



The Wonderbook of Nature: Exploring Natural History at Sagamore Hill – *A Junior Ranger Activity*



*“The nation’s
most valuable asset
is the children;
for the children
are the nation of
the future.”*

—Theodore Roosevelt
at the Jamestown Exposition, VA
June 10, 1907

Junior Ranger Program

Sagamore Hill National Historic Site is offering our young visitors a special opportunity to visit President Roosevelt’s Summer White House and to have fun in the process by taking part in a number of different Junior Ranger Activities on site.

These activities will teach children about the Roosevelt family and their home while earning a Junior Ranger **badge** and **certificate**. These programs also introduce *Ranger Activities*, the concepts of conservation and stewardship to young people.

In order to earn the Junior Ranger badge, the young person must complete *any one* of several activities. These are the activities currently offered:

1. Theodore Roosevelt and His Sagamore Hill Home
2. The Theodore Roosevelt Museum History Hunt
3. Letterboxing Adventures at Sagamore Hill
4. The Wonderbook of Nature:
Exploring Natural History at Sagamore Hill

Those completing three or more of the activities are entitled to the special Sagamore Hill Junior Ranger Patch. (You must show the certificates or the completed booklets to receive the patch).

Beginning to Read and Enjoy the Wonderbook of Nature

“It is an incalculable added pleasure to anyone’s sum of happiness if he or she grows to know, even slightly or imperfectly, how to read and enjoy the wonderbook of nature.”

—Theodore Roosevelt

A Naturalist at Sagamore Hill

Theodore Roosevelt (TR) always had an intense interest in the natural world. As a young boy, TR began to watch and study birds. TR launched his own scientific expeditions beginning at an early age. When he was about ten years old, his father took the family on a journey to Europe and Egypt. TR collected and saved his own specimens from these trips. Back in his home in New York City, he created “The Roosevelt Museum of Natural History” in a corner of his bedroom.

So intense was his love of the natural world that TR entered Harvard with the intention of devoting his life to the study of natural history. He wanted to become, as he said in his autobiography, “a scientific man of Audubon.” His study of birds (ornithology) was meticulous as well and developed into a life-long passionate study. He could identify birds from their calls as well as their plumage. For TR, a bird’s “music meant more to him than its color.”

Although TR eventually entered a career in politics, natural history always remained an important part of his life. TR said, “It is an incalculable added pleasure to anyone’s sum of happiness if he or she grows to know, even slightly or imperfectly, how to read and enjoy the wonderbook of nature.”

Driven by this love of the natural world, TR created a home for his family in the countryside of Oyster Bay, rather than the urban setting of New York City. He wanted woods to roam, water for boating and islands to explore, especially for his children. On one Father’s Day, TR led his family on a walk at Sagamore Hill, observing over 42 species of birds. This was quite an accomplishment for one day! No one has surpassed this number of sightings of bird species at Sagamore Hill in one day.

Remember:

This is a National Historic Site. You may not collect or keep any plant, insect or animal species. This includes shells, rocks, leaves and flowers. Be aware, some of these species can sting, bite, produce rashes or carry disease. Stay on the trails. There is no swimming or fishing allowed on the beach. Help preserve this site by following the rules.

When the Roosevelt family lived at Sagamore Hill one hundred years ago, it was a working farm with fields of crops, livestock and horses in pastures, and vegetable and flower gardens.

The eastern end of the property with its trail down to the beach has always been a wooded area rich in plant and animal species and has been relatively unchanged since TR's day. It is in this woodland area that TR enjoyed reading the "wonderbook of nature," exploring the woodlands, marshes and waters of his property.

He and his family often walked on a path through the woods to reach the beach overlooking Cold Spring Harbor, where they swam and launched their boats. This path still exists and is now our Nature Trail. Hike this trail today and you can learn to "**read and enjoy the wonderbook of nature**" known to TR and his family.

Reading the Wonderbook of Nature



As you explore the grounds and trails of Sagamore Hill, look about you and read the “**wonderbook of nature**.” Begin to identify the species of birds, animals, plants and trees. When you have made a positive identification, check it off in the tally box provided. You will probably not be able to identify everything in this booklet during one visit, but the goal is to become aware of the natural world in more detail. You will see that a woods is made up of **many** trees; then you will begin to notice the **variety** of trees. You will see that there are **different** species of birds and a wide variety of plant species in the meadows and woodlands. You will see the forest and its trees, the meadow and its plants.

In order to earn a Junior Ranger Badge for the Wonderbook of Nature Activity, you need to identify a minimum of one in each of the bird, animal, plant and tree categories.

Good luck and happy hunting! Enjoy reading the wonderbook of nature!

“The one passion of his life seemed natural history, and the appearance of a new warbler in his woods – new in the breeding season on Long Island – seemed an event that threw the affairs of state and the presidential succession quite into the background. Indeed he fairly bubbled over with delight at the thought of showing them to his visitors.”

—John Burroughs

Trees

❑ Oak *Quercus sp.*

There are over 300 species of oaks in the world. Look for the lobed leaves and acorns of the white oak and red oak. These trees can be found on the lawns and in the woods of Sagamore Hill.

Illus. MTW.



❑ Maple *Acer sp.*



Maples are characterized by their simple, opposite leaves and doubly winged fruit called “samara.” Look for the more common red maple and the sugar maple, the source for most maple syrup. You can find a stand of maples near the picnic area.

Illus. DH.

❑ Tulip Poplar *Liriodendron tulipifera*

One of the largest of the eastern trees, the tulip tree is a prized lumber producing tree because it grows straight and tall. Look for the tulip-shaped leaves, the unique cup-shaped flowers and cone-like fruits. These trees can be found in the parking lot and the woods.

Illus. DH.



Often referred to as the “elephant tree” because it looks like a giant elephant’s foot, the copper beech is a massive tree with smooth gray bark and copper-colored leaves. Look for this tree right outside the main entrance to the historic home.

Illus. HTW.



❑ Copper Beech

Fagus sylvatica



A large conifer tree with soft flexible needles bundled in groups of five, the white pine has long slender cones often reaching three to ten inches in length. You can find this tree near the historic home. *Illus. DH.*

❑ Eastern White Pine

Pinus strobus

Usually a small understory tree, sassafras is unique in that it produces three distinct leaf shapes with one, two or three lobes. Birds are attracted to the fruit of this tree. The leaves often provide food for swallowtail butterfly larvae. Look for these trees along the nature trail. *Illus. MTW.*



❑ Sassafras

Sassafras albidum

Plants and Shrubs

❑ Jewelweed *Impatiens capensis*



A tall woodland annual that blooms early to late summer, the flowers of the jewelweed are orange and trumpet-shaped. Jewelweed is used as an anti-itch for poison ivy. *Illus. MTW.*

❑ Queen Anne's Lace *Daucus carota*

Queen Anne's lace has feathery, finely divided leaves. The showy white flower is shaped like an umbrella and is made up of many small flowers in a lace-like pattern. This plant can be found in the meadows and roadsides. *Illus. RTP.*



❑ Eastern Poison Ivy *Toxicodendron radicans*



All parts of this plant are toxic. The leaves may have various shapes, colors and forms but are generally green in color and mitten-shaped. They can be leathery or shiny. Poison ivy can be found growing as a plant or vine.



A spring wildflower often called a buttercup, Marsh Marigold has shiny yellow flowers with round or heart-shaped leaves. Look for these flowers in the fields. *Illus. MTW.*

This is a common plant found in fields and along roadsides. Leaves are in groups of three. This plant is part of the pea family. It has a purple round-headed flower. *Illus. RTP.*



☐ Marsh Marigold

Caltha palustris

☐ Red Clover

Trifolium pratense



There are two main types of marsh grass found here, saltmeadow cordgrass (*Spartina patens*, right) and smooth cordgrass (*Spartina alterniflora*, left). Saltmeadow cordgrass is less tolerant to salt and will be found on higher ground, while

smooth cordgrass can tolerate more aquatic conditions. These native grasses are essential to a well-functioning salt marsh.

Both illus. by MTW.



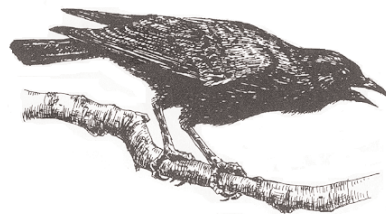
☐ Marsh Grass

Spartina sp.

Birds

American Crow *Corvus brachyrhynchos*

A widespread, common bird, the glossy black-feathered crow is often seen in groups. This bird is an opportunistic omnivore, taking advantage of any food available. *Illus. MTW.*



American Robin *Turdus migratorius*



An American robin is a common thrush with a gray back, red breast, and a black head and tail. It is often seen on lawns and fields searching for insects. *Illus. MTW.*

Northern Mockingbird *Mimus polyglottos*

This is a medium-sized gray songbird with a long tail. It has long complex songs. This bird has done well in the suburbs. It is often very territorial during nesting season. This bird is often seen near the visitor center. *Illus. LB.*





One of the largest birds of prey, it feeds almost exclusively on fish. It has a white eye stripe and has special pads on the soles of its talons to help it grip slippery fish. It makes large stick nests atop telephone poles and nesting platforms. *Illus. MTW.*

▣ **Osprey**
Pandion haliaetus

A common woodpecker of open fields, the northern flicker often feeds on insects on the ground rather in trees. Using its long tongue, it catches its favorite food, ants. Look for the yellow-shafted form in the grassy lawns around the house. *Illus. LB.*



▣ **Northern Flicker**
Colaptes auratus



Look for the great egret (*Ardea alba*), which is white, or the great blue heron (*Ardea herodias*). Both are very large wading birds found in the salt marsh. These birds are identifiable by their beak, leg and feather colors. See if you can find other wading birds. *Illus. MTW.*

▣ **Wading Birds**
Ardea sp.

Small Mammals

❑ Eastern Chipmunk

Tamias striatus



The eastern chipmunk is a small, ground-dwelling squirrel with erect ears, cheek pouches and a slightly bushy tail. It has reddish brown fur with stripes on its face and back. Look near the historic home for these little rodents.

Illus. MTW.

❑ Eastern Gray Squirrel

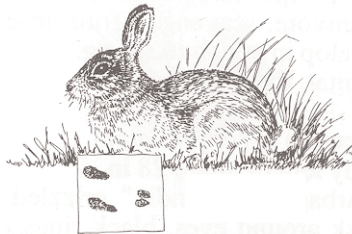
Sciurus carolinensis

Mostly gray with white under-sides and a long bushy tail, this squirrel has adapted to urban and suburban habitats. A member of the rodent family, squirrels feast on nuts, especially acorns and seeds. Squirrels can be found throughout the site. *Illus. MTW.*



❑ Eastern Cottontail

Sylvilagus floridanus



This big-eyed rabbit with a brown or grayish body has a white underside and a signature cotton white tail. Look for these rabbits, at dawn and dusk, on the lawns of the site, or near the Visitor Center. *Illus. MTW.*

A large nocturnal (active at night) mammal with a black mask around its eyes and black rings on its long tail, the raccoon has adapted well to suburban and urban areas. Though raccoons can be active during the day, use caution and do not approach one as it could be sick.

Illus. MTW.



❑ **Raccoon**
Procyon lotor



This nocturnal canine has mostly a reddish brown coat with white underside and throat, long bushy tail with white tip, and black pointed ears and feet. The red fox is considered an omnivore and has adapted well to suburban areas. Look for them early in the morning, or evening, crossing the roads around TR's house.

Illus. MTW.

❑ **Red Fox**
Vulpes vulpes

This common small gray mammal has strong front feet for digging, a stubby tail and pointed snout. This carnivore, with slightly poisonous saliva, consumes mostly earthworms and insects. They can be spotted scurrying on the ground in just about every habitat. You might encounter one in or near the field. *Illus. MTW.*



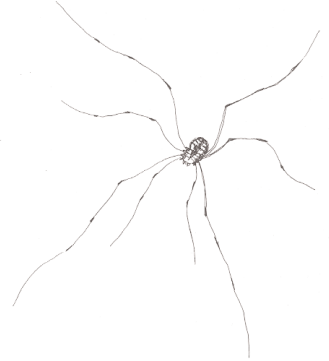
❑ **Short-tailed Shrew**
Blarina brevicauda

Insects and Insect-like Creatures

❑ Daddy-Long-Legs

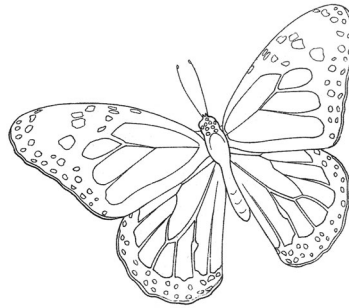
Phalangium opilio

Although it looks like a spider, it is not considered a true spider. Also called the harvestman, this carnivore eats mostly insects and mites. Look for daddy-long-legs creeping up the buildings or on walkways and trails.
Illus. MTW.



❑ Monarch Butterfly

Danaus plexippus

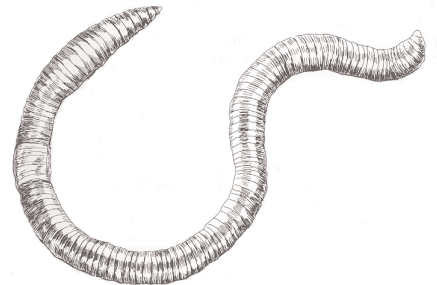


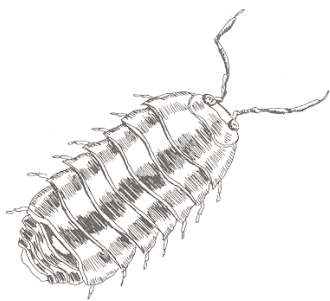
Monarchs have orange wings with black markings along the border. They lay their eggs on milkweed leaves, which is a common plant in fields, meadows and along roadsides. Monarchs are capable of flying over two thousand miles from as far north as Canada to the mountains in Mexico. *Illus. RS.*

❑ Earthworm

Lumbricus terrestris

Earthworms live in the soil in most woodland habitats. They feed by burrowing through the ground while ingesting soil and leaf litter. Their segmented body is pinkish-brown in color.
Illus. MTW.





Other names for this isopod include sow bug and woodlice. They are often called miniature armadillos because of the hard, gray segmented exoskeleton that resembles the armored plates of an armadillo.

Pillbugs are easily found in moist shaded areas, under leaf litter, rocks and logs. They protect themselves by rolling into a ball. *Illus. MTW.*

Green darners are recognized by their bright green thorax and blue abdomen. The green darner is considered one of the fastest and biggest of the common dragonflies.



Dragonflies feed on mosquitoes and other flying insects. Look for the green darner, as well as other dragonflies, around the fields and near ponds. *Illus. MTW.*



Yellow jacket wasps have the distinctive yellow and black markings on their head, abdomen and thorax. Yellow jackets drink nectar from flowers. But because of their attraction to juices and sodas, they can be pests at picnic tables. In addition to picnic areas, these wasps may

be buzzing around meadows, forest edges, decaying trees and logs.

Pillbug

Armadillidium vulgare

Green Darner

Anax junius

Yellow Jacket

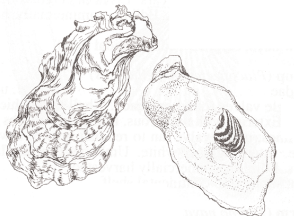
Vespula sp.

Shells and Sea Creatures

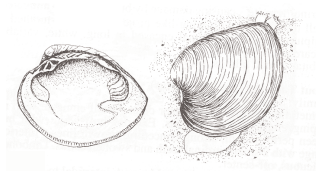
Common Shells:

There are over one hundred twenty known sea shell types on Long Island. Here is a small sampling of what you may find on our beach. What other types can you find?

Common Atlantic Slipper *Crepidula fornicata*, Illus. MTW.



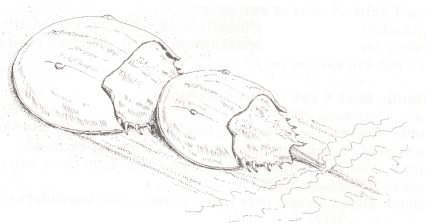
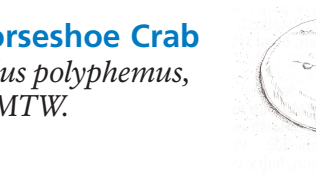
Eastern Oyster *Crassostrea virginica*, Illus. MTW.



Blue Mussel *Mytilus edulis*, Illus. MTW.



Common Clam *Mercenaria mercenaria*, Illus. MTW.

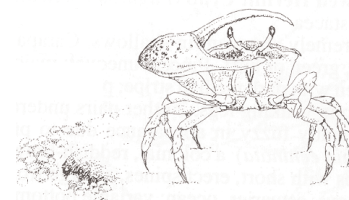
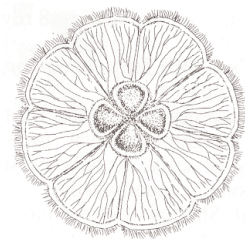


Sea Creatures:

Look for the shells or remains of these animals, or if you are lucky, the living creature.

Horseshoe Crab *Limulus polyphemus*, Illus. MTW.

Moon Jellyfish *Aurelia aurita*, Illus. MTW.



Fiddler Crab *Uca sp.*, Illus. MTW.

Glossary

Abdomen: The part of an insect's body below the thorax.

Alternate: Leaves are arranged on the stem one after the other, not opposite one another

Aromatic: Having an aroma; fragrant or sweet-smelling.

Carnivore: A flesh-eating animal.

Conifer: Needle-leaved or scale-leaved, chiefly evergreen, cone-bearing trees or shrubs such as pines, spruces, and firs.

Deciduous: Shedding or losing foliage at the end of the growing season.

Elongate: Having a long, narrow shape.

Evergreen: Having foliage that persists and remains green throughout the year.

Exoskeleton: A hard outer structure of an insect that provides protection or support.

Expedition: A journey undertaken by a group of people with a definite objective.

Fertilization: The initial process of biological reproduction.

Field Guide: An illustrated book that provides descriptions of plants or animals found in nature.

Fruit: The ripened part of a seed-bearing plant containing the seeds and occurring in a wide variety of forms.

Habitat: The area or environment where an organism or ecological community normally lives or occurs.

Herbaceous: Green and leaflike in appearance, or texture, as opposed to a woody plant.

Herbivore: An animal that feeds chiefly on plants.

Hybrid: Plants produced by breeding different varieties or species.

Invasive: Referring to plants that have the tendency to spread aggressively and replace native populations.

Isopod: Crustacean with seven pairs of legs and flattened body.

Larval: The newly hatched, wingless, often wormlike form of many insects.

Lobe: Leaves with indented rounded sections on the leaf edges.

Marsupial: A group of mammals in which the females have a pouch where the young are fed and carried.

Native: Originating, growing, or produced in a certain place or region.

Natural History: The study and description of organisms and natural objects, especially their origins, evolution, and interrelationships.

Naturalist: One versed in natural history, especially in zoology or botany.

Nocturnal: Active at night.

Omnivore: Animal that eats anything edible.

Opposite: Plants with leaves found directly across from each other.

Ornithology: The branch of zoology that deals with the study of birds.

Poisonous: Capable of harming or killing; toxic or venomous.

Proboscis: The slender, tubular feeding organ of insects.

Scavenger: An animal, such as a bird or insect, that feeds on dead or decaying matter.

Segmented: Divided into, or made up of, distinct parts or segments.

Serrated (saw-toothed): Leaves that have notched edges.

Simple: Undivided leaf, having only one leaf blade.

Species: Taxonomic classification.

Territorial: Referring to an animal that defends its home, and area around it, from intruders.

Thorax: The second or middle region of the body of insect between the head and the abdomen.

Toxic: poisonous, as in rash caused by poison ivy.

Understory: The area of a forest consisting of small trees between the canopy and shrub layer.

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20 Sagamore Hill Road
Oyster Bay, New York 11771

Explore and enjoy all the Junior Ranger Activities currently offered:

1. Theodore Roosevelt and His Sagamore Hill Home

This activity is completed following a visit to the home of the 26th president. Children may do this when they visit with their families, or it is administered as a take-back-to-class activity for school groups who have visited.

2. The Theodore Roosevelt Museum History Hunt

Be a history detective and test your powers of observation. This activity is administered to young people and their families, or during a site visit by school groups. For many children this will be their first Junior Ranger experience.

3. Letterboxing Adventures at Sagamore Hill

An activity in which you are the detective in search of a hidden letterbox using clues in this booklet. Letterboxing is known as *The Outdoor Treasure Hunting Pastime* and involves use of compass orientation and puzzle solving.

4. The Wonderbook of Nature: Exploring Natural History at Sagamore Hill

This activity book is a field guide to some selected species of plant and animal life found at Sagamore Hill. The activity teaches children to use a printed guide book to identify plants and animals.

EXPERIENCE YOUR AMERICA™

The National Park Service cares for special places saved by the American people so that all may experience our heritage.

Thanks to the Friends of Sagamore Hill for their financial assistance in creating and printing these materials.

The Sagamore Hill Series: Connecting America's Children to Theodore Roosevelt and His Sagamore Hill Home. It is the purpose of this series to use historic photos, artifacts, political cartoons and the like, to tell the story at age appropriate language to reach young people and to serve as a platform and entry point for additional exploration and discovery via print and web-based distance-learning activities.

These materials were developed by the professional and volunteer National Park Service staff at Sagamore Hill NHS, Oyster Bay, New York, to mark the centenary of TR's Presidency in 2006.