Cliff-Nesting Raptors in Boulder County,
2001 Status Report

Nan Lederer
CLIFF-NESTING RAPTORS IN BOULDER COUNTY

2001 STATUS REPORT

A Compilation of Data from Numerous Agencies and Groups that Monitor Nests of Golden Eagles, Prairie Falcons and Peregrine Falcons

Compiled by Nan Lederer, Boulder County Nature Association
December 30, 2001

INTRODUCTION

The purpose of this report is to bring together and summarize in one document the information from five different agencies and organizations that monitor the nest locations, activity, and success of cliff-nesting raptors in Boulder County.

In 1982 the Boulder County Nature Association (BCNA) began a project to systematically locate and watch nesting golden eagles and prairie falcons in Boulder County, to determine their productivity and to prevent human disturbance to the nests if any was occurring. During subsequent years, these monitoring activities and volunteer coordination were mostly taken on by the agencies who had jurisdiction over the land where the nests were located: City of Boulder Mountain Parks, City of Boulder Open Space (these last two now combined into one agency), Boulder County Parks and Open Space, the Colorado Division of Wildlife, and Eldorado Canyon State Park. Since 1991, peregrine falcons have been nesting within the study area, and their status has been monitored as well.

2001 NEST STATUS

Golden Eagle

Table 1 summarizes the status of each nesting territory from 1982 to 2001. Figure 1 is a graph of number of young produced from 1983 to 2001. Golden eagles were very successful in producing young this year.

In 2001, there were 7 territories known to be active. In past reports I have referred to 10 known territories in Boulder County, based on our experience since 1982 as well as other studies going back to the 1940's. However, territories can shift over time, and our reporting has to be flexible as well. For example, in 2000 there was an active nest in Marietta Canyon on Heil Ranch, long thought by some to be an alternate nest site within the Left Hand Palisades territory. But the Palisades nest was simultaneously active, both last year and this year. This year, yet another new active nest was found on Heil Ranch, in an unnamed box canyon. As another example, the Eldorado Springs territory, active in the past, has had no known nesting since 1985.

Of these 7 investigated active territories, at least 6 attempted to nest, and all were successful, fledging a total of 8 young. This represents a very good reproductive rate for the county. The highest number of young ever documented in one year in the study is 8 (in 1985, 1990, 1993, 1998, and 2001). The average number over the past 19 years is 5.5. Of course there is variation
from year to year in the intensity of field work. All numbers of active nests and young produced are minimum numbers.

Each territory is discussed below, in order from south to north. Land ownership/jurisdiction for each nest site is indicated. Due to limited field observation time, young birds are not always seen in the act of fledging or shortly thereafter, while still in the nest vicinity. We assume that a young bird has successfully fledged if we have observed it on the nest shortly before fledging time, and it appears healthy and fully feathered or nearly so.

- **Eldorado Springs** (City of Boulder Open Space & Mt. Parks, and Eldorado Canyon State Park). Apparently inactive. No definite nest activity has taken place in this territory since 1985.

- **Skunk Canyon** (City of Boulder Open Space & Mt. Parks). Active; one young fledged.

- **Boulder Canyon** (U.S. Forest Service). Active, but apparently no eggs laid. A pair of eagles occupied this territory and showed interest in an alternate nest site on Security Risk Crag that hasn’t been used since before the beginning of this study. However, by late in the nesting season, the birds were still spending their time flying around together and no eggs were observed on any of the nests in the territory.

- **North Fork of Middle Boulder Creek** (West of town of Eldora; Forest Service). No active nest has been found since the 1950’s, but adult eagles are sometimes sighted in the territory.

- **Boulder North** (Private). Territory not investigated.

- **Lefthand Palisades** (City of Boulder Open Space & Mt. Parks). Active; one young fledged.

- **Marietta Canyon** (Boulder County). Active; two young fledged.

- **Box Canyon** (Boulder County). Active; two young fledged. This site on Heil Ranch was unknown before this year. It is approximately 2 miles from the Lower St. Vrain Canyon site, and may be an alternate nest in that territory.

- **St. Vrain Canyon, Lower** (Forest Service). Inactive. Is this an alternate nest in a territory that includes the Box Canyon site, which was active this year?

- **St. Vrain Canyon, Upper** (Forest Service). This area received little field work this year, and no eagles were observed. Usually, eagles are seen but no active nest is found.

- **Lyons / Meadow Park** (Boulder County). Active; one young fledged.

- **Rabbit Mountain** (Boulder County). Active; one young fledged from west side of the Rhino’s Horn.
Prairie Falcon

Table 2 summarizes the status of each nesting territory from 1983 to 2001. Figure 2 is a graph of number of young produced from 1984 to 2001. Productivity of young was extremely high this year.

2001 status of breeding territories is shown below, in order from south to north. Ten known territories in the study area were investigated. Seven were active; six of these were known to have produced young, with a total of 22 young fledged. This represents very good reproduction compared with previous years, with only 1990 having as many young fledged.

- **Bull Gulch** (private). Not investigated. This site is actually in Jefferson County, but is sometimes monitored in this study as it is very close to Boulder County.

- **Eldorado Mountain (Mickey Mouse Wall)** (City of Boulder Open Space & Mt. Parks). Inactive.

- **Eldorado Canyon** (Eldorado Canyon State Park). Active; at least two young fledged.

- **Shadow Canyon** (City of Boulder Open Space & Mt. Parks). Active; four young fledged.

- **Fern Canyon** (City of Boulder Open Space & Mt. Parks). Active; five young fledged.

- **Bear Canyon** (City of Boulder Open Space & Mt. Parks). Active; five young fledged.

- **Third Flatiron** (City of Boulder Open Space & Mt. Parks). Active; three young fledged.

- **Mount Sanitas** (private). Not investigated.

- **South St. Vrain Canyon** (Forest Service). Inactive

- **Steamboat Mountain** (private). Occupied briefly early in season.

Peregrine Falcon

In 2001, only one site was known to be active, and the nest failed. Table 3 summarizes nesting status from 1991 to 2001. Figure 3 is a graph of number of young produced from 1991 to 2001. This year was the first since 1995 when no young were produced. The past five years had seen an impressive comeback of this species.

- **Eldorado Mountain** (City of Boulder Open Space & Mt. Parks). Inactive

- **Matron** (City of Boulder Open Space & Mt. Parks). Active, but nest failed.

- **Shadow Canyon** (City of Boulder Open Space & Mt. Parks). Inactive, as the alternate site at the Matron was used.
• **Third Flatiron** (City of Boulder Open Space & Mt. Parks). Inactive; territory used by prairie falcons.

• **South St. Vrain** (U.S. Forest Service). Inactive.

• **Steamboat Mountain** (private). Inactive; territory occupied briefly by prairie falcon.

### PROTECTIVE MANAGEMENT

**City of Boulder Open Space and Mountain Parks**

Areas surrounding raptor nests are closed to hiking and rock climbing every year starting February 1. Closures are lifted when nesting activity is completed.

**Boulder County Parks and Open Space**

The Rabbit Mountain site is closed to recreational use from February 1 through July 31 whenever the nest is active.

**Eldorado Canyon State Park**

Climbing closures are in effect for falcon nesting areas from February 1 until after young fledge.

**Roosevelt National Forest**

Management in the Boulder Canyon territory is complicated, as there are two or three widely separated nests which the eagles choose between unpredictably. This year, all sites were posted closed to climbing until approximately April 20, when it was clear that none of the nests was active.

Information about wildlife closures in the area is available at any time from the Boulder FYI phone line, 303-441-4060 ext. 420.

### ACKNOWLEDGMENTS

Many thanks go to the numerous agency representatives who provided information for this report and who have been working to coordinate monitoring efforts and compilation of information: Steve Armstead, Lisa Dierauf and Cary Richardson of City of Boulder Open Space and Mountain Parks; Mark Brennan and Libby Henits of Boulder County Parks and Open Space; Steve Muehlhauser of Eldorado Canyon State Park; Bryan Posthumus of Jefferson County Open Space; Phil Aragon, Jerry Craig, Tina Jungwirth and Bob Dellapina of the Colorado Division of Wildlife; Beverly Baker of the U.S. Forest Service; and Mike Figgs of the Boulder County Nature Association. Dozens of volunteers and rangers assisted in monitoring nests; their efforts are greatly appreciated.
<table>
<thead>
<tr>
<th>Location</th>
<th>North Fork</th>
<th>East Fork</th>
<th>West Fork</th>
<th>South Fork</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fronhhofer Canyon</td>
<td>1000</td>
<td>2000</td>
<td>1999</td>
<td>1997</td>
</tr>
<tr>
<td>Seel Rock</td>
<td>1965</td>
<td>1966</td>
<td>1966</td>
<td>1966</td>
</tr>
<tr>
<td>1700</td>
<td>1700</td>
<td>1700</td>
<td>1700</td>
<td>1700</td>
</tr>
</tbody>
</table>

Table 1: North County Eagle Nest Sites (Continued)
Fig. 1. Golden eagle productivity in Boulder County from 1983 to 2001
Fig. 2 Prairie falcon productivity in Boulder County from 1984 to 2001
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eldorado Mine</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
<td>1 yr. fledged</td>
<td>3 yr. fledged</td>
<td>1 yr. fledged</td>
<td>3 yr. fledged</td>
<td>3 yr. fledged</td>
<td>3 yr. fledged</td>
<td>3 yr. fledged</td>
</tr>
<tr>
<td>Mather</td>
<td>3 yr. fledged</td>
<td>Alternate site used</td>
<td>2 yr. fledged</td>
<td>Alternate site used</td>
<td>Next failed</td>
<td>Alternate site used</td>
<td>3 yr. fledged</td>
<td>Alternate site used</td>
<td>3 yr. fledged</td>
<td>4 yr. fledged</td>
<td>5 yr. fledged</td>
</tr>
<tr>
<td>Shadow Canyon</td>
<td>Inactive</td>
<td>1 yr. fledged</td>
<td>2 yr. fledged</td>
<td>Alternate site used</td>
<td>Next failed</td>
<td>Alternate site used</td>
<td>3 yr. fledged</td>
<td>Alternate site used</td>
<td>3 yr. fledged</td>
<td>4 yr. fledged</td>
<td>5 yr. fledged</td>
</tr>
<tr>
<td>Idaho Falls</td>
<td>Used by pristine falcons</td>
<td>Used by pristine falcons</td>
<td>Used by pristine falcons</td>
<td>Used by pristine falcons</td>
<td>Used by pristine falcons</td>
<td>Used by pristine falcons</td>
<td>Used by pristine falcons</td>
<td>Used by pristine falcons</td>
<td>Used by pristine falcons</td>
<td>Used by pristine falcons</td>
<td>Used by pristine falcons</td>
</tr>
<tr>
<td>Steamboat Mine</td>
<td>Terr. active</td>
<td><strong>Inactive</strong></td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
</tr>
</tbody>
</table>

**Table 2:** Boulder County Pinnacle Falcon Nest Status

**Legend:**
- Inactive: No active nests were observed.
- Alternate site used: Nest was observed at an alternate site.
- Next failed: Nest was abandoned but not used.
- **Terr. active:** Territorial status was confirmed.

**Notes:**
- ****Indicates nests were not used.
- **Young fledged** indicates that the young fledged successfully.
- **Territory occupancy** indicates the territory was occupied.
- **Unknown** indicates the condition of the territory was unknown.

*Territory active means frequent sightings of falcons in territory, but no active nest found.
**Young fledged** means we saw no young falcons during our visits to the territory.
***Inactive*** means the territory was not occupied by the species.*
Fig. 3. Peregrine falcon productivity in Boulder County from 1991 to 2001
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Eldorado Springs (Eldorado Canyon)</td>
<td>1 adult seen</td>
<td>incub, Mouse</td>
<td>Terr. active*</td>
<td>1 yg. fledged,**</td>
<td>Terr. active</td>
<td>Undetermined</td>
<td>Terr. active</td>
<td>Determined</td>
<td>Terr. active</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
</tr>
<tr>
<td>Skunk Canyon</td>
<td>Not investigated</td>
<td>2 yg. fledged</td>
<td>1 yg. fledged</td>
<td>1 yg. fledged,</td>
<td>Terr. active</td>
<td>Terr. active,</td>
<td>2 yg. fledged</td>
<td>1 yg. died after</td>
<td>Nest failed</td>
<td>Terr. active, no</td>
<td>1 yg. fledged</td>
<td>Terr. active,</td>
<td>nest failed</td>
</tr>
<tr>
<td>Boulder Canyon</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>2 yg. fledged</td>
<td>2 yg. fledged</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>2 yg. fledged</td>
<td>Nest failed</td>
<td>Nest failed</td>
<td>Nest failed</td>
<td>Nest failed</td>
<td>Nest failed</td>
<td></td>
</tr>
<tr>
<td>North Fork</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>2 subadults seen</td>
<td>Not investigated</td>
<td>Undetermined</td>
<td>Undetermined</td>
<td>Terr. active</td>
<td>Nest failed</td>
<td>Not investigated</td>
<td>Terr. active</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td></td>
</tr>
<tr>
<td>Boulder North</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td></td>
</tr>
<tr>
<td>Lefthand Palisades</td>
<td>1 yg. fledged</td>
<td>Terr. active</td>
<td>2 yg. fledged</td>
<td>2 yg. fledged</td>
<td>1 yg. fledged</td>
<td>Terr. active</td>
<td>Nest failed</td>
<td>1 yg. fledged</td>
<td>Nest failed</td>
<td>1 yg. fledged</td>
<td>1 yg. fledged</td>
<td>1 yg. fledged</td>
<td></td>
</tr>
<tr>
<td>Lefthand Palisades North</td>
<td>Palisades South</td>
<td>Palisades North</td>
<td>Palisades North</td>
<td>Palisades North</td>
<td>Palisades North</td>
<td>Palisades North</td>
<td>Palisades North</td>
<td>Palisades North</td>
<td>Palisades North</td>
<td>Palisades North</td>
<td>Palisades North</td>
<td>Palisades North</td>
<td></td>
</tr>
<tr>
<td>Marietta Canyon</td>
<td>This site considered to be alternate nest site for Lefthand Palisades territory, until 2000, when both sites were used simultaneously.</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
<td>This site unknown until 2001</td>
</tr>
<tr>
<td>Lower St. Vrain</td>
<td>Terr. active</td>
<td>New mate; late nest-failing unsuccessful</td>
<td>2 yg., nest fell off cliff, fate unknown</td>
<td>2 yg., fledged, 'Cracking Dome' nest</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>1 yg. fledged</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>Terr. active</td>
</tr>
<tr>
<td>Upper St. Vrain</td>
<td>Terr. active</td>
<td>1 yg., S Sheep Mtn.***</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>2 yg., S Sheep Mtn.</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>Terr. active</td>
<td>Terr. active</td>
</tr>
<tr>
<td>Scans</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
</tr>
<tr>
<td>Rabbit Mtn.</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
<td>Not investigated</td>
</tr>
<tr>
<td>Total young presumed</td>
<td>1</td>
<td>3</td>
<td>7</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>5</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>3</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

*Undetermined means insufficient field work to establish territory status.
**Territory active means frequent sightings of eagles in territory, but no active nest found.
***Young fledged means either that young were observed flying or that they were fully feathered and successful fledging was assumed.
****If fledging not specified, means that young were seen early in the season and later visits were not made to confirm fledging.