

Red-headed Woodpecker *Melanerpes erythrocephalus*

REGULATORY STATUS

USFWS: Migratory Bird
USFS R2: No special status
USFS R4: No special status
Wyoming BLM: No special status
State of Wyoming: Protected Bird

CONSERVATION RANKS

USFWS: Bird of Conservation Concern
WGFD: NSS4 (Bc), Tier II
WYNDD: G5, S2S3
Wyoming Contribution: LOW
IUCN: Near Threatened
PIF Continental Concern Score: 13

STATUS AND RANK COMMENTS

The Wyoming Natural Diversity Database has assigned Red-headed Woodpecker (*Melanerpes erythrocephalus*) a state conservation rank ranging from S2 (Imperiled) to S3 (Vulnerable) because of uncertainty about abundance and population trends in Wyoming.

NATURAL HISTORY

Taxonomy:

Red-headed Woodpecker is considered monotypic, with no subspecies currently recognized¹. Geographic variation within the species is considered clinal.

Description:

Red-headed Woodpecker is easily identified in the field by bright crimson coloration that extends over the head, neck, throat, and upper breast. The underside of Red-headed Woodpecker is white. The dorsal coloration is black, with a large white patch on the wings extending across the secondaries and tertials¹. The rump and upper tail coverts are also white. Adult male and female Red-headed Woodpeckers are identically colored. Juveniles are colored similar to adults; except the red head may vary from grayish brown to crimson. Juveniles additionally have a subterminal black band on the secondaries and dusky streaking on the flanks¹. Adult overall body length averages 21 cm, with weight averaging 74 g¹. Red-headed Woodpecker is unlikely to be confused with any other species within its Wyoming distribution.

Distribution & Range:

Red-headed Woodpecker ranges from the Atlantic Coast westward to the Rocky Mountains, and is primarily restricted to the United States. Red-headed Woodpecker can also be observed along the southern edge of the Canadian provinces Manitoba, Alberta, Ontario, and Quebec. It is considered a year-long resident in the midwestern, eastern, and southern states, and a breeding-only resident within the Great Plains and Great Lakes regions. The range of this species is

thought to be contracting as a result of population declines ¹. Red-headed Woodpecker has been documented in 25 of Wyoming's 28 latitude/longitude degree blocks, with confirmed or circumstantial evidence of breeding occurring in 11 of the 25 degree blocks ². Only 4 of the 25 degree blocks in which sightings have occurred include confirmed observations as accepted by the Wyoming Bird Records Committee (WBRC) ³. The Wyoming range of this species occurs in eastern third of the state primarily below 6,500 ft ⁴.

Habitat:

Red-headed Woodpecker is found in wooded habitats that contain dead limbs or snags ¹. This species prefers larger trees, a moderate to open understory, high snag density, and mast producing trees. Red-headed Woodpecker may also be found in more open, disturbed habitats that retain snags, such as burns. Red-headed Woodpecker was found to utilize high intensity burned areas within the Black Hills National Forest ⁵, and has also been documented in pine (*Pinus* spp.) scrub, mixed pine, and hardwood forests; urban settings; savannahs; and wooded swamps ¹. Within Wyoming, Red-headed Woodpecker is found in open deciduous woodlands and Ponderosa Pine (*P. ponderosa*) forests that are associated with riparian zones ^{2,4}. This species prefers larger forest blocks with numerous clearings ⁶, and can also be found in open farmlands and urban settings if snags are available. Red-headed Woodpecker is a cavity nester that utilizes dead trees and snags in habitats with little to no understory, and occasionally utility poles. Within Wyoming, nests were found on average 9.8 m from the ground with a nest opening of approximately 6.4 cm in diameter ⁶. Both sexes excavate the nest cavity ¹. The nest cavity is typically gourd shaped and takes on average 12–17 days to create. Red-headed Woodpecker is known to reuse nesting cavities and shows fidelity to nest sites ¹.

Phenology:

Red-headed Woodpecker is primarily diurnal. Migration patterns and movements of this species are variable and dependent on mast production ¹. In years when food is plentiful, Red-headed Woodpecker may remain in the northern portion of its range. If migration occurs, birds will move to the south and east out of the Great Plains and Great Lakes regions. There is evidence that extreme southwestern individuals will migrate to the north away from Texas and the Louisiana Coast ¹. In Wyoming, spring arrival of Red-headed Woodpecker is typically documented in early May ⁴, and breeding is thought to occur in mid-May or later ¹. The average clutch size is 5 eggs. The incubation period is 12–14 days long, with fledging occurring when young are 24–27 days old ¹. If a nest fails early in the season, Red-headed Woodpecker may reneest. The species has been documented raising 2 broods in a year. In Wyoming, Red-headed Woodpecker does not have a distinct fall migration. Individuals are primarily absent by October, with a handful of reports documenting this species throughout the winter ⁴.

Diet:

Red-headed Woodpecker is omnivorous, feeding on hard nuts and seeds, fruit, insects, and other animal matter. Summer diet consists of 34% animal matter and 66% vegetable matter ¹. Summer animal matter intake is primarily insects. Red-headed Woodpecker has been documented hawking, gleaning, and excavating prey ¹. Winter diet consists primarily of hard mast. Red-headed Woodpecker is known to cache food in 2 phases ¹. Initially, food will be cached in a single area. This is often followed by scatter storage, where food items are placed individually throughout a territory ¹.

CONSERVATION CONCERNS

Abundance:

Continental: WIDESPREAD

Wyoming: RARE

Using North American Breeding Bird Survey (BBS) data, the Partners in Flight (PIF) Science Committee estimated the global population of Red-headed Woodpecker to be 1.2 million birds ⁷. Approximately 0.2% of the global population, or around 3,000 birds, is estimated to breed in Wyoming ⁸; however, this abundance estimate should be viewed with caution given the low detection rate of this species in the state. The statewide rank of RARE is based on the limited area of the state known to be occupied in any given season, and the relatively small coverage of suitable habitat within that area. Within suitable habitat in the occupied area, Red-headed Woodpecker appears to be uncommon, occurring in relatively low densities and requiring intensive survey efforts to detect the species ². There are no robust estimates of density for Red-headed woodpecker in Wyoming.

Population Trends:

Historic: UNKNOWN

Recent: MODERATE DECLINE

Red-headed Woodpecker population trend data from the BBS in Wyoming are available from 1968–2013, and suggest a statistically insignificant decline of 1.77% annually ($N = 26$ routes, 95% CI: -4.98 to 1.48), although results fall within a regional credibility category containing data with deficiencies, so must be interpreted with caution ⁹. However, 1966–2013 BBS trend analyses suggest statistically significant annual population declines of 2.48% ($N = 1,851$ routes, 95% CI: -2.81 to -2.16) across North America and 1.43% ($N = 48$ routes, 95% CI: -2.21 to -0.65) in Nebraska ⁹.

Intrinsic Vulnerability:

MODERATE VULNERABILITY

The nesting requirements and habitat preferences of Red-headed Woodpecker makes it vulnerable to changes in habitat. Red-headed Woodpecker is an obligate cavity nester, and the loss of nesting habitat throughout its range has resulted in habitat shifts to suboptimal conditions, and consequent reduction of reproductive success in some areas ¹⁰. Utilization of utility poles treated with creosote has led to reproductive failure due to environmental toxins ¹¹. One study observed that all young in telephone pole cavities perished by the third day after hatching due to the possible toxic effects of creosote. Feeding behavior and a propensity to fly low across roads makes this species vulnerable to road mortality ^{1, 12}.

Extrinsic Stressors:

MODERATELY STRESSED

Red-headed Woodpecker is largely impacted by habitat loss and degradation. Historic habitat for this species has disappeared on the landscape due to changes in habitat management and fire suppression ¹. Loss of oak-savannas, small orchards, riparian corridors, and hedgerows has likely lead to population declines. Red-headed Woodpecker has shown shifts in habitat away from open situations, and has been observed to nest in closed canopy habitats ¹⁰. However, the use of these habitats is associated with higher levels of nest failure and is considered suboptimal. In addition to nest failure, utilization of utility poles is seen as a human nuisance. Some regions of the United States are documented to lethally remove nuisance woodpeckers ¹. Red-headed Woodpecker was historically shot for its bright plumage ¹.

KEY ACTIVITIES IN WYOMING

Red-headed Woodpecker is listed as a Species of Greatest Conservation Need (SGCN) in Wyoming by the Wyoming Game and Fish Department (WGFD), and as a Wyoming PIF Level III Priority Species¹³. Although BBS population trend estimates are available for Red-headed Woodpecker, data for Wyoming contain deficiencies which limits the usefulness of estimates for the state⁹. The IMBCR program has similarly low detections of Red-headed Woodpecker in Wyoming, with only 37 detections since the program's inception in 2009 (range 0–18 detections per year)¹⁴. No targeted, systematic surveys of Red-headed Woodpecker has been conducted in Wyoming. Nesting studies have been completed within eastern Wyoming, examining response to burns and general nesting behavior. Observations of Red-headed Woodpecker are reported to the WGFD and vetted through the WBRC. Red-headed Woodpecker is a species for which the WBRC requests documentation on first latitude/longitude degree block sightings and all nesting observations.

ECOLOGICAL INFORMATION NEEDS

Populations of the Red-headed Woodpecker may be declining in Wyoming; however, more robust data are needed to determine population trends within the state. More information is needed regarding impacts of land management activities on Red-headed Woodpecker breeding and survival, and potential impacts of herbicides, pesticides, and climate change on the species.

MANAGEMENT IN WYOMING

This section authored solely by WGFD; Andrea C. Orabona. Red-headed Woodpecker is classified as a SGCN in Wyoming. Two separate but compatible survey programs are in place to monitor populations of many avian species that breed in Wyoming; the BBS⁹ and the multi-partner IMBCR¹⁴. While these monitoring programs provide robust estimates of occupancy, density, or population trend for many species in Wyoming, survey efforts do not tend to detect Red-headed Woodpecker at adequate levels, suggesting targeted, species-specific monitoring efforts are needed. Wyoming management priorities for the species in the short-term will focus on addressing these data deficiencies. Information should be gathered on Red-headed Woodpecker presence, distribution, population status, and the impact of potential threats. Any information gathered will ultimately be used to develop management and conservation recommendations for this species in the state. Best management practices to benefit Red-headed Woodpecker includes maintaining open riparian and Ponderosa Pine woodland habitats, particularly those with mature trees; managing for a mosaic of large trees with open canopies and clusters of snags where this species occurs; retaining mature and decadent trees for future snag production; using forestry practices, such as prescribed fire and staggered planting, to maintain open stands of forests and woodlands where Red-headed Woodpecker occurs; limiting insecticide use in woodland habitats to ensure a food source for this species (and other insectivores); and controlling or removing European Starling (*Sturnus vulgaris*) where Red-headed Woodpecker occurs to eliminate competition for cavity nests¹³.

CONTRIBUTORS

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Figure 1: Adult Red-headed Woodpecker in Laramie County, Wyoming. (Photo courtesy of Pete Arnold)

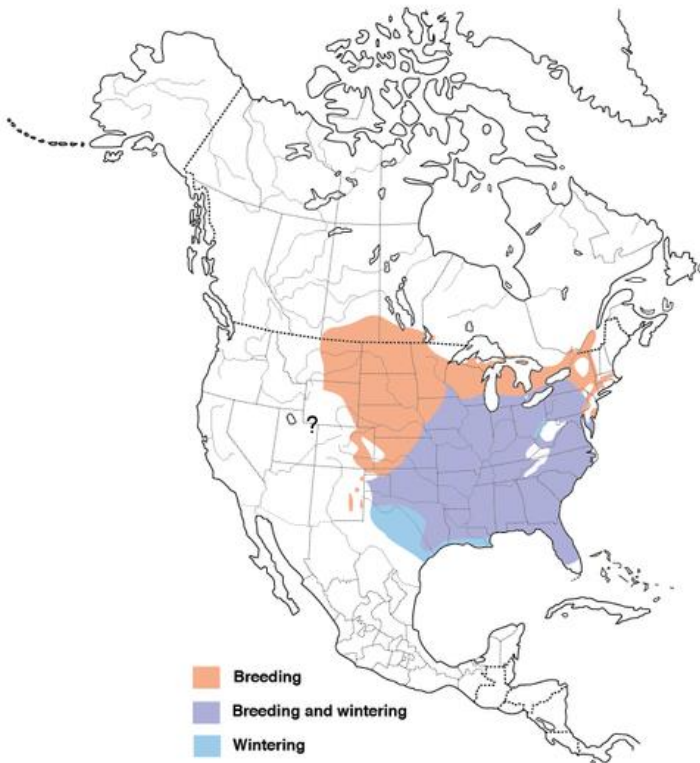


Figure 2: North American range of *Melanerpes erythrocephalus*. (Map courtesy of Birds of North America, <http://bna.birds.cornell.edu/bna>, maintained by the Cornell Lab of Ornithology)

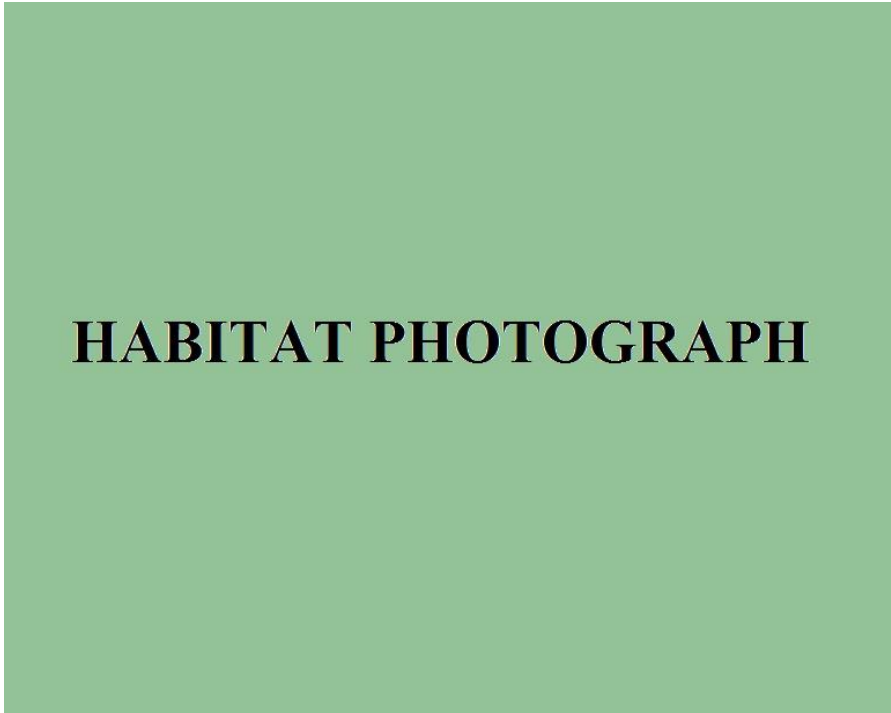
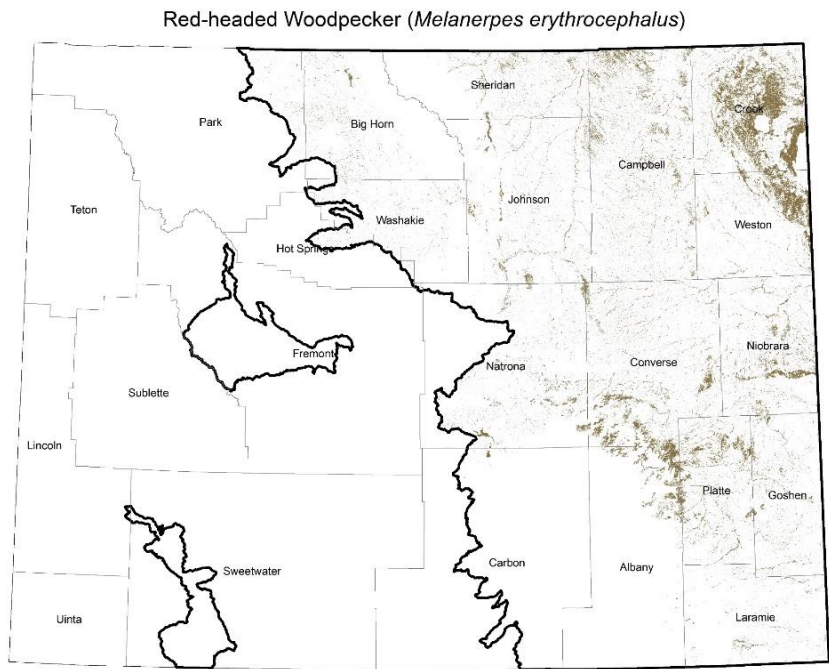


Figure 3: Photo not available.



SOURCE: Digital maps of ranges for Wyoming Species of Greatest Conservation Need; Sept. 2016, Wyoming Game and Fish Department and Wyoming Natural Diversity Database, University of Wyoming, Laramie, Wyoming.
Note that brown indicates the predicted distribution of the species;
heavy black lines indicate outermost boundaries of possible occurrence.

Figure 4: Range and predicted distribution of *Melanerpes erythrocephalus* in Wyoming.