

Agassiz National Wildlife Refuge  
Route 1, Box 74  
Middle River, MN 56737-9653  
218/449 4115

Hearing impaired persons may contact  
Agassiz through the Federal Relay Num-  
ber at 1 800/877 8339.

U.S. Fish & Wildlife Service  
1 800/344 WILD

May 2000

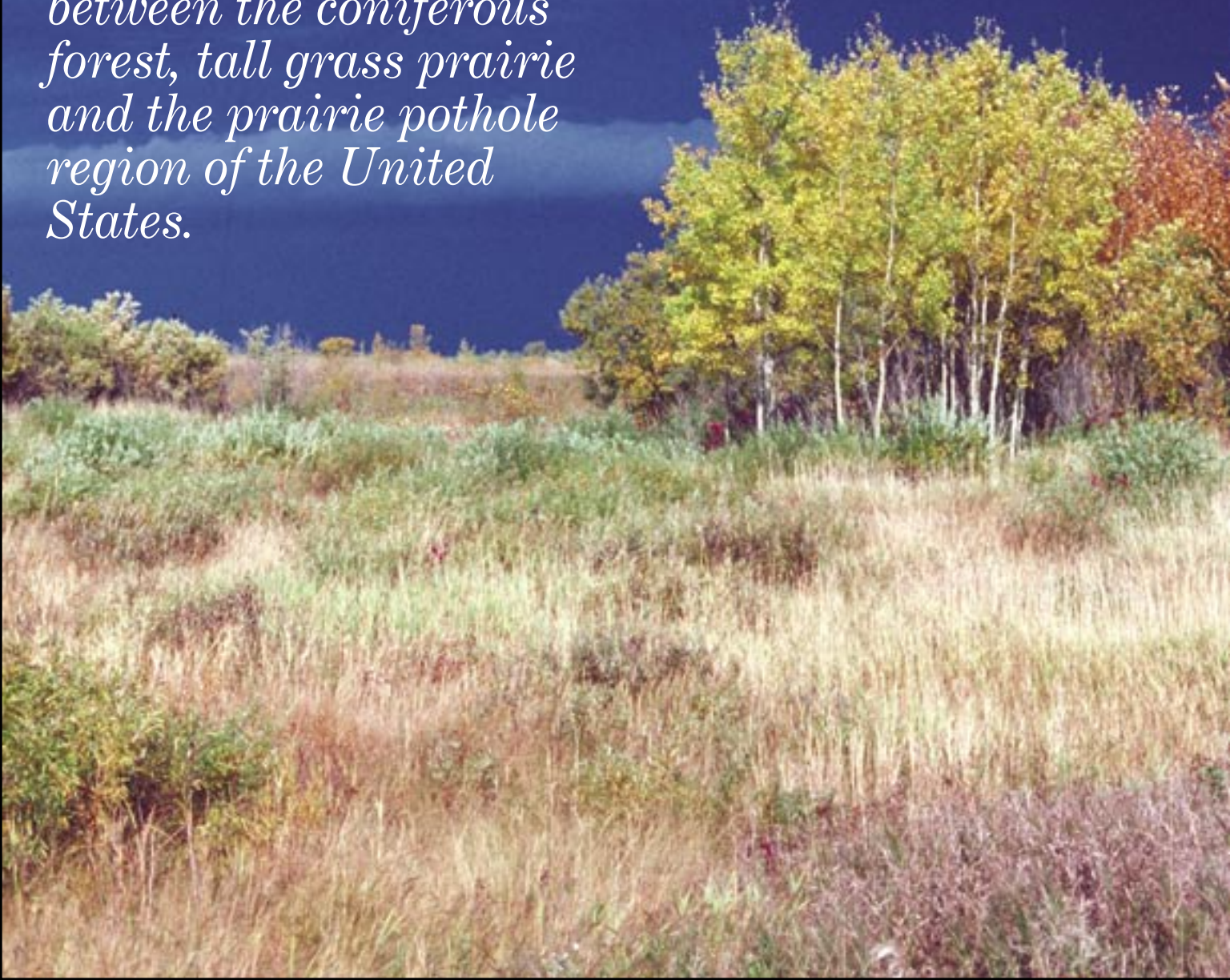


U.S. Fish & Wildlife Service

# Agassiz

## *National Wildlife Refuge*

*Agassiz is located in northwestern Minnesota in the aspen/parkland transitional zone between the coniferous forest, tall grass prairie and the prairie pothole region of the United States.*





### Agassiz: A Vital Link

Agassiz National Wildlife Refuge was established by Franklin D. Roosevelt's Executive Order on March 23, 1937. Many refuges were established during the "Dirty Thirties" to counter the devastating effects of the Dust Bowl Era on people and wildlife when severe drought conditions dried up much of the nation's midsection. Today, Agassiz is comprised of

- 40,100 acres of wetland,
- 10,000 acres of shrubland,
- 7,000 acres of forestland,
- 4,250 acres of grassland, and
- 150 acres of cropland.



*This "Blue Goose" symbolizes the National Wildlife Refuge System, a network of over 500 refuges protected and managed for wildlife, habitat and people.*

An additional 22,440 acres, managed by the Minnesota Department of Natural Resources, borders the refuge and creates 83,940 acres of unfragmented habitat for wildlife.

Agassiz is located in northwestern Minnesota in the aspen/parkland transitional zone between the coniferous forest, tall grass prairie and the prairie pothole region of the United States. The area was formed by a glacier that encompassed an area larger than the size of the the present-day five Great Lakes. Meltwaters from the receding glacier created Lake Agassiz over 10,000 years ago, resulting in a very flat terrain varying from one-to-two feet per mile.

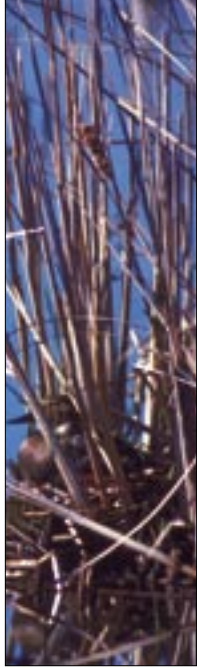
In an effort to improve farming operations, an extensive drainage project was undertaken in 1909. By 1933, over one million dollars had been spent trying to drain the Mud Lake area. Farming proved unsuccessful and Marshall County became so tax delinquent that the State Legislature appropriated \$750,000 to save it from bankruptcy. In return, the State retained the right to use the lands for conservation purposes. Maintaining the land proved to be costly, and the State turned them over to the Bureau of Biological Survey (now the U. S. Fish and Wildlife Service) and the area became the Mud Lake Migratory Waterfowl Refuge in March of 1937.

In 1961 the name was changed to Agassiz National Wildlife Refuge. Agassiz comes from the famous Swiss-American naturalist/geologist Jean Louis Rodolphe Agassiz, for whom the prehistoric glacial lake was named. Today, Agassiz is one of more than 520 national wildlife refuges totaling more than 93 million acres throughout the United States. The National Wildlife Refuge System is the only network of lands in the world primarily dedicated to the preservation and management of fish and wildlife resources.

## Managing for Diversity

The diversity of plants and wildlife is maintained by several management practices used to produce a diversity of wildlife habitats.

### Revitalized Wetlands



J. Mattsson, USFWS

Upon establishment, wetlands were restored through a system of dikes and water control structures. Twenty pools have been developed ranging in size from 100 to 10,000 acres. Water management is used to create a variety of wetland types with a mix of emergent and submergent plant communities. Manipulating water levels is a vital management tool used to benefit waterfowl and shorebirds. The presence or absence of water, water depth and seasonal timing are all regulated to produce various stages of marsh habitat upon which these birds rely. Cattail is the dominant emergent plant in the wetlands. Bulrush, reed grass, white top, reed canary grass, spike rush and sedges are other typical emergent vegetation. The dominant submergent vegetation includes water milfoil, muskgrass, and sago pondweed. Abundant free floating aquatic plants include bladderwort, coontail and duckweed.

### Fires



G. Tischer, USFWS

Natural and man-made peat fires formed many of the smaller wetlands that dot the refuge today. Prescribed burning and brush mowing are tools used to maintain the grasslands and shrublands for nesting waterfowl as well as to provide habitat for moose and deer. This human intervention maintains the mosaic of grasslands, shrublands, forestlands and sedge meadows needed by native wildlife species.

### Farming



USFWS

Farming provides foods essential for waterfowl embarking on their annual migration south. Primary crops include barley, oats and winter wheat. Resident wildlife species also benefit from the farming program.

### Wilderness Area



Pitcher Plants  
W.D. Vasse

In 1976, 4,000 acres in the north-central portion was designated as "Wilderness" and is managed under the *National Wilderness Preservation System*. It is one of the most westerly extensions of black spruce-tamarack bog in Minnesota. Two lakes in this area, Whiskey and Kuriko, were formed by deep peat fires which occurred prior to settlement of the area.



Canvasback Pair © S. Nielsen



### Wildlife

Agassiz National Wildlife Refuge provides a haven for many wildlife species. As many as 280 species of birds use the refuge; half which nest on the refuge. Forty-nine species of mammals, 12 species of amphibians and 9 species of reptiles also call Agassiz home.



The refuge supports 17 species of breeding ducks as well as giant Canada geese. In an average year 7,500 pairs of ducks and 250 pairs of Canada geese nest at Agassiz. The diversity of wetland and upland habitat provides excellent protection for ducklings, goslings and molting waterfowl.



Annual migrations bring peak numbers of waterfowl in May and October. Fall duck numbers can be as high as 100,000 and Canada geese 25,000. The Eastern Prairie Population of Canada geese is the most abundant goose subspecies that migrates through Agassiz.



Colonial nesting birds include large colonies that average 25,000 nesting pairs of Franklin's gulls, 50-to-150 nesting pairs of eared grebes and



500 nesting pairs of black-crowned night herons. Smaller colonies of western grebes, great blue herons and double-crested cormorants also nest here.



For many years the average moose population on the refuge and adjoining state wildlife management areas was 250. In 1993 the population declined sharply for unknown reasons; since 1998 the population has slowly increased from its low of 50 animals!



Deer are usually abundant and have attained a peak population of 3,000 animals. However, severe winters in 1995-96 and 1996-97 reduced the herd to a record low of 430 animals.



Agassiz also has two resident packs of eastern gray wolves. These wolves roam the entire area during the winter months, but favor the grassland and forestland on the east and south sides during the rest of the year.



In 1992, after a 30-year absence, bald eagles began renesting on the refuge. Four pairs nested in 1999.



### Watchable Wildlife Viewing Opportunities

One of the most popular visitor attractions is the opportunity to view a moose in the wild. Although moose can be observed in all habitat types, focus your attention on willow thickets. September and October are the best months to observe moose.



White-tailed deer can be observed throughout the refuge and adjoining state wildlife management areas.



Gray wolf observations occur infrequently on and off the refuge.



Bald eagles are observed most frequently during spring and fall migration.



Canada geese start arriving in mid-March; ducks in early April. May through mid-June is the best time to observe ducks, when their colorful spring plumage makes identification easier. Goslings can be observed as early as the first week in May, and ducklings as early as the third week in May. Peak fall populations of Canada geese and ducks occurs from late-September through October.

### Best Wildlife Observation Periods

- Franklin's Gulls: May 1-July 15
- Warblers: May 15-25
- Sandhill Cranes: April 25-May 5 and September 25-October 10
- Sparrow species: May 15-25
- Shorebirds: May 20-30 and August 15- September 15
- Moose Calves: May 15-June 15
- Moose Rut: September 15-October 31.

Wildlife observation opportunities are best in the early morning or late afternoon hours, during feeding times. Staying in your vehicle and using it as a blind usually improves your chances of seeing wildlife.

### Public Use Opportunities

*Lost Bay Habitat Drive* is a four-mile self-guided auto drive. *Maakstad Hiking Trail* is a quarter-mile foot trail along the auto drive. *Headquarters Hiking Trail*, a one-half mile self-guided foot trail, is located at Headquarters. The drive and trails provide opportunities for nature study, wildlife photography and observation. All are open from May through October during daylight hours. Hiking is only allowed on the drive and designated hiking trails.

A 100-foot observation tower and a 14-foot observation deck are available for viewing the refuge. Use of the 100-foot tower is permitted during the snow-free months, during office hours. A key must be obtained at the office.

## Refuge Information

Information about Agassiz and the U.S. Fish and Wildlife Service are available at refuge headquarters and at kiosks along Marshall County Road 7. Exhibits of wildlife mounts are on display in the office building. Also, guidebooks and gift items can be purchased; *proceeds help support activities on the Refuge!*



Deer hunting is allowed during the regular firearm season in accordance with Minnesota's deer firearm season regulations and special Refuge regulations.

Several weekend events are held from May through October. Wildlife or plant related programs are presented at these events. Annual recurring events are *International Migratory Bird Day* (May), waterfowl banding (September), and *National Wildlife Refuge Week* (September/October). Check the Fish and Wildlife Service home page, <http://www.fws.gov/r3pao/>, for announcements pertaining to Agassiz and other National Wildlife Refuge events.



Schools, universities and other groups are welcome to visit and study nature. Tours, talks and demonstrations can be planned with staff members.



Meadow Vole,  
D. S. Licht

## Accommodations

Camping is not authorized on the refuge. Designated primitive camping sites, located on adjacent state wildlife management areas, are available year round and can be used free of cost. Camping with facilities are available at Old Mill State Park, 30 miles west of refuge headquarters, or in the Thief River Falls Tourist Park, 23 miles southwest of the refuge.

The nearest motel accommodations are available in Thief River Falls, 23 miles southwest on State Highway #32 and at Grygla, 18 miles east of the refuge headquarters on State Highway #89.



## Headquarters Location and Office Hours

Refuge headquarters is located 11 miles east of Holt, Minnesota on Marshall County Road 7. Office hours are 7:30 am to 4:00 pm, Monday through Friday, excluding federal holidays.

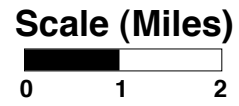
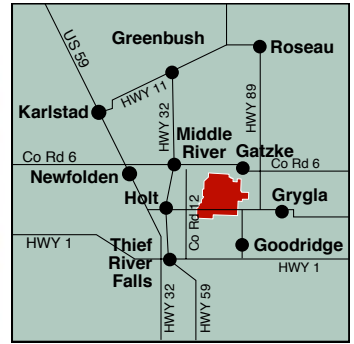
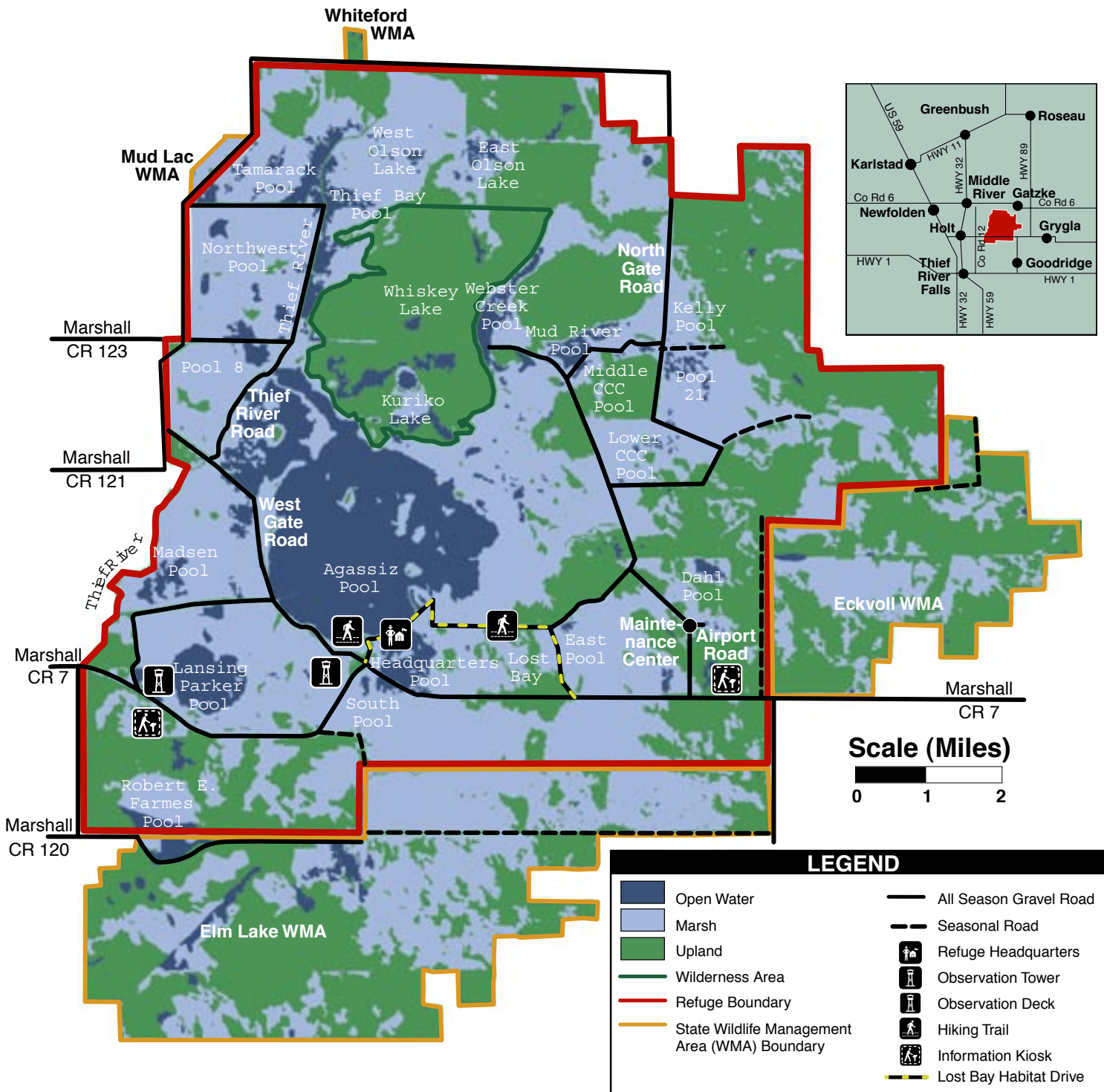
## Need More Information?

For additional information contact:  
Refuge Manager  
Route 1, Box 74  
Middle River, Minnesota 56737-9653.  
Phone: (Holt) 218/449-4115.

Information on Agassiz National Wildlife Refuge can also be found on Agassiz's Home Page  
<http://www.fws.gov/r3pao/agassiz/index.html>.

Equal opportunity to participate in, and benefit from the programs and activities of the U.S. Fish and Wildlife Service is available to all individuals regardless of age, race, religion, color, sex, national origin, or disability. Contact: U.S. Department of the Interior, Office for Equal Opportunity, 1849 C Street, N.W., Washington, D.C. 20240.

*Available in alternate formats upon request.*



| LEGEND |   |  |                        |
|--------|---|--|------------------------|
|        | Open Water                                    |  | All Season Gravel Road |
|        | Marsh   |  | Seasonal Road          |
|        | Upland  |  | Refuge Headquarters    |
|        | Wilderness Area                               |  | Observation Tower      |
|        | Refuge Boundary                               |  | Observation Deck       |
|        | State Wildlife Management Area (WMA) Boundary |  | Hiking Trail           |
|        |   |  | Information Kiosk      |
|        |   |  | Lost Bay Habitat Drive |