2013 was another great year at Nahant Marsh. Over 8,600 people attended programs and events at Nahant Marsh this past year. This was the 4th year in a row that we broke attendance records at Nahant. Several new programs were created that provided new opportunities to learn and explore the marsh. Exciting new programs will be offered this year as well.

Through a partnership with the Louis Stokes Alliance for Minority Participation (LSAMP) and Eastern Iowa Community Colleges, a team of researchers studied turtle populations, invasive species, and mammals at Nahant Marsh. Their research will expand in 2014. Since the turtle research began in 2010, led by Mik Holgersson, researchers have found over 900 individual turtles at Nahant Marsh, including 22 of the threatened Blanding's Turtle. And for the first time in over a decade, researchers found a baby Blanding's Turtle at the preserve!

Our conservation crew had many challenges this year with the weather, including major flooding in the spring, droughts in the summer, and cold and snow at the end of the year. Despite that, the team of four conservation aides, along with hundreds of volunteers, and 24 rental goats were able to make significant strides in restoration of the marsh, controlling invasive species, and in renovating our Carp Lake house located on South Concord St.

On the technology front, Nahant Marsh premiered a 28 minute documentary about the marsh in April at the Putnam Museum to a sell-out crowd. Additionally, several news stories about Nahant Marsh made local, state, and national news. In February, a new look to the Nahant Marsh website was released and in October, a new interactive webcam was installed. Many thanks to all the volunteers and donors that made 2013 a success!!!
Upcoming Winter Events

Space is limited for events, please register online at www.nahantmarsh.org or call 536-323-5196.

Winter Sunset Hike
January 15th, 4:00-5:00pm
Join the Nahant Staff for a guided winter hike at sunset. The hike will include the history of Nahant Marsh and information on the flora and fauna found at the preserve. Participants are encouraged to bring a camera. The trails are on flat terrain, making this guided hike perfect for everyone. Cost: $7.

Friends of Nahant Meeting
January 29th, 6:00-7:00pm
Are you looking to get more involved at Nahant? Then join us at our monthly Friends meeting!

Homeschool: Eagle Counts
January 31st, 2:30-4:00pm
Students will learn about Bald Eagles and their wintering habits. We will conduct our own Bald Eagle Survey. Ages: K-8. Cost: $6 per youth.

Earth Explorers: Surviving Winter
February 5th, 4:00-5:00pm
Discover the different strategies animals use to survive during the winter. Ages: 11-14. Cost: $7 per youth.

Beekeeping
February 5th, 6:00-8:00pm
Discover the world of beekeeping and learn everything you need to get started in this fascinating hobby. Learn to assemble your hive so you can have all your equipment ready for your bees to arrive in the spring. Installing bees in your hive, hive health, and of course harvesting honey will all be covered. Text book and notes included. This is a six week course beginning on February 5th and ending on March 12th. Ages: 18 & up. Cost: $85 for non-members, $60 for members. Deadline to register is January 31, 2014.

Breakfast with Birds: Owls
February 7th, 8:00-9:00am
Join us for an informative breakfast about our feathered friends. We will meet the first Friday of every month beginning in October and continuing until Spring. $5 cost will include the presentation, breakfast, coffee, and juice.

Toddler Tales: Track that Scat
February 11th, 10:00-11:00am & 2:00-3:00pm
Even if we cannot see animals, that doesn’t mean that they aren’t there. We will learn about ways to identify animals without seeing them. Ages: 3-5 with accompanying adult. Cost: $5 per youth.

Muddy Boots: Raptors
February 12th, 4:00-5:00pm
Come learn about the birds of prey. This program includes live owls and a falcon! Ages: 6-10. Cost: $7 per youth.

Earth Explorers: Eyes on Owls
February 19th, 4:00-5:00pm
Come learn about these fascinating creatures during this live owl demonstration! Ages: 11-14. Cost: $7 per youth.

Muddy Boots: Woodland Creatures
February 26th, 4:00-5:00pm
Use willow, items from nature and recycled materials to create woodland figures and fairy houses. Ages: 6-10. Cost: $7 per youth.

Friends of Nahant Meeting
February 26th, 6:00-7:00pm
Are you looking to get more involved at Nahant? Then join us at our monthly Friends meeting!

Homeschool: Winter Birds
February 28th, 2:30-4:00pm
Students will learn about the birds that winter here at Nahant. We will conduct a survey and enter our data at Project Feeder Watch. Ages: K-8th. Cost: $6 per youth.
Upcoming Winter Events Continued

Space is limited for events, please register online at www.nahantmarsh.org or call 536-323-5196.

**Climate Change Presentation**  
**March 4th, 6:30-8:00pm**  

**Earth Explorers: The Earth Beneath Our Feet**  
**March 5th, 4:00-5:00pm**  

**Master Conservationists**  
**March 5th, 6:00-8:00pm**  
Come discover the world around you. Topics include urban water and energy conservation, sustainable agricultural practices, and wildlife diversity in Iowa. Participants will receive 32 hours of instruction from March to August 2014, with many of the classes held at outside locations. Each participant is asked to put their knowledge into practice by volunteering at least 32 hours of their time to conservation or natural resource related service. Registrations will be taken at the ISU Scott County Extension and Outreach. Ages: 18 & up. Cost: $150. Registration Deadline is February 21st, 2014.

**Breakfast with Birds: Cranes & Herons**  
**March 7th, 8:00-9:00am**  
Join us for an informative breakfast about our feathered friends. We will meet the first Friday of every month beginning in October and continuing until Spring. $5 cost will include the presentation, breakfast, coffee, and juice.

**Toddler Tales: Nocturnal Animals**  
**March 11th, 10:00-11:00am & 2:00-3:00pm**  
Did you know that when you go to bed, there are many animals that are just waking up! We will learn about the amazing traits that help these animals live in the dark! Ages: 3-5 with accompanying adult. Cost $5 per youth.

**Goats On The Go**  
**March 12th, 11:00am-1:00pm & 6:00-8:00pm**  
Join us for this presentation on targeted grazing and invasive species. Goats On The Go’s founders will provide an overview on targeted grazing, describe the benefits of grazing versus chemicals and machinery, and discuss why goats are the ideal tool for combating invasive and problem plants in Iowa. The $15 non-member or $10 member registration fee includes a guidebook and a sandwich meal. There will also be a field training session on the afternoon of May 16th. Cost for the training day is $20 for non-members and $15 for members. The registration fee for attending both the two-hour session and the training is $30 for non-members and $20 for members.

**Muddy Boots: Mammals & Tracks**  
**March 12th, 4:00-5:00pm**  
Come learn about mammals and the history of furbearers. Participants will also learn the basics of track identification. Ages: 6-10. Cost: $7 per youth.

**Muddy Boots: Waterfowl & Migration**  
**March 26th, 4:00-5:00pm**  
Nahant is a rest stop during the great spring migration. Come learn about the birds that feed and breed at the marsh. Ages: 6-10. Cost: $7 per youth.

**Friends of Nahant Meeting**  
**March 26th, 6:00-7:00pm**  
Are you looking to get more involved at Nahant? Then join us at our monthly Friends meeting!

**Homeschool: Water Testing & Pond Study**  
**March 28th, 2:30-4:00pm**  
Students will learn about water testing and the macroinvertebrates found at Nahant and what they indicate about water quality. We will go out and test a couple of different sites at Nahant and record our data. Ages K-8th. Cost: $6 per youth.
Emerald Ash Borer (*Agrilus planipennis*)

By: Carina Easley-Appleyard

Ash trees are one of the most abundant tree species in North America, however, a tiny, exotic insect could eliminate both urban and woodland ash tree populations. Native to East Asia, the Emerald Ash Borer (EAB) is an insect that attacks and kills all ash tree species (*Fraxinus spp.*). Measuring at about 1/2 inch long and 1/16 inch wide, this metallic green beetle fits inside President Lincoln’s image on a penny. Adult beetles feed on the tree’s foliage while their white larvae feed on living growing plant tissue beneath the bark. This larval feeding disrupts water and nutrient flow within the ash tree, eventually killing it.

EAB was unknown in North America until it was first discovered near Detroit, Michigan in 2002. Since then it has been found in 21 other states and Canada. It is believed that EAB may have arrived 10 years earlier in wooden crates, pallets, and other wood packing materials containing cargo from China. Not only has the EAB already destroyed tens of millions of ash trees in the U.S., it will continue to have a negative economic impact, costing municipalities, property owners, nursery operators, sawmills, and forestry industries millions of dollars.

With approximately 52 million woodland and 3.1 million urban ash trees, the EAB is a significant threat to the landscapes of Iowa. In 2010, the beetle was initially found in Iowa in Allamakee County. Within the past year, there have been confirmed EAB infestations in four other Iowa counties (Cedar, Des Moines, Jefferson, and Union counties).

The EAB infects ash trees of any age or size and completely kills both stressed and healthy trees within 2-4 years. Tree symptoms include canopy thinning, epicormic sprouting from the roots or trunk, woodpecker activity/damage, and bark splits that expose S-shaped larval feeding tunnels beneath bark. When winter arrives, immature EAB larvae will remain inside the tree and finish their development the following spring. After their larval stage, adults emerge through D-shaped exit holes.

Although adults can travel up to one mile per year, EAB can be easily transported further in infected firewood, nursery plants, sawmill logs, and tree waste. People cause most infestations by unknowingly moving infected ash to uninfected areas. Citizens of known infected areas are cautioned not to transfer any firewood across county or state lines.

To help prevent the spread of EAB, the Iowa DNR and the Iowa Department of Agriculture and Land Stewardship (IDALS) has enforced quarantines for 25 Iowa counties. In addition, state and federal governments issued the Iowa EAB Readiness Plan in January 2013.

There are limited control options and the EAB has few natural enemies. Several insecticides injected in the soil or tree trunk have shown to be effective. However, individuals should only treat healthy ash trees within 15 miles of a confirmed infested area. Insecticides are best used as a preventive treatment for healthy trees because most insecticides must be transported within the tree’s vascular system. In addition, most treatments require annual applications during the growing season for multiple years. Therefore, consideration of a tree’s location, present health, community value, and long-term management costs must be taken before treatment is used. In the search for alternatives, USDA scientists have identified three parasitoids from China that could possibly be used for biological control of EAB.

Although no detection of EAB was confirmed, Nahant’s four ash trees in front of the Education Center were removed last November as a preventative act for public safety. These ash trees were replaced by Kentucky Coffeetrees (more information on the Kentucky Coffeetree is on page 7 of this newsletter). If you find EAB or signs of an infected ash tree report it to your State Plant Health Director. Contact information for each state is listed at:


For more information visit:

https://www.extension.iastate.edu/pme/emeraldashborer.html
http://www.emeraldashborer.info
Looking Through the Keyhole  
*By: Sherry Staub*

A children’s garden often evokes images of mystery and magic, like the “Secret Garden”. Sometimes adults miss the magic and mystery of bugs and dirt and growing things. Perhaps because we’re not as close to the ground!

Hopefully, we’ll be able to capture a bit of that magic in the new “Keyhole Garden” for children at Nahant which is in the early construction stages. The garden is the result of a project conceived by Nahant staff and some student volunteers. Madison, Cayla, Tyler and Jordan are St. Ambrose University students who volunteered their time as part of an honors class. Sherry Staub, a student in the Conservation Technology program at Scott Community College and “Friend of Nahant” volunteered as part of an “Activism for the Land” project for her Environmental Science Class. Brian Ritter had long held a desire to see a Children’s Garden as part of the Education Center at Nahant and with continued help from a Nahant Task Force of Friends, it will become a reality this Spring 2014!

Keyhole gardens were first conceived in Africa and the design resembles a keyhole or in modern Western parlance, probably more like a “pac-man”. It’s basically a circle with a wedge cut out of it. It can be built from a variety of materials from river rocks to bamboo, or just plain mud! The wedge part of it allows easy access to a central watering/compost point in the center of the garden. The walls help to keep it cool and retain water in dry times. The height makes it easy for special needs folks to access it.

It will be constructed from limestone wedge shaped landscaping blocks to match the ones used in the fire pit at Nahant. Gravel for the foundation of the wall was graciously donated by Miller Trucking and Excavating. The stone will be acquired from Quint City Stone. Soil will come from our good neighbors at the Compost Facility and the bulk of the financing will be provided by the Friends of Nahant who have agreed to use some of the proceeds from the Trivia Night to assist with this project. We are so grateful to all of those who are sponsoring this project, and encourage you to experience the magic for yourself in 2014!

Nahant Marsh: Live on Camera  
*By: Veronika Cox*

Now you can watch otters, raccoons, coyotes, migrating birds and other wildlife at Nahant Marsh live, 24 hours a day! Eastern Iowa Community Colleges sponsored and installed a live view camera at the Nahant Marsh Education Center in November, 2013. With the all new live-streaming camera you can easily observe Nahant Marsh from the comfort of your own home, office, or just about anywhere with an Internet connection. Our camera is a pan/tilt/zoom camera and operates on a first come, first serve basis. It will automatically switch controls to the next user after 3 minutes. Just visit www.nahantmarsh.org/nahant-webcam/ to enjoy the marsh and all its beauty!
Kids Corner: Winter Word Search

ANIMAL TRACKS  COLD  HOLLY  RABBITS
BARREN  CRUNCHY  ICE FISHING  REINDEER
BEAUTIFUL  DECEMBER  LIGHTS  RELAXED
BIRDS  DRIFTS  MOOSE  SLEIGH
BOOTS  EMPTY  MOUNTAINS  SNOWFALL
BRIGHT  EVERGREENS  OUTDOORS  SNOWFLAKE
CABIN  FIR TREE  PEOPLE  SNOWSHOES
CALM  FOOTPRINTS  PINE TREES  SURVIVAL
CARDINALS  FOREST  PINECONES  TRANQUIL
CHILLY  GLOVES  POND  WILDLIFE
COAT  HIBERNATION  QUIET  WOODS
Kentucky Coffeetree (Gymnocladus dioicus)

By: Elizabeth Schramm

Thanks to a generous donation, Nahant has two new Kentucky Coffeetrees in the front of our building. These trees are also known by several other common names including the American coffee bean, American coffee berry, American mahogany and Kentucky mahogany to name a few. It is native to North America, though the Native Americans introduced it to several areas of the continent. They used the different parts of the tree to treat various ailments. The pulp was used to treat insanity, fever and headaches. The bark was mixed with other plants and used as a tonic, while a tea from the leaves was used as a laxative. The beans contain saponins, which are toxic to fish, so hunting tribes would put large quantities of beans into the streams to stupefy or kill fish. Early settlers used the beans of the tree as a substitute for coffee; however the seeds and pods are poisonous! Heating the beans and pods thoroughly will neutralize the toxin.

The Kentucky Coffeetree is a member of the legume family but is not a nitrogen “fixer.” It has unique, thick, dark bark with large alternate, bipinnately compound leaves. Leaves emerge in the late spring with a pink-bronze color. Fall leaf color is golden yellow, but the leaves drop early. The Kentucky Coffeetree lies dormant for about six months of the year, thus they are also known as the Dead Tree or Stump Tree.

They typically grow in moist soils in bottom-land woods or rocky open wooded hillsides with other hardwood trees. They can be found in small colonies, because the seeds have a hard outer shell and are not dispersed easily. They are a hardy tree and can tolerate drought and occasional flooding. They adapt well to urban conditions.

The timber of the Kentucky Coffeetree can be used in general construction, cabinet work, furniture, fence posts and rails but is unimportant commercially because of its relative scarcity. The fruit is high in saponins and can be used as soap and the leaves have been used as a fly poison. Kentucky Coffeetrees natural range covers the entire state of Iowa, although it is rarely found outside the drainage systems of many of Iowa’s major rivers and the distribution is sporadic.

For more information visit:

http://plants.usda.gov/core/profile?symbol=GYDI&mapType=distribution
http://www.extension.iastate.edu/forestry/iowa_trees/trees/kentucky_coffeetree.html

Distribution of the Kentucky Coffeetree populations in North America.
Don’t Forget to Keep Looking for Eden

By: Julie Malake

Time goes by fast. The sun rises, then sets and before you know it, the day’s gone by. Winter melts into spring as the first wisps of green rise up to rush headlong into summer. The lush hot summer gives way to fall frosts and a brief blaze of color that fades into frozen winter and before you know it another year’s gone by. Before you know it, it’s ten years later.

As a child I always wanted to play outside. Although long grown and working hard these many years, I still set aside outdoor time. Each year, for a week or two I would (and still do) go explore places on the earth so special that they’ve been set aside as parks. I would walk around, taking a lot of photos. I found that heaven on earth does exist; you just need to look for it.

When my children, in their turn grew and moved on, I had more time, but not enough to venture far. I began to visit Nahant Marsh, which, as it turns out, is also a little piece of heaven on earth. A wild garden of once widespread prairie and wetland plants, it is also birthplace and sanctuary for all manner of creatures, and an important rest stop along the Mississippi flyway. It is overflowing with life and images of beauty. Flowers of every color grow, attracting a dazzling variety of insects and birds. All the illustrations in the Field Guide to North American waterfowl are represented here—if you are in the right place at the right time and pay attention.

Sunrises and sunsets are breathtaking, often with perfect copies of sky reflected in the water. At times both water and light fill the air, and tangle into a fairytale landscape of almost unreal beauty. A landscape largely unnoticed by the vast majority of people working their way through another of their busy days.

I myself have already missed too many sunrises, but I am content nevertheless. I feel privileged to be able to have watched as many sunrises in as many beautiful places on earth as I have over the years. How lucky I’ve been!

Time is precious. Life is short. Don’t forget to look for Eden as you go about your day. Before you know it a lifetime will have passed, with or without you. Heaven on earth is all around us, but it will not come find you, you must seek it out. It is going about its own business and doesn’t care whether you notice it or not. It’s up to you to pay attention to the life and light passing by.

Riverbend Wildlands Trust’s Winter Series on February 4th at Blackhawk Historic Site in Rock Island will be about looking for Eden and photographing it once you’ve found it, with photos illustrating the heaven on earth that is so close yet so easy to overlook, and tips on making a good photograph once you’ve found it. Come check it out. You may never look at the marsh the same way again.

A view from the bird blind at Nahant Marsh.
Nahant Marsh Memberships

Help support Nahant Marsh by becoming a member, renewing your membership, or giving a gift membership today! Nahant Marsh Education Center is a non-profit 501(c)(3) and your membership is tax deductible. All memberships can be purchased online at www.nahantmarsh.org/membership

- **Family:** $60/year. Basic membership benefits for two named adults (or caregivers) in the same household and their children under 18 years old.

- **The Grand Family:** $75/year. Basic membership benefits for two named adults (or caregivers) in the same household and their children under 18 years old, PLUS grandparents.

- **Individual:** $40/year. All basic membership benefits for one adult.
  - **Senior:** $30/year. All basic membership benefits for one senior, 65 or over.

- **Student:** $25/year. Students with a valid student ID.

- **Associate Individual:** $75/year. An individual membership with an added gift.

- **Associate Family:** $100/year. A family membership with an added gift.

- **Benefactor:** $500/year. Basic membership benefits for two named adults (or caregivers) in the same household and their children under 18 years old, plus added gifts and a private tour for up to 10 individuals (by appointment only)

- **Lifetime:** $1000+. Basic membership benefits for two named adults (or caregivers) in the same household and their children under 18 years old, plus an added gift, a private tour for up to 10 individuals (by appointment only), and a plaque located at Nahant Marsh.

All memberships, with the exception of lifetime memberships expire on December 31st each year. New members who join June through December enjoy the benefit of a membership longer than one year; in this situation, expiration occurs during the second December following the enrollment date.

**MEMBER BENEFITS:**

- Discounts on our special events, weekend programs, and youth drop-off programs
- Discounts and early announcements to our camp programs
- Discounts off Nahant Marsh products
- A subscription to our quarterly e-newsletter
- An invitation to our members-only events like members-only fishing days at Carp Lake

**YOUR MEMBERSHIP SUPPORTS:**

- Environmental education programs for over 8,000 children, adults and families annually.
- The protection and preservation of the largest urban wetland on the upper Mississippi River. Nahant’s 265 acres of wetland, prairies and woodlands, are home to hundreds of species of plants and animals, including several that are threatened or endangered.
- Continuing research efforts at Nahant Marsh, which allow Nahant staff to make improvements and continue to use the best practices for natural resource management.
A Special Thank You!

The staff of Nahant Marsh would like to thank all of the individuals and groups that have volunteered, donated, attended our public programs, became members, or bought merchandise at Nahant this Fall. We would not be where we are today without all of your support!

TIME

Thank you to all of those that have donated your time at the education center! Members of the AmeriCorps NCCC, students from St. Ambrose University, Rock Island High School Environmental Club, Black Hawk Environmental Club, Scouts from East Moline, and the Friends of Nahant Marsh (Lynn Abel, Jane Broughton, Bob Bryant, Sheri Coleman, Terry Collins, Amy Groskopf, Curtis Lundy, Julie Malake, Kathy Nice, Darren Speth, Sherry Staub, and Kent Turner).

DONATIONS

Thank you to all of the individuals that made donations to Nahant this Fall; Shirley Horstmann (turtle food), Dan Mays (Kentucky Coffeetrees), Kevin Marker (proghorn horns & skulls), Miller Trucking and Excavating (gravel rock for the children’s garden), and everyone that donated items for our Marsh Madness Trivia Night silent auction.

Nahant Marsh Wish List

The following is a list of supplies and tools needed at Nahant Marsh. If you would like to donate any of the following items, please email nahantmarsh@eicc.edu or call 563-323-5196. Your donations are tax-deductible.

Thank you for supporting the Nahant Marsh Education Center!

Office
- Color printer w/ink
- Paper shredder
- Printer paper (white & colored)
- Dry erase markers
- Sharpies
- Tape (duct, packing, & scotch)
- File folders

Arts & Crafts
- Tempera paint
- Paint brushes &/or sponges
- New or like new crayons and markers
- Glue (Elmer’s, hot glue sticks, stick glue, tacky glue)
- Children’s Safety Scissors

Animal Care
- Reptile water bowls
- Reptile bark
- Reptile basking spot lights (50W)

Education
- Books (nature & science related – youth up to advanced levels)
- Animal furs (needed – bobcat, badger, black bear, bison, mountain lion, opossum, elk)
- Animal skulls
- Animal mounts (preferably mammals, fish, & birds of prey native to Midwest)
- Fossils & rock collection (preferably native to Midwest)
- Butterfly collection (preferably native to Midwest)
- Insect collection (preferably native to Midwest)

Lawn & Garden Tools
- Shovels
- Hand shears
- Lopping shears
- Steel chainsaw blades & bars (all sizes)
- All-terrain vehicle
- Wrench set
- Screwdrivers
- Corded drill
- Pole saw
- Trailer (15 foot or larger)
- Power tools in general
- Weed trimmer

Miscellaneous
- Large & small plastic tubs w/lids
- Sports Utility Vehicle (SUV)
- Car (sedan or van)
Nahant Marsh
Education Center

4220 Wapello Avenue
Davenport, IA 52802
Phone: 563.323.5196
Email: nahantmarsh@eicc.edu
www.nahantmarsh.org

Nahant Marsh preserve is one of the largest urban wetlands on the Upper Mississippi River. It is comprised of marshy areas, mesic, wet, and sand prairie, and bottomland forest. A spring-fed quarry, known as Carp Lake, and the surrounding grounds, is part of the Nahant Marsh preserve as well. The building and 78 acres of land is owned and managed by the City of Davenport. The remaining land is held by the Nahant Board, a 501c3. The Educational programming is overseen by the Eastern Iowa Community College District. ATEEC is also a critical part of Nahant Marsh.

Getting to Nahant Marsh...

From Davenport, Iowa:
Take Highway 22 South and turn left on Wapello Avenue (last left turn before the I-280 overpass). Follow Wapello Avenue and you will see Nahant Marsh to your left, just before the railroad crossing.

From Illinois:
Take I-280 to Iowa and take the Highway 22/Rockingham Road Exit. Turn right onto highway 22 and right onto Wapello Avenue. Nahant Marsh is on the left, just before the railroad crossing.

Exploring Nahant Marsh

Nahant Marsh is home to over 150 species of birds, more than 400 species of plants, and a wide variety of mammals, fish, reptiles, amphibians, and insects, including several rare and endangered species. The trails, dock, and bird blind at Nahant Marsh allow you to experience different habitats: including marsh, sand and mesic prairies, bottomland woods, and vernal ponds.

Education Center Hours:
Monday through Friday from 8AM- 4:30PM & Saturdays from 9AM-NOON, or by special appointment.

Preserve Hours:
Open Daily from Sunrise to Sunset