

## CURRICULUM VITAE

Thomas R. Rosburg

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### EDUCATION

Ph.D., Ecology and Evolutionary Biology, 1994; Iowa State University, Department of Botany, Ames, IA  
Dissertation: Community and physiological ecology of native grasslands in the Loess Hills of western Iowa.

M.S., Plant Ecology, 1990; Iowa State University, Department of Botany, Ames, IA  
Thesis: Restoration of remnant, native grasses in southern Iowa.

B.S., Fish and Wildlife Biology, 1977; Iowa State University, Department of Animal Ecology, Ames, IA

### PROFESSIONAL EXPERIENCE

2014 to 2017: Chair of Biology, Drake University

2010 to present: Professor, Drake University

Visiting Professor, Iowa Lakeside Laboratory Field Station

2010 to 2010: Letter of Appointment, University of Nevada at Las Vegas

2009 to 2010: Chair of Biology, Drake University

2005 to present: Collaborating Faculty, Ecology, Evolution, and Organismal Biology, Iowa State University

2004 to 2010: Director of Environmental Science and Policy, Drake University

2002 to 2010: Associate Professor, Drake University;

Visiting Associate Professor, Iowa Lakeside Laboratory Field Station

1998 to 2002: Assistant Professor, Drake University

1996 to 1998: Visiting Assistant Professor, Drake University

1995 to 2002: Assistant Professor, Iowa Lakeside Laboratory Field Station

1995 to 1996: Post-doctoral Associate, Department of Botany, Iowa State University

Seed bank study of wetland communities in the north Everglades

Courses Taught (1996 to present): Drake, Iowa Lakeside Lab, University of Nevada at Las Vegas

Ecology, Ecology Lab

Ecosystem Ecology (with lab)

Biological Research and Statistical Methods

Field Ornithology (with lab)

Introduction to Botany (with lab)

Natural History Photography

Field Botany (with lab)

Iowa Natural History (with lab)

Plant Ecology (with lab)

S130/S190 Introduction to Wildland Fire Behavior and Firefighting

Limnology (with lab)

Identification of Wetland Plants

Dendrology and Forest Ecology (with lab)

General and Professional Biology

### *Pre-1994 Positions:*

1994 to 1995: Temporary Instructor Departments of Botany and Animal Ecology, Iowa State University

1993 to present: Botanical and Ecological Consultant, Self-employed

1986 to 1994: Grad Assistant Depts. of Animal Ecology (1986) and Botany (1987-1994), Iowa State Univ.

1980 to 1986: Self-employed in sustainable agriculture

1979: Wildlife Biologist, Fish & Wildlife Service; Ft. Collins, CO

1978: Wildlife Technician, Iowa Department of Natural Resources; Boone, IA

1977 to 1978: Wildlife Technician, Bureau of Land Management; Rock Springs, WY

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## HONORS

Iowa Nature Champion, 2023 Iowa Nature Summit  
Centennial Scholar 2021-2022, Drake University, 2022  
Friend of the Prairie Award, Iowa Prairie Network, 2022  
Distinguished Iowa Scientist Award, Iowa Academy of Science, 2018  
Iowa Natural Heritage Foundation Hagie Heritage Award for Conservation, 2016  
Stalnaker Lecture Award, Drake University, 2014  
Troyer Research Fellow, Drake University, 2013-14  
Olav Smedal Conservation Award, 2011  
Sierra Club Iowa Chapter Environmental Educator Award, 2011  
Loess Hills Prairie Seminar First Commemorative Award for Outstanding Leadership & Education in the Field, 2010  
Prairie Advocate Award, Iowa Prairie Conference, 2009  
Governor's Iowa Environmental Excellence Award, 2004  
Who's Who Among America's Teachers, 2004  
Loess Hills Preservation Society Special Recognition Award, 2003  
Loess Hills Seminar Honoree Award, 2003  
Elected to Fellow Status in the Iowa Academy of Science, 2001  
Iowa Chapter of The Nature Conservancy Distinguished Service Award for 1995  
Graduate Student Financial Assistance Program Scholarship, 1992-93  
Full Membership in Sigma Xi Scientific Research Society, Iowa State University, 1992  
J.N. "Ding" Darling Award from J.N. "Ding" Darling Conservation Foundation, 1992  
Graduate Student Financial Assistance Program Scholarship, 1991-92  
J.N. "Ding" Darling Award from J.N. "Ding" Darling Conservation Foundation, 1991  
Sherry K. Fisher Award from J.N. "Ding" Darling Conservation Foundation, 1989  
Honor Society of Phi Kappa Phi, Iowa State University, 1989  
Pace Award for Academic Excellence, Iowa State University, 1986  
Graduated with Distinction, Magna Cum Laude, Iowa State University, 1977  
Cedric Hall Scholarship, Iowa State University, 1976  
Highest 2% of the Ag College, Iowa State University, 1975

## RESEARCH & EDUCATION GRANTS AWARDED (Dated by year initiated and years active to complete)

**Total of All Grants Awarded -- \$1,969,641 for 156 projects**

2024: Vegetation and plant communities on the Little Sioux River. Iowa Department of Natural Resources, \$9,450  
2024: Imperiled plants and sensitive habitats along Otter and Poor Creeks in Mitchell County, Iowa. Lowell and Margaret Meyer. \$1,500  
2024: Seedbank composition of seasonally flooded wetlands at Doolittle State Preserve. Story County Conservation and Iowa State Preserves Board. \$3,250  
2024: Drake Prairie Rescue and Restoration Program. Iowa Prairie Network. \$8,162  
2024: Floristic inventory, ecological assessment and herbicide effects at Sand Prairie Park, Johnson County, Iowa. Johnson County Conservation. \$3,000  
2024: Floristic inventory and ecological assessment for Kothenbeutel Prairie, Franklin County, Iowa. Iowa Natural Heritage Foundation, Des Moines, IA. \$3,915  
2024-25: Floristic inventory. ecological assessment and ecosystem management for three semi-natural open spaces in the City of Urbandale, Iowa. City of Urbandale, IA. \$7,635  
2024-25: Floristic inventory and ecosystem assessment of prairie, forest and wetland habitats in the Turin Wildlife Management Area, Monona County, IA. Iowa Department of Natural Resources, Des Moines, IA. \$12,730  
2024: Native plant identification and ecology 4-week webinar course. Golden Hills RC&D, Oakland, IA. \$1,200  
2023-24: An ecological assessment based on floristic quality for the Wildcat Bluff Addition, Benton County, IA. Benton County Conservation, Vinton, IA. \$4,874  
2023: Floristic survey and evaluation for a 40-year old prairie reconstruction at Derrynacloy Farm, Fremont County, IA. Jeff Blakely and Brauna Hartzell, Madison, WI. \$500

- 2023: Grassland assessment for grassland bird habitat and management at Dubuque Technology Park. Dubuque Audubon, \$1,673
- 2023-25: Floristic inventory and ecological assessment for Brenton Slough. Polk County Conservation, Granger, IA. \$80,862
- 2023-24: Monitoring the response of grassland plant species composition and structure to management strategies at Dunn Ranch – Part 2. The Nature Conservancy of Missouri, St. Louis, MO. \$10,000
- 2023-24: Wildin North and South floristic inventory and ecological assessment. Iowa Natural Heritage Foundation, Des Moines, IA. \$6,000
- 2023-26: The effect of spring fire on the species composition of upland deciduous forest in central Iowa. Polk County Conservation, Granger, IA. \$28,695
- 2023-24: Floristic inventory and assessment of Maxwell Prairie, Clarke County, IA. Clarke County Reservoir Commission, Osceola, IA. \$3,000
- 2023: Elk Hollow wetland assessment, Delaware County, IA. Foth, Johnston, IA. \$3,060
- 2023-24: Floristic inventory and assessment of a potential remnant prairie. Kent Scheib, Perry IA. \$1,659
- 2023-24: Floristic inventory and ecosystem management for Big Rock Park, Pella, IA. Friends of Big Rock Park & City of Pella, IA,
- 2023: Native plant identification and ecology 6-week webinar course. Golden Hills RC&D, Oakland, IA. \$1,800
- 2022-23: Environmental assessment for state-listed plant species for an alternative route for the Clear Creek trail, Johnson County, Iowa. Stanley Consultants, Inc., Coralville, IA. \$4,000
- 2022-2023: Floristic inventories and ecosystem assessment of prairie, forest and wetland habitats in the Loess Hills State Forest at Loess Hills Overlook. Iowa Department of Natural Resources, Des Moines, IA. \$10,000
- 2022: Monitoring the response of grassland plant species composition and structure to management strategies at Dunn Ranch. The Nature Conservancy of Missouri, St. Louis, MO. \$10,000
- 2022: Urban Plant Tours with Tom Rosburg - Webinar Series. Iowa Stormwater Education Partnership, Ames, IA. \$642
- 2022-2024: Floristic inventory, plant community delineation and ecological assessment for the Corriell site, Muscatine County, Iowa. Bur Oak Land Trust, Iowa City, IA. \$7,500
- 2022: Floristic inventory and assessment of prairie remnants on pioneer cemeteries in Story County, IA. Story County Conservation Board, Ames, IA. \$1,650
- 2022: Native plant identification and ecology 8-week webinar course. Golden Hills RC&D, Oakland, IA. \$2,400
- 2022-2024: Ecological restoration of a sedge meadow community – Phase 2 of 2. Living Roadway Trust Fund, Iowa DOT, Ames, IA. \$29,860
- 2021-2023: Plant species inventory and assessment of prairie communities at Stonehaven. \$500
- 2021-2023: Status of endangered, threatened and special concern plant species at Big Rock Park. Friends of Big Rock Park & City of Pella, IA, \$2,000
- 2021-2022: Floristic inventory and ecosystem assessment for semi-natural landscapes on the David W. Miles Trust, Dallas County, Iowa. Miles Trust, Dallas Center, IA. \$1,820
- 2021: Non-native and Invasive Plant Tours with Tom Rosburg - Webinar Series. Iowa Stormwater Education Partnership, Ames, IA. \$1,000
- 2021: Native plant identification workshop 8 week webinar course. Golden Hills RC&D, Oakland, IA. \$2,400
- 2021-2023: Floristic inventories and ecosystem assessment of prairie and ecotonal habitats in the Loess Hills State Forest. Iowa Department of Natural Resources, Des Moines, IA. \$7,970
- 2021: Floristic inventory and ecological assessment of prairie communities at Camp Joy Hollow. The Nature Conservancy of Iowa, Des Moines, IA. \$1,500
- 2021-2022: Plant community species composition and structure for ecosystems in the Land of the Swamp White Oak Conservation Landscape. The Nature Conservancy of Iowa, Des Moines, IA. \$17,875
- 2021-2022: Environmental assessment for state-listed plant species for Clear Creek Trail, Johnson County, Iowa. Stanley Consultants, Inc., Coralville, IA. \$4,163
- 2020: Native Plant Tours with Tom Rosburg - Webinar Series. Iowa Stormwater Education Partnership, Ames, IA. \$800
- 2020: Floristic inventory and ecological assessment for a Wetland Mitigation Site, Linn County, Iowa. Stanley Consultants, Inc., Coralville, IA. \$4,240

- 2020-2022: Plant community delineation, plant species inventory and conservation assessment of landscape units in the Loess Hills. Iowa Natural Heritage Foundation, Des Moines, IA. \$9,510
- 2020-2023: Floristic survey and Ecological Site sample at Tipton Prairie, Greene County. Raccoon River Watershed Association, \$4,453
- 2020: Ecological evaluation of the growth of cover crop species in single and mixed species seedings. Leopold Center for Sustainable Agriculture and Drake University. (with Andrew Hokanson) \$4,000
- 2019-2020: A potential keystone species function for *Pedicularis lanceolata*. Living Roadway Trust Fund, Iowa DOT, Ames, IA. \$4,475
- 2019-2020: Floristic inventory, landscape ecology, habitat assessment and management for Bouton Meanders Forest. Eric and Peggy Peterson, Des Moines, IA. \$2,000
- 2019-2020: Floristic inventory, assessment and management of remnant prairies in Iowa County, Iowa. Iowa County Conservation Board, Lake Iowa Park, Ladora, IA. \$1,926
- 2019-2022: Ecological restoration of a sedge meadow community – Phase 1 of 2. Living Roadway Trust Fund, Iowa DOT, Ames, IA. \$25,695
- 2019: Drake Prairie interpretive sign. Living Roadway Trust Fund, Iowa DOT, Ames, IA. \$1,200
- 2018: Plant species composition and structure for Ecological Sites in Wisconsin. University of Wisconsin, Stevens Point, WI. \$10,000
- 2018-2020: Floristic inventory and ecological assessment for Paule Preserve, Madison County, Iowa. John and Shari Paule, West Des Moines, IA. \$3,230
- 2017-2019: Grass identification and species performance in BASF experimental research plots. Diversity Farms, Dedham IA. \$9,905.
- 2017-2022: Vascular plant inventory and assessment of sensitive natural areas in Story County, Iowa. Story County Conservation Board, Ames, IA. \$115,750
- 2017: Elkhart Rest Area vascular plant survey and assessment of a prairie reconstruction. Iowa Department of Transportation, Ames, IA. \$5,275
- 2017: Vascular plant species inventory of Spring Hill Prairie. Iowa Native Plant Society. \$1,500
- 2017: Forb inventory and the effect of fire on forb reproduction on the Big Sand Mound Nature Preserve. Monsanto and MidAmerican Energy, Muscatine, IA. \$3,800
- 2017: Monitoring plant and bird response to ecological restoration practices at Robison Wildlife Area. Story County Conservation Board, Ames, IA. \$3,300
- 2017: Drake Prairie Rescue and Restoration Program. Iowa Prairie Network. \$2,668
- 2016: The effects of prescribed burns on upland forests in central Iowa. DUSCI, with Sufyan Hamouda. \$3,000
- 2016: Wetland delineation for Creston wind turbine site. Optimum Renewables, Des Moines, IA. \$1,985
- 2016: State-wide plant species seed mixes for riparian restoration projects in Iowa. Iowa Department of Natural Resources, Des Moines, IA. \$2,500
- 2016: Monarch populations, reproduction, and habitat in the Raccoon River watershed. Raccoon River Watershed Association. \$2,000
- 2016: Native plant identification workshops and plant species biology for plant identification apps. Iowa Storm Water Education Partnership, Ames, IA. \$1,800
- 2015-2016: Natural resource inventory and ecological assessment for Danamere Farms, Inc., Warren County, Iowa. Robert J. Fleming. \$3,915
- 2015-2016: Native prairie inventory and evaluation in the Grand River Grasslands. Missouri Department of Conservation. \$20,000
- 2015-2017: Vegetation and soil surveys for Ecological Site Descriptions. National Resources Conservation Service. \$99,949
- 2015: Size and reproductive status of milkweed (*Asclepias*) populations at Dunbar Slough, Greene County, Iowa. Raccoon River Watershed Association. \$600
- 2014-2017: Plan for minimizing risk to avian and bat species for central Iowa distributed wind generation projects. Optimum Renewables, Des Moines, IA. \$25,495
- 2014-2015: Ecological site descriptions for native plant communities associated with Iowa soils. National Resources Conservation Service. \$99,949

- 2014: Environmental assessment for a state-listed plant species at the Merle Hay Road Gateway site, Johnston, Iowa. Foth Infrastructure and Environment, LLC, Johnston, IA. \$1,085
- 2014: Environmental Assessment for the state-listed plant species, *Spiranthes ovalis* (Oval ladies' tresses) along the Skunk River Recreational Trail, Ames, Iowa. McClure Engineering, Clive, IA. \$2,220
- 2014-2015: Carhart Conservation Area trail and prairie restoration project, Mapleton, Iowa. City of Mapleton. \$5,000
- 2013-2015: Iowa Hydro-Geomorphologic Model (HGM) for wetland vegetation function. National Resources Conservation Service. \$94,283
- 2013: Violet (*Viola* sp.) populations in habitats at Dakins Lake, Story County, Iowa. Story County Conservation Board, Ames, IA. \$1,000
- 2013: Tree survey at the Meadows Lot, 7400 Meadowlands Drive, City of Des Moines. Lee Engineers & Surveyors, Urbandale, IA. \$1,080.
- 2012-2015: Floristic inventory and plant community delineation on the Big Sand Mound Nature Preserve. Mid-American Energy, Davenport IA and Monsanto Company, Muscatine, IA. \$22,050
- 2012: Plant identification of Cyperaceae collected from research sites in southern Iowa grassland. Department of Natural Resource Ecology and Management, Iowa State University, Ames, IA. \$500.
- 2012: Biological reconnaissance and assessment for sensitive habitats on the Stateline OHV Park, Winnebago County, Iowa. Iowa Department of Natural Resources, Des Moines, IA. \$3,300
- 2012-2013: The vascular flora of Anderson Prairie State Preserve, Emmet County, IA. \$3,761 – Iowa Department of Natural Resources (\$3,261); Iowa Native Plant Society (\$500)
- 2012-2016: Effects of patch-burn-grazing management on prairie plant communities and the population of western prairie fringed orchid (*Platanthera praeclara*) at Kirchner Prairie, Iowa. Iowa Department of Natural Resources, Des Moines, IA. \$50,000
- 2012: Ecological survey for the Jasper County Conservation Environmental Education Center. Confluence, Des Moines, IA. \$1,775
- 2012: Endangered, threatened and special concern species assessment for Whiterock Conservancy Soft Trail Project. Confluence, Des Moines, IA. \$5,275
- 2011: Ecological assessment of reconstructed prairie at Southeast Polk Community School. Neumann Brothers, Inc., Des Moines, IA. \$1,825
- 2011-2016: Ecological considerations for alignment of 30-mile soft trail, monitoring of trail impacts, and biodiversity surveys on long-term plots. Whiterock Conservancy. \$44,990
- 2011: Habitat and population surveys for listed plant species, including *Besseyia bullii*, in the Cedar River Parkway. Stanley Consultants, Inc., Des Moines, IA. \$3,255
- 2011-2014: Natural resource inventory of the City of Des Moines' park and open space land. City of Des Moines, Des Moines, IA. \$52,525
- 2011: Sand dune succession following removal of pine planting: impacts on microclimates, habitat succession, and ornate box turtles. Prairie Biotic Research, Inc. \$1,000 (with Neil Bernstein)
- 2011: Savanna and prairie microclimates during restoration. Drake University A&S Faculty Development Grant Program. \$2,000
- 2010-2014: Wildflowers and other plants of Iowa wetlands revision. University of Iowa Press, Iowa City, IA. \$9,350
- 2010: Comparison of microenvironments and plant CER in habitats associated with savanna restoration using goat browsing. Drake Undergraduate Science Collaborative Institute, \$3,000
- 2010: Ecological assessment, plant community delineation and baseline documentation for the Crystal Annan Limited Partnership, Woodbury and Plymouth Counties, Iowa. Law Office of Stephen J. Small, Boston MA. \$8,085
- 2010: Biological reconnaissance for sensitive habitats in the phase III area of the Gypsum City OHV Park. Iowa Department of Natural Resources, Des Moines, IA. \$3,500
- 2010-2011: Chamness Prairie Restoration Internship: Investigating the effects of compost in prairie seed production plots. Chamness Technology, Inc., IA. \$7,500
- 2010-2011: Flora and fauna inventories, natural resource management, and an environmental education program to monitor plant, herpetological and bird populations at the Eddyville Sand Prairie Complex. Wapello County Conservation Board, Bloomfield, IA. \$10,720 (with Jeff Parmelee)

- 2010: Monitoring plant and bird response to ecological restoration practices at Robison Wildlife Area. Story County Conservation Board, Ames, IA. \$2,000
- 2009: Wildflowers of Iowa woodlands revision. University of Iowa Press, Iowa City, IA. \$1,000
- 2009: Plant survey on the Monsanto Prairie reconstruction, Muscatine, Iowa. Monsanto, Inc. \$879
- 2009: Drake Prairie Rescue and Restoration Program. Iowa Prairie Network. \$9,000
- 2009: Floristic quality and plant associations in the Onion and Squaw Creek corridors in northwest Ames, Iowa. Stanley Consultants, Inc., Des Moines, IA. \$11,340
- 2008-2013: Grazing prairie and browsing oak savanna: Improving species diversity while maintaining cattle and goat productivity and resting home pastures. \$76,862 – Leopold Center for Sustainable Agriculture, ISU, (\$39,000), Polk County Conservation Board, Granger, IA, (\$29,362), Iowa Department of Natural Resources (\$2,500), and Drake University (\$6,000) (with Keith Summerville, Drake University)
- 2007-2008: Wildflowers of the tallgrass prairie revision. University of Iowa Press, Iowa City, IA. \$7,350
- 2008: Tree survey and wetland delineation on proposed route for placement of new force main, Zearing, Iowa. Lee Engineers & Surveyors, Des Moines, IA. \$1,200
- 2007: Assessment of habitat suitability for reintroduction of *Platanthera praeclara* at Chichaqua Bottoms and Neal Smith Wildlife Refuge in central Iowa. Polk County Conservation, Granger, IA. \$2,858
- 2007: Winter tree survey and assessment at Woodside Commercial Park, Polk County, Iowa. Lee Engineers & Surveyors, Des Moines, IA. \$1,690
- 2007: Habitat surveys at impoundment sites in Wayne County, Iowa. Wayne County Engineers. \$845
- 2007: Effect of a greenbelt on stream quality and fish communities in an urban landscape. Drake University Undergraduate Research Grant Program. \$2,700
- 2001-2007: Van Oel Prairie mitigation research: Assessing native vegetation transplant methods. Iowa Department of Transportation and Earth Tech, Inc. \$56,000
- 2006: Autumnal floristic surveys of potential fen sites. Iowa Geological Survey. \$6,030
- 2006: Baseline biodiversity surveys for long-term monitoring and assessment of grazing impacts. Whiterock Conservancy, Coon Rapids, IA. \$8,885
- 2006: Floristic composition of the plant communities at Fort Des Moines County Park. Polk County Conservation, Granger, IA. \$2,000.
- 2006: Assessment of the effect of buckthorn removal methods on the plant species composition of floodplain communities. Polk County Conservation, Granger, IA. \$3,960
- 2006: The status and ecology of an introduced population of ornate box turtle at Sandhill Prairie. Polk County Conservation, Iowa Prairie Network, and Iowa Department of Natural Resources, \$6,530 (with Keith Summerville, Drake University)
- 2006: Wetland restoration: seed mix design and seed planting. Brownell Inc., Montezuma, IA \$817
- 2006: Plant species list and ecological data for a wetland reconstructed in Poweshiek County, IA. Lee Engineers and Surveyors, Des Moines, IA \$500
- 2005-2007: Ecological assessment of compensatory wetland mitigation: Vegetation on native vs. reconstructed wetlands. Environmental Protection Agency. \$67,125
- 2005-2006: Inventory, mapping and quality assessment of remnant prairies in the Grand River Grasslands, Harrison County, Missouri. The Nature Conservancy of Missouri and the Missouri Department of Conservation. \$20,000
- 2005: Ecological reconnaissance surveys for sensitive habitats in proposed off-road vehicle parks in Marshall and Tama Counties. Iowa Department of Natural Resources. \$1,300
- 2005: Botanical and ecological reconnaissance of semi-natural habitats. Consumers Energy, Marshalltown, IA \$262
- 2004-2005: Floristic and plant community inventories on two Iowa state preserves: Dinesen Prairie (Shelby County) and Sylvan Runkel Preserve (Monona County). Iowa State Preserves Board. \$10,850
- 2004-2005: Plant community identification and delineation for Whiterock Valley, Guthrie County, Iowa. Garst Farms, Inc., Coon Rapids, IA. \$10,000
- 2004: Drake Prairie Rescue and Restoration Program. Iowa Department of Natural Resources LIP. \$18,000
- 2004: Drake Prairie Rescue and Restoration Program. Iowa Prairie Network. \$6,000
- 2003-2004: Inventory, mapping and quality assessment of remnant prairies in the Grand River Grasslands, Ringgold County, Iowa. The Nature Conservancy of Iowa and the Iowa Academy of Science. \$20,000
- 2003-2004: Landscaping and bank stabilization for private home on Clear Lake. Mike Earley, Des Moines, IA \$772

- 2003: Biological surveys for state and federal threatened and endangered species on the Exira peaking generation site, Audubon County, IA. R. W. Beck, Inc., Denver, CO. \$5,510
- 2003: Floristic inventory of plant communities at Wildin Conservation Area, Kossuth County, Iowa. Iowa Natural Heritage Foundation. \$1,500
- 2003: Wetland survey along University Avenue. Lee Engineers & Surveyors, Des Moines, IA \$736
- 2002-2003: Floristic inventory, community descriptions, and management considerations for Lone Tree Point, Clear Lake, Iowa. Woodland-Ashford Lone Tree Farm, Inc. \$7,200
- 2002-2003: Vascular plant inventories of three semi-natural areas in Fayette and Clayton Counties, Iowa. Iowa Department of Natural Resources. \$11,965
- 2002: Field survey for federally protected plant species on a proposed swine facility in Clarke County, IA. Lee Engineers and Surveyors, Des Moines, IA \$1,316
- 2001-2002: Surveys for the Rathbun Destination Park Area. Iowa Department of Natural Resources. \$51,172 (with Dr. James Christiansen, Drake University, Dr. David McCullough, Wartburg College; and Dennis Schlicht, Iowa Lepidoptera Project)
- 2001-2002: A quantitative description of the seed bank of a degraded prairie remnant. Iowa Science Foundation. \$3,900
- 2001-2002: Development of a floristic database for Iowa's State Preserves and Parks. Iowa State Preserves Board. \$5,481
- 2001-2002: Development of a GIS-based prairie species database. Iowa College Foundation. \$2,500
- 2000-2002: A quantitative analysis of the habitat preferences and distribution of the invasive woodland species *Alliaria petiolata* in Iowa. Iowa Science Foundation. \$5,000.
- 2000-2001: Distribution, identification and habitats of *Rumex* species in Iowa. Iowa Science Foundation. \$1,243.
- 2000: Use of remote sensing and GIS technologies to diagnose and quantify plant stress in soybean. NASA and Iowa Space Grant Consortium. \$30,000 (with Dr. Forrest Nutter and Dr. Greg Tylka, Iowa State University)
- 2000: Threatened and endangered plant species survey, Lee County, Iowa. Earth Tech, Waterloo, IA. \$5,500
- 1999-2002\*: Evaluation of soil development on terrestrial material placement sites on the upper Mississippi River, and its influence on the plant community. U.S. Army Corps of Engineers. \$41,345
- 1999: Evaluation of Landsat imagery and aerial photography for mapping plant communities. NASA and Iowa Space Grant Consortium. \$10,000 (with Dr. Charisse Busing, Drake University)
- 1999-2002: Locate and update URL addresses for links from Stern Plant Biology web site. McGraw-Hill
- 1998 & 2001\*: Vegetation monitoring to assess the effects of deer herbivory on forest plant communities. Polk County Conservation Board, Granger, IA. \$5,234
- 1998-2000: Vegetation mapping for the Iowa Gap Analysis Project. Environmental Protection Agency, U.S. Geological Survey, Biological Resources Division and Iowa State University. \$24,950
- 1999-2001: Plant identification for environmental assessment projects. Terracon Environmental Inc., Des Moines, IA \$200
- 1999: Use of remote sensing to quantify the impact of plant disease epidemics on plant biomass and productivity in natural and agricultural systems. NASA and Iowa Space Consortium. \$22,400 (with Dr. Forrest Nutter, Iowa State University)
- 1999: Statistical analysis of vegetation and soil characteristics of dredge material placement site. U.S. Army Corps of Engineers, Rock Island, IL
- 1999: Floristic inventory of Chichaqua Bottoms Greenbelt and Sand Hill Prairie, Polk County, Iowa. Polk County Conservation Board, Granger, IA. \$5,000
- 1998-1999\*: GIS/GPS Undergraduate Internship. The Nature Conservancy, Des Moines, Iowa. \$12,900
- 1998: Use of remote sensing to quantify the impact of plant disease epidemics on plant biomass and productivity. NASA and Iowa Space Grant Consortium. \$30,000 (with Dr. Forest Nutter, Iowa State University, and Dr. Charisse Busing, Drake University).
- 1998: An assessment of the efficacy of using GPS for biological monitoring of the effects of deer herbivory on forest vegetation. NASA and Iowa Space Grant Consortium. \$10,000.
- 1998-2003\*: Effects of deer browse on woody vegetation in forests at Coralville Lake, Iowa. U.S. Army Corps of Engineers. \$11,000



- 1998: Vegetation inventories of the Loess Hills Pioneer State Forest. Iowa Department of Natural Resources, Des Moines, IA
- 1997: Floristic Inventory of Brown's Woods, Polk County, Iowa. Polk County Conservation Board, Granger, IA. \$5,000.
- 1997-2003\*: Long-term ecological research on the Story County Interstate 35 prairie reconstruction. Iowa Department of Transportation. \$129,000
- 1997: Vegetation inventories of reconstructed prairie at Walnut Creek National Wildlife Refuge. Fish & Wildlife Service, Prairie City, IA
- 1997: Plant survey for federally endangered species at Sailor's Pointe on Lake Red Rock, Knoxville, IA. SAIL
- 1996-1997: Use of remote sensing technology in the study of prairie biodiversity. NASA and Iowa Space Grant Consortium. \$25,000 (with Dr. Charisse Busing and Dr. LaRhee Henderson, Drake University, and Kevin Kane, Iowa State University).
- 1996\*: Plant community inventories on Corps project lands. U.S. Army Corps of Engineers. \$4,636.
- 1996: Evaluation and monitoring of IRVM prairie reconstructions. Iowa Department of Transportation. \$15,000 (with Troy Siefert, Iowa State University).
- 1996: Plant and animal narratives for Earth Trails, an educational CD-ROM on the Loess Hills. Iowa Public TV
- 1996: Herbaceous plant inventories of forest communities in northeast Iowa. Iowa State University
- 1995: Changes in the species composition of Sheeder Prairie, 1968-1995. Iowa Department of Natural Resources. \$2,260.
- 1995: Effects of ground fire on forest community composition. U.S. Army Corps of Engineers. \$3,888.
- 1995: Effects of dredge material placement on bottomland forests in the Upper Mississippi floodplain. U.S. Army Corps of Engineers. \$835.
- 1995: Initial LTCA inventories on military lands. Iowa National Guard, Johnston, IA
- 1993: Plant survey of Hitchcock Nature Area. Pottawattamie County Conservation Board, IA. \$500.
- 1991-1992: Ecology of native grasslands in the Loess Hills. Iowa Science Foundation. \$5,100 (with Dr. David Glenn-Lewin and Dr. Thomas Jurik, Iowa State University).
- 1990: Ecology of native grasslands in the Loess Hills. Iowa Department of Natural Resources. \$2,480 (with Dr. David Glenn-Lewin and Dr. Thomas Jurik, Iowa State University).

#### **RESEARCH PROPOSALS NOT FUNDED (Dated by year submitted)**

- 2011: Constructed and restored wetlands in Iowa; submitted to the Iowa Policy Project, \$6,500
- 2010: The use of cattle grazing to manage reconstructed prairie for greater diversity; submitted to the Iowa Living Roadways Trust Fund, \$8,000
- 2010: Microclimate and ecophysiological effects of savanna restoration with goat browsing; submitted to the Iowa Science Foundation, \$4,000
- 2009: Grazing prairie and browsing oak savanna: Improving species diversity while maintaining cattle and goat productivity and resting home pastures; submitted to the Iowa Science Foundation, \$4,000
- 2005: Impacts of grazing systems on forage production and plant/butterfly communities in southern Iowa and northern Missouri prairie pastures; submitted to USDA National Research Initiative Competitive Grants Program, \$93,478.
- 2004: Drake Biodiversity Center Prairie Rescue and Restoration Internship; submitted to National Wildlife Federation, \$6,000
- 2002: Inventory, quality assessment, and delineation of a potential sand prairie in Johnson County, Iowa; submitted to the City of Iowa City, \$5,350
- 2001: Vascular plant inventories of six semi-natural landscapes along or near the lower Wapsipinicon River, Scott and Clinton Counties, Iowa; submitted to the Iowa Department of Natural Resources, \$27,630 (with Cathy Mabry, Iowa State University).
- 2000, 2001: A floristic atlas and natural area survey for the lower Iowa River Valley; submitted independently to Iowa Space Grant Consortium and the Carver Charitable Trust, \$30,000 (with Gerould Wilhelm, Conservation Design Forum; Kevin Kane, Iowa State University; and Jim Gigleriano, Iowa DNR Geological Survey Bureau).
- 2000: Habitat preferences of the invasive woodland species *Alliaria petiolata* in Iowa; submitted to Iowa Space Grant Consortium, \$10,000.

- 2000: Roadsides of Iowa: An educational CD for K-12; submitted to Iowa REAP, \$25,744 (with Ed Peterson, Des Moines Schools; Bob Rye and Steve Holland, Department of Transportation; and Susan Ferguson, Des Moines Botanical Center).
- 1999: Species relationships among *Rumex* based on genetic and phenotypic variation; submitted to USDA National Research Initiative Competitive Grants Program, \$69,450 (with Dr. Charisse Busing, Drake University).
- 1995: Prairie plant ecotypes: effects of environment, morphology and genes; submitted to National Science Foundation Conservation and Restoration Program, \$221,190 (with Dr. Charisse Busing, and Dr. LaRhee Henderson, Drake University).
- 1995: Geographic, ecologic, and molecular survey of prairie plant biodiversity; submitted to National Science Foundation C-RUI Program, \$799,262 (with Dr. Charisse Busing, Dr. LaRhee Henderson, Dr. Karl Lillquist, and Dr. Phyllis Kingsbury, Drake University).
- 1995: The influence of ecological and geographical factors on the pattern of genetic variation in tallgrass prairie species; submitted to Iowa Department of Transportation, \$45,985 (with Dr. Charisse Busing, and Dr. LaRhee Henderson, Drake University).

#### **RESEARCH PROPOSALS PENDING (Dated by year submitted)**

- 2020: Revision of the Flora of Iowa and development of a plant species database; submitted to the Living Roadway Trust Fund, Iowa DOT, Ames, IA. \$14,000

#### **RECENT COLLABORATORS:**

Dr. William Norris, Western New Mexico University, Silver Springs, NM

#### **BOOKS**

- Runkel, S.T. and D.M. Roosa (authors), T.R. Rosburg (photography and revised/additional text), A. van der Valk (foreword). 2014. Wildflowers and other plants of Iowa wetlands. University of Iowa Press, Iowa City, IA.
- Rosburg, T.R. 2012. Trees in your pocket: A guide to the deciduous trees of the upper Midwest. University of Iowa Press, Iowa City, IA.
- Runkel, S.T. and D.M. Roosa (authors), T.R. Rosburg (photography), J.M. Madson (foreword). 2009. Wildflowers of the tallgrass prairie – The upper Midwest. University of Iowa Press, Iowa City, IA.
- Runkel, S.T. and A.F. Bull (authors), L.A. Stone, T.R. Rosburg, C. Kurtz, L. Scarth, and R. Scarth (photography). 2009. Wildflowers of Iowa Woodlands. University of Iowa Press, Iowa City, IA.

#### **REFEREED PUBLICATIONS (*Drake Students in italics*)**

22. Rosburg, T.R. 2022. Iowa's rich biodiversity legacy: A vision for the future. *In* Tending Iowa's Land: Pathways to a Sustainable Future. University of Iowa Press, Iowa City, IA. [awarded the Best Nature Book published in 2022 by the Midwest Independent Publishers Association]
21. Rosburg, T.R. 2021. The state of Nature in Iowa. *In* Compelling ground: Landscapes, environments, and peoples of Iowa. Iowa State University Brunnier Art Museum, Ames, IA.
20. Rosburg, T.R. 2017. The making of the Midwestern prairie: Climate change and migration. *Rootstalk: A Prairie Journal of Culture, Science and the Arts* 3(2):1-13. Grinnell College, Grinnell, IA
19. Rosburg, T.R., *E. Sibigtroth*, and *A. Palmer*. 2014. Effects of compost on prairie seedling establishment and seed production. Pages 50-61. *In* Proceedings of the 23<sup>rd</sup> North American Prairie Conference, University of Manitoba, Winnipeg, Manitoba.
18. Rosburg, T.R. and *S. Green*. 2012. Seed bank composition and ecology in a disturbed floodplain grassland. 2011. Pages 204-215. *In* D. Smith, D. Williams, and B. Bulter (eds.). Restoring a national treasure: Proceedings of the 22<sup>th</sup> North American Prairie Conference, University of Northern Iowa, Cedar Falls, IA.
17. *Hill E.C*, *H.J. Vogel*, T.R. Rosburg, L. Lown, and K. S. Summerville. 2009. Response of a population of *Terrapene ornata ornata* to long distance relocation. *Natural Areas Journal* 29:311-316.
16. Rosburg, T.R., and *M.Q. Owens*. 2006. The seed bank of a reconstructed prairie. Pages 44-54. *In* D. Egan and J.A. Harrington (eds.). The Conservation Legacy Lives on: Proceedings of the 19<sup>th</sup> North American Prairie Conference, University of Wisconsin-Madison Communications, Madison, WI.

15. Rosburg, T.R. 2005. Prairie Rescue and Restoration Internship Program aids landowners, educates students (Iowa). *Ecological Restoration* 23(2):135-136
14. Nutter, F.W., Jr., G.L. Tylka, J. Guan, A.J.D. Moreira, C.C. Marett, T.R. Rosburg, J.P. Basart, and C.S. Chong. 2002. Use of remote sensing to detect soybean cyst nematode-induced plant stress. *Journal of Nematology* 34(3):222-231.
13. Rosburg, T.R. 2001. Iowa's non-native graminoids. *Journal of the Iowa Academy of Science*.
12. Rosburg, T.R. 2001. Iowa's prairie heritage: From the past, through the present and into the future. Pages 1-14. *In* N. P. Bernstein and L. J. Ostrander (eds.). *Proceedings of the Seventeenth North American Prairie Conference: Seeds for the Future; Roots of the Past*. North Iowa Area Community College, Mason City. 241 pages.
11. Rosburg, T.R. 2001. Effects of late spring fire on the survival, growth, and reproduction of prairie forbs. Pages 48-58. *In* N. P. Bernstein and L. J. Ostrander (eds.). *Proceedings of the Seventeenth North American Prairie Conference: Seeds for the Future; Roots of the Past*. North Iowa Area Community College, Mason City. 241 pages.
10. Rosburg, T.R. 1999. Community composition of dry prairie in Iowa and southeast Nebraska. *Journal of the Iowa Academy of Science* 106(4):69-81.
9. van der Valk, A., and T.R. Rosburg. 1997. Seed bank composition along a phosphorus gradient in the northern Florida Everglades. *Wetlands* 17(2):228-236.
8. Rosburg, T.R. 1997. Distribution and abundance of prairie plant species in the Loess Hills. *Journal of the Iowa Academy of Science* 104(1):8-20.
7. Rosburg, T.R. and D.C. Glenn-Lewin. 1996. Species composition and environmental characteristics of grassland and ecotonal plant communities in the Loess Hills of western Iowa. *Natural Areas Journal* 16(4):318-334.
6. Rosburg, T.R., T.W. Jurik, and D.C. Glenn-Lewin. 1994. Seed banks of communities in the Iowa Loess Hills: Ecology and potential contribution to restoration of native grassland. Pages 221-237. *In* R. G. Wickett, P. Dolan Lewis, A. Woodliffe, and P. Pratt (eds.). *Proceedings of the Thirteenth North American Prairie Conference: Spirit of the Land, Our Prairie Legacy*. Department of Parks and Recreation, Windsor, Ontario, Canada. 262 pages.
5. Rosburg, T.R. 1994. Grassland legacy of the Hills. *In* C. Mutel and M. Swander, eds. *Land of the Fragile Giants: Landscapes, Environments and Peoples of the Loess Hills*. University of Iowa Press, Iowa City.
4. Glenn-Lewin, D.C., and T.R. Rosburg. 1992. Natural history in Iowa: The early phases. *Journal of the Iowa Academy of Science* 99(4): 70-75.
3. Rosburg, T.R., and D.C. Glenn-Lewin. 1992. Effects of fire and atrazine on pasture and remnant prairie plant species in southern Iowa. Pages 107-112. *In* D.D. Smith and C.A. Jacobs (eds.). *Proceedings of the Twelfth North American Prairie Conference: Recapturing a Vanishing Heritage*. University of Northern Iowa, Cedar Falls. 218 pages.
2. Rosburg, T.R. 1992. A new record for falcate spurge in the Midwest. *The Prairie Naturalist* 24(1): 41-42.
1. Glenn-Lewin, D.C., L.A. Johnson, T.W. Jurik, A. Akey, M. Leoschke, and T.R. Rosburg. 1990. Fire in central North American grasslands: Vegetative reproduction, seed germination, and seedling establishment. Pages 28-45. *In* S. L. Collins and L. L. Wallace (eds.). *Fire in North American tallgrass prairies*. University of Oklahoma Press, Norman.

**CONTRIBUTED PAPERS (oral and poster\* papers at scientific meetings); *Drake Students in italics***

93. Rosburg, T.R. 2023. Is *Pedicularis lanceolata* (swamp lousewort) a keystone species? 26<sup>th</sup> North American Prairie Conference, 26-29 June, Meadows Event & Conference Center, Altoona, IA
92. Rosburg, T.R. 2023. Spring fire effects on the forb community of a degraded sand prairie. 26<sup>th</sup> North American Prairie Conference, 26-29 June, Meadows Event & Conference Center, Altoona, IA
91. Rosburg, T.R. 2023. Effects of cattle grazing on the species composition of prairie communities in northwest Iowa. 26<sup>th</sup> North American Prairie Conference, 26-29 June, Meadows Event & Conference Center, Altoona, IA
90. Rosburg, T.R. 2023. Iowa's rich biodiversity legacy: A vision for the future. 26<sup>th</sup> North American Prairie Conference, 26-29 June, Meadows Event & Conference Center, Altoona, IA
89. Norris, W., T.R. Rosburg, and J. Pearson. 2023. Botanical studies of prairie remnants in the Iowa State Preserve System: Past, present, and future. 26<sup>th</sup> North American Prairie Conference, 26-29 June, Meadows Event & Conference Center, Altoona, IA

88. Rosburg, T.R. 2023. The vegetation and seedbank of a remnant sedge meadow in Madison County, Iowa. 26<sup>th</sup> North American Prairie Conference, 26-29 June, Meadows Event & Conference Center, Altoona, IA
87. Rosburg, T.R. 2023. Ecological site data for Iowa's prairie ecosystems: An unprecedented guide for prairie restoration. 26<sup>th</sup> North American Prairie Conference, 26-29 June, Meadows Event & Conference Center, Altoona, IA
86. Norris, W. and T.R. Rosburg. 2023. Botanical study of Iowa in the 21<sup>st</sup> century: Making the case for the "county inventory." The 133<sup>rd</sup> Annual Meeting of the Iowa Academy of Science, 21-22 April, University of Northern Iowa, Cedar Falls, IA
85. Rosburg, T.R. 2023. Conservation for the 21<sup>st</sup> century: Sensitive Areas Inventory, Story County, Iowa. The 133<sup>rd</sup> Annual Meeting of the Iowa Academy of Science, 21-22 April, University of Northern Iowa, Cedar Falls, IA
84. Rosburg, T.R. 2023. Landscape ecology and floristics on the Armstrong site in Harrison County, Iowa. The 133<sup>rd</sup> Annual Meeting of the Iowa Academy of Science, 21-22 April, University of Northern Iowa, Cedar Falls, IA
83. Fisher M.A., T.R. Rosburg, and C.K. Meyer. 2021. South-central Iowa seed banks: A comparison between recently restored, established restored, and remnant prairies. The 132<sup>nd</sup> Annual Meeting of the Iowa Academy of Science, 23 April, University of Northern Iowa, Cedar Falls, IA (virtual)
82. Rosburg, T.R. 2021. A plant species inventory and ecological assessment of remnant prairie communities at Lake Iowa Park in Iowa County. The 132<sup>nd</sup> Annual Meeting of the Iowa Academy of Science, 23 April, University of Northern Iowa, Cedar Falls, IA (virtual)
81. Rosburg, T.R. 2021. The vegetation and seedbank of a remnant sedge meadow in Madison County. The 132<sup>nd</sup> Annual Meeting of the Iowa Academy of Science, 23 April, University of Northern Iowa, Cedar Falls, IA (virtual)
80. Rosburg, T.R. 2019. Landscape ecology and floristic composition of Spring Hill Prairie in Marshall County. Iowa Prairie Conference, 8-10 August, Central College, Pella, IA.
79. Rosburg, T.R. 2019. Spring fire effects on the forb community of a degraded sand prairie. Iowa Prairie Conference, 8-10 August, Central College, Pella, IA.
78. Lewis, D., P. Drobney, J. Pearson, D. Roosa, T.R. Rosburg, D. Smith, and M. Widrelechner. A revival of interest in Iowa floristics: goals and progress. Botany 2018 (Botanical Society of America), 21-25 July, Rochester MN.
77. Rosburg, T.R. 2018. Spring fire effects on the forb community of a degraded sand prairie. Botany 2018 (Botanical Society of America), 21-25 July, Rochester MN.
76. Rosburg, T.R. 2018. Effects of cattle grazing on the species composition of prairie communities in northwest Iowa. Botany 2018 (Botanical Society of America), 21-25 July, Rochester MN.
75. Rosburg, T.R. 2018. Responses of the vegetation at Robison Wildlife Acres, Story County, to seven years of restoration management. The 130<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 20-21 April, Buena Vista University, Storm Lake, IA.
74. Rosburg, T.R. 2018. The landscape ecology and floristic composition of Spring Hill prairie in Marshall County. The 130<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 20-21 April, Buena Vista University, Storm Lake, IA.
73. Drobney, P., D. Lewis, J. Pearson, D. Roosa, T.R. Rosburg, D. Smith and M. Widrelechner. 2018. An update on the current status of the revision of the Iowa Coefficients of Conservatism and the Flora of Iowa. The 130<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 20-21 April, Buena Vista University, Storm Lake, IA.
72. Rosburg, T.R. and J. Desprez. 2017. Tree cutting and goat browsing in a savanna restoration: effects on microclimates and vegetation. Working Beyond Boundaries: Collaboration as a Key to Natural Areas Management, 44<sup>th</sup> Natural Areas Conference, 10-12 October, Fort Collins, CO.
71. Rosburg, T.R. and S. Hamouda. 2017. Effects of spring surface fire on microclimates and plant community composition in central Iowa oak forest. Working Beyond Boundaries: Collaboration as a Key to Natural Areas Management, 44<sup>th</sup> Natural Areas Conference, 10-12 October, Fort Collins, CO.
70. Rosburg, T.R. 2017. Revisions to the flora of Iowa. The 129<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 21-22 April, University of Northern Iowa, Cedar Falls, IA.
69. Hamouda, S. and T.R. Rosburg. 2017. Effect of surface fire on species composition and microclimates in central Iowa forest. The 129<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 21-22 April, University of Northern Iowa, Cedar Falls, IA.

68. *Aurand, C.* and T.R. Rosburg. 2017. Monarch populations, reproduction and habitat in the Raccoon River Watershed. Life in the Raccoon River: Raccoon River Watershed Association Annual Meeting, 4 March, Hotel Pattee, Perry, IA.
67. Rosburg, T.R. 2016. Of prairie romance and religion. North American Prairie Conference, 17-20 July, Illinois State University, Normal, IL.
66. Rosburg, T.R. 2016. Quantitative effects of goat browsing and tree cutting on vegetation in a savanna restoration. North American Prairie Conference, 17-20 July, Illinois State University, Normal, IL.
65. *Robison, L., A. Menick,* and T.R. Rosburg. 2016. Milkweed population survey at Dunbar Slough. Life in the Raccoon River: Prairie Ecology and Farming, Raccoon River Watershed Association Annual Meeting, 5 March, Hotel Pattee, Perry, IA
64. Rosburg, T.R. 2015. Quantitative effects of goat browsing and tree cutting on vegetation in a savanna restoration. Iowa Prairie Conference, 16-18 July, University of Northern Iowa, Cedar Falls, IA.
63. Rosburg, T.R., S.L. Clark, and R. Bednarek. 2015. Progress on ecological site descriptions in Iowa. National Cooperative Soil Survey National Conference, 7-11 June, Duluth, MN
62. Rosburg, T.R. 2015. Quantitative effects of goat browsing and tree cutting on vegetation in a savanna restoration. The 127<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 17-18 April, University of Iowa, Iowa City, IA.
61. \**Bernstein, N., C. Ochs, A. Coats, B. Vrbicek* and T.R Rosburg. 2015. Sand dune succession following removal of pine planting: Impacts on microclimates and habitat succession. The 127<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 17-18 April, University of Iowa, Iowa City, IA.
60. Rosburg, T.R. 2014. Natural resource inventory of urban habitats in Des Moines parks and open space. The 126<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 11-12 April, Iowa Central Community College, Fort Dodge, IA.
59. \**Acree, M.* and T.R Rosburg. 2014. A comparison of fish communities from urban and natural habitats. The 11th Annual Drake University Conference on Undergraduate Research in the Sciences, 10 April, Drake University, Des Moines, IA.
58. Rosburg, T.R., *E. Sibigtroth,* and *A. Palmer.* 2012. The effect of compost on prairie seedling establishment and seed production of established plants. The 23<sup>rd</sup> North American Prairie Conference, 6-10 August, University of Manitoba, Winnipeg, Manitoba, Canada.
57. Rosburg, T.R., and *J. Desprez.* 2012. The impact of goat browsing on microclimates in a savanna restoration. The 23<sup>rd</sup> North American Prairie Conference, 6-10 August, University of Manitoba, Winnipeg, Manitoba, Canada.
56. Bernstein, N., K. Slutts, and T.R Rosburg. 2012 Sand dune succession following removal of planted conifers. The 124<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 20-21 April, North Iowa Community College, Mason City, IA.
55. \**Palmer, A.* and T.R Rosburg. 2012. Can compost increase the vigor and productivity of prairie plants in production plots? The 9th Annual Drake University Conference on Undergraduate Research in the Sciences, 12 April, Drake University, Des Moines, IA.
54. \**Deprez, J.* and T.R Rosburg. 2011. Impacts of goat browsing on microclimates and photosynthetic rates in a savanna restoration. The 8th Annual Drake University Conference on Undergraduate Research in the Sciences, 14 April, Drake University, Des Moines, IA.
53. *Deprez, J.* and T.R Rosburg. 2011. Impacts of goat browsing on microclimates and photosynthetic rates in a savanna restoration. The 123<sup>rd</sup> Annual Meeting of the Iowa Academy of Science, 29-30 April, Wartburg College, Waverly, IA.
52. Rosburg, T.R. 2010. An evaluation of vegetation and plant communities at reconstructed and natural wetlands. The 37<sup>th</sup> Annual Natural Areas Conference, 26-29 October, Tan-Tar-A Resort, Osage Beach, MO.
51. Rosburg, T.R. 2010. Seed mix issues in prairie reconstructions. The 37<sup>th</sup> Annual Natural Areas Conference, 26-29 October, Tan-Tar-A Resort, Osage Beach, MO.
50. Rosburg, T.R. 2010. Wildflowers of the tallgrass prairie. The 22<sup>nd</sup> North American Prairie Conference, 1-5 August, Tallgrass Prairie Center, University of Northern Iowa, Cedar Falls, IA.
49. Rosburg, T.R. 2010. Challenges and solutions in prairie reconstructions. The 22<sup>nd</sup> North American Prairie Conference, 1-5 August, Tallgrass Prairie Center, University of Northern Iowa, Cedar Falls, IA.

48. Rosburg, T.R and *S. Green*. 2010. Seed bank composition and ecology in a disturbed floodplain grassland. The 22<sup>nd</sup> North American Prairie Conference, 1-5 August, Tallgrass Prairie Center, University of Northern Iowa, Cedar Falls, IA.
47. Rosburg, T.R. 2010. An evaluation of vegetation and plant communities at reconstructed and natural wetlands. The 22<sup>nd</sup> North American Prairie Conference, 1-5 August, Tallgrass Prairie Center, University of Northern Iowa, Cedar Falls, IA.
46. \**Green, S.* and T.R Rosburg. 2010. Seed bank composition of grazed and non-grazed reconstructed prairie. The 122<sup>st</sup> Annual Meeting of the Iowa Academy of Science, 16-17 April, Graceland University, Lamoni, IA.
45. \*Rosburg, T.R. 2009. An evaluation of vegetation and plant communities at reconstructed and natural wetlands. The 121<sup>st</sup> Annual Meeting of the Iowa Academy of Science, 17-18 April, Des Moines University, Des Moines, IA.
44. \**Gray, J.* and T.R. Rosburg. 2009. Allelopathic effects of eastern red cedar (*Juniperus virginianus*). The 6<sup>th</sup> Annual Drake University Conference on Undergraduate Research in the Sciences, 16 April, Drake University, Des Moines, IA.
43. Rosburg, T.R., and *J. Corush*. 2009. Small fish communities in Walnut Creek, Des Moines, IA. Raccoon River Watershed Association Annual Meeting, 7 March, Des Moines Area Community College, Des Moines, IA.
42. \*Rosburg, T.R. 2008. An evaluation of prairie transplant methods. The 21<sup>st</sup> North American Prairie Conference, 4-8 August, Winona State University, Winona, MN.
41. \*Rosburg, T.R. 2004. Inventory, mapping and quality assessment of prairie remnants in Ringgold County. The 19<sup>th</sup> North American Prairie Conference, 8-12 August, University of Wisconsin, Madison, WI.
40. Rosburg, T.R. and *M.Q. Owens*. 2004. The seed bank of a reconstructed prairie. The 19<sup>th</sup> North American Prairie Conference, 8-12 August, University of Wisconsin, Madison, WI.
39. Rosburg, T.R. 2004. Inventory, mapping and quality assessment of prairie remnants in Ringgold County. The 116<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 23-24 April, University of Northern Iowa, Cedar Falls, IA.
38. *Lovell, P.M.* and T.R. Rosburg. 2004. A quantitative description of the seed bank of a degraded prairie remnant. The 116<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 23-24 April, University of Northern Iowa, Cedar Falls, IA.
37. \*Rosburg, T.R. 2004. An evaluation of the first five years of the Interstate 35 prairie reconstruction in Story County, Iowa. Drake University Conference on Undergraduate Research in the Sciences, 9 April, Drake University, Des Moines, IA.
36. \*Rosburg, T.R. 2004. Effects of late spring fire on the survival, growth, and reproduction of prairie forbs. Drake University Conference on Undergraduate Research in the Sciences, 9 April, Drake University, Des Moines, IA.
35. \*Rosburg, T.R. 2002. An evaluation of the first five years of the Interstate 35 prairie reconstruction in Story County, Iowa. The 18<sup>th</sup> North American Prairie Conference, 23-27 June, Truman State University, Kirksville, MO.
34. \**Karnitz, H.M.* and T.R. Rosburg. 2002. Quality of the prairie community under woody encroachment in the Loess Hills. The 18<sup>th</sup> North American Prairie Conference, 23-27 July, Truman State University, Kirksville, MO.
33. \*Rosburg, T.R, *C.S. Waddell*, R.J. Percifield, and F. W. Nutter, Jr. 2002. The use of radiometry for the assessment of quality and productivity in Iowa prairie. The 18<sup>th</sup> North American Prairie Conference, 23-27 July, Truman State University, Kirksville, MO.
32. \**Guan, J.*, F.W. Nutter, Jr., T.R. Rosburg, G.L. Tylka, C.C. Marett. 2001. Use of satellite images to detect soybean stress caused by soybean cyst nematode. Annual Meeting of the North Central Division of American Phytopathological Society, 19-21 June, Kansas State University, Manhattan, KS.
31. *Owens, M.Q.* and T.R. Rosburg. 2001. Seed bank composition of a reconstructed prairie. The 113<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 20-21 April, Hotel Fort Des Moines, Des Moines, IA.
30. Percifield, R.J., T.R. Rosburg, and F.W. Nutter, Jr. 2000. Remote sensing as a nondestructive tool to quantify the effects of prescribed burning on Iowa's tallgrass prairies. Annual Meeting of the American Phytopathological Society, 12-16 August, New Orleans, LA.

29. Percifield, R.J., T.R. Rosburg, and F.W. Nutter, Jr. 2000. The effect of prescribed burning on the onset and development of plant disease epidemics on Iowa's tallgrass prairies. The 17<sup>th</sup> North American Prairie Conference, 16-20 July, Northern Iowa Area Community College, Mason City, IA.
28. \*Rosburg, T.R. 2000. Effects of late spring fire on the survival, growth, and reproduction of prairie forbs. The 17<sup>th</sup> North American Prairie Conference, 16-20 July, Northern Iowa Area Community College, Mason City, IA.
27. Percifield, R.J., T.R. Rosburg, and F.W. Nutter, Jr. 2000. Quantifying the effect of prescribed burning on disease dynamics in tallgrass prairie. Annual Meeting of the North Central Division of American Phytopathological Society, 18-20 June, Ohio State University, Columbus, OH.
26. Rosburg, T.R. 2000. Preliminary results of a long-term study to evaluate the effect of deer browse on woody vegetation at Coralville Lake. The 112<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 21-22 April, Hotel Fort Des Moines, Des Moines, IA.
25. Rosburg, T.R., C. Busing, and H. Dudzinski. 1999. Evaluation of Landsat imagery and aerial photography for mapping plant communities. Ninth Annual Iowa Space Grant Conference, 5 November, University of Northern Iowa, Cedar Falls, IA.
24. Nutter, F.W. Jr., J. Guan, R.J. Percifield, B. Menelas, T.R. Rosburg, S. Bidney, J.P. Basart, C. S. Chong and M. J. Cook. 1999. Use of remote sensing to quantify the impact of plant disease epidemics on plant biomass and productivity. Ninth Annual Iowa Space Grant Conference, 5 November, University of Northern Iowa, Cedar Falls, IA.
23. Rosburg, T.R., E.D. Yates, and K.R. Swanson. 1999. An assessment of the accuracy of GPS for biological monitoring. The 111<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 23-24 April, Iowa State University, Ames, IA.
22. Rosburg, T.R., C.S. Waddell, R.J. Percifield, and F. W. Nutter, Jr. 1999. The use of radiometry for the assessment of quality and productivity in Iowa prairie. The 111<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 23-24 April, Iowa State University, Ames, IA.
21. Rosburg, T.R. and M. Guzman. 1999. Floristic inventory and management recommendations for Brown's Woods, Polk County, Iowa. The 111<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 23-24 April, Iowa State University, Ames, IA.
20. Rosburg, T.R., E.D. Yates, and K.R. Swanson. 1998. An assessment of the efficacy of using GPS for biological monitoring of the effects of deer herbivory on forest vegetation. Eighth Annual Iowa Space Grant Conference, 30 October, University of Iowa, Iowa City, IA.
19. \*Rosburg, T.R. 1998. Application of GIS and GPS to the inventory and management of deciduous forest. The 25<sup>th</sup> Annual Natural Areas Association Conference, 6-10 October, Michigan Department of Natural Resources, Mackinaw Island, MI.
18. Rosburg, T.R. and T.A. Siefert. 1998. Evaluation and monitoring of reconstructed prairie. The 16<sup>th</sup> North American Prairie Conference, 26-29 July, University of Nebraska at Kearney, Kearney, NE.
17. Rosburg, T.R. 1998. Long-term changes in the species composition of Sheeder Prairie, 1968-1995. The 16<sup>th</sup> North American Prairie Conference, 26-29 July, University of Nebraska at Kearney, Kearney, NE.
16. \*Peterson, S., C. Busing, T.R. Rosburg, K. Kane, and L. Henderson. 1998. Use of remote sensing technology to identify new or potential prairie habitat. The 16<sup>th</sup> North American Prairie Conference, 26-29 July, University of Nebraska at Kearney, Kearney, NE.
15. Busing, C., T.R. Rosburg, K. Kane, L. Henderson, and P. Anderson. 1997. Use of remote sensing technology in the study of prairie biodiversity. Seventh Annual Iowa Space Grant Conference, 24 October, Drake University, Des Moines, IA.
14. Rosburg, T.R. 1997. Effects of microclimate on the ecophysiology of prairie plant species in the Loess Hills. The 109<sup>th</sup> Annual Meeting of the Iowa Academy of Science, Clarke College, Dubuque, IA.
13. Schneider, K., T. Rickers, T.R. Rosburg, L. Henderson, and C. Busing. 1997. RAPD analysis of genetic diversity in prairie plants with wind-, animal-, and gravity-dispersed seed. The 109<sup>th</sup> Annual Meeting of the Iowa Academy of Science, Clarke College, Dubuque, IA.
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2. Glenn-Lewin, D.C., T.R. Rosburg, and A.K. Akey. 1989. The potential for renovation of southern Iowa pastures with warm-season grasses. Final Report to the Southern Iowa Agriculture Boosters and the Soil Conservation Service, Creston, IA.
1. Rosburg, T.R. and D.C. Glenn-Lewin. 1987. Increasing production of warm-season grasses with prescribed treatments. Summary Report to the Southern Iowa Agriculture Boosters and the Soil Conservation Service, Creston, IA.

#### **MAGAZINE/NEWSLETTER ARTICLES**

- Rosburg, T.R. 2024. What it means to be native. *Prairie Rivers of Iowa Newsletter*, March 2024
- Rosburg, T.R. 2024. Pasque flowers bloom in the Loess Hills. *Erythronium - Iowa Native Plant Society Newsletter*, Volume 29 Number 2, May 2024
- Rosburg, T.R. 2024. Native Plant Spotlight – *Anemone caroliniana*. *Erythronium - Iowa Native Plant Society Newsletter*, Volume 29 Number 2, May 2024

- Rosburg, T.R. 2024. Native Plant Spotlight – *Carex grayi*. *Erythronium* - Newsletter of the Iowa Native Plant Society, Volume 29 Number 1, January 2024
- Rosburg, T.R. 2023. Native Plant Spotlight – *Claytonia virginica*. *Erythronium* - Newsletter of the Iowa Native Plant Society, Volume 28 Number 2, May 2023
- Rosburg, T.R. 2023. Native Plant Spotlight – *Euphorbia marginata*. *Erythronium* - Newsletter of the Iowa Native Plant Society, Volume 28 Number 1, February 2023
- Rosburg, T.R. 2022. Native Plant Spotlight – *Marchantia polymorpha*. *Erythronium* - Newsletter of the Iowa Native Plant Society, Volume 27 Number 2, May 2022
- Rosburg, T.R. 2022. Native Plant Spotlight – *Iris virginica*. *Erythronium* - Newsletter of the Iowa Native Plant Society, Volume 27 Number 1, January 2022
- Rosburg, T.R. 2021. Native Plant Spotlight – *Pedicularis canadensis*. *Erythronium* - Newsletter of the Iowa Native Plant Society, Volume 26 Number 2, May 2021
- Rosburg, T.R. 2019. Climate change, plants and adaptation. *Erythronium* - Newsletter of the Iowa Native Plant Society, Volume 25 Number 1, April 2019
- Rosburg, T.R. 2016. Why I give: Professor and conservation advocate. *Openspaces* – Newsletter for Whiterock Conservancy, November 2016
- Rosburg, T.R. 2011. Remnant vs. Reconstructed Prairies: Is there a difference and does it matter? Ecology Corner Whiterock Conservancy Newsletter
- Rosburg, T.R. 2006. Herbivores vs. Plants: The silent battle. Ecology College. Iowa Natural Heritage Magazine. Summer 2006.
- Rosburg, T.R. 2005. A license to burn: Thoughts on prescribed prairie fire. Ecology College. Iowa Natural Heritage Magazine. Winter 2005.
- Rosburg, T.R. 2001. Secrets of the seed bank: Tiny clues to a landscape’s past and future. Ecology College. Iowa Natural Heritage Magazine. Winter 2001.
- Rosburg, T.R. 1992. Riding the current through time. Iowa Natural Heritage Magazine. Spring.
- Rosburg, T.R. 1990. Real farm progress involves conservation. The Des Moines Register. October 5, 1990.

**DRAKE PRAIRIE RESCUE AND RESTORATION PROGRAM**

Funded program to save and manage prairie and savanna remnants on private land. See Rosburg (2005) publications.

Summary of effort and accomplishments from 2004 to 2021:

Projects (events) – 299	Sites worked (remnants) – 70	Counties worked – 21
Landowners assisted – 58	Students participated – 333	Student worker-hours – 3,551
Personal hours (unpaid) – 2,093	Personal miles traveled – 42,052	

**CONSULTING WORK (significant non-compensated work, a form of professional service)**

2024

- Identification of *Bromus latiglumis* vs. other grasses (*Elymus*, *Schedonorus*) for Charley Eiseman.
- Testimonial for Des Moines Parks and Recreation
- Seed mix for urban prairie and woodland habitats for Geoff Fischer, Iowa TNC
- Establishment of a memorial prairie at Walnut Hills United Methodist Church, Urbandale, IA for Carl Varley
- Seed mix for a sedge meadow reconstruction on the East tract at Paule Preserve, Madison County for NRCS
- The occurrence of cedar trees along the Cedar River near Cedar Rapids for Baily Cichon, Cedar Rapids The Gazette.
- Iowa database for vascular plant records for use in the Biota of North America Program for John Kartesz
- Prairie management for Maxwell Prairie for Dave Beck, Project Coordinator, Clarke County Reservoir Commission
- Understanding and applying floristic data to ecological restoration for James Cronin, NRCS
- Distribution and occurrence of *Tripsacum dactyloides* for Luuk Clark
- Ecology of the keystone species *Pedicularis canadensis* and its use in restoration for Gary Barrineau
- Climate change effects on prairies for Bill Gutowski, climate scientist at Iowa State University
- Sustainable agriculture practices, education and future importance for Yutana Hughes, Kirkwood Community College student
- Prairie restoration and ecology for Mark Dorhout, high school teacher at Panora, IA
- Taxonomy and occurrence of subspecies of *Salix petiolaris* for Charles Schauburger

Correction of an inaccurate record for *Silene regia* in Iowa at the Missouri Botanical Garden for Jordan K. Teisher, Ph.D. Curator and Director of the Herbarium, Missouri Botanical Garden

Ecology and distribution of *Amelanchier* and *Viburnum* in Iowa for Sarah Nizzi, Pollinator Conservation Specialist, NRCS Partner Biologist, Iowa and The Xerces Society

Identification of prairie remnants and the status of Green Prairie in Polk County for Sarah Nizzi, Pollinator Conservation Specialist, NRCS Partner Biologist, Iowa & The Xerces Society and Todd Gosselink, Iowa DNR

Hybridization in *Celastrus* and *Ulmus* for Mary Jane Hatfield

Ecology, flora and management of Sand Prairie Park for Department of Parks and Rec, Iowa City, IA

Potential for sensitive habitats and imperiled plant species on private land near Otter and Poor Creeks in Mitchell County, IA for Lowell and Margaret Meyer, St. Ansgar, IA

Pollinator plant list for urban gardens in central Iowa for Gina McAndrews, Ames, IA

Identification of *Viola missouriensis* for Diane Porter, Fairfield, IA

Sedge meadow restoration and renovation for James Cronin, NRCS

Acreages for prairie, savanna, woodland and forest on the native landscape in Iowa for Lael Neal, conservation technician, Polk County Conservation

Seed mix for prairie reconstruction at Iowa State University turkey farm for Tanner Volkmann, Agricultural Specialist III, Iowa State University, Ames, IA

Field survey and assessment of remnant prairie on 10-acre pasture for Chris Henning Cooper, IA

Field survey and assessment of remnant prairie at Don Williams Park for Boone County Conservation, Ogden, IA

Sedge identification of species observed in Johnson County for Aaron Basten, Solon, IA

Status of *Anemone caroliniana* populations in Hardin County for Doug Sheeley, Polk County Conservation, IA

Status and ecology of *Liparis lilifolia* populations in Dallas County for Bob Meyers, Dallas County Conservation, IA

Wetland seed mix designed for Jathan Chicoine and Native Prairie Bison, Ames, IA

Tuel Prairie species composition and quality for Jon Judson, Diversity Farms, Dedham, IA

Site visit for landscape assessment and interpretation for Lisa Bean, Waukee, IA

Mesic prairie seed mix designed for Ginny Mitchell at Long Memorial Park, Boone, IA

Restoration of sedge meadow and wetlands for John Paule at Paule Preserve, Patterson, IA

Site visit for ecological assessment and restoration recommendations for Jay Pedalty in Mason City, IA

Review and commentary for Clara Wodny at INHF on article featuring the Eckoff Preserve, Warren County, IA

Identification, taxonomy and ecology of *Dichanthelium deamii* for Chuck Linsenmeyer

Mesic prairie and wetland seed mixes designed for Carl Varley for implantation on Adair County farm

## 2023

Recommendations for seed mix design and planting a reconstructed prairie for Pam and Rod Reynolds, Oxford, IA

Field site visit and tips for identification of *Phragmites* cultivar near Ada Hayden Park, Ames, IA and recommendations for its control for Wolfgang Oesterreich, Ames, IA

Field site observation and consultation on a seed mix design for woodland & savanna restoration, Loree and Dave Miles, Dallas County, IA

Field site survey for remnant prairie evaluation and consultation on management, Denise and Rusty Green, Polk County, IA

Field site observation and identification of *Schoenoplectus mucronatus* and consultation on controlling this new invasive species, Don Eyerly, Winterset, IA

On site field tour for observation and discussion of conservation and management priorities on the planned Eckoff Prairie in Warren County with Ron Eckoff family members, Warren CCB and Iowa Natural Heritage Foundation.

Field site visit for observation of a fen and consultation on its conservation value and need for protection from CO<sub>2</sub> pipelines for Dennis Valen, Emmet County, IA

Field site survey for remnant prairie evaluation for Ruth Rabinowitz, Madison County, IA

Field site survey for remnant prairie evaluation for Pam and Rod Reynolds, Johnson County, IA

Consultation with Ashley Kleve and Rachel Sents (ISU students) on floristic surveys

Field site visit and consultation on management of Prairie Valley Preserve with Story County Conservation

Identification of *Carex* species for Inger Lamb,



Consultation and interview with Brittney J. Miller, Energy & Environment Reporter for the Cedar Rapids Gazette on endangered and threatened species; meeting in the field at Corriell Preserve, Muscatine County

On site consultation at Henning Savanna and Tuel Prairie with Beth Henning and Deb Lewis on plant identification in preparation for 2023 NAPC field trip

Plant identification for Karen Stiles, leader of volunteer program at Easter Lake County Park, Des Moines, IA

Identification and biology of plants at Doolittle Prairie, class field trip for Bio/Pre-medical illustration class taught by Kimberly Moss, Iowa State University, Ames, IA.

Natural history hike in Berry Woods State Preserve for Geoff Fischer and Claire Hamilton, The Nature Conservancy of Iowa. Des Moines, IA

Provided comments on the No Mow May proclamation at a Des Moines City Council Meeting on request from Carolyn Uhlenhake Walker, Women's International League for Peace & Freedom, Des Moines, IA

Consultation with James Cronin, Natural Resources Conservation Service, on implementation of research results on Ecological Sites to inform prairie restoration, Des Moines, IA

Consultation with Michelle Biodrowski, Natural Resources Conservation Service, on research investigation sedge meadow restoration

Consultation with Lael Neal and Becky Kipper, Polk County Conservation on prairie seed mix design and spreadsheets for calculating seed mixes

Consultation with Carissa Shoemaker at Whiterock Conservancy for a seed mix design used in the kame prairie planting, Coon Rapids, IA

Advise and answer questions for Sam Reber, a Drake alum in Environmental Science, on starting a business to do ecological restoration

Consultation with Jathan Chicoine at Native Prairie Bison, Ames, IA on long term management, sustainability and restoration plans

Meeting and discussion with Polk City Cemetery Trustees (contact Michael Blair) on prairie conservation and management, Polk City, IA

Consultation on the management of the Sprout Garden and Food Forest at Drake University with Renee Sedlacek and Drake students, Des Moines, IA

## 2022

Identification of 60 plant vouchers for Bill Zales, Westfield, IA

Consultation with Jessica Butters at Prairie Rivers of Iowa on prairie seed, Ames, IA

Identification of willow species from photographs received by email for Charles Schauburger, Onalaska, WI

Native plant species for restoration in Sioux County, John Buntsma, Orange City, IA

Guided Drew Gran from Omaha, Nebraska to field sites in Story County for *Malus* and *Coeloglossum* photos

Consultation to guide a proposed 100-acre prairie restoration in Greene County, Tim Perkins, Jefferson, IA

Ecosystem reconnaissance and assessment on 200 acres of conservation land, Don Eyerly, Winterset, IA

Seed design for a 50-acre prairie reconstruction at Native Prairie Bison for Jathan Chicoine, Ames, IA

Plant identification for Karen Stiles, leader of volunteer program at Easter Lake County Park, Des Moines, IA

Plant identification for Trelen Wilson, Biologist, Prairie & Wetlands, Des Moines, IA

Several meetings and consultation with Kjersten Walker and Stu Turner from Greenwood Historic Neighborhood Association for help in woodland restoration at Cowles Woods (aka Bird Sanctuary)

Seed design for a 120-acre prairie reconstruction for Dr. Ted Hardebeck, Nodaway, IA

Explanation and recommendations on ecological concepts related to the use of ecotype zones for Tabitha Panas, Biologist for Pheasants Forever, Glenwood, IA

Explanation and recommendations on ecological concepts related to the use of ecotype zones for Sarah Nizzi, Biologist for Xerces Society and NRCS, Madrid, IA

Explanation and recommendations on ecological concepts related to the use of ecotype zones for Brian Hickman, Biologist for Iowa Department of Natural Resources, Des Moines, IA

Consultation on the identification and current nomenclature for *Euthamia graminifolia* and *Euthamia gymnospermoides* for Aaron Basten, Iowa City, IA

Consultation on methods to estimate the population size of Californian ground squirrels for Sarah Maddox, USDA Wildlife Services Wildlife Biologist, Las Vegas, NV

Consultation and recommendation on the planting of trees on public land and in proximity to private land to avoid problems with shading and root growth for Karen Stiles, leader of volunteer program at Easter Lake County Park, Des Moines, IA

Provided information on native vegetation and remnant prairies in Greene County for George Naylor, Churdan, IA  
Plant selection and design for a rain garden on Drake Campus for Jeff Reiland, Principal-Designer, Abundant Designs, LLC, Des Moines, IA

Consultation to help Mitchell Bird (Clive Eagle Scout) design an educational sign for Tipton Prairie

### 2021

Provided commentary and expertise to the Iowa Department of Natural Resources for a revision of the Iowa Threatened and Endangered Plants (36 hours of meetings)

Field consultation at Whiterock Conservancy (Coon Rapids) to observe and assess a remnant sedge meadow/pasture prairie that will be for sale

Field consultation for Story County Conservation at the location for planned building site for Youth Shelter Services, Ames, IA

Consultation and meeting with Jathan Chicoine at Native Prairie Bison to provide expertise in ecosystem management and restoration

Field consultation and seed mix design for savanna seeding in Polk County, Tony and Tammy Miller, West Des Moines, IA

### 2020

Served on a committee to revise the publication Iowa Prairies by the Iowa Association of Naturalists

Provided commentary and revision corrections for the publication Nature in Iowa – Plants by the Iowa Association of Naturalists

Provided commentary and expertise to the Iowa Department of Natural Resources for a revision of the Iowa Threatened and Endangered Plants

Field consultation at Whiterock Conservancy (Coon Rapids) to observe erosion problems on trails and the possible solutions

Field consultation with Dallas County Conservation resource managers to observe and discuss management options for sites at Kuehn Conservation Area

Field consultation at Whiterock Conservancy (Coon Rapids) to observe a remnant prairie located on a kame (an unusual type of geological formation) and discuss restoration options

Lead a field day for NRCS employees to visit a research site in Madison County and learn about ongoing research to investigate strategies to restore a sedge meadow

Field consultation with Dallas and Polk County Conservation resource managers to survey areas for the occurrence of *Senna hebecarpa*, a plant species of undetermined status in Iowa

Field consultation at Whiterock Conservancy (Coon Rapids) to collect plant species composition data on Dobby restoration demonstration plots

Replied to numerous emails inquiring about plant identification and prairie restoration

Review and comment on native thistle brochure for Xerces Society and National Resource Conservation Service

Plant species selection for conversion of forest to woodland pasture, Luke Gran, Prudenterra

### 2019

Plant identification, ecology and reconnaissance on Polk and Jasper County field sites for the Hydrophytic Vegetation Workshop, Natural Resource Conservation Service, Des Moines, IA

Plant species selection for rain garden at Easter Lake, Karen Stiles, Des Moines, IA

Incorporating native plant species in landscaping a residential slope, Michael Renner, Clive, IA

Ecological consultation on hydrological issues, Jan Libbey, One Step at a Time Gardens, Kanawha, IA

Seed design for prairie reconstruction for Adair County site, Carl Varley, Clive, IA

### 2018

Ecological consultation & restoration issues for Twin Oaks Natural Area, Ron and Barb Eckoff, Cumming, IA

Ecological consultant for Iowa Public Television Iowa Land & Sky Program, Engeldinger Marsh  
Ecological consultant for 2-day BioBlitz at Chichaqua Bottoms Greenbelt for Polk County Conservation Board  
Seed design for prairie reconstruction and species for native shrub planting, Rob Hart, Landowner, Ames, IA  
Riparian restoration, seed design, species selection, Jennifer Vickers for ENSS Capstone class

#### 2017

Ecological consultation for Iowa Public Television Environmental Science Program, Tiffany Morgan, Johnston, IA  
Botanical and ecological field surveys on private conservation land in Guthrie County, Beth Henning, Coon Rapids, IA  
Consultant on reconnaissance of field sites in Polk County for field day events for Craig Maier, Tallgrass Prairie and Oak Savanna Fire Science Consortium  
Consultant on reconnaissance of field sites in Missouri's Loess Hills for field day events for Craig Maier, Tallgrass Prairie and Oak Savanna Fire Science Consortium  
Ecological restoration and vegetation dynamics – Q&A with Landscape Architecture class, Kevin S. Lair, Instructor, Iowa State University, Ames, IA  
Seed design for prairie reconstruction, Brad Becht, Landowner, Boone County, IA  
Seed design for prairie reconstruction and pollinator habitat, Elliot Thompson, Alluvial Brewing Company, Ames, IA  
Meetings and email correspondence with Hannah Rusch, former Drake student and current graduate student at University of Minnesota concerning water quality and sustainability in agriculture

#### 2016

Plant identification for Neal Smith Wildlife Refuge, Prairie City, IA

#### 2015

Survey of spring flora at Prairie Creek Conservation Area, Jackson County Conservation Board, IA

#### 2014

Botanical and ecological field surveys at Eden Park for Louisa County Conservation Board, Wapello, IA  
Prairie management and restoration consultation on housing development sites in Grimes, Iowa for two Iowa State University Landscape Architecture students (Rachel Anderson and Molly )  
Performed/lead quantitative plant surveys on Hawkeye Wildlife Area for Neil Bernstein and students from Mount Mercy University, Cedar Rapids, IA

#### 2013

Botanical and ecological field surveys on private conservation land in Lucas and Marion Counties owned by Leo and Gloria Beebout, Ankeny, IA

#### 2012

Botanical and ecological field surveys on Wildway in Boone County, field site for the Iowa Wildlife Center, Ames, IA  
Prairie and savanna reconstruction for Steve and Gretchen Beckley, Hartford, IA  
Urban forest management for Woodland Park Neighborhood Association, Des Moines, IA  
Plant identification (grasses and grassland species) for Dr. Russ Benedict at Central College, Pella, IA  
Plant identification and sedge meadow assessment for Iowa Natural Heritage Foundation

#### 2011

Botanical and ecological field surveys on private conservation land in Story County owned by Carole Brown, Ames, IA  
Plant identification (sedges) for Jon Judson (Biodiversity Farms, Dedham, IA)

#### 2010

Plant identification and prairie management for Ron Eckoff at Twin Oaks, Warren County, IA

Plant identification (wetland species) for Christine Kirpes (The Nature Conservancy)  
Plant identification (sedges) for Bill Johnson (Iowa DNR)  
Botanical and ecological consultation for siting of development projects on the Riley farm, Marion County, IA

#### 2009

Botanical and ecological field surveys on private conservation land in Winneshiek County owned by Maryjane Hatfield and Richard Mercer, Cresco, IA  
Savanna assessment of McHenry Park (for Des Moines Parks and Recreation)  
Plant species survey for Jennett Prairie, Story County (for Iowa Natural Heritage Foundation)  
Floristic survey on private conservation land in Marion County owned by  
Floristic assessment of the floodplain and upland forest along the Skunk River in Marion County (for Vermeer Corporation, Pella, IA)

#### 2008

Biological survey for wetlands and threatened and endangered species habitats, SE 14<sup>th</sup> Des Moines (for Lee Engineers and Surveyors, Des Moines, IA)

#### 2007

Biological reconnaissance of the Ridgemont Natural Area in Urbandale, IA  
Consultant for “Aftermath: The World After Humans”, a documentary film produced by National Geographic  
Botanical and ecological field surveys on private conservation land (Twin Oaks) in Warren County owned by Ron and Barbara Eckoff, Cumming, IA

#### 2006

Floristic surveys on private and public conservation lands in Madison County, IA  
Botanical and ecological field surveys on private conservation land in Boone County owned by Steve Fisher, Ames, IA

#### 2005

Botanical and ecological field surveys on private conservation land in Schuyler County, Missouri owned by Bruce and Marlene Ehresman, Ames, IA

#### 2004

Botanical and ecological field surveys on private conservation land in Warren County owned by Ron and Barbara Eckoff, Cumming, IA

### **INVITED ACADEMIC LECTURES AND PRESENTATIONS (Department Seminars, Featured Speaker at Conferences or Academic Symposia)**

#### **2024 129-134**

- Jan. 52<sup>nd</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Coralville, IA; *New insights on the vegetation in the Loess Hills*
- Jan. 52<sup>nd</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Coralville, IA; *Tending Iowa's Land – Iowa's Rich Biodiversity Legacy: A Vision for the Future*
- Aug. 2024 Iowa Prairie Conference, Iowa Lakeside Laboratory, Milford, IA; Moderator for Panel Discussion *Burn Cooperatives and Prescribed Fire*
- Aug. Iowa County Conservation System District 1 Meeting. McFarland Park, Ames, IA; *Story County Sensitive Areas Inventory & Tour of Prairie Valley Preserve*
- Oct. Senior College, University of Iowa, Iowa City, IA; *Tending Iowa's Land: Working Toward Environmental Health and Sustainability – Nature and Biodiversity*, with co-presenters Connie Mutel, Jim Pease, and Pauline Drobney
- Oct. 37th Annual Roadside Conference, Johnston, IA; *Ecological renovation of a sedge meadow remnant in Madison County*

**2023 No. 116-128**

- Jan. 51<sup>st</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Coralville, IA; *Pedicularis lanceolata and its potential to be a keystone species*
- Jan. 51<sup>st</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Coralville, IA; *Reflection on lessons learned in 35 years of ecological research in Iowa*
- Apr. 133<sup>rd</sup> Annual Meeting of the Iowa Academy of Science, University of Northern Iowa, Cedar Falls, IA; *UNI Aldo Leopold Distinguished Lecture – Tending Iowa’s land: An evening of discussion about Iowa’s lost biodiversity*, with co-presenters Jim Pease, Elizabeth Finch and Pauline Drobney
- May Life in the Raccoon River Conference, Raccoon River Watershed Association, Ankeny, IA; *The role of remnants and reconstructions in prairie conservation*
- May Statistics Primer for Biology and Psychology Laboratory Instructors, Drake University, Des Moines, IA
- May The Nature Conservancy Iowa Board of Trustees Meeting, Dunn Ranch Prairie, Hatfield, MO; *Why the Grand River Grasslands?*
- June 26<sup>th</sup> North American Prairie Conference, Meadows Event & Conference Center, Altoona, IA; Symposium on Savanna and Prairie Restoration in Central Iowa and Illinois, *Quantitative effects of goat browsing and tree cutting on vegetation in a savanna restoration*
- June 26<sup>th</sup> North American Prairie Conference, Meadows Event & Conference Center, Altoona, IA; Field trip leader, *Gems of Madison County*
- Sept. OLLI Class, Drake University, Des Moines, IA; Iowa’s Environmental Challenges – Visions for the Future. *Section 1 Soil in Tending Iowa’s Land*
- Sept. OLLI Class, Drake University, Des Moines, IA; Iowa’s Environmental Challenges – Visions for the Future. *Section 2 Water in Tending Iowa’s Land*
- Sept. OLLI Class, Drake University, Des Moines, IA; Iowa’s Environmental Challenges – Visions for the Future. *Section 3 Air & Climate in Tending Iowa’s Land*
- Sept. OLLI Class, Drake University, Des Moines, IA; Iowa’s Environmental Challenges – Visions for the Future. *Section 4 Biodiversity in Tending Iowa’s Land*
- Sept. Iowa State University Department of Ecology, Evolution and Organismal Biology Seminar, Ames, IA; *Tending Iowa’s Land: A Vision for Future Environmental Resilience and Health* (with co-presenters Connie Mutel and Lisa Schulte-Moore)

**2022 No. 111-115**

- Jan. Practical Farmers of Iowa Annual Conference, Iowa State University, Ames, IA. *Climate smart habitat: Increasing native plant diversity and resilience on farms*
- Jan. 50<sup>th</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Coralville, IA; *Effects of cattle grazing on tallgrass prairie*
- Jan. 50<sup>th</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Coralville, IA; *The use of coefficients of conservatism in plant ecology*
- Apr. Life in the Raccoon River Watershed Conference, DMACC, Ankeny, Iowa; *A floristic assessment of Tipton Prairie*
- May Urban Ecosystem Restoration: Prairie, Woodlands, Wetlands, and Riparian Areas, Iowa Stormwater Education Partnership Webinar; *Natural resource vegetative surveys for land management: City of Des Moines and Story County surveys*
- July Iowa Living Roadway Trust Fund Technical Advisory Committee, Iowa Department of Transportation, Ames, IA. *Ecological restoration of a sedge meadow ecosystem*

**2021 No. 102-110**

- Jan. Whiterock Conservancy Land Stewardship Committee, Coon Rapids, IA; *Plant species composition and structure on Dobby demonstration plots.*
- Mar. Ray Society, Drake University, Des Moines, IA; *Protecting and enjoying nature in Iowa: Iowa geology*
- Mar. Ray Society, Drake University, Des Moines, IA; *Protecting and enjoying nature in Iowa: Iowa natural history*

- Sept. Ray Society, Drake University, Des Moines, IA; *Field studies of natural areas in central Iowa – Ashworth Park*
- Sept. Ray Society, Drake University, Des Moines, IA; *Field studies of natural areas in central Iowa – Polk City Cemetery*
- Sept. Iowa County Conservation System Annual Fall Conference, Ames, IA; *Mapping and evaluating conservation landscapes in Story County, Iowa*
- Sept. Ray Society, Drake University, Des Moines, IA; *Field studies of natural areas in central Iowa – Chichaqua Bottoms Greenbelt*
- Sept. Ray Society, Drake University, Des Moines, IA; *Field studies of natural areas in central Iowa – Easter Lake*
- Nov. College of Design Graduate Studies, Iowa State University Ames, IA; *Plant ecology research at Native Prairie Bison*

**2020 No. 98-101**

- Jan. 49<sup>th</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Coralville, IA; *The making of the Midwestern Prairie: Climate change and plant migration*
- Jan. 49<sup>th</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Coralville, IA; *The effect of late spring fire on the demography of prairie forbs*
- Nov. Raccoon River Watershed Association Board of Directors; *The flora and vegetation of Tipton Prairie* (webinar)
- Nov. The Nature Conservancy of Iowa, Des Moines, IA; *The ecology of fire-101* (webinar)

**2019 No. 91-97**

- Jan. Iowa Wildlife Habitat Partners Conference, Des Moines, IA; *Consider growing season fire for prairie and savanna management*
- Feb. 48<sup>th</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Coralville, IA; *When to burn a prairie*
- Feb. 48<sup>th</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Coralville, IA; *Challenges and solutions in prairie reconstruction*
- Apr. Ray Society, Drake University, Des Moines, IA; *The natural history of Polk County – geology, foundations, climate*
- Apr. Ray Society, Drake University, Des Moines, IA; *The natural history of Polk County – native ecosystems, flora and fauna*
- Apr. Ray Society, Drake University, Des Moines, IA; *Field trip to Greenwood/Ashworth Parks*
- Apr. Ray Society, Drake University, Des Moines, IA; *The natural history of Polk County – Natural landscapes & places*

**2018 No. 80-90**

- Jan. 47<sup>th</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Waterloo, IA; *Discovering the invisible prairie*
- Jan. 47<sup>th</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), Waterloo, IA; *Iowa's special ecosystems*
- Jan. Iowa Wildlife Habitat Partners Conference, Ames, IA; *Midwestern fire regimes and vegetation management*
- Feb. Iowa Living Roadway Trust Fund Technical Advisory Committee, Iowa Department of Transportation, Ames, IA. *Vascular plant survey and assessment of the native vegetation seeding at the north and south bound rest areas on I-35 near Elkhart, Iowa*
- Mar. Department of Horticulture Seminar, Iowa State University, Ames, IA; *Mapping and evaluating conservation landscapes in Story County, Iowa*
- Apr. Iowa Academy of Science Ecological Sites Symposium, Buena Vista University, Storm Lake, IA; *Ecological Sites in Iowa: Methods and Data*
- Apr. Ray Society, Drake University, Des Moines, IA; *Ecology of the Tallgrass Prairie: Overview and origins*
- Apr. Ray Society, Drake University, Des Moines, IA; *Ecology of the Tallgrass Prairie: Soils, fire, and grazing*

- Apr. Ray Society, Drake University, Des Moines, IA; *Ecology of the Tallgrass Prairie: Biogeography, species function and interaction*  
 Apr. Ray Society, Drake University, Des Moines, IA; *Ecology of the Tallgrass Prairie: Restoration and humans*  
 Apr. Conversations with Nature: Ding Darling's Legacy, Drake University, Des Moines, IA; *Making a connection with Jay N. "Ding" Darling*

**2017 No. 78-79**

- Mar. 2017 Iowa Weed Commissioners' Invasive Species Conference, Ames, IA; Keynote Address *Lessons learned in 30 years of work in Midwestern plant ecology: Application for vegetation management.*  
 Apr. Iowa Urban Tree Council Pollinator Workshop, Des Moines, IA; *Forest structure: Ecosystem architecture and habitat complexity*

**2016 No. 75-77**

- Mar. Life in the Raccoon River: Prairie Ecology and Farming, Raccoon River Watershed Association Annual Meeting, Hotel Pattee, Perry, IA; *Reflection on lessons learned in 30 years of ecological research in Iowa*  
 Oct. Fulbright Association Iowa Chapter, Neal Smith Wildlife Refuge, Prairie City, IA; *Of prairie romance and religion*  
 Nov. Grinnell College, Grinnell, IA. *The making of the Midwestern prairie: Plant migration and climate change*

**2015 No. 70-74**

- Nov. Ray Society, Drake University, Des Moines, IA; *Introduction to natural history photography: Technique*  
 Nov. Ray Society, Drake University, Des Moines, IA; *Introduction to natural history photography: Content*  
 Nov. Ray Society, Drake University, Des Moines, IA; *Introduction to natural history photography: Composition*  
 Nov. Ray Society, Drake University, Des Moines, IA; *Introduction to natural history photography: Landscapes, plants and wildlife*  
 July Iowa Prairie Conference Symposium: 40+ years of prairie preservation and restoration, University of Northern Iowa, Cedar Falls, IA; *Reflection on lessons learned in 30 years of ecological research in Iowa*

**2014 No. 65-69**

- Nov. Ray Society, Drake University, Des Moines, IA; *Natural history of Iowa's special ecosystems: Loess hills*  
 Nov. Ray Society, Drake University, Des Moines, IA; *Natural history of Iowa's special ecosystems: Fens and bogs*  
 Nov. Ray Society, Drake University, Des Moines, IA; *Natural history of Iowa's special ecosystems: Paleozoic Plateau*  
 Nov. Ray Society, Drake University, Des Moines, IA; *Natural history of Iowa's special ecosystems: Sand prairies*  
 Sept. 30<sup>th</sup> Stalnaker Lecture, Drake University, Des Moines, IA; *Ecological insights into Iowa's flora, prairies and agriculture*

**2013 No. 61-64**

- Feb. Ray Society, Drake University, Des Moines, IA; *Ecological research of vegetation in prairie, savanna and wetland ecosystems.*  
 Mar. Life in the Raccoon River – Soil Ecology, Raccoon River Watershed Association Annual Meeting, Drake University, Des Moines, IA; *Soil ecology and sustainability*  
 Mar. Iowa Prairie Preview, Johnson County Heritage Trust, Iowa City, IA; *How Prairies Work*  
 Sept. Plant Identification Workshop, Natural Resources Conservation Service, Chichaqua Bottoms Greenbelt, Maxwell, IA. *Graminoid wetland plants*

**2012 No. 51-60**

- Feb. Ray Society, Drake University, Des Moines, IA; *Threats to biodiversity*  
 Feb. Ray Society, Drake University, Des Moines, IA; *Threats to biodiversity: Invasive Plants*  
 Mar. Ray Society, Drake University, Des Moines, IA; *Threats to biodiversity: Invasive Animals*  
 Mar. Ray Society, Drake University, Des Moines, IA; *Threats to biodiversity: Pollution*

- Apr. Raccoon River Ecology V, Des Moines Area Community College, Des Moines, IA; *Ecology of Lakes: Physical, Chemical and Biological Characteristics*
- Apr. Symposia in Photography and Video in Conservation Research, 124<sup>th</sup> Annual Meeting of the Iowa Academy of Science, Northern Iowa Area Community College, Mason City, IA; *The application of technique, content and composition in making plant images for scientific and artistic use*
- Sept. Grassland Workshop, The Iowa Chapter of the Wildlife Society, Neal Smith Wildlife Refuge, Prairie City, IA; *Reproductive and vegetative morphology of the Poaceae*
- Sept. Grassland Workshop, The Iowa Chapter of the Wildlife Society, Neal Smith Wildlife Refuge, Prairie City, IA; *Functions of plants in grassland ecosystems*
- Sept. Grassland Workshop, The Iowa Chapter of the Wildlife Society, Neal Smith Wildlife Refuge, Prairie City, IA; *Grass identification: Keying grasses*
- Sept. Grassland Workshop, The Iowa Chapter of the Wildlife Society, Neal Smith Wildlife Refuge, Prairie City, IA; *Measuring grassland structure*

**2011 No. 48-50**

- Feb. 2011 Prescribed Fire Conference, Johnston, IA; *The making of the native Midwestern landscape: Fire, climate, people and ecology*
- Feb. Department of Biology Seminar; Drake University, Des Moines, IA; *When to burn a prairie: Consequences of late spring fire*
- Sept. Raccoon River Ecology IV, Des Moines Area Community College, Des Moines, IA; *Imperiled plants of the Raccoon River valley*

**2010 No. 43-47**

- Jan. Department of Biology Seminar; Drake University, Des Moines, IA; *When to burn a prairie: Consequences of late spring fire*
- Feb. An Interdisciplinary Forum on Visual Art and the Environment, Anderson Gallery, Drake University, Des Moines, IA; *Reading the landscape, Seeing its spirit*
- Mar. Raccoon River Ecology III, Des Moines Area Community College, West Des Moines, IA; *Flora of the Raccoon River watershed*
- Aug. Field trip leader for the 22<sup>nd</sup> North American Prairie Conference, Tallgrass Prairie Center, University of Northern Iowa, Cedar Falls, IA; *Flora and ecology of Ray Prairie and the Heritage Valley hill prairies*
- Oct. Grazing as a Management Tool Summit, Whiterock Conservancy, Coon Rapids, IA; *The grasslands of Iowa*

**2009 No. 42**

- Apr. Raccoon River Ecology II, Des Moines Area Community College, West Des Moines, IA; *River ecology: The River Continuum Concept*

**2008 No. 40-41**

- Feb. Prescribed Fire Conference, Ames, IA; *Lessons learned from prescribed burns*
- Oct. Tallgrass Prairie Center Seminar Series, University of Northern Iowa, Cedar Falls, IA; *Inventory, mapping and quality assessment of prairie vegetation in the Grand River Grasslands*

**2007 No. 38-39**

- Feb. Mississippi Valley Division Natural Resource Management Conference, Dubuque, IA.; *Plants as indicators of environmental sensitivity and quality.*
- Oct. Department of Natural Resources and Ecology Management Seminar; Iowa State University, Ames, IA; *Prairie Restoration: Prairie renewal or homogenization?*

**2006 No. 36-37**

- Sept. The Quad State Prairie Meeting, Auburn, NE.; *Inventory, mapping and quality assessment of prairie vegetation in the Grand River Grasslands*



Nov. Department of Biology Seminar; Drake University, Des Moines, IA; *Implementing the Leopold land ethic at Whiterock Conservancy*

**2005 No. 31-35**

Jan. Department of Biology Seminar; Drake University, Des Moines, IA; *Effect of late spring fire on the demography of prairie forbs*

Feb. Prescribed Fire Conference, Ames, IA; *The ecological effects of fire: A synthesis of current understanding*

Feb. Prescribed Fire Conference, Ames, IA; *Recent studies in the ecology of prescribed fire*

Apr. The Ecology of Overlooked Landscapes Symposium: Iowa Academy of Sciences, Mt. Vernon, IA; *The ecology and natural history of pastureland*

Sept. Integrated Roadside Vegetation Management 19<sup>th</sup> Annual Roadside Conference, Des Moines, IA; *Prairie restoration vs. homogenization: Preserving regional diversity*

**2004 No. 28-30**

Mar. Upper Mississippi River Conservation Committee 60<sup>th</sup> Annual Meeting, La Crosse, WI; *Effects of Dredged Material Placement on Floodplain Plant Communities of the Mississippi and Illinois Rivers*

Sept. Department of Biology Seminar; Drake University, Des Moines, IA; *Inventory, mapping and quality assessment of remnant prairies in Ringgold County*

Oct. Department of Natural Resources and Ecology Management Seminar; Iowa State University, Ames, IA; *Effect of dredge placement material on floodplain communities of the Mississippi and Illinois Rivers*

**2003 No. 25-27**

Feb. Association for Integrated Roadside Vegetation Conference, Ames, IA; *Long-term research on I-35 prairie reconstruction in Story County*

July Iowa Prairie Conference Resource Management Field Day, Colo, IA; *A review of the long-term research conducted on the I-35 prairie reconstruction in Story County*

Dec. Science and Math for Civic Engagement, Drake University, Des Moines, IA; *Developing a sense of place and environmental value: Connecting with the Loess Hills*

**2002 No. 24**

Nov. Iowa Natural History Association, Simpson College, Indianola, IA; *Biological surveys on the Rathbun (Honey Creek) Resort State Park Site, Appanoose County, IA*

**2001 No. 21-23**

Jan. Iowa Environmental Education Conference, Springbrook Education Center, Guthrie Center, IA; *The grassland legacy of Iowa's Loess Hills*

Aug. Iowa Department of Natural Resources Forest and Prairie Division Meeting, Lucas CCB; *Patterns of forest and woodland herbaceous vegetation in Iowa*

Nov. Department of Biology; Drake University, Des Moines, IA; *Developing a sense of place and environmental value: Connecting with the Loess Hills*

**2000: No. 16-20**

Jan. Department of Forestry Seminar; Iowa State University, Ames, IA; *Restoring the prairie landscape: Lessons from the Interstate 35 prairie reconstruction in Story County*

Feb. Department of Plant Pathology Seminar; Iowa State University, Ames, IA; *Use of remote sensing as a tool in the conservation of prairie biodiversity*

July Seventeenth North American Prairie Conference; Northern Iowa Area Community College, Mason City, IA; *Iowa's prairie heritage: The past, present and into the future*

July Field trip leader for the 17<sup>th</sup> North American Prairie Conference, Northern Iowa Area Community College, Mason City, IA; *The I-35 prairie reconstruction*

Oct. Invasive Plants and Animals in Iowa: A Symposium; Iowa State University, Ames, IA; *Introduced graminoids of Iowa*

**1999: No. 14-15**

May Department of Biology Seminar; Grinnell College, Grinnell IA; *Reconstructing the prairie landscape: Observations of prairie from inside looking out*

Sept. Integrated Roadside Vegetation Management 13<sup>th</sup> Annual Roadside Conference, Ames, IA. *A summary of three years of research on the I-35 prairie reconstruction in Story County: Monitoring and evaluating success and investigating the effects of fire and mowing treatments*

**1998: No. 12-13**

Apr. Department of Biology; Drake University, Des Moines, IA; *Investigating grassland assemblage with research from ecophysiology to prairie reconstruction*

Oct. Department of Biology Seminar; Drake University, Des Moines, IA; *The vegetation composition of Sheeder Prairie*

**1997: No. 11**

Sept. Iowa Lakes Community College Secondary Environmental Education Development Conference; Iowa Lakeside Lab, Milford, IA; *Prairie restoration and reconstruction*

**1996: No. 10**

Mar. Department of Biology Seminar; Drake University, Des Moines, IA; *The effects of multi-scale factors on the species composition of prairie landscapes*

**1995: No. 9**

Jan. Biodiversity & Ecosystem Workshop; University of Kentucky Extension, USDA Extension, & Purdue Extension; Kentucky Dam Village State Park, KY; *Biodiversity of prairies and barrens*

**1994: No. 6-8**

Nov. Department of Biology Colloquium; Luther College, Decorah, IA; *Prairie communities in western Iowa's Loess Hills: Integration of community, population, and ecophysiological studies*

Oct. Department of Biology Seminar; Drake University, Des Moines, IA; *The grassland legacy of Iowa's Loess Hills*

Apr. Department of Botany Seminar; Iowa State University, Ames, IA; *Prairie communities in western Iowa's Loess Hills: Integration of community, population, and ecophysiological studies*

**1993: No. 2-5**

Nov. Department of Agronomy Seminar Forum; Iowa State University, Ames, IA; *The grassland legacy of Iowa's Loess Hills*

Sept. Department of Animal Ecology Seminar; Iowa State University, Ames, IA; *The grassland legacy of Iowa's Loess Hills*

July Field trip leader for American Institute of Biological Sciences Field Trip; Iowa State University, Ames, IA; *Ecology of the native grasslands in the Loess Hills*

Feb. Department of Botany Seminar; Iowa State University, Ames, IA; *Nature photography: equipment, techniques, composition, and philosophy*

**1991: No.1**

Oct. Department of Agronomy Seminar Forum; Iowa State University, Ames, IA; *Southern Iowa's "invisible" prairies*

**CONTINUING EDUCATION (attendance at conferences, meetings, workshops)**

2024 – 2024 Iowa Prairie Conference, 16-18 August, Iowa Lakeside Lab, Milford, IA

2024 – 2024 Iowa Chapter of The Wildlife Society Winter Meeting, February 28-29, Ames, IA

2023 – 26<sup>th</sup> North American Prairie Conference, 26-29 June, Meadows Event & Conference Center, Altoona, IA

- 2023 – 133<sup>rd</sup> Annual Meeting of the Iowa Academy of Science, 21-22 April, University of Northern Iowa, Cedar Falls, IA
- 2022 – Soul. Soil. SPARK. Raccoon River Association Conference, 16 November, Drake University, Des Moines, IA
- 2022 – Iowa Native Plant Society Annual Meeting, 3 September, Chichaqua Bottoms Greenbelt, Maxwell, IA
- 2022 – Iowa Alliance for Responsible Agriculture, The Peoples Hearing on the Case for a Factory Farm Moratorium, 18 June, McFarland Park, Ames, IA
- 2022 – Practical Farmers of Iowa Annual Conference, 21-22 January, Iowa State University, Ames, IA
- 2021 – SOIL 2021 - Our Soils: Our Future, 17 November, Drake University, Des Moines, IA
- 2021 – 132<sup>nd</sup> Annual Meeting of the Iowa Academy of Science, 23-24 April, Virtual Meeting
- 2019 – Inclusive Class Workshop, Drake University, Des Moines, IA
- 2019 – Iowa Prairie Conference, 8-10 August, Central College, Pella, IA
- 2019 – 131<sup>st</sup> Annual Meeting of the Iowa Academy of Science, 26-27 April, University of Northern Iowa, Cedar Falls, IA.
- 2019 – Iowa Wildlife Habitat Partners Conference, 25 January, Des Moines, IA
- 2018 – Botany 2018 Botanical Society of America, 21-25 July, Rochester, MN.
- 2018 – 130<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 20-21 April, Buena Vista University, Storm Lake, IA.
- 2018 – 47<sup>th</sup> Annual Iowa Association of County Conservation Board Employees Conference (Winterfest), 23-25 January, Waterloo, IA
- 2018 – Iowa Wildlife Habitat Partners Conference, 26 January, Ames, IA
- 2017 – Iowa Prairie Conference, 14-15 July, Iowa Western Community College, Council Bluffs, IA
- 2017 – 44<sup>th</sup> Annual Natural Areas Association Conference, 10-12 October, Fort Collins, CO.
- 2017 – Tallgrass Prairie and Oak Savanna Fire Science Consortium Field Day, 21 June, Conard Environmental Research Area, Grinnell College, Kellogg, IA
- 2017 – 129<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 21-22 April, University of Northern Iowa, Cedar Falls, IA.
- 2017 – Iowa Invasive Species Conference, 28-29 March, Honey Creek Resort, Moravia, IA
- 2017 – Raccoon River Watershed Association Conference, 3-4 March, Perry, IA
- 2017 – Iowa Weed Commissioners’ Invasive Species Conference, 1-2 March, Ames, IA
- 2016 – Department Chair Workshop “Free Speech, Hate Speech, or Safe Speech? What the First Amendment Really Protects on a University Campus.”, 8 December, Iowa State University, Ames, IA
- 2016 – ArcGIS 10.4 Workshop, 6-7 October, Iowa State University, Ames, IA
- 2016 – North American Prairie Conference, 17-20 July, Illinois State University, Normal, IL
- 2016 – Training for Monarch Monitoring Trial, 17-18 May, Neal Smith National Wildlife Refuge, Prairie City, IA.
- 2016 – 128<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 22-23 April, Grandview University, Des Moines IA.
- 2015 – Iowa Prairie Conference, 16-18 July, University of Northern Iowa, Cedar Falls, IA
- 2015 – National Cooperative Soil Survey National Conference, 7-11 June, Duluth, MN
- 2015 – 127<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 17-18 April, University of Iowa, Iowa City, IA.
- 2014 – ArcGIS 2: Essential Workflows, 15-17 January, ESRI, Broomfield, CO.
- 2014 – 126<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 11-12 April, Iowa Central Community College, Fort Dodge, IA.
- 2014 – The Frontier of climate change: State and local action in the heartland, 22 April, Drake University, Des Moines IA
- 2013 – Iowa Prairie Conference, 19-20 July, Luther College, Decorah, IA
- 2012 – 23<sup>rd</sup> North American Prairie Conference, 6-10 August, University of Manitoba, Winnipeg, Manitoba, Canada.
- 2012 – 124<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 20-21 April, Northern Iowa Community College, Mason City, IA
- 2011 – 123<sup>rd</sup> Annual Meeting of the Iowa Academy of Science, 29-30 April, Wartburg Collge, Waverly, IA
- 2011 – Pheasants Forever State Meeting, 15 January, Mariott, Des Moines, IA
- 2010 – 37<sup>th</sup> Annual Natural Areas Conference, 26-29 October, Tan-Tar-A Resort, Osage Beach, MO

- 2010 – 22<sup>nd</sup> North American Prairie Conference, 1-5 August, Tallgrass Prairie Center, University of Northern Iowa, Cedar Falls, IA
- 2010 – CIRAS 1 Training Workshop: Making measurements and equipment maintenance, 29 June, PP Systems, Amesbury, MA
- 2010 – Citizen Science: An introduction to insects, 18-19 June, Grinnell College, CERA, Grinnell, IA
- 2010 – 122<sup>nd</sup> Annual Meeting of the Iowa Academy of Science, 16-17 April, Graceland University, Lamoni, IA
- 2010 – Midwest Grazing Conference, 30 March, Ames, IA
- 2010 – Wilderness First Responder Course Certification, 12-20 March, YMCA Camp St. Croix, Hudson, WI
- 2010 – Raccoon River Watershed Association Conference, 6 Mar., Des Moines Area Community College, West Des Moines, IA
- 2009 – A Day with Insects Conference, 21 Feb., Reiman Gardens, Iowa State University, Ames, IA
- 2009 – 121<sup>st</sup> Annual Meeting of the Iowa Academy of Science, 17-18 April, Des Moines University, Des Moines, IA
- 2009 – Raccoon River Watershed Association Conference, 7 Mar., Des Moines Area Community College, West Des Moines, IA
- 2009 – Iowa Prairie Conference, 17-18 July, Graceland College, Lamoni, IA
- 2008 – Raccoon River Watershed Association Conference, 1 Mar., Des Moines Area Community College, West Des Moines, IA
- 2008 – 21<sup>st</sup> North American Prairie Conference, 4-8 August, Winona State University, Winona, MN
- 2007 – 34<sup>th</sup> Annual Natural Areas Conference, Cleveland, OH
- 2007 – Iowa Prairie Conference, Briar Cliff College, Sioux City, IA
- 2006 – Completion of S290 – Intermediate Wildland Fire Behavior, 9-12 Jan., Cedar Falls, IA
- 2004 – Exotic and Invasive Species Workshop: Iowa Department of Natural Resources, 12 Feb., Jester Park Lodge, Granger, IA
- 2004 – 116<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 23-24 April, University of Northern Iowa, Cedar Falls, IA
- 2004 – 19<sup>th</sup> North American Prairie Conference, 8-12 August, University of Wisconsin, Madison, WI.
- 2002 – 18<sup>th</sup> North American Prairie Conference, 23-27 June, Truman State University, Kirksville, MO
- 2001 – 113<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 20-21 April, Hotel Fort Des Moines, Des Moines, IA
- 2001 – ArcView 8.1 Hands-On Seminar, 22 May, Hotel Fort Des Moines, Des Moines, IA
- 2001 – Woodland Wildflower Restoration Workshop, 28 April, Grinnell College Conard Environmental Research Area, Grinnell, IA
- 2000 – 112<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 21-22 April, Hotel Fort Des Moines, Des Moines, IA
- 2000 – 17<sup>th</sup> North American Prairie Conference, 16-20 July, Northern Iowa Area Community College, Mason City, IA
- 1999 – ArcView GIS short course, 5-6 Jan., Iowa State University, Ames, IA
- 1999 – 111<sup>th</sup> Annual Meeting of the Iowa Academy of Science, 23-24 April, Iowa State University, Ames, IA
- 1999 – EROS GIS workshop, 4-6 Oct., EROS Data Center, Sioux Falls, SD
- 1999 – Ninth Annual Iowa Space Grant Conference, 5 November, University of Northern Iowa, Cedar Falls, IA
- 1998 – 16<sup>th</sup> North American Prairie Conference, 26-29 July, University of Nebraska at Kearney, Kearney, NE
- 1998 – 25<sup>th</sup> Annual Natural Areas Association Conference, 6-10 Oct., Michigan Depart. of Natural Resources, Mackinaw Island, MI
- 1998 – Eighth Annual Iowa Space Grant Conference, 30 October, University of Iowa, Iowa City, IA
- 1997 – Seventh Annual Iowa Space Grant Conference, 24 October, Drake University, Des Moines, IA
- 1997 – Student-centered teaching meets technology; Collaboration for the Advancement of College Teaching & Learning Faculty Development Conference, 22-23 Nov., Minneapolis, MN
- 1996 – 23<sup>rd</sup> Annual Natural Areas Association Conference/15<sup>th</sup> North American Prairie Conference, Chicago, IL
- 1995 – Completion of S130 and S190 courses in fire behavior and fire-fighting; U.S. Army Corps of Engineers, Coralville, IA

## ACADEMIC/PROFESSIONAL SERVICE

### Book Reviews: Total = 9

- 2018 – A Handbook for Contemporary Natural Science Imaging and Photography; book proposal for Focal Press/Routledge, New York, NY
- 2016 – Life: The Science of Biology (Chapter on Ecology); Sinauer Associates and W.H. Freeman, Sunderland, MA
- 2016 – Life: The Science of Biology (Chapter on Photosynthesis); Sinauer Associates and W.H. Freeman, Sunderland, MA
- 2009 - Wildflowers of Iowa Woodlands; University of Iowa Press, Iowa City, IA
- 2006 - Prairie Restoration Manual, Tallgrass Prairie Center, University of Northern Iowa, Cedar Falls, IA
- 2006 - Elements of Ecology (two chapters), Pearson
- 2005 - The Emerald Horizon, the history of nature in Iowa; University of Iowa Press, Iowa City, IA
- 2000 - Prospectus for new non-majors Botany textbook, Prentice Hall.
- 1997 - Ecology: The experimental analysis of distribution and abundance, Harper Collins.

### Manuscript Reviews:

51. 2021 - Plant Ecology > Seed burial depth, seedling emergence and growth as affected by animal trampling in marl soils
50. 2019 - Plant Ecology > Functional reorganization and productivity of a water-limited annual plant community
49. 2019 - U.S. Fish and Wildlife Service > National protocol framework for vegetation monitoring in prairie reconstructions
48. 2019 - Northern Prairie Wildlife Research Center > Improving pollinator habitat: Reconstructing prairies with high forb diversity
47. 2018 - Ecological Restoration > Does fire suppress woody vegetation?
46. 2017 - Journal of Iowa Academy of Science > *Veratrum woodii* J. W. Robbins (False Hellebore): Distributional Note
45. 2017 - Journal of Iowa Academy of Science > Vascular plants of forested seep wetlands in Winneshiek County, Iowa, USA
44. 2017 - Proceedings of the 24<sup>th</sup> North American Prairie Conference > Nachusa Grasslands: 30 years of Lessons Learned at Nachusa Grasslands
43. 2017 - Rangeland Ecology & Management > Resilience of Sandhills grassland to wildfire
42. 2016 - Plant Ecology > Environmental drivers of subalpine and alpine fen vegetation in the southern Rocky Mountains, Colorado, USA
41. 2016 - Rangeland Ecology & Management > Quantifying optimal rates of litter retention to maximize annual net primary productivity on Saskatchewan rangelands
40. 2016 - Rangeland Ecology & Management > Rangeland Restoration Analysis in the South Slope of the Al-Jabal Al-Akhdar, Northeast Libya Using LFA Technique
39. 2016 - Journal of the Iowa Academy of Science > Population genetics of *Asclepias tuberosa* in remnant and restored prairies of Northwest Iowa
38. 2015 - Rangeland Ecology & Management > A critical examination of seasonal burning in the Kansas Flint Hills
37. 2014 - Plant Ecology > Functional diversity and direction of trait response after long-term cessation of grazing are conditioned by the pattern of soil water availability on a fine spatial scale
36. 2012 - Plant Ecology > Soaking acorns with 15N-urea to track seed dispersal and seedling recruitment of large plants
35. 2012 - Plant Ecology > Rodent-favored cache sites limit seedling establishment of shade-intolerant wild apricot (*Prunus armeniaca*) in northern China
34. 2012 - Natural Areas Journal > Soil seed bank in Nantucket's early successional communities: Implications for management
33. 2012 - Journal of the Iowa Academy of Science > Iowa's lost lichens: potentially rare or extirpated Iowa lichen species
32. 2011 - Proceedings of the 22<sup>nd</sup> North American Prairie Conference > Bison reintroduction (*Bison bison*) in a tallgrass prairie
31. 2011 - Journal of the Iowa Academy of Science > Vascular flora of Boone County, Iowa

30. 2010 - Journal of the Iowa Academy of Science > Response of a Yellow Mud Turtle (*Kinosternon flavescens*) community to habitat change: Management implications
29. 2010 - Journal of the Iowa Academy of Science > Vascular flora of Boone County, Iowa
28. 2010 - Plant Ecology > Native and exotic plants of fragments of sage steppe produced by two different fragmentation processes
27. 2008 - Journal of the Iowa Academy of Science > Historic vegetation patterns and dynamics of the northern Loess Hills , Iowa
26. 2008 - Journal of the Iowa Academy of Science > Hartman Reserve Nature Center rare species management plan
25. 2008 - Restoration Ecology > The impact of seeding method on diversity and plant distribution in two restored grasslands
24. 2007 - American Journal of Botany > Bud banks and plant responses to nitrogen
23. 2007 - Journal of the Iowa Academy of Science > Ant and plant diversity in southern Minnesota tallgrass prairie restoration sites
22. 2007 - Rangeland Ecology and Management > The potential for horses to disperse alien plants along recreational trails
21. 2007 - Proceedings of the 20<sup>th</sup> North American Prairie Conference > Status of prairie ecosystems on Corps of Engineers project lands
20. 2006 - Rangeland Ecology and Management > Potential for horses to introduce exotic plant species in wildland trails
19. 2006 - American Midland Naturalist > Effects of species, density, season and prairie-type on post-dispersal seed removal in Oklahoma
18. 2005 - Journal of the Iowa Academy of Science > Spatial patterns of gray dogwood reveal invasion dynamics
17. 2005 - Journal of the Iowa Academy of Science > The flora of Hamilton County, Iowa
16. 2004 - Journal of the Iowa Academy of Science > A floristic study of Clay Prairie
15. 2003 - Journal of the Iowa Academy of Science > Evidence of complex soil temperature gradients on two algific talus slopes in Winneshiek County, Iowa
14. 2002 - Proceedings of the 18<sup>th</sup> North American Prairie Conference > Remnants to Roadsides: The Iowa ecotype project
13. 2002 - Plant Ecology > Seed dormancy and longevity in *Stipa tenacissima* L. (Poaceae)
12. 2002 - Wetlands Journal > Plant diversity, composition, and invasion of restored and natural prairie pothole wetland: Implications for restoration.
11. 2001 - Plant Ecology > Ecology of seed germination and soil seed bank in *Stipa tenacissima* L. (Poaceae)
10. 2000 - Plant Ecology > Seed bank and vegetation composition of forest stands of varying age in central Belgium: consequences for regeneration if ancient forest vegetation.
9. 2000 - Proceedings of the 17th North American Prairie Conference: Seeds for the future, roots of the past > The control of infiltration as a mechanism for the self-regulation of prairie ecosystems: Preliminary studies at Rolling Thunder Prairie State Preserve, Warren County, Iowa.
8. 1999 - Wetlands Journal > The effects of soil flooding on the establishment of cogongrass (*Imperata cylindracea*), a nonindigenous invader of the southeast.
7. 1998 - Wetlands Journal > Relationship between the abundance of *Lythrum salicaria* (purple loosestrife) and plant species richness along the Bar River, Canada.
6. 1998 - Journal of the Iowa Academy of Science > Permanent forest plot establishment and inventory in central Iowa.
5. 1997 - Vegetatio > Vegetation-environment relationships in tallgrass prairie: plant guild responses to seasonal fire and climatic variation.
4. 1995 - Natural Areas Journal > Management perspectives on fens.
3. 1994 - Proceedings of the Thirteenth North American Prairie Conference: Spirit of the Land, Our Prairie Legacy > Rockefeller Prairie: A case study on the use of plant guild classification of a tallgrass prairie.
2. 1994 - Proceedings of the Thirteenth North American Prairie Conference: Spirit of the Land, Our Prairie Legacy > Water relations and biomass responses to irrigation across a topographic gradient in tallgrass prairie.
1. 1992 - Proceedings of the Twelfth North American Prairie Conference: Recapturing a Vanishing Heritage > Effects of spring fire phenology on pasque flower (*Anemone patens*) flower bud survival.

Grant Proposal Reviews: Total = 67

- 2020 - Iowa Native Plant Society > Ashton Cross Country Course Prairie Signage Project
- 2020 - Iowa Native Plant Society > Benton County Fen Acquisition Project
- 2020 - Iowa Native Plant Society > Floristic Inventory of Mossy Glen State Preserve, Clayton Co., IA: Final Phase
- 2020 - Iowa Native Plant Society > Woodbury County Conservation Board Prairie Rescue Equipment
- 2019 - Iowa Native Plant Society > Remnant enhancement
- 2019 - Iowa Native Plant Society > Land management equipment for invasive species removal
- 2019 - Iowa Native Plant Society > BioBlitz at Hitchcock Nature Center
- 2019 - Iowa Native Plant Society > Youth attacking invasive species on Loess Bluffs
- 2018 - Iowa Science Foundation > Evaluating the efficacy of freezing-induced genes of *Aplectum hyemale* by heterologous expression
- 2018 - Iowa Science Foundation > Determining the prevalence and contributing factors of the lyme disease causing bacteria, *Borrelia burgdorferi*, and other tick-borne pathogens in Iowa
- 2018 - Iowa Native Plant Society > Continued management of university owned prairie remnant used for conservation and plant research and instruction
- 2018 - Iowa Native Plant Society > Land management kits for land ambassadors (Volunteer Program)
- 2018 - Iowa Native Plant Society > Brush management at Chipera Prairie, Winneshiek County
- 2018 - Iowa Native Plant Society > Spring 2018 Service Learning - Pluck, Plant, Pickup and Place: Woodlands
- 2018 - Iowa Native Plant Society > Workshops and Education Events in 2018
- 2018 - Iowa Native Plant Society > Plant community surveys at Gleason-Hubel WMA
- 2018 - Iowa Native Plant Society > 2018 Summer Youth Corps Activities
- 2015 - Iowa Science Foundation > Twenty-year resurvey of woody vegetation in Northeast Iowa permanent plots II: Backbone, Bluffton Fir Stand, Brush Creek Canyon, and Fish Farm Mounds
- 2015 - Iowa Native Plant Society > Impacts of litter levels on prairie potholes
- 2015 - Iowa Native Plant Society > Priority effect strength of native and exotic prairie species with variable water availability
- 2015 - Iowa Native Plant Society > Assessment of prairie reconstruction outcomes across Iowa
- 2015 - Iowa Native Plant Society > Oviposition preference and larval survival of the monarch butterfly, *Danaus plexippus*, on eight species of native milkweeds
- 2015 - Iowa Native Plant Society > Comparing changes in soil organic matter on agricultural land: Grazed and ungrazed native vegetation versus corn-soybeans alternation
- 2015 - Iowa Native Plant Society > Does diversity matter? Evaluating the relationship between native prairie plant species diversity on nitrogen retention
- 2015 - Iowa Native Plant Society > Prairie Creek Recreation Area Bioblitzes
- 2015 - Iowa Native Plant Society > For lands sake! Signage
- 2015 - Iowa Native Plant Society > Burn workshop at Springer Woods
- 2012 - Iowa Native Plant Society > Evaluation of techniques for the restoration of sedge meadow vegetation
- 2012 - Iowa Native Plant Society > Funding further controlled burns at Rochester Cemetery
- 2012 - Iowa Native Plant Society > Iowa Wildlife Center trio of Bioblitzes
- 2012 - Iowa Native Plant Society > Pollination biology and habitat preference of a rare native lily, *Lilium michiganense*
- 2012 - Iowa Native Plant Society > The vascular flora of Anderson Prairie State Preserve, Emmet County, IA
- 2011 - NASA EPSCoR > Using spectral data to quantify drought responses and phenological changes in grassland communities
- 2011 - Iowa Science Foundation > Relating land-use history and management to upland sedge fire and grazing ecology
- 2011 - Iowa Science Foundation > Effects of tile drainage on macroinvertebrates in Iowa headwater streams
- 2011 - Iowa Lakeside Laboratory > Animal care and use review form for Ornithology
- 2011 - Iowa Native Plant Society > Effects of fire and grazing on reintroduction of prairie violet (*Viola pedatifida*) to Iowa grasslands

- 2011 - Iowa Native Plant Society > Role of bison in a tallgrass prairie reconstruction: Seed dispersal and small-scale disturbance
- 2011 - Iowa Native Plant Society > Effects of diversity on the prairie experience
- 2011 - Iowa Native Plant Society > Survey of *Rhagoletis* host plants on an urbanization gradient
- 2011 - Iowa Native Plant Society > Personal prairie reclamation project
- 2010 - Iowa Native Plant Society > Responses to environment and propagation of *Dirca* spp. (Leatherwoods)
- 2010 - Iowa Native Plant Society > A floristic survey of the Conesville Fen, Muscatine County, Iowa
- 2010 - Iowa Native Plant Society > Genetic diversity of butterfly milkweed (*Asclepias tuberosa*) in Iowa native prairies
- 2009 - Iowa Native Plant Society > Story County prairie acquisition and stewardship
- 2008 - Living Roadway Trust Fund > Impact of roadside prairie plantings on plant and insect communities
- 2008 - Living Roadway Trust Fund > Effects of planting method on species diversity and nutrient cycling in grassland reconstruction
- 2008 - Living Roadway Trust Fund > The effects of mycorrhizal inoculants and micronutrients on early plant establishment in prairie reconstruction
- 2008 - Living Roadway Trust Fund > Comparison of water interception and infiltration by selected grass dominated communities
- 2008 - Living Roadway Trust Fund > The effects of seeding time on emergence and growth of prairie grasses, sedges, legumes and forbs
- 2007 - Living Roadway Trust Fund > Influence of the exotic plant, crown vetch (*Coronilla varia*), on small mammal diversity and abundance in roadside prairies
- 2007 - Living Roadway Trust Fund > Effects of seeding date, priority effects, and native cover crops on prairie establishment
- 2007 - Living Roadway Trust Fund > Relating plant distributions to species richness and invisibility in prairie restoration
- 2005 - Iowa Science Foundation > Little herbarium found: Integration of an orphan collection
- 2005 - Iowa Science Foundation > Oak vs. maple: An analysis of compositional changes in northeast Iowa forests since 1994
- 2005 - Iowa Science Foundation > Roadside native plants inventory for unique native plant community policy
- 2003 - Iowa Science Foundation > Restoring native oak savanna ecosystems in the prairie-savanna transition zone
- 2001 - Iowa Living Roadway Trust Fund & Department of Transportation > Boosting prairie's competitive advantage over Canada thistle by final grading new highway construction withy subsoil
- 2001 - National Fish and Wildlife Foundation > Protecting the fragile giants – Loess Hills land protection by the Iowa Natural Heritage Foundation.
- 2000 - Iowa Science Foundation > The effects of low-level atrazine exposure on human cells.
- 2000 - Iowa Science Foundation > Projection system for a new classroom in IMAX theatre addition.
- 2000 - Iowa Science Foundation > Youth experiences in science – YES.
- 2000 - Iowa Science Foundation > Manure-caused fish kills in Iowa's surface waters.
- 1998 - National Fish and Wildlife Foundation > Iowa model buffer project by the Iowa Natural Heritage Foundation.
- 1997 - Illinois Groundwater Consortium > Developing a GIS database to monitor plant population dynamics in the floodplain: A model based on *Boltonia decurrens*, a threatened species.
- 1996 - Iowa Science Foundation > Responses of grassland vegetation and birds to prescribed burning in tallgrass prairie.
- 1995 - Iowa Science Foundation > Natural areas assessment for restoration – reconstruction of Cedar Hills Sand Prairie, Black Hawk County, Iowa.

Administrative – Drake University:

- 2022 - Promotion Committee for Associate Professor Jerry Honts, Dept. of Biology
- 2022 - Promotion & Tenure Committee for Assistant Professor Shauna Marvin, Dept. of Biology
- 2021 to 2023 - Faculty Senate, Natural Sciences Representative, College of Arts and Sciences
- 2021 - Promotion & Tenure Committee for Assistant Professor Kevin Carlson, Dept. of Biology
- 2021 - Promotion & Tenure Committee for Assistant Professor Meredith Luttrell, Dept. of Biology



2021 – Chair of the Student Review Committee for Dr. Brian Gentry, College of Pharmacy & Health Sciences, Drake University  
2019 - Ad-Hoc Election Review Committee  
2019 to 2020 - Arts and Science Council  
2019 - Ronald Troyer Research Fellow Selection Committee  
2017 - Chair of Search Committee for Visiting Assistant Professor in Biology  
2016 - Search Committee for Visiting Assistant Professor in ENSS  
2015 to 2016 - Stalnaker Lecturer Selection Committee  
2015 - Chair, Promotion & Tenure Committee for Associate Professor Charisse Buising Dept. of Biology  
2015 - Chair, Promotion & Tenure Committee for Associate Professor Heidi Sleister Dept. of Biology  
2015 - Chair, Promotion & Tenure Committee for Assistant Professor Nanci Ross, Dept. of Biology  
2014 to 2017 - Chair of Biology Department, Drake University  
2014 to 2015 - Faculty Salary Administrative Review Committee  
2014 to 2017 - Ronald Troyer Research Fellow Selection Committee  
2013 to 2014 - Chair, Promotion & Tenure Committee, College of Arts and Science  
2012 to 2013 - Promotion & Tenure Committee, College of Arts and Science  
2012 - Promotion & Tenure Committee for Associate Professor Jerry Honts, Dept. of Biology  
2012 - Promotion & Tenure Committee for Assistant Professor Muir Eaton, Dept. of Biology  
2012 - Promotion & Tenure Committee for Assistant Professor Chinh Dao, Dept. of Biology  
2011- Sabbatical Review Committee, College of Arts and Science  
2011- Promotion & Tenure Committee for Associate Professor Daniel Alexander, Dept. of Math & Computer Science  
2011- Promotion & Tenure Committee for Associate Professor Jerry Honts, Dept. of Biology  
2011- Promotion & Tenure Committee for Assistant Professor David Senchina, Dept. of Biology  
2009 to present - Adviser for Drake Outdoor Leadership Club  
2009 to 2010 - Chair of Biology Department, Drake University  
2009 to 2010 - Chair of Search Committee for Ethnobotany position in Biology  
2008 to 2010 - Institutional Animal Care and Use Committee  
2008 to 2009 - Chair of Search Committee for Environmental Geologist position in ENSP  
2007 to 2008 - Chair of Search Committee for Environmental Geologist position in ENSP  
2006 to 2007 - Search Committee for Microbiology/Virology position in Biology  
2005 to 2007 - Arts and Science Council  
2005 - Statistics Curriculum Review Committee  
2004 to 2010 - Director of Environmental Science and Policy, Drake University  
2003 to present - Drake University Campus Coordinator for Iowa Lakeside Lab Consortium  
2002 to 2003 - Co-Director of Environmental Science and Policy, Drake University  
2002 - Review Committee for Faculty and Student Research Grant Proposals in Arts and Science, Drake Univ.  
2002 - Search Committee for Field Scientist position in Environmental Science & Policy, Drake Univ.  
2001 - Committee for the Development of a Center for Science, Mathematics, and Education, Drake Univ.  
2001 - Statistics Curriculum Review Committee, Drake Univ.  
2000 - Search Committee for Climatology/GIS position in Environmental Science & Policy, Drake Univ.  
1999 to 2010 - Director of the Biodiversity Center, Drake University  
1996 to 2000 - Adviser for Drake Environmental Action League

Other Academic:

2011- External Review for Associate Professor Sherri Morris, Dept. of Biology, Bradley University, Peoria, IL  
2005 - Iowa Lakeside Lab Search Committee (Director of Education and Research and Director of Operations and Outreach)  
2002 to present - Iowa Lakeside Laboratory Curriculum Committee, Iowa State Board of Regents  
1993 to 1994 - Curriculum Committee, Dept. of Botany, ISU

Professional and Community:

2024 to present – Wildlife Action Plan Committee

2020 to present – Iowa Chapter of the Sierra Club Executive Committee  
2020 to 2023 - Chair of the 2023 North American Prairie Conference Planning Committee  
2021 to 2022 - Iowa Endangered, Threatened and Special Concern Plant Working Group, Iowa DNR  
2020 to present - Whiterock Conservancy Land Stewardship Committee, Coon Rapids, IA  
2014 to 2020 - Flora of Iowa Working Group, Iowa State University  
2012 to present - Iowa Urban and Tree Council, Des Moines, IA  
2013 to 2016 - Board of Directors, Iowa Academy of Science, Cedar Falls, IA  
2012 to 2013 - Past President, Iowa Academy of Science, Cedar Falls, IA  
2011 to 2012 - President, Iowa Academy of Science, Cedar Falls, IA  
2010 to 2011 - President-elect, Iowa Academy of Science, Cedar Falls, IA  
2010 to present - Friends of Pohl Preserve Steering Committee  
2009 to 2020- Board of Trustees, The Nature Conservancy of Iowa, Des Moines, IA  
2007 to present - Botanical Consultant to the University of Iowa Press, Iowa City, IA  
2004 to present - Urban Conservation Advisory Committee, Des Moines Park and Recreation Board  
2004 to present - Louisa Ecological Advisory Committee, Big Sand Mound Preserve, Muscatine, IA  
1998 to present - Board of Advisors, Iowa Natural Heritage Foundation, Des Moines, IA  
1995 to 2000 - Science Advisory Committee, The Nature Conservancy of Iowa, Des Moines, IA  
2004 to present - Associate Editor of Botany, Journal of Iowa Academy of Science  
2004 to 2005 - Wetland Monitoring Technical Advisory Committee, Iowa Department of Natural Resources  
2004 - Iowa Statewide Urban Design and Specifications Landscaping Committee, Center for Transportation  
Research and Education, Ames, IA  
2002 to 2005 - Board of Directors, Iowa Academy of Science, Cedar Falls, IA  
1997 to 2000 - Preserves and Conservation Committee, Iowa Academy of Science

#### Offices:

2001 to 2016 - Treasurer, Iowa Natural History Association  
1998 to 2000 - President/Chair, Iowa Natural History Association  
1992-93 - Vice-President, ISU Botany Organization of Graduate Students (Organization of Annual BOGS Lecture  
April 1993)

#### **STUDENT MENTORING**

##### Graduate Student Mentor:

1999-2000: John Crowe, Master of Science in Biology, Drake University, Des Moines, IA (unfinished – left school  
May 2000 after the graduate program in Biology at Drake was terminated)  
Species relationships of Iowa *Rumex* based on genetic and morphological patterns

##### Graduate Student Committees:

2022-2024: Kristen Greteman, PhD candidate in the Department of History, Iowa State University, Ames, IA  
Reconstructing the Lost Lakes: Using historical GIS in the Prairie Pothole Region  
2004-2006: Karie Wiltshire, Master of Science in Sustainable Agriculture, Iowa State University, Ames, IA  
Factors contributing to grassland diversity at field, farm and regional levels in Marion County, Iowa.  
1998-2000: Ryan Percifield, Master of Science in Plant Pathology, Iowa State University, Ames, IA  
Effects of prescribed burning on the health and productivity of tallgrass prairies in Iowa.  
1996-97: Troy Siefert, Master of Landscape Architecture, Iowa State University, Ames, IA  
Monitoring and evaluation techniques for new Integrated Roadside Vegetation Management program plantings.  
1995-96: James Gubbels, Masters of Science in Forest Biology, Iowa State University, Ames, IA. Prescribed fire  
effects on an upland oak/hickory forest in central Iowa.

##### Graduate Student Mentorship:

2011: Ashley Wick, Master's in Renewable Resources in Conservation Biology at University of Alberta, reviewed  
and commented on methodology in research proposal

2011: Elizabeth Hill, Masters in Biology at University of South Dakota, reviewed and commented on methodology in research proposal

Undergraduate Research Mentor: Total = 27

- 2023-24: Alexis McGinnis, Drake University; A comparison and assessment of the plant species composition of prairies at Iowa Lakeside Lab and Cayler Prairie State Preserve.
- 2022: Tina Tran, Drake University; Comparison of rain and pollinator gardens for their conservation of biodiversity
- 2019-20: Andrew Hokanson, Drake University; Productivity and morphological attributes of cover crops mixes
- 2019: Sam Reber, Drake University; Environmental enrichment and its effect on enclosure use and reduction of stereotypic behavior in coyotes
- 2018-19: Molly Fisher, Simpson University, Indianola, IA; Carver Bridge Mentor, Seed banks of reconstructed and remnant prairie
- 2017: Christopher Kennedy, Drake University; Using GIS to model the benefits of urban trees
- 2016-17: Chris Aurand, Drake University; Implementing Fish and Wildlife Service monarch population and habitat monitoring protocols
- 2016-17: Sufyan Hamouda, Drake University; Fire effects in Midwest forest ecosystems
- 2015-16: Leah Robison, Drake University; Habitat assessment of ornate box turtle populations
- 2015: Kathleen Knox, Drake University; Soil carbon storage in native and reconstructed prairie
- 2014-15: Emily Stoll, Drake University; Oak regeneration along a light gradient
- 2013-14: Mathew Acree, Drake University; Fish communities and environments in urban and natural streams
- 2011-12: Laura Jones, Drake University; Seed banks of forest communities in central Iowa
- 2011: Adam Palmer, Drake University; Effects of compost on prairie seedling transplants, prairie seed production and photosynthetic rates
- 2010: Emily Sibigroth, Drake University; Effects of compost on prairie seedling transplants and prairie seed production
- 2010-11: Michael Stein, Drake University; Effects of bean and squash on the growth of corn: Investigating the “three sisters” model
- 2010-11: Johanna Desprez, Drake University; Environmental and ecophysiological impacts of goat browsing in savanna restoration
- 2009-10: Patrick Henderson, Drake University; Factors affecting seed germination of *Carex lupulina*
- 2008-10: Stephen Lauer, Drake University; Application of nicotine in the control of herbivory by aphids on beans
- 2006-07 Adrian Lee, Drake University; Ecology and energy allocation in five milkweed (*Asclepias*) species
- 2002-03 Saad Arif, Drake University; Intra- and interspecific competition between *Spartina pectinata* and *Phalaris arundinacea*.
- 2001-02 Peter Lovell, Drake University; A quantitative description of the seed bank of a degraded remnant prairie
- 2000-01 Meredith Owens, Drake University; Seed bank composition of a reconstructed prairie
- 1999-00 Heather Dudzinski, Drake University; Evaluation of Landsat imagery and aerial photography for mapping plant communities
- 1998-99 Emily Yates, Drake University; An assessment of the efficacy of using GPS for biological monitoring in natural resource management
- 1998-99 Chris Waddell, Drake University; The use of remote sensing for the assessment of quality and productivity in Iowa prairie
- 1997-98 Michele Guzman, Drake University; An evaluation of the floristic quality of mesic habitats in Brown’s Woods, Polk County, Iowa

Undergraduate Independent Study: Total = 38 students

- Fall 2023: Gabe Waz, Drake; Plant species composition of the Drake Prairie
- Fall 2023: Alex Ulin, Drake; Plant species composition of the Drake Prairie
- Fall 2023: Rachel Sents, Iowa State University; Floristic inventory and assessment of Prairie Valley Preserve, Story County, IA

- Spring 2023: Ravyn Anderson, Drake; Comparative analysis of Starch Pet Hospital and University West Pet Hospitals
- Fall 2020: Jack Lehmann, Drake; Seed mix design for native prairie seeding at the Ape Cognition and Conservation Initiative
- Fall 2020: Katelyn Kohn, Drake; Seed mix design for native prairie seeding at the Ape Cognition and Conservation Initiative
- Fall 2018 & Spring 2019: Eva Clelland, Drake; Interpretive and educational signage for Drake prairie
- Spring 2017: Sierra Larson, Drake; Ecosystem ecology
- Fall 2011: Austin Coble, Drake; Stream quality and ecology: Fall assessment
- Fall 2010: Bailey Johansen, Drake; Prairie plant survey, quality assessment and management recommendations for the Iowa Arboretum
- Fall 2010: Kyle Schura, Drake; Grazing effects on grassland bird nesting
- Spring 2010: Ethan Kerzner, Drake; Wilderness First Responder Certification
- Spring 2010: Caitlin O'Donnell, Drake; Wilderness First Responder Certification
- Spring 2010: Robin Sautter, Drake; Wilderness First Responder Certification
- Spring 2010: Lewis Baustian, Drake; Wilderness First Responder Certification
- Spring 2010: Ryan Goodson, Drake; Wilderness First Responder Certification
- Spring 2010: Nidhi Jain, Drake; Effects of urban environments on stream water quality
- Fall 2009: Nikol Biermaier, Drake; Vegetation structure of bird foraging areas on reconstructed prairie
- Fall 2009: Nikol Biermaier, Drake; Autumnal avian communities on grazed and non-grazed reconstructed prairie
- Fall 2009 & Spring 2010: Sarah Green, Drake; Seed bank composition of grazed and non-grazed reconstructed prairie
- Fall 2009: Sarah Green, Drake; Glendale Cemetery plant survey
- Spring 2009: Michael Kolosov, Drake; The genetics of Parkinson's Disease
- Spring 2009: Nick Kritz, Drake; Aquatic Ecology
- Fall 2008: Jeffrey Flory, Drake; Studies in plant biology
- Fall 2008: Justina Gray, Drake; Potential allelopathic effects of eastern red cedar
- Spring 2008: Joel Corush, Drake; Stream fish communities and water quality in an urban landscape
- Spring 2008: John Lande, Drake; Principals of Ecology
- Spring 2008: Jason Kamery, Drake; Principals of Ecology
- Fall 2007: Alexander Rajewski, Drake; Nutrient retention in dehiscing leaves among species of oak, maple and aspen
- Fall 2007: Chase Stahl, Drake; Processes and functions in ecosystem ecology
- Spring & Fall 2007: Joel Corush, Drake; Stream fish communities and water quality in an urban landscape
- Spring & Fall 2007: Graham Hopkins, Drake; Wetland bird communities at Brenton Slough
- Spring 2007: Tara Lange, Drake; Avian identification and illustration
- Spring 2007: Allison Seiwert, Drake; Introduction to plant biology
- Fall 2006: Joel Corush, Drake; Stream fish communities and water quality in an urban landscape
- Fall 2006: Rebecca Nott, Drake; Floristic surveys of Sandhill Prairie and Strasser Woods
- Spring 2006: Rebecca Nott, Drake; Introductory wildland fire behavior and firefighting
- Spring 2002: Holly Karnitz, Drake; Plant succession in ecotonal habitats of the Loess Hills in western Iowa
- Spring & Fall 2001: Holly Karnitz, Drake; Plant succession in ecotonal habitats of the Loess Hills in western Iowa
- Spring 2001: Kim Bahr, Drake; Principles of conservation biology
- Spring 2000: Peggy Bakalyar, Drake; Winter twig collection and identification
- Summer 1999: Sarah Bidney, Simpson College; Field sampling prairie vegetation for biomass production and leaf area index
- Fall 1998: Sue Browning, Drake; Midwestern herbals in the lives of Native Americans and early settlers
- Spring 1998: Marna Yandean, Drake; Advanced plant biology

## PROFESSIONAL SOCIETIES

- |                               |                                      |
|-------------------------------|--------------------------------------|
| Ecological Society of America | Natural Areas Association            |
| Botanical Society of America  | North Dakota Natural Science Society |

Iowa Academy of Science

### INVITED DISCUSSION/INTERVIEW FOR RADIO OR TELEVISION

#### 2023

- Jan. WHO Saturday Morning Live
- Feb. Local Talk, KHOI Radio

#### 2022

- April Local Talk, KHOI Radio

#### 2018

- June Iowa Land and Sky: Big Sand Mound, Louisa County, IA – Iowa Public Television
- July Iowa Land and Sky: Engeldinger Marsh, Polk County, IA – Iowa Public Television

#### 2012

- Apr. Guest speaker on Prairie Restoration and Management – Iowa Public Radio Talk of Iowa Program

#### 2010

- July Guest speaker on Plant Biodiversity – Iowa Public Radio Exchange Program

### INVITED PUBLIC PROGRAMS

#### 2024 No. 428-456

- Feb. *Identification and Ecology for Viola in Iowa* (webinar) – Golden Hills RC&D, Oakland, IA
- Feb. *Plant Identification- Native and Non-Native Thistles* – Iowa Prairie Network Winter Seminar, Ames, IA
- Feb. *Drake Prairie Rescue and Restoration Internship Program* – Iowa Prairie Network Winter Seminar, Ames, IA
- Feb. *Identification and Ecology for Iowa Native Shrubs* (webinar) – Golden Hills RC&D, Oakland, IA
- Mar. *Identification and Ecology for Elymus in Iowa* (webinar) – Golden Hills RC&D, Oakland, IA
- Mar. *Identification of Invasive and Native Look-alike Plant Species in Iowa* (webinar) – Golden Hills RC&D, Oakland, IA
- Mar. *Five hundred million years of evolution: Fossils of trilobites to ancient bison* – 39<sup>th</sup> Prairie Preview, Iowa City, IA
- Mar. Field trip leader for Iowa Native Plant Society pasque flower hunt at Loess Hills Overlook in the Loess Hills State Forest, Monona County, IA
- Apr. Panel Discussion on Soil Heath, Drake Environmental Action League, Drake University, Des Moines, IA
- May Field trip leader for the Iowa Chapter of the Sierra Club at Whiterock Conservancy, Guthrie County, IA
- May Field trip leader for the Friends of Pohl Prairie at Pohl Prairie Preserve, Story County, Ames, IA
- May *Plants of oxbow wetlands: Oxbow restoration on Bear Creek at Native Prairie Bison* – Oxbow Restoration Event, Alluvial Brewing, Ames, IA
- June *Prairie flora of the Loess Hills* – 47<sup>th</sup> Loess Hills Prairie Seminar, Castana, IA
- June *Making friends with sedges* – 47<sup>th</sup> Loess Hills Prairie Seminar, Castana, IA
- June *Nature scavenger hunt for kids* – 47<sup>th</sup> Loess Hills Prairie Seminar, Castana, IA
- June *Five hundred million years of evolution: Fossils of trilobites to ancient bison* – 47<sup>th</sup> Loess Hills Prairie Seminar, Castana, IA
- June Field trip leader for the Iowa Native Plant Society and Bur Oak Land Trust at Corriell Nature Preserve, Muscatine County, IA
- June *Introduction to prairies* – Master Conservationist Program, Don Williams Park, Boone County Conservation, Ogdon, IA.
- June Field trip leader for Friends of Big Rock Park, Plant Foray, Big Rock Park Pella, IA
- June Field trip leader for Raccoon River Watershed Association at Scheib Prairie, Perry, IA
- July Field trip leader for Story County Conservation at Doolittle Prairie State Preserve, Story City, IA

- July *Cyperaceae and Juncaceae Identification* (3-day workshop) sponsored by Nahant Marsh Education Center – Lucille A. Carver Mississippi Riverside Environmental Research Station, Muscatine County, Fairport, IA
- July *Prairie management: Non-native grasses* – 2024 Iowa State Horticulture Research Station Prairie Field Day, Ames, IA
- Aug. Field trip leader for Iowa Natural Heritage Foundation and Iowa Prairie Network at Wildin Prairie, Kossuth County, IA
- Aug. Field trip leader for Story County Conservation at Doolittle Prairie State Preserve, Story City, IA
- Sept. Field trip leader for The Nature Conservancy of Iowa at Land of the Swamp White Oak, Muscatine County, IA
- Sept. Field trip leader for Friends of Big Rock Park, Plant Foray, Big Rock Park Pella, IA
- Sept. Field trip leader for Story County Conservation at Doolittle Prairie State Preserve, Story City, IA
- Oct. *Sensitive Areas Inventory: The conservation of biodiversity on private land* – Story County Sensitive Area Inventory Field Day, David and Delora Hade, Ames, IA

### 2023 No. 394-427

- Jan. *Imperiled Plants of Iowa* – Greater Des Moines Botanical Garden Learn on Saturdays Lecture Series, Des Moines, IA
- Feb. *Invasive Species* – Master Gardeners, Iowa State University Extension, Altoona, IA
- Feb. *Ecology of Fire (101)* – Master Gardeners, Iowa State University Extension, Altoona, IA
- Feb. Reading from *Tending Iowa's Land: Pathways to a Sustainable Future*, Dog-Eared Bookstore, Ames, IA
- Feb. *Identification of Lactuca and Prenanthes* (webinar) – Golden Hills RC&D, Oakland, IA
- Feb. *Identification of Iowa Orchidaceae* (webinar) – Golden Hills RC&D, Oakland, IA
- Feb. *Ecology of Fire* (webinar) – Golden Hills RC&D, Oakland, IA
- Feb. *Identification of Prairie Seedlings* - Mini-Workshop, Iowa Prairie Network Winter Seminar, Drake University, Des Moines, IA
- Feb. *Tending Iowa's Land: Visions for a More Resilient Future*, Iowa Prairie Network Winter Seminar, Drake University, Des Moines, IA
- Mar. *Native Fern Identification* (webinar) – Golden Hills RC&D, Oakland, IA
- Mar. *Persicaria (smartweeds) identification* (webinar) – Golden Hills RC&D, Oakland, IA
- Mar. *Native seedling identification* (webinar) – Golden Hills RC&D, Oakland, IA
- Mar. *Tending Iowa's Land – Iowa's rich biodiversity legacy: A vision for the future*, 38<sup>th</sup> Prairie Preview, Iowa City, IA
- Mar. *The role of remnants and reconstruction in prairie conservation*, Friends of Neal Smith Wildlife Refuge, Prairie City, IA
- Apr. Panel Discussion for Climate Teach-In, Drake Environmental Action League, Drake University, Des Moines, IA
- May Field trip leader for Story County Conservation at Doolittle Prairie State Preserve, Story City, IA
- June *Prairie flora of the Loess Hills* – 46<sup>th</sup> Loess Hills Prairie Seminar, Castana, IA
- June *Introduction to fire ecology* – 46<sup>th</sup> Loess Hills Prairie Seminar, Castana, IA
- June *Nature scavenger hunt for kids* – 46<sup>th</sup> Loess Hills Prairie Seminar, Castana, IA
- June *Tending Iowa's Land – Iowa's rich biodiversity legacy: A vision for the future* – 46<sup>th</sup> Loess Hills Prairie Seminar, Castana, IA
- June *Five hundred million years of evolution: Fossils of trilobites to ancient bison* – 46<sup>th</sup> Loess Hills Prairie Seminar, Castana, IA
- June Field trip leader for Master Conservationist Program, Story County Conservation, Couser Prairie, Nevada, IA
- June Field trip leader for Natural History Photography – Big Sand Mound Preserve Field Day, Muscatine, IA
- June Field trip leader for Exploring the Big Sand Mound – Big Sand Mound Preserve Field Day, Muscatine, IA
- June Field trip leader for Fire Ecology – Big Sand Mound Preserve Field Day, Muscatine, IA
- June Field trip leader for Prairie Management – Big Sand Mound Preserve Field Day, Muscatine, IA
- June Field trip leader for Story County Conservation at Doolittle Prairie State Preserve, Story City, IA
- June *Tending Iowa's Land – Iowa's rich biodiversity legacy: A vision for the future* (webinar) – Iowa Farmers Union
- July Field trip leader for Iowa Prairie Network at Losee Prairie, Dallas County, IA

- July Field trip leader for Story County Conservation at Doolittle Prairie State Preserve, Story City, IA
- Aug. Illinois and Iowa Native Plant Societies Workshop on *How to Conduct Floristic Inventories and Sample Vegetation*, Wildcat Den State Park, Muscatine County, IA
- Aug. Field trip leader for Iowa Native Plant Society at Brush Creek Canyon State Preserve, Fayette County, IA
- Sept. Field trip leader for Iowa Native Plant Society at Hitchcock Nature Area, Pottawattamie County, IA
- Sept. Field trip leader for Story County Conservation at Doolittle Prairie State Preserve, Story City, IA

### 2022 No. 363-393

- Feb. *Identification of plant families* (webinar) – Golden Hills RC&D, Oakland, IA
- Feb. *Identification and ecology of native Fabaceae, or bean family species* (webinar) – Golden Hills RC&D, Oakland, IA
- Feb. *Plant evolution and diversity* (webinar) - Golden Hills RC&D, Oakland, IA
- Mar. *Identification and ecology of Salix, or willow species* (webinar) - Golden Hills RC&D, Oakland, IA
- Mar. *Designing native seed mixes* (webinar) - Golden Hills RC&D, Oakland, IA
- Mar. *Sunflower identification and ecology* - Mini-Workshop, Iowa Prairie Network Winter Meeting, Drake University, Des Moines, IA
- Mar. *The science behind the Van Oel Prairie transplant* - Iowa Prairie Network Winter Meeting, Drake University, Des Moines, IA
- Mar. *Identification and ecology of native Rosaceae, or rose family species* (webinar) - Golden Hills RC&D, Oakland, IA
- Mar. *Identification and ecology of Cardueae, the tribe for thistle species* (webinar) - Golden Hills RC&D, Oakland, IA
- Apr. *Identification of common weeds and invasive species of Iowa* (webinar) - Golden Hills RC&D, Oakland, IA
- May Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- May Prairie ecosystems: Field classes at Raymond, Born and Doolittle Prairies - Master Naturalist Program
- June *Urban plant tours with Tom Rosburg – Des Moines Parks and Recreation* (webinar) - Iowa Storm Water Education Partnership
- June *Prairie flora of the Loess Hills – 45<sup>th</sup> Loess Hills Prairie Seminar*, Monona County, IA
- June *Making friends with sedges – 45<sup>th</sup> Loess Hills Prairie Seminar*, Monona County, IA
- June *Nature scavenger hunt for kids – 45<sup>th</sup> Loess Hills Prairie Seminar*, Monona County, IA
- June *Urban plant tours with Tom Rosburg – Iowa City Parks and Recreation* (webinar) - Iowa Storm Water Education Partnership
- June Field trip leader for Big Rock Park Foray, Pella, IA
- June *All things plants* (3-day workshop) – Chichaqua Bottoms Greenbelt, Maxwell, IA
- June *Sedge refresher class* (2-day workshop) – Chichaqua Bottoms Greenbelt, Maxwell, IA
- June Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- July Field trip leader for Iowa Native Plant Society at Tipton Prairie, Greene County, IA
- July *Urban plant tours with Tom Rosburg – Ames Parks and Recreation* (webinar) - Iowa Storm Water Education Partnership
- July Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- July Field trip leader for Iowa Prairie Network at Maxwell Prairie, Clarke County, IA
- Aug. *Poaceae Identification & Ecology* (3-day workshop) – Pottawattamie County Conservation Board, Hitchcock Nature Center, Honey Creek, IA
- Aug. *Urban plant tours with Tom Rosburg – Whiterock Conservancy* (webinar) - Iowa Storm Water Education Partnership
- Aug. Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- Sept. Field trip leader for Friends of Pohl Prairie at Pohl Prairie State Preserve, Story County, IA
- Sept. Field trip leader for Iowa Native Plant Society at Mossy Glen State Preserve, Clayton County, IA
- Oct. Field trip leader for Iowa Prairie Network at Loess Hills State Forest, Monona County, IA

### 2021 No. 340-362

- Jan. *Identification and ecology of native asters* (webinar) – Golden Hills RC&D, Oakland, IA

- Jan. *Identification and ecology of native goldenrods* (webinar) – Golden Hills RC&D, Oakland, IA
- Jan. *Identification and ecology of native sunflowers* (webinar) – Golden Hills RC&D, Oakland, IA
- Jan. *Identification and ecology of Liatris, or blazingstar species* (webinar) – Iowa Prairie Network Winter Meeting
- Feb. *Identification and ecology of native milkweeds* (webinar) – Golden Hills RC&D, Oakland, IA
- Feb. *Identification and ecology of native mints* (webinar) – Golden Hills RC&D, Oakland, IA
- Mar. *Identification and ecology of native mints* (webinar) – Golden Hills RC&D, Oakland, IA
- Mar. *Identification and ecology of native sedges* (webinar) – Golden Hills RC&D, Oakland, IA
- Mar. *Identification and ecology of native mustards* (webinar) – Golden Hills RC&D, Oakland, IA
- Mar. *Coefficients of conservatism* (webinar) – Golden Hills RC&D, Oakland, IA
- Apr. *Iowa's imperiled plants* (webinar) – Master Gardener Class
- Apr. *An overview of some of Iowa's awesome plants and their nifty adaptations* (webinar) – Master Gardener Class
- May *Invasive plant species with Tom Rosburg – Pastureland Story County* (webinar) - Iowa Storm Water Education Partnership
- May Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- June *Prairie flora of the Loess Hills* – 44<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June Field trip leader for Hitchcock Nature Center BioBlitz, Pottawattamie County Conservation, Crescent, IA
- June *Invasive plant species with Tom Rosburg – Abandoned farmland Linn County* (webinar) - Iowa Storm Water Education Partnership
- June Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- July Field trip leader for the Iowa Prairie Conference Gems of Madison County, Iowa Prairie Network
- July Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- Aug. *Introduction to prairies* – Master Conservationist Program, Maynes Grove, Franklin County Conservation, Hampton, IA.
- Aug. *Invasive plant species with Tom Rosburg – Ada Hayden Park Story County* (webinar) - Iowa Storm Water Education Partnership
- Sept.. *Invasive plant species with Tom Rosburg – Ciha Preserve Johnson County* (webinar) - Iowa Storm Water Education Partnership

## 2020 No. 328-339

- Jan. *Sorting out the asters: Symphyotrichum, Eurybia, Doellingeria and Ionactis* – Mini-Workshop, Iowa Prairie Network Winter Seminar, Ames High School, Ames, IA
- Jan. Panel Discussion on *Prairie seed selection - do's and don'ts* – Iowa Prairie Network Winter Seminar, Ames High School, Ames, IA
- Feb. *The natural history of Iowa's special landscapes (Loess Hills)* – Master Gardener Class, Altoona, IA
- Feb. *The natural history of Iowa's special landscapes (Fens)* – Master Gardener Class, Altoona, IA
- Feb. *The natural history of Iowa's special landscapes (Paleozoic Plateau)* – Master Gardener Class, Altoona, IA
- Feb. *The natural history of Iowa's special landscapes (Sand Prairies)* – Master Gardener Class, Altoona, IA
- May Field trip leader at Tipton Prairie for Raccoon River Watershed Association, Cooper, IA
- June *Native plant tours with Tom Rosburg* (webinar) – *Central Iowa (Story County)* - Iowa Storm Water Education Partnership
- July *Native plant tours with Tom Rosburg* (webinar) – *Loess Hills (Monona County)* - Iowa Storm Water Education Partnership
- Aug. *Native plant tours with Tom Rosburg* (webinar) – *Eastern Iowa (Johnson County)* - Iowa Storm Water Education Partnership
- Aug. Field trip leader at Doolittle Prairie State Preserve for Story County Conservation, Story City, IA
- Sept. *Native plant tours with Tom Rosburg* (webinar) – *Southern Iowa (Mahaska & Wapello Counties)* - Iowa Storm Water Education Partnership

## 2019 No. 303-327

- Jan. *Those amazing milkweeds: Biology, ecology and identification of Iowa's milkweed species* – Mini-Workshop, Iowa Prairie Network Winter Seminar, Ames High School, Ames, IA



- Jan. *Effects of past and present cattle grazing on the plant species composition of tallgrass prairie* – Iowa Prairie Network Winter Seminar, Ames High School, Ames, IA
- Feb. *Mapping and evaluating conservation landscapes in Story County* – O.W.L.S. Story County Conservation, McFarland Park, Ames, IA
- Feb. *Using grasses in landscaping* – Sunset Garden Club, Des Moines, IA
- Feb. *Origin, development and flora of the tallgrass prairie* – Master Gardener Class, Altoona, IA
- Feb. *Threats to the tallgrass prairie: Managing invasive species* – Master Gardener Class, Altoona, IA
- Mar. *Floral jewels of the tallgrass prairie (with focus on Doolittle Prairie)* – Outdoor Alliance of Story County, Ames, IA
- Mar. *Global Climate Change Panel Discussion* – Mighty Earth Forum, Public Library, Des Moines, IA
- Apr. *Mapping and evaluating conservation landscapes in Story County* – Iowa County Conservation District 1, McFarland Park, Ames, IA
- May Field trip leader at Pohl Prairie Preserve for Friends of Ames High Prairie, Ames, IA
- May Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- June Field trip leader for Nature Mapping Foray at Winterset Park, Winterset, IA
- June *Prairie flora of the Loess Hills* – 43<sup>rd</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Prairie ecology* – 43<sup>rd</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Nature scavenger hunt for kids* – 43<sup>rd</sup> Loess Hills Prairie Seminar, Monona County, IA
- June Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- June Field trip leader for “Day in the Field” at Winterset Park, Winterset, IA
- June *Cyperaceae and Juncaceae Identification (3-day workshop)* – Chichaqua Bottoms Greenbelt, Maxwell, IA
- June Field trip leader for Iowa Native Plant Society at Ron Eckoff Prairie, St. Charles, IA
- July Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- Aug. Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- Aug. *Poaceae Identification (3-day workshop)* – Johnson County Conservation Board, Kent Park, Oxford, IA
- Aug. *Asteraceae Identification (3-day workshop)* – Whiterock Conservancy, Coon Rapids, IA
- Sept. *Plant ecology and the Des Moines Parks Natural Resources Inventory* – Polk County Conservation Summer Intern Program, Ashland Park, Des Moines, IA
- Sept. *Wetland plant identification workshop* – Iowa Storm Water Education Partnership, Ames, IA

## 2018 No. 277-302

- Jan. *The vascular plants of Iowa update* – Iowa Prairie Network Winter Seminar, Ames High School, Ames, IA
- Jan. *Celebrating Loren Lown: Polk County’s conservation giant* – Iowa Prairie Network Winter Seminar, Ames High School, Ames, IA
- Mar. *A primer on grasses and their use in landscaping* – Greater Des Moines Botanical Garden, Des Moines, IA
- Apr. *Identification of native Iowa trees* – Re-Leaf Des Moines Short Course, Des Moines, IA
- Apr. *Urban and backyard woodlands and forests* – Re-Leaf Des Moines Short Course, Des Moines, IA
- Apr. *Tree biology and growth* – Re-Leaf Des Moines Short Course, Des Moines, IA
- May Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- June *Prairie flora of the Loess Hills* – 42<sup>nd</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Grassland fire ecology* – 42<sup>nd</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Plant ecology and the Des Moines Parks Natural Resources Inventory* – Polk County Conservation Summer Intern Program, Ashland Park, Des Moines, IA
- June *Mapping and evaluating conservation landscapes in Story County, Iowa* – Story County Conservation Staff, McFarland Park, Ames, IA
- June *Responses of the vegetation at Robison Wildlife Acres, Story County, to seven years of restoration management* – Story County Conservation Staff, McFarland Park, Ames, IA
- June *Invasive plant species* – Polk County Master Gardeners, Urbandale, IA
- June Bioblitz - Chichaqua Bottoms Greenbelt, Maxwell, IA
- June *Natural history of the Big Sand Mound and photography* – Big Sand Mound Field Day, Muscatine, IA
- June *Exploring the Big Sand Mound for Flora and Fauna* – Big Sand Mound Field Day, Muscatine, IA
- June *Fire Ecology & Prairie Management* – Big Sand Mound Field Day, Muscatine, IA

- June Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- July Field trip leader for Iowa Native Plant Society at Paule Preserve, Winterset, IA
- July Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA
- July Field trip leader for Raccoon River Watershed Association at Tipton Prairie, Rippey, IA
- July *Introduction to Prairies* – Master Conservationist Program, Floyd County Conservation, Fossil Prairie Park, Rockford, IA.
- July *Cyperaceae and Juncaceae Identification* (3-day workshop) – Port Louisa NWR, Wapello, IA
- Aug. Field Trip leader for Iowa Prairie Network Annual Meeting at Whiterock Conservancy, Coon Rapids, IA
- Aug. *Poaceae Identification* (3-day workshop) – Whiterock Conservancy, Coon Rapids, IA
- Aug. Field trip leader for Story County Conservation Board at Doolittle Prairie State Preserve, Story City, IA

**2017 No. 266-276**

- Jan. *Exploring plants through photography* – Muscatine Branching Out/Trees Forever, Muscatine, IA
- Jan. *A prairie photo journey and quiz* – Iowa Prairie Network Central Region Winter Meeting, Ames, IA
- Mar. *A prairie photo journey and quiz* – Iowa Weed Commissioners' Invasive Species Conference, Ames, IA
- May Field trip leader for Raccoon River Watershed Association at Tipton Prairie, Rippey, IA
- June *Prairie flora of the Loess Hills* – 41<sup>st</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Grassland fire ecology* – 41<sup>st</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Cyperaceae Identification* (3-day workshop) – Whiterock Conservancy, Coon Rapids, IA
- July *Iowa's prairie heritage* – Green Hills Retirement Community, Ames, IA
- Sep. Field trip leader for Metro Waste Environmental Learning Center - Fish collecting, Runnells, IA
- Sep. *Understanding and controlling depth of field* – 12<sup>th</sup> Annual Living History Farms Photography Days
- Sep. *Creating impact in your wildflower and plant photography* – 12<sup>th</sup> Annual Living History Farms Photography Days

**2016 No. 258-265**

- Jan. Field trip leader for Iowa Prairie Network Central Region Winter Meeting at Pohl Prairie State Preserve, Ames, IA
- May Field trip leader *Forest ecosystems and plants* – Whiterock Conservancy Field Days, Guthrie County, Coon Rapids, IA
- May Field trip leader *Evaluation of prairie reconstruction* – Whiterock Conservancy Field Days, Guthrie County, Coon Rapids, IA
- May *Prairie flora of the Loess Hills* – 40<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Prairie ecology* – 40<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Native Plant Identification and Management Workshop II* - Wickiup Hill Outdoor Learning Center, Toddville, IA
- June *Native Plant Identification and Management Workshop II* – Chichaqua Bottoms Greenbelt, Maxwell, IA
- July Field trip leader for Metro Waste & Drake University Environmental Camp - Fish collecting, Runnells, IA
- Aug. *Grass Identification* (3-day workshop) – CERA, Grinnell College, Grinnell, IA

**2015 No. 244-257**

- Jan. *Preview of Wildflowers and other Plants of Iowa Wetlands* – Iowa Prairie Network Central Region Winter Meeting, Des Moines Area Community College, Ankeny, IA
- May Field trip leader for Iowa Native Plant Society at Bixby State Preserve, Backbone State Park and Heritage Valley, Northeast Iowa
- May *Prairie flora of the Loess Hills* – 39<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Prairie ecology* – 39<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Botanical gems of Iowa's wild places* – 39<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Cyperaceae identification* (2 day workshop) – CERA, Grinnell College, Grinnell, IA
- July *Ecological Site Descriptions* – Whiterock Conservancy Field Days, Guthrie County, Coon Rapids, IA
- July Field trip leader for Whiterock Conservancy Field Days, Guthrie County, Coon Rapids, IA

- July *Wetland plant identification* – Whiterock Conservancy Field Days, Guthrie County, Coon Rapids, IA
- Aug. Field trip leader for Living Roadway Trust Fund at Sylvan Runkel State Preserve, Monona County, Castana, IA
- Sept. *Native plant identification workshop: Growing native in Iowa's urban areas* – Iowa Storm Water Education Program, Ankeny, IA
- Sept. *Understanding and controlling depth of field* – 10<sup>th</sup> Annual Living History Farms Photography Days
- Sept. *Creating impact in your wildflower and plant photography* – 10<sup>th</sup> Annual Living History Farms Photography Days
- Sept. Field trip leader for The Nature Conservancy at Tiffany Prairie, Buena Vista County, Linn Grove, IA

#### 2014 No. 232-243

- May *Prairie flora of the Loess Hills* – 38<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- May Field trip leader for Iowa Natural Heritage Foundation field day at Turin Prairie, Monona County, Turin, IA
- June *Prairie ecology* – 38<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June Field trip leader for Bioblitz at Eden Park, Louisa County Conservation Board, Wapello, IA
- June *Invasive species* – Izaak Walton League, Des Moines, IA
- June Field trip leader for Bioblitz at Whiterock Conservancy, Guthrie County, Coon Rapids, IA
- June *Nature Photography Workshop* – Port Louisa National Wildlife Refuge, Wapello, IA
- Aug. Field trip leader for Kids on the Byway Environmental Field Camp, Prairie Rivers, Ames, IA
- Sept. *Understanding and controlling depth of field* – 9<sup>th</sup> Annual Living History Farms Photography Days
- Sept. *Get creative, change to manual mode* – 9<sup>th</sup> Annual Living History Farms Photography Days
- Sept. *Creating impact in your wildflower and plant photography* – 9<sup>th</sup> Annual Living History Farms Photography Days
- Dec. Panel member for Waukee Junior High Science Fair presentations, Waukee, IA

#### 2013 No. 221-231

- Jan. *Going wild: Botanizing Iowa's tallgrass prairie* – Iowa Prairie Network Central Region Winter Meeting, Des Moines Area Community College, Ankeny, IA
- Mar. *A natural resource inventory of Des Moines parks and open space* – Central Iowa Sierra Club, Des Moines, IA
- Apr. *Soil: The foundation of ecosystems* – Environmental Field Day, Cowles Elementary School, Des Moines, IA
- June *Sedge identification (2 day workshop)* – Luther College, Decorah, IA
- June Field trip leader for Raccoon River Watershed Association hike at Tipton Prairie, Green County, Rippey, IA
- July Field trip leader for Metro Waste and Drake University Environmental Camp - Fish collecting, Pleasant Hill, IA
- July Field trip leader for Metro Waste and Drake University Teachers Workshop - Fish collecting, Pleasant Hill, IA
- July Field trip leader for Bioblitz at Whiterock Conservancy, Guthrie County, Coon Rapids, IA
- Aug. Field trip leader for Iowa Native Plant Society hike at Losee Prairie, Dallas County, Redfield, IA
- Aug. Field trip leader for Kids on the Byway Environmental Field Camp, Prairie Rivers, Ames, IA
- Sept. Field trip leader and host for Iowa Prairie Network annual meeting, hikes at Marietta Prairie Preserve, Hildebrand-Maddux Prairie, Jennett Prairie, Story and Marshall Counties, IA

#### 2012 No. 201-220

- Jan. *BioBlitzes: Multipurpose events for science, education and celebration* – Iowa Prairie Network Central Region Winter Meeting, Des Moines Area Community College, Ankeny, IA
- June *Grassland fire ecology* – 36<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Prairie flora of the Loess Hills* – 36<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Wetland ecology and field identification of wetland plants* – 36<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Common plants of Loess Hills woodlands and forests* – 36<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Loess Hill prairies* – R.T. Reese Homestead Dedication, Iowa Natural Heritage Foundation
- June Field trip leader for Bioblitz at Whiterock Conservancy, Guthrie County, Coon Rapids, IA

- June *Photographic and ecological exploration: flora, fauna and landscapes* – Big Sand Mound Field Day, Muscatine, IA
- June *Discovering the flora of Big Sand Mound* – Big Sand Mound Field Day, Muscatine, IA
- June *Three rules for making nature images with impact* – Big Sand Mound Field Day, Muscatine, IA
- June Field trip leader for Iowa Wildlife Center Bioblitz at Wildway, Boone, County, IA
- July *Threats to Biodiversity: Invasive Plants* – Saylorville Lake, US Army Corps of Engineers, Johnston, IA
- Aug. *Introduction to Prairies* – Master Conservationist Program, Floyd County Conservation, Fossil Prairie Park, Rockford, IA.
- Sept. Field trip leader for Iowa Wildlife Center Bioblitz at Wildway, Boone, County, IA
- Sept. *Understanding and Controlling Depth of Field* – 7<sup>th</sup> Annual Living History Farms Photography Days
- Sept. *To Get Creative, Change to Manual Mode* – 7<sup>th</sup> Annual Living History Farms Photography Days
- Sept. *Creating Impact in your Wildflower and Plant Photography* – 7<sup>th</sup> Annual Living History Farms Photography Days
- Sept. *The Natural History of Whiterock Conservancy* – Annual Meeting of the Sierra Club, Whiterock Conservancy, Coon Rapids, IA
- Sept. Field trip leader for Sierra Club hike at Whiterock Conservancy, Coon Rapids, IA
- Sept. Field trip leader for stream fish sampling and ecology for Southeast Polk High School class at Metro Park East Landfill, Des Moines, IA

**2011 No. 186-200**

- Jan. *Prairie ecology, structure, function and composition* – Des Moines Audubon, Des Moines, IA.
- Feb. *Three more High Points for 2009* – Colo Lions Club, Colo IA.
- May Environmental Education Field Project: Monitoring Bird Populations – 7<sup>th</sup> Grade class, Eddyville/Blakesburg Community School
- June *Grassland fire ecology* – 35<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Prairie flora of the Loess Hills* – 35<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Wetland ecology and field identification of wetland plants* – 35<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Common plants of Loess Hills woodlands and forests* – 35<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Sedge identification (2 day workshop)* – Grinnell College, CERA Field Lab, Kellogg, IA
- July *Wildflowers of the tallgrass prairie* – Saylorville Lake, US Army Corps of Engineers, Johnston, IA
- July Field trip leader for Metro Waste and Drake University Environmental Camp - Fish collecting , Des Moines, IA
- July *Those amazing plants: Botany 101* – Brenton Arboretum, Dallas Center, IA
- Aug. Field trip leader for Chichaqua Field Day, Leopold Center for Sustainable Agriculture
- Sept. *Understanding and Controlling Depth of Field* – 6<sup>th</sup> Annual Living History Farms Photography Days
- Sept. *To Get Creative, Change to Manual Mode* – 6<sup>th</sup> Annual Living History Farms Photography Days
- Sept. *Film and the Essence of Photography* – 6<sup>th</sup> Annual Living History Farms Photography Days

**2010 No. 171-185**

- Feb. *Conservation of Iowa's working landscape* – An Evening of Support for Whiterock Conservancy, Kate Garst Residence, Des Moines, IA
- Apr. *Prairie ecology, structure, function and composition* – Big Bluestem Audubon Society, Ames, IA
- May *Grassland fire ecology* – 34<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Prairie flora of the Loess Hills* – 34<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Wetland ecology and field identification of wetland plants* – 34<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Common plants of Loess Hills woodlands and forests* – 34<sup>th</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Beginning nature photography* – Prairie Rivers Resource, Conservation & Development, Ames, IA
- June Field trip leader for The Nature Conservancy Savanna Field Day, O'Brien County Prairie Heritage Center, Peterson, IA
- June *Getting to know Iowa's native plants* – Baxter Garden Club, Baxter, IA

- June Field trip leader for Iowa Native Plant Society and Raccoon River Watershed Association at Tipton Prairie, Green County, Rippy, IA
- July *Iowa's threatened and endangered flora* – Iowa Lakeside Lab, Milford, IA
- July *Sedge, rush and grass identification*: Field trip leader to local wetlands – NRCS Wetland Plant ID Training, July 7 & 8, Hardin County Conservation Center, Iowa Falls, IA
- Aug. Field trip leader for Chichaqua Field Day, Leopold Center for Sustainable Agriculture
- Sept. Environmental Education Field Project: Monitoring Plant Populations – 7<sup>th</sup> Grade class, Eddyville/Blakesburg Community School
- Oct. *Getting to know Iowa's native plants* – Marshalltown Deanery of Archdiocesan Council of Catholic Women, Colo, IA

### 2009 No. 155-170

- Jan. *Drake Prairie Rescue and Restoration Internship Program* – Iowa Prairie Network Central Region Winter Meeting, Des Moines Area Community College, Ankeny, IA
- Jan. *Iowa's imperiled plants* – Iowa Conservation Education Coalition Winter Solstice Workshop “No Child Left Inside”, Honey Creek Resort State Park, Lake Rathbun, Moravia, IA
- Mar. *The grassland legacy of Iowa's Loess Hills* – Deerfield Retirement Community, Urbandale, IA
- May *Grassland fire ecology* – 33<sup>rd</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Prairie flora of the Loess Hills* – 33<sup>rd</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Wetland ecology and field identification of wetland plants* – 33<sup>rd</sup> Loess Hills Prairie Seminar, Monona County, IA
- June Field trip leader for Pottawattamie County Conservation Board Bioblitz at Hitchcock Nature Area, Crescent, IA
- June Field trip leader for Iowa Natural Heritage Foundation Bioblitz at Heritage Valley, Allamakee County, Waukon, IA
- June *Discovering the flora of Big Sand Mound* – Big Sand Mound Field Day, Muscatine, IA
- June *Three rules for making nature images with impact* – Big Sand Mound Field Day, Muscatine, IA
- June Sedge Field Day Short Course – Polk County Conservation Board, Elkhart, IA
- July *The wild and wonderful world of the Asteraceae: Tips for identification* – Brenton Arboretum, Dallas Center, IA
- Sept. *The grassland legacy of Iowa's Loess Hills* – Saylorville Lake, US Army Corps of Engineers, Johnston, IA
- Sept. *So what does a plant ecologist do?* – Colo Lions Club, Colo IA.
- Sept. *Ecological research at Chichaqua Bottoms Greenbelt, Polk CCM* – Iowa Native Plant Society, Elkhart, IA
- Dec. *High adventure: Climbing on Mount Rainier* – Drake Outdoor Leadership Club, Drake University

### 2008 No. 141-154

- Jan. *Prairie restoration: prairie renewal or homogenization?* – Iowa Prairie Network Central Region Winter Meeting, Des Moines Area Community College, Ankeny, IA
- Mar. *Introduction to Ecology* – Master Conservationist Program, Dickinson County Conservation, Iowa Lakeside Lab, IA.
- May Field trip leader for Iowa Natural History Association Bioblitz at Whiterock Conservancy, Guthrie County, Coon Rapids, IA
- May *Using plants for assessment of habitat quality: application to Loess Hill prairies* – 32<sup>nd</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Grassland fire ecology* – 32<sup>nd</sup> Loess Hills Prairie Seminar, Monona County, IA
- May *Prairie flora of the Loess Hills* – 32<sup>nd</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Making friends with sedges and other incorrigible plants* – 32<sup>nd</sup> Loess Hills Prairie Seminar, Monona County, IA
- June *Carex morphology: sedge identification* (2 day workshop) – Grinnell College, CERA Field Lab, Kellogg, IA
- July *Wetland plant identification workshop* -- Iowa Living Roadway Trust, Pocahontas County Conservation Board, Pocahontas, IA
- July Field trip leader for Iowa Native Plant Society at Ray Prairie, Bremer County, Waverly, IA

- July *Prairie restoration: prairie renewal or homogenization?* – Iowa Lakeside Lab, Milford, IA
- July *Western influence on western Iowa prairies* – Iowa Prairie Network Annual Meeting, Whiterock Conservancy, Coon Rapids, IA
- Aug. Field trip leader for Iowa Natural Heritage Foundation Bioblitz Heritage Valley, Allamakee County, Waukon, IA
- Sept. *Some of Iowa's awesome plants and their nifty adaptations* – Saylorville Lake, US Army Corps of Engineers, Johnston, IA

**2007: No. 132-140**

- Jan. *Q & A Panel Discussion on Prairie Restoration and Management* – Iowa Prairie Network Central Region Winter Meeting, Des Moines Area Community College, Ankeny, IA
- Mar. *Have you seen this listed plant species?* – Iowa Prairie Network Region 7, Oskaloosa, IA
- April *Making Nature Images with Impact: Photographic workshop* – North Central Camera Club Council, Springbrook Conservation Center, Guthrie Center, IA
- May Field trip leader for Iowa Natural Heritage Foundation Bioblitz Heritage Valley, Allamakee County, Waukon, IA
- June *Grassland fire ecology* – 31st Loess Hills Prairie Seminar, Monona County, IA
- June *Prairie flora of the Loess Hills* – 31st Loess Hills Prairie Seminar, Monona County, IA
- June *Common plants of woodlands and forests* – 31st Loess Hills Prairie Seminar, Monona County, IA
- July Field trip leader for Iowa Prairie Conference at the Sylvan Runkel State Preserve, Monona County, Castana, IA
- July Field trip leader for Iowa Natural Heritage Foundation Bioblitz at Heritage Valley, Allamakee County, Waukon, IA

**2006: No. 127-131**

- Feb. *Drake Prairie Rescue and Restoration Internship Program* – Iowa Prairie Network Central Region Winter Meeting, Des Moines Area Community College, Ankeny, IA.
- May Field trip leader for Clayton County Conservation on Kleve Sedge Meadow and Fen, Postville, IA
- June Field trip leader for Iowa Prairie Network on Prairies of Madison County Tour, East Peru, IA
- June Field trip leader for Iowa Native Plant Society at Baldwin Marsh, Jackson County, Baldwin, IA
- Oct. *Implementing the Leopold Land Ethic at Whiterock Conservancy* – Big Bluestem Audubon Society, Ames, IA

**2005: No. 118-126**

- Jan. *Life on the prairie* – Story City Kiwanis, Story City, IA.
- Jan. *How to master Iowa's asters: Tips for identification* – Iowa Prairie Network Central Region Winter Meeting, Des Moines Area Community College, Ankeny, IA
- Feb. *Photographing wildness in your backyard* – Grinnell College, Grinnell, IA
- June *Prairie flora of the Loess Hills* – 29th Loess Hills Prairie Seminar, Monona County, IA.
- June *Making friends with sedges and other incorrigible plants* – 29th Loess Hills Prairie Seminar, Monona County, IA.
- June *Prairie ecology* – Master Conservationist Program, Story County Conservation, Ames, IA.
- Aug. Field trip leader for Iowa Native Plant Society at Whiterock Conservancy, Guthrie County, Coon Rapids, IA
- Nov. *Making photographs of native plants* – Colo Lions Club, Colo, IA
- Dec. *The grassland legacy of Iowa's Loess Hills* – Des Moines Audubon, Des Moines, IA.

**2004: No. 112-117**

- Jan. *Inventory, mapping and quality assessment of the remnant prairies in Ringgold County* – Iowa Prairie Network Central Region Annual Winter Meeting, Des Moines Area Community College, Ankeny, IA.
- May *A floristic survey of the Loess Hills Seminar site* – 28th Loess Hills Prairie Seminar, Monona County, IA.
- May *Grassland fire ecology* – 28th Loess Hills Prairie Seminar, Monona County, IA.
- Sept. Field trip leader for Iowa Native Plant Society at Sylvan Runkel State Preserve, Castana, IA

- Oct. *Inventory, mapping and quality assessment of the remnant prairies in Ringgold County* – Annual Meeting of the Iowa and Missouri Chapters of The Nature Conservancy, Eagleville, MO.
- Dec. *Creating impact in nature photography* – Ames Camera Club, Ames, IA.

**2003: No. 105-111**

- Feb. Master of Ceremonies for Iowa Prairie Network Central Region Annual Winter Meeting – Des Moines Area Community College, Ankeny, IA.
- May *A floristic survey of the Loess Hills Seminar site* – 27th Loess Hills Prairie Seminar, Monona County, IA.
- June Field trip leader for Iowa Native Plant Society at Stinson Prairie State Preserve, Algona, IA
- June *The grassland legacy of Iowa's Loess Hills* – Loess Hills Preservation Society, Hitchcock Nature Area, Crescent, IA.
- July *Prairie ecology* – Master Conservationist Program, Story County Conservation, Ames, IA.
- Aug. Photography judge for Arts on Grand Nature Photography Contest, Spencer, IA
- Sept. Field trip leader for Iowa Department of Natural Resources Fen Walk, West Union, IA.

**2002: No. 97-104**

- Mar. *Nature photography: Tips for creating nature images with aesthetic impact* – Iowa City Bird Club, Iowa City, IA.
- June *Flora and community ecology of Loess Hills prairie* – 26th Loess Hills Prairie Seminar, Monona County, IA.
- June *Making friends with sedges* – 26th Loess Hills Prairie Seminar, Monona County, IA.
- June Field trip leader for Central Iowa Prairie Network at Bluejoint Meadows, Polk CCB, Elkhart, IA.
- June *Sedge Taxonomy and Ecology* (2 day workshop) – Iowa Native Plant Society, Iowa State University, Story County, IA.
- Aug. Field trip leader for Iowa Native Plant Society at Bobwhite State Park, Corydon, IA.
- Sept. Field trip leader for Iowa Department of Natural Resources Fen Walk, West Union, IA.
- Sept. Field trip leader for The Nature Conservancy of Iowa Annual Meeting, Anderson Prairie/Crim Savanna, Emmetsburg, IA.

**2001: No. 88-96**

- Jan. *Discovering the invisible prairie* – Central Iowa Prairie Network, Ames, IA
- Mar. *Iowa's Native Plant Families from A to Z* – Des Moines Audubon Society, Des Moines, IA
- June *Flora and community ecology of Loess Hills prairie* – 25th Loess Hills Prairie Seminar, Monona County, IA.
- June *Grassland fire ecology* – 25th Loess Hills Prairie Seminar, Monona County, IA.
- June *Sedge Identification* (2 day workshop) – Iowa Native Plant Society, Wildcat Den State Park, Muscatine County, IA.
- July *Prairie ecology* – Master Conservationist Program, Story County Conservation, Ames, IA.
- July Identifying common trees of Iowa – Wild Wednesday Program, Iowa Lakeside Laboratory, Milford, IA.
- Aug. Field trip leader for Iowa Native Plant Society at Jensen Marsh, Madison County, IA.
- Sept. *Developing a sense of place (a treasure in your own backyard)* – Iowa Chapter of The Nature Conservancy, Council Bluffs, IA

**2000: No. 84-87**

- June *Flora of Big Sand Mound*, Field trip leader for Big Sand Mound Field Day, Muscatine, IA
- Aug. Field trip leader for Iowa Native Plant Society at Steele Prairie State Preserve, Cherokee County, IA
- Sept. *Prairies and plant ecology* – Mines of Spain Recreation Area Fall Seminar, Dubuque County, IA
- Sept. *Field Techniques for Nature Photography* – Mines of Spain Fall Seminar, Mines of Spain RA, Dubuque County, IA

**1999: No. 76-83**

- June *Flora and community ecology of Loess Hills prairie* – 23rd Loess Hills Prairie Seminar, Monona County, IA.
- June Adult Sedge-U-Cation (2 day workshop), Polk County Conservation, Chichaqua Bottoms, Maxwell, IA.
- June *Botanical nomenclature* - Central Iowa Herb Group, Botanical Center, Des Moines, IA.

- July *Prairie ecology* - Master Conservationist Program, Story County Conservation, Ames, IA.
- July Field trip leader for Iowa Native Plant Society at Gitche Manitou State Preserve, Lyon County, IA.
- Sept. *Prairie ecology* - Master Conservationist Program, Cerro Gordo County Conservation, Mason City, IA.
- Oct. *A national park for the Loess Hills?* - Multi-age Community Class, Nevada Elementary School, Nevada, IA
- Oct Field trip leader for LA 323 Advanced Planting Design class from Iowa State University, Vegetation assessment of Iowa Lakeside Lab, Milford, IA.

**1998: No. 63-75**

- Feb. *Introduction to wildlife photography* - Fisheries and Wildlife Biology Club, Iowa State University, Ames, IA.
- May *The grassland legacy of Iowa's Loess Hills* - Iowa Sierra Club, Des Moines, IA.
- May *Flora and community ecology of Loess Hills prairie* - 22nd Loess Hills Prairie Seminar, Monona County, IA.
- May *Grassland fire ecology* – 22nd Loess Hills Prairie Seminar, Monona County, IA.
- May *The grassland legacy of Iowa's Loess Hills* - 22nd Loess Hills Prairie Seminar, Monona County, IA.
- June *Grassland fire ecology* - Nature Night, Iowa Lakeside Laboratory, Milford, IA.
- June Field trip leader for Iowa Native Plant Society at Riggelman-Soenksen Natural Area, Crawford County, IA
- June *The grassland legacy of Iowa's Loess Hills* - Guild of Natural Science Illustrators, Iowa State University, Ames, IA.
- July *Prairie ecology* - Master Conservationist Program, Story County Conservation, Ames, IA.
- July Field trip leader for The Nature Conservancy at Ames High prairie, Story County, IA
- Sept. *Field identification of Iowa's blazingstars* - Annual Meeting of the Iowa Prairie Network, Wapsie Environmental Education Center, Dixon, IA.
- Sept. Field trip leader for Annual Meeting of Iowa Landscape Architects, Elkhart, IA
- Oct. Field trip leader for Iowa Native Plant Society, Loess Hill Prairie Management Workday, Fremont County, IA

**1997: No. 50-62**

- May *Quantitative methods for monitoring plant communities* - Savanna & Prairie Inventory Workshop, Central Iowa Prairie Network, Leon, IA,
- June Field trip leader for Central Iowa Prairie Network at Raymond/Rolling Prairie, Story County, IA
- June *Flora and community ecology of Loess Hills prairie* - 21st Loess Hills Prairie Seminar, Monona County, IA.
- June *Grassland fire ecology* - 21st Loess Hills Prairie Seminar, Monona County, IA.
- July *Prairie ecology* - Master Conservationist Program, Story County Conservation, Ames, IA;
- July Field trip leader for The Nature Conservancy at Ames High prairie, Story County, IA
- Aug. Field trip leader for Iowa Native Plant Society at Camp Dodge, Polk County, IA
- Aug. *Fundamentals of nature photography* - Nature Night, Iowa Lakeside Laboratory, Milford, IA.
- Sept. *Fundamentals of nature photography* - The Nature Conservancy of Iowa Annual Meeting, St. Anthony, IA.
- Sept. Panel discussion member for Prairie Management Session, Iowa State Preserves Conference and Reunion, Iowa State University, Ames, IA
- Sept. Field trip leader for Sierra Club at Engledinger Marsh, Polk County, IA
- Oct. Field trip leader for Colo Elementary School at Walnut Creek National Wildlife Refuge, Jasper County, IA
- Nov. Panel discussion member for Medical and Consumer Perspectives on Herbal Remedies, Drake University, Des Moines, Iowa

**1996: No. 42-49**

- Feb. *What is a prairie?* - Vinton Home School Program, Vinton, IA.
- Apr. *Grasses of the prairie* - Madrid Garden Club, Madrid, IA.
- Apr. *The grassland legacy of Iowa's Loess Hills* - State Historical Society of Iowa, Des Moines, IA.
- May *The grassland legacy of Iowa's Loess Hills* - Loess Hills Chapter of the Audubon Society, Sioux City, IA.
- July *Fundamentals of nature photography* - Nature Night, Iowa Lakeside Laboratory, Milford, IA.
- Sept. Field trip leader for Iowa Native Plant Society at Excelsior Fen & Freda Hafner Kettlehole, Dickinson County, IA
- Oct. *The grassland legacy of Iowa's Loess Hills* - Des Moines Chapter of the Audubon Society, Des Moines, IA.



Dec. Panel Discussion Member on Forest Management Issues, Iowa State Preserves Board Meeting, Des Moines, IA.

**1995: No. 35-41**

- Apr. *Insights into nature photography: Focus on plants* - Prairie Inventory & Species Identification Workshop, Central Iowa Prairie Network, Ames, IA.
- June *Flora and community ecology of Loess Hills prairie* - 19th Loess Hills Prairie Seminar, Monona County, IA.
- June Field trip leader for Central Iowa Prairie Network at Raymond/Rolling Prairie, Story County, IA
- July *The grassland legacy of Iowa's Loess Hills* - Lecture Series, Iowa Lakeside Laboratory, Milford, IA.
- July *Fundamentals of nature photography* - The Nature Conservancy of Iowa Landmark Member Fieldtrip, St. Anthony, IA.
- Sept. *The grassland legacy of Iowa's Loess Hills* - Multi-age Community Class, Nevada Elementary School, Nevada, IA.
- Sept. *The grassland legacy of Iowa's Loess Hills* - The Nature Conservancy of Iowa annual meeting, Joy Hollow Scout Camp, Plymouth County, IA;

**1994: No. 25-34**

- Feb. *The grassland legacy of Iowa's Loess Hills* - Marshalltown Evening Garden Club, Marshalltown, IA.
- Feb. *What is a prairie?* - Prairie Management Workshop, Central Iowa Prairie Network, Ames, IA.
- Mar. *Identification of Iowa grassland birds* - Beginning Birder Class, Story County Conservation Center, Ames, IA.
- May *Prairie communities of the Loess Hills* - Teacher Workshop for Land of the Fragile Giants: Landscapes, Environments & Peoples of the Loess Hills, Sioux City, IA.
- June *Grassland fire ecology* - 18th Loess Hills Prairie Seminar, Monona County, IA.
- June *Flora and community ecology of Loess Hills prairie* - 18th Loess Hills Prairie Seminar, Monona County, IA.
- June Field trip leader for Central Iowa Prairie Network at Raymond/Rolling Prairie, Story County, IA
- Aug. Field trip leader for Central Iowa Prairie Network at Bundt Prairie, Guthrie County, IA
- Sept. *The grassland legacy of Iowa's Loess Hills* - Story County Conservation OWLS Program, Ames, IA.
- Oct. *Prairie communities of the Loess Hills* - The Nature Conservancy of Iowa annual meeting, Ames, IA.

**1993: No. 18-24**

- Jan. *The grassland legacy of Iowa's Loess Hills* - ISU Women's Faculty Nature Club, Ames, IA.
- Feb. *Prairie wild flowers* - Marshalltown Evening Garden Club, Marshalltown, IA.
- Apr. *Insights into nature photography: Focus on plants* - Ames Garden Club, Ames, IA.
- Jun *Grassland fire ecology* - 17th Loess Hills Prairie Seminar, Monona County, IA.
- Jun *Flora and community ecology of Loess Hills prairie* - 17th Loess Hills Prairie Seminar, Monona County, IA.
- Aug. *Quantitative methods for monitoring plant communities* - Worth County Conservation Fen Workshop, Worth Lake, IA.
- Sept. Field trip leader for Region 7 of the Iowa Prairie Network on natural areas in Jackson County, IA.

**1992: No. 11-17**

- May *The grassland legacy of Iowa's Loess Hills* - Big Bluestem Chapter of the Audubon Society, Ames, IA.
- June *Grassland fire ecology* - 16th Loess Hills Prairie Seminar, Monona County, IA.
- June *Flora and community ecology of Loess Hills prairie* - 16th Loess Hills Prairie Seminar, Monona County, IA.
- June *Fundamentals of nature photography* - 16th Loess Hills Prairie Seminar, Monona County, IA.
- July *The grassland legacy of Iowa's Loess Hills* - Colo Lions Club, Colo, IA.
- Oct. *Prairie wild flowers* - The Nature Conservancy of Iowa annual meeting, Ames, IA.
- Nov. *The grassland legacy of Iowa's Loess Hills* - Ames PPO Club, Ames, IA.

**1991: No. 7-10**

- May Field trip leader for Story County Conservation at YMCA Woods, Story County, IA
- Jun *Grassland fire ecology* - 15th Loess Hills Prairie Seminar, Monona County, IA.
- Jun *Flora and community ecology of Loess Hills prairie* - 15th Loess Hills Prairie Seminar, Monona County, IA.

Oct. *The grassland legacy of Iowa's Loess Hills* - Iowa Sierra Club, Des Moines, IA.

**1990: No. 3-6**

May *Southern Iowa's "invisible" prairies* - Big Bluestem chapter of the Audubon Society, Ames, IA.

May Field trip leader for Story County Conservation at YMCA Woods, Story County, IA.

June *Grassland fire ecology* - 14th Loess Hills Prairie Seminar, Monona County, IA.

June *Fundamentals of nature photography* - 14th Loess Hills Prairie Seminar, Monona County, IA.

**1988: No. 1-2**

June *Grassland fire ecology* - 12th Loess Hills Prairie Seminar, Monona County, IA.

June *Fundamentals of nature photography* - 12th Loess Hills Prairie Seminar, Monona County, IA.

**COMMUNITY SERVICE**

Story County Democratic Central Committee:

Precinct Captain – 2015 to 2020

Colo Lions Club:

President – 2007-2008, 2013-2014

Member – 2004 to 2016

Iowa Native Plant Society:

President – 2001-2002

Program Committee – 1996-2004

Member – 1995 to present

Central Iowa Prairie Network (Region 5 of Iowa Prairie Network):

Newsletter Editor – 1992-1996

Member – 1990 to present

Founding member of the Iowa Prairie Network in 1990

Big Bluestem Audubon Chapter of the National Audubon Society:

Vice-President – 1991-1992

Executive Board Member – 1988-1991

Story County Conservation:

Judge for Nature Photography Contest (6 years)

Colo Recreation Program, Colo, IA:

Coach for Youth Teams - girls' softball, girls' basketball, and coed soccer (8 years)

St. Mary's Catholic Church, Colo, IA

Teacher for Catholic Education Program (1996-1998, 2004-2006)

Education Committee - 1995 to 1998

Boy Scouts Troop, Colo, IA

Leader - 1997 to 1999

Conducted many prescribed fires for vegetation management and organized workdays to perform prairie management activities

**ADDENDUM TO CURRICULUM VITAE – THOMAS ROSBURG**  
**Photographic Accomplishments**

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2507 University Avenue, Des Moines, Iowa 50311  
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**Published Photographs – Publication (number of images): Total = 601**

- 2023 City of Perry, Iowa – images for an interpretive sign (Prairie Plants of Pattee Park) (6)
- 2023 Iowa Native Plant Society Winter Newsletter 2023 (2)
- 2022 Iowa Native Plant Society Spring Newsletter 2022 (2)
- 2022 Iowa Native Plant Society January Newsletter 2022 (1)
- 2021 Iowa Native Plant Society May Newsletter 2021 (1)
- 2019 Louisa County Conservation Board – images for interpretive signs on a wetland nature trail (10)
- 2018 Big Sand Mound Field Guide (39)
- 2014 University of Iowa Press - Wildflowers and other plants of Iowa wetlands (180)
- 2012 University of Iowa Press - Trees in your pocket: A guide to trees of the upper Midwest (81)
- 2010 University of Iowa Press - Wildflowers of Iowa Woodlands (14)
- 2008 University of Iowa Press - Wildflowers of the Tallgrass Prairie (140)
- 2006 Iowa Natural Heritage Magazine, Summer (11)
- 2005 Sierra Magazine (4)
- 2005 Iowa Natural Heritage Magazine, Winter (8)
- 2001 The Nature Conservancy of Iowa Magazine (5)
- 2001 Iowa Natural Heritage Magazine, Winter (3)
- 2000 Iowa Lakeside Laboratory Bulletin (7)
- 1998 Herbal Plant Brochure; published by Southern Iowa RC&D (21)
- 1997 Iowa Breeding Bird Atlas; published by University of Iowa Press, Iowa City, IA (6)
- 1997 Earth Trails CD-ROM; published by Iowa Public Broadcasting Board, Johnston, IA (29)
- 1996 Grazing on Public Lands; published by CAST (Council for Agricultural Science and Technology), Ames, IA (2)
- 1996 Loess Hills of Western Iowa Calendar (3)
- 1995 The Science of Agriculture: A Biological Approach; published by Delmar Publishers, Albany, NY (1)
- 1995 Loess Hills of Western Iowa Calendar (1)
- 1994 Wetland Policy Issues; published by CAST, Ames, IA (5)
- 1994 How Much Land can Ten Billion People Spare for Nature? published by CAST, Ames, IA; (1)
- 1994 Iowa Natural Heritage Calendar (3)
- 1993 American Journal of Botany, June (1)
- 1993 Iowan Magazine, Spring (3)
- 1993 Iowa Natural Heritage Calendar (1)
- 1992 Photographer's Forum Magazine, Winter (1)
- 1991 Heartland of a Continent; published by National Geographic Society (1)
- 1990 Ecological Impacts of Federal Conservation & Cropland Reduction Programs; published by CAST, Ames, IA (2)
- 1989 Fragile Giants; published by University of Iowa Press, Iowa City (6)

**Commissioned Projects:**

2001 – Images of Iowa: Photographs of a state's natural resources; Sponsored by Iowa Department of Natural Resources, Iowa Arts Council, and Brunner Art Museum at Iowa State University, Ames, IA. One of 20 photographers selected to contribute three photographs.

**Photographic Workshops:**

Natural History Photography, Iowa Lakeside Lab; 1996, 1997, 1998, 1999, 2003  
Autumn Nature Photography Workshop, Iowa Lakeside Lab; Oct. 1995

**Photographic Exhibitions:** (these are educational exhibits for the public, featuring my photography with a written text):

“Exploring a Pasture Grassland”

- McFarland Conservation Center, Ames, IA; July 1992
- Hartman Reserve Nature Center, Cedar Falls, IA; Dec. 1991
- Indian Creek Nature Center, Cedar Rapids, IA; Sep.-Dec. 1988
- Loess Hills 12th Annual Prairie Seminar, Onawa, IA; May 1988
- De Soto Bend National Wildlife Refuge, Missouri Valley, IA; July-Sep. 1987

“Achieving Impact in Nature Photography”

- Art on Grand Gallery, Spencer, IA, Aug. 1999
- Unitarian Church Gallery in the Round, Ames, IA, Jan. 1995
- Loess Hills 16th Annual Prairie Seminar, Onawa, IA; May 1992
- McFarland Conservation Center, Ames, IA; April 1992
- Iowa State University Memorial Union, Ames, IA; Sep.-Nov. 1988

“The ABC's of Prairie Wildflowers”

- Central Iowa Prairie Network Annual Winter Meeting, Jester Park, Granger, IA; Jan. 2002
- Prairie Inventory & Species Identification Workshop, Ames, IA; Apr. 1995
- DeSoto Bend National Wildlife Refuge, Missouri Valley, IA; Feb. 1994
- Camp Hitchcock Nature Area, Honey Creek, IA; Jan. 1994
- Hartman Reserve Nature Center, Cedar Falls, IA; Aug.-Sep. 1992
- McFarland Conservation Center, Ames, IA; May 1992
- Loess Hills 17th Annual Prairie Seminar, Onawa, IA; June 1993

“Animal Portraits: Furry, Feathered and otherwise not very Familiar Fauna”

- McFarland Conservation Center, Ames, IA; Feb. 1994

Special Exhibits

-Selected images featured in “Land of the Fragile Giants: The Loess Hills of Western Iowa” – organized by the Brunnier Art Museum, Iowa State University. Exhibited in the Rotunda of the Nation’s Capital and the Interior Museum, Aug. 1999 to June 2000.

**Photographic Awards:**

Wildflower Photographic Competition, Milwaukee Public Museum, 1994  
Award of Excellence, Photographer's Forum Magazine, 12th Annual Spring Photo Contest, 1992  
Iowa Wildlife & Hunting Photo Contest, 1991  
Iowa State University Fisheries and Wildlife Biology Club Photography Contest, 1991  
Twelfth North American Prairie Conference Photography Contest, 1990  
DeSoto Bend Wildlife Photography Exhibit, 1988 and 1989  
Iowa Conservationist Photo Contest, 1985