

Kayri Havens

Chicago Botanic Garden
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Education:

- 1982-1985 B.A. in Botany, Southern Illinois University, Carbondale, IL.
- 1985-1988 M.S. in Botany, emphasis in Plant Physiology, Southern Illinois University Carbondale, IL.
- 1988-1994 Ph.D. in Biology, Indiana University, Bloomington, IN. Major in Plant Sciences, Minor in Biochemistry. Dissertation Title: Nonrandom reproductive success in an endangered evening primrose (*Oenothera organensis*).

Experience:

- 1994-1997 Conservation Biologist, Missouri Botanical Garden, St. Louis, MO.
Responsible for the curation and interpretation of endangered plants and conducting research on the reproductive biology and autecology of several rare taxa.
- 1997-2000 Manager of Endangered Plant Research, Chicago Botanic Garden, Glencoe, IL.
Develops and implements the Garden's program for plant conservation. Responsible for research on, and *ex situ* conservation of, globally rare plant species and their threats. Collaborates with academic and stewardship communities to further conservation efforts. Teaches classes in support of conservation initiatives.
- 2000-2006 Director of the Institute for Plant Conservation, Chicago Botanic Garden, Glencoe, IL
Develops financial support and maintains financial oversight for the department with annual budget of \$2,000,000, as well as duties listed above.
- 2007-2022 Director, Plant Science and Conservation and Senior Scientist, Chicago Botanic Garden, Glencoe, IL
Oversees research programs in Plant Biology, Restoration Ecology, Conservation Training, Conservation Projects, and Environmental Horticulture. Oversees partnerships with Education Division in informal science education, community science, continuing education, professional development programs, and K-12

programs. Co-manages graduate programs. Develops financial support and maintains oversight for the Division of Science with an annual budget of \$4,500,000, as well as duties above.

2023-present Chief Scientist and Negaunee Vice President of Science
Oversight of entire Science Division and the Library with an annual budget of \$7,000,000, as well as duties above.

Teaching:

1985-1988 Graduate Teaching Assistant at Southern Illinois University; taught General Botany, Plant Physiology and Advanced Plant Physiology

1988-1994 Associate Instructor at Indiana University; taught General Biology, Vascular Plants, and Cell Biology

1993 Science Instructor (Biology and Chemistry) for the Bloomington High School South Academic Decathlon team

1995-1997 Adjunct Faculty at St. Louis College at Meramec, taught General Botany and Introductory Horticulture

1996-1997 Adjunct Faculty at University of Missouri, St. Louis, taught General Botany

1997-present Faculty for School of the Chicago Botanic Garden, taught Conservation Biology, Invasive Plants, and Plant Reproductive Biology

1999-present Adjunct Faculty, Biology, Loyola University, Chicago, taught Conservation Biology and Plant Reproductive Biology

2003-present Adjunct Faculty, Biology, Northwestern University, taught Conservation Biology

2005-present Adjunct Faculty, Biology, University of Illinois - Chicago

1999-present Graduate education advising: serve on graduate committees at Loyola University, Northwestern University, University of Wisconsin-Milwaukee, University of Illinois-Chicago and University of Illinois-Urbana Champaign

Student Advising:

Post-doctoral fellows:

Lara Jefferson, PhD, Curtin University, Western Australia (2001-2005)

Shannon Still, PhD, UC Davis (2011-2014)

Becky Barak, PhD, Northwestern Univ. (2017- 2020)
Marcello DeVitis, PhD, (2019-2021)
Zoe Diaz-Martin, PhD, (2020-2022)

Completed graduate degrees:

Glen Madeja - NU MS – 2010
Christopher Warneke – NU MS – 2015
Jordan Wood – NU MS – 2018
Jessamine Finch – NU PhD - 2019
Bing Li– NU MS - 2021
Daniel Sandacz– NU MS – 2022
Imeña Valdes – NU MS - 2023

Current graduate students:

Karen Segura – NU MS
Rina Taliba – NU MS

Co-advisor or committee member:

Hanilore Artiomow - U of WI, MS – 2002
Barbara Zorn Arnold - UIC PhD - 2005
Kathleen Craft - UIC PhD - 2005
Leora Siegel - UIUC MS - 2007
Andrea Southgate - NU MS - 2007
Alona Banai - NU MS - 2008
Andrea Kramer - UIC PhD - 2009
Jennifer Ison - UIC PhD - 2010
Paul Gulezian – UIC PhD - 2011
Stephanie Fritchie – NU MS – 2015
Adrienne Basey – NU MS – 2015
Clare Ellwanger – NU MS - 2016
Alexandra Seglias – NU MS - 2017
Becky Barak – NU PhD – 2017
Abbey White – NU MS - 2017
Nathan Lamb – NU MS - 2018
Nora Gavin Smyth – NU MS – 2018
Sam Kilgore – NU MS – 2020
Jeremy Foster – NU MS – 2022
Olivia Murrell – NU MS - 2023

Interns (post-Baccalaureate or post-Masters) and undergraduate students advised:

Doug Holland, Lesli Jenkins, Justin Epting, Jennifer Ison, Andrea Tietmeyer Kramer, Midori Murai, Glenn Goodfellow, Heather Sevener, Krissa Skogen, Kathryn Theiss, Heather Lynn Lindon, Britt Forsberg, Caitlin

Chamberlin, Anne Claerbout, Betsy Allen, Emily Yates, Rebecca Tonietto, Mary Byrne, Megan Haidet, Christina Andruk, Donovan Harris, Emma Iffrig, Benjamin Barteau, Jalen Holloway, Darwyn Vitt Gorra, Ben Levy

Grants and Contracts Received: (Primary investigator unless otherwise noted). Career total = 122 grants totaling \$55,663,282.

1990-1993	Indiana Academy of Science: Three grants totaling \$1700
1990-1994	Indiana University Research Awards: Four grants totaling \$1000
1995	Bay Foundation, \$5000 Missouri Department of Conservation, \$5000
1996	Missouri Department of Conservation, \$7500 US Fish and Wildlife Service, Region 3, \$10,000
1998	Chicago Wilderness, \$10,695 US Fish and Wildlife Service, Region 3, \$5,000 US Fish and Wildlife Service, Chicago office, \$7500
1999	Chicago Wilderness, \$2000 USDA Forest Service, \$2000 National Fish and Wildlife Foundation, \$23,700
2000	Froehlich Foundation, \$500,000 Institute of Museum and Library Services, \$256,000 Institute of Museum and Library Services, co-PI, \$420,000 Garden Clubs of America, \$14,000 Illinois Department of Natural Resources, \$5000
2001	Froehlich Foundation, \$400,000 Bureau of Land Management, \$300,000 Bureau of Land Management, \$100,000
2002	Froehlich Foundation, \$480,000 Bureau of Land Management, \$300,000 Bureau of Land Management, \$126,000 Bureau of Land Management, \$35,000 Chicago Wilderness, \$15,000
2003	Froehlich Foundation, \$500,000 Bureau of Land Management, \$300,000 Bureau of Land Management, \$100,000 Bureau of Land Management, \$95,000 BP Amoco Leader Award, \$100,000 Institute for Museum and Library Services, co-PI, \$473,072
2004	Bureau of Land Management, \$400,000 Bureau of Land Management, \$126,000

	Bureau of Land Management, \$95,000
	National Fish and Wildlife Foundation, \$33,100
	National Park Service, \$130,000
2005	Bureau of Land Management, \$795,000
	Bureau of Land Management, \$226,000
	Joseph Banks Foundation, \$35,800
	BP Amoco Leader Award, \$25,000
	National Science Foundation, LTREB, \$300,000
	National Science Foundation, MRI, \$285,000
	National Fish and Wildlife Foundation, \$140,000
2006	National Science Foundation, IGERT, (co-PI with Mary Ashley, Univ. of Illinois Chicago), \$2,810,000
	Bureau of Land Management, \$1,500,000
	Bureau of Land Management, \$42,000
	Luce Foundation, \$300,000
	Joseph Banks Foundation, \$70,000
	Center for Invasive Plant Management, \$5000
	National Fish and Wildlife Foundation, \$25,000
	Bureau of Land Management, \$20,000
	National Fish and Wildlife Foundation, \$127,610
2007	Bureau of Land Management, \$1,000,000
	National Fish and Wildlife Foundation, \$160,000
	Joseph Banks Foundation, \$115,000
	American Friends of Kew Foundation, \$70,000
	Froehlich Foundation, \$415,000
2008	Bureau of Land Management, \$4,800,000
	US Botanic Garden, \$50,000
	National Fish and Wildlife Foundation, \$35,000
2009	National Fish and Wildlife Foundation, \$125,000
	USDA Forest Service, \$40,000
	Bureau of Land Management, \$1,000,000
	NASA (co-PI), \$149,000
	NASA (co-PI), \$30,000
	NSF-MRI (co-PI), \$305,000
	US Fish and Wildlife Refuges, \$50,000
	Institute for Museum and Library Services (co-PI), \$100,000
2010	Amer. Recovery and Reinvestment Act, \$1,250,000
	Bureau of Land Management, \$3,000,000
	Bureau of Land Management, \$80,000
	Bureau of Land Management, \$442,000
	Institute for Museum and Library Services, \$150,000
2011	Bureau of Land Management, \$2,000,000

	Bureau of Land Management, \$350,000
	Bureau of Land Management, \$100,000
	NEON, \$105,000
	NSF-MRI, \$135,000
	USDA Forest Service, \$40,000
	USDA Forest Service, \$60,000
	Bureau of Land Management, \$200,000
	Center for Plant Conservation, \$100,000
2012	NEON, \$39,000
	National Fish and Wildlife Foundation, \$63,000
	National Fish and Wildlife Foundation, \$32,000
	Bureau of Land Management, \$3,000,000
	Bureau of Land Management, \$220,000
	Bureau of Land Management, \$150,000
	Bureau of Land Management, \$420,000
2013	National Fish and Wildlife Foundation, \$40,000
	Bureau of Land Management, \$2,200,000
	US Fish and Wildlife Service, \$154,000
	Bureau of Land Management, \$840,000
	NEON, \$20,000
2014	Bureau of Land Management, \$2,200,000
	Department of Interior (PI: Peggy Olwell), \$2,500,000
	Bureau of Land Management, \$613,000
2015	Bureau of Land Management, \$2,400,000
	Bureau of Land Management, \$900,000
2016	Bureau of Land Management, \$3,400,000
	Bureau of Land Management, \$390,000
	Bureau of Land Management, \$370,000
	NEON, \$100,000
	Institute for Museum and Library Services, \$108,000 (PI: Patrick Griffith)
	Farm Bill, \$10,000 (PI: Jan Merryweather)
	Eppley Foundation, \$25,000 (PI: Jeremie Fant)
2017	Bureau of Land Management, \$3,300,000
2018	Bureau of Land Management, \$1,500,000
	Bureau of Land Management, \$1,100,000 (contracts)
	US Fish and Wildlife Service, \$50,000
	USDA Forest Service, \$240,000
	Donnelly Foundation, \$66,000
2019	Institute of Museum and Library Services, \$731,633
	Bureau of Land Management (10 Contracts combined total), \$2,220,611
	Anonymous foundation, \$3,400,000
2020	US Fish and Wildlife Service, \$90,000

	Door County Land Trust, \$60,000
	Lake County Forest Preserve District, \$24,000
	Walder Foundation, \$194,000
2021	Bureau of Land Management (4 Contracts combined total), \$1,270,435
	Anonymous foundation, \$285,000
	Center for Plant Conservation, \$22,500
	NSF Biological Integration Institute, \$12,500,000 (PI: A. Miller)
	NSF MRI, \$158,000
2022	Bureau of Land Management (8 contracts combined total), \$1,538,360
	Bureau of Land Management (7 contracts combined total), \$1,672,629
	Walder Foundation, \$999,976

Awards:

Center for Plant Conservation Star Award – 2002
 Illinois Native Plant Society Award of Merit – 2002
 BP Amoco Leadership Award – 2003
 Plant Conservation Alliance Leadership Award – 2007
 Jeanne LaDuke Women in Math, Science and Technology Award – 2007
 Secretary of the Interior’s Partners in Conservation Award – 2010
 American Horticultural Society Liberty Hyde Bailey Award – 2019
 Crain’s Chicago Business, Notable Women in STEM- 2020

Professional Societies and Service:

American Public Gardens Association, member of Conservation Committee (1999-present), Chair Conservation Committee (2006-2008)
 American Institute of Biological Sciences, member of Biodiversity Committee (1997-1998)
 Botanic Gardens Conservation International, US Board member and Treasurer (2006-present)
 Botanical Society of America, chair of Conservation Committee (1996-1999), Public Policy Committee (2011-present)
 BudBurst, co-director
 Chicago Wilderness, member of Science and Land Management Team (1997-present), co-chair of Science Team (2005-2010) and chair of seed task force (2002-2004)
 Fairchild Tropical Botanical Garden Research Associate
 Illinois Endangered Species Protection Board, member of Scientific Review Panel (1999-present)
 Invasive Plant Council of Illinois, co-founder (2002-present)
 Illinois Native Plant Society, President (1998-2004)
 Lake Forest Open Lands Association, member of board, conservation science committee (2006-2008)
 Midwin National Tallgrass Prairie, member of Scientific Review Panel (1999-present)
 Midwest Invasive Plant Network, Board member (2002-2010) and Treasurer (2002-2007), chair of Green Industry Committee (2003-2010)
 Midwestern Rare Plant Task Force, founder and co-coordinator (1997-present)
 The Nature Conservancy

Plant Conservation Alliance, cooperator contact and NGO chair
USA National Phenology Network, member of informal science education committee (2005-present)
World Conservation Union (IUCN) Species Survival Commission, Plant Committee (2005-2009);
Conservation Breeding Specialist Group (2009-2010); Seed Conservation Specialist Group (2016-present)

Peer reviewer for *American Journal of Botany*, *Conservation Biology*, *Conservation Genetics*, *Evolution*,
International Journal of Plant Sciences, *New Phytologist* and several other journals. External dissertation
reviewer for University of Western Australia.

Publications:

- Havens, K. 1994. Clonal repeatability of *in vitro* pollen tube growth rates in *Oenothera organensis* (Onagraceae). *American Journal of Botany* 81: 161-165.
- Havens, K., K.A. Preston, C.R. Richardson, and L.F. Delph. 1995. Nutrients affect allocation to male and female function in *Abutilon theophrasti* (Malvaceae). *American Journal of Botany* 82: 726-733.
- Havens, K. and L.F. Delph. 1996. Differential seed maturation uncouples fertilization and siring success in *Oenothera organensis* (Onagraceae). *Heredity* 76:623-632.
- Havens, K. 1998. The genetics of plant restoration. *Restoration and Management Notes* 16: 68-72.
- Havens, K. and D.L. Holland. 1998. Factors affecting reproductive success in a rare grass, *Calamagrostis porteri* ssp. *insperata*. *Annals of the Missouri Botanical Garden* 85:64-68.
- Delph, L.F. and K. Havens. 1998. Pollen competition in flowering plants. In: *Sperm Competition and Sexual Selection*, T.R. Birkhead and A.P. Moller (eds), Academic Press. pp.147-174.
- Ault, J.R. and K. Havens. 1999. Micropropagation of *Baptisia* 'Purple Smoke'. *Hortscience* 34: 353-354.
- Havens, K. 1999. Pollination biology: Implications for rare plant conservation. *Ecological Restoration* 17: 217-219.
- Bell, T.J., M. Bowles, K. Havens, P. Vitt, and K. McEachern. 2002. Reintroducing Pitcher's thistle. *Endangered Species Bulletin* 27: 14-15.
- Havens, K. 2002. Developing an invasive plant policy: The Chicago Botanic Garden's experience. *Public Garden* 17: 16-17.
- Guerrant, E.O., K. Havens, M. Maunder (eds.). 2004. *Ex Situ Plant Conservation: Supporting Species Survival in the Wild*. Island Press. 504 pp.

- Maunder, M., K. Havens, E.O. Guerrant, and D. Falk. 2004. *Ex situ* methods: A vital but underused set of conservation resources. In: *Ex Situ Plant Conservation: Supporting Species Survival in the Wild*, E.O. Guerrant, K. Havens, M. Maunder (eds.). Island Press. Pp. 3-20.
- Vitt, P. and K. Havens. 2004. Integrating quantitative genetics into *ex situ* conservation and restoration practices. In: *Ex Situ Plant Conservation: Supporting Species Survival in the Wild*, E.O. Guerrant, K. Havens, M. Maunder (eds.). Island Press. Pp. 286-304.
- Maunder, M., E.O. Guerrant, K. Havens, and K. Dixon. 2004. Realizing the full potential of *ex situ* contributions to global plant conservation. In: *Ex Situ Plant Conservation: Supporting Species Survival in the Wild*, E.O. Guerrant, K. Havens, M. Maunder (eds.). Island Press. Pp. 389-418.
- Guerrant, E.O., P. Fiedler, K. Havens and M. Maunder. 2004. Revised genetic sampling guidelines for conservation collections of rare and endangered plants. In: *Ex Situ Plant Conservation: Supporting Species Survival in the Wild*, E.O. Guerrant, K. Havens, M. Maunder (eds.). Island Press. Pp. 419-441.
- Havens, K., E.O. Guerrant, M. Maunder and P. Vitt. 2004. Guidelines for *ex situ* conservation collection management: Minimizing risks. In: *Ex Situ Plant Conservation: Supporting Species Survival in the Wild*, E.O. Guerrant, K. Havens, M. Maunder (eds.). Island Press. Pp. 454-473.
- Havens, K., Jefferson, L. and Vitt, P. 2004. Chicago Botanic Garden reaches beyond its borders. *Public Garden* 18: 35-36.
- Jefferson, L., K. Havens and J. Ault. 2004. Implementing invasive screening procedures: The Chicago Botanic Garden model. *Weed Technology* 18: 1434-1440.
- Havens, K., M. Maunder, E.O. Guerrant, and P. Vitt. 2004. Conservation research at botanic gardens and arboreta. *Public Garden* 19: 40-43.
- Maunder, M., K. Havens and E.O. Guerrant. 2004. *Ex situ* plant conservation: out of the garden and into the world. *Public Garden* 19: 8-12.
- Pennacchio, M., Jefferson, L.V. and Havens, K. 2005. *Arabidopsis thaliana*: a useful test species for phytotoxic bioassays. *Journal of Chemical Ecology* 31: 1877-1885.
- Pennacchio, M., Jefferson, L.V. and Havens, K. 2005. Smoke: Promoting germination of tallgrass prairie species. *Chicago Wilderness Journal: Best Practices in Conservation and Restoration* 3: 14-19.
- Farnsworth, E.J., S. Klionsky, W.E. Brumback and K. Havens. 2006. A set of simple decision matrices for prioritizing collection of rare plant species for *ex situ* conservation. *Biological Conservation*. 128:1-12.

- Havens, K. 2006. Developing an invasive plant policy at a botanic garden: lessons learned. *BG Journal* 3: 22-24.
- Havens, K., P. Vitt, M. Maunder, E. O. Guerrant Jr., and K. Dixon. 2006. *Ex situ* plant conservation and beyond. *BioScience* 56:525-531.
- Pennacchio, M., L. V. Jefferson, K. Havens and P. Olwell. 2007. International conservation and land management exchange program. *Public Garden* 22: 29.
- Havens, K., P. Vitt, J. Schwarz, B. Orr and T. Crimmins. 2007. Chicago Botanic Garden's conservation and outreach efforts on climate change. *BG Journal* 4: 13-16.
- Pennacchio, M., Jefferson, L. V., and K. Havens. 2007. Where there's smoke, there's germination. *Illinois Steward* Fall: 24-28.
- Pennacchio, M., Jefferson, L. V. and Havens, K. 2007. The inhibitory effects of plant-derived aerosol smoke on seed germination of *Arabidopsis thaliana*. *Research Letters in Ecology*, Volume 2007, Article ID 65083, 4 pages, published online.
- Jefferson, L.V., Pennacchio, M., Havens, K., Forsberg, B., Sollenberger, D. and Ault, J. 2008. *Ex situ* germination responses of midwestern USA prairie species to plant-derived smoke. *American Midland Naturalist* 159: 251-256.
- Schwarz, J., K. Havens, and P. Vitt. 2008. Understanding climate change through citizen science. *Roots* 5: 22-24.
- Havens, K., P. Vitt, and J. Schwarz. 2008. Your garden, our climate. *Chicagoland Gardening* 2: 20-21.
- Hawkins, B., Sharrock, S. and Havens, K., 2008. *Plants and Climate Change: Which Future?* Botanic Gardens Conservation International, Richmond, UK, 98pp.
- Vitt, P, K. Havens, B. Kendall and T.M. Knight. 2009. Community-level management increases the viability of *Tomanthera auriculata*, a rare prairie annual. *Biological Conservation* 142: 798-805.
- Kramer, A. and K. Havens. Plant conservation genetics in a changing world. 2009. *Trends in Plant Science* 14: 599-607.
- Vitt, P., K. Havens, and O. Hoegh-Guldberg. 2009. Assisted migration: Part of an integrated conservation strategy. Letter in response to Ricciardi and Simberloff. *Trends in Ecology and Evolution* 24: 473-474.

- Vitt, P., K. Havens, A.T. Kramer, D. Sollenberger, and E. Yates. 2010. Assisted migration of plants: Changes in latitudes, changes in attitudes. *Biological Conservation* 143:18-27.
- Pennacchio, M., L. Jefferson and K. Havens. 2010. *Uses and Abuses of Plant Derived Smoke: Its Ethnobotany as Hallucinogen, Perfume, Incense, and Medicine*. Oxford University Press, 247 pp.
- Kramer, A., K. Havens, and B. Zorn-Arnold. 2010. Assessing botanical capacity to address grand challenges in the United States. 64 pp. plus appendices. Available at www.bgci.org/usa/bcap/fullreport.pdf.
- Tienes, M., K. Skogen, P. Vitt and K. Havens. 2010. *Optimal Monitoring of Rare Plant Populations: Report for the USDA Forest Service*. 57 pages. Available at http://strategicplan.chicagobotanic.org/supporting_document/optimal-monitoring-rare-plant-populations.
- Fant, J., A. Banai, K. Havens and P. Vitt. 2010. Hybridization between the threatened plant, *Lespedeza leptostachya* Englem. and its co-occurring congener *Lespedeza capitata* Michx.: morphological and molecular evidence. *Conservation Genetics* 11: 2195-2205.
- Sundberg, M., P. DeAngelis, K. Havens, K. Holsinger, K. Kennedy, A.T. Kramer, R. Muir, P. Olwell, K. Schierenbeck, L. Stritch, and B. Zorn-Arnold. 2011. Perceptions of strengths and deficiencies; disconnects between university science students and potential employers. *BioScience* 61: 133-138.
- Havens, K. 2011. Research at public gardens. In: *Public Garden Management: A Complete Guide to the Planning and Administration of Botanical Gardens and Arboreta*, D. Rakow and S. Lee (eds.). John Wiley & Sons Inc., New Jersey. Pp. 272-283.
- Kramer, A.T. and K. Havens. 2011. Assessing botanical capacity in the United States: gaps identified and strategic recommendations made to maximize conservation success. *Australasian Plant Conservation* 19: 21-22.
- Havens, K. 2011. Dynamic floras and the need for consistent terminology. *Natural Areas Journal* 31: 115-116.
- Knight, T.M., K. Havens and P. Vitt. 2011. Will the use of less fecund cultivars reduce the invasiveness of perennial plants? *BioScience* 61: 816-822.
- Madeja, G., L. Umek, and K. Havens. 2012. Differences in seed set and viability of *Miscanthus* cultivars grown in zone 5 and their potential for invasiveness. *Journal of Environmental Horticulture* 30: 42-50.

- Henderson, S., D.L. Ward, K.K. Meymaris, P. Alaback, and K. Havens. 2012. Project BudBurst: Citizen science for all seasons. In: *Citizen Science: Public Collaboration in Environmental Research*, J.L. Dickinson and R. Bonney (eds.). Cornell University Press. Pp 50-57.
- Havens, K., P. Vitt and S. Masi. 2012. Citizen science on a local scale: The “Plants of Concern” program undertakes rare plant monitoring. *Frontiers in Ecology and the Environment* 10: 321-323.
- Schwarz-Ballard, J. and K. Havens. 2012. The elephant in the room: Recognizing and addressing climate change at public gardens. *Public Garden* 27:26-28.
- Havens, K., C.L. Jolls, J.E. Marik, P. Vitt, and A.K. McEachern. 2012. Effects of a non-native biocontrol weevil, *Larinus planus*, and other emerging threats on populations of the federally threatened Pitcher’s thistle (*Cirsium pitcheri*). *Biological Conservation* 155: 202-211.
- Fant, J.B., A.T. Kramer, E. Sirkin and K. Havens. 2013. Genetic changes in reintroduced populations of the narrowly endemic thistle, *Cirsium pitcheri* (Asteraceae). *Botany* 91: 301-308.
- Havens, K. and S. Henderson. 2013. Citizen science takes root. *American Scientist* 101: 378-385.
- Kramer, A.T., B. Zorn-Arnold and K. Havens. 2013. Applying lessons from the U.S. Botanical Capacity Assessment Project to achieving the 2020 GSPC targets. *Proceedings of the Global Partnership for Plant Conservation. Annals of the Missouri Botanical Garden* 99: 172-179.
- Raven, P. and K. Havens. 2014. *Ex situ* plant conservation and cryopreservation: Breakthroughs in tropical plant conservation. *International Journal of Plant Sciences* 175: 1-2.
- Havens, K., A.T. Kramer and E.O. Guerrant. 2014. Getting plant conservation right (or not): The case of the United States. *International Journal of Plant Sciences* 175: 3-10.
- Guerrant, E.O., K. Havens and P. Vitt. 2014. Sampling for effective ex situ plant conservation. *International Journal of Plant Sciences* 175: 11-20.
- Fant, J.B., K. Havens, J.M. Keller, A. Radosavljevic and E.D. Yates. 2014. The influence of contemporary and historic landscape features on the genetic structure of the sand dune endemic, *Cirsium pitcheri* (Asteraceae). *Heredity* 112: 519–530.
- Jefferson, L.V., M. Pennacchio, and K. Havens. 2014. *Plant-derived Smoke and Seed Germination*. Oxford University Press. 316 pp.
- Aronson, J. and On Behalf of The ERA of Botanic Gardens. 2014. The Ecological Restoration Alliance of Botanic Gardens: A New Initiative Takes Root. *Restoration Ecology*, 22: 713–715.

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- Kramer, A.T. and K. Havens. 2015. Report in brief: Assessing botanical capacity to address grand challenges in the United States. *Natural Areas Journal* 35: 83-89.
- Guerrant, Jr., E.O., K. Havens, P.L. Fiedler, P. Vitt, D.A. Falk, K. Dixon. 2015. Population structure integral to seed collection guidelines: a response to Hoban and Schlarbaum. *Biological Conservation* 184: 465-466.
- Jolls, C.L., J.E. Marik, S.I. Hamze and K. Havens. 2015. Population viability analysis and the effects of light availability and litter on populations of *Cirsium pitcheri*, a rare, monocarpic perennial of Great Lakes shorelines. *Biological Conservation* 187: 82–90.
- Miller, J.S., P. P. Lowry, J. Aronson, S. Blackmore, K. Havens, and J. Maschinski. 2016. Conserving biodiversity through ecological restoration: The potential contributions of botanical gardens and arboreta. *Candollea* 71: 91-98.
- Fant, J.B., K. Havens, A.T. Kramer, S.K. Walsh, T. Callicrate, R.C. Lacy, M. Maunder, A. Hird Meyer, P.P. Smith. 2016. What to do when we can't bank on seeds: What botanic gardens can learn from the zoo community about conserving plants in living collections. *American Journal of Botany* 103: 1-3.
- Williams, E.W., R. Cheung, C. Siegel, M. Howard, J. Fant, and K. Havens. 2016. Persistence of the gypsophile *Lepidospartum burgessii* (Asteraceae) through clonal growth and limited gene flow. *Conservation Genetics* 17:1201-1211.
- Havens, K. and P. Vitt. 2016. The importance of phenological diversity in seed mixes for pollinator restoration. *Natural Areas Journal* 36: 500-506.
- Vitt, P., T.M. Knight, M. Schutzenhofer, W. Kleiman, K. Havens and T. Bittner. 2017. Experimental grazing and grass-specific herbicide benefit rare forb recruitment. *Natural Areas Journal* 37:161-169.
- Havens, K. 2017. The role of botanic gardens and arboreta in restoring plants: from populations to ecosystems. In: *Botanic Garden Conservation Science and Practice*, S. Blackmore and S. Oldfield (eds.). Cambridge University Press. Pp. 134-165.
- Kramer, A.T., Wood, T.E., S. Frischie, and K. Havens. 2018. Considering ploidy when producing and using mixed-source native plant materials for restoration. *Restoration Ecology* 26:13-19.
- White, A., J.B. Fant, K. Havens, M. Skinner, and A.T. Kramer. 2018. Restoring species diversity: Assessing capacity in the U.S. native plant industry. *Restoration Ecology* 26: 605-611.

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 DOI: [10.1002/aps3.11491](https://doi.org/10.1002/aps3.11491)
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- Sandacz, D., P. Vitt, T.M. Knight, P. CaraDonna, K. Havens. 2023. The effects of the decline of a keystone plant species on a dune community plant-pollinator network. *Frontiers in Conservation Science*. 4:1183976. doi: 10.3389/fcosc.2023.1183976

Selected Symposia and Invited Presentations:

Organized and chaired a symposium entitled *Plant Conservation Biology: Bridging the Gap between*

Research and Practice for the American Institute of Biological Sciences annual meeting, San Diego, CA, 1995.

Rare Plant Conservation in the Midwest. Invited departmental seminar at Southern Illinois University-Carbondale, 1995.

Ex Situ Plant Conservation at the Missouri Botanical Garden. Invited departmental seminar at Southern Illinois University-Edwardsville, 1996.

How to Establish a Living Rare Plant Collection and Using Plant Collections for Taxonomic Research. Invited presentations at the American Association of Botanical Gardens and Arboreta annual meeting, St. Louis, MO, 1996.

Organized and chaired a workshop entitled *Plant Conservation Biology in the Pacific Northwest: Research Opportunities and Priorities* for the American Institute of Biological Sciences annual meeting, Seattle, WA, 1996.

Organized a conference entitled *1997 Midwestern Rare Plant Conference and Task Force Meeting* and at Missouri Botanical Garden, St. Louis, MO, 1997.

Plant Conservation Policy in the United States. Plenary presentation at American Institute of Biological Sciences annual meeting, Montreal, Canada, 1997.

Rare Plant Reintroductions: Making the Connections. Invited presentation at the Society of Ecological Restoration annual meeting, Ft. Lauderdale, FL, 1997.

Rare Plant Conservation at the Chicago Botanic Garden. Invited departmental seminar at Eastern Illinois University, Charleston, IL, 1997.

Organized and moderated a symposium entitled *Plant Population Genetics: Bridging the Gap Between Research and Stewardship* at Chicago Botanic Garden, Glencoe, IL, 1997.

*Conservation genetics of *Platanthera leucophaea* and implications for restoration*. Presentation at the Botanic Garden Conservation Congress, Capetown, South Africa, 1998.

Plants on Demand: Research at Botanical Gardens. Invited presentation at American Institute of Biological Sciences annual meeting, Baltimore, MD, 1998.

Organized a conference, *1998 Midwestern Rare Plant Conference and Task Force Meeting* at Chicago Botanic Garden, 1998.

Organized a symposium, *Pollination Biology: Implications for Rare Plant Conservation* and gave a

presentation at Chicago Botanic Garden, 1998.

Invited participant at the Native Plant Conservation Initiative Strategic Planning Conference, 1999

Nonrandom Reproductive Success in an Endangered Evening Primrose, Oenothera organensis. Invited departmental seminar at Loyola University, Chicago, IL, 1999.

Nonrandom Reproductive Success in an Endangered Evening Primrose, Oenothera organensis. Invited departmental seminar at University of Illinois – Chicago, 1999.

Nonrandom Reproductive Success in an Endangered Evening Primrose, Oenothera organensis. Invited departmental seminar at University of Wisconsin – Milwaukee, 1999.

Plant Population Genetics: Applications for Ex Situ and Integrated Conservation Programs. Invited presentation at American Association of Botanic Gardens and Arboreta annual meeting, Vancouver, BC, Canada, 1999.

Organized and moderated a conference entitled *Strategies for Survival: Ex Situ Plant Conservation* and gave four presentations, *What purposes are served by ex situ plant collections*; *Unnatural selection: Genetic change in ex situ collections*; *Using demographic and genetic information for the conservation of Mespilus canescens*; and *Viability analysis of a restored population of the federal threatened Pitcher's thistle (Cirsium pitcheri) in Illinois* at Chicago Botanic Garden, Glencoe, IL, 1999.

Rare Plants and Local Ecotypes: Emerging Issues in Native Plant Restoration. Keynote address for rare plant conference in Minneapolis, MN, 2000.

Plant Collecting for Conservation Purposes and with a Conservation Ethic. Invited presentation at American Association of Botanic Gardens and Arboreta annual meeting, Asheville, NC, 2000.

Viability Analysis of a Restored Population of the Federal Threatened Pitcher's Thistle (Cirsium pitcheri) in Illinois. Invited presentation at the Botanical Society of America annual meeting, Portland, OR, 2000.

Organized a symposium entitled *The Biology of Small Populations* at Chicago Botanic Garden, Glencoe, IL, 2001.

Germplasm Acquisition: Conservation Opportunities and Concerns. Invited presentation at the New Ornamental Crops Research Symposium, Chicago Botanic Garden, Glencoe, IL, 2001.

Organized and moderated a symposium entitled *The Ecology and Management of Oak Woodlands* at Chicago Botanic Garden, Glencoe, IL, 2002.

Served on planning committee for *Science for Plant Conservation: An International Conference for Botanic Gardens* and gave two presentations, *Ex Situ Plant Conservation: Global Issues and Conservation genetics and reintroduction of *Cirsium pitcheri**, Dublin, Ireland, 2002.

Invasive Plants of the Upper Midwest. Invited presentation at University of Wisconsin extension service, Madison, WI, 2002.

Invasive Plants of the Upper Midwest. Invited presentation at Chicago Botanic Garden Collections Field Day, Glencoe, IL, 2002.

Organized and hosted an international conference entitled *Invasive Plants: Global Issues, Local Challenges* in Chicago, IL, 2002.

Ex Situ Plant Conservation: Global Issues. Invited departmental seminar at University of Chicago, Chicago, IL, 2003.

Plant Conservation and Genetic Engineering: Potential Ethical Concerns. Invited seminar at Loyola University Bioethics Symposium, Chicago, IL, 2003.

Organized and moderated a workshop on developing an Illinois Invasive Plant Council at the Illinois Invasive Species Symposium, Bloomington, IL, 2003.

Invasive Plants: Global Issues, Local Challenges and Weed Risk Assessment. Invited presentations at the Natural Areas Conference, Madison, WI, 2003.

Organized and moderated a symposium *Sowing the Seeds for Change: Restoration of Plant Communities* at Chicago Botanic Garden, Glencoe, IL, 2003.

Invasive Plants: Global Issues, Local Challenges and Weed Risk Assessment. Invited presentations at the Invasive Plants in Natural and Managed Systems conference, Ft. Lauderdale, FL, 2003.

Ex situ plant conservation and restoration genetics. Keynote address at the Florida Rare Plant Task Force meeting, Lake Wales, FL, 2004.

The Conservation and Land Management Intern Program. Invited presentation at the Plant Conservation Alliance meeting, Washington, DC, 2004.

The Role of Ex Situ Facilities in Plant Conservation: Realizing our Full Potential and Meeting Global Targets, The Role of Ex Situ Facilities in Plant Conservation: Measuring Success, and Ex situ plant conservation – developing a conservation collection. Three invited presentations at the Botanic Gardens Conservation International World Congress, Barcelona, Spain, 2004.

Conserving imperiled plants: a few rest stops on the road to recovery. Invited presentation at the Texas Rare Plant Conference, Austin, TX, 2004.

Global and local ex situ plant conservation. Invited departmental seminar at Benedictine University, Chicago, IL, 2004.

Global and local ex situ plant conservation. Invited departmental seminar at University of Chicago, Chicago, IL, 2004

Organized and moderated a symposium entitled, *Celebrating 10 years of the Plant Conservation Alliance: Conservation and Restoration of Plant Communities* at Chicago Botanic Garden, Glencoe, IL, 2004.

Taught *Ex situ plant conservation* at an international workshop on Botanic Gardens and Conservation, Fairy Lakes Botanic Garden, Shenzhen, China, 2004.

Conservation and Land Management Program Invited presentation at Department of Environment and Conservation in Perth, Western Australia, 2004.

To Reintroduce or Not: Biological Issues in Rare Plant Reintroductions. Keynote address at a joint meeting of the Illinois and Missouri Native Plant Societies, 2004.

Taught at a national workshop on Applied Plant Conservation, organized by Center for Plant Conservation and hosted by Denver Botanic Garden, 2004.

Weed Risk Assessment. Invited presentation, American Association of Botanical Gardens and Arboreta annual meeting, Chicago, IL 2005.

The Role of Ex Situ Institutions in Plant Conservation: Measuring Success at the International Botanical Congress, Vienna, AUS, 2005.

Organized and moderated a symposium *Plant Conservation in an Era of Global Climate Change* at Chicago Botanic Garden, Glencoe, IL, 2005.

Rare plant management in the face of global climate change; and Weed risk assessment and evaluation protocols: An integrated approach. Ecological Society of America meeting, Merida, Mexico, 2006.

Ecotypic differentiation in Penstemon and Eriogonum in the Great Basin; and Conservation and Land Management Mentoring Program. Joint meeting of BLM and USFS Botanists, Las Vegas, NV, 2006.

Invasive Plants: Global Issues, Local Challenges. American Public Garden Association annual meeting, San Francisco, CA, 2006.

Differences in germination and selfing rates between natural and horticultural populations of Echinacea with conservation implications; and Plant population genetics in the Great Basin (USA): outbreeding depression and implications for restoration Janet Meakin Poor Symposium, Chicago Botanic Garden, Glencoe, IL, 2006.

National Tropical Botanic Garden. Participated in workshop on management of living collections. 2006.

Participated in scientific advisory committee on "Ecotypes and genetic issues in revegetating federal lands," convened by Bureau of Land Management and Center for Plant Conservation, St. Louis Missouri, 2006.

Participated in the National Phenology Network workshop, Milwaukee, Wisconsin, 2006.

Participated in Indiana University's Invasive Plant Workshop, 2006.

Participated in the Nature Conservancy workshop on cultivars of invasive plant species, St. Louis, Missouri, 2006.

Organized and moderated a symposium entitled, "Urban Ecology: Celebrating Ten Years of Chicago Wilderness" at Chicago Botanic Garden, 2006.

Ecotype Issues in Restoration, keynote address for Plant Conservation Alliance annual meeting, Washington DC, March, 2007.

Plant Conservation in the United States (plenary address) and *Responding to Global Climate Change* (invited presentation) at Botanic Gardens Conservation International Congress, Wuhan, China, 2007.

Chicago Botanic Garden's Conservation Programs. Center for Plant Conservation ann. Mtg., Chicago, IL, 2007.

Responding to Global Climate Change and Conservation and Land Management Intern Program. American Public Garden Association annual meeting, Washington DC, 2007.

Genetic Consideration for Native Plant Materials Development. Keynote address at Native Wildflower Research Symposium, Orlando, FL, 2007.

Participated in the IUCN Plants Committee workshop, Ottawa, Canada, 2007.

Participated in the National Phenology Network workshop, Milwaukee, Wisconsin, 2007.

Saving Plants and the Planet. Jeanne LaDuke Women in Math, Science and Technology lecture, Chicago, IL, 2007.

Chicago Botanic Garden's Climate Change Programs. Chicago Botanic Garden, 2007.

Organized and moderated a symposium, *Climate Crisis: Emerging Consequences of Climate Change* at Chicago Botanic Garden, Glencoe, IL, 2008.

Meeting the Goals of the North American Strategy for Plant Conservation. American Public Garden Association annual meeting, Pasadena, CA, 2008.

Global Climate change and Plant Conservation. Plenary lecture at the Botanic Gardens Conservation International World Science Congress, Delft, The Netherlands, 2008.

Project Budburst: Citizen science and climate change. Ecological Society of America Conference, Milwaukee, WI, 2008.

Project Budburst: How to provide high quality data for climate change research using a national citizen science program. Ecological Society of America Conference, Milwaukee, WI, 2008.

Using phenology to engage public audiences in climate change issues. Ecological Society of America Conference, Milwaukee, WI, 2008.

Project Budburst: Citizen science for all seasons. Ecological Society of America Conference, Milwaukee, WI, 2008.

*The mystery of hybridization between the federally threatened *Lespedeza leptostachya* and its co-occurring common congener *L. capitata*.* Ecological Society of America Conference, Milwaukee, WI, 2008.

*Bet-hedging strategies in annual and perennial species of *Eriogonum* from the high desert of the Intermountain West.* Ecological Society of America Conference, Milwaukee, WI, 2008.

Demand for botanists on federal lands: Partnerships between botanic gardens and land management agencies. Botanical Society of America, Vancouver, BC, Canada, 2008.

Rare Plant Conservation in Illinois: Progress and Challenges. Presentation at the 150th anniversary celebration for Illinois Natural History Survey, Urbana, IL, 2008.

Citizen Science and Studies of Plant Adaptation. NSF iPlant collaborative workshop on Plant Adaptation,

Tucson, AZ, 2008.

Global Climate Change and Plant Conservation. Science Chicago lecture, Chicago Botanic Garden, 2008.

Plants and Climate Change. Invited presentation, American Public Gardens Association Annual Meeting, St. Louis, MO, 2009.

Conservation Genetics in a Changing World. Invited presentation, American Public Gardens Association Annual Meeting, St. Louis, MO, 2009.

Assisted Migration of Plants: Changes in Latitudes, Changes in Attitudes. Restoration Symposium, Royal Botanic Gardens, Kew, London, UK, 2009.

Seed Banking for Assisted Migration. Invited presentation, CPC Reintroduction Symposium, St. Louis, MO, 2009.

Plant Conservation Priorities for Chicago. Invited presentation, City of Chicago Nature and Wildlife Symposium, Chicago, IL, 2009.

Botanical Capacity Assessment Workshop. Hosted with Andrea Kramer (BGCI-US), Chicago, IL, 2009.

Optimal Monitoring Workshop. Hosted with Krissa Skogen and Pati Vitt, St. Louis, MO, 2009.

Global Plant Conservation Symposium. Hosted and moderated, Chicago Botanic Garden, 2009.

Plant responses to climate change, organized a symposium and gave a presentation at the Native Seed Congress, Snowbird, UT, 2010.

Demographic modeling on invasive plant cultivars, keynote presentation to the Ohio Invasive Plant Council annual meeting, 2010.

Project BudBurst, presented a webinar to National Science Teachers Association, 2010.

Project BudBurst presentation to IDNR at Chicago Botanic Garden, IL, 2010.

Assisted Migration of Plants, organized and moderated symposium, Chicago Botanic Garden, IL, 2010.

Assisted Migration of Plants: Changes in Latitudes, Changes in Attitudes, presentation at the Fourth Global Botanic Gardens Congress, Dublin, Ireland, 2010.

Midwestern Invasive Plants, presentation at a fundraising dinner, Lake Forest, IL, 2010.

Conservation research at Chicago Botanic Garden, invited departmental seminar, University of Illinois – Urbana/Champaign, IL, 2010.

Demography of invasive plants, invited departmental seminar, DePauw University, Greencastle, IN, 2010.

Ex situ plant conservation, presentation at the IUCN Conservation Breeding Specialist Group workshop on Intensively Managed Populations, San Diego, CA, 2010.

Participated at the National Phenology Network annual workshop, 2010.

Demographic Modeling of Invasive Plant Cultivars, an invited departmental seminar at Illinois Institute of Technology, Chicago, IL, 2011.

Plant Responses to Climate Change, talk and panel discussion at Wild Ones Annual Meeting, Chicago, IL, 2011.

Citizen Science Programs at Chicago Botanic Garden, gave talk and participated in the Syracuse University Citizen Science Workshop, Adirondacks, NY, 2011.

Ecological Restoration at Chicago Botanic Garden, gave talk and participated in the Botanic Gardens Conservation International Ecological Restoration Workshops in New York and Kenya, 2011.

Plants and Climate Change, plenary talk to the Golden Apple Teachers Meeting, Chicago, IL, 2011.

Assisted Migration of Plants, an invited plenary presentation at the Global Partnership for Plant Conservation meeting, St. Louis, MO, 2011.

Demographic Modeling of Invasive Plant Cultivars, Weed Science Society of America meeting, Milwaukee, WI, 2011.

Demographic consequences of reducing fecundity on rare and invasive plant species. University of Indianapolis, IN, 2012.

Effects of climate change on plants. Workshop for Illinois educators organized by Illinois Department of Natural Resources, Chicago, IL, 2012.

Assessing invasiveness of cultivars. Northeastern Illinois Invasive Plant Partnership Symposium, Chicago, IL, 2012.

Species distribution modeling. Plant Conservation Alliance meeting, Washington, DC, 2012.

Demographic consequences of reducing fecundity on rare and invasive plant species. Joint Missouri Botanical Garden and Washington University workshop, St. Louis, MO, 2012.

The uses of Project BudBurst data. Phenology Conference, Milwaukee, WI, 2012.

Plant conservation in the United States and Seed collecting to capture diversity. Endemic Species Research Institute, Taiwan, 2012.

Restoration in a changing environment. EcoSummit, Columbus, OH, 2012.

Organized and moderated a symposium "*Fire Ecology: Answers to Burning Questions*", Chicago Botanic Garden, 2012.

Demographic consequences of reducing fecundity on rare and invasive plant species. Plenary presentation, Upper Midwest Invasive Species Conference, La Crosse, WI, 2012.

Seed Banking at Chicago Botanic Garden. I invited presentation on seed banking at the Seeds of Success meeting, Chapel Hill, NC, 2013.

Restoration genetics and plant responses to climate change. Invited presentation to DOI agencies, Washington DC, 2013.

Demography of Cirsium pitcheri. Invited presentation on at the Center for Plant Conservation annual meeting, Austin, TX, 2013

Organized and moderated a workshop on restoration genetics for the Native Seed Conference, Santa Fe, NM, 2013.

Maintaining and Restoring Resilient Plant Communities in a Changing Climate, Botany 2013, New Orleans, LA, 2013.

Maintaining and Restoring Resilient Plant Communities in a Changing Climate. Natural Areas Assoc., Chicago, IL, 2013.

Planning for the use of native plant materials in a changing climate. Society for Ecological Restoration, Madison, WI, 2013.

Assessing the risk of cultivars of invasive species. Botanic Garden Conservation International Congress, Dunedin, NZ, 2013.

Restoration Challenges in a Changing World. Center for Plant Conservation International Symposium, Minneapolis, MN, 2014.

Native Plant Materials Development. APGA Annual Meeting, Denver, CO, 2014.

Restoration Challenges in a Changing World. APGA Annual Meeting, Denver, CO, 2014.

Federal Partnerships: Chicago Botanic Garden's Experience. APGA Annual Meeting, Denver, CO, 2014.

Planning for the use of native plant materials in a changing climate. Ecological Restoration Alliance meeting, St. Louis, MO, 2014.

*Risks of Biocontrol: The Case of *Cirsium pitcheri**. Mid-Atlantic Invasive Plant Council Annual Meeting, Washington DC, 2014.

Restoration Challenges in a Changing World. UNESCO Conference, Paris, France, 2014.

Plant Conservation Successes, Agents of Change Symposium, Smithsonian Institution, Washington DC, 2014.

Botanical Capacity in the United States, Leaders in Conservation Symposium, Montreal, Canada, 2014.

The importance of rare forbs as pollinator resources in depauperate plant communities, Native Seed Conference, Albuquerque, NM, 2015.

Chicago Botanic Garden's Science Career Continuum, Botanic Garden Conservation International Education Congress, St. Louis, MO, 2015.

Consequences of fecundity reduction in cultivars of invasive plants, invited seminar, Morton Arboretum, Lisle, IL, 2015.

Organized and moderated symposium, *Scaling up: Lessons learned from large-scale ecosystem restoration efforts*, Chicago Botanic Garden, IL 2015.

Participated in Biocontrol Synthesis Working Group meeting, London, UK, 2015

Plant Responses to Climate Change: Phenology, Adaptation, Migration, invited speaker at Wild Ones Symposium, IL, 2015.

Consequences of fecundity reduction in cultivars of invasive plants, International Plant Propagators Society Annual Meeting, Cincinnati, OH, 2015.

Consequences of fecundity reduction in cultivars of invasive plants, Midwest Invasive Plant Network Symposium, Cincinnati, OH, 2015.

Demographic consequences of reducing fecundity on rare and invasive plant species, invited department seminar at Middle Tennessee State University, TN, 2015.

Participated in Ecological Restoration Alliance meeting, Edinburgh, Scotland, 2015.

Participated in Biocontrol Synthesis Working Group meeting, Leipzig, Germany, 2015.

The importance of rare forbs as pollinator resources in depauperate plant communities, invited speaker for Pollination Symposium at Natural Areas Association Annual Conference, Little Rock, AR, 2015.

Plant Conservation in the United States. Garden Clubs of America Annual Meeting, Washington DC, 2016.

Ex Situ Plant Conservation. "Modern Methods in Conservation" training workshop, Fiji, 2016.

Plant Responses to Climate Change: Phenology, Adaptation, Migration. Plenary speaker for State of the World's Plants Symposium, Royal Botanic Gardens, Kew, UK, 2016.

Plant Conservation Progress in the United States. Plenary speaker for USFS Gene Conservation of Trees Symposium, Chicago, IL, 2016.

Consequences of Fecundity Reduction in Cultivars of Invasive Plants. Invited talk, American Public Gardens Association annual meeting, Miami, FL, 2016.

Ex Situ Plant Conservation for Rare Plant Species. Invited talk, American Public Gardens Association annual meeting, Miami, FL, 2016.

Whither Conservation? Invited talk, American Public Gardens Association annual meeting, Miami, FL, 2016.

Using Living Collections for Research Projects. Invited talk, American Public Gardens Association annual meeting, Miami, FL, 2016.

Tracking Plant Phenology and its Importance for Plant-Pollinator Interactions. Botanical Society of America annual meeting, Savannah, GA, 2016.

*The Importance of *Cirsium pitcheri*, a Rare Plant Species, as a Pollinator Resource*. Natural Areas Conference, Davis, CA, 2016.

The Role of Public Gardens in Addressing the Problem of Invasive Plants: Honoring Sarah Reichard's Legacy. Keynote address at Plants on the Move Symposium, Morton Arboretum, Lisle, IL 2016.

When Does Local Matter? Participated in a workshop to develop a seed sourcing tool. Mt. Cuba Botanical Center, DE, 2017.

Consequences of Fecundity Reduction in Invasive Plants and Implications for Biocontrol – Departmental Seminar, Case Western Reserve University, Cleveland, OH, 2017.

Cultivating Plant Conservation for the Future, Arbor Day Address, Holden Arboretum, Cleveland, OH, 2017.

The Role of Botanic Gardens in Native Seed Research and Use, National Adaptation Forum, Minneapolis, MN, 2017.

*The importance of *Cirsium pitcheri*, a rare plant species, as a pollinator resource*, Botanic Gardens Conservation International Congress, Geneva, Switzerland, 2017.

Considerations in Plant Reintroduction and Restoration, Botanic Gardens Conservation International Congress, Geneva, Switzerland, 2017.

Seed sourcing: How to make the best decisions about what seed provenances to collect and where to use them in restoration, Society for Ecological Restoration Congress, Iguasu Falls, Brazil, 2017.

The role of botanic gardens in native seed research and use, Society for Ecological Restoration Congress, Iguasu Falls, Brazil, 2017.

Advocacy for Native Plants and Restoration, Society for Ecological Restoration Congress, Iguasu Falls, Brazil, 2017.

Prairie restoration: How to make the best decisions about what seed provenances to collect and where to use them, Plenary Address, NASSTEC Conference, Kew, London, England, 2017.

How to make the best decisions about what seed provenances to collect and where to use them, USFS Eastern Seed Zone Workshop, Frankfort, KY, 2018.

Advocacy and the Botany Bill. Invited presentation. American Public Gardens Association Annual Meeting, Los Angeles, CA, 2018.

Advocacy and the Botany Bill. Invited presentation. Botanical Society of America Annual Meeting, Rochester, MN, 2018.

Prairie restoration: How to make the best decisions about what seed provenances to collect and where to use them. Ecological Restoration Alliance Symposium, Hamilton, ON, Canada, 2018.

Applying zoo population management tools to rare plants in living collections. Ecological Restoration Alliance Symposium, Hamilton, ON, Canada, 2018.

Conserving plant species – roles for botanical gardens and arboreta. Invited seminar, University of Wisconsin Botany Department, Madison, WI, 2018.

Prairie restoration: How to make the best decisions about what seed provenances to collect and where to use them. Natural Areas Association, Bloomington, IN, 2018.

Prairie restoration: How to make the best decisions about what seed provenances to collect and where to use them. Pennsylvania Botany Symposium, State College, PA, 2018.

The Role of Public Gardens in Addressing the Problem of Invasive Plants: Honoring Sarah Reichard's Legacy. Innovations in Invasive Species Conference, Nashville, TN, 2018.

Plant Conservation and the Botany Bill. The Garden Club of America National Affairs and Legislation Conference. Washington, DC, 2019.

Conserving our region's rarest plants: ecological research, ex situ conservation, and building botanical capacity. Illinois Indigenous Plant Symposium. Carbondale, IL, 2019.

Conserving our region's rarest plants: ecological research, ex situ conservation, and building botanical capacity. Center for Plant Conservation Annual Meeting. Chicago, IL, 2019.

Why is botanical capacity important and what levers are available to improve it? American Public Gardens Association Annual Meeting, Washington, DC, 2019

Moving the conservation needle: ecological research, ex situ conservation, and building botanical capacity. Liberty Hyde Bailey award talk. American Horticultural Society, Washington, DC, 2019

From the sublime to the contemptible: preserving rare plants and dealing with invasive species in the Midwest. Olbrich Botanic Garden, Madison, WI, 2019

Seeds & Stewards of the Future: A U.S. Collaboration. Society for Ecological Restoration. Cape Town, South Africa, 2019

From the sublime to the contemptible: preserving rare plants and dealing with invasive species in the Midwest. Illinois Extension Conference, Malta, IL, 2020

Plant Responses to Climate Change: Phenology, Adaptation, Migration. Invited seminar for Forest Preserves of Cook County annual meeting, Chicago, IL 2020

What to do when we can't bank on seeds: Applying zoo population management protocols to rare plants in living collections. American Public Gardens Association Annual Meeting 2020 (virtual)

Botanic gardens moving the conservation needle: ex situ conservation, ecological research, and building botanical capacity. Invited seminar, Biology Department, Bradley University, Peoria, IL, 2020 (virtual)

Budburst. Invited seminar, Plant Conservation Alliance, Washington DC, 2020 (virtual)

Beyond Plant Health: Plant Species and Community Health. University of Wisconsin Plant Sciences Symposium, Madison, WI, 2020 (virtual)

Sourcing native seed in the United States. Reforestation for Biodiversity, Carbon Capture and Livelihoods Symposium. Royal Botanic Gardens Kew and Botanic Gardens Conservation International, London, UK, 2021 (virtual)

Botanic gardens moving the conservation needle: ex situ conservation, ecological research, and building botanical capacity. Invited seminar, Environmental and Conservation Sciences Department, North Dakota State University, 2021 (virtual)

Seed sourcing and climate change. Invited seminar, WI DNR, 2021 (virtual)

Climate Advocacy. Panel presentation and discussion, Center for Plant Conservation Annual Meeting, 2021 (virtual)

Assessing supply and demand for native seed in the United States. Society for Ecological Restoration Annual Meeting 2021 (virtual)

Native seed for restoration in the United States. Southeastern Plant Conservation Alliance meeting, 2021 (virtual)

Sourcing native seed for restoration in the United States. University of Texas Department of Integrative Biology, 2022 (virtual)

Moving the conservation needle: ex situ conservation, ecological research, and building botanical capacity. Ladybird Johnson Wildflower Center, 2022 (virtual)

Restoration Research at the Chicago Botanic Garden. New Roots for Restoration BII Meeting, 2022 (virtual)

Sourcing native seed for restoration in the United States. American Public Gardens Association Annual Meeting, 2022 (virtual)

Moving toward a pedigree management approach for living collections of critically rare plant species.
BGCI Global Congress, 2022, Melbourne, AUS.

Engaging the public in research through Budburst, a national community science program in the United States. BGCI Global Congress, 2022, Melbourne, AUS.

Improving Restoration. Panel discussion for Native Plant Trust, 2022 (virtual).

Plant Conservation Advocacy and the "Botany Bills." invited lecture for Conservation Biology class at Northwestern University, 2022 (virtual).

An Assessment of Native Seed Needs and the Capacity for their Supply. 2023. Briefings for Congress, Department of Interior, Department of Agriculture, and several others.

An Assessment of Native Seed Needs and the Capacity for their Supply. 2023. Plenary lecture for the National Native Seed Conference.

Plant Conservation in a Changing Climate. 2023. Invited lecture for Lake Zurich Garden Club.