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STATE OF CALIFORNIA DEPARTMENT OF FISH AND GAME WILDLIFE MANAGEMENT DIVISION NONGAME BIRD AND MAMMAL SECTION

BOBCAT HARVEST ASSESSMENT, 1991-92

by

William E. Grenfell Jr.

November 1992

State of California THE RESOURCES AGENCY Department of Fish and Game

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ABSTRACT

An estimated 1,502 bobcats were taken during the 1991 hunting year and the 1991-92 trapping season. According to export tag reports, trappers took 1,089 bobcats, and hunters took 401. The total take was a decrease of 21% from the 1990-91 year and was the lowest reported take in the last 15 years. The bobcat take decreased in all regions of the State except in the Northwest, East Sierra, and South Coast (Table 4). The average pelt price increased from \$49.50 last year to \$74.15 this year (Table 5). The average take per successful trapper increased, but the number of bobcat trappers decreased from 124 to 113.

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 from U.S. Department of Agriculture, Animal Damage Control records.

INTRODUCTION

Bobcat harvest increased in California from the 1960s through the late 1970s. This increase reflected high fur prices and an abundant population of bobcats. The sale of bobcat fur has brought the highest dollar income to trappers of any species harvested and sold in California since the 1975-75 season. In order to determine the magnitude of the bobcat harvest and the resultant effect on bobcat populations throughout the State, a number of studies were initiated. Field studies of local population dynamics were completed on unharvested population in San Diego County. Reports on these studies have been previously distributed. A statewide harvest monitoring system was used where the age and sex structures of the harvested population were sampled to determine the effect of the harvest on various bobcat populations and to identify the amount of harvest. The age and sex structure of the various bobcat populations in California stabilized during the mid-1980s. Currently, only the monitoring of harvest quantity is being conducted, since the demand and harvest have been declining since 1981-82.

Public interest in the bobcat, on both the domestic and international fronts, has increased greatly over the last 20 years. Prior to 1971, the bobcat in California was a nonprotected mammal, and there were no restrictions on its take. In 1971, this species was given nongame status by the California Legislature. Subsequently, in 1974 a six-month season was imposed on the take of bobcats. This season was further restricted to the standard 3 1/2 month furbearer season in 1976. During the 1978-79 season, the export tag quota was reached by the end of January, effectively shortening the season by one month. During 1979-80, the 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 harvest zones, each with a different length season, depending upon the status of the local bobcat populations. These regulations were a result of previous research and monitoring efforts (see W-54-R-12, IV-7). The 1981-82 season length was increased by one week in length, except in the northeastern California region, in order to have the bobcat season coincide with the season on gray fox. In 1982-83, the northeastern California season was set back two weeks, and its length was increased by a week.

The season limit for bobcat sport hunters was set at two for the 1980-81 season and increased to five for the 1984-85 season. Prior to 1982-83, the sport hunting season length and timing coincided with the commercial take season. In 1982-83, the sport hunting season was extended for two weeks at the end of the commercial season in Del Norte, Humboldt, Kern, Lake, Mendicino, Trinity, and San Diego counties. For the 1985-86 season, the sport hunting season was extended on a statewide basis to open a week before the commercial season and to last until February 15.

The Defenders of Wildlife petitioned the Secretary of the Interior in early 1977 to place the bobcat on the endangered species list. Subjective evaluation of data from Animal Damage Control take, along with increased fur prices and commercial demand and take of bobcats, led this group to take this action. The Secretary later found that the petitioned action was not warranted.

In 1973, the United States became party to the Convention on International Trade in Endangered Species of Wild Fauna and Flora. 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 deemed by the parties to the treaty as a candidate for future endangerment. The Endangered Species Scientific Authority (E.S.S.A.) was established as the scientific body to monitor the species status in the United States, and the U.S. Fish and Wildlife Service was given the authority over trade as provided by the treaty. The E.S.S.A. evaluated data to justify harvest and export of bobcat furs for three years.

In November, 1979, Defenders of Wildlife brought suit against the E.S.S.A. The suit was heard in December, and the court's decision reversed the E.S.S.A.'s findings for five states and parts of two others, but not for California. After the suit, the E.S.S.A. was dissolved and the responsibility was given to the U.S. Fish and Wildlife Service, whose Office of the Scientific Authority (O.S.A.) now has the responsibility for scientific monitoring.

An appeal by Defenders of Wildlife of the court's ruling to the Court of Appeals, District Court for the District of Columbia, resulted in a court order that prohibited bobcat pelts taken after July 1, 1982 from being exported. This ban was imposed until O.S.A. could satisfy the court that export findings were based on reliable population estimates and that each state would enforce a predetermined take limit. Guidelines from O.S.A. to the states to obtain this information were not accepted by the court. 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.

Since late 1982, there has been little activity to ban the harvest of bobcats. However, this has been a period of intense management and monitoring of bobcat populations and harvest. The results of this management and monitoring that are discussed in this report.

OBJECTIVES

- 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 develop a statewide management plan and 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 sport hunting is gathered through the sale of hunting tags and their return. Sport 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 doing the taking or by the public agencies doing the depredation control work.

RESULTS

For the 1991-92 season, the total estimated take of bobcats was 1,502 individuals (Table 1). This was 21% less than were taken during 1990-91 and the lowest estimated take in the 15 seasons since 1976-77. Commercial trappers continue to take the majority (71%) of bobcats. The total hunter take of 401 (Table 2) was lower (55%) than in 1990-91. The hunter take also was the lowest in 15 seasons since the 1976-77 season (Table 1). The total take of bobcats ranged from none in 13 counties to 214 in Kern county (Table 2). This year only 3 of 58 counties reported a take of more than 100 bobcats; last year more than 100 bobcats were taken from 5 counties.

Table 1	. Estimated in Califo	Annual Take rnia, 1977-7	of Bobcats b 8 to 1991-92.	y Huntin	g and Tra	apping
Season	Total Commercial Take	Commercial Trapper Take	Commercial Hunter Take	Total Hunter Take	Animal Damage Control Take	Total Annual Take
	(IA+IB)	(IA)	(IB)	(II)	(III) (I	A+II+III)
1977-78 1978-79	5150 8325	4650 6825	500	15300	208	20158
1979-80	7809	6686	1500 1123	5811 7708	56 32	12692 14426
1980-81 1981-82	9595 9337	8702 8162	893 1175	3737 3037	24 34	12463 11233
1982-83 - 1983-84	- 8513 7362	7427 6576	1086 786	2951 2077	48 43	10426 8696
1984-85 1985-86	8897 8099	7495 6927	1402	2993	48	10536
1986-87	9123	8003	1172 1120	2861 1739	36 44	9824 9786
1987-88 1988-89	8994 5586	8017 4877	977 709	2773 1778	47 52	10837 6707
1989-90 1990-91	2980	2677	303	715	63	3455
1991-92	1148 1089	962 1089	186 0	881 401	46 12*	1889 1502

^{*} Federal fiscal year data 10-1-91 to 9-30-92. Previous data in this column 7-1 to 6-30.

Table 2. Table	of Bobcats by	County During	the 1991-92 Se	eason.
County	Licensed Trapper Take	Sport Hunter Take	Animal Damage Control Take	Total County Take
Alameda		2		2
Alpine	6	_		<u>-</u>
Amador	2	1		ž
Butte	3	ī		Ž.
Calaveras		8		2 6 3 4 8 27
Colusa	25	8 2		27
Del Norte		10		10
El Dorado	2	12		14
Fresno	27	$\overline{22}$		49
Humboldt	65	14		79
Imperial		1		í
Inyo	26	-		26
Kern	198	16		214
Lake	15			15
Lassen	24	25		49
Los Angeles	36	3		39
Madera		27		27 3 1 32
Marin				Ťį
Mariposa		3 1		ĭ
Mendocino	13	15	4	32
Modoc	39	15	7	54
Mono	14	3		17
Monterey	46	15		61
Napa	6		1	14
Nevada	•	j	ī	3
Placer		7 2 3	-	3 3
Plumas		18	1	19
Riverside	39	-5	-	44
San Benito	21	5 1		22
San Bernardino	55	11		66
San Diego	53	15		68
San Luis Obispo	2	7		ğ
San Mateo	- ,	5	1	68 9 6 48
Santa Barbara	46	5 2	•	48
Santa Clara	- -	5		5
Shasta	80	35		115
Sierra		3		**3
Siskiyou	75	26	2	103
Sonoma	9	ī	2 2	12
Stanislaus	-	1 3	_	3
Tehama	10	10		20
Trinity	42	8		50
Tulare	62	25		50 87
Toulumne		10 8 25 8		8
Ventura	48	5		53
Total	1089	401	12	1502

No bobcats were reported taken in Contra Costa, Glenn, Kings, Merced, Orange, Sacramento, San Francisco, San Joaquin, Santa Cruz, Solano, Sutter, Yolo, and Yuba counties.

Seven of the 10 counties reporting the highest commercial take of bobcats were the same as last year. However, Humboldt, Santa Barbara, and Trinity counties replaced Colusa, Fresno, and Los Angeles counties.

Rank	1972-73	1973-74	1974-75	1975-76	1976-77
1	Merced	San Diego	San Diego	Humboldt	Humboldt
ż	Modoc	Modoc	Nodoc	San Diego	San Bernardino
3	Shasta	Tehama	Lassen	Modoc	Santa Barbera
4	Siskiyou	Tuolumne	Humboldt	Shasta	Shasta
5	Humboldt	Siskiyou	In yo	Inyo	San Benito
6	Sierra	Humboldt	Siskiyou	Siskiyou	Mendocino
7	Tehama	Mendocino :	Colusa	Riverside	Tulare
8	San Bernerdino	Shasta	Riverside	San Bernardino	Fresno
9	Butte	Lake	Fresno	Solano	San Diego
10	San Diego	Solano	Lake	Lake	Inyo
Rank	1977-78	1978-79	1979-80	1980-81	1981-82
1	San Bernardino	Humboldt	Santa Barbera	San Bernardino	San Bernardino
2	Humboldt	San Bernardino	Humboldt	Monterey	Kern
3	Tulare	Shasta	Tulare	Santa Barbera	Honterey
4	Santa Barbera	Kern	Kern	San Luis Obispo	Şanta Barbera
5	Kern	Siskiyou	San Bernardino	Humboldt	Tulare
6	Inyo	Santa Barbere	Siskiyou	Tulare	Humboldt
7	Mendocino	Inyo	San Diego	Mendoc i no	San Diego
8	Modoc	Modoc	Mendocino .	Kern	Ventura
9	Shasta	Mendocino	Monterey	San Diego	Fresno
10	Honterey	Tehama	San Luis Obispo	San Benito	San Luis Obispo
Rank	1982-83	1983-84	1984-85	1985-86	1986-87
1	San Bernardino	San Bernardino	Kern	Kern	San Bernerdino
2	Monterey	Kern	Tulare	San Bernardino	Kern
3	Kern	Santa Barbera	Monterey	Tulare	Santa Barbera
4	Santa Barbara	San Luis Obispo	San Bernardino	Monterey	Tulare
5	San Luis Obispo	_	Santa Barbara	Santa Barbara	Ventura
6	Tulare	Honterey	San Luis Obispo		Monterey
7	Humboldt	Tulare	Los Angeles	Ventura	San Luis Obispo
8	Los Angeles	San Diego	Humboldt	Humboldt	San Diego Humboldt
9	San Diego	Ventura	Siskiyou	Los Angeles	Fresno
10	Ventura	Humboldt	San Diego	Inyo	
Rank	1987-88	1988-89	1989-90	1990-91	1991-92
1	San Bernardino	San Sernardino	Kern	Kern	Kern
2	Kern	Kern	San Bernardino	Tulare	Shasta
3	Monterey	San Diego	Ventura	Coluse	Siskiyou
4	Tulare	Santa Barbera	Fresno	San Bernardino	Humboldt
5	Santa Barbara	Monterey	Monterey	Fresno	Tulare
6	Siskiyou	Los Angeles	Los Angeles	Siskiyou	San Bernerdino
7	Humboldt	Ventura	San Diego	Los Angeles	San Diego
8	Ventura	Fresno	Siskiyou	Ventura	Ventura
9	San Diego	Tulare	Tulare	San Diego	Santa Barbera

The 1991-92 Commercial take of bobcats was among the lowest in the previous five seasons in all but three of the geographic regions monitored (Table 4). The increase in the Northwest Region was from 115 bobcats last year (1990-91) to 260 this year. The increases in the East Sierra and South Coast are 4 and 36 animals respectively.

							4000 00	-4	4000 04	Ob	1991-92
Ares .	1966-87 Take	Change <to> (%)</to>	1987-88 Take	Change <to>, (%)</to>	1988-89 Take	Change <to> (%)</to>	1989-90 Take	Change <to> (%)</to>	1990-91 Take	Change <to> (%)</to>	Take
Northeast	514	17	601	-53	282	-28	230	-61	90	- 2	88
Northwest	1216	11	1355	-49	694	-48	362	-68	115	. 96	260
North Coast	425	14	483	-35	312	-64	112	- 1	111	-51	55
Central Coa	st 107	12	120	-67	40	-32	27	+33	36	-100	0
North Sierra	66	-64	24	-67	8	0	8	-100	0	300	3
Central Sierra	232	47	342	-63	127	-72	35	- 9	32	-87	4
East Sierra	343	- 28	248	-71	73	62	118	-66	42	9	46
South Coast	2881	-13	2510	-30	1753	-51	857	-79	180	20	216
South Sierr		- 6	1809	-43	1026	-32	696	-46	375	-23	287
Southern California	1416	6	1502	-15	1271	-58	535	-69	167	-22	130
Total	9123		8994		5586		2960		1148		1089

The market for bobcat fur has become relatively stable in both political and economic terms. However, the average price of a bobcat pelt dropped by about 88% 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 just appeared saturated during 1989-90 and 1990-91. During 1991-92 the price again increased to \$71.32. The saturation of the market appears to be over.

Season	Average Price	Highest Price
1970-71	\$ 10.86	Not Recorded
1971-72	\$ 18.83	\$ 30.00
1972-73	\$ 29.33	\$ 6.00
1973-74	\$ 45.00	\$ 110.00
1974-75	\$ 50.00	\$ 110.00
1975-76	\$ 133.50	\$ 300.00
1976-77	\$ 133.50 \$ 76.00 \$ 105.00 \$ 120.00 \$ 114.20 \$ 129.90 \$ 114.53 \$ 105.85 \$ 102.33 \$ 121.96 \$ 107.86 \$ 167.33	\$ 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

The average take per commercial trapper increased slightly to 9.6 animals compared to 7.0 last year. However, the number of bobcat trappers declined from 124 to 113. There were 1,007 bobcat trappers in 1980-81 season (Table 6).

County	Seeson											
	80-81	81-82	82-83	83-84	84-85	85-86	86-87	87-88	88-89	89-90	90-91	1991-92
Butte	2.5											
Fresno	10.2	9.1	8.5	11.9	10.0	12.1	17.6	15.3	16.1	17.4		
Glenn	5.0	5.5	6.8		5.8			10.7				
Humboldt	5.3	5.7	4.8	7.6	9.3	18.0	12.5	13.0	8.6	2.3		
Inyo	8.5	5.0	5.3	7.8	5.6	14.2	9.7	6.2				
Kern	11.0	10.8	12.2	16.5	18.4	14.7	13.0	14.2	9.1	11.7	16.9	
Lake	4.7	5.9	4.6	5.9			7.2	7.9				
Lassen	3.8	5.9	6.5	3.6	4.8	4.4	4.4	9.8	3.9	5.6		
Los Angeles	14.1	8.1	8.8	13.5	15.8	14.9	15.6	11.1	12.0	14.4	5.9	
Madera		8.9		11.3	12.7			7.3				
Mariposa	5.7	10.1	6.3		9.6	7.2	10.1	19.9				
lendoc i no	6.1	4.5	5.4	6.1	5.9	5.1	6.5	6.2	5.4			
4odoc	3.2	4.6	5.5	7.7	7.2	6.3	6.2	7.2	7.2	3.0		
lono		4.2	6.9	9.2				6.5				
ionterey	16.3	14.2	11.7	14.7	18.0	17.8	21.4	24.8	14.0	16.1		
Plumes		5.5	4.5						,			
Riverside	5.8	7.8	9.0	7.4	10.3	10.1	9.8	12.0	8.7	16.5		
San Benito	13.0	9.0	9.8		8.3	,	14.2	12.0	U.,	10.5		
San Bernardino	14.7	9.2	10.0	12.0	11.6	14.6	14.6	13.3	12.3	14.0	5.2	5.5
San Diego	6.0	9.4	9.8	10.6	11.8	10.8	11.6	14.0	16.9	16.8	٦.٤	3.3
San Luis Obisco	13.9	8.5	10.6	14.4	11.1	10.8	14.7	14.4	10.4	7.5		
Santa Barbara	13.6	12.2	16.6	17.4	16.3	16.1	13.9	13.9	11.7	(
Shasta	2.9	3.1	3.3	4.1	4.4	4.8	4.7	4.9	6.3	4.9		
Siskiyou	3.8	5.7	5.1	5.2	0.2	5.6	5.9	9.9	6.5	5.0	2.5	6.8
Sonome	6.4	7.5	8.4	6.5	4.6	3.0	6.8	7.7	9.3	3.0	2.3	0.0
chame	5.1	4.1	3.8	3.7	6.3	3.8	3.9	5.8	7.3			
rinity	3.3	3.3	4.4	2.5	3.5	3.0	8.5	5.0	2.2			
lutare	9.2	9.3	11.2	10.5	13.4	14.5	12.3	17.1	8.5	6.2	6.7	
luolumne	7.4	5.8	6.9	5.4	13.4	17.3	16.3	5.2	0.3	0.2	0.7	
/entura	9.4	10.4	11.2	10.4	13.5	12.6	18.4	16.6	9.9	16.1		
Statewide	8.04	8.78	9.08	11.86	12.01						7.00	9.60
•												
Firappers												
narvesting	1,007	909	821	488	398	547	584	664	443	303	124	113
obcats												
f Trappers												
icensed	3 201	3 684	T 001	1 607	1 450	1 /17	1,347	1 440	1 2//	834	511	371

As usual, the commercial take of bobcats was primarily by trapping (77%) (Tables 7 and 8). Hunting with dogs remains the second most common way to take bobcats. This method was most commonly employed in Tulare County. About 0.1% of the bobcat furs were salvaged; 1.2% were taken through the use of a predator call and 1.7% were taken by hunting where the specific method was not given. Predator calling only occurs occasionally as a commercial hunting method.

County	% Taken by Trap	% Salvaged Road Kill	* Taken Misc. Hunting	* Taken by Dogs	% Taken by Calling	Sample Size
Alpine	100.0	0.0	0.0	0.0	0.0	6
Amador	100.0	0.0	0.0	0.0	0.0	ž
Butte	100.0	0.0	0.0	0.0	0.0	3
Colusa	100.0	0.0	0.0	0.0	0.0	6 2 3 25
El Dorado	100.0	0.0	0.0	0.0	0.0	2
Fresno	100.0	0.0	0.0	0.0	0.0	2 27
Humboldt	43.1	0.0	1.5	55.4	0.0	65
Inyo	100.0	0.0	0.0	0.0	0.0	26
Kern	97.0	0.0	0.5	0.0	2.5	198
Lake	100.0	0.0	0.0	0.0	0.0	15
Lassen	95.8	0.0	0.0	0.0	4.2	24
Los Angeles	100.0	0.0	0.0	0.0	0.0	36
Mendocino	84.6	0.0	0.0	15.4	0.0	. 13
Modoc	59.0	0.0	35.9	5.1	0.0	39
Mono	100.0	0.0	0.0	. 0.0	0.0	14
Monterey	100.0	0.0	0.0	0.0	0.0	46
Napa	100.0	0.0	0.0	0.0	0.0	6
Riverside	100.0	0.0	0.0	0.0	0.0	39
San Benito	100.0	0.0	0.0	0.0	0.0	21
San Bernardino		0.0	1.8	0.0	0.0	55
San Diego	98.1	0.0	1.9	0.0	0.0	53
San Luis Obisp		0.0	0.0	0.0	0.0	2
Santa Barbara	100.0	0.0	0.0	0.0	0.0	46
Shasta	10.0	0.0	0.0	90.0	0.0	80
Siskiyou	76.0	0.0	0.0	18.7	5.3	75
Sonoma	11.1	0.0	0.0	88.9	0.0	9
Tehama	100.0	0.0	0.0	0.0	0.0	10
Trinity Tulare	42.9	0.0	0.0	57.1	0.0	42
Tutare Ventura	1.6	0.0	0.0	93.5	4.8	62
ventura	97.9	2.1	0.0	0.0	0.0	48
Total	77.2	0.1	1.7	19.8	1.2	1089

Table 8.	Method of Commercial Take of Bobcats, 1980-91.									
	Method of Take (Percent of Total Statewide Take)									
Season -	Trap	Dogs	Calling	Misc. Hunt	Road Kill	Unknown	Total%			
1980-81 1981-82 1982-83 1983-84 1984-85 1985-86 1986-87 1986-87 1988-89 1988-89	90.6 86.2 86.7 89.0 82.8 85.1 83.4 88.5 85.5 89.9	6.6 9.5 10.4 9.3 13.5 13.2 10.6 9.6 11.8 7.8 13.2	0.7 1.3 0.9 0.4 0.7 0.6 0.8 1.1 0.9 0.7 2.4	1.4 1.8 1.4 1.1 1.7 0.7 0.8 0.6 0.4 1.6	0.3 0.3 0.2 0.2 0.3 0.1 0.1	0.5 0.9 0.4 <0.1 1.0 0.3 4.2 0.1	100.1 100.0 100.0 100.0 100.0 100.0 99.9 100.0 100.1 100.0			

Information on the extent and distribution of the sport hunting take of bobcats is gathered through the sport hunting tag program. Obtaining these tags and returning them to the Department upon taking bobcat are legal requirements of bobcat hunters. The Department sold 1,011 bobcat hunting tags during the 1991-92 season. Four hundred and one were returned to the Department. The sport hunting take, by county, is shown in Table 2.

DISCUSSION

The total bobcat harvest decreased again in the 1991-92 season. This is curious because pelt prices increased by about 44% (Table 5). Also, the number of bobcat trappers decreased slightly from 124 to 113. The decrease in bobcat trapping, and other trapping is probably due to new regulations recommended by the Department and enacted by the Fish and Game Commission. These new regulations require that all leghold traps be of the commercially manufactured padded type. Many trappers decided not to trap this year because the cost of converting to new traps was too prohibitive.

Since the 1982-83 season, and with no change in season length, the harvest has remained below the 14,400 statewide harvest limit. Harvest monitoring should continue; and, if the statewide harvest reaches 14,000 bobcats, the age and sex structure monitoring should be reinstated.

The bobcat take in northeastern California has been monitored every year because, in the past, the age and sex structures had not increased to levels comparable to other areas of the State during the time the Department monitored these population parameters. If the harvest in this local area increases to more than 425 for more than two successive season, additional management action should be instigated to determine the effects on that population. The local harvest has been below this level for the last four seasons.

Season		Total			
Season	Eastern Siskiyou	Modoc	Lassen	Plumas	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	88

RECOMMENDATION

1. 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.