the Bald Eagle in Missouri

To the surprise of many people, Missouri is one of the leading bald eagle states. Each fall, thousands of these great birds migrate south from their nesting range in Canada and the Great Lakes states to hunt around the open waters of our rivers and lakes.

Eagles take up residence wherever they find open water and plentiful food. Missouri, because of its big rivers, many lakes and wetland areas, is especially attractive to these large, magnificent birds.

More than 2,000 bald eagles are reported in Missouri regularly during winter, making our state one of the leaders in the lower 48 states.

A National Symbol

Like wolves, lions and other predators, eagles have intrigued humans throughout the centuries. It is logical that early settlers in the New World selected the bald eagle, a true American species, as a favorite.

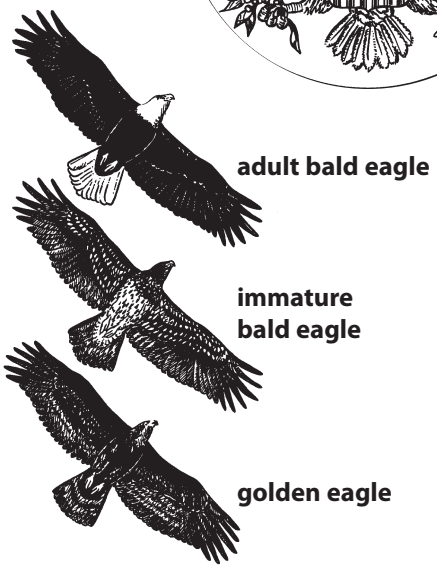
In 1782, the year the bald eagle was formally adopted as our national emblem, bald eagles probably were flourishing, with as many as 20,000 nesting pairs in what is now the United States.

In the 200 years since the bald eagle became our symbol of strength and freedom, its numbers have suffered a great decline. Victims of human encroachment, habitat destruction, DDT poisioning, and hunting, bald eagles were, by the late 1800s, already restricted to their current breeding strongholds: Alaska, Canada, the Great Lakes states and the Pacific Northwest. At one time, there were only 3,000 nesting pairs in the lower 48 states.

Concerned about their plight, in 1978 the federal government declared the bald eagle an endangered species in 43 states, including Missouri.

Since then, the bald eagle has recovered dramatically from the low numbers of the 1960s and 1970s. Today, there are more than 10,000 nesting pairs in the lower 48 states.

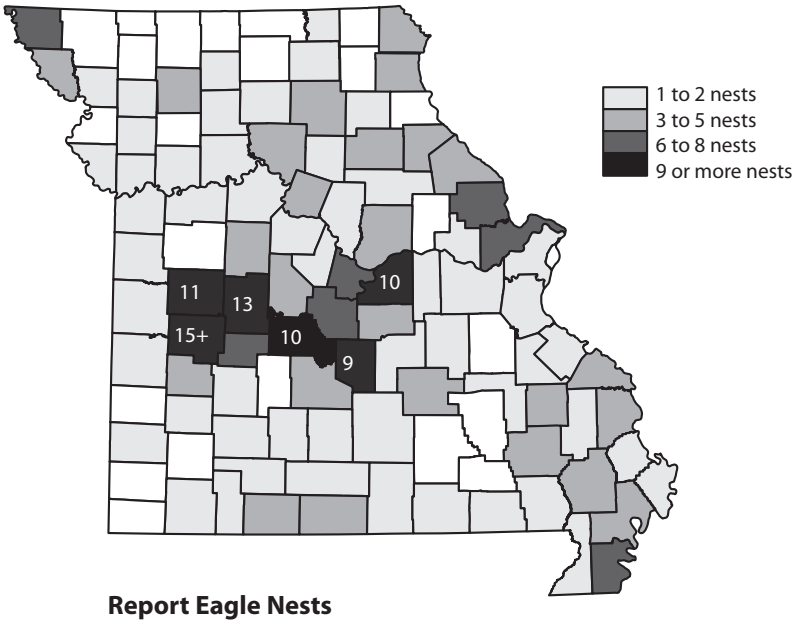
In 2007, the federal government delisted the bald eagle's status and it is no longer endangered. In Missouri, the bald eagle is listed as a species of conservation concern.



Other Eagles
The only other kind of eagle in North America is the golden eagle, a western species that is solid brown in color. It wanders into Missouri in small numbers in the winter and preys primarily on rabbits and rodents.

Missouri Department of Conservation

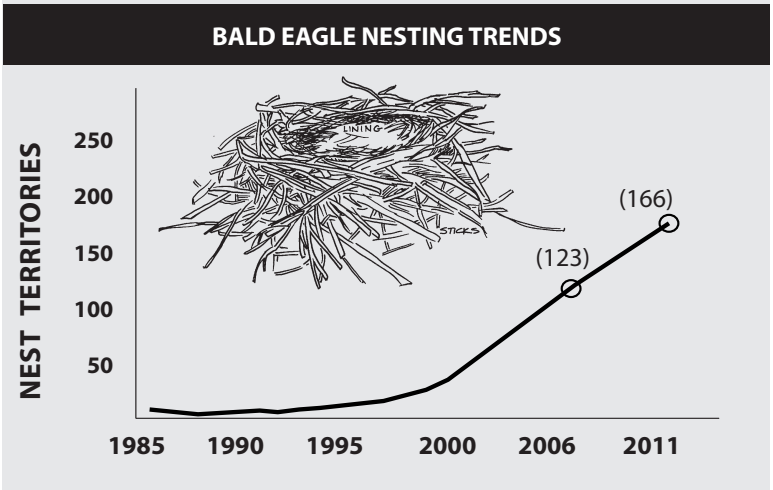
Eagle Nest Locations



Report Eagle Nests
To help us locate nests, please notify your local conservation office if you see an active (occupied) eagle nest in Missouri from March to August.

Management Efforts Since Restoring Nesting Bald Eagles in the 1980s

- Surveying and monitoring eagle populations until their numbers became stable
- Saving existing nest trees from development and bank erosion
- Leaving buffer zones around nesting trees
- Establishing trees along streams and reservoirs



Periodic nest surveys are conducted annually. As of 2006, statewide surveys are conducted every 5 years.

Restoring Eagle Nesting in Missouri

Nesting bald eagles were common in Missouri in the early 1800s. By 1890, they nearly were eliminated as nesters. Before the cypress forests were cut and the swamps drained, the main concentration of nesting bald eagles was in the cypress swamps of the Bootheel. This habitat loss, along with hunting and persecution in the late 1800s, is what initially decimated Missouri's bald eagle population. Missouri's eagles already were gone by the mid-1900s when DDT was reducing hatching success in other parts of the country.

From 1981 to 1990, the Missouri Department of Conservation, in cooperation with the U.S. Fish and Wildlife Service and the Dickerson Park Zoo of Springfield, released 74 young bald eagles in Missouri to reestablish them as nesters.

Eagles 6 to 7 weeks old were obtained from captive breeding facilities or healthy wild populations and released each summer from artificial nests into two areas with good nesting habitat: Mingo National Wildlife Refuge in southeast Missouri and Schell-Osage Conservation Area northwest of El Dorado Springs.

The young eagles imprinted on these regions where they took their first flights, and many returned to Missouri to breed as adults. This program, plus the eagle's tendency to return naturally to its former nesting range, has enabled eagles to once again nest in Missouri.

Sycamore trees are the most common bald eagle nest trees in Missouri, followed by cottonwood and bald cypress. The construction of large reservoirs, such as Truman Lake, Lake of the Ozarks and Pomme de Terre Lake, has created habitat in new regions of the state.

In 2006, surveys revealed that Missouri had an estimated 123 nesting pairs, up from 76 in 2001. Numbers are now estimated at 166 nesting territories. The main locations are in the Truman Lake region. However, eagle nests were found throughout the state in most counties (see map above).

A Winter Home

Throughout the nesting season, bald eagles are rather solitary. During winter migration, however, they congregate near open water in tall trees for spotting prey and night roosts for sheltering. Missouri continues to be one of the leading states for wintering eagles.

During the 2012 annual winter eagle count, 2,661 eagles were recorded—five of which were golden eagles. Fifty percent were adults. Most of the eagles were counted near Table Rock Lake, the Mississippi River and the Osage River. In 2008, nearly 400 were counted on Loess Bluffs National Wildlife Refuge in northwest Missouri, one of the highest concentrations anywhere.

A few bald eagles usually are seen in Missouri by mid-fall, and most arrive in December. In some cases, a bird will return to the same location each winter to find food in unfrozen lakes and rivers. In addition to feeding sites, a wintering area usually contains isolated night roosts.

As areas in north Missouri freeze, some eagles will migrate on to open water, scattering to favorable spots as far south as the Gulf Coast. They begin moving back north again in late February. By March, most have returned to their nests along the lakes and streams in the northern pine forests.

The Eagle and the Law

The federal Bald and Golden Protection Act makes it a felony to shoot an eagle or disturb its nest. People convicted of killing an eagle are subject to a fine of up to $5,000, imprisonment up to one year or both. Subsequent violations may result in fines up to $10,000, two years in jail or both. It also is illegal to possess an eagle alive or dead, or any eagle parts or products without a permit.

If you have information about an eagle death, you should contact your local conservation agent or the U.S. Fish and Wildlife Service immediately. Eagle killings can be reported in confidence by calling Operation Game Thief at 1-800-392-1111.

Winter Eagle Counts

Biologists estimate that Missouri's summer eagle population is around 600, but in winter the population grows by three to six times. Below are the most recent numbers from the winter survey. Some count numbers are low, usually reflecting extreme winter weather conditions.

2011–12	2,661 eagles
2010–11	2,901 eagles
2009–10	1,502 eagles
2008–09	2,028 eagles
2007–08	2,385 eagles
2006–07	2,313 eagles
2005–06	2,060 eagles

Winter Eagle Viewing Hot Spots

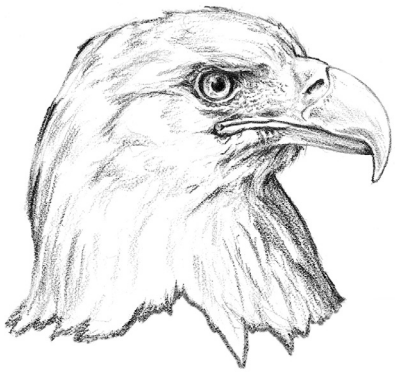
From late December through early February, watch for eagles perched in large trees along the water's edge at the following locations. Arrive early in the morning to see the eagles flying and feeding.

- Eagle Bluffs Conservation Area, off Route K, southwest of Columbia
- Lake of the Ozarks, Bagnell Dam Access, east of Bagnell
- Lock and Dam 24 in Clarksville
- Lock and Dam 25, east of Winfield
- Mingo National Wildlife Refuge, northwest of Puxico
- Riverlands Environmental Demonstration Area, West Alton
- Schell-Osage Conservation Area, north of El Dorado Springs
- Loess Bluffs National Wildlife Refuge, south of Mound City
- Swan Lake National Wildlife Refuge, south of Sumner
- Table Rock Lake, southwest of Branson
- Truman Reservoir, west of Warsaw

The Future

Restrictions on agricultural pesticide use, especially the banning of DDT in 1972, are thought to be responsible for the growing numbers of eagles in the United States. In the early 1970s, bald eagles produced fewer than one chick per active nest. In recent years, Missouri's average was 1.8 to 2.0.

Increased public awareness and stricter penalties has reduced bald eagle persecution. No longer do we hear about people such as the New Madrid trapper, who, in 1907, boasted of killing 487 eagles in 37 years. However, indiscriminate shootings still do take place. Each year, dead or wounded eagles are found in Missouri.



Bald Eagle Facts

Name: The term "bald" is a bit confusing. It refers to the Old English word "balde"—meaning white—rather than without feathers. The scientific name, *Haliaeetus leucocephalus*, means white-headed sea eagle.

Eyesight: Eagle vision is five to six times sharper than a human's. The prominent brow shades the eye for keener vision.

Beak: The eagle's hooked beak is used for tearing flesh.

Size: One of the largest birds of prey in the world, bald eagles have a 6 1/2- to 8-foot wingspan and are 3 to 3 1/2 feet tall, weighing 8 to 15 pounds. In many birds of prey, the female is larger than the male. However, unless birds are perched next to each other, sexes cannot be told apart.

Foods: Fish compose 60 to 90 percent of the bald eagle diet, most of which is scavenged. Eagles usually locate prey by soaring or watching from a high perch. Piracy is another way eagles get food. If one bird makes a prize catch, others often will try to take the food away. Prey animals weigh from 3 to 5 pounds, at most. An eagle would have difficulty carrying anything even one-half its own weight, making the myth of eagles carrying off human babies or calves sound absurd.

Young: Two, and sometimes three, white eggs are laid each year in March or April. Both parents incubate the eggs for 34 to 40 days. By 10 to 11 weeks of age, eagles are feathered, nearly full grown and able to fly from the nest.

Speed: Eagles fly 20 to 40 miles per hour and can reach speeds of more than 100 miles per hour while diving.

Talons: Powerful feet with razor-sharp, 2-inch talons are used to take prey.

Age: Bald eagles have lived up to 50 years in captivity. Their life expectancy in the wild may be 15 to 25 years.

Nests: Nests usually are built in the top of a large tree. Each year in January and February, the pair adds to the nest. A bald eagle nest can become the largest of any North American bird. The national record is 20 feet deep and 10 feet wide, weighing 2 tons! In Missouri, however, nests average about 5 feet wide and 3 feet deep.

Mortality rate: On average, biologists estimate that there is a 40 to 50 percent mortality rate for bald eagles during their first year after leaving the nest, a 10 percent mortality rate the second year and 5 percent per year from the third year on.

Color: The distinctive white head and tail mark an adult—a sexually mature bird that is at least 4 to 5 years old. Younger birds' plumage varies from solid, dark brown to mottled brown and white. Males and females are colored alike.

Range: Bald eagles historically occurred throughout North America. The largest natural area breeding populations are in Alaska and Canada, but there are significant bald eagle populations in the Great Lakes states, Florida, the Pacific Northwest, the Greater Yellowstone area, and the Chesapeake Bay region.

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What Can You Do to Protect Bald Eagles?

1. Learn more about eagles by reading books, attending events such as the Conservation Department's "Eagle Days" and watching eagles in the wild.
2. Help dispel the myths that lead uninformed people to harm eagles.
3. Stay away from nests.
4. If you see nesting bald eagles during the summer, notify your local conservation office.
5. Report violations to the Conservation Department or U.S. Fish and Wildlife Service agents.
6. Support organizations that acquire and protect eagle habitats.

11/2012 E00466