



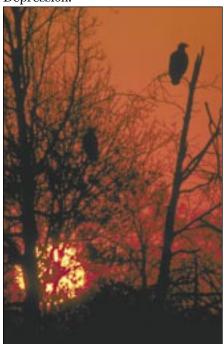
This blue goose, designed by J.N."Ding" Darling, has become a symbol of the National Wildlife Refuge System.

Formation of Mingo Swamp Basin

The Mingo Swamp Basin formed as the Mississippi River flowed south within a narrow peninsula of hard rock called Crowley's Ridge. Eighteen thousand years ago, scientists believe an earthquake caused the river to cross Crowley's Ridge and join the Ohio River near the present-day town of New Madrid, Missouri. As the river shifted east, it abandoned its original channel and left behind a wildlife basin called Mingo Basin.

Early Inhabitants

Native Americans were attracted to the basin's habitat, rich and abundant with wildlife resources. This is evident by cultural resources discovered on the refuge. Settlers also exploited the Mingo Basin. By 1890, the vast cypress and tupelo forests fueled a booming lumber industry that ultimately led to the harvesting of nearly all the trees within the refuge's present boundary. In the wake of disappearing forests, large drainage ditches were etched throughout the swamp to prepare the land for farming. The expensive undertaking proved only partially successful and sharply contrasted with other drainage projects in southeastern Missouri, which effectively drained hundreds of thousands of acres of hardwood swamplands. The combination of a depressed economy, expensive drainage attempts, poor farming practices, over-grazing, and numerous fires quickly brought economic and ecological bankruptcy to the Mingo area during the Great Depression.



Bald Eagles at Sunset, Dave Menke, USFWS









Photos (from top) $Barred\ Owl$ © Dave Kneir

White-tailed Deer J.Mattson, USFWS

Hen Wood Duck Dave Menke, USFWS

 $\begin{array}{c} Red\ Fox\\ @\ Dave\ Kneir \end{array}$

 $\begin{array}{c} Red\text{-}eared\ Sliders \\ @\ Dave\ Kneir \end{array}$

By the 1930s, the long-term, improper land use of the basin's natural resources prompted renewed interest in preserving the swamp. Purchase of land for the refuge began in 1944. Through diligent and careful management, the land and wildlife began to recover.

Primary Purposes of Mingo

The refuge is managed for wildlife, habitat, and people. The primary purpose of the 21,592-acre refuge is to provide food and shelter for migratory waterfowl and to protect the bottomland hardwood forest.

Wildlife Habitat

Management of wildlife habitat at the refuge emphasizes the natural productivity of the swamp. Water levels are manipulated with water control structures and ditches. Water levels are lowered during the summer, exposing the mud flats around the perimeter of the marshes, to encourage seed-bearing plants to grow. The water levels are raised in the fall to flood the marshes to provide food for migrating waterfowl.

Acorns from oak trees are an important food source for turkey, deer, squirrel and dabbling ducks. Water levels are adjusted particularly for the proper health and growth of the bottomland hardwood oak trees.

Adjacent landowners in the community help in the care of wildlife habitat. Each year, neighboring farmers sharecrop approximately 650 acres of field crops-leaving the refuge share for wildlife.





Watchable Wildlife Calendar

ground for bald eagles, and

Visitors can enjoy the beauty of the refuge throughout the year.

The refuge serves as a wintering

concentrations of eagles are readily observed. Every two years, the

refuge celebrates Bald Eagle Days.

refuge during their spring migration.

Waterfowl start to return to the

Red Mill Pond and the moist soil units host large flocks of ducks and

geese.

January



February





Wildflowers appear on the hillsides, and dogwoods and redbuds burst into full bloom after a few warm days in late March. Turkeys can be heard attempting to attract their mates. Hibernating snakes emerge from the bluffs and travel back to the swamp. Watch out on the roads for the migrating snakes. Do not run them over! All wildlife on the refuge are protected.

April



Wood ducks begin nesting in the refuge's tree cavities and man-made nest boxes. Seasonally, the 20-mile Auto Tour Route opens to vehicles (weather permitting). The Auto Tour Route is the perfect opportunity to see the Swamp "behind the scenes."

May



Songbirds and wading birds flock to the marshes and bottomland forests of the refuge. The best opportunity to see migrating and nesting birds is in May. Young bald eagles can be seen flapping their wings on the edge of the nest bowls in preparation for their first flights.

June



Wood duck broods learn how to swim in the refuge ditches. Great blue herons and great egrets congregate in shallow pools and fields. Turtles in search of mates and nesting areas are crossing the roadways. Do not harm or handle wild animals.

July



August



September



What do turkey vultures and river otters have in common? They both live on the refuge and are most active in early fall. Keep your eyes on the sky to catch a glimpse of circling turkey vultures or your sights set on the ditch and river banks watching for the slick trot of river otters.

Fawns with their mothers can be seen

grazing and frolicking. The open fields

along Bluff Road are opportune

places to catch a glimpse. The best time to view wildlife in the summer

heat is early in the morning or just

Hummingbirds do not mind the heat.

the energetic little birds at blooming

Over 20 birds at a time come to the Visitor Center to feed. Search for

before dusk in the evening.

trumpet vines.

October



November



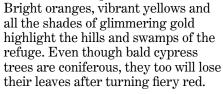
December



Birds, birds, and more birds are everywhere in December. Waterfowl are here to stay over the cold months or migrating through to warmer places. Moist soil units are ready to serve the hungry ducks and geese. The refuge is an all-you-can-eat smorgasbord!

Photos: Bald Eagle, USFWS; Hooded Merganser, © Dave Kneir; Pasque Flower, Hen Woodie in Box, and Bluebird, B. Angus, USFWS; Hen Woodie and Ducklings and Favns, USFWS; Hummingbird, S. Maslowski; River Otter, D. Licht, USFWS; Fall Leaves, ©D. Braud; Bobcat, © Dave Kneir; Nesting Mallards J.Mattsson, USFWS

Fall Colors Erupt!



Winter slowly sets in on the swamp and after the trees lose their leaves spectacular scenic overlooks are once again viewable through bare branches. Secretive animals, like the bobcat and wild turkey, are less hidden in trees without leaves. This is the best time of year to sneak a peak of reclusive wildlife.



Visitor Attractions

Hiking, wildlife observation, and fishing are just a few of the recreational opportunities available. Inquire at the **Visitor Center** on Highway 51, just one mile north of Puxico, Missouri, for seasonal attractions.





Kayaking and canoeing are available on Mingo River, Stanley Creek, Monopoly Marsh and in the many miles of ditches. Experience the swamp from the water.







The Boardwalk Nature Trail is a wheelchair-accessible, 1-mile loop trail through bottomland hardwood forest. The trailhead is located on Bluff Road just below the Visitor Center.



The **Auto Tour Route**, with four overlooks, is open seasonally. Fall foliage, spring flowers, and wildlife highlight this route.

The Ozark heritage and swamp history can be explored on the **Sweets Cabin Hiking Trail** located near Stanley Creek on the Auto Tour Route. This original rustic cabin was built in the early 1930s by the pioneering Sweets family.

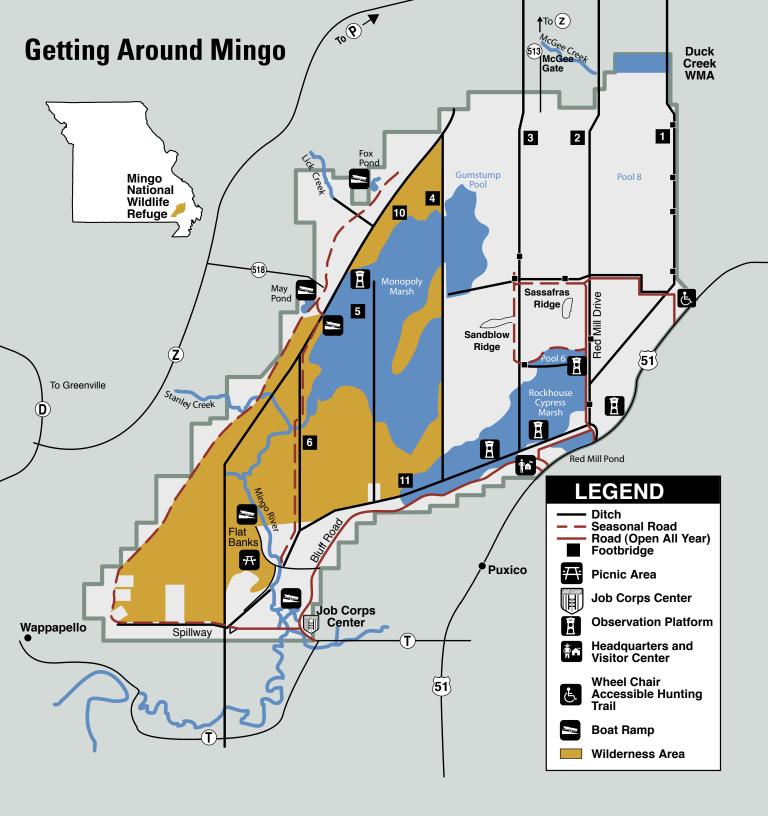


Fishing and limited hunting are permitted on the refuge. Regulations and brochures are available at the Visitor Center.



Environmental education and interpretive programs are available upon request. Refuge staff are available to provide information and programs.





Wilderness Area

Mingo has nearly 7,730 acres designated as a Wilderness Area. The U.S. Congress defines wilderness as "...an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain."

This is the most pristine environment on the refuge. Visitors are welcome to walk, canoe, photograph, fish, and study nature in the Wilderness Area. To keep the area as natural as possible, no motorized vehicles or boats are allowed.

Additional Information

Information on the following topics is available at the Visitor Center:

- recreational opportunities
- hunting and fishing
- environmental education
- self-guided tours
- special events
- bird checklist
- Mingo-specific regulations
- invasive species
- endangered species
- volunteering
- Mingo Swamp Friends
- Leave No Trace
- www.fws.gov/midwest/Mingo

