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News / Explained / How the American bald eagle 'returned' from the brink of extinction

# How the American bald eagle 'returned' from the brink of extinction

The national symbol of the United States, the bald eagle was once on course to become the dodo of the 20th century. However, today, it is hailed as one of the biggest success stories in the history of conservation.

Written by Arjun Sengupta NewsGuard New Delhi | June 28, 2023 20:12 IST Follow Us



A Bald eagle about to fly off in Kachemak Bay, Alaska. (Photo: Andy Morffew/Wikimedia Commons)

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The American bald eagle was removed from the United States' list of endangered species on June 28, 2007.

Since then, the population of the bird has steadily risen. A 2021 report by the US Fish and Wildlife Service said that the number of bald eagles in the wild has quadrupled since 2009.

However, just a few decades back, the bird was on the verge of extinction, facing multiple threats to its existence. In fact, many conservationists felt that the national symbol of the United States was on the path to become the dodo of the 20th century.

How then did the bird make a "comeback"? What can the story of the American bald eagle teach conservationists around the world? We explain.

## Population decline since the 1800s

Once upon a time, bald eagles were abundant across the United States. When they were adopted as the country's national symbol in 1782, there were as many as

100,000 nesting birds in the continental United States (including Alaska), as per the American Eagle Foundation.



US President Joe Biden speaks during an event in Washington. The bald eagle remains the national symbol of the United States, as can be seen here on the US presidential seal and the flag in the background. (AP Photo/Evan Vucci)

However, their populations began to decline in the early 1800s. Bald eagles began to be seen as a threat to livestock, especially domestic chicken, and started to be hunted. Often, counties placed bounties on bald eagles – ostensibly to protect farmers' interests.

Hunting intensified in the latter half of the century, when feather hats became a fashion staple. While the Migratory Birds Treaty Act came into force in 1918, populations steadily declined till about the 1940s.

This compelled the US Congress to pass the Bald and Golden Eagle Protection Act in 1940 expanding protections and prohibiting even the possession of eagle feathers.

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However, eagles would soon face a different, arguably more dangerous, threat than hunting and habitat destruction.

## Appearance of DDT decimates the bald eagle population

DDT or dichloro-diphenyl-trichloroethane was first synthesised in 1874. However, it was in 1939 that it was first promoted as an insecticide and began to be used to kill malaria carrying mosquitos and agricultural pests. By the mid to late 1940s, DDT was being widely used for agriculture across the US.

While extremely effective as an insecticide, DDT had a catastrophic impact on the bald eagle population.

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Water bodies were soon contaminated with DDT, which in turn contaminated the fish in them. The chemical would enter the bald eagles' bloodstream when they

would eat these fish. Notably, DDT resulted in female eagles laying extremely thin shelled eggs, leading to nesting failures.

Consequently, by 1963, only 417 nesting pairs were found in continental United States (minus Alaska). This was, after 18 consequent seasons of large-scale nesting failures, as per experts.

Notably, like the bald eagle, birds such as ospreys and peregrine falcons also faced a similar drop off in population.

## Silent Spring, the ban on DDT and the Endangered Species Act

In 1962, Rachel Carson's book *Silent Spring* was published. This book, for the first time, documented the detrimental effects of chemical pesticides on the environment and meticulously described how DDT was the prime cause behind the decline in bald eagle populations.

While railed by companies in the chemical industry, the book became the rallying point for the burgeoning environment movement of the 1960s.

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"Rachel Carson's *Silent Spring* played a large role in articulating ecology as a 'subversive subject' – as a perspective that cuts against the grain of materialism, scientism, and the technologically engineered control of nature," environment historian Gary Kroll wrote.

Notably, a nationwide ban on the use of DDT for agricultural use was introduced in 1972 and in 1973, the Endangered Species Act was enacted. This act broadened protections already in place for endangered species, particularly focussing on protection of animal habitats.

The bald eagle was one of the original species listed for protection under this act.

# Captive breeding programmes and strict habitat protections

Captive breeding programmes were launched in the 1970s and proved to be crucial

in helping the resurgence of bald eagles.

The US Fish and Wildlife Service would head programmes where eagle colonies were bred in captivity at centres such as the Patuxent Wildlife Research Center in Maryland, before being released into the wild. This allowed conservationists to closely monitor fragile eggs and nestlings, increasing their survival rates significantly.

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A practice known as hacking was commonly used by conservationists. Hacking is a controlled way to raise and release bald eagles into a wild viable environment from artificial nesting towers. This method simulates a wild eagle nesting site and aids in recovery in an area where re-population is desirable.

Moreover, strict restrictions were brought in with regards to human activity around eagle nests or known nesting areas. For instance, any construction activity was barred within a radius of roughly 100 m of a bald eagle nesting site.

Protecting against hunting, banning of DDT, breeding programs, and habitat protection around nesting sites, led to a steady growth in bald eagle populations. In 1995, the bald eagle was moved from "endangered" to "threatened" status and in 2007, it was delisted completely.

## A success story

In 2007, when the bald eagle was removed from the endangered species list, there were roughly 9,789 known breeding pairs in the US. The latest figures (from 2021) put the number of nesting pairs at about 71,4000 with the overall population standing at roughly 316,700.

"The strong return of this treasured bird reminds us of our nation's shared resilience and the importance of being responsible stewards of our lands and waters that bind us together," Deb Haaland, the US secretary of the interior said in 2021.

#### Lessons for the future

The success of bald eagle conservation teaches some important lessons about conservation.

It shows that there is seldom a silver bullet when it comes to conservation – policies have to be comprehensive, taking into account the complexity of factors that generally lead to decline of animal populations. While the banning of DDT was monumental, without habitat protections and captive breeding programmes, the success would be far from certain.

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Notably, it shows how conservation efforts often take a long period of time to bear fruit. It took years of lobbying to get DDT banned. Since then, it has taken about half a century for bald eagle populations to reach the levels they are today.

"The fact that saving the bald eagle was such a long process means that many of those who had the foresight to fight for their protection may not even be alive today," environmentalist Thomas O'Grady wrote for *Medium* in 2021.

"It was truly a decades-long effort. With persistence and staying the course over time, we achieved these great successes. That's an important part of the lesson – you can't be impatient," conservationist Dan Brauning said in an interview in 2021.

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As climate change poses novel risks and challenges to flora and fauna around the world, the story of the American bald eagle serves as an important case study on the importance of persisting with conservation efforts – even if their impact is not immediately obvious.

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