

# Northern Harrier

*Circus cyaneus*

## Guidelines for Landowners Using Conservation Practices

Missouri Department of  
Conservation

Common name ▪ Northern Harrier  
Scientific name ▪ *Circus cyaneus*  
State status ▪ Endangered  
Federal status ▪ None

### Ecology

In Missouri, northern harriers are a rare and local breeder..often They nest (sometimes in loose colonies) fairly late in the season on dry ground in undisturbed marshes, prairies, and pastures, or on elevated ground in low shrubby vegetation, tall weeds, or reeds. They have been observed nesting in dense patches of blackberry in undisturbed prairie. Incubation lasts from 30 to 32 days, and young are fledged about 5 weeks later. Northern harriers are also a common migrant in Missouri from February to May and again from September to November frequenting open fields, prairies, native grass plantings, and shallow marshes. Northern harriers are between 16.5 to 24 inches in length with a wingspan of 42 inches. They perch on the ground or on stumps or posts; and forage for small mammals, birds, large insects (especially grasshoppers), snakes, lizards, toads, frogs, and carrion (in winter) over open terrain where there is good ground cover.

### Reasons for Decline

The number of northern harriers declined as a result of wetland drainage, conversion of native prairies to agriculture, reforestation of grasslands, and the untimely mowing or haying of grassland nesting areas. During the mid-1900s, northern harrier populations suffered great losses due to pesticide-related egg shell thinning and losses of wetland nesting habitat. Harriers have disappeared from many former nesting areas, especially in southern

parts of their range. Surveys suggest that they are still declining in parts of North America.



Photo Credit: [http://www.fnal.gov/ecology/wildlife/specs/Northern\\_Harrier.html](http://www.fnal.gov/ecology/wildlife/specs/Northern_Harrier.html)

### Recommendations

Northern harriers benefit from restricting human use of breeding habitat, maintenance of habitat through prescribed burning and delayed mowing, elimination or restriction of livestock grazing, retention of crop residue, planting and maintenance of native grassland, and restoration or development of wetlands. They require thick growth to conceal their nest location, which may explain the late nesting season. Northern harriers prefer to nest in rank herbaceous fields and tend to avoid frequently mowed, hayed or heavily grazed fields for nesting. Project activity in potential northern harrier habitat should avoid disturbance of nest sites and should protect potential breeding habitat. Promote land management activities that restore or maintain native grassland or open land habitat.

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

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- Restore or maintain areas with a diverse mixture of native warm-season grasses and forbs or with a mix of wildlife-friendly cool-season grasses, such as redtop or timothy, mixed with legumes. Native prairie and wetlands should be maintained or restored whenever possible.
- Create or maintain permanent wetland or marshes.
- Removal of trees from prairies, grasslands or croplands to restore open vistas.
- Burn fields if needed to control heavy litter accumulation or brush invasion on a three-five year interval rotation; burning should be done prior to March 15 or after July 15. Avoid impacting greater than 75% of the practice acres annually.
- Controlling invasive plants in habitats where this species occurs.
- No-till farming methods and maintaining crop residue over winter.
- Implement a patch burn grazing system or prescribed grazing system on native prairie or other wildlife-friendly grasslands where this species occurs. For a prescribed grazing system to benefit this species, grasslands should be managed for greater plant diversity and heterogeneous stands of vegetation.

#### **Adverse Practices**

- Destruction, degradation or fragmentation of wetlands, marshes, prairies or open fields.
- When prescribed burning, mowing, haying or other disturbances occur on grassland acres between May 1 and July 15 and more than 75% of the practice acres are disturbed.
- Establishing invasive vegetation, such as tall fescue, sericea lespedeza, 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.
- 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.
- Unmanaged grazing of livestock.

#### **Information Contacts**

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 Policy Coordination Section  
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 2901 W. Truman Blvd  
 Jefferson City, MO 65102-0180  
 Telephone: 573-751-4115

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

Missouri Department of Natural Resources  
 Division of Environmental Quality  
 P.O. Box 176  
 Jefferson City, MO 65102-0176  
 Telephone: 800-361-4827 / 573-751-1300

<http://www.dnr.mo.gov/env/index.html>

U.S. Fish and Wildlife Service  
 Ecological Services Field Office  
 101 Park DeVillie Dr., Suite A  
 Columbia, MO 65203  
 Telephone: 573-234-2132

<http://www.fws.gov/midwest/partners/missouri.html>

#### **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.