

The Bald Eagle Restored

“Around 1962, when we were living on Lake Erie, my parents took me on a special trip to see an eagle’s nest, thinking it might be my last chance for such a sight,” recalls naturalist Michael Arduser. 1962 was the year that Rachael Carson’s book *Silent Spring* made the public aware that widespread use of the insecticide DDT was decimating the country’s bird population. Eagles and other raptors were especially hard hit.

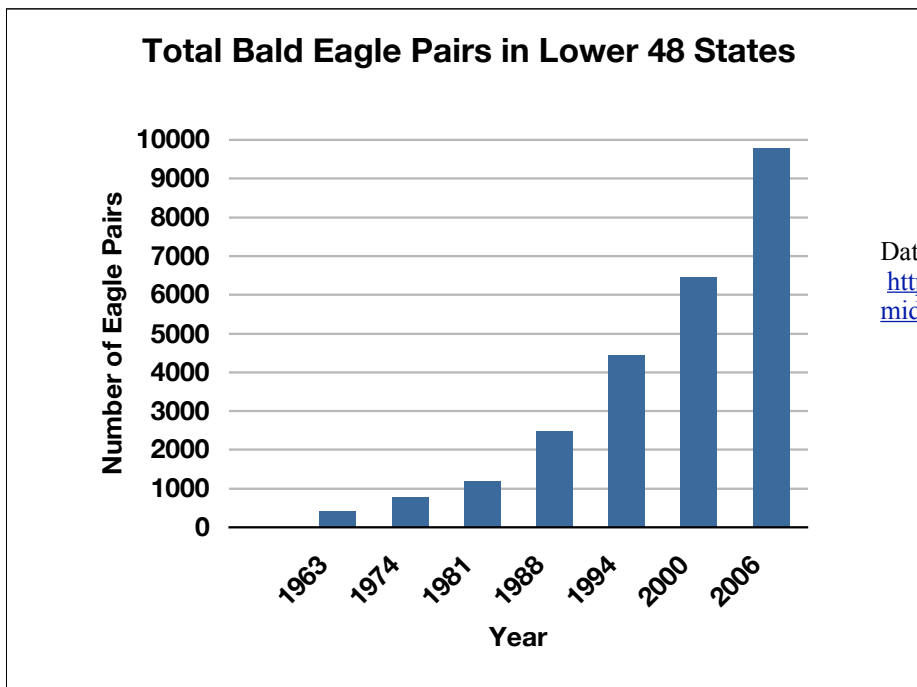


Photo with permission of Ackerlund’s Guide Service. Skagit River tour

Fortunately, in the long run their fears were not realized. Although the country’s bald eagle population continued to decrease for nearly twenty more years, around 1980 the tide began to turn. Since then the eagle population has been steadily increasing. In fact, Arduser, who is with the Missouri Department of Conservation, reports that the state now officially has 150 pairs of nesting eagles. He and his colleagues think the actual number may be close to 200, up from zero pairs in 1980.

In 1978, the federal government listed the bald eagle as ‘endangered’ in 43 states, and ‘threatened’ in the other 5 of the lower 48. From about 20,000 estimated nesting pairs in 1800, by 1963 only 417 pairs remained outside of Alaska.

The possible extinction of our national bird spurred regional recovery teams to undertake intensive programs to bring the eagles back. These efforts were so successful that by 1995 bald eagles removed from endangered list, and upgraded to threatened. Numbers continued to grow, and in 2007, the American bald eagle was “delisted” by the U.S. Fish and Wildlife Service. Lately, bald eagles have doubled in number approximately every five years.



Data from
<http://www.fws.gov/midwest/eagle/population>

“The eagle’s recovery is a testimonial to the resilience of nature, and also to people’s willingness to recognize problems and correct them,” says Arduser.

Seeing is believing

Almost anyone who has attended winter Eagle Days events or just taken a pair of binoculars to some of the accessible eagle-spotting sites ([link to Jan. 9 article](#)) along the rivers in Missouri and Illinois will testify that an eagle sighting is no longer a rare event.

Most of the eagles spotted below the dams and along the rivers and lakes in the winter are just visitors. Eagles eat fish. They like to go where the fishing is easy. So in the winter, when ice interferes with fishing up north, the eagles migrate to more open water in our area. They especially love to congregate below the dams along the Mississippi, where stunned and injured fish make for easy pickings.

Just now, about 400 bald eagles are hanging around in the trees below Lock and Dam #24 in Clarksville, MO according to

It is said that Benjamin Franklin objected to the bald eagle as our national bird because it eats carrion. Their habits, he felt, were not noble enough for them to be a national symbol.

Chamber of Commerce member Linda Blakey. They started coming in late October and



Courtesy of Linda Blakely

will leave at the end of February. One eagle perched in a tree along Front street and posed for the camera.

How Missouri got its eagles back

By 1981 no nesting bald eagles claimed Missouri as home. In fact, in Missouri most eagles had disappeared by the 1890’s, as their favored habitats were destroyed. Most nests had been in the cypress forests and swamps of the Bootheel area; as the forests were cut and the swamps drained, the eagles left. Eagles require large trees and access to fish.

Reintroducing the eagle—trading one national bird for another

Between 1981 and 1990, the Missouri Department of Conservation, in cooperation with the U.S. Fish and Wildlife Service and the Dickerson Zoo in Springfield, introduced 74 young eagles into the wild.

The eagles were acquired in a most ingenious arrangement, according to Andy Forbes of the Conservation Department. In return for eagles, the state sent young turkeys to Minnesota and Alaska. Basically it was an exchange of national bird for national bird.

The young eagles were slowly acclimated in “hacking” towers. Hacking towers are partially enclosed raised platforms, about 12 x 12 feet square, with an

artificial nest in the middle. Food and water are supplied by unseen human hands until the eaglets are ready for their first flight. Many birds raised in this simulated natural environment return to the area years later to build their nests. Eagles usually nest within 100 miles of where they were born—or in this case “hacked.” They mate for life and return to the same nests every year.

Increasing habitat protection—or at least abating habitat destruction.

An appreciation for the ecology of wetlands and preservation of forested areas, especially along rivers and lakes, provides nesting areas and access to food. Governmental agencies, both state and federal, now own much of the lands along the great river banks and have kept or restored them to natural state. Many heavily forested islands in the Mississippi River are uninhabited.

Some people-centered changes to the environment that worked to the advantage of the eagle population. Along with locks and dams, creation of large reservoirs like Truman lake and Lake of the Ozarks provided new habitat and food.

Banning the use of DDT

While Missouri’s eagles were already gone before DDT became a problem, the insecticide was decimating populations in other parts of the United States. Eagle eggs were not hatching. Because DDT interferes with calcium metabolism, the eggshells became very thin, and often broke under the weight of the adult bird in the nest.

DDT was first synthesized in the 1870’s, but was not recognized as an insecticide until 1939. It played an important role in controlling typhus and malaria during World War II, and was dubbed the “atomic bomb” of insect control.

After the war, DDT was used by the tons to treat agricultural pests. Contaminated runoff was absorbed by aquatic plants and fish. DDT is stored in fatty tissue, and does not break down quickly. So when eagles, who live at the top of the food chain, ate fish with DDT in their tissues, they just kept accumulating DDT in their own bodies. The DDT interfered with calcium absorption and led to eggs with fragile shells.

In 1967, a group of scientists became concerned about overuse of DDT and formed the Environmental Defense Fund. Their efforts and others came to the attention of Rachel Carson, whose book *The Silent Spring* popularized their findings and led to the modern environmental movement.

In 1972, the EPA banned DDT for agricultural use.

Could we get too many eagles?

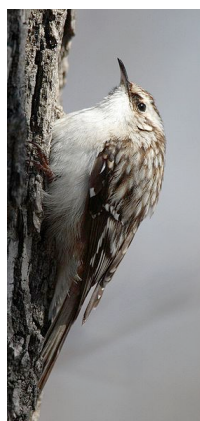
Even though adult eagles have no natural predators, Mike Arduser doesn't think they are likely to become pests like deer or Canada geese. They don't like being around people, and have fairly stringent environmental requirements.

- They need big strong trees to support their treetop nests.
When eagles return to their nests every year, they typically redecorate by enlarging it. A nest can be ten feet across and weigh up to half a ton. A speaker from the World Bird Sanctuary claimed in an Eagle Day program that nests have been known to topple trees.
- They need space.
When nesting, eagles are territorial and need lots of hunting ground during breeding time. Although many birds will roost in the same tree to fish below dams in the coldest part of winter, they are solitary nesters.
- They need food sources like rivers and reservoirs.

Happy side effects of eagle repopulation

The eagle resurgence is a highly visible success story in the annals of conservation. Less conspicuous, but arguably as important are other species whose disappearance has been prevented as a result of eagle habitat preservation, according to Arduser.

The pileated woodpecker loves the same bottomland forests along the rivers as eagles. The tiny brown creeper lives on insects under the bark of trees and requires forests for its survival. The beautiful prothonotary warbler nests only in sloughs along big rivers and needs big old riparian forests. Preservation of these birds was not an accident. The Endangered Species Act was carefully crafted to preserve whole ecological systems.



From left to right:
Pileated woodpecker, brown creeper,
prothonotary warbler

And, to towns like Clarksville, Missouri and Grafton, Illinois an influx of eagle enthusiasts means that their tourist industry can operate year round.

Not to worry—eagles are still protected.

The “Bald and Golden Eagle Protection Act ” of 1940 remains in effect to insure the survival of our national bird. In addition the “Migratory Bird Treaty Act” protects all native non-game birds. In addition, eagle populations are being monitored by conservation groups. With luck and vigilance, eagles will continue to thrive across the United States and future generations will still be able to see trees full of eagles waiting to dive for food.



Telephoto of eagles roosting on Illinois side of the Mississippi. Taken in Clarksville, Missouri by Charles Neibrugge