



# Wings Over Woodlands and Wetlands



## To the Teacher

Thank you for your interest in the “Wings Over Woodlands and Wetlands” program. This program has been designed to complement and enhance your school’s curriculum by allowing students to apply concepts learned in the classroom to field situations in a National Park. The “Wings Over Woodlands and Wetlands” program, designed for students in grades 1-4, includes a visit to Theodore Roosevelt Island, a unit of the National Park Service. This booklet will function as your guide to preparing students for their visit to the island. It provides background information and activities that can be used in the classroom.

The guide contains the following sections:

- An **Overview** of what the students will experience on their visit to the island, **Program Logistics** and a **Sample Itinerary**
- A statement of the program’s **Theme and Objectives**
- **Background Information** and **Resources** that will help you with pre- and post-visit activities
- **Pre-visit** and **Post-visit** activities that provide students with the information necessary for a positive and meaningful experience on the island
- **Guidelines** that addressing safety issues, chaperones, and items to bring on the day of your visit
- An **Evaluation** form (Your feedback is greatly appreciated and will help us to upgrade and further develop this Parks as Classrooms program.)

Again, thank you for your interest in this program. To make reservations or ask for additional information contact a ranger at 703-289-2553.

See you on the island!

## Overview

Wings Over Woods and Wetlands is a two and a half hour program that gives students a chance to explore a variety of topics pertaining to the lives of birds and their use of Theodore Roosevelt Island. The island provides an ideal setting for examining such concepts as migration, adaptations and habitat. Over the course of a year it is frequented by nearly 200 bird species. This program also familiarizes students with Theodore Roosevelt, 26th president of the United States, and an avid birdwatcher.

The field trip begins at the heart of the island. There, a 17-foot bronze statue of Roosevelt greets them in a memorial that, like the island, is surrounded by water. Following a brief discussion of the National Park Service and Roosevelt as a young naturalist, students will be introduced to the concept of habitat and discuss the adaptations or tools people use to survive in their habitat.

Students will then examine the adaptations birds use to survive in their habitats. Through a series of participatory activities, they will discover what makes birds unique, from feathers and wings to hollow bones. Other activities will allow students to consider differences among beaks and feet and discover how they can "talk" to the birds.

A journey to the tidal marsh on the island's south end will give students the opportunity to use a spotting scope to look for birds in a wonderful wetland setting. They also will have a chance to discover differences in habitat.

This observation period is followed by a quiet time for students to draw a picture or write a poem based on the experience they have had or the birds they have seen.

The island visit ends back at the memorial, where a brave student volunteer will actually become a bird--a fun and entertaining way to review what was learned during the day's adventure.

## Program Logistics

National Park Service rangers will greet your group in the Theodore Roosevelt Island parking lot. Your group will then be escorted to the island where the program will begin.

Group size is limited to 30 students. Prior to arriving at the island divide your class into two equal groups.

The memorial area of the island provides a fine setting for lunch or a snack following the program. Bring bag lunches as food is not sold on the island.

While restroom facilities are available on the island, the location is not convenient to the main activity area. Encourage students to use the restrooms prior to coming to the island.

## Sample Itinerary

This is a sample schedule of a typical class visit to Theodore Roosevelt Island. This schedule can be modified based on your school district's regulations. We will try to work within your constraints.

9:45 - 10:00

Try to arrive at the island 15 minutes prior to your scheduled program time. Rangers will meet your group in the island parking lot; introductions will be made and guidelines reviewed. The group will then be escorted to the program area.

10:15 - 10:30

Introductory activity: a discussion of habitats and "tools."

10:30 - 11:30

Island hike and "discovery" activities. A hands-on look at a variety of bird "tools," migration, and an attempt at "talking" to the birds. Students will be divided into two equal groups at this time.

11:30 - 12:10

Groups will split time between wetland bird observation and quiet drawing time.

12:10 - 12:30pm

Return to memorial area and conduct final "Becoming a Bird" activity.

\*Note: Opportunities for restroom breaks will be limited due to the location of restroom facilities on the island. Between 11:30 and 12:10pm chaperones can assist with escorting students to the restroom with minimal interference to the flow of the program and the experience of the student.

## Program Theme and Objectives

### Theme

Birds use different tools to survive in their varied habitats.

### Objectives

- After visiting Theodore Roosevelt Island and using the activities in this guide students will be able to:
- Name the four components of a healthy habitat: food, water, shelter, space.
- Describe at least two tools or adaptations birds have to survive in their habitats.
- Name at least two birds that live in a forest habitat.
- Name at least two birds found in a wetland.
- Briefly describe at least two ways birds help other species in a habitat.
- Briefly describe why National Parks are important in protecting habitats.
- Name at least two ways they can help protect habitats.

### Standards of Learning Addressed

District of Columbia Science SOLs: 1.4, 2.6, 2.7, 3.5, 5.12

Maryland Science SOLs: Grade 1 (3A, 3E), Grade 2 (3F), Grade 4 (3A, 3D, 3F), Grade 5 (3A)

Virginia Science SOLs: 1.5, 2.5, 3.4, 3.5, 4.5

## Background Information

### Theodore Roosevelt Island: A Colorful Past

"This island is all cut out of rock. Above it is a very fine and good soil, sufficient to support a whole family. Indians live there..."

-- Baron Christoph de Graffenried, 1711

When Swiss explorer Baron Christoph de Graffenried made these observations in 1711, Theodore Roosevelt Island was called "Anacostian" or "Analostan," words derived from a local Indian name. Native Americans living in the area hunted, fished and gathered food on the 88-acre island. Pottery fragments and stone arrowheads found on the island offer a glimpse into this part of the island's past.

In 1717, the island was purchased by the Mason family of Virginia and would remain in their possession for 125 years. George Mason, who wrote the Virginia Declaration of Rights and helped draft the Federal Constitution, inherited the island from his father. In turn, he willed it to his son, John, who received it upon the elder Mason's death in 1792. John Mason built a brick mansion on the island and extensively cultivated and landscaped the surrounding grounds.

Mason's Island became known as one of the finest farm estates in the area. "Taking the whole together, it is the most enchanting spot I have ever beheld!" wrote journalist and author Anne Newport Royall in 1828. "A smooth, noble river in front, encircled by the same on all sides...the variety ;and richness of the dazzling flowers, intermingled with every shade of green...the broad, straight walks...the exact, level squares... the wild, woven bowers... the varied shrubbery, the lofty trees... the melody of the birds, every where redundant in the nicest touches of taste and skill... it staggers belief that such is reality, and fills the mind with intoxicating pleasure."

In 1832, the Masons left the island after a causeway built to the Virginia shore stagnated part of the Potomac River and created unhealthy living conditions. During the Civil War, the federal government took over Mason's Island and used it as a draft rendezvous point. It also was an encampment for the 1st United States Colored Troops, one of the first formally established black Army units in the war. A variety of structures were erected on the island at this time and were used in the training and housing of the soldiers.

Except for the war period, Mason's Island was used for farming and a variety of recreational activities. Boxing matches, jousting tournaments and even balloon launches took place there. Beginning in the 1890s, various proposals were made for use of the island, including one for a large coal gas manufacturing plant, one for an amusement park and yet another for a grand hotel and exhibition building. But these ideas fell by the wayside, and in 1931 the island was purchased by the Roosevelt Memorial Association for a living memorial to the 26th U.S. president.

Construction of the formal memorial, which includes a 17-foot bronze statue of Roosevelt, began in 1963. The memorial was formally dedicated on October 27, 1967. Owned and maintained by the National Park Service, the memorial and the island that now bears Roosevelt's name serve as a reminder of the president's conservation legacy.

## Theodore Roosevelt: A Colorful Life

Theodore Roosevelt truly was a renaissance man. He was a naturalist, author, explorer and even a rancher. His military skills were the stuff of legend, and his political career as governor and United States president earned him a revered place in history. "Such versatility, such vitality, such thoroughness, such copiousness," wrote the famous naturalist John Burroughs, "have rarely been united in one man."

Born in New York City on October 27, 1858, Roosevelt was determined to overcome the asthma and other ailments that kept him bedridden for much of his youth. He set up his own home natural history museum by age eight, inspired by the many books his uncle, Robert B. Roosevelt, had written about natural history. Roosevelt was proficient in taxidermy by his 11th birthday. When he was 14, he journeyed up the Nile River with his family, keeping an extensive diary filled with observations of animal behaviors and natural phenomena. This trip also provided the opportunity to collect dozens of bird species. As an adult, he was considered to be one of the foremost field naturalists in the country. Following in his uncle's footsteps, Roosevelt authored many books about natural history.

Theodore Roosevelt rose to the presidency in 1901 following the assassination of President William McKinley. At this time, our nation's natural resources were facing severe threats. More than half of our timber had been cut, fertile topsoil had washed into rivers and many wildlife species were threatened with extinction. Conservation - using natural resources such as trees and water in a way that leaves them unimpaired for future generations to use - was a new concept in Roosevelt's time. Many people viewed natural resources as inexhaustible and wilderness as something to be conquered. Roosevelt, who once said there "be no greater issue than that of conservation in this country," brought this issue to the forefront of the national conscious.

During Roosevelt's presidency, the number of National Parks in the United States doubled. Roosevelt established such sites as Grand Canyon in Arizona, Muir Woods in California, Devil's Tower in Wyoming and Jewel Cave in South Dakota. He also established 51 Federal Bird and Game Preserves (later known as National Wildlife Refuges). This included our nation's first preserve, Pelican Island, in Florida. During the Roosevelt administration, 150 million acres of forest were added to our National Forest system.

In 1908, Roosevelt called for a conference of governors to consider issues dealing with the conservation of our natural resources. From this conference, the 49-member National Conservation Commission was formed to prepare this country's first study of its natural resources. The majority of governors attending also established conservation commissions in their home states.

Roosevelt's love of nature was reflected not only in the policies he put into law but also in his day-to-day actions. Tradition holds that Roosevelt once was late for an important White House meeting, a cause for concern among some of those attending. Finally, the president burst through the door. "Gentlemen," he exclaimed, "you'll never believe what has happened. I just saw a Chestnut-sided Warbler, and it is only February!" Roosevelt never lost the love for birds he developed as a youth.

"I would like to see all harmless wild things, but especially all birds, protected in every way," Roosevelt wrote in 1899. "Spring would not be spring without birds and flowers and I only wish that besides protecting the songsters, the birds of the grove, the orchards, the garden and the meadow,

we would also protect the birds of the seashore and of the wilderness. When I hear of the destruction of a species I feel just as if all the works of some great writer had perished."

### **Theodore Roosevelt Island: Natural History**

Theodore Roosevelt Island provides habitat which supports a wonderfully diverse community of life.

The island actually contains three distinct communities: upland forest, swamp forest/floodplain, and tidal marsh. Each community contains characteristic plant and animal species. Nearly 50 tree species have been identified on the island. Willow oaks line the memorial area and the surrounding upland forest contains tulip poplar, beech, hickory and several species of oak. Willow, ash, and sycamore grow in the wetter areas; they don't mind getting their feet wet. In addition to the trees, other woody vegetation includes spicebush, a common understory shrub whose yellow flowers bloom early in the spring. Poison ivy, a food source for many birds, exists in all three communities of the island. Approximately 275 herbaceous plant species have been identified on the island, including a colorful variety of spring wildflowers.

Living among this profusion of plants are several species of mammals. Along the island's perimeter and areas adjacent to the tidal marsh, signs of beaver activity are plentiful. Raccoon tracks are visible on the river's banks and in muddy areas along the island's trails. Mole tunnels crisscross the wooded areas surrounding the memorial, and gray squirrels move busily through the upland forest. Other resident mammals include red fox, opossum, shrews and chipmunk. While most of these animals are rarely seen by island visitors, signs of their presence -- tracks, nests and scat -- are there to discover.

Several species of reptiles and amphibians live on and around the island. Box turtles wander through the upland forest, while snapping turtles patrol the surrounding waters. In summer, painted turtles sun themselves on logs littering the shore. Fowler's toads frequently are encountered along the island's trails. Several frog species might be seen or heard in the marsh and swamp areas, including spring peepers, pickerel frogs and bull frogs. Black rat snakes, eastern garter snakes and northern water snakes all are found here. There are no poisonous snakes on the island, and the resident snakes are quite shy.

The most conspicuous and plentiful of the island's inhabitants are birds. Throughout the year, a wide variety of birds utilize the island for nesting, feeding and resting during migrations. To date, more than 150 bird species have been identified there. The northern cardinal, Virginia's state bird, is a year-round resident. The red and orange trumpet creeper flowers in summer, attracting ruby-throated hummingbirds. A variety of herons and egrets -- great blue and green-backed herons, and snowy and great egrets -- wade along the shore or in the marsh searching for their next meal. Other birds who live on or frequent the island include great horned owls, bald eagles, red-tailed hawks, wood ducks, belted kingfishers and several woodpecker species.

### **The Hidden Community**

There is a hidden community on Theodore Roosevelt Island, a community undiscovered by most island visitors. It is inhabited by sow bugs and slugs, millipedes and fungi. It is here -- beneath the leaves and rocks, in the soil and fallen logs, hidden in the branches of shrubs and the bark of trees -- that a careful observer will discover spectacular spiders, beautiful beetles and ambitious ants. These



organisms play a crucial role as members of the island community: they are the decomposers and recyclers, the aerators of the soil and vital strands in the island food web.

**Outdoor Classroom**

Though surrounded by urban development, Theodore Roosevelt Island supports a diverse community of plants and animals. The island community is a fragile, complex and interrelated web of organisms, each contributing to the survival of the island ecosystem as a whole. The island's proximity to large urban areas, its fascinating history and its diverse community of plants and animals make it a natural place for exploration and learning.

## Resources

Alden, Peter and Sill, John. A Field Guide to the Birds Coloring Book. Boston, MA: Houghton Mifflin Company, 1982.

Bull, John and Farrand, Jr., John. National Audubon Society Field Guide to North American Birds: Eastern Region. New York, NY: Alfred A. Knopf, Inc., 1994.

Burnie, David. Bird. New York, NY: Alfred A. Knopf, Inc., 1988.

National Wildlife Federation. Ranger Rick's Nature Scope: Birds, Birds, Birds. Washington, DC: National Wildlife Federation, 1989.

Ortho Books. How to Attract Birds. San Ramon, CA: Ortho Books, 1983.

Peterson, Roger Tory. Eastern Birds. Boston, MA: Houghton Mifflin Company, 1980.

Wilds, Claudia. Finding Birds in the National Capital Area. Washington, DC: Smithsonian Institution Press, 1983.

Zim, Herbert S. and Gabrielson, Ira N. A Golden Guide to Birds. New York, NY: Golden Press, 1956.

For information on the Ranger Rick Nature Scope series and starting a Schoolyard Habitat, contact the National Wildlife Federation, 1412 Sixteenth St., N.W., Washington, D.C. 20036-2266.

The Smithsonian Migratory Bird Center publishes a series of fact sheets on birds and related topics. For information write: Smithsonian Migratory Bird Center, National Zoo, Washington, D.C. 20008.

### Web Sites:

National Fish and Wildlife Foundation/Partners in Flight program: <http://www.nfwf.org>

American Bird Conservancy: <http://www.abcbirds.org>

National Park Service: <http://www.nps.gov> (check out PARKNET)

Bird Watchers Digest: <http://www.petersononline.com>

## Program Guidelines

### Chaperones

Chaperones are an essential part of a successful Parks as Classrooms program. We require at least one chaperone for every ten students. Secure the right amount of chaperones as early as possible; consider creating a back-up list in case of cancellations. Please review the following rules and suggestions with your chaperones, as well as the safety rules.

Your primary responsibility is to the students and the students' safety. You should be actively involved in keeping the group together and quiet on the trails.

Be prepared to participate in all activities with the group.

Allow students to learn through trying and asking.

Remember, providing information is not as important as stimulating thinking. If chaperones don't know something, that's okay.

No smoking.

Chaperones, as well as students, must wear long pants, shoes and socks. Please, no sandals, flip-flops, or river (raft) shoes.

### School Regulations

Follow your school district's requirements for field trips (principal, parental approval, making bus arrangements, etc.).

### Pre-Visit Activities

Pre-visit activities prepare students for a more meaningful and rewarding visit to Theodore Roosevelt Island. Review the pre-visit activities and conduct those that your schedule allows. Also, review the list of terms included in this booklet with your students prior to their visit.

### Clothing

Review what to bring and what to expect with students and chaperones. Some island trails used during this program may be muddy depending on recent weather patterns. Everyone should wear long pants and shoes that they don't mind getting muddy. Please, no dresses, shorts, heels, sandals, flip-flops, or river (raft) shoes.

### Rest Rooms

Restrooms on Theodore Roosevelt Island are not conveniently located in relation to the program area. Be sure to give students an opportunity to visit a restroom prior to their visit to the island.

**Food and Drink**

The memorial area provides a fine setting for lunch following the conclusion of the program. Lunches can be stored on the island during the program, however, there is no refrigeration available. Water is available on the island.

**Nametags**

To enable the Ranger to make the trip more personal for each student, please have students wear nametags on their outermost layer of clothing.

**Group Size**

Class size is limited to 30 students. Please divide your class into two smaller groups before arriving at the island (they will be split into these groups following the introductory activity). Also, if you further divide these two groups into four equal groups (Discovery Groups), it will add to the efficient flow of the program.

**Safety Considerations and Park Guidelines**

In order to ensure a safe and rewarding experience, please be sure to review the following guidelines with all participants prior to your visit:

- Respect the plants and wildlife. Remember that ALL plants and animals are protected in National Parks.
- Respect each other and other trail users. As other visitors will be enjoying the island during our visit, we will be as quiet and organized as possible. Yelling, running, and talking over others are examples of inappropriate behavior.
- Follow the Ranger. Allow the Ranger to lead the group while hiking on the island. A teacher or chaperone should follow the end of the line.

**Post-Visit Activities and Evaluation**

The post-visit activities are designed to reinforce and build upon the knowledge base gained in the park. Review these activities and conduct those which you feel would best benefit your class. We encourage you to complete and return the evaluation form located in the back of this booklet. Your comments will assist us in expanding and improving this program.