

ON THE NATURE OF LEARNING: The Spiral Learning Model

by Joe Walewski, Wolf Ridge Naturalist

“**N**obody told her that she was too young.” That’s what I thought a few days later. At that moment when I was watching her, though, I was simply dumbfounded. “How did she do that?” was all I could think as I watched an 18-month old child grab a smartphone, manipulate it to select the camera app, and then take a picture.

Perhaps you’ve seen this before. It was my first time! Since then I’ve heard similar stories.

And so I ask myself, “why is it difficult for me to learn what an 18-month old child seems to have mastered in, well, eighteen months?” More to the point, “why do I often struggle with learning fundamentally new things?” It’s both humbling and aggravating. I know I am not alone. Let’s look into the nature of learning.

Naturalists routinely work at two levels – one on the identification of individual parts of nature and another on the understanding of their relationships to each other. My specific job is to help Wolf Ridge Naturalists improve as educators. For 16 years I’ve been watching some of the best teachers do their magic while also studying the science behind good teaching. During this time the naturalist in me has been

hard at work learning about the “parts” and developing an understanding of their “relationships” to each other.

I developed a spiral learning model that describes what I have learned and aspire one day to fully embody. I use the model to help Wolf Ridge Nat-

ly lasting change in behavior that is the result of experience. David Kolb’s experiential learning model developed in the 1970s is one attempt at creating a visual diagram to simplify the very complex process of learning. Wolf Ridge curriculum and environmental education in general owes much of its philosophical framework of learning to a variety of modified versions of Kolb’s model. Search the web and you’ll find dozens of renditions. Some are based upon a slightly different set of descriptive words; others are based upon a variation of the format.

The spiral learning model owes its foundation to Kolb’s model. I’ve also integrated bits and pieces of brain biology, storytelling, and improvisation techniques. No real system, and certainly not the human brain, can ever

be fully captured by a model such as this. This is not an attempt to model complete reality, but rather to create a simple tool to use for developing curriculum and also for responding in the moment when learning is possible. The nature of learning is messy. This model is neat and incomplete. Still, it’s useful as a tool to begin understanding the process of learning. Let’s take a look.



Every moment provides new opportunities to explore and experiment with the nature of learning.

uralists imagine how to respond to the chaotic and changing world of learning and to develop promising practices for environmental education. It isn’t a model of how to teach. Rather, it’s a model of how people learn. After all, the goal here is to help people of all ages to learn.

Learning is often defined as a relative-

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VIEW FROM THE RIDGE

by Peter Smerud, Executive Director



Building for Community

A game used periodically in one of the classes at Wolf Ridge involves dropping a big pile of pennies onto the floor. The students are suddenly quite attentive. Pennies = resources (food, shingles for a roof, an iTunes card, etc.) "When I say Go, each group will grab whatever resources you need or want to live your lifestyle. You'll only have a short time to get what you need and want." "Go", and the frenzy is on.

Kids scramble on the floor to get pennies and they return to their seats with a pile. Once all the groups have grabbed their pennies and counted, the instructor begins the discussion, distinguishing what we need vs. want and to consider the needs of successive generations and others around the world. Pennies go back to the floor and successive rounds are played. How we use our resources is the basis for discussion as participants consider their choices. It's the perfect experience for setting up discussion about the future, our built environment, and our lifestyle.

One of the ways that Wolf Ridge develops environmentally connected citizens is by building community - a community that bonds on its love of the natural world and shares a concern for the future of our environment. We build communities of learners in our summer camps, with our school students, and with our staff. We structure activities to bring participants in and help them become fully engaged members within our community. They share food together, live side-by-side, play and learn as a group, adventure outdoors, challenge

themselves and each other to try new things and think new ways, and learn a lot together!

How do we gather, what resources do we choose to use in our buildings, and how do those buildings support learning and our values? The staff and board of Wolf Ridge stay focused on how best to use resources to prepare the environmental learners and leaders of our future and have begun a project to enhance our community that we are calling "The West Dorm Project".

We already know from visiting teachers and our camp director that our West Dorm facility no longer meets the contemporary needs of housing young people and adults. This summer, architects stayed in the dorm just down the hall from campers, learning from the kids and our staff about what we could do better. They are tasked with designing housing that will build an environmental learning community and look toward the needs of the future. The project will create better living arrangements, more flexible gathering spaces, and provide new and exciting hands-on learning experiences. It will create community in new ways and use resources wisely.

With support from the Margaret A. Cargill Foundation, we've hired HGA Architects and Engineers of Minneapolis, MN, to redesign the West Dorm for the future. What is a building of the future? What does it look like? How does it integrate into the land? Could it actually be restorative to the environment? Stay tuned!♦

WOLF RIDGE NEWS BRIEFS

The Summer Youth Camp two-week Adventurers carved and decorated their own **canoe paddles** that they used on their BWCAW trip.

•**New archery equipment** obtained through the MN DNR Archery in The Schools program was a big hit. All thought it was right on target.

•Camp Fish not only had fun fly-fishing but also saw **moose** on EVERY fishing trip.

•Family Camp really enjoyed the regular Wolf Ridge classes. In a new activity they sudsed it up making **felt covered soaps**. Scenic cruises out of the Silver Bay Marina aboard the Wenonah were a highlight.

•Intergenerational Road Scholars spent a whole day learning at Lake Superior culminating with a **cruise to Split Rock lighthouse**. Attendance for this program doubled from last year.

•The beginning and advanced bird banding classes filled. Participants came from across the continent. A large diversity of bird species was banded along with **Gold-en-winged warblers**, which are a species of concern that nest at Wolf Ridge. An instructor impressed two participants by simultaneously scaring off a bear and removing a bird from the net.

•The **pizza oven** and **timber frame outdoor classroom** at the farm were constructed and along with a **bee hotel** to attract native bees for pollination. The first farm classes were taught there. The annual pizza herb, sunflower, and pollinator gardens are in place. Cauliflower, greens, tomatoes, carrots, cucumbers, cabbage, and onions are being served in the dining hall.

•The kitchen now has **videos** to help explain the duties of KP and RP (recycling patrol). On our YouTube site you will now find instructional videos



for all of our evening classes. There or on our Facebook page you can also view a video of the monarch chrysalis that hatched in one of the Science Center classrooms.

•Ruby, our Red-tailed Hawk is flying in our Raptor program. A new **Big Brown Bat** has joined our animal staff team. It was found with a tear in its wing that healed deformed. Rigel will be viewed during the Bats evening program. A large Bullfrog and Maxine, a Red-eared Slider Turtle help teach kids about invasive animals.

•**Lightening** struck Wolf Ridge late this summer. The results keep igniting like the flames in the fire swamp. Our heroic maintenance staff jumped into action as issues of fried generator wiring, no water, no hot water, no ropes course lights, etc. emerged. The lightening damage (no real flames were involved) was weathered with agility, dedication, and patience.

•Recently, students very accurately described seeing a **badger** to everyone's surprise. A trail-cam photo of a badger taken a year ago in the very same area helped verify their report.♦



50TH ANNIVERSARY OF THE WILDERNESS ACT

by Steve Robertsen, U.S. Forest Service

“So,” I asked, “what’s a wilderness for?” I looked out over the small crowd of seventh grade students for a hand. No luck yet. This was the final question of the final segment of the Superior National Forest’s wilderness education program. The students have seen me before in second grade and in fourth grade, and now everything we’ve covered in the three year program is wrapped up in that one final culminating ungrammatical question: what’s a wilderness for? It’s a good question, and it has taken two naturalists, a truckload of props and equipment, and hours of work to get these seventh graders to the point where we could ask it. Fifty years ago, it took eight years and sixty-six draft bills to get Congress to a point where they understood it enough to pass the landmark piece of legislation known as the Wilderness Act. On this fiftieth anniversary of the Act, it pays for us to stop and consider the same question as Congress and the seventh graders – what is a wilderness for?



Wolf Ridge uses the Boundary Waters Canoe Area Wilderness (BWCAW) every summer for youth and family trips.

Our wild lands in the United States have experienced for many uses, but until the Wilderness Act, most of those uses have been based on human benefit. European settlers saw the wild lands as places to develop into towns and farms. By the late 1800s, some wild lands were being set aside as parks such as Yellowstone, but even Yellowstone’s reason for being was human centered. It created for a “public park or pleasuring ground for the benefit and enjoyment of the American people.”

It wasn’t until after the turn of the century that Arthur Carhart, Aldo Leopold and Bob Marshall started to

develop a different use for wilderness, a use not based on human needs and desires, but on a land ethic. Wilderness needed to be preserved not for us to use, but just because it is right. In a famous memorandum to Leopold in

1919, Carhart wrote one of the first and best descriptions of this wilderness idea: “There is a limit to the number of lands of shoreline on the lakes; there is a limit to the number of lakes in existence; there is a limit to the mountainous areas of the world, and ... there are portions of natural scenic beauty which are God-made, and ... which of a right should be the property of all people.” No designated use, just a right to exist. In 1920, Carhart used this argument to have the land around Trappers Lake in the White River National Forest, Colorado, not be used for cabins, but instead preserved roadless and undeveloped. It is a tribute to him that it remains so today. Leopold carried this one step farther in 1924 in championing the Forest Service’s creation of the

Gila Wilderness Reserve, the first area designated for use as a wilderness. The idea that wilderness is a use, just as ‘campground’ or ‘timber harvest’ are uses, is important. The Gila Wilderness was designated to be used as a wilderness and didn’t need to justify itself with a list other uses. This idea that wilderness isn’t just a description, but a use of land, opened up a whole new way of looking at things.

Over the next few decades, other pieces of land acquired land use designations as wilderness, primitive areas, canoe areas, and roadless areas. By 1955, the piecemeal method of preserving wild lands was seen to have some problems. Howard Zahniser, a former head of the Wilderness Society, stated “Let us be done with a wilderness preservation program made up of a sequence of overlapping emergencies, threats, and defense campaigns,” and wrote the first draft of what was to become the Wilderness Act. In 1956, the bill was introduced in the Senate by Democrat Hubert Humphrey from Minnesota and in the House by Republican John P. Saylor of Pennsylvania.

It took eight years, 66 drafts, and 18 hearings for Zahniser to craft the bill that would pass unanimously in 1964. The Wilderness Act became a law which states “it is hereby declared to be the policy of the Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness.” It goes on to define wilderness: “A wilderness, in contrast with those areas where man and his own works dominate the landscape, →

Wilderness Act *continued from page 4*

→ is hereby recognized as an area where the earth and its community of life are untrammelled by man, where man himself is a visitor who does not remain.” Wilderness was finally seen as having benefits all on its own. It could be set aside independent of recreational value, or esthetic value, or timber resource value, but because the resource of wilderness itself has value.

Fifty years from the passage of that law, a hand crept up from the mass of seventh graders. “Okay,” I said, “go ahead, what’s a wilderness for?” Long pause. “It’s for oxygen, right?” Well, yeah. More answers: “Homes for animals.” Of course. “Carbon sink against climate change” Ooo, they were listening! “A place to relax and be alone” Nice. “A place to fish.” Yep. And then, finally “A wilderness is for, well, it’s



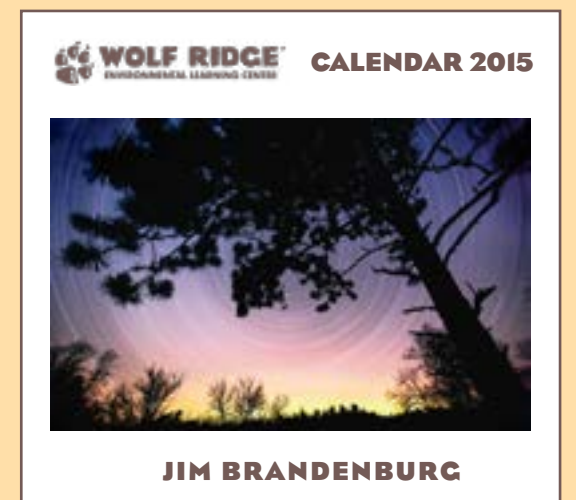
On September 3, 1964 Lyndon B. Johnson signed the Wilderness Act.

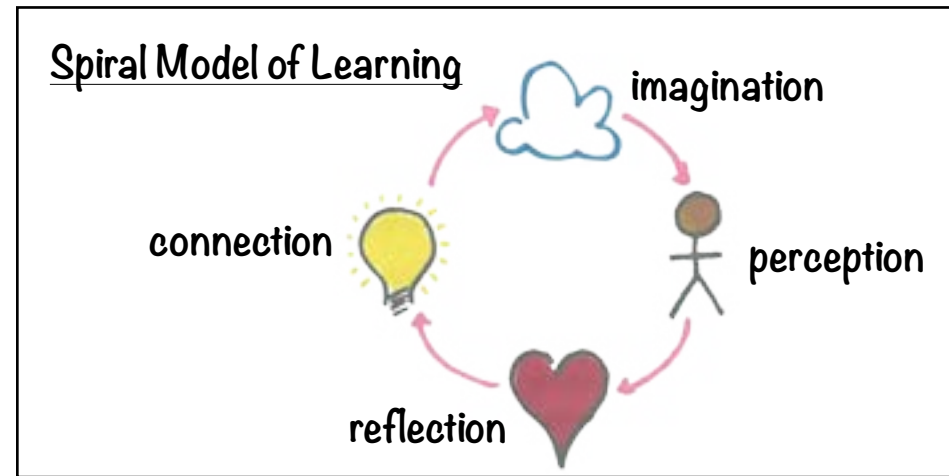


What is wilderness for? “A place to relax and be alone.”

just for wilderness.” And that, more than all the others, is it exactly. Wilderness is for adventure, clean air, carbon storage, clean water, canoeing, camping, relaxing, habitat for animals and plants - it is for all those things and more. But mostly designated wilderness areas exist because 50 years ago, people realized that wilderness doesn’t need to be for anything. And so, alongside the Civil Rights Act of 1964, is another declaration of rights. It declares that wilderness simply has a right to exist, and because of that, our land ethic calls for us to help preserve it as “an enduring resource of wilderness”.

The 2015 Wolf Ridge calendar features the outstanding photography of Jim Brandenburg. Jim traveled the globe as a photographer for National Geographic magazine for several decades. His photography has won a multitude of awards including the “World Achievement Award” from the United Nations in recognition of using nature photography to raise public awareness for the environment. Brandenburg has published many bestsellers. Brandenburg’s work can be seen on his web page www.jimbrandenburg.com. Calendars are available for \$14.00 for donor members and \$18.95 for non-donor members, 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. Call Wolf Ridge at (218) 353-7414 for more information and to order.





"Whether you believe you can or not, you're right."

~ Henry Ford

Let's return, now, to that little girl and the smartphone. At the top of the spiral learning model is the cloud of imagination. Personal beliefs drive much of that imagination. If the little girl had thought it was impossible to manage that phone, she may never have tried.

It could be that a "teacher" in her life encouraged her to try and maybe even showed her how to use the phone. Fine. Still, it all started with the belief that she could succeed. The first step on our way to helping learners learn anything, then, is to build a positive image of what is possible.



"All learning begins with personal experience."

~ John Dewey

We are constantly taking in sensory information. The stick-figure represents the next phase called perception.

Many of our metaphors are based in vision - "show" me what you mean and I "see" it. We have great trust in our senses, believing that they give us completely accurate information - that makes "sense" to me implies that our senses don't deceive.

In this phase of learning, teachers should provide learners with an authentic experience fully engaging the senses. Though the little girl most certainly would not find success with her first use of the smartphone, learning begins with her sensory perception of personal experience.



"Whatever the issue, community is the answer."

~ Margaret Wheatley

After processing sensory input, our thoughts are quickly sent on to the brain's limbic system where emotional tags are combined with the information. We have arrived at the heart in the spiral learning model. Many studies suggest that there might be 6 universal human emotions - anger, fear, disgust, sadness, surprise, and joy. By increasing or decreasing the intensity of each emotion and by combining them, we end up with hundreds of unique emotions.

Processing such a range of possible emotions is a daunting task. The natural human inclination is to test emotions and also to look to our community to see how they are responding. Teachers must provide for a safe, positive community in which to reflect on these emotions.



"Story is the most basic of tools invented by the human mind for the purpose of understanding."

~ Ursula K LeGuin

After acquiring an emotional tag, the smartphone experience is sent on to the uniquely human part of the brain called the prefrontal cortex (represented in the model by a lightbulb). Located just behind our forehead, this is where we actually do our "thinking." The region mainly serves as a repository of stories. It's where we work to make connections to previous information and stories. And we are truly wired for story.

Unfortunately, the use of this region requires great amounts of energy. As an evolutionary safeguard, we are not wired to use this section EVERY time we work with incoming information. We might call it a "habit" when we bypass the prefrontal cortex moving right on to the motor cortex with a quick response. A habit occurs without thought - habits are "thought"-less.

Habits are both good and bad. They are patterns we develop in order to save energy. At the same time, these patterns are difficult to change and routinely provide barriers to new ways of thinking. They can stop the learning process.

As the learner navigates this phase of the spiral learning model, the teacher's responsibility is to help connect the developing story with previous experiences and to help the learner make meaning of experience.



"Whether you believe you can or not, you're right."

~ Henry Ford

Returning to the apparent beginning of the spiral learning model (the cloud), the teacher's job now is to help ensure →

FIREWEED

by Lori Walewski, Wolf Ridge Naturalist

As the first buses of the new school year rolled up the Wolf Ridge driveway, their arrival was heralded by masses of waving roadside flowers. These flowers



are not the delicate and tiny white harbingers of spring but a tall and colorful bunch shouting the last joys of summer and beckoning us to fall. One can see yellow golden rods, cheery faced woodland sunflowers, and a variety of purplish white asters. A notable favorite is the Fireweed, *Epilobium angustifolium*.

This living firework of a plant grows three to seven feet tall. Its showy magenta color makes recognition easy. The flower consists of four roundish petals. Leaves are alternate, long and narrow, and without teeth. The flower-bearing stalk resembles an up-side-down waffle cone in shape. As the season progresses, upward pointing seedpods, flowers, and buds can be present all at the same time on a stalk. A common saying advises us, "When Fireweed blooms to the top, summer is over."

Fireweed has multiple common names: Willow Herb, Moose Tongue, Firetop, Burntweed, and Purple Rocket to list

a few. Many of these names reference fire and, indeed, Fireweed does have a close association with fire or disturbed areas such as roadsides. Fireweed, with its wind-dispersed seeds is a native pioneer plant that readily blows into burned areas and germinates quickly under sunny skies.

Fireweed does not enter most people's radar until it begins blooming in late summer. However, if you are thinking about eating Fireweed, the time to go foraging is spring. The young shoots can be cooked like asparagus and the young leaves as a green like spinach. If harvested too late, the taste may be bitter. Mature leaves dried can be made into a tea said to sooth and promote intestinal health.

Our Fireweed blooms are reaching the apex of their stalks. Summer is reaching its end in the north woods. Soon their cottony wisps of seeds will be floating off to settle on bare ground, ready to start the cycle again. ♦

On the Nature of Learning *continued from page 6*

→ that the learner imagines a better series of desired actions and goals.

And so the story continues. While spiraling around the learning cycle learners will hopefully meet up with success. Like "riding a bike", when we succeed at learning anything our brain begins to build habits of mind in order to reduce the expenditure of energy by the prefrontal cortex.

Models such as this are not foolproof, but they are useful in the development of curriculum and also as tools for the just-in-time decisions teachers make hundreds of times in a class. Though it doesn't capture every detail of the learning process, the spiral learning model serves as one way to guide our actions in line with the nature of learning. ♦



In August, Shannon Walz (Education Director) and Joe Walewski (Director of Naturalist Training) participated in the National Leadership Institute organized by BEETLES, a project of the Lawrence Hall of Science at University of California, Berkeley. Shannon and Joe were invited along with representatives from 17 other residential environmental learning centers from all over the United States. During the weeklong event, the organizers shared their version of a circular learning model, which has similarities to the spiral model of learning. Wolf Ridge staff is currently field testing professional development curriculum for educators for BEETLES. We are pleased to be a part of this effort to improve the effectiveness of environmental education nationwide and beyond. If you have any questions or comments, please feel free to contact Shannon Walz at shannon.walz@wolf-ridge.org or Joe Walewski at joe.walewski@wolf-ridge.org.

beetles

2014-15 SEASONAL NATURALISTS

Nils Anderson
Hometown: Two Harbors, MN
 BA Environmental Studies
 Gustavus Adolphus College

Brent Burton
Hometown: Appleton, WI
 BS Wildlife Ecology & History
 U of WI - Madison

Caitlin Cleary
Hometown: Shullsburg, WI
 BA Biology
 DePauw University

Marie Fargo
Hometown: Green Bay, WI
 BS Resource Mgmt & Env Ed
 U of WI - Stevens Point

Larissa Geibner
Hometown: Oakdale, MN
 BA Biology & Teaching Life Science
 U of MN - Duluth

Cian Gill
Hometown: Cork, Ireland
 MSc Ecological Assessment
 University College - Cork

Hannah Hemmelgarn
Hometown: Columbia, MO
 BA Anthrology-Sociology
 Truman State University

Megan Johnson
Hometown: Viroqua, WI
 BS Env Science & Biology
 University of Dubuque

Dylan Kelly
Hometown: St Paul, MN
 BA Political Science
 U of MN - Twin Cities

Haley Marks
Hometown: Geneva, IL
 BS Neuroscience
 U of MN - Twin Cities

Fiona O'Halloran-Johnson
Hometown: Morris, MN
 BA Integrated Elementary & Special Ed
 U of MN - Duluth

Luciana Ranelli
Hometown: Duluth, MN
 BA Biology, 2nd Ed - Life & General Science
 U of MN - Morris

Shane Steele
Hometown: Rochester, MN
 BA Biology
 Luther College

Sydney Stock
Hometown: Eden Prairie, MN
 BA English & Sustainability Studies
 U of MN - Twin Cities

Grace Theisen
Hometown: Minneapolis, MN
 BA Education
 Knox College

Sarah Waddle
Hometown: St Paul, MN
 BA Environmental Studies
 Earlham College



Peter Dunn (92) & Nicole (Washburn) Dunn (93) are in Boca Raton, FL. Peter is running a foundation to support LaLucena, the EE ctr he and Nicole started in Argentina. Nicole has a business selling her work as a collage artist. **Desiree Laitinen (06)** is teaching preschool in Maple Grove, MN. **Lynnae Fischbach (07)** is with Nature Bridge at their Golden Gate location as the school programmer. **Kati Christensen (11) & David Stieler (11)** finished their masters at UMD, got married and are in Strawberry Point, IA working for the YMCA. **Andrea Wakely (12)** is instructing at Nature Bridge's Golden Gate campus. **Dan Hnilicka (13)** landed a job at the Raptor Center. **Mary Beth Factor (13)** worked with our summer academic programs and is at UMD working on her masters. **Max Melby** fielded two jobs; one working at the MN Zoo and another at Eden Prairie Outdoor Ctr. **Tessa Olson (13)** is a naturalist at Camp Widjiwagan this fall. She and **Kari Smerud (SU13)** and 4 others had an epic summer adventure. They paddled from Waterfound River to Whale Cove, Hudson Bay, Canada. A highlight was eating raw whale meat with native villagers at the inaugural catch of the season. **Claire Runquist (SU13)** is at graduate school for her masters of Env. & Natural Resources at Haskoli Islands in Reykjavik, Iceland. **Eoghan O'Neill (SU14)** has a internship as an Env. Officer at the Larne Borough Council in County Antrim, Northern Ireland. **Class of 2014: Milo Anderson** spent the summer working the Lake Superior Zoo with summer camp. He is attending UMD for his EE masters. **Alaina Clark** took an epic road trip this summer and landed this fall at Trees for Tomorrow in WI. **Susan Delfs** was the Eco-Zone program coordinator at W. Alton Jones Camp, RI. She's staying in RI doing EE work. **Lauren Evans** created instructional videos for WR about our evening classes, KP, and RP. She also worked at Camp Needlepoint and Camp Sioux. Lauren is working at New Horizons. **Danielle Hefferan** taught at WR this summer and returns as a 2nd year mentor naturalist. **Amy Hughes** spent her summer working day camp at the Omaha Zoo. She's now in UMD's masters EE program. **Mike Krussow** was a WR summer naturalist leading Camp Fish and Angling to Archery Camp. He continues here for a 2nd year. **Marie Laudeman** was a state park naturalist in IN. She is now at Purdue U pursuing an EE masters. **Meredith Lorig** worked on recovering from a knee injury. She returns to WR as a 2nd year mentor. **Alyssa MacLeod** worked at VT Institute of Natural Sciences doing day camp and raptor care/handling. Fall finds her in CA doing EE. **Geneva Martin** worked with the summer academic programs at WR. Geneva is attending N MI's Public Admin. masters program. **Brooke Mueller** was WR Director of Counselors and is at S Oregon U EE masters program. **Emma Pardini** worked as the WR naturalist at Bluefin Bay. **Ryan Pennesi** worked at Animal Adventures Exotic Zoo & Rescue Center as Animal Handler & Presenter. He is back as a mentor naturalist. **Eleva Potter** was WR's family camp and Road Scholar program coordinator. She joins others at UMD. **Kristen Reich** was at WR and is in U of WI-La Crosse's masters for outdoor recreation. ♦



PROFILE: Tom Osborn

What is your connection to Wolf Ridge ELC? In 1979, my close teaching buddy, Doug Hage, and I started bringing fourth graders from Hilltop Elementary School in Mound, MN, to Wolf Ridge. Bringing kids to Wolf Ridge continues today, as Doug and I joined Hilltop in May for the school's 35th year. In addition, I'm very privileged to be a member of the Board of Directors at Wolf Ridge, starting my 7th year.

What is your current occupation? I'm currently retired from teaching, although I do some subbing at Hilltop and organize a rock program every year for 4th graders there. My wife and I spend several months during the year hanging out in Mesa, AZ, teaching and working in a lapidary shop.

Tell us about your family. My family includes my wife, Lynn, of 44 fantastic years and three wonderful daughters and sons-in-law. When not in Arizona or Minnesota, my wife and I are traveling to see our daughters in Portland and Salt Lake City. Now that we are grandparents as of July 13th, we will be traveling more to Salt Lake City to be with our new grandson, Dylan. Also, one of our daughters in Portland is expecting in December, so we will be seeing the Pacific Northwest on a regular basis. The travel highlight of this year was hiking to Havisupai in the Grand Canyon, exploring the amazing waterfalls in this mystical place.

Tell our readers about something you have learned from your Wolf Ridge experiences. I'm always amazed when young learners who are considered underachievers at their home schools thrive in the learning environment at Wolf Ridge.

Please share a Wolf Ridge memory. There are so many memories from Wolf Ridge. However, the one that seems to surface in my old brain is when Susie was at the ropes course. Susie, a shy and awkward girl, survived the first element of the course; but she hit a stone wall at the Burma bridge. Sobbing, she said, "No way, I'm done." The other kids in the class said, "Susie, you can do it. We were scared too, but don't give up." After thirty minutes, (it seemed like hours) Susie finally made it across the Burma bridge. Classmates continued cheering and calling positive comments. "Susie rocks. You can do it." Susie continued to cry but slowly tackled the remaining challenging course stations and finally reached the last element with the zipline. At that point, Susie froze, but her classmates advised her to sit, smile, and that they would cheer her all the way down the zipline. Susie finally inched her body off the hard wood platform and whizzed down. As she was being helped off with her harness, Susie had the biggest smile on her face. At the culminating activity, Susie, who is normally a quiet student refraining from raising her hand in class, raised her hand up the in air and said, "I would like to thank everyone for helping me have the greatest day of my life."

What is your favorite place at Wolf Ridge and why? My favorite place at Wolf Ridge is sitting on the gigantic railroad-size anorthosite boulders on top of Marshall Mountain. The scenic vistas of Lake Superior and Wolf Lake are amazing. Such a peaceful and tranquil setting!



What are your hobbies? I love playing tennis, collecting rocks, fishing, hiking, and reading.

What book and/or movie would you recommend others read? As an avid reader, it is difficult to pick out one favorite book, but top on the list would be *To Kill at Mockingbird*, *Into the Wilderness*, and *Desert Solitaire*.

Any final comments? We need to convince more administrators and teachers to bring their students to Wolf Ridge to experience "learning in the woods!" The students have an incredible time filled with so many positive growth experiences and, at the same time, learn about being environmental stewards of our planet. Wolf Ridge continues to be an outstanding opportunity for students, teachers, and parents to experience hands-on education in an exceptional learning environment. ♦



PROGRAMS

WINTER



Winter Camp: (4th-9thgr) Dec 27-31, 2014
Fee: \$380 includes round trip Wolf Ridge bus service from Twin Cities or Duluth.

The snow on the ground simply allows you to create brand new footprints every day. Come up for four fun-filled days at Wolf Ridge during the winter school break between Christmas and New Year's day where you can strap on some snowshoes and explore our 2,000-acre campus, build snow sculptures, dogsled and more.

Winter Family Camp: Dec 27, 2014-Jan 1, 2015
Fee: \$325/person ages 5-adult \$162.50/person ages 2-4 Free for children under 2.
 Reflects one room per family/group.

Discover the joys of winter while skiing through the crisp snow, peering into a frozen lake through a dark house, snowshoeing to a spectacular view of Lake Superior and dog sledding through fresh fallen snow. Ring in the New Year with new friends at the family folk dance and celebration.

Winter Grand Adventure Road Scholar Intergenerational: Dec 27, 2014-Jan 1, 2015
Fee: Starting at \$579

Give your 8-12 year old grandchild the priceless gift of your time as you explore Minnesota's northwoods in winter with them. Through hands-on activities and outdoor discovery, you'll ice fish and explore winter lake ecology, snowshoe to an Ojibwe site, hop on a dogsled, climb our indoor rock wall, try new crafts and many more activities. Call Road Scholar at 1-800-454-5768 to register.

SUMMER 2015

Fun for All Ages

- Summer Sampler:** (2nd-5th gr) June 24-27, Aug 19-22: \$352
- Discoverers:** (4th-5thgr) June 21-27, July 12-18, July 19-25, July 26-Aug 1, Aug 2-8, Aug 9-15, Aug 16-22: \$552
- Voyagers:** (6th-7thgr) June 21-27, July 12-18, July 19-25, July 26-Aug 1, Aug 2-8, Aug 9-15, Aug 16-22: \$552
- Adventurers:** (8th-9thgr) July 19-25, July 26-Aug 1, Aug 2-8, Aug 9-15: \$567
- Day Camp:** (1st-7thgr) June 22-26: \$177
- Voyagers 2-wk Ultimate Survival:** (6th-7thgr) Aug 9-22: \$1200 **NEW**
- Angling to Archery:** (6th-7thgr) Aug 16-22: \$602
- Camp Fish:** (7th-8thgr) July 12-18: \$602 **NEW**
- Camp Rock Climbing:** (8th-9thgr) Aug 9-15: \$602 **NEW**
- Ecology Credit Camp:** (10th-12thgr) July 12-Aug 8: \$2000
- BWCAW Canoe:** (7th-8thgr) July 5-11, Aug 16-22: \$572
- Sailing Lake Superior:** (7th-8thgr) July 21-27: \$800 **NEW**
- Counselor-in-Training:** (10th-12thgr) Aug 2-15: \$1200
- Adventurers 2-wk BWCAW Canoe:** (8th-9thgr) July 12-25: \$1278
- Adventurers 2-wk Isle Royale Backpack:** (8th-9thgr) July 26-Aug 8: \$1278
- Apostle Islands Kayak:** (9th-10thgr) July 26-Aug 1: \$668
- Isle Royale Kayak Expedition:** (10th-12thgr) June 28-July 8: \$1400 **NEW**
- Jr. Naturalists 2-wk Quetico Canoe:** (10th-12thgr) July 19-Aug 1: \$1343
- Jr. Naturalists 2-wk Apostle Islands Kayak:** (10th-12thgr) Aug 2-15: \$1343
- Family & Group Wilderness Trips:** Call for ages, dates, & prices
- Summer Family Camp:** (all ages) July 26-Aug 1, Aug 2-8: \$390 5yrs-adult, \$195 2-4yrs, 1 & under free
- Road Scholar Intergenerational:** (8-12yrs) July 5-10, July 19-24, Aug 9-14: Starting at \$579



Visit our website at:
WOLF-RIDGE.ORG
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Names and ages

CAMPERS & YOUTH TRIPS

Birthdate _____ Grade entering _____
 T-shirt size: Child S M L Adult S M L XL
 Roommate request _____

Do we have permission to include your camper's name, age and primary phone number on a carpool list sent to other registered participants? YES NO

BECOME A DONOR MEMBER

\$35 \$50 \$120 \$250 \$1000 \$ _____

Your gift supports the Wolf Ridge mission.

WOLF RIDGE CALENDARS

\$14 donor members/\$18.95 non-donor members per calendar (includes postage).

PAYMENT

Registrations must be accompanied by a \$150 non-refundable deposit, family programs \$50/person. Program fee minus deposit due two weeks prior to program start.

Payment Enclosed: Donor Member	\$ _____
Program Deposit	\$ _____
Program Fee	\$ _____
Calendar	\$ _____
Total Enclosed	\$ _____

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WOLF RIDGE
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*Complimentary Issue
Please consider becoming a
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A student releases a banded Black and White Warbler.

Wolf Ridge thanks these \$1,000+ donors:

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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.