

Harlequin Duck - *Histrionicus histrionicus*

Abundance: Uncommon

Status: NSS3 (Bb)

NatureServe: G4 S1B

Population Status: population size and distribution are restricted but extirpation is not imminent; minimum population estimate of 70 breeding pairs statewide in 2003. Wyoming is the most eastern extension of the Pacific coast population. Birds in Wyoming are likely make up a significant segment of a regional metapopulation extending into Montana and Idaho.

Limiting Factor: Habitat (and Human Activity): limiting factors are severe; limited ability to increase distribution; population size and distribution and habitat availability are extremely restricted; breeding habitat is limited to a few drainages in NW Wyoming which are remote but subjected to increasing recreational activity during the breeding season; sensitive to human disturbance during nesting; loss of some nesting pairs may have occurred in the Teton Range from increasing human activity

Comment:

Introduction

The Harlequin Duck breeds in Eurasia and two disjunct regions in North America. The Pacific coast population breeds from western Alaska south to Oregon, Idaho, Montana and Wyoming; the Atlantic population breeds from Greenland south to Newfoundland. Harlequins winter and molt in coastal habitats in Eurasia, the Aleutian Islands south to central California, and Labrador south to Maryland. They migrate inland to nest along swift flowing rivers and streams. In Wyoming, the species is found only in the northwestern portion of the State including Yellowstone and Grand Teton National Parks, and the Bridger-Teton and Shoshone National Forests. The Harlequin Duck is considered an uncommon summer resident in Wyoming. Based on recent monitoring surveys, it is estimated that at least 70 nesting pairs occur in Wyoming.

Habitat

The Harlequin Duck prefers cold, shallow, rapid mountain streams away from concentrated human activities. Nesting habitat is characterized by streams with less than 5% gradient, dense shrubs lining the banks, braided channels, swift currents, abundant aquatic insects, and excellent water quality.

Problems

- h Potential for large scale oil spills in winter ocean habitat that could affect a significant proportion of the ducks that nest in Wyoming
- h Unknown effects of possible climate change on summer and winter habitat
- h Occurs in extremely low densities in Wyoming.
- h Although historical data are lacking, the cutting and floating of railroad ties probably degraded Harlequin Duck habitat as nesting areas were logged, streams were dammed, and stored water was released suddenly during spring runoff.
- h Extensive forest fires in 1988 may have increased sediment loads in streams and eliminated streamside cover in many drainages.
- h Nesting success may be impacted by stream degradation as a result of sedimentation, channelization, logging, incompatible recreation, and incompatible livestock grazing.
- h Productivity is lower in areas with heavy recreational use or other human disturbance.
- h This species is difficult to inventory and its population status and trends are poorly known in Wyoming.

Conservation Actions

- h Continue inventory and monitoring efforts.
- h Manage nesting areas to minimize the potential for degradation and conflicts with recreation, grazing, and forest management.
- h Minimize human disturbance at nesting sites during the breeding season.
- h Maintain high water quality and streams with high densities of invertebrates in areas where this species nests.
- h Work cooperatively with other states and agencies to conduct regional surveys for this species in the Northern Rocky Mountains.

Monitoring/Research

Conduct aerial monitoring surveys at least once every 5 years along known nesting streams in the pre-nesting period to determine number of nesting pairs. Do follow up brood surveys in these same years along selected streams to determine productivity. Conduct additional streamside surveys in areas where habitat exists but ducks have not recently been observed. Coordinate monitoring efforts with Idaho and Montana to track regional population trends. Use satellite telemetry to determine migration routes and timing to the coast.

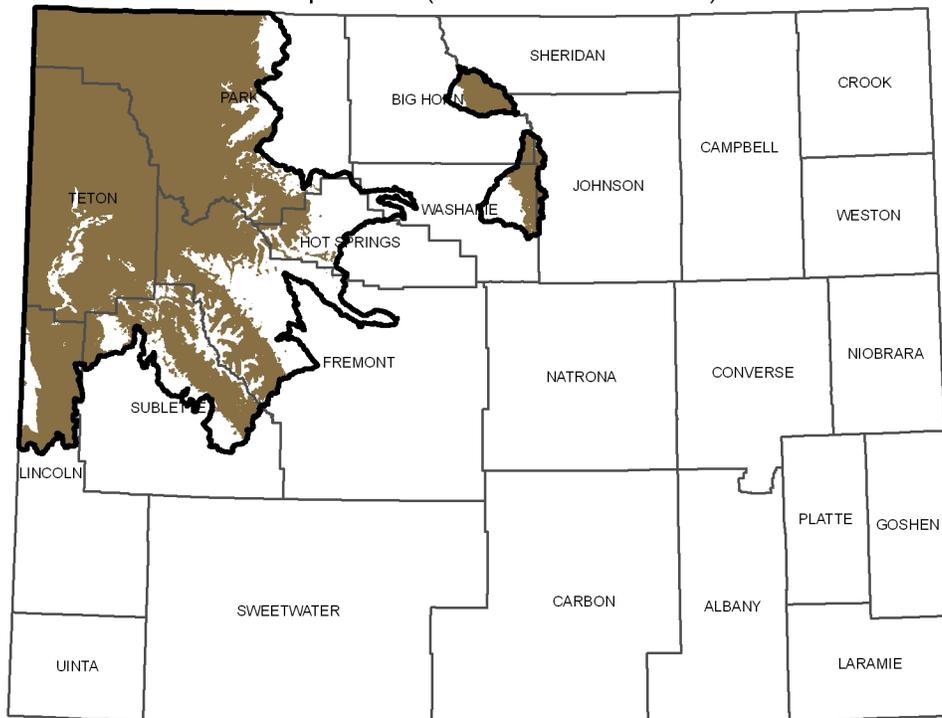
Participate in regional monitoring efforts and test the efficacy of aerial surveys.

Recent Developments

None.

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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.