

The Bear Hunt Threatens Nevada's Black Bear Population: The Bear Hunt is Unjustified and Unsupported by Academic Studies and NDOW's Own Publications in Violation of NRS 501.105

Position Paper

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Abstract: There is no evidence that the Nevada black bear population is increasing, and NDOW has provided none. Academic research and NDOW publications dating back to 1990 all report that the black bear population is stable. The bear population is stable despite the fact that black bear habitat has been consistently degraded through human development, drought and fire, beginning around 1987. This habitat degradation has forced bears into the urban areas to find food, consisting of human garbage. This redistribution of bears into urban areas has created a dramatic increase in human/bear conflicts and complaints. Additionally, this redistribution of bears into urban areas has the effect of permanently depopulating the wildland bears. Therefore, inflicting a hunt on wildland bears further threatens the viability of their population, and has no effect on the nuisance bear problem. By threatening Nevada's black bear population with a bear hunt, under the already stressful habitat conditions that black bears currently endure is a violation and abdication of the duty to preserve and protect wildlife imposed on the Wildlife Commission by Nevada Revised Statute 501.105.

I. Introduction

The black bear research that has been conducted in Nevada, and to which Carl Lackey refers to justify the claim that the bear population is growing, and can therefore be hunted, consists of three academic studies. None of these three studies supports the claims that the Nevada bear population is growing.

The first two black bear studies were conducted by John Goodrich, one as a master's thesis from UNR, entitled "Ecology, Conservation and Management of Two Western Great Basin Black Bear Populations," published in 1990. A second study by Goodrich was published as Biological Bulletin No. 11 in 1993, entitled "Nevada Black Bears: Their Ecology, Management, and Conservation" (hereinafter referred to as "Goodrich") (available at NDOW offices). Mr. Goodrich concluded that the black bear habitat was being seriously degraded. He recommended programs to address the habitat degradation and the implementation of a bear-proof trash container program.

The third study was conducted for a dissertation submitted for a degree of Doctor of Philosophy in Ecology, Evolution, and Conservation Biology by UNR student Jon P. Beckman. His dissertation is entitled “Changing Dynamics of a Population of Black Bears (*Ursus americanus*) Causes and Consequences,” (UNR Dissertation, 2002) (hereinafter referred to as “Beckmann”) (see complete dissertation attached to email). This was a study on the characteristics of the urban bears found at Lake Tahoe, compared to bears in wildland areas. Carl Lackey assisted Dr. Beckmann in the data collection for this study. Dr. Beckmann concluded that the bear population at Lake Tahoe is not increasing, but that “anthropogenic sources of food have resulted in a large and rapid distributional shift of a population.”¹

Despite academic research conducted since at least 1990, which indicates that black bear habitat is being seriously degraded, and forcing black bears into urban areas to find food, the Wildlife Commission, and the Nevada Department of Wildlife, have done nothing to advocate for the protection of black bear habitat in Nevada. Instead, they have adopted regulations which further threaten Nevada’s black bear population by promulgating a black bear hunt in December 2010, providing absolutely no evidence to prove that bears are increasing in number, or that a hunt will benefit the bear population, placing further unnecessary stress on Nevada’s wildland bear population. This is in direct violation of their statutory duties to preserve and protect wildlife.

II. Nevada’s Black Bear Population Has Not Changed Since 1990

Jon Beckmann extrapolated data collected by John Goodrich and estimated that the bear population in 1990 was 150-290 bears.² Beckmann stated that his estimated bear population during his study in 2002 was 180 +/- 117.³ He stated that his 2002 population estimate of bears “differ[ed] little” from Goodrich’s estimate of “the same population a decade ago.”⁴ Carl Lackey also agreed that the bear population had been stable since 1900 in his bear publication, “Nevada’s Black Bear: Ecology & Conservation of a Charismatic Omnivore” (Biological Bulletin No. 15, Dec. 2004)(hereinafter referred to as “Lackey”)(available at NDOW offices).⁵ As late as 2009, Carl Lackey continued to report that the bear population was stable. “Nevada’s bear population appears to be at healthy and stable

¹ Beckamann at 19.

² *Id.* at 20.

³ *Id.*

⁴ *Id.*

⁵ Lackey at 17.

numbers, based on data collected from captured bears, from empirical data by NDOW biologists, harvest data collected by other states and acquiesced from sighting data in Nevada.”⁶ “Current [population] estimates remain within the range of past years, between 200-400 animals.”⁷ Lackey’s claim that the bear population was increasing at the December Wildlife Commission meeting is contrary to every NDOW publication he has authored, and contrary to the conclusions of the Beckmann dissertation research, in which he participated.

III. Black Bear Habitat is Being Seriously Degraded

The human population within the three counties along the eastern face of the Sierra-Nevada increased 26% from 1990-2000.⁸ As a result, black bear habitat has suffered, and continues to suffer, serious degradation due to human residential and recreational development. Goodrich writes that increased development and human activity are probably the major factors threatening the Sierra bear populations.⁹ He continues:

Urban expansion can affect bear populations in several ways, but habitat destruction and increased bear-human interactions are of principal concern. Since Nevada has very little bear habitat to begin with, development in the Sierra may seriously diminish Nevada’s bear populations.¹⁰

These [Nevada] populations are threatened by habitat destruction from timber harvest, grazing and urban expansion from areas such as Reno, the Lake Tahoe Basin, Carson City, Minden and Gardnerville. In addition, bear populations are subject to potential negative effects of increasing recreational activities in the Sierra, especially in and adjacent to the Lake Tahoe Basin.¹¹

Drought and fire also take a toll on bear habitat. Between 1986-1992, a drought occurred that was one of the worst on record in the

⁶ Carl Lackey, Annual Black Bear Report, Western Region, p. 4, 2009.

⁷ *Id.*

⁸ Beckmann at 8.

⁹ Goodrich at 28.

¹⁰ *Id.*

¹¹ *Id.* at 3.

Sierra-Nevada and in the state of Nevada.¹² Additionally, the fire of 2007 was especially destructive to bear habitat.

IV. Black Bears Are Redistributing Themselves into Urban Areas to Find Food

In response to this habitat degradation, bears are moving into urban areas in search of food. “[A]nthropogenic sources of food have resulted in a large and rapid distributional shift of the bear population.¹³ Beckmann notes that in the years 1990 and 1994, the number of complaints about bears to the Nevada Department of Wildlife was “virtually nonexistent.”¹⁴ NDOW publications similarly note that black bear complaints and bear/human conflicts were virtually unheard of until about 1987.¹⁵ However, since 1990, black bear complaints and human/bear conflicts have risen extensively.¹⁶

Beckmann states, “The sudden increase in bear complaints following the drought suggests that a lack of wildland foods may have been a catalyst for the shift to bear reliance on garbage.”¹⁷ “This notion is consistent with data from other populations of black bears from the eastern and northern U.S. where during drought years and food crop failures, such as blueberries in Minnesota, the number of complaints by citizens spike and the use of dumps by black bears increase.”¹⁸ “Similarly, in Nevada annual complaints about bears have increased by >1000% from 1990 to 2000.”¹⁹

V. Wildland Areas Are Being Permanently Depopulated of Wild Bears

Beckmann notes that this shift of bears to urban areas is accompanied by a *depopulation* of bears in wildland areas.²⁰ Beckmann observes that the increased prevalence of bears in urban areas has been viewed as a population increase per se by the California Department of Fish and Game, Nevada Department of Wildlife, and the public, without the recognition of the possibility that back-

¹² Beckmann at 19.

¹³ *Id.*

¹⁴ *Id.* at 20.

¹⁵ Lackey at 2-4.

¹⁶ *Id.* at 4.

¹⁷ Beckmann at 19.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.* at 26.

country areas have been partially or mostly depopulated.²¹ Beckmann argues that the evidence does not support a population increase.

Although the number of interactions involving bears and humans has been greatly amplified (e.g. a >1000% increase from 1990 to 2000), our estimates of total population size (180 +/- 117) differs little from the estimate of 150-290 in the same population a decade ago [extrapolated from Goodrich's (1990) density estimates to the total area of available habitat]. *The relatively similar estimates support the notion that the increase in complaints over the last decade is due to bear redistribution across the landscape and not due to an increase in the number of bears.* (emphasis added)²²

NDOW literature also explicitly states in its December 2004 publication that since bear population estimates are “relatively close to estimates 15 years ago,” increased bear densities in urban areas points to “a shift, or redistribution of the bear population and not a population increase.”²³ Lackey concludes that “[i]t is believed that all of these changes [in urban bear population] were brought about by a rapid redistribution of bears, from wild to urban areas, and that the drought that ended in 1992 was the catalyst for this redistribution.”²⁴

This redistribution is *permanent* because once bears move into urban areas, they do not move back to the wild. A case study for the Lake Tahoe area specifically, presented by Jon P. Beckmann and Carl W. Lackey (attached to this email), reports that:

Highly exaggerated levels of mortality in urban areas have led to the creation of sinks and bears are *unable to repopulate vacated wildland areas* following the shift to urban centers and food sources. (emphasis added)²⁵

Therefore, hunting wildland bears will only put further stress on an already threatened wildland bear population.

²¹ *Id.* at 62.

²² *Id.* at 63.

²³ Lackey at 16.

²⁴ *Id.*

²⁵ Jon P. Beckmann and Carl W. Lackey, “Case Study One: Depopulation of Wild Areas; Ecological and Behavioral Changes in Black Bears,” *Coexisting with Black Bears: Perspectives From Four Case Studies Across North America* (Wildlife Conservation Society, March 2008), p. 19.

**he Nuisance Bear Problem is a Result of Degraded Habitat
and Can Only Be Solved With Bear-Proof Trash Containers**

Goodrich explained the genesis and cause of the nuisance bear problem in Lake Tahoe:

Although black bears are present in Nevada, few Nevadans were aware of their presence and even fewer have such first hand acquaintance with Nevada bears. In 1987, this began to change for two reasons. First, the beginning of one of the worst droughts in Nevada's history caused food crop failures that forced hungry bears out of the woods and into towns in search of food. Bears began appearing in back yards, mostly the Lake Tahoe area, but also in Carson City, Reno, Verdi and even Fallon. Second, in July of 1987, the Nevada Department of Wildlife (NDOW) and the University of Nevada, Reno (UNR) began a highly publicized cooperative study of Nevada's black bears.²⁶

Recommendations by Goodrich, dating back to 1993, on the nuisance bear problem and the degradation of bear habitat were: (1) further development within bear habitat should be halted, and (2) greater efforts should be made to separate bears from human food sources, such as garbage.²⁷ He continued, "All residents, businesses and parks should be required to use bear proof garbage containers and laws should be passed prohibiting the feeding of bears."²⁸

Lackey agreed by stating that "[t]he only method that has been proven time and again to be successful is to prevent bears' access to human sources of food . . ."²⁹

VII. Hunting Bears Has No Effect on the Nuisance Bear Problem

Case studies (including one conducted at Lake Tahoe) comparing the effects to hunting bears to using bear-proof trash containers showed that requiring bear-proof trash containers was much more effective (See "Correlation of reduction in nuisance black bear

²⁶ Goodrich at 1.

²⁷ *Id.* at 28.

²⁸ *Id.*

²⁹ Lackey at 31.

complaints with implementation of (a) a hunt vs. (b) a non-violent program³⁰,” attached to this email). The results showed that hunting had no effect on nuisance bears. Two possible explanations were postulated:

One possible explanation might be related to where the hunting takes place vs. where the nuisance bears reside. Hunting is required to take place in the interior of a habitat, away from human population. However, nuisance bears reside on the periphery of a habitat, at the interface with the human population. Therefore, it’s possible that hunting kills the “good” bears, while the “bad” ears continue to thrive. Yet another possible explanation of why the effect of hunting is so small is related to the possible dominant factor of the quantity of garbage available to the bears. Perhaps the quantity of nuisance bears eating garbage is a function only of the quantity of garbage and not the quantity of bears. Hence, decreasing the bear population would have no effect on the number of nuisance bears.³¹

The results demonstrated that at every site in which the hunting approach was evaluated no effect in reducing the human complaints/conflicts was observed while at every site in which the non-violent program as evaluated, the non-violent approach was demonstrated to be markedly effective in reducing human complaints/conflicts.³²

VIII. Conclusion: The Bear Hunt Threatens Nevada’s Bear Population

Promulgating a bear hunt of wildland bears, where current bear habitat in Nevada is already seriously degraded, which is causing a redistribution of bears into urban areas to find food, along with the

³⁰ “Non-violent” defined as educating the public about bears’ propensity to eat garbage, bear-proofing trash containers, enforcing ordinances regarding garbage, etc. Edward A. Tavss, Ph.D., Correlation of reduction in nuisance black bear complaints with implementation of (a) a hunt vs. (b) a non-violent program (Rutgers University, Sept. 21, 2005), p. 2.

³¹ *Id.* at 5.

³² *Id.* at 6.

associated permanent depopulation of wildland bears, poses a serious threat to Nevada's bear population, which is contrary to the statutory duty to protect and preserve Nevada's wildlife imposed upon the Wildlife Commission by Nevada Revised Statute 501.105.