Humans have been wandering around in the snow for millennia. People today use snowshoes and skis for recreation, but for thousands of years they were the necessary means of transportation for people who lived in snowy areas. From the original utilitarian skis and snowshoes, a multi-billion dollar modern snow sports industry has evolved. Once the domain of northern peoples in North America, Europe, and Asia, snow sports now have millions of participants all over the world.
The Evolution of Snow Sports

Skis
The documented origination of skis begins around 3,000 BC with the Sami, a Northern Scandinavian group previously known as the Lapps. While they are best known for their reindeer herding and colorful clothing, they most notably introduced skis when they migrated into Northern Europe at the end of the last ice age. Today, the Sami are an ethnic minority group living in parts of Norway, Sweden, Finland, and Russia. The Sami and the closely related Finns have long been regarded for their skiing prowess. Due to very long winters, skiing was a necessity for resource collection, travel, and hunting. Skis provided a distinct advantage for hunters. Deep snow would slow down prey whereas skis allowed hunters additional speed through the snow, especially on hills.

Skiing tactics began to evolve in the 1700s as Scandinavian countries modernized their armies. Early army leaders in Northern Europe recognized the importance of trained skiing troops as a tactical advantage. Where snow would previously slow down or halt troops, skiing allowed troops to travel faster than they could by foot in the summer.

The early 1800s saw the development of the tourist. The wealthy, particularly from England, would travel around Europe taking in the historical and scenic areas. One highlight for these early tourists was the Alps. Early tourism revolved around the summer sights and good weather, but local resort owners saw a potential to expand their season by incorporating new winter activities.

By the late 1800s and early 1900s, the modern concept of the ski lodge developed. Initially, summer hotels remained open during the winter. Hotels began to cater to their wealthy clientele by providing heated rooms and improved access to the mountaintops. Various types of trains were built to bring skiers higher in to the mountains. By the 1920s-30s, ski lifts became prominent; skiers no longer had to make the effort to ski uphill but could just enjoy the speed of going downhill.

Ancient skis look remarkably similar to our modern skis. One of the oldest existing pairs of skis was found by several men digging a ditch in Sweden in 1924. Named “Kalvräskskidan” after a local town, the skis have been radiocarbon dated as 5,200 years old. Despite their age, the skis are not primitive in their construction. They show considerable craftsmanship in the selection and carving of the wood.

The word “ski” derives from the Old Norse word “Skíð”, which means “stick” or “split piece of wood.” Early skis were made from pine trees. Bindings that attached the ski to the user’s feet were very simple and either made of leather thongs or supple tree branches and roots. The most unusual and unrecognizable component to today’s ski equipment is the ski pole. Before World War I, skiers typically used one long pole for propulsion and balance. It also served a greater purpose as a hunting and survival tool.

Technology further evolved in the 1900s. Starting with metal edges, skis became more complex, changing in shape and incorporating new materials like fiberglass, plastics, and even carbon fiber to replace the wood used previously. Leather boots were surpassed by the stiff plastic boots common today. Changes were primarily focused to make skis and poles lighter and allow greater control of the skis.

Today, skis are divided into two broad categories: Alpine and Nordic. Alpine skis, also known as “downhill” skis, have ski boots that completely lock in to the skis for going downhill. Alpine skis are shorter in length and have very stiff boots. The stiff boot extends control down the length of the ski and makes sharp turns possible, but also makes it very difficult to traverse flat land or go uphill.

Nordic skis, on the other hand, are mainly used for cross-country skiing. The unifying feature of Nordic skis is that only the toe of the ski boot is attached to the ski. This type of attachment allows the user to lift his or her heel, making it much easier to move over level ground.

Snowshoes
The origination of snowshoes is similar to skis. The indigenous people of North America developed what is recognized as a snowshoe today. Instead of a single
board attached to the foot, as was the design throughout Europe and Asia, snowshoes became a frame interwoven with some type of lacing. Snowshoes also became larger and lighter, allowing for easier travel and much higher levels of flotation. Local tribes throughout North America modified the designs of their snowshoes to the landscapes and the conditions they found, resulting in the four common designs of snowshoes (see sidebar).

Snowshoes, like skis, were used by natives for all aspects of winter transportation but were prized for hunting. Native Americans put special care into their hunting snowshoes, weaving elaborate designs and incorporating ornamentation into the snowshoes. The designs were thought to improve the hunter’s success by appeasing the spirits.

In the late 1800s, immigrants to North America began occasional production of snowshoes in workshops. Maine was a center of snowshoe production for both natives and non-natives. Local snowshoe makers built snowshoes for many of the important early Arctic and Antarctic explorers. Workshops expanded production throughout the 1900s, especially during and after World War II. Tubbs Snowshoes is a company started in 1906 that still produces state of the art snowshoes.

Manufacturers created snowshoes with traditional rawhide and white ash frames until the 1980s. At that time, aluminum became an affordable alternative material for the frames. Shortly after the introduction of aluminum frames, the decking material changed to plastic and synthetic webbing. Bindings have also evolved from the traditional leather binding to plastic bindings that are directly integrated into the snowshoe. The smaller shape and more affordable prices expanded popularity, and today snowshoes are a unique way to enjoy wintertime.

To view examples of antique skis and snowshoes and to learn more about their history:

**Websites:** Gallery of Antique Snowshoes: umaine.edu/hudsonmuseum/online%20exhibits/Snowshoes/index.php
Antique skis and snowshoes: vintagewinter.com/

**Books:** *The Culture and Sport of Skiing: From Antiquity to World War II* by E. John B. Allen
*Two Planks and a Passion: The Dramatic History of Skiing* by Roland Huntford

Matt Dykstra, Program Manager

This winter, the Institute is offering a number of ways to spend time outside in the snow. Check out our programs and workshops to find opportunities for hikes, classes, and even the chance to make a pair of snowshoes.

### Snowshoe Lacing Workshop

**Saturday, February 2**  
9 am - 4 pm (includes lunch)

**Saturday, February 9**  
9 am - Noon (optional follow-up session)

The snowshoe lacing class will offer all of the below designs. The wooden frame snowshoes use a nylon lacing material that is easier to work with than rawhide and is more durable. The workshop includes snowshoe frames, lacing, bindings, and finishing materials. Pre-registration and pre-payment are required. The deadline for registration is January 18.

**Members $165 | Non-Members $185**

**Snowshoe options:**

<table>
<thead>
<tr>
<th>Model</th>
<th>Dimensions</th>
<th>Suggested Weights*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Mountain</td>
<td>10&quot; x 36&quot;</td>
<td>Up to 200 lbs.</td>
</tr>
<tr>
<td>Huron</td>
<td>12&quot; x 42&quot;</td>
<td>Up to 220 lbs.</td>
</tr>
<tr>
<td>Ojibwa S</td>
<td>10&quot; x 48&quot;</td>
<td>Up to 140 lbs.</td>
</tr>
<tr>
<td>Ojibwa M</td>
<td>11&quot; x 54&quot;</td>
<td>Up to 240 lbs.</td>
</tr>
<tr>
<td>Ojibwa L</td>
<td>12&quot; x 60&quot;</td>
<td>Up to 260 lbs.</td>
</tr>
<tr>
<td>Alaska L</td>
<td>10&quot; x 56&quot;</td>
<td>Up to 260 lbs.</td>
</tr>
<tr>
<td>Alaska XL</td>
<td>12&quot; x 60&quot;</td>
<td>Up to 300 lbs.</td>
</tr>
</tbody>
</table>

*Suggested maximum weight includes the weight of the snowshoer and any loads they will be carrying. Snow conditions will also impact the recommended size. Deep and/or fluffier snows require larger snowshoes.

Green Mountain or Bear Paw snowshoes offer good maneuverability, but may have less flotation and speed than other styles.

Alaskan style snowshoes provide the most flotation and are best for the deepest snows and the largest loads.

Ojibwa snowshoes’ long, narrow shape makes them fast and easy to use. They are intermediate in flotation, but are less maneuverable than the Bear Paw or Huron.

Huron or Michigan snowshoes have the long tail for good tracking, but a short toe for easier maneuverability.
Much of Michigan's land surface is covered by forest: about 40% in the Lower Peninsula and 84% in the Upper Peninsula. Prior to European-American settlement, about 80% of Barry County was forested (with dominance of beech, maple, oak, and hickory) whereas recent imagery shows only about 20% of the county's land area as forest. Most of the state was logged in the 1800s, and the land was devastated by wildfires in the years following the harvest. The amount of fuel (tree limbs) and the dry conditions that resulted from scant canopy cover provided excellent wildfire conditions. Most of the logged land has now recovered, and those areas that still support forests can satisfy many functions (supply of timber and firewood, wildlife habitat, watershed protection, carbon storage, etc.). There are many challenges to keep forests healthy, and this article describes some of the threats and a few of the management practices that can assist in protecting forested lands.

One broad-based threat to forests is climate change—particularly the increase in average temperature and a tendency to have more extreme weather events such as major storms. The excessively warm temperatures experienced last March are an example of such weather, which can have negative effects on plants that break dormancy only to be hit by a late frost. There is a floristic tension zone that runs approximately from Muskegon to Bay City that divides areas dominated by hardwoods from those that have a higher percentage of conifers. This tension zone will likely move north over time, thus altering forest composition. However, plants vary in their ability to migrate (wind-dispersed seeds travel farther than seeds that are carried by mammals such as squirrels).

Climate change also has an impact on the survival of some insects that spread disease in trees. Warmer winter temperatures will usually result in higher pest pressure. Regardless of the effect of temperature on forest pests, there are increasing numbers of organisms that attack native plants and change the character of the forest. The most obvious example is the emerald ash borer, which has destroyed millions of ash trees in Michigan and other states. These invaders normally have very few natural biological controls and grow to enormous populations that damage or kill native trees.

Not only do we have invasive insects, but some plants can wreak ecologic havoc in forest communities. Autumn olive has spread widely in Barry County and is gradually choking out native plants that provide more suitable habitat for wildlife. Autumn olive is able to compete against native plants because it has the ability to fix nitrogen, a process that provides a nutrient that helps the plant grow. Although few organisms eat the leaves, birds help spread the seeds, and, once established, it grows more vigorously than most natives. One key to managing invasive plants is to detect their presence early and control the problem before they establish a reproducing population. Other techniques to control invasives are to minimize disturbance (roads and traffic from off-road vehicles) and to maintain a vigorous plant community that can resist invasion by dominating the use of resources such as light, water, and nutrients.

There are several strategies for protecting forest health and using resources in a sustainable manner, but the main key is to have a forest management plan. Such plans may be eligible for a property tax exemption and cost share programs from the Michigan Department of Natural Resources through their Forest Stewardship Program. A major task in the development of a forest management plan is to identify and prioritize managing the threats described above, and then to choose and carry out the most practical and effective means to accomplish the identified goals.
plan is the landowner’s decision about what goals to set for his or her property. The plan should include a desired future condition that sets a goal for what the forest should be like in twenty to fifty years. Trees vary in their ability to tolerate shade, so the density and height of existing trees will affect what species prosper. For example, oaks and red pine prefer full sun, while sugar maple and beech are shade tolerant.

A landowner may establish the maintenance of biological integrity as a goal. Healthy forests include multiple layers: a canopy above, an understory level that may include the replacement trees (saplings) and shrubs that don’t grow as tall as the canopy trees, the herbaceous level (with wildflowers), and the ground level that includes plant litter and the soil below. Healthy forests provide habitat for native plants and animals and limit the establishment of non-native species. Not all wildlife has the same habitat needs, so one must decide which animals to favor and select action items to implement the objectives established. For example, cerulean warblers require large blocks of mature forests, but white-tailed deer benefit from a mixed-age forest that can provide browse from the low branches of young trees, acorns from mature oaks, as well as winter cover (and food) from cedar swamps. If grazing by deer or other animals removes most of the herbaceous layer (the non-woody plants that grow on the forest floor), the habitat for many wildlife species will be diminished. Leaving dead trees or snags can be beneficial to a variety of animals (small mammals, woodpeckers, and other cavity nesters). Fallen logs and limbs provide a home for shrews, salamanders, and many other animals. Eventually, they nourish other plants as they decompose more fully. The DNR has a “Landowner's Guide on Managing Michigan’s Wildlife” on their website that helps people to set goals to improve wildlife habitat on their property.

For landowners whose goal is obtaining an economic return, a forest management plan will include sustainable harvesting of timber resources. Logging can involve a variety of strategies that will depend on the site conditions (trees present, size of trunks, soil productivity, etc.). Patch cuts (small clearcuts from 0.5 to 5 acres) can be used to create openings in the forest that mimic natural disturbances such as windthrows. This clearing allows more light to reach trees that need sun to thrive (cherries, walnut, oaks, and hickories). Removal of competition from less valuable trees can “release” the trees that are retained and allow them to grow more rapidly. To avoid “high grading” in which the best logs are taken and the quality of the woods may be diminished, it is worthwhile to hire a consulting forester.

Barry Conservation District maintains a list of consultants (including foresters) that can be used to find a professional who can select only the trees (for removal) that fit in with your goals and objectives. The forester can also supervise the sale of your timber to qualified buyers.

Climate change, non-native species, and loss of ash trees from the emerald ash borer damage are just a few of many threats to the health of Michigan Forests. Because human alteration of landscapes and climate is so pervasive, the idea of letting nature take its course is less practical now than it was 100 years ago. Going forward, landowners will need to be more involved in the stewardship of their forest resources if they are to achieve their management goals and objectives. The planting of a tree seedling and nurturing of that plant to maturity is an action that will have long-lasting benefits to future generations.

Hugh Brown, Field Station Director

There are many sources of additional information on forest management, including Michigan State University, the USDA Forest Service, and the Michigan Forest Association. To learn more about forest management in a short course, consider participating in the Land Management Workshop series to be held at the Institute on March 7, 14, and 21. More information will be provided in the spring newsletter.
The Ecological Benefits of a Cold and Snowy Winter

According to the National Climatic Data Center, the daily temperatures last December through February were, on average, more than 5 degrees warmer than normal. In fact, there were 6 days in December and January when temperatures reached over 50 degrees. While this may be good news to those of us who already have spring fever or loathe driving on icy Michigan roads, one has to wonder what these mild temperatures and minimal snowfall mean for the ecology of the region.

It turns out that snow is quite important. For example, snow is an excellent insulator. A layer of snow will prevent the soil beneath it from freezing too deeply. Freshly fallen, un-compacted snow is typically 90-95% trapped air. Because the air can barely move, heat transfer is greatly reduced, thus slowing the flow of heat from the warm ground to the cold air above. This blanket effect buffers against the soil’s repetitive freeze and thaw cycles that can frost heave shallow rooting plants right up out of the ground. The extent to which snow insulates depends on its depth. Generally, temperatures underneath a layer of snow increase about 2 degrees Fahrenheit for each inch of accumulation. Because the soil also produces some heat, the temperature at the soil surface can be significantly warmer than the air temperature.

Snow cover further benefits plants in a very significant way. It represents a nitrogen-rich water reservoir that very slowly and effectively delivers soil moisture and nutrients to the early growing plants of the spring. Snow also replenishes the water supply. You may have heard that 10 inches of snow equals 1 inch of rain, but it is actually much more complex than that. This ratio only works well when temperatures hover around freezing. At higher temperatures, say a few degrees above freezing, snow is often heavy and laden with water. Then, the ratio may be more like 5 to 1 -- 5 inches of snow will melt into 1 inch of water. At lower temperatures, the snow tends to be light and fluffy and the ratio can be as high as 15 to 1 (according to David Hansen, a University of Delaware Cooperative Extension soil and environmental quality scientist).

Snow cover also generates an important crawl space and refuge for insects and small mammals just above the soil surface. This subnivian space allows temperature sensitive invertebrates (like beetles, springtails, mites, and spiders) to continue their ecological activities of decomposition and predation throughout the winter season. Furthermore, many small mammals (like voles, shrews, and white-footed mice) use the insulated subnivian space as shelter against predators, frigid temperatures, and damaging winds.

It is hard to deny that snow is a hassle sometimes. Our cars get stuck in it, shovelfuls make our backs ache and so on, but our plants, wildlife, and water supply greatly benefit from its presence. So, let’s lace up our snowshoes and hope for some cold, snowy weather this winter!

Jen Howell, Stewardship Manager

Winter Birds

Birders tend to look forward to spring and to the return of our summer migrant birds, but winter has its own birding opportunities. For a number of northern bird species, Michigan is the balmy locale where they spend their winter. One of the most common winter migrants to this area is the dark-eyed junco. This sparrow-sized dark gray bird stays in small flocks throughout the winter, feeding on seeds. The bird is very common and can be seen in both natural areas and urban settings. A harder-to-find migrant bird is the pine siskin. Related to the goldfinch, it is often found in areas with abundant coniferous trees or dense shrubs. A final regular migrant to the institute is the rough-legged hawk. Slightly larger than a red-tailed hawk, the rough-legged hawk may be seen hovering over fields, looking for mice and voles.

Matthew Dykstra, Program Manager
What Are All The Fences For?

There are 16 total 5 x 5 meter wildlife exclosures you may have noticed on the property this fall. They were installed by Elizabeth Schultheis and David Williams—researchers from Kellogg Biological Field Station. Schultheis and Williams began a long-term study to determine how natural enemies (i.e. herbivores and pathogens) affect the competitive balance between invasive and native plants in Michigan. They hope to determine if the absence of natural enemies influences invasive species’ performance in introduced habitats and if these changes can result in shifts in community composition. Small mammals, deer, insects, and fungal pathogens are examples of the natural enemies that will be excluded from the research plots. Along with a scientific investigation, the experiment will also be used as an educational tool for visiting students. In fact, one of the plots is purposely set aside for the sole use of educating high school students, allowing them to collect and interpret data in a real scientific experiment. This study is important because it helps us to understand how exotic species become integrated into natural communities and the consequences of these invasions over a long period of time.

EHD in Southwest Michigan

This past August when three white-tailed deer were discovered dead near Cedar Creek, staff reported the possibility of epizootic hemorrhagic disease (EHD) to the Michigan Department of Natural Resources. This often-fatal disease is not transmitted directly from deer to deer but is transmitted by a biting fly (midge). There is no evidence that humans can contract the EHD virus.

A consistent characteristic of the disease is its sudden onset. Deer initially lose their appetite and fear of humans, grow progressively weaker, salivate excessively, develop a rapid pulse and respiration rate, and finally become unconscious. A high fever causes deer to seek water and cool off. Ponds, creek sides, and wetlands often become their ultimate resting spot. There is no known effective treatment for, or control of, EHD. Michigan first documented EHD in its white-tailed deer population in 1955.

As of October 16, there have been 10,430 confirmed (and fatal) cases of EHD in Michigan. According to the Michigan DNR, EHD outbreaks in Michigan have occurred in isolated areas almost every year since 2006. On average, deaths have ranged from 50 to 1,000 deer per year, so this year’s outbreak is far worse than normal. EHD is a common white-tailed deer disease in the southern United States. According to Russ Mason, chief of the DNR Wildlife Division, more frequent EHD outbreaks in Michigan could be a consequence of climate changes that favor the northward spread of the biting flies that spread the disease. Property owners who discover dead deer or want to talk to a wildlife biologist should contact their nearest DNR office michigan.gov/dnr.

A Latesummer Night’s Green a Huge Success

This summer, we postponed our annual fundraising event, A Midsummer Night’s Green, until September 15 and renamed it, A Latesummer Night’s Green. The delay was well worth it, because we had a record-setting turnout of friends and supporters who made this year the best year yet!

Approximately 140 attendees enjoyed a wonderful night (with perfect weather) of food and wine, while nearly doubling their support to the Institute. Net proceeds from the evening were approximately $14,700, compared to $7,700 in 2012. New this year was a raffle for a hand-quilted wall hanging by Pat Johnson that brought in $1,055 and an addition to the live auction called “Fund a Future” where 18 generous participants donated $2,350. We are incredibly grateful to all who played a part in this success - from those who bought tickets, to those who donated and bid on auction items, and our volunteers and staff who helped plan, decorate, promote, and work the event. It was a team effort that everyone can be proud of.

Our newsletter is full of the programming supported by these donations. We are thankful for our family of members who believe in Pierce Cedar Creek Institute and our mission of environmental education, research, preservation, and appreciation.

Thank you,

Michelle Skedgell, Executive Director

Save the Date!

A Latesummer Night’s Green
Saturday, September 14, 2013
Voicing the Natural

In 2011, the Institute created a program for undergraduate creative writers called the Nature in Words Fellowship. Two students are given the unique opportunity to nurture and cultivate his or her writing abilities while living within the beauty of the Institute’s natural setting. The student, along with a faculty mentor, proposes a project that will culminate in a complete written body of work. It includes a $3,500 stipend, on-site housing and partial meal support for the 10-12 week (full-time) project.

Kate Belew, one of the 2012 Nature in Words Fellows, created persona poems within a natural environment. She describes the project as being based on work by Michigan poet Conrad Hilberry, whose most prominent work is titled The Fingernail of Luck. Hilberry uses objects as metaphors to speak of events in his own life. The object becomes a lens through which to see and describe the poet’s own experience while being true to the nature of the object itself. From this inspiration, Belew was able to “voice the natural” by observing animals, plants, and other objects within the environment at Pierce Cedar Creek Institute. She then translates nature into poems, which gives voice to her own experience and feelings. She approached the project with the practice of witnessing and the idea of learning to be an active observer and participant in the natural world. She decided to look out in order to look in. The poems presented here are only a few of the poems that she wrote for her project, “Voicing the Natural,” which was mentored by Diane Seuss from Kalamazoo College. Nature in Words Fellowships are funded by Diane Herbruck, owner of Wordsmiths, Inc., a communication studio in Grand Rapids.

Monarch Travel
I am being beckoned south.
Between the poles.
This will be my last adventure.
It will be trans-Atlantic if I wish.
Cross continental.
If I wanted to keep flying I could,
Call it diapause. Call it living.
My body unfurled like two hands.
Palms down.
Call it whatever you want,
but it is mine.

Threat
If I am not the black bear
I am the threat of the black bear.
Circle groove claw marks,
broken bark from the tree slide.
You will never be alone.

If I am not the black bear
I am the clouds over the tree line.
The storm that accuses all day,
but never proves anything.
I am dark and breaking.
The feeling of spinal fluid boiling
on the stove.

If I am not the black bear
I am the waiting in the trees.
Threat of black hair left
in paw prints.
The argument about existence.

Always in front of you,
but you keep looking back.
I will wait for you ahead on the trail.
My nose to air. Inhalation
of the storm,
and its passing.

Sandhill Crane
The chilling sound of the rattle behind the trap door. Flick the coiled door stopper with your pointer finger and thumb. Let the prehistoric reach your blood and spinal fluid. Answer the call honestly. I am fossil now. Stained ochre. Pulsing wings. Send the dust motes flying. Call in unison. Haunting. I throw my head back and laugh
like a lush in the swamp. It’s singing and passion. The suffering. The litany
of leaping. Twenty-five million years to the day, I crane my neck, a spindle.
I, the last, the singing, the leaping, long like those before me over the swamps.
They search for the bones next to the cattail skeletons, sinking.
Sunday Brunches and Programs
Second Sunday of each month. All brunch programs are free, and you do not need to attend brunch to enjoy a program.

Seating times: 11:30 am and 1 pm
Program time: 12:15 pm - 1 pm
Member Adults $13; Children $6
Non-Member Adults $15; Children $7
(Plus 6% sales tax. Children ages 4 - 10)

Programs
Sunday, December 9
Christmas Concert with Bows ‘N Buddies
Concert 12:15 - 1 pm
Entertainment will be provided by the classical strings group, Bows ‘N Buddies, who will enchant you with their seasonal music selections.

Sunday, January 13
The Notion of Environmental Care and Relation to the Land
Andy Sanford, a graduate student at Western Michigan University will be examining the difference between conceptually understanding environmental care and having an actual relation to the land.

Sunday, February 10
Southwest Michigan Land Conservancy
Emily Wilke, Director of Land Protection at the Southwest Michigan Land Conservancy, will present on the work the Land Conservancy is doing to protect open space and natural areas.

Coat Drive
December through February
Donations may be dropped off during regular business hours, Monday through Friday from 9 am - 5 pm, or at any weekend program sponsored by the Institute.

Art Exhibit—Southwest Michigan Watercolor Society
December 2012 - February 2013
Monday through Friday 9 am - 5 pm
Free

End of Year Hike
Saturday, December 8 10 am - Noon
Members and Children Free | Non-Member Adults $6

Sunday Brunch and a Christmas Concert with Bows ‘N Buddies
Sunday, December 9
Brunch Seating Times: 11:30 am and 1 pm  Concert: 12:15 - 1 pm
Member Adults $13, Children $6 | Non-Member Adults $15, Children $7
(Plus 6% sales tax / Children ages 4 – 10)

Introduction to Cross-Country Skiing
Saturday, January 12 10 am - Noon
Members Free | Non-Members $6 | Ski Rental $17

Sunday Brunch and Program - The Notion of Environmental Care and Relation to the Land
Sunday, January 13
Seating Times: 11:30 am and 1 pm  Program: 12:15 pm - 1 pm
Member Adults $13, Children $6 | Non-Member Adults $15, Children $7
(Plus 6% sales tax / Children ages 4 – 10)

Coat Drive
December through February
Once again, Pierce Cedar Creek Institute is collecting gently used and new winter coats, blankets, gloves, and mittens. Donations may be dropped off during regular business hours, Monday-Friday from 9 am - 5 pm, or to any weekend program sponsored by the Institute. Anyone who drops off a donation will receive a coupon for $1 off Sunday Brunch at the Institute, held the second Sunday of each month. Donations may also be given directly to Second Hand Corners located on the corner of State and Jefferson in downtown Hastings. Second Hand Corners distributes the winter gear and blankets to anyone in need this winter.

To register please call (269) 721-4190 or visit cedarcreekinstitute.org
Calendar of Events

Making Pasta and Sauces
Saturday, January 19  5 - 7 pm
Members $15  |  Non-Members $18

Moonlight Snowshoe Hike
Friday, January 25  7 - 9 pm
Members Free  |  Non-Members $6  |  Snowshoe Rental $5

Snowshoe Lacing Workshop
Saturday, February 2  9 am - 4 pm (includes lunch)
Saturday, February 9  9 am - Noon (optional follow-up)
Members $165  |  Non-Members $185

Sunday Brunch and Program - Southwest Michigan Land Conservancy
Sunday, February 10
Seating Times: 11:30 am and 1 pm  Program: 12:15 pm - 1 pm
Member Adults $13, Children $6  |  Non-Member Adults $15, Children $7
(Plus 6% sales tax / Children ages 4 – 10)

Beekeeping Workshop
Saturday, February 16  9 am - 3:30 pm
Members $65  |  Non-Members $80  Lunch is included

Winter Tree ID Hike
Saturday, February 23  10 am - Noon
Members Free  |  Non-Members $6

End of Year Hike
Saturday, December 8
10 am - Noon
Take a break from your Christmas shopping and enjoy a little fresh air. This two-mile hike around Brewster Lake will take advantage of the lack of leaves on the trees to provide clear views of the lake. Discussion will focus on the history of the property and viewing some of the signs of past residents. Please come dressed for the weather. If there is significant snow, we will use snowshoes.

Members and Children Free
Non-Member Adults $6

Introduction to Cross-Country Skiing
Saturday, January 12
10 am - Noon
This workshop is perfect for anyone interested in learning how to cross-country ski or improve his or her skills. Matt Dykstra will cover the basics of skiing, helping participants understand their equipment, how to stop and turn, navigate hills, and how to improve their stride. Skis will be available for rent. Down payment for rental is required by December 28. Class is limited to 12 people. The class will be canceled if there is insufficient snow.

Members Free  |  Non-Members $6
Ski Rental $17

Making Pasta and Sauces
Saturday, January 19
5 - 7 pm
Participants will be making a variety of pasta noodles, including fettuccini, squid ink angel hair, tomato ravioli, and noodles for chicken soup. Sauce recipes will be cream, oil-based, and tomato. Everyone will have the opportunity to sample the dishes created. If time allows, we will make a few creative dishes - as you know, we must have dessert!

Members $15  |  Non-Members $18

To register please call (269) 721-4190 or visit cedarcreekinstitute.org
Moonlight Snowshoe Hike
Friday, January 25
7 - 9 pm
Join a group of hardy souls as we explore the Institute with snowshoes at night. Snowshoes are available for rent or feel free to bring your own. Please dress appropriately for the weather. Hot chocolate and treats will be available in the Visitor Center after the hike.
Members Free | Non-Members $6
Snowshoe Rental $5

Snowshoe Lacing Workshop
Saturday, February 2
9 am - 4 pm
See page 3 for more information.

Beekeeping Workshop
Saturday, February 16
9 am - 3:30 pm
Don Snoeyink of Thornapple Woodlands is returning to lead an all-day workshop to help the aspiring beekeeper understand the basics of beekeeping. Topics will cover a wide range of issues from equipment, getting a hive started, maintaining a healthy hive, and harvesting honey. The workshop includes the book “Starting Right With Bees”. Deadline for registration is February 1.
Members $65 | Non-Members $80
Lunch is included

Winter Tree ID Hike
Saturday, February 23
10 am - Noon
Enjoy the outdoors on one of the last weekends in winter. Participants will hike approximately 1.5 miles through a variety of forest types. Despite the lack of leaves, trees can still be identified by their buds and bark. Please come dressed for the weather. If there is significant snow, we will use snowshoes.
Members Free | Non-Members $6

Attention Homeschool Groups!
The education department has created a homeschool program where students can come to the Institute to learn about science. Two programs can be held simultaneously for different age groups on any scheduled day to fit the group’s needs. Children in grades 1 - 5 will explore the trails on a snowshoe hike. Students will learn about the history of snowshoes and techniques to help them safely navigate trails in the winter. Children in grades 6 - 12 will learn how mammals survive in the winter. Students will follow tracks to determine behavior, explore relationships between species, and observe adaptations that aid mammals in survival. Students should come dressed to spend the afternoon outdoors. Contact Matt Dykstra for group rates at (269) 721-4473 or email him at dykstram@cedarcedrinkstitute.org.

Exhibits

Art Exhibit - Southwest Michigan Watercolor Society
December 2012 - February 2013
Monday through Friday 9 am - 5 pm Free
This winter, Pierce Cedar Creek Institute welcomes the artistic works of the Southwest Michigan Watercolor Society (SWMWS).

SWMWS was organized in 1985 and has remained strong with members from Lansing to Paw Paw. Currently, SWMWS has nearly 40 members and is open to anyone who is interested in watercolor painting. As watercolor painting can be defined in various ways; the group identifies it as any media that is soluble in water, such as transparent watercolor, tempera, gouache, and acrylic. Meetings are held in the lower level of the Art Center of Battle Creek at 265 E. Emmett St. in Battle Creek. Meeting dates are the first Monday of October, November, March, April, May, and June. In September, the group meets the second Monday of the month. In December, the SWMWS celebrates with a holiday dinner instead of a meeting. The annual dues are $25 per year. If you are interested in joining the group, you may contact Jerry Ulrich at ulrich@iserv.net.

Register online at cedarcedrinkstitute.org or call (269) 721-4190 for more information. Pre-payment may be required for some events.
Happy Holidays from the Staff at Pierce Cedar Creek Institute

It has been a year of changes at Pierce Cedar Creek Institute. We would like to welcome some new faces to the team and highlight the familiar. Many thanks to the strong core of members who support the Institute and its mission to promote environmental education, research, preservation, and appreciation. The board and staff welcome over 100 new members for 2012! The Institute looks forward to continued growth in 2013.

Seated from left to right:
Kayla Angeletti, Development Coordinator
Mel Bowman, Operations Director
Richard Centala, Hospitality Coordinator/Chef
Jen Howell, Stewardship Manager
Barb Lancaster, Marketing Coordinator
Rick Hemerling, Operations Assistant

Standing from left to right:
Anetra Clark, Marketing Director
Sarah Buskirk, Housekeeping
Matt Dykstra, Program Manager
Michelle Skedgell, Executive Director
Marty Hall, Facilities Assistant
Tadd Wattles, Facility Manager
Hugh Brown, Field Station Director