

# Habitat

Refuge staff maintain and protect the habitat that animals need to survive—food, water, shelter for safety and a place to raise young.

Great Swamp NWR has several different habitats—for different kinds of animals and plants.

What habitat did you see? (Circle all that apply)

Woods      Fields      Wetlands

Describe or draw a picture of wildlife using the habitat you saw.



Complete this activity booklet and take it to a volunteer at the Wildlife Observation Center who will review it with you. Then you will receive your official Great Swamp National Wildlife Refuge Junior Refuge Manager Badge. You may also take it to the Helen C. Fenske Visitor Center to receive your badge.



## Junior Refuge Manager Great Swamp National Wildlife Refuge

Great Swamp National Wildlife Refuge is part of the National Wildlife Refuge System and is one of more than 560 refuges in the United States.

All of the National Wildlife Refuges are managed by the U.S. Fish & Wildlife Service including Great Swamp National Wildlife Refuge. The Blue Goose is the symbol of the National Wildlife Refuge System.

In 1959, the Port Authority of New York announced plans to build a huge airport right on top of the Great Swamp! Concerned citizens got together to fight these plans and in 1960 the Great Swamp National Wildlife Refuge was established to preserve this area for wildlife ... and for visitors to enjoy nature.

Great Swamp National Wildlife Refuge is over 7,700 acres in size. There are two parts—the Management Area and the Wilderness Area. The Refuge staff manages the habitat in the Management Area for the benefit of wildlife, especially those endangered or threatened. The Wilderness Area is protected and managed to preserve its natural condition.





# Birds

**T**here are 223 different species of birds that you might see at Great Swamp National Wildlife Refuge. Identifying the bird you see can be hard, but using your smartphone can make it easier!

**When you see a bird, note the key characteristics.**

- How big was the bird? (Sparrow, Robin, Crow, Goose)
- What were the main colors of its feathers?
- What was the bird doing? (Eating at a feeder, flying, swimming, sitting on a wire, in a tree)

Then use a **FIELD GUIDE**—a special book or download the FREE Merlin Bird ID App from Cornell University. You identify the key characteristics or take a picture of the bird to see a list of possible matches.

**M**igration is the movement of birds between their breeding (summer) homes and their nonbreeding (winter) grounds. More than half of the 650 species of North American birds migrate.

Why do birds migrate? (Circle all that apply)

To find food    For nesting locations    For frequent-flyer miles

Some birds are found at Great Swamp National Wildlife Refuge only in certain months, while others are year-round residents. Circle those birds that can be found all year long.

Tree Swallow    Cardinal    Hummingbird    Barred Owl

What foods are not found in winter and would cause a bird to migrate? (Circle all that apply.)

Seeds    Flowers    Insects    Small Mammals

*The State Bird of New Jersey is the American Goldfinch.*

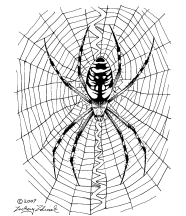
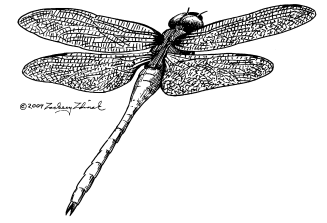
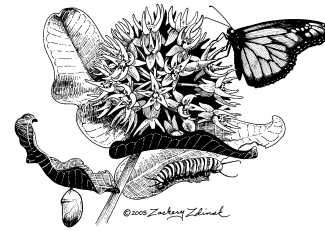
# Invertebrates

## —Insects & Others

Can you identify these invertebrates?

Write the number above the picture.

1. Butterfly    2. Bumblebee    3. Mosquito    4. Dragonfly    5. Tick    6. Spider



Draw some of the invertebrates you saw today.



*New Jersey's State Bug is the Honeybee.*

# Reptiles—Snakes

Below are three common species of snakes found on the Refuge.

Draw a line from the name to the drawing.



**NORTHERN WATER**—Large snake, with bands, usually found in water, may appear all dark.

**GARTER**— a smaller snake with three stripes down the body. Heavy bodied compared to ribbon snake. Very common.

**RIBBON**—Similar to Garter, this snake is very slender with stripes. Most active in spring. Usually found in or near shallow water.

If you saw a snake today, what was it?

Why do snakes stick out their tongues? (Circle all that apply.)

Catch flies

Collect odors

To be rude

What role do snakes play in nature? (Circle all that apply.)

Rodent control

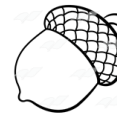
Keep people on the boardwalk

Food for owls

Venom used as medicine

# Trees

Seeds, nuts and fruits are a good way to identify trees.



Acorns come from **Oak trees.**



Winged Samaras come from **Maple trees.**



These round balls come from **Sweet Gum trees.**



Draw a seed, nut or fruit that you saw. (Be sure and check the ground around trees.) Did it help you identify the kind of tree?

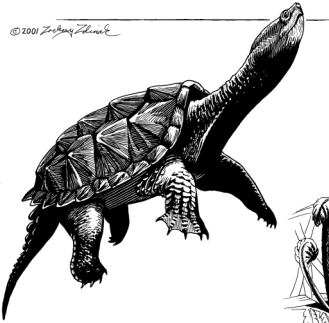
Name 2 different ways birds or animals use trees.

How do trees help us?

# Reptiles—Turtles

Below are three common species of turtles found on the Refuge.

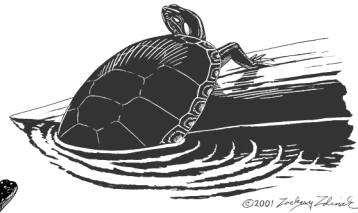
Draw a line from the name to the drawing.



Spotted—A small turtle with yellow spots on shell.



Painted—Colorful pattern on neck. Likes to bask on logs.



Snapping—Our largest turtle. Rarely leaves the water.

What turtle (or turtle shell) did you see?

Where do these turtles go in winter? (Circle all that apply.)

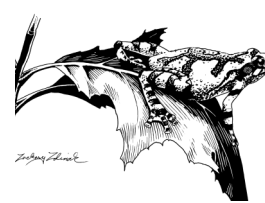
To pond bottoms      In wetland plant clumps      To Florida

What do turtles at Great Swamp NWR eat? (Circle all that apply.)

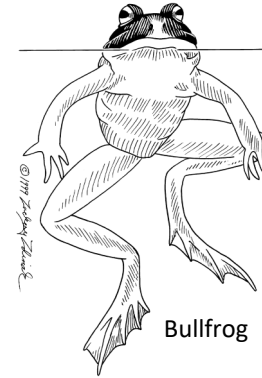
Duckweed      Worms      Insects      Ice cream

*New Jersey's State Reptile is the Bog Turtle.*

# Amphibians—Frogs



Gray Tree



Bullfrog



Coastal Leopard



Wood Frog



Pickerel



Green

What frogs did you see?

What do frogs eat? (Circle all that apply.)

Dragonflies      Worms      Smaller frogs      Dead animals

A tadpole is a baby frog. What do tadpoles eat? (Circle all that apply.)

Aquatic plants      Algae      Cheeseburgers

Each frog has a different call. Did you hear any calls?

*New Jersey does not have a State Amphibian.*