

Bald Eagle Watch

American Eagle Foundation Final Report - 2017



Photo by Lori Bollendonk

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Introduction

Bald Eagle Watch began in 1988, at Barr Lake State Park, with the goal of monitoring and protecting the Bald Eagle nest there. This was the first post-DDT Bald Eagle nest on Colorado's Front Range, and remains active today. From there, Bald Eagle Watch has expanded alongside Colorado's growing Bald Eagle population. The goals of the program are to enhance our knowledge of Bald Eagles in Colorado, and work with Colorado Parks and Wildlife (CPW), and United States Fish and Wildlife Service to help improve eagle management within the state.



Bald Eagle carrying nesting material near a nest in Denver, CO
(Photo by Lori Bollendonk)

While not supported by American Eagle Foundation funds, Bird Conservancy of the Rockies also manages the Dinosaur Ridge HawkWatch, a raptor migration-counting program held annually in the spring at Dinosaur Ridge. Volunteers staffed the counting station from March 1 to May 7, and counted migrating raptors, including Bald Eagles. For the 2017 spring migration, 32 volunteers donated more than 650 hours, with a total count of 692 raptors of 14 species. Some especially noteworthy species showed up in the count, including Golden Eagles, Ferruginous Hawks, and 15 migrating Bald Eagles. This information is entered into the Hawk Migration Association's (HMANA) online database, and daily count totals are forwarded to the Dinosaur Ridge HawkWatch and the Colorado Birds list serves. Dissemination of the data in this way encourages participation in the program and raises

awareness of it among the birding public, which is a valuable pool of potential volunteers. The data sent to HMANA is made available for research that betters our understanding of raptor movements, and in turn can help inform future land management and planning efforts.

Bald Eagle Nest Monitoring

Volunteer training occurred on January 21st, 2017 at Barr Lake State Park and 34 volunteers attended. Volunteers are trained in Bald Eagle natural history, nesting behavior, and data collection. Previously, volunteers submitted data to the Citizen Science Coordinator, who then entered the data in a Microsoft Access database. Beginning in 2017, Bald Eagle Watch volunteers began entering their data into an online data entry system called CitSci.org, an online database hosted by the Natural Resources Ecology Lab at Colorado State University. This has streamlined the data entry process and will help to make funding for the program go further by reducing staff time spent on data entry. Bald Eagle Watch also maintains maps of known Bald Eagle nests, and coordinates with CPW to record new nests located by volunteers.

Data collected during the 2017 nesting season has been entered and proofed, and was transferred to Colorado Parks and Wildlife for inclusion in their raptor nesting database on October 23, 2017.

During the 2017 Bald Eagle nesting season, 37 volunteers collected data on 80 nests, which have produced 90 successful fledglings. Volunteers donated more than 2200 hours to eagle monitoring in 2017 and conducted 673 nest visits.

Bald Eagle Watch collected data on a total of 80 Bald Eagle nests in Colorado in 2017. Most of these nests are located along the Front Range, but several West Slope nests are also monitored, along with nests further east on the plains (Appendix A). Nests have been assessed for success based on two criteria: Eaglets' survival to eight weeks, or eaglets capable of flight observed outside the nest.

Of the 80 nests monitored, 62 were determined to be active for the season, 50 were successful, 7 were inactive, and 11 had incomplete data that prevented Bird Conservancy from determining the outcome. Nests monitored by Bald Eagle Watch were productive in 2017, with a fledge rate of 1.48 eaglets per active nest, and 1.84 per successful nest, for a total of 92 successfully fledged eaglets.

Bald Eagle Watch has experienced significant growth over the past year, with 12 new volunteers, more than 600 additional hours donated, and 28 more nests monitored compared to the previous season. We hope to continue to expand on this success in 2018.

Eagle Management

In 1988, there were fewer than 10 Bald Eagle nests in the state of Colorado. That number has now grown to more than 200, with much of the growth along the Front Range urban corridor. In 2010, the Regional Plan Association predicted the Front Range would see an 87% increase in human population by 2050. As the landscape of the Front Range becomes increasingly developed, human encroachment on bald eagle nesting areas and critical habitat is likely to become more common. While bald eagles are thriving in Colorado, ensuring their continued success may require additional research and

management planning. Many management mechanisms are already in place in some form or another, such as

recommendations in the State Wildlife Action Plan and other documents such as buffer guidelines. However, how these mechanisms are implemented is not always clear or uniform. In some cases, best management practices and conservation measures outlined in the State Wildlife Action Plan have no instrument for implementation, or have not been developed. Additionally, some existing management tools are limited by reliance on outdated information. For example, bald eagle nest buffers are marked on the Colorado Oil and Gas Conservation Commission's online GIS database, but nest locations and status were last updated in 2013. To update the bald eagle layer, or to change the interval at which the layer is updated, the Commission would have to undertake a rule-making process. Due to the difficulty of this process, the layer may not be updated for the foreseeable future. As a result, oil and gas operators do not have access to accurate information during permitting, and may fail to self-report potential impacts to eagle nests.

Bird Conservancy is working with Colorado Parks and Wildlife to further understanding of bald eagle conservation needs and develop management guidance. Because of the high quality of nest monitoring data provided by Bird Conservancy, CPW is able to conduct analysis that would otherwise not be possible. Most notably, CPW is taking advantage of the repeat visits provided by our dataset to conduct daily nest survival modelling, with the goal of identifying variables that



A pair of Bald Eagles near Longmont, CO (Photo by Anne Whitehurst)

affect nest survival and productivity. To this end, we are coordinating with CPW research staff to adapt our data collection to prioritize variables of interest. Results of these analyses will be used to inform management decisions and develop guidance. At the conclusion of the current study, CPW intends to develop a statewide raptor monitoring plan. Ideally, this will address shortfalls in the way raptor data are collected in Colorado, allow for more in-depth analysis, and provide a better understanding of raptor conservation needs for management purposes.

Bird Conservancy has had productive discussions with CPW staff regarding the development of a management plan for bald eagles, and views current research as a step toward a more comprehensive management framework. With the development of a statewide raptor monitoring plan on the horizon, we anticipate increased opportunities to work cooperatively with CPW on management planning. While development of new management mechanisms did not occur in 2017, we summarized existing guidance that has previously resided in different and sometimes difficult to find locations, and will provide recommendations to address gaps in the current framework. A working draft of this document will be submitted with this report. Bird Conservancy will continue to work closely with CPW as research and planning progress.

Budget

Between January 1, 2017 and December 31, 2017, Bird Conservancy has spent \$10,427.70 on the Bald Eagle Watch program. Funds were spent on salary and expenses of staff managing the Bald Eagle Watch program and coordinating with Colorado Parks and Wildlife. Bird Conservancy will invoice for the final 25% payment of the agreement amount of \$10,371.00 upon submittal of this report.



Appendix A: Bald Eagle Watch Nests 2017

Bald Eagle Watch - 2017 Nest Locations

