

U.S. Fish & Wildlife Service

Freshwater Marsh Trail

*Chincoteague
National
Wildlife Refuge*



The dramatic seasonal changes of the Freshwater Marsh Trail offer visitors extraordinary wildlife viewing opportunities the entire year. Listen to the noisy chatter of ducks and geese during their fall migration or watch an egret's graceful hunt in the drier summer months. Each visit promises a unique experience.

Why are freshwater marshes so important to people and to wildlife?

Wetlands at Work!

Marshes provide habitat for migratory and resident wildlife.

Marshes prevent floods by acting like giant, shallow bowls that collect and hold water. During times of heavy rain or snow melt, they slow the movement of water into rivers and streams.

Marshes replenish groundwater supplies, an important source of drinking water.

Marsh plants act as a natural filtration system and water purifier by absorbing or trapping chemicals, pollutants, and silt.



Snow Goose Pool. Photo: ©J.D. Englar.

Hitting the Trail

The entrance to the Freshwater Marsh Trail is across the parking lot from the Refuge Visitor Center. The trail, returning to the visitor center, is about 1 mile. Along this trail you will find numbered signposts which correspond to the numbered descriptions (❶) in this guide.

Take time to linger along the way, and fully absorb all the fascinating sights, sounds, and smells of the freshwater marsh.

1

A Man-Made Marsh

The freshwater marsh trail travels along a causeway or dike. Early in its history, the refuge created over 2,600 acres of freshwater marsh through a system of dikes to provide habitat for migratory waterfowl and other animals. In the spring, refuge staff remove boards from water control structures in the dikes to lower water levels. Why do you think they do that?



Great egret, snowy egret, and glossy ibis feeding. Photo: ©Irene Hinke Sacilotto.

Water levels are lowered to create ideal feeding habitat for migratory shorebirds and wading birds, such as egrets and herons. It also exposes moist soil, allowing foods that are favorable to waterfowl to flourish and spread. When the boards are replaced in late summer, rainwater collects in these impoundments or moist soil management units. The resulting water levels satisfy the needs of the thousands of migratory waterfowl (e.g. ducks, geese, and swans) that visit here in the fall and winter.

2

Plants-Pillars of the Community

In front of you is a stand of cattails. These plants are like a wildlife grocery store and motel rolled into one. Muskrats and geese eat their roots. They camouflage the nests of red-winged blackbirds, ducks, and other marsh birds. A variety of animals even hide from predators among their stalks.

Another important food source for wildlife is the three square bulrush. You can feel three obvious sides on this spiky marsh plant. See if you can see some growing alongside the trail. Ducks love to eat its seeds, and geese feed on its roots.



Cattail heads. Photo: ©Lawrence Smith.

3

Wow-Wildlife

Test your observation skills. How many different animals do you see? Can you spot evidence of other animals that have been in the area? If you look carefully in the sand you might see tracks of a raccoon, red fox or deer. If you're with a group, see who can be the first one to spot an insect, reptile, bird, or mammal. Examine the ground and trail edges closely. Can you find any creatures that you had previously overlooked?



Raccoon tracks.
Photo: ©Irene Hinke Sacilotto.

4

The Water Cycle

Depending on the time of year, the area in front of you may or may not be filled with water. A cycle of wet and dry periods are a natural part of a dynamic freshwater marsh. In the hot summer months, water is scarce here. During the remaining parts of the year, life giving water is abundant. Countless tiny plants known as phytoplankton and tiny animals known as zooplankton thrive in the waters of the freshwater marsh. Adding to the mix are thousands of insect larvae and other invertebrates (animals without backbones). You might even see tadpoles, frogs, snakes, turtles, and fish. All of these residents can be a meal for other marsh animals, so it is easy to see why each link in this food chain is important. The bottom of the marsh is an oozy, mucky layer containing decaying plant and animal remains. The marsh plants take root in this ideal nutrient-rich "potting soil." Can you see any signs of the creatures that live in the water?



Fowler's toad.
Photo: ©Irene Hinke Sacilotto.

5

Friend or Foe

The tall feathery plants in front of you are phragmites, a type of grass. These plants are not beneficial to wildlife, as they crowd out more important food sources. Refuge staff use a variety of techniques to control their growth.

As you travel along the trail look for arrow arum, an introduced plant on Assateague Island, brought here by a local resident. Unlike phragmites, this plant has been a success story. Its berries are an important food source for wood ducks. See if you can spot its large arrow-shaped leaves.



Arrow arum. Photo: USFWS.

6

There's No Place Like Home

Nest boxes are a good substitute home for birds that normally nest in hollow tree cavities. The small one in front of you is used mainly by tree swallows. These active birds are popular residents of the marsh because they can eat thousands of mosquitos each day! The larger nest box to your right is for wood ducks. The inverted metal funnel is a predator guard which prevents raccoons and snakes from entering the nest and taking eggs or young birds.

Managing national wildlife refuges helps to provide wildlife with the best possible habitat, because there is truly no place like home!!

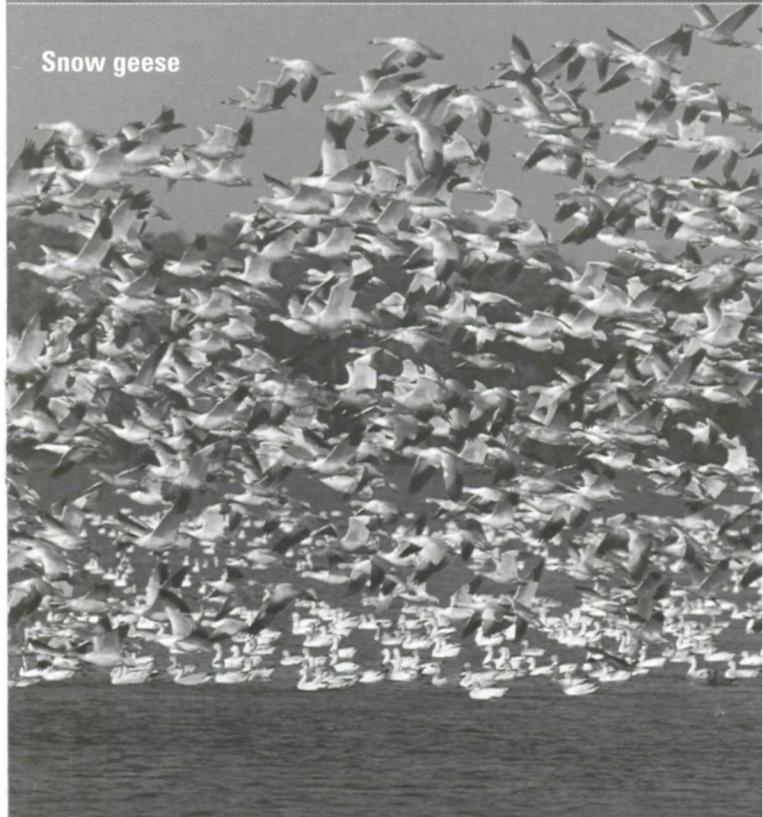
7

A Birding Hot Spot!

Chincoteague National Wildlife Refuge, with its strategic location along the Atlantic Flyway (an ancient migratory bird route along the East Coast), and wide variety of habitats, is tremendously rich in bird life. In fact, more than 300 species of birds have been documented on the refuge. Many of these birds can be seen from the Freshwater Marsh Trail during certain times of the year. Large numbers of wading birds visit from mid-spring to late fall, shorebirds and warblers come through on their spring and fall migrations, and thousands of geese and ducks visit from late fall through early spring.

So whether you see a single laughing gull circling overhead, a group of snowy egrets stalking fish, or tens of thousands of noisy snow geese, hiking the Freshwater Marsh Trail will be an adventure.

Wood duck pair:
Photos: USFWS.
Snow Geese. Photo:
Robert Wilson,
USFWS.

Wood duck pair**Snow geese**

Everything Is Connected

As you approach the overlook platform, think about what you have observed today on this trail. Have you noticed how all the plants and animals depend on something else for their survival? What would happen to all the migratory waterfowl if there weren't any plants for them to feed on when they arrive here in the fall? What would the tree swallows eat if there weren't any mosquitoes? Now ask yourself what your connection is to the freshwater marsh?

Wildflowers: Beautiful and Beneficial

The delicate blooms of the marsh's wildflowers create a wonderland of color. Three types of mallows are present here: the rose, crimson-eyed, and seashore mallow. During the warmer months, their large showy flowers attract butterflies and insects to feed on their nectar. Without their blooms, the "woody" parts of the plant remain as a constant reminder of their spring-time return.



Crimson-eyed mallow. Photo: ©J. Kent Minichiello.

The Wetlands Need Your Help

Less than half of our nation's wetlands remain. Currently, many conservation efforts to protect freshwater marshes and other wetlands (salt marshes, bogs and swamps) are underway. You can support wetland conservation by buying duck stamps. Remember, wetlands are important to people and to wildlife!

If you follow the paved Wildlife Loop to your left, you will soon be back to the boardwalk where you started your hike.

We hope you enjoyed your visit to the fascinating world of the freshwater marsh.

U.S. Fish & Wildlife Service

Chincoteague is one of over 500 refuges in the National Wildlife Refuge System administered by the U.S. Fish & Wildlife Service. The National Wildlife Refuge System is a network of lands and waters managed specifically for the protection of wildlife and wildlife habitat and represents the most comprehensive wildlife resource management program in the world. Units of the system stretch across the United States from northern Alaska to the Florida Keys and include small islands in the Caribbean and South Pacific. The habitat of refuges is as diverse as the nation itself.

The U.S. Fish & Wildlife Service also manages National Fish Hatcheries and provides federal leadership in habitat protection, fish and wildlife research, technical assistance and the conservation and protection of migratory birds, certain marine mammals and threatened and endangered species.

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U.S. Fish & Wildlife Service

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