

U.S. Fish & Wildlife Service

Mackay Island

*National Wildlife
Refuge*



Mackay Island National Wildlife Refuge is one of over 550 refuges in the National Wildlife Refuge System administered by the U.S. Fish and Wildlife Service. The mission of the National Wildlife Refuge System is to administer a national network of lands for the conservation, management, and where appropriate, the restoration of fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.



This blue goose, designed by J.N. "Ding" Darling, has become the symbol of the National Wildlife Refuge System.



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Joseph P. Knapp Mansion (mansion no longer exists).

A Waterfowl Haven

Located along the Atlantic Flyway in northeastern North Carolina and southeastern Virginia, Mackay Island National Wildlife Refuge, established in 1960, provides a sanctuary for thousands of migratory waterfowl, with emphasis on the greater snow goose. Every fall and winter, ducks, geese, and swans fill the marshes and bays of this 8,320 acre refuge. Many other migratory birds and resident wildlife call this area home as well.

Mackay Island History

Historically, Mackay (Mackie or Mackey) Island is generally described as the southwestern portion of a marshy peninsula which juts southward from Virginia into northern Currituck Sound.

The earliest residents of the Island were American Indians as evidenced by artifacts found in the area. Early owners of the Island include John Jones when the island was known as Jones Island, and John Mackie for who the current name is attributed. Over the years the name of the island somehow was changed from "Mackie" to "Mackay." How this happened is unknown.

Snowgeese



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The most influential owner of Mackay Island was a wealthy New York printing magnate and philanthropist, Joseph P. Knapp. He purchased the island in 1918 from Thomas Dixon. Mr. Knapp saw great potential for this island and built a resort and experimented with various wildlife management techniques, some of which are still in use today. He was so taken by the concept of wildlife management that in 1930 he formed an organization called "More Game Birds in America Foundation." Out of this Foundation the waterfowl conservation organization Ducks Unlimited (DU) was born. Mr. Knapp held the first organizational meeting for DU in 1936 and the organization was incorporated in 1938.

In addition to being the father of Ducks Unlimited, Mr. Knapp made significant contributions to the local community. He made sizable donations to the Currituck schools and to the University of North Carolina. Mr. Knapp invested much of his heart and wealth, not only to the conservation of waterfowl, but to the people of Knotts Island and Currituck County, North Carolina.

After Mr. Knapp's death, the property was sold to James Standing in 1952.



Pintail

Historic aerial view of Live Oak Point and Joseph P. Knapp Mansion and grounds.



King rail

The island was logged throughout the 1950's. The U.S. Fish & Wildlife Service acquired the island in 1960 from J. N. Richardson to provide habitat for migratory waterfowl.

Habitats and Wildlife

Dominated by cattails, black needlerush, and giant cordgrass, the area known as the Great Marsh is the predominant habitat feature of the refuge. This slightly brackish marsh habitat comprises nearly seventy-five percent of the total refuge acreage. Other habitats include farmland, marsh impoundments, brush, and typical Eastern pine-hardwood forest.

Mackay Island National Wildlife Refuge plays an important role in the conservation of the greater snow goose. Like many other species of waterfowl, snow geese nest in Canada during the spring and summer months. As the days get shorter and the weather gets colder, they begin their southbound migration. Arriving in November, flocks of over 12,000 birds may occasionally be observed in the Great Marsh.

Other types of waterfowl that use the refuge include many species of ducks, Canada Geese, and Tundra Swan. Waterfowl numbering 20,000 - 30,000 have been documented in December and January.

The refuge attracts many species of wading birds, several types of rails and bitterns, northern harriers, osprey, and bald eagles. On occasion, peregrine falcons and other birds of prey are spotted hunting over the refuge.

In addition to bird life, other forms of wildlife thrive on the refuge. This list includes muskrat, river otter, gray squirrel, raccoon, gray and red fox, whitetail deer, numerous turtles and snakes, including the cottonmouth, and several frog species.



Gadwall



VIRGINIA BEACH CITY
CURRITUCK CO.

VA
NC

Back Bay

Flynns Folly

Bull Bay

Barleys Bay

Kuralt Trail Overlook

Great Marsh Trail

Hegge Overlook

Hegge Impoundment

Marsh Causeway

Joseph P. Knapp
Visitor Contact Station

Back Creek

Great Marsh

Knotts Island Market

615

Proclamation Boundary

Mackay Island

East Pool

Mackay Island Road

Brumley Road

Trails

- Mackay Island Trail
2.9 miles
- Live Oak Point Trail
5.5 miles
- Cross Dike

Legend

- Refuge Boundary
- Proclamation Boundary
- Roads
- Service Roads
- Disabled Fishing Pier
- Maintenance Shop
- Dike Gate
- Visitor Information
- Overlook
- Currituck Sound Ferry

Middle Pool

West Pool

Bellows Bay

Buck Island Bay

Currituck Sound

2000 0 2000 4000 Feet

Mackay Island National Wildlife Refuge



Wintering waterfowl in the Hegge impoundment.



Above: snow geese, below: bald eagle

Refuge staff actively manage the land to provide optimal wildlife habitats. Using pumps and water control structures, they manipulate water levels in refuge impoundments (pools) to produce plants with high food value for waterfowl. Cooperative farmers assist by growing wheat, corn, and soybeans. A portion of their crop is left in the field providing food for many types of wildlife. Refuge staff conduct prescribed burns in the marshes to preserve healthy marsh ecosystems and generate tender browse for snow geese. They also maintain nest structures to support breeding populations of wood ducks and osprey and administer a refuge deer hunt to prevent overpopulation.

Public Use Opportunities

Though wildlife is the first priority, providing opportunities for the public to enjoy the refuge is also important. A variety of wildlife-dependent recreational opportunities are available at certain times and places on the refuge. These opportunities include wildlife observation, wildlife interpretation, photography, environmental education, fishing and hunting.

A variety of facilities are available. The Great Marsh Trail (.3 mile loop), provides a scenic journey through a swamp-like habitat and is home to a variety of songbirds, small mammals, reptiles, and other creatures. The Kuralt Trail and Hegge Impoundment Overlooks provide an excellent view of the Great Marsh and managed impoundments. During the fall and winter, tundra swans, ducks, and large concentrations of snow geese congregate in these areas.

The Mackay Island and Live Oak Point Trails (roads and trails around the impoundments) also provide wildlife observation opportunities. Access around these impoundments



USFWS/Mike Hoff

Prescribed fire

is limited to foot and bicycles only (see Seasonal Closures). A disabled accessible fishing pier can be found on the East Pool impoundment and a small boat ramp, located near the dike gate on Mackay Island Road, is also available for access into the marshes.



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Snow geese after prescribed burn.

Wildlife interpretive displays and literature may be found at the refuge Visitor Contact Station/Office, the Kuralt Trail Overlook, and the Mackay Island Road entrance to help better understand the refuge and its objectives.

Special Events

“Open Roads Day” events are held occasionally, to provide opportunities to fish and to observe waterfowl and other wildlife by driving the dike system around the impoundments (pools).

Seasonal Closures

Most of the refuge is closed to public access from October 16 through March 14 to reduce disturbance to wintering waterfowl. Mackay Island Road from NC 615 to the Dike Gate, the Great Marsh Loop Trail, The Kuralt Trail Overlook, The Hegge Impoundment Overlook, and the Marsh Causeway are open year round. Unannounced and/or seasonal



USFWS / Robert Vanderpool



Green winged teal

closures of some areas may occur periodically to reduce disturbance to sensitive wildlife or to complete maintenance projects. Check for information at the refuge office during the week or at the refuge website for up-to-date information.

The Secretarial Proclamation Boundary surrounding the southern portion of the refuge prohibits waterfowl hunting within that area. This boundary was established to protect the waterfowl that winter on the refuge.

Enjoying the Refuge

There are three access roads through the refuge; 1) The Marsh Causeway which bisects the Great Marsh, 2) the road to the Joseph P. Knapp Visitor Contact Station located about one mile south of the Virginia/North Carolina border on NC 615 and 3) Mackay Island Road located approximately 1.4 miles south of the Marsh Causeway off NC Route 615. If traveling from the south through North Carolina a free ferry is available which travels between Currituck, NC, and Knotts Island, NC.

The following rules and regulations are necessary for the protection of visitors, wildlife, and their habitats.



Refuge hours

The refuge is open during daylight hours seven days a week with the exception of the area near the refuge office which is open Monday through Friday from 10 am to 4 pm.

Vehicles

All motor vehicles are restricted to designated roads and parking areas. ATV's are prohibited on the refuge.

Firearms/ Weapons

Persons possessing, transporting, or carrying firearms on Mackay Island NWR must comply with all provisions of NC and/or VA State and local laws. Persons may only use (discharge) firearms in accordance with refuge regulations (50 CFR 27.42 and specific refuge regulations in 50 CFR Part 32).

Collecting

Gathering, collecting or taking of any plant, flowers, insects, firewood, human artifacts, or wildlife is prohibited.

Pets

All pets must be on a handheld leash.

Hunting

Deer hunting is allowed by permit only.

Fishing

Only recreational fishing is allowed. North Carolina and Virginia fishing regulations apply. Commercial fishing and the use of commercial type gear is prohibited.

Prohibited Activities

Camping; fires and fireworks; boating in impoundments; littering; disturbing or feeding of plants and wildlife.

In addition to these provisions, all State laws, County codes, and Title 50 of the Code of Federal Regulations are enforced on the Refuge. If you have any questions about the legality of an activity, please contact the refuge manager.

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National Wildlife Refuge
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