

2009 Eagle Nest News from Duke Farms eagle nest Written by Larissa Smith, Assistant Biologist

**July 7** - The youngest chick was gone from the nest this morning but has returned to the nest several times since then, after an adult brought in some food.

Several cam viewers were concerned yesterday that the eaglet had a broken wing due to how he was holding it, but he is fine and doing well taking short flights. Yesterday one of the older chicks brought some food into the nest. The chick could be seen spreading his wings (mantaling) over the prey to keep the younger sibling from getting any of it. After the older sibling left the younger sibling was also spreading his wings over the prey. Later in the day the chick was holding his wings open while standing up, he was most likely trying to keep cool.

Though all three chicks have left the nest they are still learning to hunt on their own and are practicing flying. So they will be seen in and out of the nest over the next few weeks.

**July 3** - The second chick has left the nest. Currently the youngest chick is in the nest by himself, but over the past week the oldest fledge has returned to the nest, especially for feeding. Both fledges are in the nest area and the adults are keeping a close watch. The youngest chick should be joining his older two siblings in the next week.

**June 26 -** The oldest chick took his first flight away from the nest tree yesterday, June 25th. Currently he is not at the nest but is most likely perched on a nearby branch or tree out of sight of the camera.

**June 22 -** The oldest chick is now 11 weeks old. The eaglets can be seen "branching," perching on the branch extending out from the nest tree. The chicks should be fledging very soon. So far this season fourteen chicks have fledged from other eagle nests thoughout the state.

**June 2 -** The three eaglets are now almost fully feathered and becoming very active. They have been testing their wings, stretching and flapping and hopping around the nest. These exercises are important for strengthening the muscles they'll soon need for flight. The adults are still feeding the young, but the chicks are now tearing at the prey remains and feeding themselves to some degree as well.

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. Given the week age difference between the two

oldest and the youngest, there will continue to be at least one eaglet in the nest even after the oldest have started branching away. 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.

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. An adult will even follow a young eagle as it makes its first long-distance flight away from the nest area, as biologists have noted while tracking eagles with radio-telemetry.

May 20 - The eagle banding went well on Monday. All three of the chicks are males.

Several eagle cam viewers have expressed concern that the adults aren't seen in the nest as much anymore. Though the parents aren't in the view of the camera, one of them is most likely perched near the nest keeping an eye on things. As the eagles get older the parents will spend less time at the nest.

**May 18- Banding Trip -** 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 as a way of tracking eagle health and the health of the ecosystem.

## This is carried out as follows:

Mick Valent, a biologist with the Endangered and Nongame Species Program will climb the nest tree. Nests can be as high as 40 feet off the ground and Mick uses ropes to make sure that he is safe.

Once Mick is 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 put 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.

Once the eaglet is on the ground it is weighed. Dr. Erica Miller from Tri-State Bird Rescue and Research will take a blood sample 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 most cases we know the age from our eagle monitors. 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. We have been 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 wellbeing of the eagles in mind, and completing the work as quickly as possible.

**May 6** - All three of the eaglets are doing well. They can often be seen waiting patiently in a row to be fed. The two older nestlings are developing pin feathers along their backs and wings. These growing feathers are encased by a shaft that contains blood supporting feather growth. As the feather grows the shaft will break up or be pulled off by the eaglet. By the time the eaglets are ready to fledge they will have a full coat of feathers. A full-grown eagle has over 7,000 feathers on its body.

The eaglets' large feet and bills are prominent, as they seem to grow faster than any other part of their body. By the time they reach six weeks of age their bills and talons will be almost adult-sized. 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.

The eaglets at Duke Farms have benefited from the proficient hunting skills of their parents: the three eaglets have been well-fed, as evidenced by the lack of begging behavior, and little competition between the siblings. The good food supply has enabled good growth of all three young, even under the rainy conditions we've seen this spring.

**April 30 -** The oldest eaglet is now 3 <sup>1</sup>/<sub>2</sub> weeks old and the youngest 2 <sup>1</sup>/<sub>2</sub> weeks old. They are growing very quickly and becoming quite active. They can be seen standing and walking around the nest, often using their wings to balance themselves.

Some eagle cam viewers have asked whether we will band these chicks. 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.

**April 27 -** During this warm weather you will notice that the eaglets are sitting in shady spots produced by the shadow of the tree or the adult. You'll also see that they are panting. They don't have sweat glands so to keep cool they evaporate moisture from their respiratory systems.

## April 22 - Happy Earth Day!

All three of the eaglets are doing well. Over the weekend the oldest chick was seen picking on the two youngest. He would peck at his siblings heads and they would put their heads down to get away from him. This morning all three could be seen patiently waiting for food and male proceeded to feed all three. Some people viewing the website have seen a turtle brought into the nest. While fish is the main food source for eagles, they will eat what is available and even scavenge on road kill. Some of the prey remains found at eagle nests include: muskrat, rabbit, gulls, waterfowl, turtles of various species, eel, turkey, and groundhog.

News on other bald eagle nests in New Jersey.

This season we are monitoring 80 territorial pairs of bald eagles in NJ. Sixty-seven of those pairs are active which means that they have laid eggs this season. Four other nests are known to have three chicks. Unfortunately, several nests have failed, in some cases the eggs didn't hatch. Two nests collapsed one with eggs and one with five week old chicks, which were not found. At another nest the three chicks were found dead in the nest, most likely due to a severe thunder storm with heavy rain. But the good news is that two nests, which hatched very early, will have chicks fledging (leaving the nest) in the next week or two. 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. We can expect the Duke Farms eaglets to fledge sometime around the end of June/beginning of July.

**April 17** - All three of the chicks are being fed and appear to be healthy. There is plenty of food being brought to the nest, this morning the female brought back a large fish. This morning when the female was feeding, it looked like the oldest chick was getting all of the food. The younger chick tends to stay in the back and wait his turn. The male came into the nest and while he continued to feed the two oldest chicks the female fed the younger chick. When the pair is in the nest together the male will often tear food off of the prey and the female will take it from him and either eat it herself or feed the eaglets.

Today since it is sunny and much warmer the adults are staying off the chicks for longer periods of time. At times the chicks can be sleeping in the nest cup or next to the adult. The chicks are also becoming more active the two older ones were sitting next to the adult stretching their necks and looking all around.

Over the next week or two the chicks will begin to develop a heavier coat of down that is a dark gray. Their beaks and talons develop faster than any other part of their body and by six weeks their talons and beaks will be almost adult sized.

April 14 - The third chick hatched late on Sunday the 12th.

There is almost a week's age difference between the oldest and youngest chick and the size difference is quite noticeable. Currently during the feeding sessions the oldest chick is getting most of the food. He is stronger and can reach up for food and move around much better than the younger chick. But there seems to be plenty of food (a lot of fish) being brought into the nest so there should be enough food for all three chicks. Most likely due to the rain and cooler temperatures the adults are keeping the feeding sessions short so the chicks aren't exposed to the weather for too long of a period.

Sometimes a chick or two can be seen peeking out from under the adult.

April 9 - A second eaglet was seen in the nest on Wednesday April 8th.

The older eaglet will have the advantage when it comes to getting food due to the two day age difference between the chicks. There is often sibling rivalry amongst the chicks.

Young eaglets are not able to regulate their own body temperature for a few weeks. This is why you will see the parents sitting on the chicks "brooding", they do this to keep them warm and dry.

**April 6** - The Duke Farms eagle pair has been nesting on the Duke Farms property since 2005. The pair has raised and fledged a total of six eaglets. This season with the help of the eagle camera, three eggs were confirmed on March 2nd . Bald eagles normally lay 2-3 eggs (2 being the more common number), and the eggs are usually laid 2-3 days apart. It was confirmed that there are three eggs in the nest. Eagles incubate approximately 35 days before hatching. 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.

The first eaglet was confirmed on April 6 around 9am. When the eaglets first hatch they are covered in a grayish-white down and their eyes are partially closed eyes. Parents feed their young by shredding pieces of meat from their prey with their beaks. Eagles typically raise one or two eaglets. It is less common for an eagle pair to raise three eaglets, but in 2008 six NJ eagle pairs did just that. The adults will continue to brood the chick's to keep them warm and take turns bringing food into the nest. We will wait and see if the other two eggs hatch.