



Connecting to  
Collections Care

## Introduction to Herbaria and Herbarium Practices

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### Presenter

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### General

Biodiversity Heritage Library. Web. <https://www.biodiversitylibrary.org/>

CITES (the Convention on International Trade in Endangered Species of Wild Fauna and Flora).  
<https://www.cites.org/>

Field Museum. 2012. **Botany Research at the Field Museum**. Video <https://bit.ly/2JoAiDP>

Forman, Leonard, and Diane M. Bridson. **The Herbarium Handbook**. Kew: Royal Botanic Gardens,  
(2103) ISBN-10: 1900347431.

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Society for Preservation, 1999. ISBN-10: 0963547623

**Secretariat of the Convention on Biological Diversity (SCBD)**. Convention on Biological Diversity:  
The Nagoya Protocol. <https://www.cbd.int/abs/about/>

**Taxonomic Literature II (TL-2)** <https://www.sil.si.edu/DigitalCollections/tl-2/>

Thiers B M. updated continuously. **Index Herbariorum**. <http://sweetgum.nybg.org/science/ih/>

Victor, J.E. 2004. **Herbarium essentials: the Southern African Herbarium user manual** Pretoria:  
Southern African Botanical Diversity Network. <https://bit.ly/2H6nfUG>

Watson, K. 2014. **Herbarium Specimen Imaging: Standards and Suggestions**. Presented at: iDigBio  
Small Herbarium Workshop – Botany 2014. PDF. <https://bit.ly/2vKryzB>

**Society of Herbarium Curators** <http://www.herbariumcurators.org/>

SPNHC (Society for the Preservation of Natural History Collections) <http://www.spnhc.org/>

culturalheritage.org

## Taxonomic Arrangement of Species

### Historic Plant Treatments

Engler H G A & Prantl K A E. 1887-1909. **Die natürlichen Pflanzenfamilien**. Print and Web. <https://bit.ly/305tfpt>

Engler H. G. A. 1900-1953. **Das Pflanzenreich**. Print and Web. <https://bit.ly/2Vq9Wsg>

### Modern Plant Treatments

**The Angiosperm Phylogeny Group**, M. W. Chase, M. J. M. Christenhusz, M. F. Fay, J. W. Byng, W. S. Judd, D. E. Soltis, D. J. Mabberley, A. N. Sennikov, P. S. Soltis, P. F. Stevens, An update of the Angiosperm Phylogeny Group classification for the orders and families of flowering plants: APG IV, *Botanical Journal of the Linnean Society*, Volume 181, Issue 1, May 2016, Pages 1–20. Print and Web. <https://doi.org/10.1111/boj.12385>

Christenhusz M.J.M., Reveal J.L., Farjon A., Gardiner M.F., Mill RP, Chase MW. 2011. A new classification and linear sequence of extant gymnosperms. **Phytotaxa**. 19: 55–70. <https://bit.ly/2JsKZoE>

Christenhusz M.J.M., Zhang X.C. & Schneider H. 2011. A linear sequence of extant families and genera of lycophytes and ferns. **Phytotaxa**. 19: 7-54. <https://bit.ly/2H5SpLU>

Stevens, P. F. (2001 onwards). Angiosperm Phylogeny Website. Version 14, July 2017 [and more or less continuously updated since]. Web. <http://www.mobot.org/MOBOT/research/APweb/>

## Nomenclature

### General Botany

Farr, E. R. and G. Zijlstra, eds. 1996+. **Index Nominum Genericorum** (Plantarum). Web. <http://botany.si.edu/ing/>

Stearn, W T, David & Charles (Newton Abbot). **Botanical Latin**. Portland, Oregon: Timber Press, 2013. ISBN-10: 0881926272

Turland, N. J., et al. (eds.) 2018: **International Code of Nomenclature for algae, fungi, and plants** (Shenzhen Code) adopted by the Nineteenth International Botanical Congress Shenzhen, China, July 2017. *Regnum Vegetabile* 159. Print and Web. DOI <https://doi.org/10.12705/Code.2018>

### Plants

The International Plant Names Index (2012). Web. <http://www.ipni.org>

Mabberley, D. 2017. **Mabberley's plant-book: A portable dictionary of plants, their classification and uses**. (4th edition) Cambridge, England: Cambridge University Press, 2017. ISBN-10: 9781107115026

Missouri Botanical Garden. **Tropicos.org**. Web. <http://www.tropicos.org>

**World Flora Online**. Web. <http://www.worldfloraonline.org/>

## Bryophytes

Conservatoire et Jardin botaniques de la Ville de Genève. **Index Hepaticarum Names Database** (IHND). Web. <http://www.ville-ge.ch/musinfo/bd/cjb/hepatic/search.php>

Missouri Botanical Garden. Web. Tropicos.org. <http://www.tropicos.org>

Schuster, R. **The Hepaticae and Anthocerotae of North America east of the hundredth meridian**. Vol 1-6. New York, Columbia University Press, 1966-1992

## Algae

Guiry, M.D. & Guiry, G.M. 2019. AlgaeBase. World-wide electronic publication, National University of Ireland, Galway. <http://www.algaebase.org>

**Index Nominum Algarum**, University Herbarium, University of California, Berkeley. Compiled by Paul Silva. Available online at <http://ucjeps.berkeley.edu/CPD/>

## Fungi

Ainsworth, G., Kirk, P., et al. **Ainsworth & Bisby's Dictionary of the Fungi** (10th ed.). Wallingford, CT: CABI, 2008. ISBN-13: 978 0 85199 826 8

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International Mycological Association (IMA) Mycobank Database (2016)  
<http://www.mycobank.org>

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## Mounting Vascular Plants

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- Herb Society of America. 2005. The Use and Methods of Making a Herbarium/Plant Specimens, Revised Edition. <https://bit.ly/2PUyTWT>
- National Herbarium of Victoria. Mounting specimens. <https://bit.ly/2JbAtTq>
- Page, C. N. 1979. "The Herbarium Preservation of Conifer Specimens." *Taxon* Vol. 28, No. 4 pp. 375-379.
- Royal Botanic Gardens Edinburgh. Mounting Plant Specimens. Video on YouTube. <https://youtu.be/HaaX5WzIAil>
- Royal Botanic Gardens Edinburgh. RBGE Collections Care: preparation and care of herbarium specimens. <https://bit.ly/2vKlhmu>
- STASH: Storage Techniques for Art, Science and History. 1992. Mounting System for Herbarium Specimens. <https://bit.ly/2HavLlr>
- University of Florida Herbarium (FLAS). 2016. Specimen Preparation Guide (Plant Mounting). <https://www.floridamuseum.ufl.edu/herbarium/methods/mountingguide.htm>
- Utah State University, Department of Biology, Intermountain Herbarium. Making Good Specimens. [https://herbarium.usu.edu/resources/learning\\_about\\_plants/making\\_specimens](https://herbarium.usu.edu/resources/learning_about_plants/making_specimens)
- Victor, J.E. 2004. **Herbarium essentials: the Southern African Herbarium user manual** Pretoria : Southern African Botanical Diversity Network. (includes a large section on mounting.) See above.

## Microscope Slides

- Glime, J. M. and Wagner, D. M. 2013." Laboratory Techniques: Preservation and Permanent Mounts." Chapt. 2-4. In: Glime, J. M. **Bryophyte Ecology. Volume 3. Methods**. Ebook sponsored by Michigan Technological University and the International Association of Bryologists. Ebook last updated 5 September 2013 and available at [www.bryoecol.mtu.edu](http://www.bryoecol.mtu.edu).
- Kohlmeyer J & Kohlmeyer E. "Permanent Microscopic Mounts." *Mycologia*, Vol. 64, No. 3 (May - Jun., 1972), pp. 666-669.
- Paraloid B-72 on CAMEO: Conservation & Art Materials Encyclopedia Online. 4 Nov 2018. <https://bit.ly/2VQNho9>

## Storage and Supplies

- Lee, S & Ibrahim, B. 2018. "The SING boxes – to infinity and beyond!" *Gardenwise* .Vol. 50, pg 33-34. <https://www.nparks.gov.sg/sbg/research/publications/gardenwise>
- University Products <https://www.universityproducts.com/>
- Gaylord <https://www.gaylord.com>
- Herbarium Supply Company <http://herbariumsupply.com/>

Delta Designs <https://www.deltadesignsltd.com/our-products/>

Spacesaver <http://www.spacesaver.com/>

## Geography

Columbia Gazetteer of the World Online. <http://www.columbiagazetteer.org/main/Home.html>

Getty Thesaurus of Geographic Names® Online. <https://bit.ly/2DLhsVD>

Statoids: Administrative Divisions of Countries (“Statoids”). <http://www.statoids.com>

U.S. Board on Geographic Names. <https://on.doi.gov/2V5d7Aw>

## Integrated Pest Management

Museum Pests. <https://museumpests.net/>

Kingsley, H. 2001. **Integrated pest management for collections : Proceedings of 2001: A Pest Odyssey**. London : James & James, 2001. ISBN-10: 1902916271.

Pinniger, D. **Insect pests in museums** (3rd ed.) London: Archetype Books, 1994 (Conservation monograph series) ISBN-13: 978-1873132555.

Pinniger, D., & Meyer, A. **Integrated pest management in cultural heritage**. London: Archetype Books, 2015. ISBN-10: 1909492221

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Zycherman, L. A. **A Guide to Museum Pest Control**. Natural Science Collections. 1988. ISBN-10: 0942924142

## Miscellaneous References

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Miller C N, Brabazon H, Ware I M, Kingsley N H, & Budke J M. 2018. “Bringing an Historic Collection into the Modern Era: Curating the J. K. Underwood Seed Collection at the University of Tennessee Herbarium (TENN).” **Collection Forum** (Fall 2018) Vol. 32, No. 1-2, pp. 14-30

Peters M. 2014. “Conservation process of water-damaged herbarium specimens at the Harvard University Herbaria.” **Collection Forum** (Fall 2014) Vol. 28, No. 1-2, pp. 8-15. <https://doi.org/10.14351/0831-0005-28.1.8>

Zimkus B D and Ford L S 2014. "Best practices for genetic resources associated with natural history collections: Recommendations for practical implementation." Collection Forum: Fall 2014, Vol. 28, No. 1-2, pp. 77-112. <https://doi.org/10.14351/0831-0005-28.1.77>

## **Web Portals and Consortia**

Australasian Virtual Herbarium (AVH). <http://avh.chah.org.au/>

Consortium of North American Bryophyte Herbaria (CNABH). <http://bryophyteportal.org>

Consortium of North American Lichen Herbaria (CNALH). <http://lichenportal.org>

Consortium of Pacific Herbaria (CPH). <http://symbiota4.acis.ufl.edu/pacific/portal/>

Consortium of Southern Rocky Mountain Herbaria. <http://www.soroherbaria.org>

GBIF | Global Biodiversity Information Facility. <https://www.gbif.org/>

Integrated Digitized Biocollections (iDigBio). <https://www.idigbio.org/>

Intermountain Regional Herbarium Network. <http://intermountainbiota.org>

Macroalgal Herbarium Consortium. <http://macroalgae.org>

Mycology Collections data Portal (MyCoPortal). <http://mycoportal.org>

Open Herbarium. <http://openherbarium.org>

Reflora Virtual Herbarium. <https://bit.ly/2prxd9C>

SouthEast Regional Network of Expertise and Collections (SERNEC). <http://sernecportal.org>

Symbiota. <http://symbiota.org>

## **Collections Management Systems**

Specify Software <https://www.sustain.specifysoftware.org/>

Arctos <https://arctosdb.org/>

## **Funding Sources**

Institute for Museum and Library Services (IMLS) <https://www.imls.gov/>

National Science Foundation (NSF) <https://www.nsf.gov/>

Collections Assessment for Preservation (CAP) <https://bit.ly/2Hag4fn>

Preservation Assistance Grants (NEH) <https://bit.ly/2mncR31>

## **Related Connecting to Collections Care Webinars**

Exploring Old Loans: A Quest for Resolution <https://www.connectingtocollections.org/old-loans/>

Introduction to Legal Issues in Collections Management <https://bit.ly/2oYeyFI>

[culturalheritage.org](http://culturalheritage.org)

The Deaccessioning Dilemma: Laws, Ethics, and Actions [\*\*https://bit.ly/2GLVhiD\*\*](https://bit.ly/2GLVhiD)

Stressed About Pests? Prevention, Monitoring, & Identification [\*\*https://bit.ly/2HhDrmi\*\*](https://bit.ly/2HhDrmi)

Stressed About Pests? Treating Infestations [\*\*https://bit.ly/2RDpbIA\*\*](https://bit.ly/2RDpbIA)

Arsenic and Old Lace: Controlling Hazardous Collection Materials [\*\*https://bit.ly/2yoPxWf\*\*](https://bit.ly/2yoPxWf)

Troublesome Trophies and Fragile Feathered Friends: Introduction to the Care of Historic Taxidermy  
[\*\*https://bit.ly/2ympBdl\*\*](https://bit.ly/2ympBdl)