

The Dunesletter

A Publication of Woodland Dunes Nature Center and Preserve



The Big Band Picnic

The sun was shining and feet were tapping to the tunes of Mad About Music! Thank you to all that attended the Big Band Picnic and many thanks to Mad About Music and all the other volunteers who made it possible: Jean Biegun Kathy Danielson Donna Drexler Dan and Patty Gray Lou Ann Gray Marty Gregory Emma and Sue Knickelbine Barb Koch Jeannie Miller

Be our fan on Facebook.

Autumn 2012
Volume 149
Coming Events
Owl Fest, Getaway with the Dunes 3
Education4
Butterfly Garden
A River Ran Through 6
Poetry, Autumn Gold
Dr. Linnea Smith8
From our Summer Interns10
Explore Nature with Anna11
Nature Notes
Volunteers
Thank you
Helping the Dunes15

From the Director

I heard someone use the term "ecological reorganization" to describe the effect of invasive species in the Great Lakes. I love that term because it illustrates that the Great Lakes ecosystem will continue to function, adjusting to whatever happens to it. Whether or not the environment that results from that reorganization is something that we want is an entirely different matter. Think cladophora and round gobies, for example.

Back in my college days when I was taking plant ecology, we talked of community succession, focusing on ecosystems progressing from one community type to another until a climax community was present. As I understood things at that time, a climax community represented a stable, self-perpetuating ecosystem composed of, say, northern mixed hardwoods and the plants that go with them. Over the years that I've been here at Woodland Dunes, I have come more and more to realize that rather than moving toward a stable climax community, our habitats seem to be in constant change, and that dynamic is for the most part amazing and beautiful.

A few weeks ago we had a strong storm pass through, taking down trees in our area. I didn't appreciate the extent of the damage until I saw how many trees had been blown down in our forest. It took considerable effort and the help of volunteers to get trails open. (Thanks to the Ice Age Trail crew, Dave Duval and the other volunteers who helped.) A walk on the Ice Age and Trillium trails is revealing—the storm has reorganized our forest ecosystem to some extent. The result is neither good nor bad, it's just different, and the ecosystem will adjust to the change. Part of our State Natural Area management plan was to maintain an opening on Trillium Trail for hooded warblers—well, the storm left

a couple of very nice openings! Our job will be to make sure that exotic plants don't invade areas that now receive more sunlight. I have a feeling that the raspberries (and some birds) will be happy as a result, although birds that prefer shady habitat will not find some areas as attractive. I wouldn't be surprised to see an increase in woodpeckers, which eat the insects feeding on the downed trees, and winter wrens that use the upturned root masses for nesting. Amphibians and other small animals also will benefit from the downed wood. The whole process will be fascinating to observe, and I look forward to walks in the forest even more in the next few years.

There are some exciting changes for our organization as well. We have received a very generous donation from John and Laurel Alyea to build a view-



A viewing tower similar to this will be built at Woodland Dunes this autumn.

Coming Events

September Story Walk

Hike the Story Walk Trail for fun and learning. The pages of *Are You a Grasshopper?* by Judy Allen and Tudor Humphries will be posted at intervals along Coneflower Trail. Combine literacy, exercise, nature and family time! Trail maps are on our website or at the Nature Center. After your walk, enjoy time in Little Wings play area and kids' room. Sponsored by the Service League of Manitowoc County.

Five Buck Hootenanny

Saturday, September 8 • 7:00 p m • Adults, \$5.00; Children under 12, \$2.00

Enjoy an evening of music peppered with variety from one of the Midwest's finest performers, Pete Jonsson. You'll also have a chance to hear Copper Coins, who refer to themselves as a medieval, celtic, gospel, bluegrass folk group. Don't miss this one; you'll be talking about it for a long time. Doors open at 6:30 p.m. Refreshments sold.

Wonder of It All

WWA's Wetland Gems™

Wednesday, September 12 • 12:30 to 2:00 p.m.

Take a visual and educational journey of Wisconsin's wetlands with Katie Beilfuss, Outreach Programs Director for the Wisconsin Wetland Association. Learn about 100 of Wisconsin's most important wetlands—our Wetland Gems.™ These habitats represent the wetland riches that historically made up nearly a quarter of Wisconsin's landscape. Learn how wetlands help your community's economy and quality of life. Indoor program followed by a wetland walk. Sponsored by the Dominion Foundation. Registration appreciated by September 5.

Wonder of It All

Bhutan, Land of the Thunder Dragon

Tuesday, September 25 • 1:00 to 2:30 p.m. • Donations appreciated

The ancient kingdom of Bhutan will unfold before your eyes when native Bhutanese Chubzang Tangbi presents the beauty of the Himalayan landscapes and sacred temples and the country's deeply-rooted culture. Colorful festivals will highlight this entertaining photo presentation. Sponsored by the Dominion Foundation. Registration appreciated by September 21.

Folk Concert

Saturday, Sept. 29 • 7:00 p.m. • Admission: \$10.00

Enjoy a special concert with Bob Bovee and Gail Heil, two of the finest traditional musicians playing today. This husband and wife duo have spent almost three decades crisscrossing the country playing fiddle, banjo, guitar, harmonica and autoharp, presenting old-time music in concerts, on TV and radio shows, and at fairs, dances and schools. Doors open at 6:30 p.m. Refreshments sold.

Point Beach Mushroom Foray

Saturday, October 6 • 10:00 a.m.

Join Chuck Soden and the Wisconsin Mycological Society for their annual Tula Erskine and Fred Hainier Memorial Foray into Point Beach State Park. The foray will start from the parking lot just inside the park entry at 10:00 a.m. Bring a picnic lunch. If you have any questions, please contact Chuck Soden: (262) 495-2117.

The Enchanted Forest

Saturday, October 6 • 5:00 to 8:00 p.m.

Members, \$3; Nonmembers, \$4, Children 2 and under free

Journey through a candlelit forest to meet some of Mother Nature's favorite (costumed) animals. The outdoor self-guided hike has surprises around every turn; indoor space and warm refreshments will be available. Visit the bone yard, try the pumpkin toss and join in other activities. This will be an educational evening, not a scary one. Please wear costumes and warm clothes. Call or email to register for a tour time.

Wonder of It All

Wolves in Wisconsin

Wednesday, October 10 • 6:00 to 7:00 p.m.

DNR wildlife biologist Aaron Buchholz will discuss wolf ecology and population information, the history of the Wisconsin wolf recovery program and how this keystone species is presently managed in Wisconsin. Sponsored by the Dominion Foundations. Registration is appreciated by October 3.

Owl Fest 2012

Saturday, October 20 • 4:00 to 10:00 p.m.

Please see announcement on facing page.

Saw-whet Owl Banding Programs

Friday, October 26 and Saturday, October 27

Observe our bird banders as they band northern saw-whet owls. Times and registration information TBA.

Wonder of It All

Tree Physiology and Forest Hike

Wednesday, November 7 • 9:30 to 11:30 a.m.

Join Sue Crowley, WDNR forester, on an exploration of the inner workings of a tree, then enjoy a walk through the forest to learn more about this important ecosystem. Sponsored by the Dominion Foundation.

Save the Date!

The 2013 Dash at the Dunes 5K Trail Run/Walk will be held on Saturday, April 27. We hope to see you there! Watch for further announcements on our webpage.

For information, call (920) 793-4007 or check our website at www.woodlanddunes.org.
Unless noted, all events are held at the Nature Center.



Coming Events

Owl Fest 2012

New time! New location!

Saturday, October 20 • 4:00 to 10:00 p.m.

Members: Family, \$10; Individual, \$5; Non-members: Family, \$15; Individual, \$8

Join us for an exciting evening learning about owls and celebrating the migration of the Mid-West's smallest owl, the northern saw-whet. Owl prowl night hikes, family activities, live raptor presentations by Wildlife of Wisconsin and owlbanding programs will make this an evening to remember. Saw-whet owls will only be seen if caught that evening; releases will start at 8:30 p.m. Check the schedule of events below to plan your night. Park at Aurora Hospital on Memorial Drive, then hike or travel by bus to our new Owl Fest location. The shuttle bus will run between Aurora Hospital on Memorial Drive and the festival from 3:30 to 10:30 p.m. Traveling from out of town? Enjoy a special discount Owl Fest rate at the Light House Inn on Lake Michigan: \$74 to \$97 if booked before September 19.

Owlfest Activity Schedule

4:15 to 5:15 p.m. 1. Earth, Music . . . Magic with musician Bill Kehl: Enjoy an interactive and educational music program for all ages.

2. Forest Nature Hike with Director Jim Knickelbine

5:30 to 6:15 p.m. 1. Banding Research Program: Learn about the data collected from Woodland Dunes saw-whet banding program. (No owls

shown at this program.)

2. Wildlife of Wisconsin Raptor Program with live owls

6:30 to 7:15 p.m. 1. Owl Prowl night hike: Explore the night time forest on a

guided hike, looking and listening for owls.

2. Wildlife of Wisconsin Raptor Program with live owls

7:30 to 8:15 p.m.

1. Banding Research Program: Learn about the data collected from Woodland Dunes saw-whet banding program. (No owls

shown at this program.)

2. Wildlife of Wisconsin Raptor Program with live owls

3. Kids' Owl Hooting Contest: Try your hand at imitating owl calls, prizes awarded to best hooter. Learn calls in our kids

area prior to the contest.

8:15 to 9:00 p.m. 1. Owl Prowl night hike: Explore the night-time forest on a

guided hike, looking and listening for owls.

8:30 to 9:15 p.m. 1. Astronomy program: Fall constellations

2. Saw-whet banding: learn about bird banding, this year's saw-whet migration and, if caught, view live saw-whet owls.

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Getaway with the Dunes: New Orleans

Saturday, November 17 • 6:00 to 9:00 p.m.

Admission: \$20 (\$15 before November 1)

Join us as we "Getaway to the Big Easy" in the Behringer room of the J. E. Hamilton Community House in Two Rivers. Enjoy drinks at the cash bar, New Orleans cuisine and silent and live auctions. Bid on fabulous items including a framed and autographed print of the three main stars from the Harry Potter movies: Daniel Radcliffe, Rupert Grint and Emma Watson. Bring your friends for an exciting night out that will support Woodland Dunes Nature Center. It's our biggest fundraiser of the year.

Admission includes appetizers and a chance to enter your name into a drawing for \$250 cash. The drawing will take place at the end of the night and the winner must be present to win. For prepaid reservations, visit www.woodlanddunes.org (Paypal), email Jessica at jessicaj@woodlanddunes.org or call (920) 793 - 4007. See our website for more information.

Getaway Donations

We are currently accepting donations for the silent and live auctions at Getaway with the Dunes. To help make this event a success, please consider donating new items or services to Woodland Dunes. The silent auction will feature themed baskets that may include both goods and services. For example, certificates for massages, restaurants, gym memberships or lawn care would make great additions to baskets. If you are interested in putting together a themed basket, please call Jessica at (920) 793-4007 or email jessicaj@woodlanddunes.org.



Visitors enjoyed watching the Transit of Venus.

Education



Summer camp kids enjoy the thrill of sailing on the Denis Sullivan in Lake Michigan.

Watershed Ambassadors Summer Camp

Sailing on the Denis Sullivan schooner in Lake Michigan, canoeing down the Manitowoc River in Voyageur canoes, exploring the West Twin River on a pontoon boat: These are just a few of the great experiences enjoyed by 22 junior high and high school students during the two week summer camp led by Wendy Lutzke from the Maritime Museum and myself. A two-week immersion into the importance of healthy water, the impact of human activities on water resources and solutions to water issues prepared the campers to become advocates for healthy water in our community. Through testing water quality, becoming involved in service projects and meeting professionals working toward a healthier environment, the campers were able to complete projects that will be displayed at the Maritime Museum, nature centers and schools, and presented to interested individuals. The watershed camp was funded by a NOAA B-WET grant, the Dominion Foundation, The FORWARD Endowment and Cellcom. We are fortunate to have dedicated educators like Wendy Lutzke, who was the catalyst for this amazing opportunity, in our community.

Kelly Vorron, Education Coordinator

Teacher-Naturalist Volunteer Positions

Enjoy learning about nature? Enjoy being outside? Enjoy working with kids? If you answered yes to these questions join the Woodland Dunes Teacher Naturalist Volunteer program. Learn everything you need to know about nature and working with kids, then set your own schedule to lead school groups when they visit the preserve. A rewarding opportunity that helps Woodland Dunes and kids in our community. If you are interested in becoming a teacher naturalist contact Kelly at (920) 793-4007 or email kellye@woodland dunes.org. Call today, programs start soon!

From the Director, cont. from page 1

ing tower near our headquarters. The tower will be about thirty feet tall in total with two decks. The first level will be accessible by ramp and will look over David's Pond. Stairs will lead to a second level, which will be high enough to see part of the marsh and the West Twin River, providing a wonderful view of the wetlands to our north and east. The deck areas will be large—about twenty by twenty feet, adequate for groups of school children attending our spring wetlands program. We've been talking about the prospect of building an observation tower for a number of years, and think this will be an enhancement to our facilities that will give our visitors a different view and, we hope, a greater appreciation for our wetlands and the West Twin River.

Jeff Gordon of SMI designed the tower for us, based on one located at Jekyll Island, GA that was seen by Fred Alyea and Chuck Sontag, who is a good friend of the Alyea family. The design has already been approved by the state, and materials have been ordered. Work on the foundations will begin in September, and on the tower itself in October. This is our first major building project since the pavilion, and we're excited at the prospect of this addition to the center.

I recently read a report that indicated people in Wisconsin rank 44th in the nation in charitable giving. That may be true, but Woodland Dunes wouldn't exist without the support of people in our community who love nature and appreciate what it gives us. The positive energy that flows to and from this organization and the community, illustrated in the examples above, is wonderful to behold and be part of. And much needed, I think.

Enjoy our beautiful autumn!

Jim Knickelbine



A broad ramp will make the first level of the new Alyea tower accessible to all.

Dorothy Star Butterfly Garden

Butterfly and Bee Garden

An early hot summer kept our team of gardeners on their toes.

A walk out to the butterfly garden will show you they were up for the challenge. Each visit I make to the garden surprises me with the amount of life that is drawn to this natural setting. Highlights

for the summer were the great spangled fritillaries, clearwing hummingbird moths and the bountiful bee and green frog populations. Human visitors get a close-up view of these animals thanks to the dedicated volunteers who keep out the weeds and encourage the plants these animals enjoy. Thanks to the Kohler Foundation Inc., we created a

habitat gardening brochure guiding people to create habitat in their own yards. It can be found at the Nature Center and within the garden.

une garden.

Kelly Vorron, Education Coordinator

Thanks to the the gardeners who helped create this beautiful space, come rain or shine.

Gail Asche
Judy Bull
Donna Drexler
Jenene Garey
Joanna Gregorski
Chris Kozak
Doris Magyar
Helen Massey
Carol Westphal
Pat Wiegert



Gina and Rachel Welch helps kids at the Butterfly Festival.

Butterfly Festival

Mother Nature provided a beautiful sun filled morning for this year's Butterfly Garden Festival. Kids enjoyed crafting antennae, caterpillars and seed paper they can gift or use to start their own butterfly garden. A monarch tagging program and program on the common butterflies that live in Wisconsin were enjoyed by everyone. The garden was in full bloom, kids enjoyed the garden critter hunt looking for animal life in the garden, and one participant found 116 animals in the garden! (Aphids helped inflate numbers.) It was a great day to celebrate all the animals that live here.

Our volunteers helped make it a delightful event: Don DeBryun, Donna Drexler,Ethan Greening, Joanna Gregorski, Al Kluczinski, Emma Knickelbine, Barb Koch, Chris Kozak, Ellen Lewellen, Doris Magyar, Helen Massey, Cheryl Melberg, Jeannie Miller,Ann Shebesta, Gary Sydow, Barb Vorron, Rachel Welch and Carol Westphal.

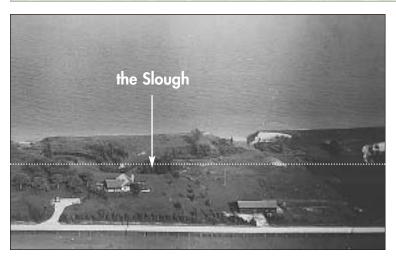


The butterfly garden is at its most beautiful in late summer



A butterfly bench donated by Steve and Bev Hamann looks just right in the Little Wings Children's Play Area.

A River Ran Through



Winghaven 1940. Photo by Winifred Smith, first licensed female pilot in Manitowoc County.

Dotted line indicates current lake edge.

Usually geological features are created over periods of time measured on an immense scale: eons, eras, periods and epochs, nothing easy to relate to on a human scale. But here at WingHaven, we have a geological feature that happened recently enough that we have aerial photographs to document it.

From Point Beach State Forest north to Algoma, the lake is edged by steep bluffs of glacial till and lake sediment. When lake levels are high, wave action erodes the bluffs, causing rather alarming landslides. Low lake levels, which we've enjoyed for almost a decade, result in nothing more exciting than the occasional slump of a bluff. In the Two Creeks area, the bluff deterioration has, unfortunately, concealed much of the evidence of the Buried Forest.

Here at Winghaven, those same bluffs give way to an area sloping gently to the lake. The slope is interrupted by the mysterious feature we call the Slough. A deep pit, perhaps 50 feet across, it is heavily shaded by pine and aspen, and its bottom is covered in black muck. It wouldn't be altogether surprising to see an alligator raise his head from the shadows.

On the east side, a low, sandy ridge, maybe ten to fifteen feet high, separates a seasonal pond from the sere green and blue beach grasses, low shrubs, pioneer aspen, beach willow and driftwood that edge the lake. The ridge vegetation seems to include a few of the native plants that would have been here before the land was farmed. There's even a small amalanchier that is covered in blossoms every spring.

On the west side the land rises precipitously to the height of the bluffs, and curves around the pond. A plantation of poplar trees spreads on the steep slope, making inroads into the lawn, probably due to the excellent drainage there.

In the spring, when the pond is filled with water, ducks find it an attractive home. By the time their families are raised, the pond is disappearing, although any serious rain will fill it to the point of overflowing. Then a series of rivulets seep through the sandy ridge and make their way down to the lake. Although usually empty by late summer, the Slough resembles the form of the steep-sided glacial kettle lakes created when huge chunks of ice buried in till-covered outwash melted. Examples of these are found throughout the glaciated area, including about five miles north of Kewaunee where the Alaska Lakes are lined with glacial clay that holds a good supple of water.

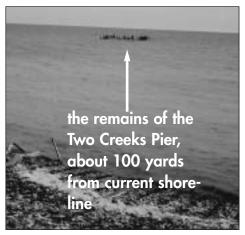
But how did The Slough come to be? The land around here is all gently rolling upland till, good for dairy farming, with the only sharp depressions formed by rivers and creeks cutting through the clay. Although the inland side is clay, the lakeside is sand.

Two clues help explain this oddity. The first is just off the Two Creeks boat landing. Standing on the shore and looking due east about a hundred yards, you will see rows of tattered posts sticking above the water, often topped by gulls or double-crested cormorants. These are the remnants of the old pier house where sailing ships and later steamers stopped to load tanbark for the trip south to the tanneries of Milwaukee. The distance between the pier and the shore gives you an idea of how far west the lake has encroached since the late 1900s.

The second clue is a small creek south of Winghaven that flows from the west to the lakeshore. Usually placid or even disappearing before reaching the lake, in the spring, it can be a torrent that you would hesitate to wade across. It often tears a deep gully along the shore before turning to the lake.

When the lakeshore was farther east, the little creek ran north across the uplands, eventually cutting through the clay soil and forming a valley before flowing into the lake. As lake levels rose, powerful waves dug through the clay cliffs, eventually, cutting off the eastern edge of the Slough. The creek, freed of its restraints, flowed directly into the lake. The abandoned Slough was left with no source of water other than rainfall. Sand drifted in and formed an eastern ridge that came and went as water levels varied.

If lake levels continue to fall, someday the creek may again flow north, but because there's no longer a steep deferential between creek and lake levels it is unlikely it will ever cut a valley like the Slough again. Today it seems more



likely that the little creek will create a broad delta out into the lake. Already it has laid down a bed of soft sand, covering the ballast rocks left from shipping and making this the best area for swimming along the shore.

Susan Knorr Editor

Notes from Nature



Wish Plant

The best time to plant a tree is twenty years ago. The next best time is now. ~ Old saying

I held her small hand as she jumped from the stump onto a blanket of crisp leaves.

Look at me! I'm making leaf angels just like the ones in snow! And pointing to a tall oak, Grandma, why is that box up there?

That's for bats, to give them a safe place to live...built by your dad when he was a boy a little bigger than you, twenty-some years ago. Our rain barrels—he helped Grandpa set them by the house. They planted all those berry bushes and the maples that shade the yard, too.

Grandma, can I plant something good like dad? Something for when I'm big?

You can help me put in a wish plant. A wish plant gives wonderful surprises, even when you're grown. I've been wishing for more bees myself. The berries will like that.

Butterflies, Grandma, I want pretty butterflies when I come see you. Is there a wish plant for them?

Sure is, and we can plant one right now!

Jean Biegun

Steps to sustainability can start small, as small as a young child's wish.

Autumn Gold

Below the red, orange, and yellow leaves of the trees in autumn, patches of goldenrod add other splashes of gold. They are among the most abundant of fall-blooming plants. Their yellow flowers begin to bloom in late summer and continue through mid-autumn, when they develop into small seeds, each tipped with a tuft of grayish fuzz.

Goldenrods of the genus *Solidago* occur almost exclusively in the Americas. Europe has only one species. There are about one hundred twenty-five species in the United States, with about half of them in the northeastern part of the country. They grow in all habitats except the most arid deserts and the frozen mountain tops, but are most common in old fields and forest edges. They are perennial plants with straight leafy stems and no branches except in the inflorescence. Most are from two to four feet tall, but some species may reach seven feet in height. The wind carries their fuzzy seeds to new locations. They also spread by creeping rootstocks.

Goldenrods are classified in the aster family, Asteraceae. Plants in this family are called composites by botanists, because what appears to be a single flower is actually a head of many tiny flowers, usually of two different types. Ray flowers have their petals united and drawn to one side to resemble one petal. Disk flowers have five small flaring petals. In many composites, such as daisies and sunflowers, disk flowers are massed in the center of the head with the ray flowers arranged in a circle around them. Goldenrods have small flower heads with only a few flowers. The rays are usually short.

The various species of goldenrods are difficult to separate. Some of the differences between species are slight, and each species can be quite variable. However, they can be sorted into three main groups, based on the shape of their inflorescence. The first group has their flower heads arranged in a pyramid-shaped cluster. In the second group the inflorescence is cylinder-shaped, longer than wide. The third group has a much branched, flat-topped inflorescence. Within each group, species are separated by such characteristics as the shape and texture of their leaves, the arrangement of the veins in the leaves, the hairiness of the stem, and the habitat in which they grow.

Goldenrods are hosts to the larvae of the goldenrod gall moth (*Gnorimoschema gallaesolidaginis*). The larvae live in the stems of the goldenrods, eating the tissues of the plants. The goldenrod reacts by building a spherical mass of tissue, called a "gall," around the intruder. The galls are conspicuous on the dried stems in winter.

The pollen of goldenrods is heavy and sticky and is transported from plant to plant by insects. Many people blame goldenrods for causing the ailment called "hay fever," but goldenrod pollen is not carried by the wind. The real culprit is ragweed, whose inconspicuous wind-pollinated flowers bloom at the same time. Goldenrods are harmless and interesting plants that add patches of gold to our autumn.

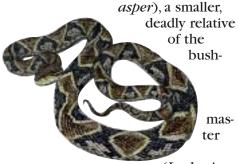
John Woodcock

Dr. Linnea Smith, physician in a rapidly changing culture

I first learned about Dr. Linnea Smith from my long-time friends, Jack and Laurel Alyea. As part of a UW-Madison alumni eco-tour to Peru, the Alyeas visited Dr. Smith, and her clinic in the headwaters area of the Amazon River in Yanamono, Peru, a visit that defined their journey and touched their lives. Although they have not had the opportunity to return to her clinic, they are generous donors to her work as well as to Woodland Dunes.

A physician from Wisconsin, Linnea Smith grew up in Milwaukee, Wisconsin, and after a journey of self discovery, decided to enter medical school at the age of 30. However, her journey didn't end with the awarding of her MD degree and the establishment of a successful medical practice in Mazomanie, Wisconsin. Her journey culminated in "her last vacation" as described in her book, *La Doctora*, published in 1999. Traveling as an eco-tourist to Peru, her goal was to experience nature in another land and the cultures of the native people.

This particular trip was typical of the eco-tourism experience, planned for its sensory impact and exposing the tourist to as much of the plant and animal life as the schedule permits. However, for Linnea, this trip was different, quite different. On the last day of the trip, a native who had been cutting grass with a machete was bitten by a fer-de-lance (*Bothrops*



(Lachesis

muta). When Dr. Smith examined him, his foot was red and swollen, and a string tourniquet had been tied around the ankle. It was clear someone would have to administer the antivenin (two years past its expiration date) intravenously. Because of her medical training, Dr. Smith was recruited to perform this rather routine procedure. And with no other medical equipment, a toilet paper tube was used as the stethoscope substitute to monitor his heart and lungs.

When the procedure was complete, the patient was then taken to Iquitos, Peru, the nearest city, where he recovered.

But, in a sense, Dr. Smith herself did not recover, for although her trip was over, her real journey had just begun. She would return to Peru to administer to the needs of the Peruvian people and their culture.

Life in Peru

The people in Yanamono live today as they have for centuries. The river is their life, and the jungle is both their respite and adversary. There are no roads, only paths that have been carved through the forest. Their homes are thatched huts built on stilts on the banks of the river. The homes are always in clearings, devoid of vegetation, on open patches of dirt. This is a survival strategy, because termites consume anything and everything plant-like in nature. And, if the termites aren't enough of a problem, the poisonous snakes and other creatures are. The dirt, which often becomes mud, not only discourages snakes, but also keeps the crawling insects away, making homes relatively safe and free of these uninvited guests.

Gardens are part of the domestic domain. Food, herbs and medicinal plants are grown. There is no electricity, or modern conveniences such as bathrooms. Some of the living areas have latrines, but often a secluded spot in the jungle serves that purpose. Boiling water is a necessity, and forgoing this can lead to illness or death. The Stone Man arrives about twice a year by riverboat, selling sharpening stones used to sharpen the knives and machetes so essential to survival. Soccer provides the main leisure activity.

Unfortunately, many of the old

languages are rapidly disappearing, as a result of the creep of civilization into these remote areas. Life on the river is no longer the only option for the natives. The young, and some not so young, are moving to the nearest city, Iquitos. Here educational and better working opportunities are available. This will eventually mark the end of a culture that has provided for the needs of these people since earliest of times.

The Importance of Culture

Culture for these people is their most important survival strategy. Religion, medicine and their relationship with the world in which they live are a single unit. Their belief system is the domain of the gods, spirits, witches and magical forces that provide the comfort and rules that they abide by. Often forces array themselves as internal conflicts or quarrels that are directed or mediated by demons.

To deal with these conflicts or problems, the individual, not the disease, becomes the focus for the treatment. This approach to treating the individual and the disorder can easily go unnoticed by outsiders, and results in a clash of culture and belief. For example, a Peruvian ecological worker who attempted to help people in the high jungle of Peru quickly determined that the people she was working with suffered from a lack of quality protein in their diet. Her proposed solution was to raise capybaras, a large rodent weighing up to 120 pounds, in corrals. Since the meat is very tasty, their dietary deficiency of protein would be easily solved. However, when the villagers were told of the solution to their problem, they were horrified. The ecologist had over looked the culture of the people, where highly revered grandmothers were reincarnated as capybaras.

Landmines, such as this, whether in the field of medicine, religion, agriculture or culture are now commonplace, and must be avoided if progress is to be made.

Alternative Methods

When Dr. Smith came to Peru in June 1990, her medical practice was administered from a black doctor's bag with the aide of a kerosene lamp. Her first clinic was only a room at the Explorama Lodge in Yanomono where she was also living. Unlike medical practitioners in this country, Dr, Smith spends much of her time dealing with medical problems that result from disease-carrying insects, poor sanitary conditions, contaminated water and almost nonexistent proactive health care. From very humble beginnings, Dr. Smith has profoundly touched many lives, and has made an enormous difference in Yanomono. Dr. Smith heals the native Peruvians by attending to their health, nutritional and reproductive needs. Yet she is not always the physician of choice when it comes to curing disease.

As suggested above, disease is thought to be the result of bad karma, spirits and devils, and not bad drinking water, germs or dysfunctional organs. One native suffered with leishmaniasis, a disease caused by a parasitic protozoan that is transmitted by the bite of an infected sand flea, causes destruction of the mucosal lining of the nose and hard palate (roof of the mouth). If untreated, it causes the nose to cave in and flatten, and the lining tissues of the mouth and throat are destroyed. The disease is usually and effectively—treated with an antibiotic containing antimony. This patient, however, was reluctant to seek Dr. Smith's help, and instead turned to the healer or curandera. The healer determined the patient had been bewitched, and that the devil was now residing in his nose.

The medicine provided by the healer was concocted to drive the devil from the nose. When Dr. Smith was shown the medicine, it appeared to be a bottle of rum in which leaves of an unknown plant were soaking. An interesting aspect of this medicine was that it couldn't be consumed in the house, but instead had to be taken in the jungle. Interestingly, the patient improved, and the symptoms of the disease were abated when Dr. Smith examined him several months later.

Perhaps the leaves provided some antibiotic activity, and the healer, unaware of why it worked, provided the correct treatment, and the devil was driven from his nose.
Unfortunately, Dr. Smith has not seen the patient since, and the outcome of the treatment remains unknown.

Perhaps it is important to note, that many of our medicines or drugs have their origin in such practices. Today, we just distill the drug into pill form, wrap a label around it and include instructions for its use. It is of some comfort, however, to know that we do not have to take a walk in the jungle to receive the benefits of our medicines. Or perhaps, the walk in the jungle has benefits we are not aware of.

Change is Universal

As we have changed our landscape to fit our needs, the people of Peru are changing theirs. Dr. Smith notes that since she moved to Peru over 20 years ago, the lumber harvested and being shipped on the river has decreased dramatically in size. Initially, the trees were in excess of six feet in diameter, now they are only three feet as the jungle is dismantled to fuel their economic needs. So, deeper into the jungle the axes and harvest must go.

However, just like the venom of the fer de lance, plants have been the source of medicines from the jungles and rainforests around the world. Hopefully, the Peruvian rain forest can be spared this uncontrolled and unplanned destruction. Once a plant or animal becomes extinct, there is no way to bring it back. People everywhere, whether they live in the jungles and rainforests or our most urban spaces, know at some basic level that protecting the environment is protecting their lives and livelihood.

Human populations everywhere depend on the environment to provide for their economic needs, and often economics trumps environment. Human nature is the same the world over: we rarely consider long-term consequences; instead, we satisfy short term or immediate needs. The lessons learned in childhood, including those learned in the Girl or Boy Scouts, where we leave an area as nice or better than when we first arrived, are simple, but they are important rules to live by.

Helping Hands

After her arrival in Peru, Dr. Smith's practice received an enormous boost following an interview with Jean Faraca on Wisconsin Public Radio. Rotarians from Duluth, MN and Thunder Bay, ON, provided the materials and muscle to build her first real clinic in Yanomono, which was completed in the fall of 1993.

Although Jack and Laurel Alyea have not returned, they hope to make others aware of the significant work that Dr. Smith is doing, and to help support her efforts. Her story, as told in La Doctora, is a fascinating look into her life and work, and especially the challenges she faces just to accomplish the simplest of tasks. Her clinic in Yanamono is supported through 501 (c)(3) nonprofit status contributions.

Chuck Sontag, Professor Emeritus, UW-Manitowoc



Dr. Linnea Smith

From our Summer Interns

Woodland Dunes was fortunate to have two interns, Chelsea Johnson and Ariel Berres-Green, for the summer season through the Wisconsin Association of Independent colleges and Universities internship program. Woodland Dunes received 800 hours of work and the interns receive a stipend and scholarship. From teaching our little visitors to hauling equipment, creating brochures, organizing data and developing lesson plans, the interns tackled any task assigned. We are going to greatly miss them, not only for the work they did, but for their ideas and excitement about the natural world, which were a great compliment to the Woodland Dunes team.

Ariel Berres-Green

My ten weeks at Woodland Dunes passed by all too quickly. With a new and exciting task around the corner of each and every week, I found myself sprinting through the summer. Time seemed to go by in a blur as I filled ten weeks by inventing crafts, maintaining trails, greeting visitors, gardening, writing, teaching, and above all, learning.

Within my first few days of work here I was reminded of generosity as Joanna Gregorski offered me, a complete stranger, the use of her bike for the summer. This lesson was reinforced as Geri and Darlene continuously showered Chelsea and me with wisdom and gifts, like chocolate and cherries. From Jim, Jess, and especially Kelly I have come to learn and fully appreciate the value of environmental education. And from all the staff and volunteers that make Woodland Dunes possible I learned the value of teamwork coupled with kindness. Each and every day, the members of the Woodland Dunes community worked with and for one another to accomplish something incredible, and in the end, I know that I have been extraordinarily lucky and blessed to have briefly been a part of it all.

With my final year of school at Ripon College at hand, I am feeling much more confident about my role as an environmental educator. I hope to attend grad school in an environmental field. I am looking forward to teaching and sharing what I learned this summer.



Areil (center top) belps the summer kids find bugs to identify.

Chelsea Johnson

If you want to know the character of a person, an organization, or even a country, give it power over someone and see what they do. Excuse the dramatics for a minute, but I'd argue that, as a summer intern. I've had just that chance with Woodland Dunes. I gave them 400 hours of my time to be used wholly at their discre-



Chelsea (right) working with summer students in the garden

tion—quite a risky agreement.

But at every turn I've found the staff at Woodland Dunes to be supportive, kind, and deeply committed. It's quite telling that this place made my personal and professional growth a priority—especially since it is a small non-profit that could always use more hands to only pull weeds and clean. Instead of being trapped in a copy-making dungeon, I had plenty of chances to work with the education side of the center, both through working with school groups and making printed materials about butterflies and sustainability. (Look for them around the center) These assignments were a perfect fit with my majors of English and Environmental Studies at Lawrence University. I got to use communication and creativity to share with others what I love about the natural world and to encourage their own explorations.

I've learned from this internship that this kind of education is something I will always want in my life in some way. And for that I have to thank this staff. You probably already realize how hard they work to make this center wonderful. I hope you take this outside endorsement to heart and continue your support of Woodland Dunes through your commitment to and enjoyment of it.

Explore Nature with Anna



Meet Anna!

My name is Anna Gottshall. I'm 13 years old and I will be writing the children's' page for this issue. I've always loved nature, especially animals – and I mean every kind of animal including worms and slugs! When I was little I could often be found during the summertime holding the slimy creatures trying to save them from the sun. Now, of course, I'm not that enthusiastic about ALL animals; I do have my limits. But, I still love animals especially birds. I often go outside to listen to their tunes and observe them.

A few weeks ago I saw two chickadees. One was flapping its wings and singing to the other until finally the other chickadee left. Isn't that funny?

Another day I was looking out the window when I found a tiny bluebird sitting on the window ledge. The next day I kept hearing a tapping on one of our windows and found it was the same little bluebird. Later, I heard tapping on another window and there he was again! By the third day he was gone. But to this day I still have no idea what the little bird was up to. Do you have any ideas?

Autumn Word Search

I	X	S	E	L	Ρ	Ρ	Α	N	Y	S	S
Ρ	U	E	D	M	Т	K	L	Ο	Η	E	Z
I	Q	E	I	Α	Z	S	В	Α	N	V	С
V	I	D	R	Α	Η	С	R	0	Η	Α	Ο
С	Q	В	Y	N	V	V	С	I	D	Ε	R
W	N	W	Α	S	E	E	Т	S	J	L	I
V	J	Z	Η	S	N	I	K	Ρ	M	U	Ρ
В	Y	I	Т	I	D	R	N	I	Ρ	Z	Т
L	I	Α	Ρ	I	Χ	R	Ο	U	J	I	Y
Q	E	С	E	Η	F	F	U	С	Q	D	K
Ρ	U	Χ	S	Η	F	G	С	Ο	Α	С	D
S	Α	N	N	W	E	S	E	E	G	W	E

See if you can find these words in the maze above: Acorns, Apples, Cider, Hayride, Leaves, Orchard, Pinecones, Pumpkins, Corn, Harvest, Geese, Gourds

Vibrant Leaves

I'm always extremely excited to watch the leaves change color and fall to the ground in autumn. Don't you wonder why the leaves change from their green color to the vibrant colors of gold and orange and red? Though many believe that frost causes the leaves to change color, really what causes these stunning colors is something that begins far earlier than the first frost. As the days get shorter and weather starts to cool the trees begin getting ready for winter. During winter with less sunlight and water to make food, the trees begin shutting down their food-making factories—the leaves! The green chlorophyll used during the food making process called photosynthesis disappears, as the green begins to fade we see yellow and orange colors. It is thought small amounts of these colors are always in the leaves but they are covered by the bright green chlorophyll during the spring and summer, in fall it is their time to shine. The bright reds and purples we see are made from other chemical reactions that take place in fall as the weather cools. When the leaves begin to change color. So when the leaves begin to change color, they are really beginning their departure from the tree. At this time a thin layer is being formed between the stem and the twig. Once this layer is fully developed, the leaf descends to the ground from either its own weight, or from a gentle breeze.

Comforting Nature Breakfast: Sweet Autumn Oatmeal



In fall, my mom always makes a sweet and creamy oatmeal that we call pumpkin oatmeal. Here's how to make it.

Use your favorite recipe for plain oatmeal. While the oatmeal is simmering, add 1/4 cup of canned pumpkin and three dashes of cinnamon per serving. When the oatmeal is cooked the way you like it, scoop some up and put it in a bowl and add any or all of these toppings plus a dash of milk for creaminess.

Toppings: Craisins, maple syrup, brown sugar, walnuts, chopped apples (You really must add the apples—they make it taste awesome.)







Nature Notes

The Wind That Was

It was an unusually calm day. All of a sudden a very strong wind came up and the people that were with me on a field trip rushed back to their bus thinking there would be a downpour. The bus began shaking but the wind stopped as abruptly as it started. It was an overcast day but a small, strange-looking, dark cloud had just passed over us.

By a chance conversation, I learned that on the same day, June 19, 1985, the same thing happened in Two Rivers. A family was moving into their new house and a very strong wind came up fast. They thought the wind would blow over their truck.

I drew a straight line on a map from the place in Mishicot where I experienced the strong wind situation to the site in Two Rivers. The line went through the eastern edge of Woodland Dunes Nature Preserve along Columbus Street. When I explored that area, I found that a single large tree had blown over onto the Columbus Street right-of-way, but further in the woods, the trees in an area of 50 to 60 feet in diameter had been blown over in all directions, as if a mini tornado had momentarily touched down and then quickly lifted. I estimated the wind to be approximately 80 mph.

I knew this happened because I had experienced it but I wanted to confirm it. I called NOOA, the Manitowoc County airport, the Weather Department at WBAY and the Weather Services of Green Bay. I was disappointed that this phenomena, even with the clear evidence I had, could not be confirmed. How could this be?

Then I returned to my Wisconsin map, ruler in hand. When the line from Mishicot to Two Rivers was extended northwest it passed east of Green Bay and when it was extended southeast it passed into Lake Michigan, missing the Manitowoc County Airport. This is why the strong wind incident could not be confirmed. It missed the places that recorded such events.

That problem was solved but I still wonder where I got the idea of "over 80 mph." Then I remembered a handout we once used during one of the educational programs at Woodland Dunes. It is called the Beaufort Wind Scale. It measures speed by how much damage there is. Because of the trees downed in the manner they were, the extensive damage would put the wind at 80 mph or more. I had tucked this information away in my mind, and when I needed it, there it was.

The downed tree along Columbus Street at Woodland Dunes has long been removed but the twisted bunch of trees in the woods still remains as a reminder of the wind that was (unofficially). The bottom line: If you experience a dramatic weather event such as this—don't assume that it has been recorded—report it yourself!

Bernie Brouchoud, Environmental Educator

Adopt an Owl

Adopt a saw-whet owl that was caught, banded and released at Woodland Dunes. Receive a certificate of adoption with the band number of your owl, a photo of a saw-whet owl, an information sheet, and a form for recording recaptures. \$25. Email jessicaj@woodlanddunes.org for details.



Aegolius Bird Club

The Aegolius Bird Club meets at Woodland Dunes the second Tuesday of each month from September through May at 7:00 p.m. Field trips on Saturdays are taken to places rich in bird life. Membership is open to anyone interested in birds, but you need not be a member to enjoy meetings or field trips. For more information and field trip details, call John or Julie Woodcock at (920) 683-3878.

Field Trips

September 15, 8:00 a.m. Meet at the UW-Manitowoc parking lot to carpool to Fischer Creek, Kingfisher Farm, and Cleveland to see early fall migrants.

October (No field trip due to Owl Fest)

November 10, 8:00 a.m. Meet at Manitou Park to see late fall migrants there and at Evergreen Cemetery.

December (No field trip due to winter bird counts)



Volunteer Appreciation Picnic 2012

Thank You, Volunteers



Geri Berkovitz introduces a turtle to the summer students...

Summer Fun!

Thank you summer Teacher-Naturalists! Through the scorching heat of this summer, our dedicated volunteers managed to show our summer visitors a great experience. Their dedication is the backbone of our education programs. During the summer 635 kids enjoyed a program given by these intrepid educators. Whether dressed in costume, handling our amphibian friends or acting as animals, they were up for any challenge.

Our Summer 2012 TNs were Ariel Berres-Green, Cayla Matte, Chelsea Johnson, Geri Berkovitz, Lou Ann Gray and Jeannie Miller



Kelly demonstrates how to teach a summer program to the Teacher-Naturalist volunteers.



Autumn Volunteer Spotlight: Rachel and Gina Welch

The Welch family are some of our favorite visitors to Woodland Dunes. As we got to know Gina and her family, we realized that it is no accident she is such a great Teacher-Naturalist here at Woodland Dunes. She has done with her own children what we try to do with the kids visiting the Nature Center. She makes a great effort to get everyone thinking, asking questions about the world around them, and having fun while doing it. We are fortunate to have such a gifted educator leading groups and at the same time, a volunteer willing to pitch in and help when needed—even if it means waitressing. She is always quick with that famous smile and her calm nature has a great effect on the people she works with.

Here's what Gina has to say about her involvement: "I have been volunteering for about four years, starting with the Cottonwood Trail program. For years I had been busy with home schooling and taking care of my little ones. Once I felt I could make room for some time out of the house, I decided to become a TN. The most rewarding part of working with children is sharing in their enthusiasm. They are excited to discover something new and eager to share what they already know."

We are doubly fortunate because Gina is willing to share her oldest daughter, Rachel, who is working on an award that requires volunteer hours. You can find Rachel here once a week, taking care of the reptiles and amphibians housed inside the Nature Center and helping with other tasks and at our events. Cleaning filters, changing water and keeping tanks clean is not a glamorous job but one Rachel has turned into an art form. Rachel has a helpful generous nature and all of the staff look forward to her weekly visits. While cleaning the tanks, Rachel always takes the time and enjoys showing visiting kids the animals she helps care for

Kelly Vorron, Education Coordinator

Thank You

The following reflect gifts, donations and memberships received through August 25, 2012.

Major donation

We would like to thank and honor John W. and Laurel J. Alyea for a major donation funding the tower project and a green house, plus providing endowment and operating funds.

Grants

Norcross Wildlife Foundation partial funding for anaBat monitor WI DNR River Planning Grant support for water education programs

Matching Grants

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Grace Church's volunteers built a new viewing platform as a practice run for their trip to Appalachia.

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Dunesletter • Autumn2012

Annual Fund Drive

As a non-profit, Woodland Dunes could not survive without you, the community of people who believe in the importance of places like the preserve. Thank you helping us support nature; I hope you receive many gifts in return this year

I want Woodland Dunes to con-

tinue serving my community.

Enclosed is my tax deductible Annual Fund donation of:

O \$250

O \$100

O \$50

O \$35

O Other \$_

O My employer has a matching gift

O The form is enclosed

O Please contact me

Total Enclosed \$

Make checks payable to Woodland **Dunes Nature Center**

Donate online at www.woodlanddunes.org

Wish List

- Black light
- big plastic bins for equipment storage
- storage unit with drawers for craft supplies.

Join the Buckthorn Brigade!

Thanks to help from many people including our own invasive species intern Melissa Chambers, we've made progress in managing exotic plants in some parts of the preserve. Invasive plants present perhaps the biggest threat to Woodland Dunes, and managing them is hard but rewarding work. We are forming a crew to work on a regular basis on invasives-—if you can help, please contact us!

We apologize for any errors or omissions in this issue. Please let us know, and we will print a correction in the next issue of The Dunesletter.

Woodland Dunes

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