

## Bald Eagle - *Haliaeetus leucocephalus*

Abundance: Uncommon

Status: NSS2 (Ba)

NatureServe: G5  
S3B,S5N

Population Status: population size is restricted but extirpation is not imminent; minimum number of breeding pairs statewide is 139; although the recovering population has expanded, it is not expected to exceed 200 nesting pairs

Limiting Factor: Habitat (and Human Activity): limiting factors are severe and continue to increase in severity; species is highly sensitive to human disturbance during nesting; habitat loss and fragmentation are resulting from energy and housing developments in riparian zones of major river corridors, which are significant and increasing; increasing recreation pressure is occurring in nesting and foraging habitat. High mortality of large, old trees may also reduce available nesting structures along some river corridors in the future.

Comment:

### Introduction

The Bald Eagle occurs throughout most of North America from Alaska to central Mexico, wintering generally throughout the breeding range except in the far north. It nests along major river drainages and lakes throughout Wyoming with the most significant concentrations in Teton, Sublette, and Carbon counties including significant number of nesting pairs in Grand Teton and Yellowstone National Parks. Bald eagles that nest in northwestern Wyoming are part of the significant nesting population in the Rocky Mountain west. Recovery of the species centered along the Snake River drainage in Jackson Hole and the Greater Yellowstone area (GYA), and has been well studied. It appears that most fledglings produced in western Wyoming spend their first winter on the Pacific west coast but return to natal areas the subsequent spring. Subadults roam widely throughout the GYA, with population exchange between Idaho and Montana and Wyoming. Over the past decade the number of nesting pairs has increased along the Green River drainage in WY but no marked birds from the GYA have been observed so the source of these eagles remains unknown. The eagle population in Wyoming increases throughout the state during fall and winter due to an influx of birds migrating from Alaska and Canada. Highest numbers occur in late October through November when eagles concentrate near food sources such as the kokanee spawning sites at Flaming Gorge Reservoir, and the late elk hunt area in Jackson. The Bald Eagle is considered an uncommon resident in Wyoming, but the number of nesting pairs in the state has increased from 20 in 1978 to over 150 pairs by 2009. Population growth has stabilized in the GYA but appears to be still increasing slowly along other major river corridors.

### Habitat

The Bald Eagle nests near large lakes and rivers in forested habitat where both adequate prey (fish, waterfowl and ungulate carcasses) are available and old, large-diameter cottonwood or conifer trees for nesting. Number of nest sites is limited by territorial behavior of eagles. Highly productive nesting areas in the Greater Yellowstone Area were found to have open water available in winter, low severity of early spring weather, limited human activity, and high river sinuosity with an abundance of islands, riffles, runs, and pools in the river. Migrating and wintering eagles congregate near areas where concentrations of prey are available, such as carcasses of ungulate species, and spawning areas for kokanee, trout, and other fish. The highest concentration/density of nest sites occurs in Wyoming along the Snake River drainage where diverse river habitat is found in close proximity to elk feed grounds. As high quality nesting habitat has become saturated along major river drainages and lakes, some pairs have been found nesting along smaller drainages, but these nest sites often have lower occupancy and productivity rates. Also, some segments of river corridors that would appear to be excellent nesting habitat, such as the lower Gros Ventre which has a high selenium level, do not support nesting pairs.

## Problems

- h River segments with naturally occurring high levels of selenium may be limiting productivity in some areas.
- h Reduction of native trout populations in Yellowstone Lake may be reducing productivity and number of nesting pairs in Yellowstone National Park.
- h Recent or new diseases such as the West Nile virus may have negative effects on future bald eagle nest success and survival.
- h Given the long life span and territorial fidelity of Bald Eagles, it will require many years of monitoring to determine if the new FWS National Guidelines for protection of Bald Eagle nests will be effective for maintaining current population levels and allowing additional population growth to occur in Wyoming.
- h Loss of old, large trees along major river corridors as a result of conifer mortality, lack of cottonwood regeneration, and drought/climate change may reduce available nesting habitat in the future.
- h Human activity and development including residential development, energy production, and recreation near rivers and lakes continues to escalate and is degrading nesting habitat in some areas of the state..
- h Pioneering pairs of Bald Eagles often have difficulty becoming established in areas that are disjunct from other successful nesting pairs.
- h Bald Eagles may still be accumulating organochlorines and relatively high levels of heavy metals in some sites, and can also be at risk from organophosphate or carbamate pesticides. These contaminants could affect production and survival.

## Conservation Actions

- h Provide private landowners with information on the importance of maintaining optimum habitat for nesting eagles and the importance of their role as partners in managing it.
- h Manage Bald Eagle nesting areas to minimize conflicts with recreation and development and to minimize pesticide use.
- h Research and monitor Bald Eagle populations with emphasis on those that occur in areas with high human activity level and potential management conflicts
- h Establish incentive programs, conservation easements, and special management agreements to protect Bald Eagle nesting habitats and core populations.
- h Conduct research on issues that negatively impact the Bald Eagle's ability to expand or maintain stable populations.
- h Continue to identify, monitor, and define Bald Eagle nesting populations and important habitats such as winter roosts and foraging areas.
- h Continue to provide recommendations to agencies, private individuals, and groups that want to improve Bald Eagle habitat and minimize potential impacts of proposed land-use projects.
- h Participate in the Flyway Nongame Technical Committee efforts to review and update FWS regulations and guidelines for Bald Eagles, and in the FWS five-year nation-wide monitoring program.
- h Monitor habitat use and movement patterns in riparian areas where intensive energy development is occurring to provide data for developing effective mitigation measures
- h Continue to monitor occupancy and productivity of nesting territories along the Snake, Salt and Green River drainages 1) to provide baseline population data for determining population trend, and 2) to provide current data to other agencies and private landowners for managing human activities along major river corridors.

## Monitoring/Research

Continue annual monitoring to determine statewide nest occupancy and productivity especially in areas of the state experiencing large increases in development and recreation along major river corridors. Participate, as requested, in the U.S. Fish and Wildlife Service's Bald Eagle nationwide post-delisting monitoring efforts every five years. Support and encourage research using satellite technology on bald eagle ecology and habitat use in areas with intense energy development such as in the Green River/New Fork area south of Pinedale.

## Recent Developments

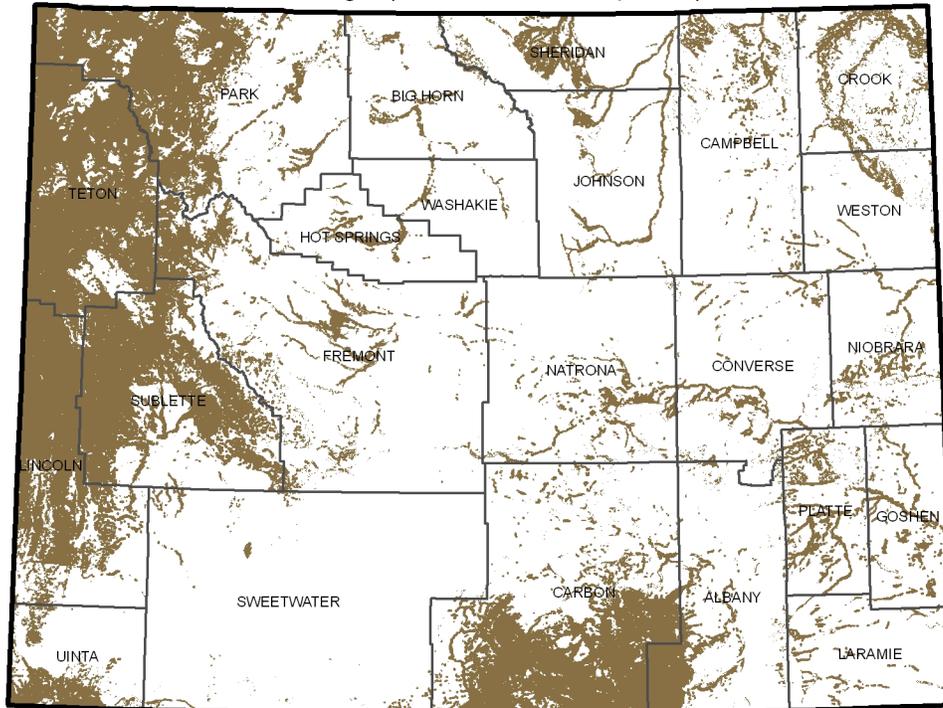
Removed from the endangered species list in June 2007 because the population in the lower 48 states recovered sufficiently to warrant delisting. Number of nesting pairs appears to have stabilized in the major recovery area in northwestern Wyoming in the Greater Yellowstone Area. Some potential nesting habitat in the state along major river drainages and reservoirs/lakes may continue to remain unoccupied due to increasing human activity including energy development, residential development and recreation use.

In 2009, USFWS released new regulations (Federal Register 74:46835-46879; 11 Dept. 2009) that allow take permits under the Bald and Golden Eagle Protection Act (50CFR 22.26). In April 2010, USFWS released interim guidelines for take permits prior to the final development of programmatic permit measures. For mitigation assistance in Wyoming, the FWS Ecological Services Field Office in Cheyenne should be contacted. No permits for golden eagles will be issued beyond historically authorized take levels, unless impacts can be completely offset, until further information is available on the status of golden eagles populations in the western U.S (USFWS Eagle Permitting Q's and A's, 12 March 2010).

Current federal documents on eagles can be viewed at: <http://www.fws.gov/migratorybirds/baldeagle.htm>

## References

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SOURCE: Digital maps of ranges and predicted distributions for Wyoming Species of Greatest Conservation Need: April 2010. 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.