

Short-eared Owl



ASSESSING HABITAT QUALITY FOR PRIORITY WILDLIFE SPECIES IN COLORADO WETLANDS



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Short-eared owls (*Asio flammeus*, Family *Strigidae*) use both grasslands and wetlands for habitat. They hunt small mammals within the vegetation of wet meadows and marshes.

Species Description

Identification

At 15 inches long, the short-eared owl is considered a medium-sized owl. They hunt mostly at dawn and dusk and nest on the ground. They have a wide array of vocalizations, including a rapid *hoo-hoo-hoo-hoo-hoo-hoo* song.

Preferred Habitats

Short-eared owls use emergent marshes, playas, and wet meadows, where they sometimes hunt. Extensive grasslands may represent their most important habitat; therefore, the wetland habitats closest to large tracts of grasslands will be of highest value to short-eared owls.

Diet

The diet of short-eared owls consists almost entirely of small mammals, especially voles, mice, and shrews. Less frequently, they eat birds.

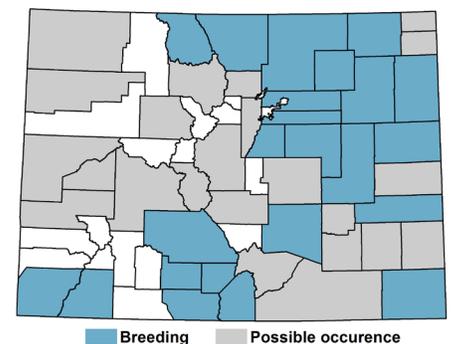
Conservation Status

Although populations of short-eared owls have significantly declined in many areas, including the United States and Canada, the International Union of Conservation of Nature identifies them as a species of least concern because the large global population and extensive range do not justify placing them in a more vulnerable category. In Colorado, they are listed as a Tier 2 Species of Greatest Conservation Need (CPW 2015).

Species Distribution

Range

Short-eared owls exist throughout much of the world. In Colorado, both their breeding distribution and migratory distribution appear sporadic, but in general, they are more common in the grasslands of eastern Colorado.



North America map used by permission from Birds of the World, published by Cornell Lab of Ornithology. Colorado map based on Andrews and Righter (1992), Boyle (1998), Ortega (2016), and CFO (2020).

Version Date: November 2020

Preferred Habitat Conditions

Dominant vegetation	grasses
Height of vegetation	<20 inches
Landscape context	mosaics of grasslands, agricultural fields, and preferred wetlands
Percent herbaceous cover	70–100%
Residual cover	2–8 years old and 40–60%
Size of habitat	>125 acres
Water depth	0 for nest sites

Management Recommendations

This fact sheet contains easy-to-use guidelines for understanding habitat needs of Colorado Parks and Wildlife priority wetland-dependent wildlife. Biologists with expertise in short-eared owls have suggested numerous practical steps that can be taken to improve habitat quality for this species.

Vegetation

- Mow, burn, or occasionally graze as appropriate to maintain 2–8 years of accumulation of residual vegetation.

Land Use

- Reduce amount of land continually grazed.
- Hang streamers from fences to avoid collisions.
- Remove unused fences.

Conservation

- Protect large open areas, especially native grassland.
- Preserve wetland/grassland mosaic on landscape scale.
- Use Conservation Reserve Program to protect habitat for nesting and foraging.



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Suggested Reading and Citations

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Habitat Scorecard for Short-eared Owl (v. Nov 2020)

Assessment of habitat before and after restoration or management actions

Project Name: _____ Project Area (acres): _____ Habitat Area (acres): _____

Size of Contiguous Habitat Outside Project Area (acres): _____ Ownership (circle): Same / Different / Conservation Easement

Scorecard Instructions: Enter one value that best describes early to mid-summer conditions of each habitat variable, using the numbers in the value column. Habitat variables are in shaded boxes; ranges of condition are directly below each variable. **If condition is outside range or is not described, enter a zero.**

Project Area and Habitat Area: The project area includes the entire area affected by the project. The habitat is the area that will provide (in case of pre-project) or does provide (post-project) habitat for each potential target species within the project area. The habitat area may be the same size as the project area or it might be smaller and it may be defined differently for different target species. If there is contiguous habitat area outside the project area, note the size and whether the ownership of the contiguous areas is the same or different and whether it is under conservation easement or other habitat protection. If the habitat area within your project area is noncontiguous and/or if sections are in very different conditions, consider using multiple scorecards so that each scorecard represents the general conditions. If you use multiple scorecards, identify each habitat area on a map.

Key habitat variable and conditions	Value	Pre-Project	Expected Post-Project	Actual Post-Project
Date of assessment				
Height of herbaceous vegetation				
8 – 20 inches	15.9			
>20 – 40 inches	10.6			
>40 inches	5.3			
Estimate of percent of grasslands or grasslands with some agriculture within 5 miles				
>35%	15.9			
<35%	5.3			
Percent herbaceous vegetation (e.g., grasses; do not include woody vegetation)				
>70 – 100%	15.9			
>50 – 70%	10.6			
30 – 50%	5.3			
Percent residual cover				
>40 – 60%	14.3			
>20 – 40%	9.5			
10 – 20%	4.8			
Size of habitat				
>250 acres	14.3			
>125 – 250 acres	9.5			
60 – 125 acres	4.8			
Dominant vegetation				
Grasses (tall and short)	11.9			
Open canopy trees <50% cover	7.9			
Predominant depth of water				
0 or dry nesting sites with residual cover available	11.8			
<1 inch	7.9			
1 – 8 inches	4.0			
Total (of 100 possible): add all numbers in before or after columns				