

The Bald Eagle in Georgia

Population History and Study Methods



In the early part of the 20th century, bald eagles commonly nested along Georgia's coast and in the Okefenokee Swamp. Occasionally, they nested elsewhere in the state, likely in major river swamps and depressional pond and wetland systems in the Coastal Plain.

By the late 1950s, eagle numbers had declined and the species was no longer considered common in Georgia. By 1970, there was only one known successful nest, and it was on St. Catherines Island. (A successful nest is a nest that has fledged at least one eaglet). In the decade that followed, the bald eagle was described as a rare transient and winter resident. There were no known successful nests in Georgia.

As with eagle populations elsewhere, the high mortality rate and lack of successful reproduction that led to the decline likely resulted from habitat loss, environmental contamination by DDT and other toxic chemicals, and even human persecution of the species. DDT use was outlawed in the U.S. in 1972, and the federal Endangered Species Act was passed in 1973. Also in 1973, Georgia enacted the Endangered Wildlife Act, through which the state could list and protect rare animal species. The bald eagle was added as an endangered species to Georgia's Protected Wildlife List in 1974. After no known successful nests from 1971-1980, Georgia DNR documented an eaglet fledging from a nest on Ossabaw Island in 1981.

Georgia DNR started releasing young eagles in 1979. The birds were obtained from captive breeding facilities and wild nests in states where eagles were more numerous. Sapelo Island was the initial release site. The program was later expanded to Butler Island (Altamaha Waterfowl Management Area) and Lake Allatoona. Eighty-nine eaglets were released via a "hacking program" through 1995, but it is not known if this was a significant factor in rebuilding the nesting population. The hacking program was one of many recommended actions listed in a recovery plan for bald eagles in the southeastern U.S. State and federal agency eagle experts wrote the plan in 1984.

Population Growth and Surveys

Much has changed for Georgia's bald eagles since the 1970s. The total number of nests recorded in the state was about 50 in 2000. The nesting population has continued to grow, surpassing 100 occupied nest territories in 2007 and more than 200 nest territories in 2015. The 2017 survey documented a then-record 218 nests, at least 142 of which were successful. But in 2022, the totals ranged higher to 229 nests, 227 of which were monitored and 146 were successful. 2022 also marked the first statewide survey since 2017.

In 2018, DNR downsized its annual surveys from statewide to covering about two-thirds of the state each year. The change maintained standardized monitoring, synced with the species' range-wide comeback and mirrored slimmed-down surveys in some neighboring states. It also freed money for other needed conservation projects. The agency now monitors eagle nesting by helicopter twice a year, splitting the state into five areas for surveys. Flights in January and February mark nests in use. Follow-ups in March and April are primarily to gauge how the nests fared.

Conserving bald eagles remains a priority. The species is state-listed as threatened and a species of conservation concern in the State Wildlife Action Plan. Survey leaders determined that reducing the effort would not compromise DNR's ability to identify and address a decline in productivity—the most crucial consideration for the change.

Survey results in 2024 showed that eagle nesting remains strong in the state. The totals included 145 nest territories, of which 116 were successful, fledging 178 eagles. In 2023, the survey documented 198 nest territories, 150 successful nests and 232 eagles fledged. But that survey included southwest Georgia – a massive area with nearly 100 nests – while the 2024 effort pivoted to the northern half of the state, where nest density is lower. For context, the 2024 averages for young fledged per nest and occupied nest territory matched the state's long-term averages.

Survey Insights

Georgia appears to have maintained more than 200 occupied nest territories annually since 2015. Although findings in recent years suggest the state's nesting population continues to increase, the growth rate has slowed substantially compared to 2007-2015 when nest totals surged from 114 to 210.

The 2024 survey included north/northwest Georgia – generally north of Atlanta from Interstate 85 east of the city and from Interstate 20 west of it – the coastal counties and barrier islands; a triangular swath of northeast Georgia framed by Athens, Dublin and reservoirs in the Augusta area; and several reservoirs between Atlanta and Macon. Nest success rates varied from an average of 71 percent in north/northwest Georgia to an above-average 82 percent on the coast and in central and northeast Georgia. The latter survey covered a lot of ground and water, ranging from reservoirs between Macon and Atlanta east to the Oconee River watershed and along the large Savannah River reservoirs north of Augusta.

On the coast, the 83 nest territories marked the second straight year that total significantly exceeded the average. The 82 percent nest success rate was also up from 73 percent last year, with an average of 1.5 young fledged per nest. The total of 99 eaglets fledged from 68 successful nests topped last year's 89 fledglings and far surpassed the 50 eaglets fledged from only 34 successful nests in 2022, when nesting coastal eagles were hammered by an outbreak of highly pathogenic avian influenza.

Nesting Overview

Bald eagles usually lay two eggs per nest, but occasionally they lay three. Annual nest success ranges between 65–80 percent. This iconic species is known to nest in about 70 counties in the state. One-third of the nests are found in the six coastal counties, but territories are now found throughout much of the state where there is sufficient open water habitat and large trees for nesting, particularly along the lower Chattahoochee and Flint River corridors.

Most nests are isolated from human structures and human disturbance, but a few eagle pairs have built nests in trees a short distance from houses and highways. About 95 percent of nests are in living, mature pine trees. To date, only two bald eagle nests in Georgia have been found on structures made by humans. (One – on a nest platform built for ospreys at Fort Pulaski National Monument near Savannah – fledged an eaglet in 2022 and two eaglets in 2024. This platform

nest is the first known record of eagles successfully nesting on a human-made structure in the state.) The similar-looking osprey often nests on bridges, poles, navigational markers, platforms and cell phone towers.

As noted, bald eagle nests are monitored in January and February to determine occupancy, and again in March or April to determine productivity. Most nests are monitored via helicopter surveys, but a few are monitored from the ground, often with the aid of volunteers. Additional nests are discovered each year through limited aerial searches and through reports from the public. By late winter most nests are home to young eaglets ranging in age from 4-14 weeks, or they are empty because the nesting effort failed or, in a few instances, the eaglets have fledged.

There is a marked latitudinal gradient with regards to the timing of the nest cycle in Georgia. Eagles on the coast nest earlier and fledge young earlier than those in the mid-state, and much earlier than those nesting on the perimeter of reservoirs in the mountains.

The causes of failure for eagle nests are varied as they are with all birds, including severe weather, death of one or more of the parents, insufficient food available (they mostly eat fish) to rear young, and predation of eggs and young by raccoons, great horned owls, and other wildlife. Monitoring also helps DNR identify potential threats to eagle nests, as well as management needs. Resolution of habitat management conflicts on private property is a top priority. Recommendations based upon federal management guidelines are adapted as suitable at each nest site to prevent harassment of the eagles that could lead to nest abandonment or nest failure, while also minimizing landowner restrictions.

The U.S. Fish and Wildlife Service downlisted the bald eagle to threatened in 1995, and in 1999 proposed that it be taken off the Endangered Species List. In 2007, the bald eagle was removed from the federal list of threatened and endangered species. The species is still listed as threatened under Georgia's Endangered Wildlife Act. It is also protected at the federal level under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

DNR does not have a good estimate of Georgia's actual eagle population, which tends to increase during the late fall and winter months with the arrival of wintering eagles from the northern U.S. Protections afforded the bald eagle under the Endangered Species Act have been largely responsible for its inspiring recovery in the state, as have habitat improvements resulting from passage of the Clean Water Act in 1972 and the regrowth of Georgia's forests following large-scale clearcutting of old growth in the early 20th century. However, there continue to be reasons for concern.

Vacuolar Myelinopathy, a disease of the central nervous system first detected in Georgia in 1998, resulted in the deaths of eagles and abandonment of nest territories at Lake Juliette and the lower part of Clarks Hill Lake. Research has determined that a toxin found in certain species of photosynthetic bacteria (a "cyanobacteria") causes the disease. The cyanobacteria has been found growing on hydrilla, an invasive species of submerged aquatic plant. American coots, which winter in large numbers in the state on reservoirs, forage on hydrilla, thereby ingesting the toxin in the cyanobacteria. The resulting symptoms include lack of coordination and an inability to fly, making these birds easy prey for eagles, which, in turn, ingest the toxin. To date, this problem has remained fairly localized, and few cases have been documented in Georgia in recent years.

There are unfortunate downsides that come with an increased eagle population such as more birds being hit by cars as the eagles, mostly sub-adults, eat roadkill, incidents of eagles being shot, birds dying from consuming rodents killed by the ingestion of rodenticides, occasional electrocutions, incidents of eagles being seriously injured in territorial conflicts with other eagles, and birds dying from lead poisoning when they scavenge the carcasses of deer or feral hogs that contain bullets, shot or bullet fragments.

For more information on bald eagles, contact the Forsyth office of DNR's Wildlife Conservation Section, (478) 994-1438.

Reporting Nesting Bald Eagles

In Georgia, bald eagles return to their nesting territories in early fall and usually lay eggs between November and February. Nesting efforts on the coast can begin and finish as much as two months earlier than those associated with reservoirs in the Georgia mountains. The eggs hatch about 35 days after being laid and the young leave the nest 11–14 weeks later, typically from late March to early May but occasionally in June.

Nests of the osprey, another fish-eating bird of prey sometimes misidentified as eagles, are often confused with those of bald eagles. Like eagles, ospreys often reuse the same nest year after year, and so their nests can become massive. However, ospreys routinely nest at the very tops of trees, many of them snags (dead trees), as well as on a variety of human-made structures such as navigational signs, cell and electrical towers, and wooden platforms. There are only two records of eagle nests in Georgia found on these structures, and only about 10 percent of the time are eagle nests found in dead trees.

Most eagle nests are just below the very upper canopy of trees, though there are exceptions to this rule. Interestingly, there are records of bald eagle nests that exceeded 15 feet in height and weighed over 2,000 pounds. In some instances, eagle nests have remained in use by successive generations of birds for over 30 years, though in most cases the birds use their nests for several years and then build and use an alternate nest nearby. Many nesting pairs of eagles have two nests in their territories. One is an active nest and one is an alternate – sort of like an insurance plan if something happens to the primary nest tree.

Osprey nesting starts later (in March and April) than that of bald eagles and ends later (late June to early August) in the year than that of eagles. Both species have white heads, but ospreys feature a dark line through the eyes, have a white underside, and the top of their tails is brown. Adult eagles are brown with white heads and tails and are much larger than ospreys. In flight, eagles tend to hold their wings flat and straight, whereas the wings of ospreys tend to be angled (look for a crook in the wings at the “wrists”) and bowed down.

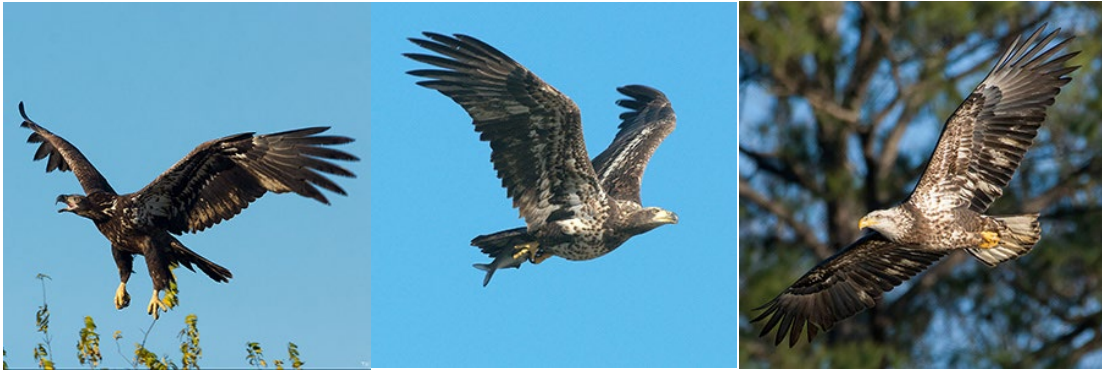
If you have information that might indicate the presence of nesting eagles, please fill out the [bald eagle nest form](#).

National Bald Eagle Management Guidelines

In conjunction with the federal delisting of the bald eagle, the U.S. Fish and Wildlife Service released [federal guidelines](#) for landowners, land managers, developers and other interested parties. The guidelines are designed to minimize human activities disturbing eagles and interfering with or causing their nesting efforts to fail. These guidelines define inner and outer buffer zones centered on eagle nest trees and provide recommendations concerning types of activities such as tree clearing, road and building construction, prescribed burning, and ATV operations that can or cannot safely be conducted within these buffer zones during the nesting or non-nesting seasons. Visit this [Fish and Wildlife Service](#) website for more information about the guidelines, federal permits related to the disturbance or take of eagle nests and federal regulations protecting bald eagles.

Note that in Georgia the nesting season for bald eagles typically runs from late October/early November to mid-May, though this can vary by a few weeks depending on the location of the nesting birds in the state. If you have an eagle nest on your property and are concerned if a current or future activity complies with these guidelines, contact Dr. Bob Sargent, bob.sargent@dnr.ga.gov. View the [national guidelines](#).

Identifying and Aging Bald Eagles



1st year (juvenile)

2nd year

3rd year

Photo by Tom Wilson

Photo by Craig Koppie

Photo by Tom Wilson



4th year

5+ years (mature)

Some people may be surprised to find that many bald eagles in Georgia do not have white heads and tails, nor do they have yellow bills and yellow irises. In fact, the species does not fully exhibit these diagnostic characteristics until it is 4 to 5 years old, which is when it achieves sexual maturity. Prior to age 5, bald eagles are usually referred to as sub-adults or immatures.

First- and second-year eagles have mostly brown heads and tails, dark gray bills, and brown irises. Notice the white “wing-pits” in the picture of the first-year bird below, as well as the white and brown mottling on the wing lining (this is the underside of the leading edge of the wings). The eagle’s bill and irises are dark. Some first-year eagles feature “dirty white” feathers on the inner portion of the tail.

The second-year bird, which is shown perched, has white mottling in the wing lining and wing-pits, too, but also features extensive white mottling on the belly, scattered white feathers on the back and the inner portion of the tail feathers, a hint of white on the crown, tan-colored irises, the base of its bill is beginning to turn yellow, and, especially during the late spring and summer months, the feathers on the trailing edge of the wings form a ragged, uneven line because new (second-year) flight feathers (shorter ones) are growing alongside older (first-year) feathers (longer ones). The molt of flight feathers in bald eagles is a lengthy process, often taking at least five months to complete.

The third-year bird has less white mottling on the wing linings, breast and back, but shows much more white on the head and tail. There is often a dark line (stripe) through the eye and, although the white feathers in the tail still look “dirty,” they are more distinct and are bordered by a thin dark band at the tip of the tail. The bill and irises are almost completely yellow.

The fourth-year bird looks like an adult except for a few scattered white feathers in the wing lining, a hint of a dark band at the tip of the tail and a brown patch here and there on the head and tail.

Occasional sightings of **golden eagles** are reported from rural, forested or open marsh areas of Georgia. Generally, four to six observations are confirmed most years, almost always between the mid-fall and late winter months. Attempts were made by DNR from 1984-1993 to establish golden eagles in the Pigeon Mountain area via “hacking.” A pair attempted to nest in the area in 1992, and successful nesting by one pair was recorded in the mid-1990s. No golden eagle nests have been recorded in Georgia since.

Sightings of this species are usually confined to the remote forested and hilly terrain in the western and northwestern portion of the state, although golden eagles have also been observed hunting in large marshes on the coast, in the Okefenokee Swamp, and in the marshes and forests of southwestern Georgia.

Adult golden and bald eagles are easy to distinguish. However, observers often confuse immature bald eagles for golden eagles. Look for the golden head and nape in golden eagles of all ages, and the bright white patches at the base of the flight feathers and the tail (bordered by a wide dark band) in first-year birds. Some golden eagles show white patches in the underwing lining. In soaring flight, bald eagles hold their wings in a flat posture, while the wings of golden eagles are slightly pitched up (this is called “dihedral”). Faint, light-colored bands are sometimes visible in the tails of adult golden eagles and the species has fully-feathered tarsi (the full length of the legs to the top of the feet), whereas bald eagles do not have fully-feathered tarsi. The inner flight feathers (“secondaries”) of golden eagles appear to bulge in comparison to those of bald eagles, and the heads of golden eagles appear proportionately smaller.

Where to See Bald Eagles in Georgia

The easiest way to observe a bald eagle in Georgia during the nesting season is to visit the Berry College nest cam at <https://www.berry.edu/eaglecam>. Bald eagles, great horned owls and ospreys have taken turns using the nest at The Landings on Skidaway Island during the winter and early spring, which you can view at <http://landingsbirdcam.com>. There are many other nest cams available online featuring bald eagles and other species nesting in other parts of the country.

The best opportunity to see bald eagles in the wild in Georgia is to look for them on barrier islands and on large reservoirs and rivers during the winter months, when the state’s eagle population increases due to an influx of wintering eagles from the North. Eagles are especially abundant on Lake Seminole, Lake Oconee, Allatoona Lake, West Point Lake, coastal areas in Chatham County, and on or near Sapelo and Cumberland islands.

If you find an active eagle nest, report its location (using the form at <https://georgiawildlife.com/bald-eagle>). Stay at least 330 feet away from an active eagle nest, in compliance with federal guidelines. Getting closer not only violates these guidelines, it also could keep eagles from incubating their eggs or feeding their young, or it could cause eaglets to jump from the nest before they are ready to fledge.

What Does a Bald Eagle Sound Like?

If you have ever watched an eagle flying on a movie or television screen, there is a good chance the “eagle call” you heard on the sound track was actually the cry of a red-tailed hawk, which sounds like this (click on “adult scream”

at https://www.allaboutbirds.org/guide/Red-tailed_Hawk/sounds). To hear a bald eagle, click on “chatter call” at https://www.allaboutbirds.org/guide/Bald_Eagle/sounds.