



The ALMANAC

A newsletter of Wolf Ridge Environmental Learning Center

May 2020 Volume 56 Number 2

RISING TO THE CHALLENGE

by Carrie Anderson, Wolf Ridge Naturalist

The sun feels warm as I sit on the telescope deck overlooking Sawmill Creek. A chorus of birds chirp at the MAC Lodge feeders while the wind in the old spruces waxes and wanes. The rainbow-colored windsock we use for Weather class lifts toward the valley, and then luffs back to rest. Korppi is chortling in her musical voice, conversing with other ravens soaring on the breeze above the cliff.

The solace of this beautiful deck view usually brings me nothing but joy, but now, in the time of the coronavirus pandemic, it feels too quiet.

Wolf Ridge was conceived amidst the increasing water and air pollution problems of the 70's. The idea was to connect people to nature and to build critical thinking skills and inspire generations to act together to sustain a quality environment. On a normal day visiting individuals can do just that at Wolf Ridge.

Today, the teachers and students, families and campers who were planning to be here learning outside are instead staying home. They have joined people around the world in an effort to solve a problem bigger than each of us, slowing the spread of the coronavirus.

While we are all isolated in our separate homes, our human need to connect with nature remains strong. In fact, it feels more important than ever. How can Wolf Ridge help individuals continue to explore, discover, learn about, and connect to the natural world while staying at home?

My mind returns to the day in mid-

Adventures in Learning Online Curriculum

Students explore Wolf Ridge and their own backyards experiencing nature from a variety of perspectives including science, history, culture, art, and literature. Every lesson includes:

1. Interactive StoryMap or alternately, teacher-guided written story and activity handouts,
2. 5-10 minute video adventure with Wolf Ridge Naturalists, also available as a printable story to read,
3. Two lessons for students and/or families to DO an activity,
4. An OUTDOOR component that you can do in your own backyard, on a walk through your neighborhood or at a safe distance from others in your local park.
5. MN State Academic Standards support, backed by Wolf Ridge's accreditation as a K-12 school.

Lessons available to date:

- Birds!
- Earthworks
- Weather
- Energy in Your Home
- Black-capped Chickadees
- Maple Trees and Maple Syrup
- Watersheds

Students start each lesson with a StoryMap*. The StoryMap is an online interactive presentation that guides the student through learning information with text, videos, photos, questions to ponder or research, links, and supporting graphics. As students progress through the lesson, they will be asked to reflect on what they are seeing on screen, then directed to an outdoor activity. They record their work in their own copy of a linked Google document, or by downloading and printing the linked pdf.



*If online access is an issue, the teacher or parent can guide students through the same material by printing the story/information and worksheets included with each lesson.

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VIEW FROM THE RIDGE

by Pete Smerud, Executive Director



Wow! Our world feels as though it's been flipped upside down. April to mid-June, our busiest season for nearly 50 years is now without the sound of children. In my 33 years with Wolf Ridge I never thought I see days such as these, but then again, we can all say that from wherever we may be in the world.

Major events regarding the impact of COVID-19 on Wolf Ridge unfolded as follows:

- March 13 – Last day of school students on site,
- March 30 – First day of organization wide staff furloughs,
- April 16 – I signed a PPP loan providing full pay to all staff through mid-June, provided by the CARES Act with the full amount to be forgivable. Immediately thereafter 100% of the staff came back on at full pay,
- April 30 – Wolf Ridge's announced cancellation of all summer programs.

I left Shenzhen, China in mid-January (just in time, given what we now know). Before I left, I was conversing with residents of Shenzhen about coronavirus spreading through their country. Soon, after my return, I was texting them to learn of the greatest challenges they were facing as they sat isolated in their homes. Access to food and cleaning supplies, keeping mental health positive in isolation, and support for online learning to schools and families were common responses from my new friends in China. With this knowledge of what might be to come we began to prepare when Minnesota Governor Tim Walz initially closed schools for two weeks. Immediately, our team began to "button up the facility" for the possibility of a long run with no occupancy, others jumped into planning for the support of school-teachers and families.

Whether you've been with us for decades or just starting, we could achieve progress immediately in supporting educators. The cover article highlights beautifully the packages we're now providing many long time, but also, new schools and families. I've heard, from people all over the country about how valued the digital learning content has been, with comments such as "Our family was planning an hour together each doing an earthwork, yet it turned into an entire afternoon of discovery shared by old and young", or "This is absolutely perfect for my sixth graders. This will be science content for next week's classes".

While change is the new normal keeping life uncomfortably unsteady, I find optimism in the response of the Wolf Ridge team. At a time when we could be hibernating, Wolf Ridge has chosen to build our capacity. Staff are developing new skills and learning experiences, engaging with schools and families in ways completely new to us. It should come as no surprise that we would do well in this moment. Among many skills, one thing naturalists do well is adapt. We now turn these skillsets to online-based facilitation of learning.

Our optimism will keep us strong. About 10 years ago on the tail end of the H1N1 crisis the Wolf Ridge Board looked at our resiliency and made a decision to boost our financial reserves. The day we feared has come. Yet, we were prepared. I can tell you Wolf Ridge will survive and will be standing strong when this is done. When this is over we'll have some important healing to do, however we'll recover with new skills and capacities in our toolbox.

Thanks to the National Recreation Foun-

Whether you've been with us for decades

or you are new to us, you've seen our leadership in sustainability and more informed connections we make with our students. You've watched us model our values while engaging students, both youth and adult, in learning that changes a society. It's what we've been doing for years. Teaching where our food comes from and how we can grow it locally, resulted in our organic farm that began in 2009. In 2016, we showcased how to live a net zero energy and water lifestyle in the first full Living Building Challenge buildings in MN. This February, for the first time, students snowshoed over the hill, plopped down in the snow and gazed in awe at Lake Superior at our land on the lake, which will teach freshwater literacy and ecology in the grandest of classrooms.

As a recipient of the Almanac you are part of the team that is making all these

things happen. Thank you. The coming months will be some of the greatest challenges this organization has ever faced. Please stand with us to help keep Wolf Ridge strong.

- First, tell our story, spread the word, and help us recruit. Schools, summer camp youth, families in our field programs or even corporate or other adult groups who would like a retreat or conference at Wolf Ridge where sustainability, team building, and connection with the natural world is interwoven with their goals. When we return to a "new normal" the power of recovery will be in our occupancy and programs.
- Second, please help us build a stronger network of supporters. It happens to me often, that people say, "Oh, I thought you received government funding", or "Oh, the schools don't pay for this out of their operating budgets?"

- Third, if you are one who is managing your affairs through this crisis rather well, please consider a donation to help Wolf Ridge make it through. Donors to our programs or to those who send children are what enable the magic and power of learning at Wolf Ridge to occur.

Many people have commented to me, "When this is all over we are going to need Wolf Ridge even more than ever." On so many levels Wolf Ridge will be integral to our recovery. Experiences of inspiration in nature and human connection will be crucial to our healing. I ask you to join in that effort. When we flip our world right side up and Wolf Ridge resumes, we can all stand proud knowing that children and families on top of the hill at Wolf Ridge will again be mixing learning with inspiration, which becomes enlightenment.✦

Wolf Ridge looks to our community at this difficult time. You can support Wolf Ridge in the following ways:

Purchase

- If you shop on AmazonSmile, type in Wolf Ridge ELC as the charity of your choice. Wolf Ridge receives a small donation for each purchase.
- Wolf Ridge's store is online. Buy any branded merchandise and share the love at <https://wolf-ridge.org/store/>
- 2021 calendars for \$18.95 each or at reduced prices for lots of 25 for school fundraising or retail resale. Proceeds of all calendar sales directly support children attending Wolf Ridge programs.

Donate

- A gift to Wolf Ridge is a gift to the youth who will lead us into the future while supporting critical needs during the Covid-19 pandemic. Visit <https://wolf-ridge.org/donate/>
- Many employers have increased their employee match programs during COVID-19. Contact your human resources or business office to see how to set up a matching gift.
- Join *Leaders of the Pack*, Wolf Ridge's committed donors who have added Wolf Ridge to their estate plan. We have 14 confirmed Leaders of the Pack. Thank you to our latest pack members: *William A. And Eloise E. Nelson Revocable Living Trust*.
- Did you know Wolf Ridge needs in-kind items too? Good condition tools, outdoor recreation gear, or even vehicles.

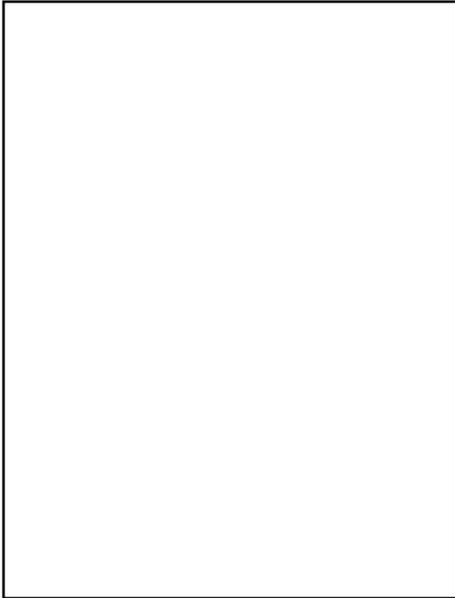
Contact

Pete Smerud at Wolf Ridge with any donation questions
pete.smerud@wolf-ridge.org or (218) 353-7762.



?????

by Christopher Dunham, ??????



■ RISING TO THE CHALLENGE continued from page 1

March when Minnesota's Governor Walz closed schools for two weeks. We made plans for the return of schools by instigating new cleaning protocols, planning for more physical distance between students during activities, and thinking about how we could give groups greater space during meals and in the dorms. Mike Krussow, our School and Group Program Coordinator, contacted teachers of the school groups scheduled for April. "Yes, we're still planning on coming," said some. "Can we re-schedule to fall," asked others?

But the pandemic situation was changing fast. I remember how quickly it became eerily quiet on campus. The quiet seeped into our next program staff meeting, though in a different way. We were gathering in the Science Center to strategize the next steps for Wolf Ridge. As we arrived, some of us were sent with laptops or phones to separate classrooms down the hall. "See you on Zoom," said a cheery Shannon Walz, our associate director. Those staying in the auditorium were greeted by chairs set six feet apart, and the meeting ensued remotely.

Collaborating from afar didn't feel natural or comfortable. True to our educational philosophy rooted in direct

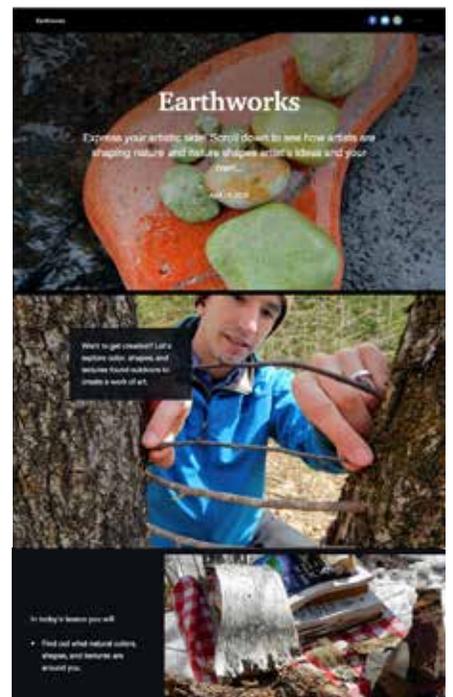
experience, we would use this meeting to hear, see, and feel this new way of learning and teaching. If this is the new learning environment, how can Wolf Ridge continue to inspire and facilitate hands-on learning experiences? Outdoors. While kids are plugged in?

Ideas swirled through the cyber-space that connected us. During our floundering around and experimenting, we discovered how to run the mute button, ways to take turns on a screen, and how this all felt in our souls. Each of us were developing a deeper understanding of the new world of remote learning. We brainstormed new ways we could create what had previously seemed an unlikely endeavor for our place-based education model- a vision for an online curriculum that could inspire hands-on experiences outdoors during the isolation of COVID-19 that would also help teachers meet MN Academic Standards.

After several reeling days of uncertainty my colleagues and I came to understand the real power of these new online lessons. Kids would still be going outside where they could connect directly, to nature and its psychological benefits. And as they learned outdoors, they might also discover the energizing power that comes from traveling out-

side our comfort zones into the worlds of exploration, invention, and creativity.

Just like our beginnings 50 years ago, we are still a community of citizens striving for the knowledge, skills, and motivation that will enable us to work together to solve the world's problems. Together, we will. ♦

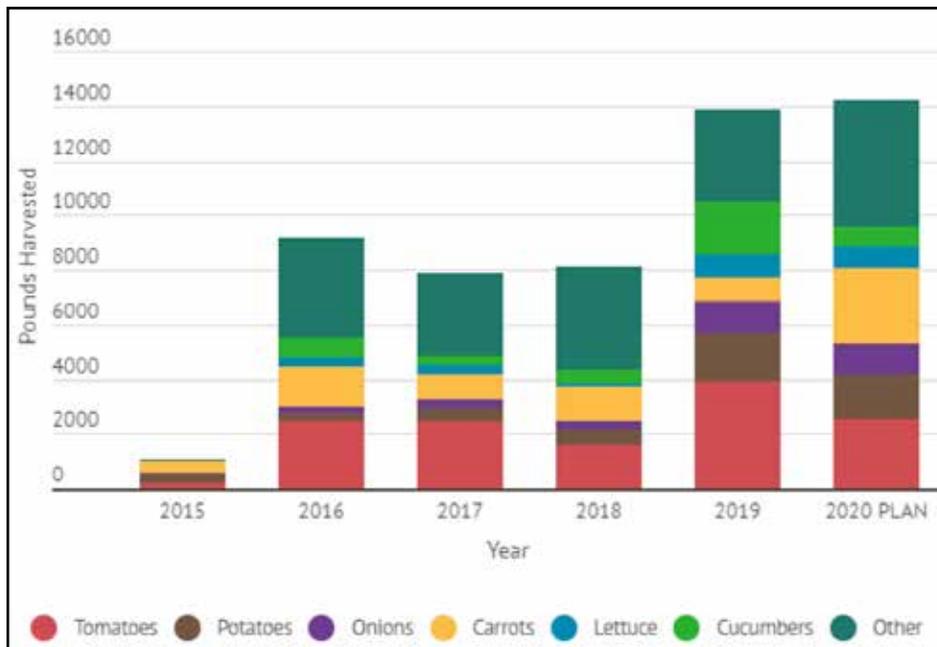


FOOD FOSTERS HEALTH & HOPE

by Sarah Mayer, Wolf Ridge Farm Manager

With a myriad of detours in life these days, we may feel a lack of engagement with, and the inability to contribute to our community in the way we're accustomed to. The importance of self care and care of those close to us are more immediate than ever as we practice our best social responsibility. We find ourselves walk-

ing the dog further, playing a dusty instrument, donning a wrinkled apron, and paging through online seed catalogs. We begin to source whole foods locally, building on community relationships. We design gardens filled with color and nourishment, source the best soil, and construct our first compost bin. And, suddenly, with our new found hope, we are engaged and contributing to our health, and the health of those around us.



As in years past, the farm's 2020 crop plan will guide the farmers progress from seed to harvest. And thus far, progress it has been! Some early spring accomplishments include: twenty LED grow lights installed, up to 100 flats of microgreens prepared, three thousand eight hundred onions seeded, three high tunnels covered, and one farm cooler deep cleaned. Wolf Ridge chefs, Chris and Jeffrey, led the charge in cutting down aspen trees that were shading one of the high tunnels. The branches will be chipped and logs will be stacked to dry for a future cordwood masonry project. The popular culinary duo also devised the beginnings of a herring gull perch deterrent for the high tunnels. In the interim COVID-19 shutdown, the farm's focus on vegetable production hasn't changed

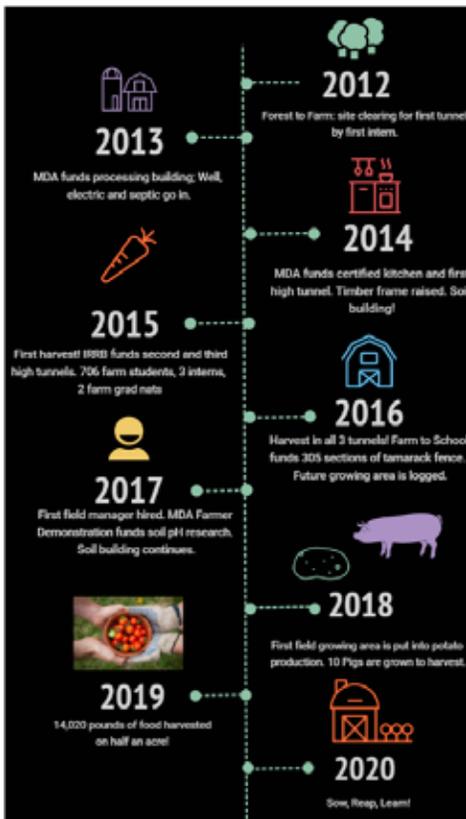
much as we stick to the crop plan. Social media tunes Wolf Ridge fans in to farm happenings and food production DIY's. Teachable moments remain plentiful.

The resident second year naturalist crew lend 8 eager hands 20 hrs per week to help keep production on track. As the snow diminishes, they will transition from indoor seeding to preparing the tunnels and fields with broadforks and compost, and then a final shallow till. Ah! The beauty in a soil laden with organic matter prepared for the ultimate direct-sown seed! There will be multiple sowings of carrots, spinach, arugula, beets, beans, and peas throughout the season from last to first frost. There will be multiple harvests to process. And in these moments, the farmers are grateful for the sunshine on their faces, the dirt under their fingernails, and the bounty that mother earth provides.



Wolf Ridge didn't start reaping the harvest overnight; just the opposite, in fact. It's taken nearly eight years of perseverance to create the farm that exists today. Wolf Ridge Organic Farm was created with great intentionality, vision, and drive, with plenty of detours along the way. From the logging to the grubbing to the Blood, Sweat,

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and Tears high tunnels, it's the combined effort of many hands that have created a space for growing and gathering.

During holidays, potlucks, fundraisers, first dates, weddings, celebrations of all kinds, food gathers us in. What better way to build a little food security than to have community cohesion and pride around nourishing our neighbors. Food connects us, heals us, consoles us, and ultimately, sustains us.

If ever there was a time to exhibit strength, adaptability, responsibility, and resiliency in our food choices, now is that time.

With the impetus for exploring a new norm in such a rapidly changing global climate, opportunities abound for eaters and producers alike to redirect life's priorities.

As we as a society turn to food to nourish our bodies, our minds, and our souls, Wolf Ridge Organic Farm serves as an example to show us how. ♦



CREATING NEW METHODS OF ENVIRO

Hartley Nature Center, Duluth, MN HNC closed down mid-March and folks have been working from home. Kaitlin Erpestad (09), preschool director and co-lead teacher is offering online circle time & lessons for students. We were mostly laid off for the month of April, but just got a PPP loan so folks ramped up again starting May 1. ~ Tiffany Smith (07), Education Director

U of MN Extension, Rochester, MN

The University of Minnesota is actively working to serve our audiences during this "Stay at Home" time. We have oriented our efforts around the goals of connecting people to nature, to our program teams, and to each other. With that in mind, we generated a slogan of #NatureInPlace and these are all playing out in a variety of ways. Our "Gathering Partners" conference has pivoted to virtual presentations and field trip and is now known as "Distancing Partners" (bring your own dinner to the virtual banquet!). We have learned to use Facebook Live and are offering workshops and open house sessions via Zoom. A variety of "Meet the Team" videos and posts share a personal connection, and #TrailTuesday video posts on Facebook invite everyone to share a moment of spring wherever they are. ~ Andrea Lorek Strauss (93), Extension Educator, Fish, Wildlife & Conservation Education

Great Smoky Mountains Institute at Tremont, Townsend, TN

Down in the foothills of East Tennessee, we are both enjoying an incredibly beautiful spring, and struggling to see a path forward while we try to stay connected and support each other as we work remotely. We have weekly all-staff zoom calls, which are updates, but also laughs and some entertainment. Special deliveries of baked goods, fun videos, and taking time for personal nature connection and journaling have helped. We are creating individualized videos for each school that missed their trip this spring - which is fun but bittersweet. ~ John DiDiego, Education Director

The Ecology School, Saco ME

The Ecology School, a residential environmental learning closed down its spring term for over 1,400 students from 23 schools from throughout northern New England, but is hoping to rebook those programs during an extended fall term 2020 and spring term 2021, along with the 2,800 students that were scheduled for school outreach and field trip day programs this spring. Current online "stay at home" programming resources from TES include Nature Nuggets <https://theecologyschool.org/nature-nuggets>. ~ Drew Dumsch, President & CEO

PANDEMIC CROSSROADS

by Shannon Walz, Associate Director

Over the past 6 weeks, as an environmental educator, and more specifically as a residential environmental educator and leader, I have been confused, challenged, stretched, and cherished. I am going through some of the greatest uncertainty I have known in my career. And I feel grateful that I get to do it with a dedicated and inspiring team that has continually focused on hope and possibility (don't get me wrong, we have all ridden the wild emotional roller coaster during this time) and held our space with each other and the people we serve.

As things have settled into their unpredictable rhythm, I have found myself reflecting on what this means for Wolf Ridge and similar organizations where colleagues and Wolf Ridge alumni work. Here are some thoughts that surfaced from my own musings and conversations with others.

• **What does it mean to meet our learners where they are at?** When we have our students at Wolf Ridge, I think we do a good job of working to get to know our students and care about where they are coming from. However, this pandemic has brought a whole new meaning to that. We LITERALLY have to engage with them at their houses and in their neighborhoods because that is the only place they can be. We are being stretched to really reimagine what this means for residential environmental education.

• **Teams generate creativity, flexibility, and adaptation.** We are getting through this because we have each other! When I find myself thinking about the future of residential environmental education, I get excited to think of the places we can go when we pool our perspectives, passion, and creativity. The power of co-creating a vision and living into it is

breath-taking.

• **Technology and environmental education.** We have been using technology as a tool in education for a number of years at Wolf Ridge. However, the pandemic is pushing us to embrace this in new and most likely lasting ways that will make our learning experience more vibrant and relevant as we go into the future. (See cover article about our Adventures in Learning Online Lessons.)

As our world shifts, I think how we lean into these ideas might be different than before the pandemic. Even in these trying times, I am a hopelessly optimistic person. I find myself hopping from one piece of inspiration, to another thoughtful comment by a coworker, to a sunny spring day to keep myself, people I know and love, Wolf Ridge, and our field as a whole afloat. Together let's build the future we want to see. ♦

ENVIRONMENTAL EDUCATION PROGRAMMING

U of MN Extension 4-H Carlton Cty, MN

The Minnesota 4-H Program is developing new online learning opportunities for youth, including some which specifically engage youth to learn and lead in natural resources experiences focused on conservation and environmental education. Examples include the 4-H Water Watchers Conservation Club, and Friday Night Phenology.

~ Dylan Kelly (15) Extension Education Youth Development

Olympic Nature Bridge Port Angeles, WA

Our last students on campus were March 13th. We have decision trees to guide us in re-opening once state/federal guidance clears the way. As an organization, we are ramping up to test distance learning to help us stay connected to our schools and students with the hopes that what we discover will help us recover even stronger when we are back to "normal". We just piloted our first session of bringing ONB to a 5th-grade classroom today!

~ Jen Kidder (04) Interim Olympic Director/Olympic Education Director

Teton Science Schools (TSS), WY

TSS suspended all overnight, residential programming until Aug 15th in response to impacts of the COVID-19 pandemic. To ensure continuity of its 50 years of education, TSS will temporarily be focusing on local and virtual/remote learning. Mountain Academy (Preschool-12th grade) began virtual learning on March 16th. Graduate Program students began virtual learning on March 23rd. Professional development programs for educators will continue 100% virtually. TSS had to lay off 26 partial year field instructors and furlough 16 field education or administrative positions.

~ Leslie Cook (05), Senior Director of Educator Development



SCHOOLS & GROUPS

Sept. 1, 2019-Aug. 31, 2020

AmeriCorps NCCC
 Amerigo Education
 Arete Academy
 Ascension School
 Ashby Public School
 Assumption School
 Badger School
 Barnum Elementary
 Bayview Elementary
 Beacon Academy
 Bemidji State Upward Bound
 Benilde-St Margaret's
 Bethlehem Academy
 Birch Grove Community School
 Birch Lake Elementary
 Blue Earth Area Middle School
 Boeckman Middle School
 Breck Middle School
 Breck Summer Programs
 Carleton College
 Carlton High School
 Cavalier Middle School
 Central Cass Middle School
 Chisago Lakes Middle School
 CHOICE Technical Academy
 Cloquet Middle School
 Community of Saints
 Congdon Park Elementary
 Coon Rapids Middle School
 Cooper Elementary
 Cowern Elementary
 Cumberland Middle School
 Dakota County Upward Bound
 DaVinci Academy of Arts & Science
 Dugsi Academy
 Eagle Bluff Staff
 Ecolibrium VISTA Corps
 Emanuel Lutheran
 Epiphany School
 Face to Face Academy
 First Lutheran School
 Five Hawks Elementary
 Folwell School - Performing Arts Magnet
 Fond du Lac Ojibwe School
 Fox West Academy
 Frassati Catholic Academy
 Friends School of MN
 Galtier Community School

Gathering Partners
 Girl Scouts Troop 4054 & 4055
 Glen Lake Elementary
 Glendale Elementary
 Grainwood Elementary
 Great Expectations School
 Great River School
 Gustavus Adolphus College
 Heilicher Mpls Jewish Day School
 Hennepin Elementary School
 Hibbing Community College
 Hilltop Primary
 Hinckley Finlayson Elementary
 Holy Name of Jesus School
 Holy Trinity School
 Homecroft Elementary
 Hope Community Academy
 Hopkins Envir. Adventures Camp
 Humboldt High School
 Imhotep Science
 Intl Spanish Language Academy
 Jeffers Pond Elementary
 John Ireland Catholic School
 Jordan Middle School
 Kelliher Public School
 King of Grace Lutheran
 La Ola del Lago
 Lake Superior Youth Chorus
 Lakewood Elementary
 Laura MacArthur Elementary
 Leave No Trace Master Educator
 Lester Park School
 Love Home School
 Loyola Catholic School
 LSS One
 Manvel Public School
 Many Rivers Montessori
 Maple Lake Elementary
 Marcy Open School
 Marshall Cty Central High School
 Marquette Catholic School
 Mary Queen of Peace
 McGuire Middle School
 Midway School
 Miltona Science Magnet
 Minnehaha Elementary
 Minnesota New Country School
 MN Valley Trust - Natl Wildlife Refuge

Minnetonka East Middle School
 Minto School
 MN Waldorf School
 Mobilize Green Crew
 Murray E2 Weekend
 Murray Middle School
 Nerstrand Elementary School
 New Discoveries Montessori Academy
 New London Spicer Middle School
 Niigaane Ojibwemowin Immersion
 North Shore Community School
 North Star Academy/Duluth Charter Edison School
 Northern Lights Community School
 Northland College
 Oak Crest Elementary
 Oak Grove Middle School
 Onamia Junior High
 Open World Learning Community
 Our Lady of Grace Catholic School
 Our Lady of the Lake
 Park River Area School
 Peace United Church of Christ
 Phoenix Academy of Arts & Science
 Piedmont Elementary
 Pine Island Adult Trip
 Pine Island High School
 Prairie Creek Community School
 Presentation of Mary
 Providence Academy
 Queen of Peace
 Raleigh Edison School
 Red Cedar School
 Redeemer Christian Academy
 Redtail Ridge Elementary
 Richard R. Green Central Park School
 Rockwood Community Trek & Travel
 Roseau School District
 Sacred Heart - East Grand Forks
 Sacred Heart - Robbinsdale
 St. Rose of Lima Catholic School
 Sawtooth Mountain Elementary
 School of St Philip
 Schoolcraft Learning Community
 SEAK Weekend
 Shell Lake School District
 Shirley Hills Elementary
 Sierra Club
 Sojourner Truth Academy

South Ridge Elementary
 St. Anthony Park
 St. Charles Borromeo
 St. Croix Catholic
 St. Croix Montessori
 St. Croix Preparatory Academy
 St. Dominic School
 St. Francis De Sales
 St. John School of Little Canada
 St. John the Baptist
 St. Mark's School
 St. Mary's School - Breckenridge
 St. Mary's School - Morris
 St. Pascal Baylon School
 St. Paul's Lutheran School
 St. Patrick School
 St. Peter's School
 St. Scholastica College
 St. Stephen's School
 St. Vincent De Paul
 Stella Maris
 Still Kickin' Retreat
 Stowe Elementary
 Superior Cathedral
 The College School
 The Way of the Shepherd
 Todd County Health & Human Services
 Totino-Grace High School
 Trinity Lutheran/Our Lady of the Prairie
 Triton High School
 Twin Cities International School
 Two Harbors High School
 Upper Mississippi Academy
 Valley Middle School
 Washington Tech. Magnet School
 Watershed High School
 Watertown-Mayer Middle School
 Wayzata Central Middle School
 Wayzata East Middle School
 Webster Middle School
 West Central Area Schools
 Westwood Elementary
 William Kelley Elementary
 Willow River Elementary
 Winterquist Elementary
 Woodbury Leadership Academy
 Yinghua Academy
 2010 Naturalist Reunion

WOLF RIDGE
 ENVIRONMENTAL LEARNING CENTERS



PHOTO © Bryan Hansel

BRYAN HANSEL

2021

The 2021 Wolf Ridge calendar features the work of Bryan Hansel. Bryan is an award-winning professional landscape photographer and outdoor educator. He has over 25 years of photography experience with over 100 publication credits from publications such as *National Geographic*, *Outdoor Photographer*, *Lake Superior Magazine*, *National Park Traveler*, *Ocean Paddler*, *Canoe and Kayak Magazine*, *Backpacker Magazine* and many more. In 2018, he received Lake Times Magazine's Best Photographer in Minnesota award. An outdoor educator and guide at heart, Bryan decided to share his passion for outdoor photography and started a photography workshop program in 2006. His programs take students to the best and often unknown locations in the northland and across the nation to many National Parks. He lives in Grand Marais, Minnesota. Calendars are available for \$18.95 shipping included. They are also available at special prices, in lots of 25, for school fundraising and retail resale. Proceeds of all calendar sales directly support children attending Wolf Ridge school programs. Email mail@wolf-ridge.org or call Wolf Ridge at (218) 353-7414 for more information and to order. ♦

PROFILE: WILLIAM KELLEY ELEMENTARY

- Silver Bay, MN, population 1,776
- grades K-6, brings 6th graders
- has attended Wolf Ridge for 49 years!
- brings about 30 students and 2 teachers and parent chaperones help during the day since we are a local school.



Please describe your school.

We are a K-12 rural school located along the North Shore of Lake Superior. We have school gardens and a school forest. The staff collaborates well with each other. Students enjoy being in school. It is a diamond in the rough.

What time of year does your school attend Wolf Ridge and why do you choose to come at that time? We attend the second week of school in September. We like to go at the beginning of the school year for a couple of reasons. First, the fall colors on campus and the surrounding hills are stunning. Second, it is a great opportunity to get to know the students and they get to know us. When we come back to school it seems we have been together for a month. Building relationships with students, in my opinion, is one of the most important things we can do as teachers to help our students be successful. I think it is a real advantage going early.

Why does your school come to Wolf Ridge? Wolf Ridge is embedded in our school and community. This fall will mark the 50th consecutive year we have gone to Wolf Ridge. Some families have 3 generations that have attended. Our friends, neighbors, and student's parents work at Wolf Ridge.

How does your school raise money for this trip? We raise money through Wolf Ridge calendar sales. It covers about 75% of our costs.

Something that surprise(s)d you/your school about coming to Wolf Ridge. What continues to surprise, impress, and inspire me is the passion of the student naturalists and the staff. This is not just a job to them. It is their life mission. I have been good friends with some of the staff for over 20 years, since our children have been going to school together. Where they live, how they live, and their curiosity follow closely the values of Wolf Ridge.

Please share any changes that you have observed at Wolf Ridge over the years your school has been attending Wolf Ridge. One of the biggest changes I have seen over the years is the emphasis on safety. When I first started taking kids to Wolf Ridge we, the teachers, would teach rock climbing and the ropes course. Now that would never happen.



Tell us about a class that is important for your students to take and why. The ropes course is the most important class. The ropes course makes one vulnerable. It strips away the veneer some of the kids put on and reveals their true selves. I get to observe that. It helps me better understand my students.

Please inform our readers about some of things your students learn as a result of their Wolf Ridge trip. The students learn about the delicate balance between nature and our influence on nature. They learn about how they can be environmental stewards. Students also learn about themselves. That they can be courageous. Be it attempting a ropes course or a rock wall or spending the entire night away from home.◆

SMELLS OF SPRING & SUMMER

by Lori Walewski, Wolf Ridge Naturalist

Ahhhh, the smells of spring and summer. After a winter of low scent sensation nothing inspires like the first whiff of lilacs, or later, that special bouquet of honeysuckle. Who hasn't rhapsodized over the fragrance of newly mown lawn or been tantalized by petrichor (the official word for the odor emitted when rain hits pavement)? Inhale deeply and let these scents relax and evoke memories. Inhale again. Wait. Sniff. Gasp. Gag. Skunk!

Warmer temperatures and higher humidity of spring and summer bring scents delightful and disgusting of out hibernation but none is as malodorous as that of a skunk. Let's examine the mystery of this offensive odor safely distant from the source.



Spotted skunk performing a defensive warning position before spraying.

We will start with the source, the skunk. Each of North America's six species emits a unique stink. The

purpose of this funky skunky odor? Defense. Because it takes over a week for a skunk to fully reload its arsenal, skunks give warning before they spray. They stomp and hiss. One species even does a handstand. Woe to those who ignore the hints. A skunk's aim is quite accurate; think 7-15 feet. However, you don't need to be that close to smell it. Humans can detect skunk odor as far away as 3.5 miles.



Close up of skunk spray leaving the anal glands.

Skunk smell has been described as a combination of rotten eggs, burnt coffee, and garlic. Chemists refer to this as a thiol chain composed of carbon and hydrogen atoms with one sulfur and one hydrogen attached at one end. Three main thiols are in skunk spray. These vile thiol odors are so strong we can distinguish one part per billion. That is approximately equivalent to a pinch of salt in 100 tons of potato chips.

I'm guessing some of you have had the experience of a pet, car, or loved one failing to heed the warning signs of a skunk about to release their chemical defense system. For those who haven't, it doesn't take much mental agility to imagine the response. Runny nose, tearing eyes, even nausea instantly motivates the

need for social distancing. Hellllllp! You'll need more than Calgon to take this odor away. A bath in tomato juice won't do the trick. Exactly when and where this tomato bath myth originated isn't known but we sure know why. We'll try anything to escape this smelly purgatory. Perhaps it was thought tomato juice would at least mask the smell.

The best way to rid yourself of the nasty skunk smell is by neutralizing it. To stop the thiols from stinking add oxygen, which binds with and converts them into sulfonic acid. You likely have two common household oxidizing agents - baking soda and hydrogen peroxide. The recommended recipe for washing your overly curious beast blends one quart 3% hydrogen peroxide and 1/4 cup baking soda, with 1-2 teaspoons liquid dish soap. Work this "shampoo" into your pet and let it sit for 5 minutes. Rinse well and repeat as necessary. Your animal may come out a shade or two lighter since hydrogen peroxide has a bleaching action. Spot test on rugs, clothing, and furniture.

Hopefully, after washing, your beloved will come out smelling like roses or at least not like skunk. Wishing you all a sweet smelling spring and summer. ♦



Striped skunk in the flowers.

PROGRAMS 2020

After carefully considering projections for the COVID-19 peak in MN and the current guidelines for stopping the spread of COVID-19 from the MN Department of Health and the CDC, we have decided to cancel programs for the summer of 2020. Depending on conditions in the later part of the summer we may offer some "pop-up" programs. Watch our social media for updates. Currently all fall programs remain in place.



Fabulous Fall Nature Geek-Out Weekend

Sept 25-27: \$325 and up

Give your inner nerd a little love! Choose North Shore Geology Exploration, Saw-whet Owl Banding, North Shore Coastal Kayaking, Lake Superior Agates, or the Wolf Ridge Sampler.

Support Wolf Ridge and Stay in Touch

Register for programs on-line or by calling Wolf Ridge.

Order calendars for your school fundraiser or friends by calling Wolf Ridge.

Calendars are available for \$18.95 including shipping. They are also available at special prices, in lots of 25, for school fundraising and retail resale. Proceeds of all calendar sales directly support children attending Wolf Ridge school programs.

Your gift supports Wolf Ridge:

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Complimentary Issue

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Wolf Ridge is an accredited residential environmental school for persons of all ages. We offer immersion programs which involve direct observation and participation in outdoor experiences. Wolf Ridge programs focus on environmental sciences, human culture and history, personal growth, team building, and outdoor recreation.

Our mission is to develop a citizenry that has the knowledge, skills, motivation, and commitment to act together for a quality environment.

We meet our mission by:

- Fostering awareness, curiosity, and sensitivity to the natural world.
- Providing lifelong learning experiences in nature.
- Developing social understanding, respect, and cooperation.
- Modeling values, behaviors, and technologies which lead to a sustainable lifestyle.
- Promoting the concepts of conservation and stewardship.