Rosy-Finch Color Banding Project

2008-2009 & 2009-2010 Season Report

Snowmass, Pitkin County, Colorado

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Photo by Natasha Goedert

Uri with Pine Grosbeak

1st Place Winner of the National 2009

Kids in the Woods Photo Contest

Highlights

We've banded 1430 Brown-capped Rosy-Finches to date, 1 individual was captured in 3 consecutive years, 32 individuals were captured in 2 consecutive years and the remainders were captured in just one year. Our 2006-2010 dataset was sent to The Rocky Mountain Bird Observatory for a preliminary analysis of the data. Biomatrician Jennifer Blakesley used the Mark-recapture program take a preliminary look at the data. It was determined that it's not possible to get estimates of apparent survival with such a low recapture rate.

A similar effort at Sandia Crest in New Mexico had more success at recapture but their local population was only 150 to 250 birds. We are working with several different flocks of 200-500 birds, mostly adult male flocks early in the winter and large flocks mixed with females and young birds in later March and early April. This in itself is new information for us. We will continue to place one color band on the Rosy-Finches to obtain distribution information. We have coordinated with the Colorado Division of Wildlife, two Colorado birding networks, and Western College in Gunnison for collection of nesting and winter distribution data in the past and will continue to do so. We will be shifting our focus more toward an education and interpretation program with an emphasis on climate change. We expect the 2010-2011 season to bring changes to our program.

We have made contact with several hundred kids as ski school students visit our operations. Volunteers have donated many hundreds of hours to assist with banding birds and educating visitors, and we have received grants to help continue our work-last winter a "More Kids in the Woods Grant" covered our operation expenses. A photograph taken of one of our students won first place in the National Kids in the Woods 2009 photo contest.

Snowmass, Pitkin County, Colorado. Banding Effort Summary

Net Hours	BCRF	% this season	BLRF	% this season	GCRF	% this season	Total Rosy- Finches Banded
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16	152	86%	4	3%	21	12%	177
60	584	92%	4	<1%	48	8%	636
32	427	80%	5	<1%	105	20%	537
16	267	96%	0	0%	10	4%	277
124	1430	88%	13	<1%	184	12%	1627
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Founding Project Goals 2006

Brown-capped Rosy-Finch is virtually an endemic breeder of Colorado, its breeding range barely sneaking into Wyoming and New Mexico. As such, Colorado and Region 2 has virtually all responsibility for ensuring the species' continued survival. Should climate change as predicted by many atmospheric scientists be a reality, the changes in extent and distribution of alpine tundra would force a radical decrease in amount and distribution of appropriate habitat for the species, rendering it highly susceptible to extinction.

Regardless of the potential threat of loss of habitat, the species is incredibly poorly known. Most aspects of its behavior, ecology, breeding habits, and movements are poorly known. We have no idea if the species is site faithful as breeders or as winterers. We don't know whether immature birds show natal-site fidelity or disperse short or long distances to other breeding locales. These bits of information would be critical in helping to preserve the species should such efforts be necessary and will be much easier to obtain while the species is still fairly common.

Our two aims are:

- 1) Determine a first-order approximation of population size and
- 2) Obtain data on movements of the species within its entire range.

To effect both of these goals, we have embarked on an effort at individually color-marking the species, we hold appropriate authorizations and permits to do so and have established a four-band combination system. Each bird receives a standard individually numbered aluminum bird band and three solid-colored lightweight plastic bands of various hues (black, gray, white, pink, red, orange, yellow, light green, dark green, light blue, dark blue, and purple are the options). Additionally, since the sexes of the species are readily separable, each sex has its own entire set of four-band combos. Finally, as individuals are readily aged, particularly in hand, we indicate the age (immature vs. adult) of the bird, at banding, by putting the aluminum band on the left leg of adults and the right leg of immature birds.

This effort will enable us to obtain rough population size estimates by knowing how many individuals we've color-banded and then getting data on percentage of individuals at given locales (usually in winter) that are so color-banded (a very rough Lincoln-Peterson Index, for those in the trade). It will also allow us to determine movements of individuals across time and space by collating all data on resightings and recaptures. Already one of our banded wintering birds was sighted in California.

2009-2010 Season Summary

Dates of operation: March-3rd, 10th, 24th, and 31st of 2010.

Hours of operation: 11:00 to 15:00

Total hours of banding operations: 4 days x 4 hours = 16 netting hours

267 Total Rosy-Finches Banded (13 returns, 11 re-sightings)

267 Brown-capped Rosy-finches 96%
0 Black Rosy-Finches 0%
10 Gray-crowned Rosy-finches 4%

267 Brown-capped Rosy-finches

155 Adult Males	58%
47 Adult Females	18%
47 Immature Males	18%
17 Immature Females	06%

19 Other Species Banded

1 Gray Jay, 3 Pine Grosbeaks, 15 Mountain Chickadees

2008-2009 Season Summary

Dates of operation: January 21, 2008 thru 8 April 2009

Hours of operation: 11:00 to 15:00

Total hours of banding operations: 8 days x 4 hours = 32 netting hours

537 Total Rosy-Finches Banded

427 Brown-capped Rosy-finches	80%
5 Black Rosy-Finches	<1%
105 Gray-crowned Rosy-finches	20%

427 Brown-capped Rosy-finches (13 returns, 11 re-sightings)

158 Adult Males	38%
99 Adult Females	23%
103 Immature Males	24%
65 Immature Females	15%

Other Species Banded

1 Gray Jay, 3 Pine Grosbeaks, 15 Mountain Chickadees

Project Partners

Aspen Ski Corporation Susan Cross, Dick Filby, Sarah Gessele, Amity Ludlow, Lynn Olsen, Doug Mackenzie, Steve Sewell. US Forest Service Liz Roberts, Jim Stark, Natasha Goedert, Bernadette Kuhn. Town of Snowmass Tina White. Roaring Fork

Audubon Al Levantin, Linda Vidal, Tom McConnell. Rocky Mountain Bird
Observatory Jason Beason, Jennifer Blakesley, Nancy Gobris. Colorado Field
Ornithologists. Hyrup Feed and Ranch Supply Steve Hyrup. Todd
Patrick Photography Todd Patrick. Private Contributors Lily Patrick, Dona
Hilkey, and Linda Vidal. Colorado Breeding Bird Atlas II Lynn Wickersham. US
Forest Service Natasha Goedert, Liz Roberts.

2008-2009; 13 Volunteers over 248 hours

2009-2010: 10 Volunteers over 100 hours

Volunteers Al Levantin, Andrea Holland-Sears, Brenda Wright, Cary Pence, Casey Cox, Christine Hirsch, Cinnamon Hughes, Coen Dexter, Dick Filby, Jake Cunningham, Keith Giezentanner, Kurt Hill, Len Newton, Linda Vidal, Lisa Belmonte, Lynn Wickersham, Mary Cunningham, Natasha Goedert, Mary Lynn Munroe, diane Smith, Jason Beason, Ray Potter, Roger Poirier, Shaw Hughes, Tina White, Tom McConnell, Wendy Haskins, Yuri Goedert.

Public Outreach

The Snowmass Brown-capped Rosy-Finch Color Banding Project is located in the Wine Cabin near the top of Sam's Knob within the Snowmass Ski Area. Because of its location, this project was able to reach out to the guests and community of Snowmass Ski Area.

Dedicated volunteers helped to educate guests and members of the community about local avian species and the importance of the banding project. Birdman Dick Filby and "Big Year" famous Al Levantin are regularly on hand to infect skiers with their enthusiasm for Rosy-Finches. The most experienced United Kingdom tour leader to Antarctica, Dick Filby meticulously describes the project goals to skiers and gets them up close to the process. Al constantly interacts with the guests and draws their attention to the Rosy-Finches, especially including the younger skiers when birds are released. As a result Snowmass Ski Area regularly receives many positive letters of thanks and praise from visitors whose vacation was enriched by their encounter with the banding project.

Interpretive signs show and tell skiers many aspects of the color-banding operation. The actual banding process can be viewed by all visitors and ski school classes are encouraged to stop by.