HOME GROWN MNA Conference 2016

November 11-13, 2016
Wolf Ridge Environmental Learning Center
Finland, Minnesota
Welcome to the 2016 MNA Annual Conference! I am very excited to present this year’s theme: Home Grown.

In this modern day where we move amongst temperature-controlled spaces, depend on GPS systems to get us from point A to point B, and learn about the natural world from TV specials and YouTube videos, it can be easy to forget the connections we have to this earth. But the one thing that ties us firmly to the natural world around us is the food we eat. Our food is a part of our identity. It is something that sustains us. It’s a major part of the landscapes that surround us. It’s the livelihood of a large portion of our community. It’s a way we express our culture, and it’s something we are quick to share with someone of another culture because it is a way of sharing who we are.

As naturalists, both professional and non-professional alike, our goal is to cultivate connections to the natural world in the people with whom we interact. What better way than with food?

But this conference is not just about the food we bring to the table; it’s also about the things we bring with us. Sitting down together and sharing a meal isn’t just about getting the sustenance we need to live another day; it’s about making new connections, developing relationships, and sharing ideas. Every year we gather together to do just that, and this year is no different.

Our conference this year is full of new connections to be made, friendships to strengthen and, with the help of all of our presenters, a lot of juicy new ideas to talk about. So take a seat, pick up a fork, and LET’S EAT!

Ashley Smith
Conference Coordinator
For this year’s Pre-Conference Fieldtrip we will get a chance to hike along a portion of the Superior Hiking Trail. Because the SHT is located so close to Wolf Ridge ELC, we will be walking out the doors onto the trail and seeing how far we get on our way north before taking a shuttle back to WRELC. Along the trail we will have several North Shore specialists joining us to lend their knowledge of the area. Check out who is joining us below to get an idea of what kind of information is headed our way.

**Chel Anderson**

Chel Anderson came to live and work on Minnesota’s North Shore in 1974. She has worked in various positions on the Superior National Forest as a consulting ecologist and botanist in the private and public sectors, and currently is with the Biological Survey of the Minnesota Department of Natural Resources. She coauthored with Adelheid Fischer, *North Shore: A Natural History of Minnesota’s Superior Coast* published in 2015. Chel regularly instructs and leads natural history classes and field trips for both educational and conservation organizations. In 2001 Chel received the Minnesota Chapter of The Nature Conservancy’s Conservation award for her tireless efforts to inventory northeast Minnesota’s plant communities, her work to support conservation action with sound science, and her extraordinary ability to inspire passion for wild things and wild places.

**Margie Menzies**

One part educator, two parts naturalist, and two parts bird and geology nerd! Who says slow and steady wins the race? After years in the formal classroom, this educator has abandoned the indoors for the great outdoor classroom. Margie Menzies has been a naturalist at Hawk Ridge Bird Observatory for six Fall seasons, and has worked with songbird banding for more than 25 years. She is also the naturalist at Sugarloaf Cove Nature Center on the North Shore in Schroeder, MN, where she provides programs, teaches geology, bands birds and camps through the summer and teaches Master Naturalist classes. During the rest of the year she is a freelance naturalist and education consultant working on a variety of projects, and supervises student teachers for UMD. She has a BA from Bethel University, and a MA from University of St. Thomas. Providing naturalist programming for the general public furnishes many colorful and meaningful experiences with every day on the job. She loves geology and birds, loves learning, and loves sharing the natural world with people of all ages.

**David Butcher**

David Butcher is the Adventure Programs Coordinator for Wolf Ridge ELC and has been working as a naturalist and wilderness guide for nine years. His teaching experiences include working in parts of Minnesota and upstate New York, as well as guiding trips in the Boundary Waters, Quetico, and the Apostle Islands. When he’s not working you might find him sea kayaking, stand-up paddle boarding, hiking, cycling, or home-brewing beer.
In 2014, he opened the business titled, The Sioux Chef, as a caterer and food educator in the Minneapolis/Saint Paul area. In 2015, in partnership with the Little Earth Community of United Tribes in Minneapolis, he and his business partner Dana Thompson designed and opened the Tatanka Truck, which features pre-contact foods of the Dakota and Minnesota territories. Chef Sean and his vision of modern Indigenous foods have been featured in many articles and radio shows, along with dinners at the James Beard Foundation in Milan and also Slow Foods Indigenous Terra Madre in India. The Sioux Chef team continues with their mission statement to help educate and make indigenous foods more accessible to as many communities as possible.

In his presentation, Sean Sherman will speak on the fundamentals of Indigenous food systems. His presentation will focus on the ethnobotany of Minnesota, his work in the de-colonization of culinary practices, and the impact that colonialism has had on Minnesota’s Native American peoples health; physically, environmentally and spiritually.
Friday Night

People Bingo
Science Center - Room 1
Can you find someone who has the same favorite tree as you? Or what about someone who knows how to do a loon call? Play people bingo to meet new people and maybe learn a few new things about the people you already know.

Recipe Exchange
Science Center - Room 1
This year's conference is all about what we each bring to the table, so let's make that literal with a recipe swap. If you have a go-to or favorite recipe that friends are always asking for, share it here! We'll have a laptop set up to capture the recipes, and they'll be made available as a PDF after the conference.

Board Games
Science Center - Room 1
Grab some friends, grab some people you’ve never met, and play some board games!

Photo Contest
Science Center - Room 1
Make sure you check out all the Photo Contest submissions and vote for your favorite in each category!

Climbing Wall
9:00-10:00 pm
Science Center - Room 6
Try your hand at rock climbing at Wolf Ridge’s 29 foot indoor climbing wall. Do you think you can reach the top?

Silent Auction and Raffle
Science Center - Room 1
Help support our scholarship program by buying raffle tickets and bidding for items at the Silent Auction. Raffle tickets can be bought at meal times, and the drawing will happen Sunday at lunch. The Silent Auction will be open until 10pm on Saturday.
Cultivating Minds, Cultivating Soils!

David Abazs - Organic Farm Manager, Wolf Ridge ELC
Science Center - Room 5

Wolf Ridge has established a 6 acre farm with the intention of supplying locally grown and healthy organic food to the school’s cafeteria. This agricultural production system final goal is to provide all of the vegetables and eggs for the 140,000 meals consumed each year at Wolf Ridge. The farm is also being used to educate young people, their teachers and parents about the benefits of locally grown organic food and farm-to-school programs.

At this new farm, designed for production and education, MNA participants will explore food and farming through experiments, surveys, lab work, teaching circles and working stations. This hands-on class begins with soil physics, chemistry and biology and gives the opportunity to cultivate the soil, participate in teaching circles/crop ID, harvest vegetables and explore the world of pollinators. We will take the produce we harvest into the School Processing Facility, wash and cool the vegetables and prepare them in the certified kitchen for the MNA’s dinner vegetables.

Uncovering the Secrets of Wildlife with Remote Cameras

Ryan Pennesi - Wildlife Technician, US Forest Service
Science Center - Room 2

Our wild counterparts thrive all around us often unseen. What if there was a way to open a window to the secret lives of wildlife? Remote camera technology can provide us valuable opportunities to study and learn about the natural history of the animals in our backyards. Have you ever wondered just how often a ruffed grouse drums or when during the day a beaver will build its lodge? We can uncover answers to questions like these and many more with the tools available to the modern naturalist. This alternative perspective on wildlife photography yields images that inspire curiosity and form unique stories.

What to expect:
- A demonstration of what is possible with Remote Cameras
- How to use this technology to share stories and inspire action
- Answer questions through scientific inquiry
- Learn to set up trail cameras effectively in the field

Saturday
8:30-12:00 pm
Science Center
Winter Wildlife Track and Sign

Donnie Phyillaier

- Volunteer Naturalist, Minnesota Tracking Club and Minnesota Valley National Wildlife Refuge

Science Center - Room 4

Identifying animal tracks in the winter can be very enjoyable or a down right frustrating experience. As snow conditions are constantly changing and animals alter the way they move across the landscape, identification of the tracks left behind can be challenging, even for a seasoned naturalist. Be prepared to spend time both indoors and out, exploring techniques to identify who left that track, and perhaps what they were up to.

Campfires for FUN (Funky Underprivileged Naturalists) and Profit

Sara Harcey, Anne Jaeger & Patty Riley

- Naturalist, Naturalist, Cook, Baker Near Wilderness Settlement

Science Center - Room 3

"When you’re down on your luck and you’ve lost all your dreams there’s nothing like a campfire and a can of beans." -Tom Waits

Gathering around a fire is a magical thing. It has brought people together for centuries for protection, heat, cooking and light but also for building social bonds through stories, songs and skits. It can bring groups together through common experience. We will start with trying bow drills, flint and steel, and batteries and steel wool to get our fire going. We’ll spend some time sharing songs, stories and skits that work well with groups. Then we get to try out some fun recipes designed for cooking over the open fire!

Puppetry Plus

Seth Eberle & Anne Sawyer-Aitch

- Arts Programmer, Arts Programmer, Silverwood Park

Science Center - Room 1

Learn advanced methods of using puppetry to teach about nature from Professional Puppeteers working at Silverwood Park. You’ve all used hand puppets for performances, but what happens if you introduce PUPPETRY PLUS to your performance tool kit? Over 4 hours, you will learn how to use table-top puppets where the performer is in full view of the audience, shadow puppets, and how to create paper mache masks and puppets for children’s performances to teach about nature. Also, learn how to teach kids about nature by having them perform with puppets that they create themselves.
Networking and Member Meeting

Networking: Idea Sharing and Topic Discussions
2:30-3:30 pm
Science Center - Room 1

During this session there will be Topic-Based Stations which attendees may visit in an open format. Join in conversations at tables or start some new conversations of your own. Make sure to bring business or contact cards in case you start a discussion you hope to finish at a later date.

Table Topics:
- How to build a resume
- Interview questions
- How to incorporate agriculture into programing
- Creative camp ideas
- Adult programing
- Volunteer management
- Citizen science
- Service learning
- Social media
- Underserved populations
- Advertising
- New education standards

Annual Member Meeting
1:15-2:15 pm
Dining Hall

Join Kirk Mona, MNA President, for the annual member meeting. Kirk will present an overview of this year’s organizational accomplishments and introduce the current, outgoing and new members of the MNA Board of Directors. Afterwards, stay to help plan MNA’s 2017 conference, professional development opportunities and field trips.

Extended Networking & Break
3:30-4:15 pm
Science Center - Room 1

This is a time set aside for YOU. This is time to continue networking, take that conversation you started and continue it on a walk around Wolf Ridge, or to take some time to yourself to unpack all the things you’ve learned over the course of the day and prepare for the rest of the day. Enjoy your time and we will see you at our first Concurrent Session!

Saturday
1:15-4:15 pm
All Over
About 1.1 billion years ago, North America started to split in two parts. Fortunately, the spreading stopped after opening the 50-mile-wide Midcontinent Rift System, or the North Shore would have been an oceanic coast rather than the shore of a great lake. This presentation emphasizes the origin of the volcanic rocks of the North Shore, when lava poured out of the rift. The “and more” portion of this talk includes the potential copper-nickel-platinum mines in northeastern Minnesota (also rift-related), Isle Royale (why the heck is it part of Michigan?!), the geology of the south shore with emphasis on the post-volcanic sedimentary fill of the rift, the copper deposits of Michigan, and billion-year-old oil. Finally, we will mention some special rocks on the Gunflint Trail, whose origins are related to the Sudbury Asteroid, which hit Earth 1.85 billion years ago, 100 miles to the east.

The Minnesota Bee Atlas is a citizen science project that uses observations from volunteers across the state to learn about the distribution and diversity of native bees. One method of data collection is taking photographs of wild bees. Environmental education programs offer a rich opportunity to contribute data to the Bee Atlas and educate visitors about native pollinators. This workshop will provide the information and materials necessary to host a public bee hunt event including an introduction to native bees, protocols, photography tips, and even promotion. Many event details may be customized to the site, but each Bee Hunt should include taking photos and sharing these observations on the website iNaturalist.org to become a part of the final Bee Atlas. Host sites are encouraged to plan events as a part of National Pollinator Week in June 2017 but they may take place anytime from June to August.
Saturday Night

Photo Scavenger Hunt
Science Center - Room 1
Scout out everything on our scavenger hunt list with your group and get creative with the pictures you take. We will share your photos on the MNA Facebook page before the conference is over.

Maple Syrup Competition
8-9pm
Science Center - Room 2
This year was a particularly good year for maple syruping. Enter your site’s maple syrup (or even some of your own) in our maple syrup competition. Even if you don’t have syrup to enter, make sure to taste test and cast your vote for your favorite.

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Owl Banding
9:00 & 10:00 pm
Forest Ecology Building
Learn how to set up equipment for capturing Saw-Whet Owls, proper extraction and handling techniques, why this owl banding program is so important, and more.

Star Lab
9:00, 9:30, 10:00, & 10:30 pm
Science Center - Room 1
Check out this inflatable planetarium and hear Greek and Ojibwe stories, as well as other mythologies connected to the stars and the constellations of which they are a part.

Saturday
5:45-11:00 pm
Science Center
Get on Board with Citizen Science

Angela Isackson & Curt Oien—Minnesota Dragonfly Society Board Members, Minnesota Dragonfly Society

Science Center - Room 4

The charismatic adult dragonfly can easily draw attention with many reaching for a net or camera to get a hopeful county or state record. Catching and observing adult dragonflies is not only fun for the entire family but provides information on species distribution across the region. We can learn even more about habitat and water quality by searching for the more elusive dragonfly nymph. Spending anywhere from 3 months to 7 years in the water, dragonflies' short life on the wing is only a glimmer of their fascinating life cycle. Learning how to sample and explore the aquatic world of dragonflies is critical in understanding current pressures such as land development, invasive species, and climate change. Through this presentation learn more on the dragonfly life cycle, where to collect nymphs, and how to raise them in a classroom setting to showcase their amazing transformation. You too can grow your very own dragonfly!

Teaming Up with Teachers: Connecting to the Standards

Suzanne Trapp—Visitor Services Specialist, Minnesota Valley National Wildlife Refuge

Science Center - Room 5

Work with seasoned environmental educators to learn how to develop inter-disciplinary, standard-based activities for your site that teachers will rave about! In this session, participants will work in small groups to design their own lesson framework to share with the entire group. In this presentation, you will learn about the steps Minnesota Valley has used to develop the Partner Schools Curriculum, and then work with specific standards.

Fuiluftsliv: The Norwegian Art of Being Outdoors

Mary Morris—Interpretive Naturalist, Lowry Nature Center

Science Center - Room 3

From dramatic fjords and snow-capped mountains to dense spruce forest and bog land, Norway’s nature offers plenty of beauty and adventure. Come learn about the unique ways Norwegians connect with their landscape. I will share my experiences studying Friluftsliv (Free-air life) in the stunning Norwegian wilderness. We will touch on the background for and products of this cultural phenomenon and explore ways that we can adopt the spirit of Friluftsliv in our own nature experiences and those of our students.

Science Center - Room 2

Scientists today are increasingly seeking help from the public to collect and analyze data essential to understanding our world. Sometimes also called “Public Participation in Scientific Research,” citizen science is defined by the Oxford English Dictionary as “scientific work undertaken by members of the general public, often in collaboration with or under the direction of professional scientists and scientific institutions.” Citizen science programs today reflect a great variety of project goals and designs, and participants bring with them a wide range of interests, knowledge, skills, talents and motivations. As a result, there are many entry points to engage a broad range of audiences. Do you engage your program participants with scientific research... or wish you could do more of this? This session will explore the different types of citizen science programs, benefits of involvement, and even provide tips for starting your own citizen science project.
Lighting the Creative Fire of Interpretation

Ron “Hobie” Hobart— Educator, Self Employed

Find your creative spark to engage people with the passion and knowledge you have for the natural world. How can we make it fun, informative AND inspirational? How can we do that in a very personal way? Light YOUR fire in YOUR own unique way and those around you will catch their own spark. The fire gets bigger with each of us. Let’s start a fire!

Animal Care: Ideas and Networking

Erin Manning— Wildlife and Group Program Manager, Wolf Ridge ELC

Many nature centers and environmental learning centers use animals as a part of their curriculum. Live animals are an amazing way to capture the attention and hearts of our students. As someone that cares for these animals each day, I know that it is so nice to have other people to talk to and refer to when questions or concerns arise. I also know that we often get busy and continue to do things the same way year after year because we do not have the time to research and reflect on better ways to care for these amazing animals. This hour will be an opportunity to talk with others about ideas and compare practices, to be able to better ourselves and our abilities to give these animals the best life we can give them. Wolf Ridge is home to reptiles, amphibians, raptors, mammals, a raven and a chicken. I have been developing this animal program and caring for these animals for 12 years and would love to be able to share what I have learned and hear what other people are doing with their animal programs!

Wasp Watchers Help Detect Emerald Ash Borer

Jennifer Schultz— Wasp Watchers Program Coordinator, University of Minnesota Extension

Wasp Watchers is a citizen science project that engages volunteers in the biosurveillance of Emerald Ash Borer (EAB). Learn about the Wasp Watchers Program, a volunteer driven biosurveillance tool used in the early detection of EAB. A native, stingless, ground-nesting wasp called the smoky winged beetle bandit (Cerceris fumipennis) hunts for wood boring beetles including EAB. Cerceris fumipennis prefer to nest in sandy, compact soil with full sun exposure near trees. Baseball fields and dirt walking trails and driveways are good habitat for these beetle-hunting wasps. Citizen scientists can intercept the foraging wasps using an aerial net and the beetle prey can be captured and identified to determine if EAB is present at that site. Volunteer and help with EAB early detection!

The Opportunities of Learning from a Garden

Jennifer Elsen, Kari Nusbaum, & Johannah Christensen— Preschool Teachers/Naturalist, Dodge Nature Preschool

Children gain knowledge from hands-on opportunities, nature-based observations, place-based learning, and sensory experiences when growing a garden. Hear stories from Dodge Nature Preschool about the power of learning when gardening with young children 3-5 years old. Learn about the many wonders a child can have growing their own food and share your own successes gardening with youth.
Can our Programs be as Memorable as Game of Thrones?

Brandon Baker—Interpretive Naturalist, Eastman Nature Center

Science Center - Room 2

When people think of their favorite movie or book, it is the emotions they felt in the story that they often remember. A naturalist’s program is most effective and memorable when it too cultivates emotional responses. Unfortunately this is also the hardest part of the job and can be easy to overlook. This hands-on workshop teaches you how to break apart your program and add your own unique touch that will create those connections and help encourage your students to become better stewards of your park. This workshop teaches a step by step process to creating meaningful programs. Participants will leave with the outline for a program they devised and online resources they can use to further develop their skills. Whether you are a new naturalist figuring out how to teach a pre-made curriculum in a meaningful way, or an experienced naturalist trying to improve the programs you write, this course will give you a new tool to make your programs as memorable as the newest hit TV show. Hopefully it’s Star Trek!

Augmented Reality in Nature

Brett Sieberer—Interpretive Naturalist, Lowry Nature Center

Science Center - Room 3

Learn about augmented reality and how you can use it to add to the things you’re already doing at your center. Interactive scavenger hunts, providing information about some of your park/center’s main attractions, and storyline development during summer camps are just a few of the ways that this cool tool can be used. People are using this technology; why not have them use it where we work?

Bumble Bees and Wanna-Bees

Oakley Biesanz—Interpretive Naturalist, Maplewood Nature Center

Science Center - Room 4

Over 1/3 of our food is pollinated by bees! Get ideas and resources for teaching about Minnesota’s native bees, and their look-alike pollinators. Lean back and enjoy some nectar from a flower, while learning about which bees have the longest tongues. Leaf-cutter bee tunnels, Flying Cheetos, Fat-Pants Bees, a Boingy Craft, and other hands-on-experiences will occur. These activities were developed for 4-6th graders as a result of an LCCMR grant covering three years of pollinator educational programs, a native prairie restoration at Fish Creek Preserve, and a bee transect survey over the course of the prairie restoration.

Resumes, Cover Letters, and Interview: Dos and Don’ts

Cristina Palmisano—Interpretive Naturalist, Lowry Nature Center

Science Center - Room 5

You want to land that new naturalist job? So do a hundred other candidates. Come to this session and discover tips for polishing your resume, strengthening your cover letters, and supercharging your interview skills. Improve your chances of getting that next job. Participants are encouraged to bring copies of their resumes and cover letters to work on during the session. These will be kept private unless individuals are willing to share during the session. Come prepared to share ideas with the group.
Thank you to everyone who made this conference happen. To the Conference Planning Committee for all your blood, sweat, tears, and amazing ideas that made the conference so special. To Wolf Ridge for bending over backwards to welcome us and giving us unforgettable programing. To the MNA Board of Directors that makes this conference happen. And to all of our attendees, members and non-members alike, you make this conference worth doing.

MNA’s mission is to advance natural and cultural resource interpretation for the purpose of fostering wise stewardship of all resources.

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MNA is on Facebook. Like the official MNA Page and join the MNA Discussion Group.
Friday
4:00-5:00 Site Tour
5:30-6:30 Dinner
6:45-8:45 Sioux Chef Workshop
9:00-11:00 Social Time

Saturday
7:15-8:15 Breakfast
8:30-12:00 Workshop Session
12:15-1:15 Lunch
1:15-2:15 Member Meeting
2:30-3:30 Networking Session
3:30-4:15 Extended networking/Break
4:30-5:30 Concurrent Session A
5:45-6:45 Dinner
7:00-11:00 Social Time

Sunday
7:00-8:00 Breakfast
8:00-8:30 Packing Time
8:30-9:30 Concurrent Session B
9:45-10:45 Concurrent Session C
11:00-12:00 Concurrent Session D
12:15-1:15 Lunch
Perhaps the World Ends Here

The world begins at a kitchen table. No matter what, we must eat to live.

The gifts of earth are brought and prepared, set on the table. So it has been since creation, and it will go on.

We chase chickens or dogs away from it. Babies teethe at the corners. They scrape their knees under it.

It is here that children are given instructions on what it means to be human. We make men at it, we make women.

At this table we gossip, recall enemies and the ghosts of lovers.

Our dreams drink coffee with us as they put their arms around our children. They laugh with us at our poor falling-down selves and as we put ourselves back together once again at the table.

This table has been a house in the rain, an umbrella in the sun.

Wars have begun and ended at this table. It is a place to hide in the shadow of terror. A place to celebrate the terrible victory.

We have given birth on this table, and have prepared our parents for burial here.

At this table we sing with joy, with sorrow. We pray of suffering and remorse. We give thanks.

Perhaps the world will end at the kitchen table, while we are laughing and crying, eating of the last sweet bite.

-Joy Harjo