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At 14 weeks, young eagles perch on branch in the “nest tree” area and wait for the adults to bring food. The adults typically brought fish, and sometimes eels. The young eagles took turns (as they did when in the nest) feeding, first one (the dominant one) and then the other.

Learning to Fly and Fish

By **Yoke Bauer DiGiorgio**

Observing and documenting over the past eighteen months, a first year eagle pair building their nest along the Delaware River and raising their first offspring, has been a wonderful experience. Eagles are terrific parents. My husband John, and I were particularly interested in what happens to young eagles once they fledge (first flight). Difficult to observe and identify, we were fortunate to be able to continue to do just that as the family continued to remain in the “nest tree” area.

Prior to fledging, usually about 9-10 weeks, eagle chicks will practice exercising flight muscles and learning to control lift in preparation for their first flights. This usually includes taking to the support branches of their nest. It is said to strengthen their legs and improve their balance. Although they are adult size and their tails are almost completely grown, their longest primary flight feathers are still not fully developed.

It may take up to 5 weeks from the time young eagles leave the nest until their flight feathers are completely formed. The feathers are still developing at this stage. The tip of the feather develops first and the base is the last to develop. Until the feather is completely grown, the shaft or quill, which is filled with blood during growth, is soft, quite delicate, and is not firmly attached to the underlining wing bones. It

will take an additional week for the blood to leave the shafts of the feathers and the feathers to become firmly attached to the underlying bone. When the wings are finally grown, they will extend to within one inch of the tip of the tail. They are now able to withstand a lot more pressure and the young eagle is ready for vigorous flight.

Some young eagles leave the nest accidentally - being blown over or falling out. Nests have also been blown out of trees during violent storms. The nest, we were observing and documenting was located in a white pine 120 feet up and in a very windy area along the Delaware River. But “our” two young eagles did not experience such an accident and were very attached to their home. In fact, some parental coaxing would be necessary to get them to leave. We began to see that the parents did not bring food to the nest, but rather perched on a nearby branch with enticement. The begging calls of the two young became screams as they darted from one edge of the nest to the other and out onto their home tree's branches.

Young eagles will typically continue to depend on the adults for food for several weeks after fledging, although feeding may take place away from the nest. It is during the 4-6 week period after fledging that they develop muscle strength, improve flying skills and learn to fish.

The moment of fledging came unexpectedly. A cool

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mid-July morning and a sudden gust of wind knocked the first into the air. As it is natural for eagle fledglings, it glided to one of the nearby trees it had seen its parents on in the past few months. The second followed shortly thereafter. "Our" two young eagles were 12 weeks old.

The first two weeks they remained very close to the nest and area around the "nest tree". We watched as they practiced flying, sometimes crashing into trees and sometimes into one another. In one instance, one crashed into a branch of nearby white pine. Although the branch was substantial in size, it cracked and broke off from the force of impact. The young eagle, while sliding down, was able to grab at another branch and stop the fall. In another instance, one attempted to fly onto a branch but couldn't quite keep his/her balance and ended up hanging upside down. After what felt like quite a long time, he/she was able to let go of the branch and maneuver him(her)self upright and flew away. There was always much flapping of wings, and feathers flying in the air, as the young eagles struggled to right themselves.

One morning we observed one of the young eagles was perched next to the adult female on her favorite roosting branch. The second flew in to join them but didn't quite make a smooth landing. He/she crashed into the adult female, knocking her off the branch. The branch shook and both young eagles struggled to maintain their balance. In the mean time, the adult female flew around the tree, back to the branch and pushing the second off, resumed her position on the branch - a definite lesson not to mess with mom.

The parents remained near and continued to bring food daily, either directly to the young, being guided by their hunger calls, or to the nest to which they would quickly come from a nearby tree. The young eagles were still totally dependent on their parents for food. But every day their wings were stronger; their soaring flight took them higher and farther.

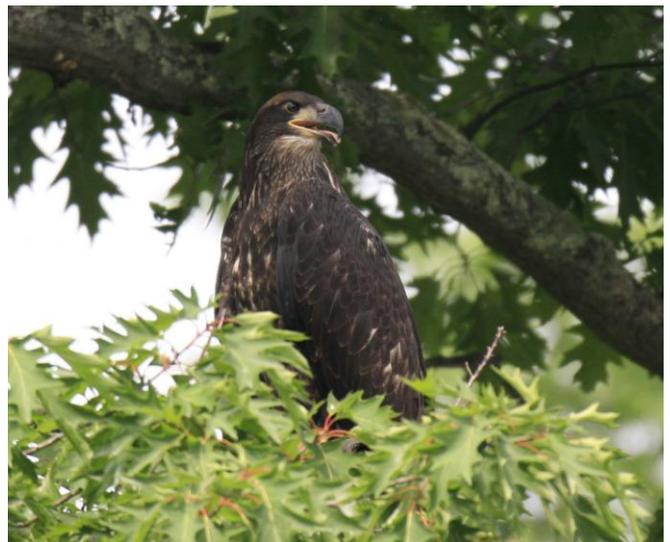
It was the end of August and we had not yet observed the young eagles attempting to fish on their own. We did observe that the parents, the female in particular, had begun to delay the feeding times. Instead, she would attempt to coax them, sometimes pushing them off a branch, to join her as she fished in the river. There were times when they joined her. There were times when they remained on their branch(s) near the "nest tree", sometimes side by side, their begging calls becoming loud demanding screams.

The parents however, were dedicated and continued their lessons. It was mid-afternoon on a hot August day and we observed the female fly to where both



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At 14 weeks one of the young eagles explores the river (top) and has a first encounter with a great blue heron (center). The young eagle defends its territory and ultimately drives off the heron.



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At 15 weeks, one of the young eagles perches in a tree in the "nest tree" area.

Learning to Fly and Fish *continued*



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At 15 weeks, young eagle practices flying (top), and young eagles perched on “favorite wood pile” wait for adults to bring food (center and bottom). Note the blue NYS leg bands on each.

young were perched on a branch along the river. She landed on the nearby shore just below them, spent ten minutes bathing herself in the water and flew back to her favorite roosting branch.

Immediately thereafter, one of the young followed her example and also bathed in the river (the first time we had observed this behavior). Since that time, both young have cooled off in the river many times.

Early September, the young eagles were 18 weeks old. The adults were spending less and less time near the young. We observed, for the first time, that one young had a fish in its talons as he/she flew



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At 20 weeks, young eagles return to the “nest tree” area and join their parents to enjoy the Delaware River on a hot September afternoon. Both parents are perched on branches above.

to a branch near the nest tree and began to feed. Although both young eagles had hatched within several days of one another, one was always more advanced than the other. This was true even in flying after fledging. So it did not surprise us that it took two more weeks before it appeared that the second was now also beginning to fish.

“Our” young eagles were growing into adults as planned. We were delighted to observe that even as late as 20 weeks (eight weeks after fledging), the two young eagles and the adults still joined together as a family along the shores of the Delaware River.