

# First Documented Nesting of American White Pelicans (*Pelecanus erythrorhynchos*) in Ohio, USA

BRUCE N. BUCKINGHAM<sup>1</sup>, Port Clinton, OH, USA; LAURA J. KEARNS, Ohio Department of Natural Resources, Division of Wildlife, Columbus, OH, USA.

**ABSTRACT.** The discovery and documentation of a new breeding species in a defined area, such as a state, is a crucial first step in understanding the basic natural history of a species and its consequent needs for management and conservation. The American White Pelican has gradually expanded its breeding range from the prairies of North America into the Great Lakes region. While conducting a census on Herring Gulls (*Larus argentatus*) at least 4 nests of pelicans with either eggs or young were found. Further census showed a minimum of 12 almost fledged young. This report documents the first confirmed nesting of the American White Pelican in Ohio. This first nesting was observed in May 2023 on Turning Point Island, an artificial island in Sandusky Bay, Erie County, Ohio, in the western basin of Lake Erie. Continued nesting of pelicans in Ohio is expected in future years at this location and other suitable sites in the area. This species is likely to need future monitoring and management.

Publication Date: March 2024

<https://doi.org/10.18061/ojs.v123i2.9541>

OHIO J SCI 123(2):28-31

## INTRODUCTION

The American White Pelican (*Pelecanus erythrorhynchos*), henceforth *pelican*, is a large, white, fish-eating colonial waterbird that provides both delightful recreational viewing opportunities to bird-watchers and concerns to ardent anglers. A species native to North America, the continental population was declining until the mid-1960s (Lies and Behle 1966) and the breeding range was reduced primarily to the Prairie Provinces of Canada, the Great Plains states, and other isolated populations in the West (Knopf and Evans 2020). Since then, the population has steadily increased continentwide at an annual rate of 3.2% from 1966 to 2019 according to the North American Breeding Bird Survey data (Sauer et al. 2020), and the breeding range has been expanding.

Nesting pelicans in the Great Lakes were first documented in Lake Michigan on Cat Island, Green Bay, Wisconsin, in 1994 (Soulen 1995). By 2007, pelicans had started to nest in Lake Superior on Granite Island, in Black Bay, Ontario (Pekarik et al. 2009). In 2016, they first nested in Lake Erie on Big Chicken Island and Middle Sister Island in Ontario, Canada, waters (Tymstra et al. 2019). By 2019, they had expanded to nesting at other sites in Lake Erie: Mohawk Island National Wildlife Area,

Ontario, in eastern Lake Erie, and Point Mouillee State Game Area, Michigan (Weseloh et al. 2020). Historically, pelicans are not known to have nested in Ohio, with observations primarily being of migrants or nonbreeding adults (Peterjohn 2001; Caldwell 2021), but it has been anticipated that pelicans might start nesting on one of the isolated Lake Erie islands in Ohio state waters.

Ohio's isolated Lake Erie islands are important breeding sites for colonial waterbirds, which include the state-threatened Black-crowned Night-Heron (*Nycticorax nycticorax*) and state-endangered Snowy Egret (*Egretta thula*). Three islands are of particular importance for breeding colonial waterbirds in Ohio: West Sister Island, Green Island, and Turning Point Island (Fig. 1). Annual monitoring of the breeding waterbird populations occurs at these islands to track populations and evaluate the effects of Double-crested Cormorant management (Ohio Division of Wildlife, unpublished data; Ottawa National Wildlife Refuge, unpublished data). During the 2023 colonial waterbird monitoring efforts, pelicans were discovered nesting on Turning Point Island—and in Ohio—for the first time. This article officially documents the expansion of the American White Pelican breeding range to include Ohio.

<sup>1</sup> Address correspondence to Bruce N. Buckingham, 815 Jackson Drive, Port Clinton, Ohio, 43452. Email: [bbuckingham@roadrunner.com](mailto:bbuckingham@roadrunner.com)



## METHODS

Turning Point Island in Sandusky Bay, Erie County, Ohio—hereafter referenced as *Turning Point*—is a long and narrow artificial 2.5-hectare island that was constructed as a sheltered turning area for large coal hauling ships and completed in 1939 (Fig. 1). A number of plant species colonized the island independently such that current dominant vegetation on the island includes mature red mulberry (*Morus rubra*), silver maple (*Acer saccharinum*), eastern cottonwood (*Populus deltoides*), boxelder (*Acer negundo*), and tree-of-heaven (*Ailanthus altissima*). Indian pokeweed (*Phytolacca acinosa*) is the primary herbaceous vegetation, but otherwise there is little herbaceous or woody understory growth—likely a result of the copious nitrogenous colonial waterbird wastes.

The Ohio Division of Wildlife has surveyed tree-nesting colonial waterbirds on Turning Point since 1995. Prior to that, periodic waterbird surveys were conducted as part of the binational Great Lakes Decadal Colonial Waterbird Census in the late 1970s (Scharf 1978). Dolbeer et al. (1990) surveyed the island in the late

1980s, documenting its Herring Gull (*Larus argentatus*) population. Herring Gull banding has occurred on the island annually since 1980, and Herring Gull nest monitoring has occurred annually since 2011. Since 1995, other colonial waterbirds documented as nesting on Turning Point have included Double-crested Cormorants (*Nannopterum auritum*), Great Blue Herons (*Ardea herodias*), Great Egrets (*Ardea alba*), Snowy Egrets, Cattle Egrets (*Bubulcus ibis*), and Black-crowned Night-Herons.

Colonial waterbirds are counted on Turning Point twice annually according to nesting phenology. Herring Gulls are counted first in early May following the protocols of Dolbeer et al. (1990). The remaining nesting waterbirds (cormorants, herons, and egrets) are counted in late-May to early-June when the young are hatching. A minimum of 2 observers or 2 teams (if more than 2 observers are present) walk the length of the island simultaneously east to west or west to east, counting all active nests. An active nest is determined to be one with adults on the nest or young visible.

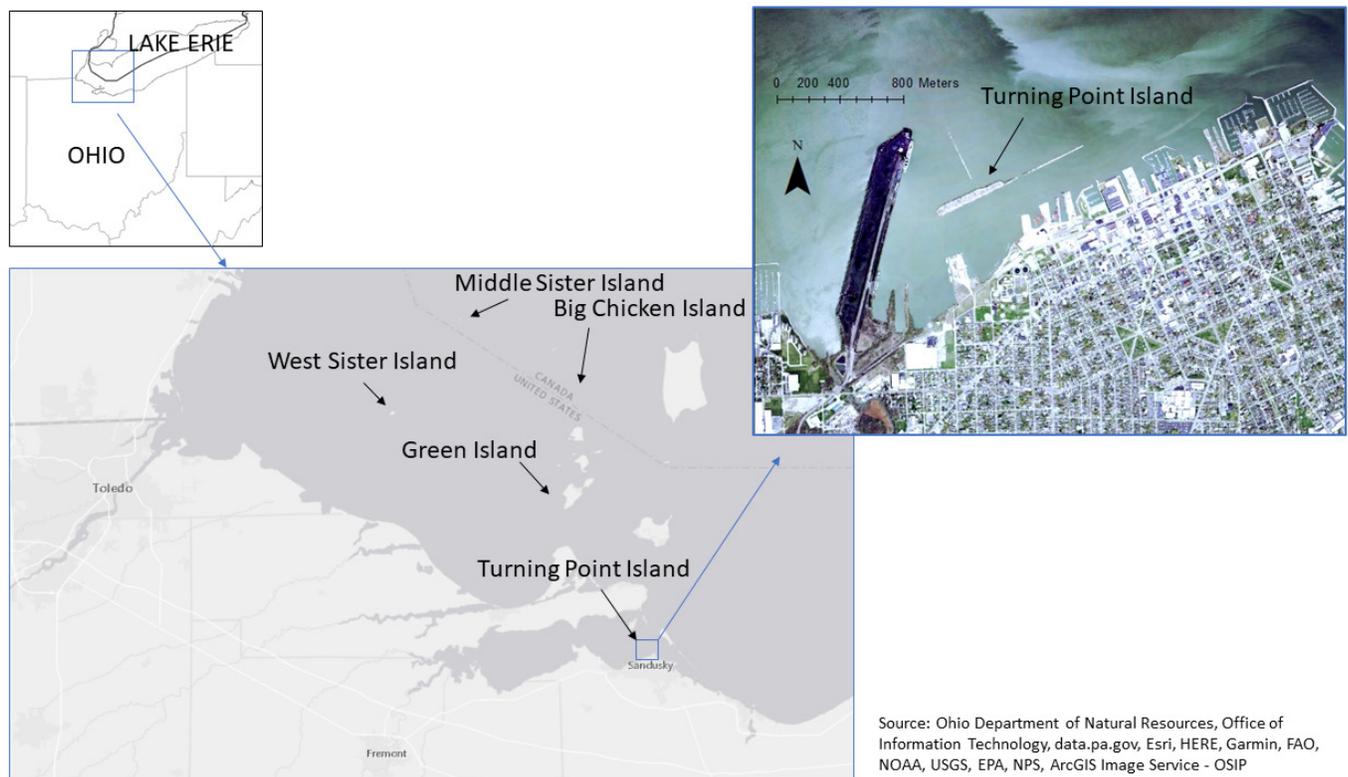


FIGURE 1. Important islands for nesting colonial waterbirds in Lake Erie's western basin

## RESULTS

On May 10, 2023, while conducting the annual Herring Gull census at Turning Point, an adult pelican was spotted standing in an area of downed trees about 30 meters away. With the use of a spotting scope, we observed at least 4 nests with either eggs or young. Because pelicans are very sensitive to any disturbance during the nesting period, we did not investigate any closer. On May 24, 2023, Ohio Division of Wildlife staff conducted the annual census of colonial tree-nesting waterbirds on Turning Point. Six adults and a minimum of 12 juvenile pelicans were observed, with young beginning to form creches (Fig. 2). As 2 eggs are a typical clutch size (Knopf and Evans 2020), we estimate that at least 6 nests were present on the island. During the last visit on Turning Point on July 15, 2023, all pelicans had left the island and both young and adult birds were seen approximately 120 meters away on an adjacent break wall. All nests were obliterated, and no dead pelicans were noted.

## DISCUSSION

Although adult pelicans have been seen during the breeding season in other Ohio locations in recent years, such as Grand Lake St. Marys (Mercer County) and West Sister Island (Lucas County) (Ohio Division of Wildlife, unpublished data), this observation from Turning Point is the first confirmation of pelican nesting in Ohio. Both Big Chicken and Middle Sister Islands are close enough to Turning Point, 35 km and 49 km respectively, to allow breeding pelicans to discover new nesting locations. Turning Point has been the home of 7 different species of colonial nesting birds, including Herring Gull, Double-crested Cormorant, Great Blue Heron, Great Egret, Snowy Egret, Cattle Egret, and Black-crowned Night-Heron. It is likely that these pelicans started to nest at this location due to the presence of other nesting colonial waterbirds and availability of suitable habitat. While this first nesting occurred on an island, a traditional location for pelicans, it is somewhat unusual in that it is located just 0.5 km from the city of Sandusky, Ohio.



FIGURE 2. Juvenile American White Pelicans (*Pelecanus erythrorhynchos*) on Turning Point Island, Sandusky Bay, Erie County, Ohio, on May 24, 2023. Photo by Bruce Buckingham.

The discovery and documentation of a new breeding species in the state is a crucial first step in understanding the natural history of a species and its consequent needs for management and conservation. As an abundant species rangewide, breeding expansion in Ohio does not necessarily qualify the pelican for endangered status, but instead as a *species of special interest*. A species of special interest is one that “occurs periodically and is capable of breeding in Ohio. It is at the edge of a larger, contiguous range with viable population(s) within the core of its range” (Ohio Division of Wildlife 2022). The Ohio Division of Wildlife is considering adding the pelican as a species of special interest and will continue to monitor Turning Point and other locations for breeding activity. Other avian species to recently expand their breeding range into Ohio include the Common Raven and Black-necked Stilt (Rodewald et al. 2016). Currently, neither of these species are listed as endangered or threatened, but as species of special interest.

## Conclusions

Confirmation of breeding marks the start of a new era of the American White Pelican in Ohio. Expansion of the pelican into the state as a breeder provides excitement in the birding community and indicates the rebound of this species. However, as a fish-eating bird, its range expansion may be of some concern to the aquaculture and sport fishing industries and may require management. Indeed, some states currently manage pelicans to reduce conflicts (e.g., Idaho Department of Fish and Game 2016). However, claims that pelicans compete with anglers for sportfish are often unsubstantiated (Knopf and Evans 2020). As the pelican population expands in Ohio, the Ohio Division of Wildlife will continue to monitor the population—and manage as necessary—to balance the needs of birdwatchers, anglers, and aquaculture producers.

## ACKNOWLEDGEMENTS

The authors thank the Ohio Division of Wildlife Law Enforcement for the use of the boat during the yearly census. Ohio Division of Wildlife staff, Mike Reynolds and Nora Reitz, greatly assisted in the 2023 census of colonial nesting species on Turning Point.

## LITERATURE CITED

- Caldwell C. 2021. Species accounts. Ohio Cardinal. 44(4):169-186. <https://ohiobirds.org/wp-content/uploads/2021/12/Summer-2021-Final.pdf>
- Dolbeer RA, Woronecki PP, Seamans TW, Buckingham BN, Cleary EC. 1990. Herring Gulls, *Larus argentatus*, nesting on Sandusky Bay, Lake Erie, 1989. Ohio J Sci. 90(3):87-89. <http://hdl.handle.net/1811/23396>
- Idaho Department of Fish and Game. 2016. Management plan for the conservation of American White Pelicans in Idaho 2016-2025. Boise (ID): Idaho Department of Fish and Game. 54 p. [accessed 2023 Sep 27]. <https://idfg.idaho.gov/sites/default/files/american-white-pelican-conservation-plan-2016-2025.pdf>
- Knopf FL, Evans RM. 2020. American White Pelican (*Pelecanus erythrorhynchos*), version 1.0. In: Poole AF, editor. Birds of the World. Ithaca (NY): Cornell Lab of Ornithology. <https://doi.org/10.2173/bow.amwpe1.01>
- Lies MF, Behle WH. 1966. Status of the White Pelican in the United States and Canada through 1964. Condor. 68(3):279-292. <https://doi.org/10.2307/1365561>
- Ohio Division of Wildlife. 2022. Ohio's listed species. Publication 5356. Columbus (OH): Ohio Department of Natural Resources, Division of Wildlife. 11 p. [accessed 2023 Sep 15]. [https://ohiodnr.gov/static/documents/wildlife/state-listed-species/Pub+5356+Ohio+Listed+Species\\_R0722.pdf](https://ohiodnr.gov/static/documents/wildlife/state-listed-species/Pub+5356+Ohio+Listed+Species_R0722.pdf)
- Pekarik C, Hodder C, Weseloh DVC, Matkovich C, Shutt L, Erdman T, Matteson S. 2009. First nesting of American White Pelican on Lake Superior, Ontario, Canada. Ontario Birds. 27(1):42-49.
- Peterjohn BG. 2001. The birds of Ohio: with Ohio breeding bird atlas maps. Wooster (OH): Wooster Book Company. 637 p. ISBN 13: 9781888683882.
- Rodewald PG, Shumar MB, Boone AT, Slager DL, McCormac J, editors. 2016. The second atlas of breeding birds in Ohio. University Park (PA): The Pennsylvania State University Press. 578 p. ISBN 13: 9780271071275.
- Sauer JR, Link WA, Hines JE. 2020. The North American Breeding Bird Survey, analysis results 1966 – 2019. Laurel (MD): U.S. Geological Survey. U.S. Geological Survey data release. <https://doi.org/10.5066/P96A7675>
- Scharf WC (Northwestern Michigan College). 1978. Colonial birds nesting on man-made and natural sites in the U.S. Great Lakes. Final report. Vicksburg (MS): U.S. Army Engineer Waterways Experiment Station. Technical report D-78-10. Report No.: FWS/OBS-78/15. 137 p. <http://hdl.handle.net/11045/14683>
- Soulen TK. 1995. The summer season: 1994. Passenger Pigeon. 57(1):41-50.
- Tymstra YR, Weseloh DVC, Moore DJ, Crump D, Ludwig JP. 2019. American White Pelicans expand breeding range into western Lake Erie, 2016-2018. Ontario Birds. 37(1):2-15.
- Weseloh DVC, Byrne A, Crump D, Moore DJ, Ludwig JP. 2020. Nesting of American White Pelicans in Lake Erie, 2019. Ontario Birds. 38(1):2-13.