

## LETTER ON BEHALF OF ECF ON MISSOURI DELISTING

Dear Mr. Smith,

We were surprised to learn that the Missouri Department of Conservation (MDC) has delisted mountain lions. We were concerned by the following statement, which appeared in a recent article in the Missouri Conservationist written by Dave Hamilton (2006):

“The Conservation Commission has determined that, based on considerations of human safety and risk to livestock, it is undesirable to have a breeding population of mountain lions in Missouri. Therefore, the Department of Conservation will not encourage the species to reestablish itself in the state.”

**Reasons for Allowing Re-establishment of Mountain Lion Population:** The Eastern Cougar Foundation is a 501(c)(3) non-profit, science-based, volunteer-run organization dedicated to recovery of the cougar (mountain lion) as the top predator in eastern North America. Our website is [www.easterncougar.org](http://www.easterncougar.org). We advocate cougar recovery in the East and Midwest for several reasons. Knowledge of the existence of large predators enhances the human outdoor experience and adds an element of wilderness to the landscape. In addition, such animals provide important ecological and evolutionary services, and they are likely important in reducing white-tailed deer densities in areas that may be damaging to human property and other enterprises. We feel that it is our obligation to co-exist with the full suite of native species including the large predators that evolved here. From a conservation perspective, the cougar is an umbrella species. If there is enough habitat and tolerance to insure its survival, the survival outlook for countless other species is enhanced.

When Europeans colonized North America, Missouri had two top predators—the gray wolf and the mountain lion. It is unlikely that wolves will be restored in the state, but cougars are coming back on their own. Large predators have different impacts on their prey than human hunters. They hunt all year round. They kill a higher percentage of young animals. They kill more females. They affect the spatial distribution of their prey. For example, cougars hunt at the edge of open areas where they have cover for stalking and can see prey clearly. Where cougars occur, deer probably tend to avoid the edges of open areas, and probably alter their behavior in other ways (Maehr et al. 2005).

**Are Missouri Cougars Recent Immigrants from the West?** We agree that by the state’s definition of “endangered”—that the species’ prospects for survival in the state are not good—mountain lions are not endangered. However, it is not clear if the few mountain lions that now occur in the state are recent immigrants from the West. Anderson (1983) noted that there were a large number of recent records in Arkansas and several in adjacent parts of Missouri and Oklahoma. (Two of Anderson’s maps are attached.) Sightings in and of themselves are not reliable, but confirmations since 1990 (Cougar Network 2006) indicate that there may have been a small population of cougars in Missouri prior to 1990. The late John Sealander believed that cougars occurred in Arkansas (Sealander and Heidt 1990), basing his opinion in part on the fact that three

cougars had been killed in that state--one in Polk County in 1948, another in Montgomery County in 1949, and another Ashley County in 1969.

When dates of confirmations from adjacent states are plotted (Cougar Network 2006), it appears that those from nearby parts of Iowa and Nebraska date from 2000 and afterward. There is only one confirmation from Kansas (2003) and that is immediately adjacent to Missouri and could have been a disperser from Missouri. The three confirmations from southern Missouri are earlier (1996 and 1998). Most of the confirmations from Arkansas are also prior to 2000.

The MDC states that no breeding population of mountain lion exists in Missouri. There seems to be no definitive definition of “breeding population” in conservation biology, but we presume that the MDC is referring to a population that is large enough that the cats set up territories and breed and that the offspring disperse. Only three breeding populations of mountain lions are known to occur east of the Rocky Mountains—in the Black Hills, in Texas, and in southern Florida. But cougars may be breeding in Missouri. One of the three confirmations since 1994 was an adult female, and another, captured by a remote camera in 2001, is described as a small sub-adult. Females usually don't disperse long distances, and the existence of that small sub-adult may indicate breeding has occurred.

Overall, however, whether or not the mountain lions that have been documented in Missouri since 1994 are descended from animals native to Missouri and Arkansas, are recent immigrants from the West, are former captives and their descendants, or are a combination of these three sources, they are still mountain lions, capable of fulfilling the ecological role of the species

**Tolerance Needed for Bears and Cougars:** We recognize that the MDC has the responsibility to consider the wishes of Missouri citizens. The MDC is tolerant and supportive of black bears, an omnivorous carnivore that is involved in more negative encounters with humans than cougars on an annual basis. A recent article on bears in Missouri (Low 2006) says that the current bear population in Missouri, estimated to be between 300 and 500, is at least in part derived from bears that were introduced into Arkansas.

This article ignores the fact that black bears prey on livestock, especially sheep and calves, and destroy bee hives and corn. The MDC recognizes these problems and has set up a website to help Missouri citizens deal with them (Missouri Department of Conservation 2006). As the MDC states, there has not been a single documented case of livestock depredation by cougars in Missouri.

The article goes on to mention that bears attracted by food and garbage are a potential threat to humans and gives suggestions on how people can avoid being injured. In fact, although more than 500 people were injured by black bears in conflicts over human food and garbage between 1960 and 1980, and much more rarely, by mothers defending cubs, most of these injuries were minor (Herrero 2002). What is little known is that black bears that consider humans as prey have probably killed at least twice as many people as

cougars. On February 24, 2006, Herrero told us: “During the 20th century we (Andrew Higgins, James Cardoza and myself) have found and verified records of 46 people having been killed by black bears in North America. Most of these incidents were predatory in nature and involved male bears. We are analyzing and intend to publish an analysis of these data in the Wildlife Society Bulletin.” Since then, there has been at least one more fatality due to a bear attack. Between 16 and 20 people have been killed by mountain lions in the U.S. and Canada since 1900. Because black bears are almost always much more abundant than cougars, people in Missouri are probably more likely to be killed by a predatory black bear than by a cougar.

It is clear that in the case of bears, the MDC is willing to go to the effort to educate people and to work with farmers who may suffer damage to crops and livestock. In contrast, with cougars, they simply accept the intolerance and misinformation held by certain segments of the public. We realize that people in eastern and midwestern states have an almost irrational fear of cougars that is not shared people in the West who are used to the idea of having them around (Park 2006).

**Recommendation—A Report on the Effects of Mountain Lion Re-establishment in Missouri:** Instead of simply stating that cougars should not be allowed to establish a breeding population in Missouri, the MDC should consider developing a report on the consequences of allowing a population to become established. What level of livestock depredation would be expected, and what steps could be taken to minimize that depredation? (In the West, cougar depredation is generally inconsequential in contrast to that caused by coyotes.)

What could the MDC do to educate people and get them to tolerate living with a few cougars, as most people are apparently willing to co-exist with bears? For example, California addresses concerns about mountain lions in its website, <http://www.dfg.ca.gov/news/issues/lion.html>, a “Mountain Lion News Room” that includes answers to Frequently Asked Question, a chart of verified attacks in California, depredation statistics, trends in reported encounters, and safety guidelines.

What would be the possible benefits of allowing a small breeding population to become established in Missouri? Would it be feasible to eventually allow sport hunting of this population? What would be the expected revenues generated by such a hunt? Most importantly, what benefits to biodiversity and the human experience would be obtained by allowing the cougar to recolonize Missouri? We believe that the benefits far outweigh the costs.

We urge the MDC and the Conservation Commission to maintain the current protection for mountain lions in Missouri, including the provision that a person who kills one to protect property or life must surrender the pelt to the MDC.

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