

Teacher Guides were made by teachers for teachers as a collaborative project of EVSC, USI, and WNS. Special thanks to the authors of this Guide: EVSC Teachers Kevin Moesner & Suzanne Glass Foster and to the authors of the bibliography: USI Dept. of Teacher Education faculty Dr. Joyce Gulley and Dr. Jeff Thomas.

Program: WET & WILD

Target Audience: Grades 6-12

Description: Take a wild water expedition in a canoe on a local waterway to get a different perspective of your world. Wildlife will move within your sights to showcase the diversity of life residing around our waterways, and their importance as wildlife homes and highways. Investigate the characteristics of the water to determine its quality and our human impacts to the water and wildlife.

Teacher Guide Contents:

1. Program Agenda & Synopsis
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Program Agenda:

Time Needed: 2.5 - 3.5 hrs. +/-

I. WELCOME & INTRO

20 min.

A. Agenda and Safety

B. Canoe Launch

II. PADDLE AND PROGRAM

2-3hrs.

III. CONCLUSION & CANOE TAKEOUT

20 min.

Program Synopsis:

Students will be guided down the creek or other waterway to experience the sensation of being on water and witness the sights, sounds, and other characteristics of the riparian area. Guides will point out any wildlife species seen possibly including birds, fish, insects, and mammals and any signs of them such as animal tracks, trails, dens. Students may be introduced to more specific lessons about the riparian system, depending on the time allotted and the standards to be addressed. Students may get out of the canoes to sample water with nets, collection containers, and ID guides to identify the living things within it. Students may assess the water quality using the found biological indicators and chemical tests including pH, dissolved oxygen, biological oxygen demand, turbidity, and nutrient levels. Students may also discuss water pollution and human water/ land uses for the waterway they are on, and debate impacts to its quality and wildlife.

Logistics: Canoe programs are conducted on a local waterway, typically the Pigeon Creek or the Bluegrass Fish and Wildlife Area. Program location and length are determined based on weather and water levels. Canoe programs are led by an American Canoe Association Certified canoe guide and are assisted by several adult volunteers trained and experienced in canoeing methods and safety. All equipment (canoes, paddles, life jackets) is provided for all participants. Transportation may be available for small groups.

Objectives: Students will be able to....

1. Describe riparian habitats and their adjacent land uses.
2. Observe, identify, or predict wildlife species in riparian habitats.
3. Recognize the importance of riparian systems to people and wildlife.
 - a. Habitat, wildlife corridor, water source, water storage
4. Define water quality and pollution, and determine methods to assess water quality.
5. Understand the human impacts to quality of water habitats.
 - a. Pollution, alteration, invasive species
6. Better understand value of natural systems and gain enthusiasm for their conservation.
7. Have Fun.

Indiana Academic Science Standards Summary: This program is widely applicable to many academic standards at many levels (see below for a partial listing). We customize the program content to suit the grade level, choice of academic standards, and teacher/student goals. Please specify the specific standards you would like for us to emphasize and the type of experience you are seeking for your students.

Indiana Academic Science Standards Codes:

Grade 6

- 6.4.3 – Describe some of the great variety of body plans and internal structures animals and plants have that contribute to their being able to make or find food and reproduce.
- 6.4.8 – Explain that in all environments, such as freshwater, marine, forest, desert, grassland, mountain, and others, organisms with similar needs may compete with one another for resources, including food, space, water, air, and shelter. Note that in any environment, the growth and survival of organisms depend on the physical condition.
- 6.1.2 – Give examples of different ways scientists investigate natural phenomena and identify processes all scientists use, such as collection of relevant evidence, the use of logical reasoning, and the application of imagination in devising hypotheses and explanations, in order to make sense of the evidence.
- 6.3.8 – Explain that fresh water, limited in supply and uneven in distribution, is essential for life and also for most industrial processes. Understand that this resource can be depleted or polluted, making it unavailable or unsuitable for life.
- 6.3.16 – Explain that human activities, such as reducing the amount of forest cover, increasing the amount and variety of chemicals released into the atmosphere, and farming intensively, have changed the capacity of the environment to support some life forms.
- 6.4.9 – Recognize and explain that two types of organisms may interact in a competitive or cooperative relationship, such as producer/consumer, predator/prey, or parasite/host.
- 6.4.10 – Describe how life on Earth depends on energy from the sun.

Grade 7

- 7.1.1 – Recognize and explain that when similar investigations give different results, the scientific challenge is to judge whether the differences are trivial or significant, which often takes further studies to decide.
- 7.1.4 – Describe that different explanations can be given for the same evidence, and it is not always possible to tell which one is correct without further inquiry.
- 7.1.8 – Explain that technologies often have drawbacks as well as benefits. Consider a technology, such as the use of pesticides, which helps some organisms but may hurt others, either deliberately or inadvertently.
- 7.4.8 – Describe how organisms that eat plants break down the plant structures to produce the materials and energy that they need to survive, and in turn, how they are consumed by other organisms.

Grade 8

- 8.4.5 – Explain that energy can be transferred from one form to another in living things.
- 8.4.8 – Describe how environmental conditions affect the survival of individual organisms and how entire species may prosper in spite of the poor survivability or bad fortune of individuals.

Biology

- B.1.37- Explain that the amount of life any environment can support is limited by the available energy, water, oxygen, and minerals, and by the ability of the ecosystems to recycle the residue of dead organic materials. Recognize, therefore, that human activities and technology can change the flow and reduce the fertility of the land.
- B.1.38- Understand and explain the significance of the introduction of species, such as zebra mussels, into American waterways, and describe the consequent harm to native species and the environment in general.
- B.1.41- Recognize that and describe how human beings are part of Earth's ecosystems. Note that human activities can, deliberately or inadvertently, alter the equilibrium in ecosystems.
- B.1.43 – Understand that and describe how organisms are influenced by a particular combination of living and non-living components of the environment.
- B.1.46 – Recognize and describe that a great diversity of species increases the chance that at least some living things will survive in the face of large changes in the environment.
- Env.1.4- Understand and explain that human beings are part of Earth's ecosystems and give examples of how human activities can, deliberately or inadvertently, alter ecosystems.

Environmental Science

- Env.1.12 – Explain the process of succession, both primary and secondary, in terrestrial and aquatic ecosystems.
- Env.1.21 – Differentiate between renewable and non-renewable resources, and compare and contrast the pros and cons of using non-renewable resources.
- Env.1.23 – Recognize and describe the role of natural resources in providing raw materials for an industrial society.

Env.1.34- Differentiate between natural pollution and pollution caused by humans and give examples of each. (Students will learn about different forms of pollution. Examples of each form will be shown and discussed throughout the program.)

STEM Correlations:

- **Science:** refer to standards listed above
- **Technology:** water quality kits and testing equipment, charts, online databases and entry, maps, canoes
- **Engineering:** discussion of “blue trail”, bridges, sewer system/ combined sewer overflows, making predictions about water quality parameters and testing
- **Mathematics:** measurement of chemical & biological units regarding water quality parameters, assessment water velocity & volume / creek discharge, data database entry

English/Language Arts Correlations:

Scientific process methods & reporting, making predictions, following directions, inferring conclusions

Program Preparation:

Students will get more out of the program if they have been introduced to the following vocabulary and concepts prior to the program visit.

Vocabulary & Concepts:

- Riparian zone – ecosystems located along the banks of rivers, streams, creeks, or any other water networks
 - All habitats must have the following elements, arranged to suit the needs of the species: Food, Water, Shelter, Space
- Wildlife corridor – an area of habitat connecting wildlife populations separated by human activities (such as roads, development, or logging)
- Watershed – the area of land that drains surface water runoff to a body of water.
- Tributary – a stream that flows to a larger stream or other body of water
- Pollution
 - Point Source – permitted type of pollution such as wastewater treatment plants, industrial waste, combine sewage overflows, etc
 - Nonpoint source – broadly acquired pollution over a large land area, caused by surface runoff picking up pollutants from the land as it flows to the lakes and rivers
- Water quality – chemical, physical and biological characteristics of water, a measure of the condition of water relative to the requirements of one or more species
- Water quality indicators – indicators of water purity or pollution. Examples are turbidity, dissolved oxygen, dissolved solids, pH, nutrient levels (nitrogen, phosphorous), and diversity of living things. Biological indicators (diversity of living things) are most reliable over time.
- Macro-invertebrates – animals that have no backbone, are visible with the naked eye and spend all or part of their life in water

- Turbidity – a measure of the degree to which the water loses its transparency due to the presence of suspended particulates.
- Combined sewer overflow – caused by large variations in flow between dry and wet weather in sewer systems that collect sanitary sewage and stormwater runoff in a single pipe system

Program Follow Up:

- Review vocabulary & concepts. (*also see Appendix A for talking points - below*)
- Lead students to discuss / share their field trip experiences
- Discuss & debate water quality experiments, results, and impacts

Activity suggestions:

- Discuss water testing results and debate quality (level of pollution) of that water. Utilize macroinvertebrate ID charts to identify and quantify diversity of insects found. Review chemistry concepts to discuss chemical tests and understand what they mean.
- Utilize maps of local waterways and watersheds to assess and discuss land uses surrounding the body of water and how they may be impacting water quality and wildlife survival, especially in our urban area.
- Enroll your class into a Hoosier Riverwatch Volunteer water quality testing program and ask your students to enter their data. See web link <http://www.hoosieriverwatch.com/>
- Explore the Hoosier Riverwatch online database and assess water quality statewide.
 - Guide students to: <http://www.hoosieriverwatch.com/>
 - Click on DATAWATCH
 - Go to EXPLORE SITE tab
 - Click on area of state that Pigeon Creek is on. Determine the route and sampling site. Add site to favorites (top right button)
 - Click on CHART PARAMETER AVERAGE. Select all (whole watershed) Select different test and observe charts
 - Click on COMPARE DATA
 - Preselect the parameter for students to compare
 - Have students make inferences about parameters they are comparing
 - Example:
 - Select D.O. and E. Coli and click on CHART,
 - Click on SAVE CHART
 - Infer what the chart tells you about these levels
- Invite a representative from the Health Department, Water and Sewer Utility, County Soil & Water Conservation District, or other water-related agency to expand student's knowledge and perspective of water issues.
- Rent the WNS Water Quality Traveling Nature Trunk or other applicably themed trunk for your classroom.

- Utilize one of the many supplemental lesson plans available on our website: www.wesselmannaturesociety.org > Educators (top tab). Most programs have completed supplements but some are still in development.

Bibliography:

ABOUT HABITATS: WETLANDS. Cathryn Sill. Peachtree, 2013. ISBN 1561456896. Gorgeous artwork brings the story of the wetlands to life. This book would be an excellent read aloud or resource book. (Note: This book is not available in the EVPL, but it is readily available at bookstores.)

BIODIVERSITY OF WETLANDS. Greg Pyers. Marshall Cavenish Books, 2012. ISBN 9781608705337. EVPL Call Number 577.68 PYERS. This book presents the variety of living things found in a wetland and the delicate balance within.

A CITIZEN'S GUIDE TO ECOLOGY. Lawrence Slodbodkin. Oxford University Press, 2003. ISBN 0195162862. EVPL Call Number 577 SLOBO. Provides an in-depth look at human interaction with various ecosystems.

ECOLOGICAL INTELLIGENCE: HOW KNOWING THE HIDDEN IMPACTS OF WHAT WE BUY CAN CHANGE EVERYTHING. Daniel Goleman. Broadway Books, 2009. ISBN 9780385527828. EVPL Call Number 333.7 GOLEM. This book discusses the hidden price of what we buy based on the impact of the production and consumption of the goods and resources involved.

EXPLORE RIVERS AND PONDS WITH 25 PROJECTS. Carla Mooney. Nomad Press, 2012. ISBN 1936749807.

Great hands-on projects for teachers and students to explore life in rivers and ponds. (Note: This book is not available in the EVPL, but it is readily available at bookstores.)

GOING BLUE: A TEEN'S GUIDE TO SAVING OUR OCEANS AND WATERWAYS. Cathryn Berger Kaye with Philippe Cousteau. Free Spirit Publications, 2010. ISBN 9781575423487. EVPL Call Number 333.916 KAYE. Teaches young people about the Earth's water crisis and provides practical suggestions on how readers can identify water-related needs in the community and transform their ideas into action.

HARMONY: A VISION FOR OUR FUTURE. The Prince of Wales. HarperCollins Publisher, 2010. EVPL Call Number 577 CHARL. In an adaptation of his book for adult, Prince Charles encourages young readers to appreciate nature and work to save natural habitats.

SURVIVE!: ESSENTIAL SKILLS AND TACTICS TO GET YOU OUT OF ANYWHERE – ALIVE! Les Stroud. Photography by Laura Bombier. Collins Books, 2008. ISBN 0061373516. EVPL Call Number 613.69 STROU. Discusses safety and survival tips when in a variety of natural environments, including travel by water.

Other Book Resources:

- American Forest Foundation. *Project Learning Tree: PreK-8 Environmental Education Activity Guide*. 2012. (Refer to Cross-Reference Indices for Activities)
- Council for Environmental Education. *Project Wild Aquatic: K - 12 Curriculum & Activity Guide*. 2005.
- Nelson, Dennis. *Project Wet Curriculum and Activity Guide 2.0*. Project Wet, 2007.

Websites Resources:

- Supplemental lesson plans on our website: www.wesselmannaaturesociety.org
- Indiana DNR Educator Resources: <http://www.in.gov/dnr/fishwild/2340.htm>
- Hoosier Riverwatch: <http://www.hoosieriverwatch.com/>
- Hoosier Riverwatch stream monitoring training manual: http://www.in.gov/dnr/nrec/files/nc-Riverwatch_Manual.pdf
- DNR invasive species page: <http://www.in.gov/dnr/3123.htm>
- Project WET: <http://projectwet.org/>
- Project WOW!: http://www.wetland.org/education_edmaterials.htm
- Project Wild: <http://www.projectwild.org/>
- Indiana Department of Environmental Management: <http://www.in.gov/idem/>
- Vanderburgh County Soil & Water Conservation District: <http://vandswed.org/>
- Canoe basics: http://paddling.about.com/od/paddling101/u/Canoe_Basics.htm

Program Assessment:

Be sure to ask a pre- and post- program survey question to assess student learning.

(A ready-to-use form was provided with your confirmation and is also available on our website.)

Please report the results on your program evaluation form and return to us.

Choose one of the following questions that best suits your program and grade level:

WET & WILD:

Q: What is a riparian zone?

A: A natural area / habitats along a waterway

Q: What is the purpose of a wildlife corridor?

A: To create connections or pathways for wildlife to travel between natural areas divided by human development.

Q: What is the most common pollutant in our local waterways?

A: Soil sediment (eroded soil)

Q: What is the best indicator (test) of water quality?

A: Macroinvertebrates (certain species are found only in certain levels of water quality)

Appendix A: Waterway Talking Points for Canoe Guides and Teachers

Pigeon Creek Talking points:

- About the creek
 - Pigeon Creek and surrounding vegetated land is a riparian area.
 - Pigeon creek is 41 miles long and originates as a drainage ditch in Princeton, IN
 - Pigeon Creek culminates at the Ohio River in Vanderburgh Co.
 - Flows through 3 counties; Gibson, Warrick, and Vanderburgh
 - The Pigeon creek watershed covers 400 square miles
 - 75% of Vanderburgh county drains into Pigeon Creek
 - Pigeon Creek is in the Pigeon-Highland Watershed (smallest IDEM watershed level)
 - Pigeon creek is named after the passenger pigeon that used to roost along its banks.
- About wildlife that uses the creek
 - Riparian zones have plentiful water and therefore lush vegetation for food and shelter so it is excellent wildlife habitat.
 - Riparian zones contain a greater variety and number of plant and animal wildlife species than surrounding uplands.
 - Serves as a natural, vegetated travel corridor for wildlife to live in and move through the city.
 - Serves as the only travel corridor for mammals to and from the WW Nature Preserve.
 - 22 species of mammals live along the creek & use the corridor.
 - Many species of amphibians, reptiles, birds, fish, and insects live along the creek.
 - Creek is home to many mammals
 - Beaver live in the creek. Not seen very often but leave plenty of evidence.
 - Muskrats dig burrows in the creek banks. Often seen swimming along the banks.
 - Otters have been seen in the Pigeon
 - We see deer, fox, coyote, squirrel, groundhogs, and bats on occasion.
 - Creek is used by many birds
 - Wood ducks nest in cavities of trees that line the banks of the creek. In the early spring trip we often see large groups of ducklings following their mothers down the creek
 - Mallards and Canada geese also nest and feed along the creek.
 - Great blue herons and green herons are often seen feeding along the creek. They hunt along the shores for fish and frogs.
 - The trees that line the creek are great habitat for many songbirds including many migrant species.
 - Many species of fish live in the creek
 - Some of the more common species are bass, bluegill, catfish, carp, bowfin, crappie, and gar.

- The fish most often seen is the silver carp. This is the invasive species that jumps several feet out of the water when disturbed by boats. We sometimes get them jumping around the canoes.
 - If you look up head of your canoe as we go you might see a gar swimming just under the surface of the water.
 - The creek is home to several reptile and amphibian species
 - Look along the log and trees in the water to see red ear sliders and painted turtles. These are very common turtle species in Indiana.
 - Bullfrog, spring peepers, grey tree frogs, and leopard frogs all call along the creek in the spring and summer.
 - There are many tree species along the creek
 - The most common species on the creek is the sliver maple trees. These trees grow fast and don't get very large or old along the creek. They don't do well in very wet environments and tend to fall into the creek often.
 - Sycamores are historically the tree that grew next to Indiana rivers. They are large trees with good root systems that help hold them into eroding banks.
 - Cotton wood trees also like to grow in wet areas around waterways. These trees also get very large and are easily identified by their shaking heart shaped leafs and their cottony seeds.
 - Black willows, spicebush, and buttonbush all grow commonly along the creek.
- History of the creek
 - There was a Shawnee village located on the west side of the mouth of the creek around 1800.
 - In 1814 Anthony's mill was built 60 yards east of Stringtown Bridge. This was a water powered grist mill used to grind corn.
 - Vanderburgh County was founded in 1818 from parts of Warrick and Posey counties.
 - McGary ran a ferry across the pigeon just south of where the Franklin street bridge is now. The bridge was built in 1932.
 - In 1932 rock and lumber from around the Anthony mill was used to build the Old North Church.
 - Around 1822 a salt well was started on the east bank of the creek 100 yards south of Maryland Street. This well produced well until they decided to try deeper and the salt in the well went bad.
 - In the mid 1800's there was a lake on the west bank of the creek near the mouth. This was called Sweezer pond. It had a saw mill on it by 1880 and was used to hold logs brought down the creek and the Ohio River. An ice house on the lake also collected ice in the winter. This lake was located where the Lloyd crosses the creek.
- About Water Quality
 - Pigeon Creek is a tributary to the Ohio River, and has several small unnamed tributaries (ditches) that go into it.
 - Pigeon Creek is classified as an impaired waterway by IDEM.

- The main land use around Pigeon creek for most of its length is agriculture, its largest source of nonpoint pollution. Agriculture practices contribute a lot of sediment (soil eroded from its source), fertilizer and pesticide chemicals, and livestock yard runoff.
- Urban land uses around the creek in Vanderburgh Co. contribute nonpoint source pollution from parking lots, roads, and yards, etc.
- Evansville's sanitary sewers also receive water from its storm drains. Normally, untreated sewage goes to the treatment plant. But during heavy rain periods the sewers receive more water than they can hold and overflow. The overflow is a mixture of storm water runoff and untreated sewage that flows into the creek through "combined sewer overflows" or CSOs.
- CSO's are the creek's largest point source pollution. Because of these CSO's the E. coli and other pollutants are much higher than they should be.
- Water quality can be tested using biological, physical, and chemical tests. Biological indicators like macro invertebrates are the most dependable.
- Pigeon Creek water quality typically tests high for E. Coli bacteria and turbidity, especially after rain events. Macro invertebrate diversity is moderate.

Bluegrass Fish & Wildlife Area Talking points:

- Bluegrass history
 - Bluegrass FWA is the reclaimed Amax strip mine. It was mined from 1973 to 1993. It was then reclaimed and planted as a natural area.
 - The area is 2500 acres with around 30 individual pits included in the property.
 - This area is operated by the Indiana DNR and gets most of its funding from the sale of fishing and hunting license.
 - The area is used by many sportsmen in the area for fishing, hunting, trapping, and bird watching.
- Wildlife of Bluegrass FWA
 - There are many species that use bluegrass as a habitat. The habitat is very different than Southern Indiana historically was. With mostly open area grasslands and small thickets of scrubby trees this area is not used by forest species.
 - Loon pit has many different species of fish that live in it.
 - Largemouth bass are probably the most popular sport fish species that lives in the lake. These fish can grow to well over 10 lb but fish around 3 or 4 lb are much more common. They eat pretty much anything that they can catch including other fish, frogs, crayfish, snakes, and birds. They get their name from their very oversized mouths.
 - Channel catfish are also found in the lake. These fish can grow to 20 lb or better and are usually most active at night. They have a very sensitive sense of taste and smell. They even have taste buds that cover their entire bodies. This gives them the ability to find food in the dark at the bottom of the lake. The misconception is that they can sting with their whiskers but that is false, they can sting with their pectoral and dorsal fins. These fins

have a large spine that is attached to a venom gland; this venom can cause very painful wounds.

- The lake is also home to two groups of very ancient fish. One group is the gars. We have two species that could be found in the lake: the short nose and the spotted. Both are long skinny fish with long snouts full of teeth. These fish are covered in very bony scales that offer good protection from predators. The other group of ancient fish is the bowfin. Bowfin are long fish with a dorsal fin that extends all the way to the tail. These fish have a large mouth with teeth and they prey on other fish and crayfish. Both of these groups of fish have the unique ability to breathe air so they are often seen at the surface gulping air.
- Bluegrass is used by many species of birds throughout the year. Some are migratory and some stay year round.
 - One of the most common birds seen at Bluegrass is the great blue heron. This large bird is easily seen along the edges of the lakes as it hunts for fish. They have long bills and neck that they use like a spear gun to quickly snatch fish from the water. We have several other species of herons at Bluegrass as well including green herons, least bitterns, American bitterns, and great egrets.
 - Another common bird that is seen on the trips is the tree swallow. These are the birds that are flying around above the lake catching insects and occasionally swooping down for a drink. They nest in cavities in dead trees but also will nest in nest boxes. There are several nest boxes along the west bank of the lake and most are used by tree swallows.
 - There are several species of raptor (birds of prey) that live in the Bluegrass area. These include red tailed hawk, northern harriers, great horned owls, kestrels, and turkey vultures. I've seen osprey fishing from the lake. During the winter Bluegrass is home to the short eared owls. They migrate down in the fall and spend the winter hunting in the grassland areas.
- Many mammals also call Bluegrass home.
 - Beaver use the lake for a home and food source. If you look close along the bank you will see all the tree stumps from the trees they have cut. They use these trees for food as beavers eat the bark. Beavers in this lake don't have to build dams because there is no flowing water but they do build lodges in which they can hide and sleep. Beavers are the world second largest rodents and can grow up to 100 pounds but 40 or 50 pounds is more common.
 - Deer, muskrats, mink, coyotes, and many species of mice and shrews live in the Bluegrass area. Deer are seen sometimes from the canoes but usually the bank vegetation is too thick to see through. Muskrats are often seen swimming near the banks and up on the banks eating. They are often mistaken for beavers but are much smaller.
- Plant life at Bluegrass
 - Being a reclaimed coal mine Bluegrass does not have much diversity of trees. Most of the trees are small and grow close to the waters edge.

- Black willow trees are very common along the banks of the lakes. They will grow in very wet areas and can even survive being submerged for a time. They are easily identified by the narrow leaves. They are a favorite food for beavers and many have been cut down. They grow very quickly and spread rapidly.
- Cottonwoods are another common tree around the lakes at Bluegrass. They thrive in moist soils and spread and grow quickly. They are known for their fluffy white seeds that float around in early summer. These trees can get very large but are also a great food source for beavers. The leaves are heart shaped and have a flatten stem. This stem is what makes the leaves shake in the slightest breeze.
- Sycamores are a common river and lake species that are often seen around lakes. They can grow to be huge trees. Bluegrass has a few along the lake shores but not in large numbers. These trees are easily identified by their large sharp lobed leaves and the white bark.
- Some of the other plants at Bluegrass are phragmites, water lotus, and cattails.
 - Phragmites is an invasive plant that grows along the banks of the lakes at Bluegrass. It is originally from Asia and can be a bad pest here. It grows in thick stands at the water's edge and does a good job of preventing erosion. It will push out native species and can spread rapidly.
 - Water lotuses are very interesting plants that grow in one inlet of the lake at Bluegrass. These plants have large white flowers in early July. The leaves are large (up to 2 foot across) and have the stem in the center. These plants grow from the bottom of shallow parts of the lake.
 - Cattails are a common wetland plant species that grows anywhere there is standing water. They can grow in ditches but are normally found in ponds and lakes. They are known for their interesting looking seed pods. These look like hot dogs. Cattails are one of the native plants that almost every part can be eaten. The bulbs can be used like potatoes, the young leaves can be eaten as greens, and the pollen can be used for flour.