Northern Harrier



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Figure 1: Adult male Northern Harrier (*Circus hudsonius*) Credit: Tim Avery/Macaulay Library - http:// https:// www.allaboutbirds.org/guide/Northern Harrier/id#

Background

The Northern Harrier, also known as the Marsh Hawk, is one of Boulder County's most elusive species of special concern. They are a diurnal hawk, often found soaring above farmland, wetlands, and cattail marshes. They can be found in the Central Rockies region yearround but have been found as far south as Colombia and as far north as Alaska. Adult Northern Harriers rely on wide-open areas with tall standing vegetation to conceal their ground-level nests during the breeding season.



Species Description

Species: Northern Harrier (Circus hudsonius)

Identification: Northern Harriers have thin wings and a relatively long tail compared to their body length. Females and juveniles sport brown plumage on their uppers and tawny brown on their undersides (juveniles often show dark streaking on their breast). Males have light silver plumage and dark wingtips, by which they are often known as the "Gray Ghost." However, all Northern Harriers have a distinctive white rump patche and disc-shaped feathers on their faces (these feathers are for detecting prey by sound, much like an owl). Their foraging behavior consists of low, coursing flight in search of rodents, small birds, and reptiles hiding in the undergrowth. Their wings are often held in a soft "V" shape when flying.

Lookalikes: Species that are often confused with Northern Harriers include the smaller Cooper's Hawk and Sharp-shinned Hawk. These hawks can be differentiated from Northern Harriers by their lack of white rump patch and relatively short, rounded wings.

Habitat: Northern Harriers prefer wide-open habitat with lots of standing vegetation. These criteria can be found in several biomes, from the Arctic tundra to grassland prairies. Here in Boulder County, Northern Harriers are most often found near swampy cattail marshes, stealthily nesting in tall semiaquatic vegetation.



Credit: Samuel Denault/Macaulay Library - https://ebird.org/ species/norhar2

Distribution & Range



Threats

Northern Harriers are at high risk of regional extinction because of habitat loss. As wetland and savannah biomes are converted for agriculture and residential building, among other things, the Northern Harriers are losing valuable habitat to breed. Cattail ponds are also removed for aesthetic purposes, as they hold and stagnant water, causing a "stink" near apartment and housing complexes. As this standing vegetation is cut down, the Northern Harriers' eggs and young become extremely vulnerable to ground predators such as coyotes, raccoons, and snakes. Not only do the young become vulnerable, but the Northern Harrier's prey density dwindles from lack of habitat, causing the adults to go hungry.



Figure 4: Typical hunting strategy for Northern Harrier s low coursing flight with eyes and ears focused on prey below. Credit: Chris Jackson https://dfwurbanwildlife.com/2012/12/06/ chris-jacksons-dfw-urban-wildlife/northern-harrier-hover-hunting/



Figure 3: Female Northern Harrier guarding chicks in ground-level nest.

Credit: Anthony Mercieca at Science Photo Library https://www.sciencephoto.com/media/381814/view/ northern-harrier-at-nest-with-young

Management Considerations

Habitat preservation: Maintain areas of wetlands, including significant buffers to preserve critical breeding habitat. Wetland areas of considerable size are the most valuable, as harriers hide their nests deep within standing vegetation and rely on their nests being difficult to find by predators. In wetland areas of smaller size, leave as large a buffer as possible with tall, standing upland vegetation.

Prescribed burns: Do not burn during breeding season activities (April-August).

Manage grazing: Do not graze livestock in wetland areas during breeding season. If grazing outside of the breeding season, ensure that forage consumption levels allow for effective habitat to be present when breeding commences annually.

Climate change: Under all climate change scenarios, wetland habitats will decrease. Therefore it is imperative that wetlands be maintained at all levels across the harrier's range.

Disclaimer: This summary is not a complete guide to conservation and/or recovery of the species. For more information, please read the full report on our website.

Species Conservation and Recovery Plan



The areas displayed in this map indicate known and potential locations of the following species of special concern in Boulder County:

Cirus hudsonius



Northern Harrier

The Northern Harrier (Cirus hudsonius) is a diurnal raptor that flies low to the ground with a slow, coursing flight pattern. It is associated with open country comprised of grasslands, wetlands and savannahs. It is a Boulder County Species of Special Concern, and a Tier 2 Species of Greatest Conservation Need and Vulnerable (S3B) in Colorado.

This map shows where this species has potential habitat based on its known elevation range.







Parks & Open Space