

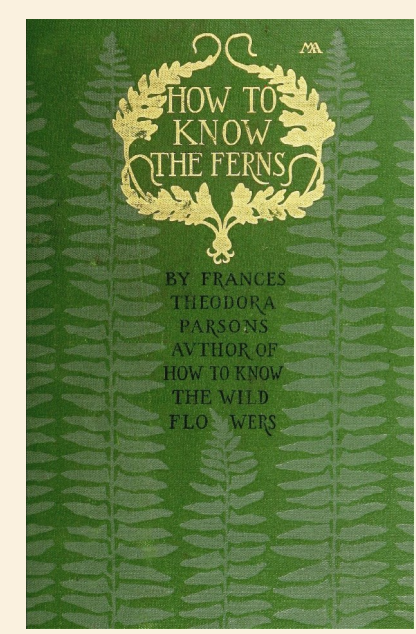
Assessing the taxonomic and bibliographic coverage of pteridological literature in the Biodiversity Heritage Library

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Background

Taxonomic and biodiversity publications are selected for BHL in a number of ways. BHL member and affiliate libraries, including several major botanical libraries, contribute materials based on suggestions from subject specialist librarians and users. The BHL is also able to automatically “ingest” publications which meet its selection criteria from non-BHL participating libraries through its partnership with the Internet Archive.

For the first time, a sub-section of BHL literature and data has been systematically evaluated in an effort to understand the taxonomic and bibliographic coverage specialists such as pteridologists might encounter.



This evaluation aims to increase the utility of BHL for fern and lycopod researchers. It also serves as a pilot BHL collections analysis study, which can be replicated for future species and literature coverage assessments of BHL holdings.

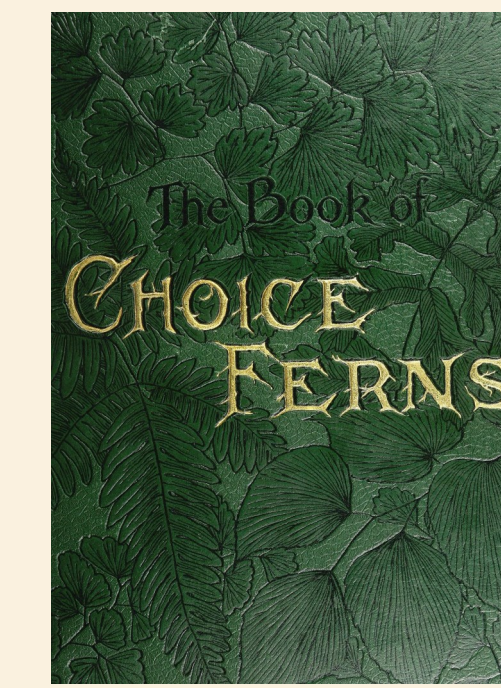


Bibliographic Data

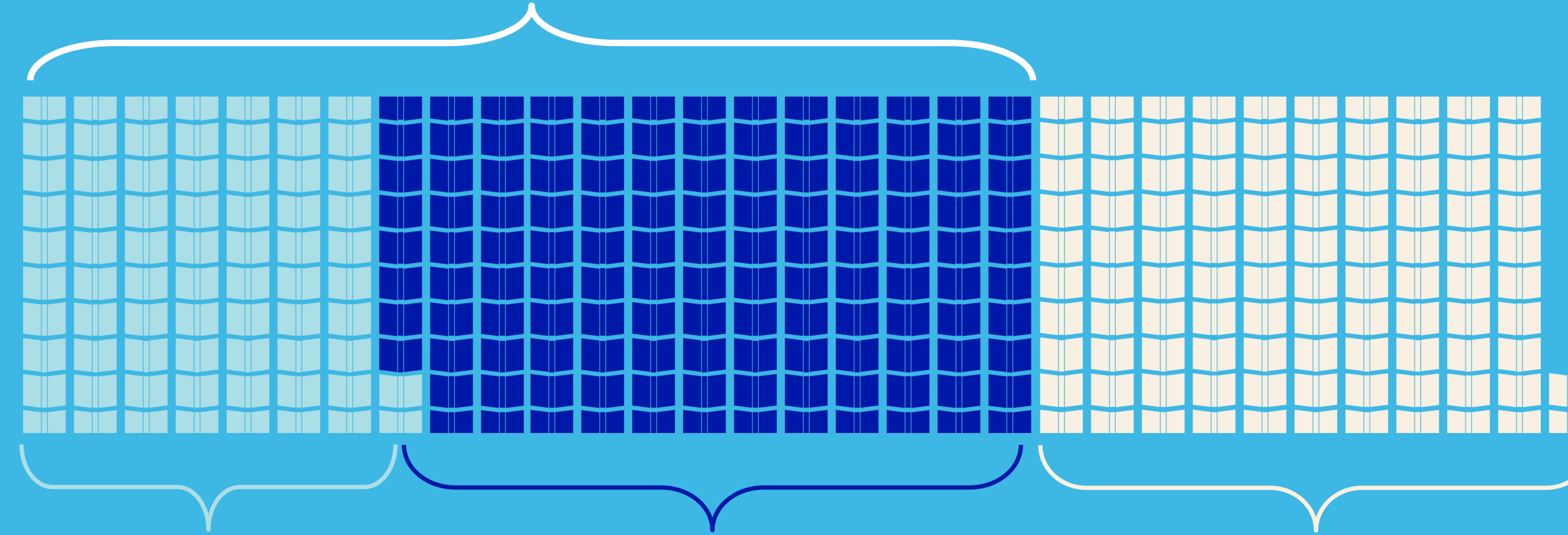
Fern Books and Related Items in English before 1900 by Nigel Hall and Martin Rickard (2006) was used as the authoritative text to compare the holdings in BHL.

Created an excel spreadsheet and entered the bibliographic information for each title, including different editions and revisions. Created categories on the spreadsheet to indicate if the publication was found in the BHL or if held by a BHL partner library.

- Searched the BHL for the exact edition by title and if not found, did another search by author. If found, indicated “YES” on spreadsheet and stopped search.
- If not found in BHL, then searched WorldCat, through FirstSearch, to indicate if held by a BHL partner. If held by a BHL partner, indicated “YES” on the spreadsheet. If not held by a BHL partner, indicated “NO” on the spreadsheet.



200 of the 302 books are in or could be in BHL



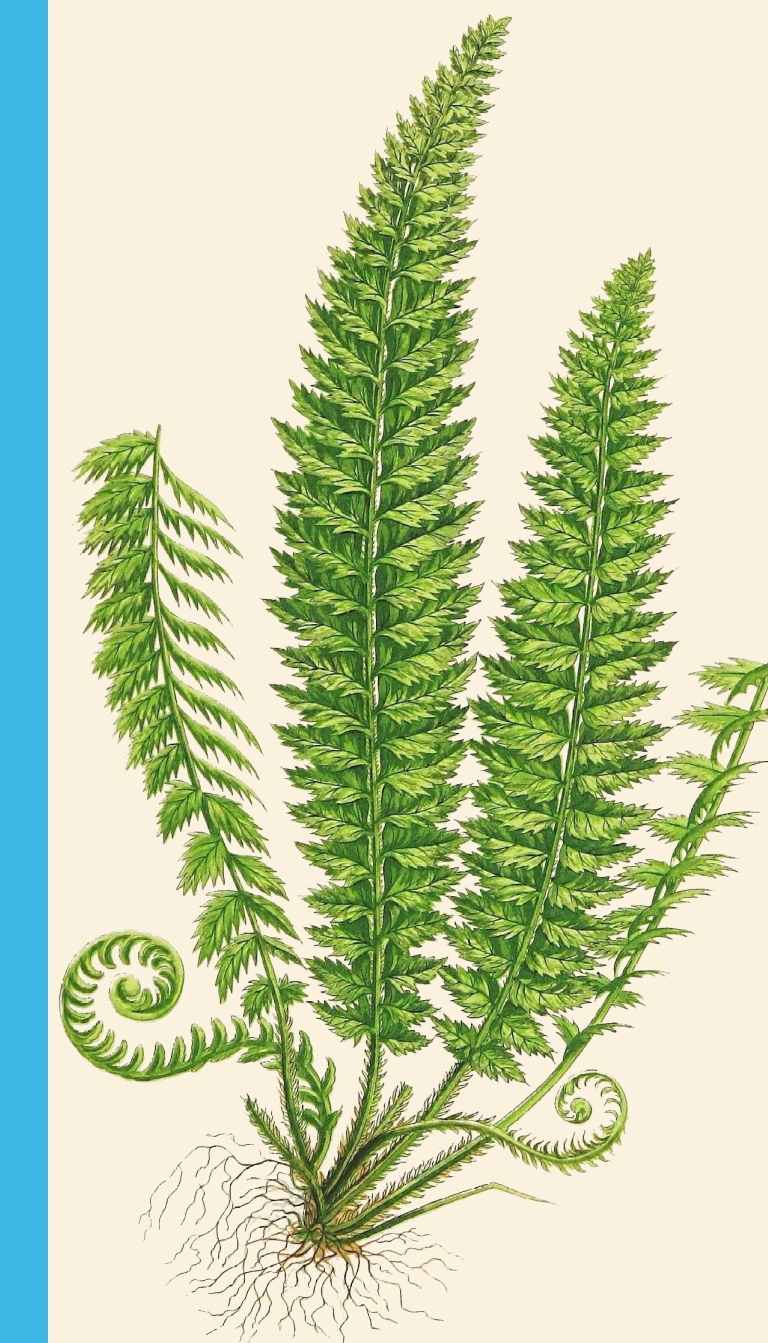
72 books currently in BHL 128 books not in BHL are held by BHL partners 102 books not in BHL are not held

Taxonomic Data

Two publicly available data sets were cross-referenced. Relevant taxonomic names from the Catalogue of Life (CoL) [includes World Ferns] were retrieved and used to examine scientific name metadata across BHL.

Four classes were examined: Polypodiopsida, Lycopodiopsida, Marattiopsida, Psilotopsida. Every genus identified as accepted or provisionally accepted by CoL was analyzed, for a total of 306 genera.

93% of genera were represented in the BHL corpus; 49% had more than 300 instances. 29 individual genera appeared in the BHL over 10,000 times; 32 appeared less than 10 times (all of which were described or revised after 1923, most in the 2000s).



Top 10 Genus Counts:

- Polypodium—79,768
- Asplenium—74,029
- Adiantum—72,227
- Pteris—66,856
- Lycopodium—51,354
- Dryopteris—45,693
- Selaginella—39,248
- Trichomanes—28,634
- Botrychium—27,642
- Osmunda—27,639

29 > 10,000 instances

Literature 1923-Present



BHL is rapidly increasing its collection of in-copyright materials, including the following fern and club moss literature:

- American Fern Journal to 1910-2012 (3 year moving wall)
- Several publications of the British Pteridological Society
- Field Museum publications such as Pteridophyta of Peru

32 < 10 times

Considerations for Future Work

This level of bibliographic analysis is highly labor intensive and requires comprehensive bibliographies of the specific taxonomic group under consideration.

The taxonomic analysis requires basic coding abilities to work with the large BHL names dataset and subject expertise to define relevant taxonomic groupings and navigate the complex nature of taxonomy. Technological limitations also weaken BHL's scientific name metadata.



80,000

40,000

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