

Ferruginous Hawk (*Buteo regalis*)

Species Status Statement.

Distribution

Ferruginous hawk is the largest buteo (broad-winged hawk) in North America (Ng et al. 2017). Its breeding range extends from south central Canada to southern Utah and from eastern South Dakota to central Washington and Oregon. Birds winter from southern Wyoming to central Mexico, and from the central Southern Plains to the Pacific Ocean (Olendorff 1993, Ng et al. 2017). Northern populations may be completely migratory, but southern populations may migrate short distances or be completely sedentary. Throughout Utah, these hawks are found year-round (as breeders, migrants and winter residents) in suitable habitat.

Table 1. Utah counties currently occupied by this species.

Ferruginous Hawk	
BEAVER	PIUTE
BOX ELDER	RICH
CACHE	SALT LAKE
CARBON	SAN JUAN
DAVIS	SANPETE
DUCHESNE	SEVIER
EMERY	SUMMIT
GARFIELD	TOOELE
GRAND	UINTAH
IRON	UTAH
JUAB	WASATCH
KANE	WASHINGTON
MILLARD	WAYNE
MORGAN	WEBER

Abundance and Trends

Olendorff (1993) estimated the total North American population in the early 1990s at 5,800-11,300 birds. At the same time, Schmutz et al (1992) estimated 14,000 birds in the Great Plains. Recent population estimates, most based on Breeding Bird Survey (BBS) data, give total numbers between 83,000 and 110,000 individuals (Ng et al 2017). The long-term BBS trend is an annual 0.61% increase since 1966. However, this increase is not consistent across the range. Population declines have occurred in some regions (central mixed grass prairies, Canada) at the same time gains have been noted in others (northern Rockies). Two studies from the 1980s and 1990s reported significant population declines in Utah (Woffinden and

Murphy 1989, Olendorff 1993). More recent monitoring in Utah indicates that statewide ferruginous hawk productivity is above the 1.5 young/pair/yr which Woffinden and Murphy (1989) reported necessary for population stability. However, local statistics vary and productivity in some regions of the state falls below this figure (UDWR files). Concerns about population status in Canada led to its listing as Threatened in that country.

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

Ferruginous hawk is considered an obligate grassland or shrub-steppe nester (Jasikoff 1982, Olendorff 1993). Keough and Conover (2012) reported that individuals in the Uintah Basin nested in low to mid-elevation, flat to gently rolling terrain with low-density shrub cover, few trees, good visibility and abundant prey. In open grassland conditions, they will nest on the ground, but they regularly nest in trees, on pinnacles, or man-made structures when such are available (Ng et al. 2017). Most nests found in the cold desert regions of Utah are in flat-topped junipers associated with open sagebrush plains. Nesting on pinnacles and outcroppings is common in the northeastern and eastern portions of the state (DWR files). The juniper-sagebrush ecotone is especially important for nesting and foraging. Breeding success and population status have been tied to prey abundance and cycling (Woffinden and Murphy 1989). Individual ferruginous hawks prey most often on mammals (Olendorff 1993), especially lagomorphs, prairie dogs and ground squirrels, but will also take birds and reptiles. Wintering ferruginous hawks often congregate around agricultural fields and human settlement, likely because of the availability of prey items and roosting trees (Olendorff 1993).

Threats to the Species

Woffinden and Murphy (1989) noted that decreasing populations were commonly attributed to loss of habitat, disturbance by human activities, and lack of secondary prey species.

Ferruginous hawk is closely associated with open landscapes offering good visibility and prey resources (Jasikoff 1982, Olendorff 1993). In Utah, these conditions are often provided by lowland sagebrush, mountain sagebrush, and desert grassland habitats (UDWR 2015). Drought conditions over the past two decades have contributed to sagebrush die-offs, increased fire intensity and frequency, and increased invasive plants. These in turn lead to habitat fragmentation, decreased plant community vitality and decreased prey populations.

Ferruginous hawk has long been considered sensitive to disturbance. How readily individuals flush from their nests, potentially decreasing productivity, depends on how nests are approached, how closely and how often (Keeley & Bechard 2011). The potential for negative impacts due to disturbance grows as the habitats used by these hawks are increasingly used by humans for grazing, resource extraction and, more common recently, recreation.

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

Ferruginous Hawk
High
Droughts
Medium
Inappropriate Fire Frequency and Intensity
Invasive Plant Species – Non-native
OHV Motorized Recreation
Problematic Plant Species – Native Upland

Rationale for Designation.

Long-term drought conditions, excessive fire, and the bird's susceptibility to disturbance and nest tree destruction all contribute to its special management status. Intensifying human encroachment into suitable habitats continues to be a concern. The wildlife agencies of every state in its range, plus both the US and Canadian federal wildlife agencies, all confer some measure of enhanced management designation to ferruginous hawk.

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate coordinated management of this species, which is recommended to prevent Endangered Species Act listing and lessen related economic impacts. An ESA listing of ferruginous hawk would impact management and development of pinyon-juniper habitats statewide. There would also be increased costs of regulatory compliance for many land-use decisions and mitigation costs.

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