

The Dunesletter

A Publication of Woodland Dunes Nature Center and Preserve

A Season of Giving

As the holidays approach, I am thankful for many things. I am surrounded by a network of supportive and loving family and friends; I had the opportunity to travel; I started a job I love; and welcomed a new niece.

I am also thankful for the organizations that make a difference in the community. Each year, my husband and I make it a point to support organizations that are close to our hearts. They have varied missions, but all provide valuable and meaningful contributions to the community. I challenge you to take a moment to consider what organizations you value and wish to support. An end-of-year tax deductible donation to these organizations will help them reach their goals. We at Woodland Dunes hope you feel our work is valuable and that you will choose to support us.

Jessica Johnsrud, Development and Marketing Coordinator

To donate to Woodland Dunes, please send a check to Woodland Dunes Fund Drive, P.O. Box 486, Two Rivers, WI 54241-0486

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From the Director

As we enter the second decade of the 21st century, the blur that was 2010 recedes into our memories as Woodland Dunes begins its 37th year of advocating for environmental wellness and understanding. It is amazing that after 36 years there is still such a need for preservation and education; you would think that our society would have worked out our conservation issues by now. Still, with every wildflower that blooms, salamander that crawls, or young face that lights up in anticipation of a field trip visit upon getting off the school bus, we see the tremendous value in what was and is being done here.

During the past year, we certainly kept busy—more than 3,000 children visited for programs; we finished remodeling our field station; our play area came together; and thousands of birds were counted while thousands of invasive plants expired. Our education staff and volunteers did a remarkable job, and, beyond our school programs, attendance increased significantly at our family events. New family programs were added, and our folk concerts sold out several times. A new trail was constructed on our prairie, and school children were introduced to that habitat. Recently, volunteers worked to improve (level) some of our bridges on Trillium Trail, making them safer for skiers and snowshoers this winter. We received gratifying recognition from the DNR for effective use of grant funds for several of our projects.

Just as conservation issues are ongoing concerns, so is the issue of funding our programs—funds for nonprofits are not abundant in our present economy. Maintaining the scope of our programs is always a challenge, but we don't want to cut back on our activities. Hence, we will work harder to secure the funding we need, and invent new ways to find that funding. We have been greatly helped by several of our most loyal members, including John Barta and Arlene Turgason in the recent past; we want to make sure we confirm their confidence in Woodland Dunes and sustain what they saw as deserving of their extraordinary support.

In 2011 we can look forward to more new programming (there is no limit to Kelly's creativity) and special events (the same holds true for Jessica), includ-

ing a new adult program series. With support from the rest of our staff, board, and incredible volunteers, we will continue to learn about and enjoy the natural world that surrounds us. We look forward to working with new partners in our efforts, including the NEW Wilderness coalition and Lake Michigan Stakeholders group.

I can't thank all of you enough for your support for the Nature Center in 2010, and I look forward to a busy and interesting next year as well. Happy Holidays and best wishes from all of us.

Jim Knickelbine, Director



Visiting students learn about prairie habitats through a new program Kelly designed.

Coming Events

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

Herbal Gift Making

Thursday, December 2 • 6:30 to 9:00 p.m. Members, \$30; Non-members, \$35

Herbs make great gifts for the holiday season. Join herbalist Linda Conroy as we craft an array of herbal creations to give to loved ones—or yourself. Make a body spray, healing salve, massage oil, tea blend and much more! Herbal infusions will be served as we enjoy this creative and informative evening. Registration and payment required by November 30.

Moon Walk Series: Tales and Trails

December 19 and January 16 5:00 to 6:30 p.m.

Members, \$4; Family, \$8: Non-members, \$5; Family, \$10

Start inside with seasonal nature stories, then enjoy an evening stroll along a Woodland Dunes trail in the moonlight. Enjoy one or all programs; stories and trails will change each session. Dress warm. The program starts at the Nature Center.

Adult Education Series: The Wonder of It All Snowshoe Hike

Wednesday, January 12 • noon to 2:00 p.m.

Enjoy an easy hike along Conifer Trail to explore the winter landscape. Animal and plant winter survival strategies will be explored. Meet at the Nature Center.

Pine Needle Basket Weaving

Saturday, January 15 • 10:00 a.m. to 3:00 p.m. Members, \$40; Non-members, \$45

Explore the traditional art of pine needle basket weaving. Herbalist and wild crafter Linda Conroy will be your guide as you make your own unique basket to take home. Learn the art of coiling and creating simple stitches. All materials are provided, including cured pine needles. Learn about basket styles and decorative options. Bring a pair of small scissors, reading glasses if needed for close work and a thimble. Please bring a lunch.



Winter Celebration



Saturday, January 22

Snowshoe Adventure: Run/Walk to the Snow Bal

Run/walk start: 3:30 p.m; Awards ceremony: 5:00 p.m. Register before Jan.1: individual,\$15; Family:\$50

Day of the event registration opens at 3:00 p.m.: individual, \$20; Family; \$55

Enjoy a run or walk along Woodland Dunes trails (3k/1.86 mile and 5k/3.1 mile options available) starting at Orion* and ending at the Woodland Dunes Field Station, where you can enjoy the Snowball. Registration fee includes prizes for top finishers, an eco-friendly water bottle, admission to the Snowball, chili and refreshments. Pre-registration required for walking snowshoe rental (\$5 pair, limited number, children and adult sizes).

The Snow Ball

4:00 to 7:00 p.m. • Members, \$4; Family, \$8 • Non-members, \$5; Family, \$10

Enjoy a horse-drawn sleigh ride through the forest, take a candlelight snow-shoe hike and compete in our first annual snow-art competition. Warm up with chili (nominal fee) and hot chocolate around the fire. Parking for this event is at Orion.* Bus will shuttle between sites from 3:30 to 7:30 p.m. *Orion Energy Systems, 2210 Woodland Drive, Two Rivers, Wis.

Adult Education Series: The Wonder of It All Winter Tree Identification

Wednesday, February 9 • noon to 3:00 p.m.

Forester Sue Crowley will teach us about the many clues you can use to identify trees. Enjoy an afternoon taking a good look at the trees growing in our area without the distraction of their leaves. We will start inside and then enjoy a stroll in the woods to practice our tree identification.

Chocolate and Candlelight at the Dunes

Saturday, February 12 • 7:00 to 10:00 p.m. Individual, \$15; Couple, \$25

Bring your special someone to the Dunes for a unique Valentine's experience. Take a romantic stroll along a candlelit winter trail, then snuggle-up by the fire. Inside, enjoy live music, chocolate desserts and delicious beverages. Pre-registration appreciated. Proceeds benefit environmental education at Woodland Dunes.

Adult Education Series: The Wonder of It All Maple Syrup 101

Wednesday, March 9 • noon to 2:00 p.m.

Learn about the science behind maple syrup, then help us tap some maple trees. Complete your education about maple trees by tasting some pure Woodland Dunes maple syrup.

Maple Moon

Saturday, March 19 • 5:00 to 7:30 p.m.

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

Learn how maple syrup is made by tapping trees, collecting sap, and tasting the liquid gold that is maple syrup. Registration required: Call (920) 793-4007 or email kellye@woodlanddunes.org. This program takes

place at the Woodland
Dunes Field
Station.



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

At the Dunes

Woodland Dunes Concert Series

woodlanddunesconcerts.ora

Please check the website for concerts in January, February and March.

Willow Basketry

Coming in April

Learn the stake and strand style of basket weaving and create a basket to take home.

Aegolius Bird Club

The Aegolius Bird Club meets at Woodland Dunes the second Tuesday each month at 7:00 p.m. and takes field trips each month on Saturdays 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 information, call John or Julie Woodcock at (920) 683-3878.

Bird Club Field Trips 2010

January 22: Volunteer Day at Woodland Dunes
Help at the Snow Ball
February 19: Two Rivers/Manitowoc lakefront
Meet at Marsh Haus at 1:00 p.m.
March 26: Collins and Killsnake Marshes
Meet at Hwy. 42, JJ, and I-43 Park and Ride at 8:00 a. m.

Wish List

Three 4' x 3' wipe off boards for posting schedules at our events. This will save paper as we will not have to print hundreds of schedules and maps. Help us go greener!

Tuition (\$350) for an Applied Environmental Education Program Evaluation course through UW-Stevens Point. This online course is designed to help environmental educators and natural resource professionals evaluate their education programs. Many grant applications require information about the evaluation methods used. This course is a great opportunity for a Woodland Dunes staff member to learn about new evaluation techniques and expand the evaluation process used for our education programs and events, strengthening our education programs.

Milk jugs: clean, clear, and label free to make more luminaries for the Snow Ball and Chocolate and Candlelight.

(Registration deadline: January 13, 2011)

An Easy Way to Go Green Woodland Dunes would like to offer its members a

Woodland Dunes would like to offer its members a **simple way to go green**. Now members can receive the *Dunesletter* and information about upcoming events electronically instead of through regular mail. This saves paper and loads of energy! Any members interested in this option should email Jessica at jessicaj@woodlanddunes.org with your name and the email address. The current *Dunesletter* and recent back issues are available on our website, www.woodlanddunes.org.

New Books in the Library

Thanks to several generous donors, books on a variety of subjects have recently been added to the library. You may find one of these of interest.

Prairie plants of the University of Wisconsin—Madison Arboretum by Theodore S. Cochran et al.

This guidebook to the Arboretum, a pioneer in the restoration of Midwest prairies since the 1930s, includes more than 350 species that grow on the Arboretum prairies. Each description is accompanied by one or more color photos, since one of the aims of the book is to help the reader recognize both familiar and rare plants on sight. Many of the plants are found throughout Wisconsin, including at Woodland Dunes.

Common sense forestry by Hans Morsbach

When the author became interested in woodland manage ment, he tried unsuccessfully to find a good how-to manual. Twenty-five years later, using the results of his experience and research, he decided to write the book himself. Among other subjects, Morsbach includes choosing land, seeding and transplanting, harvesting trees, business strategies, and tax planning (including sample federal income tax forms).

Atlas of the North American Indian by Carl Waldman The title may be misleading because, although the book contains more than 120 full-color maps detailing migrations, tribal locations, landmarks, reservations and other important settings related to American Indians, it is also an exhaustive text conveying their history, traditions, conflicts, land concessions, and contemporary ways of life. Appendices include a chronology of North American Native prehistory and history, lists of historical and contemporary tribes, major Indian place-names in the U.S. and Canada, historical sites and museums, and a glossary.

Darlene Waterstreet, Volunteer Librarian

Native Tree and Shrub Sale

Woodland Dunes is taking orders for its annual Native Tree and Shrub Sale. When you order trees and shrubs through this sale, you receive quality native plants and help support Woodland Dunes at the same time. Our plants are sourced locally: Pond View Nursery is our exclusive supplier. Native plants are well-adapted to our conditions, and provide food and shelter for birds and animals.

If you ordered from us last year, you will receive a form in the mail soon. To receive an order form, email Jessica Johnsrud at jessicaj@woodlanddunes.org or call Woodland Dunes at (920) 793-4007. The order form will also be available to download on our website, woodlanddunes.org. All order forms must be received by Friday, March 18. Every attempt will be made to fill your order; however supplies are limited, so order early. Plants will be available for pickup on Friday, April 29 and Saturday, April 30, weather permitting. Postcards will be sent in April with the pick-up times.

Citizen Scientists

Woodland Dunes recently received a Department of Natural Resources Citizen-Based Monitoring Partnership Program grant. The purpose of this grant is to help Woodland Dunes better manage, organize, and expand our current citizen science monitoring efforts.

If you are involved in any of the citizen science projects, or would like to be, you're invited to enjoy an evening at Woodland Dunes. Dessert and beverages will be served as we look at the year ahead and the opportunities that exist for monitoring. This is the perfect opportunity for anyone interested in joining our team of monitors to learn about upcoming projects. The meeting date will be announced soon or contact the Nature Center at (920) 793-4007.

Current Monitoring Opportunities

- Manitowoc Coounty winter bird counts: December 18,19, January 1, 2
- Great Backyard Bird Count: February 18 through 21
- Sandhill crane count: April 16
- Salamander survey: March and April
- Summer bird survey: June
- Monarch tagging: August and September
- Owl banding program: September, October, November
- Water Action Volunteers, river monitoring: April through November
- Non-native invasive species monitoring and removal: on-going
- E-bird: regular submissions of bird observations from Woodland Dunes and other locations: *on-going*
- Wisconsin Nature Mapping project: submission of bird and other wildlife observations to the DNR: on-going

Upcoming Opportunities

Non-native Invasive Species Monitoring and Control Team

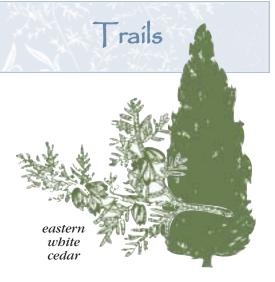
We need people to help in our fight against non-native invasive species, plants or animals that are not native and cause or have the potential to cause harm to the environment, economy or human health. Non-native invasive species displace native species, reduce biodiversity, degrade wildlife habitat, reduce crop yields, increase agricultural production costs and change the way our ecosystems function by altering nutrient, water or light availability. Not all species introduced from other places are harmful, the term "invasive" is reserved for the most aggressive plants or animals that grow and reproduce rapidly, causing major detrimental impacts to places where they become established.

Manitowoc Co. Winter Bird Counts: Join a seasoned birder, or scour the fields yourself. An orientation and materials will be available at the next meeting of the Aegolius Bird Club at Woodland Dunes on December 14 at 7:00 p.m. If you can't come to that meeting, call or email the Nature Center for information.



Learning about nature can be full of surprises.

Great Backyard Bird Count: Held Friday, February 18 through Monday, the 21st, this annual, four-day bird count is coordinated by Cornell University. Count birds in your yard, neighborhood, or at Woodland Dunes, submit your findings at birdsource.org/gbbc, and watch the results come in over the weekend. This is an engaging family activity that contributes toward a greater knowledge of bird distribution in the winter.



Conifer Trail

If you can impress a DNR forester with your trees, you know you have something to brag about. When my brother-in-law, who recently retired from his work for the DNR in north-western Wisconsin, walked Conifer Trail recently, he was surprised by the size and number of evergreens: arbor vitae (eastern white cedar), hemlock, and white pine all towered far above

This trail is a primer of trees, both deciduous and evergreen, with a series of signs to help you identify them. About midway on the trail, signs point out a white birch standing on one side of the trail and a yellow birch on the other; what a good way to learn about the differences and similarities between these two trees. Farther along, one of the tallest serviceberries (juneberry) I've ever seen shows that this species, which I think of as a shrub, can indeed become a small tree.

Along with the lesson in tree identification, Conifer Trail offers the observant hiker an illustration of the ridges and swales (ancient dunes) that gave Woodland Dunes its name. The trail runs along the ridges, flanked by lower ground that from spring through autumn shows off that extraordinary aroid, the skunk cabbage. From the tiny purple bud that pokes out of the frozen ground to become the spathe and spadix, to the bright green leaves that emerge later, this plant is an eye-catcher.

There are lichens to be found all along the trail. Once you start looking

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Notes from Nature

Winter Song

The land quiets All softened white



Time slows to a snow drift Seeds under leaf covers rest

Hawks linger long in updraft Mice kneel by treasured grain

Treeline ruffles collar swollen skies A lean fox fades in pine shadow

Winter harmonies again abide Dark and light together sustain

Jean Biegun

Another of Jean's poems is in The Goose River Anthology 2010

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for these strange plants, part fungi and part algae, that exist in a symbiotic relationship, you will find them in many places. Their complicated lives repay further study, but just observing the differences among those you see will open an entire new part of the forest to you. Since the trees are allowed to fall and rot in place, mushrooms thrive; they are especially plentiful in autumn when the fruiting bodies of many species emerge from the ground. Neither plants, animals nor bacteria, fungi have their own kingdom in the classification system.

Part of the trail passes through a plantation of red pine, a reminder that this land was not always part of a nature preserve. Here and there, bricks are found in the trail, a story that has been long forgotten.

Conifer Trail is a pleasure year around. Late winter and spring brings the skunk cabbages, summer the welcome coolness of shade, autumn the contrast of maple and beech leaves and dark evergreens, and winter the shelter from the wind. On foot, or snowshoes or skis, it is easily accessible and always interesting.

Susan Knorr, Editor

Deciduous Conifer

To call a coniferous tree deciduous seems contradictory. Most conifers are evergreen. But the tamarack, or American larch, is a cone-bearing tree that drops its leaves every fall, and grows new ones each spring.

There are ten species of larch in the world, of which three grow naturally in the United States. Two species are found in the mountains of some northwestern states and southwestern Canada. The third species is the tamarack, which grows from Alaska to Labrador, at the northern limit of trees, south to the Canadian border, and into some of the northeastern states. European larch is sometimes planted as an ornamental tree. All of the larches have needles that grow in a spiral arrangement around their twigs. On older growth, the needles grow on warty-looking spur branches, where they appear to be in dense clusters.

Tamaracks have the shortest needles and the smallest cones of the larches that can be found in the United States. The needles are three-quarters to one-and-one-quarter inches long, bluish-green in spring and summer, but turning to yellowish-gold before they drop in fall. Their cones are one-half to three-quarters inch long and nearly the same width. They are reddish when young in late spring, but turn brown during the summer. The cone scales spread open when mature in fall, and release the seeds. The seeds are one-quarter inch long, including an attached thin wing. The open cones may remain on the tree branches for another year or more. Red squirrels, chipmunks, mice, and red crossbills eat the seeds. Deer and snowshoe hares feed on the young branches. Porcupines may eat the inner bark. Needles are consumed by grouse and the larvae of the larch sawfly and larch case bearer moth.

In Wisconsin, tamarack is most common in the northern half of the state, but it ranges to the Illinois border in swamps and bogs. It grows in wetlands, usually with black spruce, balsam fir, and northern white cedar. It requires full sun and will not grow under other trees. Tamarack roots are shallow and spread widely. New trees may sprout from these roots at some distance from the parent tree.

Mature tamaracks range from forty to eighty feet in height and may be one to two feet in trunk diameter. The largest trees grow on wetland edges. In wetter situations, growth is slower and trees remain smaller. They are usually pyramid-shaped. Their bark is light reddish-brown and breaks up into irregular scales. The bark is thin, so the trees are easily killed by fire.

The wood of tamarack is heavy and durable in contact with the ground. It has been used for posts, poles, piers, railroad ties, and other rough construction, but it does not have much value as lumber. It is perhaps of more value in turning open wetlands into forest and for the colors it imparts to forests where it is established—soft bluish-green in the growing season and brilliant gold in the fall.

John Woodcock

The Invasion of the Alien: The Genie Released

We love scary stories, and to assure that we will be scared, we invent tales of the scariest things imaginable, aliens and their invasion of our living spaces, or, scarier yet, our bodies. Our fears may come from observations of the natural world, seeing a female wasp inject its eggs into the host moth larva. The host is consumed, leaving only its shell and an emerging wasp. In reality, the alien we are most likely to encounter is probably something we have brought to our garden, only to have it take over the landscape. Dr. Mark Davis' recent book, Invasion Biology, discusses invasive species, helping us understand the biological complications and consequences of introducing non-native species.

In his book, Davis distills the essence of the literature important to the invasion process such as C. Elton's The Ecology of Invasions by Animals and Plants, and M. Williamson's Biological Invasions. Each outlined the changing landscapes brought about by the release of non-native species and their affects. What I found interesting was Davis' willingness to suggest that this is not always the problem that it is often made out to be. Admittedly, once the genie is released, it is impossible to stuff back into the bottle.

Davis asserts that science and its methods, as they are presently executed, are based on age-old religious beliefs and attitudes. The example he uses is that our concept of a native ecosystem is based on the sense of original order with each component of the ecosystem having its place. In this context, the Garden of Eden is more than a place described in the Old Testament, it is a way of thinking, our mindset for the order of things; non-native species do not belong in such an order.

This idea is troublesome to biologists at many levels, since a new species—because of the definition of a species—must at some point be different from the existing species. This, in part, may explain the concern some have with the concept of evolution. And, if non-native species are defined as bad by their nature, any new species in an ecosystem, whether produced by evolution or by displacement, must be bad. I think Davis has put his finger on an important and profound issue that is central to all of biology, and goes a long way in explaining our approach in dealing with non-native species.

Once a new species has entered an ecosystem, it can fill niches vacated by the extinction of similar species, or it can create niches where none existed, revamping the ecology of the environment by the usual process of natural selection. Invasion follows several stages including dispersal, establishment, naturalization and spreading. As Davis suggests, the invasion of a plant or animal is a study in diversity in which the new communities create an equilibrium that constantly adjusts to the new species. Regardless of how the invasive species arrived, whether on its own, such as the spread of the house finch (Carbodacus mexicanus) into Wisconsin, or with human assistance, such as the release of several salmon species into Lake Michigan, what happens in creating this equilibrium depends upon ecological and biological principles of natural selection including resource availability, prey/predator relationships and the climate and weather important to the survival of that particular species. These are exactly the same mechanisms that drove the evolutionary process within the original ecosystem before the invasive species arrived. By definition, evolution is always a work in progress.

As all of us who are interested in nature know, things are always in the state of change. Change itself is neither good nor bad, and with change there is no goal or end point. Dr. Perry Cox on the sitcom Scrubs declares; "All change is bad" reflecting an attitude that many of us have as we confront the non-natives. This hardly helps us understand the reality of change. In our attempt to understand complex problems, we tend to

apply our values to the situation in question. Unfortunately,

this approach often

blurs the reality and our attempts at resolution. Ironically, most non-native species go unnoticed as they carve out their existence in their new settings. However, the undesirable newcomers quickly wear out their welcome, and we respond with suitable disdain and a mixed bag of responses.

Regardless of what we think of change, it is the driving force for all living things. Whether the adjustments are micro (adaptive) or macro (speciation), biological systems must make the necessary adjustments to the change or perish. And, whether the change is the result of the introduction of a non-native species or a natural event, the new species and the organisms whose home has been invaded must deal with the new realities. In short, invasion biology is the retelling of the story of biological evolution from a specific perspective: defining the result of a known change, and the adjustments that are made when the "new kid on the block" arrives. All we are doing is adding another chapter to the book of evolutionary biology.

Ecological reorganization is the current term used to explain the evolutionary effects of invasive agents. Biological evolution is understood to be a process of selection, where an organism exists because it is better able to survive and reproduce in the environment in which it is living. Invasion biology offers a different twist to this theme, where the new organism is introduced into an environment without going through the usual selective process. Now, the newcomer and the environment must sort out their differences through the usual selective mechanisms. This new organism will either survive because it already has the adaptations necessary to live in the new environment,

Ecological Reorganization

or it will succumb to the selective process that is always operating, the survival of the fittest. In this case, the struggle that takes place is because change was caused by human activity that displaced an animal or plant.

Perhaps the logical next question is what should we do in response to the troublesome invasives like purple loosestrife (*Lythrum salicaria*), round goby (*Neogobius melanostomus*), and the feral cat (*Felis* sp.). All are part of our landscape and the result of our own carelessness. Unless we are willing to spend enormous amounts of time, money and effort, there probably is little we can do without creating other, more serious problems. Maybe a better approach would be to address what should be done to prevent this from happening.

From the local news establishments, we know an enormous controversy is brewing over the Asian carp (*Hypophthalmichthys nobilis*) and silver carp (*Hopophthalmichthys molitrix*) that are poised to enter the Great Lakes from the Sanitary and Ship Canal in Chicago, Illinois.

At present, Minnesota and Wisconsin are holding a joint conference on ways to deal with this current and explosive issue. However, Illinois and other states that stand to be affected by this problem are not part of the conference. Ad hoc solutions to problems such as this often fall short of their mark, addressing the problem in a superficial manner. Politics, economics, biology, media frenzy and poor planning all conspire against a solution. We will have to pick our skirmishes carefully as we try to control the genie that cannot be returned to its bottle.

Chuck Sontag Professor Emeritus, UW-Manitowoc

Dr Mark Davis, whose parents have long been involved with Woodland Dunes, is the DeWitt Wallace Professor of Biology, and department chair of Biology at Macalester College. The Carolina parakeet (Conuropsis carolinesis) (right) and the monk parakeet (Myiopsitta monachus) (below) are examples of ecological reorganization. Even before the end of the 19th century, the fate of the Carolina parakeet, a colorful bird about the size of a mourning dove (Zenaida macroura) had been sealed. This native parrot was found throughout much of eastern United States, living mostly along river lowlands south to the Gulf Coast, but found as far north as Wisconsin, providing splashes of color and sound to the landscape. When stressed, they could be heard from two miles away. Because they were colorful and made easy targets when they came to the aid of a fallen member,

they were hunted for the millinery trade and for sport. As our population grew, we moved into their habitats, converting their homelands into farm fields. The introduction of agriculture led to their demise as poultry diseases spread and imported colonies of bees occupied the parakeets' nest cavities. The parakeets loved fruit crops; farmers retaliated in typical fashion. However, not all farmers disliked the Carolina parakeets; they were the only animals that ate the field weed cocklebur (*Xanthium strumarium*), which contains a toxic glycoside.

The last known individual died in the Cincinnati Zoo on 21 February, 1918, in the same cage where Martha, the last surviving passenger pigeon had died in 1914. Unconfirmed sightings of the bird were reported into the late 1940s and even early 1950s.

Enter the monk parakeet, less colorful but exactly the same size as the Carolina parakeet. It filled the niche left vacant by the extinction of the Carolina parakeet. This parakeet was popular in the wild-caught caged bird trade in the '50s and '60s, when enormous shipments were brought in from their native lands of South America, especially Argentina. On a cold December day in the late '60s in the Port of New York City, a crate of monk parakeets was dropped while being unloaded, and the birds disappeared into the night. It was believed that the birds would quickly succumb to the cold, but to the surprise of many, the birds started appearing at area bird feeders. Today, populations of the monk parakeet are thriving in many states. Although it was feared that these aliens would quickly spread and fill the niche left by the Carolina parakeet (including the problems with agriculture and the fruit growing industries), the rapid spread and fruit dining mischief have not happened. However, because they are colony nesters, they build enormous twiggy nests in inappropriate places. In Florida, where they are well established, Parrot Patrols are at the ready to remove their nests from electrical transformers, a favorite nesting site. The consequence is massive power outages when nest materials short transformers.

When this was first reported by the press, I told the Zoology class I was teaching that these parakeets would quickly fill the niches left by the Carolina



parakeet, and the agri-business would be at sword's point with these invaders from South America. Thank goodness that most of my insightful predictions were lost to all but a very few of my students, and now the statute of limitations has certainly expired. My other notable predictions: bottled water would never catch on, and that the cell phone was just a nuisance.

Chuck Sontag
Professor Emeritus, UW-Manitowoc

Carolina

parakeet

The Living Classroom



pretending to be animals

A Great Turnout

Thanks to your support of Woodland Dunes, 3,068 students enjoyed a Woodland Dunes school program this year. Here are a few comments we received from teachers:

"My favorite field trip!"

"This was an excellent experience for my class; your presenters did an awesome job teaching!"

"This was a wonderful experience; the kids loved it, as did !!"

"My students learned a lot. They all wrote about different things in their journals. This program fit well with the student's science chapters."

"Program was excellent, very hands on and informative. Instructors did a fantastic job."

"I was very impressed with how the students were kept involved and moving for the entire program. We loved it!"

"Well done! Kelly and her team are true gems! What a valuable asset to our area!"

"Every year we are so thankful for your program. It is presented wonderfully and the children love it!"

Prairie Program

This autumn we started a new education program designed around the Woodland Dunes Prairie. It was funded by a grant from the Wisconsin Environmental Education Board (WEEB). Elementary students were invited to search for animal life, explore the intricate workings of the prairie and learn how animals and plants survive in this unique habitat. Prairie animals have specifically adapted to thrive in grasslands dominated by grasses and wildflowers rather than in forest or wetlands. These plants and animals create a

unique biological system the students loved learning about.

Next spring, interpretive signs and labeled plants will make anyone's hike on Coneflower Trail an enjoyable educational experience. Thanks to WEEB for the financial support that allowed us to develop and design educational material for the prairie.

Dominion Foundation

Adult Education Series

The Wonder of It All series will start in January and continue through the end of the year. Monthly programs will be presented by Woodland Dunes staff and other natural resource professionals from the area. This series is open to anyone interested in learning more about the natural world. After attending six sessions you will receive a Woodland Dunes T-shirt as a memento of your time spent at the Dunes. Check our website and events page for upcoming programs. Thanks to the Dominion Foundation for sponsoring this series.

Get Outside on Snowshoes

Looking for a way to get your kids outside this winter? Bring them to Woodland Dunes for a snowshoe hike. Snowshoe rentals are available 9:00 a.m. to 3:00 p.m. Monday through Friday. Watch our website for additional weekend hours when snowshoes will be available. Rental is \$5 per pair. Adult and kid sizes are available. Please call ahead if you have a large group.

Adventure Backpacks

Our adventure backpack area makes it easier to learn about the animals that are active in winter and how to identify them by their tracks. Check it out before hitting the trails. All adventure backpack material is free to use; just talk to a staff member when you arrive.



capturing insects on the prairie

Thank you

Heartfelt thanks to the Fall Teacher Naturalists who helped with our Cottonwood Trail, Prairie, Owling 101 and Forest Around Us programs Geri Berkovitz Jennifer Balma Lee Brey Fran Brinkman Donna Drexler Andrew Goble Lou Ann Grav Jim Hess Jessica Johnsrud Peg Juchniewich **Iim Knorr** Barb Koch Betsy Blitz Kocourek Ellen Lewellen Dick Luchsinger Jeannie Miller Mary Ozarowicz Susie Polk

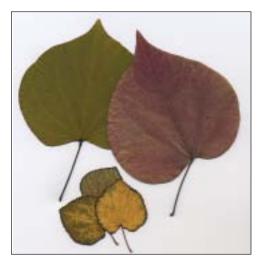


meeting an owl face to face

What's Happening at Woodland Dunes

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	1
				Herbal gift making	The C		
			1	6:30 p.m.	3	4	
	riangle in the night sk		- Sep				
the brightest	stars: Betegeuse, Procy	on and Sirius.			10	11	
	6	7	8	9	10	11	
147 II	13	14	15	16	17	18	
oon Walk the Dunes	1000	Winter Solstice Full (Cold) Moon				headquarters closed;	7
5:00 to 6:30 p.m	. 20	21	22	23	11 Tal	ls open 😿	
	Rent snowsh	oes and enjoy the trails	over the holi-				
	days. Kids	will love the opportunit	ĺ	20	21		
	2/	28	29	30	31		
	1	:		 	6	Earth is closest to	
		sidents: dark-eyed junco njoy millet and sunflow			Can .	the sun.	
		Ĺ			-	1	
and the same		1	acks that look like	317		4	
	3		the snow along erry Trail. 5	6	7	8	
		-				Pine needle basket-	
						making class 15 10 a.m. to 3 p.m.	
Moon Walk	10 Chickadees' spring	courtship song: listen	Full (Wolf) Moon	13	Snowhall	Saturday January 22	
at the Dunes	to them on Bl	ack Cherry Trail	Full (Woll) Mooil		winter f	un 4:00 to 7:00 p.m.	Ē
5:00 to 6:30 p.m.		18	19	20		walk/run: 3:30 p.m.	
23	24	Red fox mating: look tracks on Willow Trail	for 💸	Great Horned Owl		1000	
	31	25	26	27	28	29	
				27		The state of the s	
ook for Orion, the	great hunter, in		Groundhogs Day:loc			Horned larks	
night sky. This st	ar is visible in the	Marie Control	(groundhogs) on Ice Age Trail.		migrate north.	
rthern hemisphero through 1		Look for spowfloo	2 s (springtails) on the	3	4	Chocolate and	
ŭ			ead vegetation.		116FVI	Candlelight - 7:00	
	7	8	9	10	11	12 to 10:00 p.m.	
isten for cardinals			shedding antlers; look racks on Trillium Trail.	M/W	Full (Snow) Moon		
pring songs	114	101 11			18	19	
. 1	THE SHARET SHE		As days warm, look	for skunk raccoon	30.5		
3			and other animal tro		11. 900		
W Mar	21	22	23	24	25	26	N
					skunk tracks		

Friends from Far Away Places



top, redbud 'Forest Pansy' leaves, bottom, katsura tree leaves

s I walk around Athe woods and the garden beds at the end of the year, I often come across a plant or two I forgot about in the frenzy of the growing season. Recently I found a Siberian stone pine, Pinus cembra siberica, which I had planted several years earlier for its edible seeds. It is a relative of our white pine.A

French botanist, Du Tour de Salvert, had collected it in 1803 in Siberia, probably because it produces edible pine nuts. And now it grows here in conditions similar to the wet slopes of its home in the Ural Mountains.

For several centuries naturalists have relentlessly explored Earth's wilds to discover new species, looking for fame or fortune. When the spice trade routes that ran from the wilds of Asia to the Mediterranean were blocked by the Ottoman Empire in the mid-1400s, European adventurers were off to find the source of spices. Their disregard for the dangers involved seemed to have infected generations of explorers. During the Victorian period, British botanists were caught up in outrageous searches for ornamental plants: the mere rumor of a desirable species was all it took to send some intrepid collector off to impenetrable forests and up unclimbable mountains. They suffered from tropical diseases, shipwrecks and long separations from loved ones, but recorded hundred of new species.

Many of these plants now grace our lawns and gardens. And what fun it is to walk around and think about the journeys they have made, these precious mementos of foreign lands. I love my native Wisconsin plants, but would hate to give up my hellebores, far from their native home in the Balkans. My tiny species tulips came from the mountains of the Hindu Kush and the steppes of Kazakhstan, places I doubt I'll ever reach in person. The wild ancestor of my apple trees, *Malus sieversii*, came from the Tien Shan mountains of Central Asia. It was first described in 1833 by Carl Friedrich von Ledebour, a German naturalist. And like botanists of the previous century, he used the naming system devised by Carl Linnaeus.

Perhaps bewildered by the tidal wave of new plants flowing into Europe, men of science realized that an organizational system was needed to keep all these plants straight. The adoption of binomial nomenclature, which gave every species a two-part name and organized them by their physical characteristics started the process. It seemed

straightforward: if two organisms looked alike, they were the same species; if not, they belonged to different species. Although it later became clear that this system was inadequate—Linnaeus originally classified the male and female mallard duck (*Anas platyrbynchos*) as different species—it has given us a useful basis for naming things.

Often scientific names give us useful clues about plants. Two of my favorite trees illustrate this. I've always had an affection for our native redbud tree (*Cercis canadensis*) and its lovely heart-shaped leaves. I have the cultivar 'Forest Pansy' which has dark red leaves that turn rose gold in autumn. Nor far away is a katsura tree, which also has pretty heart-shaped leaves, but is native to China and Japan. Its scientific name, *Cercidiphyllum*, reflects the resemblance of the leaves, but emphasizes that they are unrelated genera.

The magnolias I grow—all deciduous—come from Asia, although there are eight species native to America, mostly evergreen and not hardy here. No magnolias are native to any other continents. This unusual distribution followed the destruction of ancient European forests by Ice Age glaciers; those in Asia and America survived. The two saucer magnolias (Magnolia x soulangiana) I planted at either corner of the house are a cross first made in the early 1800s between Magnolia denudata from eastern China and Magnolia liliiflora from southwest China. Several white and pink cultivars of star magnolias (Magnolia stellata) are along my path; they originated in Japan, where they grow in moist, boggy areas, which may be why they thrive in my wet soil. The beautiful sweetbay magnolia (Magnolia virginiana), which reached Europe long before its Asian relatives, was described by Linnaeus himself. Unfortunately it is far too tender to grow here, unlike the stunning (but expensive) Magnolia sieboldii which is said to thrive in Finland. Now there's a recommendation for a northern gardener.

Today DNA studies classify species in a way that reflects their evolutionary relationships. As more is learned about how species are related, some are moved from one genus to another, annoying those of us who have finally learned the correct scientific name for a favorite plant, but ultimately resulting in a better understanding of the evolution of plants and how they are related. And intrepid explorers still travel to lesser known parts of the world, looking for new species and unknown genera that will enrich our gardens and increase the number of food plants we use.

Susan Knorr, Editor

Although my interest lies in the plant world, the same organizational system is used in the animal world. Board member Donna Langman recently emailed that her son Owen, a limnologist working near Jubail, Saudi Arabia on the Persian Gulf, had just accomplished one of his life goals, describing a previously unknown species, a small fish now named Aphanius rotundii.

Kidland Dunes



A Dunesletter page for kids and kids-at-heart! By Belinda and Teresa Zoller



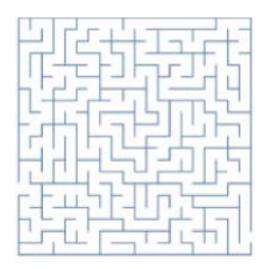
"Fee-bee-ee!"

If you have ever stepped outside on a particularly nice winter or early spring day and listened to the sounds around you, undoubtedly you have heard the distinctive twitter of the black-capped chickadee: "Fee-bee-ee!" followed by a nasal cackle.

But don't let their ungainly sound fool you. These birds resemble snowballs, distinguished by their cute, chubby bodies. Their chests are a creamy white, their backs are a slate gray, and their heads look like Oreos: white cheeks along their beak, with black above and below like a sandwich cookie.

Want to catch a sight of these beautiful birds? Set out a feeder, and they'll stop for a few seconds—keep your eyes peeled. Or you can try imitating their call: if you're successful, they'll answer back.

Blaze a trail through the snow!



Black Bears

Have you ever seen a black bear in the wild in Wisconsin? It's not uncommon to see these furry mammals in the northern woods of our state.

Black bears, unlike many of their relatives, are quite small and mostly harmless to humans. In fact, black bears don't even eat meat as their main course. They prefer to consume berries, plants, honey and insects. On some occasions they will take down a baby deer or moose calf, but they tend to stick to eating smaller things if they eat meat, like small mammals and fish.

Black bears also have very strong senses of smell, and will often rummage through garbage cans for scraps or bits of edible food. Unfortunately, this often brings them right into your campsite or even your backyard.

But why, you ask, is this article about bears, when bears hibernate during the winter? The answer is that black bears are much more casual about hibernation. Some black bears, depending on where they live, may not hibernate at all.

So, if you happen to see a black bear this winter, don't be surprised. These curious creatures won't hurt you. And if you'd rather not meet a bear in your backyard, be sure to pick up trash and extra food that might be lying around ... otherwise you might get more company than you might like.



Snow Fun... Try It.

Here in Wisconsin the winter months can be long and cold, but that doesn't mean they have to be boring. There are lots of things that you can do with snow, but this year we challenge you to be creative and have as much fun with snow as you can.

Go outside and build the first thing that comes to your mind: a fort, a desk, a bed, even a laptop or a book. With your parent's permission, you can also make things to eat, like snow cream, which you can make by mixing snow with milk or whipped cream and a few drops of vanilla (google "make snow cream" for more ideas). Make sure that the snow is clean, though. You can even paint the snow by putting a few drops of food coloring into water and spraying the snow with a spray bottle.

Think you can make the coolest creation or the best work of snow art? Take a picture and send it to Woodland Dunes. You can send it in the mail or email it to Nature@WoodlandDunes.org. Happy winter!

Sources: Wild Wisconsin Notebook, by James Buchholz; alaboutbirds.org; defenders.org

Thank You

The following reflect gifts, donations and memberships received through November 15, 2010.

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The Stangel Foundation \$1,000 Environmental Education Program Dominion Foundation \$3,500) Adult Education Program Kohler Foundation, Inc \$1,000 Environmental Education Program

Matching Funds

The Dominion Foundation

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Renee and Dave Evans event sponsors

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Harvest Dinner Donors Thanks to all who helped make the Harvest Dinner a successful event. Pastor Meredith Thurk, Youth Group volunteers and their parents set-up, serving food, and clean-up Bank First National co-sponsored Greg Septon Robert and JoAnn Weinert co-sponsored Greg Septon Lucy Zeldenrust collected silent auction items Mary Ozarowicz music Geri Berkovitz centerpiece creation Doris Magyar gourds, mini corn for centerpieces Don DeBruyn, Casey Vorron, Jacob Johnsrud, Sue Knickelbine clean-up **Silent Auction Donors: Judy Rollin**

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a tree

an apple tree

Holy Family Memorial

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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 support the mission of Woodland Dunes. Please call for details.

Owl Adoptions Thirty-four owls were adopted at the 2010 Owlfest. Nancy Albrecht Russell Balge Kathrine Bartholomew Sarah Bartholomew Jason and Amanda Bavinck Clint Bergsma Barb J. Brown Lori Brown Robin Callan (two) Brandon, Angelica, Isaac and Michael Corfman **Jack Eng** Lori Erskine Michelle and Edie Heath Exene Hoard George Kunz Jennie Lanzendorf The Larsons

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Thanks to our Front Desk Volunteers

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Owl Fest Raffle Winners

Amy Mullins, Grand Prize (kayak) Jody Henseler, (spotting scope) Nancy Stege (\$50) Tami Fricke (North American Owls CD Set)

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The Dunesletter is published quarterly by Woodland Dunes
Nature Center and Preserve, Inc. ISBN 1933-8961

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