

Annie S. White, Ph.D

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Education

UNIVERSITY OF VERMONT, BURLINGTON, VT

- PhD in Ecological Landscape Design, Department of Plant & Soil Science 2016
- Research concentration in plant/pollinator interactions, pollinator ecology, and landscape design for pollinators
 - Dissertation Research: *Evaluating Flowering Plant Selection for Pollinator Habitat Enhancement: Open-Pollinated Natives vs. Native Cultivars*

UNIVERSITY OF WISCONSIN-MADISON, MADISON, WI

- Master of Science in Landscape Architecture 2005
- Academic concentration in restoration ecology
 - Research concentration in landscape ecology, landscape approaches in mammalian conservation, applications of GIS in Natural Resources
 - Masters Thesis: *Favorability and Avoidance of Spatial Landscape Components in Wolf Den Site Selection*

UNIVERSITY OF HAWAII-HILO, HILO, HI

- Bachelor of Arts in Natural Sciences 2002
- Minor in Conservation Biology and Ecology, Certificate in Land Use Planning
 - Senior Project: *The Historic Sugar Plantation Communities of Hawaii's Hamakua Coast: The Role of Sense of Place in Land Use Decision Making.*

Teaching Experience

Courses taught at the University of Vermont:

1. Landscape Design Fundamentals (PSS/ENVS/CDAE/NR 137): 4 credit studio course, fall 2014, summer 2018, summer 2019
2. Ecological Landscape Design (PSS/ENVS/CDAE/NR 238): 4 credit studio course, spring 2014, spring 2018, spring 2020
3. Permaculture (PSS/ENVS 156): 3 credits, spring 2019, fall 2019, spring 2020
4. Greenhouse Management (PSS 127), 4 credit lab course, spring 2018, spring 2020
5. Living Landscapes (PSS 095), 3 credits, fall 2019

Teaching Assistantships at the University of Vermont

1. Landscape Design Fundamentals (PSS/ENVS/CDAE/NR 137): 4 credit studio course, fall 2011, fall 2012, fall 2013.
2. Ecological Landscape Design (PSS/ENVS/CDAE/NR 238): 4 credit studio course, spring 2012, spring 2013, spring 2014.
3. Landscape Design for Pollinators (PSS 195): 3 credits, fall 2013.

Invited Guest Lectures at the University of Vermont

1. UVM Farmer Training Program. *Designing Pollinator Habitat in Agricultural Landscapes*. July 2017, 2018, 2019.
2. Permaculture (PSS/ENVS 156): *The Buzz on Designing Pollinator-Friendly Landscapes*. November 2017.
3. Ecological Landscape Design (PSS/ENVS 238). *Ecological Design with Native Plants*. Spring 2015.
4. A Bug's Life (PSS 028). *The Ecosystem Service of Pollination*. April 2013, 2014, 2016, 2018
5. Greenhouse Management & Operations (PSS 127). *Trends in Controlled Environment Agriculture*. April 2012 and March 2014.
6. Ecological Design (NR 289.) *Science and Design in Controlled Environment Agriculture*. February 2013.

Other Professional Teaching

1. Natural Shoreline Erosion Control Training. Assisted the Vermont Department of Environmental Conservation with conducting full-day professional contractor workshops on bioengineering techniques for shoreline stabilization. 12 workshops. 2016-2019.
2. Royal Botanic Gardens Pollinator Workshop. Invited to teach a half-day workshop to landscape design professionals about enhancing pollinator habitat in the landscape. April 2019.
3. Intentional Gardening Workshops. Hired by Northwest Regional Planning to conduct two half-day workshops for homeowners about stormwater friendly landscaping in Northwest Vermont. October 2018.
4. Pollinate New England. Developed the curriculum and led 12 full-day workshops on pollinator garden design and construction for homeowners throughout New England as part of the Native Plant Trust's Pollinate New England Program. 2017-2018.
5. Catching Rain Fort Wayne. Created the curriculum and presented 14 half-day workshops for homeowners in the City of Fort Wayne seeking to design and install residential rain gardens. 2009-2010.
6. Wisconsin Department of Agriculture. Created and presented training workshops for growers in Wisconsin's horticultural industries, aiming to slow the spread of the gypsy moth. 2004.
7. University of Wisconsin Arboretum. Provided educational sessions on the principles of restoration ecology, phenology and plant identification to participants of work parties at the University of Wisconsin Arboretum. 2003-2004.

Conference Presentations and Speaking Engagements

1. UConn Native Plants & Pollinators Conference. Storrs, CT. *How Native Plant Cultivars Affect Plant/Pollinator Interactions*. October 2019.
2. New Hampshire Master Gardeners and Natural Resource Stewards Fall Meeting. Concord, NH. *Evaluating the Role of Native Plant Cultivars in Pollinator Gardens*. October 2019.
3. UVM Extension Master Gardeners, Rutland Chapter. Rutland, VT. *The Pollinator-friendly Landscape: Beyond Plant Selection*. September 2019.
4. American Public Gardens Association Annual Conference. Washington, D.C. *Building the Buzz: Pollinate New England as a Model for Regional Engagement*. June 2019.
5. Great Gardens and Landscaping Symposium. Woodstock, VT. *Inspiring Tips for Creating a Pollinator-Friendly Landscape*. April 2019.
6. Pollination Guelph Conference. Guelph, Ontario. *How Native Plant Cultivars Affect Pollinators*. March 2019.
7. Royal Botanic Gardens. Burlington, Ontario. *The Buzz on Designing Pollinator-Friendly Landscapes*. March 2019.
8. Ithaca Native Plant Symposium. Ithaca, NY. *How Native Plant Cultivars Affect Pollinators*. March 2019.
9. Phipps Conservatory Native Plant and Sustainability Conference, Pittsburgh, PA. *Evaluating Native Cultivars for the Landscape*. October 2018.
10. Cleveland Pollinator and Native Plant Symposium. Cleveland, OH. *The Role of Native Plant Cultivars in Pollinator Habitat Restoration*. September 2018.
11. UConn Biological Control Conference. Storrs, CT. *Top Plants for Attracting Pollinators – Natives and Beyond*. June 2018.
12. U.S. National Arboretum Lahr Symposium. Washington, D.C. *How Native Plant Cultivars Affect Pollinators*. March, 2018.
13. Cape Cod Museum of Natural History. Brewster, MA. *Gardening for Life: The Pollinator-Friendly Landscape*. March, 2018.
14. Connecticut Master Gardeners Symposium. New London, CT. *How Native Plant Cultivars Affect Pollinators*. March 2018.
15. Ecological Landscaping Association Season's End Summit. North Grafton, MA. *Native Plant Cultivars and their Ecological Impact*. November 2017.
16. American Public Gardens Association Native Plant Symposium. Natick, MA. *Evaluating Native Plant Cultivars for Habitat Restoration*. October 2017.
17. Perennial Plant Conference. Philadelphia, PA. *Evaluating the Ecological Benefits and Trade-offs of Native Plant Cultivars*. October 2017.
18. Winooski Natural Resources Conservation District Lawn Care Workshop. Essex, VT. *Stormwater Friendly Landscaping*. September 2017.
19. Cider Hill Garden Pollinator Festival. Windsor, VT. *Landscape Design for Pollinators and Beneficial Insects*. July 2017.
20. Fort Ticonderoga Garden & Landscape Symposium. Ticonderoga, NY. *Top Plants for Attracting Pollinators*. April 2017.
21. Grow Native Massachusetts Lecture Series. Cambridge, MA. *How Native Plant Cultivars Affect Plant/Pollinator Interactions*. April 2017.
22. UMass Extension Sustainable Landscape Management Education Day. Wareham, MA. *Designing and Maintaining Pollinator Friendly Landscapes*. March 2017.

23. Vermont Flower Show. Essex, VT. *The Buzz on Designing Pollinator Friendly Landscapes*. February 2017.
24. Vermont Bee Keepers Association Winter Meeting. Essex, VT. *Evaluating Native Plants and their Cultivars for Pollinator Habitat Forage*. January 2017.
25. New England Grows Conference. Boston, MA. *Planting for Pollinators: Native Species vs. Native Cultivars*. December 2016.
26. Berkshire Botanical Gardens. Sheffield, MA. *From Nursery to Nature: Evaluating Native Plants for New England Gardens*. November 2016.
27. Northeast Greenhouse Conference. Boxborough, MA. *Perennials for Pollinators: Choosing the Best, Using Them Effectively*. November 2016.
28. International Plant Propagators Association – Eastern Region Conference. Hartford, CT. *From Nursery to Nature: Propagating Plants for Pollinators*. October 2016.
29. Ecological Landscaping Association Nativar Symposium. Framingham, MA. *Current Research on Native Cultivars*. July 2016.
30. ASLA Webinar. Nationwide Webinar. *Planting Design for Pollinators*. July 2016.
31. Western Massachusetts Master Gardener Association. Stockbridge, MA. *Pollinator-Friendly Gardening in New England*. June 2016.
32. Middlebury Garden Club. *Planting for Pollinators in Northern Gardens*. Middlebury, VT. May 2016.
33. UNH Cooperative Extension and NHLA Winter Meeting. Concord, NH. *The Buzz on Designing Pollinator Friendly Landscapes*. January 2016.
34. Green Mountain College. Poultney, VT. *Strategies for Restoring Pollinator Habitat in Rural Landscapes*. April 2016.
35. Hardy Plant Club. Vergennes, VT. *The Buzz on Pollinator-Friendly Plants*. January 2015.
36. Northern New England Pollinator Habitat Work Group. Winter Harbor, ME. *Evaluating Flowering Plant Selections for Pollinator Habitat Restoration*. August 2014.
37. Vermont Extension Master Gardeners. Jericho, VT. *Designing Pollinator-Friendly Landscapes*. July 2014.
38. Vermont Extension Master Gardeners. Burlington, VT. *Designing Pollinator-Friendly Gardens*. February 2014.
39. Vermont Flower Show. *The Buzz on Pollinator-Friendly Landscape Design*. March 2013.

Media Appearances

1. Across the Fence Television Interview. Burlington, VT. *The Ecological Tradeoffs of Native Cultivars*. September 2015.
2. Across the Fence Television Interview. Burlington, VT. *Evaluating Plant Selection for Pollinator-Friendly Landscapes*. September 2013.
3. EcoBeneficial Media Interview. *Native Plant Cultivars, Native Plants & Pollinators*. April 2014.

Professional Experience & Design Practice

- UNIVERSITY OF VERMONT – Burlington, Vermont 2014-present
Part-time Lecturer, Department of Plant & Soil Science
- Teach courses through the department of Plant and Soil Science, including Living Landscapes, Fundamentals of Landscape Design, Ecological Landscape Design, Permaculture, and Greenhouse Management and Operations.
- NECTAR LANDSCAPE DESIGN STUDIO, LLC – Burlington, Vermont 2016-present
Owner, Principal Designer
- Founded an ecological landscape design studio and consulting company
 - Merge the fields of landscape architecture and ecology to create and restore landscapes that are inspired by nature, natural materials, and ecological processes
- NATIVE PLANT TRUST – Framingham, Massachusetts 2016-2018
Pollinate New England Program Coordinator
- Funded by an IMLS Grant, worked with the Native Plant Trust to design and implement the curriculum for an online course, hands-on workshop series, and evening lecture series to promote the implementation of pollinator gardens throughout the New England region
 - Developed, coordinated and led 12 hands-on garden installation workshops and 12 evening lectures throughout New England
- VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION 2016-2019
Environmental Technician, Lakewise Program
Worked in the Lakewise Program under the Lakes & Ponds Division to advance bioengineering applications in the state of Vermont.
- Designed and implemented lakeshore bioengineering case studies
 - Created content and technical illustrations for a bioengineering manual
- BALL PUBLISHING, INC. – West Chicago, Illinois 2011-2016
Editor-at-Large of Inside Grower
- Managed, wrote, and edited a twice-monthly e-newsletter with over 30,000 subscribers and a quarterly print magazine devoted to the research, science, and business of growing edible crops in controlled environment greenhouses
 - Wrote over 500 news articles for *Inside Grower* and have toured controlled environment greenhouses throughout the U.S. and Canada
- EARTH SOURCE, INC. – Fort Wayne, Indiana 2005-2011
Environmental Designer, Project Manager, LEED AP
Served as the bridge between the Landscape Architecture and Environmental Science divisions of a multidisciplinary design and consulting firm.
- As an Ecological Designer, carried out both landscape architectural and environmental consulting services with a special focus on environmental sensitivity and sustainability. Typical projects included land use planning, park planning & design, sustainable landscape design, LEED consulting, natural stormwater and wastewater treatment design, bioengineering applications, wetland/stream restoration design and construction management

- As a Project Manager, oversaw multiple projects in a fast-paced environment, guiding their transition from initial environmental fieldwork, into permitting and design, and through construction and monitoring

TENUTA DI SPANNOCCHIA – Chiusdino, Siena, Italy

Fall 2004

Landscape Restoration Intern

Advanced the landscape preservation and restoration of an historic farm estate and nature preserve in Tuscany, Italy. Carried out numerous landscaping and restoration projects in collaboration with a close-knit farming community.

- Developed and executed a restoration plan for a traditional Chestnut grove
- Continued work and maintenance on a constructed wetland system for grey water recycling
- Assisted with day to day maintenance and harvest duties of a working farm and vineyard

WISCONSIN DEPARTMENT OF AGRICULTURE – Madison, Wisconsin

Summer 2004

Plant Pest and Disease Specialist

Worked in collaboration with state and federal agencies to slow the spread of the invasive gypsy moth throughout the state of Wisconsin.

- Created and presented interactive training workshops for growers in Wisconsin’s plant industries, school groups, camping associations and other special interest groups
- Conducted field inspections at greenhouses, nurseries and campgrounds.

UNIVERSITY OF WISCONSIN ARBORETUM – Madison, Wisconsin

2003-2004

Ecological Restoration Team Leader

Led volunteer ecological restoration work parties on Arboretum land. Completed training in restoration ecology, invasive species control, herbicide application, seed collection, leadership skills and nature education.

- Directed work crews in prairie, oak savanna and woodland restoration projects
- Provided educational sessions on the principles of restoration ecology, phenology and plant identification

HAWAII COUNTY PLANNING DEPARTMENT – Hilo, Hawaii

Spring 2001

Land Planning Intern

Mentored by and assisted county planners and landscape architects with a variety of planning projects on the Big Island of Hawaii.

- Assisted in the development of a land management plan for the Hamakua Coast
- Participated in meetings and public hearings on planning issues and development controversies in Hawaii County

ENVIRONMENTAL CONCERN, INC. – St. Michaels, Maryland

Summer 1996

Wetland Restoration Research Intern

Conducted horticultural wetland restoration research at a leading wetland restoration firm. Was responsible for the design, maintenance and analysis of research projects in a research laboratory and nursery.

- Participated in wetland plant identification and wetland delineation courses
- Visited wetland restoration sites throughout the Chesapeake Bay area

Representative Built Professional Design Projects:

ECOLOGICAL LAKESHORE PARK PLANNING 2019

Prouty Beach Park, Newport, VT

- Lead Designer for the redesign of a 36-acre city park on Lake Memphremagog. The design included stabilizing 200 linear feet of shoreline using bioengineering techniques, capturing and infiltrating upland runoff, converting mown lawn areas to pollinator meadows, and integrating passive and active recreation in an ecologically sensitive manner.

LAKESHORE RESTORATION MASTER PLANNING 2017-2019

Maidstone Lake and Lake Iroquois, VT

Partnering with local conservation districts, secured Ecosystem Restoration Grants through the State of Vermont to fund the redesign of 20 residential lakeshore properties on Maidstone Lake and Lake Iroquois. The residential landscape designs aimed to reduce stormwater runoff, stabilize and revegetate shorelines, and enhance habitat for both terrestrial and aquatic wildlife.

STORMWATER MASTER PLANNING & DESIGN 2010

Fort Wayne Metals Corporate Headquarters, Fort Wayne, IN

- Project Manager and lead Environmental Designer in the development of a stormwater master plan for a 45-acre industrial site. The master plan project sought to investigate, evaluate and recommend options for employing green infrastructure to improve current stormwater management and evaluate further development potential of the site.

RAIN GARDEN DESIGN & PUBLIC EDUCATION 2009

City of Fort Wayne Demonstration Rain Gardens, Fort Wayne, IN

- Environmental/Landscape Designer responsible for identifying feasible demonstration sites, performing watershed calculations, developing earthwork and planting plans and designing interpretive signage for 12 rain gardens and bioretention areas at schools, museums, public buildings and street medians throughout the City of Fort Wayne. Also developed and presented a Rain Garden Design and Installation Workshop for homeowners.

SUSTAINABLE LANDSCAPE DESIGN 2009

Navistar International Corporation Headquarters, Fort Wayne, IN

- Lead Landscape Designer for a new sustainable 25-acre urban park. Utilized the Sustainable Sites Initiative to guide design decisions regarding sustainability. Park included extensive ecological restoration of prairie, woodland and wetland communities, pervious paving alternatives, local landscape materials and native plants.

GREEN BUILDING CONSULTING 2009

INTAC Local 697, Merrillville, IN

- LEED Accredited Professional and Landscape Designer for a new green building project seeking certification through the U.S. Green Building Council's LEED program. Responsibilities included managing the pursuit of site and landscape related LEED credits, designing the site's post-construction stormwater treatment plan, and designing a sustainable landscape using a native plant palette.

- STREAM STABILIZATION & BIOENGINEERING 2009
- Johnson Drain & Eel River Confluence, Fort Wayne, IN**
- Lead Environmental Designer and Construction Manager for a stream restoration and stabilization project. Project utilized innovative bioengineering techniques to rebuild and stabilize severely eroded stream banks and provide for the restoration of in-stream habitat.
- SUSTAINABLE NEIGHBORHOOD DEVELOPMENT 2008
- Canyon Cliffs Residential Development, Fort Wayne, IN**
- Lead Environmental Designer for a neighborhood development project in an environmentally sensitive area adjacent to a recreational scenic river. Employed low impact development strategies to collect and infiltrate stormwater runoff on-site with an integrated system of attractive vegetated swales, bioswales, bioretention areas and rain gardens.
- ECOLOGICAL RESTORATION & DESIGN 2007
- The Openings Wetland Mitigation Bank, Huntertown, IN**
- Lead Ecological Designer and prospectus writer for a proposed 235-acre wetland mitigation bank. Following extensive historic research and an in-depth site inventory & analysis, a conceptual plan was developed for the restoration of deep emergent, shallow emergent, sedge meadow, wet prairie, mesic prairie, forested riparian and upland forest communities.
- WASTEWATER BIOTREATMENT DESIGN 2006
- Steel Dynamics, Inc., Butler, IN**
- Lead Environmental Designer and permit writer for an innovative biological treatment system, designed to efficiently remove heavy metals and other contaminants from 500,000 gallons of industrial wastewater per day. The natural treatment chain included settling ponds, vegetated bioswales, a 5-acre plug-flow constructed wetland and a polishing wetland.

Publications

1. Dibble, A., Drummond, F., Averill, A., Bickerman-Martens, K., Bosworth, S., Bushmann, S., Hoshide, A., Leach, M., Skyrn, K., Venturini, E., and White, A. *Bees and Their Habitats in Four New England States*. Maine Agricultural and Forest Experiment Station Miscellaneous Report 448. May 2018.
2. White, A., Richardson, M., Minner, D. and Allen, C. Pollinate New England as a Model for Regional Engagement. [In preparation]
3. White, A. and Perry, L. *Pollinator Preference for Native Species Versus National Cultivars in Pollinator Habitat Restoration*. [In preparation]
4. White, A. and Perry, L. *Breeding Cultivars for Ornamental and Cultural Traits Can Decrease Pollinator Attraction in Echinacea*. [In preparation]
5. White, A. *A Review of Planting Strategies for Pollinator Habitat: The Value of Natives, Near-Natives, Non-Natives, and Native Cultivars*. [In preparation]

Professional Service

1. State of Vermont Green Infrastructure Roundtable. Advisory Committee, 2017-present

2. Vermont Chapter of the American Society of Landscape Architects, Executive Board Member, 2015-2017
3. Northern New England Pollinator Habitat Working Group, 2012-2015
4. Friends of the Parks of Allen County, Board of Directors, 2008-2011

Representative Professional Training

1. Natural Shoreline Erosion Control Training, State of Vermont, 2016, 2017, 2018, 2019
2. Greenhouse Crop Production & Engineering Design Course, University of Arizona, 2013
3. Pollinator Conservation Short Course, Xerces Society, 2012
4. Rain Garden Design for Stormwater Professionals Workshop, 2010
5. Leadership in Energy and Environmental Design (LEED) Technical Workshop, USGBC, 2008
6. Leadership in Energy and Environmental Design (LEED) Study Series, Fort Wayne, IN 2008
7. National Environmental Policy Act (NEPA) Training, INDOT, 2007
8. National Environmental Policy Act (NEPA) Categorical Exclusion (CE) Training, INDOT, 2007
9. National Environmental Policy Act (NEPA) Training, Federal Highways Institute, 2006
10. Wetland Delineation Training, Richard Chinn Environmental Training, 2005
11. Ecological Restoration Leader Training, University of Wisconsin-Arboretum, 2004

Grants, Honors & Awards

1. New Hampshire Horticulture Endowment Grant for PhD research, 2014
2. Northeast SARE Partnership Grant for PhD research, 2012
3. Vermont Nursery & Landscape Association Grant for PhD research, 2012
4. Indiana Chapter of the American Society of Landscape Architects (INASLA) design award for use of native plants in the landscape, 2009
5. Wisconsin Distinguished Fellowship, 2002-2004
6. Colorado College Academic Scholarship 1998-2000
7. Vermont Honor Scholar, 1998
8. Earthwatch Scholarship Award, 1996

Professional Affiliations

1. American Society of Landscape Architects, Member
2. Vermont Chapter of the American Society of Landscape Architects, Member
3. Ecological Landscaping Association, Member
4. Vermont Nursery and Landscape Association, Member