

Welcome to the Edwin B. Forsythe National Wildlife Refuge, where more than 47,000 acres of southern New Jersey coastal habitats are actively protected and managed for wildlife and for you.



#### **Overview**

Edwin B. Forsythe Refuge's Brigantine and Barnegat Divisions (Forsythe) were originally two distinct refuges, established in 1939 and 1967 respectively, to protect tidal wetland and shallow bay habitat for migratory water birds. In 1984 they were combined under the Edwin B. Forsythe name, in honor of the late conservationist Congressman from New Jersey.

The refuge's location in one of the Atlantic Flyway's most active flight paths makes it an important link in the vast network of national wildlife refuges administered nationwide by the U.S. Fish and Wildlife Service. Its value for the protection of water birds and their habitat continues to increase as people develop the New Jersey shore for our own use.



Atlantic brant

Clay Myers

Wildlife and Habitats... Diversity is Critical New Jersey coastal wetlands have long been the preferred habitat of rails, large numbers of Atlantic brant and the American black duck—a species which has suffered major population declines over the years.

While the refuge's primary concern is to meet the habitat needs of these species, we manage refuge habitats to support a wide variety of water birds and other wildlife. Special emphasis is also placed on protection and habitat management for the endangered and threatened bird species which nest here.

# Marshes and Water Birds

More than 82 percent of Forsythe refuge is wetlands, of which 78 percent is salt marsh, interspersed with shallow coves and bays. These are important resting and feeding habitats, as abundant marsh plants provide food and cover for water birds and other wildlife. The quiet tidal waters serve as nurseries, spawning and feeding grounds for fish and shellfish which are important in the diets of many wildlife species—and of people!

Refuge staff have used the management technique of "diking" to create 1,458 acres of impounded fresh-and brackish-water marsh habitat in the heart of naturally occurring tidal salt marsh. We created these wetlands to support a wider variety of wildlife than native salt marsh could alone. Water levels in the impoundments are managed to enhance the resources on which wildlife depend. In spring, refuge staff draw the water down to maximize growth of plants beneficial



Great blue heron

©Clay Myers

to waterfowl. The drawdown also provides mud flat feeding habitat for shorebirds and wading birds. We reflood the impoundments just in time for the arrival of fall migrants.

Each spring and fall tens of thousands of migrating ducks and geese, wading birds and shorebirds concentrate here. They linger to rest and feed on the rich resources provided by our managed impoundments, thus providing Wildlife Drive visitors with spectacular viewing and photo opportunities. Several migratory species, including the clapper rail, willet, and black duck, remain at the refuge through summer to nest and raise their young. Atlantic brant and black ducks also overwinter here.

Peregrine falcons and ospreys frequent refuge wetlands and take advantage of the nesting platforms erected for their use.

Bald eagles use refuge habitats along the Mullica River, and occasionally forage over refuge impoundments.



American Oystercatcher

#### Barrier Beaches and Endangered Beachnesters

More than 6,000 acres of the refuge are designated as a National Wilderness Area. This includes Holgate and Little Beach, two of the few remaining undeveloped barrier beaches in New Jersey. They provide essential nesting and feeding habitat for the rare piping plover, black skimmer and least tern. These birds, along with other beach-nesting species, have suffered drastic population declines as human beach developments and recreational uses have eliminated the habitat they need. Forsythe refuge is one of their last strongholds.

The dunes, prime nesting habitat, constantly shift and change as the forces of wind and wave action mold them. Beach grasses, which trap blowing sand and stabilize the dunes, provide important cover for wildlife, especially developing young birds. Use by humans and their pets can result in severe erosion, loss of habitat, and harm to beach-nesting birds.

The refuge manages its fragile beach areas for the rare birds which depend on them. In order to minimize disturbance to the birds and their habitat, this management includes limiting or prohibiting public access. Holgate and Little Beach Island are closed to all public use during nesting season. Access to Little Beach during the non-nesting season is by special use permit only.

# Forests, Swamps and Fields

Almost 5,000 acres of the refuge are woodlands dominated by such tree species as pitch pine, oaks, and white cedar. Fields are maintained in the midst of these wooded communities to provide habitat for grasslandnesting birds, and to increase habitat diversity.

A wide variety of upland wildlife species, including songbirds, woodcock, white-tailed deer and box turtles, frequent these upland areas. Waterfowl such as black ducks often nest here.



Woodcock

# Enjoying the Refuge

You can enjoy a wide range of wildlife-dependent activities at Forsythe refuge.

# Wildlife Observation, Photography and Nature Study

Headquarters Area Most of the refuge's public use facilities are located at the headquarters area in Oceanville, open daily sunrise to sunset. This site provides exceptional wildlife viewing, photography, and environmental education opportunities. Accessible rest rooms are available.

## $Wildlife\ Drive:$

The most popular place to view wildlife on the refuge is the Wildlife Drive. This 8-mile, one-way, unpaved road leads you through wetlands and woodlands. Look for spectacular concentrations of migratory water birds in spring and fall, as they stop and linger in refuge habitats managed to meet their needs. Two observation towers and the accessible Experimental Pool Overlook are equipped with spotting scopes. Bring water if you are walking or bicycling.

#### Nature Trails

Leeds Eco-Trail: A scenic .5-mile two-pronged trail through salt marsh and woodlands offers visitors a chance to view "life on the edge" of these two interesting and diverse habitats.

Akers Woodland Trail: A 0.25-mile easy walking path through native woodlands provides many seasonal opportunities to see migrating warblers.

*Jen's Trail:* A 0.75-mile loop offers a gradual ascent to 40 feet above sea level which will provide you with great views of the refuge and colorful forest birds.

Songbird Trail: This 2.2-mile trail through a variety of upland habitats is an outstanding hike to view migratory songbirds. By returning along the Wildlife Drive, you can choose different loop options such as a 3.6-mile loop from Jen's trail or a 5-mile loop from refuge headquarters.

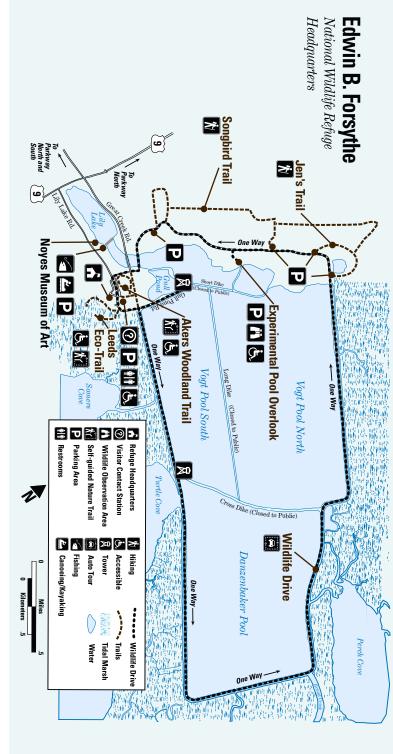
Visitor Contact Station: A great place to plan your visit, our new visitor contact station is the place to go for refuge information. View our interpretive exhibits and visit the Friends of Forsythe Gift Shop. You can review or record bird sightings at our eBird Trail Tracker kiosk.

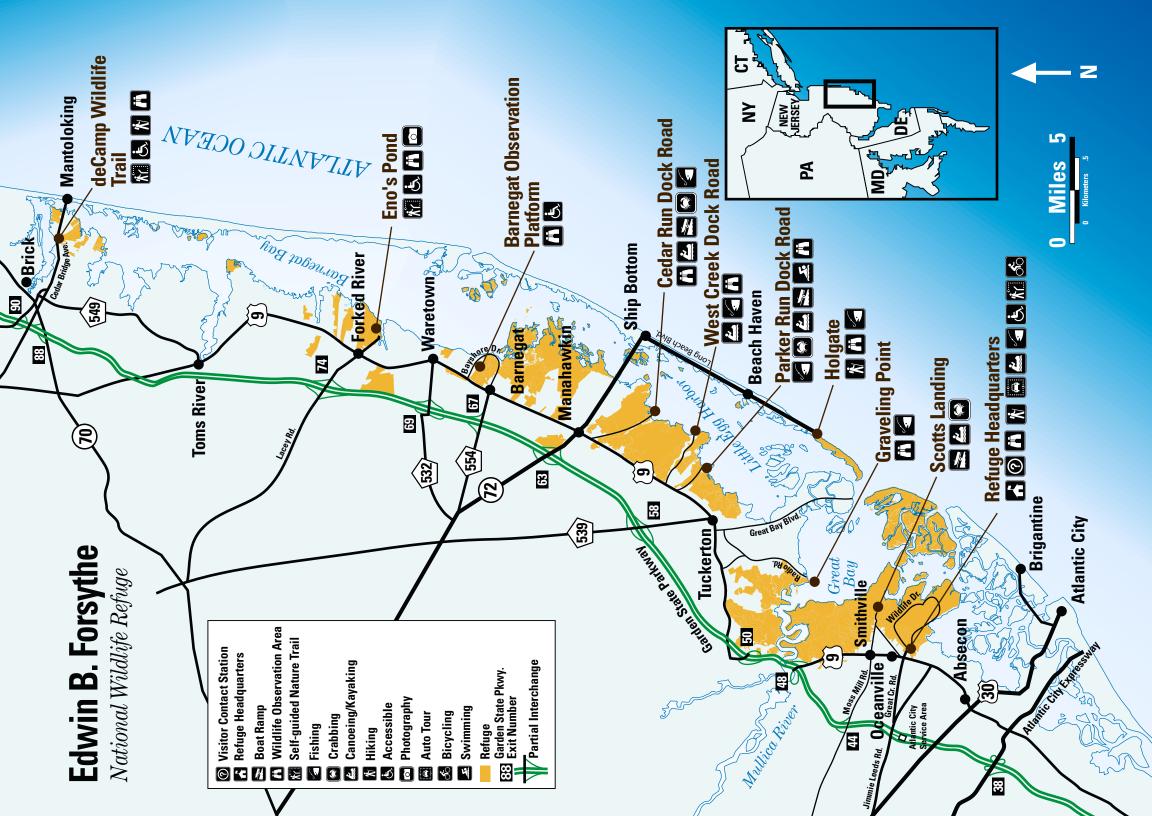
Headquarters and Auditorium: Our auditorium provides space for meetings, environmental education activities, and special programs.

Environmental Education: Please contact the refuge to find out about our offerings for schools and groups seeking environmental education activities.



Yellow-billed cuckoo





### North of Headquarters

Explore refuge forests, marshes, and barrier island beaches dispersed along 50 miles of the Jersey shore north of headquarters.

The Holgate Unit: a 3.5-mile-long beach located at the south end of Long Beach Island offers you seasonal opportunities to observe its dynamic plant and animal communities.

During non-nesting season—approximately September 1 through March 31—you are welcome to walk Holgate's beach front, to take advantage of its plentiful wildlife viewing opportunities. (Sorry, pets are prohibited—they can be harmful to both wildlife and this fragile habitat.)



Piping plover chick

During the nesting season—April 1 through August 31—Holgate is closed to all public access, to ensure undisturbed nesting conditions for threatened piping plovers and other beachnesters. (Holgate is one of the last nesting sites still available for these birds along the Jersey Shore.)

Barnegat Observation Platform: From this accessible boardwalk and overlook, you can see resting and feeding migratory birds in freshwater wetlands. Platform is located on Bayshore Drive.

Eno's Pond: A 1-mile self-guided nature trail loops its way through pine barrens to observation decks and a wildlife blind. The trail is a partnership between Ocean County Parks and Recreation and Forsythe refuge. A 0.5-mile portion of the trail on the county side, is handicapped accessible.

deCamp Wildlife Trail: The trailhead for this 3.4-mile roundtrip hike is located at the junction of Mantoloking and Adamston Roads in Brick Township. The trail passes through tranquil woodlands and ends at a saltmarsh teeming with life. The first 1,700 feet of trail has interpretive signs, benches, and a firm surface.

#### **Hunting, Fishing, and Crabbing**

Waterfowl and deer hunting, fishing, and crabbing are seasonally permitted in designated areas under Federal and State regulations. Anglers may fish for saltwater species at the following shore access points: Cedar Creek (Ocean County, Stafford Township) off Stafford Avenue, Cedar Run Creek (Ocean County, Eagleswood Township) off Cedar Run Dock Road, West Creek Dock Road, Parker Run (Ocean County, Little Egg Harbor Township) off of Dock Road, Gravelling Point (Ocean County, Little Egg Harbor Township) near the end of Radio Road and at Holgate Beach at the southern tip of Long Beach Island (open September 1-March31).

There is a refuge boat ramp on Scotts Landing Road, off Moss Mill Road in Leeds Point. Boat ramps are also located on Parker Run Dock Road, and Cedar Run Dock Road. Visitors are asked to make first visit at low tide to learn channels.

Anglers may fish for freshwater species at Lily Lake (Atlantic County, Galloway Township), including bank fishing from the south shore and boat fishing (no internal combustion engines allowed).

Please visit or call the visitor contact station for additional information, regulations, and maps.

#### Ticks:

Biting insects abound from mid-May through mid-October. Ticks occur all year, and are most active during warmer months. Some ticks may carry Lyme disease, known to be harmful to humans. When hiking, wear closed toe shoes and light colored pants, tuck pants into socks, use insect repellant.

### Important Information for Visitors

The refuge receives more than 200,000 visits each year. Cumulative impacts of this many visits on wildlife and habitat can be great. To ensure that we may continue to fulfill our primary mission of protecting and managing this refuge to support wildlife for the benefit of present and future generations of people, visitors must comply with these simple guidelines and regulations.

The refuge's public use areas are open only during daylight hours (sunrise to sunset).

Visitors are urged to remain on designated roads and trails, leaving adjacent habitat undisturbed for use by wildlife.

Headquarters entrance road and Wildlife Drive speed limit is 15 mph or less, as posted.

Pets, where permitted, must be on a short, handheld leash at all times.

The following are prohibited on the refuge:

Pets are prohibited at Holgate.

Disturbing, injuring destroying, collecting of plants, wildlife or other natural objects.

Feeding wildlife.

Picking fruits or flowers.

Entering closed areas.

Use of bicycles or motorized vehicles on trails.

Jogging on trails.

Camping, swimming, kite-flying, fires.

Horses, off-road vehicles, unregistered motorized vehicles.

Fishing along the Wildlife Drive.

### A Guide to Seasonal Wildlife Activity

Although migratory and other seasonal wildlife events are described below by month for easy reference, actual timing can vary from year to year due to weather conditions and other factors. The best wildlife viewing occurs in spring and fall.

Year-round

White-tailed deer and other resident species can be seen throughout the year.



Red fox

January and February Limited wildlife visibility. Best during thaws. Possible sightings of black ducks, snow geese, Atlantic brant, diving ducks, raptors (perhaps a bald eagle). Cold weather may freeze refuge waterways, forcing waterfowl southward to find open water. The season's first killdeers and red-winged blackbirds may arrive in February.



Red-winged blackbird

George Hall



Cedar waxwings

March 20 to April 15 Northbound waterfowl migration. Spring peepers and other frog species begin their courtship calls in freshwater wetlands. Beach-nesting birds, including piping plovers, arrive on refuge beaches. (Holgate closes to all public entry April 1.)

April 20 to May 30 Wading birds and shorebirds begin to arrive; glossy ibis numbers peak in late April.

Early May

Greatest diversity and peak numbers of warblers in refuge uplands, coinciding with the seasonally increasing insect populations which are a major part of their diet.

May and June

Horseshoe crabs spawn on refuge bay shores and beaches. Migrating ruddy turnstones arrive to forage on the crab eggs. Turtles may be seen laying eggs in the soft dirt along refuge roadways, or sunbathing on roads and wetland edges. Drive carefully.

Mid-June to Mid-July

Peak period when ducklings hatch. These young birds will migrate with adults this fall. August

Best opportunities to see shorebirds and warblers heading south. Wading

birds gather for migration.

September

Ducks gather in large flocks. Blue-winged teal will be the first to

migrate this month.

October

Snow geese begin to arrive in refuge

wetlands.

Early November

Spectacular concentrations of ducks and geese in refuge impoundments;

numbers can exceed 100,000!

Mid-November through December Peak snow goose and Atlantic brant numbers. Ducks and geese moving south. Bald eagle sightings most

likely in December.



Glossy ibis

**Refuge Volunteers** Volunteers assist biologists, staff the headquarters information desk, guide tours, conduct environmental education activities, and maintain trails and facilities. For more information or an application, call 609/748 1535.



Black skimmer

Friends of **Forsythe NWR** Gift Shop:

Located in the visitor contact station, the gift shop offers birding supplies, gifts, and more. Call the refuge or visit our Web site for current store hours.

#### Friends Group

The Friends of Forsythe NWR is a non-profit group established in 1998 to provide support and services to the refuge. For more information or to join the Friends, write Friends of Forsythe NWR, P.O. Box 355, Oceanville NJ 08231 or phone 609/652 1665 or visit the Web site at http://www.friendsofforsythe.org/

### **Refuge Entrance** Fees—Enacted to **Help Wildlife**

In response to the staggering loss of wetlands in the United States, in 1986 Congress authorized the U.S. Fish & Wildlife Service to charge entrance fees at some national wildlife refuges. The monies are used to support refuge operations—especially wildlife-dependent public uses—and to purchase wetlands for inclusion into the refuge system.

An entrance fee is required to access the Wildlife Drive and its associated foot trails. If you have a Forsythe Annual pass, Federal Duck Stamp, Senior Pass, Annual Pass, or an Access Pass you do not have to pay the entrance fee. Refuge officers routinely conduct compliance checks, and individuals entering the refuge without a valid entrance pass will be cited.

Remember, your entrance fees help to protect wetlands, support refuge management programs for wildlife, and wildlife-dependent recreational opportunities for you!



"Ding" Darling, has become the symbol of the National Wildlife Refuge System.

Edwin B. Forsythe National Wildlife Refuge is held in trust for current and future generations as a vital part of the National Wildlife Refuge System. The system consists of more than 550 refuges whose primary purpose is wildlife conservation. National wildlife refuges are found across the nation from northern Alaska to the Florida Keys, and include small islands in the Caribbean and South Pacific. People are encouraged to use and enjoy refuges in ways compatible with this purpose.



Hooded Merganser