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STATUS OF THE SPOTTED SKUNK IN CALIFORNIA^{1/}

by

Linda Belluomini

INTRODUCTION

Taxonomy: Seven subspecies of western spotted skunk (Spilogale gracilis) are recognized by Grinnell, Dixon and Linsdale (1937) for California. The California spotted skunk (S. g. phenax) ranges throughout most of the state west of the Sierra Nevada crest, north from Kern to southern Humboldt, Trinity, and Siskiyou counties. The San Diego spotted skunk (S. g. microrhina) occurs in the Sierra Nevada Mountains of southwest California. The Channel Islands spotted skunk (S. g. amphialus) can be found on Santa Rosa and Santa Cruz Islands. The extreme northwest corner of the state is the locale of the Oregon spotted skunk (S. g. latifrons). The Great Basin spotted skunk (S. g. saxatilis) may be found in the Great Basin portion of the state east of the Sierra Nevada crest, from near the California-Oregon border south to the vicinity of Lake Tahoe. The Inyo and Panamint mountains and Owens Valley in Inyo County form the range of the Grand Canyon spotted skunk (S. g. gracilis). Finally, the Arizona spotted skunk (S. g. arizonae) may be found in the Colorado River Valley, in the extreme southeast corner of the state.

Legal Status: The spotted skunk is a nongame mammal. This category includes any mammal in California that is not a game mammal, fully protected mammal, or a furbearing mammal. Spotted skunks may be taken year round. There is no bag or possession limit.

NATURAL HISTORY

Habitat: Spotted skunks are found in a diversity of habitats. These include rocky outcrops, chapparal, brushy or sparsely wooded areas along streams, prairies, pine-oak forests and farmyard areas (Hall and Kelson 1959, Burt and Grossenheider 1976, Baker and Baker 1975). Spotted skunks do not enter flats and fields as their striped relatives (Mephitis mephitis) frequently do (Grinnell et al. 1937).

Denning areas may be located beneath buildings, in natural rock cavities, log hollows or stumps, or quite often the deserted burrow of other animals such as ground squirrels or woodrats (Grinnell et al. 1937, Burt and Grossenheider 1976, Seton 1937, Crabb 1948).

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Food Habits: Little data has been gathered on the food habits of spotted skunks. A food habits study conducted by Crabb (1941) in Iowa concluded that insects were an important component of the spotted skunk's diet, with Carabidae and Scarabidae being consumed most frequently. Small mammals such as cottontails, rats and field and meadow mice were a regular and important part of the diet. Plants such as corn, oats, mulberries and grass also composed a significant portion of the diet. To a small extent birds and bird eggs also were consumed.

Reproduction: A marked reproductive difference exists in the western and eastern spotted skunks. Specifically, western spotted skunks undergo delayed implantation while the eastern spotted skunks do not (Mead 1968). Copulation occurs during the month of September for the western spotted skunk. At this time both juvenile and adult females breed. After fertilization the egg divides to the blastula stage at which time development of the embryo is greatly retarded. The embryos float in the uterine cavity for approximately 180-200 days before becoming attached to the uterine wall where development is resumed. Most litters are born in May after a gestation period of 210-230 days. Mean litter size is four, with the number of males born in captivity exceeding the number of females by a ratio of 2.3:1.

DISTRIBUTION AND DENSITY

Although, skunks may be taken at any time of year, current distribution data, based on licensed fur trapper reports, includes only those counties worked by trappers during the regular fur trapping season and hence the results for any one season may not show a complete picture of distribution. A wide distribution of spotted skunks is indicated by trapping reports extending from 1938 to the present (Table 1). These county-by-county records indicate that the spotted skunk has been harvested at least once in each county. During the 1976-77 fur trapping season spotted skunks were taken in 28 out of the 58 counties in California. In addition those taken in Fresno and Humboldt counties account for almost 30% of the harvest.

HARVEST

Fur Trapping: Due to relatively low densities and low pelt values, spotted skunks never have been economically important furbearers. Quite often their take has been incidental to that of other important furbearing species. Trapping reports (Table 2) show a downward trend in the total number of spotted skunks harvested from 1921 to 1977. The apparent decrease in trapping effort is probably the result of a reduced demand for striped and spotted skunk fur. This may only be surmised, as trapping effort is not indicated in trapping reports. Spotted skunk pelts have sold for relatively little in past years. However, during the 1976-77 season, the previous seasonal high was virtually doubled, with pelts going for \$4.50 each (Table 2).

Animal Control: Although spotted skunks may occasionally kill poultry, they are generally regarded as a favorable addition to the farmyard scene due to their efficient ability to control rat and mice populations. If they become excessive depredation problems or pests they may be taken without permits (see Legal Status).

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Table 1

Harvest of Spotted Skunk in California

<u>County</u>	<u>Take per County</u>	<u>No. Seasons Taken</u>	<u>Average Annual Take per County</u> ^{1/}	<u>Range of Take</u>
Alameda	19	7	.49	1-6
Alpine	10	3	.39	1-6
Amador	28	6	.72	1-13
Butte	386	31	9.90	1-102
Calaveras	39	9	1.0	1-8
Colusa	279	20	7.15	1-108
Contra Costa	46	12	1.18	1-14
Del Norte	178	19	4.56	1-26
El Dorado	119	14	3.05	1-45
Fresno	450	31	11.54	1-70
Glenn	488	30	12.51	1-63
Humboldt	1,144	37	29.33	1-194
Imperial	39	8	1.0	1-15
Inyo	54	6	1.38	1-43
Kern	141	14	3.62	1-37
Kings	39	5	1.0	1-16
Lake	282	24	7.23	1-53
Lassen	82	13	2.10	1-18
Los Angeles	130	16	3.33	1-25
Madera	217	25	5.56	1-48
Marin	120	10	3.10	1-43
Mariposa	53	18	1.36	1-8
Mendocino	828	32	21.23	1-96
Merced	370	26	9.48	1-68
Modoc	105	26	2.69	1-11
Mono	42	13	1.07	1-14
Monterey	193	14	5.21	1-77
Napa	93	18	2.38	1-17
Nevada	44	17	1.12	1-9
Orange	1	1	.025	1
Placer	114	19	2.92	1-20
Plumas	115	22	2.95	1-10
Riverside	87	22	2.23	1-17
Sacramento	30	15	.76	1-8
San Benito	59	8	1.51	1-25
San Bernardino	109	12	2.79	1-25
San Diego	273	19	7.0	1-72
San Francisco	9	1	.23	9
San Joaquin	92	15	2.36	1-50
San Luis Obispo	48	13	1.23	1-15
San Mateo	275	11	7.05	1-42
Santa Barbara	124	8	3.18	2-80
Santa Clara	79	8	2.03	1-23
Santa Cruz	26	10	.67	1-7
Shasta	388	34	9.95	1-49
Sierra	21	9	.54	1-8

1/ Reported take divided by 39 seasons of trapping records

<u>County</u>	<u>Take per County</u>	<u>No. Seasons Taken</u>	<u>Average Annual Take^{1/} per County</u>	<u>Range of Take</u>
Siskiyou	717	39	18.38	2-84
Solano	212	31	5.43	1-26
Sonoma	666	21	17.08	1-112
Stanislaus	120	22	3.07	1-27
Sutter	41	11	1.05	1-9
Tehama	122	21	3.13	1-20
Trinity	491	31	12.60	1-74
Tulare	382	14	9.80	3-73
Tuolumne	93	10	2.38	1-21
Ventura	13	7	.33	1-4
Yolo	201	20	5.15	1-60
Yuba	258	18	6.62	1-103

^{1/} Reported take divided by 39 seasons of trapping records

Table 2

Historical Harvest of Spotted Skunk in California

<u>Year</u>	<u>Average Price Per Pelt</u>	<u>Annual Take</u>
76-77	4.50	227
75-76	2.50	280
74-75	2.60	102
73-74	2.50	112
72-73	1.89	50
71-72	.95	36
70-71	.85	25
69-70	.79	111
68-69	1.01	40
67-68	.87	55
66-67	.64	62
65-66	1.68	97
64-65	2.05	109
63-64	1.31	111
62-63	.96	71
61-62	.79	85
60-61	.81	112
59-60	.88	93
58-59	.70	202
57-58	.67	153
56-57	.56	154
55-56	.48	123
54-55	.45	142
53-54	.42	96
52-53	.30	272
51-52	.41	160
50-51	.27	234
49-50	.29	179
48-49	.32	183
47-48	.35	241
46-47	.45	635
45-46	.69	627
44-45	.51	524
43-44	.59	615
42-43	.40	459
41-42	.24	1,195
40-41	.16	1,368
39-40	.12	933
38-39	.13	784
37-38	.12	622
36-37	.15	840
35-36	.24	565
34-35	.14	628
33-34	.12	790
32-33	.08	478
31-32	.15	1,042
30-31	.248	1,383
27-28	.636	9,425
26-27	.656	4,839
25-26	.68	4,292
24-25	.476	3,364
21-22	.21	921