



## Winona State University | Winona County Historical Society Ecological History Lecture Series | March 23 – April 21, 2021

The Winona County Historical Society (WCHS) and Winona State University (WSU) collaborated on applying for a Heritage Partnership grant to support educational projects that will explore the unique ecological history of the Driftless area of Minnesota. Included in this grant project is a lecture series that will host ecological experts. The lecture series was to occur in the spring of 2020 but was postponed and converted to a webinar series due to the COVID-19 pandemic.

In addition to hosting a lecture series, the grant includes digitizing and preserving items that highlight the Driftless area as well as collaborating on shared resources, such as the GIS story map, [Exploring the Ecological History of Winona, Minnesota \(arcgis.com\)](#). WSU and WCHS partnered with St. Mary's University Geospatial Services to reconstruct a map of the vegetative communities in the city of Winona based on an 1855 land survey and other available data.

The **Ecological History Lecture Series, March 23 – April 21**, was made possible in part by the people of Minnesota through a grant funded by an appropriation to the Minnesota Historical Society from the Minnesota Arts and Cultural Heritage Fund. We thank the generosity of the people of Minnesota. The webinar series is open and free to the public.

Registration is not required; the 500 virtual seats are available on a first-come-first-serve basis. The schedule, including the Zoom connection information, is available from this site:

<https://openriver.winona.edu/ecologicalhistorylectureseries/>

### **Diane Wilson | *Seeds for Seven Generations***

**Tuesday, March 23, 2021 | 6:30 -7:30 pm**

<https://minnstate.zoom.us/j/97253006469?pwd=NVVCZ3NPVjRsTksxQSt2a09xcFQ2QT09>

Webinar ID: 972 5300 6469; password: read

Diane Wilson will present on our indigenous seeds, especially from a Dakota perspective, and on our evolving relationship with corn, one of our most important seed relatives, from indigenous gardens to contemporary farming. Diane Wilson will also discuss exciting work being done today by Native organizations to reclaim our indigenous seeds as food for our communities. The topics in this presentation come from Diane Wilson's essay, "Seeds for Seven Generations," which was published in *A Good Time for the Truth* anthology (Minnesota Historical Society Press, 2016).

Diane Wilson is a Dakota writer whose memoir, *Spirit Car: Journey to a Dakota Past* (Borealis Books) won a 2006 Minnesota Book Award and was selected for the 2012 One Minneapolis One Read program. Her 2011 nonfiction book, *Beloved Child: A Dakota Way of Life* (Borealis Books) was awarded the 2012 Barbara Sudler Award from History Colorado. Wilson is the current Executive Director for Native American Food Sovereignty Alliance (NAFSA) and former Executive Director for the Dream of Wild Health farm in Hugo, MN. She is a Mdewakanton descendent and enrolled on the Rosebud Reservation.

## **Michael Lee | *Minnesota's Driftless Area: a Biodiversity Hotspot***

**Wednesday, March 24, 2021 | 6:30 -7:30 pm**

<https://minnstate.zoom.us/j/91321525977?pwd=RW1UVkF1RGg1WXJBSFFndlBjMVp0QT09>

Webinar ID: 913 2152 5977; password: read

Michael Lee will share highlights of the Minnesota Biological Survey's work in the biologically diverse Driftless Area, which has the highest number of rare plant and animal species and the highest number of animal species of conservation concern in the state, as well as a diverse assemblage of native plant communities, some of which are themselves quite rare. Michael will use maps and photos to summarize the biological survey's results and highlight significant discoveries, will discuss recent and ongoing survey and monitoring work, and will talk about the prognosis for the Bluff Country's biodiversity in the future. He will also touch on the history of botanical inquiry in the Winona area and provide a closer look at some of the rare biodiversity features that remain in the vicinity of Winona.

Michael Lee was raised on a farm in the Minnesota Blufflands of eastern Fillmore County. He graduated from Peterson High School in 1986. He earned B.S. and M.A. degrees in Wildlife Biology from St. Cloud State University. He has been employed by the Minnesota Department of Natural Resources since 1991, on the Minnesota Biological Survey since 1992. Michael has logged thousands of miles afoot cataloging the flora throughout most regions of the state, with a significant amount of that effort focused in Winona, Wabasha, Fillmore, and Houston counties.

## **Andy Robertson, Kevin Stark, Roger Meyer, and Kathy Allen | *Mapping Ecologic History in the Driftless Area of Minnesota***

**Tuesday, April 6, 2021 | 6:30 -7:30 pm**

<https://minnstate.zoom.us/j/98817426538?pwd=ZlltbVFLSGwvTkxZK2lsOEUwSThxZz09>

Webinar ID: 988 1742 6538; password: read

The Winona County Historical Society, Winona State University, and Saint Mary's University of Minnesota's GeoSpatial Services partnered to develop a digital land cover map from an 1855 Public Land Surveyor's field notebook for Winona Township. Notes from Public Land Surveys provide the earliest systematically recorded information about vegetation composition and physical features for surveyed lands across the U.S. The first step in developing the historic land cover map was to digitize (i.e., convert to digital GIS data) the survey reference points (e.g., corners, quarter points) and bearing trees using information in the original survey notes. GSS analysts reviewed the bearing tree data and other vegetation notes from the original survey to categorize each survey reference point into a vegetation community. With these survey point vegetation assignments and supplemental data, analysts interpolated the extent of each vegetation community. GSS created an Esri Story Map to document this process and provide access to resulting data products, images, and text in a web-based format that supports inquiry and investigation.

**Andy Robertson** is currently Executive Director of GeoSpatial Services at Saint Mary's University of Minnesota. In this role, Andy is responsible for oversight and management of all GeoSpatial Services projects, activities and staff. GeoSpatial Services is engaged in a wide variety of projects across the Lower 48 and Alaska including: wetland inventory and functional assessment, NHD updates; stakeholder consultation; and, natural resource condition assessments. They have been a key partner of the USFWS and has been working for over 20 years to update legacy National Wetland Inventory data across the

nation. Andy earned a Forest Technology Diploma from Sault College of Applied Technology in Ontario, Canada, a B.Sc. in Environmental Science from the University of Waterloo and completed postgraduate work in forest management at the University of Toronto. He is a board member for the Association of State Wetland Managers, steering committee member for the ASWM Wetland Mapping Consortium and is past chair of the Alaska Wetland Technical Working Group.

**Kevin Stark** is the Assistant Director at GeoSpatial Services. In addition to his responsibilities as Assistant Director, Kevin contributes to GSS's wetland science and mapping work. Kevin earned a B.S. in Forestry from the University of Wisconsin – Stevens Point in 1999, providing him with a broad natural resource education. From this degree, he followed a career path in arboriculture for several years, focusing on scientifically-based tree care. Then, Kevin began the Masters of Science in GIS at Saint Mary's University and started working for GeoSpatial Services as a student GIS technician in 2006. From 2008 until 2015, he was a full-time GIS & Natural Resource Analyst, working on a wide variety of projects from the very first Natural Resource Condition Assessment to one of the first wetland functional assessments that GSS completed. During his time working on natural resource condition assessments, Kevin focused on topics such as land cover/land use, native plant communities, and natural disturbance regimes (e.g., wildfire). Currently, his focus lies in wetland functional assessments and in advancing mapping techniques through the use of elevation derived products, hydrologic toolset parameters, and other GIS data.

**Roger Meyer** joined the GeoSpatial Services team as a GIS Developer/Analyst in January of 2017. His educational background includes a Bachelor's Degree in Environmental Studies from the University of Minnesota and a Master's Degree in Geographic Information Science for Development and Environment from Clark University in Worcester, MA. Roger has served as a Peace Corps volunteer in Botswana, Southern Africa, where he worked with local communities and government agencies to improve the management, protection and infrastructure of the Kgaladi Transfrontier Park and Tsodilo Hills National Monument. He also has diverse work experience with GIS and remote sensing-based projects, including 6 years of experience in developing and applying geospatial solutions for investigating the spatial components of aquatic ecosystem research for the Great Rivers and Great Lakes Environmental Monitoring and Assessment Program at the EPA Mid-Continent Ecology Lab in Duluth. Prior to joining GSS, he spent 7 years leading a project to map terrestrial habitats on the islands of American Samoa using remote sensing data.

**Kathy Allen** joined GeoSpatial Services in 2010 and has worked on numerous Natural Resource Condition Assessments (NRCAs), the Badlands Climate Change Vulnerability Assessment (CCVA), and National Wetland Inventory (NWI) updates for Minnesota and North Dakota. Kathy attended Knox College in Illinois as an undergraduate, receiving a Bachelor's Degree in biology with a concentration in environmental studies and earning honors for a senior research project in animal behavior. She went on to complete a Master's Degree in Conservation Biology and Sustainable Development at UW-Madison. Her focus there was on land management and she participated in a project with the Wisconsin DNR, studying the expansion of a State Natural Area. She has worked for Prairie Restorations, Inc., as a management crew leader and with the MN Department of Agriculture's gypsy moth trapping program. Outside of work, Kathy is the president of her local Sierra Club group.

**Gregory Edge | *Oak Savanna and Woodland: Using the science of disturbance ecology and silviculture to help restore unique Driftless Area ecosystems***

**Wednesday, April 7, 2021 | 6:30 -7:30 pm**

<https://minnstate.zoom.us/j/92083750933?pwd=N1Z2TEYrQ3BoK0JIN2ZpYlZvZ3ZkZz09>

Webinar ID: 920 8375 0933; password: read

If you spend much time in the Driftless Area, you probably think about forested hillsides, farmland, and meandering river valleys. And if you have wander into those hills, you have likely seen the dense hardwood forests that dominate this landscape. But the Driftless did not always look like it does today. If you look close you will see remnants of what was once a vast mixture of prairie and park-like oak woodlands. Many of these unique ecosystems were shaped and maintained by fire – a disturbance that was largely stopped in the early 1900s. We will discuss these changes to the Driftless forests and how ecologist, foresters, and landowners can work together to restore unique and important oak ecosystems.

Greg Edge is a Forest Ecologist/Silviculturist with the Wisconsin Department of Natural Resources. Mr. Edge earned a M.S. in Forest Genetics from the University of Wisconsin-Madison and B.S. in Forestry from the University of Wisconsin-Stevens Point. Mr. Edge has lived and worked in the Driftless Area for over 28 years.

**Eli Sagor | *A View from the Minnesota Woods***

**Tuesday, April 20, 2021 | 6:30 -7:30 pm**

<https://minnstate.zoom.us/j/92152886201?pwd=UGJkVW5JbkcybmFrTUprRRDF3RTVyQT09>

Webinar ID: 921 5288 6201; password: read

Think about your favorite place in Minnesota. Chances are the view includes trees, and maybe even large tracts of forest. Those trees provide wildlife habitat, recreational opportunities, timber, beauty, and a unique sense of place. They may seem timeless, but our forests are continually changing. We'll talk about those changes, driven by little green bugs, warming winters, changing markets, and of course... us. We'll also discuss how emerging research is helping us to better understand our collective history and how we've shaped our forests and they, in turn, have shaped our culture and history. A focus will be steps we can all take to ensure the continued health, productivity, and beauty of forests of the Driftless and beyond.

Eli Sagor is an Extension Specialist for the Cloquet Forestry Center at the University of Minnesota and the Program Manager for the Sustainable Forests Education Cooperative. He holds degrees from McGill University (B.S. '96), Yale University (M.F. 1999) and the University of Minnesota (Ph.D. 2013).

**Michael Dockry | *Learning from the Indigenous Roots of Sustainable Forestry in the USA: Promoting Sustainability, Community Healing, and Partnerships***

**Wednesday, April 21, 2020 | 6:30 -7:30 pm**

<https://minnstate.zoom.us/j/92917828523?pwd=eVdpQjhVUUtubUxFRm91YWJQWUxWdz09>

Webinar ID: 929 1782 8523; password: read

This lecture is co-sponsored by the All-University Arboretum and Land Stewardship Committee as part of the 8th Annual Arbor Day celebration and WSU's "Tree-Campus USA" recognition.

Indigenous knowledge has sustained Indigenous people and their environments for thousands of years and continues today. Indigenous people often tell us that our common future depends upon incorporating their wisdom and perspectives into social, economic, and ecological decisions. However, natural resource managers, scientists, and universities have struggled to integrate this knowledge into planning, management, and research. Dr. Dockry's talk will discuss how the Indigenous roots of sustainable forestry in the USA began with the Menominee Nation in Wisconsin and how that experience can inform contemporary sustainable forestry, ecological restoration, and community healing. Dr. Dockry will finish the talk by discussing how developing partnerships with tribes and tribal communities can serve as the foundation for integrating Indigenous knowledge with western natural resource management science. Dr. Dockry will present reflections from his decades-long work with Indigenous communities and provide practical partnership-building strategies for working with tribes. The goal of Dr. Dockry's talk is to support Winona State's efforts to build partnerships with Indigenous people to enhance ecological and social restoration to meet 21st-century challenges.

Dr. Dockry is a member of the Citizen Potawatomi Nation with traditional territories around Lake Michigan and a reservation in central Oklahoma. Dr. Dockry is an Assistant Professor in the Department of Forest Resources at the University of Minnesota. Dr. Dockry holds a Ph.D. in Forestry with a Minor in Geography from the University of Wisconsin-Madison, M.S. in Forest Resources from Pennsylvania State University, and B.S. in Forest Science from the University of Wisconsin Madison. Dr. Dockry has expertise in American Indian and Indigenous Natural Resource Management, Tribal Partnerships, Integration of Traditional Ecological Knowledge and Western Ecological Knowledge, Strategic Foresight and Planning, Institutional Diversity, and Environmental History.