

Wisconsin Bald Eagle and Osprey Nest Surveys 2016



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Summary

Wisconsin Department of Natural Resources (WDNR) staff from the Natural Heritage Conservation and Wildlife Management bureaus completed statewide aerial nesting surveys for bald eagles and ospreys in cooperation with WDNR pilots in spring 2016. This marked the 44th consecutive year that the bald eagle occupancy survey has been completed in Wisconsin, which makes it one of the longest running surveys of its kind in North America. The surveys this year found 1,504 occupied eagle nests and 558 occupied osprey nests, which are the highest numbers ever recorded. Of the counties that were surveyed, occupied eagle nests were observed in 69 of 72 (96%) counties and occupied osprey nests were observed in 58 of 72 (81%) counties. Additional project work included nest identification and avoidance guidance, construction project reviews, forest management guidance, and overwintering eagle counts throughout the state.

Acknowledgments

Local eagle and osprey nest information was provided by numerous WDNR field staff and reports from the public. Aircraft pilots flying these surveys included: Mike Weinfurter (Rhinelander), David Lemke (Rhinelander), Leo Bunderson (Eau Claire), Bev Paulan (Eau Claire), Joe Sprenger (Siren), Mike Callahan (Oshkosh), Luke Wuest (Oshkosh) and Jeff Oimoen (Madison).

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Bald Eagles

All nest surveys were completed using a WDNR aircraft and pilot and at least one other trained observer. The bald eagle nest occupancy survey was flown in late March and April to locate occupied nests. Additional ground observations were provided by landowners, birders, volunteers and raptor banders; this information is used to supplement and check aerial data. Regional reports were developed by area observers (Appendix 1) that detail bald eagle and osprey nest locations by county (Figures 1 and 3).

We found 1,504 bald eagle nests occupied by breeding adults in 2016 (Figure 1). This was an increase of 39 nests from the 2015 surveys (Figure 2). An occupied nest was defined as a nest where one or more of the following was observed: an incubating adult, eggs, young, or a repaired nest. As in past years, Vilas ($n = 154$) and Oneida ($n = 147$) counties had the highest number of occupied eagle nests. These two counties represent most of the Northern Highland Ecological Landscape, which has one of the highest concentrations of freshwater lakes in the world. Bald eagles occupied nests in 69 of the state's 72 counties in 2016 (96%; Figure 1), and the number of occupied nests continued to increase in the northwest and southwest portions of the state (Survey Areas 1 and 6, respectively; Appendix 1).

Survey Area 2 (north central Wisconsin) appears to have one of the highest densities of nesting bald eagles anywhere in North America. The number of occupied territories within this area of the state continues to rise, with 497 reported in 2015 and 511 in 2016. The Survey Area with the greatest observed increase in occupied nests from 2015 to 2016 was southeastern Wisconsin (+29%; Survey Area 7). There was an overall increase in occupied territories of 2.66% in the state from 2015 to 2016 (Table 1).

The Federal Bald and Golden Eagle Protection Act provides protection for all eagle nests, nest trees, and adjacent habitat. Throughout the state, project staff were contacted by private landowners and public land managers for recommendations to protect bald eagle and osprey nests from disturbance. On public properties, habitat is managed to promote tall snags and large, super-canopy white pines for nest trees. Project staff annually provide recommendations at over 100 sites to protect nests where disturbances such as timber sales, utility and telecommunication

projects, housing development, and road construction are being planned. In the past 25 years, WDNR staff made management recommendations that protected over 80% of all known eagle and osprey nests. Accurate nest locations, nesting activity, and management guidance continue to be important factors in the long term conservation of Wisconsin's bald eagle and osprey populations.

Wintering Eagles

Wintering bald eagle numbers were recorded throughout Wisconsin during the annual Midwinter Bald Eagle Survey, which is conducted in conjunction with annual winter waterfowl surveys in the state by DNR field staff, landowners, and volunteers. In 2016, the count was conducted between December 30, 2015 and January 13, 2016. Observers counted the number of bald eagles observed on specific routes that are repeated every year. Surveys are conducted by plane, vehicle, boat, and on foot. In 2016, 46 midwinter bald eagle survey routes were completed with observers reporting 666 bald eagles (436 adult, 206 immature, and 24 unknown). This count represented an 87% increase in the number of eagles observed over the previous winter's count.

Table 1. Summary of 2016 bald eagle occupancy surveys in Wisconsin.

Survey Area¹	Occupied Territories 2015	Occupied Territories 2016	Percent Increase or Decrease from 2015-2016
Area 1	338	357	+ 5.62%
Area 2	497	511	+ 2.82%
Area 3	165	176	+ 6.67%
Area 4	50	56	+ 12.00%
Area 5	251	211	- 15.94%
Area 6	140	162	+ 15.71%
Area 7	24	31	+ 29.17%
Total Territories	1465	1504	+2.66%

¹ Survey Areas are shown in Appendix 1.

Occupied Bald Eagle Nests 2016 ($n = 1,504$)

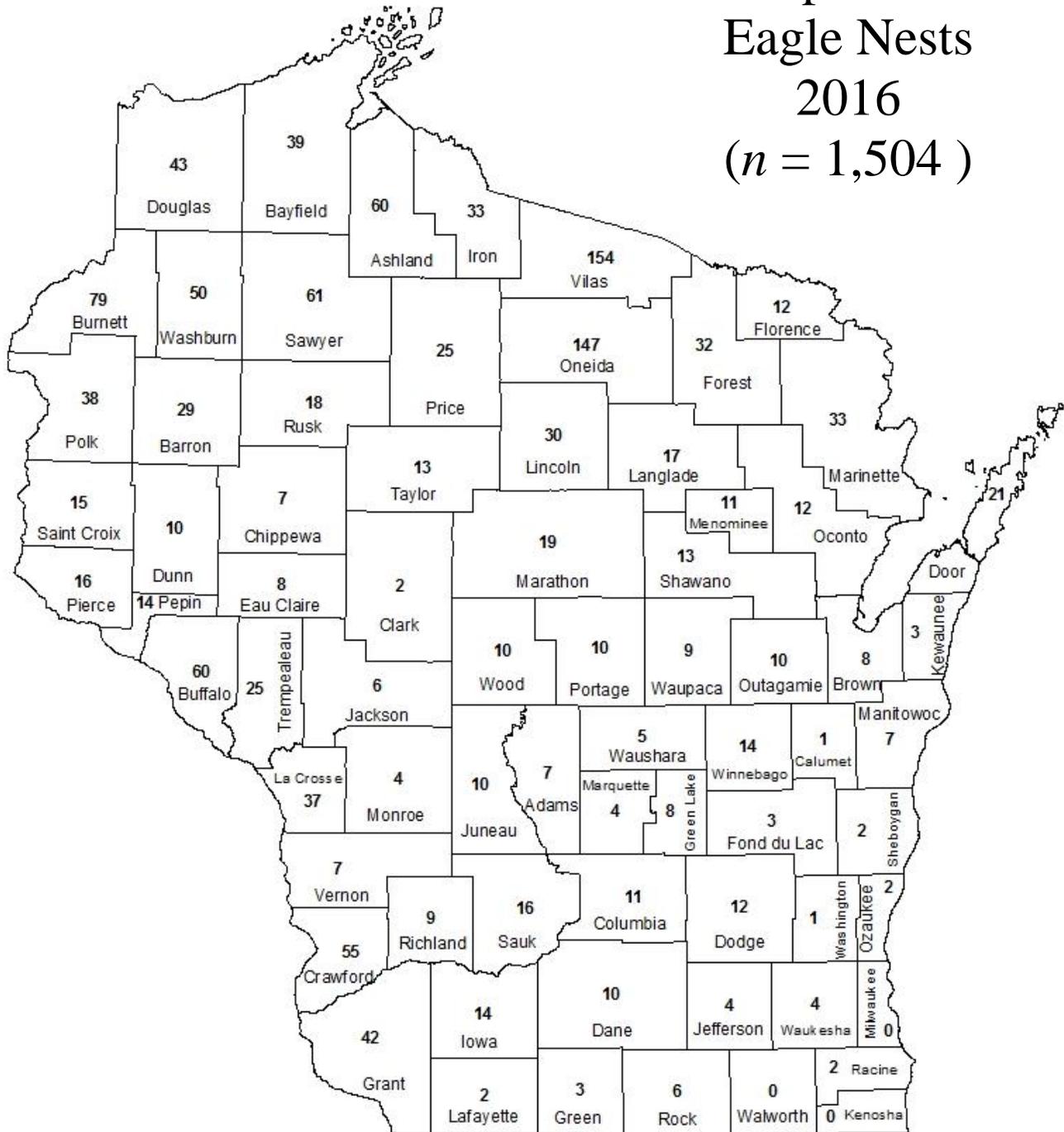


Figure 1. Occupied eagle nests where the observer recorded at least one of the following: a repaired nest, an incubating adult, eggs, or young in the nest.

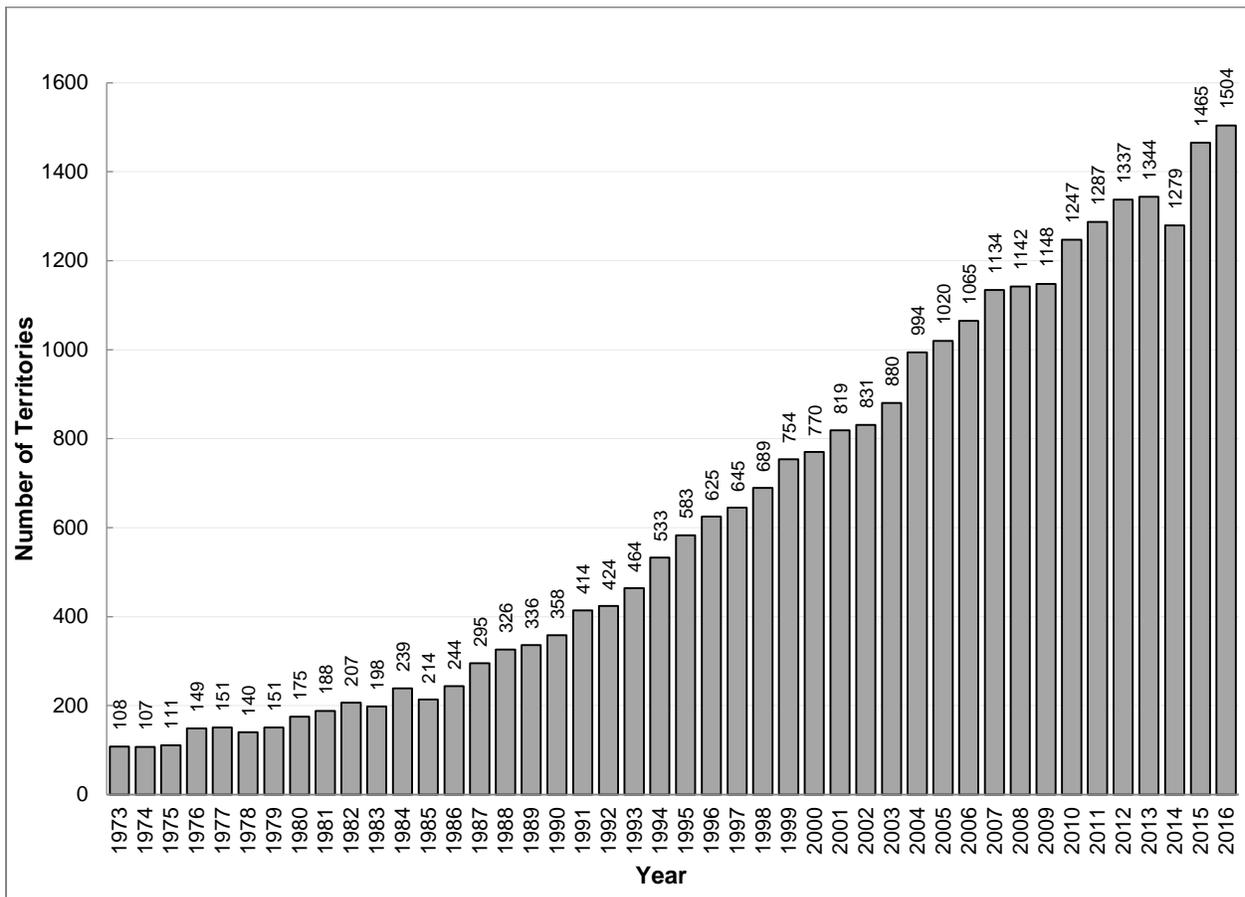


Figure 2. Occupied bald eagle nests in Wisconsin, 1973-2016. Bald eagle information for the years 1973 to 1989 was summarized from annual surveys completed by Charles Sindelar, Waukesha, WI.

Ospreys

The osprey activity flight was completed in May to locate occupied nests. There were 558 occupied osprey nests found statewide in 2016 (Figure 3). This was an increase of 16 pairs from 2014 (Figure 4) and the highest number ever recorded for Wisconsin. Oneida county had the most occupied nests ($n = 95$), and ospreys nested in 58 of the state's 72 counties (81%; Figure 3). The number of occupied osprey nests increased in Survey Areas 1, 2, 3, 6, and 7 and decreased in Survey Areas 4 and 5 (Table 2).

Table 2. Summary of 2016 osprey occupancy surveys in Wisconsin.

Survey Area ¹	Occupied Territories	Occupied Territories	Percent Increase or Decrease from 2014 -2016
	2014	2016	
Area 1	126	130	+ 3.17%
Area 2	178	186	+ 4.49%
Area 3	130	135	+ 3.85%
Area 4	62	59	- 4.84%
Area 5	22	16	- 27.27%
Area 6	13	15	+ 15.38%
Area 7	11	17	+ 54.55%
Total Territories	542	558	+ 2.95%

¹ Survey Areas are shown in Appendix 1.

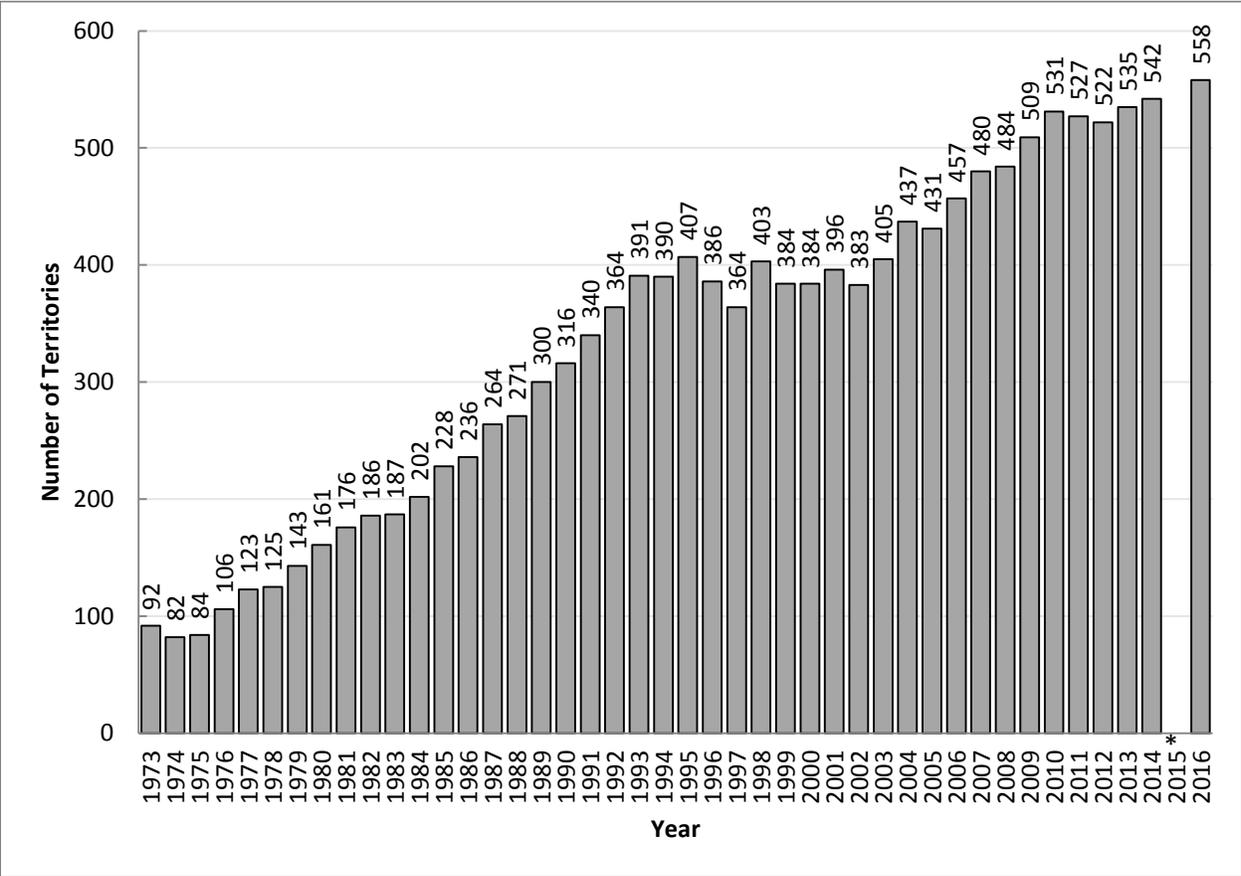


Figure 4. Occupied osprey nests in Wisconsin, 1973-2014. * No statewide survey was completed in 2015.

