

# BALD EAGLES ON THE NORTHERN CHANNEL ISLANDS



Top: Bald Eagle  
(*Haliaeetus leucocephalus*)

Bottom: Biologists tag  
a juvenile eagle before  
releasing it on Santa Cruz  
Island

## *The Decline of Bald Eagles*

Historically, American bald eagles (*Haliaeetus leucocephalus*) were a resident breeding species on all of the California Channel Islands, with roughly 35 eagle nest sites existing earlier in this century. Bald eagle populations, along with those of many other bird populations, declined with the use of the pesticide DDT in the United States.

DDT is a chemical that bioaccumulates and is very slow to break down. Animals at the top of the food web, such as bald eagles, can feed on food contaminated with DDT and its breakdown products, and accumulate high concentrations of these chemicals. Such accumulation causes many bird species, including eagles, to lay thin-shelled eggs that dry out or break during incubation.

The last known bald eagle nest on the northern Channel Islands was seen in 1949, and the birds disappeared from the islands by 1960. In 1972, Congress banned the use of DDT. Bald eagle populations then rebounded across the U.S., but continued to struggle in Southern California, where a DDT factory had released millions of pounds of the chemicals into the ocean nearby. The continued presence of these chemicals in the marine environment still presents challenges to bald eagle recovery on the Channel Islands.

## *Restoring Bald Eagles to the Channel Islands*

The Montrose Settlements Restoration Program (MSRP) contracted the Institute for Wildlife Studies (IWS) to implement the Northern Channel Islands Bald Eagle Feasibility Study. Through the study, biologists release juvenile eagles on Santa Cruz Island and monitor their exposure to DDT and ability to reproduce. The hope is that the birds, far from the source of contamination off the Palos Verdes Shelf, will be able to breed successfully on their own.

***In 2006 and 2007, MSRP and IWS celebrated a major milestone in the Feasibility Study: two chicks hatched in nests on Santa Cruz Island. For the first time in over 50 years, bald eagles have reproduced on the Channel Islands, unaided by humans.***

While the new chicks bode well for bald eagle restoration on the Northern Channel Islands, biologists and managers will be monitoring multiple breeding attempts over multiple years to make informed decisions regarding future bald eagle restoration efforts on all of the Channel Islands.

Since 2002, 46 juvenile eagles have been released on Santa Cruz Island. Each year until 2006, between 10 and 12 eaglets were transported to “hack towers”, where they resided for a little over a month to learn to fly. The birds are then released to fly on their own.

Currently, at least 34 released eagles remain on Santa Cruz and the surrounding northern Channel Islands. Biologists have spotted unmarked birds they assume to be from the mainland, and have observed birds moving to the mainland and between the northern and southern Channel Islands. Using satellite transmitters attached to the birds’ wings, biologists have tracked Santa Cruz birds as far north as Washington, and as far east as Yellowstone National Park in Wyoming. In addition, three birds on the northern islands have flown in from Santa Catalina Island, and one eagle released on Santa Cruz has been spotted on Catalina.

In summer 2004, biologists began recapturing eagles in order to obtain blood samples as a part of the ongoing monitoring component of the Feasibility Study. Analysis of these samples to determine current contaminant levels is ongoing.



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Top: Juvenile bald eagles discover their new nest in the hack tower.

Bottom: External view of a hack tower

### *The Life and Look of Bald Eagles*

The bald eagle is also known as the American eagle, white headed eagle, or sea eagle. Bald is a synonym for white, and does not mean featherless. Adults measure between 30 to 31 inches, and can weigh up to fourteen pounds. Wingspan can vary between six to eight feet. Females tend to be slightly larger than males.

Adult birds are blackish-brown with feathers covering the upper part of the legs. Their tails and heads are white, and their hooked beak is a bright yellow. Young eagles have longer tails and white feathers on their underbody. By the fourth or fifth year, they will have adult plumage and coloration.

American bald eagles feed primarily on fish, although they will also take advantage of other food sources if available. On the northern Channel Islands, these other food sources consist mostly of pig and marine mammal carcasses.

Bald eagles sexually mature between four to five years old, and usually mate for life. Nesting areas can range from one to two miles in diameter, and pairs will defend their territory and chase away intruders. Eagle nests, or aeries, are often built in trees, but in non-wooded areas such as Santa Cruz Island they will also nest on the ground or on cliffs.

Eagle nests vary greatly in size and shape, but average five feet across. If the same nest is used year after year, it can grow to nine feet across and weigh as much as two tons.

Nesting season in the Channel Islands spans from January to June, and bald eagles lay between one and three cream colored eggs. Although males help sit on the nest, females do the majority of the incubating. Once eggs are laid, chicks will hatch in 34 to 37 days. Depending on the availability of food, often only one chick lives, but occasionally up to three will survive.

Chicks leave the nest at 12 weeks old, but stay nearby for another month as they learn hunting and survival techniques. Young

eagles will roam far and wide, but usually return to natal areas as adults to establish their own breeding territories. Bald eagles can live for about 25 years in the wild, and captive eagles have lived to be nearly 50 years old.

### *A Threatened Species*

The American bald eagle historically ranged throughout North America, except in extreme northern Alaska and Canada, and central and southern Mexico.

The bald eagle was adopted as America's national symbol in 1782 and revered by Native American cultures. In 1782 there were between 25,000 and 75,000 birds in the lower 48 states. By the early 1900s, the bald eagle population had dropped to 834 birds.

The Bald Eagle Protection Act of 1940 was the first legal protection for the birds. In 1967, bald eagles were officially designated an endangered species. In 1972, DDT was banned in the United States. This last regulation enormously helped the bald eagle's recovery. Following the enactment of the Endangered Species Act in 1973, the U.S. Fish and Wildlife Service (FWS) listed the species as endangered throughout most of the lower 48 states. FWS down-listed the species from endangered to threatened in 1995 and removed them from the list all together in 2007.

### *Restoring the Channel Islands National Park Ecosystem*

The re-establishment of bald eagle populations is also a key component of the National Park Service's broader goal of restoring the natural biological diversity of the Park ecosystem. The National Park Service is also currently engaged in projects to capture and relocate golden eagles and restore native island foxes on the Channel Islands.