

March 27, 2023

Mr. Scott Mason, Executive Director New Hampshire Fish and Game Department 11 Hazen Drive Concord New Hampshire 03301

Re: Rulemaking petition to close the season regarding the taking of coyotes by firearms, crossbow or bow and arrow from April 1 – August 31

Dear Director Mason,

Enclosed is a rulemaking petition that we submit under the guidance of the New Hampshire Code of Administrative Rules Chapter FIS 214.01. This petition relates to New Hampshire Fish and Game's rulemaking authority for furbearing animals covered in Chapter FIS 300, Part 303.

This petition requests that Fis 303.06(a) be changed to reflect a closed season from April 1st to August 31st for taking coyotes either by firearms, cross bow or bow and arrow.

With these changes, Fis 303.06(a) will now read: "Coyote may be taken by use of firearm, crossbow or bow and arrow from September 1 to March 31 ½ hour before sunrise to ½ hour after sunset."

The following pages provide the rationale for this request to change Chapter Fis 300 Part 303.

Respectfully submitted,

Christine Schadler, M.S. for New Hampshire Wildlife Coalition

Rulemaking Petition to Scott Mason, New Hampshire Fish and Game Executive Director

Submitted on March 27, 2023, by:

Christine Schadler, M.S. 598 Tyler Rd. Webster, NH 03303 603. 833.0423

Representing: The New Hampshire Wildlife Coalition 598 Tyler Rd. Webster, NH 03303 603. 833.0423

We petition the NH Fish and Game Department (NHFG) to Amend Fis 303.06 by changing paragraph (a) to read:

"(a) Coyote may be taken by use of firearm, crossbow or bow and arrow from September 1 to March 31 ½ hour before sunrise to ½ hour after sunset."

Reasons in support of implementing this change:

1) All New Hampshire wildlife, including furbearers, are public trust resources and should be managed in accordance with the principles put forth in the North American Model of Wildlife Conservation which has been endorsed by both the New Hampshire Fish and Game Department and the Association of Fish and Wildlife Agencies¹.

The North American Model of Wildlife Conservation (2020) advises wildlife managers to Implement and enforce the seven principles of the North American Model of Wildlife Conservation, three of which are:

Principle 1: Wildlife resources are conserved and held in trust for all citizens.

Wildlife is a shared public trust. It is NHFG's duty to manage every species <u>without bias</u>, on behalf of all citizens. We ask here for a hunting reprieve of five months so coyotes can have at least some time to begin the process of raising their young. This request should align with basic norms of decency and provide the same respect and conservation motives that other furbearers (i.e., red and gray foxes) and other game species receive.

<u>Principle 4: Wildlife may only be killed for a legitimate, non-frivolous purpose.</u>

Wildlife is a shared resource that <u>must not be wasted</u>. The Model discourages killing wildlife for frivolous reasons. If wildlife should be taken only for a legitimate purpose, what is the legitimacy in allowing constant hunting pressure, even to the point of endangering the young of this species? This

¹ The Association_of Fish & Wildlife Agencies represents North America's fish and wildlife agencies to advance sound, science-based management and conservation of fish and wildlife and their habitats in the public interest.

is species bias. Coyotes are not killed for food or typically for their fur or protection of property. Killing for recreation, target practice or personal hatred of a species is not legitimate.

Principle 7 Scientific management is the proper means for wildlife conservation.

To manage wildlife as a shared resource fairly, objectively, and knowledgeably, decisions must be based on <u>sound science</u>. <u>Science</u> has never defended an open season or a hunt during an animal's denning season, particularly with a self-regulating predator that has a sophisticated social structure. A year-round open season on coyotes is unjustifiable. Past rationale for an open season has relied on this species' adaptability and reproductive potential. They have been 'managed' as an unlimited resource which overlooks individuals (like pups) in favor of the total population.

- 2) Management of New Hampshire's coyote populations reflects a contradictory and arbitrary public policy. All other wildlife species managed by NHFG have a closed season during denning period. What is NHFG rationale for singling out the coyote as a species that can be shot when they should be raising and training their young.
- 3) In New Hampshire coyotes occupy an important ecological niche as a top predator. The eastern coyote has adapted to our highly- fragmented and increasingly urbanized landscape across the northeast. Their ability to thrive in a human-dominated environment provides numerous services for us and New Hampshire's ecosystems most importantly their predation on rodents, some of which spread epizootic diseases, including Lyme disease, anaplasmosis and Babesia. Recently the tick-borne Powassan virus was identified in New Hampshire which has no curable treatment with one out of ten cases being fatal to humans. (Anthes 2023).

In addition, the growing deer population threatens the health and ecological stability of our forest ecosystems. While coyotes rely on rodents for 60+% of their diet, they can take deer of all ages. Further, coyotes help to control red and gray fox, opossums and skunks which have a negative impact on ground nesting birds and waterfowl, and raccoons which are a reservoir for rabies in New Hampshire and the northeast. (CDC 2018).

- 4) Coyotes do not negatively impact the deer herd. While coyotes do prey on deer, they do not affect the health of the deer population. An early misperception that coyotes could negatively impact the deer herd has never been realized. In fact, according to a recent study of 6 eastern states, Bragina, et al. (2019) found that "Overall, deer populations in all states experienced positive population growth following coyote arrival. Recent data from NHFG confirm these results as well. In fact, coyotes affect the deer herd in a positive manner since predation preferentially targets the old and the weak.
- 5) Killing coyotes has never resulted in sustainable population reduction. The rationale previously used to justify a year-round open season, regardless of harm to pups, is that the coyote population can tolerate an open season without harming their population. This is an extremely low bar for wildlife management and not reflective of either modern wildlife management or sound science.

A year-round open season on coyotes not only has never diminished their population size but has led to an increase in their numbers as evidenced by the work of Hody, et al. (2018) The almost exponential spread of the coyote across America and south through central America has occurred despite, and perhaps, in response to, constant hunting pressure.

Coyotes respond to *decreases* in their numbers by *increasing* their reproductive output. This has been scientifically evaluated and well understood. According to Crabtree (2015), an expert in predator ecology and the scientist who founded the Yellowstone Institute:

"Some advocates believe that killing coyotes is important for preventing coyote populations from growing out of control. This concern is unjustified. Science demonstrates that unexploited coyote populations self-regulate their numbers by means of dominant individuals defending non-overlapping territories and suppressing subordinate pack members from breeding."

Instead, recognizing coyotes as a valuable predator and managing the species using sound science, can result in fewer coyotes overall and a stable population.

- 6) The New Hampshire Wildlife Coalition believes current NHFG management policies concerning the eastern coyote ignore the critically important social interactions which limit their population growth. Their social relationships, based on a hierarchical family unit, with one breeding pair and young, as well the fact that they defend the family unit's territory to prevent outside coyotes to enter their territory to breed, work together to restrict the number of coyotes in each area. Killing members of the family unit, especially the alpha male and female, allows outsiders to enter the territory and breed with all pack members, thus adversely affecting the stability of the pack and leading to sudden bursts in the coyote population (Way et al. 2009.)
- 7) Coyotes evolved a social structure the aim of which is pack stability, not population growth.

The young born March – June, depend totally on their family for protection and on their mother for food. She depends on her mate and yearlings for her food. When weaned, the young are moved to safety within their territory where the adults "teach" them what foods to eat. (May – August). This critical period determines in large part whether the young learn to identify and prefer natural prey. We know from western studies that young coyotes lacking parental guidance often become nuisances to ranchers and farmers. Here in New Hampshire, young coyotes learning to take rodents and scavenge become useful predators. *This early education is the foundation of their ability to coexist with humans*.

8) Ethical considerations must enter furbearer management policymaking. We can shoot these creatures, but should we? Should ethical considerations not factor into your decision-making regarding how and when coyotes, or any species, are killed? (Bruskotter 2015)

To make matters worse, coyote hunting is now a recreational sport rather than a well-considered management policy. The electronic calls, shooting rests and thermal scopes found in sporting goods stores are testimony to those "varmint hunters" who shoot just to kill a wild animal with no thought its ecological value or to using it for food pelts or protecting livestock. To kill, without use, results in wanton waste. To shoot just to kill because there is no guidance from NHFG otherwise, is to 'educate' hunters that this behavior is allowable. Surely a respite from that pressure for part of the year is not contradictory to sound wildlife management.

Constant hunting pressure on this species, particularly during their pup raising season, is perceived by the rational public as unethical and outright cruel. This perception undermines the public view of ethical hunters as well as well as the overall image of New Hampshire Fish and Game.

....and so, we ask that New Hampshire Fish and Game implement this reasonable five month closure to the coyote season.

Thank you for considering this petition,

The New Hampshire Wildlife Coalition Steering Committee

Christine Schadler, M.S. Conservation Biology
Weldon Bosworth, Ph.D.
Rick Van der Poll, Ph.D.
Meade Cadot, Ph.D.
Geoff Jones, Professional Forester
Kathie Fife, Wildlife Biologist, Member, Steering Committee NHWC

Citations

Anthes, E., 2023. Spread of Lyme and Babesiosis in the Northeast https://www.nytimes.com/2023/03/16/health/babesiosis-tick-disease-northeast.html

Bragina, E. V., Kays, R., Hody, A., Moorman, C. E., Deperno, C. S., & Mills, L. S. (2019). Effects on white-tailed deer following eastern coyote colonization. The Journal of Wildlife Management, 83(4), 916-924.

Bruskotter, J. T., Nelson, M. P., & Vucetich, J. A. (2015). Hunted predators: intrinsic value. Science, 349(6254), 1294-1295.

CDC. (2018) Rabies Surveillance https://www.cdc.gov/rabies/

Crabtree, R. (2015). Open Letter to Wildlife Services. Yellowstone Institute (COULD NOT FIND)

Hody, J. W., & Kays, R. (2018). Mapping the expansion of coyotes (Canis latrans) across North and Central America. ZooKeys, (759), 81.

North American Model of Wildlife Conservation. 2020. Theodore Roosevelt Conservation Partnership. https://www.trcp.org/2020/01/10/north-american-model-explained/

Way, J. G., Timm, B. C., & Strauss, E. G. (2009). Coywolf, Canis latrans× lycaon, pack density doubles following the death of a resident territorial male. The Canadian Field-Naturalist, 123(3), 199-205.

Other literature pertaining to coyote management but not cited.

Gompper, ME (2002a) The ecology of northeast coyotes: current knowledge and priorities for future research. WCS Working Paper No. 17, July 2002.

Gompper, ME (2002b) Top carnivores in the suburbs? Ecological and conservation issues raised by colonization of north-eastern North America by coyotes. BioScience, 52, 185-190.

Jackman, J.L, and J.G. Way (2018) Once I found out: awareness of an attitudes toward coyote hunting policies in Massachusetts. Human Dimensions of Wildlife, 23, 187-195.

Knowlton, FF, EM Gese, and MM Jaeger (1999) Coyote depredation control: an interface between biology and management. Journal of Range Management, 52, 398-412.

Slagle, K, JT Bruskotter, A.S. Singh, and R.H. Schmidt (2017) Attitudes toward predator control in the United States: 1995 and 2014. Journal of Mammalogy, 98, 7-16.

U.S. Fish and Wildlife Service (2014) Wildlife watching in the U.S.: the economic impacts on national and state economies in 2011.

https://nri.tamu.edu/blog/2018/june/spotlight-on-quail-predators-coyotes-and-the-mesopredator-release-hypothesis/

Sovada, M. A., Sargeant, A. B., & Grier, J. W. (1995). Differential effects of coyotes and red foxes on duck nest success. *The Journal of wildlife management*, 1-9.