



August 27, 2010

Jim McClintic, Chairman
New Mexico Game Commission
P.O. Box 25112
Santa Fe, NM 87504

Re: Cougar (*Puma concolor*) Management in New Mexico for 2011-2015

Dear Chairman and New Mexico Game Commission:

Thank you for allowing WildEarth Guardians, Animal Protection of New Mexico, and The Rio Grande Chapter of the Sierra Club, on behalf of our 24,500 members and supporters, to comment on the New Mexico Game Commission's (Game Commission's) 2010 rulemaking process on cougars. Cougars are magnificent cats and important ecosystem actors. Cougars have an inherent right to exist and most citizens enjoy knowing they exist on the landscape.

We vehemently oppose the New Mexico Department of Game & Fish's (NMDGF's) proposed cougar regulations for the period 2011 to 2015. Among other things, the Agency seeks to increase the "sustainable total mortality" for cougars from 490 to 1,180 animals—a 140 percent increase—which will be in place until 2015. (Figure 1.)

Simultaneously, the Agency has called for examining regulations only every four years—essentially disenfranchising the public and the Commission itself from the rulemaking process. Most, if not all, Western states review bear and cougar quotas annually.

NMDGF has also proposed to:

- Increase the female sublimit from 126 to 457, a 263% increase, (Figure 1);
- Keep hunting zones open even when the female sublimits have nearly been reached;
- Remove "enhanced civil penalties" for persons who trap or snare cougars unlawfully; and
- Allow even more cougar killing to "boost" bighorn sheep populations.

Figure 1. NMDGF'S Proposed Cougar-Kill Increases with 2008 Comparison							
Zone	GMU	"Sustainable Total Mortality" 2008	Proposed "Sustainable Total Mortality" 2011-15	Percent Increase in Quota for 2011-15	25% Female Sublimit 2008	Proposed 25% Female Sublimit 2011-15	Percent Increase in Quota for 2011-15
A	2, 7	27	73	170%	7	22	214%
B	5, 50, 51	15	50	233%	4	15	275%
C	43-46, 48, 49, 53-55	53	121	128%	13	61	369%
D	41, 42, 47, 59	13	32	146%	3	16	433%
E	9, 10	30	88	193%	8	26	225%
F	6, 8	19	65	242%	5	33	560%
G	13, 14, 17	46	104	126%	12	52	333%
H	19, 20	22	33	50%	6	17	183%
I	18, 36-38	34	64	88%	9	19	111%
J	15, 16, 21, 25	69	156	126%	17	47	176%
K	22-24	38	95	150%	10	47	370%
L	26, 27	13	27	108%	3	13	333%
M	31-33, 39, 40	35	51	46%	9	15	66%
N	4, 52	10	27	170%	3	8	166%
O	12	6	36	500%	2	11	450%
P	56-58	11	17	55%	3	5	66%
Q	28, 29, 30, 34	46	60	30%	12	18	50%
R	54-55	N/D	45	N/D	0	14	N/D
S	8, 14	N/D	36	N/D	0	18	N/D
	TOTAL	490	1180	141%	126	457	263%

If the Commission approves these suggestions, cougars in New Mexico would likely be extirpated by the time the Commission and the public are again allowed to make comments and decisions for cougars four years from now. While we were told that the Agency *could* open up the regulatory process, we believe that those requests would not be met in a timely manner.

In short, NMDGF proposes a radical departure from its established path towards sustainable management of ecologically-functional cougar populations. If passed, New Mexico will veer towards the extirpation of the State's cougar population. In opposing NMDGF's proposals for cougars for 2011 to 2015, we request an alternate course that will lead to further conservation of the species.

Therefore we request the Game Commission to:

a) Reject NMDGF's proposed increase in the sustainable mortality limit.

- The Agency is *not* relying on a seminal 10-year-long, peer-reviewed, published study on cougar ecology and population dynamics in New Mexico, but instead on an unpublished four-year study by a student. The unpublished study reportedly triples the abundance of cougars in the State and has received no outside scrutiny. Yet, it provides the basis upon which the Agency has established its enormous quota increases.
- The Agency told us that based on one paper, Anderson and Lindzey (2005), a sustainable level of offtake for the cougar population in New Mexico is 25%, and that suppression of the population is achieved at a 30% level. Not only does the Agency misread that paper, Anderson and Lindzey conducted their study on the Snowy Range in Wyoming—a habitat far more productive for cougars. Second, offtake in an amount over 15% will suppress the population (see “c” below and Logan and Sweanor (2001)).
- The Agency has told us that hunting cougars will improve human safety. Yet *there is no scientific evidence* that shows that sport hunting makes humans safer (Cougar Management Guidelines 2005). In fact, exploitation of cougar populations changes the demographics of a population, selects for younger animals, and leads to social disruption that may exacerbate negative interactions (discussion with cites below).

b) Reject the proposed four-year regulatory cycle for the public to comment upon cougar management regulations and supplant it with annual review and revision.

- Adaptive management of the State's cougar population is necessary and requires continual monitoring of indicators, such as assessing the demographics of those animals in the mortality. Population monitoring (evaluating tooth extractions) was already mandated by the Game Commission in 2006, but has been ignored by the agency (although it reports teeth have just now been sent to a laboratory).
- New information must be reviewed and acted upon annually to prevent overkill. A four-year regulatory cycle does not allow this flexibility.
- Cougar management must be approached using the precautionary principle, given the relative uncertainty in present cougar population and future population trends. A four-year regulatory cycle is too rigid to adequately maintain sustainable populations.
- A four-year regulatory cycle disenfranchises both public stakeholders and the Game Commission and leaves less flexibility to the agency if it needed to act in an emergency to prevent overkill.

c) Expect NMDGF to estimate cougar populations for each zone and develop reliable maps of potential lion densities or an index thereof.

- The most reliable method to derive lion populations is from radio-telemetry studies (Cougar Management Guidelines 2005, p. 44). Thankfully, New Mexico has engaged in a 10-year study of cougars – although it has all but ignored this seminal and important study and replaced it with an unpublished masters thesis.
- Population trends must be determined using reliable methodologies; however, *sightings, depredation events, and kill levels are not reliable means to indexing a population* (Cougar Management Guidelines 2005, p. 48-50).

- Include information on habitat potential (i.e., terrain roughness and cover), travel corridors, road access, human habitation, location and type of ungulate winter range, *de facto* refugia and locations of known lion mortalities.
- Ensure cougars have persecution-free refugia. As Weaver et al. (1996) write: “the powerful role of refugia in population persistence has emerged as one of the most robust concepts of modern ecology” (p. 972). Refugia should serve as source areas to feed other populations and refugia should maximize natality but minimize mortality.

d) Expect NMDGF to establish, enumerate, and justify management goals for each zone.

Both decision makers and stakeholders need to understand the state’s long-term vision for cougars. The Colorado Division of Wildlife, for example, has elaborated goals for managing cougars (aka “mountain lions”) in each of its hunting districts, called data analysis units or DAUs. Its document, *Colorado Mountain Lion Management Data Analysis Unit Revision & Quota Development Process*, provides:

A guide of 8-15% of the huntable population was used as a range of acceptable total mortality for populations managed for a stable-increasing DAU management strategy. For suppression management strategies, the total mortality guide was >15% to 28% of the huntable population.

e) Make the online hunter education program mandatory for all cougar hunters and guides. Given that females are the species’ biological bank account, we remain concerned about potential over-exploitation of females and the concomitant orphaning of an unknown number of kittens each year. Since 1999, 42% of all cougars killed in New Mexico were females. In 2007, New Mexico experienced a record high of 51%, but that number dropped to 39% (2008) and then to 36% (2009).

While NMDGF was on a corrective path towards protecting females, in 2010 it proposes to radically increase the number of females in the kill. (See the last column in Figure 1.) This extraordinary level of exploitation of females represents poor stewardship and is biologically unsustainable and ethically indefensible. It will lead to cougar extirpation.

f) Move to a limited entry permit system in some zones. The limited-entry permit system, already used in Montana and Utah, stops the contest between hunters to quickly fill the quota. It contributes to the principles of fair chase and allows houndsmen to be more selective because they are not in a race against others to make a kill before the quota is filled. As a result, breeding females—the biological bank account—and their dependent kittens can be better protected. Limited entry permits have also helped other wildlife management agencies prevent quota overruns. The permit system affords more management control than a quota system (Laundré and Clark 2003). Because of the myriad benefits conferred by a limited entry system, it makes sense to adopt this method to enhance cougar conservation.

g) Count unreported kills toward the sustainable limit. Human causes of cougar mortality routinely go underreported. NMDGF must consider for allowances in the Sustainable Mortality Limit to include poaching kills that go unreported. Currently no “safety factor” is applied to the quota, and this mortality category presents more reason to exercise precautionary principles with regard to the overall quota.

h) Discontinue killing cougars to protect bighorn sheep. The literature shows that killing predators to increase ungulate herds is futile (below).

Background Information in Support of our Comments:

Progress Made Since 2006.

In 2006, the Game Commission adopted changes recommended by our respective organizations, including:

- 1) Population estimates specifically based on cougar habitat-level analysis;
- 2) Evaluation of demographic (i.e., age and sex) of every cougar killed by an extracted tooth analysis as an indication of the overall health of the State's cougar population¹; and
- 3) Sub-limits by unit for female cougar populations if the unit's cougar population drops by 20% or more from hunting.

In 2008, the NMDGF and Game Commission made enormous strides toward better management when it adopted, at the recommendation of our respective organizations, the following policy and outreach changes:

- 1) Greater protections for female cougars and their dependent young through:
 - a *voluntary* online hunter education program;
 - a sublimit on female cougars by game management unit (GMU) in the amount of 10% of the total "sustainable total mortality"; and
 - the closing of a hunting zone within 72 hours once the female sublimit reached 5 females or fewer.
- 2) Cessation of the exclusive and wasteful GMU 30 "preventative" cougar-killing program, which had resulted in nearly one million dollars spent from the game protection fund to kill cougars for the benefit of a handful of private landowners.
- 3) Elimination of the "sport harvest limit" and replacement with a "sustainable total mortality limit" along with "female mortality sublimits." This ensured that NMDGF could track all sources of mortality, including livestock-protection kills, road kills, poaching, private land kills, bighorn sheep removals and human safety removals, thereby protecting breeding females and their dependent young.
- 4) Reduction of double bag limits on private lands, in GMUs 29, 30, 34, and in bighorn sheep areas.

In 2010, Animal Protection of New Mexico, NMDGF and other agencies collaborated on and launched the *Cougar Smart New Mexico* program, working together to distribute these important materials that educate the public about safely recreating and living in cougar territory. In June 2010, NMDGF reported that a Swiss student used information from a Cougar Smart poster to defuse a bear attack in the Manzano Mountains.

These collaborations among the Game Commission, the NMDGF, and our respective organizations represented impressive efforts to remediate the continued misunderstanding and persecution of cougars in the West and display notable leadership on the part of NMDGF.²

¹ This policy revision remains incomplete: *the analysis on cougar populations using extracted teeth, as ordered by the Commission in 2006, has not occurred.* We were told in a meeting with NMDGF on Tuesday, August 25 that some teeth had only recently been sent to a laboratory for analysis.

It is therefore troubling that for the proposed 2011-2015 seasons, the NMDGF would choose, at this critical juncture, not to build upon the progress made and instead revert to management practices that are not supported by the best available science, and which amount to nothing more than extreme predator control measures for spurious purposes that will result in species' extirpation and a decline in biological diversity and ecosystem health.

Hunting Cougars Does Not Make People Safer—It Destabilizes the Population.

NMDGF has told us, using no citations or references, that low numbers of cougars confers human safety. Intuitively, it might seem like killing cougars would facilitate human safety. Peer-reviewed research, however, indicates that the exact opposite is true:

- There is “no scientific evidence” that suggests that sport hunting reduces the risk of cougar attacks on humans, and hunting them to prevent future attacks is therefore unsupported in the scientific literature (Cougar Management Guidelines 2005).
- Cougars typically avoid people (Sweaner et al. 2008).
- Sport hunting can change the demographics (sex and age) and density of a cougar population (Lambert et al. 2006; Robinson et al. 2008; Stoner et al. 2006). If the cougar in a home range is removed or killed, the vacancy likely will attract a younger, dispersing animal (Lambert et al. 2006).
- Over-hunting a cougar population can change the age structure to one with more young adults or juveniles (Lambert et al. 2006, Stoner et al. 2006, Robinson et al. 2008). The removal of 40 percent of the nonjuvenile population for four years or more reduces the number of individuals in a population, and creates a demographic structure that is younger, produces fewer kittens, and is socially unstable (Stoner et al. 2006). High harvest rates on adult females harms a population's ability to recruit new members (Anderson and Lindzey 2005).

Therefore, both hunting and predator-control programs could potentially destabilize a cougar population, which could, ironically, lead to increased conflicts with humans and livestock (Lambert et al. 2006, Robinson et al. 2008).

Ken Logan, PhD, Colorado Division of Wildlife lion researcher and co-author of Desert Puma (2001) stated to the *LA Times*: “I think 99.9% of pumas do not use humans as prey. Clearly they don't. Otherwise we would have far more people killed in the West.” Eighteen people have died in the U.S. from lion attacks in the period between 1890 and 2010 (Beier 1991; Beier 1992; Fitzhugh 2003). Some parties routinely use exaggerated fears to call for large carnivore extermination (Schwartz et al. 2003). We call upon the Agency to step up its Cougar Smart

² Between 2006 and 2008, we requested other policy changes not yet enacted, but that remain detrimental to the State's cougar populations: regulations that increased cougar mortality (without scientific justification); and allowing landowners to continue to hunt cougars year round – especially given that most livestock growers lose barely perceptible numbers of livestock to carnivores, but more from weather, disease, and other unintended causes (Keefover-Ring 2009). This remains an abrogation of the public's trust in managing the State's wildlife for the benefit of all the people.

program to promote coexistence. In the long run, education will better protect people while conserving cougars.

NMDGF Must Protect Breeding Females and Dependent Kittens.

Anderson and Lindzey (2005) write, “adult females provide the resiliency in a population that allows it to respond to loss of members” (p. 187). Breeding females must be conserved to protect the species.

A female cougar is not sexually mature until she is between 27 and 29 months old (Cougar Management Guidelines 2005). Cougars produce few kittens. A mother will give birth to approximately three kittens every two years (Cougar Management Guidelines 2005). Females then spend between 12 and 24 months raising and provisioning for their kittens. Because adult cougars are not highly social, the mother cat is the sole provider for her offspring. Cougar kittens are totally reliant upon their mother until they are at least six months old,³ but may be wholly dependent for up to nine months and even beyond.

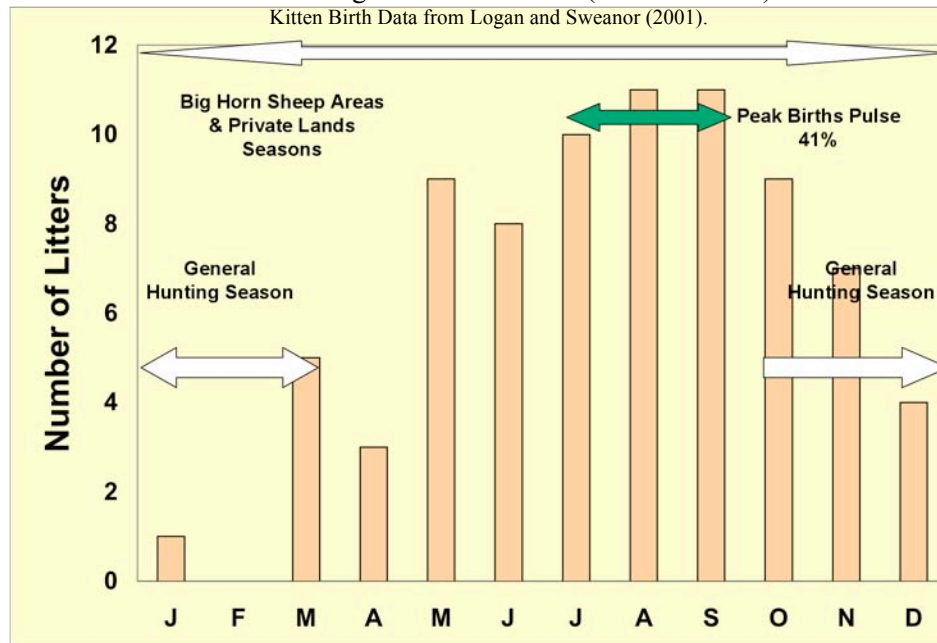
While capable of giving birth year-round, most female cougars give birth to their kittens in the summer and fall months [Figure 2]. **As Figure 2 demonstrates, New Mexico’s hunting season comes right after most kittens are born, when they are most vulnerable.** Logan and Sweanor (2001) write, “Hunters sometimes kill female pumas legally and unknowingly cause the orphaning of cubs. Cubs orphaned when they are less than nine months old usually die, and older cubs stand less of a chance of surviving” (p. 375).

When subadult animals leave their mothers, they strike out from their natal areas to secure their own home ranges. If abundant food is available, a mother cat may shrink her own territory to accommodate a subadult daughter (Logan and Sweanor 2001). Males, obligated to disperse from the natal area to avoid inbreeding with female relatives, can travel several hundred miles. The ability for a young cat to survive, safely disperse, and find a suitable home range is difficult and a matter of chance.

When harvest levels on an experimental lion population were stepped up, the population decreased in size, and the most vulnerable members of the population were hunted first (subadults of both sexes and then adult males) (Anderson and Lindzey 2005). Lastly, adult females were hunted. The adult female makeup of the hunter harvest went from 14 to 41 percent (Anderson and Lindzey 2005). Anderson and Lindzey (2005) caution, “adult females provide the resiliency in a population that allows it to respond to loss of members” (p. 187).

³ “Kittens are generally able to climb to avoid dogs at about 3 months of age, but kittens orphaned when they are 6 months old have a less than 5% chance of survival, and most die from starvation” Cougar Management Guidelines Working Group. 2005, Cougar Management Guidelines. Bainbridge Island, WA, WildFutures., p. 78.

Figure 2
 Number of NM Cougar Litters by Month
 (Peak Birth Pulse-Green Arrow)
 With Hunting Seasons Overlaid (White Arrows)
 Kitten Birth Data from Logan and Sweanor (2001).



In sum, female cougars are necessary for population resiliency. Because New Mexico's hunting season follows the peak birth pulse for most kittens, New Mexico must take steps to protect breeding females and their dependent kittens such as setting lower quotas for females, instituting the limited entry permit system statewide, and making the online education course mandatory by 2011.

The Value of Cougars and Apex Carnivores.

Apex carnivores significantly influence biological diversity and ecosystem function (e.g., Beschta and Ripple 2009; Ritchie and Johnson 2009). They increase biological diversity by checking effects of mesopredators (e.g., Crooks and Soule 1999; Ritchie and Johnson 2009). In one system, for example, coyotes indirectly protect rare sage-grouse (Mezquida et al. 2006) by reducing mesocarnivores, while in another, wolves indirectly protect pronghorn by killing coyotes (Berger et al. 2008). Despite their importance, top carnivores are killed by the tens of thousands by humans annually (Keefover-Ring 2009). The persecution is driven by anachronistic belief systems, not empirical science (Keefover-Ring 2009).

To many, wild carnivores invoke powerful symbols that illicit strong feelings—from savagery that needs to be conquered, to spiritual totems, or to important ecological actors (Mattson et al. 2006). Carnivores have historically caused conflict with humans because of perceptions that they compete for human food, including both wild and domestic animals (Baker et al. 2008; Noss et al. 1996; Primm and Clark 1996; Treves 2009) or from largely exaggerated fears that carnivores routinely kill or harm people (Schwartz et al. 2003).

Because of actions based on these belief systems, large terrestrial carnivores populations have declined by 95 to 99% from their habitats around the world and in North America (Berger et al. 2001; Ritchie and Johnson 2009). Yet, carnivores take less than 3% of the total number of sheep and cattle produced in the U.S. and typically do not overpower their prey populations (Baker et al. 2008; Keefover-Ring 2009). Most people's values, however, favor large carnivore conservation (Corona Research 2006; Kellert 1996; Manfredo et al. 1994).

Moreover, according to a new study, the idea that the hunting of large carnivores would reduce human anxieties around them or increase tolerance is unsupported. Some hunters believe that they themselves maintain sustainable carnivore population levels, that killing carnivores reduces food competition with humans, that hunters reduce carnivore attacks on humans, or that hunting carnivores builds support for wildlife conservation (Treves 2009). Instead, hunters value carnivores as game species (Treves 2009).

Carnivores Benefit their Prey in Ecosystems.

Carnivores modulate prey populations and make them more vigorous (Connolly 1980; Leopold 1949, Reprint 1977; Logan and Sweanor 2001; Murie 1940; Peckarsky et al. 2008). Carnivores increase biological diversity and functionality of those systems (e.g. McLaren and Peterson 1994; Mezquida et al. 2006; Peckarsky et al. 2008; Ripple and Beschta 2006; Smith et al. 2003). By modulating deer populations, cougars prevent overgrazing near fragile riparian systems. The result: more cottonwoods, rushes, cattails, wildflowers, amphibians, lizards, and butterflies, and deeper, but narrower stream channels (Ripple and Beschta 2006).

The simplistic notion that predators alone control prey species' numbers is unsupported in the scientific literature (Ballard et al. 2001; Cougar Management Guidelines Working Group 2005; Gill 1999; National Research Council 1997; Peckarsky et al. 2008; Pojar and Bowden 2004; Stenseth et al. 1997; Unsworth et al. 1999; e.g., White et al. 1987). Prey species populations' decline can result from a variety of factors, including competition with domestic livestock, livestock-borne diseases, over-hunting by humans, fire suppression, and habitat fragmentation or loss; too much snow (making foraging difficult), drought, late season frosts, other stochastic events, and carrying capacity (Ballard et al. 2001; Cougar Management Guidelines Working Group 2005; Gill 1999; National Research Council 1997; Pojar and Bowden 2004). The size of the prey population can drive the size of the predator population, and those populations cycle over time (e.g., McLaren and Peterson 1994; Peckarsky et al. 2008; Stenseth et al. 1997).

Bighorn sheep populations are in serious decline in the U.S. because of trophy hunting, domestic sheep act as disease vectors,⁴ livestock out-compete wild sheep for provisions, and loss of habitat (Lomax 2008). The Payette National Forest's Update to the Draft Supplemental Environmental Impact Statement (January 2010), provides an excellent literature review on sheep die offs.⁵

⁴ "Severe pneumonia outbreak kills bighorn sheep: Lamb survival to be closely monitored for several years" <http://www.avma.org/onlnews/javma/may10/100501c.asp>

⁵ http://www.fs.fed.us/r4/payette/publications/big_horn/index.shtml. It states: Bighorn sheep are a New World species and are closely related to domestic sheep, which are an Old World species. Domestication and intense artificial selection have probably helped domestic sheep develop a resistance to important diseases (Jessup 1985). However, bighorn sheep can be highly susceptible to diseases carried by domestic sheep. Management Recommendations: The separation, either spatially, temporally, or both of bighorn sheep from domestic sheep has been recommended by leading bighorn sheep disease experts (Schommer and Woolever 2001, Garde 2005, Singer 2001). Experts also recommend developing site-specific solutions for each bighorn sheep population and domestic

On the other hand, predation on bighorn sheep populations has been seriously overestimated by wildlife management agencies, including, apparently by NMDGF. Sawyer and Lindzey (2002) surveyed over 60 peer-reviewed articles concerning predator-prey relationships involving bighorn sheep and mountain lions, and they concluded that while predator control is often politically expedient, it does not address underlying environmental issues including habitat loss, loss of migration corridors, and inadequate nutrition.

Mosnier et al. (2008) found that intensively killing bear and coyote populations to protect a threatened and isolated population of caribou in Canada only benefited the caribou for a short duration. The authors suggest that most studies that have looked at predator-prey populations failed to do so for extended periods (Mosnier et al. 2008). Lethal control measures failed to help these caribou in the long-term because coyotes and bears were mobile over long distances, they benefited from alternative prey (moose), and were fed by hunters who inadvertently supplemented their diet when they left gut piles behind.

In a long-term study on cougars in Idaho, new technology afforded researchers the ability to collect data in one-half hour intervals from 14 females with kittens, two pregnant females, 13 females with no kittens, and 9 males (Laundré 2008). Researchers found that females that were either pregnant or had kittens preyed on deer approximately every 12 days; females with no kittens took a deer approximately every 14.3 days; and males preyed on deer about every 15.1 days (Laundré 2008).

Cougar Social Dynamics & Conservation.

Cougars generally occur in low densities because they are an obligate carnivores and their food is patchily distributed (Logan and Sweanor 2001). Cougars are extraordinarily unsocial and territorial (Logan and Sweanor 2001). Male cougars establish “home areas”—the place where resident cougars roam—that are generally larger than those established by females (Logan and Sweanor 2001). Male and female home areas may overlap each other, but cougars avoid each other unless the female is ready to breed. Young, transient cougars, in order to survive, must establish a territory in suitable habitat either by inhabiting a vacant territory or out-competing a resident cougar for a territory. Contrary to popular myth: cougars are fairly rare in the landscape because of their energetic needs and their unsocial nature.

Cougar populations can be threatened by a myriad of factors, both natural and human-caused; however, loss of habitat, fragmentation, and overhunting by humans pose the biggest impediments to healthy cougar populations (Logan and Sweanor 2000). Cougar populations are susceptible to over-exploitation (e.g., DeSimone 2003, Anderson and Lindzey 2005). To emphasize: cougars generally have low fecundity and recruitment into their populations. Site-specific population data (i.e., sex ratio, age structure, mortality factors and rates, cub production and recruitment, population size estimates) are essential for making determinations with regard to cougar management (Anderson and Lindzey 2005; Laundré and Clark 2003; Logan and Sweanor 2001).

sheep allotment, and to develop a management strategy appropriate for the complexity of the management situation (Schommer and Woolever 2001).

Conclusion.

To prevent overkill of New Mexico's cougar population, NMDGF must take steps to estimate the cougar population using reliable methodologies, set management goals that call for conservation in most zones, protect breeding females, and adopt the limited entry permit system.

Instead, in a complete about-face to prior progress, this year NMDGF has proposed to expand the mortality on cougars by 140% for unjustifiable reasons while at the same time proposing to foreclose the public regulatory process by limiting it to a four-year event. Most, if not all, other Western states deliberate cougar quotas annually. Therefore, we ask the Game Commission to reject the NMDGF's 2010 cougar proposal and order the agency to:

- 1) analyze tooth data *as the Commission has already decreed in 2006*;
- 2) estimate cougar populations for each zone and develop reliable maps of potential cougar densities or an index thereof as we have outlined here;
- 3) establish, enumerate, and justify management goals for each zone;
- 4) make the online hunter education program *mandatory* for all cougar hunters and guides;
- 5) move to a limited entry permit system in some hunting zones;
- 6) consider unreported kills as part of the sustainable limit; and
- 7) discontinue killing cougars to protect bighorn sheep.

Because the major source of mortality of cougars in the West comes from sport hunting and secondarily from livestock protection activities, the State must ensure that safeguards are in place to protect this low-density species. People greatly value having this magnificent golden cat in New Mexico.

The NMDGF had strived toward improved cougar management since 2006. This collaborative approach with our groups and on behalf of sound science and the will of the majority of New Mexicans needs to continue.

As such, we ask the Game Commission not to adopt the NMDGF's proposed 2010 cougar management recommendations and instead vote in favor of cougar conservation.

Sincerely yours,



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