

LEDERER

Cliff-Nesting Raptors in Boulder County,
OSMP Studies 4460

Study



Lederer, Nan

ANNE RUGGIES ET AL

**Cliff-Nesting Raptors in Boulder County
2001 Status Report**

Nan Lederer

4460

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 Lefthand 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 1. Inter County Golden Eagle nest status (Continued)

Territory	1995	1996	1997	1998	1999	2000	2001
Eldorado Springs	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive
(Eldorado Canyon)							
Skunk Canyon	Terr. active, no nest attempt	1 yg. fledged, Superpower	1 yg. fledged, Superpower, 1 died	2 yg. fledged	2 yg. fledged	2 yg. fledged	1 yg. fledged
Boulder Canyon	1 yg. fledged, Eagle Rock, 1 yg. died	1 yg. fledged, Eagle Rock during incub., Eagle Rock	1 yg. fledged, Eagle Rock, 1 yg. died	1 yg. fledged, Eagle Rock during incub., Eagle Rock	1 yg. fledged, Nest failed	1 yg. fledged, Nest failed	Terr. active, no nest
North Fork	Terr. active	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated
Boulder North	1 yg. fledged	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated
Lehand Palisades	1 yg. fledged, Palisades Canyon	1 yg. fledged, Palisades	1 yg. fledged, Palisades North	2 yg. fledged	1 yg. fledged	1 yg. fledged	1 yg. fledged
Marietta Canyon					1 yg. fledged	2 yg. fledged	
Box Canyon						2 yg. fledged	
Lower St. Vrain	Nest failed	1 yg. died, Cracking Dome	1 yg. fledged, Cracking Dome	Nest failed during incub., Cracking Dome	2 yg. fledged, Cracking Dome	Terr. inactive, Did this pr. move to Marietta Can? to Heil Ranch?	
Upper St. Vrain	Not investigated	Not investigated	Terr. active	1 yg. fledged	Terr. occupied	Terr. occupied	Undetermined
Lyons	2 yg. fledged, Meadow Park	1 yg. fledged, Meadow Park	1 yg. fledged, Meadow Park	1 yg. fledged, Meadow Park	Terr. occupied	1 yg. fledged, Meadow Park	1 yg. fledged, Meadow Park
Rabbit Mtn	Nest failed, 1 yg. died, R. Horn W	1 yg. fledged, Rhino's Horn W	2 yg. fledged, Rhino's Horn W	1 yg. fledged	1 yg. fledged	2 yg. fledged, Rhino's Horn E	1 yg. fledged, Rhino's Horn W
Total young presumed fledged from 12 territories	5	5	6	8	7	7	8
†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.							

Fig. 1. Golden eagle productivity in Boulder County from 1983 to 2001

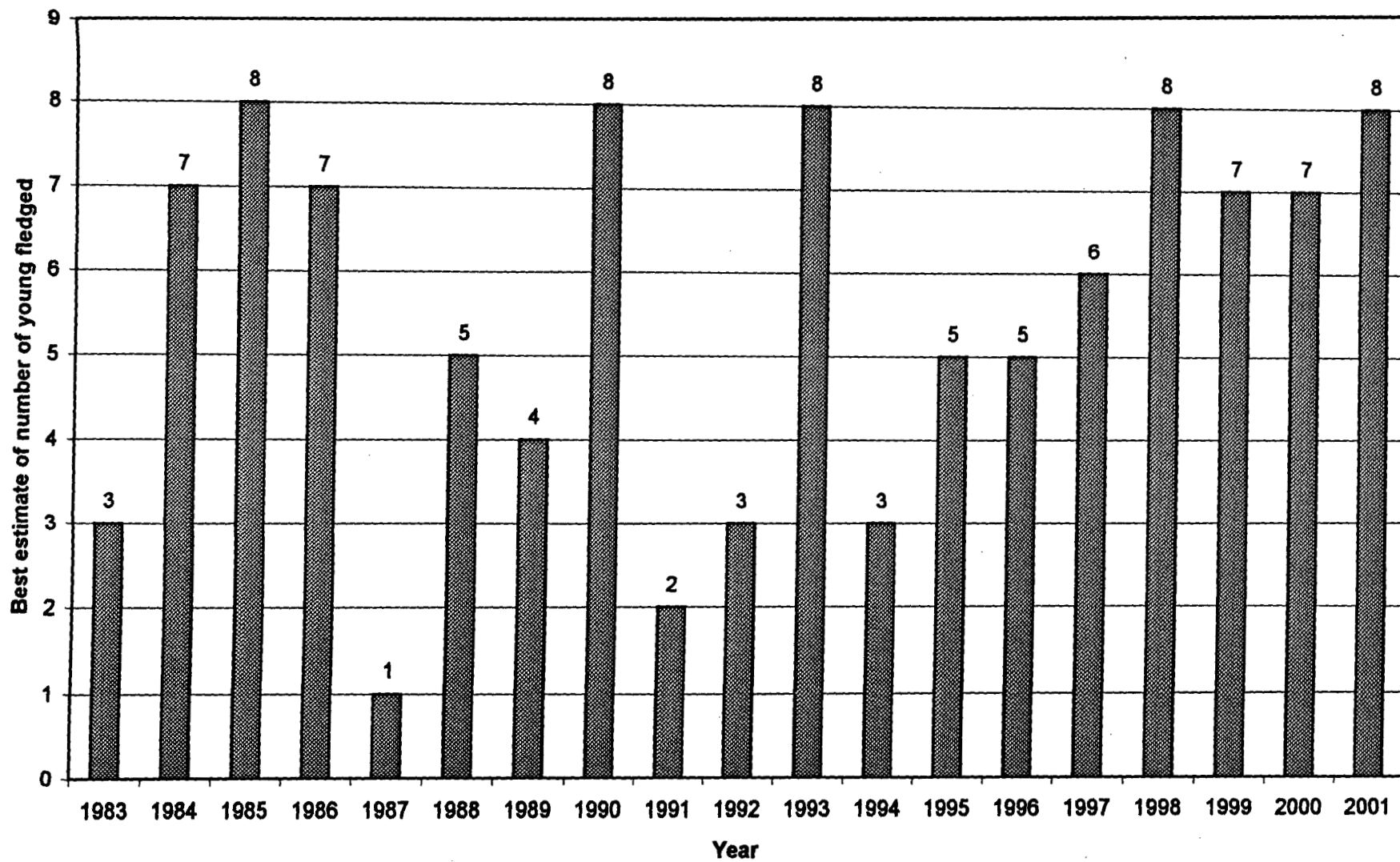


Fig. 2 Prairie falcon productivity in Boulder County from 1984 to 2001

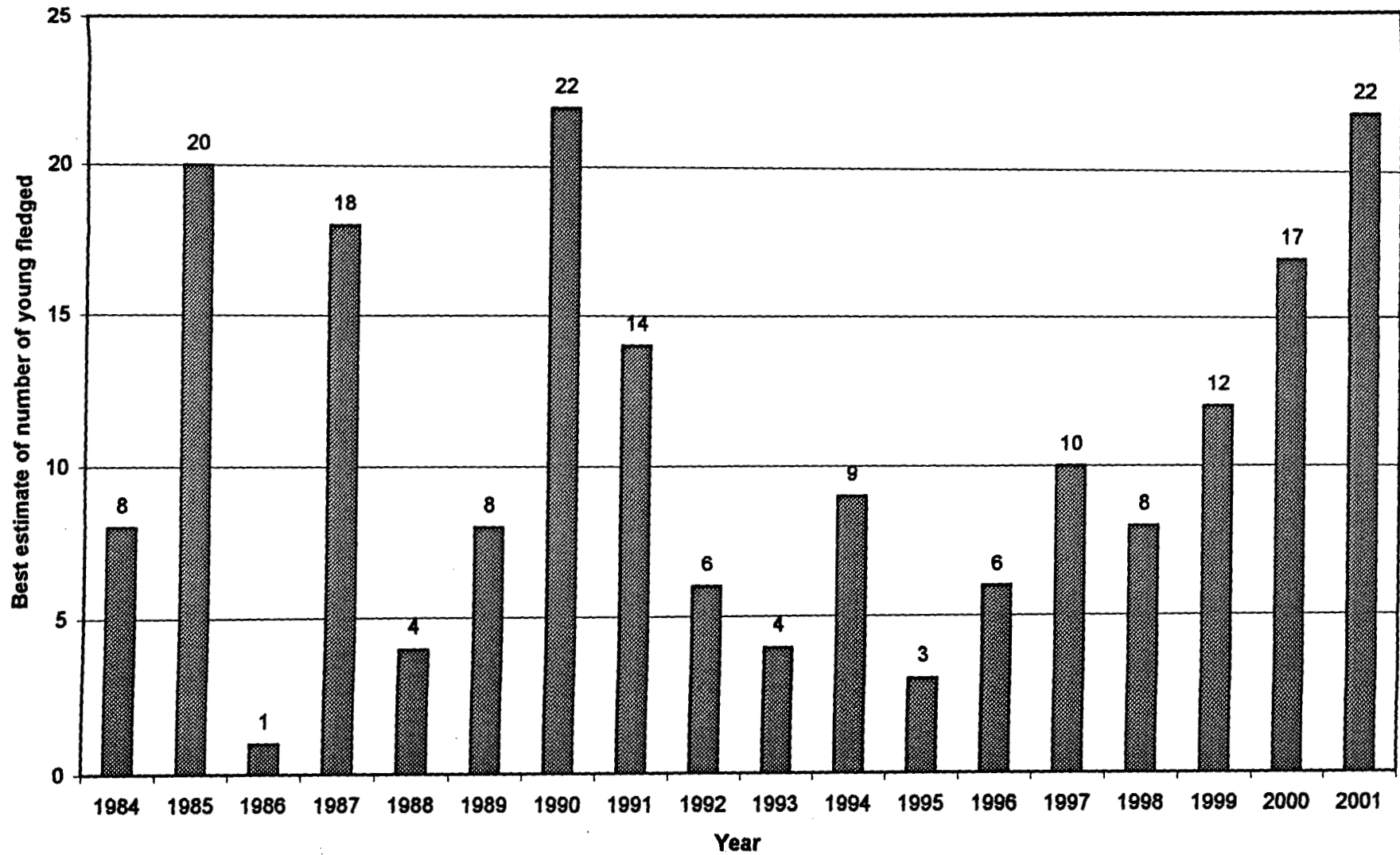


Table 3. Boulder County Peregrine Falcon nest status											
Territory	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Eldorado Mtn.	Inactive...	Inactive	Inactive	Inactive	Inactive	1 YG. fledged: (2 eggs)	3 YG. fledged	1 YG. fledged	3 YG. fledged	3 YG. fledged	Inactive
Matron	3 YG. fledged**	Alternate	Alternate	Alternate	Alternate	3 YG. fledged	3 YG. fledged	4 YG. fledged	2 YG. hatched, nest failed	3 YG. fledged	Nest failed
Shadow Canyon	Inactive	1 YG. fledged	2 YG. fledged	Alternate	Nest failed	Alternate	Alternate	Alternate	Alternate	Alternate	Alternate
Third Flatiron	Used by prairie falcons	Used by prairie falcons	Used by prairie falcons	Used by prairie falcons	Nest failed	Active: female	3 YG. fledged	Nest failed	Terr. occupied	Terr. occupied	Inactive
S. St. Vrain	Need info from CDOW	Need info from CDOW	Need info from CDOW	Need info from CDOW	Need info from CDOW	Need info from CDOW	Need info from CDOW	Terr. occupied, nest status unkn.	Undetermined	Terr. occupied, nest status unkn.	Inactive
Steamboat Mtn.	Terr. active*	Inactive	Inactive	Inactive	Inactive	Undetermined†	Undetermined†	Undetermined	Undetermined	Undetermined	Inactive
Total YG. known out of 6 territories											
	3	1	2	2	0	4	9	5	3	6	0
*Territory active means frequent sightings of falcons in territory, but no active nest found.											
**Young fledged means that either young were observed flying or they were fully feathered and successful fledging was assumed.											
***Inactive means we saw no peregrine falcons during our visits and assumed territory to be unoccupied by this species.											
†Undetermined means insufficient field work to establish territory status.											

Fig. 3. Peregrine falcon productivity in Boulder County from 1991 to 2001

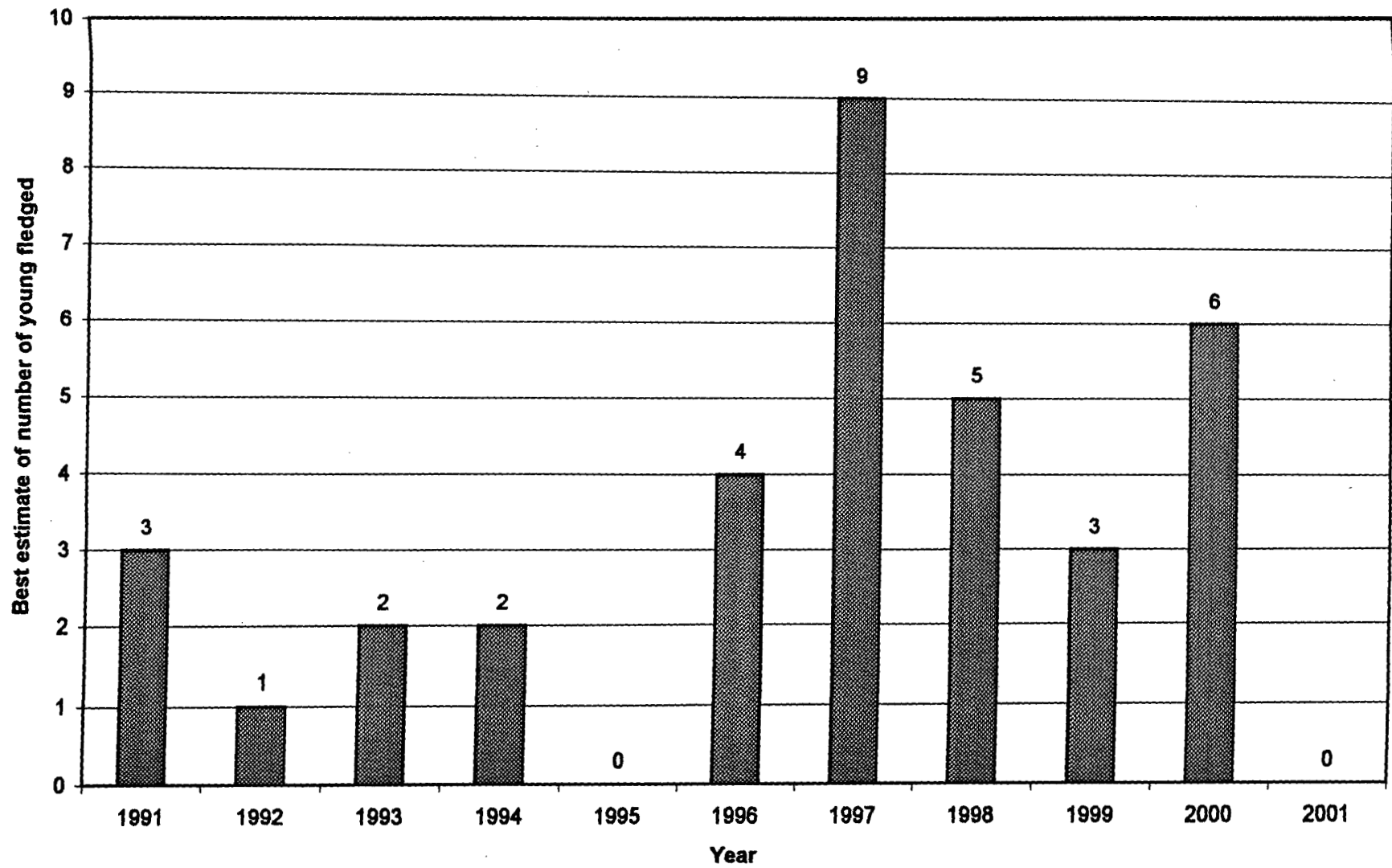


Table 1. Boulder County Golden Eagle nest status													
Territory	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
(south to north)													
Eldorado Springs (Eldorado Canyon)	1 adult seen	Incub., Mouse Ears; failed	Terr. active*	1 yg. fledged, N. of Mouse E.	Terr. active	Undetermined	Undetermined	Terr. active	Undetermined	Inactive	Inactive	Inactive	Inactive
Skunk Canyon	Not investigated	2 yg. fledged, Inferno	1 yg. fledged, Inferno	2 yg. fledged, Superpower	2 yg. fledged, Inferno	Terr. active, did not nest	Terr. active, did not nest	2 yg. fledged, Inferno	1 yg. died after fledging, Inferno	Nest failed, Inferno	Terr. active, no nest attempt	1 yg. fledged	Terr. active, nest failed
Boulder Canyon	Terr. active	Terr. active	2 yg. fledged, Eagle Rock	1 yg. fledged, Eagle Rock	At least 1 yg. fledged, Bitty Buttriss	Undetermined	Incub. Eagle Rock; failed	1 yg. fledged, Blob Rock; 1 yg. died	2 yg. fledged, Eagle Rock	1 yg. fledged, Eagle Rock, 1 yg. died	Nest failed during incubat., Blob Rock	Nest failed during incubat., Bitty Buttriss	Nest failed during incub., Eagle Rock
North Fork	Terr. active	Terr. active	2 subadults seen	Not investigated	Undetermined	Undetermined	Undetermined	Not investigated	Terr. active	Not investigated	Terr. active	Not investigated	Not investigated
Boulder North	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated
Lefthand Palisades	1 yg. fledged	Terr. active	2 yg. fledged	2 yg. fledged	1 yg. fledged	Incub.; nest failed	1 yg. fledged	Nest failed	1 yg. fledged, Palisades South	Nest failed during incubation	1 yg. fledged, Palisades North	2 yg. fledged, Palisades North	Terr. active
Marietta Canyon						This site considered to be alternate nest site for Lefthand Palisades territory, until 2000, when both sites were used simultaneously.							
Box Canyon						This site unknown until 2001							
Lower St. Vrain	Terr. active	New mate; late nest-building, unsuccessful	2 yg., nest fell off cliff, fate unknown	2 yg. fledged, "Cracking Dome" nest	2 yg. fledged, "Cracking Dome" nest	1 yg. fledged	Terr. active	Terr. active, taken over by ravens	1 yg. fledged, Cracking Dome	Unknown	Terr. active	1 yg. fledged, Cracking Dome	Inactive
Upper St. Vrain	Terr. active	1 yg., S. Sheep Mtn.***	Terr. active	Terr. active	Terr. active	Terr. active	2 yg. S. Sheep Mtn.	Terr. active	Terr. active	Terr. active	Terr. active	Terr. active	Inactive
Byons	Not investigated	Not investigated	Not investigated	Not investigated	1 yg., tree nest Stone Canyon	Pair carrying sticks	2 yg.	At least 1 yg. fledged	2 yg. fledged, Meadow Park	1 yg. fledged, Meadow Park	nest failed, Meadow Park	2 yg. fledged, Meadow Park	2 yg. fledged, Meadow Park
Rabbit Mtn.	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	2 yg. fledged	Not investigated	2 yg. fledged, Rhino's Horn W	2 yg. fledged, Rhino's Horn W	1 yg. fledged, Rhino's Horn E
Total young presumed fledged from 12 territories	1	3	7	8	7	1	5	4	8	2	3	8	3

†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.

