

MEMO TO: Dave Roe
FROM: Harley Shaw
SUBJECT: Blackrock and Trumbull lions
DATE: July 5, 1983

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ST. GEORGE, UTAH
12:00 AM

Between June 15 and June 27, 1983, I was able to spend 4 days on Blackrock and 3 days on Trumbull inspecting lion sign. Conditions for seeing tracks were good in both areas during that time.

Deer sign was relatively abundant on Blackrock, but the herd seemed to be dispersed throughout the p-j and ponderosa vegetation types. No heavy concentration of deer, such as I saw last summer in the Blackrock ponderose pine type, was apparent.

Deer sign on Trumbull was much less abundant, with few tracks at the limited watering places. Mt. Trumbull proper had virtually no deer or lion sign. Nearly all sign of deer or lions seen was on or near Mt. Logan. I did not cover Mt. Emma.

Two lion-killed deer were found on Mt. Logan. One of these was an old doe, apparently in the 8-12 year class. The other was a fawn that apparently belonged to the above doe. Both were killed by a lion or lions in the subadult size class judging from tracks. One coyote was apparently killed in a trap by a lion on the Hell Hole rim.

The enclosed tables show locations of lions found and a breakdown of search effort. Interpretation of these findings is necessarily subjective. In sorting them out by size, group composition, and location, I feel safe that I documented a minimum of 2 adult females, 2 adult males, 1 subadult lion, and 3 kittens on Blackrock, for a total of 8 lions. I suspect that at least 1, and possibly 2, of the intermediate sized tracks observed were additional females, hence I would give a probable count of 2M:4F:1 subadult:3 kittens, or 11 animals. Keep in mind that my time on the area was very short, hence lions not documented may be present.

On the Trumbull-Logan complex, I documented 1M:2F:1 subadult (possibly 2). I feel confident that these were 4 distinct lions.

On Blackrock, I checked sign, either by road, walking, or tank checks inside approximately 50 sections of habitat. On Trumbull-Logan I checked sign within about 38-40 sections.

I have not been able to acquire cattle stocking and calf-crop records for the two areas. The Blackrock summer range, or at least the eastern portion of it, is now being grazed by cows and calves. Trumbull-Logan is virtually cattle-free this summer.

Compared to other areas I have seen, I would say that the lion sign density on Blackrock is about what might be expected in an area of low lion harvest and a good prey base. It is probably a socially-saturated population and is as dense as it will get.

The apparent lower density on Trumbull-Logan suggests that a decline in lion numbers may be in progress. Keeping cattle off of the area should accelerate the decline, if it is happening.

As you know, I tend to believe that these things take care of themselves if left alone. However, it may take 50 years or so for a full predator-prey cycle to occur. I'm not sure administrators or managers want to be as philosophical about it all as we researchers are. They seem to find the daily political flags annoying.

Considering the vast amount of country involved on the strip, I have doubts that effective lion control is economically feasible. Five years of heavy 10-80 application might chip away at the transients while the adults died natural deaths. I'd just as soon not be involved in selling this idea, however.

Frankly, based upon the principle of unforeseen consequences, I suspect that any effort at pushing increased lion control anywhere would lend to more restrictive lion regulations. I suspect we'd activate the LOL's en masse.

Our best option, from a public relations standpoint, is probably to attempt to direct more sport hunting of lions to the strip. Perhaps we could open an area to non-resident guides. We have a precedent in that the Kaibab lion population apparently crashed in the face of heavy sport harvest, and the deer herd irrupted. I really think the lions crashed there because of a low prey base, but the whole thing looked good anyway. Timing is right to have about the same thing happen on Trumbull. Blackrock may take a while.

If we should get into a lion control program, I'd suggest strongly that we set up to monitor age and sex of all lions taken, as well as apparent effect on the lion population and response of the deer herd.

Let me know if I can be of further help.

HS:rb

cc Fuller
Soderquist
~~Pratt~~
Pratt

Blackrock lion observations, June, 1983

Date	Location	Sign	Track Measurements (cm) (pad width)		Interpretation
			FF	HF	
6-16	Lone Pine Tank	Track		3.5	Kitten? Sign old; uncertain.
	Cougar Spring	"	Too old to measure.		Probable M; uncertain.
6-21	Larson Tank	"	6.0	5.2	Probable mature F; possible subadult M.
	Lone Pine Tank	"	6.0	5.4	Probable mature F; possible subadult M; very likely same lion as seen at Larson T. — only 1/2 airline mi. apart.
	Sullivan Tank	"	6.0	5.4	F with apparent 2 kittens.
			5.0	4.0	Age and sex of kittens unknown. Could be same animal using Larson and Lone Pine; uncertain.
			5.0	4.0	
6-22	Trails End Tank	"	6.0	?	F and 1 subadult; not necessarily together.
			5.4	4.5	
	Pocum Cove Rim	Track/ Scratches	7.2	?	Mature M.
	Cougar Spring	Track	7.0	?	Mature M.
	Littlefield Tank	"	5.9	?	Probably F; possible young M. Apparent injured foot-odd track. Distinct lion.
6-23	Maple Spring	"	5.3	4.7	Subadult, sex unknown. Probable F.
	Blackrock Tank	"	Same as above		Subadult/probably same lion.
	Blackrock Gulch	Scratches	- -	- -	Mature M.
		Track	6.0?	- -	Probable F - old track.

Trumbull-Logan lion observations, June, 1983

6-25	Hell Hole Rim	Track	6.0	5.5	Probable mature F.
		Scratch	- -	- -	Mature M.
6-27	Mt. Logan Crest	Track	5.0	4.5	Subadult (possibly 2).
	Jct: Big Springs/ Arkansas Ranch Rd		5.7	5.2	Probable mature F.

Survey Type	Miles	Tanks	Lions documented			
			Males	Females	Subadult	Kittens

Blackrock lion survey search effort

Walking	1.5		2	1	0	0
Road	41.5		0	0	0	0
Tank checks		10	<u>2</u>	<u>5</u>	<u>2</u>	<u>3</u>
Totals	43.0	10	4	6	2	3 (15)

Trumbull-Logan lion survey search effort

Walking	9.5		1	1	1(+1?)	0
Road	17.0		0	1	0	0
Tank checks		6	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Totals	26.5	6	1	2	1(+1?)	0 (4-5?)