

## CURRICULUM VITAE

Dr. Barbara M. Thiers  
The New York Botanical Garden  
Bronx, NY 10458-5126  
phone: (718)-817-8622  
fax: 1-718-817-8809  
e-mail: bthiers@nybg.org

**Personal:** Barbara Mary Thiers, born 9 February 1955 in College Station, TX; married 27 August 1983 to Roy E. Halling, one child.

**Education and Degrees:** B.A. San Francisco State University, 1977; Ph.D. University of Massachusetts, 1982. Dissertation: *Branching in the Lejeuneaceae (Hepaticae)*. Advisor: Rudolf M. Schuster.

### **Professional Positions (all at The New York Botanical Garden):**

- Postdoctoral Museum Intern, 1981-1982.
- Manager of the Cryptogamic Herbarium, 1982-1986.
- Administrative Curator, Cryptogamic Herbarium, 1986-present.
- Senior Administrative Curator, 1998-1999.
- Associate Director of the Herbarium, 1999-2000.
- Director of the Herbarium, 2000-present
- Acting Vice President for Science, 2001-2002
- Vice President 2013-present

### **Editorial Experience:**

- Associate Editor, BRITTONIA, 1982-1994.
- Managing Editor, BRITTONIA, 1992-1994.
- Associate Editor, THE BRYOLOGIST, 1987-1996.
- Editorial board member, TROPICAL BRYOLOGY, 1989-present.
- Editorial board member, *Flora of North America* project, 1991-2000.
- Lead Editor, *Bryophyte Flora of North America* print volumes, 1995-1999; Web Editor, *Bryophyte Flora of North America On Line*, 1999-2000.
- Editor, *Index Herbariorum*, 2008—present.

### **Membership, Leadership in Professional Societies, Honorary Appointments**

- American Bryological and Lichenological Society.
- American Association of Plant Taxonomists
- Society for the Preservation of Natural History Collections
- Society of Herbarium Curators
- Phi Beta Kappa Scholarship Society 1977-present
- Advisory Committee Member, Biodiversity Collections Network, 2015-present

- President Elect, Society for the Preservation of Natural History Collections, 2016-present
- Vice President, Natural Science Collections Alliance Board, 2015-present
- Chair, Systematics Collections Committee, American Association of Plant Taxonomists
- iDigBio External Advisor Committee, 2012-present
- Steering Committee, Notes for Nature Citizen Science initiative, 2013 – present
- Steering Committee, Southeast Regional Herbarium Network, 2013- present
- Steering Committee, Global Plants Initiative, 2013 – present
- Curatorial Affiliate, Yale University Herbarium, 2003—present

**Elected or Appointed Participation in External Committees, Panels, Workshops, etc. 2003-present**

- Key Innovations in Biodiversity Informatics. Indaiatuba, Brazil. October 2002.
- Banbury Conference: Taxonomy and DNA; Cold Spring Harbor, March 2003.
- NSF Workshop: Workshop to Produce a Decadal Vision for Taxonomy and Natural History Collections, University of Florida, November 2003
- Review Committee Member, NSCERC Canadian Bar Code of Life proposal, Guelph, Ontario, December 2003.
- NSF Workshop: The National Phenology Network, Tucson, AZ 22-26 Aug 2005
- Invited Participant, 8th Conference of the Parties to the Convention on Biological Diversity (COP-8), Curitiba, Brazil, March 2006
- Invited Participant, Flora of Brazil Workshop, Florianopolis, Brazil, July 2006
- Visiting Committee Member, Review of Botany Department at the Natural History Museum, London, 2007.
- Visiting Committee Member, Review of databasing procedures, Royal Botanic Garden, Edinburgh, October 2008.
- NSF workshop: NEON and the Curation of Biological Specimens, October, 2008.
- NCEAS workshop: Botanical Information and Ecology Network, December 2008-present
- NSF Biological Research Collections Panel ID P100154. 22-23 October 2009
- NSF Focus Group: Digitization of U. S. Biological Collections. Participant and member of the writing committee. Durham NC, February 2010.
- NSF Workshop: U. S. Virtual Herbarium Workshop, St. Louis, MO February, 2010
- NSF Focus Group Digitization of U. S. Biological Collections, Part 2. Participant and member of the writing committee. Durham, NC, April 2010.
- NSF Workshop: Strategies for Sustainability of Biological Infrastructure, Washington, DC, November 2010.
- NSF funded Symbiota Workshop, Madison, WI, 8-10 August, 2010

- NSF funded workshop: Systematics and Collections, Washington, DC, Nov 2011.
- NSF.AIBS Digitization of U. S. Biological Collections Committee to develop an Implementation Plan for the NIBA Initiative. Washington, DC, September 2011.
- S2I2 Workshop on new techniques for specimen digitization. Field Museum of Natural History, Chicago, IL, 24-27 Mar 2011:
- NSF Biological Research Collections Panel, January 2012.
- Public Participation in Digitization Workshop, University of Florida, Gainesville, FL, 28 Sep 2012
- Thiers, B. *Funding the Digitization of Primary Source Materials*. iDigBio Primary Sources workshop, March 2014.
- Global Biodiversity Information Facility Working Group member, “Accelerating the Discovery of Biocollections Data.” 2014-2016
- Director’s Summit on Digital Data, June 2017. Invited speaker and workshop participant
- Using Biodiversity Specimen-based Data to Study Global Change. St. Louis, December 2015.

### **Grants Awarded Since 2003:**

- *The New York Botanical Garden Type Specimen Index: Mushrooms and related fungi* (Global Biodiversity Information Facility, 2003-2004; \$50,000, Lead P.I.).
- *Collaborative Research: Rapid Digital Specimen Image and Data Capture: A Web Services Solution* (National Science Foundation.2004-2006; \$180,000; collaborative proposal with Yale University; lead NYBG P.I.)
- *The New York Botanical Garden Type Specimen Index: Macrofungi* (National Science Foundation, 2004-2006, \$320,000, Lead P.I.).
- *Flora Borinqueña, Creation of a Digital Library and Herbarium* (Andrew W. Mellon Foundation, 2005-2007, \$150,000, Lead P.I.).
- *Flora Borinqueña, A Reference for Puerto Rican Botany* (Institute for Museum and Library Studies, 2006-2007, \$140,000, Lead P.I.).
- *Global Plants Initiative: Digitization of New York Botanical Garden Specimens* (Andrew W. Mellon Foundation, 2006—2013, projected; estimate approx. \$2 million total Lead P.I.).
- *Incorporation of the Kohlmeyer Herbarium of Marine Fungi* (Institute for Museum and Library Studies, 2010-2011, \$147,000, Lead P.I.).
- *Collaborative Digitization of Amazonian Specimens at the New York Botanical Garden* (NSF, 2008—2011; \$455,000; Lead P.I.)
- *Dimensions: Collaborative Research: Assembly and evolution of the Amazonian biota and its environment: an integrated approach* (NSF, 2010—2015, \$300,000 Lead NYBG Co.-P.I.)

- *Tri-Trophic Thematic Collection Network: Collaborative Research: Plants, Herbivores, and Parasitoids: A Model System for the study of Tri-Trophic Associations.* (NSF, 2011-2015, \$578,133, Lead P.I.s: R. Naczi and M. Tulig.)
- *North American Lichens and Bryophytes: Sensitive Indicators of Environmental Quality and Change* (NSF, 2011–2013; \$350,399, Lead NYBG co –PI.)
- *The Macrofungi Collection Consortium: Unlocking a Biodiversity Resource for Understanding Biotic Interactions, Nutrient Cycling and Human Affairs Collaborative project* (NSF, 2012–2013; \$1,312,125, Lead P.I.)
- *The Macroalgal Herbarium Consortium: Accessing 150 Years of Specimen Data to Understand Changes in the Marine/Aquatic Environment* (NSF, 2013–2017; \$695,000, Co NYBG P.I.)
- *CSBR: Natural History: Expansion of the New York Botanical Garden Herbarium to Incorporate Newly Acquired Specimens and Improve Curation.* (NSF, 2014-2018; \$479,000, Lead P. I.) Co P. I.s: R. Halling, A. Henderson, K. Karol, J. Lendemer.
- *World Flora Online project.* (Google, 2015-2020; \$1,700,000, Lead P.I. Co. P.I.s: M. Tulig, W. Thomas).
- *World Flora Online project* (Sloan Foundation, \$700,000, Lead P.I.). Co. P.I.s: M. Tulig, W. Thomas).
- *The Microfungi Collections Consortium.* (NSF, 2015-2018; \$443,132, Lead P.I. R. Halling)
- *Partnership to the Existing New England Vascular Plant Network for Collections at the New York Botanical Garden.* (NSF; 2015-2017; \$147,000. Lead P.I.)
- *Digitization TCN: The Mid-Atlantic Megalopolis: Achieving a greater scientific understanding of our urban world.* (NSF; 2016–2018; \$288,767. Lead P.I.)
- *Index Herbariorum Upgrade: A Project to Improve Access to Information about the World's Plant and Fungal Collections Assets.* (NSF; 2018-2018, \$77,284, Lead P.I.)

**Research Interests:** Taxonomy, ecology of tropical Hepaticae, especially of the Lejeuneaceae; Hepaticae of North America; herbarium and museum management; application of information technology to basic systematic research.

**Print Publications since 2003:**

2003. (with Roy E. Halling). Memorial: Harry D. Thiers 1919-2000. *Mycologia* 5: 1271-1275.
2004. (With Q. Wu & D. Pfister). Preservation and use of fungal herbarium specimens. In: *Measuring and Monitoring Biological Diversity: Standard Methods for Fungi.* Mueller, G. M., G. F. Bills, A. Y. Rossman, and M. S. Foster (eds.).
2006. (with G. A. Long, G., K. Tripp, T. Forrest, & S. Fraser). *The New York Botanical Garden.* Harry N. Abrams, Inc. 247 p.
2010. (with W. Wayt. Thomas). O Jardim Botânico de Nova York e seu herbário virtual. *Ciencia & Cultura* (magazine of the Botanical Garden of Rio de Janeiro). Pp, 35–38. Jan–Mar 2010.

- (with J. Beach, L. Ford, R. Guralnick, M. Mares, M. Westneat and B. Wiegmann). Establishing a National Digital Biological Collections Resource --
  - A strategic plan for establishing a network integrated biocollections alliance. <http://digbiocol.wordpress.com/>
2011. with W. Wayt. Thomas. O Jardim Botânico de Nova York e seu herbário virtual. *Ciencia & Cultura* (magazine of the Botanical Garden of Rio de Janeiro). Pp, 35–38. Jan–Mar 2010.
- with W. W. Thomas. From manuscript to the public: modes of monographic publication in Stuessy & Lack, *Monographic Plant Systematics: Fundamental Assessment of Plant Biodiversity*. *Regnum. Vegetabile* 153. Gantner, Königstein. Herbaria. In: *Public Garden Management* by Donald A. Rakow , A. J. Wiley & Sons.
2012. With Tulig, M., N. Tarnowsky, M. Bevans, & A. Kirchgessner. 2012. Increasing the efficiency of digitization workflows for herbarium specimens. *Zookeys*. 209: 103-113.
- Notes on Early Land Plants Today. 11. *Microlejeunea bischlerae* (B. M. Thiers) comb. Nov. *Phytotaxa* 65: 59. DOI10.11646/phytotaxa.65.1.16
2013. With J. Hanken, L. McDade, J. Beach, J. Cook and L. Ford. An Implementation Plan for the Network Integrated Biocollections Alliance American Institute of Biological Sciences. Reston, VA.
2013. Thiers B.M., N. Wilson, R.E. Halling 2013. Making Scientific Vouchers of North American Macrofungi: How Documenting the Fungi You Encounter Contributes to the Mycoflora of North America. *McIlvainea* 22: 19-24.
- with Tulig, M. Tarnowsky, N., Bevans, M., and Kirchgessner, T. Digitizing the New York Botanical Garden Herbarium: The Holmgren Influence on the Past, Present, and Future. *Memoirs of the New York Botanical Garden*. 108:45-58. press.
2014. with 22 coauthors; C. Lamana, Lead Author. Functional Trait space and the latitudinal diversity gradient. *Proceedings of the National Academy of Sciences* 111: 1375-13750. DOI10.1073/pnas.1317722111
2016. with Matthew Pace Nicole Tarnowsky, et al. An updated description of the collections and history of The New York Botanical Garden Herbarium (NY-1995-2015). *Brittonia* 68: 317-323. DOI10.1007/s12228-016-9422-8
- with M. Tulig and K. Watson. Digitization of The New York Botanical Garden Herbarium. *Brittonia* 68: xxx. DOI10.1007/s12228-016-9423-7
  - with 4 other authors, G. Goldsmith, lead author. Cyberinfrastructure for an integrated biotaical information network to investigate the ecological impacts of global climate change on plant biodiversity. DOI 10.7287/PEERJ.PREPRINTS.2615V1

2016. with 18 other authors, B. Enquist, lead author). Plant-O-Matic: a dynamic and mobile guide to all plants of the Americas. *Methods in Ecology and Evolution*. DOI 10.1111/2041-210X.12548
2016. with 9 other authors, L. Krishtalka, lead author. Accelerating the discover of biocollections data. Technical Report. Global Biodiversity Information Facility
2017. with 21 other authors, B. S. Maitner, lead author. The bien r package: A tool to access the Botanical Information and Ecology Network (BIEN) database. *Methods in Ecology and Evolution* 9: DOI10.1111/2041-210x.12861
2018. with R. Halling. The Macrofungi Collection Consortium. *Applications in Plant Science* 7 p. Doi:10.1002/aps3.1021.

### **In Press:**

*Lejeuneaceae*. *Flora of North America*. Vol. 22 Bryophytes part 2. 100 ms pages. Submitted 2010, revised 2013.

*Pleuroziaceae*. *Flora of North America*. Vol. 22 Bryophytes part 2. 6 ms pages September 2010, revised 2014.

*Tropical Plant Collections: Legacies from the Past? Essential Tools for the Future?* Henrik Balslev and Ib Friis, Editors. 2017

### **Electronic Publications since 2003:**

2004. Collectors represented in The New York Botanical Garden Herbarium. [http://sciweb.nybg.org/science2/representative\\_collectors.asp](http://sciweb.nybg.org/science2/representative_collectors.asp)

2009. Our Herbarium: A Dynamic Resource for a Changing World <http://www.nybg.org/wordpress/?p=4550>

- The Herbarium: Primary Source for Biodiversity Research <http://www.nybg.org/wordpress/?p=4635>
- The Herbarium's Role in Climate Change, Conservation Policies <http://www.nybg.org/wordpress/?p=4661>

2010. (with J. Beach, L. Ford, R. Guralnick, M. Mares, M. Westneat and B. Wiegmann). Developing a digital U.S. biological collections national resource: First steps towards a strategic plan. <http://digbiocol.wordpress.com/>

2014. *Earth Day Everyday: Citizen Scientists Making Plant Research Available to All*. Science Talk 21 Apr 2014 (<http://blogs.nybg.org/science-talk/2014/04/earth-day-everyday-citizen-scientists-making-plant-research-available-to-all/>).
- *Biological Collections are Vital to Preserving Species in the Face of Climate Change*. Huffington Post, The Blog 9/29/2014. [https://www.huffingtonpost.com/barbara-m-thiers/biological-collections-ar\\_b\\_5900590.html?1412004263](https://www.huffingtonpost.com/barbara-m-thiers/biological-collections-ar_b_5900590.html?1412004263)
- 2015.
- Thiers, B. *More than Peanuts: George Washington Carver's Fungi Fascination*. Science Talk 11 Feb 2014. <http://blogs.nybg.org/science-talk/2014/02/more-than-peanuts-george-washington-carvers-fungi-fascination/>
  - Thiers, B. *Liverworts, Cousins of Mosses*. Science Talk 8 Jan 2014. <http://blogs.nybg.org/science-talk/2014/01/liverworts-cousins-of-mosses/>
- 2015
- *A Salute to Jackie Kallunki*. Posted in Personalities in Science, Feb 2015. NYBG Science Talk Blog. <https://www.nybg.org/blogs/science-talk/2015/02/a-salute-to-jackie-kallunki/>
- 2016
- *In Love with the Lab: A Review of "Lab Girl"*. Posted in Book: Past and Present, Personalities in Science. 26 April 2016. <https://www.nybg.org/blogs/science-talk/2016/04/in-love-with-the-lab-a-review-of-lab-girl/>
  - *World's Herbarium 2016*. An Annual Report from *Index Herbariorum*. [http://sweetgum.nybg.org/science/docs/The\\_Worlds\\_Herbaria\\_2016\\_18\\_Jan\\_2017.pdf](http://sweetgum.nybg.org/science/docs/The_Worlds_Herbaria_2016_18_Jan_2017.pdf)
- 2017
- *World's Herbarium 2017*. An Annual Report from *Index Herbariorum*. [http://sweetgum.nybg.org/science/docs/The\\_Worlds\\_Herbaria\\_2016\\_18\\_Jan\\_2017.pdf](http://sweetgum.nybg.org/science/docs/The_Worlds_Herbaria_2016_18_Jan_2017.pdf)

## **Interviews for print, film, television, electronic media SINCE 2003**

- Thacker, P. 2003. *Morphology: The Shape of Things to Come*. *Bioscience* 53: 544-549.
2006. Interview for New York Voices produced by WNET for PBS. Aired first May 19 2006. Video archive <http://www.thirteen.org/nyvoices/features/botanicalgarden.html>
2013. Interview for Treasures of New York: The New York Botanical Garden, produced by WNET for PBS. Aired June 2013.
- Interview for promotional film for JSTOR Global Plants website. Introduction to herbaria and the importance of herbaria to research in plant science.

2015. Great Big Story: Media outreach: World Flora Online for Great Big Story, CNN's new online magazine.

2017. Interviewed for and cited in "A Lizard Lost at Sea Makes Its Return." M. Holloway, New York Magazine, 9 Jun 2017

- Botanists fear research slowdown after priceless specimens destroyed at Australian border. Science Magazine May 2017.
- When natural history collections bow to other priorities. The Pulse, WHYY Philadelphia, August 16, 2017. <https://whyy.org/segments/when-natural-history-collection-bow-to-other-priorities/>

### **Presentations (since 2003)**

2003. *Electronic specimen database management at the New York Botanical Garden.* Cold Spring Harbor Banbury Center Conference entitled, "Taxonomy & DNA." 9-12 March.

- *The NYBG Macrofungi Type Specimen Catalog.* Poster presentation. Taxonomic Databases Working Group Meeting, Oeiras, Portugal. 22-28 October.
- *The View from Botany: Technology on the Horizon.* Presentation at NSF Workshop entitled, "Development of a National Systematics Infrastructure: A Virtual Instrument for the 21st Century NSF Workshop, 9-11 December.

2006. *The New York Botanical Garden as a Resource for Understanding the Neotropical Flora.* Invited participant in a symposium entitled, Brazilian Biodiversity Programs: International Cooperation and Repatriation of Taxonomic Information sponsored by the Sociedad Zoologica de Brasil COP-8 meeting, Curitiba, Brazil, March.

- *Importance and role of the New York Botanical Garden Herbarium in the Virtual Herbarium of Brazilian Plants.* Presentation at a symposium entitled, "Revision of Flora brasiliensis: Challenges and opportunities" Florianopolis, Brazil. 16-22 July.
- *The Database Transition Experience.* Presentation at the Review of databasing procedures Workshop, Royal Botanic Garden, Edinburgh, October.

2009. *Herbaria of Latin America/Herbarios de Latino America.: A Summary of Data From Index Herbariorum, An Director of the World's Herbaria.* Presentation at the Global Plants Initiative Meeting, Medellin, Columbia. December 2009.

2010. Design for a Mobile Imaging Station for Herbaria. USVH presentation

2012. *The Lichens, Bryophyte and Climate Change and Macrofungi Collections Consortium projects.* Oral presentation at the Paleocollections Workshop, Gainesville, FL. April 2012.



- *The Lichens, Bryophyte and Climate Change and Macrofungi Collections Consortium projects*. Oral presentation at NYBG, Bronx, NY. Jun 2012.
- *The Lichens, Bryophyte and Climate Change and Macrofungi Collections Consortium projects*. Oral presentation at the SPNHC meeting, New Haven, CT. Jun 2012.
- *Index Herbariorum – A Directory of the World’s Herbaria*. Poster, Society for the Preservation of Natural History Collections meeting, New Haven, CT. 13 Jun 2012.
- *The Macrofungi Collections Consortium*. Invited oral presentation, iDigBio’s ADBC Symposium, Macrofungi at Botany 2012, Columbus, OH, 11 Jul 2012.
- *The Macrofungi Collections Consortium*. Invited oral presentation, Workshop for the Development of a Mycoflora of North America, Yale University, New Haven CT, 13 Jul 2012.
- *The Macrofungi Collections Consortium and North American Mycophiles: Enhancing a Long-standing Relationship*. Invited oral presentation at the Public Participation in Digitization Workshop, University of Florida, Gainesville, FL, 28 Sep 2012.
- *The Macrofungi Collections Consortium*. Invited presentation, iDigBio Summit II, University of Florida, Gainesville, FL, 24 Oct 2012.
- *The LBCC Project at NYBG: Current Status and Lessons Learned*. Invited presentation, LBCC Project Meeting II, University of Wisconsin, Madison, 1 Nov 2012.
- *Reflections on BIEN from a Collections Perspective*. Invited oral presentation at the annual meeting of the Botanical Information for Ecology Network, NCEAS, Santa Barbara, CA, 28 Nov 2012.
- *How to Make Specimens of Macrofungi for Scientific Study*. Workshop presentation, North American Mycological Association annual meeting, Mission Springs, CA, 15 Dec 2012.

2013

- The Botanical Information and Ecology Network: A research and collections collaboration to investigate the ecological impacts of global climate change on plant biodiversity. Society for the Preservation of Natural History Collections conference, Rapid City, South Dakota, June 2013.
- *The Global Plants Initiatives: Future Plans*. Oral presentation, Northeastern Herbarium Consortium Conference, University of Vermont, Burlington, 18 July.
- *The Global Plants Initiatives: Future Plans*. Oral presentation, Botany 2013, New Orleans, LA 30 July.
- Thiers, B, S. Bates and R. Halling. *The Macrofungi Collections Consortium*. Poster Presentation. Mycological Society of America meeting, Austin, TX, 10-13 Aug 2013.
- Peck Mycology Foray, Clarion, PA 20-22 Sep 2013
- Taxonomic Databases Working Group meeting, Florence, Italy, Oct 2013
- Modelling the Plants of the Americas working group meeting, University of Kansas, 4-6 November 2013.

- *Engaging Citizens in Specimen Digitization at the New York Botanical Garden Herbarium*. Invited Presentation, Taxonomic Databases Working Group meeting, Florence, Italy, 27 Oct 2013.
- *The Macrofungi Collections Consortium Update*. Invited Presentation, iDigBio Summit III, Tallahassee, 19 Nov 2013
- Thiers, B. *Botanical Relationships: A career built on collaboration*. Botanical Science Committee meeting, New York Botanical Garden Board of Managers, Nov 2013.

2014

- *Funding for Natural History Collections Digitization*. Digitizing from Source Materials Workshop, Yale University, New Haven, CT., 10-12 March 2014.
- *Wonder Women of Science at the New York Botanical Garden*. New York Botanical Garden, June 2014.
- Thiers, B. *The Macrofungi Collections Consortium Update*. Invited Presentation, iDigBio Summit IV, Gainesville, FL. Nov 2014.

2015

- *Small and Large Herbaria*. Society for the Preservation of Natural History Collections, Gainesville, FL. June 2015.
- *Biodiversity Collections Network*. Botany 2015, Edmonton, Alberta, Canada, July 2015.
- *The Macrofungi Collections Consortium Update*. Invited Presentation, iDigBio Summit IV, Washington, DC. Nov 2015.
- *The Macrofungi Collections Consortium Update*. Invited Presentation, Biodiversity and Climate Change Workshop, December 2015.
- *Natural History Collections: Understanding our Past to Inform our Future*. NSCA symposium, U. S. Capitol, December 2015.

2016

- *The Macrofungi Collections Consortium*. Australasian Mycological Society conference, Queenstown, New Zealand, May 2016.
- *Principles for Setting Digitization Priorities for Herbaria*. Society for the Preservation of Natural History Collections conference, Berlin, Germany, June 2016.
- *Global Biodiversity Information Facility (GBIF) Task Force on Accelerating the Discovery of Biocollections Data*. Botany 2016 meeting, Savannah, GA
- *Preserving for Perpetuity in a Changing World*. Society for Herbarium Curators Symposium, August 2016, Savannah, GA
- *The Macrofungi Collections Consortium*. North American Mycological Association meeting, Front Royal, VA, Sep 2016.

2017

- *How a Garden Grows a Herbarium. Entwined* Symposium, New York Botanical Garden, March 2017.
- *Future Impacts of Digitization and Data Curation on Management and Preservation of Collections.* Director's Summit on Digital Data, 19 Jun 2017.
- *Index Herbariorum* gets an Upgrade. Botany 2017 conference, 24-28 June Fort Worth, TX.
- *Biodiversity Collections Network.* Botany 2017 conference, 24-28 June Fort Worth, TX.
- The Macrofungi Collection Consortium, 2012-2017. Botany 2017 conference, 24-28 June Fort Worth, TX.

2018

- Using Herbarium Specimen Transcription as Workforce Re-entry training. Webinar, iDigBio Outreach committee and BLUE initiative, Feb 2018