

## **Other Habitat Groups**

### ***Specialized Habitats: Cliffs, Rock Outcrops, and Canyons***

Cliffs, rock outcrops, and canyons are unique habitats that lend topographic diversity to homogeneous areas. These habitats may only occupy a small percentage of the land base, but they are disproportionately important as wildlife habitat. They benefit birds directly by providing shelter and nesting sites, and indirectly by providing diverse vegetation structure. For example, some shrub species, such as skunkbush sumac, chokecherry, currant, and juniper, are not found in the shrub-steppe region except in association with rock outcrops. The stability and persistence of cliff, rock, and canyon formations encourages the repeated use of specific areas as breeding habitat by birds. Birds that use these habitats for nesting are highly specialized and are more susceptible to loss and degradation of nesting habitat than many other species because they rely completely on cliffs, rock outcrops, or canyons as nest sites and because the number of suitable nest sites is finite and essentially non-renewable. The unique habitat provided by cliffs, rock outcrops, and canyons and their associated plant species can result in increased species richness and total avian densities, and a different avian community during the breeding season compared with adjacent habitats. Landowners and managers should be aware of the importance of these habitats to birds and should carefully evaluate management activities involving disturbance or alteration of these habitats.

Conflicts related to nesting birds that use cliffs, rocky ledges, rock outcrops, and canyons include mining, housing developments, road construction, and recreation (e.g. rock climbing, hiking, dispersed camping, bouldering, bicycling, and horseback riding). Disturbance to birds can be caused by the presence of humans, noise, or erosion. During the last few decades, rock climbing has become more popular and may have reduced the nesting success of some birds and contributed to changes in cliff bird communities. Mining and construction can have negative impacts when they occur at the base or the top of cliffs, rock outcrops, or canyons. Gravel quarries may actually remove buttes and cliffs for a source of rock. Any one of these components, or a combination, may be sufficient to discourage many birds from using an area or cause an active nest to fail. Such disturbance may gradually reduce the number of total sites available. Protect cliff, rock outcrop, and canyon habitats by limiting their use and development wherever necessary and possible, and avoid converting cliffs, rock outcrops, and canyons to other landforms.

Enhance habitat for birds and other wildlife by placing suitable rocks on reclaimed mined land. Rock should be placed in piles of varying sizes up to 6 feet (2 m) in height; rocks and rock piles should be grouped, as opposed to evenly scattered, over large areas with approximately 4 rock piles per acre (9 per hectare) taller than 3 feet (1 m); the minimum area to include outcrop habitats should be about 2.5 acres (1 ha); and shrub

species should be planted in and around piles to encourage establishment of unique plant communities.

**Priority bird species in Specialized habitats in Wyoming:**

**Level I:**

Peregrine Falcon (cliffs)

**Level II:**

White-throated Swift (cliffs and canyons)

**Level III:**

Golden Eagle (cliffs)

Prairie Falcon (cliffs)

Rock Wren (rock outcrops)

Canyon Wren (canyons)

Black Rosy-Finch (cliffs)

Brown-capped Rosy-Finch (cliffs)

### ***References and Additional Reading***

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