Korppi, the Raven
by Danny Pirtle, Wolf Ridge Naturalist

As I walked towards the Science Center early one February morning, I heard a bird call ringing through the woods that I had never identified before. My first instinct was that it sounded like a Pileated Woodpecker, but there was something about the call that was just a little bit off. As I entered my office, some of the other naturalists present were discussing the strange, Pileated Woodpecker-like call; no one could place what kind of bird would be making that sound.

A few weeks later, I was again walking towards the Science Center when I heard the sound again, only this time, it sounded even more distinctly like a Pileated Woodpecker. I decided I needed to investigate. I headed around behind the building and I immediately identified the culprit perched at the top of her enclosure, beak-open wide, emanating her best impression of a Pileated Woodpecker. It was Korppi.

Korppi is a Common Raven and the latest addition to Wolf Ridge’s team of education animals. Her name is the Finnish word for raven.

As with all of our wild education animals, Korppi is permanently disabled and unable to be released into the wild. Unlike our resident raptors, Korppi does not have a physical disability. When she was a chick, some well-intentioned people found her without her parents and made the assumption that she had been abandoned. In actuality, this was probably not the case. It is quite regular behavior for raven parents to leave their chicks alone while out looking for food.

Korppi’s month-long hiatus from the wild happened during a critical time period in her development, so when she was brought to the wildlife rehabilitators in Duluth, it was determined that she was no longer fit to be released in the wild. This made her a perfect candidate to become an education animal at Wolf Ridge.

Having a captive raven at Wolf Ridge is a great opportunity for hundreds of children to get exposure to an amazing bird every week, but it is always preferable that wild animals be able to live their life in the wild. Wild birds and other animals should never be kept as pets. If you ever find a wild creature that appears to be injured or abandoned, contact your local wildlife rehabilitation center before taking any action.

Since Korppi is a wild bird, one of our goals as caretakers is to provide a lifestyle that most accurately mimics life in the wild. This is especially challenging because ravens are active and intelligent birds.

Providing Korppi with daily enrichment activities is continued on page 4
Wolf Ridge’s Changing World

I am usually not a guy that embraces change well. Now my wife, Sue, is a person who loves change, even to the point of occasionally rearranging the living room on a weekly basis. I’m left cursing the new placement of the coffee table and nursing a sore shin. I am excited, however, as Wolf Ridge embraces change on so many levels. Our 2012-2015 strategic plan laid some very big plans. We’re one year down the path and achieving tremendous results.

Anyone following Wolf Ridge may be familiar with most of these changes:
- Installing a solar domestic hot water system replacing our wood boilers with a biomass pellet heating system.
- Upgrading our treatment of wastewater.
- Replacing our wood boilers with a biomass pellet heating system.
- Breaking ground for our organic farm.
- Installing energy saving lights, doors, and toilets.
- Improving our evaluation and training for naturalists.
- Marketing efforts to increase camp and family attendance.
- New branding and imagery supporting our marketing.
- Making plans to radically remodel our West Dorm.

With incredible success over the past decades, Wolf Ridge is forging ahead with great enthusiasm. If you’re a member donor, parent, summer camper, or teacher you’ll be pleased as well. Wolf Ridge is going places and it can be challenging to stay abreast of all the changes. Even staff members comment to me on how challenging it can be to stay up to date.

I’m adjusting to the relocation of my favorite chair in the living room. I’m excited for the changes and learning experiences that make Wolf Ridge even better and more appropriate as we look to the future.

A few conversations and experiences of the last few months really have me thinking about how Wolf Ridge fits into today’s changing world.

In this first situation, a child was escorted to the Wolf Ridge office. The child complained of pain and limping and was concerned of a possible lower leg injury. As a ski patrol and a Search and Rescue EMT, I rose to the call. The exam left me baffled. Good patient assessments grow out of relationships and development of a narrative. I dove deeper. After learning more about my patient, it finally hit me. This child had a sore muscle! He had never been sore in his life. He had just walked to Sawmill Creek and back, a 1.25-mile walk with 300’ of elevation difference. This child’s lifestyle had never, ever, included activities that caused him to be sore.

Then, at a recent training seminar someone pointed out that the parents of the students who are now attending Wolf Ridge are the parents of children attending Wolf Ridge school programs. Call Wolf Ridge at (218) 353-7414 for more information and to order.

These stories really illustrate some of the changes occurring in society today. Wolf Ridge is continuing to evolve to meet these needs. Since our beginning at the ELC in Isabella, Wolf Ridge’s class listings have greatly expanded. The manner in which we deliver the Wolf Ridge learning experience has also changed. When we first began using a climbing wall at the ELC in Isabella in 1975 many considered it a tremendously bold move. We weren’t necessarily trying to teach the skills of climbing. We were looking to achieve a deeper, richer personal experience to enhance and anchor the content learning. This concept now permeates much of our curriculum.

The efforts of Wolf Ridge are some of the most important of our society. Wolf Ridge’s importance, relevance and need continue to grow. Environmental education grew from the “back to nature” movement of the 60’s and the first Earth Day. Our mission remains much the same from our origins in 1971, but the context and need is changing quickly. Our curriculum now includes information and activities covering genetically modified organisms, healthy and fit lifestyles, renewable energy, a changing climate, and of course ecology. Students and our classes also utilize technology to aid students’ learning. The Wolf Ridge experience serves as a piece to the puzzle building toward a stronger future for us all. Wolf Ridge needs to change as society changes.

Change is here, and more is coming. I’m paddling my shins and embracing it!
Danny enjoys reading, ravens, bird banding, of providing a happy, natural world, it is no has enjoyed working at Wolf Ridge. While playing trivia board he enjoys teaching and learning about trials and triumphs with the education biking, hiking, and Danny Pirtle is an degree, both of these theories are true. Heinrich argues that, to a responsible for raven intelligence or do “well- neurons and synapses. However, the question coalitions of pairs, and the mutual relationships within raven groups, their ability to recognize many chapters the social hierarchies that exist highly social creatures. Heinrich describes in . Ravens are scavengers in the wild, meaning they are always searching and working to obtain their food. For Korppi, we might be around her enclosure, put raisins in the branches of her tree, bury a hard-boiled egg in the snow, put crickets in a plastic container with one small opening, or put live minnows in her pool of water. In all cases, she has to do some level of work to find and/or obtain her food, just like she would in the wild. Sensory enrichment is anything that engages Korppi’s senses of vision, hearing, smell, or taste. In other words, we are constantly putting novel stimuli in her enclosure to mimick the fact that she would always be encountering new things in the wild. This might include hanging a colorful toy from a perch, playing frog calls sounds on a CD player, or adding interesting spices to her food. Our daily challenge as animal caretakers is to keep Korppi’s brain engaged. Furthermore, since she is living in a small enclosure instead of in the great outdoors, we need to keep her body active. Her enrichment comes in the form of a multitude of different activities that encourage a healthy body and mind, but generally fall into four larger categories: • Foraging enrichment is creating a situation where Korppi has to work to obtain her food. This is especially important because ravens are scavengers in the wild, meaning they are always searching and working to obtain their food. For Korppi, we might be around her enclosure, put raisins in the branches of her tree, bury a hard-boiled egg in the snow, put crickets in a plastic container with one small opening, or put live minnows in her pool of water. In all cases, she has to do some level of work to find and/or obtain her food, just like she would in the wild. • Sensory enrichment is anything that engages Korppi’s senses of vision, hearing, smell, or taste. In other words, we are constantly putting novel stimuli in her enclosure to mimick the fact that she would always be encountering new things in the wild. This might include hanging a colorful toy from a perch, playing frog calls sounds on a CD player, or adding interesting spices to her food. • Manipulanda enrichment is anything that Korppi can manipulate or “play with,” that will specifically challenge her motor skills. This represents the effort that is oftentimes required for ravens to obtain food in the wild. This might include giving her a phonebook to tear apart, hiding food inside a paper bag filled with newspaper strips, or putting treats inside of an old mayonnaise container that she has to figure out how to open up. • Training involves working with a human and performing certain actions to earn positive reinforcement (in this case, raisins, mealworms, peanuts, etc.). When Erin Manning, Wolf Ridge’s animal care coordinator and I first started training Korppi, our main objective was simply to get her comfortable with humans (specifically us) and teach her to correlate humans with positive experiences. This primarily involved giving her lots of treats for coming closer and closer to us. As Korppi learns to trust us, we train her to do more complex activities, which include perching on various perches in the enclosure, flying to perch on Erin’s arm, or staying in one spot while we enter and leave her enclosure. Training is an important part of Korppi’s daily enrichment because she is constantly trying to figure out what we want, how she can earn a treat, and we are able to positively reinforce behaviors that will help Korppi to be a more successful education animal.

As Korppi is still a relatively recent addition to Wolf Ridge, (she joined us August 2012), the possibilities for using her in various classes are still to be determined. Many naturalists take their Bird Classes to visit her enclosure, discuss her story, and sometimes assist in creating her daily enrichment activity. The look of wonder on a class of eighth graders’ faces as Korppi figures out how to get an apple slice out of a closed yogurt container says it all to me. This incredible wild raven has a lot of lessons to teach. Continued from page 1

Korppi, the Raven

In an experiment to test raven intelligence, biologists Bernd Heinrich tied two strings to the perch of one of his captive ravens. Meat was tied to the end of one of the strings, while the other was simply tied to a rock. When tested, the raven never failed to select the string holding the meat, pulling it up using its feet and beak, and reaping the rewards. Since there clearly was no challenge in this test, Heinrich tried crossing the lines. With this new challenge, the raven clearly spent time studying the situation to determine which string had the meat, before exerting the effort to pull it up. Why are ravens capable of these intellectual feats? There are a number of factors involved as Bernd Heinrich explains in his second book about ravens, Mind of the Raven: Investigations and Adventures with Wolf-Birds. Ravens are highly social creatures. Heinrich describes in many chapters the social hierarchies that exist within raven groups, their ability to recognize other individuals, the formation of pairs and coalitions of pairs, and the mutual relationships formed with dangerous predators. Living a lifestyle that involves social complexity encourages creation and strengthening of neurons and synapses. However, the question remains, Is a socially complex lifestyle responsible for raven intelligence or do “well-developed” raven brains allow for a socially complex lifestyle? Heinrich argues that to, a degree, both of these theories are true.

Erin places a peanut in a rope that Korppi pulls up to retrieve.

Nature of Things

Joe reviews an evaluation with Max Melby.

Congratulations, Joe!

Wolf Ridge Naturalist Honored

Joe Walewski, Wolf Ridge’s Director of Naturalist Training was recently named Nonformal Environmental Educator of the Year 2013 by the Minnesota Association for Environmental Education (MAEE). This honor is awarded to one recipient each year that exhibits innovative and exemplary effort in front line interpretation and environmental education.

Joe has been employed by Wolf Ridge since 1991. He became familiar with Wolf Ridge in 1988 when he was a Student Naturalist. He then taught environmental education at Jekyll Island 4-H Center, GA and Ashokan Field Campus, NY before returning to Wolf Ridge. Joe first worked at Wolf Ridge as the School Program Coordinator then as Adventure Education Assistant before moving into the position of Director of Naturalist Training. He has monitored over 200 graduate students in his 13 years in this position.

With a B.S. in Wildlife Biology from Iowa State and M.S. in Education from U of MN - Duluth, Joe’s teaching has benefited at least 70,000 students from kindergarteners to senior citizens.

Highlights include:
• teaching classes on topics including animals, plants, lichens aquatic habitats, earth sciences, human culture and history, personal growth, photography, and more
• devising an Environmental Education Competencies Manual
• innovative training elements including improvisation, storytelling, and photo-based evaluations
• a second year apprentice program at Wolf Ridge where graduates of the Wolf Ridge student naturalist program can spend a second year working alongside professional staff focusing on a specific area of interest
• student teacher program where undergraduate education students can gain experience (10 weeks in a traditional classroom and 29 weeks at Wolf Ridge) in interdisciplinary and experiential education while completing a teaching practicum to earn their teaching license
• writing and photography for the book, Liens of the North Woods
• volunteering with the Midwest Peregrine Falcon Restoration Project, rare species botanical survey, MNA, and MAEE

Nature of Things

Joe!
Salamanders
by Tom Pearce, Wolf Ridge Naturalist

How big are the salamanders? Asked a 5th grader who was studying our salamander terrarium as I was passing. Quickly scanning the terrarium, I couldn’t find either of them. I figured they were underneath the soil. “Let’s see what this information sheet says. It says here that Tiger Salamanders are between seven and thirteen inches long and their names are Trout Slayer and Littlefoot.” The student looked up at me and said, “That’s way smaller than the biggest salamander in the world.” I had to ask, “Which one is that?” He smiled and taught me, “The Chinese Giant Salamander, and it’s six feet long!”

Students at Wolf Ridge often amaze me with their animal knowledge, and after this brief exchange, I realized that I knew very little about Tiger Salamanders. In fact, I realized I knew very little about any Minnesota amphibians. So I did what any resourceful naturalist would do. I visited our library and then met with Erin Manning, our Animal Program Coordinator.

An amphibian is a vertebrate animal that can live both on land and in water. (Frogs are probably the signature amphibian.) Amphibians have a life cycle that includes transforming from an aquatic larva with gills to an adult with lungs. A few though, live entirely in water and keep their gills. A reptile, on the other hand, breathes through lungs immediately and is a miniature replica of its parents; no physical transformation is required. There are nineteen amphibians native to Minnesota, and six are salamanders. Our salamander friends, which are sometimes confused with lizards (a reptile) can be distinguished from each other by remembering that salamanders have smooth, moist skin rather than dry scales.

As members of the mole salamander family (Ambystomatidae), Trout Slayer and Littlefoot would spend the majority of their adult lives underground. Before the ground freezes in fall, Tiger Salamanders excavate or use another animal’s burrow. Nestled as far underground as sixty centimeters (two feet) beneath the surface, they wait out the winter, motionless in a state known as torpor. They slow their heart rate and metabolism, retaining enough energy through the season so they are ready to travel to breeding sites the moment spring arrives. Rainy April nights bring the creatures forth, signaling them to the nearest pond, wetland, or lake. This is the best time to look for salamanders. Highways are a likely place to spot them, along with woodpiles and rock piles. After mating, females lay 20-100 gelatinous eggs in an aquatic environment. Some of the larvae, if densely populated, may become cannibal morphs. As the name suggests, these deviants grow larger heads with wider mouths in order to exploit the nearby food supply; their brothers and sisters. Those that survive into adulthood, which they reach by September, then spend their time hunting for worms, snails, insects, and small mice. Salamander adults are prey for owls, snakes, badgers, or bobcats.

Thanks to the naturalist who purchased them as adults from a local bait shop in Finland, Trout Slayer and Littlefoot no longer need be wary of predators. Both ten inches long, our Tiger Salamanders have dull, gray-brown backs and lack the signature yellow spots common to many of their species. Their smiles are as wide as their broad heads and their eyes protrude from their smooth heads. Hanging out under a rock, log, or soil a head will poke out now and then to watch for action. Burrowing under the soil is a favorite activity, however our salamanders stay active all year round in the controlled indoor climate. If I step close and lean over, Trout Slayer immediately comes out to say hello. Littlefoot is usually right behind. They eat a few crickets every other day, and over the course of a year, meet thousands of students. They may not be six feet long, but I believe they inspire plenty of curious Wolf Ridge visitors to discover amphibians. I’m certainly one of them. ♦

Counselors
Hattie Giest
John Hackett
Abby Michels
Savannah Miller
Emma Runquist
Bailey Shatz-Aken

Naturalists
Max Beeches
Brent Hennen
Anna Keenan
Maria Sabljak
Katharine Chute - and Trip Leader

2013 Summer Staff

Asst. Trip Leaders/Counselors
Jack Armstrong
Justin Cole
Mark Harris
Evan Lahr
Brandon Liddiard
Andrew Lynam
Megan Malinowski
Eoghan O’Neill
Claire Runquist
Amy Sullivan
Kari Smerud

Summer Camp Director of Programming - Grace Theisen
Summer Camp Director of Counselors - Rachel Zacher
Summer Camp Director of Health Services - Nickie Swenson
Assisting in Staff Development, Mentoring & Trip Leading - Brandon Trapp
Animal Care & Education Intern - Haley Appleman
Family Camp Onsite Coordinator - Mary Bryant
Road Scholars Onsite Coordinator - Nikki Field
Bluefin Bay Naturalist - Sara Sloan
SEAK/HSECC Naturalist - Liz Doane
SEAK Naturalist & Murray Jr. High EII Program Naturalist - Kim Swanson
SEAK Naturalist & Murray Jr. High EII Program Naturalist - Mary Beth Factor
SEAK Naturalist - Emily Foubert

Murray Jr. High EII Program Naturalist - Robyn Char

Amito (Richard) Haarhuis (91) is a Deputy Director at Science Center NEMO, the largest science center in the Netherlands with 528,000 visitors in 2012. Linda (Kressin) Martin (93) was a parent chaperone for Oak Park Elementary School’s trip to Wolf Ridge. She was a High School language arts teacher for many years. Recently she is home but is looking to teach again. Bryan Rebar (98) received his masters and PhD and is instructing at Cal Poly Technical U – San Luis Obispo and is the Science Teacher and Research program (STAR) coordinator placing undergrad students seeking teaching license in a practicum of “real science” such as research, to balance their teaching practicum in the classroom. Kristi (Achor) Pursell (06) is excited to bring her son, Henry, born Sept 7, 2012 to Wolf Ridge. Jenni Poliseno (10) finished her M. Ed in EE in Duluth and is now teaching preschool in the Twin Cities. She and her students love searching for signs of spring! Jenni is also serving on the MAEE board. ♦

Nature Notes

Tom is originally from a suburb of Chicago, and has been teaching and working on conservation trail crews for the past three years. He enjoys running on trails and reading about the history of anything. Tom’s favorite part of being at Wolf Ridge is exploring Superior’s North Shore.

Littlefoot & Trout Slayer, Tiger Salamanders.
Today I went for a walk in the woods.

A Walk in the Woods

What is your connection to Wolf Ridge ELC?

What is your favorite place at Wolf Ridge and why?

Anything else you would like to share with our readers?

Profile

Donna Hill supports Wolf Ridge with a planned giving donation.

Donna Hill

Donna Hill Hill supports Wolf Ridge with a planned giving donation.

As Donna considered how to support Wolf Ridge she spoke to her financial advisor and decided to make a stock gift each year (“easier than writing a check”) and to include Wolf Ridge in her estate planning. “When a place like Wolf Ridge is important to you, you want to help all the good stuff make a stock gift each year (“easier than writing a check”) and to include Wolf Ridge in her estate planning. “When a place like Wolf Ridge is important to you, you want to help all the good stuff continue to flourish even after your lifetime!”

Thank you Donna for all you do for Wolf Ridge and for helping to ensure Wolf Ridge continues to flourish in the nasaogaan telling stories, waiting for birds to land on my head at Chickadee Landing, the view of Wolf Lake from Marshall Mountain, looking at the view of Lake Superior from the ropes course tower all come to mind as favorite spots.

What is your favorite place at Wolf Ridge and why?

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Our youth camp programs offer unparalleled opportunities to explore clear lakes and streams, develop life-long connections to the natural world, make friends, create memories, and grow in self-confidence. With a wonderfully diverse campus and variety of activities, campers can return year after year for new experiences.

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Summer Sampler: (2nd-8th gr) Aug 14-17: $325
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Voyageurs: (6th-7th gr) July 7-13, July 14-20, July 21-27, July 28-Aug 3, Aug 4-10: $550
Canoes the BWCAW Adventurers: (8th-9th gr) July 14-27: $1250
Backpack Isle Royale: (8th-9th gr) July 28-Aug 10: $1250
Canoe the Quetico Jr. Naturalists: (10th-12th gr) July 21-31: $1300
Kayak the Apostle Islands Jr. Naturalists: (10th-12th gr) Aug 4-17: $1300
Outdoor Explorers: Angling to Archery: (6th-9th gr) July 28-Aug 3: $550
Camp Fish: (7th-8th gr) July 7-13: $590
Canoe the BWCAW: (7th-8th gr) July 7-13: $560
Kayak the Apostle Islands: (9th-10th gr) July 28-Aug 3: $650
Ecology Credit Camp: (10th-12th gr) July 14-Aug 10: $2675
Counselor-in-Training (CIT): (11th-12th gr) Aug 4-17: $1000

Wolf Ridge Camp Shuttle: Ride from the Twin Cities to camp and back: One-way $100; round trip $175; reservations required.
Wolf Ridge Environmental Learning Center
6282 Cranberry Road
Finland, MN 55603-9700
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Wolf Ridge thanks these generous donors:
- Boston Scientific Foundation - $15,000
- Lloyd K Johnson Foundation - $7,700
- The Cliffs Foundation - $15,000
- The Outdoor Foundation - $1,500
- The Dan & Sallie O'Brien Fund - $1,000
- Mike Brandt - 24" f/4.6 Newtonian telescope

A student from Orono Middle School watches a kettle of four Bald Eagles.

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.