

## **Survey of Nesting Raptors in Northeastern Indiana**

GARY L. TIEBEN  
Saint Francis College  
Fort Wayne, Indiana 46808

### **The Study Area**

Areas within the twelve northeastern Indiana counties of Elkhart, LaGrange, Steuben, Kosciusko, Noble, DeKalb, Whitley, Allen, Wabash, Huntington, Wells and Adams were surveyed for raptors (birds of the orders Falconiformes and Strigiformes). The topography of this region varies from the steep knob and kettle terrain of Steuben county to the flat lands of Huntington and Wells counties.

These are primarily agricultural lands. Even Allen county, which has the greatest urban development, is over seventy percent agricultural land. In general, the more northern of these counties are more wooded, but all of them contain many second and third growth woodlots of various sizes.

### **The Study Method**

Twenty-seven sites were visited. These were: Acres along the Wabash Nature Preserve, Beechwood Nature Preserve, Lloyd W. Bender Nature Preserve, Chain-O-Lakes State Park, Crooked Lake Nature Preserve, Fogwell Forest Nature Preserve, Foxfire Wood, Fox Island Nature Preserve & County Park, Franke Park, Grider's Wood Nature Preserve, Hanging Rock Natural Area, Lindenwood Environmental Study Area, Mengerson Nature Reserve, Merry Lea Nature Preserve, Olin Lake Nature Preserve, Pigeon River State Fish & Game Area, Pokagon State Park, Potawatomi Nature Preserve, Albert D. Rodenbeck Nature Preserve, Ropchan Memorial Nature Preserve, Ropchan Wildlife Refuge Nature Preserve, Salamonie State Forest, Edna W. Spurgeon Nature Preserve, Tamarack Bog Nature Preserve, Quabache Recreation Area, Huntington Reservoir Recreation Area, and private properties in various counties. They varied in size from the one-half acre Hanging Rock Natural Area to the 9,136 acre Pigeon River State Fish and Game Area. The survey technique consisted of walking through the prime habitat in a given site, looking for nests and areas of concentrated excrement, and listening for calls of adults or young birds. This technique allowed for good coverage of small to medium (100 acre) sites. In the large sites, such as the Pigeon River Fish and Game Area, Pokagon State Park, or Chain-O-Lakes State Park, individual wooded areas were surveyed, but the entire site was not. Whenever possible, park naturalists, state biologists, or local bird watchers were consulted about the current status of nesting raptors. These people were also able to provide information about past (1972-1983) nesting records.

Enroute to the survey sites, the areas along the highways were scanned for nesting raptors. The nest of buteonine hawks on private lands were often located in this way. These techniques were most effective for locating stick nests. Hole nests were much more difficult to find; hence, they were probably often missed.

### **The Historic Record**

The raptors have not been intensively studied in the past. In 1898 Butler reported on the entire state of Indiana, as did Mumford and Keller in 1975 and Keller, et al. in 1979. The only detailed study of northeastern Indiana was made by Price (1939,

1962) who entered many Indiana counties while studying the birds of northeastern Ohio from 1915 to 1962. Table 1 lists the raptors reported as nesting in northeastern Indiana by Butler in 1898; by Price in 1915-1962; and the present study.

TABLE 1. *Raptor nesting records for northeastern Indiana.*

| Species             | Years |           |           |
|---------------------|-------|-----------|-----------|
|                     | 1878  | 1915-1962 | 1972-1983 |
| Turkey Vulture      |       | X         | X         |
| Osprey              | X     |           |           |
| Bald Eagle          | X     | X         |           |
| Northern Harrier    | X     | X         | X         |
| Cooper's Hawk       | X     | X         | X         |
| Sharp-shinned Hawk  | X     |           |           |
| Red-shouldered Hawk | X     | X         | X         |
| Broad-winged Hawk   |       | X         | X         |
| Red-tailed Hawk     | X     | X         | X         |
| American Kestrel    | X     | X         | X         |
| Barn Owl            | X     | X         |           |
| Eastern Screech Owl | X     | X         | X         |
| Great Horned Owl    | X     | X         | X         |
| Barred Owl          | X     | X         | X         |
| Saw-whet Owl        | X     |           |           |
| Long-eared Owl      | X     | X         | X         |
| Short-eared Owl     | X     | X         |           |
|                     | 15    | 14        | 11        |

In 1898 fifteen raptors were reported as nesting in the survey area. These included the Bald Eagle, the Barn Owl, and probably the Osprey. Butler (1898) reported that the Osprey was found in Steuben, LaGrange, and DeKalb counties in 1890-91 and that it bred throughout its range. Clark and Sipe (1967) reported that Ospreys nested near Lake St. Mary's, Ohio (40 miles east) in the same time period, 1867-1913.

Price (1939, 1962) found fourteen nesting raptors. He did not report the Osprey, the Sharp-shinned Hawk, or the Saw-whet Owl, but added the Turkey Vulture and Broad-winged Hawk.

### Results and Conclusions

Nesting records for northeastern Indiana were compiled from my field notes and those of other observers (see acknowledgements below). These records indicated that in the eleven year period 1972-1983 eleven species of raptors nested in northwestern Indiana. The Bald Eagle, Osprey, Sharp-shinned Hawk, Barn Owl, Saw-whet Owl and Short-eared Owl, which nested in early years, were not recorded in this survey. The Northern Harrier was reported as a current breeding bird, but the most recent nest was seen in 1982.

A decline in the number of nesting raptor species in the region can be seen in Table 1. In addition, it is probable that the numbers of raptorial birds in the region have decreased. Of the seventeen species reported as nesting in northeastern Indiana, only the Red-tailed Hawk and American Kestrel were reported as commonly seen in recent years by Tieben, et al. (1978). The Eastern Screech Owl and the Northern Harrier were reported as fairly common. The Northern Harrier is now an uncommon bird in this region, as are the Cooper's Hawk, Red-shouldered Hawk, Broad-winged Hawk, Great Horned Owl, and Barred Owl; the Long-eared Owl is very rare. Therefore, the species nesting in northeastern Indiana may be expected to continue to decline.

### Acknowledgments

This study was supported by a Title III Faculty Development Grant. I thank Lee Casebere, Eric Helfrich, Mark Weldon, Pete Siminski, and Nick Zacchi for providing nesting records.

### Literature Cited

1. Butler, A. W. 1898. Birds of Indiana. 22nd Ann. Rept. Ind. Dept. Geol. and Natural Resources. pp: 515-1187.
2. Clark, C. F. and J. P. Sipe. 1967. Birds of the Lake St. Mary's Area. Ohio Dept. Natural Resources Pub. 350. p. 93.
3. Keller, C. E., S. A. Keller and T. C. Keller. 1979. Indiana birds and their haunts. Ind. Univ. Press. Bloomington.
4. Mumford, R. E. and C. E. Keller. 1975. An annotated list of Indiana birds. Ind. Aud. Quart. 53: 28-59.
5. Price, H. F. 1962. The Nesting Birds of northwestern Ohio. Mimeo. 36 p.
6. \_\_\_\_\_. 1939. Hawks and owls of northeastern Indiana. Ind. Aud. Yearbook. 17: 33-41.
7. Tieben, G. L., L. A. Casebere, M. A. Weldon and J. A. Haw. 1978. A checklist of the birds of northeastern Indiana with migration dates. Ind. Aud. Quart. 56: 141-156.

