

REVISION OF OSPREY NESTLING DATES IN NEW YORK STATE

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Abstract—During the summer of 2003, a pair of Ospreys nested near the Lewiston Road Overlook at the Tonawanda Wildlife Management Area. The last unfledged juvenile was first observed taking a short flight on August 30, and is assumed to have fledged between August 27 and August 30. During the spring of 1999, an adult Osprey at Iroquois NWR exhibited nestling feeding behavior on May 22, 1999, indicating the presence of an early hatched nestling on that date. Thus, it is proposed that the date range for unfledged juvenile Ospreys in New York State be expanded to May 22 to August 27 from the previously published period of June 18 to July 25 (Andrle and Carroll 1988).

Observations 1997-2001

From 1992 to 1994 an Osprey hacking project was conducted at the Oak Orchard Wildlife Management Area of the Tonawanda Wildlife Management Area-Iroquois National Wildlife Refuge-Oak Orchard Wildlife Management Area wetlands complex. The project involved the release of 31 young Osprey taken from nests on Long Island, geographically imprinted at Oak Orchard Wildlife Management Area in Genesee County, and then released (Burch 1994).

On August 15, 1997, two adult Ospreys were observed at an Osprey nest at Ring-neck Marsh in Iroquois NWR, Genesee County. During the next breeding season (1998) Ospreys nested successfully, producing one juvenile that was first observed on July 24. Because this young Osprey was still very small at that date (it could only be observed briefly when fed by an adult), it was obvious that it would fledge well after July 25, the latest widely available published date for unfledged juveniles in New York State (Andrle and Carroll 1988). Thus, this nest was monitored for a total of 239 minutes between July 24 and August 20.

By August 6, 1998 the nestling was flapping its wings as many as 24 consecutive times while hopping on the nest. During the morning of August 9 it was fed by the adult female, which carefully tore off small pieces of carp (about one-quarter the size of the adult's bill). At 11:17 am, it exercised its wings by taking ten flaps and hovering about two feet above the nest, but it made no attempt to take a circular test flight. By the morning of August 12, the now fledged Osprey was observed in a tree about 30 yards from the nest. It was still being fed by the adult Ospreys. In conclusion, this bird probably fledged between August 9 and 12.

The next year, on April 6, 1999, the two adult Ospreys were seen near the nest at Ring-neck Marsh. On April 28 and May 9 an adult Osprey was sitting low in the nest. During the afternoon of May 22, the adult was noticeably higher on the nest than on the previous visits, and nestling feeding behavior was observed from 2:02-2:06 pm. This distinctive behavior included head shakes, characteristic of an

Osprey tearing off bits of a fish, and movements indicative of feeding young. This feeding behavior was documented several weeks earlier than June 18, the earliest published date for a hatched nestling in New York State (Andrle and Carroll 1988). It was noticed that the Osprey was also sitting higher on the nest May 28 and June 10. On June 23 two nestlings were observed directly, and on July 7 three young Ospreys were banded. By July 19 all three Ospreys were observed hovering about five to ten feet above the nest; however none of the birds left the nest during the study period. When the nest was checked on July 29, it was empty, and the two adult Ospreys and two of the fledglings were in nearby trees at Ring-neck Marsh. It was concluded that the young Ospreys fledged shortly after July 19, and hatched on or before May 22. Since the nestling period for Ospreys is 51 to 59 days (Andrle and Carroll 1988), a hatching date of May 22 is consistent with a fledging date of July 19. An incubation period of 32-33 days (Andrle and Carroll 1988) suggests that eggs were probably laid about April 19-20, which is earlier than the earliest egg date record for New York, April 27 (Andrle and Carroll 1988).

The next year on April 27, 2000, a Canada Goose (*Branta canadensis*) was found on the Osprey nest, and the Ospreys, although present at Ring-neck Marsh, failed to reclaim their nest. In 2001 this scenario was repeated.

Observations 2003

On July 20, 2003, I observed two small nestlings on an Osprey nest platform at the Tonawanda Wildlife Management Area. I was informed later that two nestlings were banded here on 28 July, at about three weeks old, and that a third nestling, much smaller than the other two, was also present (NYSDEC Senior Wildlife Technicians Floyd Knowlton and Mike Allen, pers. comm.). Not only was this banding date later than the published late date for Osprey nestlings in New York State (25 July), but it seemed likely from the nestlings' size and development that they would not fledge until after August 9, the late date established in my 1998 study. Thus, I decided to monitor this nest to determine late nestling dates.

Between August 9 and September 10 the unfledged juvenile Ospreys were studied on nine days for a total of 471 minutes. On August 9 all three nestlings and an adult were observed. When food was brought to the nest there was a clear pecking order, and the smallest bird was not observed eating newly procured food.

On August 16, one nestling hovered as much as about two feet above the nest, the second nestling exercised its wings with a little hop, and the smallest Osprey was inactive.

On August 20, one of the three juveniles was observed on top of the nest platform pole but came down to the nest to take a fish brought by an adult.

By August 26 and August 27, two of the young Ospreys had fledged and were observed making large circular flights from and back to the nest. At 1:51 pm August 26, the presumed oldest fledgling Osprey left and did not return to the nest until 1:56 pm. While the older two birds were taking practice flights, the youngest nestling ate, preened, exercised its wings, and at 1:31 pm on August 26, took a hop about one foot above the nest as it flapped its wings.

Finally, on August 30 (9:15-9:37 and 11:00-11:23 am), after watching its siblings land and take off from the nesting platform and unsuccessfully attempt to catch fish, the youngest Osprey left the nesting platform at 11:23 am, flew majestically in a wide circle, and returned to the nest. The entire flight probably took less than ten seconds.

On September 2 (1:25-2:18 pm) the youngest Osprey was on the nest. At 1:35 pm it could be seen and heard screaming. For the first 44 minutes of this study period the bird was mostly sitting or eating an orange-colored fish, but at 2:09 pm it flew from the nest. On September 13 none of the Ospreys could be found at the nesting platform or at Tonawanda WMA. One Osprey was found at Ring-neck Marsh on the Iroquois NWR, 5.4 miles east of the study nest.

Discussion

Since the last unfledged juvenile from the 2003 Tonawanda nest was first observed taking a short flight on August 30, it is inferred to have fledged between August 27 and August 30. However, it is possible that the youngest fledgling could have taken its first flight before August 27, and the flights could have occurred outside the 102 minute August 26 and 54 minute August 27 observation windows. On the other hand, it is important to note that this younger and smaller bird did not join its two siblings in their first observed flights on August 26. Also, since the youngest Osprey was still exercising its wings on August 26 and 27, was only capable of short hops about a foot above the nest, and did not demonstrate an ability to hover above the nest, it is very likely that it fledged after August 27 and on or shortly before August 30.

The study showed that, as with Bald Eagles, Osprey fledglings will return to a nest after their first flight; however, unlike Bald Eagles (Herrick 1933) this behavior was of short duration, and probably only persisted for a few days. This makes determining exact fledgling dates difficult. Determining egg dates by the Osprey's position on a nest is much more difficult, as I have found them to sit on the nest much longer than their 32 to 33 day incubation period. This is especially true where Ospreys are loosely colonial, such as at Allegany Reservoir, or where there is a threat of nest confiscation or nest material pilfering by other species. I have concluded that, like other species, Ospreys sit on the nest to protect their property, and that they are not always sitting on eggs.

Both the August 27, 2003, late nestling at Tonawanda Wildlife Management Area and the August 9, 1998, late nestling at Iroquois NWR involved first nesting attempts at their respective locations. In contrast, the record-early hatching date of May 22, 1999 at Iroquois NWR involved a second nesting at that location. It is not unusual for first nestings at new locations to be late. This phenomena was also observed in Great Blue Herons (Watson 1990). Initial nest construction is time consuming, requires energy, and delays egg laying. However, if nests have been previously constructed, it is only necessary to make a few minor repairs before the nest is ready for eggs. Also, inexperienced birds may be less skilled at withholding food and assisting the nestlings to an early flight weight. Since the nest at Iroquois was constructed in 1997 and first used the next year in 1998, it seems likely that experience is an important factor determining early and late nesting. Inexperienced Ospreys nesting for the first time tend to lay their eggs

late, whereas more experienced Ospreys that are nesting for at least the second time generally lay their eggs earlier in the year.

Late nestling Ospreys (unfledged juveniles still on nest after the July 25 date found in *The Atlas of Breeding Birds in New York State* and the *New York State Breeding Bird Atlas Handbook for Workers*) seem to be fairly common in New York State. In addition to the two late nestlings of August 9 and August 27 discussed in this study, there are several other studies in New York that have produced record late nestling dates. In studying the Quaker Lake Osprey nest at Allegany State Park on 45 days from March 29 to August 4, 1999, Tom LeBlanc determined a late nestling date of July 28. In the Town of Lysander, Onondaga County, Joe Brin found nestlings as late as August 25, 2003. In studying Adirondack Ospreys Nancy Clum found *all* Osprey nests in her study contained nestlings *after* the July 25 late date! In her Master's Thesis she states: "The nestling period lasts from the hatching of the first egg (1 June to 14 June) to the flight of the first young (28 July to 21 August). The average time on nest is 61 days" (Clum 1986, pp. 44-45).

In conclusion, based on my study at the Tonawanda Wildlife Management Area-Iroquois National Wildlife Refuge-Oak Orchard Wildlife Management Area wetlands complex, I would suggest that the date for late nestlings be extended from July 25 to August 27, and the date of early hatchlings be changed from June 18 to May 22. In view of published incubation periods of 32 to 33 days (Andrle and Carroll 1988), and 34 to 39 days (Clum 1986), it is likely that attention directed to laying dates might be expected to yield egg dates earlier than 27 April, the date published in *The Atlas of Breeding Birds in New York State* and the *New York State Breeding Bird Atlas Handbook for Workers*.

Literature Cited

- Andrle, R. F. and J. C. Carroll. 1988. *The Atlas of Breeding Birds in New York State*. Cornell University Press, Ithaca, NY.
- Brin, J. August 2003. 7853 East Dead Creek Rd., Baldwinsville, N.Y. 13027. Personal Communication.
- Burch, B. 1994. Osprey Hacking Program is Completed. *The Prothonotary*. 60:95-96.
- Clum, N. J. 1986. The effects of prey quantity on reproductive success of Osprey (*Pandion haliaetus*) in the Adirondack Mountains. Master's Thesis, Cornell Univ., Ithaca, NY.
- Herrick, F. H. 1933. Daily life of the American eagle: Early Phase (Concluded). *The Auk*. 50:35-53.
- Knowlton, F. 2003. Bureau of Wildlife, P.O. Box 422, Basom, New York 14013. Personal Communication.
- LeBlanc, T. P. 2004. Allegany State Park, 2373 ASP Rt. 1, Ste 3, Salamanca, NY 14779. Personal Communication.
- Watson, W. W. 1994. Establishment of the Great Blue Heron Colony on Motor Island. *Kingbird*. 44:268-276.