



ILLINOIS ENDANGERED SPECIES PROTECTION BOARD

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SPECIES RECOVERY SUCCESS STORY: Bald Eagle (*Haliaeetus leucocephalus*) Delisted in 2009



Bald Eagle (*Haliaeetus leucocephalus*), a formerly Illinois threatened species that was delisted in 2009; photo by Carol Freeman.

Recovery of the bald eagle, nationally and within Illinois, is due to a number of reasons including its listing under the Illinois Endangered Species Protection Act and the federal Endangered Species Act, environmental laws prohibiting the use of the pesticide DDT (which contributed to egg shell thinning and decreased reproductive success), public education, and habitat protection and conservation efforts. This is a success story several decades in the making. Habitat protection began the 1970s when the Illinois Audubon Society partnered with the IDNR in a fundraising and land acquisition campaign to preserve two severe weather winter roosts, the Elton E. Fawks Bald Eagle Refuge Nature Preserve in Rock Island County and the Prairie State Eagle Refuge Nature Preserve in Hancock County. Similar efforts continued into recent years. In 2001, then-Lieutenant Governor Pat Quinn, led an effort by a number of conservation organizations including the Illinois Audubon Society, Sierra Club, Save Our American Raptors, Eagle Nature Foundation, as well as Friends of Plum Island, Native American activists, anglers, and Eagle Scouts to curtail proposed development of Plum Island in LaSalle County. After several years, victory was claimed in 2004 and property, including winter roost habitat, was purchased by the Illinois Audubon Society to be protected for the bald eagle and other wildlife.

INTRODUCTION

The Illinois Endangered Species Protection Board (Board) is mandated to review and revise the Illinois List of Endangered and Threatened Species (List) as warranted, but in no case less frequently than every 5 years. The not 2009 revision represents the sixth revision since the original List was assembled in 1980.

The ESPB 5-year review process

The ESPB's 5-year review of the List includes recommendations to the Board from six Endangered Species Technical Advisory Committees (ESTACs) – one each on plants, birds, mammals, fish, reptiles and amphibians, and invertebrates. Each ESTAC is comprised of species experts who review information for each species including its range in the state, abundance in Illinois, number of known populations or locations where it occurs, number of these locations which are known to be protected, population trends, and threats to the species and/or its habitat. The Board considers ESTAC recommendations, in addition to any other information it has received from the public, when it develops its proposed changes to the List. It is important to note that decisions to list or delist a species are not strictly based on a numerical formula, but rather take into account the individual requirements of different species.

Bird Endangered Species Technical Advisory Committee members for the review ending in 2009:

Dr. Jim Herkert, Chair, The Nature Conservancy in Illinois
Marilyn Campbell, Illinois Audubon Society
Dr. Jeff Hoover, Illinois Natural History Survey
Vern Kleen, retired (Illinois Department of Natural Resources)
Brad Semel, Illinois Department of Natural Resources
Dr. Doug Stotz, The Field Museum of Natural History
Dr. Mike Ward, Illinois Natural History Survey
Dr. Jeff Walk, The Nature Conservancy in Illinois
Dr. Dan Wenny, Illinois Natural History Survey

Endangered Species Protection Board members:

R. Dan Gooch, Chairman
Marilyn F. Campbell, Vice-Chairman
Dr. Chris A. Phillips, Secretary
John A. Clemetsen
Dr. James R. Herkert
Susanne Masi
Dr. Mike Retzer
Dr. John Taft

Endangered Species Protection Board staff:

Anne Mankowski, Director

ACTION

Remove bald eagle from threatened status

This species is doing very well in the state, with the number of breeding records continuing to go up as do the number of counties from which the species is known to breed within Illinois.

DATA SUPPORTING THE RECOMMENDATION TO DELIST

Breeding population data

The federal recovery goal for Illinois was 20 pairs by the year 2000 (Grier et al. 1983). That threshold was met in 1996, with 24 pairs. The USFWS reports that the number of breeding pairs in the state has continued to increase (Figure 1a), with 100 pairs recorded in Illinois in 2006 (USFWS 2008). Additionally, Illinois nest data from the Illinois Natural Heritage Database documents 78 nest in 2002 and 101 nests in 2004, supporting the same trend line indicated by the USFWS breeding pair data (Illinois Natural Heritage Database 2009). Spring Bird Count data also show a substantial breeding-season population increase over the last 10-15 years (Figure 1b; Audubon Bulletin 2008). It is noteworthy that, although Figure 1b does show a decline from 2006-2008, the long-term increasing trend is still quite strong, because 2006 was a significantly high year. Additionally, the 2008 count included 47 counties, which was a new high for the number of counties included in the Illinois spring bird count, meaning that the number of birds counted (134) were spread over more total party hours. The number of counties from which the species is known to breed within Illinois has also increased significantly over the last 30+ years. From the period of 1975 – 2008, the number of counties where nesting occurs has risen from one to 67 counties (Figures 2a-2d and Appendix; Bowles et al. 1981, Herkert 1992, Nyboer et al. 2006, Illinois Natural Heritage Database 2009).

Over-wintering population data

The use of winter counts for assessing status of breeding populations is not straightforward. Weather conditions greatly influence the number of eagles observed on winter counts. In addition, we know that in general young eagles go farther south in winter than adults. In a harsh winter, or on a particularly cold or bad weather day during winter, this trend may be exacerbated. A further complication is that most of the eagles in Illinois in winter are migrants that breed in the upper Great Lakes region. For these reasons, winter count data is used in conjunction with breeding season count and nesting data, rather than as a stand-alone data set, to estimate overall population status. In this context, winter surveys are showing good numbers of immatures, indicating a healthy age structure of ~32% immatures based on 2003-2005 Midwinter Bald Eagle Count Data from Illinois (Steenhof, et al. 2008) and ~38% immatures based on 2009 Illinois Midwinter Bald Eagle Count Data (Susan Shaw, pers. comm. 2009).

MONITORING

The species' status will continue to be monitored and reviewed post-delisting.

OTHER PROTECTIONS IN PLACE

The bald eagle remains protected under the following state and federal laws:

Illinois Wildlife Code (520 ILCS 5/) provides protections against taking, possessing, selling, or offering for sale bald eagles, and other specified wild birds and mammals (dead or alive), and parts of these same animals (including their nests and eggs).

The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take,

possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

Migratory Bird Treaty Act of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) as amended by: Chapter 634; June 20, 1936; 49 Stat. 1556; P.L. 86-732; September 8, 1960; 74 Stat. 866; P.L. 90-578; October 17, 1968; 82 Stat. 1118; P.L. 91-135; December 5, 1969; 83 Stat. 282; P.L. 93-300; June 1, 1974; 88 Stat. 190; P.L. 95-616; November 8, 1978; 92 Stat. 3111; P.L. 99-645; November 10, 1986; 100 Stat. 3590 and P.L. 105-312; October 30, 1998; 112 Stat. 2956. The Migratory Bird Treaty Act decreed that all migratory birds and their parts (including eggs, nests, and feathers) were fully protected. The Migratory Bird Treaty Act is the domestic law that affirms, or implements, the United States' commitment to four international conventions (with Canada, Japan, Mexico, and Russia) for the protection of a shared migratory bird resource. Each of the conventions protect selected species of birds that are common to both countries (i.e., they occur in both countries at some point during their annual life cycle).

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United States Fish and Wildlife Service. 2008. Bald eagle breeding pairs 1990 – 2006. Available on-line at http://www.fws.gov/midwest/eagle/population/nos_state_tbl.html (Accessed 02/07, 03/08, 12/08)

Figure 1a

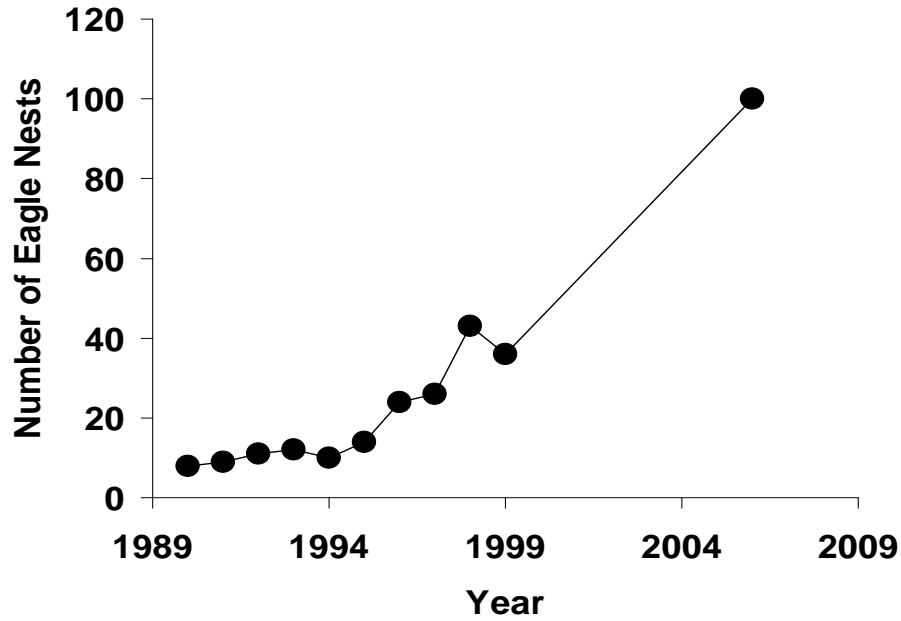
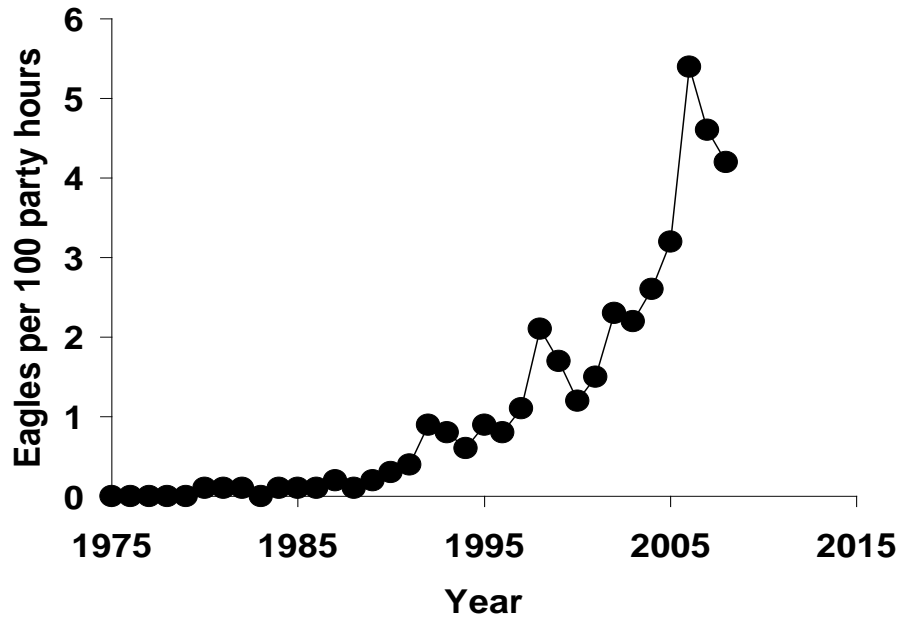


Figure 1b



Figures 1a and 1b. The number of bald eagle breeding pairs in Illinois, 1990-2006 (1a) and the number of bald eagles recorded on the annual Illinois Spring Bird Count, 1975-2008 (1b).

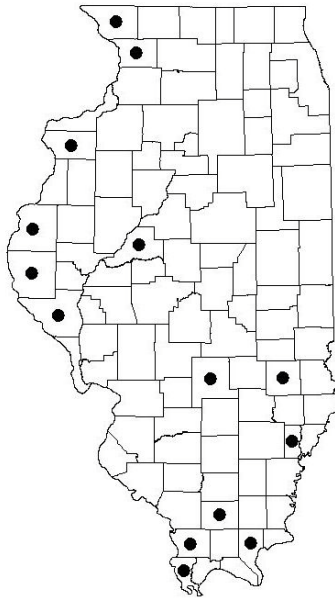
Figure 2a



Bald eagle county nesting occurrences 1975 – 1980 (1 county)

Source: Bowles, M.L., V.E. Diersing, J.E. Ebinger, and H.C. Schultz, editors. 1981. Endangered and Threatened Vertebrate Animals and Vascular Plants of Illinois. Illinois Department of Conservation. 187 pp. + Appendices.

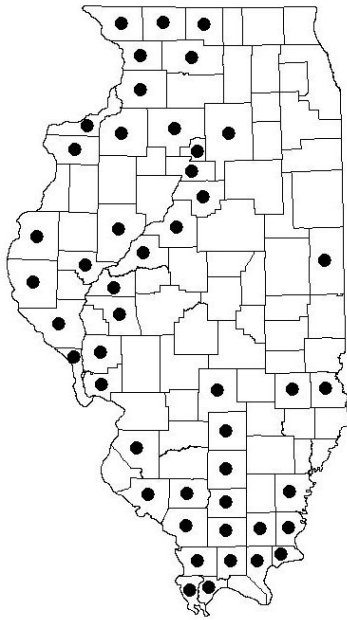
Figure 2b



Bald eagle county nesting occurrences 1981 - 1992 (14 counties)

Source: Herkert, J.R. editor. 1992. Endangered and Threatened Species of Illinois: Status and Distribution, Volume 2 – Animals. Illinois Endangered Species Protection Board, Springfield, Illinois. 142 pp.

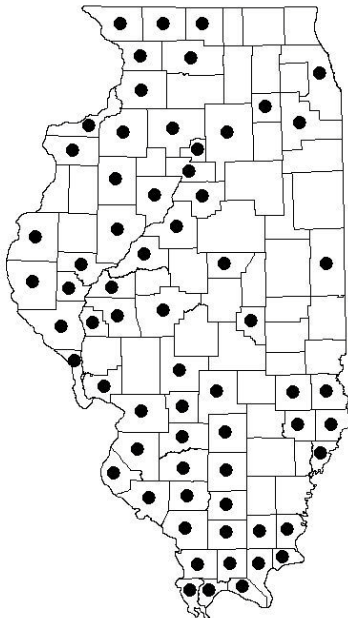
Figure 2c



Bald eagle county nesting occurrences 1995 - 2006 (47 counties)

Source: Nyboer, R.W., J.R. Herkert, and J.E. Ebinger, editors. 2006. *Endangered and Threatened Species of Illinois: Status and Distribution, Volume 2 – Animals*. Illinois Endangered Species Protection Board, Springfield, Illinois. 181 pp.

Figure 2d



Bald eagle county nesting occurrences as of 1997 - 2008 (67 counties)

Source: Illinois Natural Heritage Database (Biotics Conservation Database). Illinois Department of Natural Resources. Springfield, Illinois. (Accessed 04/09.)

Figures 2a-2d. The number of counties in Illinois with bald eagle nesting for the periods of 1975-1980 (2a), 1981-1992 (2b), 1995-2006 (2c), and 1997-2008 (2d).

Appendix. Summary of Bird Records from the Natural Heritage Database used in the 2008 List review

TABLE LEGEND (data table is on the following page)

- (Column 1) **Species** Common Name
- (Column 2) **Status**; E = endangered, T = threatened; CET = changed from Endangered to Threatened last list revision; AT= added as Threatened last list revision.
- (Column 3) **EOR97** - the number of Element Occurrence Records (EORs) in the Natural Heritage Database, maintained by the Illinois Department of Natural Resources, for the period 1997-2007. An EOR is roughly equivalent to a breeding location for one or more pairs.
- (Column 4) **EOR90** - the number of Element Occurrence Records (EORs) in the Natural Heritage Database, for the period 1990-2001.
- (Column 5) **EOR85** - the number of Element Occurrence Records (EORs) in the Natural Heritage Database, for the period 1986-1997.
- (Column 6) **EOR80** - the number of Element Occurrence Records (EORs) in the Natural Heritage Database, for the period 1981-1992.
- (Column 7) **Co81** - Number of counties in which the species was known to breed as of 1981.
- (Column 8) **Co91** - the number of counties with recent (>1980) breeding records as of 1991.
- (Column 9) **Co96** - the number of counties with recent (>1985) breeding records as of 1996.
- (Column 10) **Co01** - the number of counties with recent (>1990) breeding records as of 2001.
- (Column 11) **Co07** - the number of counties with recent (>1997) breeding records as of 2007.

Table 1. SUMMARY OF BIRD RECORDS FROM THE NATURAL HERITAGE DATABASE

Species	Status ^a	EOR97	EOR90	EOR85	EOR80	Co81	Co91	Co96	Co01	Co07	
American bittern	E		3	5	2	3	4	5	2	4	3
Bald eagle	T		163	114	49	21	1	12	23	41	67
Bewick's wren	E		1	2	3	4	2	9	3	2	1
Black rail	E		2	1	1	0	1	2	1	1	2
Black tern	E		12	25	24	17	3	4	4	4	5
Black-crowned night-heron	E		39	33	31	14	5	11	14	14	11
Cerulean Warbler	T (AT)		9	*	*	*	*	*	*	*	10
Common barn-owl	E		23	22	18	8	*	9	11	16	17
Common moorhen	T		29	56	53	35	2	15	18	16	13
Common tern	E		3	2	1	1	1	1	1	1	1
Forster's tern	E		4	3	3	1	1	1	1	2	2
Greater prairie-chicken	E	6	6	3	13	4	3	3	6	5	
Henslow's sparrow	T (CET)		61	53	24	15	2	13	14	24	39
King rail	E		7	12	10	*	*	*	8	7	7
Least bittern	T		35	56	32	15	11	12	17	22	21
Least tern	E		11	6	4	3	3	2	3	3	5
Little blue heron	E	6	6	5	3	1	3	3	3	4	
Loggerhead shrike	T		35	91	126	70	38	59	54	41	31
Mississippi kite	E	10	11	21	19	2	7	9	9	8	
Northern harrier	E	10	19	15	14	2	12	11	13	10	
Osprey	E		6	3	2	1	0	1	2	3	7
Peregrine falcon	T (CET)		17	10	7	1	0	1	2	4	3
Piping plover	E		0	0	0	0	0	0	0	0	0
Sandhill crane	T		39	63	32	14	0	3	7	8	9
Short-eared owl	E	5	11	7	10	2	7	6	8	4	
Snowy egret	E		1	1	3	2	1	2	3	1	1
Swainson's hawk	E		7	4	6	3	1	1	2	2	2
Swainson's warbler	E		1	2	2	1	4	1	2	2	1
Upland sandpiper	E		17	24	35	36	29	25	23	20	17
Wilson's phalarope	E		2	0	0	1	1	1	0	0	2
Yellow-crowned night-heron	E		10	8	4	*	*	*	3	7	8
Yellow-headed blackbird	E		30	66	68	39	4	10	12	12	11

^a Status changes in 2004, AT = added as Threatened, CET = changed from Endangered to Threatened.