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STATUS OF THE RINGTAIL IN CALIFORNIA [1/]

by

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INTRODUCTION

Taxonomy: The ringtail (Bassariscus astutus) is known by several other common names including cacomistle, miner's cat and civet cat. Based on slight morphological variations, Grinnell et al. (1937) describe three subspecies of ringtail for California. The California ringtail (B. a. raptor) is found on the lower western slope of the Sierra Nevada as well as the Pacific drainage slope of the Coast Range from the Oregon line west of the longitude of Mt. Shasta south to Ventura County. Here the California subspecies intergrades with the San Diego subspecies (B. a. octavus). This subspecies extends south along the Pacific slope of southwestern California to Baja California. The Nevada ringtail (B. a. nevadensis) was thought to occur primarily on the mountain ranges east of the southern Sierra Nevada with only one specimen taken on the west slope of the Inyo Mountains in Inyo County (Grinnell et al, 1937). Shempf and White (1977) expand this range to the west a considerable distance, as they reported two observations from Bircham Canyon west of Bishop, Inyo Co., in 1939.

Legal Status: Prior to 1967, the ringtail was harvested as a furbearer. It could be taken in season with no bag limit. As of January 1968, the California Legislature conferred the status of fully protected mammal upon the ringtail; it cannot be taken in any manner at any time of the year except for scientific purposes under special permit issued by the California Department of Fish and Game.

NATURAL HISTORY

Habitat: Ringtails live in a variety of habitats within their range, but they have a decided preference for chapparal, rocky hillsides and riparian areas (Grinnell et al. 1937, Seton 1929, Trapp 1978). Their denning areas include rock crevices, boulder piles, underground cavities, hollow trees or underground in hollow roots of trees (Trapp 1978).

Food Habits: Although classified in the order, Carnivora ringtails appear to be opportunistic feeders. They are known to rely quite extensively on insects, fruits, and berries in addition to birds and mammals (Taylor 1954, Davis 1966 Trapp 1978). Variation in this diet is seasonal. Insects make up the majority

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of the diet in summer and fall while birds and mammals, including carrion, are used more extensively in the spring and winter (Taylor 1954, Trapp 1978), On a yearly basis it was shown (Taylor 1954, Davis 1966) that insects were the primary food source for ringtails, with mammals, plants, birds, spiders, and reptiles following in order of preference.

Reproduction: Life history studies conducted by Darham Guiliani (pers. comm.) revealed March 28 as the mean date for insemmination of females in captivity. Guiliani reports the mean gestation period to be approximately 53.8 days for the first litter. Ringtails generally produce 3-4 kits per litter during the months of May and June (Grinnell et al. 1937, Cahalane 1947, Taylor 1954). Guiliani relates that the captive ringtail young first venture from the den at 45-50 days. Grinnell et al. (1937) and Cahalane (1947) note that both parents are involved in raising the young with families breaking up in early winter.

DISTRIBUTION AND DENSITY

Various distribution studies indicate that ringtails occur primarily in the Coast and Sierra Nevada mountain ranges from Oregon to the California-Mexico border (Grinnell et al. 1937, Ingles 1965, Schempf and White 1977). Their status as more than an accidental resident in the Sacramento Valley (Naylor and Wilson 1956) has been documented recently via mammal inventories of riparian habitat. Stone (1976) livetrapped ringtails in the northern-most portion of the Sacramento Valley at Woodson Bridge State Park and Mooney Island, both on the Sacramento River. At the confluence of the Bear and Feather Rivers, the Ecological Research Society of California State University, Sacramento, found an abundance of ringtails along the southern portion of Audubon's 440 acre Bobelaine Sanctuary; eight different ringtails were livetrapped and eartagged during a seven night trapping excursion (Gene Trapp, CSUS Biology Dept., pers. comm.). Ringtails also have been livetrapped on a privately owned plot of riparian habitat of the Sacramento River, 18 miles north of Colusa near the Glenn-Colusa County line (Linda Belluomini, pers. comm.).

That the ringtail has a widespread distribution is confirmed by trapping reports extending from 1921 to 1967 (Table 1). During this period they were reportedly trapped in 52 of California's 58 counties.

The ringtail occurs from sea level (Grinnell et al. 1937) to 8800 feet (Schempf and White 1977). Schempf and White (1977) and Grinnell et al. (1937) concur on the average altitudinal distribution of ringtails in California. Specifically, Schempf and White find the altitudinal average at 1900 feet in the North Coast, 2800 feet in the North Sierra, and 3900 feet in the South Sierra.

Grinnell et al. (1937) estimated ringtail density at 0.2 ringtails per mile, and at its peak density, 6/sq. mile. No other density estimates have been given f'or California, however, it appears they may be quite abundant in riparian vegetation of the Sacramento Valley (Dr. Gene Trapp, CSUS Biology Dept., pers. comm.). Observation reports indicate that ringtails are quite common in the Feather River Canyon. Trapping reports from Butte and Shasta counties indicate a high take of ringtails prior to 1967 (Table 1). Schempf and White (1967) report that they are common in the North Coast Region along the Eel, Trinity, Klamath and Salmon Rivers, They also reported several observations of ringtails in the Feather River Canyon and in the South Sierra Region.

HARVEST

Fur Trapping: Due to the fully protected status given ringtails in 1967, it may not be hunted or trapped. Prior to this, ringtails were taken each trapping season; however, their fur was never highly valued (Table 2). The highest take of ringtails occurred in 1927-28 with 4,368 animals harvested; the lowest take occurred in 1964-65 with 55 ringtails harvested. A sharp decline in ringtail harvest occurred during the final years prior to the halt of trapping, probably the result of low demand and low prices. This was the typical situation for most furbearers in California during the late 1950's and 1960's.

Animal Control: Ringtails seldom if ever create depredation problems. In rare instances ringtails have reportedly raided chicken coops. Present control would be to livetrap and relocate problem animals.

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Table 1
Reported Observation and Licensed Trapper Take of Ringtails in California

County	F & G Furbearer Observation Reports	Swick 1974	Schempf & White (1974-1977)		Average Annual Take per County[1/]	Range of Take	No. Seasons Ringtail Taken
Alameda					0.10	3	1
Alpine							
Amador				X	4.34	1-45	7
Butte	X	X		X	59.17	4-219	29
Calaveras	X			X	10.55	l-92	14
Colusa	X	X			3.03	1-9	13
Contra Costa					.31	1-5	3
Del Norte			X	X	7.28	1-48	12
El Dorado	X			X	11.66	1-66	15
Fresno			X	X	17.31	l-93	20
Glenn					5.66	1-20	25
Humboldt	X	X		X	30.03	1-160	28
Imperial					.66	l-11	7
Inyo					.97	1-8	9
Kern					.83	1-9	8
Kings					.10	3	1
Lake					2.90	1-23	16
Lassen					.75	l-17	6
Los Angeles					.83	l-5	9
Madera			X	X	7.48	1-44	11
Marin					.03		1
Mariposa			X	X	19.83	3-101	18
Mendocino	X			X	11.24	1-47	25
Merced					1.28	1-32	4
Modoc					.28	1-6	3
Mono				X	.24	1-2	5
Monterey	X				.41	1-7	3
Napa					.21	1-2	4
Nevada	X				11.0	l-53	25
Orange							
Placer				X	15.62	1-75	21
Plumas	X	X		X	6.97	1-28	22
Riverside					1.0	1-11	6
Sacramento					.379	1-6	5
San Benito							
San Bernardino					1.10	1-7	10
San Diego	X	X			.62	2-12	3
San Francisco							
San Joaquin	X	X			.86	1-22	3
San Luis Obispo	X	X			.03	1	1
San Mateo							
Santa Barbara					.45	l-10	3
Santa Clara					.03	1	1
Santa Cruz							
Shasta	X	X	X	X	57.03	1-234	28

1/ Reported take divided by 29 seasons of trapping records

County	F & G Furbearer Observation Reports	Swick 1974	Schempf & White (1974-1977)		Average Annual Take per County [1/]	Range of Take	No. Seasons Ringtail Taken
Sierra				X	1.79	1-13	14
Siskiyou	X			X	12.97	1-60	25
Solano					.07	2	1
Sonoma					.93	1-9	9
Stanislaus	X	X			2.62	1-18	12
Sutter	X	X		X	1.14	1-6	15
Tehama	X	X	x	x	11.97	1-48	25
Trinity	X			X	37.59	3-108	29
Tulare			x	x	14.17	1-103	15
Tuolumne	X	X	x	x	19.52	1-126	13
Ventura					.66	1-7	7
Yolo					.66	1-13	5
Yuba				X	6.14	1-48	22

[1/] Reported take divided by 29 season of trapping records

TABLE 2. Historical Harvest of Ringtail in California [1/]

Year	Trapper Take	Avg. Price/Pelt
66 - 67	60	$1.07
65 - 66	116	1.53
64 - 65	55	1.31
63 - 64	85	1.43
62 - 63	86	1.61
61 - 62	74	1.19
60 - 61	114	1.55
59 - 60	108	1.61
58 - 59	74	1.40
57 - 58	66	1.04
56 - 57	171	1.18
55 - 56	120	1.13
54 - 55	230	1.61
53 - 54	157	1.10
52 - 53	163	1.28
51 - 52	144	1.68
50 - 51	212	1.86
49 - 50	164	.90
48 - 49	231	1.09
47 - 48	399	1.49
46 - 47	710	1.55
45 - 46	1213	4.25
44 - 45	719	2.52
43 - 44	663	3.06
42 - 43	683	1.72
41 - 42	1458	$1.52
40 - 41	1491	1.53
39 - 40	983	1.08
38 - 39	783	1.04
37 - 38	999	.78
36 - 37	772	1.33
35 - 36	880	.80
34 - 35	877	.63
33 - 34	682	.82
32 - 33	572	.48
31 - 32	970	.76
30 - 31	990	1.21
27 - 28	4368	3.28
26 - 27	3477	2.63
25 - 26	2698	2.41
24 - 25	2304	2.02
21 - 22	545	1.05

[1/] Ringtail given fully protected status in 1967.