Upper Mississippi River National Wildlife & Fish Refuge 51 E. Fourth St. Room 101 Winona, MN 55987

Hearing impaired persons may contact Upper Miss through the Federal Relay Number at 1 800/877 8339.

U.S. Fish & Wildlife Service 1 800/344 WILD http://www.fws.gov/







U.S. Fish & Wildlife Service

National Wildlife & Fish Refuge



Upper Miss Refuge winds through 261 miles of beautiful bluff country. Its marshes, wooded islands, bottomland forests and upland prairies provide habitat for fish and wildlife and a place of renewal for people."



Will Dilg, USFWS

"Upper Miss" Established in 1924

This magnificent river valley, carved out long ago by melting glaciers, caught the attention of Will Dilg in the early 1920s. Dilg, a sports writer and avid bass fisherman, treasured the backwaters of the Mississippi River. When he discovered there were plans to drain thousands of acres of backwaters he urged the newly formed Izaak Walton League to take action. At the League's urging. Congress established the Upper Mississippi River National Wildlife and Fish Refuge on June 7, 1924. Today, nearly 240,000 acres of wooded islands, marshes and backwaters comprise the Upper Miss refuge.



A River Shaped by Dams

The Upper Mississippi was a free-flowing river until a series of locks and dams were constructed in the 1930s to provide a constant 9-foot navigation channel for commercial barges. The navigation pools created by the dams typically contain three major ecological zones: a braided stream located in the upper portion of the pool, the backwater marshes located in the center, and open water located in the lower portion of the pool. All three zones provide distinct habitats for the refuge's wildlife.

Braided Stream Zone

This blue goose,

designed by J.N.

"Ding" Darling,

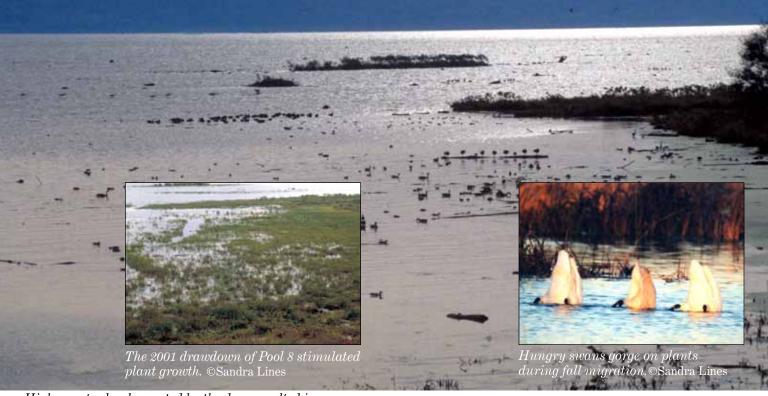
National Wildlife Refuge System.

has become a

symbol of the

The braided stream zone resembles the river prior to lock and dam construction with its narrow cuts and channels that snake between islands of floodplain forest. Here you might see wood ducks, woodpeckers, or an elusive river otter.





Higher water levels created by the dam resulted in decreased aquatic plants over time.

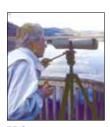
Backwater Marsh Zone The shallow waters of the backwater march zone covers land that used to be hayed before the lock and dams were here. This zone supports the best marsh habitat and is the haunt of dabbling ducks, muskrats, bass, and panfish.

Open Water Zone In the open water zone old tree stumps lurk, reminding us that this was once a forest before it was flooded. Diving ducks prefer the open water found here.

Changes Over Time

Redhead Duck
J. Mattsson,
USFWS

Over time, these navigation pools have aged, and habitats have changed. Sediment is filling valuable backwaters, islands are eroding, and vegetation is disappearing from the river. The U.S. Fish and Wildlife Service, along with the public, states and other federal agencies, is working hard to restore river habitats.



Volunteer Bird Watcher, USFWS

Habitats for Wildlife

One method of restoring river habitats is through the Environmental Management Program. This program is funded by Congress through the U.S. Army Corps of Engineers who partners with the U.S. Fish and Wildlife Service and state natural resource agencies to build habitat projects. Thousands of acres of fish and wildlife habitat have already been restored by rebuilding and protecting islands from erosion and by constructing low level dikes to control water levels. Another method involves managing water levels using a technique called drawdown. Water levels are temporarily reduced by 1-2 feet during the summer months to stimulate plant growth, mimicking the natural water level fluctuations these plants depended upon prior to dam construction. Seeing is believing!

Studying the Unusual Paddlefish, USFWS



People at Work

Many techniques are used by refuge staff to monitor and manage wildlife and habitat. From aircraft, biologists check on the nesting success of bald eagles, great blue herons, and egrets. They also fly to count waterfowl during migration. Biologists capture and band wood ducks to learn about migration and population trends. Special studies look for answers to where tundra swans feed, when raptors migrate south, or which habitats are used by turtles, snakes, and secretive marsh birds. Volunteers document movement and habitat use of migrating and nesting songbirds in the floodplain forests and prairies. Fire is used in the prairies to set back woody vegetation and efforts are made to control invasive plants and animals that destroy or displace native species.



Prescribed Fire in the Prairie, USFWS

Refuge Fast Facts

- Established by Congress in 1924
- 261 miles long
- Nearly 240,000 acres
- 306 bird species
- 57 mammals
- 134 fish species
- 44 mussel species
- Over 200 bald eagle nests
- A yearly average of 5,000 great blue heron nests in 15 colonies
- 50% of the continent's canvasback duck population use the refuge during fall migration
- 20% of the continent's tundra swans stop here during fall migration

The Underwater Story

The Upper Mississippi River is home to a diversity of aquatic life with 134 fish species and 44 mussel species including an endangered species, the Higgins' eye pearly mussel. Unusual fish like the lake sturgeon, paddlefish, and American eel are also found here.

Hunting and Fishing

Hunting and fishing are rich in history and tradition on the refuge. Most hunting is for waterfowl from boats and blinds in the marshes; other upland hunting occurs on islands and flood plain forest. Consult the refuge hunting brochure for additional information. If fishing is your sport, the refuge is known for walleye, largemouth bass, crappie, catfish and bluegill. There are year-round fishing opportunities including many ice fishing locations.

Three Generations of Hunters ©Sandra Lines



Wildlife Viewing

There are observation decks, pull-offs, and canoe and bike trails to help you observe the natural wonders of the "Upper Miss." Although boating provides the most intimate look at this river refuge, many visitors enjoy viewing the refuge's wild and scenic beauty from blufftop overlooks in state and local parks bordering the refuge. River banks offer visitors a place to see a variety of wildlife from muskrats and beavers, to turtles and frogs. Turkeys and white-tailed deer are common in the forested areas.



View from Mt. Hosmer in Lansing, Iowa, USFWS

Wildlife Calendar

To everything, there is a season. The refuge, and its wildlife, marks time by the ancient rhythms of spring, summer, fall and winter.



Bald Eagles
©By Golly Creek
Photography

Spring

Hundreds of bald eagles can be seen during spring and fall migration. Once a rare sight, bald eagles have rebounded; in 1969 there was only one nesting pair on the refuge, now there are over two hundred.

Numbers of warblers and other songbirds peak in mid-May; when more than 150 species can be seen on the refuge.

Summer

In the flooded, forested areas, great blue herons, great egrets and doublecrested cormorants nest in rookeries. Some rookeries contain over 1,000 nests.

Photos below: Frog ©Sandra Lines, Canoers, USFWS, Resting Tundra Swans, USFWS







Look for groups of spectacular American white pelicans feeding in formation or soaring over the refuge.

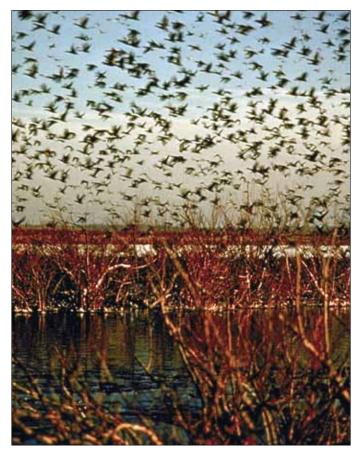
The sora rail, the "laughter of the marsh", is the most common marsh bird. Seldom seen, but often heard, in early morning or late evening.

Ten species of frogs and toads sing, chirp, and croak from April to August. Listen for them in the evenings at the marsh.

Canoe trails offer opportunities to see nesting prothonotary warblers, greatcrested flycatchers, and black terns.

Fall

Fall colors are the backdrop for thousands of waterfowl migrating back to their wintering grounds. Migrating tundra swans grace the refuge through freeze-up. Stand quietly and you will hear their soft, high-pitched chatter.



The refuge is a designated Wetland of International Importance (RAMSAR) and a globally important flyway. USFWS Photo

During the peak fall migration in late October, hundreds of thousands of canvasbacks, common mergansers, goldeneyes, mallards, shovelers, bluewinged teal, and coots gather on the refuge.



Red Fox,
©Sandra Lines

Winter

Hundreds of wintering bald eagles congregate near open water below the locks and dams.

Fox, otter and deer tracks can be seen on a quiet hike through the snow.

Before you explore the refuge, pick up a Public Use brochure or detailed pool maps at one of the refuge offices.



