

2012 Nebraska Bald Eagle Nesting Report



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The Bald Eagle (*Haliaeetus leucocephalus*) was once threatened with extinction. Since the mid- to late 20th Century, Bald Eagle numbers have increased throughout North America. Bald Eagles bred historically in Nebraska, but the species was absent as a breeder for most of the 20th Century. The first modern active and successful Bald Eagle nest in Nebraska was near Valley, Douglas County, in 1991 (Farrar 1991). Since 1991, the number of Bald Eagle pairs nesting in Nebraska has increased (Jorgensen et al. 2010, 2011). The Bald Eagle was removed from the federal list of threatened and endangered species in 2007 and the following year it was removed from the Nebraska state list of threatened and endangered species. Even though Bald Eagle numbers have surpassed recovery goals, annual statewide nest monitoring has continued. Nest monitoring is conducted by several entities and individuals, but it is coordinated by the Nebraska Game and Parks Commission's (NGPC) Nongame Bird Program. Here, we present results from the 2012 nest monitoring in Nebraska.

METHODS

Bald Eagle nesting data was collected in two ways: 1) we conducted targeted surveys, and, 2) we compiled information provided by cooperators. The principal objective of all monitoring was to determine locations of active Bald Eagle nests. Active is defined as a nesting pair engaged in breeding behavior such as incubating eggs or tending to young.

Our targeted surveys consisted of driving public roads, primarily along river corridors, visiting known nests and searching for new nests. We define known nests as those present and observed prior to 2012. We define a new nest as an active nest that was documented for the first time in 2012. We also surveyed a small portion of nests by kayak; these surveys were conducted in June. Vehicle surveys were conducted in March and April, before visibility through trees was reduced by leaves. We conducted targeted surveys by vehicle along the Loup, Elkhorn, Nemaha, Republican, and a small portion of the Platte and Missouri rivers. We navigated to known nests using our existing knowledge, hand-held global positioning system (GPS) preloaded with known nest locations and/or maps. We also actively searched for Bald Eagles while traveling to known nests. Bald Eagle nests are large and distinctive, and are often visible from a distance (e.g., > 1 km). If a Bald Eagle was observed we scanned the area for a nest using a spotting scope. If a nest was observed we used the spotting scope to search for Bald Eagles in the immediate vicinity of or on the nest. Bald Eagles sitting on nests were suspected of incubating eggs and the nest/breeding pair was considered active. If we observed adult Bald Eagles near the nest but they were not incubating eggs or tending to young, we recorded the nest as occupied with unknown activity. An occupied nest is one with one or more adult Bald Eagles present during breeding season (USFWS 1983); this includes pairs that have constructed practice nests. We made efforts to return to all nests with unknown nest activity at a later date to determine whether it was active. The Lower Platte River was surveyed by kayak using a similar approach as the vehicle surveys. All targeted surveys were conducted by the authors.

Additional nests were monitored by personnel from the NGPC Wildlife Division, National Park Service, U.S. Fish and Wildlife Service, Army Corps of Engineers, Nebraska Public Power District, Platte River Recovery Implementation Program, and trained volunteers. The National Park Service monitored nests within the Missouri National Recreational River and the Platte River Recovery Implementation Program monitored nests along the central Platte River in south-central Nebraska. The data provided by cooperators varied. We evaluated the provided information to determine whether a nest was active. All data were recorded in a database housed at the NGPC.

We summarized active Bald Eagle nests data. We compared the 2012 total to previous years' totals. We also showed the spatial distribution of active Bald Eagle nests in Nebraska in 2012. We also determined the number of nests that were surveyed by each entity. We determined the number of active and new nests along each river system and on Sandhills lakes. We also determined the number of active nests in each county and region in 2012.

RESULTS

A total of 117 nests were surveyed in 2012; 103 of these nests were determined to be active (Figure 1). In 2012, active nests were distributed across the state with highest numbers observed in the eastern Nebraska (Figure 2). Thirty-five new nests were documented for the first time in 2012. We surveyed 70 nests during our targeted surveys, the National Park Service surveyed 19 nests, and the Platte River Recovery Implementation Program surveyed six nests (Table 1). Additional nests were surveyed by personnel from the NGPC Wildlife Division, U.S. Army Corps of Engineers, Nebraska Public Power District, Crescent Lake National Wildlife Refuge, Valentine National Wildlife Refuge, Desoto National Wildlife Refuge the U.S. Fish and Wildlife Service Environmental Service Nebraska Field Office and Concordia University. Biology students from Concordia University, under the direction of Dr. Joseph Gubanyi, also surveyed nests in eastern Nebraska. A small number of nests were surveyed by more than one entity.

During targeted surveys 62 of 70 nests were active. Targeted surveys of the Loup, North Loup, Middle Loup, and South Loup rivers yielded 30 active nests, seven of which were new nests. Nine active nests were recorded along the Elkhorn River, four of which were new nests. Four active nests were recorded on the Nemaha River, two of which were new nests. Three active nests were recorded on the Republican River, one of which was a new nest. Eight active nests were recorded on the Lower Platte River, two of which were new nests; one active nest was recorded on the Central Platte River, and four active nests were recorded on the Missouri River. One active nest was recorded at a Sandhills lake, and two active nests were recorded along Salt Creek during the targeted surveys.

The National Park Service recorded nine active nests along the Missouri River, two of which were new nests. The National Park Service also recorded five active nests along the Niobrara River, three of which were new nests. The Platte River Recovery Implementation Program recorded six active nests along the Central Platte River, five of which were new nests. Twenty-one additional nests were reported as active, nine of which were new nests.

The overwhelming proportion of active nests was located along river corridors (Table 2). A total of at least 756 Bald Eagles have been produced in Nebraska since 1991. Over the past twenty-three years, Bald Eagles have constructed nests in 69% of Nebraska counties (n=93); active nests have been recorded in 63% of Nebraska counties (Table 3).

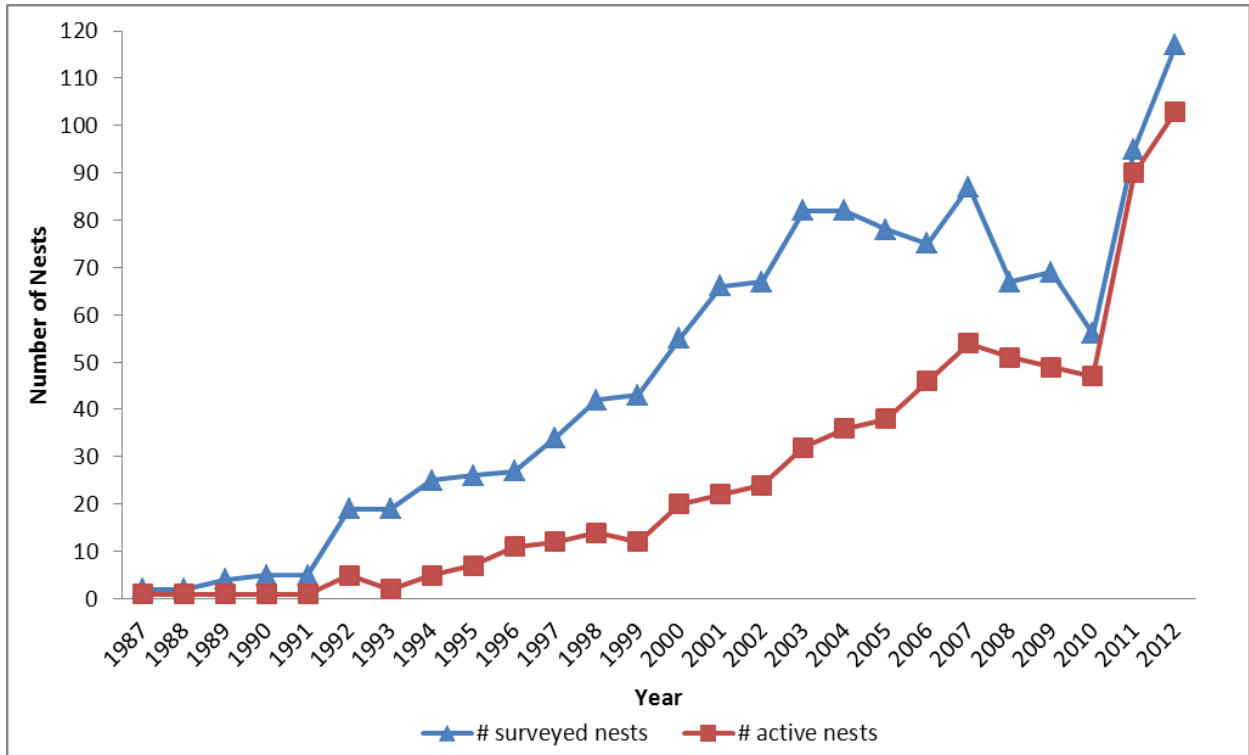


Figure 1. Number of Bald Eagle nests monitored (blue line) and number of active nests (red line) in Nebraska from 1987 - 2012.

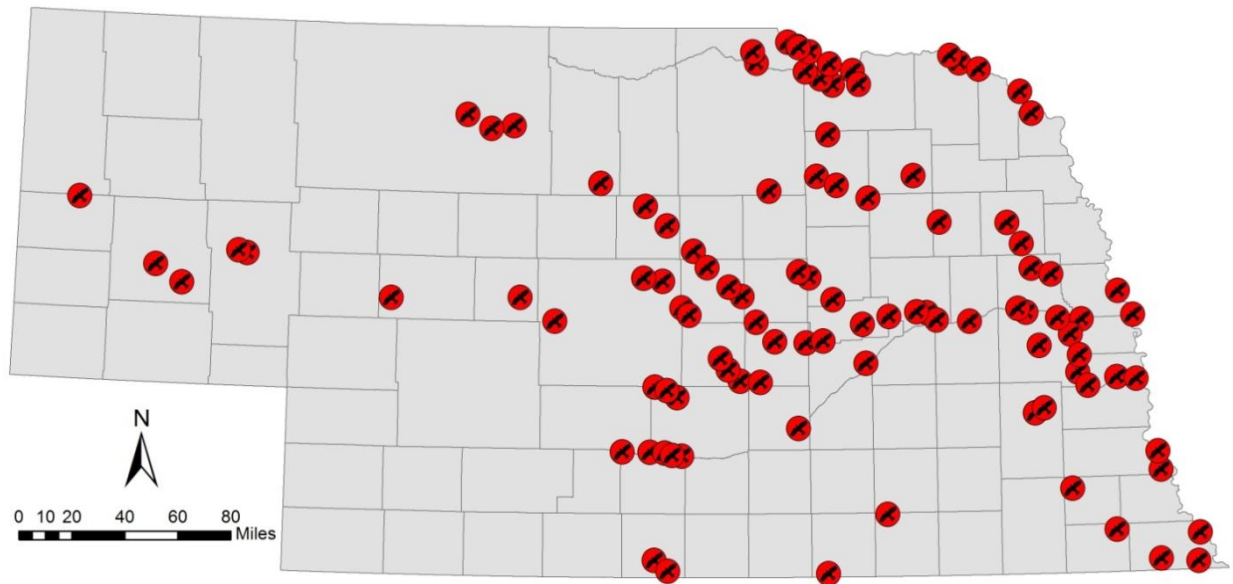


Figure 2. Spatial distribution of active Bald Eagle nests in Nebraska in 2012. Red icons are 2012 active nest locations.

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Table 1. Number of Bald Eagle nests surveyed and active in 2012

Surveyor	Nests Surveyed	Active Nests
Nongame Bird Program	70	62
National Park Service	19	14
Platte River Recovery Implementation Program	6	6
Others	22	21
TOTAL	117	103

Table 2. Number of active and new Bald Eagle nests in each river system and on Sandhills lakes in 2012. The first number is the number of active nests and the second number is the number of new nests.

Nest Locations		
Missouri River (17,3)	Loup River (9,0)	Nemaha River (4,2)
Niobrara River (6,4)	North Loup River (9,1)	Republican River (3,1)
Lower Platte River (11,2)	Middle Loup River (8,3)	Sandhills Lake (5,1)
Central Platte River (8,6)	South Loup River (5,3)	Other Location (5,2)
North Platte River (3,2)	Elkhorn River (10,5)	

Table 3. Bald Eagle nest totals by county in Nebraska in 2012. Counties in bold type are those with active Bald Eagle nests in 2012. The number in parentheses is the number of active nests in that county in 2012. Counties in red are those that did not have active nests in 2012 but have had an active nest in the last 23 years.

PANHANDLE	SANDHILLS	SOUTHWEST	SOUTH CENTRAL	NORTHEAST	SOUTHEAST
Sioux	Cherry (3)	Arthur	Dawson (2)	Knox (6)	Polk
Scottsbluff (1)	Grant	Keith	Gosper	Antelope (4)	York
Banner	Hooker	Perkins	Furnas	Boone (2)	Fillmore
Kimball	Thomas	Chase	Buffalo (6)	Nance (3)	Butler (1)
Dawes	McPherson (1)	Dundy	Phelps	Pierce (1)	Seward
Box Butte	Logan (1)	Lincoln	Harlan (2)	Madison	Saline
Morril (2)	Keya Paha	Hayes	Valley (3)	Platte (4)	Jefferson
Cheyenne	Brown (1)	Hitchcock	Sherman (3)	Cedar (2)	Saunders (3)
Sheridan	Blaine	Frontier	Kearney	Wayne	Lancaster (2)
Garden (2)	Rock	Red Willow	Franklin	Stanton (1)	Gage
Deuel	Loup (2)	Custer (4)	Greeley (2)	Colfax	Washington (2)
	Boyd (5)		Howard (4)	Dixon (2)	Douglas (3)
	Holt (1)		Hall (1)	Cuming (2)	Sarpy (1)
	Garfield (1)		Adams	Dodge (4)	Cass (2)
	Wheeler		Webster	Dakota (2)	Otoe (2)
			Merick (1)	Thurston	Johnson (1)
			Hamilton	Burt	Nemaha (1)
			Clay		Pawnee (1)
			Nuckolls (1)		Richardson (2)
			Thayer		

CONCLUSIONS

2012 was a milestone year, with a record 103 active Bald Eagle nests recorded in Nebraska. This number easily surpasses the previous record of 90 active nests in 2011. The number of breeding pairs in Nebraska has increased substantially over the last 20 years. The original recovery goal for Nebraska was ten active breeding pairs (USFWS 1983). This goal was met in 1996 and has been surpassed every year since (Jorgensen et al. 2010). Prior to 2011 the record number of active Bald Eagle nests recorded in Nebraska was 54 in 2007. This record of 54 active nests was surpassed in 2011 with 90 active nests. This increase in 2011 was believed to be due, in part, to increased targeted survey effort (Jorgensen et al. 2011). In 2012, the number of active Bald Eagle nests continued to increase. There has been an average annual increase of 4.9 active nests per year since 1991, when the first active, modern Bald Eagle nest was recorded. Bald Eagles are currently considered an uncommon breeder and summer visitor statewide (Jorgensen et al. 2010).

ACKNOWLEDGEMENTS

Funding for this project was provided by the U.S. Fish and Wildlife Service Sportfish and Wildlife Restoration Program, Wildlife Surveys and Inventories, Project W-15-R, State Wildlife Grant Program, and the Nebraska Wildlife Conservation Fund. We thank our cooperators that contributed data to this project, including: The National Park Service, Platte River Recovery Implementation Program, U.S. Army Corps of Engineers, Nebraska Public Power District Crescent Lake National Wildlife Refuge, Valentine National Wildlife Refuge, Desoto National Wildlife Refuge the U.S. Fish and Wildlife Service Environmental Services Nebraska Field Office and Concordia University. We also thank the following individuals that conducted surveys or provided information during the 2012 breeding season: Jonathan Andreasen, Dave Baasch, Bruce Beins, James Brown, Mary Bomberger Brown, Jim Ducey, Tracey Eischeid, Dan Evasco, Stan and Gail Ferris, Marlin French, Joe Gubanyi, Tiffany Harders, Robin Harding, Bob Harms, Kevin Holliday, Paula Hoppe, Bill Huser, Steve Jostes, Gary Kuester, Jeanine Lackey, Marian Langan, Mark Lindvall, Brad McKinney, Bob Meduna, Kimberly Miller, Lucas Negus, Richard Nelson, Melvin Nenneman, April Niederklein, Andrew Pierson, Lanny Randolph, Mike Remund, Steve Van Riper, Dan Roberts, Ben Rutten, Dave and Linda Schuetz, Steve Snelling, Tom Tolen, Larry Vrtiska, T.J. Walker, Scott Wessel, Ben Wheeler, Levi Wisemen, Angelina Wright, and Lisa Yager. A special thanks to Dr. Joe Gubanyi's biology students for conducting nest surveys in eastern Nebraska.

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