



COLORADO

Parks and Wildlife

Department of Natural Resources

Director's Office
1313 Sherman St., Suite 618
Denver, CO 80203
P 303.866.3203 | F 303.866.3206

MEMORANDUM

TO: Parks and Wildlife Commissioners

FROM: Dan Prenzl, Director

DATE: December 30, 2019

SUBJ: April 2020- March 2021 Mountain Lion Harvest Limit Recommendations

This memo summarizes Colorado Parks and Wildlife (CPW) staff recommendations for mountain lion harvest limits for the April 2020- March 2021 season.

Regular Lion Season

Staff is recommending a statewide harvest limit of 664 lions for the April 2020- March 2021 season. This represents an increase of 17 lions from the statewide harvest limit of 647 lions approved last January for the 2019-2020 season. No change in harvest limits are recommended for 14 of Colorado's 19 lion management areas, known as Data Analysis Units (DAUs, Map 1). Harvest limit increases are recommended for portions of 5 DAUs (L-2, L-5, L-17, L-19, L-20). In L-6 and L-9, there were small re-allocations of harvest limits within the DAUs resulting in no net change in the total DAUs harvest limit.

April Lion Season

An April season was established in 2014 to provide for additional lion hunting opportunity in DAUs where harvest, total mortality and female composition objectives were not being met or exceeded and where an April season wasn't in conflict with other local resource issues. For 2020, recommendations are for the April 1-30 lion season to be open in the following 9 DAUs: L-1, L-2, L-4, L-11, L-12, L-17, L-23 and L-24. In L-11, as per the Upper Arkansas research project goals, the April season will be closed in the 4 study GMUs (49, 57, 58, 581), but open in the rest of the DAU. Lion DAUs without an open April season will open with full harvest limits on November 23, 2020.



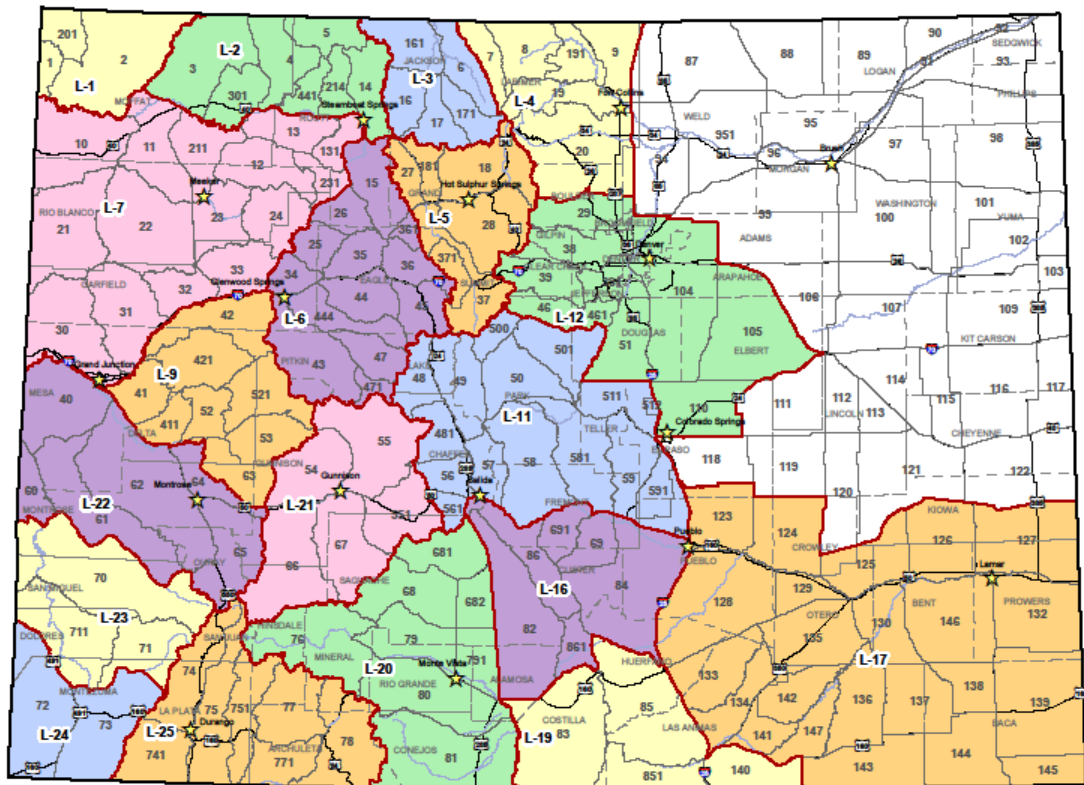
Summary of Lion Harvest and Mortality

A summary of 3-year averages (2016-2018) for harvest, total mortality, female composition and game damage is presented below for each lion DAU (Table 1). These metrics are evaluated annually against the respective DAU objectives and are used as the basis for harvest limit recommendations.

In the most recently-concluded lion season (April 2018- March 2019), hunters in Colorado harvested 540 lions, including 322 males and 218 females. The proportion of females in statewide harvest declined slightly to 40% in 2018. This does not exceed the 45% female harvest composition limit used as a maximum threshold in nearly all “stable” management strategy DAUs. Additionally, statewide harvest mortality and total mortality totals are not exceeding objectives.

Nearly all Lion Management Plans (LMPs) were written in 2004, which is why it is an agency priority to draft and present a lion plan at a larger scale to the Parks and Wildlife Commission in 2020. A new approach to lion management at a spatial scale larger than traditional DAU boundaries will allow management to reflect the realities of lion biology and habitat use across the state, will eliminate the need to revise 19 different individual lion management plans, and will allow flexibility for managers at local scales while providing for lion population stability.

Map 1. Map of Colorado mountain lion management areas (Data Analysis Units- DAUs).



COLORADO PARKS AND WILDLIFE - Mtn. Lion DAUs

April 2019



Table 1. 2020-2021 Mountain Lion Harvest Limit Recommendations by Data Analysis Unit

2020-2021 Colorado mountain lion recommendations, harvest, total mortality and female proportion data for April season and Harvest Limit assessment																	
Region	DAU	DAU Mgmt. Strategy	Harvest Limit				Harvest				Total Mortality				Game Damage		April season
			Current Year '19-20	Proposed 2020-2021 Harvest Limit	Change	'20-21 Estimated Harvest	3-Year Harvest Average	DAU Harvest Objective	3-Yr Avg % Female in Harvest	Female Harvest Composition Limit	3-Year Total Mortality Average	Total Mortality Threshold	3-Yr Avg % Female in Total Mortality	Female Total Mortality Composition Limit	3-yr Avg paid lion game damage claims (2016-2018)	DAU game damage objective	2020 April status recommendation
NW	L-1	Stable	10	10	0	8	8	9-17	38%	45%	9	17	44%	50%	\$0	less than \$5000	Open
NW	L-2	Stable	18	25	7	24	15	13-25	40%	45%	15	25	40%	50%	\$296	less than \$20,000	Open
NW	L-3	Stable	4	4	0	3	3	3	33%	35%	3	4	33%	40%	\$0	none	Closed
NE	L-4	Stable	30	30	0	18	17	18	41%	45%	20	20	40%	50%	\$723	none	Open
NW	L-5	Stable	12	14	2	14	10	8-14	10%	45%	14	14	14%	50%	\$0	none	Closed
NW	L-6	Stable	40	40	0	34	37	24-30	38%	45%	47	33	40%	50%	\$2,718	none	Closed
NW	L-7	Suppress	168	168	0	124	127	81-109	45%	none	138	159	46%	none	\$13,246	less than \$22,500	Closed
SW/NW	L-9	Suppress	51	51	0	47	43	30-39	37%	none	52	58	40%	none	\$14,369	less than \$8,465	Closed
SE/NE	L-11	Stable/Research	43	43	0	29	34	40-42	47%	45%	42	45	48%	50%	\$2,586	none	D16 GMUS (49, 57,58,581) closed per research goals. Others open in April
NE	L-12	Suppress	41	41	0	16	15	23	47%	none	31	30	52%	none	\$1,993	less than \$5,000	Open
SE/SW	L-16	Stable/Research	21	21	0	21	20	20-28	35%	45%	25	30	44%	50%	\$418	less than \$900	Closed per research goals
SE	L-17	Suppress	20	25	5	10	10	22-28	30%	none	10	28	30%	none	\$838	none	Open
SE/SW	L-19	Stable	39	41	2	37	36	39	42%	<20% Ad Fem in H	37	41	42%	none	\$2,060	none	Closed
SW	L-20	Stable	20	21	1	21	18	12-23	56%	45%	21	23	57%	50%	\$1,464	none	Closed
SW	L-21	Stable	15	15	0	15	14	11-14 5yr avg	50%	50%	19	21- 5yr avg	47%	50%	\$87	less than \$2,000	Closed
SW/NW	L-22	Stable	43	43	0	37	36	25-33	33%	50%	46	35	39%	50%	\$3,803	none	Closed
SW	L-23	Stable	27	27	0	21	21	11-22	19%	50% (5 and 10 yr)	24	24	29%	50% (5 and 10 yr)	\$4,714	less than \$1,000	Open
SW	L-24	Stable	14	14	0	9	9	7-10	33%	none	12	16	33%	6 Females in TM maximum	\$5,235	less than \$4,216	Open
SW	L-25	Stable	26	26	0	22	21	15-22	38%	none	31	25	39%	11 females in TM maximum	\$5,076	less than \$2,235	Closed
NE/SE	L-99	n/a	5	5	0	1	1	n/a	0%	n/a	2	n/a	0%	n/a	\$885	n/a	Open
STATEWIDE TOTALS:			647	664	(+17)	511	495	395-529			598	627					

Justification for Changes in Harvest Limits

An increase in 2020-2021 harvest limits are proposed for 5 DAUs:

L-2 (Bears Ears): An increase of 7 to the DAU harvest limit is recommended. The DAU is below harvest and total mortality thresholds and additional hunter harvest opportunity is desired.

L-5 (Middle Park): An increase of 2 to the DAU harvest limit is recommended. The DAU is below harvest and total mortality thresholds, hunters fill existing harvest limits quickly, and there is opportunity for additional harvest.

L-17 (SE Plains): An increase of 5 is recommended. Hunters reached the harvest limit last year. This is a suppression DAU and additional harvest is desired.

L-19 (Trinchera): The new lion management plan and monitoring metrics for L-19 went into effect in 2019. The adult female composition proportion has remained below 20% so an increase of 2 lions is recommended to the GMU 85, 140 & 851 hunt code grouping.

L-20 (Rio Grande): GMU 76 and GMUs 79 & 791 were split into their own hunt code groupings. Splitting these units from one hunt code into two required allocating the existing harvest limit of 5 lions into two new hunt codes. To do this equitably, a harvest limit of 3 lions is recommended in each hunt code, resulting in an overall increase in the DAU of 1.

No net change is recommended in the remaining 14 lion DAUs from harvest limit levels approved for the 2019-2020 season. Recommended changes in hunt code groupings that aren't resulting in a net change in DAU harvest limit include L-6 and L-9. In L-6, GMUs 45 and 47 each had their own hunt codes and they are now pooled with GMU 44 and GMUs 43 & 471, respectively. In L-9, harvest limits were reallocated to reduce GMUs 52 & 411 by 4 lions, thereby allowing an increase of 1 in GMUs 53 & 63 and an increase of 3 in GMU 521.

Two figures have been included for your information and review as part of this memo:

Figure 1. Annual historic female composition in harvest and total mortality. Efforts to voluntarily reduce female harvest began in late 2005.

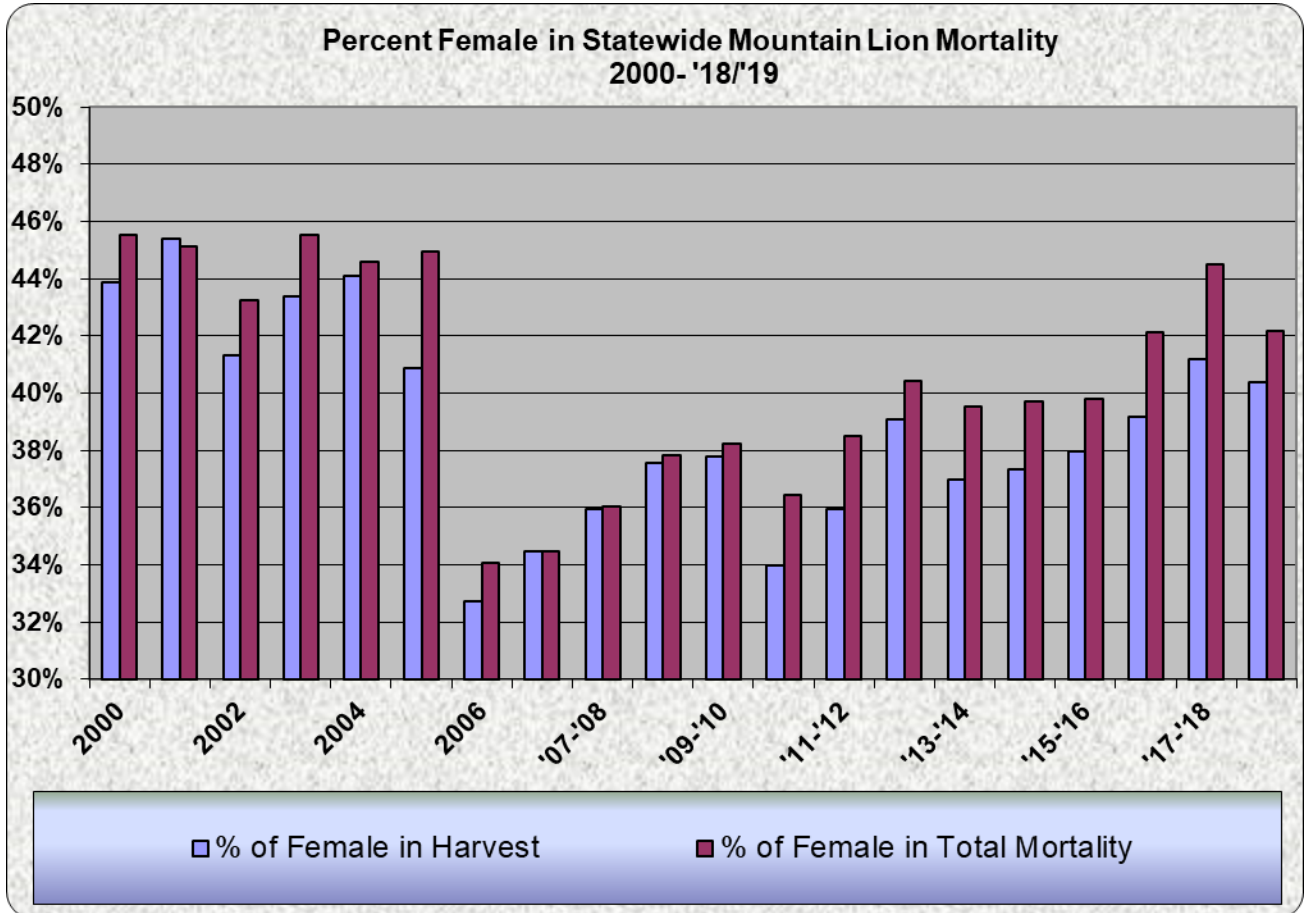


Figure 2. Historic mountain lion harvest limits and reported mortality (1980-present). Lion Management Plan (LMP) revisions completed in 2004 affected harvest limit levels from 2005-present.

