



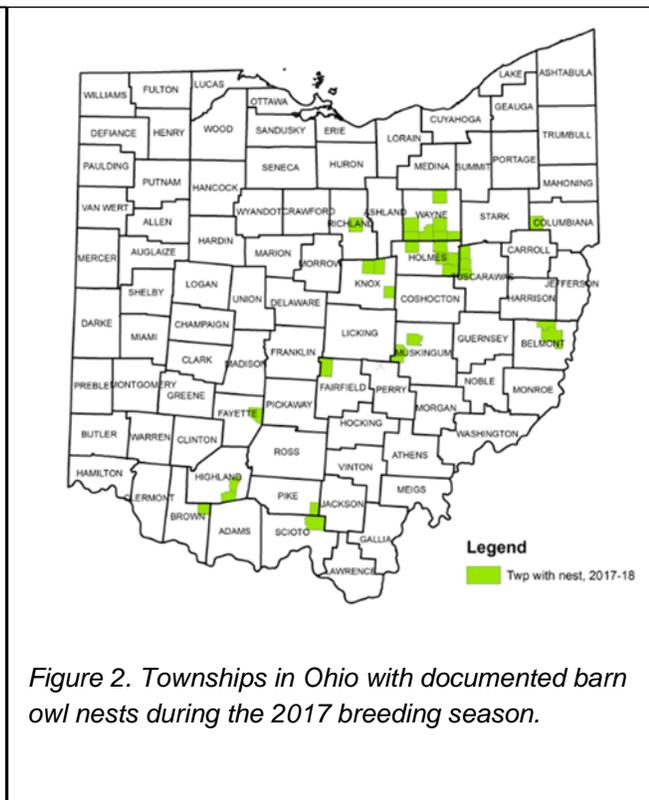
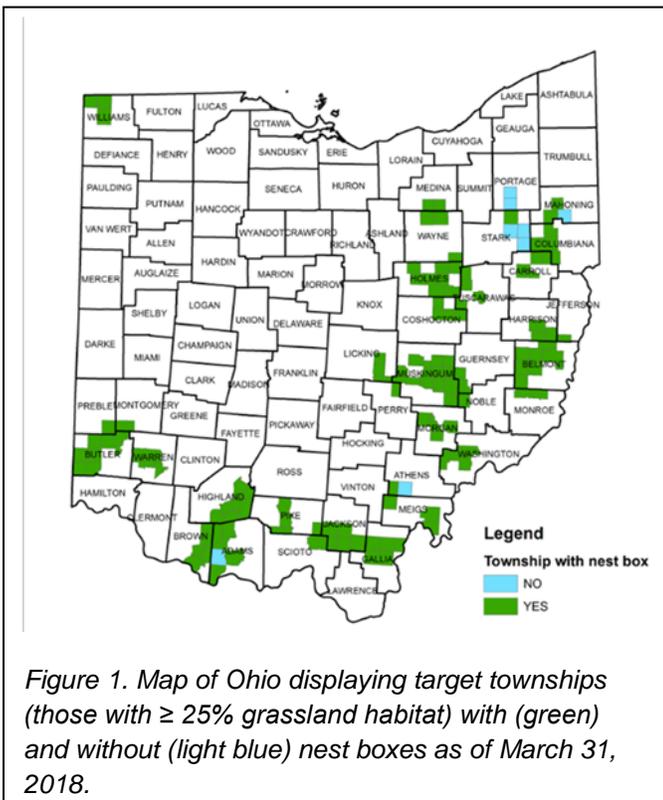
2017-18 OHIO BARN OWL POPULATION STATUS

April 2018

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, hollow trees, or man-made structures close to grasslands (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.

The updated plan placed barn owl nest boxes in targeted townships for greater spatial distribution of nest boxes. To ensure nest boxes were placed in areas with appropriate habitat, townships with $\geq 25\%$ 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 Ohio Department of Natural Resources (ODNR) Division of Wildlife staff and volunteers. Staff members report if nest boxes exhibit signs of a nest from the previous season and if there is evidence of barn owls in the vicinity. Volunteers and members of the public provided additional active nest locations to ODNR Division of Wildlife staff which were added to the total number of nests.



Through the winter of 2018, ODNR Division of Wildlife staff members have installed barn owl nest boxes in 122 of 130 identified target townships (93.8% of target townships; Figure 1), many of which are maintained by private landowners and volunteers. In 2018, ODNR Division of Wildlife staff monitored 100 boxes and found evidence of 12 nests from the 2017 nesting season (Table 1). Volunteers reported an additional 63 nests during 2017 (Table 1). There were 73 total known nests in 31 townships in Ohio in 2017 (Figure 2). Other species using barn owl boxes included rock pigeons, European starlings, American kestrels, unidentified birds, squirrels, and honey bees.

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 ODNR 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 reported nest numbers during the 2017 season.

Continued monitoring and maintenance of the barn owl nest boxes by ODNR Division of Wildlife staff will be critical to assessing its status relative to population goals. Many landowners have been willing to assist staff by maintaining boxes and reporting use to district staff, reducing staff time dedicated to checking, cleaning, and maintaining barn owl nest boxes. Continuing to encourage the public to place barn owl nest boxes on private property and report nesting activity will increase the ODNR 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.

| Year | Checked | Occupied | Other Reported Nest |
|---------|---------|----------|---------------------|
| 2012-13 | 17 | 6 | - |
| 2013-14 | 123 | 33 | - |
| 2014-15 | 11 | 1 | - |
| 2015-16 | 16 | 3 | - |
| 2016-17 | 94 | 10 | 67 |
| 2017-18 | 100 | 12 | 64 |

Table 1. The number of barn owl nest boxes occupied and checked by ODNR Division of Wildlife staff during the winter, as well as the number of nests monitored by volunteers and reported to staff.