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Esteemed Members of the Committee:

Thank you for this opportunity to share with you and with other fellow Vermonters our testimony.

Our homestead, a vegetable farm, and a small fruit- and berry orchard are located on 60-mostly-wooded-acres in central Vermont, not too far from the Roxbury State Forest. Our woods house a recognized deer nesting area, and are rich in all manner of wildlife. We are avid bird- and wildlife watchers, and follow conservation issues in our state carefully and diligently. We boast five university degrees between us in various fields, including one in Zoology. We have been fortunate to regularly observe coyotes in the wild, and have also observed other more elusive animals like fisher and bobcats in their natural surroundings. Following are some observations and thoughts that we have garnered over the years through our study of animal biology, years' long observations in the wild and on our farm, and through regular perusal of current scientific publications, and we would like to share them with the Committee.

### Coyotes and Farming in Vermont

It has been our experience, year after year, that coyotes have kept rodent populations low, and have played a key role in indirectly protecting our young plantings as we have over the years tried to establish a young orchard, several berry patches, and many vegetable beds. Damage by rodents to young trees, saplings, and over-wintered bulbs has been kept to a minimum in great part due to a healthy coyote pack, whose range includes our woods. We have routinely observed coyotes hunting rodents in our meadows, and we are grateful for this extremely valuable and beneficial service they provide. The only year that we suffered extensive damage to our root crops was when we isolated a certain area using plastic mulch, and thereby inadvertently made them inaccessible to coyotes. Our observations are in line with recently published scientific date. Dr. Paquet at the University of Calgary stated in 2016: "We kill approximately 500,000 coyotes every year (worldwide). Considering that one coyote eats at

least five rodents per day that could amount to an additional 9 billion rodents per year." Similarly, the Concord Monitor published in 2017: "A single coyote could kill 10,000 white-footed mice a year, which would go a long way toward limiting the spread of Lyme disease. Coyotes can be a major player in rat control around small towns, farms and cities. So let that coyote in a meadow, deep in focus, all nose, eyes and ears on its prey, go about its livelihood and its role in wild nature."

## Free-ranging Poultry on our Farm

Our small farm is also home to ducks and hens who free range in our fields and meadows. Never once has any coyote shown interest in approaching our birds, or their runs and coops, and we have never lost a bird (or any other companion animal) to a coyote. Seasoned farmers and hunters in conversations with us have routinely characterized coyotes variously as chicken- cat- or dog-killers echoing, unfortunately, prejudice toward and vilification of an animal that have less to do with knowledge, science and facts, and more to do with an inexplicable hate and disdain with which coyotes continue to be treated in lore and urban myth. As farmers, if we were to bestow a moniker on this noble animal it would accurately be friend-to-the-farmer, rodent-killer, and native-seeds-disperser - all services the coyote renders in return for being left alone.

# **Humans and Coyotes**

Wild animals are born with an innate wariness of human beings and human activity. The coyote is no exception. In addition, a social animal like the coyote who has a remarkably cohesive pack structure also communicates any learned behavior to the rest of the pack and its young. As has been mentioned in other reports and testimonies to the Committee, if coyotes are seen to frequent human dwellings or neighborhoods, hazing is the most effective set of methods to reinforce the coyote's natural wariness and fear of humans. Commissioner Porter's position that has often been relayed publicly by him or by his surrogates at VT Fish and Wildlife is unfortunately flawed and scientifically incorrect. He insists that killing coyotes is essential to keep them fearful of humans. A dead animal, though, does not communicate any lesson to its pack. The most effective method to reinforce a coyote's innate wariness of humans includes never ever feeding them, directly or inadvertently (by leaving pet food outside, for example), and hazing them if they show any interest in human activity. Time and again, investigations studies and reports have shown that aggression by coyotes towards humans has invariably been the result of human behavior, including feeding coyotes. Whether it was the University of California Wildife Extension Specialist's conclusion of a study of 2 decades of human-coyote

encounters, or various investigations by various Fish and Wildlife departments (Washington 2006, for example), human behavior has been the reason for any display of aggression by coyotes towards humans.

### Rampant Misinformation

It has been our unfortunate observation that even seasoned hunters, farmers, outdoors enthusiasts, and some of our entertainment industry are ill-informed about coyotes or actually spread misinformation to perpetuate the urban myth of the coyote as a malevolent predator that actively seeks out humans and their companion animals. This prejudice is extended within the hunting community to also vilify coyotes as direct competition for prey species sought by humans. The coyote is invariably blamed for the lack of deer, grouse, turkeys, hare, etc. One has to only browse social media posts to recognize how pervasive this prejudice, misinformation, and resulting disdain towards coyotes is. Fueled by hatred and ignorance, the rallying cry always devolves into a kill-'em-all mentality. It has been long established that killing coyotes is NOT an effective or cogent strategy to manage coyote numbers. Our state's Fish and Wildlife Department itself states the following: "Coyotes are density dependent breeders. As the number of coyotes in an area decreases their reproductive rates increase. Coyote control efforts are therefore often unsuccessful because they tend to stimulate reproduction." It defies conventional hunter logic but it is a well-established fact that:

- a. Killing coyotes actually leads to an increase in their number, and is thus not an effective management strategy, and
- b. Killing coyotes does not lead to reinforcement of their natural wariness towards and fear of humans because a dead coyote learns no lesson and cannot communicate to its pack and young the supposed lesson it learnt by being killed by a human. Hazing is the only effective strategy to reinforce fear of humans in coyotes. Similarly, the best strategy to manage coyote numbers is to simply leave the coyotes alone.

There is a dire need, we strongly feel, to disseminate accurate scientific information about the coyotes, and to educate the public at large and the hunting community specifically. The VT Fish and Wildlife Department could render a vastly valuable service to all Vermonters if the Department were to choose to take on this task. They have both the means and the authority to do so.

## Coexisting with Coyotes

To kill coyotes simply for the thrill when more often than not carcasses of coyotes killed serve no purpose other than to brag on social media, but are otherwise left to rot in the woods providing neither food nor any other resource, is sheer wanton waste, and stands in complete contrast to the proud Vermont tradition of respecting our natural resources, our woods, and our wildlife. Both the hunting community in Vermont and all Vermonters in general should, and do, regard this as an ethical issue:

- a. Why do we kill an animal that provides neither food nor any other resource?
- b. Why do we subject an entire species to such disdain and hatred, that the only goal is to exterminate it?
- c. How can we justify coyote killing contests, knowing fully well that killing coyotes will not reduce their numbers, will not enlarge the deer herd, and will not keep the coyote fearful of humans?
- d. How can we justify killing coyotes, knowing fully well that they are particularly beneficial to farmers in helping keep rodent- and small mammal numbers in check, that would otherwise cause considerable damage to farmers' produce?
- e. How can we justify killing an animal that keeps deer mice and white-footed mice numbers in check thereby acting as a solid line of defense against Lyme- and other tick-borne diseases?
- f. Why do we vilify and persecute an entire species that is actually useful to us?
- g. Why do we hold such prejudice and bias against an animal that is a keystone predator that keeps mesocarnivore numbers in check, and thereby helps maintain biologically diverse and healthy ecosystems?

Coexisting with coyotes is simple and to our continued benefit. Here are some things to consider in conclusion:

- If one were to calculate, statistically, the threat posed to humans by coyotes it would rate below the danger posed by cows, by deer, or by lightning. Coyotes are statistically harmless to humans, and as mentioned above, are actually beneficial to us in a variety of contexts.
- 2. Basic commonsense animal husbandry precautions can eliminate livestock depredations of all opportunistic predators.
- 3. It is in our benefit to have stable coyote packs. Stable coyote packs have modest birth rates. Killing pack members disrupts the pack and leads to higher birth rates as more of the remaining pack members breed, and do so more often. The best management practice, and this cannot be highlighted often enough, is to leave coyotes alone.
- 4. Hazing, not killing, reinforces the coyotes' innate fear of humans.
- 5. Coyotes are essential to the health and diversity of our ecosystems.