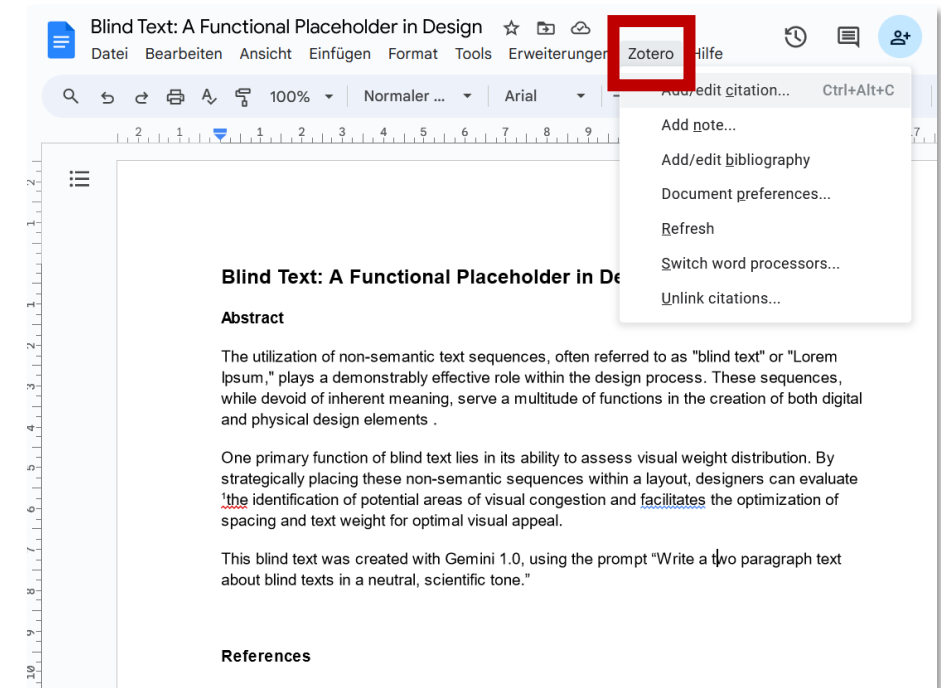
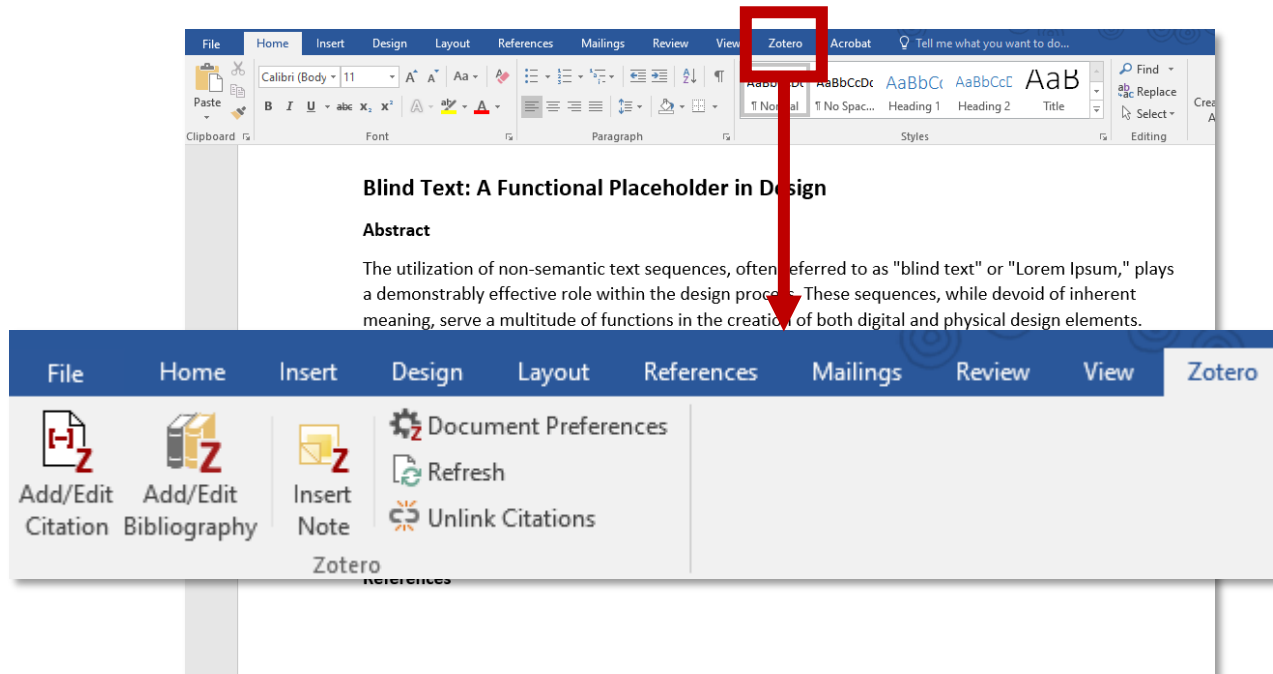
- In your course collection, add some annotations to two or more PDFs
- Select all items in the collection, and right-click to **“Create note from annotations”**
- Open the annotation file in a **separate window**
- Create a new annotation in any PDF and **add it via drag & drop**
- Time left? Play a bit with formatting!



# Step 4: Cite-while-you-write

# Hands-on: Cite-while-you-write

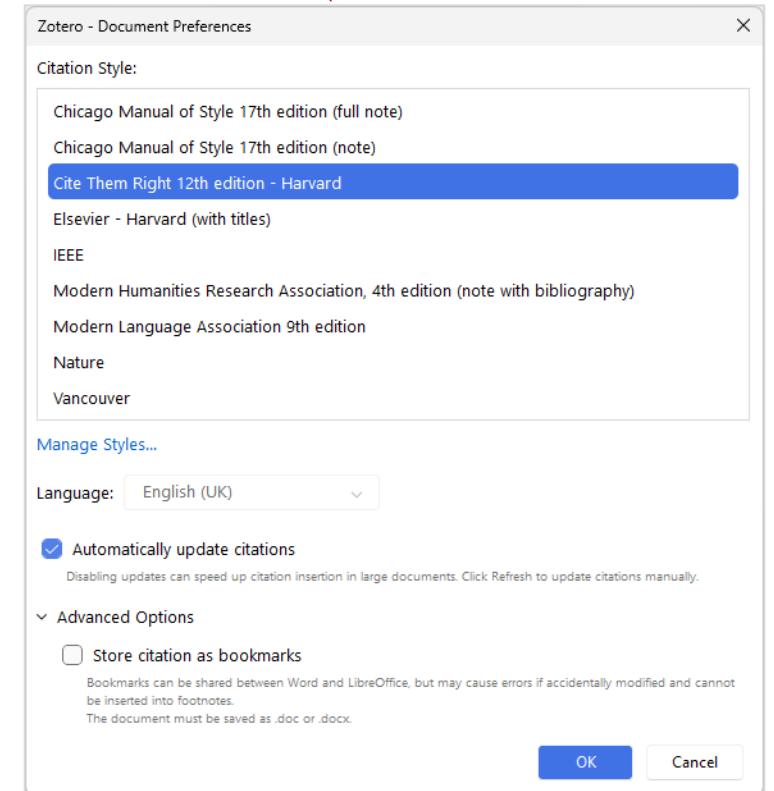
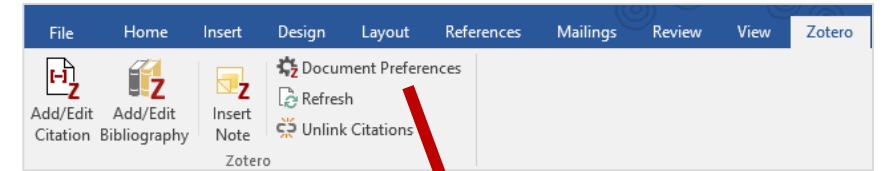
Task: Create a document with a few sentences of text\*



\*Get blindtext e.g. from [blindtextgenerator.org](https://blindtextgenerator.org) or generative LLMs

# Document preferences

- Citation style is defined in the document preferences
- Styles can be changed according to your needs at any time



of various design elements. This objective assessment allows for the identification of potential areas of visual congestion and facilitates the optimization of spacing and text weight for optimal visual appeal.

This blind text was created with Gemini 1.0, using the prompt "Write a two paragraph text about blind texts in a neutral, scientific ton" 1.

## References

1. Abel, V. & Bebel, W. Title of a Lorem Ipsum example reference. *J Blind Text Appr* 1, (2035).

Nature

of various design elements. This objective assessment allows for the identification of potential areas of visual congestion and facilitates the optimization of spacing and text weight for optimal visual appeal.

This blind text was created with Gemini 1.0, using the prompt "Write a two paragraph text about blind texts in a neutral, scientific ton" (Abel and Bebel, 2035).

## References

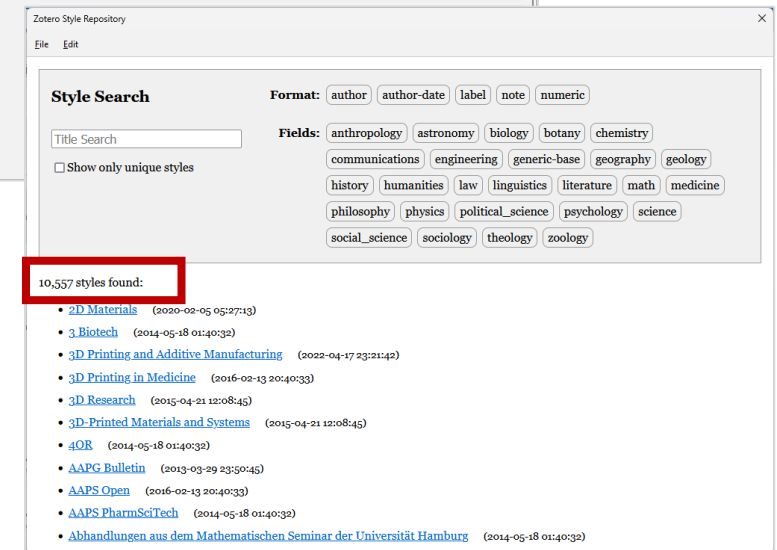
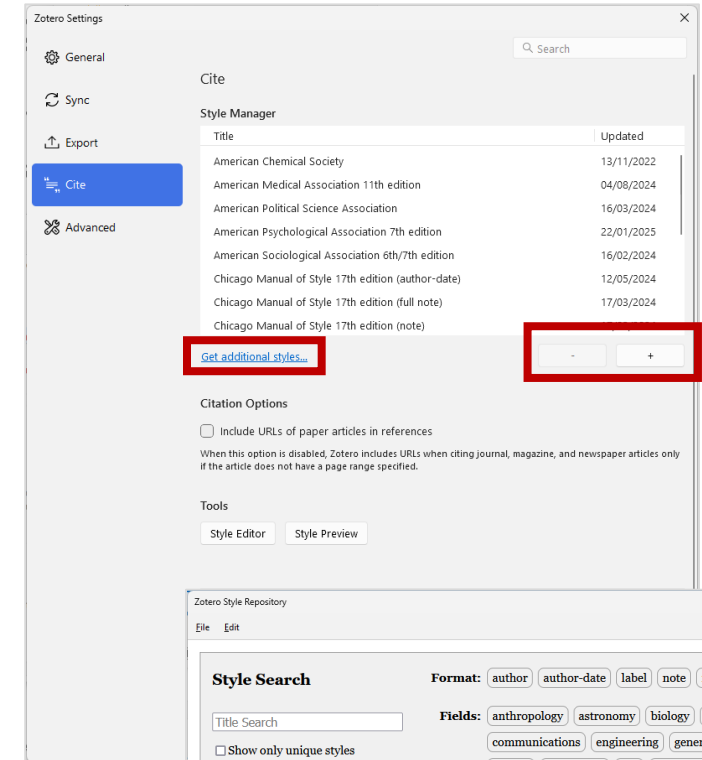
- Abel, V., Bebel, W., 2035. Title of a Lorem Ipsum example reference. *J Blind Text Appr* 1.  
<https://doi.org/10.1093/XXXX>

VS.

Elsevier - Harvard

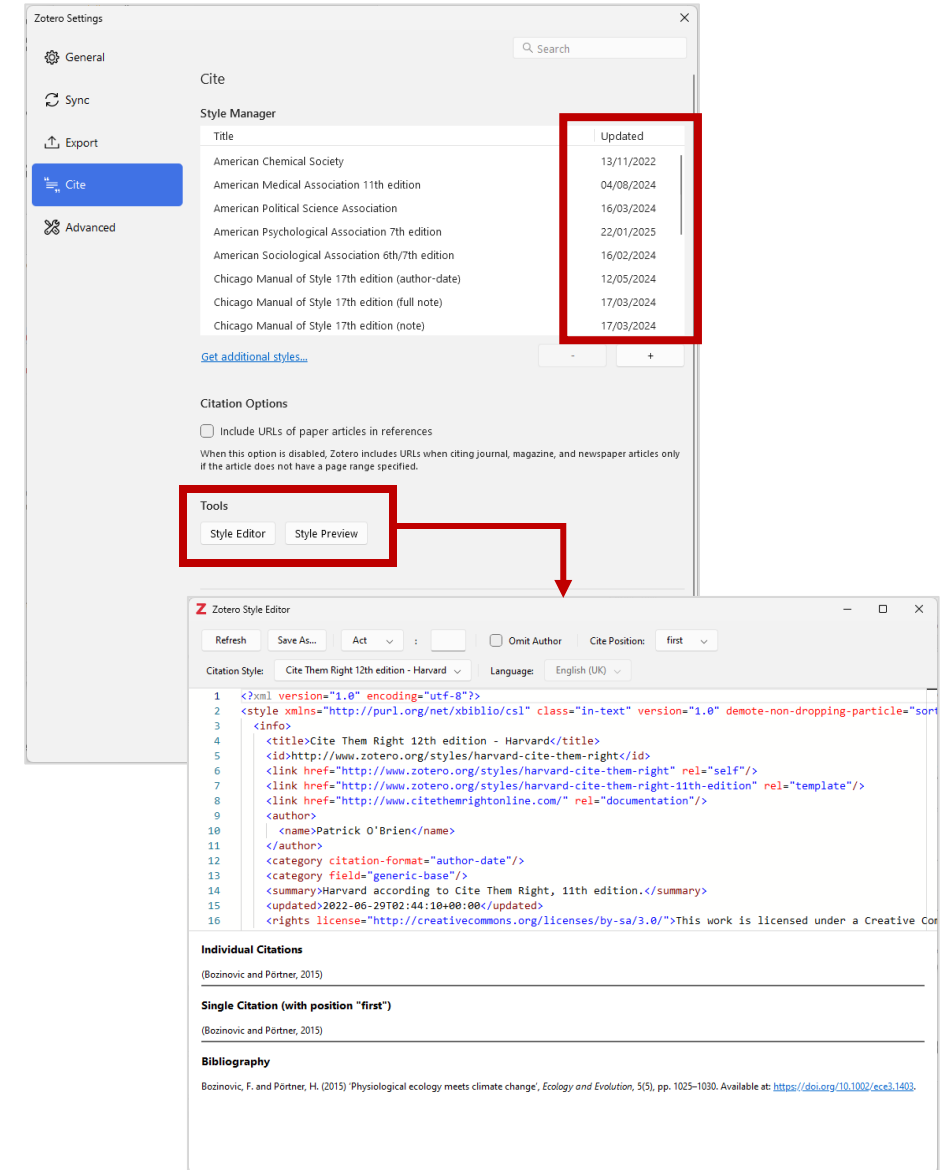
# Manage citation styles

- Customise your style list: *Edit > Settings > Cite*
- More styles are available in the repository



# Manage citation styles

- Customise your style list: *Edit > Settings > Cite*
- More styles are available in the repository
- **Always cross-check if the style you choose fits the journal's current demands!**
- Styles might be outdated, especially for very small journals
- You can adapt a style if necessary in the style editor (XML knowledge required)



The image shows two screenshots from the Zotero application. The top screenshot is the 'Zotero Settings' window, specifically the 'Cite' tab. It displays a list of citation styles in the 'Style Manager'. A red box highlights the 'Updated' column, showing dates for various styles. Below the list, there are 'Citation Options' and a 'Tools' section with 'Style Editor' and 'Style Preview' buttons. A red arrow points from the 'Style Editor' button to the bottom screenshot. The bottom screenshot is the 'Zotero Style Editor' window. It shows the XML code for a citation style, with a red box highlighting the 'Style Editor' button in the top left. The XML code is displayed in a text area, and the bottom section shows the resulting citation format for a single citation and a bibliography.

**Zotero Settings - Cite Tab**

| Title                                              | Updated    |
|----------------------------------------------------|------------|
| American Chemical Society                          | 13/11/2022 |
| American Medical Association 11th edition          | 04/08/2024 |
| American Political Science Association             | 16/03/2024 |
| American Psychological Association 7th edition     | 22/01/2025 |
| American Sociological Association 6th/7th edition  | 16/02/2024 |
| Chicago Manual of Style 17th edition (author-date) | 12/05/2024 |
| Chicago Manual of Style 17th edition (full note)   | 17/03/2024 |
| Chicago Manual of Style 17th edition (note)        | 17/03/2024 |

**Zotero Style Editor**

Refresh Save As... Act : Omit Author Cite Position: first

Citation Style: Cite Them Right 12th edition - Harvard Language: English (UK)

```

1 <?xml version="1.0" encoding="utf-8"?>
2 <style xmlns="http://purl.org/net/xbiblio/csl" class="in-text" version="1.0" demote-non-dropping-particle="sort"
3   <info>
4     <title>Cite Them Right 12th edition - Harvard</title>
5     <id>http://www.zotero.org/styles/harvard-cite-them-right</id>
6     <link href="http://www.zotero.org/styles/harvard-cite-them-right" rel="self" />
7     <link href="http://www.zotero.org/styles/harvard-cite-them-right-11th-edition" rel="template" />
8     <link href="http://www.citethemrightonline.com/" rel="documentation" />
9     <author>
10      <name>Patrick O'Brien</name>
11    </author>
12    <category citation-format="author-date" />
13    <category field="generic-base" />
14    <summary>Harvard according to Cite Them Right, 11th edition.</summary>
15    <updated>2022-06-29T02:44:10+00:00</updated>
16    <rights license="http://creativecommons.org/licenses/by-sa/3.0/">This work is licensed under a Creative Commons

```

**Individual Citations**

(Bozinovic and Pörtner, 2015)

**Single Citation (with position "first")**

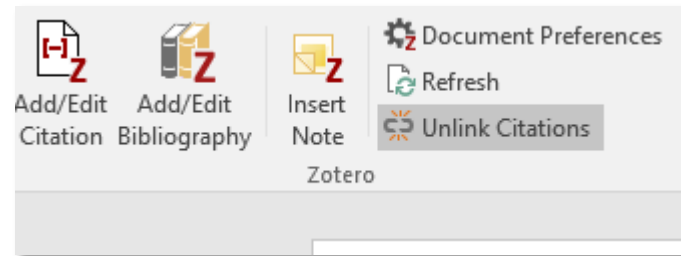
(Bozinovic and Pörtner, 2015)

**Bibliography**

Bozinovic, F. and Pörtner, H. (2015) 'Physiological ecology meets climate change', *Ecology and Evolution*, 5(5), pp. 1025-1030. Available at: <https://doi.org/10.1002/ece3.1403>.

# Unlinking citations

- Unlink citations to submit a flat file without field code
- **Caution!** Unlinking cannot be reversed\* and there is no auto-update anymore!
- Zotero recommends to unlink citations only in a copy of your work file:  
*final\_draft\_reviewed\_lastchanges\_V7b.docx* -> *publicationtitle\_ready\_for\_submission.docx*

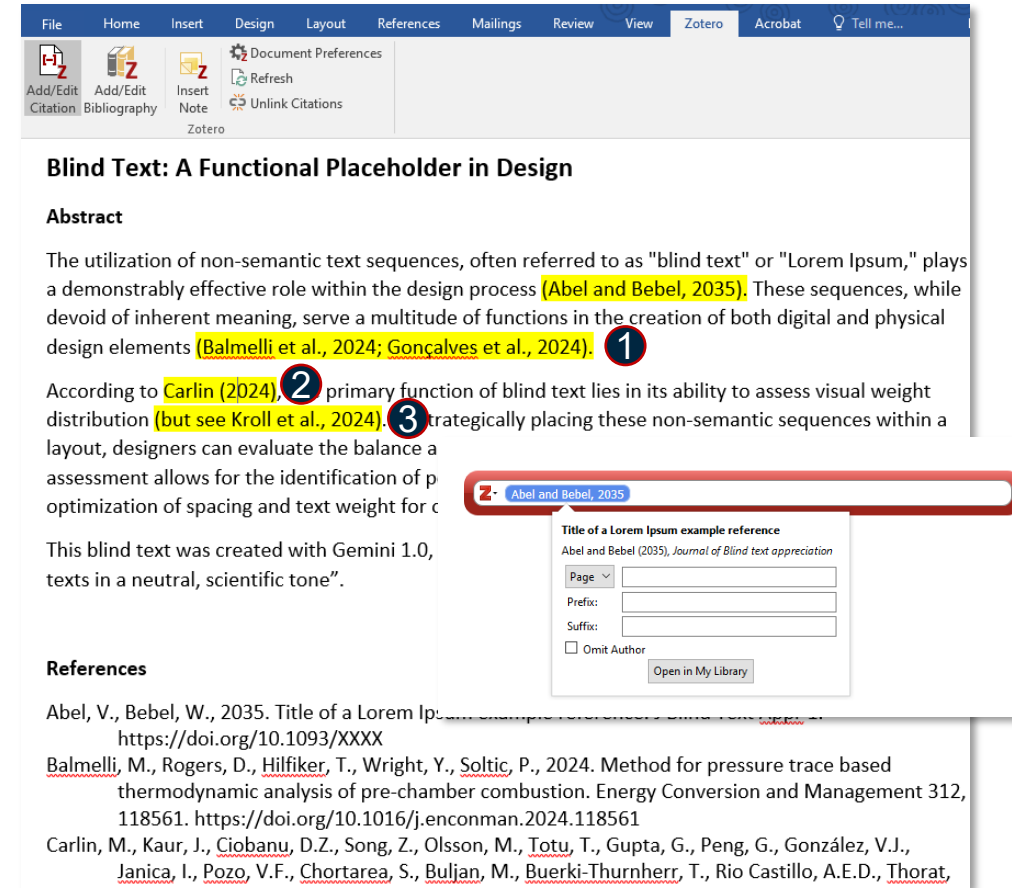


\*Clicked by accident and ignored the warning? Unless the document was closed and re-opened, Ctrl+Z (Win/Linux) or Cmd+Z (Mac) will help.

# Hands-on: Adding references

## Task: Add and edit references

- Add some random citations in your document
- Add the bibliography at the end of your document
- Edit some citations by placing your cursor into the citation and click Add/Edit Citation:
  - Add another reference into a citation
  - Change a citation from parenthetical to narrative: *(Author, Year)* -> *Author (Year)*
    - Click the reference in the format window
    - Check «omit author» and write their name by hand
  - Add the prefix “but see”
- Unlink all citations in the end

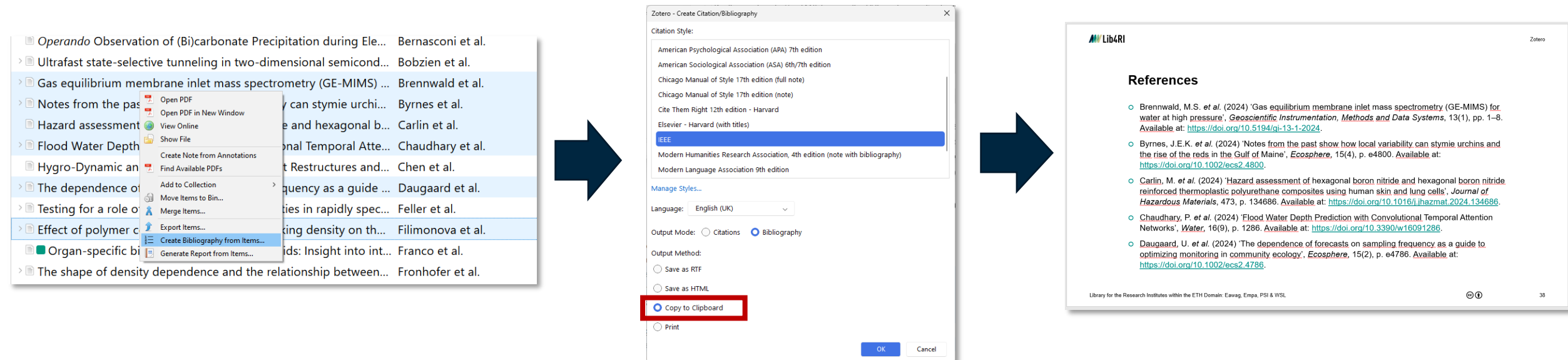


The screenshot shows the Zotero application interface. The top menu bar includes File, Home, Insert, Design, Layout, References, Mailings, Review, View, Zotero, Acrobat, and Tell me... The Zotero toolbar below the menu bar contains icons for Add/Edit Citation, Add/Edit Bibliography, Insert Note, Document Preferences, Refresh, and Unlink Citations. The main document area displays a text snippet titled "Blind Text: A Functional Placeholder in Design" with an abstract. The abstract contains several citations: (Abel and Bebel, 2035), (Balmelli et al., 2024; Gonçalves et al., 2024), (Carlin (2024)), and (but see Kroll et al., 2024). A red box highlights the citation (Abel and Bebel, 2035) in the text. Below the text, a Zotero citation format window is open, showing the citation details for "Abel and Bebel, 2035". The window includes fields for Title, Page, Prefix, Suffix, and a checkbox for "Omit Author". The "References" section at the bottom of the window lists the following references:

- Abel, V., Bebel, W., 2035. Title of a Lorem Ipsum example reference. <https://doi.org/10.1093/XXXX>
- Balmelli, M., Rogers, D., Hilfiker, T., Wright, Y., Soltic, P., 2024. Method for pressure trace based thermodynamic analysis of pre-chamber combustion. *Energy Conversion and Management* 312, 118561. <https://doi.org/10.1016/j.enconman.2024.118561>
- Carlin, M., Kaur, J., Ciobanu, D.Z., Song, Z., Olsson, M., Totu, T., Gupta, G., Peng, G., González, V.J., Janica, I., Pozo, V.F., Chortarea, S., Buljan, M., Buerki-Thurnherr, T., Rio Castillo, A.E.D., Thorat,

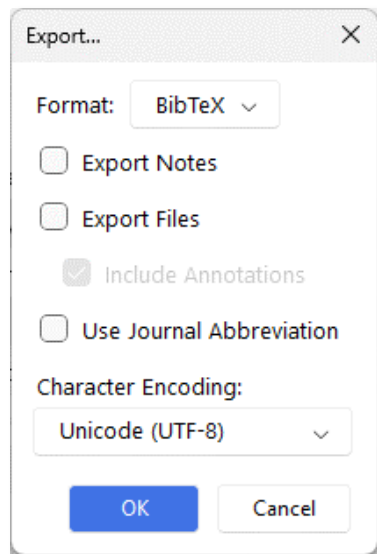
# Beyond Word: PowerPoint

- Zotero does not work in PowerPoint (yet)
- **Workaround:** Create a bibliography from selected items
  - Either select the entries directly or copy them to a sub-collection (e.g. talk@conference\_year)
- Paste from clipboard into your presentation
- In-text citation is not possible -> reference list is not automatically updated!



# Beyond Word: LaTeX

- Export your library, collection or selected references as \*.bib and add it to your TeX workspace
- Make sure the file name has no whitespaces!



```
@article{brennwald_gas_2024,
  title = {(Gas equilibrium membrane inlet mass spectrometry ((GE)-(MIMS)) for wat
  volume = {13},
  copyright = {(https://creativecommons.org/licenses/by/4.0/)},
  issn = {2193-0864},
  url = {(https://qi.copernicus.org/articles/13/1/2024/)},
  doi = {10.5194/qi-13-1-2024},
  abstract = {Abstract. Gas species are widely used as natural or artificial trac
  language = {en},
  number = {1},
  urldate = {2024-05-27},
  journal = {Geoscientific Instrumentation, Methods and Data Systems},
  author = {Brennwald, Matthias S. and Rinaldi, Antonio P. and Gisiger, Jocelyn a
  month = jan,
  year = {2024},
  pages = {1--8},
  file = {Full Text:C:\Users\ladnyjan\Zotero\storage\HGR5RHSW\Brennwald et

}

@article{byrnes_notes_2024,
  title = {(Notes from the past show how local variability can stymie urchins and
  volume = {15},
  issn = {2150-8925, 2150-8925},
  url = {(https://esaajournals.onlinelibrary.wiley.com/doi/10.1002/ecs2.4800)},
  doi = {10.1002/ecs2.4800},
  abstract = {Abstract
    The impacts of global change—from shifts in climate to overfishing to l
  language = {en},
  number = {4},
  urldate = {2024-05-27},
  journal = {Ecosphere},
  author = {Byrnes, Jarrett E. K. and Brown, Andrea and Sheridan, Kate and Peller
  month = apr,
  year = {2024},
  pages = {e4800},
  file = {Full Text:C:\Users\ladnyjan\Zotero\storage\LA9H9SGBI\Byrnes et al

}
```



## How to add citations and a bibliography in LaTeX documents

You can simply use a .bib file containing your BibTeX entries, created with Zotero. To use it in Overleaf, upload the .bib file to your project.

Use `\citep{}` for parenthetical citations: (Abel and Bebel, 2035), or `\citet{}` for narrative in-text citations: Abel and Bebel (2035). To use these, the package natbib is required.

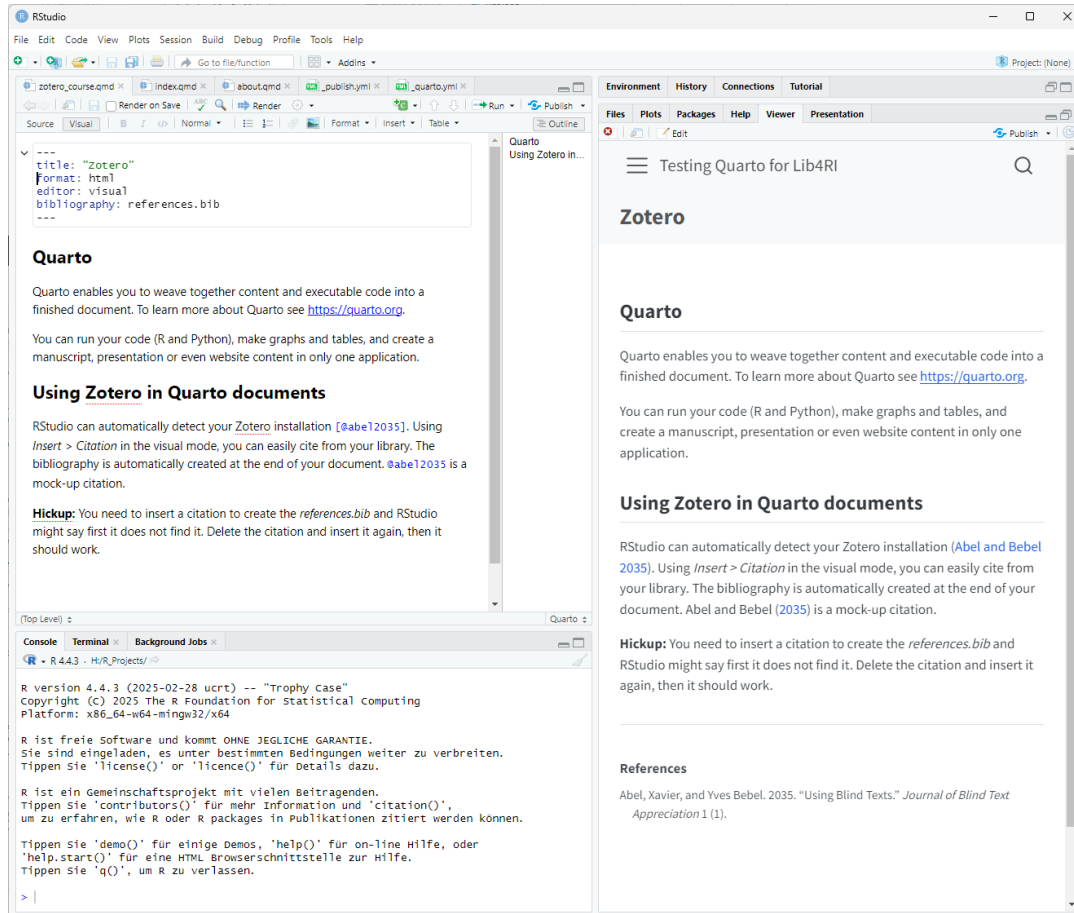
Remember to specify a bibliography style, as well as the filename of the .bib.

## References

Abel, V. and Bebel, W. (2035). Title of a Lorem Ipsum example reference. *Journal of Blind text appreciation*, 1.

Text snippet based on [Overleaf's](#) “Example Project”

# Beyond Word: Quarto



The screenshot shows the RStudio interface with the Quarto documentation open. The documentation includes sections on Quarto, using Zotero in Quarto documents, and a mock-up citation. The mock-up citation is a placeholder for a citation from the Zotero library.

**Quarto**

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see <https://quarto.org>.

You can run your code (R and Python), make graphs and tables, and create a manuscript, presentation or even website content in only one application.

**Using Zotero in Quarto documents**

RStudio can automatically detect your Zotero installation [Abel and Bebel 2035]. Using `Insert > Citation` in the visual mode, you can easily cite from your library. The bibliography is automatically created at the end of your document. @abe12035 is a mock-up citation.

**Hickup:** You need to insert a citation to create the `references.bib` and RStudio might say first it does not find it. Delete the citation and insert it again, then it should work.

**Testing Quarto for Lib4RI**

**Quarto**

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see <https://quarto.org>.

You can run your code (R and Python), make graphs and tables, and create a manuscript, presentation or even website content in only one application.

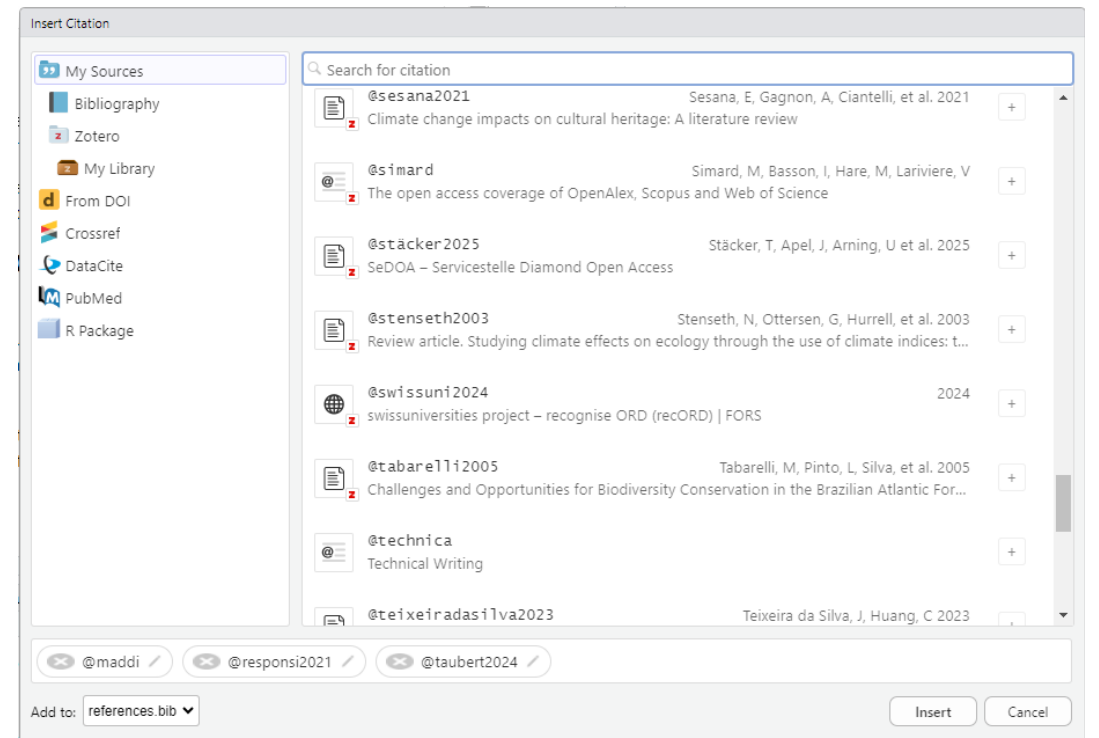
**Using Zotero in Quarto documents**

RStudio can automatically detect your Zotero installation (Abel and Bebel 2035). Using `Insert > Citation` in the visual mode, you can easily cite from your library. The bibliography is automatically created at the end of your document. Abel and Bebel (2035) is a mock-up citation.

**Hickup:** You need to insert a citation to create the `references.bib` and RStudio might say first it does not find it. Delete the citation and insert it again, then it should work.

**References**

Abel, Xavier, and Yves Bebel. 2035. "Using Blind Texts." *Journal of Blind Text Appreciation* 1 (1).



The screenshot shows the Zotero Insert Citation dialog box. It displays a list of sources from the Zotero library, including a search bar and a list of citations with their details. The dialog box also includes a section for adding citations to the references.bib file.

**Insert Citation**

Search for citation

My Sources

- Bibliography
- Zotero
- My Library
- From DOI
- Crossref
- DataCite
- PubMed
- R Package

Search results:

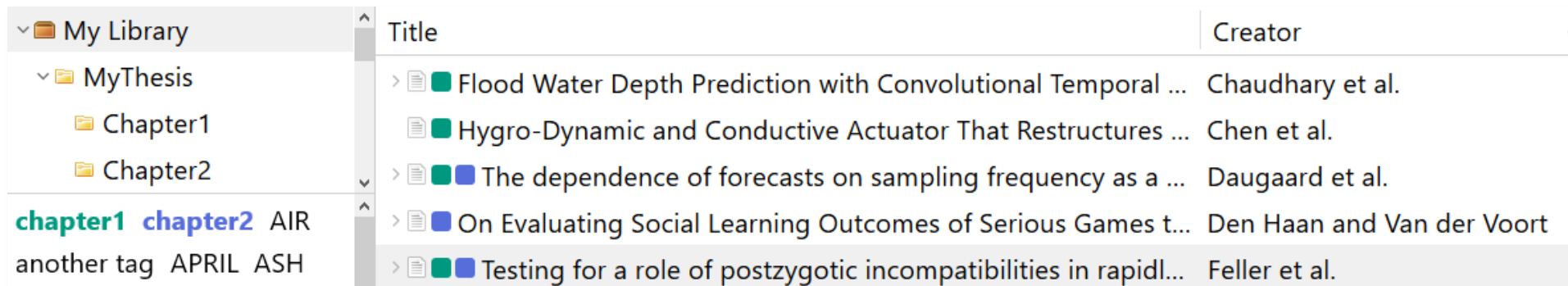
- @sesana2021 Sesana, E, Gagnon, A, Ciantelli, et al. 2021 Climate change impacts on cultural heritage: A literature review
- @simard Simard, M, Basson, I, Hare, M, Lariviere, V The open access coverage of OpenAlex, Scopus and Web of Science
- @stacker2025 Stacker, T, Apel, J, Arning, U et al. 2025 SeDOA – Servicestelle Diamond Open Access
- @stenseth2003 Stenseth, N, Ottersen, G, Hurrell, et al. 2003 Review article. Studying climate effects on ecology through the use of climate indices: t...
- @swissuni2024 2024 swissuniversities project – recognise ORD (recORD) | FORS
- @tabarelli2005 Tabarelli, M, Pinto, L, Silva, et al. 2005 Challenges and Opportunities for Biodiversity Conservation in the Brazilian Atlantic For...
- @technica Technical Writing
- @teixeiradasilva2023 Teixeira da Silva, J, Huang, C 2023

Add to: references.bib

Insert Cancel

## Beyond a paper: When multiple bibliographies are needed

- Zotero cannot handle two bibliographies in one Word document
- **Solution I:** Write each chapter into a separate file
  - Unlink citations before joining the individual files or join PDF versions only
- **“Solution” II:** Add citations like normal, but paste the bibliography from the clipboard
  - Keep in mind the bibliography will not be auto-updated then!
  - Make sure to include all citation you used, e.g. through marking with tags or subcollections
- **Solution III:** Use LaTeX with [according packages](#) ([training available](#) at Lib4RI)



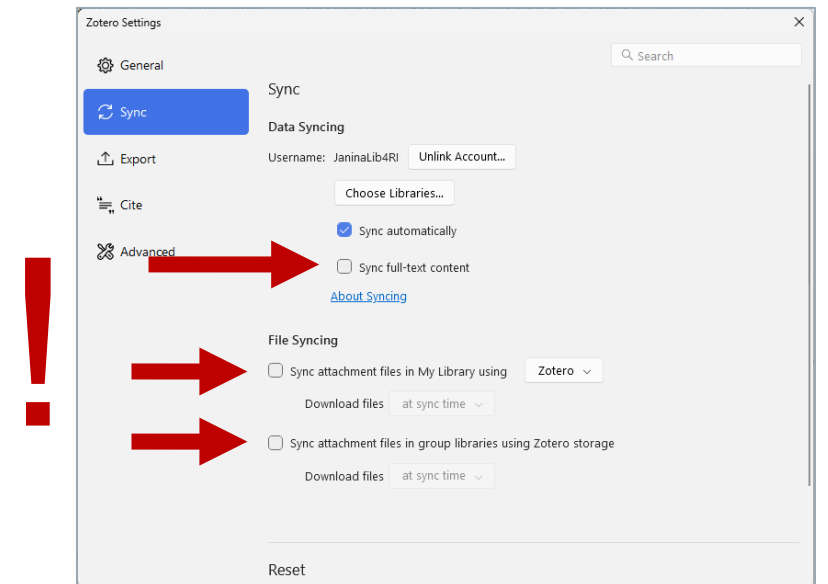
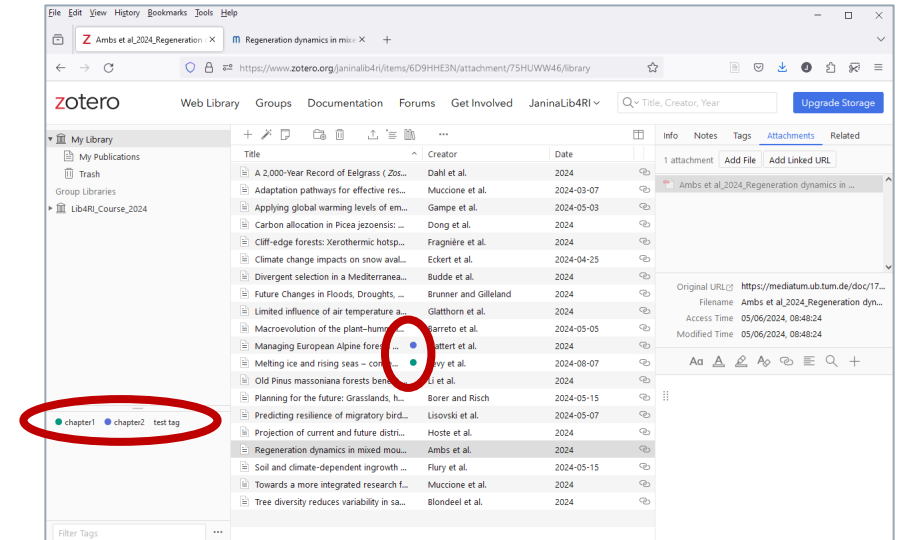
# Step 5: Sync and collaborate

# The web library

- Free account required to use the web library
- Online mirror of your local library
- **Caution!** File sync on the Zotero server is restricted to max. 300 MB with a free account
  - **Disable** full-text sync and file sync in *Settings > Sync*
  - Tags and item notes are synced

## Alternatives:

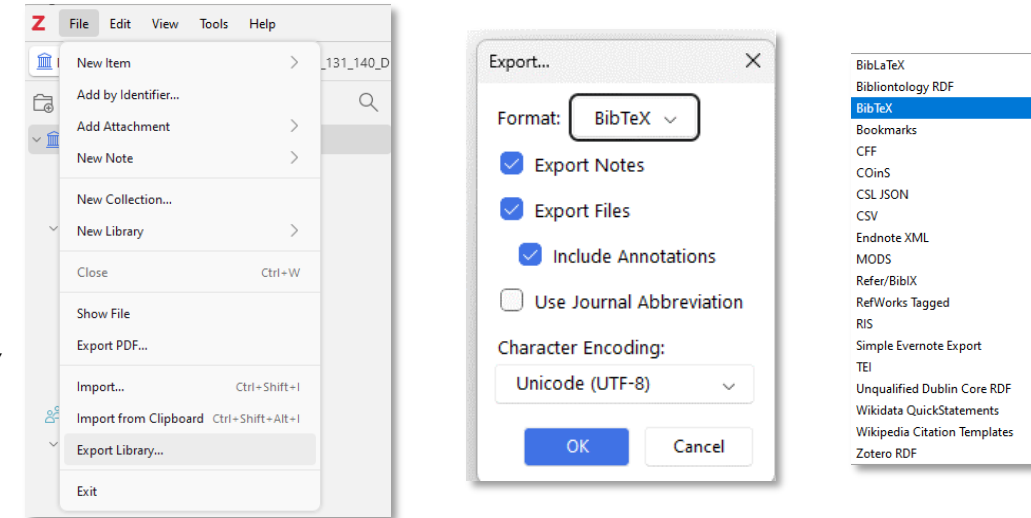
- Upgrade your Zotero storage (20-120\$/yr)
- Choose your own cloud over Zotero server to sync your personal library
  - Not recommended by Zotero, risk of corrupted databases
  - Read more at [zotero.org/support/sync](https://zotero.org/support/sync)



# Working with colleagues

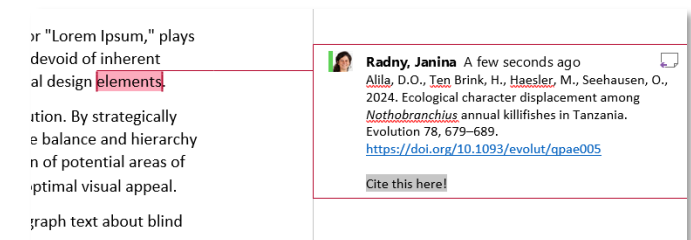
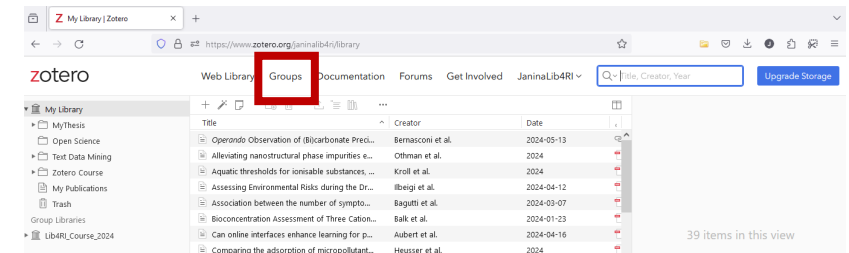
## Sharing a library

- Local libraries can be shared as file via *File > Export library*
  - Best test results \*.bib and \*.ris
- Create group libraries to work together in one library



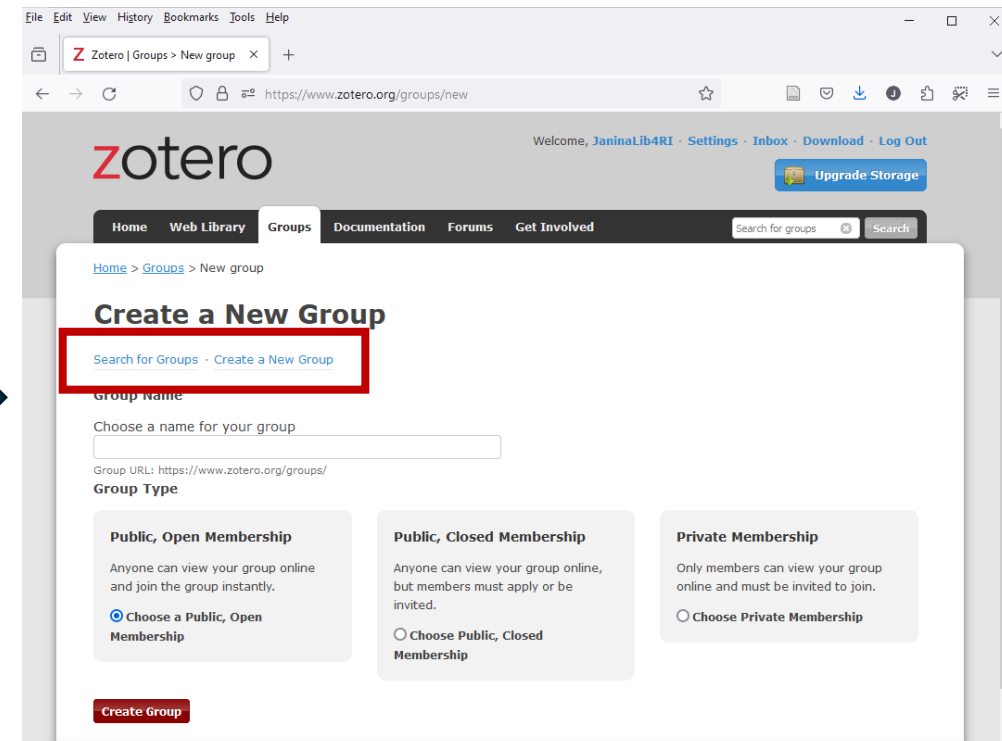
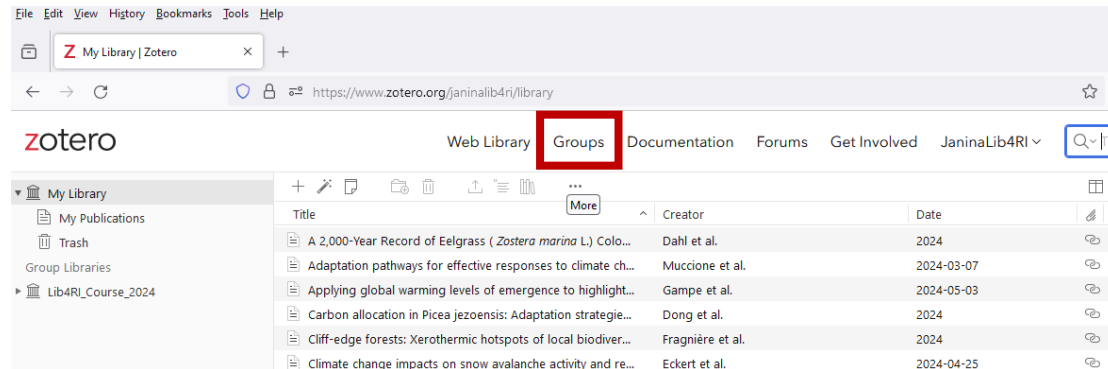
## Working together in one file

- Using the same local library is not required
- To add or edit references, Zotero must be used
- Using different literature managers can cause problems!
  - Check with your co-authors, which software to use
  - Work-around: Insert plain text citations as comment



# Group libraries

- Web library is only for your personal use
- Group libraries can be shared with others
- Public groups are visible for everybody
- Note: Group names cannot contain the word “Zotero”



## Hands-on: Group libraries

- Registration required at [Zotero.org](https://www.zotero.org)
- If you do not want to register, skip this hands-on
- Find and join the group *lib4ri\_course*
- Drop one item into the group
- Import the items from the group library into your local collection *Zotero course*
- Retrieve PDFs for the new items
- **Bonus:** Check if there are public groups on your topic of interest!

# Questions left?