

# Bowdoin

*National Wildlife  
Refuge*

---

*Auto Tour Guide*





*Welcome to Bowdoin  
National Wildlife Refuge.  
This 15,550-acre  
Refuge was established  
in 1936 to preserve  
choice nesting,  
resting, and feeding  
habitat for migratory  
birds. Bowdoin  
National Wildlife  
Refuge is managed by  
the U.S. Fish and  
Wildlife Service.*

*The Refuge is one of over  
540 refuges in the  
National Wildlife Refuge  
System, “a system of  
lands set aside to  
conserve wildlife and  
habitat for people today  
and generations to come.”*

## Stops Along Auto Tour Route

### About the Auto Tour Route



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

You are invited to enjoy the sights, sounds, and smells of the Bowdoin National Wildlife Refuge (NWR) by traveling the auto tour route. This winding one-way gravel road will bring you in close contact with wildlife and their habitats. Your chances of seeing wildlife depend on the season, weather, time of day, and other variables. Wildlife are most active during early morning or late afternoon hours.

You are welcome to explore places of interest on foot, but please do not block traffic or drive off the graveled road. There are 11 numbered stops along the 15-mile auto tour route which takes about 1½ hours to complete.

### Trees for Wildlife

1



Many of the trees on the Refuge are not native to this area, but were planted by Refuge workers during the 1930s and 1940s to benefit wildlife. Some of the species planted were Russian olive, caragana, chokecherry, cottonwood, and buffaloberry. Russian olives have become so abundant that they are displacing native plants and animals. In an effort to preserve continually shrinking native prairie areas, Refuge staff work to control the spread of Russian olives into these areas.

Several of these "shelterbelts" provide a valuable source of food and shelter for a variety birds and mammals. Look closely and you may spot feeding birds or deer. Refuge staff must control the spread of these trees without losing the benefits provided to wildlife.

## Stops Along Auto Tour Route

### *Lake Bowdoin*

2



During preglacial times, 5,459-acre Lake Bowdoin was a horseshoe bend of the Missouri River. Ice sheets forced the river from its old, more northerly channel to its present location, about 50 miles south of the Refuge and the lake remained at this site.

Today, Lake Bowdoin receives moisture from snowmelt and runoff as well as supplemental water from the Milk River irrigation system. Lake Bowdoin is an important feeding and resting area for migratory birds. Some species commonly seen are northern pintails, mallards, eared grebes, American coots, and Wilson's phalaropes.

### *Gull Colony*

3



Ring-billed and California gulls nest on the elongated island just off shore. Normally this island supports approximately 350 ring-billed and California gull nests. The two to four eggs in each nest hatch in late May or early June. Mortality is quite high among young gulls due to crowding and disease. Generally about 50 percent survive to flight age.

### *American Indians*

4



If you walk out on the hill beyond this sign, you will notice a circle of partially buried stones. This ring of stones may have once held down the edges of an animal skin lodge that protected its occupants from wind and cold.

Marshes and lakes, such as those found on Bowdoin National Wildlife Refuge, were important food gathering sites for the nomadic plains people of the Cree, Gros Ventres, and Assiniboine tribes. They hunted and trapped birds and animals that were attracted to the marshes. During spring and fall, they gathered eggs, roots, berries, and herbs for both food and medicine.

### *Colonial Nesting Islands*

5



The islands visible from this point are used for nesting by several species of birds including American white pelicans, double-crested cormorants, ring-billed and California gulls, and one of only a few ground-nesting colonies of great blue herons. Called “colonial nesters,” because they nest in colonies rather than individually, these birds select island nesting sites to protect their eggs and young from mammalian predators. This seems to be the only precaution pelicans take to ensure the survival of their young; they are reluctant nest builders and poor parents. When food is limited, usually only the first pelican chick to hatch survives.

### *Ponds*

6



Small ponds, like the one behind this sign, provide valuable habitat for many species. Habitat is a place that provides living creatures with everything needed for survival. This pond provides waterfowl, marsh birds, muskrats, and other animals with food, water, and cover – the three basic survival needs of any animal.

Did you notice some birds skitter into the cattails when you approached the pond? This protective cover hides the nests of birds that nest over water. Ponds like this, with a mixture of open water and vegetative cover, provide better habitat than large open water areas or solid vegetation stands. This pond is also habitat for aquatic insects that provide food for ducks.

### *Water Management*

7



Many of the Refuge ponds and marshes do not occur naturally. They have been enhanced and are maintained by managing and manipulating an important natural resource – WATER. As you travel the auto tour route, notice the evidence of water management such as dikes, ditches, and water control structures. The bridge you are about to cross is also a water control structure. Without these water management facilities and impounded water, many of the Refuge marshes and their wildlife values would no longer exist.

## Stops Along Auto Tour Route

### *Alkali*

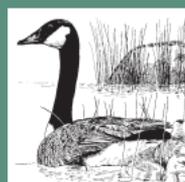
8



The white material on either side of the road is “alkali.” These deposits are formed by the evaporation of water containing dissolved salts such as sodium, calcium, magnesium, and potassium. Alkali deposits are common throughout the western United States where water leaches these salts from the soil.

### *Nesting Islands*

9



Canada geese prefer to nest on islands; however, if you tour the Refuge in early spring, you may occasionally find a goose nest beside the road where it crosses a dike. This is probably an indication that there are more nesting birds than there are good nesting sites. In an effort to correct this situation, small nesting islands are constructed by hauling dirt and piling it on the thick winter ice. When the ice melts, these dirt piles settle to the bottom of the marsh and form islands. This pond contains several of these man-made islands. Muskrat houses are also preferred nesting sites.

### *Native Prairie*

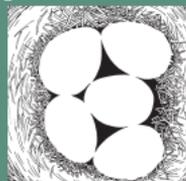
10



As you look toward the lake, the area starting at the road and continuing for about 200 yards is a remnant of native short-grass prairie. Many years ago, the upland areas around Lake Bowdoin were open prairie with no roads, fences, houses, railroads, or trees. As far as one could see, there was open space with nothing to interrupt the seemingly limitless sky. This was “Big Sky Country.” Today, only a few remnants of these once vast expanses of prairie exist, but the sky is as big as ever.

### *Nesting Cover*

11



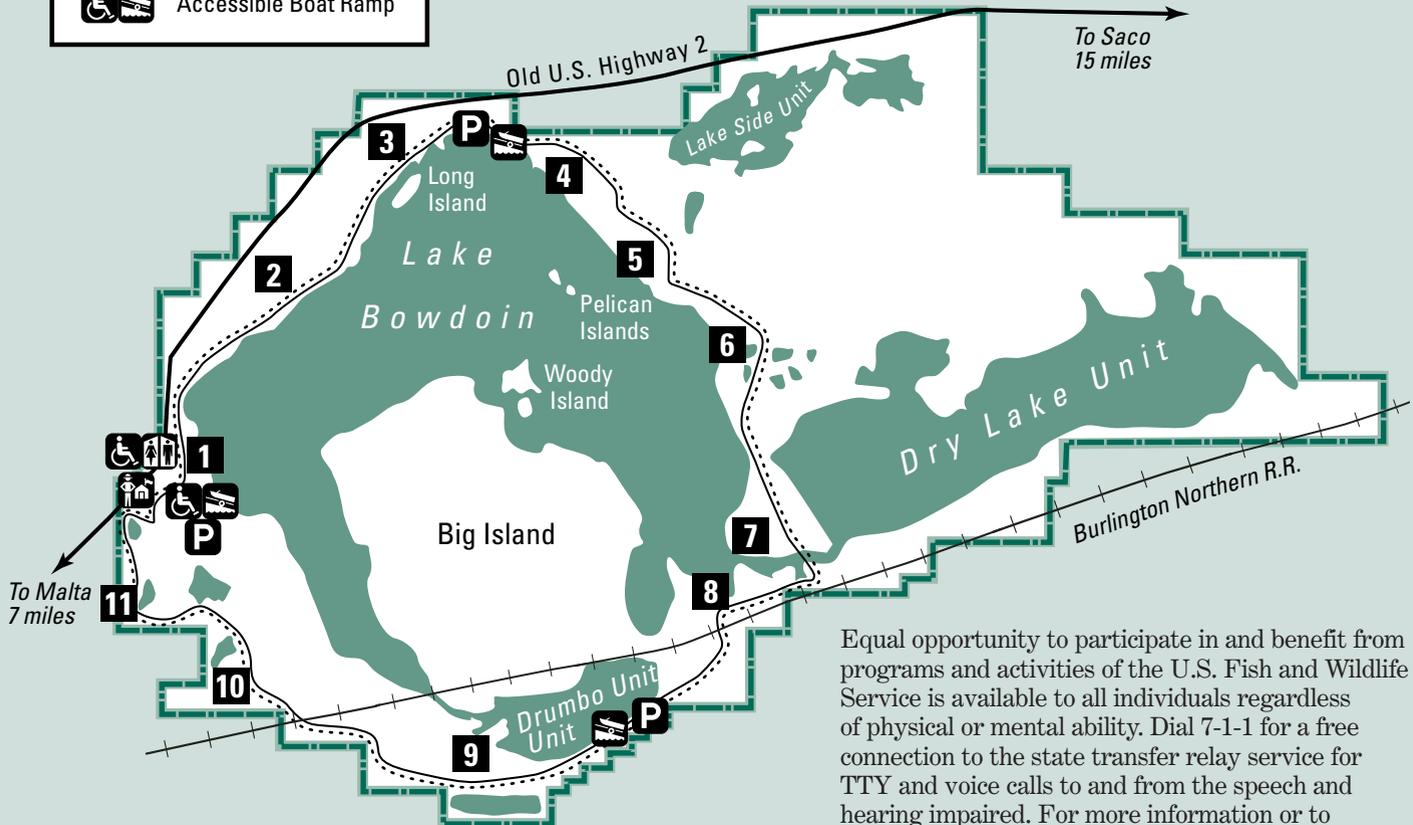
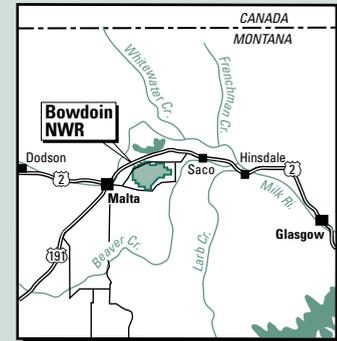
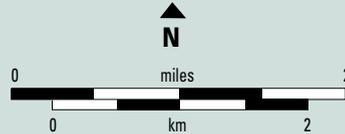
The tall, dense vegetation on your right provides good protective cover for upland nesting ducks such as mallards, northern pintails, and northern shovelers. Ring-necked pheasants and sharp-tailed grouse also select this dense nesting cover for protection against predators. Without adequate protective cover, raccoons, skunks, red foxes, and other predators destroy nests and eggs causing reduced production. Periodic management of this nesting cover by grazing, haying, or prescribed burning ensures that the vegetation doesn't become too thick for birds to utilize.

This is the last stop. We hope you enjoyed your visit and will come again.

## Bowdoin

*National Wildlife Refuge*

-  Refuge Boundary
-  Auto Tour Route
-  Auto Tour Stops
-  Refuge Headquarters
-  Parking
-  Accessible Rest Room
-  Boat Ramp
-  Accessible Boat Ramp



Equal opportunity to participate in and benefit from programs and activities of the U.S. Fish and Wildlife Service is available to all individuals regardless of physical or mental ability. Dial 7-1-1 for a free connection to the state transfer relay service for TTY and voice calls to and from the speech and hearing impaired. For more information or to address accessibility needs, please contact Refuge staff at 406 / 654 2863 or the U.S. Department of the Interior, Office of Equal Opportunity, 1849 C Street, NW, Washington, D.C. 20240.

**Bowdoin National Wildlife Refuge**  
HC 65, Box 5700  
Malta, MT 59538  
406 / 654 2863  
406 / 654 2866 fax  
bowdoin@fws.gov  
<http://bowdoin.fws.gov>

**For state transfer relay service**  
TTY/Voice: 711

**U.S. Fish & Wildlife Service**  
<http://www.fws.gov>

**For Refuge Information**  
1 800 / 344 WILD

**April 2003**

