



OHIO BARN OWL POPULATION STATUS

December 2019

Introduction

Barn owls (*Tyto alba*) rely on grasslands and openlands to forage on a variety of small mammals (Marti 1992). Nests of barn owls are located in cavities, readily using hollow trees or man-made structures close to grasslands required for foraging (Marti 1992). In Ohio, barn owls have declined in recent decades due to changes in agricultural practices and land use (Colvin 1985). Currently, the barn owl is listed as threatened within the state of Ohio. As such, a plan was established to recover the barn owl in Ohio.

In 2013, the Ohio barn owl conservation plan was updated to set population objectives and establish a monitoring scheme in order to assess population size and distribution. Population goals from the plan are an average of 100 active nests sustained for at least three years distributed among an average of 40 townships, preferably maintained and monitored by volunteers. If these population goals are met, then down-listing from threatened status may be considered. Additional reports from the public are encouraged in order to increase the number of known barn owl nests and increase surveillance.

Methods

The updated plan placed barn owl nest boxes in targeted townships to obtain greater spatial distribution of nest boxes. To ensure nest boxes were placed in areas with appropriate habitat, townships with more than 25% grassland cover were identified using the 2006 National Land Cover Dataset (Figure 1). Nest boxes were installed, checked, cleaned, and maintained during the winter by Division of Wildlife staff and volunteers. Staff members also report if nest boxes have evidence of a nest from the previous season and if there is evidence of barn owls in the vicinity. Volunteers and members of the public also contributed active nest locations to Division of Wildlife staff and were added to the total number of nests.

Results

Through the winter of 2019, Division of Wildlife staff members have installed barn owl nest boxes in 122 of 130 identified target townships (93.8% of target townships), many of which are maintained by private landowners and volunteers. In 2019, Division of Wildlife staff and coordinating partners monitored 100 boxes and found evidence of seven nests from the 2018 nesting season. Volunteers reported 54 nests during 2018. There were 61 total known nests in 31 townships in Ohio in 2018 (Figure 1).

Discussion

Numbers of known barn owl nests are still below population goals established in the 2013 conservation plan; therefore, no recommendation to change the species' threatened status is warranted at this time. Due to Division of Wildlife staff efforts and private landowners willing to host barn owl nest boxes, a large proportion of target townships host boxes. Additionally, volunteer efforts and nests located by the public greatly increased nest numbers during the 2018 nest season.

Continued monitoring and maintenance of the barn owl nest boxes by Division of Wildlife staff will be critical to assessing its status relative to population goals. Divisions of Wildlife staff members have made great efforts to distribute barn owl boxes throughout the target townships. Many landowners have been willing to assist staff by maintaining boxes and reporting use to district staff, reducing staff time dedicated checking, cleaning, and maintaining barn owl nest boxes. Continuing to encourage the public to continue to place barn owl nest boxes on private property and report nesting activity will increase the Division of Wildlife's ability to monitor Ohio's barn owl population.

Literature Cited

- Colvin, B.A. 1985. Common barn owl population decline in Ohio and the relationship to agricultural trends. *Journal of Field Ornithology* 56:224-235.
- Marti, C.D. 1992. Barn owl (*Tyto alba*). *The Birds of North America*, no 1. The American Ornithologists' Union, Washinton D.C., USA, and The Academy of Natural Sciences, Philadelphia, Pennsylvania, USA.

Figure 1. Townships in Ohio (green) with at least one known nest during the 2018 breeding season.

