

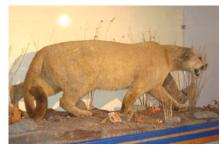
The Wapsi River Center is owned, managed and operated by the Scott County Conservation Board with programming and development assistance from the Clinton County Conservation Board.

Wapsi Center Happenings

by Dave Murcia, Director

Lions in Iowa!

The Wapsi River Center is now host to a traveling mountain lion exhibit thanks to a REAP grant awarded to Iowa this year! The exhibit is on loan from Effie Yeaw



Nature Center in Sacramento, California, and will be on display until November 22, 2008. The exhibit includes two adult lions and cubs, along with interactive displays.

Educators – we also have programming to complement the exhibit so make sure to call for details! The public can enjoy the exhibit on Saturdays from 12:30 - 4:30 P.M. at the Eagle View Eco Center.

Fiscal Year Attendance

Attendance for the 2008 fiscal year (July 1, 2007 - June 30, 2008) was approximately 28,822. Ninety-three field trips and 239 public presentations contributed to these numbers.

Outdoor Adventures

Attendance breaking record!! This summer's **"Outdoor Adventures"** program, one-day field trips for city youth programs, daycare centers and various other summer youth programs, resulted in 960 individuals participating in 29 field trips! Last year's attendance was 703 individuals participating in 25 field trips.

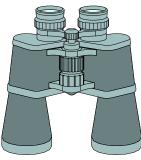


Fall and Winter School Field Trips

If you would like to schedule a field trip, we encourage educators to schedule as far in advance as possible and take an active role. School programs are not scheduled for Mondays so that staff may work on administration and resource management. *You can download our field trip planner from our website to better plan a trip!*

Bald Eagle Viewing

Our national symbol will start arriving in November, along with migrant waterfowl. The stretch of the Wapsipinicon River below the Center supports dozens of eagles in the night roost. The best viewing will be at the Center from



December through early March, one to two hours before dusk. During Center hours, scopes are available to view the birds along with other wintering songbirds, so come out and enjoy our **national symbol** "up close"!

Wapsi Center December Deer Hunt

Scott County Park and the Wapsi River Environmental Education Center are once again designated as a Special Deer Management Zone by the IA DNR and special deer licenses will be issued for antlerless deer only. These hunts are proving to be effective management techniques to help control the deer population, promote hunter education and ethics, and high-quality hunting opportunities.

The Wapsi River Center hunt will allow 12 hunters during the first shotgun season from December 6-10. *The Wapsi River Center will be closed to the public during the hunt.*

Wapsi Projects and Programs

Many projects have been planned and completed this

summer including resource and facility management projects. The outdoor amphitheater that once served as the Boy Scout Camp Minneyata chapel is now being restored. This unique outdoor setting offers a natural surrounding nestled among the pines and includes concrete bench seating, a fire pit (with wood) and a small covered "chapel" with podium.



Many of the trails have been cleared of overgrowth thanks to our own **Community Restoration Team** of the Scott County Jail Department and will make for excellent cross-country skiing.

With partner agency Clinton County Conservation Board,

the new low-impact water trail access is underway and is being constructed on the River Trail for canoes and kayaks. This access point is part of the Bends and Beaches: Iowa DNR Lower Wapsi River Trail. (*http:// www.iowadnr.com/watertrails/index.html*).





The Wapsi Center has also initiated a **"Take Me Fishing"** program including recreational boating (canoe/kayaking) and fishing opportunities. Local schools are encouraged to call for more information as programming offers trained staff and typically include instruction, equipment and lots of fun!

Youth Brave Rain in Fishing Derby

Ten participants ranging from 3 to 12 years of age braved the rain at the 5th Annual Gander Mountain Youth Fishing

Derby that



was held on September 13 at West Lake Park. As a partner, Wapsi River Center staff assisted other Davenport Gander Mountain store associates and a United Way volunteer by identifying and measuring fish (over 10"), and tallying the number of fish participants caught for the day. Though the event was gray and wet, the smiles at the awards ceremony brightened the day and 100% of the proceeds benefited the Quad City United

Way.





Volunteers Needed at Bald Eagle Days!!

The Quad City Bald Eagle Days at the Q.C.C.A. Expo Center has become a popular event. So popular, that they have added a Friday night timeslot! This is the official call for volunteers to help run the Wapsi River Center booth. Below is a list of times, how many individuals and what day your assistance is needed. Call (563) 328-3286 to volunteer.

Friday, January 9

4:00 - 6:00 P.M.	2 people
6:00 - 8:00 P.M.	2 people

Saturday, January 10

9:30 - 11:00 A.M.	1 person
11 A.M 1:00 P.M.	2 people
1:00 - 3:00 P.M.	2 people
3:00 - 5:00 P.M.	2 people
5:00 - 7:00 P.M.	2 people

Sunday, January 11

9:30 - 11:00 A.M.	1 person
11 A.M 1:00 P.M.	2 people
1:00 - 3:00 P.M.	2 people
3:00 - 5:00 P.M.	2 people

In Appreciation of Your Support of the Wapsi River Center

Ken Wilkison Bill Collett K.J. Rebarcak Mark Cox Janet Cox Carol Rogers Gene Buss Erma Wiszman Bernie Peters Joe Lund Kristen Lund Bill Robbins Lucia Dryanski Nick Johnson Dottie Wala Lizzie Murcia Jeanne Bryant Camanche Library

Kids' Column ~ What's in a Name?

by Lisa Gerwulf, Wapsi Center Naturalist

What do you get when you combine <u>*The Brady Bunch*</u> with <u>*Jon & Kate plus 8*</u>?" The combination would give a list of names available for future hurricanes.

The name hurricane comes from the Carib god of evil – Huracan. The hurricane season runs from June 1 - November 30 in the Atlantic, Caribbean, Gulf of Mexico and Central Pacific regions. In the Eastern Pacific region, the season starts May 15. Hurricanes occur 40 - 50 times worldwide each year, so there are plenty of naming opportunities available.

A short, distinctive name has proven to be quicker and less subject to error to identifying a hurricane than latitude/ longitude coordinates. This is true when hundreds of widely scattered stations, ships at sea and coastal bases are tracking a hurricane's progress.

Ivan Tannehill reported that hurricane names were once based on the particular saint's day they occurred on. Clement Wragge, an Australian meteorologist, gave female names to hurricanes before the end of the 19th century. George R. Stewart, a fictional novelist and author of "Storm", is credited with the idea of naming hurricanes. During WWII, this practice became widely used especially among Air Force & Navy meteorologists. Prior to 1950, military meteorologists assigned numbers to storms. The military phonetic alphabet (Able/Alpha, Baker/Bravo, Charlie, etc.) was also employed, but this method lasted only 2 years. In 1953, an alphabetical listing of female names was begun. In 1979, both female and male names were used in alternating succession. A name is retired once it is associated with a particularly devastating storm.

Since 1954 when the retirement of names list began, 2005 boasts five retirees (Dennis, Katrina, Rita, Stan and Wilma). Three years, 2004 (Charley, Frances, Ivan & Jeanne), 1995 (Luis, Marilyn, Opal & Roxanne) and 1955 (Connie, Diane, Ione & Janet), all tied for second.

Originally, a retired name could be used again after 10 years, but the practice if keeping them permanently retired is an unwritten agreement among meteorologists to prevent confusion during future years and remain sensitive to the devastation to life and property.

Seventy names have been retired since 1954. In case you're curious, 46 were "female" and 24 were "male". However, these statistics are skewed since only female names were used up until 1979. So, as of 1979, 21 were "female" and 24 were "male". Ike, coming on the heels of Gustav and Hanna, could potentially become #71.

In the Atlantic region in 2005, enough tropical storms and hurricanes developed to exhaust the name list. When the names run out the Greek alphabet is utilized – alpha, beta, gamma, delta and so on. The year 2005 tied with 1933 as the most active storm season. A hurricane will be renamed if it crosses an oceanic boundary, which poses the question, "how many lists are there to choose from?" It depends on where in the world the hurricane is.

The name lists for hurricanes originate with the National Hurricane Center and are maintained by the World Meteorological Organization. The Atlantic region has 6 alphabetical lists of 21 names repeated every 6 years. The Eastern North Pacific region has 6 alphabetical lists of 24 names repeated every 6 years. The Central North Pacific region has 4 alphabetical lists of 12 names that are used sequentially (when the bottom of one list is reached, the beginning of the next list is begun). The Western North Pacific region has 5 lists of 28 names derived from 14 countries each contributing 2 random names used sequentially. In the Western and Eastern Australian regions 3 alphabetical lists of 21 names are used sequentially. The Northern Australian region has 2 alphabetical lists of 21 names used sequentially. The Fiji region has 4 alphabetical lists of 24 names used sequentially with a fifth list available for replacement names. The Papua New Guinea region has 2 lists of 15 random names total used sequentially. The Philippine region has 4 alphabetical lists of 25 names repeated every 4 years with an auxiliary list of 10 names to use if needed. The Northern Indian Ocean region has 8 lists of 8 random names used sequentially. The Southern Indian Ocean region has 3 alphabetical lists of 26 names used sequentially. Whew!

So, with the possibility of 225 different names available in a season, just how hard is it to come up with a name? In all the alphabetical lists I came across, the letters Q and U seem to be the underdogs. I tried my hand at solving this nomenclatural injustice and found that Q was quite harder than U to assign a gender-based name to. Here is a six-name list for each that I propose:

•		Q	U
	Female	Quincy	Ursula
	Male	Quentin	Ulmar
	Female	Queen	Uma
	Male	Quivier	Uberto
	Female	Qamar	Umaarah
	Male	Qui	Ulrich

Kids' Column Challenge: First, tape several pieces of scrap paper together. Next, draw a chart with all the letters of the alphabet along the left side. Yes, you have to use the Q & U. Then list all the members of the family who'll be contributing along the top of the paper. Next, draw a diagonal line cutting the rectangle for each letter in half to signify a space for female and male names. Lastly, gather the whole family and have each member create their own list of names. You might be surprised at how grandma's "Hortence & Harold" could lead to dad's "Heidi & Henry" and your "Hannah & Horton".

If you get stuck or are simply curious in seeing the different name lists, the National Hurricane Center's website has all the regional lists available up to 2013!



october

4th ~ Seventeenth Annual Ecology Day ~ 10:00 A.M. - 6:00 P.M. ~



A.M. - 6:00 P.M. ~ Wapsi River Center ~ Bring the whole family, invite a friend and plan to attend this family oriented event (see special ad for details).

4th ~ Eastern Iowa Star Party ~ 7:30 - 9:00 P.M. ~ Wapsi River Center ~ The Quad City Astronomical Society hosts this annual event at the Monsignor Menke Astronomical Observatory. They invite the public to join them for this celestial celebration.

11th ~ Canoe and Kayak Float ~ 9:00 A.M. ~ West Lake Park, Lake of the Hills ~ Join Wapsi Center naturalists in an educational and fun introduction to canoeing or try a kayak. This program is part of the *Take Me Fishing* initiative and includes equipment and instruction. Participants are requested to register by calling (563) 328-3286 for this free event – weather dependent.

11th ~ Totally Trees ~ 10:00 A.M. ~ Wapsi River

Center ~ Come learn about our local trees on this fall hike. Learn to identify trees by looking at seeds, leaves and bark. Afterwards, enjoy some hot apple cider to warm your spirit.



$25^{\rm th}$ ~ Creatures of the Darkness Hike ~ 6:30



P.M. ~ Wapsi River Center ~ Learn how to make the most of your night vision, then take a festive and spooky stroll through Jack-o-Lantern Woods. Along the way, participants will



become better acquainted with creatures that go bump in the night. Participants are asked to meet at Redtail Lodge, and reminded to dress according to the weather conditions.

26th ~ Halloween Festival ~ 4:00 -7:00 P.M. ~ Dan Nagle Walnut Grove Pioneer Village ~ Come join us for this family fun event at the Village! Children are asked to dress up for a costume parade, go trickor-treating, and then play children's games. A spooky nature hike will be given by the Wapsi River Center. Enjoy sitting around a bonfire. For this

special event, the Village's rustic buildings will be lit by luminaries and hot cider and old-fashioned soda will be sold at the Bison Saloon. Bring a flashlight and the whole family!



november

1st ~ Green Gifts ~ 1:30 P.M. ~Wapsi River Center ~ Join Lisa Gerwulf, Wapsi Center naturalist, for an afternoon of creative creations. The whole idea behind green gifts is saving money and getting the whole family involved in creating those unique, homemade gifts. Green gift ideas will come from some unlikely sources including: the recycle bin, trash can, remodeling project leftovers, closet, attic, basement, garage and many others. Participants will have the opportunity to view several different ideas, as well as create some make-

and-take projects of their own. Whether you're an avid crafter, recycler, or just someone looking for a unique gift, this is the program for finding that perfect project! Preregistration is required by calling (563) 328-3286, no later than Thursday, October 30.







8th ~ Native Skills Workshop ~ 10:00 A.M - 3:00 P.M. ~ Wapsi River Center ~ Come learn how the Native American Indians made useful items from nature. Come learn several traditional skills (making cord, starting & cooking

with fire, using cattails and identifying animal tracks). Finally, learn how to make a model of a Native American living structure. This workshop is designed for all ages (\$5.00 per person or \$10.00 per family). Please pre-register by November 5 by calling (563) 328-3286.

15th ~ Homemade Bird Feeders ~ 10:00 A.M. ~ Wapsi River Center ~ Fall is a great time to get set up for winter feeding. Milk jugs, cartons and pop bottles will be magically transformed into useful feeders. Types of seeds, common winter inhabitants and homemade bird treats will be

discussed. Participants are asked to bring clean milk jugs (paper or plastic) or 20 oz. -2liter pop bottles, and reserve your spot by November 14 by calling (563) 328-3286.



30th ~ Christmas in the Village ~ Noon - 5:00 P.M. ~ Dan Nagle Walnut Grove Pioneer Village ~ Enjoy the buildings beautifully decorated for the holidays. Visit with Santa Claus, make-and-take crafts, refreshments, and much more fun. Admission is free! Please bring non-perishable food items to help supply the North Scott Food Pantry.

december

6th & 7th ~ Park Closed ~ All Day ~ Scott County Park ~ Scott County Park will be closed for a controlled deer hunt.

6th - 10th ~ Park Closed ~ All Day ~ Wapsi River Center ~ The Wapsi River Environmental Education Center will be closed for a controlled deer hunt.

13th ~ Cross-country Ski Clinic ~ 9:30 A.M. ~ Wapsi River Center ~ Come learn about the basics of cross-country skiing. Learn about proper ski technique, safety and what to look for when purchasing equipment. This program is weather dependent and if conditions allow, participants may tour the trails. Register by calling (563) 328-3286.



13th ~ Natural Ornaments ~
10:00 A.M. ~ Wapsi River
Center ~ Decorate your home this year with ornaments made from natural materials.
Participants will collect a variety of natural items and learn how to create some festive decorations for your home. Fun for the whole family!

Pre-register by December 12; (563) 328-3286.



Cross-country Skiing and Snowshoeing ~ As weather conditions allow, check the local media for cross-country skiing and snowshoe outings throughout the winter.

9th - 11th ~ Quad Cities Bald Eagle Days ~ This huge, annual event showcasing our national symbol – the American bald eagle, also involves a wildlife art show, information booths and various live animal presentations. The event is held at the QCCA Expo Center at 2621 4th Avenue, Rock Island, from 4:00 -

8:00 P.M. on Friday, January 9, 10:00 A.M. - 7:00 P.M. on Saturday, January 10, and 10:00 A.M. - 5:00 P.M. on Sunday, January 11. Come see us at the Wapsi River Environmental Education Center's booth.



Wapsi River E.E. Center 17th Annual Ecology Day

Saturday, October 4, 2008 ~ 10:00 A.M. to 9:00 P.M.



10:00 - 11:30 A.M. ~ Native American Pottery

Come learn how to create pinch pots or animal figurines from clay, and decorate them using Native American decorating techniques. Fire your creation in a trash can kiln.

11:30 A.M. - 12:30 P.M. ~ LUNCH

Bring a sack lunch and enjoy an outdoor lunch on the Owl's Nest Dormitory deck.

12:30 - 2:00 P.M. ~ Discover the Wonderful "Cattail"

Learn about the fascinating cattail! Examine the plant and create dolls, mats, ducks and hats.



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2:00 - 3:30 P.M. ~ Native American Living Structures & Woodland Crafts

Come and help in the construction of a Native American living structure and learn woodland crafts such as twiggy deer, making cordage, and woodland mobiles.

3:30 - 5:00 P.M. ~ Atlatl Throwing and Native American Games

Join Bill Collett (former outdoor educator for the Bettendorf School District) to learn how to throw an atlatl, "Native American spear thrower", and play some Native American games.

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5:00 - 6:00 P.M. ~ SUPPER

Join Gene Buss for delicious Native American dishes cooked by black iron cooking. Donations are acceptable and will benefit the Friends of the Wapsi River Center.

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7:30 - 9:00 P.M. ~ Eastern Iowa Star Party

The Quad City Astronomical Society hosts this annual event at the Monsignor Menke Astronomical Observatory. They invite the public to join them for this celestial celebration.

Wapsipinicon The 3rd annual Lower Wapsipinicon Biver Cleanup Project a conceine of



The 3^{ra} annual Lower Wapsipinicon River Cleanup Project, a canoeing- and camping-based river cleanup event, took place August 22-24, 2008. Thirty volunteers removed an amazing 8.04 net tons of trash from 18 miles of the Wapsipinicon River. The section of river covered weaves through Clinton and Scott Counties, from Allen's Grove Park (north of Donahue) to McCausland Landing.

Volunteers came from all over Iowa including Clinton, Camanche, Davenport, Winterset, Iowa City, Coralville, Des Moines, Garnavillo, Sabula, Walcott, Dixon, DeWitt, Stanwood, Waukee, North Liberty, LeClaire, Marshalltown, and even East Moline and Coal Valley in Illinois. Several river neighbors at Mason Creek and Wildwood were a huge help offering their tractors to haul large items to the dumpsters. It sure saved on muscle exhaustion!

"Folks were jazzed at the chance to get back on the river. Last year the Wapsi was flooded, and our volunteers tackled the backwaters or watershed, which is usually inaccessible. This year started out looking like we would be on backwaters again, but the Wapsi receded fairly quickly. It really feeds your spirit to see people from all over Iowa come together, get involved, and do something to improve the health and beauty of our local river," stated coordinator Melisa Jacobsen.

Chuck Jacobsen, co-coordinator of the Lower Wapsi Cleanup stated, "It's so vital to care for our rivers as water quality is a must have and our greatest natural resource next to clean air. The health of our rivers directly affects all of us."

The program provided free canoes, free camping, low-cost meals, and an evening Mississippi River eco-cruise aboard the Blue Heron led by a Clinton County Conservation Board naturalist.

Sponsors for this event included: Clinton County Conservation Board; Friends of the Wapsi Center, Inc., Dixon, IA; Clinton County Pheasants Forever; G. Baker Distributing, Clinton, IA; Allied Waste Services, Clinton, IA; Clinton County Area Solid Waste Agency; BEHR Metal Recycling, Clinton, IA; MidAmerican Energy Company; and Target, Clinton, IA.

The Lower Wapsipinicon River Cleanup Project is a grassroots organization with a two-fold purpose: to remove trash from the river and dispose of it in an environmentally responsible manner, and to educate the public about the environment and the importance of caring for natural resources. They will be cleaning up a different section of the Lower Wapsipinicon each year in late August. For further information, or to get on a mailing list for next year, please write to LWRCP ~ 2740 160th Avenue ~ Calamus, IA 52729, email: *coordinator@Lowerwapsi cleanup.org*.

Trash by the Numbers: 16,087 lbs. or 8.04 tons

<u>Recyclables</u> ~ 7,415 lbs. (3.71 tons) or 46% of cleanup: 10 lbs. aluminum 265 lbs. glass & plastic 2,040 lbs. tires 5,100 lbs. of mixed scrap metal

Hazardous waste ~ 12 lbs.

Landfill materials ~ 8,660 lbs.

Listing of Identifiable Items

super soaker swimming pool float inflatable pool inflatable bed Hollywood bed frame bed frame mattresses - 2 metal box springs - 3 blanket patio chairs plastic chairs - 3 lawn chairs -12 bottle of popcorn oil gas oven, wood-stove top fire extinguisher coal furnace clinkers insulator

washer, toaster small refrigerator & tray kitchen mixer, metal pot lid big coffee mug set of ceramic dishes fork, ashtray record player office water cooler vacuum cleaner hose leather boot, leather shoe sneakers - 2, knit hat tank top, wrist brace plastic letters H and A artificial tree branches garden posts, 7 fence posts 7 old large rolls fencing 6 large barbed wire rolls large oil barrel metal barrels - 6 metal barrel lid large metal rod large metal pipe PVC pipes bathroom plumbing pipes ceramic tiles electric cable spool ballast, light bulb, socket, wiring lawn mowers - 3 lawn clippers wrench, scythe hammer handle

2 small propane cans

hole punch chain saw case sickle blade box of nails, j-hook pressure tank milk machine attachment horse harness hardware saddle stirrup farm chemical bucket concrete mixer metal roofing 3' x 2' metal grate 3, 5-gal. buckets of scrap metal dock parts anchor, boat fuel tank, PFD, live box duck decoy trap chain, clay pigeon coolers - 3 tarp ice skate bicycle tire inner tube large bicycles - 3 CB radio, hubcap, small metal car car door, hood, headlight, seat various tires - 38 various tires with rims - 30 antique metal tire ring inner tubes - 3 drive & tractor chain truck fuel tank oil filters - 3 trouble light

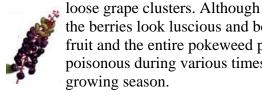


If you've been introduced to the perennial growing plant pokeweed (Phytolocca americana), upon seeing it you won't soon forget it. It is a plant whose young shoots and leaves taste delicious, can help cure illnesses, and if not handled right, can kill you!

It is also known as pokeberry, inkberry, American nightshade, crowberry or cancer jalap. It is found in the country and city areas, along roadsides, in vacant lots, neglected gardens, pastures and woodland

edges. This shrub-like plant grows to a height of 2 - 8 feet tall. It is probably most recognizable in the early fall when the small white flowers transform into plump, dark, purple berries that hang like





the berries look luscious and beautiful, the fruit and the entire pokeweed plant are poisonous during various times of the growing season.

Spring is actually the best time to reap the benefits of pokeweed. Although extreme caution should always be taken when using this plant, young shoots and leaves are edible. Young shoots can be harvested and eaten much like asparagus. The leaves can likewise be cooked and eaten as you would spinach. It has a strong flavor and is widely consumed throughout the southern United States. In the fall, when the berries are in their prime, people have been known to cook the fruits and use them in pokeberry pies as well. When cooking this plant always boil in two changes of water for several minutes each. Those with sensitive stomachs are advised to avoid eating pokeweed. As the plant begins to mature, the stem will take on a subtle purple hue. Once this happens, it is no longer advised that people eat or handle most of the plant.

Toxins within the plant are highest from midsummer through the fall. If taken internally, pokeweed is slow-acting, but causes violent reactions such as: vomiting, cramping, nausea, diarrhea, weakness, spasms, convulsions, paralysis of respiratory organs, and even death. Birds seem to be immune to the poisons and are often seen eating the berries. However, many children have been poisoned by eating the raw fruits, or more specifically, the seeds, which are highly toxic.

Although pokeweed can cause some disturbing side effects when eaten, it has many other uses. The rootstock can be used as a soap substitute by simmering small chunks of it in boiling water. The berries, when prepared carefully, can make an excellent stain for textiles. Ink can also be created from the berries by simply picking the fruit, mashing and straining out the skins and seeds. Many Civil War soldiers used pokeberry ink to write letters and documents. Although it is considered a stain rather than a dye, the result is a rich shade of magenta. Eventually, oxidation will cause the color to convert to a beautiful, rich, earthy brown color.

Pokeweed has a long history of medical uses as well. The plant has potent anti-inflammatory agents in it as well as anti-viral proteins. Some Native Americans and early settlers found that by drying the roots and creating a poultice, pokeweed could be used to treat skin ailments and various fevers.



Crushed roots were also used on skin sores and other skin disorders. Today, the roots are being studied and used to treat several autoimmune diseases such as rheumatoid arthritis, tonsillitis, mumps and bronchitis. Scientists

have also been researching proteins from pokeweed for their astonishing affects on several types of skin cancer and as a potential anti-AIDS drug.

Caution should always be taken when utilizing pokeweed. To take a closer look at this plant, a simple visit to the Wapsi River Center is all that's needed. Pokeweed flourishes along many of the Center's southern trails, so get out, hike and enjoy – carefully!



Wildlife Profile ~ Convergent Lady Beetle

by Cassie Druhl, AmeriCorps Naturalist

Summer was the time to enjoy many of nature's beauties, from the wonderful prairie plants to the diverse array of insects that inhabit it. One of the most common insects in the United States is the lady bird beetle; better known as the ladybug. These insects are easily recognized by their shiny, convex, half-dome-shaped bodies and their short, thick antennae. These critters can be seen in the summer and well into the fall, but it is in the fall when we start to notice them in many other places besides the prairies and woodlands, including our houses.

There are 450 different species of ladybugs in North America, but Iowa's most common species is the convergent lady beetle – *Hippodamia convergens*. The convergent lady beetle can be found in woods, meadows and gardens throughout North America. It is about 10 mm long, and its body is red or orange with up to 13 black spots, which are sometimes enlarged and blended together to form three bands across its back. Its prothorax (the area just in front of the forewings behind the head) is black with two white stripes going vertically across it.

Even though ladybugs can seem annoying at times, perhaps if we knew a little more about their way of life, we would better understand why they decide to inhabit our living areas. In fact, if it weren't for these brightlycolored creatures, many of our local plants would be in danger of being destroyed by other insects, such as scale insects, mealy bugs, mites and, most commonly, aphids. Aphids feed on the juices of leaves, stems and flowers, and are found almost everywhere. Many are major pests which reproduce so rapidly and in such great numbers that they can destroy many plants in an area. Like other ladybugs, the convergent lady beetles are natural enemies of aphids and are great predators.

Even convergent lady beetle larvae hunt and devour insects from day one. A female convergent lady beetle can lay up to 500 eggs over a lifespan of a few months, depositing between five and 30 eggs in a cluster attached to leaves and twigs. Once they emerge from their eggs,



which are oblong and yellow and measure about one millimeter in length, the larvae eat about 25 aphids per day! Many scientists compare the larvae to tiny alligators that are velvety black with eight orange spots. These larvae will grow and molt several times before beginning the pupation stage of complete metamorphosis. A

larva will attach itself to a sheltered place on a plant stem and form a black pupa with red spots. This pupal stage may last from 3-12 days, depending on the temperature. After becoming an adult, the insect's appetite more than doubles, with one adult eating up to 56 aphids per day!

The adult convergent lady beetle also has the ability to fly. Covering its back are hard forewings which protect

the softer underwings and abdomen. These hard wings are actually useless for flying because of their rigidity, so it only flies using its underwings. In order to fly, the beetle will lift its forewings and then spread its underwings.



The convergent lady beetle is a naturally social insect, living among others like itself its entire life. When fall arrives and the air is cooler, the adults start to look for a place to overwinter. They will do this in groups of hundreds of beetles. Usually, a convergent lady beetle will look for fallen leaves or bark to overwinter under, but many times, since there are so many other lady beetles looking for limited shelter, they are forced to look for an overwintering location in "unconventional" spots, such as houses. The convergent lady beetle is sometimes confused with the equally pesky Asian ladybug beetles, an invasive species which also like to invade houses, but these insects are much larger (up to 1-2 cm) and have up to 19 spots on its forewings. Perhaps the most reliable identifying characteristic of the multi-colored Asian lady beetle is the prominent black M-shaped marking behind its head. This mark can look thick, thin or even broken in appearance.

Some places in the United States have actually taken overwintering convergent lady beetles and sold them to other parts of the country because of their ability to control pests without using pesticides. Many of these "insect-aries" are located in California. The beetles can actually be purchased and mailed to areas that don't have as large of a population of beetles, and the new arrivals will help control aphid destruction of crops. When used in the right environments, these ladybugs can be much more effective than traditional herbicides and pesticides.

So, the next time you see a convergent lady beetle or any other kind of ladybug, remember that, although pesky at times, these insects are useful tools in modern agriculture and small-scale gardens.

Living Green: Green Roofs

by Cassie Druhl, AmeriCorps Naturalist



Imagine flying over the booming metropolis of Chicago and, upon looking down at the hundreds of buildings and houses, seeing a sea of green instead of gray blocks. This sea of green would be living roofs that collect

rainwater and act as solar insulators for the buildings. This technology isn't as imaginary as you might think. In fact, green roofing is increasingly becoming more and more popular, from Europe to the United States and beyond. Green roofs are roofs that are partially or completely covered with vegetation and soil planted over a waterproof membrane.

Green roof technology is actually not a new thing. The original "green roofs" were on homes in nineteenth century Iceland, with sod roofs and walls. People did this because of a lack of resources and building materials. This building style evolved into modern earth-home construction. Modern green roof technology was first developed in Germany, where scientists converted a previously unused rooftop on a building to a garden.

This may sound like a simple idea, but successful greenroof technology requires an appreciation and knowledge of plant biology, hydraulic engineering and architecture. If one were to develop a green roof, it would be best to consult a professional before taking matters into one's own hands. However, with the right help, green roofing is very cost-effective and beneficial to your structure and its surroundings.

First of all, the roof has to be strong enough to support the many pounds of soil and plants that will rest on top of it. It also has to be rainproof and windresistant, and have a proper waterdraining system. From the Vegetation bottom up, a green roof must have a waterproof Growing Medium membrane, a root Water & Air Circulation barrier (so the plant Insulation roots don't ruin the roof's Root Barrier structure), a **Roof Material** layer of Roof Structure insulation, a drainage layer, filter fabric

for fine soils, and plant material. Green roofs are the most productive on a flat roof or a roof with up to a 33% grade, with little to no additional structural support. This could be on a new or existing building.

There are two main kinds of green roofs: extensive and intensive. Extensive green roofs are made up of native plants, fruits and vegetables that the owner lets grow freely with little to no interaction (besides the occasional spread of fertilizer and some harvesting). Intensive roofs are actual roof "gardens" that may have actual paths for humans to walk on, or that include other aesthetic pieces like fountains or benches. This may give a building with previously no yard or patio a usable outdoor space for humans to enjoy.

So, besides the fact that the roofs are literally "green" with plant life, how do these roofs benefit the environment? Green roofs help to invest in the protection of our environment by developmental impact on our communities while providing a fresh approach with visually organic architecture. Instead of replacing the natural environment with the built environment, green roofing integrates the two so that each can help sustain each other. As previously mentioned, one can grow fruits and vegetables

on a rooftop and enjoy organically-grown food. Additionally, these roofs represent a living dynamic ecosystem, with habitats for a diversity of wildlife species. The plants growing reduce



stormwater runoff and non-point source pollution. The plants also absorb more carbon dioxide and emit more oxygen into the air, reducing greenhouse gases. Green roofs can filter and bind dust particles and naturally filter airborne toxins.

Along with the green benefits, there are also many economic benefits to green-roof technology. Studies have shown that buildings with green roofs actually lowered heating and cooling costs. These roofs reduce the temperature in the buildings while also providing excellent insulation. In fact, barren cityscapes can be 10 degrees hotter than vegetated areas – the "urban heat island" theory. Green roofs also protect against winter damage and reduce stresses on roofing materials caused by outside elements and weather. According to a study done by the University of Pennsylvania, green roofing can triple a roof's lifetime.

Businesses and industries in Europe have been using green technology for some time, and only recently has the United States begun to use it. The most famous green roofs in the country are on Chicago's city hall building and the Ford Motor Company's River Rouge plant in Dearborn,

Michigan. Each of these roofs is host to thousands of plant species and covers the entire roof. Some examples of green roofs in the Quad Cities include Vander Veer Park's pump house and Davenport's police station.



Green-roof technology can be used on a much smaller scale to teach about the benefits and the science behind it. Some schools have made "test" green roofs on a small section of roof, such as a playhouse, fort or shed, and planted a garden for students to learn about the technology. These "test" green roofs can even be grown on smaller structures like birdhouses. Locally available materials can be used to construct them (such as growing local native soils on slate or shale, recycled bricks or small pieces of concrete. A plastic lining can be used for the bottom of the garden.

The possibilities are endless when it comes to putting a green roof on a structure. Big or small, each step towards green-roof technology positively raises local and regional awareness about environmental health and brings old buildings and cityscapes to life.



Brad Rubino ~ Hi, I have recently started an internship with the Wapsi River Environmental Education Center through the Professional Internship class that is offered at Bettendorf High School. I am a senior at BHS and have lived in Bettendorf my entire life. After I graduate from high school, I plan on attending Western Illinois University. My career interests are in law enforcement and conservation. I enjoy the outdoors and all areas of the environment. I love to hunt, fish and camp. I am currently employed at the Scott County YMCA. I am a youth sports official, and I am in charge of keeping all the sports fields lined. I am really looking forward to all the great learning experiences here at the Wapsi River Center. Thanks for the warm welcome!

Mark Cox, Caretaker & Janet Cox, Volunteer ~ Janet and I are grateful for our year at the Wapsi River Center. We appreciate having had the opportunity to work with many of you and all we learned about our natural environment. We wish you all the best. Thanks for everything!

Scott County AmeriCorps Help at Parkersburg Disaster

by Cassie Druhl and Mary Johnson

You never know what to expect when you come upon a disaster scene. For us, the scene we took in driving into Parkersburg, Iowa, was an empty wasteland sprinkled with pieces of unrecognizable debris. On Memorial Day weekend 2008, the small town of Parkersburg was hit by an F5 tornado that wiped out close to a third of the town. It destroyed many homes and businesses, and left many people cleaning up the massive destruction. Only a handful of people lost their lives that day, and even though the mess was going to take a long time to clean up, the residents never lost their hope and faith in rebuilding their town and lives.

We were called to duty by the Eastern Iowa AmeriCorps Coordinator, Jenny Lawlor, to help organize volunteer groups to help clean up any debris that was leftover from the tornado. We partnered with a local church, as well as other

AmeriCorps members throughout the state. Even though we arrived a monthand-a-half after the tornado, there was still much to be done. We witnessed many structures being rebuilt across town, but many lots still needed large appliances and fallen trees to be removed, as well as raking up pieces of broken glass, stone, drywall and shingles.

During our one-week stay, we were able to help coordinate close to 100 volunteers to help clean out close to 25 lots. Some groups came as far as South Dakota and Minnesota, and even a large group from the town of Parkersburg, West Virginia, came. We did a lot of what was called the "final raking," which was cleaning up the leftover pieces of debris before the rebuilding process began. We were very glad to have the opportunity to work in the Parkersburg area. It opened our eyes to how complete strangers can care very deeply about each other and help each other in any way they can. Parkersburg still needs donations to help get the town back on its feet, but they have shown very steady progress and determination to not let a natural disaster destroy their sense of community.



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RETURN SERVICE REQUESTED



~ ~ ~ ~ Eagle View Eco Center Hours ~ Saturdays ~ 12:30 - 4:30 P.M. ~ ~ ~ ~ ~

The Wapsi River Environmental Education Center is a cooperative project, managed and operated by Scott County Conservation with programming assistance from Clinton County Conservation. The Iowa Natural Heritage Foundation and Quad City Conservation Alliance assisted with the original purchase of the property and fund raising.

Scott County Conservation Board

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Mailing List

If you would like to receive "The W.R.E.N." and do not have internet access, please send a post card to the Wapsi River E. E. Center at the address above.

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