

# Arboretum Bald Eagle Nest: A Success Story

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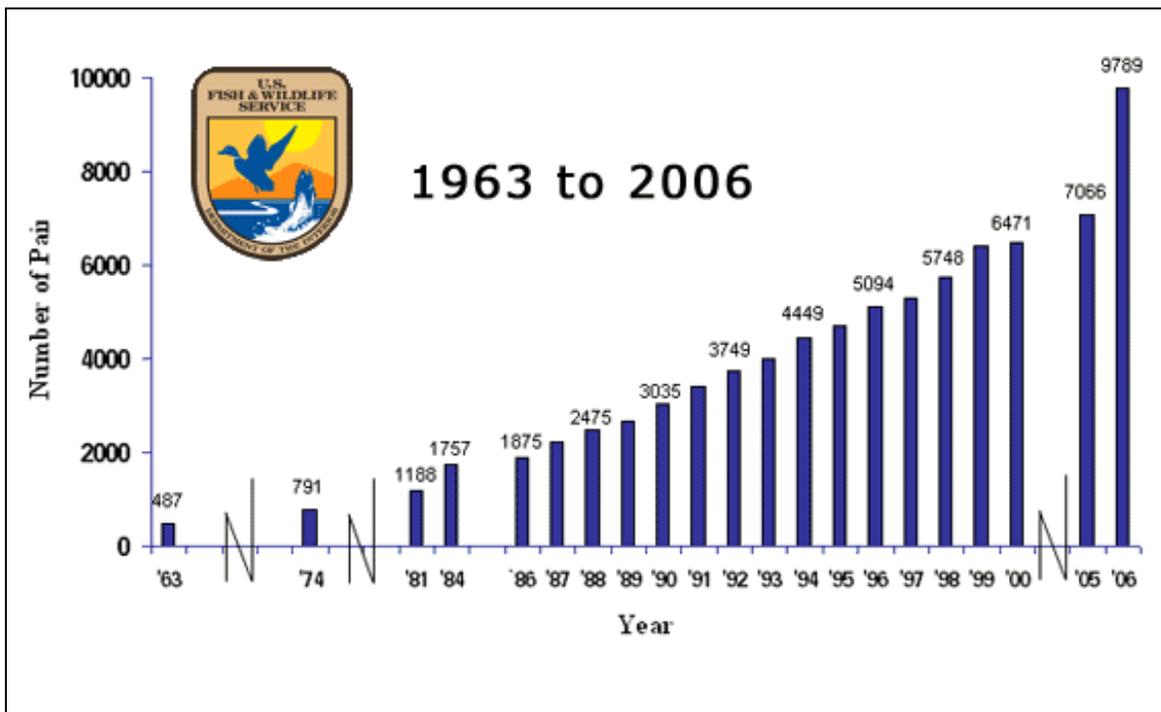
It is estimated that there were between 100,000 and 500,000 bald eagles in North America in the 1700s. Through hunting, habitat loss, loss of prey species, decline of water quality, and the introduction of contaminants like DDT (dichlorodiphenyltrichloroethane), populations plummeted to only 417 breeding pairs in the lower forty-eight states in 1963. It was feared that bald eagles would soon be extinct.

DDT, a heavily used insecticide, impacted predators at the top of the food chain and was especially harmful to eagles. DDT would [bioaccumulate](#), reaching concentration levels that were high enough to cause egg shells to be too thin for adults to incubate. When an eagle would sit on the eggs, they would be crushed under the weight of the well intentioned parent. Since it takes four to five years for an eagle to achieve sexual maturity, entire generations were being lost. DDT was suspected to be the main cause in the declining populations of osprey, peregrine falcons, and even pelicans.

In 1972, DDT was banned in the United States. In 1973, a landmark piece of conservation legislation, the Endangered Species Act (ESA), was passed. The ESA provided additional protections and funding for the recovery of species deemed threatened or endangered.

Since the 1970s bald eagle numbers have rebounded. A U.S. Fish and Wildlife Service (USFWS) census in 2006 counted 9,789 breeding pairs in the lower forty-eight states. With such an impressive recovery, the bald eagle was removed from the Endangered Species List in 2007. As of 2015, it was estimated that there may be as many as 11,000 breeding pairs.





USFWS Number of Nesting Pairs of Bald Eagles 1963-2006.

The eagle nest at the National Arboretum is a success story for the District Department of the Environment and the District of Columbia. The last bald eagle nest in the District before the birds disappeared for decades was likely in a location similar to the current one at the Arboretum. In 1947 a volunteer bird watcher, John W. Taylor, Jr., recorded a "gigantic" nest overlooking Bladensburg Road and the city on the Arboretum's Mt. Hamilton. It is believed that water quality was the main reason for the pair abandoning this last nesting location near the Anacostia River. Without clean water, fish could not survive, and without fish, bald eagles could not feed their young.

The fact that bald eagles are once again nesting at the Arboretum shows that water quality in the Anacostia River is improving and can once again sustain enough fish to support a family of hungry eagles.

The bald eagle is the national symbol of the United States. It is on the Great Seal of the United States and the silver dollar, and *Eagle* was the name of the lunar landing craft that first touched down on the moon. Washington, DC, is the nation's capital, and it is only fitting that you can see bald eagles soaring over the Jefferson Memorial or perched surveying the U.S. Capitol.

This is also a success story for the [Earth Conservation Corps](#) (ECC). In 1995, in a partnership with the USFWS and the National Arboretum, the ECC began a hacking program, and released four Wisconsin hatched eagles each year for four years. Hacking is the process of releasing juvenile raptors from a particular site in hopes that, upon reaching sexual maturity, they will return to an area and nest. After a total of sixteen eagles were released, it was a

waiting game to see if any would return. In 2000, the District of Columbia had its first bald eagle nest in more than fifty years, off Newcomb Street, SE, 4 miles south of the Arboretum. The pair of eagles using that nest successfully hatched and fledged eagles for several years.

### **Bald Eagle Identification**

Bald eagles are easily identified in flight or when perched by a bright white head and matching tail feathers. Their scientific name, *Haliaeetus leucocephalus*, means "white-headed sea eagle," but that plumage is only found in fully grown adults. It takes four to five years for bald eagles to obtain their characteristic coloring. Immature eagles start out with dark brown heads, gray bills, and a mix of light and dark brown bodies, with splashes and speckles of white.



Bald eagles are one of the largest raptors in North America, second in size only to the California condor. They are about 3-3 ½ feet tall when perched, weighing 10-14 pounds. They are sexually dimorphic, or different, based on gender. As with raptors, females are slightly larger than males. Female eagles can be up to 25% larger than males. The wingspan can vary as well, approximately 6 feet for males, and up to 7½ feet for females.

Eagles are powerful fliers, traveling up to 25 miles from the nest for food if needed. They can fly at speeds up to 40 mph and reach nearly 100 mph in a dive.



Immature bald eagles on the Anacostia River (December 2013).

## **Bald Eagle Diet**

In terms of diet, the best way to describe a bald eagle is “an opportunistic carnivore.” Fish, small mammals, smaller birds, and carrion make up the majority of its diet. It is not uncommon to see a bald eagle chasing and harassing an osprey who was successful in fishing, in order to steal its catch. Hungry eagles have been known to challenge larger prey, such as great blue herons and Canada geese.



Bald eagle chasing an osprey with a fish over Kingman Lake (June 2014).

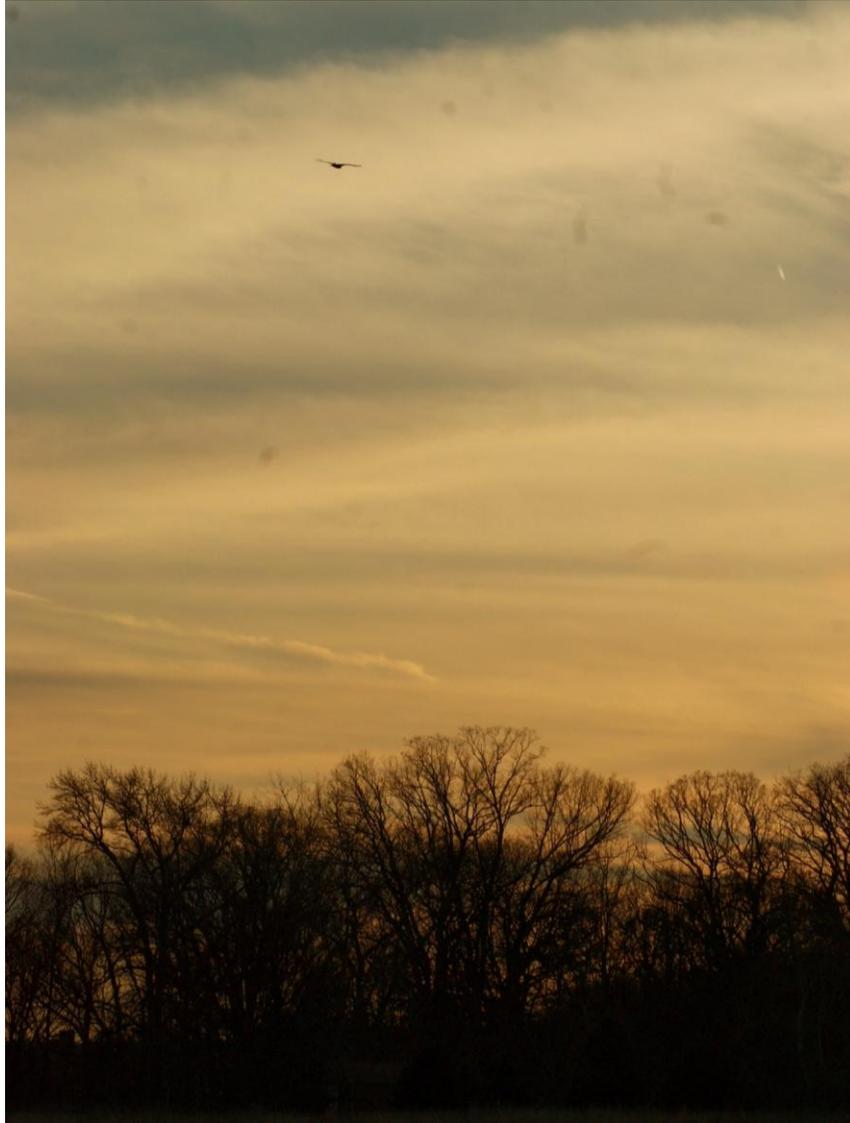
## **Bald Eagle Protections**

Although the species was delisted from the ESA in 2007, bald eagles are still afforded many protections, including the Migratory Bird Treaty Act of 1918 and the Bald and Golden Eagle Protection Act of 1940. Hunting, disturbing, harassing, and other actions which may negatively impact eagles are punishable by fines, and punishments may also include imprisonment. Bald eagles are also designated as a species of concern by a number of states and the District of Columbia.

## **Bald Eagle Threats**

Bald eagle populations have rebounded and are now stabilizing in most areas. However, there are still threats to the continuing prosperity of our national bird. Illegal hunting, collisions with powerlines and wind generators, and lead poisoning take a sizable annual toll on eagles. Urbanization continues to reduce the number of potential nesting sites. Water quality and contaminants can limit eagle ranges and cause a number of health issues. A new threat, discovered in 1994, has the potential to undo many of the gains bald eagles have made. Where a cyanobacteria, *Aetokthonos hydrillicola*, grows on the leaves of the invasive hydrilla plant, eagles may

develop a [fatal neurological disease](#) after eating prey, such as coots, that have consumed the plants.



Bald eagle soaring over the National Arboretum at sunset (January 2015).