

JOB PROGRESS REPORT

State: California
Project Number: W-54-R-15 Project Title: Nongame Wildlife Investigations
Job Number: IV-6 Job Title: Bobcat Harvest Assessment
Period Covered: July 1, 1982-June 30, 1983 Job Type: Survey and Inventory

SUMMARY:

An estimated 10,426 bobcats were taken during the 1982 hunting year and the 1982-83 trapping season. Approximately 7,427 bobcats were taken by trappers and 2,951 by hunters. The total take was a decrease of about 800 from the 1981-82 year and was the lowest in the last six years. The decrease was almost completely reflected in the decrease in commercial take and was attributable to the uncertain market for bobcats due to questions over whether the export of bobcat furs from the United States would be permitted. As has become normal, the greatest take continued to occur in counties along California's south coast. Data on the bobcat harvest were gathered through the process of tagging bobcat furs for export, the annual trapping report and hunter survey, and from the U. S. Fish and Wildlife Service depredation control records.

BACKGROUND:

Bobcat harvest has increased in California since the late 1960's. This reflects 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 of fur harvested and sold in California for the last eight years. 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 have been completed on unharvested populations in Siskiyou, Riverside, and San Diego counties and on a harvested population in San Diego County. Reports on these studies have been made through other jobs. A state-wide harvest monitoring system has been established where the age and sex structures of the harvested population are sampled (see Job IV-7) to determine the effect of the harvest on the various bobcat populations, and to identify the amount of harvest. This latter project is the subject of this job report.

OBJECTIVE:

Determine the annual bobcat harvest on a regional basis for the purpose of managing populations through the manipulation of season lengths and chronology, take methods, and take limits.

PROCEDURES:

The commercial take is determined through assessment of mandatory, annual reports of licensed trappers and through a mandatory export tagging program for all bobcat furs. Commercial fur takers 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 taker must supply information of the place, date and method of take and provide other biological information for determining the age of the harvested bobcat.

Table 1. Estimated Annual Take of Bobcats by Hunting and Trapping in California

<u>Season</u>	<u>I.</u> Total Take by Lic. Com- mercial Fur Takers	<u>IA.</u> Commercial Trapper Take	<u>IB.</u> Commercial Hunter Take	<u>II.</u> Total Take by Hunters	<u>III.</u> Animal Damage Control Take	<u>IA.+II.+III.</u> Total An- nual Take
1976-77	5,400	5,000	400	10,500	347	15,847
1977-78	5,146	4,650	500	15,300	208	20,150
1978-79	8,326	6,825	1,500	5,811	56	12,700
1979-80	7,809	6,686	1,123	7,708	32	14,450
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

Table 3. Ten Counties Reporting Highest Commercial Take of Bobcat, 1971-83

Rank	1971-72	1972-73	1973-74	1974-75	1975-76
1	Modoc	Merced	San Diego	San Diego	Humboldt
2	Shasta	Modoc	Modoc	Modoc	San Diego
3	Merced	Shasta	Tehama	Lassen	Modoc
4	Lassen	Siskiyou	Tuolumne	Humboldt	Shasta
5	Siskiyou	Humboldt	Siskiyou	Inyo	Inyo
6	Riverside	Sierra	Humboldt	Siskiyou	Siskiyou
7	San Bernardino	Tehama	Mendocino	Colusa	Riverside
8	San Diego	San Bernardino	Shasta	Riverside	San Bernardino
9	Humboldt	Butte	Lake	Fresno	Solano
10	Plumas	San Diego	Solano	Lake	Lake
Rank	1976-77	1977-78	1978-79	1979-80	1980-81
1	Humboldt	San Bernardino	Humboldt	Santa Barbara	San Bernardino
2	San Bernardino	Humboldt	San Bernardino	Humboldt	Monterey
3	Santa Barbara	Tulare	Shasta	Tulare	Santa Barbara
4	Shasta	Santa Barbara	Kern	Kern	San Luis Obispo
5	San Benito	Kern	Siskiyou	San Bernardino	Humboldt
6	Mendocino	Inyo	Santa Barbara	Siskiyou	Tulare
7	Tulare	Mendocino	Inyo	San Diego	Mendocino
8	Fresno	Modoc	Modoc	Mendocino	Kern
9	San Diego	Shasta	Mendocino	Monterey	San Diego
10	Inyo	Monterey	Tehama	San Luis Obispo	San Benito
Rank	1981-82	1982-83			
1	San Bernardino	San Bernardino			
2	Kern	Monterey			
3	Monterey	Kern			
4	Santa Barbara	Santa Barbara			
5	Tulare	San Luis Obispo			
6	Humboldt	Tulare			
7	San Diego	Humboldt			
8	Ventura	Los Angeles			
9	Fresno	San Diego			
10	San Luis Obispo	Ventura			

Table 5. Bobcat Pelt Prices

<u>Season</u>	<u>Average Price</u>	<u>Highest Price</u> ^{1/}
1970-71	\$ 10.86 ^{2/}	Not recorded
1971-72	\$ 18.83 ^{2/}	\$ 30.00
1972-73	\$ 29.33 ^{2/}	\$ 6.00
1973-74	\$ 45.00 ^{2/}	\$ 110.00
1974-75	\$ 50.00 ^{2/}	\$ 110.00
1975-76	\$ 133.50 ^{2/}	\$ 300.00
1976-77	\$ 76.00 ^{2/}	\$ 225.00
1977-78	\$ 105.80 ^{3/}	\$ 185.00
1978-79	\$ 120.00 ^{3/}	\$ 426.00
1979-80	\$ 114.20 ^{3/}	\$ 313.00
1980-81	\$ 129.90 ^{4/}	\$ 325.00
1981-82	\$ 114.53 ^{4/}	\$ 325.00
1982-83	\$ 108.36 ^{4/ 5/}	\$ 342.11

1/ The highest average price of top quality pelts

2/ Average price estimate from trappers' reports and sample of fur dealers

3/ Data taken only from California Trappers' Association fur sales which tend to be higher than average paid throughout season by all fur dealers

4/ Data taken from annual reports of licensed fur dealers

5/ Preliminary data

Table 6. Method of Commercial Take of Bobcats, 1982-83

	% Taken by Trap	% Taken by Dogs	% Taken by Calling	% Taken Misc. Hunting	% Salvaged from Rd. Kill	% Where Method Unk.
1 Alameda	90 (19)	5 (1)	5 (1)			
2 Alpine	100 (11)					
3 Amador	67 (2)		33 (1)			
4 Butte	83 (19)			17 (4)		
5 Calaveras	62 (28)	38 (17)				
6 Colusa	100 (109)					
7 Contra Costa						
8 Del Norte	36 (12)	45 (15)				18 (6)
9 El Dorado	70 (37)	28 (15)		2 (1)		
10 Fresno	73 (177)	25 (61)				1 (3)
11 Glenn	100 (100)					
12 Humboldt	68 (249)	31 (114)	-(1) 1/	- (1)		
13 Imperial	100 (52)					
14 Inyo	99 (162)			1 (2)		
15 Kern	81 (513)	13 (83)	3 (21)	2 (12)	- (2)	
16 Kings	100 (16)					
17 Lake	92 (133)	8 (11)		1 (1)		
18 Lassen	81 (143)		6 (11)	7 (12)		6 (11)
19 Los Angeles	99 (358)			1 (4)		
20 Madera	100 (136)					
21 Marin	29 (5)	65 (11)		6 (1)		
22 Mariposa	82 (75)	17 (16)		1 (1)		
23 Mendocino	84 (186)	15 (34)	1 (2)			
24 Merced	50 (2)	50 (2)				
25 Modoc	85 (202)	4 (10)	3 (7)	8 (18)	- (1)	
26 Mono	96 (82)				4 (3)	
27 Monterey	77 (508)	22 (143)	- (3)	1 (5)		
28 Napa	64 (28)		11 (5)			25 (11)
29 Nevada	86 (6)		14 (1)			
30 Orange	100 (26)					
31 Placer	60 (6)			40 (4)		
32 Plumas	100 (35)					
33 Riverside	97 (209)			3 (6)		
34 Sacramento						
35 San Benito	90 (99)	8 (9)		1 (1)	1 (1)	
36 San Bernardino	98 (748)			2 (15)	- (1)	
37 San Diego	98 (333)		- (1)	2 (7)		
38 San Francisco						
39 San Joaquin	88 (7)			13 (1)		
40 San Luis Obispo	86 (435)	12 (61)		1 (7)	- (2)	- (1)
41 San Mateo	89 (33)	8 (3)		3 (1)		
42 Santa Barbara	94 (578)	4 (24)	- (3)	1 (5)	- (2)	
43 Santa Clara	79 (15)	21 (4)				
44 Santa Cruz	100 (26)					
45 Shasta	82 (214)	13 (35)	4 (10)		1 (3)	
46 Sierra	80 (4)	20 (1)				
47 Siskiyou	82 (241)	15 (44)	2 (6)	1 (2)	- (1)	
48 Solano	100 (7)					
49 Sonoma	93 (95)	7 (7)				
50 Stanislaus	100 (10)					
51 Sutter						
52 Tehama	85 (143)	10 (17)	3 (5)	2 (3)		
53 Trinity	66 (47)	31 (22)		1 (1)	1 (1)	
54 Tulare	81 (328)	19 (75)		- (1)		
55 Tuolumne	46 (34)	51 (38)				3 (2)
56 Ventura	100 (319)		- (1)			
57 Yolo	100 (14)					
58 Yuba	55 (11)	45 (9)				

/ - Value Indicates

Less Than 0.5%

FORM DFG 884

46700-800 3.70 5M OSP

8513 TOTAL

86.7

10.4

0.9

1.4

0.2

0.4

(7385)

(882)

(79)

(116)

(17)

(34)

Table 8. Licensed sport hunter take of bobcat, 1978-1982

	<u>Estimated License Hunter Take</u>	<u>No. Licensed Hunters Hunting Bobcats</u>	<u>Percent Successful</u>	<u>Days Hunted</u>	<u>Bobcats Taken/Day</u>
1978	5,733	7,566	45	57,603	0.100
1979	7,462	5,960	47	65,340	0.114
1980	3,373	4,843	59	32,951	0.102
1981	2,585	4,551	45	30,192	0.086
1982	2,574	4,408	41	32,984	0.078

hand, over 80% of the sport hunters have refused to cooperate with the tag program and data on sport hunting no doubt has suffered. Regulations enacted have been the result of the less than perfect data analysis because of the lack of cooperation. The noncompliance with the sport hunting tag program should be rectified, or the program dropped and the hunter survey data used exclusively. Greater compliance might be gained by eliminating the requirement that sport hunters must provide the Department with the lower jaw of the harvested bobcat and only require the information contained on the return portion of the tag itself.

Due to the earlier preparation date for this Progress Report, the average bobcat harvest per successful trapper for the 1982-83 season could not be calculated. This is due in part to the chronic tardiness of trappers in submitting their annual trapping reports. Also, it was due to the lack of temporary help which was not available because of a freeze on filling these positions. The increased load on permanent staff has delayed the compiling and analysis of the annual trapping reports.

RECOMMENDATIONS:

1. Continue to monitor the take of bobcats by geographical area in order to use the information generated to determine management needed to maintain bobcat populations throughout California.
2. Continue to evaluate the methods used to obtain the harvest of bobcats by hunters and correct them for any inherent biases.
3. Develop and improve methods to evaluate harvest data and to correlate with other population dynamics information.

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