CLIFF-NESTING RAPTORS IN BOULDER COUNTY AND VICINITY

1994 and 1995 STATUS REPORT

By Nan Lederer, Boulder County Nature Association and Steve Armstead, Boulder City Mountain Parks September 20, 1995

INTRODUCTION

1994 and 1995 were the twelfth and thirteenth years of a study of nesting golden eagles and prairie falcons by the Boulder County Nature Association (BCNA) in cooperation with the City of Boulder Mountain Parks, City of Boulder Open Space, and the Colorado Division of Wildlife. Since 1991, observations of nest sites within Boulder Mountain Parks and City of Boulder Open Space have been coordinated by Mountain Parks and Open Space ranger staff respectively. Also since 1991, peregrine falcons have been nesting within the study area, and their status has been monitored as well. The study area covers Boulder County and parts of Jefferson and Larimer counties. The study's objectives are to:

- Locate active nests
- Measure productivity (number of young hatched and fledged)
- Monitor nests to document and prevent human disturbance
- Work with governmental agencies, land managers, and conservation groups to protect the raptors' habitat
- Locate and map important hunting territories

Numerous volunteers as well as ranger staff are involved in nest monitoring. Nests are watched with binoculars and spotting scopes from a sufficient distance so as not to disturb the raptors. Observations of nesting status, the birds' behavior, any disturbance to the birds, and other pertinent information are recorded. Databases of this information are maintained by the Mountain Parks, City Open Space, and Boulder County Nature Association.

1994 AND 1995 NEST STATUS

Golden Eagle

Of the total 25 known territories in the study area, 15 were investigated in 1994: 8 in Boulder County, 2 in Jefferson County, and 5 in Larimer County. Of these 15, seven were known to be active in 1994, with 5 nesting attempts, of which 3 were successful, producing a total of 4 young. Two nests failed during incubation or soon after hatching, due to unknown causes. In 1995, 16 of the 25 territories were investigated and two new ones were discovered: 8 in Boulder County, 5 in Jefferson County, and 5 in Larimer County. Of these 18 territories, 16 were known to be active, with 11 nesting attempts, of which 9 were successful, producing a total of 10 young. Two nests failed during incubation or soon after hatching, due to unknown causes. Observer effort was approximately the same between the two years, except that more time was spent in Jefferson County in 1995 than in 1994.

From these numbers, it appears that 1994 was a very poor year for golden eagle reproduction compared to the past 10 years of the study, but 1995 was a good year, with over twice as many nesting attempts and fledged young as in 1994. We do not know whether this difference is due to

random fluctuations in nesting success, or to specific environmental differences between the two years.

Each territory is discussed below, in alphabetical order by county. Land ownership/jurisdiction for each nest site is indicated. Table 1 summarizes the status of each nesting territory from 1982 to 1995. Table 4 summarizes data from Boulder Mountain Parks sites. Due to limited field observation time, young birds are rarely 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.

Boulder County

- Boulder Canyon (Forest Service). In 1994, at least one egg was laid on the Eagle Rock nest, but the nest failed sometime during incubation. The reason for the failure is unknown; no disturbance of the nest was observed. In 1995, two young were hatched; one probably fledged and the other apparently died.
- Eldorado Springs (Boulder City Open Space and Eldorado State Park). Apparently inactive. No definite nest activity has taken place in this territory since 1985.
- Boulder North (Private). Territory not investigated in 1994. Active in 1995 with one young fledged from a tree nest. This may be the same territory that M. Jollie documented in his 1943 study¹, and which we believe to have been abandoned since 1951.
- Lefthand Palisades (Boulder Mountain Parks). Territory active in 1994, but no nesting observed. In 1995, the territory was active; nesting occurred on nearby Heil Ranch, likely by this pair. Two young were hatched and at least one fledged.
- Meadow Park (Town of Lyons). In 1994, active; two young fledged. In 1995, also active with two young fledged.
- North Fork of Middle Boulder Creek (West of town of Eldora; Forest Service). 1994 nesting status unknown. In 1995, a pair of adults was observed in the territory during the breeding season, but nesting status is unknown.
- Rabbit Mountain (Private in 1994, Boulder County in 1995). In 1994, active; one young fledged. In 1995, active; one young hatched but died early in season, cause unknown.
- Skunk Canyon (Boulder Mountain Parks). Active in 1994; one young hatched, but apparently died; nest was abandoned. In 1995, territory occupied by pair, but nesting did not occur.
- St. Vrain Canyon, Lower (Forest Service). Inactive in 1994. Active in 1995; incubation was observed early in season, but nest failed later, cause unknown.
- St. Vrain Canyon, Upper (Forest Service). Inactive in 1994. Not investigated in 1995.

¹Jollie, M.T. 1943. The golden eagle: its life history, behavior, and ecology. PhD. Thesis, University of Colorado, Boulder.

Jefferson County

- Bear Creek (Jefferson County Open Space). New territory discovered in 1995. One young fledged from a tree nest.
- Lower Clear Creek Canyon (Private). Not investigated in 1994. In 1995, territory occupied; nests inactive, but one adult observed perched on a nest with no young or greenery late in season.
- Mount Zion (Private). Undetermined in 1994; adults with young seen in vicinity after nesting season. One visit made in 1995; nest inactive.
- Ralston Buttes (Private). In 1994, territory active; nest status unknown (light poor when nest investigated). In 1995, territory occupied by pair of adults late in season; nest status unknown due to poor light.
- Turkey Creek (Private). 1994 status unknown (light poor when nest investigated). In 1995, active with one young fledged.

Larimer County

- Campbell Mountain (Private). Active in 1994; one young fledged. Territory occupied by pair of adults in 1995, but the known nest was inactive.
- Eagles Nest (Livermore) (Private). Inactive in 1994. Active in 1995; one young fledged.
- Goat Hill (Private). Inactive in 1994. Active in 1995; one young fledged.
- Horsetooth Mountain (Lory State Park). Inactive in 1994. Active in 1995; one young fledged.
- Owl Canyon (Private). Inactive in both 1994 and 1995.

Prairie Falcon

1994 and 1995 status of breeding territories is shown below, in alphabetical order by county. In 1994, four of the total 9 known territories in the study area were active, but only 2 of these produced young (total of 9 birds produced). In 1995, three of the 9 territories were known to be active, but only one had a successful nest, with 3 young fledged. Table 2 summarizes the status of each nesting territory from 1983 to 1994. Table 4 summarizes the Boulder Mountain Parks nest activity.

Boulder County

- Bear Canyon (Boulder Mountain Parks). Inactive in 1994. Territory occupied in 1995, but nesting either failed or was not attempted.
- Eldorado Canyon (Eldorado State Park). Inactive in both 1994 and 1995.
- Eldorado Mountain (Mickey Mouse Wall) (City of Boulder Open Space). Active in 1994; four young produced from nest east of railroad tracks. In 1995, three falcons were observed in the territory early in the season, but no nest activity was confirmed.

- Fern Canyon (Boulder Mountain Parks). Active in 1994; five young fledged. Also active in 1995; three young fledged.
- Mount Sanitas (private). Inactive in both 1994 and 1995.
- Shadow Canyon (Boulder Mountain Parks). Pair present in 1994, but no production of young confirmed. In 1995 the territory was occupied by peregrine falcons.
- Steamboat Mountain (private). Inactive in both 1994 and 1995.
- Third Flatiron (Boulder Mountain Parks). In 1994, pair present early in season, displaced by peregrine falcons. In 1995 the territory was also used by peregrines.

Jefferson County

• Bull Gulch (private). Inactive in 1994. Not investigated in 1995.

Peregrine Falcon

In 1994, two sites were active, with one nest failing and the other producing 2 young. In 1995, two sites again were active, but both failed. Table 3 summarizes nesting status from 1991 to 1995.

Boulder County

- Matron (Boulder City Open Space). Active in 1994; two young hatched but nest failed, possibly due to predation. Inactive in 1995, as the alternate Shadow Canyon site was used.
- Shadow Canyon (Boulder Mountain Parks). Inactive in 1994, as the alternate site at the Matron was used. In 1995, the site was active but the nest failed during incubation.
- Steamboat Mountain (private). Inactive in both 1994 and 1995. (Site previously used by prairie falcons.)
- Third Flatiron (Boulder Mountain Parks). Active in 1994; two young fledged. Active in 1995, but nest failed, probably due to flooding from heavy spring rains.

PROTECTIVE MANAGEMENT

Boulder Mountain Parks

Skunk Canyon is closed to hikers and rock-climbers west of Ridge Two from February 1 through July 31 every year to protect the nesting golden eagles. The Sacred Cliffs, or south ridge of Green Mountain, which is the favored perch of the eagle pair, is also closed to all use. Lefthand Palisades is closed to all use from February 1 through July 31. Closures to protect falcons were in effect for part of the Third Flatiron, the north side of Fern Canyon, off-trail use in Shadow Canyon, and the north ridge of Shadow Canyon (Devil's Thumb Ridge) from Jam Crack Spire and Towers of the Moon at the canyon mouth up to Bear Peak.

In general, park users' compliance with the closures was good. Eight summons and 33 warnings for closure violations were issued in 1994. Most of these occurred at the Third Flatiron, possibly

due to the expansion of the traditional closure to afford greater protection for the new pair of nesting peregrine falcons. In 1995, again 8 summons for violations were issued, all at the Third Flatiron.

Boulder City Open Space

In 1994, Mickey Mouse Wall on Eldorado Mountain was closed to rock-climbing until the active prairie falcon nest was located east of the railroad tracks. At that point, the closure was lifted, and a new closure was posted by the Colorado Division of Wildlife in the vicinity of the active nest, which was on private property. No summons or warnings were issued. Many climber contacts were made by rangers, especially at the Plainview parking area, and many climbers called Open Space to check on status. This communication helped greatly in enforcing the closures. In 1995 also, Mickey Mouse Wall was closed early in the season, and opened in July except for the area where falcon activity was concentrated.

Eldorado State Park

Several climbing routes were closed on Red Garden Wall (where there was an active prairie falcon nest in 1991), and some on Upper Peanuts Wall (where prairie falcons nested in 1990). After considerable monitoring in 1994 and 1995 made it clear that the sites were inactive, the closures were lifted.

Roosevelt National Forest

In 1994, the Colorado Division of Wildlife, with approval of the Forest Service, posted Blob Rock, Bitty Buttress, and Eagle Rock in Boulder Canyon closed to climbing as of February 1. Once the eagles had begun incubating eggs at the Eagle Rock site, the closures were lifted from the other two sites. In 1995, Eagle Rock was posted. No violations were observed in either year.

SUMMARY

Golden eagle

Of 25 known golden eagle territories in the study area, 15 were observed during 1994, with 6 active and 9 inactive. Five nest attempts produced a total of 4 young from 3 successful nests. Two nests failed during incubation or shortly after hatching, for unknown reasons. In 1995, 16 of the 25 previously known territories plus 2 new ones were observed, with 16 of these active and only 2 inactive. Eleven nesting attempts produced a total of 10 young from 9 successful nests. As in 1994, two nests failed during incubation or soon after hatching, again due to unknown causes. Observer effort was approximately the same between the two years, except that more time was spent in Jefferson County in 1995 than in 1994.

From these numbers, it appears that 1994 was a very poor year for golden eagle reproduction compared to the past 10 years of the study, but 1995 was a good year, with over twice as many nesting attempts and fledged young as in 1994. We do not know whether this difference is due to random fluctuations in nesting success, or to specific environmental differences between the two years.

Prairie falcon

Four of the 9 known prairie falcon territories were active in 1994 and 5 inactive. Two of the active nests produced a total of 9 young; one pair was displaced by peregrine falcons, and one nest active

early in the season apparently failed. In 1995, 3 of the 9 territories were known to be active, but only one had a successful nest, with 3 young fledged.

Peregrine falcon

In 1994, two peregrine falcon sites were active, with one nest producing 2 young and the other failing, possibly due to predation. In 1995, two sites again were active, but both nests failed; at least one of the failures was probably due to flooding from heavy spring rains.

ACKNOWLEDGMENTS

Steve Armstead coordinated the raptor program for Boulder Mountain Parks, assisted by rangers Matt Clausen, Kacy Kobrin, Maria Mayer, Katie McEldowney, Donna Nemeth, Eliza Rayner, Jeanne Scholl, Burton Stoner, Kelly Walsh, and other Mountain Parks staff. Rod Moraga headed raptor management activities for Boulder City Open Space, with help from other ranger staff. Dora Perry coordinated raptor monitoring activities for Eldorado Canyon State Park. Patt Dorsey of the Colorado Division of Wildlife established closures for the Boulder Canyon site, and trained volunteers to monitor the site. Nan Lederer was the Boulder County Nature Association coordinator for the study.

Numerous volunteers assisted in nest-watching, including Richard Ackerman, Tema Bennet, Kenny Blum, David Bodnar, Mary Boswell, Vern Bunch, Barney Buria, Josh Cinner, Curt Cotter, Jack Dennis, Holly Devaul, Mike Figgs, Brian Forsline, Debbie Forsline, Maria Gesolmi, Don Glen, Bill Graves, John Hamlin, Dan Hereid, Jeff Holdridge, Steve Jones, D.W. King, Steve King, Teresa Koby, Meg Miller, Randy Norman, Aaron Potito, Chuck Purdy, Sue Rodriguez-Pastor, Ceal Ruffing, Lauren Schneider, Kjerstin Skov, Hadi Soetrisno, John Tumasonis, Todd Vandyke, Joe VanLandshoot, Sally White, Molly Willard, and Gary Young.

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teamboat Mtn.	Not investigated	l yg. fledged	3 yg. fledged	Not investigated	Not investigated	Dadetermined	At least 2 yg.	At least 3 yg.	Site occupied by	Briefly occupied	Inactive	Inactive	Inactive	6/6
								S. Cedarbrook	S. Cedarbrook					· · · · · · · · · · · · · · · · · · ·
lt. Sanitas	Not investigated	Terr. active		3 yg. fledged,	Inactive	Inactive	Inactive	Inactive	9 / L					
			Queen Anne's		West side		fledged, West	fledged, West	West site	Queen Anne's	ductivity unk.	by peregrines	peregrines	
nord Flatiron	Terr. active	Terr. active	l yg. fledged,	Not investigated		Теп. асцуе	At least 3 yg.	At least 3 yg.	5 yg. fledged,	4 yg. fledged,	Nest active, pro-		Occupied by	6/07
							LSACUS							
ear Canyon	Not investigated	Terr. active	4 yg. fledged	Incub.; failed	4 Ng. IJedged	4 yg. fledged	Mest need by	Inactive	Inactive	Inactive	Inactive	Inactive	Terr. active	17/6
								bauot ton						
				bauoi ion isan				by calls; nest		fledged, E. Ridge	ductivity unk.			
ern Canyon	Not investigated	3 yg. fledged	5 yg. fledged	1 yg. on ground;	3 yg. fledged	hastive	Svijobri	Est 2 yg. fldgd,	Terr. active	At least 2 yg.	Nest active,pro-	δ yg. fledged	3 yg. fledged	24/11
							troos	nedged			esningened			······
радом Сапуоп	Not investigated	4 yg. fledged	Terr. active	Тепт. асцуе	2 yg. fledged	Теп. астіvе	Yg. heard, not	At least 2 yg.	Terr. active	At least 1 yg.	Displaced by	Terr. active	Inactive	L/6
iste Park)								Peanuts	Garden Wall					
idorado Canyon	Not investigated	Not investigated	4 yg. fledged	Inactive	Inscrive	Enactive	Undetermined		Z yg., Red	Inactive	Inactive	Inactive	Inactive	8 / 10
Mickey Mouse Wall)							fledged			ductivity unk.	South Tower	E. of RR tracks		
ldorado Mtn.	Terr. active	Terr, active	Теп. всйус	+++sviroan1	SvitoanI	Inactive	At least 2 yg.	4 yg. fledged	Terr. active	Nest active, pro-	4 yg. fledged	4 yg. fledged	Terr. active	L/01
							pogpou							
nji Enjep	Not investigated	Not investigated	3 yg. fledged**	Terr. active*	δ yg. fledged	Undetermined†	At least 1 yg.	4 yg. fledged	4 yg. fledged	Undetermined	Undetermined	avitos nī	Not investigated	9/11
(south to north)						· ·								
Territory	1983	1861	5861	9861	4861	8861	6861	0661	1661	7661	£661	†66I	S661	Productivity

Table 3. Boulder Count	y and vicinity Per	egrine Falcon ne	st status			
Territory	1991	1992	1993	1994	1995	Productivity††
Shadow Can./ Matron	3 yg. fledged**	1 yg. fledged	2 yg. fledged	2 yg. hatched, nest failed	Nest failed	6/ 5
Steamboat Mtn.	Terr. active*	Inactive	Inactive	Inactive	Inactive	0 / 5
Third Flatiron	Used by prairie falcons	Used by prairie falcons	Used by prairie falcons	2 yg. fledged	Nest failed	2/2
Total yg. known out of						
3 territories	3	1	2	2	0	8/ 12
*Territory active means fi **Young fledged means to ***Inactive means we say	hat either young v	vere observed flyir	ng or they were fu	lly feathered and s	successful fledging	was assumed.
†Undetermined means in ††Productivity means nur	sufficient field wo	rk to establish ter	ritory status.		was determined, ir	ncluding nest
failures and inactive year						

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Table 4. Boulder Mountain Parks raptor nest status

	1994 OBS	ERVATIONS							
NEST	SPECIES	1ST OBSERVED	INCUBATING	BROODING	YOUNG SEEN	#	FLEDGING	BANDED	OTHER INFO
SHADOW	PEREGRINE	2/26/94	4/15/94 (2)	5/20/94	5/20/94	2			NEST FAILED, 6/10 , POSSIBLY PREDATED
SHADOW	PRAIRIE	3/31/94	4/30/94	5/20/94	NA		NA		UNKNOWN RESULTS, NO YOUNG EVER SEEN
FERN	PRAIRIE	3/19/94	5/8/94	5/23/94	6/19/94	5	7/4/94	N	ALL FIVE CHICKS FLEDGED
3RD	PRAIRIE	2/16/94	NA	NA	NA		. NA	N	LAST OBSERVED ON 4/8/94; DISPLACED BY PEREGRINES
3RD	PEREGRINE	3/19/94	5/3/94	6/5/94	6/5/94	2	7/11/94	Y	ADULT FEMALE IS BANDED/RED/BLACK; 2 MALE CHICKS FLEDGED
SKUNK	EAGLE	2/20/94	4/14/94 (2)	5/1/94	5/1/94	1		N	5/14/94 NEST ABANDONED/ EAGLE CHICK MISSING
LEFTHAND	EAGLE								3 EAGLES OBSERVED, TWO ADULTS ONE IMM. TERRITORY ACTIVE NOT NESTING, MAYBE TO N.W.
							<u> </u>		

	T T						Γ		T
	1995 OBS	ERVATIONS							
NEST	SPECIES	1ST OBSERVED	INCUBATING	BROODING	YOUNG SEEN	#	FLEDGING	BANDED	OTHER INFO
SHADOW	PEREGRINE	3/10/95	5/1/95	NA	NA	0	NA		NEST FAILED IN INCUBATION
DINOSAUR	PRAIRIE	5/17/95	NA	NA	NA	0	NA		UNKNOWN RESULTS, PAIR ACTIVE IN AREA, NEVER NESTED
FERN	PRAIRIE	2/23/95	5/2/95	6/13/95	6/13/95	3	7/6/95		ALL THREE CHICKS FLEDGED
3RD	PEREGRINE	2/4/95	4/18/95	NA	NA	0	NA		NEST FAILED IN INCUBATION
SKUNK	EAGLE	2/18/95	NA	NA	NA	- 0	NA		TERRITORY ACTIVE, COURTSHIP OBSERVED, N
LEFTHAND	EAGLE	NA	NA	NA	NA	0	NA		MINIMAL ACTIVITY, PRESUMED TO HAVE NESTED ELSEWHERE

qs ion anigbeli il***	ecified, mea	ans that young wen	nss ean ear	n early in the s	season and later v	m ton erew stisis	nitroo ot sbi	ledgin	·gui				· · ·	<u>-</u>		Т		1
am havhaft virro Y**	ins either th	hat voung were obs	vii bavaas	d flying or tha	at they were fully	reachered and su	beft lutesess	SEM 8	s assumed.							··		
Ram avitae vantimeT*	tnaunant zn	eaghtings of eagle:	sin territo	erritory, but no	nuot isən əvitəs o	.br												
†Undetermined mean	reioiffueni e	nt field work to est	rstablish ter	h territory stat	.sun.				.,									
Tedged from 10 terr	səinəti			3	L	8	L		I	c	b	· ·	7				c	
Total young presum	ba													t	- 8		>	<u>></u>
	,													MINOU SOUND	MILION S COUNTY	T HOLL COUNTY	dica, to troin w	A HOLL COMEN
Kabbit Mtn.		Not investigated	Not inve	investigated	Not investigated	Not investigated	Not investig	oN pa	tot investigated	Not investigated	Not investigated	z yg. nedged	Not investigated	7 yg. Hedged,	W group 1 3/2	I yg. fledged, Rhino's Horn E	W mod a beib	W moH a'oning
											1		Favor Same: Asid	pospog on C	benben nu C	benbelt ny l	ny I belied task	benbelt put i
							Stone Cany	8ui	ng sticks		pegbeli	Meadow Park	Meadow Park	Meadow Park	Meadow Park	Meadow Park	Mesdow Park	Meadow Park
Suo.(')		Not investigated	Svni 10M	investigated i	Not investigated	Not investigated	1 yg., tree n	Pai	air carry-	Z y8.		2 yg. fledged,	I yg. fledged	nest failed,	Z yg. fledged,	2 yg. fledged,	2 yg. fledged,	I yg. fledged,
														F-1;-3	_ purpos un C	pospog on C	PospoB Su C	boobelt on I
			***,mM	+++						.mM								
Upper St. Vrain		Terr. active	.2 8v 1	r, S. Sheep	Terr. active	Terr. active	Terr. active	ъТ	ett. active	2 yg. S. Sheep	Teff. active	Terr, active	Terr. active	Terr. active	Terr, active	Inactive	IAOL BIACOURGEON	Not investigated
						7				12				0.0,000 330,1,1	6/1/200 2007	enitoral.	betenitseval toM	betroitsever to M
						Dome" nest 🖔	Dome" nest				LSAGUZ							
			lind-tean	, gniblind-	off cliff; fate	"Cracking	*Cracking				taken over by	Cracking Dome			Cracking Dome		Cracking Dome	Cracking Dome
Lower St. Vrain	· · · · · · · · · · · · · · · · · · ·	Terr. active	New mai	mate; late	llei izengy 2	2 yg. fledged,	2 yg. fledge	1 2	yg. fledged	Terr. active	Terr. active,	l yg. fledged,	Unknown	Terr, active	I yg. fledged,	Inactive	Nest failed,	l yg. died,
				<u> </u>											Pospo on I	0.1,40001	belied tack	beib ou I
			·	<u> </u>				fiel	belied			Palisades South	ing incubation	Palisades North	Laisades ivoidi		וובוו זעשונוו	T diloduca
estinand Palisades		l yg. fledged	Terr. acti	active 2	Z yg. fledged	2 yg. fledged	1 yg. fledge		ıcnp.; nest	l yg. fledged		i yg. fledged,	Nest failed dur-	I yg. fledged,	2 yg. fledged,	Теп. асцуе	l yg. fledged, Heil Ranch	l yg. fledged, Palisades
				<u> </u>					1		1							beabelt av I
Soulder North		Not investigated	Not inve	1 beingated 1	Not investigated	Not investigated	Not investig	ioN be	beingestigated	Not investigated	Not investigated	Not investigated	Not investigated	NOT INVESTIBATED	NOT INVESTIBATED	MOLIUACSURSION	1 yg. Hedged	Not investigated
					l			1			1			F	Pavas Name (Vale	botonitouri told	- boshafi pir I	betentiagera; told
Vorth Fork		Terr. active	Terr. acti	active 2	c subadults seen	Not investigated	Undecernin	un	ndetermined	Undetermined	Not investigated	Tem. active	Not investigated	Lett. active	DOIESTISONII 10N	Not investigated	Tell: Scilve	Not investigated
					<u> </u>						-				F-V-,,	Potos items i Asid	- Cuito ToT	tetenitanini teld
							Buttress				yg. died		yg. died	Blob Rock	Bitty Buttress	Eagle Rock	yg. died	
				3	Eagle Rock	Eagle Rock	fledged, Bitt			Rock; failed		Eagle Rock	Eagle Rock, I	during incubat.,		during incub.,	Eagle Rock, I	Eagle Rock
Soulder Canyon		Теп. асцуе	Terr. acti	active 2	2 yg. fledged,	l yg. fledged,	At least 1 yg	onU	ndetermined	Incub. Eag.	l yg. fledged,	2 yg. fledged, Eagle Rock	l yg. fledged,	Nest failed	Nest failed	Nest failed	l yg. fledged,	l yg. fledged,
					<u> </u>						† 			, ,, ,, ,, ,,	F-11-9. J-14	E-11-2 trold	Postor Sul	heaten ny 1
			omaini			Superpower	Inferno	bib	tean fon b	did not nest	omenin	fledging, Inferno	interno	nest attempt		nest failed	nest attempt	2nbetbower
kunk Canyon		Not investigated	2 yg. fled	fledged, 1	l yg. fledged,	2 yg. fledged,	2 yg. fledge			Terr. active,	Z yg. fledged,	I yg. died after	Nest failed,		l yg. fledged	Terr. active,	Terr. active, no	
											1	<u> </u>			F		or outpo meT	pospog an i
Eldorado Canyon)			Ears; fail			N. of Mouse E.												
dorado Springs		l adult seen	Incub., M	T sauoMc	Terr. active*	l yg. fledged,**	Terr. active	DnU	ndetermined	Undetermined	Terr. active	Undetermined	Inactive	Inactive	Inactive	Inactive	Inactive	inactive
											1		<u> </u>				0.1,50041	5.1,1064
non of fitnos)		1	1			•												
Territory		7861	861	£861	1861	\$86I	9861		L861	8861	6861	0661	1661	7661	€661	766 I	\$661	9661_
	l										1			1		7,001	7001	7001
able I. Boulder Co	unty Golder	en Kagle nest statu	sn								1		<u> </u>					

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		1004	1005	1006	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Territory	1983	1984	1985	1986	198/	1988	1969	1770	1771	1,7,2	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		1	
(south to north)	ļ						 	 						
		N	2 va fladandss	Tem active*	5 yg. fledged	Undetermined†	At least 1 vo	4 yg. fledged	4 yg. fledged	Undetermined	Undetermined	Inactive	Not investigated	Not investigated
Bull Gulch	Not investigated	Not investigated	3 yg. nedged	Tell. acuve	5 yg. neugea	Olidetellimited	fledged	1,15,110,500	, , <u>, , , , , , , , , , , , , , , , , </u>					
							Heages							
Eldorado Mtn.	Terr. active	Terr. active	Terr. active	Inactive***	Inactive	Inactive	At least 2 vg.	4 yg. fledged	Terr. active	Nest active, pro-	4 yg. fledged	4 yg. fledged	Terr. active	Est. 3? yg. flgd
(Mickey Mouse Wall)	1err. active	Tell. active	Tell. active	III.			fledged			ductivity unk.	South Tower	E. of RR tracks		E of RR
(Mickey Mouse Wall)														
Eldorado Canyon	Not investigated	Not investigated	4 vg. fledged	Inactive	Inactive	Inactive	Undetermined	2 yg., Upper	2 yg., Red	Inactive	Inactive	Inactive	Inactive .	Inactive
(State Park)	1401 Hivestigated	Not invostigated	1 yg. 1100g00			-		Peanuts	Garden Wall					
(State Park)	1													
Shadow Canyon	Not investigated	4 vo. fledged	Terr. active	Terr. active	2 yg. fledged	Terr. active	Yg. heard, not	At least 2 yg.	Terr. active	At least 1 yg.	Displaced by	Terr. active	Inactive	Terr. active
Shadow Canyon	Trot investigates	175					seen	fledged	L		peregrines			
									L			L	 	0 0 1 1
Fern Canyon	Not investigated	3 vg. fledged	5 yg. fledged	1 yg. on ground;	3 yg. fledged	Inactive	Inactive	Est. 2 yg. fldgd,	Terr. active	At least 2 yg.	Nest active,pro-	5 yg. fledged	3 yg. fledged	3 yg. fledged
I tili Callyon	Trot arveongues			nest not found			T	by cails; nest		fledged, E. Ridge	ductivity unk.			
								not found						
								<u> </u>			<u> </u>	ļ	T	Terr. active, no
Bear Canyon	Not investigated	Terr. active	4 yg. fledged	Incub.; failed	4 yg. fledged	4 yg. fledged	Nest used by	Inactive	Inactive	Inactive	Inactive	Inactive	Terr. active	nest Back Porch
							ravens		ļ		ļ	 		HEST, BACK POICE
								1	ļ <u> </u>	1	Nest active,pro-	Pair displaced	Occupied by	Occupied by
Third Flatiron	Terr. active	Terr. active	l yg. fledged,	Not investigated		Terr. active	At least 3 yg.	At least 3 yg.	5 yg. fledged,	4 yg, fledged, Queen Anne's		by peregrines	peregrines	peregrines
			Queen Anne's		West side		fledged, West	fledged, West	West site	Queen Anne 8	ductivity unk.	by peregrines	peregrines	peregrinos
							-	4 0 . 1	2 va fladaad	Inactive	Inactive	Inactive	Inactive	Not investigate
Mt. Sanitas	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Not investigated	Terr. active	4 yg. fledged, S. Cedarbrook	3 yg. fledged, S. Cedarbrook	Писиче	Hideuve	The state of the s		1
			<u> </u>			ļ	 	S. Cedarbrook	S. Cedarorook	 				1
			ļ		N	77-4-4	At least 2 yg.	At least 3 yg.	Site occupied by	Briefly occupied	Inactive	Inactive	Inactive	Not investigate
Steamboat Mtn.	Not investigated	l yg. fledged	3 yg. fledged	Not investigated	Not investigated	Undetermined	fledged	fledged	peregrines	by 1 peregrine				
		ļ				 	neaged	neugeu	peregrines	by I peregrina				
	ļ	ļ			-	1	 		 		1			T
Total young produced	 		20	 	18	4	8	22	14	6	4	9	3	6
from 9 territories	0	8	20	1	18.	 	+		1	 				
	1	6 6-1i= tc=-i+	- but no notice	nest found :	-	 	 	1		1				
*Territory active means f	requent sightings o	I falcons in territo	ry, but no active	lly feethered and	guccessful fledgie	haminas assumed	-	1	1	1				
**Young fledged means	mat either young w	ere observed flyir	ng or mey were it	he unocounied	Succession neorgia	Han assumed.	1	1	1					
***Inactive means we say	w no falcons during sufficient field wor	our visits and as	sumed territory to	be anoccupied.	 		 	+	1					

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		g'	e don't have dat	d in this table; w	ebuloni ton teen i	Note: Coffintop Gulch
		:			-	
						tUndetermined mean
						*** Inactive means we
ul fledging was assumed.						
	.bn	active nest four	i territory, but no	ngs of falcons in	is frequent sighti	*Territory active mear
Þ	0 .		2	ŀ	3	of 3 territories
	, .					Total yg. known out
λđ· qieq)						
S eggs hatched;						
mate failed (1 of						
wən \w tean-a月						
removed,DOW.						
hybrid & eggs			falcons	falcons	falcons	
Active; female	Nest failed	2 yg. fledged	Used by prairie	Used by prairie	Used by prairie	Third Flatiron
Undetermined†	Inactive	Inactive	Inactive	Inactive	Terr. active*	Steamboat Mtn.
site used		site used				
Alternate	Nest failed	Alternate	2 yg. fledged	1 yg. fledged	Inactive	Shadow Canyon
	beau effe	bəlist taan	site used	site used		
3 yg. fledged	Alternate	S yg. hatched,	Alternate	Alternate	3 yg, fledged**	Matron
(S eggs)					•.	
J Adr (jeqdeq:	Inactive	Inactive	Inactive	Inactive	Inactive***	Eldorado Mtn.
9661	1995	766L	1993	1992	1661	Territory
			s	alcon nest statu	nty Peregrine F	Table 3. Boulder Cou