

# Visually Representing a Biodiversity Literature Collection Using Metadata and Full Text Analysis

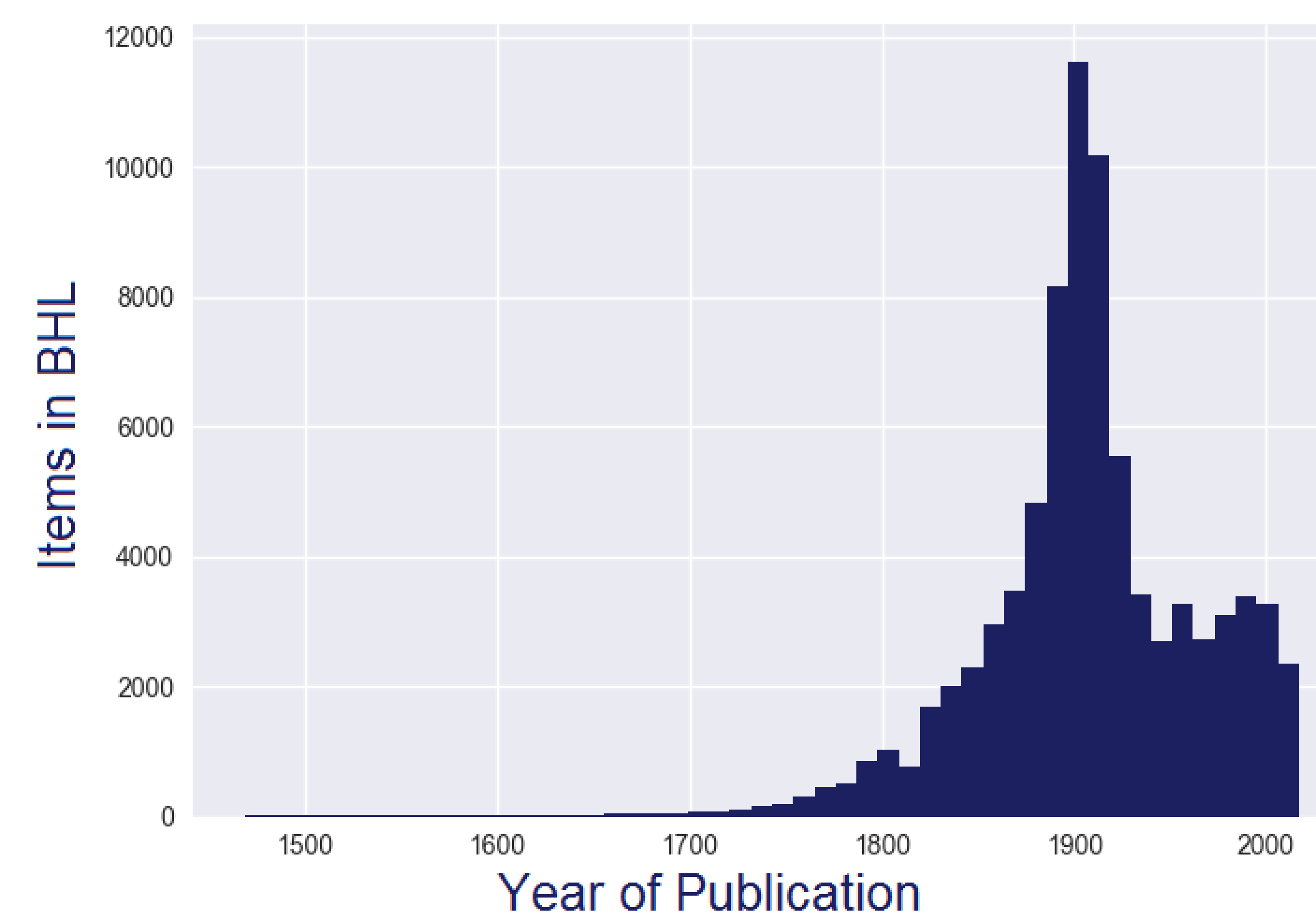
## Biodiversity Heritage Library

The Biodiversity Heritage Library (BHL) is the largest open access digital library for biodiversity literature.

BHL has...  
**50+ Million**  
**188K+** PAGES  
**170.3M+** volumes  
 instances of taxonomic names

## Temporal Representation

Date metadata from item tables and title tables merged to chart collection coverage over time.

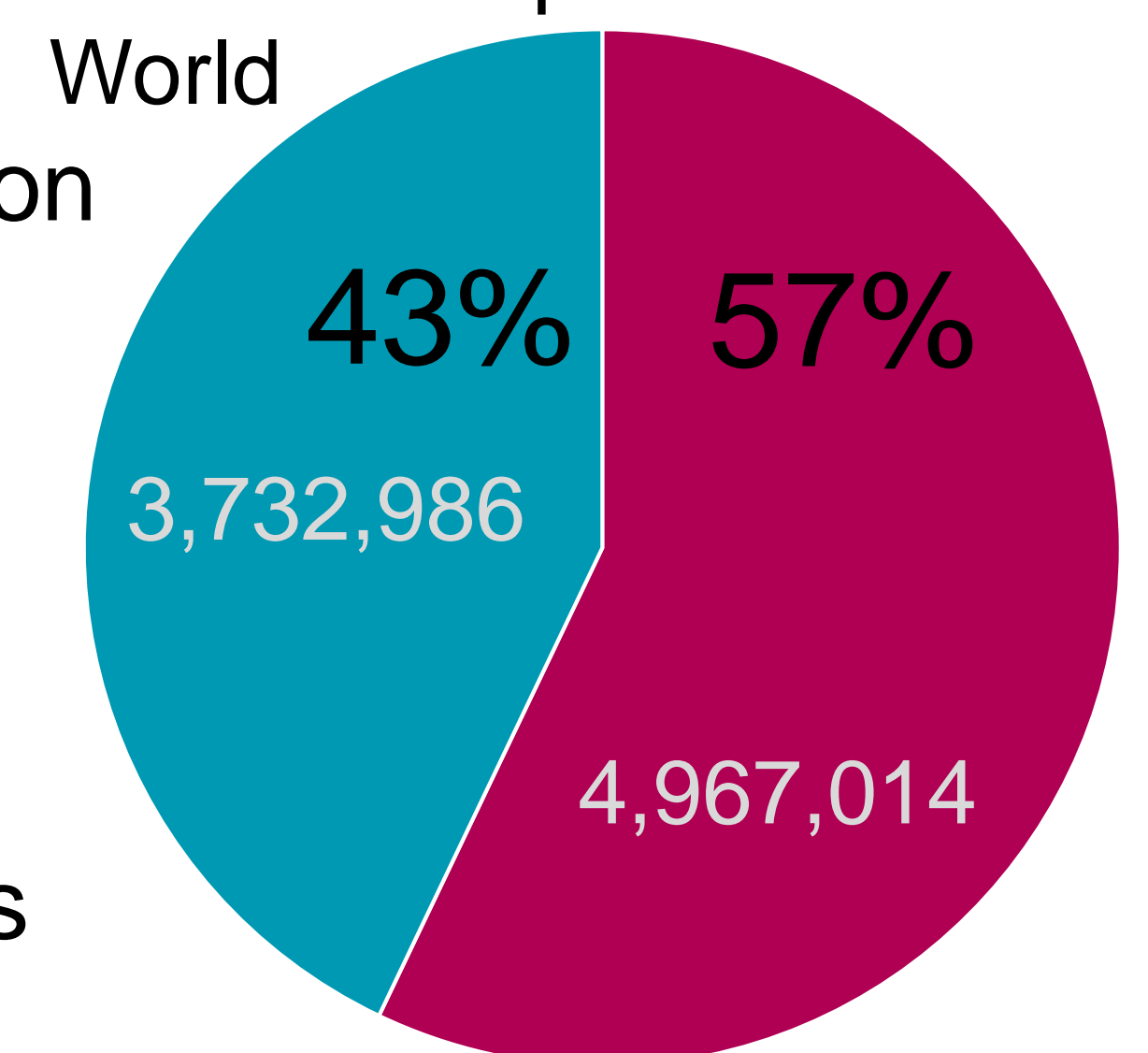


## Taxonomic representation

BHL utilizes Global Names Recognition and Discovery services to extract scientific names from the literature.

Open Tree of Life's Taxonomy API can be used to separate out scientific names into broad categories such as animals, plants, and fungi to gain a more granular look at collection coverage based on taxonomic representation.

Estimated Species In the World



■ Taxonomic Names in BHL  
 ■ Estimated Number of Species not in BHL

```
POST https://api.opentreeoflife.org/v3/nrs/match_names?content-type=application/json
Authorization Headers (1) Body Pre-request Script Tests
form-data x-www-form-urlencoded raw binary JSON (application/json)
1 - {"context_name": "flowering plants", "names": [
2   "Allium cornutum",
3   "Allium coryi",
4   "Allium cowani",
5   "Allium cowanii Lindl.",
6   "Allium crameri",
7   "Allium cratericola",
8   "Allium crenulatum",
9   "Allium crenulatum Siegard",
10  "Allium creticum (Bothmer) Seregin",
11  "Allium crinitum Tausch",
12  "Allium crispum",
13  "Allium crispum Greene",
14  "Allium cristatum Boiss.",
15  "Allium cristatum Boiss., nom. illeg.",
16  "Allium cristatum S. Wats.",
17  "Allium cristophii",
18  "Allium croceum Torr.",
19  "Allium crystallinum",
20  "Allium crystallinum Vved.",
21  "Allium cupani Raf.",
22  "Allium ..."
]}, "unmatched_names": [
  "Allium cristatum Boiss.",
  "Allium cowanii Lindl.",
  "Allium crinitum Tausch",
  "Allium cyaneum Regel",
  "Allium cristatum S. Wats.",
  "Allium crispum Greene",
  "Allium cowani",
  "Allium curtum Boiss. & Gaill.",
  "Allium crenulatum Wiegand",
  "Allium creticum (Bothmer) Seregin",
  "Allium cupani Raf.",
  "Allium crystallinum Vved.",
  "Allium croceum Torr."]
```

## National Digital Stewardship Residency

The National Digital Stewardship Residency program funded by the Institute of Museum and Library Services, is partnering with BHL to host five residents to work on best practices and recommendations for a digital library.

## Geographic Representation

Text mine BHL collection's full text and pull out toponyms (place names) such as cities or countries. Then, use a gazetteer to relate place names into geographic coordinates and plot coordinates on to a map to represent geographic coverage of BHL collection.

Alicia Esquivel NDSR Resident, Chicago Botanic Garden



Follow @BioDivLibrary on social media to connect with BHL.  
 Join our Mailing List: [library.si.edu/bhl-newsletter-signup](http://library.si.edu/bhl-newsletter-signup)  
 Join the conversation on social media using #BHLlib