BY ELECTRONIC AND REGULAR MAIL

Submitted via comments@wildlife.nh.gov

Glenn Normandeau Executive Director N.H. Fish and Game Department 11 Hazen Drive Concord, NH 03301

Re: Bobcat Season Proposal

Dear Director Normandeau:

On behalf of the Animal Welfare Institute (AWI), Center for Biological Diversity (the Center), and Voices of Wildlife in New Hampshire (VOW), please accept the following comments on the above-referenced New Hampshire Fish and Game Department (NHFG or "department") proposed rule to establish a bobcat (*Lynx rufus*) season. The rule would allow the issuance of 50 bobcat permits and establish separate seasons for trapping and hunting. In addition, baiting and hounding would be allowed.

AWI, the Center, VOW, and our collective members and supporters who reside in New Hampshire urge you not to adopt the rule. This recommendation is based on legal, scientific, practical, and other considerations as summarized below and discussed in greater detail throughout the remainder of this letter.

Hunting and trapping of bobcats is not an appropriate or effective management strategy—nor is it supported by best available science—for a population that was almost extirpated from the state in 1989, has not sufficiently increased in size, and remains on Appendix II of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). The only justification that NHFG has used for to justify a bobcat hunting and trapping season is that the department believes that it has enough bobcats (reportedly upwards of 2300 in May/June and 1400 in October/November) to permit "sustainable" take. This action does not comply with the department's mandate to conserve wildlife, nor is it based on careful scientific study of the population over time to ensure that any recovery is complete or permanent.

The proposed rule will also, if adopted, further jeopardize the survival and recovery of the threatened Canada lynx (*Lynx canadensis*) because hunting increases chances for Canada lynx to be mistaken for bobcats, shot, and killed while trapping can cause the incidental capture, injury and possible mortality of lynx. The Endangered Species Act (ESA) requires that Canada lynx be afforded the highest level of protection. Allowing hunting and trapping of bobcats in lynx occupied habitat in New Hampshire would undermine such protections. Indeed, current trapping regulations—including specific rules for New Hampshire's lynx protection zone—even without the allowance of bobcat trapping in this area—are not strong enough to avoid take of Canada lynx. Furthermore, under the requirements of the ESA, the state of New Hampshire should have

already obtained an Incidental Take Permit (ITP) from the U.S. Fish and Wildlife Service (USFWS) to cover its current trapping seasons and regulations.

Ultimately, providing expanded opportunities for hunters and trappers to kill animals is not sufficient justification to adopt this rule considering the significant adverse impacts it could have on bobcat and lynx populations, their recovery and management, and animal suffering.

I. The Proposed Rule Is Not Based On Sound Science

NHFG has indicated that the proposal to open up the state to bobcat hunting and trapping is based on finding that the state now has approximately 1400 bobcats. However, the department's broad mandate is to conserve wildlife and wild places and base management decisions on good science. In fact, the department has failed to disclose how a bobcat hunting and trapping season is going to further wildlife conservation.

New Hampshire's bobcats were trapped to the brink of extinction until they were finally protected in 1989. In addition, the latest data on the status of bobcats in the state is based on a small number of studies involving a small number of collared bobcats, hunter and citizen sighting data, a habitat suitability model, bobcat-vehicle collision data, and massive extrapolation which renders any reported bobcat population estimates to be largely meaningless. Even with protections in place, researchers estimate that, because of severe winters and declining habitat and other anthropogenic and natural threats—including vehicle strikes—New Hampshire bobcats still face a myriad of threats. Initiating a bobcat trapping and hunting season which includes opportunities to use hounds and bait to kill bobcats could jeopardize this recovering, fragile species.

Under state law, the Executive Director must conduct investigations on wildlife species in order to develop information relating to population, distribution, habitat needs, limiting factors and other biological and ecological data to determine conservation measures necessary for their continued ability to sustain themselves successfully.² This requirement has not been adequately met (as discussed in more detail below). Beyond credible population and habitat studies, the department must also look at the role that bobcats play as an important keystone predator that keeps ecosystems and prey populations healthy and balanced in the state.

Based on what is available on the department's website (http://www.wildlife.state.nh.us/), it appears that the primary scientific basis for the proposed bobcat hunting and trapping season is based on three theses (i.e., Broman 2012, Reed 2013, and Mahard 2014).³ While such theses may have been subject to review by a panel of experts assembled by the student, they are not subject

¹ See New Hampshire Fish and Game website, available at http://www.wildlife.state.nh.us/funding/ (last accessed February 10, 2016).

² RSA 212-A:5.

³ See: Broman, D. 2012. A comparison of bobcat (*Lynx rufus*) habitat suitability models derived from radio telemetry and incidental observations. University of New Hampshire Masters of Science Degree in Natural Resources-Wildlife Ecology; Reed, G. 2013. Bobcats in New Hampshire: Understanding the relationships between habitat suitability, connectivity and abundance in a changing landscape. University of New Hampshire Masters of Science Degree in Natural Resources-Wildlife Ecology; Mahard, T. 2014. An evaluation of citizen sciences-based indices for monitoring the distribution and abundance of bobcats (*Lynx rufus*).

to the same level of rigorous peer review as studies published in the scientific literature. Notably, while each of these theses utilized telemetry data, bobcat sightings data, and the development of different types of habitat suitability models, none adequately considered all of the anthropogenic (i.e., human population density, development causing habitat fragmentation and habitat loss, road density and traffic volume) or natural limiting factors (i.e., snow depth, coyote density, prey availability) when attempting to develop estimates of the bobcat populations. In addition, though the theses were a product of bobcat telemetry studies conducted only in study sites in the southwestern and southeastern portions of the state, extrapolation was used to assess the suitability of habitat for bobcats throughout the state without sufficiently taking into consideration the full range of anthropogenic and natural limiting factors for bobcats.

Astonishingly, the bobcat population estimates noted in the theses were based on a mere 18 bobcats that were collared as part of these studies (11 in the southwestern study site and 7 in the southeastern study site). From those few bobcats--along with sighting data of questionable veracity--the development of habitat suitability models, an *assumption* of a 50:50 sex ratio, and the use of mortality rates for bobcat adults and kittens, the estimates of nearly 2300 bobcats immediately after the birth season in the spring and 1400 in the fall were calculated. Given the significant potential for variability in these measures, the assumptions made, and the potential for error in developing these estimates, the department should not be contemplating a bobcat hunting and trapping season until and unless is obtains far more data on which to base a credible estimate of bobcat population numbers and trend by undertaking relevant studies throughout all regions of the state.

While the theses all were flawed to one degree or another, they all generally concluded that the habitat in the northern section of New Hampshire and in the White Mountains was poor for bobcats and that, therefore, it was expected (largely due to snow depth) in those areas that bobcat numbers were lower there compared to the southwestern and southeastern portions of the state. Indeed, as disclosed by Reed (2013):

Observations on exclusive home-range size requirements, coupled with the scale integrated habitat suitability map enabled me to make predictions about the potential bobcat population for the state. These methods utilize a variety of assumptions and can be difficult to verify. Furthermore, this estimate is of the potential number of bobcats the state could support given the current habitat configuration, not an actual census of the population. Without determining if bobcats are present in territories estimated to be occupied, I cannot say for certain what the actual population is in New Hampshire.

In fact, the UNH biologist who oversaw the studies that the season is now based on described the current bobcat population estimate as "not very rigorous" and a product of a lot of assumptions because bobcats are very secretive and difficult to count.⁴ In addition, trappers in New Hampshire noted that, in order to "make an estimate more accurate, you need more data" than the state has currently collected.⁵ Even hunters themselves came out in opposition to the bobcat

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⁴ "Emotions Run High as Fish and Game Considers Bobcat Trapping," available at http://nhpr.org/post/emotions-run-high-fish-and-game-considers-bobcat-trapping (February 2, 2016).

season at the February 1st hearing, pointing out that the commission is "out of touch with what should be its broader constituency." There is no question that a majority of the public—from diverse backgrounds—made clear their strong opposition to the proposed bobcat season at both hearings.

II. The Proposal Places Threatened Canada Lynx in Jeopardy. The NHFG department is violating the Endangered Species Act (ESA)

NH Lynx Population

The Canada lynx, *Felix lynx Canadensis*, is listed as a threatened species under the ESA.⁷ Canada lynx are a medium sized cat. The lynx's large, furry paws exhibit a special adaptation, known as a "snowshoe effect" in that their paws spread out, increasing in surface area by 30%, so that the animal can travel quickly over deep snow. The lynx's elongated back legs are specially adapted for springing action, which is necessary for a predator that relies on stealth and ambush to catch their prey in a habitat characterized by deep snow. In addition, unlike the bobcat or other predators which consume a variety of different kinds of animals, the lynx is a "specialized carnivore" that depends heavily on one particular prey—the snowshoe hare. Lynx are therefore generally found in "open, mature conifer forests" containing downed logs because this is the habitat where snowshoe hare are generally found.⁸

The Requirements of the ESA

As a federally protected threatened species, the Endangered Species Act (ESA) requires that lynx be afforded the highest of priorities, their protection and recovery paramount for all with management responsibility, and their take prohibited unless allowed by the US Fish and Wildlife Service (USFWS) through, for example, an ITP. The protections afforded to species under the ESA are mandatory and not subject to agency (federal or state) discretion, concern about convenience or inconvenience to user groups, or to inherent biases in support of or opposition to hunting or trapping. The ESA prohibits the intentional or incidental "take" of a protected species. Take includes mortality but, as defined in the ESA, also includes any harm or harassment done to a protected species.

Despite an absolute obligation to comply with the ESA, the bobcat season proposal suggests that NHFG is more concerned with preserving and expanding recreational trapping and hunting opportunities within those wildlife management districts (WMDs) occupied by lynx than protecting lynx and lynx habitat. Moreover, despite having established a lynx protection zone in northern New Hampshire (WMUs A, B, C-1,C-2, D-1, D-2 east, E-1, E-2, E-3, and F), the department has not proposed any specific rules for the hunting or trapping of bobcat in this zone that would reduce or eliminate the potential take, including harassment, of lynx.

⁶ "Opponents of bobcat hunting season, and some supporters, crowd State House hearing, available at http://www.concordmonitor.com/news/localstate/20839712-95/opponents-of-bobcat-hunting-season-and-some-supporters-crowd-state-house-hearing (February 2, 2016).

⁷ 65 Fed. Reg. 16052 (March 24, 2000).

⁸ See Defenders of Wildlife v. Babbitt, 958 F.Supp. 670, 673 (D.D.C. 1997).

State Trapping Regulations Violate ESA

NHFG has an obligation to exclude the lynx protection zone from bobcat hunting and trapping and to seek an ITP, as required by the ESA, to cover the potential take of lynx as a result of any bobcat hunting or trapping. Furthermore, if the department intends to continue to permit trapping in the lynx protection zone, obtaining an ITP is also mandatory due to *existing* trapping activities permitted in the lynx protection zone given the potential for lynx to be incidentally trapped, injured, or even killed by trappers. It's refusal to seek an ITP based on current trapping regulations opens the state up to litigation, which will only be heightened by allowing bobcat hunting and trapping (and thus more take of Canada lynx). The only way to prevent take of lynx would be to ban *all* trapping and bobcat hunting in lynx protection areas. Under the ESA, this is the only option that will provide maximum protection to lynx.

The ESA prohibits trapping an endangered or threatened animal regardless of whether the trapping results in actual injury or death. Trapping that does result in the death of the animal violates the prohibition against "taking" [killing] a listed species. Trapping a listed species also violates the ESA's prohibition of "harassment" and "harm." NHFG is liable for this take as a third party directly enabling the take by trappers. Similarly, permitting the use of hounds to pursue bobcats in the lynx protection zone could result in the direct pursuit of lynx resulting in the illegal take through harassment of the animal even if the animal is not killed or does not die as a result of the stress associated with such pursuit.

Although New Hampshire does not know how many total Canada lynx occupy the state, biologists have confirmed the presence of a breeding population of the rare cats. In addition, just recently (in the fall of 2014), two lynx were reported as incidentally taken. Trapped animals, even if they appear unharmed and are able to be released, are both "trapped" and "captured" within the ESA's definition of take. Further, long-term damage—such as sloughing of a limb due to restriction of blood flow caused by a trap—can occur even though the animal may initially appear to be unharmed.

Overall, there is no indication that New Hampshire has tracked how many total lynx have been captured, injured, or killed in recent years, and the state admits that leghold traps lead to unregulated take of lynx. ¹¹ Furthermore, it is likely that lynx are taken in even higher numbers, as they are extremely susceptible to trapping, and where it is permitted, trapping is a significant source of mortality for the threatened animals. In addition, the USFWS estimates that a large percentage of trapped lynx are not even reported. ¹²

⁹ "Breeding populations of Canada lynx now in New Hampshire," available at http://www.nashuatelegraph.com/newsstatenewengland/942787-227/breeding-populations-of--canada-lynx-now.html (December 10, 2011).

¹⁰ New Hampshire Wildlife Action Plan, Appendix A Mammals-1, available at http://www.wildlife.state.nh.us/wildlife/documents/wap/appendixa-mammals.pdf (last accessed February 10, 2016).

¹¹ New Hampshire Wildlife Action Plan, Species Profile: Canada Lynx (*Lynx* Canadensis), available at http://www.wildlife.state.nh.us/nongame/documents/canada-lynx.pdf (last accessed February 10, 2016).

¹² In November 2012, FWS concluded that 75% of lynx trap events go unreported based on internal consultation between the FWS Maine Field Office and FWS Law Enforcement.

Proposed Bobcat Season Will Exacerbate Take of Canada Lynx

NHFG is now proposing to exacerbate the take of Canada lynx by opening up a hunting and trapping season on bobcats which are similar in appearance to lynx. This will undoubtedly increase unintentional take due to mistaken identity between the animals. In fact, the confusion that people experience in distinguishing bobcats and Canada lynx has already been reported. Consequently, the proposed bobcat season could have devastating impacts on the vulnerable lynx population, as it is inevitable that more lynx will be killed by hunters who mistake them for bobcats. Similarly, since trapping, depending on the type of traps used and how they are set, is highly non-selective, allowing bobcat trapping (or any type of trapping that could intentionally or unintentionally trap lynx), may result in additional take of lynx with the species identified only after the take has occurred.

In addition, NHFG simply has not gathered any data, disclosed potential impacts, evaluated likely risks, or discussed the impact of the proposal on Canada lynx or any other endangered and threatened species in the state that could be negatively impacted. Indeed, the lack of any mechanisms in place to collect data in the incidental take of Canada lynx is disconcerting, as it demonstrates a lack of concern by NHFG as to how hunting and trapping may be affecting these species and how it implements its conservation mandate to protect New Hampshire's wildlife resources. If anything, this attitude of non-concern is entirely antithetical to the public trust doctrine that underlies all wildlife management which entrusts the NHFG to properly and responsibly manage all wildlife in the state in consideration of the interests of the general public (both in New Hampshire and nationwide) and not just to placate the interests of hunters and trappers in the state.

Arguably, NHFG is also violating its own state endangered species law with this bobcat season proposal. Specifically, all state departments and agencies, to the extent possible, consistent with their authorities and responsibilities, are required to assist and cooperate with the Executive Director in the furtherance of the conservation of endangered or threatened species. NH State agencies must ensure that any actions authorized, funded, or carried out by them do not jeopardize the continued existence of such species. ¹⁴

Instead of developing strategies to protect the threatened lynx from incidental take--as required by the Endangered Species Act (ESA)--NHFG is increasing the risk of incidental take for lynx by proposing a hunting and trapping season of bobcats, which can be difficult to distinguish from lynx. This about face from the progress, albeit insufficient, that had been previously made to protect lynx from incidental take by trappers, represents a blatant violation of the ESA and should be rejected.

ITP Requirements

Under certain terms and conditions, the taking of a threatened or endangered species that is incidental to the purpose of otherwise lawful activity may be allowed.¹⁵ To escape liability under

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¹³ "Something Wild: What's Behind the Bobcat's New Hampshire Comeback?" available at http://nhpr.org/post/something-wild-whats-behind-bobcats-new-hampshire-comeback (January 29, 2016). ¹⁴ RSA 212-A:9.

¹⁵ 16 U.S.C. § 1539 (a)(1)(B).

the ESA, however, the "person" must have received an ITP from the USFWS. ¹⁶ In order to receive an ITP, the applicant must submit a habitat conservation plan that specifies:

- (i) The impact which will likely result from such taking;
- (ii) What steps the applicant will take to minimize and mitigate such impacts, and the funding that will be available to implement such steps;
- (iii) What alternative actions to such taking the applicant considered and the reasons why such alternatives are not being utilized; and
- (iv) Such other measures that the Secretary may require as being necessary or appropriate for purposes of the plan.¹⁷

Specifically, to qualify for the ITP, the USFWS must determine that the applicant has satisfied the general permitting criteria in 50 CFR Part 13 and that:

- a) The taking will be incidental;
- b) The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such takings;
- c) The applicant will ensure that adequate funding for the conservation plan and procedures to deal with unforeseen circumstances will be provided;
- d) The taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild;
- e) The measures, if any, required under paragraph (b)(1)(iii)(D) of this section will be met; and
- f) He or she has received such other assurances as he or she may require that the plan will be implemented. 18

Those attempting to obtain an ITP are not allowed to select which of these standards they choose to comply with but, rather, they must comply with all of them. And, in addition, by proposing a bobcat hunting and trapping season, the NHFG is proposing to increase threats to lynx in clear violation of the ESA and the standards that must be met to obtain an ITP.

III. Many of New Hampshire's Current Trapping Methods Are Cruel & the Proposed Rule Is a Safety Hazard and Proposes Unsporting Methods of Take

The principal types of traps currently permitted to be used in NH are conibear traps, steel-jaw leghold traps, and strangulation neck snares. Conibear traps are lethal, body-gripping traps designed to crush the neck of the animal, although these traps can also catch lynx and other species by their paws. Steel-jaw leghold traps close with force on an animal's paw, holding the animal until the animal can be released or killed. Steel-jaw leghold traps often injure animals by the force of the jaws when they close and then continue to clamp the animal's limb and as animals struggle to escape. Such traps can also result in the death of captured animals due to the severity of the injury, stress, predation, or exposure to the elements. Lynx, like all cats, respond

¹⁶ 16 U.S.C. § 1536 (b)(4), (o)(2).

¹⁷ 16 U.S.C. § 1539 (a)(2)(A);

¹⁸ See ESA Section 10(a)(2)(A).

to neck snares by struggling as the snare nose tightens around their necks, increasing their chance of harm and mortality.

Bobcats caught in steel-jaw leghold traps are often left to languish in pain and distress for hours and in freezing temperatures. Research shows that these traps can tear flesh, cut tendons and ligaments, cause tissue swelling and damage, and break bones and teeth as animals struggle to free themselves. The animals' feet below the jaws of the trap can freeze and/or ultimately become gangrenous because of lack of circulation. Some animals even chew off a limb caught in the trap in an effort to escape.

In addition, the proposed rule also allows for hound hunting and baiting, which is likely to cause intense suffering and is also dangerous for both the dogs and bobcats, sometimes resulting in severe injuries to one or both species. Hunting dogs tend to chase bobcats until they are exhausted. If they are caught on the ground, they are usually mauled as a bobcat tries to defend itself. It can be particularly dangerous when females with kittens are involved (e.g., brawls between cougars and dogs have resulted in serious injuries to both and especially mortalities to kittens). Hounds also often trespass onto lands where they are not permitted, including onto private property. In addition, hounds can pursuit non-target species including ungulates, domestic cats, other wildlife, and, of particular concern, lynx. Such pursuit result in increased stress in wildlife (which is particularly damaging if the animal is already stressed from winter conditions), adverse physiological impacts, increase the susceptibility of the animals to predation or disease, and even death.

The proposal rule will also allow those seeking to kill a bobcat to use bait. Placing chunks of meat and other foods to lure a bobcat in is simply unsporting. The department has failed to specify whether the proposal to allow bobcats to be baited is for the purpose of facilitating the hunting or trapping of the species, explained what type of bait or baits are permissible for use with bobcats, or disclosed whether any lures (e.g., scents) can be used to attract and kill bobcat. That information is crucial if the public is to fully understand the scope and potential impact of the proposed rule. It also has failed to articulate, consider, evaluate, or discuss the potential adverse impact of baiting on bobcat and other species. Such adverse impacts include the potential for increased intra and inter-specific disease transmission, altering bobcat habitat use and movement patterns, increasing intra-specific aggression among bobcats, or increasing bobcat acclimation to humans potentially increasing human-bobcat conflicts.

IV. Bobcats Provide Important Ecological Benefits

NHFG has also failed to consider the positive impact and role that bobcats play in an ecosystem as part of its rule-making process; a significant oversight. As evidenced in the scientific literature, bobcats play an important ecological role in controlling rodent populations and cleaning ecosystems of carrion. Their presence has been shown to reduce the presence of some animals humans dislike, including rodents (e.g. rats, mice, voles, gophers, groundhogs, nutria, muskrat), while increasing the presence of other animals perceived to be valuable, such as

¹⁹ L. M. Elbroch et al., "Trailing Hounds Vs Foot Snares: Comparing Injuries to Pumas Puma Concolor Captured in Chilean Patagonia," *Wildlife Biology* 19, no. 2 (2013). Cougar Management Guidelines, *Cougar Management Guidelines* (Bainbridge Island, WA: WildFutures, 2005).

songbirds and some types of waterfowl. Overall, bobcats play an important role as a keystone predator in keeping ecosystems and prey healthy and balanced.

V. Conclusion

Since 1989, careful management and conservation have helped bring New Hampshire's bobcats back from the brink. But sadly, all that recovery could be undone by the proposed rule. These practices would serve as yet another threat to bobcats already at risk from car collisions, habitat loss and poaching. *And it would put endangered Canada lynx at risk of being misidentified and shot* by bobcat hunters, or ensnared and potentially killed by cruel, indiscriminate traps.

NHFG has a duty to ensure wildlife management is science-based and transparent, and to consider the interests of all of the state's citizens when making wildlife management decisions. This involves seeking broader input into studies and other documents prepared to inform management. While the science and the law provide compelling evidence to justify the immediate termination of the proposed rule, at a minimum, NHFG must also suspend consideration of the proposed rule pending reanalysis of its impacts to bobcats and lynx which must include an assessment of the positive values of bobcats ecologically, biologically, culturally, and aesthetically.

NHFG has been and is already violating section 9 of the ESA by authorizing and allowing trapping activities that "take" threatened Canada lynx. For the detailed reasons articulated above, it is imperative that the proposed bobcat season be rejected and that NHFG, instead, enter into a rulemaking banning all trapping in lynx protection zones. The proposed rule creates a clear management conflict for Canada lynx and could jeopardize their survival and recovery in violation of federal law. Considering that distinguishing between a bobcat and a lynx is very difficult, this proposal could have devastating impacts on the vulnerable lynx population. If the rule is adopted, it is inevitable that many more lynx will be killed by hunters who mistake them for bobcats, which could trigger litigation at the state and federal levels to protect the lynx, resulting in unknown but potentially significant impacts on other trapping/hunting activities in New Hampshire.

Thank you in advance for providing this opportunity to comment on the proposal and for considering these comments. Please send any future correspondence or information about the proposal and/or bobcat hunting and trapping in NH to: Tara Zuardo, Wildlife Attorney, Animal Welfare Institute, 900 Pennsylvania Ave., SE, Washington, DC 20003.

Sincerely,

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