



Bald Eagles in Maryland

HISTORY OF BALD EAGLES IN MARYLAND

The recovery of our national symbol, the **Bald Eagle** (*Haliaeetus leucocephalus*), is considered one of the greatest conservation successes of the 20th century. From an all-time low of 44 nesting pairs in the state in 1977, at least 1200 pairs currently breed in Maryland. Today, the Chesapeake Bay region hosts the largest concentration of Bald Eagles in the lower 48 states.

The primary factor causing population declines through the 1960s and 1970s was DDT. This pesticide disrupts the process of calcium production, which results in egg shell thinning. DDT was not outright killing adult eagles, but thin egg shells would break when an adult bird sat on the eggs to incubate them. This virtually eliminated productivity (producing young) in not just Bald Eagles, but also Ospreys, Brown Pelicans, and Peregrine Falcons.

These species were among the first to be protected in 1972 under the new *Endangered Species Act*. This protection and the banning of DDT paved the way for populations to begin their recovery. Populations of all these species have subsequently recovered. The Bald Eagle was delisted (removed from the list of endangered species) in 2007. Today, the *Bald and Golden Eagle Protection Act* continues to provide protection for eagles.

OUR NEED TO CONTINUE MONITORING EAGLES

State-funded surveys of Maryland's Bald Eagle population were discontinued in 2005. Since then, the continuous threats from pollution (to Eagles and their food sources), increased frequency of violent storms (loss of Eagle nests), coastal development (increased disturbance near nest sites and loss of habitat), and degraded fish populations in various tidal watersheds (food sources for Eagles) all contribute to the compelling need for renewed monitoring of Bald Eagles in our state. The continued use of pesticides (such as carbofuran) and lead shot pose on ongoing threat to eagles. As scavengers, eagles are susceptible to secondary poisoning when feeding on animals killed by carbofuran or gut piles from deer killed with lead shot.

OBSERVING EAGLES

The United States Fish and Wildlife Service (USFWS) recommends that active nest sites not be approached from closer than 100 meters (330 feet). You should do your best to have some sort of screen or blind between you and the nest, as research shows that eagles are more likely to be bothered by an activity when it happens in full view. Of course, as an observer you need a clear view of the nest to gather accurate data about eagle activity, so you'll need to work out a balance between seeing the nest and staying out of sight. Sometimes a road will offer an ideal vantage point for viewing a nest. In general, if human activity (including road traffic) was present prior to a pair moving in to a site, they will be tolerant of that activity. In general, birds seem to be bothered less by people in a car than people outside of one, and so cars make excellent bird blinds.

CHRONOLOGY AND INDICATIVE BALD EAGLE BEHAVIOR IN MARYLAND

Numbers indicate requested monitoring time periods for recording nest visits.

1. **Nov-December: Courting and Nest Maintenance**

Adults investigate a nest, fix damaged areas sporadically, and may start to defend territory against intruders. You may also observe courtship behavior, such as the cartwheel display.

January-February: Nest Building/Maintenance

Copulation occurs and nest maintenance becomes more regular. Adults actively defend the territory from other eagles. They may or may not roost (spend the night) next to the nest. Most of their day is away from the nest, foraging, but they will regularly come back to the nest.

2. **February-March: Egg-laying and Incubation**

Most egg-laying happens somewhere in mid- to late February. Incubation begins immediately after the first egg is laid; incubating adults will sit on the nest almost continuously, so the continual presence of an adult on the nest is a good indication the female has laid eggs. Incubation will take an average of 35 days until the chicks hatch.

mid-March-April: Hatching and Rearing Young

At first it may be difficult to determine when a nest status changes from eggs to young chicks, since the female spends a lot of time brooding small chicks and the behavior is similar to incubation. However, if you stay a while you will observe the male deliver food to the nest, and the female stand, tear off small pieces, and lean downward to feed it to the eaglets.

April-June: Rearing Young (continued)

As the eaglets grow you should be able to see their heads poke out of the nest rim, especially by about 4-5 weeks of age.

3. **June-July: Fledging**

Fledging (first flight out of the nest) can happen anywhere between 11-14 weeks after chicks hatch, and more typically around 11-12 weeks. As the young birds grow, they build flight muscles by flapping across the nest and even up onto limbs immediately adjacent to the nest. These behaviors become more frequent and more adventuresome as the young approach fledging. Fledglings may continue to rely on their parents for food 4-6 weeks after fledging.