## State of California THE RESOURCES AGENCY Department of Fish and Game Wildlife Programs Branch

# **BOBCAT HARVEST ASSESSMENT**

1998-99

by

William E. Grenfell Jr.

November 1999

#### ABSTRACT

An estimated 690 bobcats were taken during the 1998 hunting year and the 1998-99 trapping season. Trappers took 224 bobcats, and hunters took 353. The total take was a decrease of 41 percent from the 1997-98 year. The average pelt price decreased from \$31.11 last year to \$30.55 this year (Table 5). The average take per successful trapper decreased, and the number of bobcat trappers decreased from 91 to 22.

Data on the bobcat harvest were gathered through the process of tagging bobcat furs for export, the annual trapping report and bobcat hunter report cards, and U.S. Department of Agriculture Wildlife Services records.

#### INTRODUCTION

The annual bobcat harvest increased in the 1960s and continued through the late 1970s. This increase was brought about by high fur prices. The sale of bobcat pelts provided the most income to trappers of any species trapped and sold in California since the 1975-76 season. In order to determine the magnitude of the bobcat harvest and the effects on bobcat populations in the state, several studies were initiated. Field studies of local population dynamics were conducted on unharvested populations in Siskiyou, Riverside and San Diego counties and on a harvested population in San Diego County. Also, a statewide harvest monitoring program was initiated to determine the age, sex structure, and harvest of bobcats on a regional basis. Currently, only the harvest is being monitored because the harvest and demand have been low since 1981-82.

Public interest in the bobcat increased in the early 1970s on both domestic and international fronts due to an increase in the demand for bobcat pelts. Prior to 1971, the bobcat in California was a non-protected mammal, and there were no restrictions on its take. In 1971, this species was given nongame status by the California Legislature.

In 1973, the United States became party to the Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES). The treaty restricted trade in endangered species and established procedures to monitor the trade of other species that might be faced with endangerment in the future. The bobcat was one of the species selected by the parties to the treaty as a possible candidate for future endangerment, primarily because of concern for the Mexican bobcat. The Endangered Species Scientific Authority (ESSA) was established as the scientific body to monitor the bobcat's status in the United States, and the U.S. Fish and Wildlife Service (USFWS) was given authority over trade as provided in the treaty.

In 1974, a six month season was established for the take of bobcats. This season was reduced to the standard 3½ month furbearer season in 1976.

In 1977, The Defenders of Wildlife petitioned the Secretary of Interior to place the bobcat on the endangered species list. This action was taken because of the high demand and prices for bobcats at that time. The Secretary of Interior found that Defender's petition was not warranted. Also in 1977, the California Fish and Game Commission enacted regulations that required pelts from bobcats taken for commercial purposes under a trapping license be tagged with a USFWS shipping (export) tag. This was done to comply with the provisions of CITES, as the bobcat had recently been designated an Appendix 2 species. The issuance of export tags allow the Department to closely monitor the take and sale of bobcat pelts.

In November 1979, Defenders brought suit against the ESSA, claiming that ESSA did not make its findings based on biological information. The suit was heard in December, and the court reversed ESSA's findings for several states, but not for California. Later, the ESSA was

dissolved, and responsibility was transferred to the USFWS Office of Scientific Authority (OSA). OSA was given responsibility for scientific monitoring. OSA reviewed California's biological data and analysis that resulted from several years of harvest monitoring field studies of the bobcat. California's pre-breeding estimate of 72,000 adult bobcats, and harvest quota of 14,400 animals per year was approved by OSA.

Defenders of Wildlife appealed the Court's ruling. This resulted in a court order that prohibited the export of bobcat pelts taken after July 1, 1982. This ban was imposed until OSA could satisfy the court that export of bobcat pelts was based on reliable population estimates, and that each state would enforce a predetermined take limit. During 1982, there was legislative redefinition of the Endangered Species Act which effectively voided the court's ban on export. On December 1, 1982, the export ban was lifted and the major European market was reopened.

During the 1978-79 trapping season, the export tag quota of 14,400 animals was reached by the end of January, effectively shortening the season by one month. During 1979-80, the trapping season was reduced to 2½ months but was closed on December 29, 1979, one month earlier than proposed because the quota of export tags had been reached once again.

For the 1980-81 season, the state was divided into three trapping zones, each with a different season length, depending on the status of the local bobcat populations. These regulations were a result of previous research and monitoring efforts. The 1981-82 season length was increased by one week, except in the northeastern California zone, in order to have the bobcat trapping season coincide with the trapping season on gray fox. In 1982-83, the northeastern California trapping season was set back two weeks, and its length was increased by one week.

The season limit for hunting bobcats was set at two for the 1980-81 hunting season and increased to five for the 1984-85 season. Prior to 1982-83, the hunting season length and timing coincided with the trapping (commercial) season. In 1982-83, the hunting season was extended by two weeks past the end of the trapping (commercial) season in Del Norte, Humboldt, Kern, Lake, Mendocino, Trinity, and San Diego counties. For the 1985-86 season, the hunting season was extended statewide to open one week before the commercial season through February 15.

In 1993, legislation was introduced (Assembly Bill 380) to ban the hunting and trapping of bobcats in California. That proposed legislation did not pass.

Bobcat hunting and trapping regulations were again adjusted for the 1994-95 season. The season length of the three trapping zones were made the same, and ran from November 24 through January 31. The hunting season was adjusted to run form October 15 through February 28, statewide. The reason for this action was to provide more opportunity for hunters and trappers. The total bobcat take in recent years has been substantially less than 20 percent of the OSA quota, and therefore is not in danger of over harvest.

On November 3, 1998, California voters passed Proposition 4. This proposition specifically bans the use of all body-gripping traps, including leghold and conibear type traps.

Since 1982, the bobcat harvest has been monitored closely; the results of this monitoring for the 1998-99 season are discussed in this report.

#### **OBJECTIVES**

- 1. Determine the annual bobcat harvest on a regional basis.
- 2. Use this information, along with previously gathered information on bobcat biology and population dynamics, to manage local populations by manipulating season lengths and chronology, take methods, and harvest limits.

#### **METHODS**

The commercial take is determined through assessment of mandatory annual reports of licensed trappers and an export tagging program for all bobcat furs. Commercial fur trappers report their take at the end of each license year (fiscal year), giving the quantity of take of each species by county. Anyone possessing or wishing to sell or to transport a bobcat fur must have it tagged. As part of the tagging process, the trapper must supply information on the place, date, and method of take.

Information on hunting is gathered through the sale of hunting tags and their return. Hunters of bobcat are required to report their kill and provide information on their take.

All depredation take must be reported to the Department. This information is reported directly by the person taking the bobcat or by the public agencies responsible for the depredation control work.

#### **RESULTS**

99 00

For the 1998-99 season, the total estimated take of bobcats was 690 individuals (Table 1). This was a 41 percent decrease over the 1997-98 trapping year. Commercial trappers for the first time did not take the majority of bobcats. The total hunter take of 353 (Tables 1 and 2) was lower than in 1997-98. The total take of bobcats ranged from none in 12 counties to 88 in Siskiyou County (Table 2).

TABLE 1
Estimated Annual Take of Bobcats by Hunting and Trapping in California
1978-79 to 1998-99

Season	Total Commercial Take (IA+IB)	Commercial Trapper Take (IA)	Commercial Hunter Take (IB)	Total Hunter Take (II)	Animal Damage Control Take* (III)	Total Annual Take (IA+II+III)
1978-79	8,325	6,825	1,500	5,811	56	12,692
1979-80	7,809	6,686	1,123	7,708	32	14,426
1980-81	9,595	8,702	893	3,737	24	12,463
1981-82	9,337	8,162	1,175	3,037	34	11,233
1982-83	8,513	7,427	1,086	2,951	48	10,426
1983-84	7,362	6,576	786	2,077	43	8,696
1984-85	8,897	7,495	1,402	2,993	48	10,536
1985-86	8,099	6,927	1,172	2,861	36	9,824
1986-87	9,123	8,003	1,120	1,739	44	9,786
1987-88	8,994	8,017	977	2,773	47	10,837
1988-89	5,586	4,877	709	1,778	52	6,707
1989-90	2,980	2,677	303	715	63	3,455
1990-91	1,148	962	186	881	46	1,889
1991-92	1,089	1,089	0	401	12	1,502
1992-93	1,039	1,039	0	342	48	1,429
1993-94	1,148	1,148	0	451	50	1,649
1994-95	1,319	1,319	0	488	62	1,869
1995-96	660	660	0	410	61	1,131
1996-97	1,066	1,066	0 .	429	78	1,573
1997-98	1,165	1,165	0	426	99	1,690
1998-99	224	224	. 0	353	113	690

TABL	E2 – Bobcat T	ake by Coun	ty 1998-99	
County	Licensed Trappers	Sport Hunters	Wildlife Services	Total
Alameda		1	6	7
Alpine				0
Amador	7			7
Butte		1	1	2
Calaveras		5		5
Colusa	4	1		. 5
Contra Costa				0
Del Norte				0
El Dorado	16	18	3	37
Fresno		10		10
Glenn	2	7	<del></del>	9
Humboldt	5	4	2	11
Imperial		3		3
Inyo		1		1
Kern		48	3	51
Kings		2	****	2
Lake				0
Lassen	8	17		25
Los Angeles	. 15	7	1	23
Madera	-	10	4	14
Marin		2	16	18
Mariposa		3	7	10
Mendocino	12	10	2	24
Merced				0
Modoc	31	17	1	49
Mono				0
Monterey		12	12	24
Napa		2	0	2
Nevada	- INGENINGEN INC.	2	1	3
Orange		2		2
Placer		2	11	3
Plumas	3	14		17
Riverside	25	7		32
Sacramento				0
San Benito		1	4	5
San Bernardino	1	17		17
San Diego	6	16	15	37
San Francisco				0
San Joaquin	<del>                                     </del>			0
San Luis Obispo	ļ	7	3	10
San Mateo	1			0
Santa Barbara	1	5	5	10
Santa Clara		4		4
Santa Cruz				0
Shasta	4 4	15	1	20
Sierra		6		6
Siskiyou	62	20	6	88
Solano	<del> </del>	2	2	4
Sonoma	<u> </u>	2	12	14
Stanislaus	2	2	1	5
Sutter	-			0
Tehama	1	4		4
Trinity		7	1	8
Tulare	22	25		47
Toulumne			3	10
Ventura		2		2
Yolo	<del> </del>			0
Yuba	<del>  </del>	2		2
Unknown		1		1
TOTAL	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	353	113	690

182 354

Five of the 10 counties reporting the highest commercial take of bobcats were the same in 1998-99 as in 1997-98 (Table 3).

			TABLE 3		<del> </del>
	Ten Co	unties Reporting F	TABLE 3  lighest Commercia	l Take of Bobcats	
			9-80 to 1998-99		
Rank	1979-80	1980-81	1981-1982	1982-83	1983-84
1	Santa Barbara	San Bernardino	San Bernardino	San Bernardino	San Bernardino
2	Humboldt	Monterey	Kem	Monterey	Kern
3	Tulare	Santa Barbara	Monterey	Kern	Santa Barbara
4	Kern	San Luis Obispo	Santa Barbara	Santa Barbara	San Luis Obispo
5	San Bernardino	Humboldt	Tulare	San Luis	Los Angeles
6	Siskiyou	Tulare	Humboldt	Tulare	Monterey
7	San Diego	Mendocino	San Diego	Humboldt	Tulare
8	Mendocino	Kem	Ventura	Los Angeles	San Diego
9	Monterey	San Diego	Fresno	San Diego	Ventura
10	San Luis Obispo	San Benito	San Luis	Ventura	Humboldt
Rank	1984-85	1985-86	1986-87	1987-88	1988-89
1	Kern	Kern	San Bernardino	San Bernardino	San Bernardino
2	Tulare	San Bernardino	Kern	Kern	Kern
3	Monterey	Tulare	Santa Barbara	Monterey	San Diego
4	San Bernardino	Monterey	Tulare	Tulare	Santa Barbara
5	Santa Barbara	Santa Barbara	Ventura	Santa Barbara	Monterey
6	San Luis Obispo	San Diego	Monterey	Siskiyou	Los Angeles
7	Los Angeles	Ventura	San Luis Obispo	Humboldt	Ventura
8	Humboldt	Humboldt	San Diego	Ventura	Fresno
9	Siskiyou	Los Angeles	Humboldt	San Diego	Tulare
10	San Diego	Inyo	Fresno	San Luis	San Luis Obispo
Rank	1989-90	1990-91	1991-92	1992-93	1993-94
1	Kern	Kern	Kern	San Bernardino	San Bernardino
2	San Bernardino	Tulare	Shasta	Tulare	Fresno
3	Ventura	Colusa	Siskiyou	Siskiyou	Los Angeles
4	Fresno	San Bernardino	Humboldt	San Diego	Humboldt
5	Monterey	Fresno	Tulare	Santa Barbara	Siskiyou
6	Los Angeles	Siskiyou	San Bernardino	Modoc	Santa Barbara
7 .	San Diego	Los Angeles	San Diego	Shasta	Tulare
8	Siskiyou	Ventura	Ventura	Kern	Modoc
9	Tulare	San Diego	Santa Barbara	Los Angeles	Ventura
10	Humboldt	Shasta	Trinity	Tehama	Riverside
Rank	1994-95	1995-96	1996-97	1997-98	1998-99
1	Siskiyou	Kern	Kem	Kern	Siskiyou
2	San Bernardino	San Bernardino	San Bernardino	Tulare	Modoc
3	Кегп	Fresno	Fresno	Modoc	Riverside
4	Modoc	Siskiyou	Siskiyou	Lassen	Tulare
5	Los Angeles	Modoc	Modoc	Siskiyou	El Dorado
6	Santa Barbara	Humboldt	Tulare	Mendocino	Los Angeles
7	Fresno	Tulare	Lassen	San Bernardino	Mendocino
8	Lassen	Colusa	Inyo	San Diego	Humboldt
9	Tulare	Lassen	Los Angeles	Fresno	Amador
10	Humboldt	Ventura	Santa Barbara	Tuolumne	San Diego

The 1998-99 commercial take of bobcats decreased in seven of the geographic regions (Table 4). The Northeast region decreased from 307 (1997-98) to 83 (1998-99), and is still well below the management threshold quota of 425 animals.

	C	eographic	al Diffe	rences in t 19	and the second of the	化化物质 化氯化物 化二氯化二氯化物	bcat Ha	rvest in C	aliforni	<b>1</b>	
	93-94	%	94-95	%	95-96	%	96-97	%	97-98	%	98-99
AREA	TAKE	CHANGE	TAKE	CHANGE	TAKE	CHANGE	TAKE	CHANGE	TAKE	CHANGE	TAKE
Northeast	124	90	236	-48	122	81	221	38.9	307	-73	83
Northwest	187	40	261	-66	88	78	157	31.2	206	-80	42
North Coast	62	-42	36	67	60	2	61	1.64	62	-90	6
Central Coast	6	67	10	-100	0	N/A	0	N/A	0	N/A	2
North Sierra	3	-100	0	N/A	0	N/A	5	-100	0	N/A	0
Central Sierra	10	320	42	-64	15	-13	13	23.1	16	43.8	23
East Sierra	7	0	7	300	28	136	66	18.2	78	-100	0
South Coast	181	-1	180	-77	42	150	105	-5.7	99	-94	6
South Sierra	221	19	264	-29	187	25	233	-11	208	-89	22
Southern California	337	-16	283	-58	118	74	205	-7.8	189	-79	40
TOTAL	1138	16	1319	-50	660	62	1066	9.29	1165	-81	224

The average price of a bobcat pelt dropped by about 88 percent in the two years prior to 1990-91. It dropped from an all time high of \$167.33 in 1986-87 to \$17.91 in 1989-90 (Table 5). During 1990-91, the pelt price increased to \$49.50. There was no national or international regulatory action pending which might have influenced the demand for bobcat furs. The market appeared saturated during 1989-90 and 1990-91. During 1991-92, the price increased to \$71.32, but in 1992-93 the price dropped again to \$43.92. In 1993-94, the average price paid for California bobcat pelts dropped to \$40.44. In 1994-95, the pelt price again dropped by 39 percent to \$24.72. In 1995-96, the average pelt price increased to \$33.66. In 1996-97, the price again dropped by 39 percent to \$24.72. In 1995-96, the average pelt price increased to \$33.66. In 1996-97 the price again increased to \$75.24. The 1998-99 pelt price was \$30.55.

In the 1998-99 season, the average take per commercial trapper increased to 10.2 animals, as compared to 9.0 during 1997-98. The number of bobcat trappers increased from 91 to 22. In the last 12 years, the highest number of bobcat trappers was 664 in the 1987-88 season (Table 6).

For the first time, the commercial take of bobcats was primarily by dogs (61 percent) (Tables 7 and 8). Only 28 percent of bobcats were taken by trapping. Four percent were taken

through the use of a predator call. Predator calling is used occasionally as a hunting method by persons holding a commercial trapper's license.

Information on the extent and distribution of the hunting take of bobcats is gathered through the hunting tag program. Obtaining these tags and returning them to the Department upon taking bobcat are legal requirements of bobcat hunters. Three hundred and fifty-three were returned to the Department. The hunting take by county is shown in Table 2.

TABLE 5 Bobcat Pelt Prices 1972-73 to 1998-99							
Season	Average Price	Highest Price					
1972-73	29.33	60.00					
1973-74	45.00	110.00					
1974-75	50.00	110.00					
1975-76	133.50	300.00					
1976-77	76.00	225.00					
1977-78	105.00	185.00					
1978-79	120.00	426.00					
1979-80	114.20	313.00					
1980-81	129.90	325.00					
1981-82	114.53	325.00					
1982-83	105.85	342.11					
1983-84	102.33	380.00					
1984-85	121.96	368.00					
1985-86	107.86	Not available					
1986-87	167.33	Not available					
1987-88	142.73	Not available					
1988-99	102.31	Not available					
1989-90	17.91	Not available					
1990-91	49.50	125.00					
1991-92	71.32	74.15					
1992-93	43.92	94.00					
1993-94	40.44	70.20					
1994-95	24.72	35.00					
1995-96	33.66	37.61					
1996-97	75.24	82.00					
1997-98	31.11	32.10					
1998-99	30.55	33.36					

#### TABLE 6 Average Bobcat Harvest per Successful Trapper per Season in California \* 98-99 91-92 92-93 93-94 94-95 95-96 97-98 COUNTY 87-88 88-89 89-90 90-91 96-97 Butte Fresno 15.3 16.1 17.4 Glenn 10.7 Humboldt 2.3 13.0 8.6 Inyo 6.2 Kern 14.2 9.1 11.7 16.9 11.1 Lake 7.9 9.8 3.9 8.9 5.6 6.3 Lassen 12.0 14.4 Los Angeles 11.1 5.9 7.3 Madera Mariposa 19.9 Mendocino 6.2 5.4 10.5 Modoc 7.2 7.2 3.0 Mono 6.5 24.8 14.0 16.1 Monterey Plumas 16.5 Riverside 12.0 8.7 San Benito San Bernardino 6.8 13.3 12.3 14.0 5.2 5.5 16.5 14.6 11.7 8.1 9.7 San Diego 14.0 16.9 16.8 San Luis Obispo 14.4 10.4 7.5 Santa Barbara 13.9 11.7 Shasta 4.9 6.3 4.9 Siskiyou 9.9 6.5 5.0 2.5 6.8 9.1 14.0 10.9 10.3\*\* 9.3 Sonoma 5.8 Tehama Trinity 5.0 2.2 Tulare 17.1 8.5 6.2 6.7 Toulumne 5.2 Ventura 9.9 16.1 16.6 10.2 Statewide 13.55 12.61 12.06 7.00 6.19 10.71 13.67 8.61 10.1 11.3 9.0 # Trappers Harvesting 443 303 97 102 94 91 22 Bobcats 664 124 113 84 62 # Trappers 1,460 1,244 834 338 300 257 282 292 170 511 371 313 Licensed

<sup>\*</sup> County data from counties and years where more than 10 trappers per county reported.

<sup>\*\*</sup> Six trappers reporting.

#### TABLE 7 Methods of Commercial Bobcat Take 1998-99

	METHOD							
COUNTY	CALLING	DOGS	HUNTING	MISCELLANEOUS	TRAPPING	SAMPLE SIZE		
Alpine	0	0	0	0	0	0		
Amador	0	7	0	0	0	7		
Calaveras	0	0	0	0	0	0		
Colusa	0	0	4	0	36	4		
El Dorado	0	16	0	0	0	16		
Fresno	0	0	0	0	0	0		
Glenn	0	1	0	0	1	2		
Humboldt	0	5	0	0	0	5		
Inyo	0	0	0	0	0	0		
Kern	0	0	0	0	0	0		
Lake	0	0	0	0	0	0		
Lassen	1	3	1	0	3	8		
Los Angeles	0	0	0	0 .	15	15		
Madera	0	0	0	0	0	0		
Mariposa	0	0	0	0	0	0		
Mendocino	0	12	0	0	0	12		
Modoc	0	21	0	0	10	31		
Mono	0	0	0	0	0	0		
Monterey	0	0	0	0	0	0		
Plumas	0	0	3	0	0	3		
Riverside	0	0	0	0	25	25		
San Bernardino	0	0	0	0	0	0		
San Diego	0	0	0	0	6	6		
San Luis Obispo	0	0	0	0	0	0		
Santa Barbara	0	0	0	0	0	0		
Shasta	0	4	0	0	0	4		
Siskiyou	3	44	12	0	3	62		
Sonoma	0	0	0	0	0	0		
Tehama	0	0	0	0	0	0		
Trinity	0	0	0	0	0	0		
Γulare	0	22	0	0	0	22		
Tuolumne	0	0	0	0	0	0		
Ventura	0	0	0	0	0	0		
ГОТАL	4	137	20	0	63	224		
PERCENTAGE	2	61	9	0	28	100		

# TABLE 8 Method of Commercial Take of Bobcats 1981-1999

	Method of Take (percent of total statewide take)								
SEASON	Trap	Dogs	Calling	Other Hunt	Misc.	Unknown	Total %		
1981-82	86.2	9.5	1.3	1.8	0.3	0.9	100.0		
1982-83	86.7	10.4	0.9	1.4	0.2	0.4	100.0		
1983-84	89.0	9.3	0.4	1.1	0.2	< 0.1	100.0		
1984-85	82.8	13.5	0.7	1.7	0.3	1.0	100.0		
1985-86	85.1	13.2	0.6	0.7	0.1	0.3	100.0		
1986-87	83.4	10.6	0.8	0.8	0.1	4.2	99.9		
1987-88	88.5	9.6	1.1	0.6	0.1	0.1	100.0		
1988-89	85.5	11.8	0.9	0.4	0.1	1.4	100.1		
1989-90	89.9	7.8	0.7	1.6	~	_	100.0		
1990-91	83.7	13.2	2.4	0.5	0.2	-	100.0		
1991-92	77.2	19.8	1.2	1.7	0.1	-	100.0		
1992-93	75.6	19.2	0.6	4.5	0.1	-	100.0		
1993-94	87.8	9.8	1.7	0.5	0.2	-	100.0		
1994-95	78.7	15.5	2.9	2.7	0.2		100.0		
1995-96	81.1	14.0	4.9	0	0	-	100.0		
1996-97	73.5	16.6	8.9	0.6	0.3	0.1	100.0		
1997-98	69.0	25.0	1.0	5.0	0	0	100.0		
1998-99	28.0	61.0	2.0	9.0	0	0	100.0		

#### **DISCUSSION**

The total bobcat harvest decreased in the 1998-99 season from 1997-98. The number of bobcat trappers decreased from 91 to 22. Pelt prices stayed about the same.

Since the 1982-83 season, the harvest has remained below the 14,400 statewide harvest limit. Harvest monitoring will continue. If the statewide harvest reaches 14,400 bobcats, the age and sex structure monitoring will be reinstated.

The bobcat take in northeastern California has been monitored annually since 1980-81, based on the need to document and monitor the age and sex structures of this population. If the commercial harvest in this local area increases to more the 425 for more than two successive

seasons, additional management action will be taken to determine the effects on that population. The harvest has been below this level for the last eleven seasons (Table 9).

TABLE 9 Recent Commercial Harvest of Bobcats in Northeastern California								
	County							
Season	Eastern Siskiyou	Modoc	Lassen	Plumas	Total Northeastern California			
1978-79	81	306	246	47	680			
1979-80	88	216	302	95	701			
1980-81	82	126	96	39	343			
1981-82	49	143	147	58	397			
1982-83	74	238	177	35	524			
1983-84	45	182	84	17	328			
1984-85	54	231	188	33	506			
1985-86	78	181	108	23	390			
1986-87	78	237	139	60	514			
1987-88	148	223	187	43	601			
1988-89	60	107	85	30	282			
1989-90	36	62	85	47	230			
1990-91	22	30	29	9	90			
1991-92	25	39	24	0.00	88			
1992-93	40	47	24	0.00	111			
1993-94	30	57	22	15	124			
1994-95	56	116	63	1	236			
1995-96	36	53	- 21	12	122			
1996-97	88	78	43	12	221			
1997-98	98	120	89	0	307			
1998-99	41	31	8	3	83			

### RECOMMENDATION

Continue to monitor the take of bobcats by geographical area, and use that information to determine the management needed to maintain viable bobcat populations throughout California.