

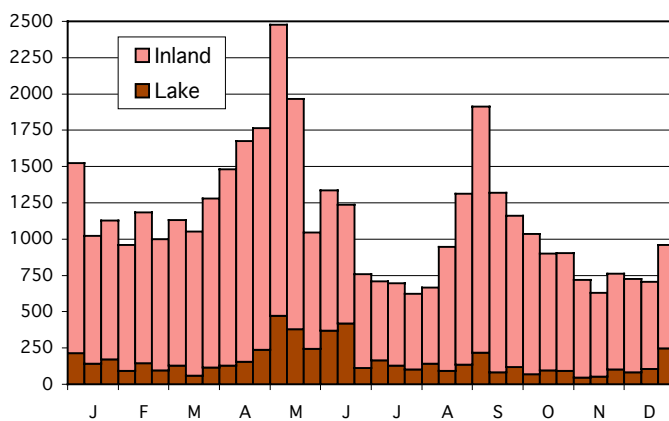
## Northern Cardinal

## *Cardinalis cardinalis*

### Historical Information

**First Published Record:** The earliest Northern Cardinal record found described a nest with fresh eggs in Johnson County 20 May 1883 (Butler 1898), but Indiana's official state bird was certainly present in the state long before this date.

Butler (1898) considered the Cardinal very common from southwestern Indiana northward to Warren County and locally rare northward. At that time it had not been reported in Lake County. Keller et al. (1979) deemed it a common resident in the north and abundant elsewhere. Without specifying abundance Mumford and Keller (1984) noted that after 1900 Cardinal numbers increased in northern Indiana.



### Current Status

The Northern Cardinal is a Very Common (3) permanent resident.

### Occurrence

This handsome species is prevalent throughout Indiana's residential and suburban areas. It has been recorded in every county and is among Indiana's most popular birds. In winter Cardinals congregate in flocks of ten to twenty birds and often linger near feeders. It is well known that Cardinals have been expanding northward over the past 150 years. Halkin and Linville (1999) offer the following as probable explanations for this expansion: warmer climate, increased edge habitat due to human activities, and winter feeding stations.

### Migration

Although the interesting pattern shown in the migration histogram suggests migration, it might also be attributed to increased birder activity during the songbird flights. Indeed, the very question of whether Cardinals migrate is problematic. Based on Segal's (1960) report of two dead Cardinals in the enormous 16 April 1960 storm kill on Lake Michigan, Mumford and Keller (1984) concluded that at least some birds move northward from Indiana. In addition, Peterjohn

### Status

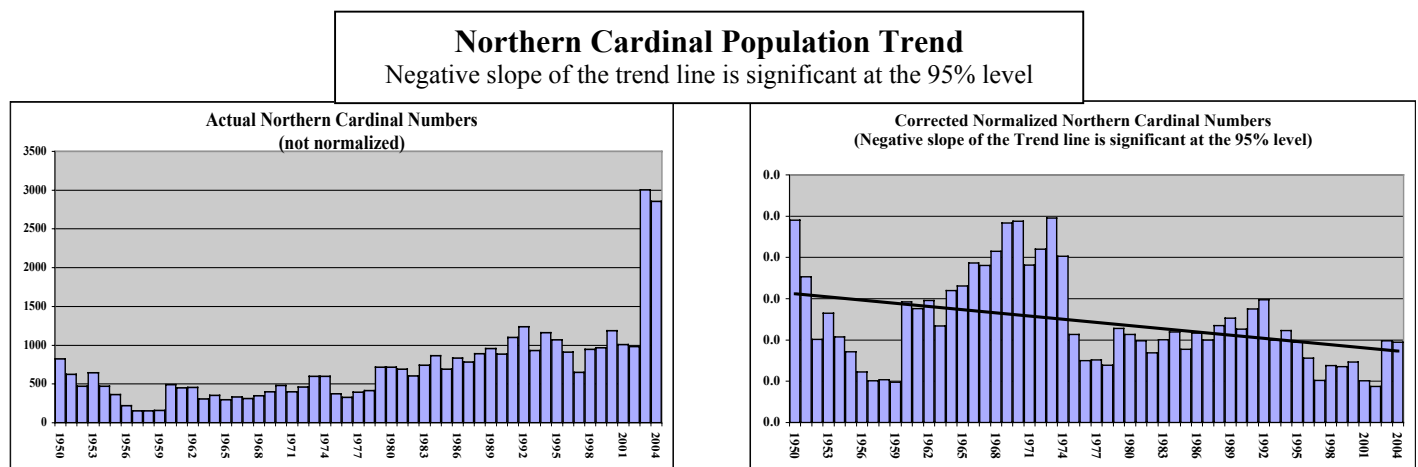
**Physical Evidence:** Some 31 specimens, plus eggs and nests, are preserved in museums (S.F. Jackson unpublished list and J.B. Dunning unpublished computer list).

STATUS TABLE				
Specimens				
Museum				No.
Carnegie Museum of Natural History				3*
Chicago Academy of Sciences				1*
Chicago Field Museum				6
National Museum of Natural History				19*
Milwaukee Public Museum				2
Purdue Univ. Wildlife Laboratory				16
Univ. of Michigan Museum				13*
Denver Museum of Natural History				1
*Includes eggs or nest and eggs				
20-Year Abundance Table				
	Win	Spr	Sum	Fall
Northern Tier	4	3	4	3
Central Tier	3	3	4	3
Southern Tier	3	3	4	4
Entire State	3	3	3	3

(2001) cites Cardinal migrations over western Lake Erie in April-May and again in September-October. However, based on the analysis of banding data Halkin and Linville (1999) reported that 90 percent of all banded birds found dead were within the same ten minute block in which they were banded. They further suggested that possible migrations “may be accounted for by dispersing juveniles.”

### Population Trend

The statistically significant negative slope of the trend line is surprising as this species appears to be flourishing at backyard feeding stations. Breeding Bird Survey data suggest a statistically non-significant increase of 0.1 percent annually between 1966 and 2004 (North American Breeding Bird Survey web page). Christmas Bird Count data also indicate an increasing trend. The band of high values between 1960 and 1974 on the normalized plot, represents a large number of banding records. If all banding records are deleted the trend line becomes slightly positive. Consequently, the negative trend shown below appears to represent sampling bias.



### **Breeding**

Castrale et al. (1998) reported breeding evidence in more than 99 percent of the state’s 647 priority blocks. Mumford and Keller (1984) listed egg dates from 10 April through 1 September, but noted young in the nest as late as 15 October.

### **Northern Cardinal Data**

Maximum Single Party Counts				
Entire Year				
Number	Date	Location	Observer	Ref.
100	29-Jan-1949	Geist Res.	H.F. Wright	REM
94	01-Jan-1989	Muscatatuck NWR	Ned Keller	NKE
80	01-Mar-1998	Muscatatuck NWR	Neill Cade	NKE
74	09-Jun-2004	S.E. Indiana	B.K. Jackson	BKJ
71	11-May-2002	Potato Cr. S.P.	J.K. Cassady	INB
61	05-Feb-2004	Wabash Co	Steve Doud	INB

## References Cited

Butler, A. W. (1898) The Birds of Indiana, Indiana Department of Geology and Natural Resources Annual Report, 22:575-1187.

Castrale, J.S., E.M. Hopkins, and C.E. Keller (1998) Atlas of breeding Birds of Indiana, Indiana Department of Natural Resources, 388 pp.

Halkin, S.L. and S.U. Linville (1999) *The Birds of North America*, No. 440.

Keller, C.E., S.A. Keller, and T.C. Keller (1979) *Indiana Birds and Their Haunts*, Indiana University Press, Bloomington, Ind. 214 pp.

Mumford, R.E. and C.E. Keller (1984) *The Birds of Indiana*, Indiana University Press, Bloomington, Ind. 376 pp.

Peterjohn, B.G. (2001) *The Birds of Ohio*, Wooster Book Co., OH, 638pp.

Segal, S. (1960) Bird Tragedy in the Dunes, *Indiana Audubon Quarterly*, 38:23-25.