Rufous Hummingbird

Selasphorus rufus

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: No special status
WGFD: NSS4 (Bc), Tier II
WYNDD: G5, S3
Wyoming Contribution: LOW
IUCN: Least Concern
PIF Continental Concern Score: 13

STATUS AND RANK COMMENTS

Rufous Hummingbird (*Selasphorus rufus*) does not have any additional regulatory status or conservation rank considerations beyond those listed above.

NATURAL HISTORY

Taxonomy:

Rufous Hummingbird is considered monotypic and has no geographic variation in physical appearance [1]. Rufous Hummingbird is most closely related to Allen's Hummingbird (*S. sasin*) [1], which does not occur in Wyoming. However, it is suspected that hybridization may occur in these species where their ranges overlap [1, 2].

Description:

Identification of Rufous Hummingbird is possible in the field. Adults have an average total length of approximately 10 cm and a wingspan of approximately 11 cm [1, 3]. As the name implies, males are primarily rusty orange in color with a white breast; green forehead and shoulders; black wings and tail tip; and orange to scarlet iridescent gorget [4]. Adult females have green upperparts; orange on the flanks and at the base of the tail; a white breast; and a white throat that can be streaked or spotted with bronze or green, sometimes with a small cluster of iridescent orange-red feathers. Juvenile Rufous Hummingbirds resemble females, but the uppertail coverts are mostly rufous [1]. Male Rufous Hummingbirds are unlikely to be confused with any other species in Wyoming. Females are similar in appearance to female Broad-tailed Hummingbirds (*S. platycercus*); however, female Broad-tailed Hummingbirds have a light eye-ring and less extensive orange on the tail [4].

Distribution & Range:

Rufous Hummingbird's breeding range extends from southern Alaska, southeast to central Montana, south through northwestern Wyoming, and west to the Oregon coast. Within

Wyoming, it is uncertain if Rufous Hummingbird is a regular breeder [5], but the species is known to regularly pass through Wyoming during fall migration. This species can be found in mountain and foothills habitats, but may be absent from the Black Hills [5]. Rufous Hummingbird is observed less frequently in lower elevations, including southeastern Wyoming. Rufous Hummingbird has been documented in 24 of Wyoming's 28 latitude/longitude degree blocks [6]. Confirmed breeding has been documented within latitude/longitude degree blocks 1 (Yellowstone area), 2 (Cody area), 8 (Jackson area), and 23 (Green River area). Most occurrences in the state likely represent fall migrants. Winter range occurs in Baja, California and southern mainland Mexico [3], but individuals are often noted outside of this accepted range. Wintering Rufous Hummingbirds are being observed more commonly in the southeastern U.S. along the Gulf of Mexico [1, 7, 8].

Habitat:

Rufous Hummingbird uses a broad range of habitats across its continental distribution. Within its breeding range, the species primarily utilizes secondary succession communities and openings [1]. However, Rufous Hummingbird has also been documented in mature forests, parks, and residential areas. In Wyoming, the species inhabits riparian shrublands; mountain-foothills grasslands; and wet-moist meadows within coniferous forests, aspen stands, and mountain-foothills shrublands [6]. Occupied habitats typically have, or are adjacent to areas with, abundant nectar-producing flowers [3]. Rufous Hummingbird nests are hemispherical cup-shaped, approximately 5 cm in outer diameter, and lined with downy plant materials. Nests may also be decorated with lichens, moss, or bark fragments anchored by cobwebs [1, 9]. During spring and fall migration, Rufous Hummingbird can be found primarily in montane meadows and other disturbed areas with abundant food sources.

Phenology:

Rufous Hummingbird is primarily diurnal. The migratory pathway of Rufous Hummingbird can be described as a clockwise pattern. Rufous Hummingbird's spring migration occurs along the Pacific coast [1]. These northerly spring migrations typically miss Wyoming [5]. Southerly fall migrations occur inland along the highlands of the Rocky Mountains. All migrations are timed ideally with floral phenology, occurring when flowers are open [1]. Rufous Hummingbird makes the longest migration of any hummingbird species [10]. Males tend to arrive on the breeding grounds several days before females [1]. The earliest observation of Rufous Hummingbird in Wyoming is 5 May [5]. However, this species is commonly observed in the Jackson region around mid-May. Males typically begin breeding displays as soon as females arrive on the breeding grounds, and continue to display until they leave for migration [1]. Females begin building nests within 3 days of their arrival at breeding habitats [1]. Females lay 2 eggs per clutch and may re-nest if the clutch is lost. The incubation period for Rufous Hummingbird is approximately 16 days [1]. Fall migration typically occurs in August [5]. There are a few September reports of Rufous Hummingbird in Wyoming, with the latest accepted date occurring on 14 September.

Diet:

The primary diet of Rufous Hummingbird consists of floral nectar and small insects that are aerially hawked or gleaned from vegetation [1, 11]. The species will also use residential hummingbird feeders and may consume tree sap from sapsucker (*Sphyrapicus* spp.) wells [1, 12].

CONSERVATION CONCERNS

Abundance:
Continental: WIDESPREAD
Wyoming: RARE
Using North American Breeding Bird Survey (BBS) data, the Partners in Flight Science Committee estimated the global population of Rufous Hummingbird to be 11 million birds [13]. Approximately 0.014% of the global population, or around 1,500 birds, is estimated to breed in Wyoming [14]. The statewide rank of RARE is based on the rather small area of the state known to be occupied in any given season, and the small coverage of suitable habitat within that area. However, within suitable habitat in the occupied area, Rufous Hummingbird appears to be common and is usually encountered during surveys that could be expected to indicate its presence [6]. From 2009–2015, only 13 Rufous Hummingbirds were detected on Integrated Monitoring in Bird Conservation Regions (IMBCR) survey grids in Wyoming [15].

Population Trends:
Historic: UNKNOWN
Recent: UNKNOWN
Currently, there are no robust BBS population trend data available for Rufous Hummingbird in Wyoming due to a limited distribution in the state and low detection rates during monitoring surveys [16]. However, 1968–2013 BBS trend analyses indicate a statistically significant annual population decline of 2.10% (N = 348 routes; 95% CI: -2.70 to -1.50) in the Western Region [16].

Intrinsic Vulnerability:
MODERATE VULNERABILITY
As a primarily nectivorous species, Rufous Hummingbird is dependent on floral abundance. Artificial feeders can supplement food during periods of flower unavailability [1]. Rufous Hummingbird winters in Central America, and availability of food sources and fat reserves during migration may directly impact migrating individuals.

Extrinsic Stressors:
MODERATELY STRESSED
Rufous Hummingbird is largely impacted by changes in flower abundance [1]. Forest management, weather variation, and disease can alter abundance of floral food sources. Habitat alteration and changes in land use are considered the major threats to hummingbird conservation [17]. Pesticide application, herbicide use, and climate change may impact populations of Rufous Hummingbird.

KEY ACTIVITIES IN WYOMING

Rufous Hummingbird is listed as a Species of Greatest Conservation Need (SGCN) in Wyoming by the Wyoming Game and Fish Department, and as a Level II Priority Species requiring monitoring action in the Wyoming Bird Conservation Plan [18]. Annual statewide songbird monitoring efforts do not adequately detect Rufous Hummingbird. The BBS program is conducted on routes statewide; however, only 16 Rufous Hummingbirds have been reported since the survey was initiated in 1968 [16]. Similarly, only 13 Rufous Hummingbirds have been detected during IMBCR surveys through 2015 [15]. No additional, targeted, systematic survey of Rufous Hummingbird has been conducted in Wyoming.

ECOLOGICAL INFORMATION NEEDS

More information is needed to determine the breeding range and status of Rufous Hummingbird in Wyoming [5]. Additional natural history information is needed for this species, including home range size, impacts of land management activities on breeding and survival, direct and indirect impacts of herbicides and pesticides, and potential responses to changing floral phenology due to climate change. The use of pesticides, herbicides, or other activities that reduce nectar producing plants and insect food sources could impact populations [3]. Long-term effects of deforestation and climate change are unknown [1].

MANAGEMENT IN WYOMING

This section authored solely by WGFD; Andrea C. Orabona. Rufous Hummingbird is classified as a SGCN in Wyoming due to range-wide population declines, and possible population effects from climate change and forest management practices. Two separate but compatible survey programs are in place to monitor populations of many avian species that breed in Wyoming; the BBS [16] and the multi-partner IMBCR [15]. 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 Rufous Hummingbird at adequate levels, suggesting targeted, species-specific monitoring efforts are needed. Management priorities for the species in the short-term will focus on addressing data deficiencies. Information should be gathered on Rufous Hummingbird presence, distribution, population and nesting status, specific habitat requirements, and the impact of potential threats. Any information gathered will ultimately be used to develop management and conservation recommendations for this species. Best management practices to benefit Rufous Hummingbird includes maintaining a mosaic of mixed coniferous forests, meadows, and riparian shrubland habitats within this species' range in Wyoming [18].

CONTRIBUTORS

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Figure 1: Adult male (left) and female (right) Rufous Hummingbirds at a feeder in Durango, Colorado. (Photos courtesy of Bill Schmoker)

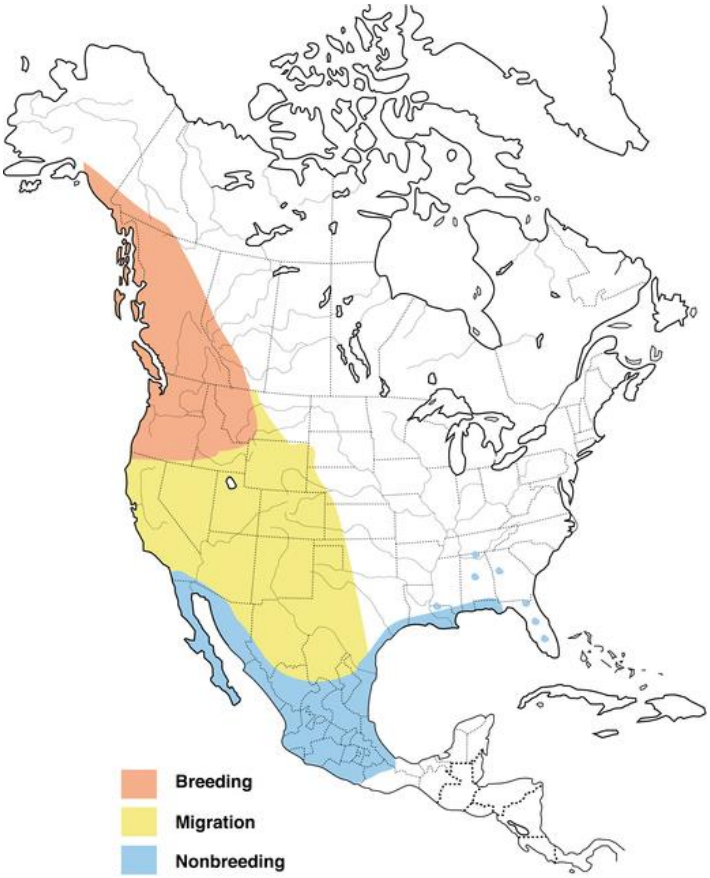

Figure 2: North American range of *Selasphorus rufus*. (Map courtesy of Birds of North America, http://bna.birds.cornell.edu/bna, maintained by the Cornell Lab of Ornithology)

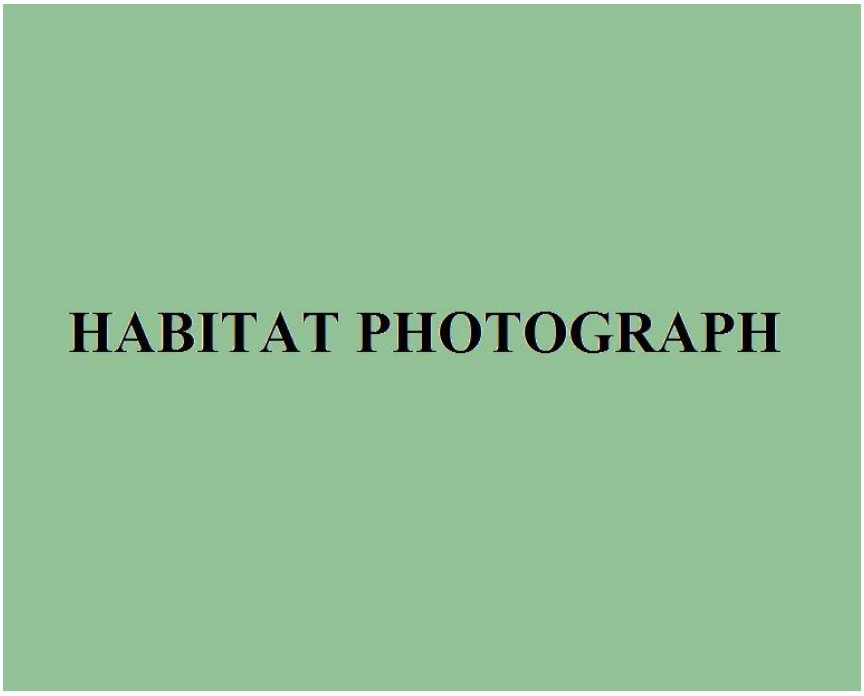

Figure 3: Photo not available.

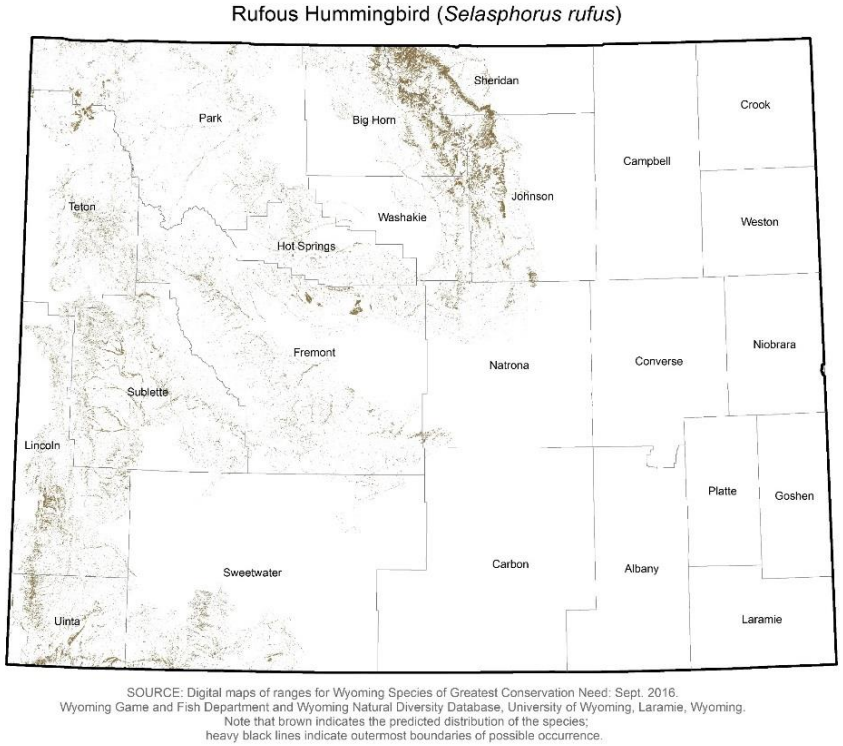

Figure 4: Range and predicted distribution of *Selasphorus rufus* in Wyoming.