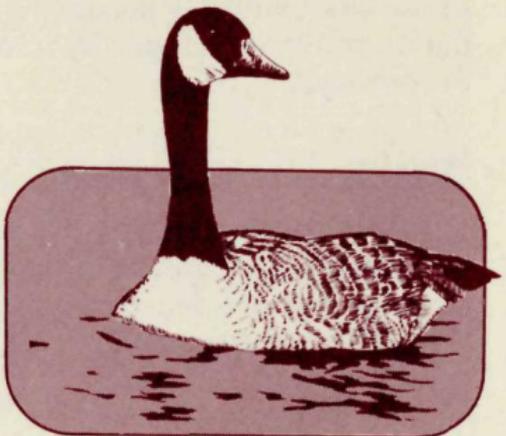
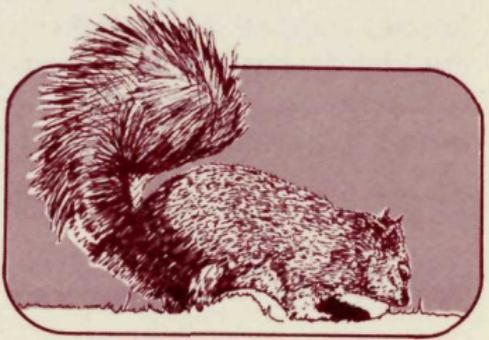


BLACKWATER

NATIONAL
WILDLIFE
REFUGE



MARYLAND

WELCOME

Blackwater National Wildlife Refuge, located 12 miles south of Cambridge, Maryland, was established in 1932 as a refuge for migratory waterfowl. Most of its 14,263 acres is composed of rich, tidal marsh characterized by fluctuating water levels and variable salinity. Other habitat types include freshwater ponds, mixed woodlands, and a small amount of cropland.

Although originally established for ducks, Blackwater has become one of the chief wintering areas for Canada geese using the Atlantic Flyway. Geese number approximately 60,000 and ducks exceed 35,000 at the peak of fall migration, usually in November.

Blackwater is also haven for three of our nation's endangered species, and possibly a fourth. The resident bald eagle and Delmarva fox squirrel are regularly seen on the refuge as is the migrant peregrine falcon during certain periods of the year. It is possible that the red-cockaded woodpecker also occurs here though regular sightings have not been confirmed in recent years.

HISTORY

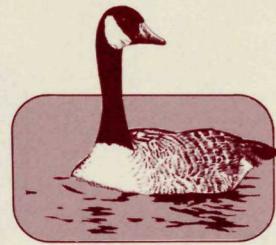
Before its designation as a refuge, most of the marshland along the lower Blackwater River was managed as a fur farm. At that time, muskrats were the primary species trapped. Most of the wooded lands, including the islands, have been cut over for timber. Drainage ditches and old furrows criss-cross in some existing woods indicating past agricultural use.

WILDLIFE

The varied habitats of Blackwater — from open water to dense woodlands — produce a diversity of wildlife in a panorama that changes by numbers and species with the seasons.

Birds

The best time for viewing waterfowl is between mid-October and mid-March. Wintering species include whistling swans, Canada and snow geese, and over

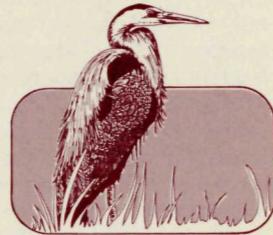


20 duck species. The most common ducks found here are mallards, black ducks, blue-winged teal, green-winged teal, wigeon, and pintails. Although most waterfowl migrate north in the spring, some remain through the summer, using the protected areas of the refuge to raise their young. These nesting waterfowl include Canada geese, mallards, black ducks, and blue-winged teal.

Other resident birds include the great blue heron and the bald eagle. Sightings of eagles are fairly common as Blackwater is the center of the greatest nesting density of bald eagles in the eastern United States north of Florida.

Numerous marsh and shore birds arrive in the spring, searching for food in the shallow waters. Ospreys, or "fish hawks," are common spring through fall and conspicuously use nesting platforms that have been placed throughout the marsh.

The refuge woodlands provide year-round homes for towhees, woodpeckers, brown-headed nuthatches, bobwhite, and woodcock. The warmer months invite warblers, vireos, orioles, flycatchers, and many others to this same habitat. A complete list of the birds has been published.



Mammals

In addition to its extensive list of birds, Blackwater harbors a variety of mammals, including raccoons, otters, opossums, skunks, and the elusive red fox. Muskrats are common in the marsh, as is the larger nutria, a South American rodent introduced to this country in the 1930's. The nutria population, on the refuge, greatly fluctuates due to occasional severe winters. White-tailed deer can sometimes be seen in wooded areas and in fields along the forest edge. Asian sika deer, introduced to nearby James Island in 1916, prefer the wet woodlands and marsh. They are more nocturnal and, therefore, are less visible than the white-tails. Both gray squirrels and Delmarva fox squirrels inhabit the wooded areas.



MANAGEMENT

Waterfowl

Refuge programs specifically designed for waterfowl include: management of the brackish marsh to produce succulent natural foods, limited planting of crops to encourage waterfowl to use areas where they may be observed by visitors, and management of impoundments to provide fresh water habitat. Although waterfowl hunting is not permitted on the refuge, hunting is extensive on surrounding areas. A winter trapping program, regulated by the refuge and accomplished by trappers under special permit, provides protection for fragile marsh vegetation by lessening the impact of foraging furbearers. All management programs are carefully monitored to ensure the best interests of wildlife resources.

Endangered Species

Endangered species (now protected by the 1973 Endangered Species Act) are a special responsibility at Blackwater. One of these species is the Delmarva fox squirrel which once ranged from southeastern Pennsylvania down through the Delmarva Peninsula. This large, light-gray squirrel now exists in only four counties along Maryland's Eastern Shore and at Chincoteague National Wildlife Refuge in Virginia. The loss of suitable woodlands (due primarily to the demands of a growing society) is a major factor in its decline. Forest management programs at Blackwater aim to simulate and restore the type of habitat required by this beleaguered squirrel.

Our national symbol, the bald eagle, is another endangered species found on the refuge. Like other birds of prey, the eagle's decline stems from causes endemic to our times — pesticides, pollution, irresponsible shooting, and human encroachment. The refuge offers constant protection for this diminished species.

Two other endangered species which might utilize the Blackwater area are the peregrine falcon which is occasionally seen during migration and the red-cockaded woodpecker which has been known to nest in the area.

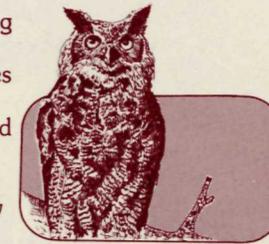


WILDLIFE CALENDAR

Events may vary by one or two weeks depending on weather conditions.

JANUARY

Geese, swans, and ducks remain in the marsh along with hawks, great blue herons, and a few species of shorebirds. Mid-winter observations are best during thaws. Eagles, both bald and golden, are sometimes conspicuous along the Wildlife Drive. Great horned owls are incubating eggs while bald eagles rebuild their nests high in loblolly pine trees.



FEBRUARY

First northward-bound migrants appear late in February — killdeer, robins, and bluebirds. Eagles laying eggs late in the month.

MARCH

Most migratory waterfowl departing for points north. Masses of red-winged blackbirds pass through; some stay to set up territories.

APRIL

Resident ducks and geese incubating. Majority of migrant marsh birds return by mid-April. Blue-winged and green-winged teal passing through. (Blue-winged are latest in spring and earliest in fall.) Fox squirrels reproducing. Eaglets hatching.

MAY

Migratory songbirds peak in late April and early May with warblers being most conspicuous and abundant. White-tail fawns (usually twins) begin to appear.

JUNE

Ospreys hatching in early June. Muskrats (though seldom seen) repopulate the marsh with several litters a year. Eaglets fledge.

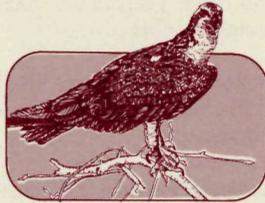


JULY

Local goslings starting to fly. Large quantities of insects being consumed by swallows, kingbirds, and flycatchers. The conspicuous marsh hibiscus (mallow) begins to bloom along marsh edges at end of month.

AUGUST

Shore and wading birds increase. Osprey young leaving the nest. Blue-winged teal from the north arrive on southward migration. Some bald eagles disperse northward after the breeding season.



SEPTEMBER

Ospreys begin leaving the marsh (headed for South and Central America). Waterfowl numbers gradually increase. Egrets and herons accumulate until cold weather pushes them south. Tickseed sunflowers blooming; cattails going to seed. Songbird migration peaks in late September and early October. Toads abundant.

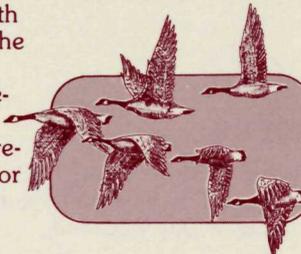
OCTOBER - DECEMBER

Autumn colors peak. Blackbirds are the last of the songbird migrants, peaking in October and November.

Numbers of ducks and geese gradually increase, then peak in late October or November. Whistling swans from NW Canada usually arrive in early November. Several hundred remain all winter.

Breeding season of white-tails is November -February.

Bald eagle numbers increase with the arrival of migrants from the north. Golden eagles also occasionally seen during winter. Waterfowl decrease — some remain all winter, others move south or disperse throughout the Delmarva Peninsula. Burning of the marsh begins for regeneration of specific waterfowl food resources — preparation for another year.



Note: In summer, be prepared for large concentrations of flies and mosquitoes in the woods.

VISITOR ACTIVITIES

Visitor Center - Exhibits and films for daily viewing and an auditorium for special, prescheduled programs.

Wildlife Drive - Five miles of all-weather road along fresh water ponds, woods, fields, and marsh. By remaining in your vehicle, disturbance will be minimal and other visitors will have better opportunities for seeing wildlife.

Observation Tower - This tower overlooks the junction of the Big and Little Blackwater Rivers and their marshlands.

Walking Trails - (Pets not permitted on trails, only on leash in parking areas.)

Marsh Edge Trail - Loops through and along the edge of the marsh for 1/3-mile. An 80-foot boardwalk extends into the marsh. Located at parking turnoff before Observation Tower.

Woods Trail - Loops through pine and mixed hardwoods for 1/2-mile. Located along Wildlife Drive.

Bike Route - Biking (non-motorized bikes only) permitted on limited portion of Wildlife Drive. Directions and regulations available at Visitor Center and Office Headquarters.

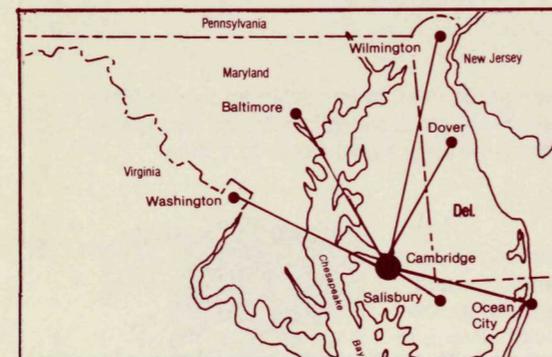
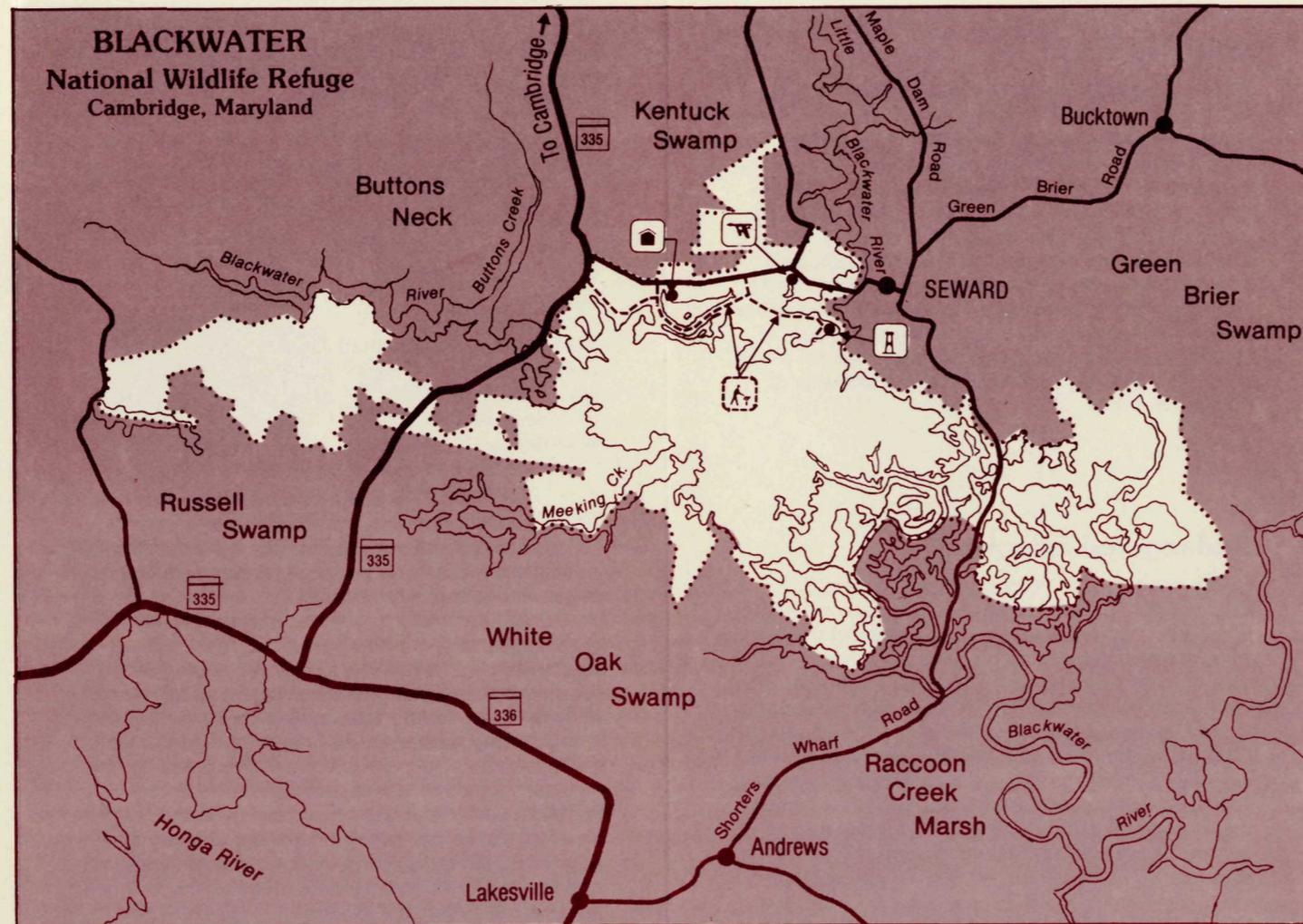
Fishing/Boating - Usually is permitted April 15 - October 15. Map of designated fishing and boating areas and other restrictions available at Visitor Center and Office Headquarters. Fishing is poor and there are no boat launching areas on the refuge. No hunting allowed on the refuge.

Educational Opportunities - Organized school, civic, and professional groups may reserve dates for slide talks, special movies, guided tours, and outdoor classroom activities. Write or call for additional information.

HOURS

Visitor Center - Open 7:30 - 4:00, Daily. Closed Christmas Day, weekends during June, July and August, and Labor Day weekend.

Wildlife Drive and outdoor facilities - Open daily, dawn to dusk (year-round).



LEGEND

..... Refuge Boundary

 Refuge Headquarters

 Walking Trails

 Visitor Center

 Observation Tower

0 1 1/2 3

SCALE IN MILES

For further information contact:

Refuge Manager
Blackwater National Wildlife Refuge
Route 1, Box 121
Cambridge, Maryland 21613
Telephone: (301) 228-2677

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interests of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U. S. administration.



DEPARTMENT OF THE INTERIOR

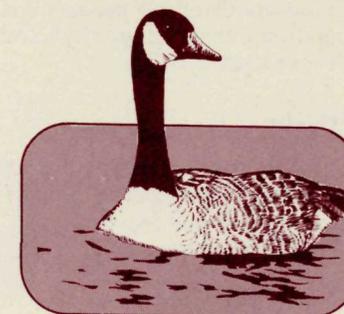
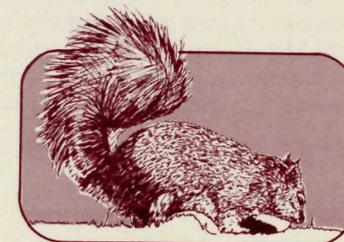
U.S. FISH AND WILDLIFE SERVICE

RL 51530-1
August 1984



BLACKWATER

NATIONAL WILDLIFE REFUGE



MARYLAND