



# MONTANA FISH AND WILDLIFE COMMISSION AGENDA ITEM COVER SHEET

THE **OUTSIDE** IS IN US ALL.

**Meeting Date:** June 8, 2023

**Agenda Item:** Mountain lion quotas and license descriptions for fall 2023–winter 2024

**Action Needed:** Final

**Time Needed on Agenda for this Presentation:** 40 minutes

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**Background:** The department annually recommends mountain lion harvest quotas using the 2019 Montana Mountain Lion Monitoring and Management Strategy as a guiding document. Mountain lion populations are being monitored using spatially explicit capture-recapture methods within designated ecoregional areas described within the strategy. Lion Ecoregional Planning Objective Committees (LEPOCs, as described in the strategy) consider the biological data and provide the department with input addressing population trajectory and focal areas where increased harvest of mountain lions may benefit prey species or reduce human conflict. The Northwest LEPOC completed its charge and provided recommendations that were adopted in June 2022, and the West-central LEPOC is being formed to develop recommendations for consideration in June 2024. In the interim, the public continues to provide input on quota recommendations for annual adoption.

**Public Involvement Process and Results:** The Northwest LEPOC recommended that mountain lion populations in the Northwest Ecoregion be reduced by 12.5 percent overall by 2028 and provided recommended harvest quotas to further reduce mountain lion numbers in focal areas within Lion Management Units (LMUs) 100, 121, 122, 123, 124, 201, 202, 285, and 299. The fundamental objectives of this lion population reduction are to reduce excessive ungulate predation, assist recruitment in struggling ungulate populations, maintain a healthy lion population as a natural part of the ecosystem, reduce human-lion conflict, maximize satisfaction for lion hunter opportunity, maximize satisfaction for lion harvest, maximize satisfaction for non-harvest lion chasing, maximize satisfaction for ungulate hunters, and maximize social acceptance of lion hunting. The commission adopted these recommendations in June 2022, and they are part of the 2023 status quo recommendation. LMUs 204, 211, 213, 214, 215, 240, 250, 270, 280, 290, 318, 339, 350, 380, 391, 411, 413, 416, 421, 422, 445, and 448 will be included in the West-central LEPOC effort. Most mountain lion populations outside the Northwest Ecoregion are assumed to be relatively stable under current quotas based on limited data on harvest demographics, observations, and reported conflicts. Existing quotas as part of the status quo recommendation within LMUs 305, 309, 404, 441, 502, and 700 have routinely not reached harvest quotas. Harvests in these LMUs may be reducing mountain lion populations. Public comment will be solicited for a four-week period starting April 19, 2023. Public comments will be posted online and provided to commissioners at least two weeks prior to the June commission meeting.

**Analysis and Alternatives:** The department is presenting four alternatives for commission consideration, and alternatives may be selected in total or in part for final action. The first alternative is the status quo, which includes all aspects of the 12.5 percent reduction in the Northwest Ecoregion as adopted by the commission in 2022. The second alternative would achieve a 10 percent reduction statewide within six years if the quota were achieved, although all quotas are not met currently. The quotas provided under the second alternative would have no numerical difference in the Northwest Ecoregion from the status quo alternative. The third alternative would achieve a 20 percent reduction statewide within six years and the fourth alternative would achieve a 40 percent reduction statewide within six years.

These quota options representing different approaches to lion population reductions are being presented to the commission in response to questions and concerns about low ungulate numbers, including elk in Region 1 and mule deer more generally across Montana. Research in the Bitterroot area of western Montana suggests that

carnivore harvest management targeting a 30% reduction in lions may be an effective tool for increasing elk populations, at least in the short term. Research in northwest Montana and along the Rocky Mountain Front identified mountain lion predation is often the leading cause of mortality in mule deer. Predation is rarely the sole factor influencing prey population trajectory.

Montana Code Annotated 87-1-217 identifies that the legislative intent for the management of large predators includes the goal of preserving opportunities for hunting big game species. While the department routinely considers this goal in the development of any predator management recommendation, the range of quotas presented for consideration allows the commission to select an option that may address social objectives using biological approaches. Response in prey populations to manipulations of mountain lion populations are dependent on many additional factors, including other predators, habitat condition, and weather and climate.

All alternatives specifically leave unchanged the proportion of the harvest that would occur in the fall seasons and the number of special limited mountain lion licenses. All alternatives also include a specific addition to regulation that clarifies that a nonresident hound license allows nonresidents to chase mountain lions in any open LMU as intended by the commission in June 2022 (see attachment).

**Agency Recommendation and Rationale:** The department based these alternatives on the integrated population modeling using vital statistics from the Northwest Ecoregion, which may not apply consistently across the remainder of the state. The status quo alternative would largely keep mountain lion populations stable, except in the Northwest Ecoregion and in those LMUs where harvest is already reducing the mountain lion populations. The remaining three alternatives would approximate a 10 percent, a 20 percent, or a 40 percent reduction in the state mountain lion population within six years if all assumptions and harvest objectives were met.

Except for those LMUs addressed by the Northwest Lion Ecoregional Planning Objective Committee, the department makes no specific quota recommendation within the range represented by the four alternatives. All four alternatives will conserve mountain lion populations. While formal research is being applied and extrapolated here, the specific relationships between mountain lions and ungulate populations in most LMUs have not been quantified. If ungulate populations are limited by predation, larger reductions in mountain lion populations are likely to reduce mortalities in prey populations. The inherent uncertainties in this approach may be monitored through direct monitoring of the mountain lion population (as described in the Mountain Lion Management and Monitoring Strategy) or using other indicators of mountain lion abundance including quota fill rates, harvest demographics, and observations. Ungulate abundance and recruitment will be routinely monitored by the department. The commission may choose to implement a variety of quotas across LMUs, including status quo quotas, or through a consistent application of a harvest rate across LMUs or ecoregions.

**Proposed Motion:** I move the Fish and Wildlife Commission approve the following mountain lion quotas (add quotas by LMU) for the fall 2023–winter 2024 mountain lion season, clarifying language for nonresident hound licenses, and all other aspects of existing regulations, including fall seasons and special limited mountain lion license numbers, as presented by the department.