Middle Mississippi River National Wildlife Refuge 1293 Rocky Hollow Road Rockwood, Illinois 62280

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**U.S. Fish & Wildlife Service** 

Middle Mississippi River National Wildlife Refuge

Prothonotary Warbler ©Scott Sharkey "Enchanted by accounts of the rich diversity of Madagascar; the Amazon and other far away places, we too easily forget the riches that live all around our home." Edward 0. Wilson

Birds eye view from Fountain Bluff on the banks of the Mississippi River, J. Magera, USFWS



President Theodore Roosevelt, USFWS



Pelican feathers were used for making wonen's hats, USFWS

**Origins of the Refuge System** President Theodore Roosevelt established Pelican Island National Wildlife Refuge, near the east coast of Florida, on March 14, 1903, because he was concerned about plummeting wading bird populations. Hunters had been killing brown pelicans for their feathers, called plumes, for making women's hats. Paul Kroegel, a sometime cook, boat builder and orange grower, was hired to watch over the three-acre, shell-and-mangrove covered island in Florida's Indian River. Today, a century later, the National Wildlife Refuge System has grown to more than 95 million acres and almost 550 refuges.



First Refuge Manager Paul Kroegel, USFWS



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



Interior Least Tern, USFWS



Potato Bend, near the Wilkinson Island Division, USFWS

## Welcome to Your Refuge

Middle Mississippi River National Wildlife Refuge is one of almost 550 refuges in the National Wildlife Refuge System administered by the U.S. Fish & Wildlife Service. The refuge system is the world's largest network of lands and waters set aside for fish, wildlife, and plants.

The area called the Middle Mississippi River extends from the Missouri River near St. Louis, Missouri, to the Ohio River near Cairo, Illinois. It is the first section of free-flowing river below the lock-and-dam navigation system, which ends at Alton, Illinois.



The first lands for the Middle Mississippi River refuge were purchased in 1996 and managed as a division of the Mark Twain National Wildlife Refuge. Landowners whose crops had been destroyed in the Great Flood of 1993 willingly sold their lands to the U.S. Fish and Wildlife Service. The refuge now consists of seven divisions: Meissner; Harlow; Beaver; Horse; Crains; Rockwood; and Wilkinson Islands – and totals nearly 7,000 acres. The refuge headquarters and visitor contact station are located in Rockwood, Illinois.

The refuge provides habitat for migratory birds, native river fish, and endangered, threatened, and rare species. Staff manage refuge lands to create a mixture of habitat types beneficial to a variety of wildlife species. They work closely with the Army Corps of Engineers, other resource conservation agencies, interested landowners and non-profit organizations to restore and enhance habitat along the river.



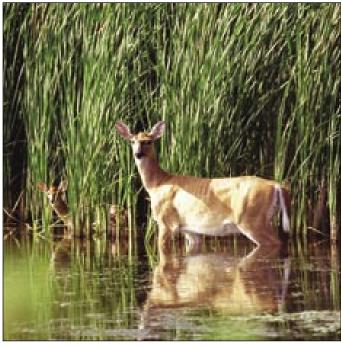
## Taming the River

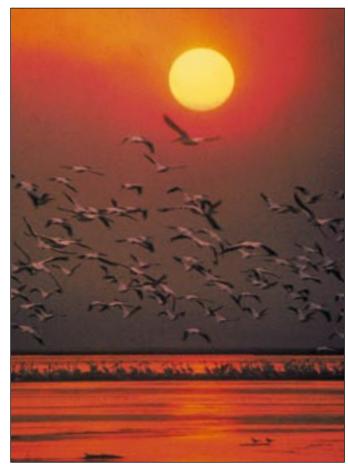
Historically, the Mississippi River created a dynamic landscape of sloughs, islands, sandbars, and freeflowing water. Annual spring floods changed the course of the river, created new wetlands, provided spawning habitat for fish, and delivered nutrient-rich sediments to forests and prairies. Low water levels in late summer enhanced the growth of wetland vegetation. This natural cycle sustained a variety of habitat for native fish and wildlife species.

USFWS Photo

When settlers arrived in the 1800s, they converted large tracts of floodplain forest and prairie to agriculture and other development. The Mississippi River became an increasingly important travel and trade route. Consequently, Congress authorized the Corps of Engineers to implement a series of navigation improvements. River management structures such as weirs and wing dams were built to constrict the river and provide a year-round passable channel.

#### White-tailed Deer and Fawn, K. LeBlanc





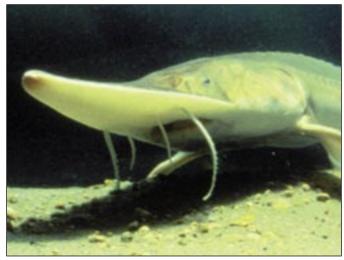
White Pelicans, USFWS



Pileated Woodpecker, K. LeBlanc

By 1930, construction had begun on a series of locks and dams to create a nine-foot-deep channel for heavy barge traffic. The dams formed a series of 26 pools between St. Paul, Minnesota, and St. Louis, Missouri. The Corps was responsible for flood control and helped landowners build levees that isolated the river from its historic floodplain during all but extremely high floods.

These changes to the river affected fish and wildlife habitat dramatically. Over time, sediment from soil erosion filled wetlands, reduced water clarity, and destroyed fish habitat. The deeper water behind the dams increased island erosion and altered the makeup of the bottomland forests.



 $\underset{\rm USFWS}{\textit{Pallid sturgeon,}}$ 

#### **Setting the River Free**

Refuge staff work to conserve and enhance the natural character and diversity of the Middle Mississippi River. Refuge management focuses on restoring the natural cycles of the river and its floodplain.



Biologist with pallid sturgeon, USFWS



Mowing controls non-native plants, J. Magera, USFWS

The Federally-endangered pallid sturgeon lives in this river reach. Southern Illinois University operates a sonar "listening" station to locate tagged sturgeon. Refuge staff work with the Carterville National Fish & Conservation Office, Ecological Services (Marion, IL) and the Corps of Engineers to reduce the effects of river management structures and activities on sturgeon.

Wood ducks and hooded mergansers feed on nuts from hardwood trees, such as oaks and pecans, that grow in the floodplain. Since many of these native trees have been removed by annual floods, refuge staff plant seedlings to restore habitat. Some nonnative plants, such as Johnson grass and giant ragweed, grow aggressively and crown out native vegetation. Because the non-native plants do not provide good habitat for wildlife, refuge staff attempt to control them by mowing, burning, and / or applying safe herbicide.



#### Meissner Island



Meissner Island, J. Magera, USFWS

Harlow Island



Mallards Taking Flight! USFWS

The Harlow Island Division is in Jefferson County, Missouri (River Miles 140.5 – 144 right descending), six miles south of Crystal City. Nearly 800 acres of this 1.255-acre tract was cropland protected by a private levee that was breached during the 1993 flood. The levee breaks have been left un-repaired, allowing the river into its floodplain during high-water periods. The former cropland has naturally returned to a forest of young silver maple, cottonwood and willow. The remaining land is mostly bottomland forest, with a small side channel and mile-long slough. Parking for this division is provided at the southern

entrance near Truman Park only.

Parking is not authorized at the end of AA. Beaver Island The Beaver Island Division is in Randolph County, Illinois (River Mil

Eagles and Waterfowl, D, Menke, USFWS



The Beaver Island Division is in Randolph County, Illinois (River Miles 116 -118 right descending). The 245acre division was added to the refuge in 2004 through a donation from Ducks Unlimited. It has a mature cottonwood forest, an active side channel, and several secondary channels near the main river. Located at the junction of the Kaskaskia and Mississippi rivers, its cobble and gravel riverbed offers sturgeon and other native fish good spawning habitat.

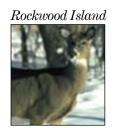
# **Finding the Refuge**

The 78-acre Meissner Island Division is in Monroe County, Illinois (River Miles 153.5 – 155.5 left descending), less than 20 miles from St. Louis' southern suburbs. Former cropland is naturally returning to silver maple, willow and cottonwood bottomland. Trees such as bur oak and hackberry have been planted to provide food for wildlife.

> 111-112 ri consists o wetlands interspers

Pickerel Frog, <sup>USFWS</sup>

Horse Island



White-tailed Deer, J. Mattsson, USFWS Crains Island Division



White Pelicans, K. LeBlanc

Beaver Island Division includes the site of the village of Kaskaskia, the first capital of Illinois. It was located on the Kaskaskia River, about six miles upstream from the Mississippi. Explorers Lewis and Clark bought supplies there and recruited crewmen from nearby Fort Kaskaskia beforereaching St. Louis in 1803. In 1880 the Mississippi River flooded, changed course, and swallowed the last six miles of the Kaskaskia River, including the village.

The Horse Island Division is along the historical Mississippi River channel in Randolph County, Illinois (River Miles 111-112 right descending). The division consists of 2,110 acres of remnant wetlands and flood-prone farmland, interspersed with forested habitat.

Horse Island was donated to the refuge by the American Land Conservancy in 2006. Trees such as bur oak and hackberry have been planted to provide food for wildlife.

The Rockwood Island Division is in Randolph County, Illinois (River Miles 99-104 left descending). The division contains 722 acres of side-channel, island and mature forest habitat, along with flood-prone farmland. The Service acquired the island in 2005 and plans to restore forest and wetland habitat for migratory birds and other native wildlife.

Crains Island Division of the Refuge is located in Randolph County, Illinois (River Miles 104 – 107 right descending). Acquired in 2007, Refuge staff aim to conserve a remnant braided island / side channel complex located just across the river from Chester, Illinois. Situated on the river side of the levee in Missouri, the frequently flooded division is a mosaic of remnant oxbows, sloughs, and secondary river channels. Wilkinson Island

 The 2,532-acre Wilkinson Island Division is the largest and southernmost division of the refuge. It is located 37 miles north of Cape Girardeau, Missouri, in Jackson County, Illinois, and Perry County, Missouri (River Miles 88.5-93 left descending). Wilkinson Island was protected by a levee that was breached during the 1993 flood and has not been repaired. The Service plans to plant nut-bearing trees on higher elevations and may reconnect the remnant side channel to the river.



## **Enjoying the Refuge**

Congress established hunting, fishing, wildlife observation and photography, and environmental education and interpretation as "priority public uses" when it passed the National Wildlife Refuge System Improvement Act in 1997.

Refuge lands offer a variety of options

with the needs of wildlife. Not every

For more information on open areas,

The Meissner Island, Harlow Island,

and Wilkinson Island divisions are

to dusk year-round. Access to the

Harlow Island Division is limited to

the southern portion, adjacent to the

Missouri Department of Conservation's

Truman boat ramp. Priority public use is currently being planned for Beaver

Island, Horse Island, Rockwood Island

and Crains Island divisions. Please

open to visitors daily from dawn

regulations, educational activities, and

types of public use permitted on refuge

division of the refuge is open to all

six wildlife-dependent public uses.

divisions, contact refuge staff.

for recreation that is compatible





Canoeing, R. Hansen, USFWS Biking, T. & J. Reuther, Hiking, M. Friend, USFWS

Mayfest Parade, K. Lowry, USFWS



Scanning the Skies, USFWS



Waterfowl Hunting, R. Frietsche, USFWS



Bass Fishing, G. Hester, USFWS



# Hunting

Large areas of the refuge offer quality hunting experiences. Big game and upland game hunting are allowed on the Meissner Island, Harlow Island, and Wilkinson Island divisions in accordance with state seasons and regulations. Meissner and Harlow Island divisions of the refuge are only open to archery deer hunting. Migratory game bird hunting is permitted only on the Wilkinson Island division.

Current state hunting regulations are available at the refuge office. Portable stands may be used where hunting is permitted but must be removed daily. No nails, screws, or other hardware may be used for accessing stands or securing them to trees.

# Fishing

Sport fishing is allowed year-round on the Harlow Island and Wilkinson Island divisions, in accordance with state seasons and regulations. Current state regulations are available at the refuge office. Visitors may fish from boats or the banks of the Mississippi River. Fishing is permitted only from sunrise to sunset. All fishing gear must be removed at the end of each day.



# Wildlife Observation, Photography & Hiking

Visitors can view and photograph wildlife while driving on levees, walking along wooded pathways, or hiking in the deep woods of certain divisions of the refuge. Many areas provide scenic vistas of the Mississippi River.



The refuge is centrally located along the Mississippi Flyway, a major route for migratory birds, affording visitors an excellent opportunity to observe wildlife. Over 200 species of birds visit the refuge throughout the year. October, November, March and April are the best months to see large concentrations of waterfowl. Shorebird and warbler migrations usually peak around the first week of May.



Bald eagles are common in the winter when they gather to feed in open water areas. Herons and egrets are seen feeding in refuge wetlands during the summer. Squirrels, raccoons, skunks, and opossums are year-round residents but are not always easy to spot. River banks are a good place to look for a variety of wildlife – from muskrats and beavers to turtles and frogs. Turkeys and white-tailed deer are usually seen in fields and forests. Visitors are encouraged to enjoy photography in conjunction with wildlife viewing and bird-watching activities.



# **Interpretive and Education Programs**

Interpretive and education programs are available. Please contact the refuge for more information.



## Boating

Boats, canoes and kayaks may be launched at various locations along the river. Contact the refuge office for more information.



Canoeing the Refuge, C. Samples, USFWS

## Your Cooperation is Appreciated

To protect wildlife and visitors, the following are prohibited:

Photos (opposite) from top: Indigo Bunting, USFWS

Environmental

J & K Hollingsworth

Education.

*Egrets*, K. LeBlanc

Fox Squirrel, D. Menke, USFWS

Green Frog, B. Thrune

Red-headed Woodpecker; USFWS following are prohibited: • ATVs • Camping

- Cutting firewood
- Removing plants or animals
- Littering
  - Leaving vehicles overnight
  - Abandoning wild or domestic animals
  - Collecting frogs
  - Using off-road vehicles
- Open fires

Dogs must be on a leash and controlled except when used for hunting where hunting is permitted.

Refuge property is marked with special regulatory signs. It is important to recognize and honor these signs.

# **Refuge Boundary Signs**

NATIONAL

WILDLIFE

REFUGE

UNAUTHORIZED ENTRY

PROHIBITED

Refuge Boundary Sign

Public Hunting Area



AREA

SIGN

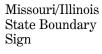
BEYOND ( THIS

CLOSED

Missouri - Illinois

State Boundary

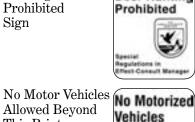
Area Beyond this Sign Closed



Firearm Deer Hunting Prohibited Sign



Allowed Bevond This Point Sign



Allowed Beyond This Point

www.midmiss.org



Partnership is a collaboration of federal and state agencies and not-forprofit organizations working to restore and enhance the natural resources of the corridor through public and private resource management, compatible economic development, private lands conservation, as well as education and outreach to the citizens of the region.

# Middle Mississippi **River Partnership**

The Partnership's vision is to develop a network of diverse and sustainable natural resources on public and private lands in the Middle Miss River

corridor that adequately supports fish and wildlife habitat and provides conservation benefits consistent with a variety of other uses.

## Join Us!

Refuge staff welcome volunteers to assist with refuge programs. Volunteers include citizens wanting to contribute to their communities, parents wishing to set an example for their children as good land stewards, retirees willing to share their wealth of experience, concerned citizens of all ages wanting to learn more about conservation, and people eager to spread the work about America's natural treasures.

Volunteers perform a wide variety of tasks. Some work full-time, others a few hours a week or month, or during a particular season or special event. No special skills are required to be a refuge volunteer; necessary training will be provided. Individual talents, skills, and interests are matched with work opportunities. Join our volunteer staff and be part of something big!





Volunteers help in many ways! K. Lowry, USFWS

