

2010 Eagle Cam Updates

Incubation

For the second year the Duke Farms eagle nest is online! Last year this pair raised and fledged three chicks! Making a total of nine chicks raised and fledged from the Duke Farms property since 2005.

Due to damage sustained to the Eagle Camera system in January it was not up and running until a few weeks ago. The eagles started incubating two eggs that were laid around February 20th. Eagles incubate for 35 days. Bald eagles normally lay 2-3 eggs (2 being the more common number), and the eggs are usually laid 2-3 days apart. Incubation duties are shared by both the male and female, though it is the female who spends most of the time on the nest to both keep the eggs warm and protect them from potential predators.

Hatching!

Hatching occurred over the weekend of March 27th, there are two chicks in the nest. Right now feeding sessions are the best time to see the chicks since the parents will sit on or "brood" the chicks to keep them warm and dry. Young eaglets are not able to regulate their own body temperature for a few weeks.

4/7/2010

The chicks are now one and a half weeks old. On days that are warm and sunny you'll see the adult sitting above the chicks with wings slightly spread shading the chicks from the sun. The adults are bringing plenty of food to the nest and both chicks are getting their share of the food. In fact, this afternoon both adults were in the nest feeding the chicks! Due to the abundance of food there doesn't seem to be too much sibling rivalry which can be common in eagle nests with multiple chicks. Eagle chicks grow rapidly adding one pound to their body weight every four or five days. At six weeks of age these chicks will be almost the size of their parents and by twelve weeks of age they'll be ready to test their wings!

4/16/2010

The chicks are three weeks old and growing fast. The parents are providing a steady supply of food. After eating a meal you can see that the chick's crops are full (the crop is a pouch on the chick's chest where extra food is stored).

Bald eagles primary food source is fish, but they are opportunistic and will eat what is available including small animals, waterfowl, turtles, muskrats and carrion. The Duke Farms pair has brought several turtles to the nest for feeding. Bald eagles have excellent eye sight and can spot prey from long distances. They can lift prey that weighs up to four pounds.

Some cam viewers have asked if the eaglets need to drink water, the answer is no, they derive water from their food. Eagles will pant to cool off when it is hot.

The chicks now have their second coat of down which is a darker, woollier down. You've probably noticed the chick's large yellow feet. Both their feet and bills will grow to adult size first, giving them a slightly awkward appearance until their bodies catch up.

4/28/2010

The chicks are four and half weeks old and are starting to develop pin feathers along their back and edge of the wings. Pin feather is a term for newly forming feathers. As each feather develops, it is encased in a thin shaft of waxy keratin (like your fingernails), which will eventually fall off or be pulled off by the eaglet this allows the new feather to unfurl and grow to its full size. For the next few weeks the chicks will have a mixture of down and feathers. By eight weeks of age they will be almost fully feathered.

Eagle fact: Adult eagles can have around 7,000 feathers on their bodies.

The adult eagles haven't been seen in the nest as much in the past few days. As the chicks age the adults will spend less time in the nest, but will be perched nearby keeping a close eye on the nest.

Update on NJ bald eagle nests

This season we are monitoring 96 territorial pairs of bald eagles in NJ. Seventy-four of those pairs are active which means that they have laid eggs this season.

Unfortunately, twenty-two nests have failed, in some cases the eggs didn't hatch. Most likely many of these failures were due to the severe weather this spring and winter.

While the Duke Farms chicks are only four weeks old, the earliest nesting pair has chicks which are already 10 weeks old. Chicks will start to fly around 11-12 weeks of age, but will still remain around the nest for the next several weeks while they learn to fly and hunt.

May 4, 2010

The chicks are five and a half weeks old and it seems like they are getting bigger and darker every day! Biologists from the NJ Division of Fish and Wildlife, Endangered and Nongame Species Program along with the Conserve Wildlife Foundation of NJ visit approximately 12-15 eagle nests each year. We band the eaglets and take body measurements and a blood sample. These nest visits are done when the chicks are approximately six weeks old. We plan to visit the Duke Farms nest the week of May 10th. The date and time will be posted next week with more details about the banding procedures.

At this point we do not know whether the chicks are male or female. But when the eaglets are banded, measurements will be taken of their bill, feet and talons; those measurements are indications of male or female gender. Females are larger than the males as adults, and that size difference will be evident in the next few weeks.

Nest Sanitation

Several eagle cam viewers have asked questions about the chicks pooping over the edge of the nest. If you haven't yet seen them in action, the chicks back up to the edge of the

nest and projectile poop over the edge! This helps to keep the nest clean. The "whitewash" in bird poop (why it's mostly white) is the bird's urine. Kidneys filter the blood, and the nitrogen wastes are excreted as urine.

Eagles and eaglets also cast pellets and they can appear to be vomiting or chocking when doing so. The pellets contain prey parts that couldn't be digested, such as feathers, fur, fish scales, etc. These items are squeezed into a pellet in the bird's gizzard and then expelled.

Banding Update

We plan to band the eaglets on Monday, May 10th. It is possible the camera will be working for viewers to see Endangered and Nongame Species Program Principal Zoologist, Mick Valent, climbing the tree around 9:30-10:00.

Once Mick is in tied-in at the nest, he will use a long pole with a hook to gently make the eaglets walk toward him. He will then place a hood on their head to calm them down and vet wrap on their feet to keep them from hurting themselves or one of the biologists. He will place one eaglet at a time in a duffel bag and lower it to the ground with a secure rope to the waiting banding team. Each eaglet will be lowered to the ground in this manner and returned when finished.

Eagle camera viewers will not see the actual banding activity on the ground, but the work will be videotaped and photographed and these pictures will be available at a later date.

Once the eaglet is on the ground it is weighed. Blood samples are taken from the bird; the blood sample will be tested for pesticides and other contaminants. We will take measurements to determine the sex and age of the bird, although in this case, the age is already known by all webcam viewers. A leg band will be placed on each leg: a silver federal band with an individual, engraved number, and a green band signifying its NJ origin. Since green bands are only used on NJ birds, they enable us to track where NJ birds are migrating, nesting and wintering. We know of 16 pairs of eagles that have at least one NJ-origin bird in the pair.

Some webcam viewers have asked whether banding the chicks will cause the parents to abandon the nest. The answer is no. Eagle biologists have been banding young eagles for more than 30 years and the adults never abandon the nest or chicks. Further, the same adults maintain their residence in the nest area year round and continue to use the same nests annually. We are careful to not visit nests the first year they are established, so the adults will make a solid and disturbance-free connection to the nest site. We time nest visits for when the nestlings are six weeks of age, a time when they are not as strong or active and will not attempt to jump from the nest. All precautions are taken with the health and well being of the eagles in mind, and completing the work as quickly as possible.

5/13/2010

The chicks were banded on Monday morning. Measurements taken during the banding tell us that they are both females. The measurements also show that the birds are very close in age, only a little over a day apart. There is very little size difference between these two chicks, unlike last year's chicks when the size difference between the three chicks was quite obvious. The older of the two chicks has a green band on her right leg and silver on her left. The youngest has the green band on the left leg and the silver band on the right leg. You can easily see the bands when the birds are walking around the nest.

The chicks can be seen stretching their wings, flapping and hopping around the nest. These activities help to strengthen the muscles they'll soon need for flight. When they do this you can see that they still have downy feathers underneath. The adults continue to feed the chicks but the chicks are also picking up pieces of food and attempting to tear at the prey themselves. Today the adult came to the nest with a fish and ate while one of the chicks watched intently. Instead of feeding the chick, the adult dropped pieces of food in the nest for the chick to pick up. When the adult left both chicks pecked at the fish soon they will be feeding themselves.

5/18/2010

The chicks are now seven and a half weeks old. Over the next few weeks the chicks will start to "branch," which means they'll hop from the nest to the branches of the nest tree. The next step will be taking short flights to nearby branches and trees as they gain strength and courage. Eagles fledge between 11 and 12 weeks of age, but will remain in the area of the nest tree for several weeks after fledging, while they practice flight and learn to hunt.

The first NJ eagle chick of 2010 has fledged from the Manasquan Reservoir nest. This pair started incubating in early January.

Bald Eagle Fact: Bald eagles do not have white heads and tails until their fourth to fifth year which is when they reach sexual maturity. Until then immature eagles will have several different plumages and are variably patterned with dark brown and white.

6/4/2010

The chicks are now 10 weeks old and soon they will be taking their first flight. The camera has been zoomed out which gives you a better view of the entire nest. The chicks are very active and have begun branching and flapping their wings in practice for their first flight. They are also tearing at food and feeding themselves.

NJ Eagle Fact: Both adults in the Duke Farms pair are NJ banded birds. Fourteen other pairs of eagles nesting in NJ have been reported to have at least one NJ banded bird in the pair.

6/17/2010

One of the chicks took its first short flight today! It is perched on a branch to the right of the nest tree. The chicks are almost twelve weeks of age. The chicks will continue to take

practice flights close to the nest until they gain enough strength to venture out for longer distances. So far 15 chicks have fledged from NJ eagle nests this season.

This can be the most difficult time for young eagles: learning to fly and land safely, then learning to soar on the wind and use thermals (rising warm air that can lift birds up), and learning to hunt and get food for themselves. It's a lot to learn. Their parents will keep close watch over them for the two months after fledging.

6/22/2010 Final Update

Both chicks fledged over the weekend. They will remain in the nest area for the next few weeks and will return to the nest from time to time. The eagle cam will be turned off this Friday since there will be little activity at the nest anymore.

This concludes another successful nesting season for the Duke Farms eagle pair. The fledglings will have a lot of obstacles ahead of them but hopefully they will return to the area to nest once they reach sexual maturity at five years of age.

The Duke Farms pair has been nesting since 2005 and has raised and fledged a total of 12 chicks in the past six years.

We look forward to the 2011 nesting season.