

The W.R.E.N.

Wapsi River Environmental News
Spring 2003

Wapsi River Environmental Education Center

Wapsi River E. E. Center's Teams Course by Greg Wolf, Clinton County Interpretive Naturalist

The center has a new activity in our outdoor environmental education program, the teams course. This activity is valuable because it focuses on teamwork, community building and problem solving. The structured tasks are designed to provide participants with opportunities to cooperate and communicate as a group. Our staff outlines objectives, establishes the rules to be followed, monitors safety procedures and then steps back to observe the group dynamics. After the task is attempted and/or completed by the group, our staff member conducts a reflection session. This session is aimed at expanding awareness of the group process, the realization of new skills, and learning how these can relate to future real world situations.



The goals of teamwork, community building and problem solving are complex topics. Time spent on the teams course will only touch upon

them. Teachers believe these activities are worth the time investment because many feel these issues are not addressed as strongly as math or English. It helps in the classroom to have had the ideas introduced and it helps the individuals socially. These lessons are important to many areas of learning such as environmental education and action, business, health, and physical education, for groups that need to work together, or for groups to better understand their role in building their community. The key ingredient in getting a job done is to be able to problem solve and work as a team. This is one reason businesses and organizations find the course a valuable tool in their training.

As instructors, we try to keep in mind why an activity is chosen. From that we try to build a base for the whole

lesson. For example, most groups choose activities that work on teamwork, others choose to focus on problem solving skills. The lesson goals discussed with the students help define teamwork (listening, sharing ideas, clear communication, cooperation, etc.) or problem solving skills.

The sequence of activities is also important in reaching the goals. Starting with a warm-up activity, the group gets to know each other's names, which is valuable to beginning a session. Choosing activities that build upon each other is very important to achieve. While facilitating the activities, we make certain that we clearly establish the task to be accomplished and safety guidelines to be followed. The group will then solve the problem within those guidelines (rules).

Each activity can address several goals. When planning the sequence, we take into consideration the group size and age, weather conditions, fun factor and time available. By using both the twelve elements of the teams course and prop activities (initiatives), the group can progress through different levels of difficulty.

After a few activities, we briefly reinforce the task and goals of the group. We help the group to understand that although it is important to do the task, it is more important to work on the goals. If a group is having an extremely difficult time with a task, we may need to find out if the guidelines are clear or if the group should decide to continue with the task. After completing all the activities, a group discussion occurs which focuses on tasks, goals and how they can take these ideas back home. This processing session allows the group to share their reflections. Each individual can verbalize their contributions and share his or her thoughts on the group's action.

To give a better idea of what goes on, let's describe a typical lesson. The group begins with an activity that is similar to an icebreaker, such as group juggle where the group is





in a circle and several balls are thrown to individuals in the circle to form a pattern by using the participants' names. After that, the group moves on to a more challenging activity like the A-frame. During this time, our staff watches the group interact with each other and tries to pin down the group's needs and work on them with the proper activities.

The group then progresses to the next level, or continues to work on another element at the same level. Most likely, the group will only complete three or four of the teams course elements. After the A-frame, the group proceeds to something like the maze or electric fence and then, if successful, the spider's web or even the wall. Each group is different and that is what makes this teams course so much fun for the participants.

Finally, keep in mind much of what is presented is

concerned with the techniques and mechanics of the activity. Through observation, practice and discussion, we will be able to identify both the positive and negative actions that occurred during the lesson. With any activity, safety comes first. In the guidelines, we present the safest way of conducting each activity. It is important to follow these standards and contribute formally to their evaluation. Many participants walk away with a sense of accomplishment and hopefully, a different perspective about the other participants. The teams course can be focused on environmental themes if desired, such as the spider's web can be used to touch on the web of life or predator/prey relationships.

If a class, business or any other group is interested in participating in a teams course session, call (563) 847-7202 or (563) 328-3286.



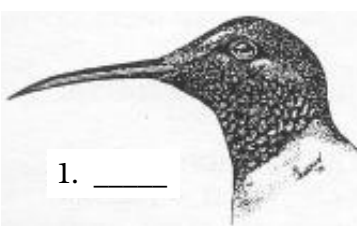
Kids' Corner – Birds, Beaks and the Food They Eat

Where would a Bird be without its Beak?

Many of Iowa's birds have specific adaptations for living in their particular habitat. A bird's beak will vary greatly in shape and size depending on the food eaten. The beak may act like a straw, pair of chopsticks, strainer, net, spear, or a knife and fork.

Pictured below are a few Iowa birds that have beaks specifically adapted for eating the foods they do. See if you can match the type of food listed with the correct beak.

Answers are found at the end of the plant profile article.



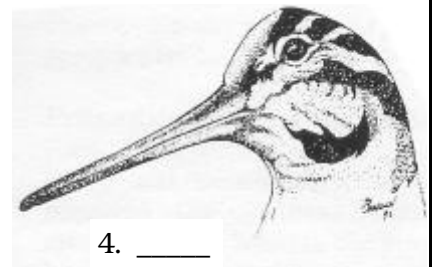
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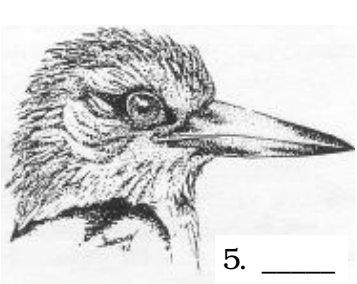
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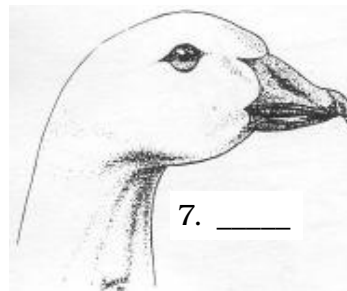
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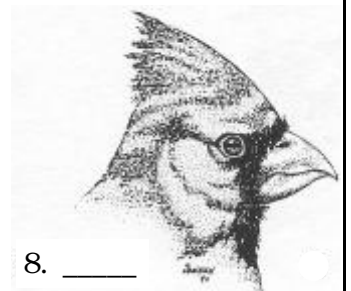
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6. _____



7. _____



8. _____

a. caterpillars, beetles and crawling insects
b. flying insects

c. fish
d. rats, mice and snakes

e. small water plants
f. nectar
g. seeds

h. worms and invertebrates in the mud



Quad City Bald Eagle Days

Bald Eagle Days were held at the QCCA Expo Center on January 10-12. Attendance was down this year. The Wapsi River Center participated by helping with school programs on Friday and by having a booth. We had approximately 7,800 visit the Center's booth on Saturday and Sunday. Our booth's theme this year was local



birds. The Eye Spy display, based on the "I Spy" books, was very popular with both the kids and adults. You had to find the hidden birds and bird food.

School Field Trips

From September-February of this school year, 3,009 students, teachers and parents participated in 54 field trips at the Wapsi River Center. This is less than last year at this time. This decrease was largely due to 2 large schools which alternate coming to the Wapsi Center every other year.

One of the field trips was an overnight trip (secondary school) and they used the dormitory. There was a decrease in winter field trips. One cancellation was due to weather and 3 cancellations for other reasons.

As in past years, we still have quite a few days open in April, but May is filling up fast. If you are a teacher who wants to schedule a field trip or take advantage of our new dormitory and schedule an overnight field trip, give us a call at (563) 328-3286.

Eco Center Hours Change

The Eagle View Eco Center and its interpretive displays will be open (free of charge) Saturdays and Sundays from 1:00 - 5:00 P.M., April 5 - October 25.

Wapsi Center Goes High-tech

The Wapsi River Center is now part of Scott County's phone and computer network system. Last fall a T1 line was run to the Center. Connection to the courthouse was made in January. Up to this time, we were hooked up to the courthouse by standard dial-in connection over

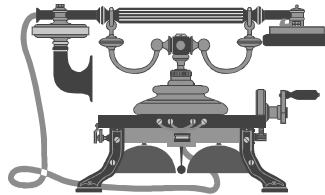


the phone lines, which was extremely slow and unreliable.

With the new computer hookup, we will be able to handle administrative duties such as timesheets, budgets, employee evaluations, payroll, reservations, etc. more efficiently. We will also have internet access. This will save a lot of trips to headquarters and the courthouse.

Since we are now part of the County's phone network, we will have a new phone number. We can dial within the County system using network 4-digit extension numbers. Phone calls to the Illinois side of the Quad Cities will no longer be long distance.

The Wapsi River Center can be found on the County's website. With the new system, we will have a direct connection with the County's webmaster, making it easier to update and change the Center's website. Our newsletter, *The W.R.E.N.*, and our calendar of events is on the website. But we have had to mail or take a disk with the newsletter on it to the courthouse. We are considering offering the newsletter over the internet for those who are interested. This would save us printing and mailing costs.



**Wapsi River
Center Has New
Telephone Number
(563) 328-3286**

Wapsi Center Rental Facilities

Dormitory: The Owl's Nest Dormitory is divided into two large rooms, each capable of sleeping 26 people. Each section has its own shower and restroom facilities. Full dorm rental is \$300 per night. If you have a smaller group, you may rent sections of the dorm as needed. Partial rental options start at \$80. Kitchen and dining/meeting spaces are available in Redtail Lodge.

Meeting and dining facilities: Rustic Redtail Lodge (capacity: 50) has a kitchen, meeting/dining room with gas fireplace, and restrooms. The Eagle View Eco Center has a kitchen, meeting room (capacity: dining, 70; meeting, 100) and restrooms. Meeting room fees are \$50/day and kitchen fees are \$15/day. The \$15 kitchen fee is waived for groups renting any part of dorm and a meeting room.

Cabin: Kestrel Cabin has one bedroom with a queen-size bed and 2 cots, a combination kitchen and living room with a foldout couch, gas heat, air-conditioning, running water and a bathroom with a shower. Rental fee: \$30/day.

MARCH



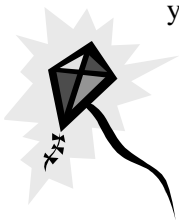
8th ~ Menke Observatory Open House ~ Dusk ~ Wapsi River Center ~ Join us for an astronomy lesson and tour of the Monsignor Menke Observatory.

19th ~ Quad City Native Plant Society Meeting ~ 7:00 P.M. ~ Nahant Marsh Educational Field Station ~ The Quad City Native Plant Society (QCNPS) is a newly formed chapter of the Illinois Native Plant Society. Membership is open to both Illinois and Iowa residents. The chapter will meet every other month on the third Wednesday for a program and short business meeting. Field trips will be scheduled on non-meeting months. Meeting and field trip sites will alternate between the Iowa and Illinois side of the river. Dr. Bohdan Dziadyk, Augustana University biology professor and the QCNPS's president, will present a slide program on "The Native Flora and Ecosystems of Illinois". Membership is open to anyone interested in the study, enjoyment and preservation of native plants and plant communities. The marsh can be found by taking Interstate 280 south to Highway 22 east, then turn off on Wapello Avenue. The entrance to the marsh is on the east side of the road at the railroad tracks.

21st ~ Frog Chorus ~ Dusk ~ Nahant Marsh ~ Nahant Marsh is the location for this musical performance. Participants will be helping with the frog and toad survey that is being used to determine the population inventory of Nahant Marsh. Participants are asked to bring a small flashlight and be sure to dress for the weather. For more details, call Jody at (563) 323-5196.



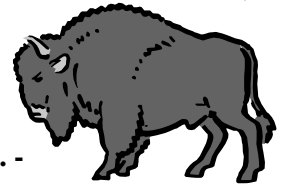
22nd ~ Kite Flying 101 ~ 10:00 A.M. - Noon ~ Wapsi River Center ~ "Up, up and away!" Nothing can make your spirits soar like building and flying your very own kite. Using sticks, string, paper and glue, create a traditional diamond bow kite. After construction, participants will go outside for a test flight. Interested participants are asked to pre-register by March 14, (563) 328-3286. Supply cost is \$1.00 per kite.



27th ~ Nighttime Prairie Burn ~ 7:30 P.M. ~ Wapsi River Center ~ (April 1 is rain/wind date) ~ Roadside biologist Walt Wickham will light up the night sky during this educational program. Fire is a natural part of a prairie's life cycle. Along with a spectacular show, Walt will explain the how, why and when of prairie burns.

SPRING

APRIL



1st ~ Season Opener ~ 9:00 A.M. - 5:00 P.M. ~ Buffalo Bill Cody

Homestead ~ Today is the season opener for the Cody Homestead. The homestead is open 7 days a week from 9:00 A.M. - 5:00 P.M. Admission fee is \$2.00 for adults and free to those 16 years old and younger. The homestead, 28050 230th Ave., is located west of Princeton, IA, off County Road F33.

3rd ~ Woodcock Watch ~ 6:30 P.M. ~ Sherman Park ~ Come watch the dynamic display of the American woodcock at Sherman Park's north entrance. This is our 18th year watching the woodcocks' courtship "Skydance", and they have always treated us to a good show.



10th ~ Nighttime Prairie Burn ~ 8:00 P.M. ~ Whittier Elementary School in Clinton ~ (April 17 is rain/wind date) ~ Once again join roadside biologist Walt Wickham for another lesson on using fire for prairie management. Whittier Elementary School is located at 100 North 13th Street in Clinton, Iowa. Please call (563) 847-7202 for more details.

12th ~ Volunteer Workday ~ 9:00 A.M. - 3:00 P.M. ~ Wapsi River Center ~ Looking for a cure for cabin fever? A little spring cleaning at the Wapsi River Center is sure to do the trick! The Wapsi Center staff will have a variety of tasks to suit all talents and skill levels. Tools and lunch will be provided. Please call (563) 328-3286 to volunteer.

12th ~ Spring Pheasant Festival ~ 4:30 P.M. ~ Wheatland Community Center ~ The Clinton County Chapter of Pheasants Forever is planning a family night of fun at the Wheatland Community Center. They will have lots of games, door prizes, an auction and a butterfly chop dinner served by the Clinton County Pork Producers. Cost is \$10.00 for adults and \$5.00 for kids under 16; people need not be members to attend. Call Dan at (563) 659-9876 for tickets.



15th ~ Waterfowl Migration Cruise ~ 6:00 P.M. ~ Rock Creek Marina & Campground ~ Join Clinton County naturalists for a glimpse of migrating ducks,

EVENTS

geese and other waterfowl inhabiting the backwaters of the Mississippi River. Call (563) 847-7202 to reserve your seat on the Blue Heron pontoon boat today (25 spots available). Cost for the excursion is \$5 for adults, \$3 for children under 16 and free for children under 5.

16th ~ Trumpeter Swan Release ~ 10:00 A.M. ~ Bulger's Hollow ~ Young trumpeter swans will be released into the wild this spring. Join Clinton County naturalists and the Department of Natural Resources for this special event. Bulger's Hollow can be found 2 miles north of Clinton on Highway 67, then east on 170th Street, following the signs.



21st - 27th ~ Earth Week ~ Find your personal way to show the earth you care and celebrate the 33rd anniversary of Earth Week. This year's theme is Explore Nature in Your Neighborhood. Ideas for celebrating Earth Week can be found at the National Wildlife Federation's website: www.nwf.org/nationalwildlifeweek/index.html. Earth Day is April 22.



22nd ~ Spelunking ~ 6:30 P.M. ~ Eden Valley Refuge ~ Take a wild cave tour at Werden's Cave with the Clinton County naturalists. Meet at Eden Valley Nature Center; pre-registration is required, (563) 847-7202.

25th ~ Arbor Day ~ Planting a tree shows faith in the future!

26th ~ Eden Valley Nature Center Opener ~ 1:00 - 4:00 P.M. ~ Eden Valley Refuge ~ The Nature Center will be open from 1:00 - 4:00 P.M. on Saturdays, now through October. A wildflower hike will be held at 1:30 P.M. to explore the spring colors of the woods. As always, we are looking for volunteers to open the Nature Center on Saturdays. No experience is necessary. Call the Clinton County Conservation Board at (563) 847-7202 for information.

26th ~ Moonlight Frog Chorus ~ 7:00 P.M. ~ Wapsi River Center ~ Experience the sounds of the season, in search of the frogs and toads which inhabit the Wapsi River Center. Please bring a flashlight and waterproof footwear.



29th ~ Plant Pressing Workshop ~ 6:30 P.M. ~ Wapsi River Center ~ Decorating with pressed leaves and flowers is a fun and inexpensive way to bring the beauty of the outdoors into your home. Join AmeriCorps naturalist Danielle Slattery to learn some simple and attractive craft ideas and discuss the ethical guidelines for plant collection. All participants will build their own plant press. Participants are asked to pre-register by calling the Wapsi Center at (563) 328-3286. Materials fee - \$2.

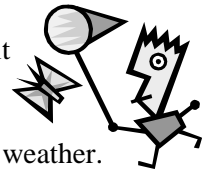


MAY

3rd ~ Nahant Marsh Cleanup Day ~ 9:00 A.M. - Noon ~ Nahant Marsh ~ Join the seasonal volunteer effort to beautify Nahant Marsh. Participants are asked to bring work gloves, old clothes and to wear sturdy shoes or boots.

3rd ~ Wildflower Walk ~ 1:30 P.M. ~ Wapsi River Center ~ Join Bob Bryant on a walk to appreciate the spring woodland wildflowers of the area. Participants should meet at the Eagle View Eco Center.

3rd ~ Moth Hike ~ 8:00 P.M. ~ Wapsi River Center ~ Come and discover some of the amazing nocturnal insects of the Wapsi River Center. Join Michael Granger, Naturalist, for a lesson on lepidopterans. Lights, bed sheets and bait will be used to attract moths for observation and identification. Bring a flashlight and dress appropriately for the weather.



8th ~ Clinton Riverfront Cruise ~ 6:30 P.M. ~ Ninth Avenue Boat Ramp in Clinton ~ Join Clinton County naturalists for a special tour of the Mississippi River in Clinton with a special visit to Lock and Dam 13. Call (563) 847-7202 to reserve your seat on the Blue Heron pontoon boat today (25 spots available). Cost for the excursion is \$5 for adults, \$3 for children under 16 and free for children under 5. Meet at the Ninth Avenue boat ramp in Clinton.



10th ~ Bird Hike ~ 8:00 A.M. ~ Wapsi River Center ~ This hike is in conjunction with the Iowa & National Bird Counts. We will be surveying the Wapsi Center and surrounding areas. Call the Wapsi Center if you would like to help, (563) 328-3286.

10th ~ The Night Shift ~ 7:30 P.M. ~ Wapsi River Center ~ The Wapsi Center is home to Iowa's three most-common owls – the great horned, screech and barred owls. Learn more about Mother Nature's night

shift with us as we call the raptors. Participants should bring a small flashlight.

17th ~ Night Hike ~ Dusk ~ Eden Valley Refuge ~ Ranger Chip Brown will lead participants on an after-dark tour of the refuge's murkiest corners. Meet at the Eden Valley Nature Center and bring a small flashlight.



20th ~ Mississippi Backwaters Canoeing ~ 6:00 P.M. ~ Rock Creek Marina and Campground ~ The



Mississippi River is a great natural resource. Experience it firsthand in one of C.C.C.B.'s canoes. This trip will travel some of the backwater sloughs near the park.

Call (563) 847-7202 to reserve a free canoe.

21st ~ Quad City Native Plant Society Meeting ~ 7:00 P.M. ~ Location and programming is pending. Contact Bob Bryant for details at (563) 328-3286.

24th & 25th ~ Rock Creek Marina Spring Celebration ~ Rock Creek Marina & Campground ~ To celebrate a new season at the Rock Creek Marina & Campground, a variety of activities will be taking place this Memorial Day Weekend. There will be free canoeing for campers and park visitors. Every half-hour, Blue Heron Eco-cruises will also be available, starting at 1:00 P.M. on Saturday. Please call (563) 847-7202 to sign up for the Eco-cruises. The camp store will have 25-cent hot dogs and chips available. Free movies will be held at dusk, at the pavilion, wrapping up this fun family event!

25th & 26th ~ Heritage Days ~ 11:00 A.M. - 5:00 P.M. ~ Dan Nagle Walnut Grove Pioneer Village ~ Enjoy the sights, sounds and smells of yesteryear! The past will come to life at the Village as interpreters and actors recreate pioneer life. There will be pioneer craft demonstrations, folk music and a gun show performed by



the Wapsi Wranglers. Dan Nagle Walnut Grove Pioneer Village is located on the north side of Scott County Park. Admission is \$2.00 for adults and \$1.00 for children.

31st ~ Explore Nature Series ~ 1:00 P.M. ~ Mockridge Preserve ~ Come join the first installment of a series of hikes exploring local natural areas. Mockridge Preserve is a unique area for discovering wildflowers, birds and other interesting natural features. Take Y44 north of Calamus, then take 215th Street west to 160th Avenue and turn north. Mockridge Preserve will be 1/4 of a mile on the left.



JUNE

5th ~ Summer Sunset Cruises ~ 7:00 P.M. ~ Rock Creek Marina and Campground ~ All aboard! The Clinton County Conservation Board's new Blue Heron pontoon boat will be taking excursions on the Mississippi backwaters every Thursday evening. Please call (563) 847-7202 to reserve a spot, as space is limited to 25 people. Cost for the excursion is \$5 for adults, \$3 for children under 16 and free for children under 5. Children under 16 must be accompanied by an adult.

6th - 8th ~ Free Fishing Days ~ Let's go fishing! During these three days, Iowa residents may fish and possess fish without a fishing license.



7th ~ Saturday Night at the Movies ~ Dusk ~ Eden Valley Refuge ~ The Nature Center at Eden Valley is having a series of nature movies shown on the big screen. Check the local media for details.

9th - 13th ~ Young Pioneers Day Camp ~ 9:00 A.M. - 3:00 P.M. ~ Dan Nagle Walnut Grove Pioneer Village ~ Laura Ingalls Wilder Week will kick-off eight, one-week day camps hosted by the Dan Nagle Walnut Grove Pioneer Village. Learn what life was like in the pioneer days. Experience how Laura Ingalls lived by spending time in an 1800s cabin and one-room school. Enjoy crafts such as soap decorating, candle dipping and much more. This day camp is geared for children 6-11 years of age. Contact Tara Youngers at (563) 328-3283 for registration information.



16th - 21st ~ Young Pioneers Day Camp ~ 9:00 A.M. - 3:00 P.M. ~ Dan Nagle Walnut Grove Pioneer Village ~ Ecology Week is next in a series of eight, one-week camps hosted by the Dan Nagle Walnut Grove Pioneer Village. Learn about the land, water and wildlife. An exploratory visit to the Maquoketa Caves will be included. Activities will include nature crafts, plant and wildlife identification, recycling and our role with nature. This day camp is geared for children 6-11 years of age. Contact Tara Youngers at (563) 328-3283 for more information.



21st ~ Saturday Night at the Movies ~ Dusk ~ Rock Creek Marina & Campground ~ Family nature-theme movies will be shown. Popcorn is free of charge to guests in the pavilion.

23rd - 26th ~ EDIWILD 2003 ~ Educators' Workshop ~ See special section on following page.

WORKSHOPS AT THE WAPSI

EDIWILD 2003

“Environmental Stewardship: Making the Right Decisions”

Monday, June 23 - Thursday, June 26

EDIWILD (Educators in the Wild) is a 4-day teachers' workshop (including evening activities) to facilitate the incorporation of environmental education into the school curriculum. The workshop will use an interdisciplinary approach of teaching and will emphasize environmental issues.

- 7 Workshop sites include: Nahant Marsh Field Station, Rock Creek Marina and Campground, Wapsi River Environmental Education Center.
- 7 Activities and topics include: eco-cruise on the Mississippi River, recycling/composting center tour, teams course, invasive species, land use issues, pollution problems and much more.
- 7 Overnight accommodations will be available at

the Wapsi River Center's Owl's Nest Dormitory. You do not have to stay overnight on Monday and Tuesday; however, participants are encouraged to stay overnight on Wednesday.

- 7 Continuing education credit through Drake University and relicensure credit through the AEA 9 will be available for those interested.
- 7 Cost for the workshop will be \$60. This does not include continuing education credit or relicensure credit costs.

If you are interested, please contact the Wapsi River Center at (563) 328-3286. We will send you an EDIWILD brochure, which will include a registration form, daily activities and other workshop details.

Women in the Wild

Saturday, July 12 - Sunday, July 13

It's time once again for a Women in the Wild workshop. The goal of the workshop is to introduce a variety of seasonal activities and topics to women. The two-day, overnight workshop will be held from 7:30 A.M. Saturday, July 12, through 4:30 P.M. Sunday, July 13.

The workshop will take place at the Wapsi River Environmental Education Center and several satellite areas. Women of all ages are welcome to attend, but must be 12 years of age by the workshop date.

This summer's workshop has a variety of interesting topics and activities to explore. Some events taking place during the workshop include: canoeing, fishing, tour of pearl button museum, astronomy, night hike, eco-tourism, packing light and preserving memories. Many more exciting events are being planned, so check your calendars and consider registering early. Call (563) 328-3286 for further information ~ ask for Lisa.



Wildlife Profile: The Salamanders of Iowa

"Spring Stirrings" ~ by Stephanie Byers, Americorp Naturalist

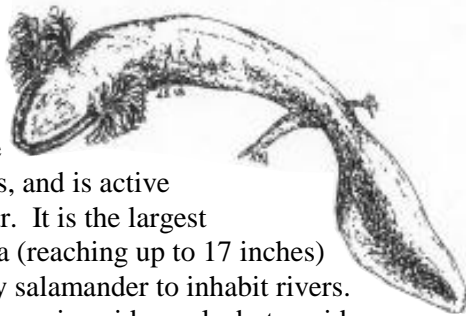
I like to think of our salamanders as the silent harbingers of spring, slowly creeping from winter burrows in the cool spring night, ambling their way by instinct or memory to breeding ponds still cool with the remnants of winter, to begin the annual courtship dance. Theirs is not the way of the spring peeper or bullfrog, having no need for such extravagant self-promotion.

As amphibians, they share certain characteristics with their relatives the frogs, such as external thermal regulation (cold-blooded), smooth, moist skin, and a divided life cycle. Eggs are laid in water, and larval salamanders are aquatic, metamorphosing into terrestrial adults (for most species) later in the summer. However, they are less visible than our frogs, having no calling ability and preferring to remain hidden amongst the leaf litter or burrowed underground during the day. Their courtship rituals begin in early March, when frogs are still clutched in winter's grip, and are not deterred by ice yet remaining. Underwater in their breeding ponds, males may congregate around a single female and engage in ritualized dance movements, until the female's excited movements single-out a male to swim forward and deposit from his cloaca (the posterior vent used for both reproduction and waste-removal) a spermatophore (a sperm package). The female follows and picks this up into her cloaca, allowing fertilization of her eggs.

There are five species of salamanders in Iowa, each with unique permutations of the general reproductive strategy. The mudpuppy,

Necturus maculosus, is

fully aquatic as an adult, retaining the larval external gills, and is active throughout the year. It is the largest salamander in Iowa (reaching up to 17 inches) and also is the only salamander to inhabit rivers. Other species will use riverside pools, but avoid flowing water. This salamander is endangered in Iowa due to habitat degradation such as siltation.



Mudpuppies gather in large numbers in the fall to mate in shallow, rocky areas. The eggs are fertilized at that time, but are not laid until the following spring. The female builds a nest cavity under a submerged rock, with the opening facing downstream, and deposits 75-100 eggs. She guards these eggs until hatching, which may be a

few weeks or more than thirty days, depending on the water temperature.

The central newt, *Notophthalmus viridescens*, has a bit more complicated life cycle; upon metamorphosing from an aquatic larva, this species may transform into a terrestrial eft or an aquatic newt. The eft is considered



an intermediate stage whose development hinges upon whether the pond remains wet or dries later in summer. The eft and newt have regenerative

abilities in regards to limb or tail loss, and remain able to switch between the eft and newt stages as conditions require throughout life. The adult forms secrete toxins in their skin, deterring predators, but the eggs are not toxic and are thus subject to fish predation. Newts are rare in ponds with fish, and are endangered in Iowa due to loss of unpolluted woodland pools.

Newts are active all year, and in late fall males develop black protrusions on the inner thighs and ends of their toes, to better clasp the females. Breeding occurs in early spring, at which time the male newt will swim after the female, mount her back and clasp her body with his hind legs (this position is called "amplexus" and is also performed by frogs). He fans his tail towards her, which may send a stimulating odor from his cloaca to her, encouraging her to continue the mating. When the female begins to fan her tail, the male thrashes around, leaving the female and moving forward; whereupon, he begins to make rapid undulations. The female will follow, and if she touches his tail with her head, the male will be induced to deposit his spermatophore. The 200-375 eggs that each female lays will be deposited singly, surrounded by a jelly-like substance, and attached to submerged vegetation. The eggs hatch 20-40 days later.

The tiger salamander, *Ambystoma tigrinum*, is Iowa's most common salamander, perhaps encouraged by the creation of farm ponds that dry in late summer. Tiger salamander populations can not tolerate fish predation, so require fish-free ponds. This salamander follows the typical amphibian life cycle. Ground thawing, warm weather and warm evening rains are all thought to encourage the tiger salamander to come aboveground in early spring and migrate towards a breeding pond. After the courtship ritual, females lay up to 1000 eggs in

clumps of 100, attaching each clump to submerged vegetation. The eggs hatch in a few weeks.

The smallmouth salamander, *Ambystoma texanum*, like other Ambystomatids, breeds in early spring, sometimes while ice remains in the ponds. A breeding pair may engage in amplexus while mating. The female will lay 300-800 eggs, which hatch in 3-4 weeks. Loss of small woodland pools may be of concern regarding the population of smallmouth salamanders in Iowa.

The blue-spotted salamander, *Ambystoma laterale*, is endangered in Iowa, known to be only in Blackhawk and Linn Counties, where the populations are under study. This species is similar in diet and habit to other Ambystomatids, though has the unique ability to defend itself by raising its tail, wiggling it and exuding a white, foul-tasting sticky substance from glands at the base of the tail. The blue-spotted salamanders arrive at their breeding ponds early, relative to other species, and this may be due to "hibernation" under rocks and logs near the ponds. In the mating ritual, the male clasps the

female behind her forelimbs, and rubs his snout over her head. This is accompanied by tail thrashing, alternating with times of rest at the bottom of the pond. This usually lasts 1-2 hours. When the male finally disengages, he crawls over the female's head, whereupon she follows with her nose close to his cloaca. The male may deposit 1-3 spermatophores, and can produce up to 21 in one season, allowing multiple matings. The eggs are laid in small clusters (1-35 eggs) attached to vegetation at the bottom of the pond, and hatch in 3-4 weeks.



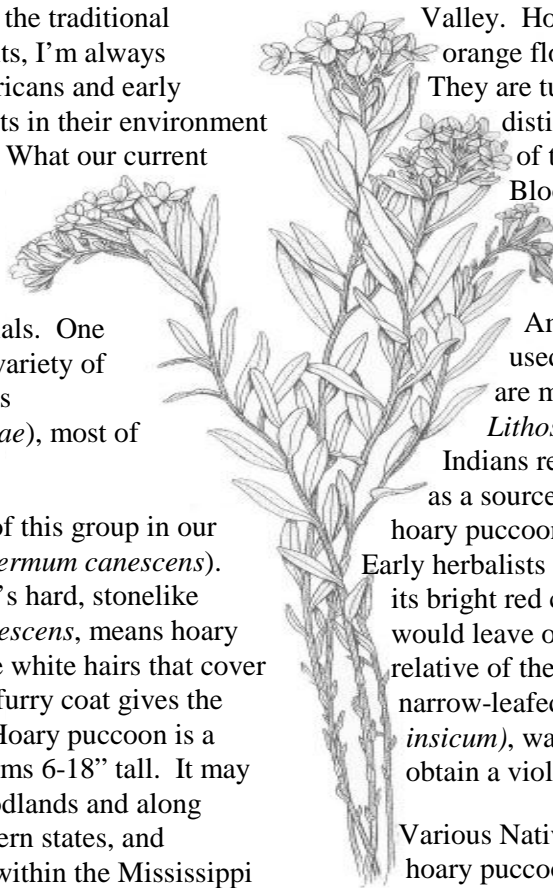
It is this intricate, ritualized intimacy of all the salamander species that truly illustrates spring. While the first new buds are opening and the last of the snow and ice are trickling down into the ground to be forgotten, our salamanders are performing the quiet dances of nature that so often go ignored.

Plant Profile : Hoary Puccoon

by Danielle Slattery, Americorp Naturalist

When leafing through books about the traditional medicinal and cultural uses of plants, I'm always amazed by how much Native Americans and early settlers had to know about the plants in their environment as a matter of day-to-day survival. What our current culture regards as just another green plant – not much different from the rest – was once recognized as a source of food, medicine or other necessary materials. One group of plants that was used in a variety of ways was the members of the genus *Lithospermum* (family *Boraginaceae*), most of which are known as puccoons.

The most common representative of this group in our area is the hoary puccoon (*Lithospermum canescens*). The genus name refers to the plant's hard, stonelike seeds, while the species name, *canescens*, means hoary or whitish – a reference to the little white hairs that cover its stems and narrow leaves. This furry coat gives the foliage a gray-green appearance. Hoary puccoon is a perennial with rarely branching stems 6-18" tall. It may be found on dry prairies, open woodlands and along roadsides throughout the northeastern states, and extending into the southern states within the Mississippi



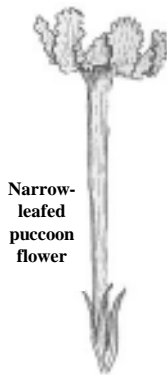
Valley. Hoary puccoon bears bright yellow-orange flowers measuring about ½" across. They are tubular in shape, opening into five distinct lobes. Start looking for clusters of these cheerful flowers in mid-May. Blooming will continue until around the end of June.

The word "puccoon" is a Native American name for several plants used to produce dyes, some of which are members of the genus *Lithospermum*. Omaha and Chippewa Indians relied on the roots of hoary puccoon as a source of high-quality red dye. The hoary puccoon has a very deep, straight taproot. Early herbalists could easily recognize the root by its bright red color and the purplish stain its juice would leave on hands and clothing. A close relative of the hoary puccoon, the fringed or narrow-leafed puccoon (*Lithospermum insicum*), was used by Native Americans to obtain a violet-colored dye.

Various Native American groups found the hoary puccoon to be useful in many different

facets of life. The dried, powdered root of the hoary puccoon was used for treating swellings and aches, anointing joints, and painting heads and garments. Children of the Omaha and Ponca tribes enjoyed chewing a bit of puccoon root along with their “chewing gum” derived from the compass plant. The root juice turned their gum bright red. If bright yellow gum were preferred, the puccoon flowers would be chewed instead. Records of early settlers indicate that the Menomoni valued the smooth, cream-colored seeds of the hoary puccoon as ceremonial beads. No specific information about which ceremony or what particular use of the seeds has been recorded, perhaps because the Menomoni considered it inappropriate to share such details with European settlers.

Other members of the genus *Lithospermum* were also used for a variety of purposes. The previously mentioned fringed, or narrow-leafed, puccoon was used to make incense by the Blackfeet, as a treatment for lung hemorrhages by the Lakota and as a cure for diarrhea by the Kiowa-Apaches. The Cheyenne used the narrow-leafed puccoon to cure paralysis and as a stimulant for tired people who needed to stay awake. To these ends, the pulverized plant was either rubbed onto the paralyzed limb or spit into the face of the sleepy individual. It’s believed that the tiny hairs covering the plant caused a



Narrow-leafed puccoon flower

prickling sensation against the skin, which enlivened dead limbs and prevented nodding-off.

The stone seed plant (*L. rudemale*), not native to Iowa, cannot be credited with as great a diversity of uses as the hoary or narrow-leafed puccoons, but it was ingested consistently by women of Shoshoni, Assiniboin and possibly Comanche tribes as a method of birth control. Shoshoni women drank a cold-water infusion of stone seed every day for six months in hopes of ensuring permanent sterility. It isn’t known whether that practice was entirely successful, but the results of recent scientific research indicate that the use of stone seed as birth control was definitely based on more than superstition. Lab tests have revealed that stone seed extracts contain natural estrogen and suppress the release of gonadotropins from the pituitary gland. Other tests involving rats and rabbits have also demonstrated the contraceptive properties of *L. rudemale*.

The next time I’m in need of some nice red dye or suffering from an achy, swollen ankle, I probably won’t hit the trails in search of hoary puccoon. But if I do happen to stumble across this attractive little plant sometime this spring, I know my appreciation of its loveliness will be enhanced by knowing that many years ago folks might have sought it out for such purposes. It’s pretty neat learning about all the forgotten ways those anonymous green plants out there have influenced and benefited our own species throughout history.

Scott County Pool & Beach Facilities

Scott County Park Pool

Open: Memorial Day Weekend
 Re-open: Early June - Late August
 Hours: Weekdays: Noon - 8:00 P.M.
 Weekends: 10:00 A.M. - 8:00 P.M.
 Open: Labor Day Weekend
 Scott County Park Pool Learn-to-Swim Program
 Registration: Will start in mid-April and continue after pool opens ~ Call (563) 328-3282

West Lake Park Beach & Concessions

Food and beverages will be available at the beach and the boathouse. Paddle boats, fitness water bikes and 2-

man fishing boats are available for rent at the boathouse. Bait is also available at the boathouse.

Beach/Concession: Open: Memorial Day - Labor Day
 Hours: 11:00 A.M. - 8:00 P.M.

Boathouse/Concession:
 May 1 (weather permitting) -
 Memorial Day:
 Weekends: 10:00 A.M. -
 8:00 P.M.

After Memorial Day:
 Weekdays & Weekends:
 10:00 A.M. - 8:00 P.M.



Answers to Kids' Corner ~ 1. f, 2. d, 3. a, 4. h, 5. c, 6. b, 7. e, 8. g

The Friends of the Wapsi Center, Inc. Seeks New Members

The purpose of the Friends of the Wapsi Center, Inc., is to support the ongoing activities of the Wapsi River Center. We do this by volunteering to help with school groups, interpretive activities throughout the year, donating maintenance skills and in hosting the Eagle View Eco Center on weekends. We operate a gift shop housed at the Eco Center which offers a wide variety of items ranging from books and other educational materials to home decorating items.

As a tax-exempt organization, we can raise funds which the Wapsi River Center uses for special projects and environmental education material purchases. The Friends Group also pitches in to help with special events like the Spring and Fall Volunteer Workdays, Ecology Day, Bald Eagle Days and various workshops.

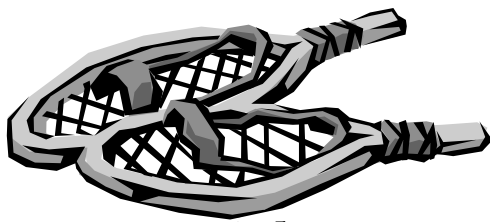
The Friends are a small but enthusiastic group of citizens just like you. Will you join us? You are invited to attend our monthly meeting usually on the third Thursday at 7:00 P.M. The Eagle View Eco Center is the site for meetings during the months of March thru October, and Gander Mountain is the site for meetings November thru February. Drop-ins are welcome! Call the Wapsi River Center for more information, (563) 328-3286. You may join by sending the form below to: Carol Rogers, Treasurer ~ 1103 E. Garfield ~ Davenport, IA 52803.

YES! I want to join the Friends' Group.

Enclosed is my contribution * to the Friends of the Wapsi Center, Inc.

Name _____ \$ 5.00 newsletter
 Address _____ \$15.00 contributing member
 City _____ State ____ Zip _____ \$25.00 supporting member

* Contributions to the Friends are tax-deductible to the extent allowed by law.



**Congratulations
to Willie Fields
of Cedar Rapids,
the winner of the
Alaskan snowshoes!**

**In Appreciation of Your
Support of the Wapsi
River Center**

Mary Tofilon
 Jeanne Bryant
 Betty Hogge
 Mr. & Mrs. Varcho
 Erma Wiszmann
 Cealia Bramm
 Sheri Pennock
 Pete Tofilon
 K. J. Rebarock



Matt Willis
 Doris Bell
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Painted Lady Caterpillar

For All Seasons

The Wapsi River Environmental Education Center is a joint project between the Scott and Clinton County Conservation Boards. "The W.R.E.N." is published quarterly by the Wapsi River Environmental Education Center and the Scott County Conservation Board.

Scott County Conservation Board

Members:

John "Skip" O'Donnell Rich Mohr
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Roger Kean

Phone Numbers

Wapsi River Environmental Education Center
(563) 328-3286

Scott County Conservation Board
(563) 328-3280

Clinton County Conservation Board
(563) 847-7202

Wapsi River Environmental Education Center Staff

Scott County:

Bob Bryant, Director/Naturalist
Mike Granger, Naturalist
Lisa Gerwulf, Assistant Naturalist

Clinton County:

Mark Roberts, E. E. Coordinator
Greg Wolf, Interpretative Naturalist

Mailing List

If you would like to receive "The W.R.E.N." free of charge, please send a post card to the Wapsi River E. E.

The Scott County Conservation Board in the provision of services and facilities to the public does not discriminate against anyone on the basis of race, color, sex, creed, national origin, age or handicap. If anyone believes they have been subject to discrimination, they may file a complaint alleging discrimination with either the Scott County Conservation Board or the Office of Equal Opportunity, U.S. Department of Interior, Washington D.C. 20240.