

Barn Owl

Tyto alba

Guidelines for Landowners Using Conservation Practices

Missouri Department of Conservation

Common name ▪ Barn Owl
Scientific name ▪ *Tyto alba*
State status ▪ Endangered
Federal status ▪ None

Ecology

Barn owls are nearly world-wide in their distribution and present on every continent except Antarctica. They are rare breeders throughout appropriate grassland habitats in Missouri, but are largely absent from the Ozarks. They are most common in the Bootheel and in the Osage Plains in west-central Missouri. Barn owls prefer warm climates and grasslands, and rely on open fields for hunting, which they do at night. They prey mainly on small rodents. Barn owls live two to four years on average, and they usually breed once or twice a year. Normally, breeding begins in March and females lay four to seven eggs that start hatching in May. Barn owls use both natural and manmade nesting sites, including tree cavities, cliff edges, barns, silos, abandoned and occupied buildings, and chimneys. Raccoons and great horned owls commonly prey on barn owls.

Barn owls have a high reproductive potential due to large clutch sizes, second broods per year, reaching sexual maturity after 1 year, lack of strict territoriality, and occasional polygyny. Therefore, successful population management can boost population size when prey is available and weather conditions are favorable.

Reasons for Decline

As agriculture opened up the eastern forests of the United States in the 1800s, the range of the barn owl expanded. However, as plowing and urbanization of grasslands continued, populations

declined in the Midwest. Commercial farmland development, reduction in the number of dairy and sheep farms, increased use of row-crop farming, and the destruction of old farm structures resulted in loss of important foraging and nesting habitat. In addition, large numbers of barn owls are killed every year by vehicle collisions in high concentrations areas, mostly in other states.



Photo Credit: Missouri Department of Conservation

Recommendations

Barn owls benefit from restricting human use of foraging habitat and maintenance of cropland and grasslands, as do other grassland species. Any open areas such as native prairie, pastures, cropland, native grass plantings, and marshes should be maintained. If possible, maintaining grassy areas without removing essential ground cover for meadow voles and other prey is beneficial. Human disturbance of nesting sites should be restricted during nesting and breeding. The use of rodenticides and insecticides should be avoided around nesting sites.

Refer to Management Recommendations for Construction Projects Affecting Missouri Wetlands and Management Recommendations for Conserving Native Prairie in Missouri for additional guidelines.

Consider the balance between adverse and beneficial practices when determining the overall effect of a conservation practice.

Beneficial Practices

- Restore or maintain open areas with a diverse mixture of native warm-season grasses and forbs or with a mix of wildlife-friendly cool-season grasses, such as redbud or timothy, mixed with legumes. Native prairie should be maintained or restored whenever possible.
- No-till farming methods and maintaining crop residue over winter.
- Develop and maintain edge habitat, early successional forest or other similar habitats through edge feathering, temporary forest openings, shrub plantings or other similar practices.
- Controlling invasive plants in habitats where this species occurs.
- Install and maintain barn owl nest boxes in or on buildings to provide alternative nesting sites.

Telephone: 800-361-4827 / 573-751-1300
<http://www.dnr.mo.gov/env/index.html>

U.S. Environmental Protection Agency
 Water, Wetlands, and Pesticides Division
 901 North 5th Street
 Kansas City, KS 66101
 Telephone: 913-551-7003 / 800-223-0425
<http://www.epa.gov/region7/>

U.S. Fish and Wildlife Service
 Ecological Services Field Office
 101 Park DeVille Dr., Suite A
 Columbia, MO 65203
 Telephone: 573-234-2132
<http://www.fws.gov/midwest/partners/missouri.html>

Adverse Practices

- Unmanaged application of pesticides, animal waste or fertilizers that destroy or degrade habitats that support populations of this species.
- Application of rodenticides in nesting areas.
- Destruction or degradation of prairies or open fields.
- Degrading or destroying permanent, emergent wetland habitat.
- Unmanaged grazing of livestock.
- Establishing invasive vegetation, such as tall fescue, Bermuda grass or Caucasian bluestem on sites or nearby where it could spread into the native plant community, and thus degrade or destroy habitat for this species.

Legal

The Missouri Department of Conservation prepared these guidelines for conservation practices with assistance from other state agencies, contractors, and others to provide guidance to those people who wish to voluntarily act to protect wildlife and habitat.

Compliance with these management guidelines is not required by the Missouri wildlife and forestry law or by any regulation of the Missouri Conservation Commission. Other federal, state or local laws may affect construction practices.

“State Endangered Status” is determined by the Missouri Conservation Commission under constitutional authority, and specific requirements for impacts to such species are expressed in the Missouri Wildlife Code, rule 3 CSR 10-4.111.

Information Contacts

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<http://www.mdc.mo.gov/nathis/endangered/>

Missouri Department of Natural Resources
 Division of Environmental Quality
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