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Via U.S. Mail and email ([cougar.plan@state.or.us](mailto:cougar.plan@state.or.us))

**Re: Draft 2005 Oregon Cougar Management Plan**

To the Oregon Department of Fish and Wildlife:

On behalf of the Mountain Lion Foundation (MLF), the Animal Protection Institute, and Born Free USA, and our members and supporters in Oregon and throughout the United States, I present these comments to the Oregon Department of Fish and Wildlife on its Draft 2005 Oregon Cougar Management Plan. Our organizations are dedicated to protecting and conserving mountain lions and to promoting coexistence between mountain lions and humans.

In the Draft 2005 Oregon Cougar Management Plan (Draft Plan), the Oregon Department of Fish and Wildlife (ODFW) has proposed a radical departure from its own current management policies towards cougars and from those of any other western state. The stated intention of the Draft Plan is in essence an attempt to theoretically turn the clock back to what ODFW perceives as 1994 with regards to cougar population size, the number of complaints from the public regarding conflicts with the species, and ungulate productivity. The Draft Plan calls for reducing cougar populations in the state from ODFW's estimated 2005 level of 5,101 animals to ODFW's estimated 1994 level of 3,000 animals. To accomplish this goal, ODFW has proposed killing as many as 782 cougars each year (45% of which could be females) for the next five years using sport hunters and state and federal agents.

After a thorough review of the document, we were unable to identify *any* aspect of the Draft Plan that we can support. Rather, we find that the Draft Plan contains numerous fatal flaws in both approach and methodology that include but are not limited to:

- The failure to provide for the long-term conservation of cougars in Oregon;
- An unnecessary and unsupportable reliance on lethal methods to address cougar-livestock and cougar-human conflicts;
- The use of an unsupportable population estimate;
- The inappropriate utilization of complaints and sightings as a benchmark for conflicts between humans and cougars;
- The failure to differentiate between public safety issues and pet depredations;

- Endeavoring to increase populations of game mammals by suppressing cougar populations;
- Targeting breeding females which will result in the orphaning of countless dependent kittens; and
- The lack of any analysis of cumulative impacts on Oregon's cougar populations.

The Draft Plan fails to consider the best available science regarding cougars and if enacted could have a significant impact on the viability of cougar populations in Oregon. Our comments below are structured around the need for a conservation plan and the four main objectives detailed in the Draft Plan.

### **Introduction**

Conservation of large native carnivores, and the protection of the habitats they need to survive, is one of the greatest challenges facing our society in the 21<sup>st</sup> century. The passage of the Endangered Species Act in 1972, and the changes it generated, such as the reintroduction of wolves into Yellowstone National Park and Idaho, has signaled changes in public policy that better reflect the mandate of the American people to protect and restore our nation's wildlife, particularly with regard to native carnivores. Public polls and scientific studies of the human dimensions of wildlife management acknowledge the public's growing appreciation of these charismatic, biologically invaluable and culturally significant species (Kellert and Smith 2000).

In recent decades, cougar management policies and methodologies not supported by an adequate scientific foundation have been increasingly challenged. As the human demographics of the American West continue to change and increase in cultural complexity, a larger proportion of the public are scrutinizing cougar management policies in light of not only how they incorporate sound science but also how they address issues concerning ethics, fair play, and humaneness. Ultimately, scientific advances in our understanding of the ecological role of cougars and the public's increasing interest in cougar management requires a significant reorientation in how wildlife agencies manage and conserve cougar populations (Torres et al. 2001).

In 2005, a group of the nation's leading cougar experts published the Cougar Management Guidelines (CMGWG 2005), a consensus document that provides guidance to agencies responsible for managing and conserving cougars. In that book's introduction, the authors articulated four basic principles that should be used to structure cougar management. These were:

1. A large-landscape approach, on the order of thousands of square kilometers of well-connected habitat with thriving natural prey populations, is necessary for healthy, self-sustaining cougar populations.
2. Given uncertainties about basic demographic parameters, responses of populations to management prescriptions or hunter selectivity, temporal and spatial variation, and understanding that cougar habitat is changing, cougar management should adopt an adaptive management process.

3. Cougar management should reflect the full array of human values and input from all stakeholders.
4. In light of the diversity of stakeholders and human values, funding for cougar research, management and conservation should not be derived solely from hunting-related programs.

However, even a brief perusal of the Draft Plan reveals that it considers only one of these four principles, namely the call for an adaptive management process. There is no evidence that ODFW has engaged in any conservation measures at a large-landscape level, or attempted to reflect the full array of human values, or to diversify funding sources for cougar programs.

The Draft Plan puts a strong focus on sport hunting. Logan and Sweanor (2001: 373-374) argued that “Puma-hunting management in most western states is a far cry from science.” Reflecting this concern, the Cougar Management Guidelines (CMGWG 2005) made 11 recommendations regarding the development and implementation of sport hunting programs for cougars, which are heavily emphasized in the Draft Plan. Of these, the Draft Plan does not 1) adequately incorporate landscape thinking into cougar hunting strategies, 2) implement Zone Management or a related hunting strategy at the state level, 3) time seasons to primarily protect females and young, or 4) recognize that sport hunting to benefit wild ungulate populations is not supported by the scientific literature.

In sum, instead of embedding its management program in the best available science, the Draft Plan’s overriding focus on suppressing the states cougar population signals a simplistic and scientifically unsupportable philosophy where mountain lions are were considered little more than a pest to be eradicated or exploited and disregards contemporary public opinion.

#### **LACK OF A COMPREHENSIVE CONSERVATION STRATEGY**

The cougar is the only large native obligate carnivore sustaining viable populations across most of the western United States (CMGWG 2005). Cougars are considered an important umbrella species (Beier 1993, Logan and Sweanor 2001) and are an indicator species for habitat connectivity (Penrod 2000). Cougars strongly influence energy flow in ecosystems and have a greater influence on ecosystem processes than their mere numbers would suggest and therefore meet the criteria for a keystone species (Logan and Sweanor 2001). As a top level carnivore, cougars play an integral role in maintaining the integrity of the natural landscape, and their removal can lead to significant ecological alteration and a loss in biodiversity and ecological integrity (Terborgh et al. 1999). In one study, the absence of cougars and jaguars from an ecosystem had a devastating effect on native vegetation (Terborgh et al. 2001). The “domino effect” of removing or seriously diminishing the population of a species like the cougar is not only scientifically unpredictable but ecologically perilous.

Cougars need not be completely removed from an area to have cascading effects on its ecosystem. Rather, the decline of a cougar population below some threshold size may result in decreased species diversity, triggering an ecological chain reaction that ends with degraded or simplified ecosystems (Soulé et al. 2005). Because cougars are considered a strongly interactive species, leading conservation biologists argue that

wildlife agencies should strive to maintain population sizes that are ecologically effective rather than simply those that are minimally viable (Soulé et al. 2005):

[C]onservation plans should contain a requirement for ecologically effective population densities; these are densities that maintain critical interactions and help ensure against ecosystem degradation. This goal replaces the de facto nonecological practice of requiring only the attainment of minimum viable populations. ...Ecosystems are complex and always changing. For these reasons, conservation should facilitate extensive spatial access for highly interactive native species, according to their needs and ecological opportunities. In particular, highly interactive species...should be given the benefit of the doubt in our management and recovery efforts.

ODFW has not determined or to our knowledge attempted to determine minimum viable population for cougar populations in Oregon, or ascertain how many cougars are required to maintain ecological effectiveness.

Cougars require large swaths of connected habitat to survive. The western U.S. has experienced a rapid increase in human populations and development in areas inhabited by cougar, exacerbating loss and degradation of cougar habitat (Beier 1996), increases in conflicts between domestic animals and cougars (Torres et al. 1996), and public safety incidents (Beier 1991). Development and fragmentation of wildlife habitat threatens to sever the linkages between core habitat areas, thereby isolating cougar populations. Isolation prevents interchange among neighboring populations, threatening loss of genetic heterozygosity as a result of inbreeding, which eventually leads to extinction. Human-caused mortalities in those habitat fragments may pose the most serious threat to long-term cougar viability (Murphy et al. 1999). Beier (1993) suggested that a minimum of 1,000 to 2,200 square kilometers is necessary to prevent localized extinctions of cougars, provided that connectivity with neighboring core areas is maintained. Placement of roads across cougar habitat also divides populations, allows greater access by humans, and greatly increases the likelihood that vehicles will kill or maim lions and their prey. In Oregon, human populations increased 20.4 percent from 1999 to 2000 and have increased an additional 5.1 percent since 2000.

Habitat loss and overkill have been identified as the primary factors that can lead to the endangering of cougar populations (Logan and Sweanor 2001). While these two factors affect a multitude of species, the low fecundity of cougars and their need for expansive ranges makes them particularly vulnerable to local and regional extinctions. However, despite the scientific recognition of their ecological importance, and in the face of continuing loss, degradation, and fragmentation of their habitat, most government agencies charged with wildlife management continue to make landscape-level decisions regarding cougars that focus on lethal removal rather than on conservation (Torres et al. 2001, Logan and Sweanor 2001). Human-caused mortality of cougars in the western U.S. has increased sharply in recent decades, exceeding even those levels observed when cougars were considered a bountied predator (Torres et al. 2001).

Miller et al. (2002:206) cautioned that “If we continue to manage carnivores without considering the indirect effects on habitat quality and species diversity, we will

undoubtedly continue to alter the structure and function of an area in ways that we may later regret. We contend that it is not a question of whether or not carnivores play an important role [in ecosystem health]. It is a question of how they play their role.” Maintaining self-sustaining populations of cougars and identifying those populations at risk is critical not only to the species but also to the ecosystems in which they reside.

ODFW notes in the Draft Plan that it will focus management efforts towards cougars in part to: “Recognize the cougar as an important part of Oregon’s wild fauna, valued by Oregonians” and “maintain sustainable cougar populations within the state” (Draft Plan, p. vi). However, despite this pronouncement, the Draft Plan is markedly lacking in any plans to ensure the persistence of cougar populations for future generations. For example, ODFW provides no inventory of areas that do - or even could serve - as refugia. The Draft Plan also fails to analyze cumulative impacts of habitat loss, degradation, and fragmentation on cougar populations or how the proposed increase in kills will influence cougar population viability and metapopulation dynamics.

As the primary guiding document for state agencies with the responsibility to manage wildlife, cougar management plans should, as a crucial function, offer clear and concise information and strategies for promoting the long-term perpetuation of cougar populations and coexistence between humans and cougars. The Draft Plan does neither of these. ODFW should scrap this Draft Plan and create another that includes a focus on conserving adequate habitat and landscape connectivity to ensure that Oregon maintains viable and ecologically effective cougar populations into the future.

#### **OBJECTIVE 1: REDUCE COUGAR POPULATIONS TO 1994 LEVELS**

The overarching goal of the Draft Plan is to reduce estimated cougar numbers, unverified complaints about conflicts with cougars, and increase ungulate numbers. Nearly 800 cougars would be killed in Oregon next year alone. The stated reason for 1994 as a benchmark is that the Oregon Fish and Wildlife Commission instructed ODFW to maintain cougar populations at 1994 levels because it was the year voters restricted the use of hounds to hunt cougars in the state.

Oregon continues to argue that it can specifically pinpoint the current status of the statewide population even as most other western state wildlife agencies admit that their official estimates are “guesses.” Cougars are an elusive, solitary and largely nocturnal species, and cougar researchers have long acknowledged the difficulty in ascertaining the status, demographics or trends of regional cougar populations (CMGWG 2005). Wyoming has no official estimate of its cougar population for precisely this reason (Moody et al. 2005). ODFW utilizes a population model developed by Keister and Van Dyke (2002) which contains numerous flawed assumptions which make it entirely inappropriate for estimating statewide populations. This model does not meet the criteria for assessing cougar populations as put forth in the Cougar Management Guidelines (CMGWG 2005), and is thus for all intents and purposes, worthless with respect to the Draft Plan.

Aside from an inability to track Oregon’s cougar populations, ODFW appears to be out of touch with public sentiment towards cougars. For example, in its introduction to this objective, ODFW writes,

“Cougar management is complicated by a diverse array of sometimes competing viewpoints regarding cougars in Oregon, making cougar management a very contentious process. Some people desire high deer and elk populations, few cougar-human or cougar-livestock conflicts and would accept cougar population reduction. Other people support cougar population increases over reductions of cougar-livestock, cougar-human, or cougar-big game interactions. Acceptable cougar population levels are dependent on an individual’s perspective and may be different.”

There are several comments to be made here. First, it is clear that ODFW has staked a position firmly with the former group described here, and completely ignored the latter. ODFW has a responsibility to take into consideration the views of all Oregonians. Second, the characterizations of these two groups demonstrate ODFW’s failure to understand public opinion. For example, there are many individuals and organizations, including the undersigned, which support healthy cougar populations but also seek to reduce conflicts with cougars. To suggest that there can not be healthy cougar populations *and* low levels of human-cougar conflicts is disingenuous, scientifically inaccurate and deceptive.

We are unaware of any public attitude surveys conducted by the department. The only study referenced in the Draft Plan conducted in Oregon was completed by a graduate student in six southwest Oregon counties (Chinitz 2002). That study, in part, found that 64 percent of residents support a healthy cougar population and believed that people living in cougar country should tolerate occasional contact with the species. The study also found that 75 percent of respondents felt that cougars that cause a threat to public safety should be removed. Even though these two statements are not even remotely mutually exclusive, ODFW deceptively framed these responses in the Draft Plan as evidence of a “clear dichotomy in public opinions about cougars” (DP, p. 1).

**OBJECTIVE 2: REDUCE COUGAR-HUMAN AND COUGAR-PET COMPLAINTS TO 1994 LEVELS**

There are several serious flaws inherent in this objective as well. First, there is no distinction made between sightings and “incidents.” The vast majority of sightings in Oregon are misidentifications. Beier and Barrett (1993) reported that as many as 90 percent of cougar sightings were misidentifications. Without verification by a wildlife professional trained in the identification of cougar sign, the use of “complaints” to monitor cougar activity or conflicts is completely worthless.

Second, because there is apparently no requirement, much less standards or protocols, that complaints be verified. Therefore, the system inherently overstates the actual number of conflicts involving cougars.

Third, the Oregon landscape has changed considerably since 1994, not the least because of increased human populations and the growth of industrial, residential and recreational activity in cougar habitat. As noted in the draft plan, “human population growth into rural and sub-urban areas” is one of many factors that can lead to the increased potential for conflicts. In fact, human intrusion into mountain lion habitat has been identified as the primary cause of increased conflicts (Torres et al. 1996). Therefore,

setting the benchmarks for complaints at 1994 levels without factoring in the increased human population is scientifically flawed and unreasonable.

Fourth, it is inappropriate to pool incidents involving perceived or verified threats to public safety with cougar-pet conflicts. We are unaware of any research that suggests that predation on pets is a precursor to an attack on humans. Indeed, cougars may be unable to distinguish between pets and natural prey or competitors. Combining these two categories serves only to exaggerate the frequency at which cougars pose an actual threat to public safety, which is remarkably low, but also enables individuals or organizations with a vested interest in removing cougars to deceive the public into supporting such efforts in the name of public safety.

In sum, it is scientifically unsupportable and therefore entirely inappropriate to use complaints as indices of the number of cougars, much less as indices of risk to humans from cougars. Rather than killing large numbers of mountain lions in an effort to reduce conflicts, ODFW should marshal its resource towards a comprehensive public education campaign that would be effective in promoting coexistence between humans and mountain lions.

### **OBJECTIVE 3: REDUCE COUGAR-LIVESTOCK COMPLAINTS TO 1994 LEVELS**

Our comments on this objective are similar to those regarding Objective 2, and for brevity we reiterate the inappropriateness of using unverified complaints as indicators of cougar-livestock conflicts.

Agencies typically attempt to address conflicts with cougars by killing the individual cougar involved or conducting habitat level population reductions through sport hunting or predator control programs (Ruth et al. 1998). However, lethal control efforts at best produce short-term relief from conflicts until immigrating cougars fill the vacant habitat, which in turn may be more prone to conflicts than the resident animals.

Rather than continuing to rely on lethal control to address livestock depredation and other human-cougar conflict, researchers argue that nonlethal approaches should be employed whenever possible (Hansen 1992, Ross and Jalkotzy 1995, Murphy et al. 1999) and the development of nonlethal techniques should be the focus of concentrated research (Logan and Sweanor 2001). Capturing and relocating cougars that come into conflict with humans may be a viable option in some instances (Ross and Jalkotzy 1995, Linnell et al. 1997; Ruth et al. 1998) and young cougars that are ready to disperse or have dispersed are the best candidates (generally 12-27 months old; Ruth et al. 1998). The Washington Department of Fish and Wildlife is presently examining the effectiveness of radio collaring and relocating so called “no-harm no-foul” cougars that wander into rural and suburban neighborhoods and other areas of dense human habitation and has shown some signs of success (Rocky Spencer, WDFW, personal communication).

It is apparent from the Draft Plan that ODFW completely disregards the efficacy of nonlethal techniques in reducing conflicts between cougars and humans and thus closed an important avenue for management. However, this position is belied by the growing trend among state agencies to promote nonlethal techniques and sound animal husbandry to address conflicts. Indeed, the most effective methods for reducing conflicts between cougars and livestock may be those traditional techniques that have been used, in some

case for millennia, with a wide variety of carnivores. Responsible animal husbandry and nonlethal predator aversion techniques are widely recommended by state wildlife agencies for reducing conflicts between cougars and domestic animals. The methods applicable to cougars include enclosures, fencing, livestock guard dogs, clearing brush and landscaping with plants that do not attract deer, installing outdoor lighting, restricting the activity of pets outside (especially at night), implementing wildlife feeding ordinances that discourage intentional wildlife feeding of deer and other wildlife, using herders to accompany and protect open range livestock, choosing appropriate livestock, bringing in livestock when lambing or kidding, and raising mixed herds of cattle and sheep.

Other methods deserving of study include the use of aversive conditioning, using specially trained dogs to deter cougars from frequenting certain areas (Logan and Sweaner 2001) or through conditioned taste aversion (Nowell and Jackson 1996); i.e. by injecting a nauseating substance such as lithium chloride into livestock killed by cougars. The city of Boulder, Colorado has employed rubber bullets, beanbag rounds, etc., to intimidate cougars that frequent neighborhoods (Baron 2003).

Community based programs that aim to reduce human-cougar conflicts, such as the Living with Lions program developed by The Mountain Lion Foundation can also be implemented to engage local residents. Such small small-scale, collaborative, non-lethal cougar aversion demonstration projects have proven highly effective, particularly in areas with a history of conflicts.

However, ODFW appears to have little interest in actually addressing conflicts or educating people who report conflicts with lions, noting that educational material is only “often provided.” Does “often” here mean that 20% of complaints are followed up with educational material? If ODFW invested as many resources in educating the public as it did in the development of this plan it is likely that the number of complaints would decline without the need for killing hundreds of cougars.

Rather than developing a plan that would create consensus amongst the various stakeholders, ODFW has chosen to put forth a plan that will only further polarize the public. Of particular note is the Draft Plan’s nearly exclusive emphasis on lethal control of cougars to address a perceived increase in conflicts between humans and cougars that appears to have been greatly exaggerated. To be sure, humans and cougars will sometimes come into conflict as long as we share the same habitat. It is not necessary to aggressively suppress cougar populations to facilitate co-existence.

ODFW proposes to reduce conflicts between humans and cougars in part through its sport hunting program. However, there is no support in any scientific literature for the argument that a cougar season could be an effective solution for dealing with human-cougar or livestock-cougar conflicts. Many distinguished cougar scientists, as well as at least one state agency (Montana Department of Fish, Wildlife and Parks), have noted that recreational hunting of cougars has *no effect* on issues related to public safety problems or to depredations. The Cougar Management Guidelines specifically stated that “sport hunting has not been shown to reduce risk of attacks on humans”

Sport hunting is occasionally proposed as a tool to reduce the risk that cougars will attack humans. There is no scientific evidence that sport hunting achieves this goal. In rare cases where a cougar exhibits

dangerous behaviour and needs to be removed, this job is best done by a professional to expeditiously track and kill the individual cougar, rather than via sport hunting.

Assuming that mortality from sport hunting is at least partially additive to other sources of mortality, hunting must reduce cougar density. Proponents of hunting use this reasoning to argue that sport hunting -- by reducing cougar density -- must also reduce risk of attack on humans. However, hunting may shift cougar population toward young animals, which are more likely than adult cougars to attack humans (Beier 1991). Further, the public may not support efforts to reduce regional populations in a questionable effort to reduce a minuscule risk.

Arguments for decreasing cougar density often focus on scenarios of cougars lurking near human homes and settlements. Because few cougars are more than 1 home range width from some sort of human settlement, this argument may be nothing more than a rhetorical device to promote regional hunting. Sport hunting of cougars near the densest human settlements is difficult because houndsmen are reluctant to hunt these areas (due to the risk that dogs will be killed on paved roads), and private landowners or local laws often prohibit hunting. Furthermore, although cougar attacks do occur close to human settlements, they do not seem to be concentrated there (Beier 1991). [CMGWG 2005:80]

Other scientists and agencies have made similar statements, for example:

- In a letter to the Oregon Senate in 1995, lion researchers Ken Logan (now Carnivore Researcher with the Colorado Division of Wildlife) and Linda Sweanor argued that "sport hunting would not be an effective risk-reducing strategy."
- Paul Beier, an expert on cougar attacks, wrote in a letter to State Senator Mike Thompson of California in 1996: "It is not valid to initiate hunting on the grounds that it will reduce risk of cougar attacks on humans. Quite simply, sport hunting will not reduce the risk of cougar attacks on humans."
- The Montana Department of Fish, Wildlife, and Parks, wrote in the Final Environmental Impact Statement on the Management of Cougars in Montana (1995): "Short of total eradication, livestock losses will still occur in occupied lion habitat, depending on terrain, stocking rates, and availability of alternate prey...The most effective means of controlling depredation are those aimed at eliminating individual depredating cougars."

#### **OBJECTIVE 4: INCREASE UNGULATE REPRODUCTION TO 1994 LEVELS**

Prey populations are influenced by a variety of factors, including but not limited to climate, human activity, habitat changes, and predation. In an effort to boost prey populations for hunters, numerous game agencies, including ODFW as described in the Draft Plan, have sought to reduce mountain lion populations. However, the Cougar

Management Guidelines (CMGWG 2005) states that “sport hunting to benefit wild ungulate populations is not supported by the scientific literature.” The Guidelines continue:

“Reducing cougar numbers through sport hunting is sometimes proposed to increase numbers of deer or elk, or to benefit an endangered ungulate population, such as desert bighorn sheep. Managers should carefully consider the wisdom and public acceptability of reducing cougar numbers simply to provide more ungulates for hunters to shoot. Such an effort should be undertaken with broad input from stakeholders.”

It is apparent from the Draft Plan that ODFW has not incorporated “broad input from stakeholders” prior to including this proposal in the Draft Plan. If they had they would have discovered that there is a lack of support amongst the general public for killing large numbers of mountain lions in Oregon simply “to provide more ungulates for hunters to shoot” as evidenced by widespread opposition to a 2001 study that endeavored to do just that. The inclusion of this objective highlights ODFW’s single-minded focus on satisfying its hunting constituency to the exclusion of the rest of the population.

### **Recommendations**

The Draft Plan is completely bereft of a cogent plan to ensure the long-term survival of cougars in Oregon. Steve Torres, former cougar coordinator for California Department of Fish and Game, offered the following recommendations for cougar conservation (Torres et al. 2001):

- 1) Redefine cougar management in a conservation biology context that recognizes their ecological role;
- 2) Manage for long-term viability of population systems that include predator/prey relationships rather than single species;
- 3) Establish population monitoring and habitat models to define and maintain essential habitat; and
- 4) Manage for ecological systems at the regional, or metapopulation, level.

MLF supports these recommendations, and offers the following additional recommendations:

- **Develop a comprehensive conservation plan.** ODFW, in collaboration with other local, state and federal agencies, and NGO’s, should identify and protect sufficiently large habitat cores and the corridors to link them to ensure the long-term viability of cougars and their prey.
- **Support scientific research to establish site-specific population data** essential to understand the biological impact of ongoing kills on cougar populations (i.e., sex ratio, age structure, mortality factors and rates, kitten production and recruitment, population size estimates) for any populations where lions are to be killed for reasons other than removal of individual lions necessitated by verified, direct and immediate threats to public safety.

- **Implement an aggressive public education program on how to co-exist with cougars.** ODFW should improve public and livestock health and safety by educating Oregon's citizens about how to avoid contact and conflict with predators, how to avert predators from populated areas, and about the public benefits of a sustained predator population.
- **Establish strong penalties to discourage and prohibit the killing of lions outside Department policies, and for killing a female lion or kitten for lack of ability to accurately sex in the wild** (e.g. fines, making possession of the body or skull of a female lion or kitten illegal.)

## Conclusion

Our organizations are dedicated to the protection and long-term conservation of cougars and their irreplaceable value as keystone predators, and to promoting coexistence between cougars and humans. The Draft Plan accomplishes none of these goals. Rather ODFW either does not understand or has chosen to ignore the best available science and commonsense approaches to resolving human-cougar conflicts. Instead of engaging in a collaborative, ecosystem based approach to cougar conservation and management that could appeal to a broad array of Oregonians, the Draft Plan enacts a single-species management strategy that will engender controversy and conflict for years to come. In essence the Draft Plan treats cougars as little more than a commodity and pest, an approach at odds with the growing scientific knowledge of the importance of cougars as a keystone predator and with positive public sentiment shifting in support of the species. Indeed, the Draft Plan exemplifies the need for significant reform of policies towards cougars in Oregon. We request that ODFW abandon the current cougar management plan and draft a new plan that incorporates our strongest recommendations and then submit a new Draft Plan to the public for review. MLF would welcome the opportunity to work with ODFW in developing an appropriate cougar *conservation* and management plan and proactive public outreach campaign. I can be reached at 916-442-2666 ext. 102.

Sincerely,

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And on Behalf of

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**LITERATURE CITED**

- Baron, D. 2003. *The Beast in the Garden: A Modern Parable of Man and Nature*. W.W. Norton & Company, New York.
- Beier, P. 1991. Cougar attacks on humans in the United States and Canada. *Wildlife Society Bulletin* 19:403-412.
- \_\_\_\_\_. 1993. Determining minimum habitat areas and habitat corridors for Cougars. *Conservation Biology* 7.
- \_\_\_\_\_. 1996. Metapopulation models, tenacious tracking, and cougar conservation. Pages 293-323 in D. R. McCullough, editor. *Metapopulations and wildlife conservation*. Island Press, Covelo, California.
- Chinitz, A. E. 2002. Laying the groundwork for public participation in cougar management: a case study of southwestern Oregon (*Puma concolor*). M.S. Thesis, University of Oregon, Eugene, OR.
- Cougar Management Guidelines Working Group. 2005. *Cougar Management Guidelines*. First edition. Wild Futures, Bainbridge Island, WA.
- Hansen, K. 1992. *Cougar: The American Lion*. Northland Publishing, Flagstaff, AZ.
- Kellert, S., and C. Smith. 2000. Human Values Toward Large Mammals. Pages 347-377 in S. Demarais, and P. R. Krausman, editors. *Ecology and Management of Large Mammals in North America*. Prentice Hall, Upper Saddle River, N.J.
- Logan, K., and L. Sweanor. 2001. *Desert Puma: Evolutionary Ecology and Conservation of an Enduring Carnivore*. Island Press, Washington, D.C.
- Miller, B., B. Dubelby, D. Foreman, C. Martinez del Rio, R. Noss, M. Phillips, R. Reading, M. E. Soulé, J. Terborgh, and L. Willcox. 2002. The importance of large carnivores to healthy ecosystems. *Endangered Species Update* 18:202-210.
- Moody, D. S., D. D. Bjornlie, and J. Charles R. Anderson. 2005. Wyoming mountain lion status report. Pages 26-33 in *Proceedings of The 8th Mountain Lion Workshop*. 26-33.
- Murphy, K., I. Ross, and M. Hornocker. 1999. The ecology of anthropogenic influences on cougars. in T. W. Clark, A. P. Curlee, S. C. Minta, and P. M. Kareiva, editors. *Carnivores in Ecosystems: The Yellowstone Experience*. Yale University Press, New Haven, Conn.
- Nowell, K., and P. Jackson. 1996. *Wild Cats, Status Survey and Conservation Action Plan*. IUCN.
- Ross, P. I., and M. G. Jalkotzy. 1995. Fates of translocated cougars, *Felis concolor*, in Alberta. *Canadian Field-Naturalist* 109:475-476.
- Ruth, R. K., K. A. Logan, L. L. Sweanor, M. G. Hornocker, and T. J. Temple. 1998. Evaluating cougar translocation in New Mexico. *Journal of Wildlife Management* 62:1264-1275.
- Sawyer, H., and F. Lindzey. 2002. A review of predation on bighorn sheep (*Ovis canadensis*). Wyoming Cooperative Fish and Wildlife Research Unit.
- Soulé, M. E., J. A. Estes, J. Berger, and C. M. Del Rio. 2005. Ecological effectiveness: conservation goals for interactive species. *Conservation Biology* 17:1238-1250.
- Terborgh, J., J. A. Estes, P. Paquet, K. Ralls, D. Boyd-Heger, and D. B. Miller. 1999. The role of top carnivores in regulating terrestrial ecosystems. in J. Terborgh, and M. Soule, editors. *Continental Conservation: Scientific foundations of regional reserve networks*. Island Press, Washington, D.C.

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- Terborgh, J., L. Lopez, P. N. M. Rao V., G. Shahabuddin, G. Orihuela, M. Riveros, R. Ascanio, G. H. Adler, T. D. Lambert, and L. Balbas. 2001. Ecological meltdown in predator-free forest fragments. *Science* 294:1923-1926.
- Torres, S., H. Keogh, and D. Dawn. 2001. Mountain lion management in western North America: A 100 year retrospective. *Proceedings of the 8th Wildlife Society Conference*. Reno, NV.
- Torres, S. G., T. M. Mansfield, J. E. Foley, T. Lupo, and A. Brinkhaus. 1996. Mountain lion and human activity in California: testing speculations. *Wildlife Society Bulletin* 24:451-460.
- Whittaker, D., and S. Torres. 1998. Ballot initiatives and natural resource management: some opinions on processes, impacts and experience. *Human Dimensions of Wildlife* 3:1-7.