State of California
The Resource Agency
Department of Fish and Game
Wildlife Management Division
Bird and Mammal Conservation Section

# BOBCAT HARVEST ASSESSMENT 1994-95

# State of California THE RESOURCES AGENCY Department of Fish and Game

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November 1995

#### **ABSTRACT**

An estimated 1,869 bobcats were taken during the 1994 hunting year and the 1994-95 trapping season. According to export tag reports, trappers took 1,319 bobcats, and hunters took 488. The total take was an increase of 13 percent from the 1993-94 year. The average pelt price decreased from \$40.44 last year to \$24.72 this year (Table 5). The average take per successful trapper increased, but the number of bobcat trappers increased from 84 to 102.

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 animal damage control 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. 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 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 3 1/2 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 Department of Fish and Game shipping (export) tag. This was done to comply with the provisions of CITES as the bobcat had recently be designated an Appendix 2 species. The issuance of export tags allowed 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 prebreeding estimate of 72,000 adult bobcats, and harvest quota of 14,000 animals per year was approved by OSA.

Defenders 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 14,000 animals was reached by the end of January, effectively shortening the season by one month. During 1979-80, the trapping season was reduced to 2 1/2 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 from 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 less than 20 percent of the OSA quota, and therefore is not in danger of overharvest.

Since 1982, the bobcat harvest has been monitored closely, the results of this monitoring for the 1994-95 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**

For the 1994-95 season, the total estimated take of bobcats was 1,869 individuals (Table 1). This was a 13 percent increase over the 1993-94 trapping year. Commercial trappers continue to take the majority (70 percent) of bobcats. The total hunter take of 488 (Tables 1 and 2) was higher (8 percent) than in 1993-94. The total take of bobcats ranged from none in four counties to 216 in Siskiyou County (Table 2). In the 1993-94 season, the bobcat take exceeded 100 in four of 58 counties. In the 1994-95 season, over 100 bobcats were taken from each of six counties.

ESTIMA	TABLE 1 ESTIMATED ANNUAL TAKE OF BOBCATS BY HUNTING AND TRAPPING IN CALIFORNIA 1977-78 TO 1994-95										
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)					
1977-78	5,150	4,650	500	15,300	208	20,158					
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					

<sup>\*</sup> Federal fiscal year data 10-1-94 to 9-30-95. Other data in this table 7-1 to 6-30.

TABLE 2. TA	KE OF BOBCATS BY	COUNTY DURING	THE 1993-94 SEA	ASON
County	Licensed Trappers	Sport Hunters	Animal Damage Control	Total County
Alameda	3	2	1 .	6
Alpine	7			7
Amador	13	5		18
Butte		2		2
Calaveras	2	10	1	13
Colusa	23			23
Contra Costa		1		. 1
Del Norte		2		2
El Dorado	7	5	1	13
Fresno	78	36		114
Glenn	8		1	9
Humboldt	52	4	5	61
Imperial	5	9		14
Inyo		. 1		1
Kern	133	35	1	169
Kings		1		1
Lake	1	- 4		5
Lassen	63	18		81
Los Angeles	102	5		107
Madera		27	. 1	28
Marin	,	1		1
Mariposa	10	6	4	20
Mendocino	22	17	4	43
Merced		1	1	2
Modoc	116	19	1	136
Mono		3		3
Monterey	15	9		24
Napa		_	7	7
Nevada		2		2
Orange		4		4
Placer		2	1	3
Plumas	1	4		5
Riverside	24	8		32
Sacramento		-		0
San Benito		4		4
San Bernardino	152	25		177
San Diego	25	32	8	65
San Francisco	,			0
San Joaquin		1	7	1
San Luis Obispo	27	15	7	49
San Mateo				0
Santa Barbara	85	6	7	98
Santa Clara		3		3
Santa Cruz		1		1·
Shasta	52	25		77
Sierra		1		1
Siskiyou	168	46	2	216
Solano			1	1
Sonoma	4	5	7	16
Stanislaus	7	3	,	10
Sutter	,	1		1
Tehama	. 17	11		28
Trinity	6	5		11
Tulare	53	43		96
Tuolumne	10	7	1	18
Ventura	28	5	,	33
Yolo		<u> </u>		0
Yuba	<del></del>	6		6
Unknown		<u> </u>		<u> </u>
TOTAL	1,319	488	62	1 ,869
IVIAL	1,318	400	62	1,009

Eight of the 10 counties reporting the highest commercial take of bobcats were the same in 1994-95 as in 1993-94. However, Kern and Lassen counties replaced Ventura and Riverside counties.

		TABLE	3			
TEN COUNTIES	REPORTING	HIGHEST	COMMERCIAL	TAKE	OF	<b>BOBCATS</b>
	19	75-76 TO	1994-95			

	10====		10		
Rank	1975-76	1976-77	1977-78	1978-79	1979-80
	Humboldt	Humboldt	San Barbara	Humboldt	Santa Barbara
2	San Diego	San Bernardino	Humboldt	San Bernardino	Humboldt
3	Modoc	Santa Barbara	Tulare	Shasta	Tulare
4	Shasta	Shasta	Santa Barbara	Kern	Kern
5	Inyo	San Benito	Kern	Siskiyou	San Bernardino
6	Siskiyou	Mendocino	Inyo	Santa Barbara	Siskiyou
7	Riverside	Tulare	Mendocino	Inyo	San Diego
8	San Bernardino	Fresno	Modoc	Modoc	Mendocino
9	Solano	San Diego	Shasta	Mendocino	Monterey
10	Lake	Inyo	Monterey	Tehama	San Luis Obispo
Rank	1980-81	1981-82	1982-83	1983-84	1984-85
1	San Bernardino	San Bernardino	San Bernardino	San Bernardino	Kern
2	Monterey	Kern	Monterey	Kern	Tulare
3	Santa Barbara	Monterey	Kern	Santa Barbara	Monterey
4	San Luis	Santa Barbara	Santa Barbara	San Luis Obispo	San Bernardino
5	Humboldt	Tulare	San Luis Obispo	Los Angeles	Santa Barbara
6	Tulare	Humboldt	Tulare	Monterey	San Luis Obispo
7	Mendocino	San Diego	Humboldt	Tulare	Los Angeles
8	Kern	Ventura	Los Angeles	San Diego	Humboldt
9	San Diego	Fresno	San Diego	Ventura	Siskiyou
10	San Benito	San Luis Obispo	Ventura	Humboldt	Can Diago
10	San Denilo	San Luis Obispo	ventura	Hullibolut	San Diego
Rank	1985-86	1986-87	1987-88	1988-89	1989-90
Rank	1985-86 Kern	1986-87 San Bernardino	1987-88 San Bernardino	1988-89 San Bernardino	1989-90 Kern
Rank 1 2	1985-86 Kern San Bernardino	1986-87 San Bernardino Kern	1987-88 San Bernardino Kern	1988-89 San Bernardino Kern	1989-90 Kern San Bernardino
Rank 1 2 3	1985-86 Kern San Bernardino Tulare	1986-87 San Bernardino Kern Santa Barbara	1987-88 San Bernardino Kern Monterey	1988-89 San Bernardino Kern San Diego	1989-90 Kern San Bernardino Ventura
Rank 1 2 3 4	1985-86 Kern San Bernardino Tulare Monterey	1986-87 San Bernardino Kern Santa Barbara Tulare	1987-88 San Bernardino Kern Monterey Tulare	1988-89 San Bernardino Kern San Diego Santa Barbara	1989-90 Kern San Bernardino Ventura Fresno
Rank 1 2 3 4 5	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara	1986-87 San Bernardino Kern Santa Barbara	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey	1989-90 Kern San Bernardino Ventura Fresno Monterey
Rank 1 2 3 4	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey	1987-88 San Bernardino Kern Monterey Tulare	1988-89 San Bernardino Kern San Diego Santa Barbara	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles
Rank 1 2 3 4 5 6 7	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego
Rank 1 2 3 4 5	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou
Rank  1 2 3 4 5 6 7 8 9	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare
Rank 1 2 3 4 5 6 7 8	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou
Rank  1 2 3 4 5 6 7 8 9	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt Los Angeles Inyo	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego Humboldt Fresno	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego San Luis Obispo	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno Tulare San Luis Obispo	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare Humboldt
Rank  1 2 3 4 5 6 7 8 9 10	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt Los Angeles Inyo 1990-91 Kern	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego Humboldt Fresno 1991-92 Kern	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego San Luis Obispo 1992-93 San Bernardino	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno Tulare San Luis Obispo  1993-94 San Bernardino	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare Humboldt 1994-95 Siskiyou
Rank  1 2 3 4 5 6 7 8 9 10  Rank 1 2	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt Los Angeles Inyo 1990-91 Kern Tulare	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego Humboldt Fresno 1991-92 Kern Shasta	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego San Luis Obispo 1992-93 San Bernardino Tulare	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno Tulare San Luis Obispo  1993-94 San Bernardino Fresno	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare Humboldt 1994-95 Siskiyou San Bernardino
Rank  1 2 3 4 5 6 7 8 9 10  Rank	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt Los Angeles Inyo 1990-91 Kern Tulare Colusa	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego Humboldt Fresno 1991-92 Kern Shasta Siskiyou	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego San Luis Obispo 1992-93 San Bernardino Tulare Siskiyou	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno Tulare San Luis Obispo 1993-94 San Bernardino Fresno Los Angeles	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare Humboldt 1994-95 Siskiyou San Bernardino Kern
Rank  1 2 3 4 5 6 7 8 9 10  Rank 1 2	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt Los Angeles Inyo 1990-91 Kern Tulare	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego Humboldt Fresno 1991-92 Kern Shasta Siskiyou Humboldt	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego San Luis Obispo  1992-93 San Bernardino Tulare Siskiyou San Diego	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno Tulare San Luis Obispo  1993-94 San Bernardino Fresno Los Angeles Humboldt	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare Humboldt 1994-95 Siskiyou San Bernardino Kern Modoc
Rank  1 2 3 4 5 6 7 8 9 10  Rank 1 2 3	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt Los Angeles Inyo 1990-91 Kern Tulare Colusa	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego Humboldt Fresno 1991-92 Kern Shasta Siskiyou Humboldt Tulare	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego San Luis Obispo  1992-93 San Bernardino Tulare Siskiyou San Diego San Liskiyou San Diego	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno Tulare San Luis Obispo  1993-94 San Bernardino Fresno Los Angeles Humboldt Siskiyou	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare Humboldt 1994-95 Siskiyou San Bernardino Kern Modoc Los Angesles
Rank  1 2 3 4 5 6 7 8 9 10  Rank 1 2 3 4	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt Los Angeles Inyo 1990-91 Kern Tulare Colusa San Bernardino	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego Humboldt Fresno 1991-92 Kern Shasta Siskiyou Humboldt Tulare San Bernardino	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego San Luis Obispo  1992-93 San Bernardino Tulare Siskiyou San Diego Santa Barbara Modoc	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno Tulare San Luis Obispo  1993-94 San Bernardino Fresno Los Angeles Humboldt Siskiyou Santa Barbara	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare Humboldt 1994-95 Siskiyou San Bernardino Kern Modoc Los Angesles Santa Barbara
Rank  1 2 3 4 5 6 7 8 9 10  Rank 1 2 3 4 5	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt Los Angeles Inyo 1990-91 Kern Tulare Colusa San Bernardino Fresno	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego Humboldt Fresno 1991-92 Kern Shasta Siskiyou Humboldt Tulare	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego San Luis Obispo  1992-93 San Bernardino Tulare Siskiyou San Diego San Liskiyou San Diego	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno Tulare San Luis Obispo  1993-94 San Bernardino Fresno Los Angeles Humboldt Siskiyou	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare Humboldt 1994-95 Siskiyou San Bernardino Kern Modoc Los Angesles
Rank  1 2 3 4 5 6 7 8 9 10  Rank 1 2 3 4 5 6	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt Los Angeles Inyo 1990-91 Kern Tulare Colusa San Bernardino Fresno Siskiyou	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego Humboldt Fresno 1991-92 Kern Shasta Siskiyou Humboldt Tulare San Bernardino	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego San Luis Obispo  1992-93 San Bernardino Tulare Siskiyou San Diego Santa Barbara Modoc	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno Tulare San Luis Obispo  1993-94 San Bernardino Fresno Los Angeles Humboldt Siskiyou Santa Barbara	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare Humboldt 1994-95 Siskiyou San Bernardino Kern Modoc Los Angesles Santa Barbara
Rank  1 2 3 4 5 6 7 8 9 10  Rank 1 2 3 4 5 6 7	1985-86 Kern San Bernardino Tulare Monterey Santa Barbara San Diego Ventura Humboldt Los Angeles Inyo 1990-91 Kern Tulare Colusa San Bernardino Fresno Siskiyou Los Angeles	1986-87 San Bernardino Kern Santa Barbara Tulare Ventura Monterey San Luis Obispo San Diego Humboldt Fresno 1991-92 Kern Shasta Siskiyou Humboldt Tulare San Bernardino San Diego	1987-88 San Bernardino Kern Monterey Tulare Santa Barbara Siskiyou Humboldt Ventura San Diego San Luis Obispo  1992-93 San Bernardino Tulare Siskiyou San Diego San Liskiyou San Diego San Bernardino Tulare Siskiyou San Diego Santa Barbara Modoc Shasta	1988-89 San Bernardino Kern San Diego Santa Barbara Monterey Los Angeles Ventura Fresno Tulare San Luis Obispo  1993-94 San Bernardino Fresno Los Angeles Humboldt Siskiyou Santa Barbara Tulare	1989-90 Kern San Bernardino Ventura Fresno Monterey Los Angeles San Diego Siskiyou Tulare Humboldt 1994-95 Siskiyou San Bernardino Kern Modoc Los Angesles Santa Barbara Fresno

The 1994-95 commercial take of bobcats increased in six of the geographic regions, decreased in three, and remained the same in two (Table 4). The Northeast region increased from 124 (1993-94) to 236 (1994-95), but is still well below the management threshold quota of 425 animals.

GEOGR/	TABLE 4 GEOGRAPHIC DIFFERENCES IN THE AMOUNT OF COMMERCIAL TAKE OF BOBCATS IN CALIFORNIA 1988-89 TO 1993-94												
Area	Change < to> (%)	89-90 Take	Change <to> (%)</to>	90-91 Take	Change <to> (%)</to>	91-92 Take	Change <to> (%)</to>	92-93 Take	Change <to> (%)</to>	93-94 Take	Change <to> (%)</to>	94-95 Take	
North-east	-28	230	-61	90	-2	88	26	111	12	124	90	236	
North- west	-48	362	-68	115	226	260	-31	180	4	187	40	261	
North Coast	-64	112	-1	111	-51	55	-27	40	55	62	-52	36	
Central Coast	-32	27	+33	36	-100	0	2,800	28	-21	6	66	10	
North Sierra	0	8	-100	0	300	3	0	3	0	3	-100	0	
Central Sierra	-72	35	-9	32	-87	4	150	Ю	0	10	420	42	
East Sierra	62	118	-66	42	9	46	-39	28	-25	7	0	7	
South Coast	-51	857	-79	180	20	216	-5	205	-18	181	0	180	
South Sierra	-32	696	-46	375	-23	287	-34	188	18	221	19	264	

37

10

337

1,138

246

1,039

-16

283

1.319

\*This does not equal 1,148 as reported in tables 1 and 2. One trapper held 10 pelts for several years, and could not remember the county of take when he purchased export tags this year.

-22

130

1,089

So. Calif.

Total

535

2,980

-69

167

1,148

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.

TABLE 5 BOBCAT PELT PRICES 1970-71 TO 1992-93								
Season	Average Price	Highest Price						
1970-71	\$ 10.86	Not Recorded						
1971-72	18.83	\$ 30.00						
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						
1988-89	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						

In the 1994-95 season, the average take per commercial trapper decreased to 8.61 animals, as compared to 13.67 during 1993-94. The number of bobcat trappers increased from 84 to 102: In the last 12 years, the highest number of bobcat trappers was 488 in the 1983-84 season (Table 6).

	TABLE 6 AVERAGE BOBCAT HARVEST PER SUCCESSFUL TRAPPER PER SEASON IN CALIFORNIA*											
County	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	91-92	92-93	93-94	94-95
Butte												
Fresno	11.9	10.0	12.1	17.6	15.3	16.1	17.4					
Glenn		5.8			10.7							
Humboldt	7.6	9.3	18.0	12.5	13.0	8.6	2.3				··.	
Inyo	7.8	5.6	14.2	9.7	6.2							
Kern	16.5	18.4	14.7	13.0	14.2	9.1	11.7	16.9			-	11.1
Lake	5.9			7.2	7.9							
Lassen	3.6	4.8	4.4	4.4	9.8	3.9	5.6					6.3
Los Angeles	13.5	15.8	14.9	15.6	11.1	12.0	14.4	5.9				
Madera	11.3	12.7			7.3				***************************************			
Mariposa		9.6	7.2	10.1	19.9							
Mendocino	6.1	5.9	5.1	6.5	6.2	5.4						
Modoc	7.7	7.2	6.3	6.2	7.2	7.2	3.0					10.5
Mono	9.2					6.5						-
Monterey	14.7	18.0	17.8	21.4	24.8	14.0	16.1					
Plumas												
Riverside	7.4	10.3	10.1	9.8	12.0	8.7	16.5					
San Benito		8.3		14.2								
San Bernardino	12.0	11.6	14.6	14.6	13.3	12.3	14.0	5.2	5.5	16.5	14.6	11.7
San Diego	10.6	11.8	10.8	11.6	14.0	16.9	16.8					
San Luis Obispo	14.4	11.1	10.8	14.7	14.4	10.4	7.5		:			
Santa Barbara	17.4	16.3	16.1	13.9	13.9	11.7						
Shasta	4.1	4.4	4.8	4.7	4.9	6.3	4.9					
Siskiyou	5.2	0.2	5.6	5.9	9.9	6.5	5.0	2.5	6.8	9.1		14.0
Sonoma	6.5	4.6		6.8		9.3						
Tehama	3.7	6.3	3.8	3.9	5.8							
Trinity	2.5	3.5		8.5	5.0	2.2						
Tulare	10.5	13.4	14.5	12.3	17.1	8.5	6.2	6.7				
Tuolumne	5.4				5.2							
Ventura	10.4	13.5	12.6	18.4	16.6	9.9	16.1					
Statewide	11.86	12.01	12.71	14.75	13.55	12.61	12.06	7.00	6.19	10.71	13.67	8.61
# Trappers Harvesting Bobcats	488	398	547	584	664	443	303	124	113	97	84	102
#Trappers Licensed	1,607	1,650	1,417	1,347	1,460	1,244	834	511	371	338	300	313
* County data f	rom count	ies and y	ears whe	ere more	than 10 t	rappers p	er county	reported				

As usual, the commercial take of bobcats was primarily by trapping (79 percent) (tables 7 and 8). Hunting with dogs remains the second most common way to take bobcats. This method was most commonly employed in Kern, Siskiyou, and Tulare Counties. About 0.2 percent of the bobcat furs were salvaged'from bobcats found dead, 2.9 percent were taken through the use of a predator call, and 2.7 percent were taken by other types of hunting. Predator calling is used occasionally as a hunting method by persons holding a commercial trapper's license.

	TABLE 7 METHODS OF COMMERCIAL TAKE OF BOBCAT, 1994-95										
County	% by Calling	% by Dogs	% by Hunting	% Misc.	% Trap	Sample Size					
Alameda	0	0	0	0	100	. 3					
Alpine	0	0	0	0.	100	7					
Amador	0	0	23	0	77	13					
Calaveras	0	0	100	0	0	2					
Colusa	0	0	0	0	100	23					
El Dorado	0	0	100	0	0	7					
Fresno	0	0	0	0	100	78					
Glenn	75	0	0	12	13	8					
Humboldt	4	23	0	. 0	73	52					
Imperial	0	0	0	0	100	5					
Kern	16	40	0	0	44	133					
Lake	0	100	0	0	0	1					
Lassen	0	33	8	0	59	63					
Los Angeles	0	0	0	0	100	102					
Mariposa	0	0	0	0	100	10					
Mendocino	0	9	0	0	91	22					
Modoc	0	6	0	0	94	116					
Monterey	0	0	0	0	100	15					
Plumas	0	100	0	0	0	1					
Riverside	0	0	0	0	100	24					
San Bernardino	1	0	4	0	95	152					
Sasn Diego	0	0	0	0	100	25					
San Luis Obispo	0	0	22	0	78	27					
Santa Barbara	0	0	. 0	0	100	85					
Shasta	11	0	12	0	77	52					
Siskiyou	1	32	0	0	67	168					
Sonoma	0	100	0	0	0	4					
Stanislaus	0	0	0	0	100	7					
Tehama	0	0	0	6	94	17					
Trinity	0	0	0	0	100	6					
Tulare	0	96	0	0	4	53					
Tuolumne	0	0	0	0	100	10					
Ventura	0	0	0	0	100	28					
Total Percentage	2.9	15.5	2.7	0.2	78.7	100					

	TABLE 8 METHOD OF COMMERCIAL TAKE OF BOBCATS, 1980-95											
	Method of Take (Percent of Total Statewide Take)											
Season	Trap	Dogs	Calling	Other Hunt	Miscellan eous	Unknown	Total %					
1980-81	90.6	6.6	0.7	1.4	0.3	0.5	100.1					
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					

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. The Department sold 8,025 bobcat hunting tags during the 1994-95 season. Four hundred and eighty-eight were returned to the Department. The hunting take by county is shown in Table 2.

#### DISCUSSION

The total bobcat harvest increased in the 1994-95 season from 1993-94. The number of bobcat trappers increased from 84 to 102, even though pelt price decreased substantially.

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 14,000 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 harvest in this local area increases to more than 425 for more than two successive seasons, additional management action will be taken to determine the effects on that population. The local harvest has been below this level for the last seven seasons (Table 4 and 9).

	RECENT COMMERCIAL	TABLE HARVEST OF BOBC	-	ERN CALIFORNIA	
Season		Count	Ÿ		Total Northeastern
	Eastern Siskiyou	Modoc	Lassen	Plumas	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	88
1992-93	40	47	24	0	111
1993-94	30	57	22	15	124
1994-95	56	116	63	1	236

### **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.