

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

## **BOBCAT HARVEST ASSESSMENT**

**2000-01**

by

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## ABSTRACT

An estimated 676 bobcats were taken during the 2000 hunting year and the 2000-01 trapping season. Trappers took 190 bobcats, and sport hunters took 414. The total take was an increase of 7 percent from the 1999-00 year. The average pelt price increased from \$32.06 last year to \$38.47 this year (Table 5). The numbers of bobcat trappers declined from 22 to 18.

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 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 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 2000-01 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 2000-01 season, the total estimated take of bobcats was 676 individuals (Table 1). This was a 7 percent increase over the 1999-00 trapping year. Commercial trappers did not take the majority of bobcats. The total hunter take of 414 (Tables 1 and 2) was 18% greater than 1999-00. The total take of bobcats ranged from zero in nine counties to 114 in Siskiyou County (Table 2). Commercial trappers took bobcats in 14 counties.

TABLE 1  
Estimated Annual Take of Bobcats by Hunting and Trapping in California  
1978-79 to 2000-01

Season	Total Commercial Take (IA+IB)	Commercial Trapper Take (IA)	Commercial Hunter Take (IB)	Total Hunter Take (II)	Wildlife Services 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
1999-00	182	182	0	352	97	631
2000-01	190	190	0	414	72	676

\* Federal fiscal year data is from 10-1 to 9-30. Other data in this table is from 7-1 to 6-30.

TABLE 2 – Bobcat Take by County 2000-01				
County	Licensed Trappers	Sport Hunters	Wildlife Services	Total
Alpine		1		1
Amador		2	2	4
Butte	4	2		6
Calaveras		2		2
Colusa	1	1	1	3
Contra Costa		1		1
Del Norte		1		1
El Dorado		11	2	13
Fresno	8	11		19
Glenn	5	1		6
Humboldt	10	8	1	19
Inyo	13	4		17
Kern		55	6	61
Lassen	1	33	1	35
Los Angeles	9	6		15
Madera		6		6
Marin			3	3
Mariposa		2	3	5
Mendocino		5	11	16
Modoc	46	17	1	64
Mono	2	5		7
Monterey		13		13
Napa		1	1	2
Nevada		1	1	2
Orange		2		2
Placer		3		3
Plumas		9		9
Riverside		7		7
Sacramento		1		1
San Benito		9		9
San Bernardino	12	32	6	50
San Diego		19	12	31
San Joaquin		2		2
San Luis Obispo		3	1	4
San Mateo		4		4
Santa Barbara		6	2	8
Santa Clara		8		8
Santa Cruz		2		2
Shasta	2	14	5	21
Sierra		2		2
Siskiyou	73	38	3	114
Solano			1	1
Sonoma		4	7	11
Stanislaus		3		3
Tehama		8		8
Trinity	4	2		6
Tulare		36		36
Tuolumne		8	2	10
Ventura		3		3
TOTAL	190	414	72	676

Three of the 10 counties reporting the highest commercial take of bobcats were the same in 2000-01 as in 1999-00 (Table 3).

TABLE 3 Ten Counties Reporting Highest Commercial Take of Bobcats 1981-82 to 2000-01					
Rank	1981-1982	1982-83	1983-84	1984-85	1985-86
1	San Bernardino	San Bernardino	San Bernardino	Kern	Kern
2	Kern	Monterey	Kern	Tulare	San Bernardino
3	Monterey	Kern	Santa Barbara	Monterey	Tulare
4	Santa Barbara	Santa Barbara	San Luis Obispo	San Bernardino	Monterey
5	Tulare	San Luis Obispo	Los Angeles	Santa Barbara	Santa Barbara
6	Humboldt	Tulare	Monterey	San Luis Obispo	San Diego
7	San Diego	Humboldt	Tulare	Los Angeles	Ventura
8	Ventura	Los Angeles	San Diego	Humboldt	Humboldt
9	Fresno	San Diego	Ventura	Siskiyou	Los Angeles
10	San Luis	Ventura	Humboldt	San Diego	Inyo
Rank	1986-87	1987-88	1988-89	1989-90	1990-91
1	San Bernardino	San Bernardino	San Bernardino	Kern	Kern
2	Kern	Kern	Kern	San Bernardino	Tulare
3	Santa Barbara	Monterey	San Diego	Ventura	Colusa
4	Tulare	Tulare	Santa Barbara	Fresno	San Bernardino
5	Ventura	Santa Barbara	Monterey	Monterey	Fresno
6	Monterey	Siskiyou	Los Angeles	Los Angeles	Siskiyou
7	San Luis Obispo	Humboldt	Ventura	San Diego	Los Angeles
8	San Diego	Ventura	Fresno	Siskiyou	Ventura
9	Humboldt	San Diego	Tulare	Tulare	San Diego
10	Fresno	San Luis Obispo	San Luis Obispo	Humboldt	Shasta
Rank	1991-92	1992-93	1993-94	1994-95	1995-96
1	Kern	San Bernardino	San Bernardino	Siskiyou	Kern
2	Shasta	Tulare	Fresno	San Bernardino	San Bernardino
3	Siskiyou	Siskiyou	Los Angeles	Kern	Fresno
4	Humboldt	San Diego	Humboldt	Modoc	Siskiyou
5	Tulare	Santa Barbara	Siskiyou	Los Angeles	Modoc
6	San Bernardino	Modoc	Santa Barbara	Santa Barbara	Humboldt
7	San Diego	Shasta	Tulare	Fresno	Tulare
8	Ventura	Kern	Modoc	Lassen	Colusa
9	Santa Barbara	Los Angeles	Ventura	Tulare	Lassen
10	Trinity	Tehama	Riverside	Humboldt	Ventura
Rank	1996-97	1997-98	1998-99	1999-00	2000-01
1	Kern	Kern	Siskiyou	Siskiyou	Siskiyou
2	San Bernardino	Tulare	Modoc	Modoc	Modoc
3	Fresno	Modoc	Riverside	Fresno	Inyo
4	Siskiyou	Lassen	Tulare	Tulare	San Bernardino
5	Modoc	Siskiyou	El Dorado	Shasta	Humboldt
6	Tulare	Mendocino	Los Angeles	Kern	Los Angeles
7	Lassen	San Bernardino	Mendocino	San Diego	Fresno
8	Inyo	San Diego	Humboldt	Mendocino	Glenn
9	Los Angeles	Fresno	Amador	El Dorado	Trinity
10	Santa Barbara	Tuolumne	San Diego	Lassen/Mono	Butte



The 2000-01 commercial take of bobcats decreased in five of the geographic regions (Table 4). The Northeast region bobcat take increased from 69 (1999-00) to 95 (2000-01), and is still well below the management threshold quota of 425 animals.

AREA	95-96	%	96-97	%	97-98	%	98-99	%	99-00	%	00-01
	TAKE	CHANGE	TAKE	CHANGE	TAKE	CHANGE	TAKE	CHANGE	TAKE	CHANGE	TAKE
Northeast	122	81	221	38.9	307	-73	83	-17	69	38	95
Northwest	88	78	157	31.2	206	-80	42	-2	41	0	41
North Coast	60	2	61	1.64	62	-90	6	117	13	-54	6
Central Coast	0	N/A	0	N/A	0	N/A	2	50	3	-100	0
North Sierra	0	N/A	5	-100	0	N/A	0	N/A	0	N/A	4
Central Sierra	15	-13	13	23.1	16	43.8	23	-52	11	-100	0
East Sierra	28	136	66	18.2	78	-100	0	100	5	200	15
South Coast	42	150	105	-5.7	99	-94	6	-50	3	-100	0
South Sierra	187	25	233	-11	208	-89	22	23	27	-30	8
Southern California	118	74	205	-7.8	189	-79	40	-75	10	110	21
TOTAL	660	62	1066	9.29	1165	-81	224	-19	182	4	190

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. For the past four years, the average price paid for bobcat pelts was about \$33.00.

During the 2000-01 year the number of bobcat trappers was eighteen, down from twenty-two last year. In the last 12 years, the highest number of bobcat trappers was 303 in the 1989-90 season (Table 6).

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. Four-hundred and fourteen were returned to the Department. The hunting take by county is shown in Table 2.

TABLE 5 Bobcat Pelt Prices 1978-79 to 2000-01		
Season	Average Price	Highest Price
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
1999-00	32.06	35.00
2000-01	38.47	38.47

Table 6 indicates that there were less than ten bobcat trappers in any county. The county with the most bobcat trappers was Modoc with four.

TABLE 6 Average Bobcat Harvest per Successful Trapper per Season in California *												
COUNTY	89-90	90-91	91-92	92-93	93-94	94-95	95-96	96-97	97-98	98-99	99-00	00-01
Fresno	17.4											
Humboldt	2.3											
Kern	11.7	16.9				11.1						
Lassen	5.6					6.3			8.9			
Los Angeles	14.4	5.9										
Modoc	3.0					10.5						
Monterey	16.1											
Riverside	16.5											
San Bernardino	14.0	5.2	5.5	16.5	14.6	11.7	8.1	9.7	6.8			
San Diego	16.8											
San Luis Obispo	7.5											
Shasta	4.9											
Siskiyou	5.0	2.5	6.8	9.1		14.0		8.1	10.9	10.3**		
Tulare	6.2	6.7										
Ventura	16.1											
Statewide	12.06	7.00	6.19	10.71	13.67	8.61	10.1	11.3	9.0	10.2	N/A	N/A
# Trappers Harvesting	303	124	113	97	84	102	62	94	91	22	22	18
# Trappers Licensed	834	511	371	338	300	313	257	282	292	170	79	76
* Data from counties and years where more than 10 trappers per county reported. ** Six trappers reporting												

The commercial take of bobcats was primarily with the use of dogs (44 percent) (Tables 7 and 8). Forty percent of bobcats were taken by trapping. Thirteen 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.

TABLE 7  
Methods of Commercial Bobcat Take  
2000-01

COUNTY	METHOD					SAMPLE SIZE
	CALLING	DOGS	HUNTING	MISCELLANEOUS	TRAPPING	
Butte	4	0	0		0	4
Colusa	0	0	0		1	1
Fresno	0	0	0		8	8
Glenn	2	1	0		2	5
Humboldt	0	9	1		0	10
Inyo	0	0	0		13	13
Lassen	0	0	1		0	1
Los Angeles	0	0	0		9	9
Modoc	12	5	2		27	46
Mono	0	0	2		0	2
San Bernardino	0	0	0		12	12
Shasta	0	2	0		0	2
Siskiyou	6	67	0		0	73
Trinity	0	0	0		4	4
TOTAL	24	84	6		76	190
PERCENTAGE	12.6	44.2	3.2		40.0	100.0

TABLE 8  
Method of Commercial Take of Bobcats  
1981-82 to 2001

SEASON	Method of Take (percent of total statewide take)						Total %
	Trap	Dogs	Calling	Other Hunt	Misc.	Unknown	
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
1999-00	49.0	39.0	8.0	3.0	0.5	0	99.5
2000-01	40.0	44.2	12.6	3.2	0	0	100.0

### DISCUSSION

The total bobcat harvest increased in the 2000-01 season from 1999-00. The number of bobcat trappers decreased from twenty-two to eighteen. Pelt prices were up slightly.

Since the 1982-83 season, the harvest has remained below the 14,400 statewide harvest limit. Harvest monitoring will continue.

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 425 for the last thirteen seasons (Table 9).

**TABLE 9**  
Recent Commercial Harvest of Bobcats in Northeastern California

Season	County				Total Northeastern California
	Eastern Siskiyou	Modoc	Lassen	Plumas	
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
1999-00	26	39	4	0	69
2000-01	48	46	1	0	95

### 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.