"A Long Day's Journey Into Night"

Friday, June 22, from 8:00-Midnight

Spend a sultry evening, on "the longest day of the year," exploring the significance of the Summer Solstice to neolithic cultures around the Earth as well as the property that was once Henry and Clara Ford's backyard. Meet at the Environmental Interpretive Center to enjoy a guided walk through the UM-Dearborn Environmental Study Area, convening at sunset near the Estate terrace to watch the sunset. Activities after sunset may include an illuminating, astronomical visit to the Henry Ford Community College Planetarium and UM-D Observatory to enjoy the night sky through powerful telescopes, weather permitting.

Young Naturalist Summer Camps

Children are invited to join our staff interpreters in exciting outdoor explorations of plants and animals in their natural habitats. Science-oriented session topics will include pond life, insects and spiders, soil creatures, and birds. Each of the following age groups will have its own series of four daily program sessions. The program is free.

10-11 year olds: Monday, June 25, Wednesday, June 27, Thursday, June 28, Friday, June 29; 9:30AM-12:00PM.

7-9 year olds: Monday through Thursday, July 9-12; 9:30AM-12:00PM.

Registration is required. Go to the EIC website at http://www.umd.umich.edu/eicprogramregister to register online. For more information or questions call Rick Simek at 313-583-6371.

Looking for News About Rouge River Bird Observatory?

The Rouge River Bird Observatory now has its own electronic newsletter. To view past issues and sign up for future issues, please visit http://www.rrbo.org/connect/newsletters

In previous issues, you can read about:

-- Julie Craves being chosen as Associate Editor of a new scientific journal
-- RRBO’s most frequently banded species
-- The rarest species banded on campus
-- The new dragonfly book to be co-authored by Julie Craves

And more! Sign up for "Net Results" today.
When I think of fairy tales and children’s stories, many of them take place in the woods and forests, and spring-time is when everything looks lush and green and magical. With that in mind, have you noticed what looks like lots of miniature green umbrellas sprouting up from the forest floor—just the right size for Lilliputians or Louis Carroll’s “Alice” once she’d drunk the shrinking potion? These patches of “enchanted forests” within the forest poke their heads up towards the end of maple sugaring season in mid-March and unfold their broad canopies shortly thereafter.

So, April showers bring May flowers and this one comes prepared for the rain. And if April showers bring May flowers, what do May flowers bring? Well, this May flower was here in North America long before the Pilgrims arrived; it’s the Mayapple (*Podyphyllum peltatum*)! By the time May rolls around they should be in bloom or fruiting, living up to their name. Both the genus and species name reflect the leaf’s appearance: *Podyphyllum* from the Greek for foot leaf; and *peltatum*, referring to the shield shape of the leaf. In addition to umbrella leaf, other common names for this plant include duck’s foot, wild mandrake (although it is not a true mandrake), hog apple, wild lemon, and raccoon berry for the fond-ness these masked mammals have for the fruit.

A native perennial plant of mesic (not too wet, not too dry) deciduous woodlands, open woodlands, and partially shaded hillside seeps, mayapples typically grow to a height of 1'-1 ½' with “umbrella” leaves about 1’ across. There are 5-9 lobes per leaf that are deeply divided, giving them an almost palm tree-like appearance. Some plants produce only one single leaf from a long stalk, while others produce a pair of leaves on long petioles at the tip of this stalk. As with most fairy tales, a hidden treasure is involved. The treasure hidden underneath and between the paired leaves is a single nodding flower at the point where the petioles part from one another. This flower is about 1 ½” across and has 6-9 broad, white petals that resemble an apple blossom. There are twice as many stamens (male parts) as petals, an atypical floral arrangement. The superior ovary is obvious in the center of the petals, topped by a cluster of styles (female parts). Both male and female parts are orange-yellow colored, a pleasing contrast with the surrounding white bloom. This visual invitation, coupled with an equally pleasing scent attracts visitors to come and pollinate this flower, which is a critical step because without the “magic” of cross-pollination, mayapple flowers will not become actual mayapples.

Mayapples have a Fairy Godmother watching over them, though, imbuing them with a “life insurance policy” of sorts. Yes, mayapples can reproduce through seed production and dispersal, but they have the powers of vegetative reproduction as well. Their root system is fibrous and produces long rhizomes, underground stems that send out new shoots. Mayapple rhizomes are very long lived and add new growth over many years often producing dense vegetative colonies, those mini-forests within the forest.

Mayapples are one of the most conspicuous and easily identifiable of the spring wildflowers. Although generally considered toxic, people have been using the plant parts, including the fruit, in a variety of ways throughout history. Poison apples appear in some fairy tales but, ironically, the ripened mayapple fruit is edible and can be made into marmalade with a bit of a bite. It can be used as a flavoring in many foods and in a southern cocktail made with wine, sugar, and mayapple juice. The Shawnee Indians boiled the rhizomes for use as a very strong cathartic, also used occasionally in conventional medicine. A tincture of mayapple rhizomes and other acidic ingredients produces a strong topical application for certain kinds of warts called podophyllin (from the genus name), which has been used since 1942. Other parts of the mayapple are currently in use in experimental cancer treatments—very powerful potions. None of these uses of mayapples is recommended or promoted by the Environmental Interpretive Center and the collecting of specimens is prohibited.

So as you stroll along the trails in the Environmental Study Area and other moist rich woods in North America, don’t worry if your blue skies turn to rain clouds. You know where to find magical umbrellas that hold a hidden treasure within the enchanted forest…. Happy endings!

- Dorothy McLeer
A Towering Achievement!

The Center has wanted to put up a nesting and roosting tower for Chimney Swifts, a bird species in decline, for some time. This April, Stephen Lisius from Boy Scout Troop 711, based in Livonia, planned and built a 16’ tall swift tower at the Center for his Eagle Service Project. We knew that Stephen and his engineering interests would be ideal for getting the job done. The result was an outstanding bird conservation project. We recently followed up by asking Stephen to reflect on his project experience:

Why did you choose the Center to do your project?
I turned to the Center because my family has been involved in its programs and other activities for many years. We have become good friends with the staff. I hoped that the project would involve some engineering, and that it would be a challenge. The Chimney Swift tower project met both of my hopes, and I was delighted to take it on.

What did your project planning involve?
I researched Chimney Swifts and their nesting habits, as well as existing nesting towers and their design. From that, I began loosely designing a tower that I felt would be appropriate. After the proposal was approved by my Scout leaders, I began creating much more detailed plans and drawings, as well as material lists and the procedure for construction. I had to review all of my plans and materials to ensure everything would go off without a hitch.

What kind of donor or discount support did you receive for materials?
I received donations from: Guthrie Lumber, Brooks Lumber, Contractors Steel, Home Depot (Livonia branch and Dearborn branch), and Garden City Rental. Discounted materials came from Northville Lumber.

What was involved in the overall tower construction and installation?
We began by marking out where the holes for the tower foundation posts would be placed. We then drilled the holes 42” deep with a power posthole digger. We later added the angle iron foundation pieces to the mostly buried support posts for the eventual mounting of the tower.

We completed the tower construction and raised it on the Saturday of the following week. That took all day. According to the design, the tower had to be built in layers, working from the inside out. The very inside layer is the surface the birds will nest on, and that was what we had to build first.

To erect the tower, we first had to carry the 600+ pound structure over to the site, which we did with 12 people to distribute the weight. Once the tower was lying on the ground ready to be raised, we tied ropes around the top of the tower to assist in the raising. After I organized everybody and instructed them on what to do and how to do it, and what to do if something went wrong, we started lifting. We had eight people along the length of the tower, as well as two people on each of the two ropes, and two people watching the foundation to ensure the tower seated properly. The tower went up as smoothly as we could hope for, and dropped right into place in the foundation. After the tower was stabilized with the attached ropes, we leveled the tower in the foundation and began attaching it to the angle iron footings.

Overall, the project process was quite fun, most notably the designing of the tower, and working with the Center Staff. They were very supportive and appreciative the whole way. Also, I was happy to provide the opportunity for workers to experience a project like this that they wouldn’t normally get. This opportunity was also met with enthusiasm from the volunteer workers, which made the project that much more enjoyable for me.

I hope that the tower will make a positive difference in the population of Chimney Swifts in the Dearborn area. I also hope and that it will raise awareness and inspire other people to undertake a similar project to further help the chimney swifts.

Editor’s note: We congratulate Stephen on a wonderfully planned and executed project effort, and for his advancement to the Scouting rank of Eagle. For more information on Chimney Swift nest towers, go to www.chimneyswifts.org.
A wide diversity of pollinators and herbivores can be seen throughout the year, especially in the summer months, at the rain gardens surrounding the EIC. In fact, more than 40 different butterfly species have been spotted on the grounds! One butterfly species that has seen its populations decline recently due to loss of habitat is the monarch butterfly, Danaus plexippus. Monarchs are perhaps the most recognizable butterflies in North America, with their distinctive pairs of orange and black wings that stretch across a wingspan of about 9-10 cm. Millions of monarchs make an impressive long-distance annual trek back and forth between southern Canada (where they breed) and south-central Mexico (where they overwinter), similar to the annual migrations of many bird species. Unfortunately, their numbers have been decreasing, and one of the causes is the lack of suitable host plants. Monarchs lay their eggs on milkweed plants belonging to the genus Asclepias. After about four days, the eggs hatch and larvae, known as caterpillars, emerge. The caterpillars feed exclusively on milkweed plants for about two weeks as they store energy. The caterpillars then enter a pupal stage of development inside a sac called a chrysalis. During this time, which lasts about two weeks, caterpillars undergo metamorphoses and transform into the well-known adult monarch butterflies.

The rain gardens at the EIC are host to two milkweed species, swamp milkweed and butterfly weed, along with more than sixty other native perennial plant species. Monarchs are regular visitors to the rain garden in the spring and summer months. Not only do the butterflies lay eggs and rear young on milkweed plants, but they also use many of the other flowering plants as nectar sources. Collectively, the rain gardens at the EIC are recognized as a certified Monarch Waystation through Monarch Watch, an educational outreach program in support of monarch conservation in the United States and Canada. The network of Monarch Waystations across North America is designed to preserve and restore habitat for monarchs along their migratory fly-ways in an effort to boost population numbers and sizes. Next time you visit the EIC, stop for a look at the rain gardens and see whether you can spot any of the remarkable long-distance migrants known as the monarchs.

Ford Volunteers are A-Buzz with Activity

On May 11th the Center was abuzz with beekeeping activities as a renovation of its existing beeyard (to the northwest of the Community Organic Garden) took place. A group of more than 20 UM-Dearborn undergraduate students and Ford Motor Company employees volunteered their time and labour to assist with the construction of a storage shed and the assembling of components for 14 new beehives in our campus apiary. The goal of this Urban Apiary Project is to increase the scale and diversity of on-site beekeeping activities, thereby enhancing university research, as well as public outreach and education opportunities to learn about urban beekeeping practices at the Center.

The Center's Urban Apiary Project was made possible through the financial assistance of a $5000 Ford Model Team Better World grant. Technical assistance for the project is provided by Rich Wieske, an expert beekeeper from the Southeastern Michigan Beekeepers Association. We thank all of the volunteers and community partners for helping to make this project a reality.
Pancakes for the Planet

The Center's first ever Pancakes for the Planet fundraiser in support of its outdoor children's environmental programs was a huge success! The 300 guests in attendance braved some unusually cool temperatures on the morning of April 21, but were kept warm by feasting on pancakes topped with syrup made in the campus' sugar bush. Nearly $4900 was raised from sponsorships, donations, and breakfast and raffle ticket sales. The EIC thanks all of the volunteers, visitors, and sponsors who supported this event, thereby increasing opportunities for us to provide outdoor educational programs to students in southeast Michigan. In particular, thank you to our Gold level event sponsor, DTE Energy Foundation, our two Bronze level sponsors, the Henry Ford and Michigan GreenSafe Products, as well as Stroh's Ice Cream Parlour in Wyandotte, REI in Troy, Little Caesars Pizza in Dearborn, the Detroit Red Wings, and the Detroit Lions for their assistance and donations.

Reflections from an EIC High School Volunteer

My name is Lindsay Krygowski, and I am a senior at Crestwood High School. I am currently part of a Business English course that requires me to complete an Internship in my desired field of work. Coming up with a place to fulfill my 50-hour service requirement was difficult. Not only is it hard for any student to come across an internship position, but there are not many businesses that are directly related to the environmental field. When I was younger I had visited the Environmental Interpretive Center with my grandma, and I just happened to stumble upon their webpage when searching for a place. Since I was kind of familiar with what kind of organization they were, I thought it would be a great place for my internship. After contacting them, they gladly accepted me and soon enough I was out and about with different maple syrup groups, and hiking through the woods with the Young Naturalists group. From this experience, I am supposed to learn more about what the job as a naturalist and interpreter is like. But, I have learned a great deal more. As I am still unsure of “what I want to be when I grow up” this has been a great way for me to experience new things, and has opened my eyes to a wide array of different career paths. Through the month of April I have taken on a stewardship roll, and have helped removed invasive plant species on the grounds surrounding the EIC. Being outdoors is something I know I enjoy, and with so many new options for me I feel a little more secure with my future. There are so many things that have come from this experience thus far, and I am sure I will come across many more!

It’s a Frog, It’s a Tadpole! It’s a …

…little bit of both! A group of preschoolers at the Center for a Pond Explorations program this May found this Green Frog in a transitional state of metamorphosis. It’s one of many up-close encounters with aquatic life enjoyed by tens of thousands of school children since the pond program began over 30 years ago.

Photo Courtesy of Kristen LeForce (EIC Student Staff)