



UNIVERSITY OF MINNESOTA | EXTENSION



GATHERING PARTNERS OF NATURAL RESOURCES

SESSIONS AND FIELD TRIPS

ANNUAL
CONFERENCE

2016

NURTURING
A HEALTHY

BIG WOODS

BIG RIVERS

B I O M E



May 20-22, 2016

Saint Mary's University of Minnesota

Winona, Minnesota

Gathering Partners of Natural Resources conference co-hosted by University of Minnesota Extension Forestry and Minnesota Master Naturalist program teams.

Conference Sponsors:



Register on-line at: <https://www.regonline.com/2016SpringConf>

During the registration process, you will be asked to select:

- Day(s) you are planning to attend
- If you plan to lodge on campus and which type of room (air-conditioned/private bath or non-air-conditioned/bath on each floor) (optional; additional charge)
- Pre-conference workshop (optional; additional charge)
- Field trip (optional; additional charge)

You will **NOT** be asked to select on-site concurrent session.

All concurrent sessions will be held at Saint Mary's University of Minnesota and **MAY** utilize outdoor spaces on campus



KEYNOTE SPEAKER

Karen Oberhauser

Fish, Wildlife and Conservation Education Specialist with the University of Minnesota
2013 White House Champion of Change for Citizen Science

CONFERENCE AT A GLANCE

| | | | | |
|-----------------------|-----------------------------|---------------------|-----------------------------|-----------------------------|
| Pre-Conference | Friday, May 20 | 8:30-11:00 a.m. | Registration Open | |
| | | 9:00 a.m.-5:00 p.m. | Full-day Workshops | |
| | | 12:30-5:30 p.m. | Registration Open | |
| | | 1:00-5:00 p.m. | Half-day Workshops | |
| | | 5:00 p.m. | MFA Membership Meeting | |
| | | 5:00-6:30 p.m. | Exhibit/Display Viewing | |
| | | | | |
| Conference | Friday, May 20 | 6:30 p.m. | Welcome and Dinner | |
| | | 8:00 p.m. | Keynote Speaker | |
| | | 9:00 p.m. | Socializing | |
| | Saturday, May 21 | 7:00-8:00 a.m. | Registration Open | |
| | | 7:00 a.m. | Breakfast | |
| | | 8:00 a.m.-noon | Off-site Field Trips | |
| | | 8:00-9:15 a.m. | Concurrent On-site Sessions | |
| | | 9:30 a.m.-noon | Concurrent On-site Sessions | |
| | | Noon | Lunch | |
| | | 1:15-5:15 p.m. | Off-site Field Trips | |
| | | 1:15-2:30 p.m. | Concurrent On-site Sessions | |
| | | 2:45-4:00 p.m. | Concurrent On-site Sessions | |
| | | 4:00-6:00 p.m. | Exhibit/Display Viewing | |
| | | 6:00 p.m. | Banquet | |
| | | 7:00 p.m. | Awards Program | |
| | | 8:00 p.m. | Socializing | |
| | | Sunday, May 22 | 7:00-8:00 a.m. | Registration Open |
| | | | 7:00 a.m. | Breakfast |
| | | | 8:00-9:15 a.m. | Concurrent On-site Sessions |
| 9:30 a.m.-noon | Concurrent On-site Sessions | | | |
| Noon | Lunch and Closing Remarks | | | |

MINNESOTA FORESTRY ASSOCIATION (MFA) MEMBERSHIP MEETING

The MFA membership meeting will be held in conjunction with the Gathering Partners of Natural Resources Conference. The meeting will be held Friday, May 20, at 5:00 p.m. and is free to attend.

FRIDAY, MAY 20, 2016

Pre-Conference Opportunities

9:00 a.m.-5:00 p.m. Full-Day Opportunities (includes lunch)

\$50 Woodland Management Up-Close & Preserving the Whitewater Valley and its Cold Water Streams - Mike Wachholz, Minnesota DNR Ecological and Water Resources and Mike Reichenbach, University of Minnesota Extension



Ever wonder what a forester thinks about when harvesting timber or why a burn in the woods might be a good thing? This tour will look at timber harvests and forest management in and near the Whitewater Wildlife Management Area. We will visit and discuss sites with oak management, prescribed burns, invasive species, timber stand improvement and crop tree release. These are common silvicultural, forest management, practices in southeast Minnesota for wildlife, timber and forest health reasons. This morning tour will then join the Preserving the Whitewater Valley and its Cold Water Streams by Sara Holger for the afternoon.

Beginner Moderately Active

Participants will need to dress for the weather and walk on uneven ground during these stops.

Maximum of 20 participants

\$50 Sinks, Springs and Swallows: a Karst Field Trip - Jeremy Darst, Whitewater State Park and Ann Ihrke, Site Steward at Cherry Grove SNA



The last glaciers missed southeast Minnesota, creating a driftless region that is unparalleled to any other place on Earth. Join a Minnesota State Park Interpretive Naturalist on this all-day outing to discover the rare geologic karst features that make the blufflands so unique. We'll visit sections of Mystery Cave that are not on the public tour route, we'll hike at a Scientific and Natural Area (SNA) to get up close with sinkholes and we'll visit another location where beautiful cold water springs abound. We'll also hear from a Minnesota Master Naturalist volunteer who has served as an SNA Site Steward and find out how she has helped protect the rare karst features at her site.

Beginner, Intermediate, Experienced: Very Active

Requires high mobility; we will be visiting an unpaved section of Mystery Cave that is accessible only by descending below ground via several dozens stairs. We will also be hiking on extremely uneven terrain to reach the sinkholes and springs at the various sites.

Participants will need to bring: Warm coat (cave temperature is 48 degrees), good hiking shoes, water bottle, insect repellent.

Maximum 20 participants

\$50 Biomass & Stave Mill Tours: How Trees Live On and Non-Timber Forest Products - Diomy Zamora, University of Minnesota Extension, Angela Gupta, University of Minnesota Extension, Gary Wyatt, University of Minnesota Extension, and Jake Overgaard, University of Minnesota Extension



Ever wonder what happens to a tree after it's been harvested? Ever thank a tree for your wine or whiskey? Visit Staggemeyer Stave Mill in Caledonia, MN to see how white oak trees are transformed into barrels. Then head to LaCrosse, WI to see one aspect of Gunderson Health System's commitment to 100% renewable energy using woody biomass. The Gunderson wood processing facility is hidden in plain sight next to the hospital in downtown LaCrosse. After this tour you'll have three reasons to toast trees during your next cozy evening: wine, whiskey & warmth! Forests and woodlands produce much more than timber. Learn about forest products and land-use strategies for sustainable harvest of multiple products gathered over the lifetime. Visit Herbal Turtle Farm, a small family run farm in Winona, MN specializing in fresh vegetables, forest grown mushroom and specialty herbs. We will also visit Blue Fruits Farm. Situated in stunning microclimate known as Wiscoy, the blue fruit farm covers 5 acres of certified organic blue fruits including blueberries, elderberry.

Beginner: A little bit active

Both mills require participants to wear ear plugs. There will be some walking, including stairs.

Maximum 20 participants

1:00-5:00 p.m. Half-Day Opportunities

\$30 Bumble Bee Identification and the Minnesota Native Bee Atlas - Britt Forsberg, Minnesota Native Bee Atlas, Elaine Evans, University of Minnesota and Kevin Williams, Minnesota Native Bee Atlas



In addition to being fuzzy and cute, bumble bees are important pollinators in Minnesota. Although we know there are 18 species of bumble bees in Minnesota, we don't know much about where in the state they live or how their population levels may be changing. In this workshop, participants will learn how to identify bumble bees to the species level and how to use their identification skills to participate in the Minnesota Native Bee Atlas. The Bee Atlas will use observations from citizen scientists to better understand the distribution of native bees in Minnesota.

Beginner: Moderately Active

\$30 Conservation of Fishes in the Upper Mississippi River - Joshua Lallaman, Saint Mary's University of Minnesota



Participants will be offered a guided tour of the Mississippi River and discuss the conservation issues facing large river fishes. The river tour will include observation and discussion of threats to habitats, flora, and fauna of the Mississippi River. During the tour, participants will have the ability to assist with several fish sampling techniques and contribute to Dr. Lallaman's research on large river fishes.

Beginner: A little bit active

Participants will be on the river for ~3 hours, so make sure to dress for the weather. Any participant wanting to assist with fish sampling, should wear rain-gear or clothes they don't mind getting a bit wet/dirty. Pontoons can accommodate wheel chair access or people with limited mobility.

Maximum 40 participants

\$30 Preserving the Whitewater Valley and Its Cold Water Streams Field Trip - Sara Holger, Whitewater State Park and Vaughn Snook, Minnesota DNR



The story of the famed Whitewater Valley is one of destruction and restoration. On this field trip we will experience the rich history of this 30,000-acre valley. We'll begin at Whitewater State Park with an overview of the valley followed by a field activity with DNR Fisheries staff to determine the current health of the valley streams. Afterward we'll tour historic sites where the tragic story of early land use practices that contributed to the destruction of the natural plant communities, soils, and streams of the valley will be revealed. We'll wrap up with a visit to the Richard J. Dorer Pools where we'll learn how the valley was later transformed into the outdoors destination it is today.

Beginner, Intermediate, Experienced: Moderately Active

Participants will need to bring the following: waders or rubber boots or shoes that can get wet; insect repellent
Dress for tick season: hat, long pants and long socks; good hiking shoes or boots; water bottle

Maximum 25 participants

\$30 Naturalist Road Trip to Perrot State Park and Trempseau - Steven Carlson, University of Minnesota Extension and Charles Allen, Historian



Visit the historic site of Nicolas Perrot's Fort at Wisconsin's, Perrot State Park and hike to the top of Brady's Bluff to view 20 miles of the Mississippi river from Winona, MN to LaCrosse, WI. Learn about the geology of the bluff region along with the natural and cultural resources of the Drift-less Area. We will begin at Perrot State Park's Visitor Center and will explore the archaeology of early cultures to the region from Mound Builders to the white explorers. We'll then stop by the historic river town of Trempealeau, WI and hear stories and songs from Eddie Allen.

Beginner: Moderately Active

Maximum 30 participants

SATURDAY, MAY 21, 2016

Master Woodland Owner Sessions

These sessions are for a pre-selected cohort group of woodland owners. If you are interested in learning more about the Master Woodland Owner program, contact Angie Gupta at agupta@umn.edu.

8:00-9:15 a.m. So you want to be a Master Woodland Owner? - Matt Russell, University of Minnesota Extension, Angela Gupta, University of Minnesota Extension, and Mike Reichenbach, University of Minnesota Extension

This session will introduce participants to the Minnesota Master Woodland Owner program offered by the University of Minnesota Extension Forestry team. Instructors will provide a background of the program, discuss the use of My Land Plan and other online learning opportunities that are a central part of the program, and offer in-class activities to learn more about the forest landowner participants and their woods. This session is ONLY OPEN to registered participants of the Master Woodland Owner program.

Beginner: Inactive

9:30 a.m.-noon Tree Identification & Walk in the Woods - Angela Gupta, University of Minnesota Extension, Charlie Blinn, University of Minnesota Extension, and Matt Russell, University of Minnesota Extension

Ever wonder how foresters ID trees? This session will take a walk outside of Saint Mary's University to learn the basics of tree identification. We'll learn the importance of MAD Caps (a useful mnemonic device to help make tree ID easy) and touch on tree identification beyond leaves. To round out our walk in the woods you will be able to impress your friends with cool biology and answers to the following questions: How do plants conduct chemical warfare? Which trees make great jams, flavor meat and contribute to the flavor of gin?

Beginner: Moderately Active

This will be a walk in the woods so participants will need to dress appropriately for the weather and be able to hike on uneven surfaces safely.

\$25 1:15-5:15 p.m. Invasive Plants Impacting Southeast Minnesota - Emilie Justen, Minnesota Department of Agriculture and Jonathan Osthus, Minnesota Department of Agriculture

The tour will focus on five invasive plants in southeast Minnesota. The tour will include key identifying characteristics of each plant, habitat preferences, and best management practices. Plant species to be covered include; Oriental bittersweet, Wild parsnip, Teasel, Japanese barberry and Japanese knotweed.

Beginner, Intermediate, Experienced: Moderately Active

While site access will generally be easy, there may be hazards such as poison ivy on portions of the field trip.

A map of field trip locations can be seen at: <https://www.google.com/maps/d/edit?>



SATURDAY, MAY 21, 2016

Morning Sessions

8:00-9:15 a.m. Concurrent Sessions



DIY Environmental Sensors - Tommy Rodengen, Saint Olaf College

A primer on how to create inexpensive electronic sensors so that YOU can start recording environmental data. Sensors to be demonstrated include those related to weather (temperature, rain, humidity, air speed, air direction), light, water (pH, flow), and gas (CO₂). Ways to present data collected by sensors will also be presented. Participants will be walked through the steps in creating a low-cost (<\$40) light sensor.

Beginner: Inactive

Reading Rings: Stories Trees Tell - Eric North, University of Minnesota

Trees can be long-lived, yet unlike their animal counterparts trees cannot escape their environment. Tree rings do more than simply providing clues to a tree's age, they tell a story. Examination of annual growth patterns observed in urban trees can provide valuable diagnostic and historical information on tree growth. Learn a brief history of the science of tree rings and the basics of how to collect, prepare, and "read" the story of trees.

Beginner, Intermediate: A little bit active

Hardwood Forest Timber Stand Improvement - Randy Schindle, Minnesota DNR Division of Fish and Wildlife

Learn to use the "crop tree" selection method how to improve your woodlot for high value timber, wildlife and other benefits. Participants will learn how to select crop trees based on their goals for their property, which trees to remove and when and what to prune. Interesting uses for removed materials and other fun stuff to do in the woods will be discussed!

Beginner, Intermediate: Inactive

Snakes of Minnesota - Jamie Edwards, Minnesota DNR Nongame Wildlife Program

Learn how to identify the various snake species found in MN, how to differentiate a rattlesnake from nonvenomous snakes, what to do in the event of an encounter, and why snakes are an important part of landscape. Presentation will be a combination of slides and live snakes. Featured snakes include timber rattlesnake, foxsnake, bullsnake, and milksnake - all found in SE MN.

Beginner, Intermediate: A little bit active

Crossing Borders: Local Aquatic Invasive Species Prevention Aid - Jennifer Wahls, Wabasha Soil & Water Conservation District and Amanda Gentry

The Local Aquatic Invasive Species Prevention Aid was made available for Minnesota Counties in 2014. Counties developed a plan tailored to their county and can work with neighboring counties. AIS information is frequently presented regarding issues in lakes and big river settings. Southeast Minnesota is unique to our state as it is comprised more of cold-water streams than lakes. Hear what Wabasha County and its neighbors are doing to address current and potential AIS threats to our streams.

Beginner, Intermediate, Experienced:

A little bit active

9:30 a.m.-noon Concurrent Sessions



The Common Loon, Indicator of Healthy Waters - Robert Strom, Minnesota Master Naturalist Volunteer

The presence of Common Loons is a primary indicator of a healthy aquatic ecosystem. Conversely, their absence in waters within its normal range is often an indicator of an unhealthy or deteriorating environment. The purpose of this workshop is to examine the Common Loon, its habitat requirements, threats to survival and conservation strategies. Biodiversity Research Institutes's Minnesota loon relocation program will be highlighted. Specific opportunities for participation in educational and conservation activities will be offered. Printed materials, a directory of important resource documents and a digital copy of the presentation, with the accompanying script, will be available.

Beginner, Intermediate: Inactive

Our Changing Seasons: Getting on-board for a Citizen Science Project for MN - Rebecca Montgomery, University of Minnesota and Stephan Carlson, University of Minnesota Extension

The Minnesota Phenology Network's citizen science project is looking for 200 state-wide observers who will follow a minimum number of plants over the next 5 years and report on the National Phenology Network's (NPN's), Nature Notebook website. Join this team of observers and learn about how to collect basic data that is useful to researchers and natural resource managers, the latest historical data that has been digitized, and how you can contribute to the project with just a smart phone or tablet.

Beginner: A little bit active

Exploring plant seed dispersal by ants - Moni Berg-Binder, Saint Mary's University of Minnesota

Ant-mediated seed dispersal is a common mutualism in Minnesota's forests. Many common spring flowers in Minnesota have evolved a specialized nutritious seed structure, called an elaiosome, which provides food to ants as a reward for providing the service of seed dispersal. An introduction to the ecology of this mutualism will be discussed, followed by an interactive hike through the bluffs to explore this mutualism from both the plant and ant perspectives. Activities will involve identifying both common plants and ants engaged in this mutualism and learning common techniques to search for and collect ants.

Beginner, Intermediate: Moderately Active

Safety concerns are typical of field experiences, including the potential for bee stings, insect/spider/other arthropod bites, rattlesnake sightings or bites, twisted ankles, etc. Participants should wear hiking footwear (boots preferred), bring a pair of leather gloves (if possible), and water.

Survival and Outdoor Skills for Minnesota's Woods and Waters - Scott Oeth, Bull Moose Patrol

As my capstone Master Naturalist project I am working on developing a body of knowledge around survival and outdoor skills specifically for Minnesota. The aim of the project is to equip Master Naturalist, and other outdoor enthusiast with a basic framework of outdoor survival knowledge which will allow them to be active and safe volunteers, participants, and protectors of, and in, Minnesota's natural environment. These materials and hands-on training can be used to introduce many, especially younger people, to the wonders of our natural world. There is a great deal of interest in survival skills at the moment, and the Master Naturalist program has an opportunity to reach people through this interest, and get them hooked on our outdoors!

Beginner, Intermediate, Experienced: Inactive

\$25 Organic Dairy Farm Tour - Brad Heins, University of Minnesota

Tour an Organic dairy farm near Lewiston, MN that has robots and organic dairy cows. The tour will also incorporate a pasture walk to look at grasses and talk about producing milk with grass-based dairying versus conventional.

Beginner Very Active

Maximum 25 participants



Field Trips 8:00 a.m.-noon



\$25 Canoe Trip on the Upper Mississippi River National Fish and Wildlife Refuge - Edward Lagace (Ranger Ed), Upper Mississippi River National Wildlife and Fish Refuge

Join us and canoe the Upper Mississippi River National Wildlife and Fish Refuge while learning about habitat restoration, refuge partnerships, water trail needs and what the United States Fish and Wildlife is doing for this amazing resource. We will paddle along the Half Moon water trail through the quite backwaters of the Upper Mississippi. This peaceful place is located near Weaver bottoms and where the first Island restoration took place.

Beginner, Intermediate, Experienced: Very Active

Participants will be on the river for ~3 hours, so make sure to dress for the weather.

Maximum 24 participants

\$25 Black locust Interference with Rrairie restoration at Trempealeau National Wildlife Refuge - Raymond A. Faber, Saint Mary's University of Minnesota



Prairie restoration at Trempealeau National Wildlife Refuge has been focused on early spring burning. Non-native black locust trees have interfered with this effort because they have vegetative reproduction and their growth is actually accelerated by burning instead of being removed. This lead to extensive use of a very toxic herbicide in the 1970's. I would like to introduce participants to the history of the restoration project and have participants assist refuge staff by cutting as many young black locust trees as time permits.

Beginner, Intermediate, Experienced: Moderately Active

Participants need to provide equipment for cutting small trees (hand saws/pruners) and be able to walk on uneven surfaces

Maximum 20 participants

\$25 Invasive Species Impacts on Ash and Oak Trees in Southeast Minnesota and the Role of Citizen Science - Jonathan Osthus, Minnesota Department of Agriculture and Jen Schultz, Wasp Watchers Program



The presentations will cover emerald ash borer biology, survey techniques, management options and citizen engagement through the use of citizen science volunteers for the Wasp Watchers program. Signs and symptoms of oak wilt and bur oak blight will be discussed along with management strategies.

Beginner, Intermediate, Experienced: Moderately Active

While site access will generally be easy, there may be hazards such as poison ivy on portions of the field trip.

A map of field trip locations can be seen at https://www.google.com/maps/d/edit?mid=zi_Ed8VA8naQ.kNJ7J_ZleU-E&usp=sharing

Maximum 20 participants



Afternoon Sessions

1:15-2:30 p.m. Concurrent Sessions



Is your woodland really a savanna? - Stephen Thomforde, Great River Greening

We see the trees and we think forest; however, many woodlands are more accurately viewed as “afforested” savanna. In this case, woodland represent degraded savanna. So why does this matter? For one, savanna represents the most functional terrestrial ecosystem ever, and its provisional capacity offers a model for agricultural production in ways that greatly enhance ecological integrity. This presentation describes the process by which savanna transitioned into woodland. Likewise, restoration and management strategies are identified, including grazing, haying, and selective tree harvest. In conclusion, savanna restoration is only possible through working lands

Experienced: A little bit active

Agroforestry Practices for Woodland and Forest Owners - Gary Wyatt, University of Minnesota Extension, Mike Reichenbach, University of Minnesota Extension and Diomy Zamora, University of Minnesota Extension

Agroforestry combines agriculture and forestry to create integrated and sustainable land-use systems and takes advantage of the interactive benefits from combining trees and shrubs with crops and/or livestock. Agroforestry practices include: Alley Cropping, Windbreaks, Riparian Forest Buffers, Silvopasture and Forest Farming. Learn more about Agroforestry practices and which practices would benefit your property.

Beginner, Intermediate: Inactive

Citizen Science in Minnesota Streams - Laurie Sovell, Minnesota Pollution Control Agency, Joshua Lallaman, Saint Mary's University of Minnesota and Lindsay Egge, Minnesota Pollution Control Agency

The Minnesota Pollution Control Agency (MPCA) employs a watershed approach to monitor, protect, and restore its water resources. The Citizen Stream Monitoring Program (CSMP) began in 1998 to augment stream data collection and engage citizens in watershed work. We will describe the CSMP from its early beginnings to its current roster of 400 volunteers monitoring over 500 locations statewide. Professor Joshua Lallaman will discuss his personal experience with CSMP monitoring on Gilmore Creek, while increasing student and community participation in citizen science. We will end with a 5 minute walk to Joshua's site for a brief demonstration of CSMP monitoring.

Beginner, Intermediate, Experienced: A little bit active

Participants should be prepared to take a short walk (approximately 5 minutes) to a nearby stream monitoring location on Gilbert Creek where a demonstration of the Citizen Stream Monitoring will be done, weather permitting.

Land Use History in Wabasha County - Terry Helbig, Retired Minnesota DNR Forestry

Through pictures and stories Terry Helbig, a retired DNR forester and avid historian, will share land use changes in Wabasha County since the mid 1800's. If time permits, Terry will also go over the history of the formation of the Richard J. Dorer Memorial Hardwood State Forest, a million acre forest covering parts of Wabasha, Dakota, Goodhue, Winona, Olmsted, Houston, and Fillmore counties.

Beginner, Intermediate, Experienced: Inactive

Making The Environmental Movement Multicultural: Debunking the Myths About People of Color and the Outdoors - James Bonilla, Professor Emeritus, Hamline University

The future of the environmental movement will soon be in the hands of a new generation of Americans, one very different from the one that preceded it. This session will briefly survey the history of the environmental and outdoor movements to set a context for a discussion of the role of people of color in the future of the environment. We will discuss four prominent myths that inhibit recognition and greater participation by people of color in the outdoors. The session will provide information to counter these myths and discuss some strategies for diversifying environmental and outdoor organizations.

Beginner: A little bit active

Hardwood Forest Establishment Using Direct Tree Seeding - Randy Schindle, Minnesota DNR Division of Fish and Wildlife

Learn how to establish hardwood trees using direct tree seeding vs seedling establishment. Tree seed species collection, storage and amounts to use will be described. Site preparation, weed control and follow up care will be discussed.

Beginner, Intermediate: Inactive

Growing and Harvesting Decorative Florals and Edibles from Woody Plants - Gary Wyatt, University of Minnesota Extension, Mike Reichenbach, University of Minnesota Extension and Diomy Zamora, University of Minnesota Extension

Decorative woody florals and edibles from woody plants can be found in our native woodlands and forests in Minnesota. These woody plants can also be planted and grown in your backyard or landscape for personal or business uses/purposes. This lesson will focus more on plants that can be planted and grown, such as curly willow, yellow dogwood, pussy willow, hazelnuts, juneberry, black chokeberry, honey berry and many others. Cuttings, edibles and plants will be displayed. Harvesting, value added products and marketing will be discussed. Participants are also encouraged to share their experiences with woody florals and edibles from the woods.

Beginner, Intermediate: Inactive

Restoring Floodplain Forests in the Upper Mississippi River Basin - Andy Meier, U.S. Army Corps of Engineers and Andy Beebe, Audubon Minnesota

Floodplain forests in the upper Midwest are a critical, but often overlooked, habitats that support a wide array of wildlife and promote many critical ecological functions. However, many floodplain forests are in a state of serious decline and there is growing concern that as the trees currently dominating these forests begin to die, they will be replaced by non-forested habitats dominated by invasive plants. If you're interested in healthy forests and healthy rivers, come and listen how innovative partnerships are helping to ensure vibrant floodplain forests for decades to come.

Beginner: Inactive

Planning for a Safe on the Water Program - Edward Lagace (Ranger Ed), Upper Mississippi River National Wildlife and Fish Refuge

Refuge Ranger Ed Lagace has been with the United States Fish and Wildlife Service (USFWS) for 26 years, and has hosted many on the water programs. He is currently a USFWS non-motorized boat safety instructor, and is certified as an ACA level 3 canoe and Kayak instructor with over 40 years of slack water and Whitewater experience. Join Ranger Ed and learn about how to plan a safe on the water program, and participate in an open forum and discussion.

Beginner, Intermediate, Experienced: Inactive

Using Charitable Tools and Techniques to Further Stewardship of Minnesota's Woods and Waters - Scott Oeth, Cahill Financial Advisors

Learn about the financial, tax, and estate planning tools and techniques which can be used to further financial stewardship of Minnesota's wild woods and waters. There are numerous strategies to help your charitable contributions go further, and to coordinate your personal financial plans with your desire to have positive financial impact on the land you care about.

Beginner, Intermediate, Experienced: Inactive

Field Trips 1:15-5:15 p.m.

\$25 Invasive Plants Impacting Southeast Minnesota - Emilie Justen, Minnesota Department of Agriculture and Jonathan Osthus, Minnesota Department of Agriculture

The tour will focus on five invasive plants in southeast Minnesota. The tour will include key identifying characteristics of each plant, habitat preferences, and best management practices. Plant species to be covered include; Oriental bittersweet, Wild parsnip, Teasel, Japanese barberry and Japanese knotweed. This is the same field trip as the Master Woodland Owner Session 3.

Beginner, Intermediate, Experienced: Moderately Active

While site access will generally be easy, there may be hazards such as poison ivy on portions of the field trip.

A map of field trip locations can be seen at: https://www.google.com/maps/d/edit?mid=zi_Ed8VA8naQ.kQW51ng8aFnw&usp=sharing

Maximum 10 participants



\$25 Introduction to Fly Fishing - Linda Radimecky, Minnesota DNR, Monta Hayner, Fly Fishing Women of Minnesota and Cindy Winslow, Fly Fishing Women of Minnesota

This class will cover the basics of fly fishing. Learn how to tie flies and the life cycle of the insects the tied flies try to imitate. After discussing insect life, stream ecology and where to find fish in a stream, the essential basics of fly casting will be practiced.

Beginner: A little bit active

A Minnesota fishing license is encouraged but not required at Whitewater State Park. Program is funded by Minnesota DNR Parks and Trails Division and Fish and Wildlife Division.

Maximum 15 participants



\$25 Henslow's sparrows at Great River Bluffs State Park - Raymond A. Faber, Saint Mary's University of Minnesota

If Henslow's sparrows are present at the time of the conference, we will attempt to locate nests to enable study of nest success by walking carefully through the territories, a process that benefits from many bodies. If they are not present (they are unpredictable), attendees can be of service by cutting sumac that are invading the fields where Henslow's nests and making the habitat unsuitable. If time permits, we could walk to King's bluff to experience goat prairies (okay, bluff prairies!) and beautiful scenery.

Beginner, Intermediate, Experienced: Moderately Active

There is a remote possibility of encountering rattlesnakes in the fields. Participants must be able to walk on uneven surfaces.

Maximum 20 participants



\$25 A Park Above the Rest - Danielle Quist, University of Minnesota Extension

Atop the bluffs along the Mississippi River, lays a park literally above the rest, Garvin Heights Park. We will visit the park and take in the scenic overlook of the Mississippi River Valley while learning about the history of the area. A flight of stairs will lead us down to the restored goat prairie where we will learn about the local restoration efforts along the bluff and within the park. We will also immerse ourselves in the oak savanna that lays within the park boundaries, and learn about the neat features of this ecosystem.

Beginner: Moderately Active

Participants should be prepared to walk on uneven terrain and walk up and down stairs. There may be an outhouse on site, but most likely there will not be one or any other type of restroom. Participants should bring a water bottle, camera, and wear the proper clothing for the weather.

Maximum 22 participants



SUNDAY, MAY 22, 2016

Morning Sessions

8:00-9:15 a.m. Concurrent Sessions



Grazing Your Woods: Problems and Solutions - Diomy Zamora, University of Minnesota Extension and Gary Wyatt, University of Minnesota Extension

Unmanaged woodland grazing is common and a perennial problem in Minnesota. Hear how uncontrolled grazing can degrade your woods for decades, but also learn how a well-managed system called "Silvopasture" can improve wood and forage quality. Silvopasture is the intentional integration of forest management, animal husbandry, and forage management principles to address the issue. Hear updates about the LCCMR-funded project "Enhancing Environmental and Economic Benefits of Woodland Grazing", which aimed to develop Minnesota-based information about Silvopasture for use in woodland grazing decision making.

Beginner: Inactive

Wintering Golden Eagles: Minnesota's Other Eagle - Scott Mehus, National Eagle Center

Come learn about North America's other eagle species, the Golden Eagle. Historically, it was observed regularly during the winter in the southeastern "Big Woods" area of Minnesota, but now because of the Golden Eagle Project, a multiple agency effort, we are finding out new fascinating information about this species' range in Minnesota and beyond. This presentation will share information about the Annual Wintering Golden Eagle Survey, data and range maps from the Golden Eagle telemetry study. There will also be an in depth discussion about differentiating between Golden Eagles from the similar looking juvenile Bald Eagles.

Beginner, Intermediate, Experienced: A little bit active

Seed Collection for Diversity - Joel Dunnette, Zumbro Valley Audubon

By hand collecting seed, we can greatly increase the diversity of prairie plantings, and expand the areas to be restored, but also help connect volunteers with nature. Come learn why you should consider collecting prairie seed, when to do it, how to identify plants in seed, and how to pick and process the seed.

Intermediate, Experienced: A little bit active

iFish Forever: Using Modern Technology to Manage Recreational Fisheries - Tim Martin, University of Minnesota

Not only are anglers responsible for fishing effort and change on a landscape, but also the flow of revenue and the spread of invasive species. Conventional approaches to describing angler behavior vary widely in effort, cost, and efficacy. We have developed a project called iFish Forever which allows anglers to log the fish they catch using a smartphone app, generating data at a lower cost and effort, allowing fisheries managers to make more informed and timely decisions about Minnesota's natural resources. We are looking to partner with citizen scientists to help change the way fisheries data are collected.

Beginner, Intermediate: Inactive

Logging Professionals: Who are they? Do I need one? How do I find one? - Rachel Peterson, Minnesota Logger Education Program

40% or less of the tree harvests in Minnesota involve a professional forester, but 100% of those harvests involve a logger. How do you find a professional logger? How do you know they will do a good job? Learn what constitutes a trained logging professional in Minnesota. Learn about the classification "Certified Master Logger". This session will discuss: questions landowners should ask any logger, what a landowner should know before considering harvest, and an overview of the Minnesota Master Logger Certification program. Participants will be provided with a directory of logging professionals and additional resources for successfully managing forested property.

Beginner: Inactive

Introducing the Minnesota Native Bee Atlas - Britt Forsberg, Minnesota Native Bee Atlas and Kevin Williams, Minnesota Native Bee Atlas

The last time a survey of Minnesota bees was completed was in 1919 when only 88 species were listed. Scientists suspect that there may be closer to 400 species but to find out, we will need the help of citizen scientists like you. In this session, participants will learn about the life cycle and ecology of native bees, basic bee identification, and tips for photographing bees. These skills will prepare participants to participate in the Minnesota Native Bee Atlas, a citizen science program that will use historical records and current observations to create a searchable database of Minnesota native bees.

Beginner: Moderately Active

Tree Identification & Walk in the Woods - Angela Gupta, University of Minnesota Extension, Charlie Blinn, University of Minnesota Extension, and Matt Russell, University of Minnesota

Ever wonder how foresters ID trees? Take a walk outside on the Saint Mary's University campus to learn the basics of tree identification. We'll learn the importance of MAD Caps (a useful mnemonic device to help make tree ID easy) and touch on tree identification beyond leaves. To round out our walk in the woods you will be able to impress your friends with cool biology and answers to the following questions: How do plants conduct chemical warfare? Which trees make great jams, flavor meat and contribute to the flavor of gin?

Beginner: Moderately Active

Participants need to dress appropriately for the weather and be able to hike on uneven surfaces safely.

Successful Nature Photography - Mark Bergman, Minnesota Master Naturalist Volunteer

Did you ever wonder how those beautiful nature photographs were taken? The silky flow of water over a waterfall. The fine detail in a wild flower. The golden color in a landscape. Freezing a bird in flight. This session will unlock the secrets of good nature photography and teach you techniques to improve your photographs. Bring your camera (DSLR preferred)/phone/tablet, any extra lenses, a tripod if you have one and your camera manual.

Beginner, Intermediate: A little bit active

Restoring Wetlands: Plans, Benefits, Challenges - Patrick Mader, Minnesota Master Naturalist Volunteer, Kathy Allen, Saint Mary's University

This session will discuss the current knowledge and practice around wetland restoration in Minnesota. An introductory overview will be provided along with two case studies of projects that restored wetlands. The Mader family farm on the western border of Hennepin County had more than 40 acres of tilled and drained wetlands that had been cropped for nearly 40 years. Cascade Meadow is a 92-acre site in Rochester that consisted of old fields and degraded wetlands. Each project considered the unique soil, hydrology, topography, and vegetation conditions in planning and implementing restoration projects. Learn about the ecological benefits, planning processes, and challenges experienced in these two projects!

Beginner, Intermediate, Experienced: Inactive

Live video conference with the International Wolf Center's newest pack members - Andrea Lorek Strauss, Host

Join us as we dial in to the ambassador wolf pack at the International Wolf Center in Ely, MN. With a live, narrated video feed we'll view newborn wolf pups and hear a presentation by staff experts.

Beginner, Intermediate, Experienced: Inactive