



The Dunesletter

A Publication of Woodland Dunes Nature Center and Preserve



Five Buck Hoot

7:00 p.m. • March 27

Woodland Dunes' Director, Jim Knickelbine, will join with Bug-eyed Pete (above) to provide some good old-time music. They'll trade off with Mike "Doc" Retzinger to keep you hootin' and hollerin' and beggin' for more. Adults, \$5; under 12, \$2. Refreshments available. Doors open at 6:30 p.m. Upcoming concert dates: April 24, Random Orbit and Rick Gordon; more to be announced. Watch our website for information.

Spring 2010

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From the Director

Do you enjoy the *Dunesletter*? The first issue was produced in October 1975, had two pages and one article by an anonymous author, about the purchase and development of the "Bicentennial Forty," a remarkable story. Since then the newsletter has undergone many format changes, appearing in several different versions. A very distinct form appeared with volume 116, Summer 2004. That was when Susan Knorr became editor. She transformed and improved the newsletter, adding her personal, tasteful, natural touch to the publication. She contributed many hours as a volunteer, and continued to hone our publication as issues went by. By the winter issue of that year, Susan had been asked to join our staff as Assistant Director, taking on many other responsibilities but retaining the role as *Dunesletter* editor. In addition to continued improvements to our publications, she has also been and continues to be an invaluable friend and co-worker to our staff. She has been a wonderful collaborator and advisor to me personally, and I can't thank her enough for what she has done for Woodland Dunes.

Susan will be retiring soon (garden weeds, beware), but will fortunately continue as newsletter editor, again as a volunteer. Please join me in thanking her for all she has done for us and for nature, and for continuing to keep our membership informed and educated through the *Dunesletter*.

You may notice some further energy-saving improvements at our headquarters in the form of new doors and windows. We should be able to save even more on our heating costs, which fell by about 20% as a result of the insulation and draft-sealing work done last winter.

Thanks to a generous grant from the West Foundation, we have been able to continue our work on the field station in a very significant way, making remarkable progress in the last two months. Now, located in the center of our preserve, we have a building with a beautiful gathering room with a fireplace, plus several other finished rooms. More work needs to be done, but progress has really been great and we are looking forward to using the facility for education programs this spring. The field station will be open for a variety of education-related events and classes.

School groups are continuing to visit to experience the last of winter and learn the story of maple syruping at the field station. The forest is beautiful at this (and all) time of year, and Kelly is doing a great job putting together exciting programs for visiting school children.

cont. page 8



During a session of our winter education program at the Field Station, Mary Ozarowicz explains to a group of students how trees function.

Coming Events

To confirm events and register for classes, please call Woodland Dunes, (920) 793-4007 or email kellye@woodlanddunes.org



Bird Breakfast and Migration Celebration

Saturday, May 15 • 8:00 a.m. to 11 a.m.

Adults, \$4.50; children; \$3.50; under six, free

After the long, dark winter, it's nice to have an excuse to get outdoors and enjoy the weather. You're sure to enjoy Bird Breakfast, Woodland Dunes' traditional salute to spring. Ham and pancakes make a great start to the day, then continue with bird games, guided hikes along our trails and kids' activities. There's something for everyone to enjoy. Put it on your calendar now: a day of fun and learning about the birds that are migrating back into our area. It's a good time to introduce your friends to Woodland Dunes and encourage them to become members.

Maple Moon and Timberdoodle Hike

Friday, April 9 • 7:00 to 9:00 p.m.

Members: family, \$5; individual, \$3

Non-members: family, \$8; individual, \$4

Learn how maple sugar is made by tapping trees and boiling sap. Try some maple syrup treats. Our naturalists will lead you on a search for timberdoodles; a campfire will keep you warm. Bring a flashlight or headlamps. Held at the Nature Center. Please call or email to register.

Sandhill Crane Count

Saturday, April 17 • 5:30 to 7:30 a.m.

Volunteers go to pre-determined sites to count sandhill cranes. Results are submitted to the International Crane Foundation. Call Woodland Dunes for more information.

Earth Day at Silver Lake College

Saturday, April 17 • 10 a.m. to 2:00 p.m.

Among other groups, Woodland Dunes' staff will present general information about Woodland Dunes, a presentation on invasive species, and special activities for children. There will also be a run-walk and a nature hike.

Annual Members' Meeting

Thursday, April 22 • 6:30 p.m.

Celebrate Earth Day by joining with other Woodland Dunes members for refreshments, an update from the director and a presentation by Joe Henry, WDNR ecologist, about the globally significant ridges and swales at Woodland Dunes. Public welcome.

Silver Creek Nature Hike*

Saturday, April 24 • 10:00 to 11:30 a.m.

Explore Silver Creek Park and learn about the critters living there, and the importance of the creek to the life of the park. Reservations: Kelly at (920) 793-4007 or kellye@woodlanddunes.org

Five Buck Hoot

Saturday, April 24 • 7:00 p.m.

Enjoy the music of Random Orbit and Rick Gordon in the comfort of the Edna Smith room. Doors open: 6:30 p.m.

Collins Marsh Paddle*

Saturday, May 22 • 9:00 to 11:00 a.m.

Explore the land and water of one of the largest wetlands in the Manitowoc River watershed. Some canoes are available, or bring your own. Reservations: Wendy at (920) 684-0218 or wlutzke@wisconsinmaritime.org

Maritime Rendezvous*

Saturday, June 26 • 10:30 a.m. to 1:30 p.m.

Paddle your own canoe or kayak, or reserve a spot in a 20 foot voyageur canoe. You'll travel past natural and historical points along the Manitowoc River. Reservations: Wendy at (920) 684-0218 or wlutzke@wisconsinmaritime.org

West Twin River Paddle*

Saturday, July 10 • 10:30 a.m. to 1:00 p.m.

Paddle the Lower West Twin River through scenic country into the heart of Two Rivers. Stop for lunch at Woodland Dunes and explore the surrounding wetlands. Reservations: Kelly at (920) 793-4007 or kellye@woodlanddunes.org

Bird Club Meetings & Field Trips

The Aegolius Bird Club offers bird-related programs and field trips each month. Anyone interested in birds is invited. See page 13 for details.

* Explore and Restore Your Local Rivers

Woodland Dunes, the Wisconsin Maritime Museum and the city of Manitowoc are working together to educate residents about the importance of protecting our local waterways. The programs (listed above and indicated with *) are open to the public free of charge, but you must make reservations by contacting the person listed after the class description.

Invasive Monitoring

Woodland Dunes has been awarded a Citizen Monitoring Grant by the Wis. DNR. The project will result in a map of selected terrestrial invasive plant species for the county. We will train volunteers to identify ten invasive species and record their location using GPS receivers. Please contact us if you can help.

Are you a Thrivent member?

If so, and if you are willing to volunteer at a folk concert, you will help us to qualify for funding from Thrivent Insurance. Please call Jim Knickelbine to volunteer.

For information, call (920) 793-4007 or check our website at www.woodlanddunes.org.

Unless noted, all events are held at the Nature Center.

Ed Brey joins Board of Directors



Ed Brey was recently elected to the Woodland Dunes Board of Directors. Ed has been an active education volunteer as a helper and a teacher naturalist at the Dunes for the past year. Prior to his retirement in January of 2009, he served as Manitowoc County Treasurer. Other interests include Peter's Pantry, where he served as a member of the Board of Directors, and the

Manitowoc Lions & Elks Clubs. "Church is an important part of my life," he says. He is a member of St. Francis of Assisi Parish where he sings in the Men's Choir. His hobbies include golf, playing cards and bowling.

Because of a lifelong love for nature and the great outdoors, he finds Woodland Dunes a rewarding place to volunteer. His wife Lee and he have derived much pleasure from working with the staff, other volunteers and the visiting children at the Dunes.

Annual Tree and Shrub Sale



Woodland Dunes is again offering native, disease-resistant species, grown by reputable nurseries in our climate, and dug immediately before pick-up, for planting in spring 2010. These reasonably-priced plants are useful for landscaping, wildlife food and cover, wind-breaks, timber production, and environmental screens.

Our staff will provide advice on planning, planting and managing your trees and shrubs.

Limited numbers of trees and shrubs are available; please order early. We're also offering specially-priced packages of trees and shrubs for landowners with smaller plots.

To receive an order form, email sknorr@woodlanddunes.org or call Woodland Dunes at (920) 793-4007. This year we have posted a downloadable order form on our website, www.woodlanddunes.org.

Orders may be placed anytime up to April 1, but must be accompanied by prepayment. ***Although we will make every attempt to fill your order, supplies are limited, so order now.***

Plants will be available for pick-up the end of April. You will receive a postcard with pick-up information; the exact date will depend on the weather.

Assisting Nature - A Second Chance for Life

Volunteer Opportunities with Wildlife of Wisconsin

Saturday, April 10 • 10:00 a.m. to noon

Manitowoc Public Library

Balkansky Community Room (2nd floor)

Did you ever wish you had a positive and personal way to give back to nature in return for all that we humans take and the problems we create? Wildlife of Wisconsin, Manitowoc Area Rehabilitators, is holding a meeting to announce volunteer opportunities in wildlife rehabilitation. These volunteer positions include cage builder, patient transporter, animal caretaker, newsletter reporter, educational programmer, and many more. There are a variety of opportunities for those age 14 and up. Younger volunteers must be accompanied by an adult.

Learn about the organization and how you can be a part of the effort to provide a second chance for life to wild animals that have become injured, sick, orphaned or displaced. This overview is intended to educate the public in numerous aspects of wildlife rehabilitation. Also, celebrate Earth Day by bringing in your empty inkjet and laser cartridges and used cell phones to the meeting.

If you have some time to give and an inclination to help wildlife, this may be the perfect volunteer opportunity for you! If you can't attend this session but are interested in the volunteer opportunities available, please send an email to WOW@tm.net or call (920) 732-3918.

Training Session for Patient Transporters/Rescuers

Saturday, April 24 • 10:00 to 11:30 a.m.

Would you like to volunteer with an elite group of people assisting wildlife in need? If so, please plan on attending a training session to be held at Woodland Dunes Nature Center presented by Wildlife of Wisconsin, Manitowoc Area Rehabilitators (WOW).

A patient transporter will help rescue animals in distress, capture them and bring them in for treatment, or, as a patient rescuer, will transport and retrieve animals that someone else has already captured, and transport them to WOW. If you have questions or are unable to attend the session but are still interested in becoming a patient transporter/rescuer, please email WOW@tm.net or call (920) 732-3918.

Hope to see you—become one of the few.

Injured Birds and Animals

If you find an injured or abandoned animal, please DO NOT bring it to Woodland Dunes. Instead, call WOW's pager number, 323-5609, and leave your name, telephone number and address. We will return your call, most likely within 15 minutes, and either come to pick the animal up, or instruct you as to the best action to take.

Sue Theys, WOW

Notes from Nature

Cattail Trail

Although each of Woodland Dunes' trails has something special to offer, Cattail Trail is my favorite. Whenever I get to work a little early, there it is, calling me to take a quick walk out into the wild. Because that's the appeal of Cattail Trail—just a few steps away from the Nature Center, and you're in the midst of wilderness.

From my office window on the second floor of the Nature Center, I can see the entire length of the boardwalk. It curves steadily northeast, passing through a swamp of tall shrubs, then the blackbird-trimmed cattail marsh, and finally sweeps through a sedge meadow to the West Twin River. Sometime I see people walking along, pausing to read the signs, turning to find the source of a birdsong. Other times a class of grade-school students gathers on one of the viewing platforms, performing scientific tests or making notes on their observations.

The trail has some of the spatial qualities you find in Frank Lloyd Wright's houses: a small, dark, low-ceilinged space opening into an open, light-filled room, the contrast enhancing both. On Cattail Trail, you pass through dense, overhanging shrubs before reaching the vast expanse of cattails and sedges. You feel very small with so much space around you. If you look upstream as you sit in the midst of acres of marsh, blackbirds singing, you feel as if you are in your own private kingdom.

Today we seldom give the existence of the boardwalk much thought, but a great deal of effort went into making it possible. The first section was built in the winter, when the ground was solid enough to support the workers. A few years ago, grants, support from members, and volunteer labor made it possible first to extend the boardwalk, and then to install railings. Railings seem a simple thing, but they made a huge difference in the experience of walking along the boardwalk. You no longer have to watch your feet to avoid a fall into the muck; now you can look around at the plants, read the signs, and watch for birds and other creatures. Try it some fine spring day, and you too will become a fan of Cattail Trail.

Susan Knorr, Editor

Cattail Trail is dedicated to Anne Krivacek, who gave so much of her time as a Woodland Dunes Teacher-Naturalist. A sign in the cattail marsh commemorates another TN, Winnie Smith, for her dedication to environmental education. Walter Vogel's continued generosity to Woodland Dunes, in this case, his help in funding the purchase of the marsh parcel visible to the east, is recognized by a sign at the end of the trail.

Fairy Shrimp

As the snow finally melts in March, water fills the low places in the forest. Water seeps into the soil, raising the water table to a level that maintains temporary standing water in vernal pools. The place where I grew up was pock-marked with old gravel pits that flooded in the spring and were then filled with wonderful creatures. It impressed me that although people had stripped the land of its soil and a lot of gravel, only a couple of decades later the ground was covered with trees, shrubs, other plants and animals; the little pools we called the frog ponds were equally populated. Later, the frog ponds were filled in by those who were less curious and more practical than I. I miss the frog ponds, but value the wetlands in our preserve even more because of those experiences.

The presence of this temporary water provides habitat for a number of interesting creatures. If conditions change rapidly, portions of their life cycles may accelerate correspondingly. Many aquatic organisms, plant and animal, fulfill their reproductive obligations primarily in these vernal pools instead of in permanent water. Some of the most interesting are the fairy shrimp, named because to early observers they seemed magical, like fairies, suddenly appearing and filling the water with their delicate forms without any apparent means of moving from one place to another, then disappearing again in just a few weeks.

Fairy shrimp appear early. They are one of the first animals to appear near or just after ice out. They glide through the water upside-down (compared to their other crustacean relatives) propelled by ten pair of feathery swimming legs. They are less than an inch long, and you have to look really carefully for them as they do their perpetual back-stroke just above the leaf-covered bottoms of the pools. They arise from cysts—eggs encased in a special covering which can withstand long periods, even years, of drying, heating, and freezing. The pattern of fissures on the outside of the cysts, which can be distinguished with an electron microscope, is one means of separating the different species, three of which have been found in Wisconsin. All of them belong to the genus *Eubbranchipus*.

When the snow starts to melt, the cysts begin a pre-hatching process so that when there is enough water they are ready to hatch quickly. The juvenile fairy shrimp feed on organic matter and smaller invertebrates in the water, and undergo several molts until they are adults. They, of course, are also prey for other aquatic animals, and are not successful if fish are present. Interestingly, even after they begin their pre-hatch phase, the cysts can still survive in a dormant state if water conditions are not optimal.

After a couple of weeks the now adult fairy shrimp mate, lay their encysted eggs, and then die. The cysts remain in bottom sediments, providing a sort of fairy shrimp seed bank, ready to burst into life when water is present. The cysts can survive for years. All of the three species, *Eubbranchipus bundyi*, *E. ornatus*, and *E. serratus*, are listed as species of special conservation need by DNR. Their habitats, the vernal pools, are in need of special conservation help as well. If you have vernal pools on your property, visit them early to see if you are lucky enough to be the landlord of these fascinating animals.

Jim Knickelbine, Director

If you have the chance, visit Woodland Dunes during the very first part of April, especially the boardwalk that crosses the wetland on Trillium Trail at the end of Goodwin Road. The number of wood frogs and spring peepers that gather there is incredible.



Eubbranchipus bundyi

Notes from Nature



Spring Trail Reunion

Time now for Eden
to whoop up the earth,
rainbow banners to shoo
winter's black-white-gray.
Crown the royal trillium
glitter-gowned after rain,
and salute the young cattail
parade through the marsh.
Tip hat to dogwood buds
blushing debut joy,
and dance and stay dancing
until warblers wing
you up to be one of their own.
Sing May magnificent everyday.
Rejoice that your spring
has come home.

Jean Biegun

Jean was included in the February Herald Times Reporter 50/Plus feature article on area writers; Woodland Dunes was acknowledged as well.

Spring flowers

Look for spring flowers like the nodding trilliums below along Trillium Trail and the other trails at the Goodwin Road site.



Sea-Swallows

Sailors called them "sea-swallows." Norsemen referred to them as "taerns," apparently in imitation of one of their calls. We now know them as terns.

They are relatives of gulls, but slimmer, more graceful, and with different feeding habits. Terns have narrower, more pointed wings than gulls, and more sharply-pointed bills. Their tails vary from notched to deeply forked like a barn swallow's. Many species share a common color scheme of gray back and wings, whitish underparts, and a black cap that reaches to just below their eyes. The black caps may turn partly white in fall and winter.



common tern

Terns are water-birds, but they do not all live near the sea. Of seventeen species found in North America, five occur in inland locations. Four are known to breed in Wisconsin: Caspian (*Hydroprogne caspia*), common (*Sterna hirundo*), Forster's (*Sterna forsteriterna*), and black terns (*Chlidonias niger*). The first two are beach nesters. They nest in shallow depressions in sand or among small stones above the high water line. They may line the nest with grass, moss, or seaweeds. Forster's and black terns are marsh dwellers. They make shallow cup nests in masses of dead marsh vegetation, or on muskrat houses. All terns migrate to warmer climates for the winter. Our four species may all occur along the shores of Lake Michigan in spring and fall migrations.

All terns nest in colonies that may vary from a few to many nests. They lay from one to four eggs, usually two or three. Eggs hatch in 20 to 24 days. The young hatch with a full coat of down and with their eyes open. They remain near the nest for a few days, then hide in nearby vegetation. They fledge 21 to 35 days after hatching, depending on the species. Adults are aggressive in defending their nest and young, driving away intruders by diving at them.

Terns eat small fish and other invertebrate animals, which they find while flying over water. Once they spot prey, most terns dive head first into the water. The marsh terns, hunting over shallower water, do not dive as much. They usually swoop down and pluck their prey from the water. They also catch flying insects from the air. Terns do not pick food from the shore while walking, as gulls do. They seldom swim, but are capable of doing so.

All four species of our terns have suffered serious population declines in recent years. The Caspian, common, and Forster's terns are all on Wisconsin's endangered species list. Terns suffered somewhat from the use of DDT and other chemicals in the last half-century. Beach nesters have lost habitat due to human use and development. Caspian and common terns now nest almost exclusively on isolated islands. Caspian tern populations have always been small and sporadic in Wisconsin. Marsh dwelling species often have nesting failures because of changing water levels. They have lost habitat from marsh drainage and damming of rivers. Increased predation and competition for food by the swelling gull population may also be a factor in their declines.



Forster's tern

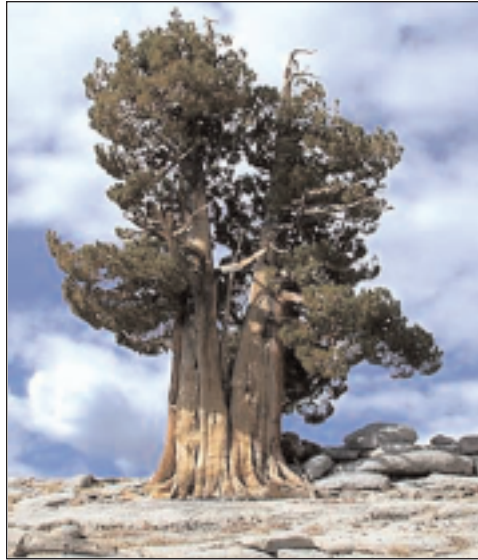
John Woodcock

Methuselahs and Rip Van Winkles

This is a story about individuals that have lived a very long time: a Biblical figure purported to have lived for 969 years and a Washington Irving character who spent 20 years asleep—and some amazing trees. It's interesting that the Bible story and the Irving story draw our attention to the concept of time and its potential for change—but only in human terms. Some organisms live for thousands of years, but we pay little attention because they are not humans. Recently, however, because of Michael Pollen and his book, *The Botany of Desire*, plants are now recognized for their extraordinary lives, and how their lives influence our existence.

We now know the real Methuselahs or Rip Van Winkles are not people; they are trees. The oldest known tree was Prometheus, a bristlecone pine (*Pinus longaeva*) that lived in Nevada. Unfortunately, it was cut down in 1964. The geologist who had discovered the tree broke the increment boring tool needed to obtain the core sample. Instead of getting a new boring tool, he instead got permission to cut the tree down so the rings could be counted directly. Later it was estimated to be at least 5,000 years old.

Fortunately, other bristlecones have survived. The oldest known, Methuselah, has been determined to be about 4,900 years old and is living in the Great Basin area of California.



a bristlecone pine, similar to Prometheus and Methuselah

Imagine beginning as a seedling over 5,000 years ago in such a different world. Rip Van Winkle did well enough after two decades of sleep, returning contentedly to his life of idleness and drink, free from his termagant wife, but an organism that has the capacity to adapt to the changes of five millennia is remarkable by every measure. During this time span, many highly successful species of plants and animals have fallen victim to extinction—and almost all of recorded human history was written. Yet another long-lived tree, known as the Chicago Stump, was a giant sequoia (*Sequoiadendron*

giganteum) that was 3,200 years old when it was cut down in 1893 for the Columbian World's Fair in Chicago

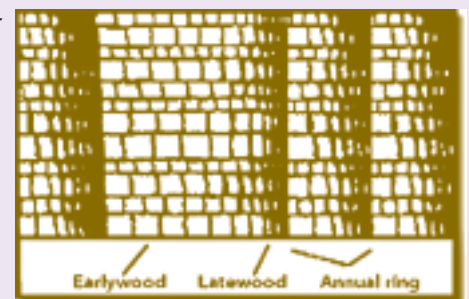
As entertaining as it would be to continue the conversation about these extraordinary long lived trees, unfortunately they are not part of our landscape here. However, we can boast of giant trees in this area that have lived almost since this country sealed its independence from England. In fact, we have trees that have been living since the steam engine was developed; since Lavoisier discovered oxygen and since Pere Marquette visited the area. Woodland Dunes (WD) is home to a giant cottonwood (*Populus deltoides*) on the Willow Trail/Horsetail Loop and Lakeshore Technical College (LTC) has a giant sugar maple (*Acer saccharum*) and a huge, fallen, red maple (*Acer rubrum*) on its Hetzel Trail (see page 7).

These trails, less than 15 miles apart, give hikers an opportunity to experience two entirely different ecosystems. WD offers the unique interaction of Lake Michigan, an unusual land form and climate, while LTC showcases a remnant of the climax forest that once covered large areas of the eastern part of Wisconsin.

Woodland Dunes

At Woodland Dunes, you will find the Helen Dicke-Krivacek cottonwood tree featured on the Horsetail Loop of

NOTE: Many things are important to the growth of a plant including water, disease, soil or edaphic conditions and certainly climate. Recently we have added the influence of pollution and human intervention to the list of important variables. The growth rings of the tree tell an important story of how the tree was shaped by its genetics and its environment. Even changes in temperature are reflected in the growth of the rings, as evidenced by the difference between the spring and summer growth. (See diagram.) With today's sophisticated chemical tools and methods available for analysis, samples of each growth ring can be analyzed to provide additional information on what was influencing the growth of the tree in that specific year. The study of trees' growth rings is called dendrochronology, a sub-study of botany that correlates the growth of a tree with the environmental factors that influenced that growth. In 1785 James Hutton proposed that the past can be studied through the principle of "uniformity in the order of nature." This is interpreted today to mean that "the present is the key to the past" suggesting that what has happened in the past can be explained by conditions and events that are happening in the present. Our giant trees are indeed the tools for understanding the past and represent treasures worthy of any kingdom.





Jim Knickelbine measures the cottonwood on Willow Trail

Willow Trail. It stands as a sentry to WD's recent history. The tree is about six feet in diameter and about 19 feet in circumference and may actually be two trees that when young grew together. The height of the tree is estimated to be 90 to 100 feet, making it visible from the Nature Center almost a mile away. Wisconsin DNR forester Sue Crowley estimates the tree to be more than 100 years old and perhaps 200 years old. This means the tree may have germinated before Wisconsin gained its statehood. Even though this is an enormous cottonwood tree, it is not the Methuselah of cottonwoods. That honor goes to the Balmville tree, growing in an urban area of Newburgh, N.Y. It is estimated to be about 300 years old.

Sue provided some interesting findings she discovered from a core sample she made of the tree. Because her increment boring tool was too short to get a complete core sample, only growth rings from about the last 40 to 50 years were examined. They showed that in recent years the tree grew at the rate of six rings/inch (six years to produce one inch) as compared to the expected growth two to

three rings per inch. This suggests that something is inhibiting its growth. Unfortunately, the secrets of this giant remain just that, a secret. We can only hope the tree will give up its secrets when a complete core is obtained.

Part of the trail system at WD has been incorporated into the state-wide Ice Age trail system. The WD segment of the Ice Age Trail is about 2 1/2 miles in length and highlights a rare geological feature, a series of ridges and swales found only at WD and a few other areas on the western shore of Lake Michigan (Point Beach State Forest and the Ridges Sanctuary). These ridges and swales were created as lake levels changed at the end of the last Ice Age and sand dunes built up along the shore line. As the lake level changed, the dunes became covered with vegetation that stabilized the structure of the dunes and prevented their destruction. As a drop in lake level created a new shore line, a new dune area was created and the process continued.

Botanical succession here took an entirely different pathway than would otherwise have been dictated by the climate of this lakeshore area and resulted in an ecological system specific to the ridge and swale geology. Instead of the beech, maple and linden climax forest of adjacent areas of the lakeshore, the climax community became a mixture of plants that were tolerant of the water logged soil that characterizes the ridges and swales. Plants found in this climax community are hemlock, tamarack and a mixture of hardwoods, including black cherry and ironwood. It is more dynamic than the adjacent beech, maple and linden forest because it is vulnerable to the changes in water flow that happen because of human activity, inadvertent or planned.

The Hetzel Nature Trail

Unlike WD's trails, the Hetzel Nature Trail features the traditional beech, maple and linden climax forest typical of those that once covered much of eastern and north-eastern Wisconsin. The LTC campus was built



Marilyn Sontag points out the rings of the maple that fell on the Hetzel Trail

on the Hetzel family homestead. The family practiced sound conservation methods in managing the land. They recognized the aesthetic and ecological value of the woods and had the foresight to leave the wooded part of the farmland in a pristine state. Even fallen trees were permitted to become part of the natural cycle, and were not removed. About the only evidence of their management of the woods is that they tapped the maple trees for syrup. This climax forest is truly a unique and beautifully significant natural treasure.

The Hetzel Trail, which was created in the wooded areas of the LTC campus, is composed of two loops. The southern is about one mile long and the northern loop slightly longer. A free trail guide can be found in a kiosk outside the main entrance to the building near the bridge. The trail and guide are designed to tell the unique story of this remnant climax forest and identify special features along the trail.

Other northern hardwood forests in the area look remarkably similar, but have one difference: they have been influenced or modified by human activity. This remnant shows no evidence of human intervention since the end of the last Ice Age. Interestingly, the woods lie at the edge of the tension zone where

Wisconsin's two distinct floristic provinces, the southern hardwood forest, including oak savannah and prairie, and the northern hardwood and conifer forest, meet. A small segment of the south trail directs the walker through a successional (or sub climax) community. It is in this area where changes occur more rapidly, as different species compete for sunlight, resources and space. Each of the forested areas is dynamic, but some have experienced greater change because of the loss of trees due to wind storms, disease or pollution.

Because this is a beech, maple and linden climax forest, one expects to find these trees will be the most common. However, the forest includes many other species that form the communities within this ecosystem. Many of the plants flourish because they are shade tolerant, while others push the limits by crowding the others for resources and space. Because some trees—e.g., white birch, white pine, bur oak and red oak—need more light and cannot reproduce in the shade, they are found in the more dynamic successional areas of the trail. Regardless of whether the plants are shade tolerant or intolerant, they are all opportunistic and take advantage of situations created when others die.

It was because of such a situation that the giant sugar maple captured our attention. A wind storm blew this tree down. This unceremonious end to its life forced it to reveal some of its secrets. A section of the tree, taken at the height of about 20 feet, was removed, polished and put on display on the LTC Campus. The ring count, adjusted for the height of the section, established the age of the tree to be about 300 years old when it fell. This means the tree was living during almost all of the history of the United States. The removed section allows hikers to pass between the ends of the tree as they hike along the north trail. As with the WD cottonwood tree, the growth rings of this tree have not been studied by a dendrologist, and so its secrets remain untold—but the study has been initiated.

The giants of the WD and LTC trail systems are there for hikers to see and appreciate. They remind us of the role we play in the lives of other living things. Being good stewards of our precious natural areas and their treasures provides opportunities for others in the future to appreciate the beauty of the real world. Many societies throughout history have worshiped or mythologized trees; when you see the grand old trees on our two trail systems you can understand why this is so. Our celebration of their presence reflects the beauty of their biology and the lasting influence of their genetic makeup.

Chuck Sontag, Professor Emeritus, UW-Manitowoc

For those interested in learning more about the giant trees in the Lakeshore area and in Wisconsin, contact either (or both), Sue Crowley and William Gamble. Sue can be reached at susan.crowley@wisconsin.gov or (920) 755-4984, and William at (920) 682-9096. Each is interested in knowing about your giant trees and they will, in turn, share their insights about the trees and the stories only the trees can tell.



Kelly Eskew Vorron checks out the water temperature in the Little Wings play area.

Director's Report continued from page 1

This spring we will continue to work on our Little Wings play area—we look forward to being able to turn on the water feature that was installed in November. If you have young children, check back often to see our progress. Along with that, we are considering expanding our weekend Marsh Haus hours, but we really need volunteer help to do that. If you wouldn't mind coming in to greet visitors occasionally on a Saturday or Sunday for a few hours, please let us know. We spend a lot of time promoting Woodland Dunes, and it would be great if we could be open more for our visitors.

Warm wishes to all.

Jim Knickelbine, Director

Adopt an Owl

For \$25 you can adopt a saw-whet owl caught and banded at Woodland Dunes. You will receive a certificate of adoption with the band number of your owl, a photo of a saw-whet owl, and a form for recording recaptures. Funds raised from this program will support the mission of Woodland Dunes. Please call for details.



Bird Seed in the Shop

Woodland Dunes has teamed up with Country Visions Cooperative to offer several types of bird seed for sale. We will carry large bags of black oil sunflower seed and also a basic millet mix, and niger (thistle seed). Help your feathered friends stay warm and close to home this winter!



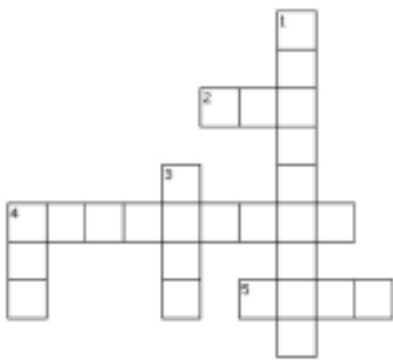
“The White Tree”

Though you may not have a white birch (*Betula papyrifera*) in your yard or neighborhood, you probably know what one looks like. The white or paper birch is one of the most common trees in Wisconsin. It is characterized by its white bark and its paper-like texture.

White birch can be used for many different things. Not only is it used to make paper, but it also makes good fire logs. The Indians knew that birch could be used to create insulated tents and boats. Birch is light and flexible, and it has been used for torches, containers, and even moose calls. Not only did the Indians use the bark, but they also tapped the trees for sap, which made a delicious sugar.

Try and see how many white birch trees you can find in your neighborhood. You'll be surprised at how many there really are.

“Things in Spring”



Across

- 2. I'm bigger and brighter than ever!
- 4. I flutter in your hand
- 5. We stick on the north side of things...

Down

- 1. We do family reunions on your yard.
- 3. Fall is the worst time of year for us
- 4. My cousins are real pests, but I'm pretty sweet!

Sources: *Birds of Wisconsin Field guide* by Stan Tekiela, ukbutterflies.co.uk; connecting-with-nature.net; natbistoc.bio.uci.edu; <http://www.bio.umass.edu/biology/conn.river/whiteb.html>

What A Lovely Mourning Cloak!

If you've lived in Wisconsin for several years, chances are you know very well that the four seasons are winter, more winter, still winter, and construction. Despite the state's apparent lack of spring, one of nature's creatures doesn't seem to mind the cold: the mourning cloak butterfly.

One of the first vital signs of spring, this unique butterfly lays eggs in April/May. The adults eventually die off and the caterpillars do not go through metamorphosis until fall. Perhaps symbolic of Wisconsin's dark wintry days, the mourning cloak dons a gloomy pair of mud-colored wings-but along the fringes a border of sky blue dots and a sunshine yellow stripe bring hope for the spring days that will come.



The mourning cloak has interesting habits. Adult butterflies that hatch in the fall actually hibernate in the bark of hollow trees, feeding on the sap and sugar when they emerge. Additionally, they prefer remaining as high off the ground as possible. If you offer your hand as a perch it is possible they'll stop by for a visit!

In the United Kingdom mourning cloaks are a rare sight. Their name there is the “Camberwell Beauty” or “Grand Surprise,” according to an 18th-century naturalist record. It may not feel like spring in Wisconsin, but the arrival of this lovely butterfly is truly a welcome surprise after winter's worst is past.

Starting a Garden...Try It!

It's still pretty cold outside, but now is a good time to start planning a garden. You can make it a family project or just do it for yourself. If you plan wisely and take care of your plants, it'll last well past spring and keep you busy on boring summer days.



1. Design a plan. Maybe you want the garden to encompass your entire backyard, or perhaps you just want a few pots lining the front porch. For ideas on themed gardens check out *Roots, Shoots, Buckets & Boots* by Sharon Lovejoy.
2. If you're feeling adventurous, buy a packet of seeds to start your garden. You can watch your plants grow from start to finish. Or you can visit a nursery and pick out some plants there.
3. Don't forget accessories! In our opinion, half the fun comes from wearing polka-dot gloves and having cool wind chimes.

The Living Classroom



identifying animal tracks

Winter Program

Woodland Dunes is finishing up another great season of winter programs. The students who visit learn about Wisconsin animals and plants and how they survive cold winters. As they study animal tracks and plant physiology, and snowshoe through the forest, the students make great discoveries. One group of students found

some fox tracks that ended at a tree, which started a discussion about the different types of foxes at Woodland Dunes and the fact that gray foxes do indeed climb trees! Others marveled at the snow fleas that climb out of the leaf litter and bask on top of the snow. At Chickadee Landing, always a big hit, students learn about this fearless bird that must eat between 150 to 250 seeds a day in winter to stay warm. Comparing their heart rate on 0°F days (1,000 beats a minute) to our own helps students realize animals have to work hard to stay alive during winter.

New Maple Syrup Program

This March Woodland Dunes initiated a new maple syrup program for 4th grade students. It incorporates natural and cultural history to help students learn about Wisconsin's history and this timeless tradition. Students rotate through a series of learning stations focused on the forest and the different phases of maple syrup making. They will use math, science and observation skills to discover the history and mystery of maple syrup making, what a forest needs to function, what it provides us as humans and what plants and animals live in our Wisconsin forests. If you are interested in helping with this program or any of our upcoming spring wetland programs, please contact Kelly at kellye@woodlanddunes.org

Citizen Science Monitoring

Salamander Study

As populations of amphibian species decline, it is important to record their current populations and the location of their habitat. Many salamanders return, year after year, to the same ponds they were born in to lay their eggs. It has been observed that even when their ponds have been filled and disturbed by human encroachment, they will return in search of their first watery home. If a suitable habitat is not nearby, the success of laying eggs and survival is greatly diminished.

Woodland Dunes is helping to coordinate Wisconsin's first salamander study. Wisconsin has seven salamander species. The study will focus on three species that breed in shallow woodland pools: the tiger, the spotted and the blue-spotted salamanders. This survey brings attention to these secretive creatures and will help bring important data to wildlife managers. The study is in its third year. If you are interested in getting involved, please contact Kelly at kellye@woodlanddunes.org or by calling the Nature Center at (920) 793-4007.

Water Action Volunteers

Both the East and West Twin Rivers have sections considered impaired waterways under federal policy. Due to pollutants, these river segments are not meeting their potential for supporting activities such as fishing or swimming. Woodland Dunes is helping to coordinate an on-going water monitoring effort for the East and West Twin. If you are interested in taking a couple hours each month the river is unfrozen to sample, please contact Kelly at kellye@woodlanddunes.org.

Phenology: The times they are a changing

If you take a daily or weekly walk along the same route in spring, you will be surprised how quickly plants start to green up and new animals arrive. Phenology, the study of the timing of natural events helps us recognize the changes that signal the return of spring. For examples of what to look for, and when, see the calendar on the next page. Although these predictions are based on previous years sightings, animals and plants do not always cooperate. Though many are genetically programmed to grow or migrate, weather plays a large role in determining when they become active in the spring. Birds and some of our hibernators are great examples.

Prior to migration, the metabolism of long distance migrants changes drastically, allowing them to accumulate large amounts of fat just under the skin. This added fat reserve, which can double the weight of the bird, gives them the energy needed for migration. Their metabolism changes in response to two hormones released at different times of the day by the pituitary gland and the adrenal gland. In many birds these hormones are regulated by the amount of light that a bird is exposed to during a photoperiod. Because of this, we can make a guess as to when certain birds will return to Woodland Dunes, however weather also plays a role. Winds out of the south can start a wave of migrating birds moving northward, but a cold front, steady rain or sleet will ground them.

Local hibernators are also an interesting example of the inter-relation between genetics, physiology and weather. In Wisconsin we only have a few true hibernators: woodchucks, thirteen-lined ground squirrels, jumping mice and some bats. Before hibernation, these animals eat enough to build up large fat deposits, similar to migrating birds, but they burn it off a little differently and much slower. When animals hibernate, their metabolic rate slows to conserve energy. A hibernating woodchuck's body temperature drops from 98°F to around 38°F and their heart rate slows to five to six beats a minute. It uses so little energy it can live for six months off the body fat that would last little more than a week in its normal awake state.




An animal in a dark burrow can't feel warmer temperatures, or sense longer days, so how do they know when to emerge? The signal to wake comes from within. Hibernators have an internal clock, a series of chemical reactions controlled by the hypothalamus of the animal's brain. The shorter days and cooling temperatures of autumn set the hibernator's clock to zero. The animal goes into hibernation, then wakes up about 180 days later (the exact time depends on the animal.)

Plants that are genetically programmed are a little different: for them the length of night is important. Scientists have done experiments in which they interrupt the dark of night with a burst of artificial light, even for as little as a




continued on page 14

What's happening at Woodland Dunes




The dates given are based on data from previous years, but will vary depending on actual conditions.

	Maple Syrup starts to flow when temperatures are above 40°F.					
	1	2	3	4	5	6
Sandhill cranes begin arriving.	Male red-winged blackbird arrival.		Robins' spring arrival.	Bluebird arrival.		
7	8	9	10	11	12	13
	Red fox pups begin to be born. Hike Trillium Trail		Eastern meadowlarks arriving. Visit the Goodwin Road prairie.			Vernal equinox: First day of spring.
14	15	16	17	18	19	20
Chipmunks become active. Hike Conifer Trail.		Skunk cabbage begins blooming. Hike Yellow Birch Trail.				Great blue herons begin arriving.
21	22	23	24	25	26	27
Spring peepers begin calling, garter snakes emerge, woodchucks move about and bumblebee become active. Hike Trillium Trail.			Wood frogs begin breeding when day and night temperatures are above 50°F. Hike Black Cherry Trail to hear them.			
28	29	30	31			

March

				Kingfishers start arriving.		
			1	2	3	
	Woolly bear caterpillars on the move.	Peak spring duck migration. Canoe the West Twin River.		Timberdoodles begin mating calls.	Join us for Maple Moon & a Timberdoodle Hike	
4	5	6	7	8	9	10
Ruffed grouse begin drumming. Hike the Ice Age Trail.			Osprey start to nest. Hike Cattail Trail.		Painted turtles emerging. Hike Cattail Trail	Celebrate Earth Day at Silver Lake College.
11	12	13	14	15	16	17
Watch for bloodroot	Marsh marigolds emerge. Hike Yellow Birch Trail	Whitetail bucks are growing antlers.	Dragonflies emerge. Check ponds	Earth Day at LTC Members meet at Woodland Dunes	Little brown bats arrive for spring.	Silver Creek Hike 9:30 to 11:00 a.m.
18	19	20	21	22	23	24
American toad starts singing.			Full (pink) moon			
25	26	27	28	29	30	

April

						
						1
		Watch for ruby-throated hummingbirds and house wrens			Indigo buntings arriving.	
		3	4	5	6	7
Spring arrival of the Eastern wood pee-wee. Hike Black Cherry Trail. Listen for pee-wee call.			Serviceberry blooming. Hike Conifer Trail. To see cottonwoods blooming, hike Willow Trail to the Big Tree.		Eastern gray tree frogs begin calling. Hike Willow Trail.	Migration Celebration 8:00 a.m. to noon
9	10	11	12	13	14	15
Look for monarchs, other insects in the butterfly garden		Hooded trilliums blooming. Hike Trillium Trail.	Wild geraniums, May apple bloom. Hike Trillium Trail		First mosquito bite 2009.	
16	17	18	19	20	21	22
1st fireflies seen		Jack-in-the-pulpit blooms. Hike Ice Age Trail.		Full (flower) moon	Dogwoods flowering. Hike Cattail Trail.	
23	24	25	26	27	28	29
30	31					

May

Succession on my Mind



The roar of breaking waves during a mid-winter storm completely masked the sound of a towering white spruce (*Picea glauca*) snapping in the wind and crashing into the slough. When we examined it the next day, we discovered insects had eaten away much of the heartwood; only a thin layer of healthy wood had been holding the tree up. Exposed on high ground at lake's edge, it had little chance against the gale force winds coming off Lake Michigan.

This is only one of the big trees we've lost since moving to Winghaven. Several years ago, a mature Austrian pine (*Pinus nigra*) succumbed to strong winds, depriving feeder birds of their favorite place to shelter. A green ash (*Fraxinus pennsylvanica*) planted far too close to the house had to be removed when it started leaning in a threatening direction. An octopus of a box elder (*Acer negundo*) continues to drop huge branches on its way to a messy death. Ancient, overgrown apple trees (*Malus domestica*) split in half before falling to the ground.

Winghaven was farmland and orchard until the turn of the century, then abandoned after the little community of Two Creeks it adjoined burned. Trees sprung up willy-nilly from seeds blown in or dropped by birds: silver maples (*Acer saccharinum*), box elder, and quaking aspen (*Populus tremuloides*), a typical secondary succession. When the house was built in the late thirties, the owners planted a shelterbelt of white cedar (*Thuja occidentalis*), a few specimen evergreens, a half dozen paper birch, a few hawthorns (*Crataegus* sp.) and a couple dozen Scots pine (*Pinus sylvestris*). Seventy years on, a mature forest encircles the house.

While the recent mortality has led to a good supply of firewood, it has also pointed out a problem with interfering with nature. Unless a natural disaster—fire, wind, drought, or the like—takes place, trees reach maturity, and then grow slowly for many years. Eventually, all the trees in an area are mature, or declining, yet their shade prevents

seedlings from growing beyond the shrub stage. Asking for a natural disaster seems perverse, and having experienced a hurricane first-hand, I have no desire to do so again. Yet I imagine what a landscape of dying and dead trees would look like. So my question is, how do I add younger trees to the landscape?

Once again, the best answer seems to be to follow the example set by nature. When trees fall in a deciduous forest, a light gap is created, allowing sunlight to penetrate to the ground. Uprturned root mats, formed when large trees blow down in windstorms, also open up light gaps as well as a patch of open soil. A natural mature forest is a mosaic of light gaps and other areas in various stages of recovery from former small-scale disturbances. Often these areas are quickly covered over as a profusion of plants take advantage of the sun; the sapling trees in the light gap compete to grow up through it and get their leaves out in the top of the canopy where they can get full sun.

A realistic solution for me is to plant seedlings in light gaps left where mature trees fell. Another is to create an artificial light gap by clearing an area of less desirable trees, then planting the species that are wanted. Native species (or at least non-invasive ones), are the most likely to succeed, as they are best suited to the environment. And while many have pests or plagues of one sort or another, it can help a great deal to grow them under optimal conditions, which diminishes their susceptibility.

So now I'm mapping out the light gaps, studying soil conditions, putting together a tree list, and looking forward to spring.

Susan Knorr, Editor

My tree list

White pine (*Pinus strobus*) not only tolerates shade, it seems to do best when planted under taller trees in light shade. **White spruce** (*Picea glauca*) and **tamarack** (*Larix laricina*) will grow in swamp conditions and tolerate light shade. Both **balsam fir** (*Abies balsamea*) and the beautiful **Eastern hemlock** (*Tsuga canadensis*) readily establish under a canopy of hardwoods and conifers.

As for deciduous trees, **basswood** (*Tilia americana*) tolerates a range of conditions from full sun to part shade and average soil. Its main pest is the Japanese beetle. It's an attractive tree, with smooth gray bark like a beech, and produces fragrant flowers that are favorites for honeybees. **American beech** (*Fagus grandifolia*) is shade tolerant when young, but it is hard to find in nurseries as is **yellow birch** (*Betula alleghaniensis*). This beautiful birch will grow in partial shade to partial sun and wet soil. **Red maple** (*Acer rubrum*) grows in a wide range of conditions and full to partial sun.

Deer have been a problem ever since Wisconsin's great forests were cleared in the 1800s. Since nothing seems to be 100% deer-resistant, protective tubes are necessary if you don't want to furnish dinner for the deer. Tubes also promote growth while they protect tender growth.



Christmas Bird Count 2009/2010

The winter bird census for Manitowoc County resulted in 7,751 birds of 55 species being identified. This count is divided into four quarters of the county for submission to The Wisconsin Society for Ornithology to be consistent with their annual reports.

The most unusual birds reported this winter were five bald eagles, three gray partridges, ten great horned owls, a kingfisher, 37 horned larks, 34 robins and five bluebirds. Also unusual was the absence of all blackbird species and winter finches such as pine and evening grosbeaks, redpolls and crossbills.

There were 73 hawks of seven species, 1,279 ducks and mergansers of eight species and 1,364 gulls of seven species. Gulls seen included ring-billed, herring, Thayer's, Iceland, lesser black-backed, glaucous and greater black-backed. The harbors of Two Rivers and Manitowoc continue to be birding hotspots any time of the year.

This winter's participants: Helen Bleser (NE), Bernie Brouchoud (all), Sara Claybrook (NE), Sue DeSteffen (NE), Jeff Hassemmer (NE), Judy Hassemmer (NE), Jim Holschbach (NW, NE), Jim Knickelbine (SE, NW, NE), Matt Knickelbine (SE), Sue Knickelbine (SE), Jim Knorr (NE), Dick Luchsinger (NE), Mary Ozarowicz (NE), Norb Pritzl (all), Mary Reitmeyer (NE), Tony Reitmeyer (NE), Charles Sontag (all), Joel Trick (NW), Patty Trick (NW), Darlene Waterstreet (NE), Jim Welnetz (NW), John Woodcock (SE), Julie Woodcock (SE).

Aegolius Bird Club

The Aegolius Bird Club meets at Woodland Dunes the second Tuesday each month at 7:00 p.m. The club also makes field trips each month on Saturdays to places around our area that are rich in bird life. Membership is open to anyone interested in birds, but you need not be a member to attend meetings or to participate in field trips. For more information, call John or Julie Woodcock at (920) 683-3878.

Field Trips 2010

April: No field trip due to Bird Breakfast.

May 15: Meet at the Nature Center at 11:00 a.m. to look for woodland songbird migrants at Neshota Park and Picnic Hill in Two Rivers. Bring a bag lunch.

June 12: Meet at Knollwood Mausoleum Parking Lot at 7:00 a.m. to look for summer resident birds at Heidmann County Park in Kewaunee Co.

July 17: Meet at the Hwy. 151 and I-43 Park and Ride at 8:00 a.m. to look for summer resident birds at Ledgeview Nature Center in Chilton.

August 14: Meet at the Nature Center at 8:00 a.m. to look for early fall migrants at Point Beach State Forest.

September 18: Meet at the wayside on Hwy. 42 at 8:00 a.m. to look for fall migrants along the Ice Age Trail in Woodland Dunes.

October: No field trip due to Owlfest

November 13: Meet at UW Manitowoc B Parking Lot at 1:00 p.m. to look for loons and waterfowl at Fischer Creek, Kingfisher Farm, and Cleveland.

December: No field trip due to winter bird counts

Species counted	Quarter of Manitowoc County where seen			
	SW	SE	NW	NE
Canada goose	117	429	-	-
American black duck	-	8	-	2
Mallard	4	146	-	2
Bufflehead	-	15	-	4
Common goldeneye	-	458	-	162
Common merganser	-	62	-	59
Red-breasted merganser	-	12	-	-
Ruddy duck	-	1	-	-
Gray partridge	-	-	-	3
Ring-necked pheasant	-	-	-	3
Wild turkey	16	-	96	44
Bald eagle	1	2	-	2
Northern harrier	-	-	1	-
Cooper's hawk	1	1	2	3
Red-tailed hawk	9	8	17	3
Rough-legged hawk	14	-	3	1
American kestrel	2	1	1	-
Peregrine falcon	-	1	-	-
Ring-billed gull	-	-	1	29
Herring gull	-	1132	56	432
Thayer's gull	-	1	-	-
Iceland gull	-	1	-	-
Lesser black-backed gull	-	1	-	-
Glaucous gull	-	4	-	-
Greater black-backed gull	-	3	-	-
Rock pigeon	41	138	207	86
Mourning dove	69	62	103	120
Great horned owl	-	-	3	7
Belted kingfisher	-	-	1	-
Red-bellied woodpecker	7	1	6	5
Downy woodpecker	16	5	17	37
Hairy woodpecker	4	2	3	20
Northern flicker	-	1	1	1
Pileated woodpecker	1	-	-	3
Blue jay	16	10	28	47
American crow	54	109	114	212
Horned lark	2	11	3	21
Black-capped chickadee	20	22	48	100
Red-breasted nuthatch	-	-	2	9
White-breasted nuthatch	4	8	11	16
Eastern bluebird	-	-	5	-
American robin	1	32	1	-
European starling	342	37	15	38
American tree sparrow	48	32	242	55
Song sparrow	1	-	-	-
White-throated sparrow	-	2	-	-
Dark-eyed junco	103	57	124	148
Snow bunting	-	-	-	72
Northern cardinal	11	9	32	87
Purple finch	-	-	8	-
House finch	1	9	6	22
Pine siskin	-	-	-	6
American goldfinch	13	24	85	149
House sparrow	119	81	65	116
Total species	28	40	32	40

Thank You

The following reflect gifts, donations and memberships received through February 20, 2009.

Grants

The West Foundation
\$25,000 for the Goodwin Road
Field Station
Lakeshore Natural Resources Fdn
\$1,500 for microscopes
FORWARD Foundation
\$500 for school program scholarships

Memorials

In memory of Lawrence Rudie
John and Mary Sparth
Sean and Jenn Nobui
In memory of Earl Martin
E.C. Manger & Son, Co.
Proko-Wall Funeral Home
Lambert-Eckert Funeral Home
Jens Rainbold & Pfeffer
Barbara Gorny
Don and Helen Bleser
*Aegolius Bird Club Memorial
Garden*
The Aegolius Bird Club
In memory of Laurine J. Tess
Sue Karrmann
In memory of Vicki Sandvig
Eugene Sandvig
In memory of Lucille Kenderknecht
Ronald and Donna Feest

Honoraria

In honor of Jody Henseler
Brett and Shannon Peitersen
In honor of Scott and Vicki Wichlacz
Sara Haney

Adopt An Owl

James McGinnis
Susan and Bryee Bettenhausen

Gifts

Harold Kallies Trust
\$1,000
Jim and Barbie Lester
\$900 for area of greatest need
Don and Renée Evans
\$300 for Snow Ball dog team

Donations

David and Pat D'Aoust
Charles and Joanne Geiger
James and Jane Hamann
Bruce and Lesley Huffer
Amanda Lambert
Brett and Shannon Peitersen

In-kind Donations

Fricke Printing
posters for The Snow Ball

Matching Donations

Ameriprise Financial (\$26 matching)
Dominion Foundation (\$50 matching)

Guarantors*

Scottie Dayton and Diane Smith
Paul and Johanna Hochkammer
Tom and Betsy Kocourek
Tom and Jean Rees
James and Patricia Szymczyk
Dr. Richard and Jean Van Dreef
Walter Vogl

*memberships received after Winter
Dunesletter deadline

Corporate Memberships

Foster Needle Co, Inc. (renewal)
Twin River Turf (renewal)

Membership Correction

Marilyn and Patrick Christel

Thank You

Thanks to Betsy Kocourek for photographing the winter education program and donating an owl CD.

Wish List

A really sturdy stapler (Kelly)
A newer PC and printer
A newer Mac computer (Kelly)
An ATV (Jim)

Fund Drive Donors

Aegolius Bird Club
Judith Badura
Dorothy and Rosie Bugs
Jerome and Gail Fox
Mr. and Mrs. Bruce Huffer
Donald and Dolores Janda
John and Patti Maala Family
James G. Morrow, Sr.
Mrs. K. Patricia Morse
Janice Tetzlaff

Thanks, Winter Program TNs

Mary Ozarowicz
Jeanne Miller
Lou Ann Gray
Joan Hanson
Lee and Ed Brey
Betsy Kocourek

New Members

Robert and Jaci Alyea
Donna Antonie
bill and Mary Dean
Amanda Lambert
Cory Masiak
Jim and Debbie McGinnis
Dolly McNulty
George E. Naidl
Roger and Cheryl Smith
Tony and Sandy Van Horn
Scott and Vicki Wichlacz
Mike Wolson

cont. from page 12

minute and the plant responds as though the night were much shorter. Florists use this to force plants to bloom out of their normal periods.

Plants and animals that are governed by genetics tend to appear close to the same time every year. But we have to remember that weather—in autumn for the hibernators and spring for the migrators and plants—plays a role in determining when we start to see them in spring.

Phenological records have been collected in North America for a little over 200 years. These records provide a fascinating comparison between years. If recorded carefully and consistently, these records have scientific value and help us understand the interactions between organisms and their environment. Take some time to observe and record this spring!

Kelly Eskew Vorrn, Education Coordinator



Winter program TNs (l to r): Lee Brey, Susie Polk, Joan Hanson, Jess Johnsrud, Kelly Eskew Vorrn, Jeanne Miller and Mary Ozarowicz at the field station.

Volunteers

Volunteers at Woodland Dunes often find their jobs expand and change as the needs of the organization change. Since there haven't been additions to the library recently, I was asked if I would use my time at Woodland Dunes to organize and enter the data for the summer bird survey into our computer system. So I'll use this column to include Bernie's recent *Ripples* article about the survey.

Woodland Dunes has 35 years of records of the summer bird survey. Each year naturalists have monitored numerous routes throughout Woodland Dunes, recording all birds seen AND heard. Each year the counts were done during the same hours and over the same time period. At the end of each summer, the information gathered was reviewed.

Wildlife researchers use different methods to survey populations. Some surveys focus on nests and eggs or young birds, others involve bird capture and banding. Since Woodland Dunes is a sanctuary for birds, great care is taken to avoid disturbing nesting birds. Both of the methods mentioned above could disturb birds during their nesting period, possibly causing them to abandon their territories and nests. This would result in lower rates of reproduction, and is contrary to Woodland Dunes' goals.

For the Woodland Dunes summer survey, trained observers walk each predetermined route and record birds

continuously as they go. They don't observe time constraints, although they start most routes at 5:00 a.m. They pause if needed to listen or look carefully to verify a bird's identity. They record the date, bird species, number of birds, weather, location (designated by 40-acre parcel) and more.

When the summer bird database is completed, researchers will be able to analyze the data that has been gathered over the years. Few locations have gathered this amount of information. The results should reinforce Woodland Dunes' designation as an Important Bird Area.

Bernie Brouchoud and Darlene Waterstreet, Volunteers

Interested in Becoming a Volunteer?

This summer we would like to have the nature center open on weekends to give more people the opportunity to enjoy all we have to offer. Our new Little Wings natural play area will be ready for children to enjoy, and weekends are a perfect time for them to visit. We'd like them to have full access to our facilities when they are here. If you can help out on one or more weekend days, please call the nature center, (920) 793-4007.



Woodland Dunes Nature Center and Preserve: Bursting with Activities for Everyone

After the quiet days of winter, we enjoy the rush of activity that accompanies the warm, sunny days of spring. Migratory birds return, school groups visit in ever-increasing numbers, and volunteers hurry to ensure the butterfly garden is ready for a burst of spring growth. Each of these activities requires support from Woodland Dunes. While the birds will show up no matter what we do, we want to make sure they find suitable habitat: places for nesting, for feeding and for mating. Invasive plants must be removed to make room for the native species they require. Programs have to be readied for school groups, volunteers trained, and educational materials prepared. The butterfly gardeners need signs to label plants, plants to brighten up the garden and attract butterflies and bees, and help recruiting new volunteers. The support provided by the staff at Woodland Dunes can not be made available without YOUR support. We need you more than ever.

Please invest in your future by supporting Woodland Dunes.



happy faces at the Winter Program

I wish to support Woodland Dunes with the following donation:

\$10 _____ \$25 _____ \$50 _____ \$100 _____ \$200 _____ other

Name (please print) _____ Phone _____

Address _____

City _____ State _____ Zip _____

Please make checks payable to Woodland Dunes and return this form with your donation to: Woodland Dunes, PO Box 486, Two Rivers, WI 54241-0486

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

Become a member!

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Please send this form and your tax-deductible donation to Woodland Dunes today.

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Hwy. 310 west of Two Rivers

Hours

Monday - Friday

9 a.m. to 4 p.m.

Saturday:

Summer • 9 a.m. to noon

Winter • by appt. or for events

Hiking trails open year round

Phone (920) 793-4007

woodlanddunes@lakefield.net

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