Andrea Syvilla Thorpe, Ph.D.

EDUCATION

Ph.D. Organismal Biology and Ecology — 2006
The University of Montana — Missoula, MT
"The effects of the invasive forb, *Centaurea maculosa*, on nutrient cycling and plant communities."

M.S. Ecology — 2001
San Diego State University — San Diego, CA
"Population tolerances to salinity and moisture and genetic structure in the rare upper salt-marsh plant, *Lasthenia glabrata* ssp. *coulteri*."

B.S. (Summa Cum Laude) Natural Resources — 1998
Oregon State University — Corvallis, OR

Continuing education and Certifications

Crucial Conversations — 2019

Leadership that Shapes the Future — 2018
University of Washington Foster School of Business

Leadership Development Program — 2014
Center for Creative Leadership, http://www.ccl.org/leadership/programs

Facilitating Group Collaboration — 2013
Julian Griggs, Dovetail Consulting, http://www.dovetailconsulting.com/

Behaviors of Managers Who Excel — 2008
HSC Workshops, http://www.hscseminars.org/

PROFESSIONAL EXPERIENCE (RECENT)

Natural Resources Program Manager — 2019 – current
Washington State Parks and Recreation Commission — Olympia, WA

Assistant Professor (Affiliate) — 2017-current
School of Environmental and Forest Sciences, University of Washington — Seattle, WA

Washington Natural Heritage Program Manager — 2017 – 2019
Department of Natural Resources — Olympia, WA
I provide leadership for a program that connects conservation science with conservation action by providing resource managers, policy makers, and the general public tools and information on the natural history and status of Washington's rare plants and rare and high-quality ecosystems.

- Provides scientific oversight over the work and products of the Natural Heritage Program to ensure credibility and appropriate scientific rigor.

- Establishes priorities for conservation of rare species and rare and high quality habitats in the state of Washington; author the biennial *State of Washington Natural Heritage Plan*.
- Leads the outreach efforts of the Program to ensure that our information is available and understandable to the public and by a wide-variety of decision-makers.
- Establishes and builds partnerships with a broad group of partners and stakeholders, including scientists and managers with federal, state, and local agencies, land trusts and conservation non-profits, academics, and others.
- Supervises scientific and information management staff (4 direct and 2 secondary reports; Washington Federation of State Employees [WFSE]-represented).
- Develops and administers the program budget; prepares budget concept papers for legislative appropriation requests, develops and manages service contracts.
- Secures and administers grants and contracts, including marketing the program to potential funding sources, developing proposals, and ensuring deliverables are met in a timely manner.
- Member of the Diversity, Equity, and Inclusion Council and Women's Employee Resource Group.
- Supports program membership in NatureServe, a network of more than 70 Natural Heritage Programs throughout the western hemisphere.

Director of Science, Project Scientist 2015 – 2017
Battelle Ecology, NEON Inc. Boulder, CO

At NEON, I provided leadership for a large team of professionals who combined existing methodologies with novel approaches to develop and implement the collection of standardized instrumented and observational data from terrestrial and aquatic ecosystems throughout the United States.

- Provided oversight and scientific expertise for the design and development of the observational and instrumented sampling designs for 47 terrestrial and 34 aquatic sites throughout the U.S.
- Ensured coordination between the science team and internal (including construction, engineering, and permitting teams) and external (including funding agencies and advisory groups) collaborators and stakeholders. Worked with staff to develop innovative solutions that maintained the scientific integrity of the observatory that would fit within other project constraints.
- Supervised and coordinated the activities of 6 direct reports and ca. 60 secondary reports.
- Led a diverse team of professionals through significant organizational changes, including the dissolution of NEON, Inc. and transition to a business line within Battelle Memorial Institute.
- Developed a process for prioritizing remaining scientific tasks for construction of the observatory and evaluating their impact relative to over-all project goals.
- Served as primary scientific representative and spokesperson in all internal and external communications (oral and written, to general public and scientific audiences).
- Developed a multi-million dollar budget and multi-year schedule for scientific activities required to complete construction of the Observatory.
- Developed the strategic plan for science operations for the 30-year lifetime of the Observatory.

Assistant Director for Terrestrial Ecology 2012 – 2015
National Ecological Observatory Network (NEON) Inc. Boulder, CO

- Provided oversight and scientific expertise for the development of the sampling designs for observations of multiple terrestrial taxa and terrestrial biogeochemistry for 60 sites throughout the U.S.
- Supervised the Fundamental Sentinel Unit (16 direct reports)
- Served as the Deputy Project Scientist (2013-2015) – assisted the Project Scientist in key activities and acted as Project Scientist in that person's absence.
- Developed and implemented a ca. $10,000,000, 4-year budget and schedule for completion of the terrestrial ecology deliverables for construction.
- Developed creative solutions to meet requirements for diverse project components while remaining within anticipated long-term budget constraints.
- Conducted frequent public engagement and outreach activities to the general public and scientific audiences, including conferences, universities, and media (radio and print).
- Significantly improved productivity by setting clear expectations and proactively communicating project status, issues, and risks to team members and internal stakeholders.

Conservation Research Program Director and Ecologist 2006 – 2012
Institute for Applied Ecology Corvallis, OR

By integrating science into on-the-ground conservation, I achieved measurable conservation objectives in projects such as developing adaptive management restoration strategies for native habitats and implementing conservation strategies for state and federally listed species throughout the Pacific Northwest.

- Directed a program of over 30 projects annually focused on improving restoration and management of native species and habitats in the Pacific Northwest.
- Supervised the Conservation Research team (6-8 direct reports).
- Obtained program funding and managed an annual program budget of ca. $900,000.
- Improved efficiency by designing and implementing budgeting and scheduling procedures.
- Designed research protocols and implemented and provided oversight for data collection, entry, and analysis; and reporting for all active grants.
- Proactively communicated project status with partners (including local, state, and federal agencies and other non-profit organizations) and internal management.
- Spearheaded expansion of internship program, including expansion to participate in programs increasing opportunities for under-represented groups.
- Served as the staff liaison to the Board of Directors in the development of IAE's first Strategic Plan.

TEACHING AND ADVISING

INSTRUCTOR

Fundamental Concepts (and Debates) in Ecology (BOT 599) 2 cr. lecture
2011, Botany and Plant Pathology, Oregon State University
This graduate course focused on fundamental paradigms and recent, related advances in ecology.

Plant Population Ecology (BOT 442/542) 3 cr. lecture and lab
2011, Botany and Plant Pathology, Oregon State University
This advanced course explored the central concepts, facts, theories, skills, and perspectives of plant population ecology and their field applications, including rare species conservation and restoration and invasive species management.

General Botany (BIOL 201) 3 cr. lecture
2005, Organismal Biology and Ecology, University of Montana
The objectives of this introductory course were to 1) introduce students to the diversity of and relationships between photosynthetic organisms, 2) understand the functional biology of photosynthetic organisms including modes of reproduction, anatomy, physiology, and ecology, and 3) the multiple ways in which humans are dependent on photosynthetic organisms.

Experimental Ecology (BIOL 354L) 2 cr. lecture and lab
2000 & 2001, Biology Department, San Diego State University
This course introduced advanced biology students to multiple methods of research design, implementation, and analysis used in ecology.

GUEST LECTURER

Urban Horticulture Seminar (SEFS 549), 2017, University of Washington. Discussion with graduate students focused on my career experiences and restoration ecology.

Foundations in Ecology (ECOL 505), 2013 & 2014, Colorado State University. Big Data and the National Ecological Observatory Network.

Sustainability Seminar sponsored by CoPIRG Energy Services Corps, 2012, University of Colorado – Boulder. Career opportunities in applied ecology.

Environmental Sciences Orientation (ENSC 101), 2010 & 2011, Oregon State University. Opportunities in experiential learning.

Research Experience for Undergraduates Special Seminar, 2009-2011, Oregon State University. Reintroduction and habitat restoration of threatened and endangered plant and butterfly species in the Willamette Valley, Oregon.

Special Seminar for the Fisheries and Wildlife Club, 2010, Oregon State University. Resume workshop.

Botany and Plant Pathology Graduate Seminar (BOT 599), 2008, Oregon State University. Communicating with the public.

Natural Resources Club Special Seminar, 2007, Oregon State University. Applying for graduate school and job opportunities in the natural resources.

Ecology (BI 370), 2006, Oregon State University. Succession.

Ecology (BIOE 370), 2004 & 2005, University of Montana. Plant interactions and community dynamics.

Rocky Mountain Flora (BIOO 335), 2002, University of Montana. Plant interactions and community dynamics.

TEACHING ASSISTANT

Ecology Laboratory (BIOE 371), 2003-2005, University of Montana.

Ecology and the Environment (BIOL 354), 2000-2001, San Diego State University.

General Biology Laboratory (BIOL 100L), 2000, San Diego State University.

Principles of Organismal Biology Laboratory (BIOL 204L), 1998-2000, San Diego State University.

UNDERGRADUATE MENTORSHIP

Ecological Society of America SEEDS (Strategies for Ecology Education, Diversity) Program, 2016, Kali Richardson.

Ecological Society of America SEEDS (Strategies for Ecology Education, Diversity) Program, 2015, Emily Thyroff.

National Ecological Observatory Network Undergraduate Internship Program, 2014, Victor Leos.

National Ecological Observatory Network Undergraduate Internship Program, 2013, Nicole Dear.

SEEDS (Strengthening Education and Employment for Diverse Students) Program, College of Forestry, Oregon State University, 2011-2012, Mario Carbajal.

Senior thesis, Oregon State University Honors College – Environmental Sciences, 2008, Jennifer (Whitney) Goodell. *Thesis title*: Invasion of *Brachypodium sylvaticum* in prairie and forest habitats: differences in community structure between uninvaded and invaded systems in Bald Hill Park, Corvallis, Oregon.

IBS-CORE undergraduate research program (program for under-represented students in STEM), University of Montana, 2002, Jose Diaz.

GRADUATE THESES DIRECTED

Katie Gallagher, M.S., Botany and Plant Pathology, Oregon State University. 2012. Thesis: "Recruitment Predictors of an Endangered Prairie Species: A Case Study of *Erigeron decumbens*."

POST-DOCTORAL MENTORSHIP

Stephen Mayor. 2013-2015. Co-advisors: R. Guralnick (University of Colorado - Boulder) and D. Schneider (Memorial University).

MINOR PROFESSOR AND GRADUATE COMMITTEE MEMBERSHIPS

Erin Saunders, M.S., Botany and Plant Pathology, Oregon State University. 2011.

ADDITIONAL MENTORSHIP

Apprenticeships in Science and Engineering (Saturday Academy), 2012, Eduardo Ramirez (Corvallis High School Class of 2013).

Apprenticeships in Science and Engineering (Saturday Academy), 2011, Sarah Storniolo (Crescent Valley High School Class of 2012).

Apprenticeships in Science and Engineering (Saturday Academy), 2010, Ian Finn (Crescent Valley High School Class of 2012).

SCHOLARSHIP AND CREATIVE ACTIVITY

PEER REVIEWED PUBLICATIONS

Kaye, T.N., M.A. Bahm, **A.S. Thorpe**, E.C. Gray, I. Pfingsten, C. Waddell. 2019. Population extinctions driven by climate change, population, size, and time since observation may make rare species databases inaccurate. PLoS ONE 14(10):e0210379.

Barnett, D.T., P.A. Duffy, D.S. Schimel, R.E. Krauss, K.M. Irvine, F.W. Davis, J.E. Gross, E.I. Azuaje, **A.S. Thorpe**, D.Gudex-Cross, M. Patterson, J.M. McKay, J.T. McCorkel, and C.L. Meier. 2019. The terrestrial organism and biogeochemistry spatial sampling design for the National Ecological Observatory Network. Ecosphere 10(2):e02540.10.1002/ecs2.2540.

Thorpe, A.S., D. Barnett, S. C. Elmendorf, E. S. Hinckley, D. Hoekman, K. Jones, K. LeVan, C. Meier, L. Stanish, and K. Thibault. 2016. Sampling Designs for the NEON Terrestrial Observation System: Introduction to the Series. Ecosphere 7:e01627. doi: 10.1002/ecs2.1627.

Thorpe, A.S., S. Perakis, C. Catricala, and T.N. Kaye. 2013. Nutrient limitation of native and invasive N_2-fixing plants in Willamette Valley prairies. PLoS ONE 8: e84593. doi:10.1371/journal.pone.0084593

Ellis, Martha M., J.L. Williams, P.Lesica, T.J. Bell, P. Bierzychudek, M. Bowles, E.E. Crone, D.F. Doak, J. Ehrlén, A. Ellis-Adam, K. McEachern, R. Ganesan, P. Latham, S. Luijten, T.N. Kaye, T.M. Knight, E.S. Menges, W.F. Morris, H. den Nijs, G. Oostermeijer, P.F. Quintana-Ascencio, J.S. Shelly, A. Stanley**, A. Thorpe**, T. Ticktin, T. Valverde, and C.W. Weekley. 2012. Matrix population models from 20 studies of perennial plant populations. Ecology 93:951.

Thorpe, A.S., E.T. Aschehoug, D. Z. Atwater, R.M. Callaway. 2011. Plant interactions and evolution. Journal of Ecology 9:729-740. ***'Recommended' article by Faculty of 1000 (reviewers J. Petermann and B. Schmid).***

Thorpe, A.S. and R.M. Callaway. 2011. Biogeographic differences in the effects of *Centaurea maculosa* on the soil nitrogen cycle: novel weapons and soil microbes. Biological Invasions 13:1435-1445.

Thorpe, A.S., and T.N. Kaye. 2011. Issues in the conservation and reintroduction of the endangered Willamette daisy: effects of population size on seed viability and the influence of local adaptation. Native Plants Journal 12:289-298.

Thorpe, A.S., and A.G. Stanley. 2011. Determining appropriate goals for restoration of imperiled communities and species. Journal of Applied Ecology 48:275-279.

Pollock, J.L, L.A. Kogan, **A.S. Thorpe** and W.E. Holben. 2011. (±)-Catechin, a root exudate of the invasive *Centaurea stoebe* Lam. (spotted knapweed) exhibits bacteriostatic activity against multiple soil bacterial populations. Journal of Chemical Ecology 37:1044-1053.

Thorpe, A.S., G.C. Thelen, A. Diaconu, R.M. Callaway. 2009. Root exudate is allelopathic in invaded community but not in native community: field evidence for the Novel Weapons Hypothesis. Journal of Ecology 97: 641-645.

Thorpe, A.S. 2008. The good, the bad, and the ugly. Challenges in native plant conservation. Native Plants Journal 9:351-357.

Thorpe, A.S., V. Archer, and T.H. DeLuca. 2006. The invasive forb, *Centaurea maculosa*, increases phosphorus availability in Montana grasslands. Applied Soil Ecology 32:118-122.

Thorpe, A.S. and R.M. Callaway. 2006. Interactions between invasive species and soil ecosystems: Positive feedbacks and their potential to persist. *Chapter in* Cadotte, W., S.M. McMahon, and T. Fukami, *editors.* Conceptual Ecology and Invasions Biology: Reciprocal Approaches to Nature. Kluwer; Netherlands.

R.M. Callaway, J.L. Hierro, and **A.S. Thorpe.** 2005. Evolutionary trajectories in plant and soil microbial communities: *Centaurea* invasions and the geographic mosaic of coevolution. *Chapter in* Sax, D.F., S.D. Gaines, and J.J. Stachowicz, *editors*. Exotic species – Bane to Conservation and Boone to Understanding: Ecology, Evolution and Biogeography. Sinauer Associates; Sunderland, MA, U.S.A.

Kauffman, J.B., **A.S. Thorpe**, E.N.J. Brookshire. 2004. Livestock Exclusion and Belowground Ecosystem Responses in Riparian Meadows of Eastern Oregon. Ecological Applications 14:1671-1679.

Manuscripts in preparation

Thorpe, A.S., A.G. Stanley, T.N. Kaye, and P. Latham. Determining extinction rate in a rare orchid. Conservation Biology.

K. Gallagher and **A.S. Thorpe**. Recruitment predictors of an endangered prairie species: A case study of Willamette daisy. Native Plants Journal.

Thorpe, A.S., A.G. Stanley, and T.N. Kaye. Population and seed bank dynamics of *Senecio erterrae*. Biological Conservation.

Thorpe, A.S., C.M. Duncan, A.S. Young, and T.N. Kaye. Assessing the interactions between invasive and rare species. Bioscience.

REPORTS AND PLANS

Greater than 150 2006-2012; sample of primary authorships below, full list available upon request.

Thorpe, A.S. 2011. Upland Prairie Restoration Research at Wild Iris Ridge. 2011 Progress Report. Prepared by Institute for Applied Ecology for Bureau of Land Management, Eugene District. Corvallis, Oregon. iii + 16 pp.

Thorpe, A.S., A.G. Stanley, T.N. Kaye, and P. Latham. 2011. Population trends, demography, and the effects of environment and disturbance on Cypripedium fasciculatum in southern Oregon. Institute for Applied Ecology, Corvallis, Oregon and USDI Bureau of Land Management, Medford District. v + 36 pp.

Thorpe, A.S. 2010. Botanical implementation and validation monitoring of project buffers: Third year report. Institute for Applied Ecology and Medford District BLM. iv + 22 pp.

Thorpe, A.S. 2010. Restoration of Willamette Valley upland prairies at Fern Ridge Lake. 2010 Progress Report. Prepared by Institute for Applied Ecology for U.S. Army Corps of Engineers, Willamette Valley Projects. Corvallis, Oregon. vi+52 pp.

Thorpe, A. S., C. M. Duncan, and A. S. Young. 2010. RESIST (Rare and Endangered Species and Invasive Species Threats) program for invasive weed management in Sensitive Species habitats. 2010 Final Report. Prepared by Institute for Applied Ecology for Roseburg District BLM. vii + 69 pp.

Thorpe, A.S., D.E.L. Giles-Johnson, R.T. Massatti, and T.N. Kaye,T.N. 2009. *Abronia umbellata* var. *breviflora* on the Oregon coast: Reintroduction and population monitoring. Institute for Applied Ecology, USDA Forest Service, Siuslaw National Forest, USDI Bureau of Land Management, Coos Bay District, and Oregon Department of Parks and Recreation. vii + 52 pp.

Thorpe, A.S., and R.T. Massatti. 2009. Threat assessment for *Limnanthes floccosa* ssp. *pumila* and *Callitriche marginata* on Table Rocks ACEC, Medford District BLM. Institute for Applied Ecology and USDI Bureau of Land Management, Medford District. iv + 34.

Thorpe, A.S., R.T. Massatti, and D. Giles. 2009. Controlling meadow knapweed with manual removal, mulching, and seeding. Final Report. Institute for Applied Ecology and Eugene District BLM. iv + 22 pp.

Thorpe, A.S., R.T. Massatti, and D. Giles-Johnson. 2009. Horse Rock Ridge assessment, seed collection, and restoration. Institute for Applied Ecology and USDI Bureau of Land Management, Eugene District. iv + 85 pp.

Thorpe, A.S., R.T. Massatti, R.T., and T.N. Kaye. 2009. Experimental habitat manipulation of wayside aster (*Eucephalus vialis*). Institute for Applied Ecology, USDI Bureau of Land Management, Eugene District, and National Fish and Wildlife Foundation. iv + 34.

Thorpe, A.S. 2008. Maxfield Meadows meadow and oak savannah restoration. 2008 Progress report and restoration plan. Institute for Applied Ecology and USDI Bureau of Land Management, Salem District.

Thorpe, A.S., and T.N. Kaye. 2008. *Astragalus tyghensis*: actual vs. predicted population sizes. 2008 Final Report. Institute for Applied Ecology and Prineville District BLM. 14 pp.

Thorpe, A.S., and T.N. Kaye. 2008. Conservation Research in the Leslie Gulch ACEC: Population monitoring and seed bank dynamics in *Senecio ertterae*. Final Report. Institute for Applied Ecology and Vale District BLM. iv + 28 pp.

ORAL PRESENTATIONS, PROFESSIONAL CONFERENCES (PRESENTER NOTED WITH *)

Thorpe, A.S.*2016. Long-term monitoring of aquatic and terrestrial taxa by the National Ecological Observatory Network. North American Congress of Conservation Biology. Madison, WI, U.S.A.

Thorpe, A.S.* 2015. Plugging into NEON: Resources available from the National Ecological Observatory Network. Ecological Society of America. Baltimore, Maryland, U.S.A.

Thorpe, A.S.* 2014. Long-term monitoring of mountain sites in the National Ecological Observatory Network. Mountain Observatories: A Global Fair and Workshop. Reno, Nevada, U.S.A.

Thorpe, A.S.* 2014. Where is NEON now? Ecological Society of America. Sacramento, California, U.S.A.

Gray, E.C.*, D.E.L. Giles-Johnson, **A.S. Thorpe**, and T.N. Kaye. Using common gardens to assess climate effects on Kincaid's lupine (*Lupinus oreganus*). Society for Ecological Restoration Northwest. Redmond, Oregon, U.S.A.

Kaye, T.N.*, S. Bois, **A.S. Thorpe**, A. Stanley, J. Krueger, T. Taylor, and D. Steeck. 2014. Managing restored wetland prairies for native diversity and resistance to invasion: an experiment comparing burning, grazing, haying, and mowing as management treatments. Society for Ecological Restoration Northwest. Redmond, Oregon, U.S.A.

Lunch, C., and **A.S. Thorpe***. 2014. NEON data products. Mountain Observatories: A Global Fair and Workshop. Reno, Nevada, U.S.A.

Mayor, S.J.*, M.E. Andrew, S. Elmendorf, R. Guralnick, E. Minor, J. Otequi, D.C. Schneider, V. Tersigni, K.M. Thibault, **A.S. Thorpe**, M.W. Tingley, J.C. Withey. 2014. Are there fitness consequences of North American birds mistiming their migrations due to climate change? A test of the phonological mismatch hypothesis at an unprecedented spatial scale. Ecological Society of America. Sacramento, California, U.S.A.

Thorpe, A.S.*, K. Jones, and M. Denslow. 2013. What's new in NEON? Organization of Biological Field Stations Annual Meeting. Portal, Arizona, U.S.A.

Thorpe, A.S*,, K.M. Thibault*, D.T. Barnett*, E.S. Hinckley*, D. Hoekman*, C.L. Meier*, and J. Parnell*. 2013. Organismal sampling on a continental scale: a town hall discussion of the terrestrial soil, biogeochemical, and organismal protocols of the National Ecological Observatory Network. Ecological Society of America. Minneapolis, Minnesota, U.S.A. (*Speaker and organizer*)

Ollinger, S.*, D. Tazik, S. Berukoff, W.K. Gram, T. Kampe, K. Laursen, H.W. Loescher, L. Pitelka, H. Powell, J. Taylor, **A.S. Thorpe**. 2013. State of NEON: Where are we and what challenges and opportunities lie ahead?

Thorpe, A.S.*, T.N. Kaye, P. Latham, A. Stanley, and M. Mousseaux. 2012. Population viability, trends, and demography in *Cypripedium fasciculatum* in southern Oregon. Conserving plant biodiversity in a changing world: a view from NW North America. Seattle, Washington, U.S.A.

Thorpe, A.S.*, S.S. Perakis, T.N. Kaye, and C. Catricala. 2012. Nutrient limitation of native and invasive N_2-fixing plants in Willamette Valley prairies. Ecological Society of America. Portland, Oregon, U.S.A.

Boulay, M.C.*, **A.S. Thorpe**, K.A. Lynch, and J. Krueger. 2012. The intersection of research, teaching, and service: Designing science-based service learning projects to meet learning and research objectives. Ecological Society of America. Portland, Oregon, U.S.A.

Gallagher, K.J.* and **A.S. Thorpe.** 2012. Recruitment predictors of endangered prairie species: A case study of *Erigeron decumbens*. Ecological Society of America. Portland, Oregon, U.S.A.

Gallagher, K*. and **A.S. Thorpe**. 2012. Recruitment limitation of endangered prairie species: A case study of *Erigeron decumbens.* Conserving plant biodiversity in a changing world: a view from NW North America. Society for Ecological Restoration Northwest Chapter. Victoria, British Columbia, Canada.

Kaye, T.N.*, P. Dunwiddie, A.G. Stanley, and **A.S. Thorpe**. 2012. Fire as a tool for managing prairie habitats and at-risk species. International Fire Ecology and Management Congress. Portland, Oregon, U.S.A.

Thorpe, A.S.* 2010. Ento-opportunities with nonprofits: What experience matters. Entomological Society of America Annual Meeting. San Diego, California, U.S.A. ***(Invited)***

Thorpe, A.S.* and T.N. Kaye. 2010. Issues in the conservation and introduction of the endangered *Erigeron decumbens*: seed viability and the influence of local adaptation. Fifth Pacific Northwest Native Plants Conference. Seattle, Washington, U.S.A.

Thorpe, A.S.* 2010. Pushing up the daisies: restoring *Erigeron decumbens* populations in the Willamette Valley, Oregon. Society for Ecological Restoration, Northwest Chapter. Tulalip, Washington, U.S.A.

Thorpe, A.S.* 2006. The good, the bad, and the ugly: Challenges in native plant conservation. Fourth Pacific Northwest Native Plants Conference. Eugene, Oregon, U.S.A.

Thorpe, A.S.*, R.M. Callaway, A. Diaconu, and G.C. Thelen. 2006. Biochemical effects of *Centaurea maculosa* on soil nutrient cycles and plant communities. Meeting the Challenge: Invasive Plants in PNW Ecosystems. Seattle, Washington, U.S.A.

Thorpe, A.S.*, V. Archer, T.H. DeLuca, and R. Callaway. 2005. Exudation of (±)-catechin by the invasive, *Centaurea maculosa*, increases phosphorus availability. Ecological Society of America. Montreal, Quebec, Canada.

Thorpe, A.S.* 2005. Finally! Evidence for Weapons of Mass Destruction: Spotted knapweed's effects on soil nutrient cycles. College of Arts and Sciences Student and Faculty Research Conference. University of Montana. Missoula, Montana, U.S.A.

Thorpe, A.S.* and R.M. Callaway. 2004. Alteration of soil nutrient cycles by *Centaurea maculosa* (spotted knapweed). Society for Ecological Restoration. Victoria, British Columbia, Canada. ***(Invited)***

Thorpe, A.S.* 2004. Effects of *Centaurea maculosa*, on nitrification in North America and Romania: evidence for Novel Weapons. Ecological Society of America. Portland, Oregon, U.S.A.

Thorpe, A.S.* 2004. Direct effects of *Centaurea maculosa* on soil nitrogen and phosphorus cycles. Montana Weed Control Association Annual Meeting. Billings, Montana, U.S.A.

Thorpe, A.S.* and R.M. Callaway. 2003. Feedback between *Centaurea maculosa*, bacteria, and the soil nitrogen cycle. Ecological Society of America. Savannah, Georgia, U.S.A.

Thorpe, A.S.* and J.E. Diffendorfer. 2001. The effects of habitat loss and degradation on the genetic variation and fitness of *Lasthenia glabrata* ssp. *coulteri*. Ecological Society of American. Madison, Wisconsin, U.S.A.

Thorpe, A.S.* 2000. The effects of habitat fragmentation on salinity and moisture tolerance in a rare salt marsh plant. Society for Conservation Biology. Missoula, Montana, U.S.A.

Kauffman, B.*, L. Boeder, **A. Thorpe**, and J. Brookshire. 1998. Vegetation and soil properties of grazed and ungrazed montane riparian meadows. Ecological Society of America. Baltimore, Maryland, U.S.A. (contributed equally as other co-authors to data and analysis presented)

ORGANIZED SESSIONS, PROFESSIONAL CONFERENCES

Thorpe, A.S. 2018. The Great EO Debate. Natural Heritage West. South Lake Tahoe, California, U.S.A.

Thorpe, A.S. and G. Kelly. 2016. Operating the Observatory: Visions for the future of the National Ecological Observatory Network. Ecological Society of America. Ft. Lauderdale, Florida, U.S.A.

Thorpe, A.S. 2015. Women in Ecology: Unique pathways, common experiences, and next steps to addressing remaining challenges. Ecological Society of America. Baltimore, Maryland, U.S.A.

Thorpe, A.S. 2015. Plugging into NEON: Resources available from the National Ecological Observatory Network. Ecological Society of America. Baltimore, Maryland, U.S.A.

Thorpe, A.S. and K.D. Jones. 2014. Ignite session: Where is NEON now? Updates on the National Ecological Observatory Network. Ecological Society of America. Sacramento, California, U.S.A.

Thorpe, A.S., K.M. Thibault, D.T. Barnett, E.S. Hinckley, *D.* Hoekman, C.L. Meier, and J. Parnell. 2013. Organismal sampling on a continental scale: a town hall discussion of the terrestrial soil, biogeochemical, and organismal protocols of the National Ecological Observatory Network. Ecological Society of America. Minneapolis, Minnesota, U.S.A.

Tazik, D., and **A.S. Thorpe**. 2013. Plugging into NEON – A foundation for ecological research at the continental scale and beyond. Ecological Society of America. Minneapolis, Minnesota, U.S.A.

ORAL PRESENTATIONS, ACADEMIC

The National Ecological Observatory Network. 2014. University of Hawaii, Hilo.
The National Ecological Observatory Network. 2013. University of Antwerp, Belgium.
Reproductive limitations in the recovery of the endangered Willamette daisy. 2012. Portland State University. Portland, Oregon, U.S.A.
Avoiding the curse of Sisyphus in conservation and restoration. 2011. Department of Forest Ecosystems and Society Graduate Student Symposium. Oregon State University. Corvallis, Oregon, U.S.A. ***(Keynote)***
Finally! Evidence for a Weapon of Mass Destruction: the effects of invasion by *Centaurea maculosa*.
2007. Botany and Plant Pathology, Oregon State University. Corvallis, Oregon, U.S.A.
2007. Pacific University. Forest Grove, Oregon, U.S.A.
2007. Portland State University. Portland, Oregon, U.S.A.

ORAL PRESENTATIONS, OTHER

The National Ecological Observatory Network. 2014. Volcanos National Park. Hawaii, U.S.A. (presentation primarily to USFS, USGS, and NPS staff).
Identification, demography, and ecology of knapweeds in Oregon. 2012. Knapweed Working Group annual meeting. Salem, Oregon, U.S.A.
Ecological impacts of invasion by spotted knapweed. 2012. Pull Together Conference, Cooperative Weed Management Association. Portland, Oregon, U.S.A. ***(Keynote)***
Carbon sequestration in restored and remnant prairies. 2011. Applied Carbon Training. US Fish and Wildlife Service and Ecosystem Services LLC. Rickreall, Oregon, U.S.A.
Experimentally tested strategies for restoring prairie and oak savannas. 2011. Urban Ecosystem Research Consortium of Portland/Vancouver Brown Bag Series. Portland, Oregon, U.S.A.
Oregon State University College of Forestry Student Awards Ceremony and Senior Recognition Night. 2011. Oregon State University. Corvallis, Oregon, U.S.A. ***(Keynote)***.
Restoration of xeric meadows at the Horse Rock Ridge ACEC/RNA. 2009. Meadow Restoration Field Tour: Practical Approaches for Diagnosis and Treatment. NW Oregon Ecology Group and Central Cascades Adaptive Management Partnership. Eugene, Oregon, U.S.A.
Rare at home, invasive abroad: understanding invasions by spotted knapweed. 2009. Umpqua Chapter of the Native Plant Society of Oregon. Roseburg, Oregon, U.S.A.
Current reintroduction and monitoring activities for pink sand verbena in Oregon. 2008. Pacific Northwest Coast Dunes Workshop. Newport, Oregon, U.S.A.
Conservation and restoration challenges in Oregon. 2008. Cheamhill chapter of the Native Plant Society of Oregon. McMinville, Oregon, U.S.A.
Invasion, biology, and control of meadow knapweed, spotted knapweed, and false-brome. 2008. Siuslaw Watershed Council. Blachly, Oregon, U.S.A.
Restoration of Horse Rock Ridge Area of Critical Environmental Concern & Research Natural Area. 2007. Research Natural Area Managers Meeting, US Forest Service and Bureau of Land Management. Corvallis, Oregon, U.S.A.
Control of meadow knapweed (*Centaurea x pretense*) using non-chemical methods.
2007. Oregon Bureau of Land Management Botanists Meeting. Corvallis, Oregon, U.S.A.
2007. Siuslaw Watershed council. Blachly, Oregon, U.S.A.
Finally! Evidence for a Weapon of Mass Destruction: Invasion by spotted knapweed and other *Centaurea* species.

2007. Eugene chapter of the Native Plant Society of Oregon, Eugene, Oregon, U.S.A.
2006. Corvallis chapter of the Native Plant Society of Oregon. Corvallis, Oregon, U.S.A.
2004. U.S.D.A. Forest Service Fire Lab, Missoula, Montana, U.S.A.

POSTER PRESENTATIONS

Tazik, D., **A.S. Thorpe**, M. Slater, C. Roehm, J. Taylor. 2015. Rolling out the Scientific Capabilities of the National Ecological Observatory Network. Ecological Society of America. Baltimore, Maryland, U.S.A.

Wirth, G., **A.S. Thorpe**, H. Buur. 2015. The NEON Science Commissioning Plan: Strategies for Confirming System Operation. American Geophysical Union. San Francisco, California, U.S.A.

Jones, K.D., J.F. Brown, S. Elmendorf, C.A.F. Enquist, A.H. Rosemartin, **A.S. Thorpe**, B.P. Wee, J.F. Weltzin. 2014. Using Essential Biodiversity Variables (EBVs) as a framework for coordination across research and monitoring networks: A case study with Phenology. American Geophysical Union. San Francisco, California, U.S.A.

Jones, K.D., S. Elmendorf, C.A.F. Enquist, A.H. Rosemartin, **A.S. Thorpe**, J.F. Weltzin, J.F. Brown, L.A. Powers, B.P. Wee. 2014. Using Essential Biodiversity Variables (EBVs) as a framework for coordination across research and monitoring networks: A case study with Phenology. Ecological Society of America. Sacramento, California, U.S.A.

Meier, C., K.D. Jones, **A. Thorpe**. 2014. Sampling vegetation for biomass, productivity, and leaf area index at the continental scale. American Geophysical Union. San Francisco, California, U.S.A.

Petroy, S., A. Fox, S. Metzger, **A. Thorpe**, C. Meier. 2014. NEON data products: supporting the validation of GCOS Essential Climate Variables. American Geophysical Union. San Francisco, California, U.S.A.

Thorpe, A.S., S.J. Berukoff, H. Buur, J. DeNicholas, M. Denslow, T.U. Kampe, C.L. Roehm, M. Stewart, J.R. Taylor, D. Tazik. 2013. Long term monitoring of mountain sites in the National Ecological Observatory Network. 2013. American Geophysical Union. San Francisco, California, U.S.A.

Roehm, D.L, D. Tazik, O. Atkin, E. Ayers, S.J. Berukoff, M. Fitzgerald, A.A. Held, E. S. Hinckley, T.U. Kampe, M. Liddell, S.R. Phinn, J.R. Taylor, K.M. Thibault, **A.S. Thorpe**. 2013. Integrating data from multiple science networks to conduct cross-scale ecohydrological research. American Geophysical Union. San Francisco, California, U.S.A.

Schneider, D.C., D. Barnett, S. Elmendorf, E.S. Hinckley, D. Hoekman, K. Jones, C. Meier, J. Parnell, Y. Springer, K.M. Thibault, **A.S. Thorpe**. 2013. From sentinels to avatars? Scaling from ecological data to ecosystem change. Ecological Society of America. Minneapolis, Minnesota, U.S.A.

Gallagher, K. and **A.S. Thorpe**. 2012. Recruitment limitation of endangered prairie species: A case study of *Erigeron decumbens.* Conserving plant biodiversity in a changing world: a view from NW North America. Seattle, Washington, U.S.A.

Giles-Johnson, D.E., **A.S. Thorpe**, C. Mayrsohn, and J. Lippert. 2012. Effects of litter, propagule type, and exposure on recruitment and survival in peripheral populations of *Frasera umpquaensis*. Conserving plant biodiversity in a changing world: a view from NW North America. Seattle, Washington, U.S.A.

Gray, E., **A.S. Thorpe**, and S. Carter. 2012. Evaluation of population trends and potential threats and potential threats to a rare serpentine endemic, *Calochortus coxii* (Crinite mariposa lily). Conserving plant biodiversity in a changing world: a view from NW North America. Seattle, Washington, U.S.A.

Hoekman, D., K. Blevins, C. Gibson, and **A.S. Thorpe**. 2012. Measuring mosquitos and ground beetles at a continental scale. Entomological Society of American Annual Meeting. Knoxville, Tennessee, U.S.A.

Thorpe, A.S. and T.N. Kaye. 2009. Pushing up the daisies: restoration of the endangered Willamette daisy. Center for Plant Conservation, St. Louis, Missouri, U.S.A.

Thorpe, A.S. and R.M. Callaway. 2003. Interactions between *Centaurea maculosa* Lam. and the soil nitrogen cycle. Soil Ecology Society. Palm Springs, California, U.S.A.

Thorpe, A.S. 2000. Effects of habitat fragmentation on salinity and moisture tolerances and the genetic structure of a rare salt marsh plant. Ecological Society of America. Snowbird, Utah, U.S.A.

Thorpe, A.S., J.B. Kauffman, J. Brookshire, L. Boeder, and C. Heider. 1998. Ecological influences of cattle on soil and belowground properties of montane riparian meadows in northeast Oregon. Society for Range Management. Guadalajara, Mexico.

WORKSHOP PARTICIPATION

2017 Synergies between NEON and LTER. NSF award 1550875. Santa Barbara, California.

2016 Developing enterprise tools and capacities for large-scale natural resources: A visioning workshop. The Pacific Northwest Aquatic Monitoring Partnership & USGS John Wesley Powell Center for Analysis and synthesis.

OTHER OUTREACH

2016 Interviewed for Les Temps, "Simuler la Terre par ordinateur: le dernier projet fou nè á l'EPFL" (translation: Simulate computer Earth: The last crazy project born at EPFL) 05/23/2016. http://www.letemps.ch/sciences/2016/05/23/simuler-terre-ordinateur-dernier-projet-fou-ne-epfl http://www.nsf.gov/news/special_reports/science_nation/neonII.jsp

2015 Interviewed for Science Nation, "NEON begins to monitor changing ecology of the U.S." Air date: 11/16/15. http://www.nsf.gov/news/special_reports/science_nation/neonII.jsp

2015 Interviewed for Smithsonian Zoogoer, "Global Game Changer." Autumn 2015 edition.

2014 Interviewed by Tom Graham, "NEON," Virginia Insight (WMRA). Air date: 10/20/14. http://wmra.org/post/n-e-o-n#.VEacKeYEjkQ

2013 Interviewed by Thomas Lin, "Big data is too big for scientists to handle alone," Quanta Magazine, Wired Magazine (Online) http://www.wired.com/wiredscience/2013/10/big-data-science/

2013 Interviewed by Heather Goldstein, "What it takes to keep track of life on earth," Living lab (WCAI, Cape and Islands NPR). Air date: 06/11/13. http://capeandislands.org/post/what-it-takes-keep-track-life-earth

2013 Climate Science Day on Capitol Hill participant. Training on science communication, focusing on communication with politicians followed by visiting with representatives and senators.

GRANTS

Below are examples of awarded grants. I have indicated when grants were competitively awarded in multiple years.

2010-2015 Phase 1: Demography and Management of Willamette daisy.
USFWS: $48,000 (2012, PI), $23,168 (2011, PI), $18,244 (2010, PI)

2006-2014 Horse Rock Ridge Restoration: Plan development, experimental treatments to remove invasive species, and seed collection; BLM Eugene District.
USDI BLM: $10,000 (2012, PI), $10,000 (2011, PI), $10,000 (2010a, PI), $10,000 (2010b, PI), $5,000 (2009, PI), $7,500 (2008, PI), $12,000 (2007, PI), $12,000 (2006, co-PI with T.N. Kaye)

2012-2013 Population assessment and demography in peripheral populations of Umpqua green gentian (*Frasera umpquaensis*).
USDI BLM: $16,000 (PI)

2011-2013 Abating climate change impacts on Kincaid's lupine.
USDI BLM: $17,914 (2011, PI)

2011-2013 Climate change effects on Kincaid's lupine.
Spirit Mountain Community Fund: $12,000 (2012-2013, PI)
Oregon Department of Fish and Wildlife, Oregon Conservation Strategy Implementation Grant: $27,499 (2011-2013, PI)

2010-2013 Population survey and trend assessment for *Calochortus coxii*.
USDI BLM and USDA FS Interagency Species Status/Sensitive Species Program: $11,500 (2012, PI), $22,000 (2010, PI)

2008-2013 Maxfield Creek Oregon white oak and meadow restoration area planning and implementation; BLM Salem District.
USDI BLM: $10,000 (2010, PI), $15,000 (2009, PI), $15,000 (2008, PI)

2010-2013 Population viability analysis of clustered lady's slipper; BLM Medford District.
USDI BLM, Interagency Species Status/Sensitive Species Program: $20,000 (PI)

2010-2013 Population assessment for Kincaid's lupine on the BLM Roseburg District.
USDI BLM: $15,000 (2012, PI) $15,000 (2011, PI), $15,000 (2010, PI)

2010-2013 Controlling exotic grasses while maintaining native plant communities in fire-maintained wet prairies.
US Army Corps of Engineers: $29,343 (PI)

2010-2013 Environmental influences on population dynamics in Point Reye's bird's beak (*Cordylanthus maritium* ssp. *palustris*).
USDI BLM and USDA FS Interagency Special Status and Sensitive Species Program: $12,000 (2012, PI)
USDI BLM: $18,000 (2010, PI)

2008-2013 Restoration of Willamette Valley upland prairies at Fern Ridge Lake.
US Army Corps of Engineers: $29,343 (2010, PI), $22,200 (2008, co-PI with T.N. Kaye)

2006-2012 Threat assessment for *Limnanthes floccosa* ssp. *pumila* from grazing, recreation, and invasive weeds on the Medford District BLM.
USDI BLM: $11,000 (2011, PI), $9000 (2010, PI), $9000 (2009, PI), $9000 (2008, PI), $9000 (2007, PI), $9000 (2006, PI)

2010-2011	Inventory and investigation of introduction techniques of the local endemic, *Lupinus lepidus* var. *cusickii* (Cusick's lupine). USDI BLM: $12,000 (PI)
2009-2011	Population viability analysis of clustered lady's slipper; BLM Medford District. USDI BLM: $10,000 (2010, PI), $12,000 (2009, PI)
2007-2011	Reintroduction of Henderson's checkermallow; BLM Coos Bay District. USDI BLM: $9,000 (2010, PI), $18,000 (2008, PI), $8000 (2007, co-PI with T.N. Kaye)
2007-2011	Grazing, climate and invasive weed effects evaluation for Mulford's milk-vetch (*Astragalus mulfordiae*); BLM Vale District. USDI BLM: $22,100 (2010, PI) $22,000 (2009, PI), $19,800 (2007, co-PI with T.N. Kaye)
2007-2010	Corvallis West and Salem West Nelson's checkermallow recovery project. Oregon Watershed Enhancement Board: $122,105 (co-PI, responsible for experimental design and monitoring)
2008-2009	Population assessment for Kincaid's lupine and Fender's blue butterfly and neighborhood exchange of pollen to improve seed production of Kincaid's lupine at Callahan Meadows; BLM Roseburg District. USDI BLM: $13,000 (2009, PI), $25,000 (2008, co-PI with T.N. Kaye)
2007-2009	Controlling meadow knapweed with manual removal, mulching, and seeding; BLM Eugene District. USDI BLM: $15,000 (2009, PI), $15,000 (2008, PI), $15,000 (2007, PI)
2004	Effects of spotted knapweed and catechin on soil phosphorus. John W. Marr Memorial Ecology Fund: $900 (PI)
2003-2006	Interactions of spotted knapweed invasion, native plants, and the soil ecosystem. Montana Dept. of Agriculture Noxious Weeds Trust Fund: $6737 (2005, PI) University of Montana Graduate School Dissertation Award: $500 (2003, PI)
2002-2004	Effects of spotted knapweed on soil nutrient cycling. Montana Dept. of Agriculture Noxious Weeds Trust Fund: $7550 (2002, PI), $6201 (2003, PI)
1999	Hardman Award for Evolutionary and Conservation Research with Native Plants. Effects of habitat loss and fragments on *Lasthenia glabrata* ssp. *coulteri*. $1000 (PI)

OTHER NATURAL RESOURCE EXPERIENCE

1999-2000	Small mammal research technician (J. Diffendorfer lab), San Diego State University.
1998	Assistant (publications editor and membership communications), Coast Range Association, Corvallis, Oregon.
1997	Undergraduate Research Assistant (J.B. Kauffman), Oregon State University.
1994-1998	Soil Conservationist/Student Trainee, USDA Natural Resources Conservation Service, Dallas and Portland, Oregon.

SERVICE

SERVICE TO DEPARTMENTS

2011-2012 Science advisor, Advisory Board for the Department of Forest Engineering, Resources and Management, College of Forestry, Oregon State University.
2011-2012 Winter term seminar coordinator, Department of Botany and Plant Pathology, Oregon State University.
2010-2011 Ernest and Pauline Jaworski summer scholarships selection committee, Department of Botany and Plant Pathology, Oregon State University.
2004-2005 Associate Dean Search Committee member, Division of Biological Sciences, University of Montana.
2001-2005 Graduate Student Organization President, Department of Organismal Biology and Ecology, University of Montana.
2002-2003 Seminar Co-organizer, Department of Organismal Biology and Ecology, University of Montana.

SERVICE TO THE PROFESSION

Professional Society Memberships

Active: Northwest Science, Ecological Society of America
Former: American Geophysical Union, Society for Ecological Restoration, Society for Conservation Biology

Associate Editor for botany and plant ecology, *Northwest Science* (2018 – present).

Manuscript and Proposal Reviews (numbers following hyphens indicate number reviewed)

Agency manuscripts: USA National Phenology Network (2013-1)
Research Proposals: Killam Research Fellowship (2019-1), National Science Foundation (2006-1), Estonian Science Foundation (2012-1)
Journals: Acta Oecologia (2014-1, 2015-1), *Allelopathy Journal* (2009-1), *Annals of Botany* (2014-1), *Biological Invasions* (2010-1), *Ecological Restoration* (2012-1), *Ecology* (2005-1, 2017-1), *European Journal of Soil Biology* (2009-1, 2010-3), *Frontier in Ecology* (2014-1), *Journal of Applied Ecology* (2013-1, 2016-1), *Journal of Ecology* (2010-1, 2011-1, 2012-1, 2016-1) *Linnean Journal of Botany* (2011-1), *New Phytologist* (2009-1, 2015-1), *Northwest Science* (2012-1), *Oikos* (2011-1) *Plant and Soil* (2002-1, 2006-1, 2008-1, 2011-1, 2014-1), *PLoS One* (2011-1, 2012-1, 2014-1), *Planta*, *Wetlands* (2012-1)

SELECT AWARDS AND HONORS

2018 – 2019 Washington Department of Natural Resources Fellowship program
2012 Outstanding Alumnus, Department of Forest Ecosystems and Society, College of Forestry, Oregon State University
2005-2006 University of Montana Bertha Morton Award, $2000
2005-2006 P.E.O. Scholar Award, $10,000
2005 University of Montana, College of Arts and Sciences Student and Faculty Research Conference. Outstanding Student Presentation
2004 Ecological Society of America, Soil Ecology Section, Outstanding Student Presentation

2001-2003 NSF EPSCoR Fellowship
2000 San Diego State University Jordan Dale Covin Memorial Scholarship

OTHER ACTIVITIES

2019 – present Brand Ambassador, Squirrel's Nut Butter
2017 – present Board of Directors, Oly Trail Runners
2016 – present Board of Directors, The Habitat Institute. https://www.habitatinstitute.org
2017 – 2019 Principal, Thorpe Ecological Consulting, LLC
2006 – 2011 Dog Show Judge and Instructor, Polk County (Oregon) 4-H