

2016 Lake Puckaway Endangered and Threatened Species Monitoring Project Final Report to the Lake Puckaway Protection and Rehabilitation District

For the 7th consecutive year, endangered and threatened water-bird species were monitored from spring arrival dates to fledging dates for those nesting in the Lake Puckaway proper. Endangered species monitored included Black, Caspian, Common and Forster's Terns. Threatened species included Great Egrets. Because of on-going management programs for Common and Forster's Terns, the emphasis was directed to these two endangered species. Black Terns were intensively monitored in 2014 and will be re-visited in 2017.

Nesting site protocols were changed for 2016 due to the increasing numbers of nesting pairs of Forster's and Common Terns, to minimize human disturbance at the two sites.

April 30: With a cool spring and receding water levels, returning Forster's Terns held off a couple of weeks later than in 2015 before establishing their nesting colony on Pancake Island. Great Egrets also began to nest-build on Pancake Island as well as in the few remaining trees on the dredgebank. Of special note: the emerging willow clumps on the Dredgebank are now seeing nesting by both Great Egrets and Great-blue Herons.

May 10: Egg-laying has begun on both Pancake Island and the Common Tern rafts. A flush count of Forster's Terns revealed an estimate of at least 500 adults - almost double of 2015. Great Egrets were nest-building and incubating eggs. American White Pelicans were loafing on the island and might possibly nest there this year. Do to the presence of so many endangered terns, I did not intrude into the nest site since many were still in the process of egg-laying.

May 17: The USDA-APHIS surveyed the Dredgebank and Pancake Island for nesting waterbirds excluding terns. Their report indicated 65 Great Egret nests on the island - many of them on the ground. Also reported were 5 American White Pelican nests.

May 31: A check of the two Common Terns rafts revealed that some pairs were still in the process of laying eggs. Raft #1 had 20 nests with 57 eggs and Raft #2 had 18 nests with 49 eggs. A survey of the Forster's Tern colony on Pancake Island revealed a record 314 nests with 757 eggs and 3 chicks. The Great Egrets nests already had several chicks of various ages so I decided not to do a nest count as the chicks would abandon the nests. I did not see any White Pelican nests, but did not enter the pelican area since it was too close to the egret colony. 20 Ring-billed Gull nests were noted along with one Herring Gull nest.

June 11: Forster's Terns are now feeding chicks, but many are still incubating. The Common Tern rafts are just beginning to hatch out young, with 3 chicks hatched and 114 eggs counted. Some Egrets were still incubating eggs on the Dredgebank, but most egret nests have young with some of them quite large already and close to fledging.

June 28: We banded 73 Common Tern chicks today and noted that there were still 3 nests with eggs on Raft #1. Forster's Tern chicks were very close to fledging from Pancake Island. Many Great Egret chicks have fledged, but there were still very small hatchlings on both Pancake Island and the Dredgebank.

July 19: Two chicks have hatched from the remaining eggs on Raft #1 and almost all of the banded chicks from 6/28 have fledged except for two. There are still 2 active nests with eggs. These will need to hatch soon as it is very late in the season. 8 fledgling Black Terns were seen on the Dredgebank rocks along with 82 Forster's Tern fledglings. At least 50 Forster's Terns were still carrying minnows to Pancake Island.

July 26: Raft #1 now has 6 chicks including one day-old chick, the two banded chicks and the two unbanded chicks from July 19th and one chick about 3 days old. These will be banded soon. There is no longer any adult Forster's Terns feeding chicks at Pancake Island so all have fledged and are scattered all over the lake - mostly in the lotus beds.

Aug. 2: Banded three chicks. The two large un-banded chicks from July 19th were gone-presumed to have fledged. One small chick from July 26th was missing.

Aug 25: A final check of the Rafts revealed all birds had fledged. A waterbird count of the Dredgebank had 22 Caspian Terns, 6 Forster's Terns (all adults) 0 Common Terns and 0 Black Terns. A severe early-season cold front most likely pushed the terns southward. Additional counts included: 427 American White Pelicans, 250 Double-crested Cormorants and 18 Great Egrets.

Summary:

2016 proved to be another record-breaking year for both Common and Forster's Tern nesting success. The rafts fledged 77 Common Terns - the second largest colony in the state. Pancake Island fledged an estimated 500 Forster's Terns - the largest in the state by a large margin. Although Black Tern Fledglings were observed being fed by adults, no study was done since 2014. These sites will be re-visited for a follow-up survey in 2017. Great Egrets successfully fledged at both nesting sites with an estimated 120-140 fledged. Caspian Terns continue to use the lake for post-fledging dispersal from the Green Bay colony. Lake Puckaway remains one of the very few sites in Wisconsin where one can view all 4 endangered terns. As a side note, 2016 proved to be an incredible year for emergent vegetation growth with the north-south canebed thickening and slightly expanding as well as the cattail and river bulrush beds expanding. For the first time in two decades, Yellow-headed Blackbirds nested in this area. This is a rapidly declining species across North America. The lotus beds were the largest and thickest I've seen in many years. These beds are crucial to the success of fledging Forster's and Black Terns providing both cover and food for the young terns as well as mallard, wood duck and blue-winged teal ducklings.

Recommendations: The Common Tern raft project should continue. Although DNR biologists agree that it would be best if both rafts could be attached to each other to provide a larger nesting surface, both rafts were successfully colonized by Common Terns even though they were placed about 40 meters apart. I will be meeting with DNR Avian Ecologist Sumner Matteson for future recommendations regarding placement as well as the future of the project as this colony continues to grow and will eventually get too crowded for the two rafts.

The Forster's Terns have adapted to Pancake Island quite well. It was far and away, the largest colony in the state in 2016. Presently, there does not appear to be any major threat to this colony, except during very high water years or habitat degradation due to erosion.

A follow-up survey of the 6 Black Tern colonies will take place in 2017 to determine if any changes have occurred.

As always, I would like to thank the LPPRD for their partnership in these programs over these many years and hope that it will continue into the future.

Respectfully submitted,

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Water bird monitor, 2016