

# Petition

**Date:** October 8<sup>th</sup>, 2024

**To:** Nevada Board of Wildlife Commissioners

## Regarding

Request for trapping regulations to reduce incidental trapping of mountain lions

## Purpose

Recreational trapping of mountain lions in Nevada is not permitted by law. Yet, documentation available from the Nevada Department of Wildlife (NDOW) reveals that mountain lions have, for years, been frequently trapped in Nevada, resulting in unnecessary, largely preventable pain, injury, and death to the trap victims – regarded by many, perhaps, as cruelty.

Petitioners find this fact contrary to the public interest, the well-being of Nevada’s wildlife, and the fair and proper treatment of this iconic species. Nor does it accord with statutory mandates for protection and management of wildlife on behalf of the public’s interest as expressed in Nevada Revised Statutes (NRS) 501.100 and 501.105.

## Commission Authority

NRS 501.105 directs the commission to enact policy and regulation necessary to ‘preserve, protect, manage and restore’ Nevada’s wildlife.

The commission has rule-making authority under the Nevada Administrative Code.

## History

Since 1965, mountain lions (also known as cougars, pumas, or panthers, and by the scientific name *Puma concolor*) have been classified as a game species in Nevada and protected from recreational trapping.

Despite legal protection, significant numbers of mountain lions are caught in traps set for other species, especially bobcats.

In 2013, Commissioner Karen Layne requested self-reported, non-target trapping data provided to the department by licensees.

Though partial and largely incomplete, trapper self-report data from the years 2002-2004, 2007, and 2010-2016 documented nearly 300 lions reported as incidentally trapped.

Trapper self-report data from years 2005, 2006, 2008, 2009 was missing entirely from the department’s files.

Licenses who did provide non-target data during those years may have represented as few as 20% of all license holders for any particular year.

Alyson Andreasen, a former student at the University of Nevada, Reno (UNR), conducted lion research for her doctoral dissertation by capturing and collaring lions in and around northern Nevada from 2010 to 2016.

While primarily looking at dietary preferences and other behaviors, Andreasen serendipitously found that a significant number of her subjects had been or were being caught and injured by foothold traps and snares.

She reported her concerns and recommendations in the *Journal of Wildlife Management* in 2018.<sup>1</sup> Her co-authors included UNR professors Kelley Stewart and James Sedinger; UNR graduate and wildlife researcher Jon Beckmann, Ph.D.; and NDOW carnivore biologist, Carl Lackey. Their presence as co-authors implies agreement with the content of the paper.

Those lions found injured and impaired from traps or snares lived shorter lives than uninjured lions. Adult females seemed particularly affected. She recommended that regulatory agencies, e.g. Nevada Department of Wildlife, take the matter seriously.

Because of Andreasen's findings and other departmental concerns, Project 36 was initiated about 2015, allowing the department to investigate and gather data on incidental lion trapping. Project 36 later continued as Project LIFT (lions in foothold traps).

Some lions caught by traps were collared at the trap site and monitored by NDOW staff for post-release survival. Others were brought to NDOW facilities for examination and documentation by department staff and the department veterinarian.

NDOW staff has maintained detailed documentation of individual lions including field observations, locations, photographs, and in-house examinations including necropsies of dead lions.

The department also maintains an annual spreadsheet (separate and distinct from Project 36 or Project LIFT) documenting numerous details about all lions killed by hunters, Wildlife Services or other sources of mortality and brought to NDOW for mandatory examination.

As part of the spreadsheet data collection, NDOW staff make notations of abnormalities such as missing toes and other foot or leg injuries, broken teeth, or other findings consistent with past encounters with traps or snares.

Data collected from more than 4000 animals over two decades reveals injuries consistent with trap/snare encounters to at least 600 lions, thus corroborating other data sources as to the magnitude of the incidental trapping problem.

In August 2023, petitioners met with department staff to discuss our concerns, which included a review of NDOW's own data and photos. The department responded by stating that, unless and until it could be shown that incidental trapping adversely affected the state's lion population, it saw no additional responsibility required to meet its statutory duties.

Petitioners were offered the opportunity to provide recommendations for consideration by the department, which was done in October 2023. NDOW responded by email, saying no further discussion was necessary between petitioners and the department because such proposed regulatory changes would require commission action.

Hence this petition.

### **Data**

Attachments in support of this petition include the following:

1. A summary of licensee self-reports of non-target captures: 2002-2004, 2007, 2010-2016 showing nearly 300 lions incidentally trapped by a small number of licensees.
2. A summary of spreadsheet data over nearly 20 years, showing NDOW staff observations of lion abnormalities, consistent with trap/snare encounters, noted on inspection.
3. Email from Winston Vickers DVM, California mountain lion researcher, showing that mountain lions do not develop similar injuries seen in Nevada in an environment that does not include traps/snares.
4. Alyson Andreasen's peer-reviewed publication, "Survival of Cougars Caught in Non-target Foothold Traps and Snares."
5. Email from petitioner's trapping consultant, a well-known retired career Wildlife Services employee, offering expert discussion and recommendations in support of the petition.

Other information in support of the petition, including extensive data from Project 36 and Project LIFT, will be presented via PowerPoint.

Petitioners have not attached the yearly tally sheets showing licensee self-reported non-target data, nor the 20 annual spreadsheets used to construct the summary spreadsheet data since the department has this data in its possession already.

Petitioners will present examples of tally sheets and spreadsheet data during its PowerPoint presentation.

### **Justification for the Petition.**

Lions are classified as a game species in Nevada. No other game species—e.g., elk, deer, pronghorn, bighorn—is subjected to this level of incidental and potentially preventable harm.

Incidental lion trapping lacks scientific support or justification by any recognized principles of modern wildlife management.

Petitioners believe incidental trapping inflicts objectionable unnecessary pain, suffering, injury and death on an iconic apex/keystone species.

The mountain lion is Nevada's apex carnivore and premier keystone species, enriching ecosystems at levels far exceeding its relative rarity in the food web.<sup>8, 15</sup>

Selecting the sick and the weak, lions contribute to a strengthening of ungulate herds.

Preliminary research in Colorado suggests that mountain lions target deer and elk infected with chronic wasting disease, a lethal neurological disease recently having spread to 35 states and four provinces.

Removing lions from the landscape may be removing one of nature's most effective checks against this significant and deadly disease of the deer family.<sup>2,8,13,21</sup>

Chronic wasting disease may have human implications as well. A group of hunters in Wyoming recently died of prion-related brain disease which may have resulted from consuming CWD-infected deer.<sup>19</sup>

Lions instill a sense of fear and vigilance in their prey, keeping herds moving, allowing over-browsed habitat and riparian areas to recover. Such rejuvenations—colloquially labeled as cougar gardens—have been documented in such iconic jewels of nature as Zion and Yosemite national parks.

These cougar gardens in turn attract a host of other animal life to feed, breed, and take cover - ecosystems of vital importance throughout the arid West including Nevada - the driest state in the country.<sup>15</sup>

When a lion makes a kill, a vast array of other organisms benefit.

The copious leftovers of lion-killed carcasses—recently estimated to provide more than 3 million pounds of meat a day to scavenger communities throughout the Americas—have been found to feed hundreds of species of scavengers and decomposers.<sup>7</sup> Any meat and bones not consumed goes towards fertilizing the soil, thereby growing even more cougar gardens.

The non-lethal impacts of incidental trapping—breakage and loss of toes and teeth—may lead to adverse unintended consequences.

As an obligate carnivore, the mountain lion relies heavily on its teeth and claws—tools of the trade.<sup>1</sup> Injured and impaired lions may, of necessity, seek easier prey such as domestic livestock and pets and may perhaps become involved in a dangerous encounter with humans.

Preventing or reducing incidental trapping of lions would not only help protect the integrity of our ecosystems, but it might also add a layer of protection for the safety of domestic livestock, pets and human encounters as well.

Beyond the biological and ecological rationale for addressing incidental trapping, there remains a serious ethical consideration.

The animal should not be denied assistance because of its evolutionary design. By all accounts, Nature has provided what is needed for ecological balance. Mountain lions make a disproportionate beneficial contribution to that balance and deserve recognition for it.

### **Special Comment:**

Petitioners dispute NDOW's position that Nevada's mountain lion population needs to face jeopardy from incidental lion trapping before a change in management is necessary.

Lion populations are notoriously hard to monitor, their estimates laden with assumptions and likelihood of errors, making management decisions based on these numbers somewhat suspect from the start.<sup>14</sup>

Their biology and life history are such that serious harm to local populations can be masked by chronically underestimating the status of a population.<sup>3,4,12,17, 20</sup> In the face of such uncertainty, a conservative do-no-harm strategy is preferred.

Numerous studies reveal that mountain lions naturally regulate their populations through territoriality and prey availability. It is reasonable to assume that any trapping-induced mortality is detrimental to the population, until proven otherwise.

By relying solely on population estimates to govern management of mountain lions—particularly for a species that provides such a large ecosystem contribution—Nevada's wildlife managers may be missing an opportunity to create a larger benefit for the ecological health of Nevada's ecosystems and wildlife communities.

Modifying trapping regulations to reduce unnecessary incidental injury, suffering, and death of non-target wildlife should be a priority for the agency, regardless of species or conservation status.

### **Recommendations**

1. Shorten the trap visitation interval to 24 hours. The current visitation interval of 96 hours is contrary to scientific and professional recommendations, greatly increasing the odds of maiming or killing lions. Best Management Practices, approved by the Association of Fish and Wildlife Agencies and the National Trapper's Association, were perfected using a 24-hour morning trap check interval. The American Association of Wildlife Veterinarians recommends a 24-hour trap check interval, observed by wildlife agencies in at least 36 states.

2. Establish proper trap sizes to be used for bobcat trapping. Limit the jaw spread to no more than 7 inches. An experienced trapper advising petitioners says a #2 coil spring trap is perfectly acceptable for bobcat trapping and would limit risk of capture to larger animals such as lions, bears, ungulates and domestic animals. Lacking such a regulation, a novice licensee without proper education or guidelines might be inclined to use larger traps than necessary to pursue bobcats, thereby increasing the risk of capturing larger animals or other non-target species.
3. Require swivels on all traps, with the chain attached to the center base plate of the trap. Swivels allow the trap to align with the animal's movement, minimizing kinking of the chain and reducing injury to the victim as it fights the trap.
4. Ban the use of drags - traps attached by wire or other means to movable anchors such as rocks, logs, prongs or other devices - which allows limited movement of the trapped animal. According to petitioner's trapper consultant, the main purpose of a drag is cosmetic: to allow the animal to drag itself out of view of the public or another trapper. Drags allow an animal such as a lion or bear to climb a tree and hang suspended on the other side of the branch from the drag, causing extended suffering, injury and death.
5. Ban multiple sets, the practice of setting two or more traps near each other – sometimes within inches – to increase the chance of a trap victim to be caught by more than one appendage. Not only does this practice lack any consideration for 'fair chase' or perhaps 'fair capture' but it also can lead to de facto baited traps. Given the frequency of non-target rabbit captures by Nevada trappers, multiple sets probably account for most incidental capture of hawks, owls and eagles.
6. Require above-ground traps to be securely anchored by a chain no longer than 30 inches. Smaller chains in combination with smaller traps will increase the chances of a larger non-target animal such as a mountain, bear, domestic livestock to pull free.
7. Require trapper education for new licensees and remedial education as necessary for those licensees found to be lacking in basic awareness of proper trapping techniques. According to a 2015 survey conducted for the Association of Fish and Wildlife Agencies, most Nevada trappers have not had a trapper education course nor are most acquainted with Best Management Practices. At least 21 states require education for all trappers. Given the high rate of non-target capture in Nevada, such education is warranted.
8. Improve collection of non-target trapping data to better monitor compliance of Nevada trappers with regulations and to identify educational needs that would benefit licensees and the public's wildlife heritage.

## Summary

Incidental trapping of mountain lions in Nevada is, beyond question, a significant problem and one that can and should be mitigated by proper action by the wildlife commission which serves as trustees on behalf of the public's wildlife heritage.

Needless and preventable pain, suffering, injury, and death inflicted upon a sentient keystone species, vital to the integrity of Nevada's ecosystems, is not in the public interest, nor consistent with science or modern wildlife management practices.

To the public's eye, incidental trapping of lions and other non-target species is nothing less than an inexplicable odd and willing acceptance of significant collateral damage from trapping to many of Nevada's wildlife species by the very agency tasked with protecting wildlife.

Petitioners believe the public's interest in the protection, preservation and management of its invaluable wildlife heritage requires something better from its trustees regarding this issue.

Respectfully

Don Molde  
3290 Penfield Circle  
Reno, Nevada 89502

Catherine Smith  
345 Piney Creek Road  
Reno, Nevada 89511

Will Stolzenburg  
10065 Zephyr Heights Dr.  
Reno, Nevada 89521

Caron Tayloe  
210 Waterman Court  
Reno, Nevada 89511

Chris Smith  
301 N. Guadalupe, Suite 201  
Santa Fe, New Mexico 87501  
(representing Nevada supporters of WildEarthGuardians)

## Literature cited

1. Andreasen AM, Stewart KM, Longland WS, Beckmann JP, Forister ML. Identification of source-sink dynamics in mountain lions of the Great Basin. *Molecular Ecology*. 2012;21(23):5689–5701. doi:10.1111/j.1365-294X.2012.05740.x
2. Baune C, Wolfe LL, Schott KC, Griffin KA, Hughson AG, Miller MW, Race B. Reduction of Chronic Wasting Disease Prion Seeding Activity following Digestion by Mountain Lions. *mSphere*. 2021;6(6). doi:10.1128/msphere.00812-21
3. Beausoleil R, Koehler G. Beyond cougar source-sink management: distributing hunt effort to preserve social stability. In: 10th Mountain Lion Workshop, Cougars: Conservation, Connectivity and Population Management, Bozeman, Montana, hosted by the Western Association of Fish and Wildlife Agencies. 2011.
4. Beausoleil RA, Koehler GM, Maletzke BT, Kertson BN, Wielgus RB. Research to regulation: Cougar social behavior as a guide for management. *Wildlife Society Bulletin*. 2013;37(3):680–688. doi:10.1002/wsb.299
5. Cooley HS, Wielgus RB, Koehler GM, Robinson HS, Maletzke BT. Does hunting regulate cougar populations? A test of the compensatory mortality hypothesis. *Ecology*. 2009 90(10):2913–2921.
6. Cougar Management Guidelines Working Group. Cougar management guidelines. *WildFutures*; 2005.
7. Elbroch, L. M, O'Malley, C, Peziol, M, Quigley, H. B. Vertebrate diversity benefiting from carrion provided by pumas and other subordinate, apex felids. *Biological Conservation* 2017 (215): 121-23.
8. Krumm CE, Conner MM, Hobbs NT, Hunter DO, Miller MW. Mountain lions prey selectively on prion-infected mule deer. *Biology Letters*. 2010;6(2):209–211. doi:10.1098/rsbl.2009.0742
9. LaBarge LR, Evans MJ, Miller JRB, Cannataro G, Hunt C, Elbroch LM. Pumas *Puma concolor* as ecological brokers: a review of their biotic relationships. *Mammal Review*. 2022;52(3):360–376. <https://onlinelibrary.wiley.com/doi/10.1111/mam.12281>. doi:10.1111/mam.12281
10. Laundré JW, Papouchis C. The Elephant in the room: What can we learn from California regarding the use of sport hunting of pumas (*Puma concolor*) as a management tool? *PLoS ONE*. 2020;15(2). doi: 10.1371/journal.pone.0224638
11. Logan KA. Puma population limitation and regulation: What matters in puma management? *Journal of Wildlife Management*. 2019;83(8):1652–1666. doi:10.1002/jwmg.21753
12. Maletzke BT, Wielgus R, Koehler GM, Swanson M, Cooley H, Alldredge JR. Effects of hunting on cougar spatial organization. *Ecology and Evolution*. 2014;4(11):2178–2185. doi:10.1002/ece3.1089



13. Miller MW, Swanson HM, Wolfe LL, Quartarone FG, Huwer SL, Southwick CH, Lukacs PM. Lions and Prions and Deer Demise. *PLoS ONE*. 2008;3(12): e4019. doi: 10.1371/journal.pone.0004019
14. Murphy SM, Beausoleil RA, Stewart H, Cox JJ. Review of puma density estimates reveals sources of bias and variation, and the need for standardization. *Global Ecology and Conservation*. 2022;35. doi: 10.1016/j.gecco. 2022.e02109
15. Peebles KA, Wielgus RB, Maletzke BT, Swanson ME. Effects of remedial sport hunting on cougar complaints and livestock depredations. *PLoS ONE*. 2013;8(11). doi: 10.1371/journal.pone.0079713
16. Ripple WJ, Beschta RL. Linking a cougar decline, trophic cascade, and catastrophic regime shift in Zion National Park. *Biological Conservation*. 2006 [accessed 2024 Jan 10];133(4):397–408. doi: 10.1016/J.BIOCON.2006.07.002
17. Robinson HS, Wielgus RB, Cooley HS, Cooley SW. Sink populations in carnivore management: Cougar demography and immigration in a hunted population. *Ecological Applications*. 2008;18(4):1028–1037. <https://esajournals.onlinelibrary.wiley.com/doi/10.1890/07-0352.1>. doi:10.1890/07-0352.1
18. Teichman KJ, Cristescu B, Darimont CT. Hunting as a management tool? Cougar-human conflict is positively related to trophy hunting. *BMC Ecology*. 2016;16(1). doi:10.1186/s12898-016-0098-4
19. Trout J, Roberts M, Tabet M, Kotkowski E, Horn S. Two Hunters from the Same Lodge Afflicted with Sporadic CJD: Is Chronic Wasting Disease to Blame? (P7-13.002). *Neurology*. 2024;102(17\_supplement\_1). doi:10.1212/WNL.0000000000204407
20. Wallach AD, Izhaki I, Toms JD, Ripple WJ, Shanas U. What is an apex predator? *Oikos*. 2015;124(11):1453–1461. doi:10.1111/oik.01977
21. Wild MA, Hobbs NT, Graham MS, Miller MW. The role of predation in disease control: A comparison of selective and nonselective removal on prion disease dynamics in deer. *Journal of Wildlife Diseases*. 2011;47(1):78–93. <https://meridian.allenpress.com/jwd/article/47/1/78/121161/THE-ROLE-OF-PREDATION-IN-DISEASE-CONTROL-A>. doi:10.7589/0090-3558-47.1.78

