

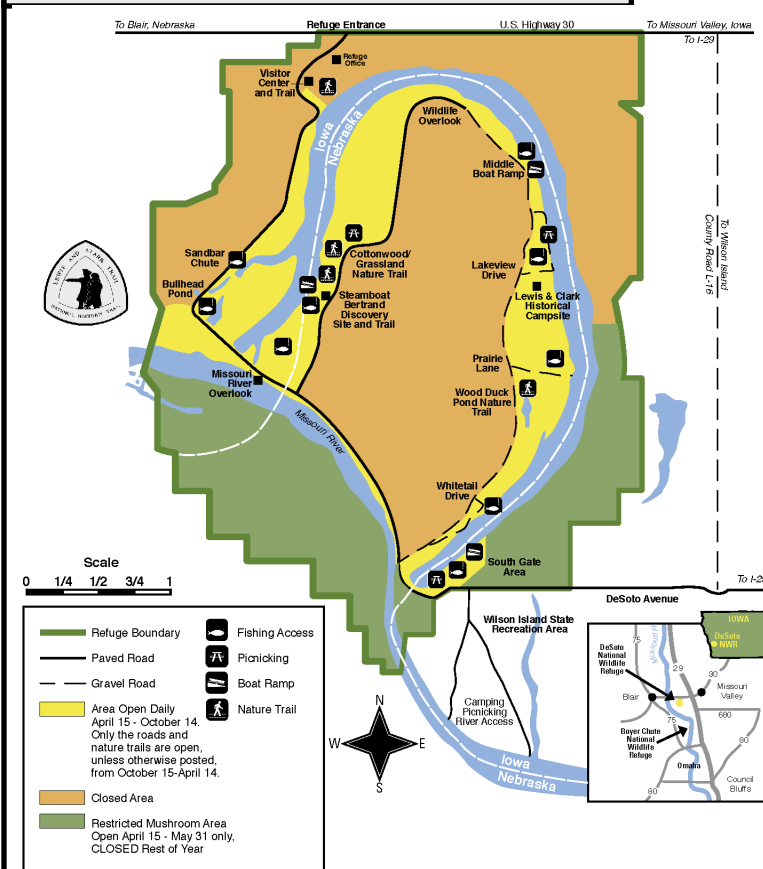
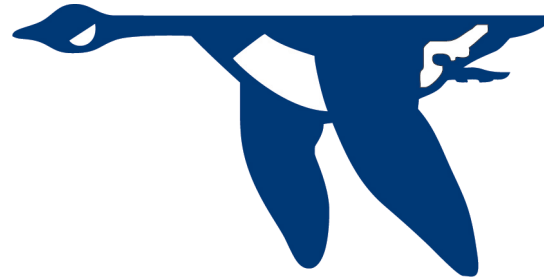
DeSoto National Wildlife Refuge

Junior Refuge Manager

Activity Booklet



The Fish and Wildlife Service is home to the National Wildlife Refuge system that contains over 560 National Wildlife Refuges and Wetland Management Districts. These lands and waters are protected and managed for the betterment of the habitats critical to many different animal species that utilize them throughout the year and the future generations of Americans. These lands are also represented by the “Blue Goose” or Puddles the mascot of the National Wildlife Refuge System.



DeSoto National Wildlife Refuge is only a fraction of all of those lands with over 8,300 acres of wetlands, prairies, cottonwood forests and waters.

DeSoto NWR was established as important stopover habitat that is used throughout the year as migratory birds travel through during migration or spend the summer in the variety of habitats the refuge has to offer.

Junior Refuge Manager

To become a Junior Refuge Manager you must explore the refuge and learn about what it has to offer people and wildlife. This booklet will help guide you as you explore the refuge.

DeSoto National Wildlife Refuge is home to a variety of plants and animals. Please remember to respect their home by:

- Leaving things as you find them. Do not pick up or take anything, unless it is litter.
- Keeping the refuge clean. Do not litter.
- Staying out of areas that are not open to the public.
- Keeping your distance. If you see wildlife, do not attempt to feed or touch it.

After you complete this activity booklet, return to the DeSoto Visitor Center. There, a refuge staff member or volunteer will review your answers, sign your booklet, and award you with a badge. Remember, the visitor center closes at 4:30 P.M.

Complete the activity pages with the following symbols according to how much time you have to spend at the refuge. Feel free to complete more than are required.



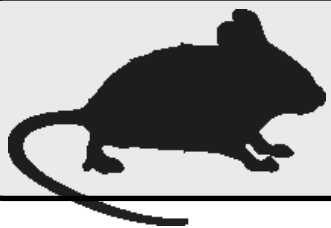
If this is your first visit to DeSoto, or you visit only once a year.



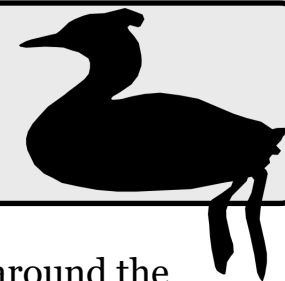
If you only visit DeSoto a couple times a year.



If you visit DeSoto regularly.



Animals



Here are some of the common animals you might see around the refuge, check the box next to each one you see on the refuge.

Birds

- ☐ Bald Eagle
- ☐ Downy Woodpecker
- ☐ Red-Bellied Woodpecker
- ☐ Canada Goose
- ☐ Wild Turkey
- ☐ Ring-necked Pheasant
- ☐ Mallard Duck
- ☐ Blue Jay
- ☐ American Crow
- ☐ Black-capped Chickadee
- ☐ American Robin
- ☐ Northern Cardinal
- ☐ Red-winged Blackbird
- ☐ Common Grackle
- ☐ Brown Thrasher
- ☐ American Goldfinch
- ☐ House Sparrow
- ☐ Great Blue Heron
- ☐ White Pelican
- ☐ Wood Duck
- ☐ Killdeer
- ☐ Dickcissel

Reptiles/Amphibians

- ☐ American Toad
- ☐ Bullfrog
- ☐ Leopard Frog
- ☐ Chorus Frog
- ☐ Great Plains Toad
- ☐ Gray Tree frog
- ☐ Cricket Frog
- ☐ False Map Turtle
- ☐ Snapping Turtle
- ☐ Painted Turtle
- ☐ Brown Snake
- ☐ Bull Snake
- ☐ Lined Snake
- ☐ Milk Snake
- ☐ Garter Snake

Insects/Bugs

- ☐ Monarch Butterfly
- ☐ Mosquito
- ☐ Bee
- ☐ Dragonfly
- ☐ Spider

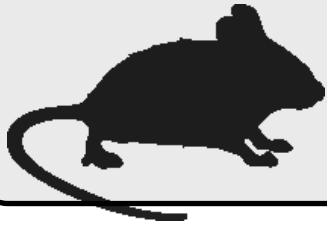
Fish

- ☐ Walleye
- ☐ Bullhead
- ☐ Carp
- ☐ Bluegill
- ☐ Crappie
- ☐ Northern Pike
- ☐ Largemouth Bass
- ☐ Channel Catfish

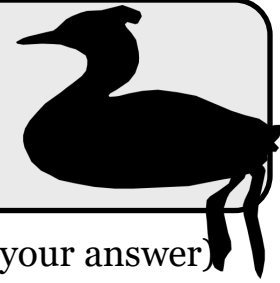
Mammals

- ☐ Opossum
- ☐ Mink
- ☐ Badger
- ☐ Coyote
- ☐ Red Fox
- ☐ Ground Squirrel
- ☐ Squirrel
- ☐ Beaver
- ☐ Mouse
- ☐ Muskrat
- ☐ Rabbit
- ☐ Deer
- ☐ Raccoon
- ☐ Skunk





Animals



Did you see any animals not listed on the this page? (circle your answer)

Yes

No

What were they? _____

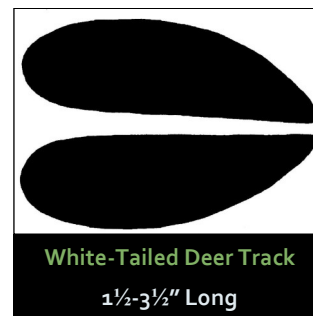
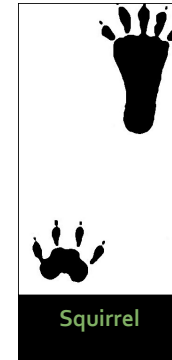
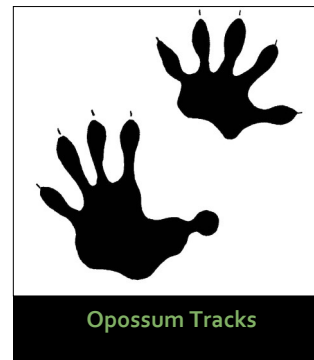
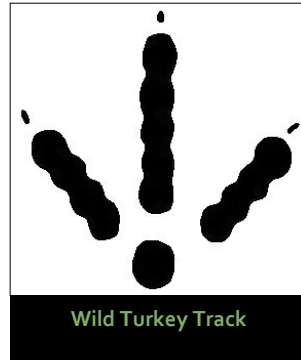
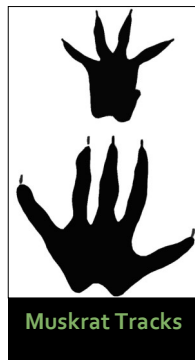
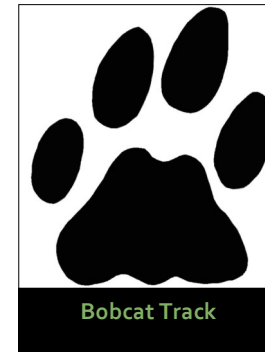
Draw some of the animals you saw at DeSoto and write their names.

A large, empty rounded rectangle with a black border, intended for drawing an animal.A large, empty rounded rectangle with a black border, intended for drawing an animal.

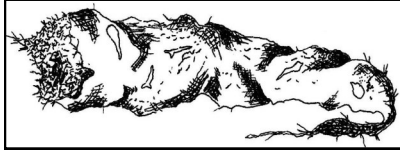
Signs of Animals

Some animals are nocturnal, meaning they are awake at night. These animals are not likely to be seen during the day, but you may spot the tracks or scat they leave behind.

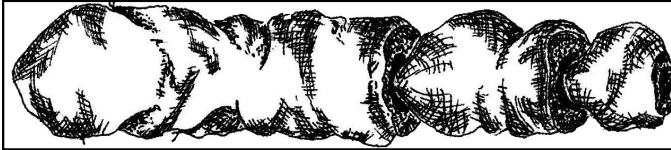
Even some animals that come out during the day may not be seen because they are scared of people. Put a check in the boxes next to each of the tracks or scat you see on the refuge.



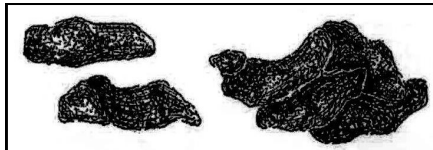
Signs of Animals



Coyote Scat $\frac{3}{4}$ " Across x 3" Long



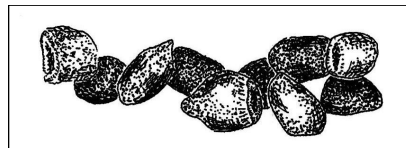
Bobcat Scat $\frac{3}{4}$ " Across x 4" Long



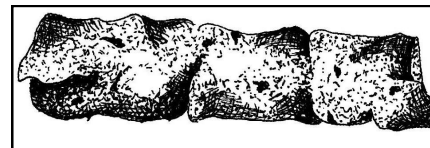
Muskrat Scat $\frac{1}{4}$ " Across x $\frac{1}{2}$ " Long



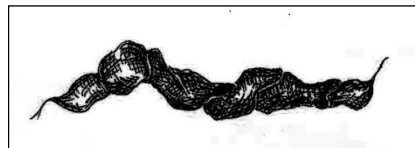
Beaver Scat $\frac{3}{4}$ " Across x 1" Long



White-Tailed Deer Scat $\frac{1}{3}$ " Across x



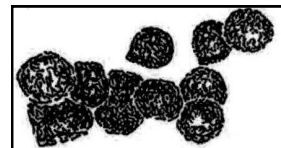
Raccoon Scat $\frac{3}{4}$ " Across x 3" Long



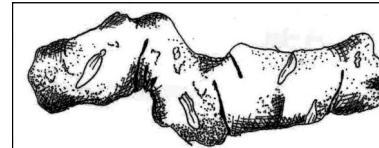
Mink Scat $\frac{1}{4}$ " Across x 2" Long



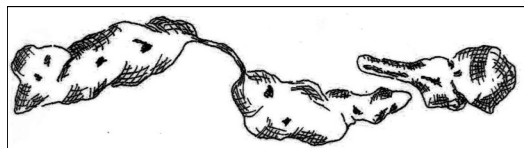
Squirrel $\frac{1}{4}$ " Across x $\frac{1}{3}$ " Long



Cottontail Scat $\frac{1}{4}$ "



Skunk Scat $\frac{3}{4}$ " Across x 3" Long



Opossum Scat $\frac{1}{2}$ " Across x 4" Long



Red Fox Scat $\frac{2}{3}$ " Across x 2" Long





Habitat and Migration



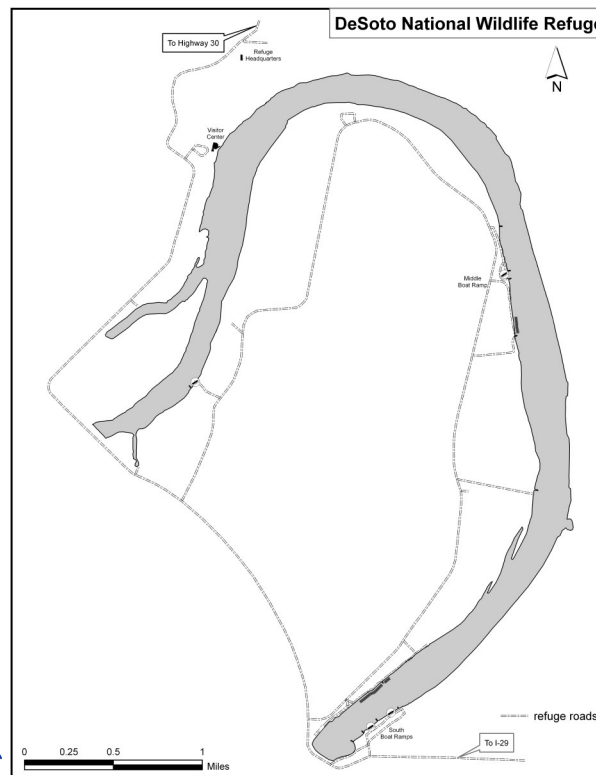
Refuge managers work hard to manage different habitats.

Habitats are areas that provide food, water, shelter and living space for plants and animals. DeSoto National Wildlife Refuge was established to provide habitat for migrating waterfowl. Waterfowl migrate in the spring and fall, and along the way they need places to stop to rest and eat, like DeSoto National Wildlife Refuge. The refuge has many different habitats including woodlands, grasslands, sandbar, lake, river and wetlands.

Wetlands

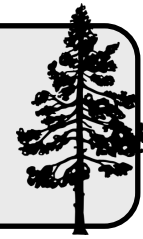
What is a wetland? A wetland is a place that is completely covered by water at times. This could mean that it is land that floods, or it could mean a swamp, marsh, pond or the edge of a creek or river.

Put an X on the map of DeSoto anywhere you see a wetland.





Habitat and Migration



Wetlands are especially important to the migrating waterfowl that stop at DeSoto. Wetlands also provide homes to amphibians, reptiles and insects. Wetlands also provide homes to amphibians, reptiles and insects. Draw a picture of animals you saw in or near a wetland at DeSoto:

Plants that grow in wetlands love water! What kind of plants did you see in wetlands around DeSoto? Draw a picture of them below.

Wetlands help people too! They hold water that comes from rains or snows. They also act as natural water filters, cleaning water that enters them. However, a lot of wetlands have been drained to be used for farmland, roads, and houses. Not only does this eliminate homes for animals, but it takes away land that can be used to store excess water.



Migratory Waterfowl

Every spring and fall, DeSoto becomes a major stop for migrating waterfowl on their way to their summer breeding grounds or on their way to their winter homes. DeSoto is a part of the Mississippi and Central flyways, where migrating birds head from Canada to the Gulf of Mexico and back.

Draw a line on the map where these birds fly:



This is a very long journey for birds to take, and requires a lot of energy. What makes DeSoto such a great place for waterfowl to stop?

The long journey these birds take every spring and fall also can be dangerous! Besides storms, what dangers do you think migrating birds encounter?

Sometimes scientists 'band' migrating birds. This means that they attach a marker that identifies the bird and where it has been. Then, when somebody spots a bird with a band, they know where it is from! Did you spot any birds on the refuge with bands on them? If so, what color was the band?



Yes

No

Color: _____



Waterfowl at DeSoto



Many different birds come to DeSoto throughout the year. DeSoto used to be known most for the large number of Snow Geese that stopped by during the migrations. These Snow Geese have moved further West along the Central Flyway of migration, away from DeSoto and the Mississippi Flyway that DeSoto is a part of. However, we still get a lot of other waterfowl stopping by in the spring and fall!

These include all sorts of water birds, like herons, pelicans, loons, swans, geese, surface feeding ducks, diving ducks, and other birds.

Did you see any of the following on your visit to the refuge? Put an X in the box of any you saw!

Canada
Geese



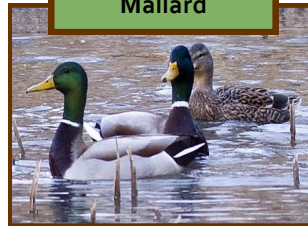
Trumpeter
Swan



White
Pelican



Mallard



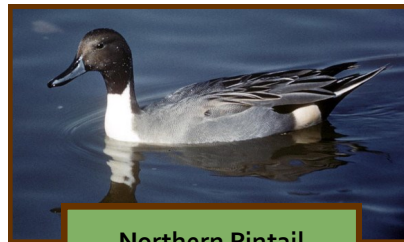
Wood
Duck



Great
Egret



Northern Pintail



Great
Blue
Heron





History of DeSoto



Besides the natural history of the area, there has been quite a bit of human activity at the refuge throughout the years.

Lewis and Clark

In 1804, Lewis and Clark camped at DeSoto Bend and even saw a badger. They described DeSoto Bend in their journal. How would you describe DeSoto to somebody who has never been here?

Answer each of the following questions by drawing a picture or writing an answer.

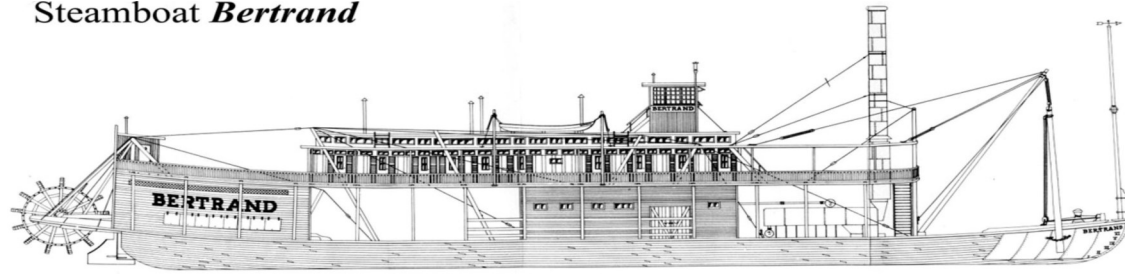
What did you see?

What did you smell?

What did you touch?

What did you hear?





The Steamboat Bertrand

In 1865, the Steamboat Bertrand sank on a part of the river that later became part of DeSoto National Wildlife Refuge. The Bertrand was carrying items that people commonly needed in towns out west.

According to the signs in the visitor center, where did the Bertrand set out from on March 18, 1865? _____

Where was it headed to? _____

The Bertrand was carrying about 250 tons of cargo. That is 500,000 pounds of stuff. When the Bertrand sank after hitting fallen trees in the river, Missouri River mud helped preserve the ship as a time capsule. This time capsule shows us what life was like in 1865, at the end of the Civil War.

If you were to create a time capsule to show people 100 years from now what stuff you use, what would you put in it?





People and the Refuge



Getting people outside and enjoying the outdoors is important to the U.S. Fish and Wildlife Service. It is important that we protect these lands so that people in the future can enjoy them as much as you enjoy them today.

DeSoto Lake here on the refuge used to be a bend in the Missouri River. In 1960, the Corps of Engineers straightened the Missouri River to make the river easier to navigate. Cutting the bend off of the river is how DeSoto became an oxbow lake!

The lake is a popular place for people. It is often used for fishing and boating. Do you plan on doing either of those activities here at DeSoto?

Yes

No

Fishing and boating is allowed at DeSoto from April 15th to October 14th every year. Either an Iowa or Nebraska fishing license is required (since DeSoto is in both states). There are other important rules to follow while fishing or boating. At DeSoto, your boat cannot produce a wake behind it. Why do you think that is?

It is also important to follow the DeSoto regulations for the minimum (smallest) size of a fish that you can keep. If you catch a fish that is smaller than that minimum, you have to toss it back in the lake. Why is it important that fisherman don't keep small fish?

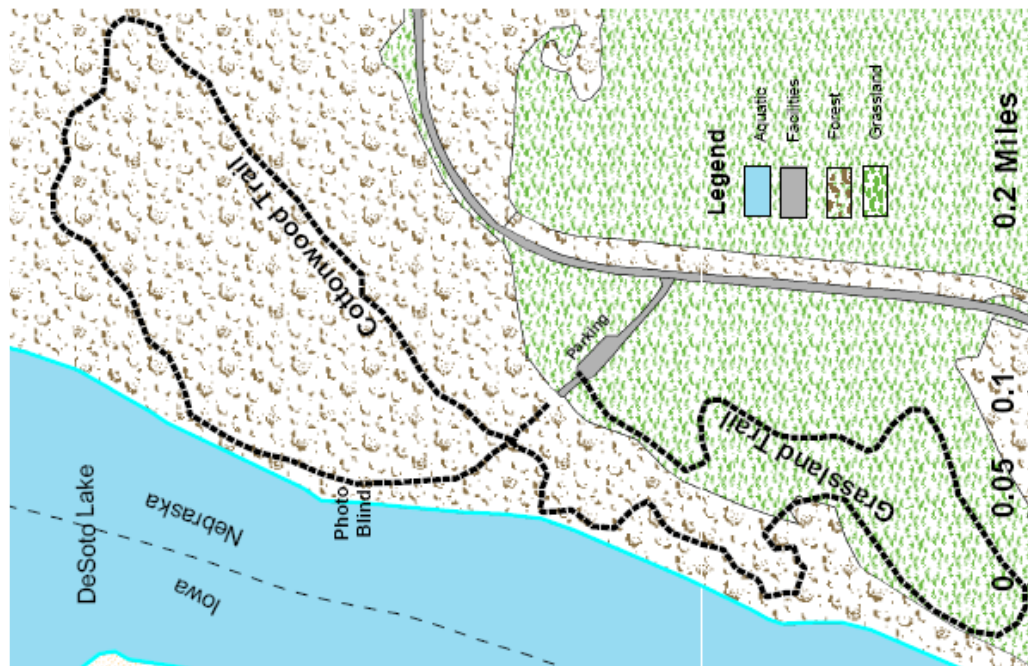




People and the Refuge



In addition to fishing and boating, visitors can enjoy hiking the nature trails at DeSoto. Two of our most popular trails are the Cottonwood Nature Trail and Grasslands Nature Trail. Below is a map of the trails:



Each trail is about $\frac{3}{4}$ of a mile long, how long do you think it would take you to finish walking one? _____ minutes

Did you walk the trails? Yes No

How long did it take? _____ minutes

What are three things you saw while walking the trails?

1. _____ 2. _____ 3. _____



Working at a National Wildlife Refuge



National wildlife refuges require quite a few people to run them. Employees and volunteers work together to run the refuge. Match the jobs below with their descriptions on the right.

- | | |
|---------------------------|--|
| 1. Museum Curator | A. Assists other workers by doing paperwork and answering phone calls. |
| 2. Maintenance Mechanic | B. Gives talks explaining different things about the refuge. |
| 3. Geographer/Geologist | C. Repairs buildings and equipment and keeps things running. |
| 4. Interpretive Ranger | D. Studies the plants and animals in the Refuge. |
| 5. Law Enforcement Ranger | E. Enforces refuge regulations to protect the animals, plants, and people on the refuge. |
| 6. Refuge Manager | F. Studies the habitats on the refuge. |
| 7. Biologist | G. Guides all other employees on projects to keep the refuge running and successful. |
| 8. IT/Computer Specialist | H. Studies the cultural history of the refuge. |
| 9. Environmental Educator | I. Teaches about the refuge and nature. |
| 10. Administrative Clerk | J. Keeps all the technology on the refuge running smoothly to help the other employees. |



Key: 1:H 2:C 3:F 4:B 5:E 6:G 7:D 8:J 9:I 10:A



Which of the jobs on the last page would you enjoy most?_____

Did you see an employee or volunteer working while you were at the refuge?

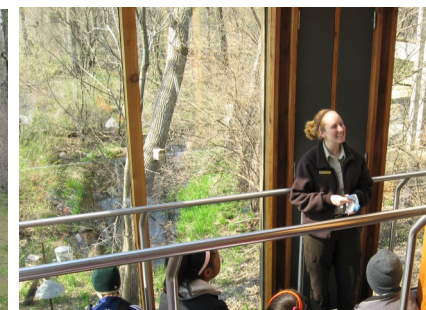
If so, where did you see them?_____

What were they doing? _____

What equipment were they using? _____

How do you think they were helping the refuge?_____

Which of the jobs on the last page do you think they have?_____



Junior Refuge Manager Pledge

I, _____, pledge to preserve and protect the plants, animals, and history of DeSoto National Wildlife Refuge by: exploring DeSoto National Wildlife Refuge, sharing what I have learned with others, obeying all the rules of DeSoto National Wildlife Refuge, leaving plants and animals as I found them, keeping DeSoto National Wildlife Refuge clean and by continuing to show respect for the natural world around me.



DeSoto National Wildlife Refuge

JUNIOR REFUGE MANAGER

This Certifies that

*has completed all the requirements to
receive a badge indicating they are a
Junior Refuge Manager of DeSoto
National Wildlife Refuge*

Park Ranger _____

Date _____



This booklet was created by the 2012 Visitor Services staff of DeSoto National Wildlife Refuge and edited in 2020. A special thank you goes to the volunteers who donated their time and photos to making this booklet possible and to Lynn Levine and Martha Mitchell at Heartwood Press for donating the use of their illustrations.



DeSoto National Wildlife Refuge

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<http://www.fws.gov/refuge/Desoto>