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SCHOOL OF FORESTRY

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Brooks Fahy  
Predator Defense Institute  
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Dear Mr. Fahy:

In response to your letter of July 31, I enclose pages 56-57 from the Final Report on my cougar work in southern California. I do not have spare copies of the Final Report, but you can obtain a full copy from California Department of Fish and Game, 1416 Ninth St, Sacramento CA 98514 or by calling 916-653-7889 and asking for a copy of: Beier, P., and R. H. Barrett. 1993. The Cougar in the Santa Ana Mountain Range, California. Final Report from University of California to California Department of Fish and Game. 104 pp. (typeset) + appendices (34 pp.).

In my opinion, reports of sightings are worthless (or worse) as an indicator of cougar presence, cougar numbers, or trends in cougar numbers.

Sincerely,

Paul Beier

## CHAPTER 5. UTILITY OF TRACK SURVEYS

Track surveys for cougars can be used for 3 purposes: (1) to detect simple presence of cougars, (2) to detect increases or decreases in population size, or (3) to estimate the total number of animals in a population. The first type of survey is relatively inexpensive and potentially useful, and is discussed in the first part of this chapter. The second type of survey is very expensive and has low power to detect change in numbers. It is nonetheless feasible and is discussed at the end of this chapter. The third type of track survey (to estimate numbers) would be extremely expensive, probably requires surveying more road mileage than exists in our study area, would produce estimates of low precision and unknown accuracy, and will not be discussed further.

### Surveys to detect cougar presence

There are frequent reports of cougar sightings within County Parks. Under most circumstances it is unlikely that County Parks would want to use a track survey to validate or discredit a report, because valuable manpower would be spent without gaining any new information. However, in certain circumstances (e.g., a report of a cougar engaged in unusual or bold behavior) a track survey to detect cougar presence might be appropriate. Track surveys for presence are also useful to detect whether cougars are still using an area that has been impacted by urban growth.

### Most cougar sightings are bogus and do not need validating

In our experience during 1988-1992, at least 75% and perhaps as many as 95% of the routine sightings were cases where the observer has misidentified a bobcat, coyote, domestic

dog, domestic cat, raccoon, or deer. The following 3 examples illustrate that even people with extensive experience with animals mistakenly identify other animals as cougars, even under ideal viewing conditions.

1. In 1988 we received occasional reports of cougar sightings from security personnel at the TRW facility on Rancho Mission Viejo. These reports seemed credible because the guard station had a fine view, because 2 radio-tagged cougars used the areas within their view, and because each guard spent 40 hours a week in the station. At about 8:00 on December 25 1988, as one of the study team drove up to the guard station, 2 guards excitedly stated that they had been watching a cougar in the canyon below, using binoculars, from a distance of about 250 yards, for about 5 minutes. They pointed to a shrub behind which the animal had just walked. A minute later a coyote walked out from behind the shrub.

2. Rancho Carillo is a community completely surrounded by designated wilderness areas, inhabited by about 70 families who have chosen a remote lifestyle. They live in the middle of cougar habitat, and we tended to believe many of their reports of cougar sightings. In July 1989, a resident of Rancho Carillo reported that for 2 days a cougar had been resting near a woodpile and trailer about 200 feet from his house. He had watched the animal several times, during the daytime, using a spotting scope, and several of his neighbors had also seen it. When 2 members of the study team went to investigate on the morning of July 28 1989, the informant and several other observers said they had just seen the cougar bed down behind the trailer. The informant stood by his spotting scope while we went to investigate. As we approached the trailer, a house cat ran out from under the trailer and the observers shouted: "There goes the lion."

3. At 12:45 PM on February 5 1990, Orange County Animal Control called to report that an adult cougar and a spotted cub were in a clump of pampas grass at 24252 Cataluna Circle in the City of Mission Viejo. An animal control officer had been called to the scene by a local resident, saw the cats himself, watched the cats enter the pampas grass at noon, and had watched the clump of grass continuously since that time, calling for assistance with his hand-held radio. The officer was certain that he was watching so closely that the cats could not have escaped. When we arrived we crawled into the pampas grass to flush the animals into the open where the assembled Animal Control Officers and CDFG wardens could attempt to shoot the cougars with tranquilizer darts. We flushed a 10-pound yellow house cat.

Finally, the power of suggestion can greatly increase the number of reported sightings. We usually received fewer than 6 reported sightings per month during 1988-1992. However, as a result of publicity surrounding the court hearings on the Laura Small case, we received about 6 reported sighting per week. We could investigate only a fraction of these reports; none of them could be verified by the presence of cougar tracks or other sign.

Given the unreliability of sightings, we make the following conclusion:

If

(a) the report did not allege that the cat acted aggressively toward people, and

(b) the Park is already known to be cougar habitat,

then,

it is a waste of time to investigate the report, because

(a) the report is probably in error, and

(b) even if the report is confirmed, no new information will be gained from the effort. If the park was known to be cougar habitat before the sighting, a confirmed sighting would not change this fact in any way.

When a track survey for presence may be warranted

If a reported sighting of a cougar includes an account of unusual behavior (e.g., the cat deliberately approached the park visitor at close range) or if the sighting occurs in an area thought to be outside cougar habitat (e.g., any park west of I-5), Harbors Beaches and Parks (HBP) may wish to validate these reports. There may be reasons why HBP may prefer not to investigate; for instance, HBP may feel that chasing phantasms is diverting resources from important work or they may decide to refer the report to CDFG. Our purpose here is merely to point out that if HBP wishes to validate a report of unusual cougar activity, a prompt track survey can be a useful approach.

Track surveys for presence can also be used to monitor the success of wildlife movement corridors impacted or created by human activities. In approving projects with narrow habitat strips for animal movement, planners often decline to require wider corridors because it is impossible to know in advance that the narrow corridor won't work. However, we would soon gain such knowledge if we monitored animal use of such habitat strips (Beier and Loe 1992:438). If track surveys are used to detect cougar use of a site, it may be necessary to rake the ground or import dirt to increase the detectability of tracks, and sites should be checked at dawn (before nocturnal tracks are degraded). Because cougar home ranges are so large, track monitoring should take place at least twice a week for several months, with equal sampling intensity before and after project impacts. Further suggestions for such monitoring are given by Beier and Loe (1992:438).