

The WONDERS of HERON HAVEN EDUCATIONAL FIELDBOOK

This book belongs to:

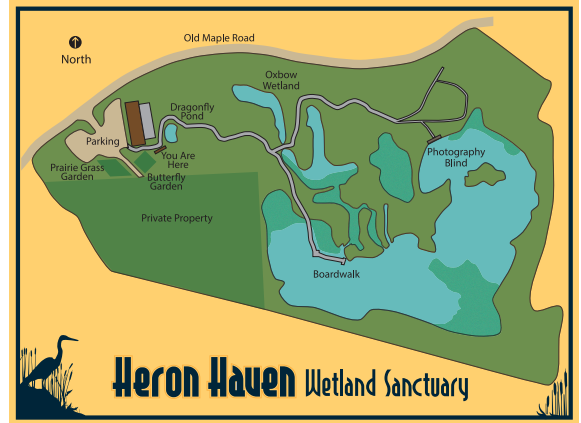
"Wisdom begins with wonder." - Socrates
 "Drink in the beauty and wonder at the meaning of what you see." - Rachel Carson



Heron Haven
 P.O. 103
 Boys Town, NE 68010-0103
 402-493-4303

Welcome to Heron Haven Wetlands! Did You Know?

WETLANDS are an endangered habitat worldwide. Endangered means there are not many wetlands left in the world. We are so glad that in the 1990s Heron Haven's wetlands were saved by caring people, including school children. Come explore, observe, listen and learn with us! We hope you will enjoy your visit.

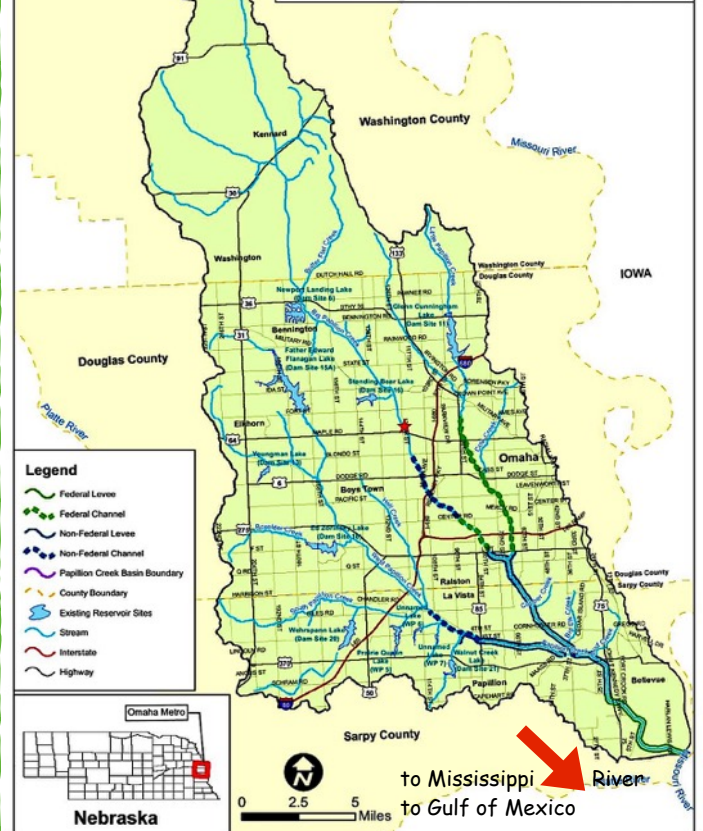


What is a WATERSHED?

Everyone on Earth lives in A WATERSHED. It is all the land and everything on it, (including our homes, roads, farms, schools and cities), that drains into the lowest point. This could be a river, lake and eventually the oceans. A watershed is like a bathtub or a funnel, only in nature! Heron Haven is part of the Big Papillion Creek Watershed. We are responsible for keeping our watershed clean. How do you think you can help do this?

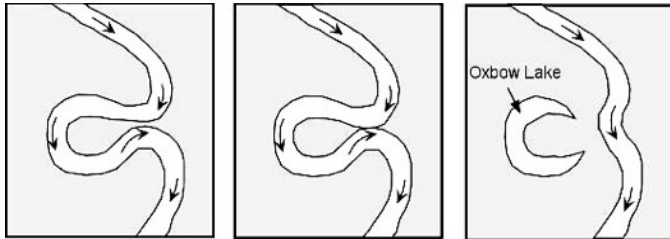
Draw a watershed:

Papillion Creek Basin Study Area Map Existing Flood Risk Measures



Spring Fed Ponds and an Oxbow

Surrounding Heron Haven are underground springs that send water down the hillside to the wetlands. There is also an oxbow wetland, one of the last in the city. In the 1930's Nebraska straightened some of their rivers. When they cut off U shaped bends of the rivers, these wetland areas were called oxbows.



WHAT is a WETLAND

and WHY is it important?

A WETLAND is an area in a WATERSHED where water covers the soil or is present near the surface of the soil part or all of the year. FEEL the unique soil of the wetland and smudge it on the 1st space. Smudge some forest soil on the 2nd space. How do they compare? Smell?

(1)

(2)

Wetlands also provide a unique HABITAT (home with food, water, shelter and a place to raise their young) for animals and plants. Wetland plants can filter out POLLUTION in the water and make the WATER CLEANER. Wetlands help with FLOOD CONTROL by capturing the water and holding it until it evaporates or moves down into our soil and our aquifer. UNDERLINE the 4 REASONS WHY a WETLAND IS IMPORTANT and tell us how you see this at Heron Haven.

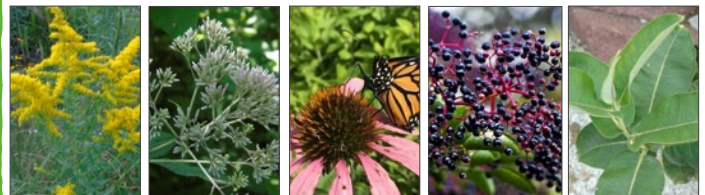
www.outdoornebraska.gov/nebraskawetlands/

Wildflowers and Pollinator Plants

Match the plant name with the picture.

Naturalists will tell you more about plants at Heron Haven.

- (1) Milkweed - host for monarch caterpillars
- (2) Elderberry - blossoms and berries
- (3) Goldenrod - our state flower!
- (4) Joe Pye Weed - bee magnet!
- (5) Coneflower - flower and seeds



To create a pollinator habitat:
www.entomology.unl.edu/pollinatorapp.pdf

Native Prairie Grasses

Where can you find some native grasses at Heron Haven? Native grasses provide food and homes to wildlife. For more information on native plants go to plantnebraska.org

Draw or list some native grasses and native wildlife that lives in them.



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Tree Differences and Similarities

Just like people, all the trees in our little forest are different yet all the trees provide oxygen for us to breathe. Follow a tree from its roots in the ground to the branches reaching into the sky. Compare its shape, size and color to other trees. Draw your tree:

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Tree Habitats

Living and dead trees provide habitat within the wetlands for small animals, including insects and birds. Dead trees will eventually decompose (rot) into soil.



What can you find under a rotting log?

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Patterns and Textures

Nature is full of patterns and textures. Feel the bark of trees and the texture of leaves. Do a leaf or bark rubbing here:

Please Respect all Plants and Animals at Heron Haven. Do Not take items from this sanctuary. Thank You!

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Duckweed is a Wetland Plant

What is that green stuff all over the surface of the wetlands? Duckweed is a very nutritional food for waterfowl, like the mallards. It is so high in protein that it is being considered for human food! It also provides shelter for animals such as frogs and fish. It is one of the native plants that helps purify or clean our water in our watershed. Rub some duckweed between your fingers. How does it feel? What do you think happens to it in the winter?



The Common Cattail is a Wetland Plant

Typha latifolia is the Latin name for this common wetland plant. It can grow to 10 Feet tall! Sword-like gray-green leaves arise from the plant base and the long brown barrel shaped flower appears in summer. Long ago people used the entire plant for food, shelter and materials for their families.

Draw a picture of a cattail:

Our Wetlands, gardens and forests are home to many insects.

Some of these insects are important pollinators. Fill in the blanks to find our top insect pollinators:

- B__
- B_____ FLY
- F_Y
- M__H
- B__T__E
- W__P
- A__T

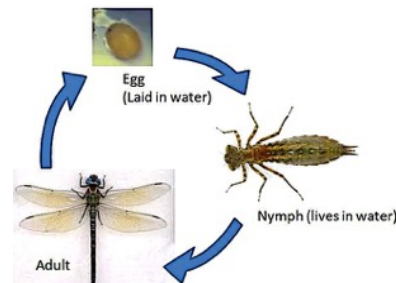
Draw an insect.

Remember 3 body parts and 6 legs.

How do pollinators help people?

Aquatic Insects and Water Quality

The waters of our wetlands contain many insects in certain stages of their life such as the dragonfly. These tiny creatures help tell students and scientists about the biodiversity (different kinds of life) and how clean our water is. What did you find when you went pond dipping?



Life Cycle of a Dragonfly

Birds at Heron Haven

Heron Haven is a great place to see over 140 species of resident and migratory birds. A resident bird means it lives here all year long. Migratory birds are traveling through on their way to another place, perhaps for more food and a place to raise their young.

List birds you saw or heard today:

Raptors: **Songbirds:** **Waterfowl:**

WHY do you think we say:
DO NOT FEED THE DUCKS or GEESE!
Merlin Bird Ap for ID and sounds!

Amphibians and Reptiles in the Wetlands

Frogs and toads live in our wetlands, forest and gardens. The many American Bullfrogs you see in the water are an invasive species. This means there are so many of them that they can harm the habitat they live in and there are few predators to control their population.

What is the difference between a frog and a toad?

Why do turtles lie on the logs?

Where do they go during the winter?

What snakes could live in our wetlands?

Want to learn more and hear frog sounds of Nebraska? Go to:
www.aza.org/frogwatch-usa-nebraska

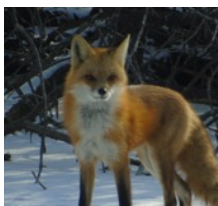
Heron Haven Mammals

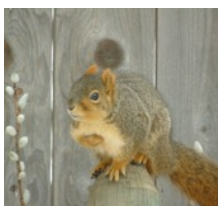
Can you name the mammal in the picture?

Squirrel
Muskrat

Fox
Raccoon

Deer
Woodchuck





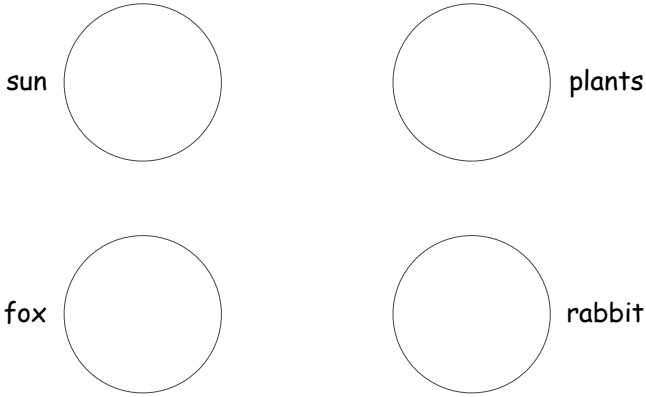
What does it mean for animals to be diurnal or nocturnal?

Tracks and Scat

Be a Nature Detective! Sometimes you do not see the animal but you find clues left behind. These could be its scat or tracks. Draw any tracks or scat you discovered:



Draw a Food Chain



Plants and animals make up a food chain. Food chains make up a web of life. Draw an arrow from the energy of the sun → to the plants → which are eaten by the rabbit → which is eaten by the fox. **Label the animals:** herbivore, carnivore or omnivore. Can you think of another food chain happening at Heron Haven?

Each season in the wetlands brings its own special experience.

Come back and journal at different times of the year and even different times of the day and record what you see, hear, smell and feel in your heart about this special place called Heron Haven. You can send a picture or a copy of your observations to the address on the front of this booklet.

Date:
Time:
Weather Conditions:
Observations:

A Sense of Place

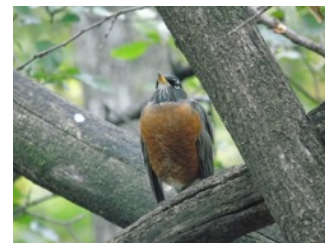
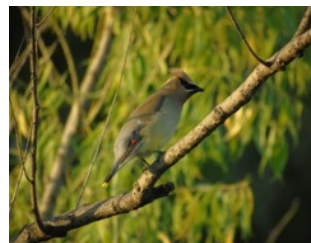
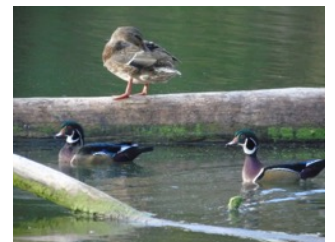
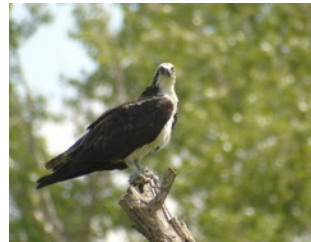
Heron Haven is a quiet sanctuary, (place of safety) for wildlife. That is why we do not allow dogs. The quieter you are, the more likely you are to see wildlife. Being in nature can be relaxing and fun as well as educational. Take in a deep breath of the trees' gift to you - oxygen! Stand still and quiet for a minute and just listen. What nature sounds do you hear?

Why is Heron Haven a special place to YOU?

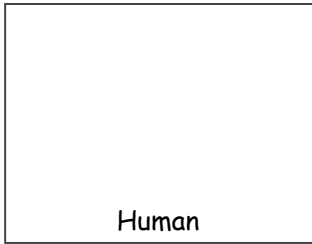
What have you learned that you can share with others?

Birds at Heron Haven

Are these birds raptors, song birds or waterfowl?



Other Animals at Heron Haven



Human

Poisonous Plants and Mushrooms

Here are a few of the plants at Heron Haven to be CAREFUL NOT TO TOUCH OR EAT!

Poison Ivy:

"Leaves of 3, let it be!"



Stinging Nettle:



Pokeweed:



Many **Mushrooms** are poisonous too!

Heron Haven Word Search

M U W Y J O H R X Q O S
 T R A Y X I E E N X V O
 E M T T X I O X B O W R
 Z I E M I G R A T I O N
 W L R Q D P X D H T S I
 M K S K I U N P A D X V
 A W H N R A C N J X H H
 L E E Y L X I K F H G E
 L E D T V L P Z W O H R
 A D E X L X K B R E X O
 R W U O E B I F M U E N
 D V P H A B I T A T A D

DUCKWEED	FOX	FROG
HABITAT	HERON	MALLARD
MIGRATION	MILKWEED	OXBOW
POLLINATOR	WATERSHED	WETLAND

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Thank YOU for visiting Heron Haven

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www.heavenhaven.org

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naturalist.unl.edu