Larimer County Bluebird Project

2017 Final Report



February 2018



Connecting People, Birds and Land

Bird Conservancy of the Rockies

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Connecting people, birds and land

Mission: Conserving birds and their habitats through science, education and land stewardship

Vision: Native bird populations are sustained in healthy ecosystems

Bird Conservancy of the Rockies conserves birds and their habitats through an integrated approach of science, education, and land stewardship. Our work radiates from the Rockies to the Great Plains, Mexico and beyond. Our mission is advanced through sound science, achieved through empowering people, realized through stewardship, and sustained through partnerships. Together, we are improving native bird populations, the land, and the lives of people.

Core Values:

- 1. Science provides the foundation for effective bird conservation.
- 2. **Education** is critical to the success of bird conservation.
- 3. Stewardship of birds and their habitats is a shared responsibility.

Goals:

- 1. Guide conservation action where it is needed most by conducting scientifically rigorous monitoring and research on birds and their habitats within the context of their full annual cycle.
- 2. Inspire conservation action in people by developing relationships through community outreach and science-based, experiential education programs.
- 3. Contribute to bird population viability and help sustain working lands by partnering with landowners and managers to enhance wildlife habitat.
- 4. Promote conservation and inform land management decisions by disseminating scientific knowledge and developing tools and recommendations.

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Summary

In 2017 the Larimer County Bluebird Project expanded by adding three new nest boxes at Horsetooth Mountain Open Space. Twelve volunteers donated approximately 130 hours to the program, and monitored 22 nest boxes. We are also excited to report that we had our first nest box utilization by bluebirds since the start of the program, and our first successful fledging of bluebirds from a nest box. We had a total of 16 nesting attempts by three different species (Tree Swallow, House Wren, and Mountain Bluebird), which resulted in 73 successful fledglings. Unfortunately, two nest boxes were removed from the field during nesting season. One box at Soderberg Open Space had to be removed by a volunteer after the fence post on which it was mounted fell down, and has been returned to Bird Conservancy of the Rockies. Another box at Horsetooth Mountain Open Space was removed for unknown reasons, and the fate of the nest

box as well as the mounting post has not been determined. Bird Conservancy staff inquired after the fate of the nest box with Larimer County Natural Resources staff, but they were unable to supply information on the missing box. Neither box was actively being used for nesting at the time they were removed.

Season Preparations

Nest Box Placement and maintenance – On March 3, 2017, Bird Conservancy staff members Laura Quatrini and Matt Smith, with the help of one volunteer installed three new nest boxes at Horsetooth Mountain Open Space. We consulted with Steve Gibson of Larimer County Natural Resources on the placement of the boxes and the scheduling of installation. Existing boxes at Horsetooth and Soderberg were also cleaned of previous season's debris.

Pre-season Meeting – Bird Conservancy of the Rockies hosted a pre-season volunteer meeting and training seminar on March 22. 2017. Topics discussed included the biology of cavity nesting birds, invasive species, monitoring protocol and data collection, and a review of nest box locations.



Figure 1: Adult Mountain Bluebird and Fledgling at Soderberg Open Space. Photo by Jeanie Sumrall-Ajero.

Nest Box Monitoring

Monitoring Activity – Volunteers monitored 22 nest boxes at three different locations: Soderberg Open Space, Horsetooth Mountain Open Space. And the Soaring Eagle Ecology Center at Red Feather Lakes. Nest boxes were checked once a week from March 1 until the end of July, or once young had fledged or it was apparent that nesting activity had concluded for the season.

Results – In total, 20 nesting attempts were made by three species: Mountain Bluebird, House Wren, and Tree Swallow, 14 of which were successful. Successful nests produced 4 Mountain Bluebird fledglings and 63 Tree Swallow fledglings. We were unable to determine the outcome of the House Wren nesting attempt, as well as one of the Tree Swallow nesting attempts. Eggs Bird Conservancy of the Rockies *Connecting People, Birds and Land*

failed to hatch in one Tree Swallow nesting attempt, and young disappeared for unknown reasons prior to predicted fledge dates in 3 of the 4 Mountain Bluebird nesting attempts (Table 1).

Table 1. Nesting attampts and outcomes. Site names abbreviated as follows: Soderberg (SB), Horsetooth Mountain (HM), and Red Feather Lakes (RF).

Site Name	Species	Outcome	No. of fledged
SB01	Tree Swallow	At Least One Host Young Fledged	6
SB02	Tree Swallow	At Least One Host Young Fledged	6
SB03	Tree Swallow	At Least One Host Young Fledged	6
SB04	Mountain Bluebird	All young disappeared from nest before fledge date; reason unknown	0
SB05	Tree Swallow	No Eggs Hatched	0
SB06	Tree Swallow	At Least One Host Young Fledged	4
SB07	Tree Swallow	At Least One Host Young Fledged	5
SB08	None	Nest box was removed	N/A
SB09	Tree Swallow	At Least One Host Young Fledged	5
SB10	Tree Swallow	At Least One Host Young Fledged	4
HM01	Mountain Bluebird	All young disappeared from nest before fledge date; reason unknown	0
HM02	Mountain Bluebird	At Least One Host Young Fledged	4
HM03	Tree Swallow	At Least One Host Young Fledged	5
HM04	House Wren	Unknown outcome	N/A
HM05	None	Nest box was removed	N/A
HM06	Tree Swallow	At Least One Host Young Fledged	7
HM07	Mountain Bluebird	All young disappeared from nest before fledge date; reason unknown	0
HM07	Tree Swallow	Unknown outcome	0
RF1	Tree Swallow	At Least One Host Young Fledged	5
RF2	Tree Swallow	No Nesting Attempt	N/A
RF3	Tree Swallow	At Least One Host Young Fledged	5
RF4	Tree Swallow	At Least One Host Young Fledged	5
RF5	Tree Swallow	At Least One Host Young Fledged	6

Future Opportunities

Due to Larimer County small grant rules, we were unable to apply for funding for the 2018 nesting season. However, as the program is largely volunteer-run, we will continue to support the project with the required staff time. In the future, we would like to find opportunities to expand the program and install nest boxes at other Larimer County open spaces. In the_ past, Devil's Backbone was considered, but was later determined to be lacking in appropriate habitat. Bird Conservancy plans to apply for funds from the Larimer County Small Grants program for the 2019 nesting season.



Figure 2. Newly hatched Mountain Bluebird nestlings

Project Expenditures

Service Item	Bill	Hours	Total
	Rate		Cost
Project Coordination and Management	\$17.91	36	\$644.76
Supplies			\$29.66
Total			\$674.42