## **Bradley M. Herrick**

University of Wisconsin–Madison Arboretum

#### **EDUCATION**

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**Ph.D. Candidate (expected graduation, spring 2025)** University of Wisconsin – Madison, Nelson Institute for Environmental Studies – Environment and Resources Dissertation: *Invasion Dynamics of Pheretimoid Earthworms: Ecosystem Consequences Across Scales.* Advisor: Dr. David Drake | Committee members: Dr. Lee Frelich (U of MN), Dr. Adena Rissman, Dr. Monica Turner, Dr. Thea Whitman

2003

M.S. University of Wisconsin-Green Bay, Environmental Science and Policy-Ecosystems Studies, Department of Natural and Applied Sciences. Phi Kappa Phi Thesis: *The Effects of Dikes on the Seed Banks and Standing Vegetation of Great Lakes Coastal Wetlands*. Advisor: Dr. Michael Morgan

1999

**B.A.** Luther College, Biology

#### EMPLOYMENT/RESEARCH EXPERIENCE

Ecologist and Research Program Manager UW-Madison Arboretum, Madison, WI. 2007-present

- Oversee the Arboretum's Research Unit, including the citizen/participatory science and database/GIS programs, and directly supervise 3-5 FTE's annually. Develop and implement a strategic research vision for the Arboretum.
- Serve on the Arboretum Management Team, facilitate meetings of the Arboretum Committee (shared governance board), and represent the Research Unit at meetings of the Arboretum Board of Visitors.
- Manage supplies/equipment and professional development budgets for the Research Unit as well as various research grant budgets.
- Chair review committees for annual graduate and undergraduate research grants, including the Garden Club of American Fellowship in Ecological Restoration, Arboretum Research Fellowship, and Arboretum supported Hilldale Undergraduate Award.
- Facilitate >50 faculty, staff, and student research projects conducted at the Arboretum annually.
  Work with Arboretum staff to communicate results to a broad audience.
- Work closely with the Land Care Unit to develop long-term restoration plans for Arboretum lands.
- Conduct and fund independent, collaborative, and interdisciplinary research on invasive species, earthworm biology, disturbance effects, and plant community ecology. Utilize field work, statistical models, and citizen science.
- Conduct public outreach on Arboretum research and broader initiatives via invited in-person and virtual presentations, webinars, and interviews for television, radio, and print media.

#### External Research and Outreach Collaborations

- Founding Member Healthy Soil Collaborative (HSC) Collaboration of researchers and outreach specialists from the U.S. and Canada conducting ecosystem scale research on questions related to soil health, invasive species, and sustainability.
- Founding Member Jumping Worm Outreach, Research and Management advisory group (JWORM) - New York Invasive Species Research Institute. Collaboration of researchers and outreach specialists investigating consequences of jumping worm invasions in northern deciduous

- forests and developing and communicating Best Management Practices (BMP's) to the public and industry sectors about how to mitigate the effects of jumping worms. <a href="mailto:link">link</a>
- Attended and presented at the "Diversity and Ecology of Invasive Megascolecid Earthworms Symposium" Picker Interdisciplinary Science Institute, Colgate, University. (invited)
- Content editor for the Wisconsin Department of Natural Resources (WIDNR) public-facing webpage on jumping worm impacts, research, and control. <u>link</u>

## Consulting Ecologist Applied Ecological Services, Inc., Brodhead, WI. 2005-2007

- Managed natural resource-related projects, conducted vegetation monitoring studies, floristic and rare plant inventories, habitat assessments, community classification and mapping, ecosystem health assessments, wetland delineations, and restoration and management planning for public and private lands.
- Communicated frequently in-person and over email with clients and presented project plans and results at public meetings.

**Conservation Biologist/Natural Heritage Inventory** Wisconsin Department of Natural Resources (WIDNR), Madison, WI. 2005

• Responsible for using ArcView 3.3 to map Wisconsin rare and endangered fauna. Updated the Natural Heritage Inventory (NHI) database.

**Ecological Field Manager** Department of Forest Ecology and Management, Forest Landscape Ecology Lab, University of Wisconsin–Madison, Malison, WI. 2004-2005

- Field Manager in the lab of Dr. David Mladenoff, on a project examining the effects of large-scale experimental manipulations of coarse woody debris and canopy openings in Wisconsin northern hardwood forests.
- Managed a field crew of 6-10 undergraduate interns in vegetation sampling, forest structure work, measuring coarse woody debris, soil sampling, meteorological monitoring, compiling, and summarizing data, and database organization.
- Other responsibilities included: writing methods for lab and field work, working with landowners, contacting organizations for potential volunteer help, and logistical planning.

**Environmental Research Analyst** Department of Natural and Applied Sciences, University of Wisconsin–Green Bay, Green Bay, WI. 2002-2004

- Worked with Dr. David Dolan on several EPA grants that examined Lake Erie phosphorous loads and mine tailings data from trace metals and radioactivity.
- Compiled databases and analyzed data using statistical software packages.

**Biological Technician** United States Geological Survey (USGS); Columbia River Research Laboratory; Cook, WA. 2001

- As part of a field team, investigated the effects of large hydro-electric dams on the seaward migration patterns of juvenile salmon in the Columbia River.
- Tracked tagged fish using radio telemetry and downloaded data from remote sampling sites. Mapped salmon spatial migration patterns in ArcView 3.2.

**Research Technician** W.K. Kellogg Biological Station (KBS); Michigan State University; Hickory Corners, MI. 2000-2001

• Field and laboratory assistant with Dr. Katherine Gross on a project examining patterns and causes of plant species diversity in prairie-savannas, which exist across habitat-productivity gradients.

• Participated in the long-term ecological research (LTER) project at KBS examining plant diversity of agricultural systems.

## AmeriCorps National Civilian Community Corps San Diego, CA. 1999-2000

- Performed community service in the western U.S. in four areas: Environment, Education, Unmet Human Needs, and Public Safety.
- Participated in the <u>America Reads Challenge</u>, teaching English and math skills to Hispanic students at an elementary school in San Ysidro, California. In addition, I obtained permission, funding, and supplies through the San Ysidro City Council, to hold a "Community Day", where students, faculty, and parents were led in a day-long effort to help clean up their neighborhood, by painting over graffiti and picking up litter along roadsides.

## TEACHING EXPERIENCE

<b>Guest Lecturer</b>	
2019 - present	Internship in Ecology, UW–Madison Zoology 677
2018	Restoration Ecology, UW-Madison Landscape Architecture 668
2018	Environmental Observation and Informatics MS program, UW-Madison Nelson
	Institute for Environmental Studies (overview of Arboretum for 2018 cohort)
2014 - 2018	Natural Communities of Wisconsin, Edgewood College Env. Bio 206
2014	Humanistic Perspectives in Environmental Studies, UW-Madison Environmental
	Studies 404
2014 - 2015, 2017	Freshman Interest Group (FIG), UW-Madison Department of Forest
	Ecology & Management
2013 - present	Introduction to Museum Studies in the Natural Sciences, UW-Madison
	Zoology 405
2007 - 2009, 2015	Field Ecology Workshop, UW-Madison Environmental Studies 375

## **Teaching Assistant**

2001 - 2002	Comparative	Inatomy of Vertebrates.	IIW Groon Pow
ZUUT - ZUUZ	Comparative A	inaiomy of vertenrates.	. Uw-Green Bav

2002 - 2003 Anatomy and Physiology, UW–Green Bay Summer 2002 Introduction to Statistics, UW–Green Bay

#### UW-MADISON PROFESSIONAL DEVELOPMENT COURSES

2023	Research Mentor Training: STEMM Graduate Students and Postdocs
	Delta Program UW-Madison Graduate School
2020	Hostile and Intimidating Behavior: Policies and Procedures
2019 - 2020	Fully Prepared to Lead courses: Understanding and Leading Change, Modes of Conflict
	Management, Running Effective Meetings, Supervising Remotely
2019	The Manager's Role in Work Satisfaction and Engagement
2013	Principles of Supervision and Management

## **CERTIFICATIONS/TRAINING**

2013	Supervising for New Managers, UW–Madison
2008	Wildland Firefighter Training (S-130, S190, L180), Stevens Point, WI.
2006	Basic Wetland Delineation Training, La Crosse, WI.
2006	Vegetation of Wisconsin, University of Wisconsin-Milwaukee Field Station
2006	WIDNR Wetland Compensatory Mitigation Training, Madison, WI.

#### PROFESSIONAL MEMBERSHIPS

2023 - present	Natural Areas Association
2023 - present	The Wildlife Society - North Central Section
2022 - present	Society for Ecological Restoration – Midwest/Great Lakes States Chapter
2020 - present	Ecological Society of America

#### **SERVICE**

**Committees/Affiliations** 

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2022 - present	Office of the Vice Chancellor for Research and Education – Committee on
	Academic Issues (CASI) - District 9 Representative
2022 - present	Board of Directors, Society for Ecological Restoration – Midwest/Great Lakes
	States Chapter
2021	Woody Ornamentals Species Advisory Group, WIDNR
2011 - 2012	Noncommercial Forbs Species Advisory Group, WIDNR
2010 - 2014	Disaster Resistant University Steering Committee, UW-Madison
2008	Research Committee - Invasive Plant Association of Wisconsin (IPAW)

2007 - present Member of 15 Arboretum search and screen committees, chaired 12

Reviewer

Keviewer	
2023	International Union for the Conservation of Nature (IUCN) technical notes
	on the management of non-native, invasive jumping worms and flatworms
2023	Reviewed abstracts for the annual meeting of the Ecological Society of America,
	Portland, OR.
2019	Journal peer reviewer: Southeastern Naturalist, Caldasia
2019	Grants reviewer for Minnesota Invasive Terrestrial Plants and Pest Center

## **ADVISING & MENTORING**

#### **Thesis Committees Served**

Katie Laushman, M.S. - 2017, University of Wisconsin–Madison (advisor: Dr. Sara Hotchkiss) Erin Crone, M.S. - 2022, Colorado State University (advisor: Dr. Dan Preston)

## Student and Post-doc Mentoring and Supervising (2007-present)

## *Undergraduates*

Eren Wolf, Alexa Hanson, Charlie Tucker, Michael Polich, Justin Wiese, Karly Remondino, Emily Snelson (also served as Emily's Hilldale Advisor), Josh Brown, Casel Mael, Anna O'Keefe, Liz Wood Leo Roth, Jenelle Wempner, Emily Grienwald (w/S. Carpenter), Daniel Peters

## **Graduates**

Elizabeth Buschert (stormwater research Project Assistant)

Marie Pichler (stormwater research Project Assistant)

Jim Doherty (stormwater research Project Assistant)

Sally Gallagher (stormwater research Project Assistant)

Erik Olson (stormwater research Project Assistant)

Diego Yáñez Rojas (Nelson Institute Environmental Conservation student)

Kyle Johnson (conducted lepidoptera surveys at Arboretum and outlying properties)

Issac Nadeau (University of Vermont student, studying Abraham's Woods)

Caroline Oswald (vegetation monitoring projects)

## HONORS/AWARDS

- 2018 Wisconsin Invasive Species Council: Invader Crusader Award
- 2007 Journal of Great Lakes Research Chandler-Misener Award ("most notable paper" in 2005)
- 2003 Phi Kappa Phi Honor Society

## RESEARCH GRANTS AND FUNDING

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Extramural 2023-24	Stevens, D. (PI), Oberhauser, K. (Co-PI), <b>Herrick, B.M. (Co-PI)</b> . Stanley Smith Horticulture Trust. <i>Pollinator Use of Panicle Hydrangea (Hydrangea paniculate) in Longenecker Horticultural Gardens</i> . \$21,000
2022-24	McCay, T.S (PI), A. Davalos (Co-PI), A. Dobson (Co-PI), J. Gorres (Co-PI), <b>B.M. Herrick (Co-PI)</b> , K. Wickings (Co-PI). US Department of Agriculture - Northeastern States Research Cooperative (NRCS). <i>Jumping worm invasion and impact in the northern forest.</i> \$273,304
2021-23	Herrick, B.M. (PI) Wisconsin Department of Natural Resources - Bureau of Applied Forestry. <i>Jumping worm invasion dynamics: Investigations into long-term forest impacts and biotic interactions.</i> \$20,000
2020-22	Oberhauser, K, (PI) Epping-Overholt, K. (Co-PI), <b>Herrick, B.M. (Co-PI)</b> , Sheehan, N, (Co-PI) and Shaw, B. (Co-PI). US Environmental Protection Agency. <i>Water Action to Encourage Responsibility (WATER)</i> . \$100,000
2018-20	<b>Herrick, B.M. (PI)</b> and M. R. Johnston (Co-PI) Wisconsin Department of Natural Resources - Forest Health. <i>Ecological impact and control of Asian earthworms in Wisconsin's forests.</i> \$100,000
2019-21	<b>Herrick, B.M.</b> (Co-PI) and Ross, J. (Co-PI) C.D. Besedny Conservation Fund - Natural Resources Foundation of Wisconsin. <i>UW–Arboretum citizen science mycoflora project</i> . \$2,000 (total project cost \$5,750).
2019	Ross, J. (PI), Carpenter, S., Oberhauser, K., Sheehan, N., <b>Herrick, B.M. (Co-PI)</b> Wisconsin Citizen-based Monitoring Partnership Program. <i>Expanding Wisconsin citizen-based monitoring impact through a citizen science open house model</i> . \$5,000
2017	Carpenter, S and Herrick, B.M. (Co-PI's) Wisconsin Citizen-based Monitoring Partnership Program. Conserving bumble bees in southern Wisconsin through citizen-based monitoring. \$4,960
2016	<b>Herrick, B.M. (PI)</b> and Hansen, M. (Co-PI) C.D. Besedny Conservation Fund - Natural Resources Foundation of Wisconsin. <i>Restoration and management of the Faville Prairie State Natural Area.</i> \$1,000 (total project cost \$2,260).
2014-16	Herrick, B.M. (PI) and Hansen, M. (Co-PI) Dane County Partners for Recreation and Conservation. <i>Large-scale prairie and savanna restoration at the UW-Madison Arboretum</i> . \$122,363 (50% of total project cost).
2013	<b>Herrick, B.M. (PI)</b> and Carpenter, S. (Co-PI) Wisconsin Department of Natural Resources Citizen-based Monitoring Partnership Program. <i>Bumble bee conservation in southern Wisconsin: Expanding a citizen-based monitoring program.</i> \$5,000

2013 Herrick, B.M. (PI) and Hansen, M. (Co-PI) Dane County Environmental Council. Contracting for professional services to restore a remnant dry lime prairie known as Pasque Flower Hill (Raymond Rd). \$1,250. Phase II 2011 Herrick, B.M. (PI) and Hansen, M. (Co-PI) Dane County Environmental Council Contracting for professional services to restore a remnant dry lime prairie known as Pasque Flower Hill (Raymond Rd). \$1,679 Phase I 2002 Herrick, B.M. (PI) Cofrin Student Research Award. The vegetation at Point au Sauble, Wisconsin: Development of a Long-term Monitoring Program. \$1,000. 2002 Herrick, B.M. (PI) Cofrin Center for Biodiversity. Seed bank dynamics of diked and undiked Great Lakes coastal wetlands. University of Wisconsin-Green Bay \$600 Intramural 2022-23 Drake, D. (PI) and Herrick, B.M. (Co-PI). Office of the Vice-Chancellor for Research and Graduate Education Faculty Research Competition. Invasion dynamics of novel, nonnative Asian earthworms (Amynthas spp.) in southern Wisconsin. \$19,190 Herrick, B.M. (PI), Carpenter, S (Co-PI), and Day, S (Co-PI). Baldwin Wisconsin 2021-22 Idea Endowment. Building and sharing collective knowledge about the impacts of an invasive species new to Wisconsin. \$4,000 2016 Carpenter, S. (PI) and Herrick, B.M. Baldwin Wisconsin Idea Endowment. Pollinators at the Zoo: Expanding pollinator habitat and stewardship. \$3,990 2014 Paulnock, D. (PI) and Herrick, B.M. (Co-PI) Office of the Vice-Chancellor for Research and Graduate Education Faculty Research Competition Faculty Research Competition. Control of the invasive Asian Jumping Worm (Amynthas agrestis) at the UW-Madison *Arboretum.* \$15,308 2014 Herrick, B.M. UW-Madison Academic Staff Professional Development Grant. National

#### PEER-REVIEWED PUBLICATIONS Google Scholar

Conference on Ecosystem Restoration. \$830

Beals, K, **Herrick, B.M.**, Rosin, C., Zedler, P.H., and Barber, N. Soil microbial dynamics of carbon cycling respond to woody encroachment and land management history in a mesic tallgrass prairie. **In prep** 

**Herrick, B.M,** E. Snelson, and Ross, J. Allometric equations for estimation of ash-free dry mass from length measurements for two Megascolicid earthworms: *Amynthas tokioensis* and *Amynthas agrestis*. **In prep** 

Farrior, M., Kingsbury, J. and **Herrick, B.M**. Ecological restoration at the University of Wisconsin – Madison Arboretum and beyond: Building and sharing collective knowledge through a participatory leadership framework. **In Revision** *Ecological Solutions and Evidence* 

West, J.R., **Herrick, B.M.**, and Whitman T. 2024. Soil microaggregate bacterial communities following *Amynthas tokioensis* and *Amynthas agrestis* earthworm co-invasion. *Applied Soil Ecology* 195:1-14. doi.org/10.1016/j.apsoil.2023.105224

- Zedler, P.H. and **Herrick, B.M.** 2023. Effects of extreme rainfall and a historically unprecedented growing season flooding event on a native prairie remnant. *PLoS ONE* doi.org/10.1371/journal.pone.0294359
- Sauer, E.L., Crone, E., Lewis, C., Plumier, L., Cwynar, B., Drake, D., **Herrick, B.M.** and Preston, D.L. 2022. Local and landscape drivers of amphibian occurrence in the urban environment. *Urban Ecosystems* 25:1469-1479. doi.org/10.1007/s11252-022-01239-2
- Crone, E, E.L. Sauer, **B.M. Herrick**, D. Drake, D.L. Preston. 2022. Effects of invasive jumping worms (*Amynthas* spp.) on microhabitat and trophic interactions of native herpetofauna. *Biological Invasions* 24:2499-2512. doi.org/10.1007/s10530-022-02781-y
- Richardson J.B., Johnston M.R., and **Herrick B.M**. 2022. Gains and losses of macronutrients (Ca, Mg, P, K) following invasion by *Amynthas tokioensis* and *Amynthas agrestis* in forest soils and laboratory incubations. *Pedobiologia* 91-92. doi.org/10.1016/j.pedobi.2022.150804
- Chang, C-H., Bartz, M.L.C., Brown, G., Callaham, Jr. M.A, Cameron, E., Dávalos, A., Dobson, A., Görres, J.H., **Herrick, B.M.**, Ikeda, H., James, S.W., Johnston, M.R., McCay, T.S., McHugh, D., Minamiya, Y., Nouri-Aiin, M., Novo, M., Ortiz-Pachar, J., Pinder, R.A., Ransom, T., Richardson, J.B., Snyder, B.A., Szlavecz, K. 2021. The second wave of earthworm invasions in North America: Biology, environmental impacts, management and control of invasive jumping worms. *Biological Invasions* 23:3291-3322. doi.org/10.1007/s10530-021-02598-1
- Ziter, C.D., **Herrick, B.M.**, Johnston, M.R, Turner, M.G. 2021. Ready, set, go: Community-science field campaign reveals habitat preferences of non-native Asian earthworms in an urban landscape. *Bioscience* 71:280-291. doi.org/10.1093/biosci/biaa150
- Gabriel, J.P-C, Johnston, M.R., **Herrick, B.M.** and Yannarell, A.C. 2020. Influence of invasive earthworms (*Amynthas* spp.) on Wisconsin forest soil microbial communities and soil chemistry. *Soil Biology and Biochemistry* 149: doi.org/10.1016/j.soilbio.2020.107955
- McCay, T.S., Brown, G., Callaham, Jr. M.A., Chang, C-H, Dàvalos, A., Dobson, A., Görres, J.H., **Herrick, B.M.,** James, S.W., Johnston, M.R., McHugh, D., Minteer, T., Moore, J-D, Nouri-Aiin, M., Novo, M., Ortiz-Pachar, J., Pinder, R.A., Richardson, J.B., Snyder, B.A., Szlavecz, K. 2020. Tools for monitoring and study of peregrine earthworms (Megascolecidae). *Pedobiologia* 83:150669. doi.org/10.1016/j.pedobi.2020.150669
- **Herrick, B.M.**, Buschert, E., Doherty, J.M., Olson, E.R. 2019. Differential persistence among native species planted in a stormwater retention pond. *The Great Lakes Botanist* 58:183-192.
- Johnston, M.R. and **Herrick, B.M**. 2019. Cocoon heat tolerance of pheretimoid earthworms *Amynthas tokioensis* and *Amynthas agrestis*. *American Midland Naturalist* 181:299-309. doi.org/10.1674/0003-0031-181.2.299
- Laushman, K.M., S.C. Hotchkiss, **Herrick, B.M**. 2018. Tracking an invasion: Community changes in hardwood forests following the arrival of *Amynthas agrestis* and *Amynthas tokioensis* in Wisconsin. *Biological Invasions* 20:1671-1685. doi.org/10.1007/s10530-017-1653-4
- Glass, S.B, **Herrick, B.M.** and Kucharik, C. 2009. Climate Change and Ecological Restoration at the University of Wisconsin–Madison Arboretum. *Ecological Restoration*. 27:345-349. doi.org/10.3368/er.27.3.345
- **Herrick, B.M.**, M.D. Morgan, and A.T. Wolf. 2007. Seed banks in diked and undiked Great Lakes coastal wetlands. *American Midland Naturalist*. 158:191-205. doi.org/10.1674/0003-0031(2007)158[191:SBIDAU]2.0.CO;2

**Herrick, B.M.** and A.T. Wolf. 2005. The effect of coastal wetland dikes on the colonization of invasive plant species. *Journal of Great Lakes Research*. 31:277-287. doi.org/10.1016/S0380-1330(05)70259-8 [Winner of the Chandler-Meissner Award for outstanding paper, 2005, International Association for Great Lakes Research]

**Herrick, B.M.** 2005. The vegetation at Point au Sauble Nature Preserve, Brown County, Wisconsin, USA. *Michigan Botanist*. 44(1):49-55.

**Herrick, B.M.** 2003. The effects of dikes on the standing vegetation and seed banks of Great Lakes coastal wetlands. Masters of Science Thesis. University of Wisconsin–Green Bay, Green Bay, Wisconsin, USA 91p. (non-peer reviewed)

## **BOOK CHAPTER**

Davalos, A, Gorres, J, **Herrick, B.M.**, McCay, T.S., and Nouri-Aiin, M. 2023. Management of Invasive Earthworms in North America. *In* Sustainable Management of Invasive Species, M.H. Wong and T.S. Seastedt (editors). World Scientific, London **in press** 

#### PUBLISHED DATASETS

**Herrick, B.M.** and P.H. Zedler. 2023. Faville Prairie State Natural Area Plant Community Study ver 1. Environmental Data Initiative. doi.org/10.6073/pasta/40900d48e0b21a8332b98ec035249733

Ziter, C.D., **B.M.** Herrick, M.R. Johnston, and M.G. Turner. 2022. Madison community science field campaign to assess abundance and distribution of invasive jumping worms. ver 2. Environmental Data Initiative. doi.org/10.6073/pasta/907998842a08992bc1fa8fa20d123c17

Mudrak, E., Waller, D. and **Herrick, B.M**. Vegetation Database of Observatory Woods, Wisconsin – mapped vegetation *In:* Dengler, J., Oldeland, J., Jansen, F., Chytrý, M., Ewald, J., Finckh, M., Glöckler, F., Lopez-Gonzalez, G., Peet, R.K., Schaminée, J.H.J. (2012) [Eds.]: Vegetation databases for the 21st century. *Biodiversity & Ecology* **4**: 437–437. doi.org/10.7809/b-e.00224

#### NON-PEER REVIEWED PUBLICATIONS

Meet the Earthworms of New York State: Charismatic Denizens of the Soil. 2022. New York State Conservationist. (written collaboratively by JWORM) <a href="mailto:link">link</a>

Jumping Worm Homeowner Guide 2021. (developed collaboratively by JWORM) link

Zedler, P. and **Herrick, B.** 2020. Extreme rainfall and native prairies. *Nelson Institute for Environmental Studies: Nelson Issue Brief* 2:2-3 <u>link</u>

**Herrick**, **B.M.** 2020. Jumping worms: Are they "jumping" into a garden near you? *News from Friends of Pope Farm Conservancy: Preserving the Land and its Stories* 5: 10-11 link

Zedler, J, Doherty, J, Galleguillos, N., Hansen, M, **Herrick, B.**, and Wegener, M. 2014. Adaptive restoration of a former wet meadow. *Arboretum Leaflets* 33:1-8. link

Zedler, J., Zedler, P., Glass, S., **Herrick, B.**, Doherty, J., Wegener, M., Larkin, D. 2011. Unintended negative impacts of construction projects in the Arboretum. *Arboretum Leaflets* 23:1-12. link

Wegener, M., Zedler, P., **Herrick, B.,** Zedler, J. 2008. Curtis Prairie: 75-year-old restoration site. *Arboretum Leaflets* 16:1-4. <u>link</u>

## PROFESSIONAL PRESENTATIONS (first author listed gave talk/poster unless noted)

Isenbarger, A. Smith, M., Tanzer, D. and **Herrick, B.M.** 2024. People powered science at the UW Arboretum. UW–Madison Research Bazaar. Madison, WI.

**Herrick, B.M.**, Tanzer, D. and Drake, D. 2023. Habitat preferences of non-native, invasive Asian pheretimoid earthworms: spatial-temporal trends across an urban-rural gradient in southern Wisconsin, USA. Ecological Society of America Annual Meeting. Portland, OR.

Kuhman, T.R. and **Herrick, B.M.** 2023. Differential effects of shrub removal methods and prescribed burning on understory plant communities in an oak woodland. Ecological Society of America Annual Meeting. Portland, OR.

Wolf, E., Hanson, A., and **Herrick, B.M.** 2023. Do invasive shrub removal techniques affect small mammal granivory? UW–Madison Arboretum Research Symposium

Johnson, D., Whitman, T., and **Herrick, B.M.** 2023. Impact of non-native *Amynthas* spp. on soil structure and fungal diversity in deciduous forest soils. 3<sup>rd</sup> Global Soil Biodiversity Conference. Dublin, Ireland.

West, J., Whitman, T., and **Herrick, B.M.** 2023. Physical disturbances to soil homogenize bacterial communities via dispersal and selection within microaggregate fractions. European Geosciences Union General Assembly. Vienna, Austria.

**Herrick, B.M.**, Day, S., and Carpenter, S. 2022. Building and sharing collective knowledge about the impacts of jumping worms on Wisconsin. Eighth Biennial Upper Midwest Invasive Species Conference. Green Bay, WI.

Brown-Lima, C., Davalos, A., Dobson, A., **Herrick, B.M.**, McCay, T., and Wickings, K. 2020. Jumping worm research and the new working group: JWORM Cornell Cooperative Extension – Invasive Species Networking Lunch. (all authors presented)

**Herrick, B.M.** and Johnston, M.R. 2020. Response of two pheretimoid earthworms, *Amynthas tokioensis* and *Amynthas agrestis* to different litter types. Seventh Biennial Upper Midwest Invasive Species Conference (virtual).

**Herrick, B.M.** and Johnston, M.R. 2020. Response of two pheretimoid earthworms *Amynthas agrestis* and *Amynthas tokioensis* to different litter types. Ecological Society of America Annual Meeting (virtual).

**Herrick, B.M.** and Johnston, M.R. 2019. Chemical and physical controls to the pheretimoid earthworm, *Amynthas tokioensis*. Soil Science Society of America Annual Meeting. San Antonio, TX.

Johnston, M.R. and **Herrick, B.M.** 2019. Soil properties of Wisconsin temperate forests upon *Amynthas* invasion. Soil Science Society of America Annual Meeting. San Antonio, TX.

Lowney, C. and **Herrick, B.M.** 2019. Forest succession in a Wisconsin southern mesic forest: Abraham's Woods State Natural Area. Ecological Society of America Annual Meeting. Louisville, KY.

Johnston, M.R. and **Herrick**, **B.M.** 2018. Cocoon heat tolerance of earthworms *Amynthas tokioensis* and *Amynthas agrestis*. Sixth Biennial Upper Midwest Invasive Species Conference. Rochester, MN.

**Herrick, B.M.**, Laushman, K., Hotchkiss, S., and Johnston, M.R. 2018. Invasion dynamics and community changes in hardwood forests following the arrival of Asian Jumping Worms. Sixth Biennial Upper Midwest Invasive Species Conference. Rochester, MN.

**Herrick, B.M.**, Ellis, J., and Williams, B. 2018. Successful education and outreach for jumping worms in Wisconsin. Sixth Biennial Upper Midwest Invasive Species Conference. Rochester, MN.

- Johnston, M.R, **Herrick, B.M.**, and Balster, N.J. 2017. Uncovering the secret life of the *Amynthas* earthworm cocoon. Ecological Society of America Annual Meeting. Portland, OR.
- **Herrick, B.M.** and Williams, B. 2017. Invasive Jumping Worms: Addressing the impact of a new soil invader. Iowa Invasive Species Conference. Moravia, IA.
- **Herrick, B.M.** and Williams, B. 2016. Assessing the Current and Potential Impact of the Invasive Jumping Worm (*Amynthas* sp.) in Wisconsin. Fifth Biennial Upper Midwest Invasive Species Conference. La Crosse, WI.
- **Herrick, B.M.**, Buschert, E., Doherty, J., and Olson, E. 2016. Differential persistence among native species planted in a stormwater retention pond. Wisconsin Wetlands Association 21<sup>st</sup> Annual Conference. Green Bay, WI.
- Buschert, E. and **Herrick, B.M.** 2016. Stormwater monitoring in Curtis Prairie. 16<sup>th</sup> Annual Science Day. UW–Madison Arboretum.
- Carpenter, S. and **Herrick, B.M.** 2015. Engaging Citizen Science: Bumble bee conservation at the University of Wisconsin–Madison Arboretum. Citizen Science Association Annual Conference, San Jose, CA.
- **Herrick, B.M** and Hansen, M. 2014. Challenges and opportunities to managing an urban natural area: perspectives from the University of Wisconsin–Madison Arboretum. Conference on Ecological and Ecosystem Restoration. New Orleans, LA.
- Carpenter, S. and **Herrick, B.M.** 2013. Bumble bee conservation at the University of Wisconsin Madison Arboretum. Society for Ecological Restoration World Conference on Ecological Restoration. Madison, WI.
- **Herrick, B.M.**, Pichler, M., and Zedler, P. 2013. Long-term changes in vegetation structure at a 60+ year prairie restoration. Society for Ecological Restoration World Conference on Ecological Restoration. Madison, WI.
- Carpenter, S. and **Herrick, B.M.** 2013. Conserving and restoring Arboretum lands: the role of citizen-based monitoring. Wisconsin Citizen-based Monitoring Conference. Wisconsin Rapids, WI.
- Zedler, P. and **Herrick, B.M.** 2012. Response of a prairie remnant to a historically rare growing season flooding event. Ecological Society of America Annual Meeting. Portland, OR.
- **Herrick, B.M.,** Zedler, P., Rueth, S., Wegener, M. 2011. Flooding and Biodiversity: A case study at the Faville Prairie Preserve, Jefferson County, Wisconsin. Wisconsin Wetland Association Annual Conference, Baraboo, WI.
- **Herrick, B.M.**, Glass, S., Kucharik, C. 2010. Climate change and ecological restoration at the UW Arboretum. Midwest/Great Lakes Chapter of the Society for Ecological Restoration Annual Meeting. Madison, WI.
- **Herrick, B.M.**, Stoll, W, Lehnhardt, S., Apfelbaum, S. 2009. Analysis of the re-vegetation success at the reclaimed Flambeau Mine, Ladysmith, WI, USA. Society of Wetland Scientists Annual Meeting, Madison, WI.
- Ingram, M, Farrior, M., Glass, S., **Herrick, B.M.**, Wegener, M. 2008. A soil's best friend? A political ecology of invasive earthworms in the Great Lakes Region. Annual Meeting of the Association of American Geographers, Boston, MA.

**Herrick, B.M.** 2005. The effects of dikes on the seed banks and standing vegetation of Great Lakes coastal wetlands with an emphasis on Green Bay, Lake Michigan. Wisconsin Wetlands Association Annual Conference. Green Bay, WI.

**Herrick, B.M.** 2003. The effects of dikes on the seed banks and standing vegetation of Great Lakes coastal wetlands. Society for Conservation Biology Annual Meeting. Duluth, MN.

**Herrick, B.M**. 2003. The vegetation of Great Lakes coastal wetlands. Annual Phi Kappa Phi Academic Excellence Symposium. University of Wisconsin–Green Bay, Green Bay, WI.

**Herrick, B.M.** 2003. The vegetation at Point au Sauble, Wisconsin: development of a long-term monitoring program. Annual Cofrin Student Research Symposium. University of Wisconsin–Green Bay, Green Bay, WI.

## SELECTED INVITED PUBLIC TALKS/WEBINARS (Last 10 years)

## 2024

• UW-Madison Winter Enrichment Lecture Series - What are "Outlying Properties"? The Arboretum's unique collection of remnant natural areas, Madison, WI (virtual)

## 2023

- Wisconsin Department of Natural Resources Forest Health Team Jumping worm research update, Madison, WI
- International Union for the Conservation of Nature (IUCN) Ecology and management of *Amynthas* spp. in North America (virtual)
- Badger Talks: Door County Master Gardener Association Invasive jumping worms: The impact of a new soil invader, Sturgeon Bay, WI
- Integrative Pest Management Institute of North America Invasive jumping worms: The impact of a new soil invader (webinar)
- Rooted Gardening with jumping worms, Madison, WI
- Midwest Regional Hosta Society Invasive jumping worms: The impact of a new soil invader, Rochester, MN
- Wild Ones Madison Chapter Invasive jumping worms: The impact of a new soil invader, Madison, WI
- Plants and Climate Symposium, Iowa State University Jumping worms: Biology, impacts, and control of a new soil invader, Ames, IA

## 2022

- Menomonee Wild Ones Invasive jumping worms: The impact of a new soil invader (virtual)
- Kalamazoo Area Wild Ones Invasive jumping worms: The impact of a new soil invader (virtual)
- Badger Talks: JW talk to Door County Master Gardeners Association Invasive jumping worms: The impact of a new soil invader, Sturgeon Bay, WI
- UW-Madison Extension Wood County Master Gardeners Invasive jumping worms: The impact of a new soil invader (virtual)
- UW-Madison Arboretum Native Plant Gardening Conference Invasive jumping worms: The impact of a new soil invader, Madison, WI

#### 2021

- Friends of the Arboretum Luncheon Lecture Series Let's talk turkeys...and about other animals that call the Arboretum home, Madison, WI
- Rutgers University Master Gardeners Invasive jumping worms: The impact of a new soil invader (virtual)

- Knox County, Tennessee Master Gardeners Invasive jumping worms: The impact of a new soil invader (virtual)
- UW-Madison Department of Entomology Lecture Series Invasive jumping worms: research and impacts of a new soil invader, Madison, WI (virtual)
- Friends of the Arboretum Luncheon Lecture Series Invasive jumping worms: The impact of a new soil invader Madison, WI (virtual)
- Milwaukee Wild Ones Invasive jumping worms: The impact of a new soil invader (virtual)
- UW-Madison Extension Invasive jumping worms: The impact of a new soil invader (statewide webinar)

#### 2020

- Madison Rotary History and Research at Curtis Prairie (virtual)
- Badger Talks Insect Rock Stars (webinar w/K. Oberhauser & S. Carpenter)
- Friends of the Arboretum Luncheon Lecture Series- The UW-Madison Arboretum Outlying Properties: 73 years of stewardship, research, and outreach, Madison, WI (co-presented w/M. Hansen)
- UW-Madison Winter Enrichment Lecture Series Why monitor dragonflies? (w/J. Ross), Madison, WI
- EAB University (Emerald Ash Borer Information Network) Invasive jumping worms: The impact of a new soil invader (webinar)
- PBS Wisconsin Garden and Landscape Expo Invasive jumping worms: The impact of a new soil invader, Madison, WI
- UW-Extension Green County Master Gardeners Invasive jumping worms: The impact of a new soil invader (virtual)
- UW-Extension Manitowoc Master Gardeners Invasive jumping worms: The impact of a new soil invader (virtual)
- Wisconsin Department of Natural Resources Forest Health Team Research and control of jumping worms, Madison, WI
- Ohio State Master Gardeners Invasive jumping worms: The impact of a new soil invader (virtual)

#### 2019

- Friends of the Arboretum Luncheon Lecture Series Wildlife at the Arboretum, Madison, WI
- Grassland Restoration Network Arboretum land management and research, Madison, WI (w/M. Hansen)
- Wisconsin Department of Natural Resources Forest Health Team Jumping worm research update, Madison, WI
- Shades of Green Hosta Society Invasive jumping worms: The impact of a new soil invader, Rochester, MN
- University of Illinois Extension Invasive jumping worms: The impact of a new soil invader, Rockford, IL
- UW-Madison Arboretum Winter Enrichment Lecture Series Jumping worm research at the UW-Madison Arboretum, Madison, WI
- UW-Extension Walworth County Master Gardeners Invasive jumping worms: The impact of a new soil invader, Janesville, WI
- UW-Extension Rock Prairie Master Gardener Association Invasive jumping worms: The impact of a new soil invader, Janesville, WI
- Wisconsin Daylily Society Invasive jumping worms: The impact of a new soil invader, Madison, WI

## <u>2018</u>

- UW-Madison Wed. Night @ the Lab A legacy of research and ecological restoration at the UW-Madison Arboretum, Madison, WI
- Green Tree Garden Club Invasive jumping worms: The impact of a new soil invader, Milwaukee, WI
- Ozaukee Garden Club Invasive jumping worms: The impact of a new soil invader, West Bend,
  WI
- UW-Extension Spring into Gardening Conference Invasive jumping worms: The impact of a new soil invader, Kenosha, WI
- Invasive Plant Association of Wisconsin Invasive jumping worms: The impact of a new soil invader, Madison, WI
- Wisconsin Garden and Landscape Expo Invasive jumping worms: The impact of a new soil invader, Madison, WI
- Wisconsin Hosta Society Invasive jumping worms: The impact of a new soil invader, Madison, WI
- Rockford Wild Ones Invasive jumping worms: The impact of a new soil invader, Rockford, IL

## 2017

- Prairie Reconstruction Initiative A look back at 80+ years of restoration at the University of Wisconsin–Madison Arboretum's Curtis Prairie (webinar co-presented w/ M. Hansen)
- Middleton High School Environmental Club Southern Wisconsin trees and invasive species: identification and ecology, Middleton, WI.

## 2016

• UW-Madison Arboretum Winter Enrichment Lecture Series - Urban Restoration: Perspectives from the UW-Madison Arboretum, Madison, WI. (co-presented w/M. Hansen)

#### 2015

- American Public Gardens Association Symposium on Horticulture, Greenhouses, and Facilities Gaining the upper hand with exotic and invasive species, Madison, WI (co-presented w/M. Hansen)
- The Prairie Enthusiasts 2015 Annual Conference Greene Prairie: Highlights and Challenges, Stevens Point, WI.
- Sustainable Forests Roundtable Invasive plant best management practices (webinar co-presented w/ B. Williams, J. Kingsbury)
- UW-Madison Student Chapter of the Wildlife Society Research and monitoring opportunities at the UW-Madison Arboretum, Madison, WI
- Wisconsin First Detector Network Jumping Worms (webinar w/ B. Williams)

## SELECTED INVITED INTERVIEWS (Last 10 years)

# Newspapers, magazines, electronic articles, podcasts, videos 2023

- Mother Earth News, Kenny Coogan (will be published spring 2024)
- A Way to Garden, Margaret Roach, "Coping with invasive jumping worms, with Brad Herrick of UW–Madison" link
- VolumeOne, Kelly Carlson, "Worming into Wisconsin" link
- Perennial Note, Newsletter of the Wisconsin Hardy Plant Society, Stephanie O'Neal "Jumping Worms Update" <a href="https://link.nih.gov/link.gov/link.gov/link.gov/link.gov/link.gov/link.gov/link.gov/link.gov/link.gov/link.gov

## 2022

• UW-Madison Were U Wondering? "Why do worms come out on sidewalks after it rains?" link

 UW-Madison News, Elise Mahon, "Monitoring an invasion: Where are jumping worms now?" link

## 2021

- The National Wildlife Federation, Leslie Alen, "Too much wiggle room" link
- Vox, Katherine Harmon Courage, "What's with these invasive "crazy" worms and why can't we get rid of them?" link
- The joe gardener Show with Joe Lamp'l, "Invasive Asian jumping worms: What gardeners need to know" link
- *The Washington Times*, Shen Wu Tan, "Invasive 'Asian jumping' 'crazy worms' threaten forests in more than 30 states' link
- *Inside Edition*, "If you see this jumping worm, kill it" <u>link</u>
- *Wisconsin State Journal*, Chris Hubbach "Protecting the prairie: UW Arboretum begins final phase of decade-long stormwater management."
- *Milwaukee Journal Sentinel*, Jennifer Rude Klett "Most of Wisconsin has no native earthworms. What's with that?
- Interview given about jumping worms for Channel3000 (Madison)

## 2020

- The Atlantic, Julia Rosen, "Cancel Earthworms" <u>link</u>
- The New York Times, Margaret Roach "As summer takes hold, so do the jumping worms" link
- Science News, "Invasive jumping worms damage U.S. soil and threaten forests" link
- No-Till Farmer, Julia Gerlach, "Getting a jump on jumping worms" link
- *UW-Madison News*, Eric Hamilton, "UW Arboretum begins final upgrades to stormwater management infrastructure" <u>link</u>
- Wisconsin State Journal, Chris Hubbach "Coyotes among us: Wily survivalists spotted throughout Madison, but few conflicts reported."

## <u>2019</u>

- Natural Resources Defense Council, Jason Bittel, "The crazy snake worm invasion you haven't heard about" link
- A Way to Garden, Margaret Roach, "Invasive Asian jumping worms: A 2019 research update, with Brad Herrick of UW–Madison. <a href="link">link</a>
- *UW-Madison News*, Eric Hamilton "Heat kills invasive jumping worm cocoons, could help limit spread" <u>link</u> (Re-published by *Science Daily*)
- *Chicago Tribune*, Cindy Dampier "Jumping worms are the latest invasive species to hit Illinois. In Chicago, they're basically everywhere."
- *Milwaukee Journal Sentinal*, Stephanie Blaszczyk "Jumping Worms are invading Wisconsin. Scientists have discovered a way to slow them down."
- Interviews given about jumping worms for NBC affiliates in Green Bay, WI and Rochester, MN.

## 2018

- A Way to Garden, Margaret Roach, "Asian jumping worms: what we know with UW–Madison's Brad Herrick" link
- *Isthmus*, Allison Geyer, "Living Laboratory: UW Arboretum is home to cutting edge research" link
- Average Person Gardening: Vegetable Gardening Show, "The destructive habits of the Asian earthworm" link
- *UW-Madison News*, Eric Hamilton "Invasive worms spreading in Arboretum forests, limited effects so far" link
- Wisconsin State Journal, Shelley Mesch "No damage to vegetation by jumping worms shown yet, but invasion is still new." link

## 2017

- *UW-Madison News*, Eric Hamilton "Citizen scientists scour Madison area for invasive jumping worms" link
- Interview given about jumping worms for WKOW News (Madison)

#### 2016

- The Nature Conservancy: Cool Green Science, Matthew Miller, "Jumping worms, the creepy damaging invasive you don't know" <a href="link">link</a>
- *Harvest Public Media*, Eva Tesfaye, "What thrashes and is taking over the Midwest? Jumping worms" <u>link</u>
- Isthmus, Doug Hansmann, Denise Thornton, "Worming their way into Wisconsin" link

#### 2015

• *UW-Madison Extension: Wisconsin First Detector Network*, "Be on the lookout for jumping worms" (webinar w/Bernie Williams)

## 2014

- Badger Insider, Sandra Knisely "Eighty years of burning and learning at the Arboretum" link
- Wisconsin State Journal, Dan Simmons "Asian crazy worms invade Madison"

## Radio

## 2023

• Wisconsin Public Radio – Central Time, "The huge cost of invasive species" <u>link</u>

## 2021

- Wisconsin Public Radio The Morning Show; "Crazy worms invade Wisconsin" link
- Wisconsin Public Radio The Larry Meiller Show; "The lowdown on earthworms" link

### 2019

• Wisconsin Public Radio – Central Time; "New approach to countering invasive Asian jumping worms" link

#### 2015

• Lake Effect, "Jumping 'crazy' worms threaten Wisconsin forests" National Public Radio, Milwaukee link

## 2014

• Wisconsin Public Radio – The Joy Cardin Show, "Monday morning wake-up call: Invasive 'crazy worm' in Wisconsin" <u>link</u>

## **Television**

## 2021

- PBS Wisconsin Jumping Worms are Eating and Altering Wisconsin's Forest and Garen Soil link
- Channel 3000, Madison, WI "Invasive jumping worms spreading quickly in Wisconsin" link
- *PBS Wisconsin Life*: Citizen Science (Season 6, Episode 5; w/ K. Oberhauser & S. Carpenter) link

## <u>2017</u>

• Interview given about jumping worms for WKOW 27 News (Madison)

## <u>2015</u>

• Interview given about jumping worms for Channel3000 (Madison)

## <u>2014</u>

• Interviews given about jumping worms for NBC 15 and Channel3000 (Madison)