



Greenbelt Osprey Program

Osprey Nest Monitoring Guidelines

2026

Here are some guidelines for volunteering to be a member of Greenbelt's Osprey Monitoring Program! There is a lot more information online at: www.ecga.org//conservation/osprey/osprey-watch, including these guidelines.

Below you will find methodology explained, tips, and other informational facts about Ospreys. Be safe and have fun! We hope your experience is personally fulfilling and educational. The data the Osprey Monitoring Program collects will provide Greenbelt valuable information for our Osprey conservation efforts and specifically help us understand Osprey abundance, distribution and overall recovery in Essex County. In 2025, over 2000 online nest monitoring reports were submitted.



About Greenbelt

Essex County Greenbelt is a non-profit land trust that works to conserve the farmland, wildlife habitat and scenic landscapes within the 34 communities of Essex County, MA. Since 1961, Greenbelt has conserved over 20,000 acres of land and has been directly involved in protecting 75% of the acreage conserved in the last decade. Through active land conservation initiatives and multi-platform public outreach, Greenbelt continues to build a community of conservation and stewardship throughout the region.

About Greenbelt's Osprey Program

Greenbelt's Osprey Program is an engaging, multi-faceted program, involving managing, monitoring, and researching Ospreys around Essex County. The Program consists of installing nesting platforms, streaming live video from our Cox Reservation OspreyCam, monitoring nesting activity with our volunteer Osprey Monitoring Program, and working with a leading Osprey researcher to monitor migration behavior of a couple of the Ospreys nesting in Essex County. Greenbelt hopes these efforts will educate, excite, and engage the public on Ospreys and assist with the recovery of Ospreys in Essex County.

Monitoring Guidelines

The goal of your monitoring efforts is to determine whether or not a nest is active or inactive, and whether there is any productivity (fledging of chicks). You will communicate with Greenbelt to get your nest assignments and then the fun starts!

Osprey in our region nest mostly on man-made platforms, but others are on channel markers, other structures, powerlines and trees. Active nests from past years are usually active each year, so monitoring those is always a priority. Greenbelt maintains a Google Map of past and present active and inactive nest sites (<https://www.ecga.org/conservation/osprey/interactive-nest-map>), and this map can be helpful to understand location and past status. It is important that all sites are monitored in the early season at least a few times to determine status, and if inactive, monitor can be discontinued, usually by May 1 or so.

Please visit your nest at least once a week to determine status. Taking notes in the field can be useful to reference when you enter data online after your visit. The online form on our website (<https://www.ecga.org/conservation/osprey/monitoring-sightings>) is very simple and easy to use, with numerous drop down menus for selecting the nest site, and other activity descriptions. There are also optional fields for adding additional information and notes. If you snap a great photo that you want to share, email them to osprey@ecga.org with the date taken, a caption, and name to credit as we may share them on social media or our website.

Nest Assignments:

- The number of monitors grows each year, and so has our local Osprey population. There are many moving parts to getting a nest assignment that works for you – please be patient, especially if you are new to the program.
- For returning monitors, they are familiar with the nest or nests previously monitored. For new monitors, they will communicate with Dave Rimmer (osprey@ecga.org) on assignments. In some cases there are nest sites that need a monitor, others that have a monitor but could use additional monitoring, and others that may already have multiple monitors. There is no limit to the number of monitors per nest; more reports results in more accurate data. Multiple monitors do not have to coordinate their activities and may occasionally find themselves monitoring at the same time, but in our experience that is rare.
- For any monitor but especially new monitors, viewing the interactive nest map is important because you may only want to monitor a nest convenient to your home or work, whereas others are willing to travel, and others yet will use a boat or kayak to access nest sites – all acceptable.
- So whatever your interest level is, we will work with you to establish a plan for nest monitoring that works for you. There is a preseason meeting as well each year.

What equipment to bring:

- Binoculars and/or spotting scope
- A notebook
- Pen/pencil
- Camera (optional)

Monitoring Tips:

- **Setting Up For Monitoring:** Your first few visits will give you a chance to familiarize yourself with the area and get a good feeling for one or two good monitoring locations. Some nests allow closer observation than others, and some monitors use a spotting scope if they can. In most instances, you will have no choice but to remain a safe distance from the nest but should you be able to approach more closely to the nest, then approach the nest slowly and quietly and keep a good observation distance. Some Osprey spook easily. If your presence causes Osprey to leave the nest, increase your observation distance. An unattended nest could endanger eggs or chicks.
- **Time of day:** This is not critical, and time of year can have an influence (temp, light, bugs, etc), so use your judgement of when it works for you. The most important thing is going consistently, meaning once a week or more. Many monitors visit more in the early season to figure things out, and less once pairs become established.
- **Key Osprey Behavior to document:**
 - Nest construction (April/May):
 - Documenting any level of nest building is important. Even if you don't see Osprey, but notice new material on a nest, that is an important observation.
 - Males do most of the nest building, although the female will help arrange materials on the nest.
 - Incubation (May/June):
 - Documenting incubation is important. Once eggs are laid, the female does almost all the incubating unless she is feeding. So observing an Osprey sitting still in the nest for prolonged periods, or standing in the nest but looking down, perhaps adjusting eggs is a sure sign of incubation.
 - Chicks (June/July):
 - Documenting chicks in the nest is important. This can be difficult at first but there will be a noticeable change in behavior, with the female getting up and down more frequently, and bobbing up and down as she feeds the chicks. Eggs are laid generally every other day, and chicks hatch according as well. So chicks can be several days apart in age.
 - Depending on your viewing angle, observing chicks may not be possible for 2-3 weeks, or until they are large and mobile enough to be visible when standing in the nest. This will be the first opportunity to count chicks. If you observe size differences in chicks, these would be age differences most likely, not male or female characteristics.
 - Fledglings (Mid July/Aug):
 - When chick reach the age of 6-7 weeks, they will begin flapping wings in the nest to strengthen their flight muscles. They may also start

jumping up and down and in windy conditions, opening their wings and lifting slightly off the nest without flying off. Eventually they will fly off but return. If you are fortunate to be there, you may observe this. Or you may observe chicks missing from the nest, suggesting they have flown off.

- Once fledged, the chicks will remain living on the nest for 2-4 more weeks, continuing to be fed by the adults, mostly the male. Typically the female leaves the family group before the male; the male will leave once the fledglings have mastered hunting for themselves.
- Usually by mid-September, fledglings have left the nest and nest monitoring can be concluded for the season.

Identification:

If you are interested in this program, you can probably identify an Osprey. But here are some tips.



- Wingspan of up to six feet
- Approximately 2 feet long
- Plumage is mostly dark brown on top and white underneath
- Black, sharply curved bill
- White crown and head, with a dark band extending back from its eyes
- Yellow eyes
- Female larger than male
- Female has speckled brown necklace across upper chest.
- 4 toes with long black talons

Habitat:

- Nests are made of branches, shoreline debris, and other organic (and sometimes inorganic) materials. Nests are naturally located near water on live trees and dead snags, but in our

region north of Boston, nests are found mostly on manmade structures like nesting platforms, duck blinds and camps, channel marker and utility poles, along with a few nests in trees.

Feeding:

- Feed on primarily on medium sized fresh and saltwater fish; sometimes on birds like waterfowl.
- Hunt by flying high above water to search for fish. Once prey is spotted, Osprey will hover beating its wings, then quickly dive down and sink its talons into the water and into the fish.
- Once in the air, the Osprey will position the fish so it's facing forward, allowing for it to be more aerodynamic for transport back to the nest or feeding perch.



Life Cycle:

- Fledglings remain on the winter grounds for their first 18 months or so, migrating back to the breeding ground for the first time as nearly 2 year olds.
- Younger birds often return each year to the same area they were born, but not to their natal nest.
- Non-breeding younger Osprey existing on the breeding grounds for several years.
- Breeding typically starts at 3-5 years old, and for 1-2 years a breeding pair may focus on nest construction and not produce eggs.
- Breeding pairs usually keep the same mate for life.
- Pairs will return annually to same nest.

Breeding Cycle - New England

- MARCH/APRIL-Experienced birds return to nests in late March. Males arrive before females. Courtship and nest building or repair begins when pair is reunited after migration. Less experienced birds arrive later and can spend several weeks locating a mate and a nest site.
- APRIL/MAY-Eggs, usually three, are laid between mid-April late May and incubated for approximately 40 days. Eggs do not hatch all at the same time. Sometimes oldest chick dominates and can cause the other chicks to starve to death.
- JUNE-Nestlings are brooded and fed fish for approximately 40 days after they hatch. They begin to resemble adults, but have orange eyes rather than yellow.

- JULY-The young begin to fly approximately 55-60 days after hatching and stay with their families through July while they master flight and learn to fish.
- AUGUST/SEPTEMBER-Birds begin to migrate south, usually to South America, in late August early September.

