

# Wildlife management professionals and hunting groups on wildlife killing contests and predator control

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## Statements on wildlife killing contests

Arizona Game & Fish Commission: "Extensive public controversy exists about predator/fur-bearing contests that award prizes to participants who kill the largest number or variety of predator/fur-bearing animals or the contest is based on the combined weight of animals a participant kills. To the extent these contests reflect on the overall hunting community, public outrage with these events has the potential to threaten hunting as a legitimate wildlife management function."

Jim Zieler, hunter and chair of the Arizona Game & Fish Commission: "There has been a lot of social outcry against this, and you can kind of understand why. It's difficult to stand up and defend a practice like this. It's just not enough to say, 'Science will tell us it doesn't have a significant impact on the predator population."<sup>2</sup>

Michael Sutton, hunter and former president of <u>California Fish and Game Commission</u>: "Awarding prizes for wildlife killing contests is both unethical and inconsistent with our current understanding of natural systems. Such contests are an anachronism and have no place in modern wildlife management."<sup>3</sup>

Colorado Parks & Wildlife: "Hunting contest for these species are not necessary to provide an adequate, flexible and coordinated statewide system of wildlife management, or to maintain adequate and proper populations of wildlife species, nor are hunting contest for these species necessary to protect, preserve,

<sup>&</sup>lt;sup>1</sup> The Arizona Game and Fish Commission: Notice of Proposed Rulemaking, Title 12. Natural Resources Chapter 4. https://s3.amazonaws.com/azgfd-portal-wordpress/azgfd.wp/wp-content/uploads/2019/03/25093742/R12-4-303-NPRM.pdf <sup>2</sup> "Coyote-killing contests face growing outrage, state bans," Washington Post, May 17, 2019,

https://www.washingtonpost.com/science/2019/05/17/predator-hunting-contests-face-bans-amid-backlash-several-states/

Ted Williams, "Coyote Carnage: The Gruesome Truth about Wildlife Killing Contests," Yale Environment 360, May 22, 2018 https://e360.yale.edu/features/coyote-carnage-the-gruesome-truth-about-wildlife-killing-contests

enhance and manage wildlife for the use, benefit, or enjoyment of the state or its visitors. So for those reasons staff is proposing this recommendation."

Dan Gibbs, hunter and executive director of Colorado Department of Natural Resources: "For me, hunting contests don't sit well. As a sportsman I'd never participate in one personally. Hunting is an important reverent tradition in Colorado and powerful management tool but I also think wildlife killing contests give sportsmen and sportswomen a bad name and damage our reputation."<sup>5</sup>

Idaho Fish and Game: "Fish and Game does not support contests or bounties on predators, that portray hunting in an unethical light, devalue the predator and may be offensive to the public."

Ted Chu, hunter and former wildlife manager with <u>Idaho Fish and Game</u>: "Hunting is not a contest and it should never be a competitive activity about who can kill the most or the biggest animals."

Eric Nuse, former executive director of the <u>International Hunter Education Association</u>: "We don't like anything that smacks of commercialization with money or prizes. Anything that doesn't honor the animals grates on us and seems inherently wrong. These contests create very poor PR for hunters."

Head of Information and Education Marion Larson, <u>Massachusetts Division of Fisheries & Wildlife</u>: "The contest is being offered by a private business, it has nothing to do with managing wildlife...! do want to make it clear, coyote contests are not a management tool by any stretch of the imagination."

Massachusetts Division of Fisheries & Wildlife (MassWildlife): "Further, recognizing that public controversy over this issue has the potential to threaten predator hunting and undermine public support for hunting in general, MassWildlife recommended the following regulatory changes: Prohibit hunting contests for predators and furbearers; Prohibit "wanton waste" of game animals taken during regulated hunting and trapping seasons; Change harvest reporting requirements for fox and coyote to be reported within 48 hours, consistent with current reporting requirements for deer, turkey, and bear." It went on to state, "These regulations: do not reduce opportunity for hunting coyotes or other furbearers; fulfill one of MassWildlife's core functions to develop and maintain hunting, fishing, and trapping opportunities in Massachusetts; address public concern that certain contests contribute to the waste of animals; recognize and address that public controversy over this issue has the potential to threaten predator hunting; discourage the waste of wildlife and reinforces a core principle and expectation that all animals taken during the regulated seasons are utilized to the greatest extent possible, as taught in Hunter Education; recognize that coyotes and other furbearers are managed as a valuable natural resource."

<sup>&</sup>lt;sup>4</sup> Colorado Parks and Wildlife Commission Meeting, April 30, 2020 https://www.youtube.com/watch?v=5Vk7x\_gx5PY

<sup>&</sup>lt;sup>5</sup> Colorado Parks and Wildlife Commission Meeting, April 30, 2020 https://www.youtube.com/watch?v=5Vk7x\_gx5PY

<sup>6 &</sup>quot;Understanding Predation Management in Idaho," Idaho Fish and Game https://idfg.idaho.gov/old-web/docs/wildlife/predationMgmtBrochure.pdf.

<sup>&</sup>lt;sup>7</sup> Todd Wilkinson, "Shoot biggest wolf, win trophy and cash." *Jackson Hole News & Guide*, December 18, 2013 https://www.jhnewsandguide.com/opinion/columnists/the\_new\_west\_todd\_wilkinson/article\_260cbc66-0bf6-544b-bcf2-b5e9220247bb.html

<sup>&</sup>lt;sup>8</sup> Ted Williams: "Coyote Carnage: The Gruesome Truth about Wildlife Killing Contests." May 22, 2018, *Yale Environment 360* https://e360.yale.edu/features/coyote-carnage-the-gruesome-truth-about-wildlife-killing-contests

Tim Dunn, "MassWildlife Holds Hearing in Response to Local Coyote Kill Contest." CapeCod.com, April 5, 2019
 https://www.capecod.com/newscenter/masswildlife-holds-public-listening-session-in-response-to-local-coyote-kill-contest/
 Massachusetts Division of Fisheries & Wildlife, "Proposed Regulations to Ban Predator Contests and Prohibit Wanton Waste,"

Massachusetts Division of Fisheries & Wildlife, "Proposed Regulations to Ban Predator Contests and Prohibit Wanton Waste," July 25, 2019 https://www.mass.gov/news/masswildlife-proposes-regulations-to-ban-predator-contests-and-prohibit-wanton-waste

<sup>&</sup>lt;sup>11</sup> Massachusetts Division of Fisheries & Wildlife, "Proposed Regulations to Ban Predator Contests and Prohibit Wanton Waste," July 25, 2019 https://www.mass.gov/news/masswildlife-proposes-regulations-to-ban-predator-contests-and-prohibit-wanton-waste

The late Jim Posewitz, retired biologist with Montana Department of Fish, Wildlife & Parks, and author of Beyond Fair Chase: The Ethic and Tradition of Hunting and Inherit the Hunt: A Journey into American Hunting: "Competitive killing seems to lack the appreciation of and the respect for wildlife fundamental to any current definition of an ethical hunter." 12

Mike Phillips, hunter, wolf biologist, and Montana state senator: "Predator-killing contests are abominations, an insult to the history of life on this planet.... If you are going to remove wolves or coyotes because there are identifiable problems, okay, do it if it's necessary, but be strategic. Predator killing contests turn that on its head. When is needless, thoughtless killing ever justified? ... Are these contests indicative of the values we want to be emulating for our kids?"<sup>13</sup>

Ray Powell, former New Mexico Commissioner of State Lands: "The non-specific, indiscriminate killing methods used in this commercial and unrestricted coyote killing contest are not about hunting or sound land management. These contests are about personal profit, animal cruelty. ... It is time to outlaw this highly destructive activity."<sup>14</sup>

Nevada Board of Wildlife Commissioners: "[T]he wildlife management profession does not generally recognize the use of contests as a tool with substantial wildlife management effect." <sup>15</sup>

New Mexico Land Commissioner Stephanie Garcia Richard: "These are not hunting contests. They are animal cruelty contests. It is an inexcusable practice, and today I used my authority to ban organized killing contests of unprotected species on any of the nine million acres of State Trust Land that I am charged with overseeing." <sup>16</sup>

Mike Finley, hunter and former chair of Oregon Fish and Wildlife Commission: "Killing large numbers of predators as part of an organized contest or competition is inconsistent with sound, science-based wildlife management and antithetical to the concepts of sportsmanship and fair chase." Finley has also called the events "slaughter fests" and "stomach-turning examples of wanton waste."

Vermont Fish & Wildlife: "Coyote hunting contests are not only ineffective at controlling coyote populations, but these kinds of competitive coyote hunts are raising concerns on the part of the public and could possibly jeopardize the future of hunting and affect access to private lands for all hunters." The department has also stated, "Although these activities follow laws and regulations, we do not believe

<sup>&</sup>lt;sup>12</sup> Quote by Jim Posewitz, retired biologist with Montana Department of Fish, Wildlife & Parks, and author of *Beyond Fair Chase* and *Inherit the Hunt: A Journey into American Hunting*, in the article "Better off alive" by Karen E. Lange in the Humane Society of the United States *All Animals* magazine, September 1, 2018 https://www.humanesociety.org/news/better-alive

<sup>&</sup>lt;sup>13</sup> Todd Wilkinson, "A Death Of Ethics: Is Hunting Destroying Itself?," *Mountain Journal*, December 12, 2018 https://mountainjournal.org/hunting-in-america-faces-an-ethical-reckoning

<sup>&</sup>lt;sup>14</sup> Letter, Ray Powell, Jr. to Mark Chavez, owner of Gunhawk Firearms, November 15, 2012.

<sup>&</sup>lt;sup>15</sup> Draft meeting minutes of the Nevada Board of Wildlife Commissioners, Administrative Procedures, Regulations, and Policy Committee, June 13, 2016 at http://www.ndow.org/uploadedFiles/ndoworg/Content/Public\_Meetings/Committees/APRP-Committee-2016-June-Minutes-and-Testimony.pdf.

<sup>&</sup>lt;sup>16</sup> Press Release: "Garcia Richard Signs Executive Order Banning Killing Contests on State Trust Land," January 10, 2019 <a href="https://www.nmstatelands.org/2019/01/10/garcia-richard-signs-executive-order-banning-killing-contests-on-state-trust-land/">https://www.nmstatelands.org/2019/01/10/garcia-richard-signs-executive-order-banning-killing-contests-on-state-trust-land/</a>

<sup>&</sup>lt;sup>17</sup> Testimony by Mike Finley to the Oregon Senate Judiciary Committee, March 18, 2019 https://olis.leg.state.or.us/liz/2019R1/Downloads/CommitteeMeetingDocument/200547

<sup>&</sup>lt;sup>18</sup> Todd Wilkinson, "A Death Of Ethics: Is Hunting Destroying Itself?" December 12, 2018, <a href="https://mountainjournal.org/hunting-in-america-faces-an-ethical-reckoning">https://mountainjournal.org/hunting-in-america-faces-an-ethical-reckoning</a>

<sup>&</sup>lt;sup>19</sup> "Eastern Coyote Issues – A Closer Look," Vermont Fish & Wildlife, January 2017 https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf

such short-term hunts will have any measurable impact on regulating coyote populations, nor will they bolster populations of deer or other game species."<sup>20</sup>

Commissioner Barbara Baker, Washington State Fish and Wildlife Commission: "[T]he crux of the issue, at least to me, is whether the practice of permitting killing of a public trust for its own sake, just to kill, to win a game, fits within the values of which we operate. We each have to make that decision for ourselves, but the touchstone for that is the North American Model of Wildlife Management, and it's pretty clear that wildlife may only be killed for a legitimate, non-frivolous purpose. So again, that's another thing that we each have to decide for ourselves, but to me it is real clear that killing for a game, or killing to win money, is the definition of frivolous."<sup>21</sup>

Commissioner Brad Smith, Washington State Fish and Wildlife Commission: "I am a hunter, I'll clarify that, and I've never perceived hunting as a contest. I think these are not hunting contests, they're killing contests." He went on to state that, "I'm concerned about the demise of the hunting tradition, I'm concerned about the demise of the number of youth going into hunting and fishing. . . . What is going to help that number go down even faster and further is the image of a pile of dead critters out there. . . . This is a case of, we are actually shooting ourselves in the foot to allow that sort of thing."

#### Commissioner Molly Linville, rancher and member of Washington State Fish and Wildlife Commission:

"So what we find personally on our ranch is that we always know when these contests are going on because people are zooming up and down our road and shooting into our agricultural fields and trespassing during these contests. The reason the coyotes are in our agricultural field is because they are eating gophers. And I always say they are our only free employees—they're our only employees—on the ranch. We have livestock guardian dogs that we feel have created a very comfortable stasis of, you know, everyone sort of knows their place. That gets really disrupted when people come and kill coyotes on this place."

Kelly Susewind, director of Washington State Department of Fish and Wildlife: "[P]art of my job, and frankly part of my soul, is to promote hunting, to get our youth hunting, to really have this be a core piece of what our society supports. And frankly, that job is a lot harder if we're condoning these types of contests, and for that reason, I personally support this language."<sup>24</sup>

#### The Wildlife Society:

- "6. Recognize that there is little evidence to support the use of killing contests for controlling predator populations. 7. Recognize that while species killed in contests can be legally killed in most states, making a contest of it may undermine the public's view of ethical hunting."
- "In some cases, particularly for predators, justification for the killing contests is often based on flawed use of science. For example, coyote killing contests are often justified on the basis that coyotes kill deer or other game; however, that fails to recognize that predation is a proximal cause of mortality, but not necessarily the ultimate cause that limits a species' population."

<sup>&</sup>lt;sup>20</sup> "Eastern Coyote Issues – A Closer Look," Vermont Fish & Wildlife, January 2017

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf

<sup>&</sup>lt;sup>21</sup> Washington State Fish and Wildlife Commission Meeting, August 1, 2020 <a href="https://www.tvw.org/watch/?eventID=2020081003">https://www.tvw.org/watch/?eventID=2020081003</a>

<sup>&</sup>lt;sup>22</sup> Washington State Fish and Wildlife Commission Meeting, August 1, 2020 <a href="https://www.tvw.org/watch/?eventID=2020081003">https://www.tvw.org/watch/?eventID=2020081003</a>

<sup>&</sup>lt;sup>23</sup> Washington State Fish and Wildlife Commission Meeting, August 1, 2020 <a href="https://www.tvw.org/watch/?eventlD=2020081003">https://www.tvw.org/watch/?eventlD=2020081003</a>

<sup>&</sup>lt;sup>24</sup> Washington State Fish and Wildlife Commission Meeting, August 1, 2020 <a href="https://www.tvw.org/watch/?eventID=2020081003">https://www.tvw.org/watch/?eventID=2020081003</a>

<sup>&</sup>lt;sup>25</sup> The Wildlife Society: "Issue Statement: Wildlife Killing Contests." Approved March 7, 2019 https://wildlife.org/wp-content/uploads/2018/05/TWS\_IS\_WildlifeKillingContest\_ApprovedMarch2019.pdf

<sup>&</sup>lt;sup>26</sup> The Wildlife Society: "Issue Statement: Wildlife Killing Contests." Approved March 7, 2019 https://wildlife.org/wp-content/uploads/2018/05/TWS\_IS\_WildlifeKillingContest\_ApprovedMarch2019.pdf

 "Killing contests differ from typical regulated hunting by the very nature of the organized public competition and prizes being given specifically for killing the largest, smallest, or most animals. "Big Buck" pools or organized record books differ from killing contests because the animals recognized in these competitions are harvested consistent with ordinary and generally accepted hunting practices and then introduced to the competition."27

# Statements on the ineffective and counterproductive nature of coyote population control

Arizona Game and Fish Department: "Removing coyotes from one area generally results in other coyotes moving in from surrounding areas and breeding faster."28

#### Colorado Parks and Wildlife:

- "Many eradication programs have been attempted in other North American cities and all have proven expensive failures. Even the best eradication efforts cannot remove all the coyotes and research has proven such eradication will cause the remaining coyotes to increase reproduction, creating larger litters. Thus, removal programs lead to increased reproduction by the remaining coyote populations and populationsquickly meet or exceed pre-control numbers. 'To suppress a coyote population over the long term, more than 75% of the coyotes would need to be removed manually.' (Connolly & Longhurst 1975)."29
- "Eradication programs in North American cities have proven to be expensive failures."

Florida Fish and Wildlife Conservation Commission: "Removing coyotes for the purpose of eradication is an inefficient and ineffective method to control populations. New coyotes move into areas where others have been removed. Removal activities such as hunting and trapping place pressure on coyote populations, and the species responds by reproducing at a younger age and producing more pups per litter; populations can quickly return to their original size."31

Charlie Killmaster, deer and feral hog biologist for the Georgia Department of Natural Resources: "A number of states have shown that government-sponsored programs to eradicate coyote populations are huge money pits that result in failure."32

Damage Prevention and Control Methods, via the **Georgia Department of Natural Resources**: Wildlife Resources Division: "It is neither wise nor practical to kill all coyotes."33

https://www.azgfd.com/PortalImages/files/wildlife/livingwith/Coyote\_Brochure\_v7\_final.pdf.

<sup>&</sup>lt;sup>27</sup> The Wildlife Society: "Issue Statement: Wildlife Killing Contests." Approved March 7, 2019 https://wildlife.org/wpcontent/uploads/2018/05/TWS\_IS\_WildlifeKillingContest\_ApprovedMarch2019.pdf

<sup>&</sup>lt;sup>28</sup> "Living with Coyotes," Arizona Game and Fish Department, available at

<sup>&</sup>lt;sup>29</sup> "Most Commonly Asked Questions about Urban Coyotes," Colorado Parks and Wildlife,

https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/FAQs-Urban-Coyotes.pdf

<sup>&</sup>lt;sup>30</sup> "Your Guide to Eliminating Human-Coyote Conflicts," Colorado Parks & Wildlife, available at https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/CoyoteConflictBrochure.pdf.

<sup>&</sup>lt;sup>31</sup> "Coyotes: Living with Coyotes," Florida Fish and Wildlife Conservation Commission, available at https://myfwc.com/conservation/you-conserve/wildlife/coyotes/.

<sup>&</sup>lt;sup>32</sup> Darryl Fears: "The relentless slaughter of wolves paved the way for a predator that refuses to die." The Washington Post, June 3, 2019 https://www.washingtonpost.com/climate-environment/2019/06/03/killing-wolves-was-supposed-solve-problemcreated-one-that-will-last-forever/

<sup>&</sup>lt;sup>33</sup> Green, Henderson & Collinge, "Coyotes," Prevention and Control of Wildlife Damage, 1994, https://georgiawildlife.com/sites/default/files/wrd/pdf/management/Coyote.pdf

Illinois Department of Natural Resources: "Eliminating all of the coyotes in an area is not a realistic goal because voids will be filled quickly. Fortunately, removing individuals with 'bad behaviors' usually solves a problem even when other coyotes continue to live in an area."<sup>34</sup>

The Izaak Walton League of America: "The League recognizes the intrinsic value of predatory species and their important ecological roles. ... There is no justification for widespread destruction of animals classified as predators ... The League opposes payment of bounties on predators or varmints."

Kentucky Department of Fish & Wildlife Resources: "Total eradication of coyotes is not possible. Trapping and removing coyotes will only result in new coyotes moving in to occupy empty territories. Efforts to eradicate coyotes can actually increase their numbers: females may breed at younger ages and give birth to larger litters. The survival rate of pups may increase due to less competition for food." 36

#### Louisiana Wildlife & Fisheries:

- "The USDA has spent millions of dollars and decades of trapping, poisoning and even aerial gunning to control coyote predation, yet the coyote population continues to increase throughout North America."<sup>37</sup>
- "[I]t should be emphasized that coyote control is an extremely labor intensive project, and at least 75 percent of the local coyote population must be removed to have a serious impact on their population."<sup>38</sup>

#### Maine Department of Inland Fisheries & Wildlife:

- "Coyote numbers are controlled by social interactions and competition for food. They are territorial and aggressively defend their territories against other coyotes. Therefore, only a limited number of coyotes can live in a given area."<sup>39</sup>
- "It is neither necessary nor possible to eliminate the entire population of coyotes in a given area."40

Head of Information and Education Marion Larson, <u>Massachusetts Division of Fisheries & Wildlife</u>: "There is a misconception that coyote kill contests are a method of managing local populations."<sup>41</sup>

The Massachusetts Division of Fisheries and Wildlife: "...hunting [would not] have an appreciable impact on coyote population size under any realistic scenarios." 42

<sup>&</sup>lt;sup>34</sup> Illinois Dept. of Natural Resources, Coyote. Available at: https://www.dnr.illinois.gov/conservation/wildlife/Pages/Coyote.aspx <sup>35</sup> The Izaak Walton League of America: "Conservation Policies 2019," pg. 54 https://www.iwla.org/docs/default-source/about-iwla/2019-policy-book.pdf?sfvrsn=44

<sup>&</sup>lt;sup>36</sup> Kentucky Dept. of Fish & Wildlife Resources, Coyotes in the Suburbs. Available at: https://fw.ky.gov/Wildlife/Documents/KAspring17coyotes.pdf

<sup>&</sup>lt;sup>37</sup> Travis Dufour, "Living with Coyotes," Louisiana Department of Wildlife & Fisheries Wildlife Division - Private Lands Program, https://www.wlf.louisiana.gov/assets/Resources/Publications/Landowner\_Assistance/Living\_with\_Coyotes\_low-res.pdf.

38 Dufour, Travis. "Living with Coyotes," Louisiana Department of Wildlife & Fisheries Wildlife Division - Private Lands Program,

<sup>&</sup>lt;sup>38</sup> Dufour, Travis. "Living with Coyotes," Louisiana Department of Wildlife & Fisheries Wildlife Division - Private Lands Program, available at http://www.wlf.louisiana.gov/sites/default/files/pdf/publication/34726-living-coyotes-low-res/living\_with\_coyotes\_low-res.pdf.

<sup>&</sup>lt;sup>39</sup> "Coyote," Maine Department of Inland Fisheries & Wildlife, https://www.maine.gov/ifw/fish-wildlife/wildlife/living-with-wildlife/avoid-resolve-conflict/coyotes.html

<sup>&</sup>lt;sup>40</sup> "Coyotes," Maine Department of Inland Fisheries & Wildlife, 2004, https://www.maine.gov/ifw/fish-wildlife/wildlife/living-with-wildlife/avoid-resolve-conflict/coyotes.html.

<sup>&</sup>lt;sup>41</sup> Tim Dunn, "MassWildlife Holds Hearing in Response to Local Coyote Kill Contest." *CapeCod.com*, April 5, 2019 https://www.capecod.com/newscenter/masswildlife-holds-public-listening-session-in-response-to-local-coyote-kill-contest/

<sup>42</sup> Massachusetts Division of Fisheries & Wildlife, Public Hearing Notice on Draft Division of Fisheries and Wildlife Regulations at 321 CMR 2.00 and 3.02. (Sept. 20, 2019). Available at

Missouri Department of Conservation cites a study on the state's bounty system from 1936 to 1947 that concludes, "Eleven years of bounty figures offers no evidence that the population of coyotes has been reduced thereby." It goes on to state that, "Under heavy pressure, furbearers will move or mate at an earlier age and have larger litters. Reduce the population of one predator and others may spike. . . . . Remove coyotes and you could see an increase in foxes, skunks, possums and raccoons."

#### Nevada Department of Wildlife:

- "Though many efforts have been made to reduce its numbers and even to eradicate it, the resilient coyote is as plentiful today as it ever has been. . . . The ability to adapt to changing environmental conditions and its opportunistic nature have allowed the coyote to continually increase its numbers and expand its range. . . . In the past, some efforts have been made to eradicate coyotes from local areas but these efforts have proven mostly unsuccessful."
- "Most coyote management is limited to removal of chronic problem animals. In areas where coyotes prey on domestic livestock, animals are removed to prevent further losses." 46

New Hampshire Fish & Wildlife: "Most coyote management attempts have been designed to reduce their population numbers, however, due to their fecundity, behavior and adaptability, those attempts have failed."

#### New York State Department of Environmental Conservation:

- "The random removal of coyotes resulting from a year-round hunting season will not...control or reduce coyote populations." 48
- "[F]rom 1949 to 1956, the then New York State Conservation Department hired people to kill coyotes. The program eventually was discontinued because it was too expensive and ineffective in reducing coyote numbers." 49
- "Coyote densities rarely are reduced through hunting and trapping. In fact, studies have shown an increase in reproductive rates in areas where coyotes were intensively removed. It has been estimated that over 65% of a coyote population (adults and young) would have to be removed annually to overcome their reproductive potential and lead to an overall population decline. Although coyotes die of natural causes (especially juvenile animals), a large proportion of the breeding adults would have to be removed by hunting or trapping, to significantly reduce coyote numbers."50
- "Because coyotes are territorial, those that are removed soon will be replaced by their neighbors."<sup>51</sup>

<sup>&</sup>lt;sup>43</sup> Bill White, *The Bounty Hunter*, Missouri Dept. of Conservation (Aug. 21, 2012). Available at: https://mdc.mo.gov/blogs/more-quail/bounty-hunter

<sup>&</sup>lt;sup>44</sup> White, Bill. "The Bounty Hunter," Missouri Department of Conservation, (Aug. 21, 2012), available at https://mdc.mo.gov/blogs/more-quail/bounty-hunter.

<sup>&</sup>lt;sup>45</sup> "Coyote," Nevada Department of Wildlife, available at http://www.ndow.org/Species/Furbearer/Coyote/.

<sup>46 &</sup>quot;Coyote," Nevada Department of Wildlife, available at http://www.ndow.org/Species/Furbearer/Coyote/.

<sup>&</sup>lt;sup>47</sup> New Hampshire Fish and Game, Eastern Coyote. Available at: https://wildlife.state.nh.us/wildlife/profiles/coyote.html

<sup>&</sup>lt;sup>48</sup> New York State Department of Environmental Conservation, The Status and Impact of Eastern Coyotes in Northern New York (1991). Available at: http://www.dec.ny.gov/docs/wildlife\_pdf/coystatnny91.pdf.

<sup>49 &</sup>quot;The Status and Impact of Eastern Coyotes in Northern New York," New York State Department of Environmental Conservation (June 1991), page 6, available at http://www.nysenvirothon.org/Referencesandother/coyotes.pdf.
50 "The Status and Impact of Eastern Coyotes in Northern New York," New York State Department of Environmental Conservation (June 1991), page 7-8, available at http://www.nysenvirothon.org/Referencesandother/coyotes.pdf.
51 "The Status and Impact of Eastern Coyotes in Northern New York," New York State Department of Environmental Conservation (June 1991), page 14, available at http://www.nysenvirothon.org/Referencesandother/coyotes.pdf.

- "There have been large scale campaigns in the western U.S. that involved scattering large quantities of poisoned baits containing strychnine, cyanide salts, or compound 1080. These efforts have not resulted in long-term control of coyote populations. Additionally," 52
- "The random removal of coyotes resulting from a year-round hunting season will not control or reduce coyote populations. (a) It has been estimated that over 65% of a coyote population would have to be removed annually to achieve a population reduction. (b) Intensive control measures may actually increase coyote reproductive rates and offset any losses. (c) The payment of bounties in the 1950's, coupled with an active coyote control program plus the year-round hunting and trapping seasons in effect prior to 1976, did not eliminate or reduce the coyote population."<sup>53</sup>
- "Past experience has shown that attempts to control or limit coyote populations on a large scale basis, or to increase a deer population by removing coyotes are of questionable value, time consuming and expensive. They actually may increase birth rates, thereby accelerating coyote population growth and expansion."<sup>54</sup>

Pennsylvania Game Commission: "After decades of using predator control (such as paying bounties) with no effect, and the emergence of wildlife management as a science, the agency finally accepted the reality that predator control does not work." 55

National Wildlife Control Program, via the <u>South Carolina Department of Natural Resources</u>: "It is neither necessary nor practical to kill all coyotes." 56

#### North Carolina Wildlife Resources Commission:

- The Commission concluded, after reviewing a large body of scientific and peer-reviewed literature, that indiscriminate, lethal methods of controlling coyotes, such as bounties and harvest incentive programs, are ineffective and counterproductive, that coyotes provide benefits to humans and ecosystems, and that non-lethal measures are the best way to address conflicts with coyotes.<sup>57</sup>
- The Commission's new coyote management plan found that bounties and harvest incentive programs are prone to corruption, expensive, do not increase harvest, and do not target problem animals, and that ample evidence from case studies supports the conclusion that these methods are ineffective at reducing conflicts with coyotes or impacting coyote populations.<sup>58</sup>

#### Tennessee Wildlife Resources Agency:

— "In general, coyote population control (throughout the range of the species) has been ineffective." <sup>59</sup>

<sup>&</sup>lt;sup>52</sup> "The Status and Impact of Eastern Coyotes in Northern New York," New York State Department of Environmental Conservation (June 1991), available at http://www.nysenvirothon.org/Referencesandother/coyotes.pdf.

<sup>&</sup>lt;sup>53</sup> "The Status and Impact of Eastern Coyotes in Northern New York," New York State Department of Environmental Conservation (June 1991), page 42, available at http://www.nysenvirothon.org/Referencesandother/coyotes.pdf.
<sup>54</sup> "The Status and Impact of Eastern Coyotes in Northern New York," New York State Department of Environmental

Conservation (June 1991), page 43, available at http://www.nysenvirothon.org/Referencesandother/coyotes.pdf.

<sup>&</sup>lt;sup>55</sup> Bob Frye, "Habitat, not predators, seen as key to wildlife populations," *Trib Live*, July 25, 2016 http://triblive.com/sports/outdoors/10756490-74/game-predator-predators.

<sup>&</sup>lt;sup>56</sup> Wildlife Control Training Program: "Coyotes." Available at: http://www.dnr.sc.gov/wildlife/publications/nuisance/coyotes.pdf

<sup>&</sup>lt;sup>57</sup> North Carolina Wildlife Resources Commission, Coyote Management Plan 11, 21-28 (2018). Available at: www.ncwildlife.org/Portals/0/Learning/documents/Species/Coyote%20Management%20Plan\_FINAL\_030118.pdf.

<sup>&</sup>lt;sup>58</sup> North Carolina Wildlife Resources Commission, "Coyote Management Plan," March 1, 2018

https://www.ncwildlife.org/Portals/0/Learning/documents/Species/Coyote%20Management%20Plan\_FINAL\_030118.pdf <sup>59</sup> "Controlling Coyotes in Tennessee, "Tennessee Wildlife Resources Agency (January 2003)

https://www.tn.gov/content/dam/tn/twra/documents/mammals/coyotecontrol.pdf

- "Equipment has been improved somewhat but intimate knowledge of animal behavior, experience in the methods and techniques of control, and intelligent effort are still prerequisites to selective, efficient damage control."
- "In an attempt to control coyotes in the past, bounties have been paid for coyote pelts. In general, bounties have proven to be totally ineffective." 61

#### Vermont Fish & Wildlife:

- "Expensive extermination and bounty programs were common in the past and were responsible, along with habitat loss, for the elimination of some natural predators throughout the United States. These techniques have no place in modern wildlife management, which stresses the importance of all species."<sup>62</sup>
- "Attempts to eradicate or control coyote numbers in western states have been extremely costly and have met with failure."<sup>63</sup>
- "...we do not believe such short-term hunts will have any measurable impact on regulating coyote populations[.]"
- "Although it has not been a resident as long as some of our native predators such as bobcat, fisher, or foxes, the adaptable and wily coyote is here to stay and to partially fill the niche left by wolves."<sup>64</sup>
- "While coyotes kill other animals to eat and survive, including an occasional deer, they should not be subjected to an extermination program."
- "[C]oyotes 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."
- "Coyotes are territorial animals and defend their territories aggressively. This limits the maximum number of territories that can exist in Vermont, and limits the maximum number of coyotes that can be sustained in the state."
- "Attempts to eradicate or control coyote numbers in western states have been extremely costly and have met with failure. Such efforts now are generally focused on eliminating individual coyotes that are causing livestock losses. Where significant reductions in coyote numbers are locally achieved, the missing animals are soon replaced with young coyotes moving in from other locations, so any local population reduction is only short-term. Coyotes can increase their reproductive rates in response to hunting, so populations rebound quickly from efforts to control their numbers directly by hunting or trapping." 68

<sup>&</sup>lt;sup>60</sup> "Controlling Coyotes in Tennessee, "Tennessee Wildlife Resources Agency (January 2003)

https://www.tn.gov/content/dam/tn/twra/documents/mammals/coyotecontrol.pdf

<sup>&</sup>lt;sup>61</sup> "Controlling Coyotes in Tennessee, "Tennessee Wildlife Resources Agency (January 2003)

https://www.tn.gov/content/dam/tn/twra/documents/mammals/coyotecontrol.pdf

<sup>62 &</sup>quot;Coyote," Vermont Fish & Wildlife Department, available at https://vtfishandwildlife.com/learn-more/vermont-critters/mammals/coyote.

<sup>&</sup>lt;sup>63</sup> "Eastern Coyote Issues - A Closer Look," Vermont Fish & Wildlife, January 2017

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf. 64 Vermont Fish & Wildlife, Eastern Coyote Issues – A Closer Look (Jan. 2017). Available at:

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf. 65 "Coyote," Vermont Fish & Wildlife Department, available at https://vtfishandwildlife.com/learn-more/vermont-critters/mammals/coyote.

<sup>&</sup>lt;sup>66</sup> "Coyote," Vermont Fish & Wildlife Department, available at https://vtfishandwildlife.com/learn-more/vermont-critters/mammals/coyote.

<sup>67 &</sup>quot;Eastern Coyote Issues: A Closer Look," Vermont Fish & Wildlife, available at

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf. 68 "Eastern Coyote Issues – A Closer Look," Vermont Fish & Wildlife, January 2017

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf.

#### Washington Department of Fish and Wildlife:

- "Despite ever-increasing human encroachment and past efforts to eliminate coyotes, the species maintains its numbers and is increasing in some areas."
- "It's neither necessary nor possible to eliminate the entire population of coyotes in a given area."<sup>70</sup>
- "Where coyotes are hunted and trapped, females produce more pups per litter than in areas where they are protected."

West Virginia Division of Natural Resources: "The coyote is now a permanent member of the fauna in West Virginia. . . . The coyote is an adaptable predator that despite years of persecution has survived and even expanded their range. . . . Although bounties have been liberally used on coyotes in the west, no bounty system has ever worked." <sup>772</sup>

Wisconsin Department of Natural Resources: "[W]hen a coyote is removed from an area it is likely that another coyote will take its place."<sup>73</sup>

#### Dave Rippe of the Wyoming Game and Fish Department:

- "Most predator control studies show that when control practices are intensive and continuous, predator control can be successful. However, truly successful predator control programs require significant amounts of money and manpower, and sometimes employ materials which destroy animals not associated with the predation problem."
- "More often, predator control programs also reduce non-target bird and mammal populations and upset the ecological balance of the area, leading to compounded problems."

The Wyoming Game and Fish Department: "When targeted at the coyote, predator control programs have actually been counterproductive because coyotes have the ability to rapidly recolonize an area following elimination of a resident population. Studies have shown that increased control of coyote populations tends to increase average litter size of surviving coyotes resulting in a relatively stable population."<sup>76</sup>

## Statements on the ineffectiveness of killing coyotes to protect livestock and the need for prevention and targeted lethal control

Damage Prevention and Control Methods, via the <u>Georgia Department of Natural Resources</u>: Wildlife Resources Division: "For managing coyote damage, a variety of control methods must be available since no single method is effective in every situation. Success usually involves an integrated approach, combining good husbandry practices with effective control methods for short periods of time.

http://lmcbeachclub.com/documents/CoyotesFactSheet.pdf

<sup>69 &</sup>quot;Living with Wildlife," Washington Department of Fish and Wildlife, available at http://wdfw.wa.gov/living/coyotes.html.

<sup>70 &</sup>quot;Living with Wildlife," Washington Department of Fish and Wildlife, available at http://wdfw.wa.gov/living/coyotes.html.

<sup>71 &</sup>quot;Living with Wildlife: Coyotes," Washington Department of Fish and Wildlife,

<sup>&</sup>lt;sup>72</sup> "Eastern Coyote Impacts Of The Eastern Coyote On Wildlife Populations, West Virginia Division of Natural Resources, available at http://www.wvdnr.gov/hunting/CoyoteResearch.shtm.

<sup>&</sup>lt;sup>73</sup> "Coyotes," Wisconsin Department of Natural Resources, available at https://dnr.wi.gov/topic/wildlifehabitat/urbancoyote.html.

<sup>&</sup>lt;sup>74</sup> Dave Rippe, "Predator Control and Wildlife," Wyoming Game and Fish Department, Habitat Extension Services, July 1995, https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf.

<sup>&</sup>lt;sup>75</sup> Dave Rippe, "Predator Control and Wildlife," Wyoming Game and Fish Department, Habitat Extension Services, July 1995, https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf.

<sup>&</sup>lt;sup>76</sup> Wyoming Game and Fish Dept., Habitat Extension Bulletin: No. 57 (July 1995). Available at:

https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf

Regardless of the means used to stop damage, the focus should be on damage prevention and control rather than elimination of coyotes. It is neither wise nor practical to kill all coyotes."

Illinois Department of Natural Resources: "Eliminating all of the coyotes in an area is not a realistic goal because voids will be filled quickly. Fortunately, removing individuals with 'bad behaviors' usually solves a problem even when other coyotes continue to live in an area."<sup>78</sup>

Louisiana Department of Wildlife & Fisheries: "In areas where livestock is common today, coyotes usually get the blame for the majority of depredation cases. However, domestic free roaming dogs are much more likely to be the culprits, especially in areas of human population." <sup>779</sup>

Maine Department of Inland Fisheries & Wildlife: "Coyotes also benefit farmers and other property owners by helping control populations of mice, rats, voles, moles, and woodchucks." 80

Missouri Department of Conservation: "Coyotes are often unjustly blamed for livestock losses caused by free-running dogs."81

Nevada Department of Wildlife: "Most coyote management is limited to removal of chronic problem animals. In areas where coyotes prey on domestic livestock, animals are removed to prevent further losses." 82

New Hampshire Fish and Game: "The great majority of coyotes don't prey upon livestock."83

#### New York State Department of Environmental Conservation:

- "Most problems can be avoided with proper husbandry techniques. It is much easier to prevent depredation from occurring than it is to stop it once it starts." <sup>84</sup>
- "Predator removal may be a necessary part of a comprehensive program that includes nonlethal, preventative measures. There is little benefit to be gained from only trapping or shooting coyotes at large."
- "Damage control methods that simply kill individual, depredating coyotes may provide immediate relief, but ultimately leave the livestock producer as vulnerable to losses as before. Lethal control must be accompanied by preventative practices."
- "The random removal of coyotes from a population will not reduce or eliminate predation on livestock. Preventative techniques that reduce or eliminate damage provide the best, long-term solution. Also, site specific removal of individual animals may be a necessary action in association with preventative methods."

Northern New York, http://www.nysenvirothon.com/Referencesandother/coyotes.pdf.

<sup>&</sup>lt;sup>77</sup> Green, Henderson & Collinge, "Coyotes," Prevention and Control of Wildlife Damage, 1994, https://georgiawildlife.com/sites/default/files/wrd/pdf/management/Coyote.pdf

<sup>78</sup> Illinois Dept. of Natural Resources, Coyote. Available at: https://www.dnr.illinois.gov/conservation/wildlife/Pages/Coyote.aspx 79 Travis Dufour, "Living with Coyotes," Louisiana Department of Wildlife & Fisheries Wildlife Division - Private Lands Program, https://www.wlf.louisiana.gov/assets/Resources/Publications/Landowner\_Assistance/Living\_with\_Coyotes\_low-res.pdf. 80 "Coyote," Maine Department of Inland Fisheries & Wildlife, https://www.maine.gov/ifw/fish-wildlife/wildlife/living-with-

wildlife/avoid-resolve-conflict/coyotes.html
81 "Coyote," Missouri Department of Conservation, https://nature.mdc.mo.gov/discover-nature/field-guide/coyote.

<sup>82 &</sup>quot;Coyote," Nevada Department of Wildlife, available at http://www.ndow.org/Species/Furbearer/Coyote/.

<sup>83 &</sup>quot;Eastern Coyote (Canis latrans var.)," New Hampshire Fish and Game, https://wildlife.state.nh.us/wildlife/profiles/coyote.html.

<sup>84 &</sup>quot;Coyote Conflicts," New York State Department of Environmental Conservation, https://www.dec.ny.gov/animals/6971.html

<sup>&</sup>lt;sup>85</sup> New York State Department of Environmental Conservation. (June 1991). The Status and Impact of Eastern Coyotes in Northern New York, http://www.nysenvirothon.com/Referencesandother/coyotes.pdf.

<sup>&</sup>lt;sup>86</sup> The Status and Impact of Eastern Coyotes in Northern New York," New York State Department of Environmental Conservation (June 1991), page 7-8, available at http://www.nysenvirothon.org/Referencesandother/coyotes.pdf.

<sup>87</sup> New York State Department of Environmental Conservation. (June 1991). *The Status and Impact of Eastern Coyotes in* 

- "The random removal of coyotes resulting from a year-round hunting season will not . . . reduce or eliminate predation on livestock[.]" \*\*88
- "A year-round season is not an effective technique in preventing predation on livestock."89

The National Wildlife Control Program, via the South Carolina Department of Natural Resources: "The focus of management should be on preventing damage, and targeting individual coyotes that cause conflicts. It is neither necessary nor practical to kill all coyotes. Use a variety of methods to manage damage as no single method is effective in every situation. Success usually involves an integrated approach that combines removing food attractants with effective lethal removal of individual offending animals."

#### Tennessee Wildlife Resources Agency:

- "Although coyotes kill some livestock and poultry, they are sometimes blamed unjustly for the large amount of damage done to domestic stock by free-running dogs." <sup>91</sup>
- "Because certain coyotes develop a habit of damaging livestock and poultry, control, to be effective, should be directed toward these particular troublemakers and not the population as a whole."
- "Because certain coyotes develop a habit of damaging livestock and poultry, control, to be effective, should be directed toward these particular troublemakers and not the population as a whole."

Vermont Fish & Wildlife: "Attempts to eradicate or control coyote numbers in western states have been extremely costly and have met with failure. Such efforts now are generally focused on eliminating individual coyotes that are causing livestock losses." <sup>94</sup>

#### Washington Department of Fish and Wildlife:

- "Many ranchers now attempt to kill coyotes only when damage has occurred. If your property is the home territory of coyotes that don't harm livestock, they will keep away other coyotes that are potential livestock killers. Coyotes also benefit ranchers and other property owners by helping control populations of mice, rats, voles, moles, gophers, rabbits, and hares."
- "Prevention is the best tool for minimizing conflicts with coyotes and other wildlife." To protect livestock, the agency recommends burying or removing dead livestock, using fencing and guard animals, and confining livestock during vulnerable periods.

<sup>&</sup>lt;sup>88</sup> New York State Department of Environmental Conservation. (June 1991). The Status and Impact of Eastern Coyotes in Northern New York, http://www.nysenvirothon.com/Referencesandother/coyotes.pdf.

<sup>&</sup>lt;sup>89</sup> New York State Department of Environmental Conservation. (June 1991). The Status and Impact of Eastern Coyotes in Northern New York, http://www.nysenvirothon.com/Referencesandother/coyotes.pdf.

<sup>90</sup> Wildlife Control Training Program: "Coyotes." Available at: http://www.dnr.sc.gov/wildlife/publications/nuisance/coyotes.pdf

<sup>&</sup>lt;sup>91</sup> "Controlling Coyotes in Tennessee, "Tennessee Wildlife Resources Agency (January 2003), https://www.tn.gov/content/dam/tn/twra/documents/mammals/coyotecontrol.pdf

<sup>92 &</sup>quot;Controlling Coyotes in Tennessee, "Tennessee Wildlife Resources Agency (January 2003)

https://www.tn.gov/content/dam/tn/twra/documents/mammals/coyotecontrol.pdf

<sup>93 &</sup>quot;Controlling Coyotes in Tennessee, "Tennessee Wildlife Resources Agency (January 2003)

https://www.tn.gov/content/dam/tn/twra/documents/mammals/coyotecontrol.pdf

<sup>94 &</sup>quot;Eastern Coyote Issues - A Closer Look," Vermont Fish & Wildlife, January 2017

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf. 
<sup>95</sup> "Living with Wildlife," Washington Department of Fish and Wildlife, available at http://wdfw.wa.gov/living/coyotes.html.

<sup>&</sup>lt;sup>96</sup> "Coyotes," Washington Department of Fish and Wildlife, https://wdfw.wa.gov/species-habitats/species/canis-latrans#conflict

West Virginia Division of Natural Resources: "Predator control of coyotes because of wildlife predation is unwarranted and unnecessary. Predator control of coyotes preying on livestock should be restricted to targeted animals."

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# Statements by wildlife management professionals on the ineffectiveness of killing coyotes to increase populations of game animals like deer or turkey

Ducks Unlimited: "Predator control cannot result in meaningful increases in duck numbers or birds in the bag and threatens to undermine the broad coalition of public support on which modern waterfowl conservation depends."

A recent study that evaluated deer harvest numbers in <u>Florida</u>, <u>New Jersey</u>, <u>New York</u>, <u>North Carolina</u>, <u>Ohio</u>, and <u>South Carolina</u> found that coyotes are not limiting deer numbers in those states, and that coyote removal programs do little to increase regional deer numbers.<sup>99</sup>

When asked, "Is it true that hawks and coyotes are killing all the upland game?" the <u>Illinois Department</u> of <u>Natural Resources</u> responds, "While predators do eat some game birds and rabbits, this is not what is causing our long-term decline. If we had adequate habitat (quantity and quality), there would be more game on the landscape." 100

Louisiana Department of Wildlife & Fisheries: "Many Louisiana hunters are concerned that coyotes are having a negative effect on their deer herd and rabbit populations. In reality, coyotes seem to have filled a niche left over from the removal of wolves and cougars. Despite increasing coyote numbers statewide, the Louisiana deer population is very healthy. There may be localized deer herds whose growth is negatively impacted by coyote predation, but these situations can generally be remedied by habitat improvements, not intensive coyote removal. Hunters should also recognize that deer fawns are regularly killed by bobcats and dogs. Wholesale removal of coyotes is only addressing a portion of the issue."

The Mississippi Flyway Council: "The Mississippi Flyway Council (MFC) does not support the practice of predator removal as a viable management practice to improve waterfowl recruitment over the long term or over large geographic areas. The MFC believes that the highest conservation priorities for improving waterfowl recruitment are the landscape-level wetland and grassland habitat restoration strategies advocated by the North American Waterfowl Management Plan (NAWMP)." 102

<sup>&</sup>lt;sup>97</sup> "Eastern Coyote Impacts Of The Eastern Coyote On Wildlife Populations," West Virginia Division of Natural Resources, https://www.wvdnr.gov/hunting/CoyoteResearch.shtm

<sup>&</sup>lt;sup>98</sup> Chuck Petrie: "Prairies Under Siege: Ducks, Habitat Conservation & Predators," in the November/December 2003 *Ducks Unlimited* magazine. https://www.ducks.org/conservation/where-ducks-unlimited-works/prairie-pothole-region/prairies-under-siege-ducks-habitat-conservation-predators.

<sup>99</sup> Eugenia V. Bragina et al., Effects on white-tailed deer following eastern coyote colonization, 83 J. of Wildlife Mgmt. 916

<sup>100</sup> Illinois Dept. of Natural Resources, Illinois Digest of Hunting and Trapping Regulations: 2019-2020. Available at: https://www.dnr.illinois.gov/hunting/documents/hunttrapdigest.pdf.

<sup>&</sup>lt;sup>101</sup> Travis Dufour, "Living with Coyotes," Louisiana Department of Wildlife & Fisheries Wildlife Division - Private Lands Program, https://www.wlf.louisiana.gov/assets/Resources/Publications/Landowner\_Assistance/Living\_with\_Coyotes\_low-res.pdf. <sup>102</sup> Chuck Petrie, *supra* note 23.

#### Bill White, private land field chief, Missouri Department of Conservation:

- "We only need to look at history to see bounties are ineffective at improving game species[.]"103
- "Animals living in the wild operate under their own set of rules governed by the cycles of habitat, weather and food availability. Populations fluctuate; predators eat their prey. Under heavy pressure, furbearers will move or mate at an earlier age and have larger litters. Reduce the population of one predator and others may spike. For example, remove foxes from an area and you may see an increase in smaller rodents that eat quail eggs. Remove coyotes and you could see an increase in foxes, skunks, possums and raccoons. It's much easier to point the finger at the big, bad coyote, evil bobcat, rugged red-tailed hawk or rascally raccoon than look at habitat conditions that affect the nesting success of quail, turkey and other early successional wildlife." 104
- "Some states still offer bounties to "control" coyotes, gophers, nutria, beaver and ground squirrels. Do they work? The short answer is 'no,' at least not if the goal is to reduce a predator's population, recruit new hunters or improve game populations. In addition, there may be unintended consequences . . . Let's look at what happened in Missouri when we had a bounty system on coyotes from 1936-1947. A study of this bounty system showed that while it resulted in the destruction of large numbers of predators, it did not reduce the damage to livestock or the number of complaints. 'Eleven years of bounty figures offers no evidence that the population of coyotes has been reduced thereby."" 105

The National Wild Turkey Federation: "Removing a random predator from the landscape has no impact whatsoever on widespread turkey populations...Without good nesting habitat, eggs and poults are simply more vulnerable. Turkeys evolved to cope with predators. As long as they have a place to hide their nests and raise their young, they'll do just fine without predator control." <sup>106</sup>

#### New York State Department of Environmental Conservation:

- "Increasing the coyote harvest will not result in an increase in deer densities, particularly where other factors may be limiting deer growth." <sup>107</sup>
- Coyote "predation may improve the overall health of the prey population" through "isolation and removal of prey with contagious diseases or parasites" and "[alleviation of] prey population pressure on limited food supplies during critical periods."<sup>108</sup>
- "Researchers from the SUNY College of Environmental Science and Forestry examined animal carcasses visited by radio-collared coyotes during the winter and summer of 2008-09. During the winter, only 8% of adult deer had been killed conclusively by coyotes. The remaining 92% were scavenged by coyotes after being killed by vehicles and other injuries. The adult deer that were killed by coyotes had severe preexisting injuries and were likely to die from other causes in the absence of coyote predation."

<sup>&</sup>lt;sup>103</sup> Bill White, "The Bounty Hunter," *More Quail*, Missouri Department of Conservation, August 21, 2012, https://mdc.mo.gov/blogs/more-quail/bounty-hunter.

<sup>&</sup>lt;sup>104</sup> Bill White, "The Bounty Hunter," *More Quail*, Missouri Department of Conservation, August 21, 2012, https://mdc.mo.gov/blogs/more-quail/bounty-hunter.

<sup>&</sup>lt;sup>105</sup> Bill White, "The Bounty Hunter," *More Quail,* Missouri Department of Conservation, August 21, 2012, https://mdc.mo.gov/blogs/more-quail/bounty-hunter.

<sup>&</sup>lt;sup>106</sup> The National Wild Turkey Federation: "Coexist with Predators" http://www.nwtf.org/conservation/article/coexist-predators <sup>107</sup> New York State Dept. of Environmental Conservation, The Status and Impact of Eastern Coyotes in Northern New York (June 1991). Available at: http://www.nysenvirothon.org/Referencesandother/coyotes.pdf.

<sup>&</sup>lt;sup>108</sup> The Status and Impact of Eastern Coyotes in Northern New York," New York State Department of Environmental Conservation (June 1991), page 7-8, available at http://www.nysenvirothon.org/Referencesandother/coyotes.pdf. <sup>109</sup> "Eastern Coyote," New York State Department of Environmental Conservation, available at https://www.dec.ny.gov/animals/9359.html.

 "Deer harvest data show that, on the whole, Northern Zone deer populations have been growing in the presence of well-established coyote populations."

In a new study, North Carolina researchers evaluated deer harvest numbers in South Carolina, North Carolina, Ohio, Florida, New Jersey, and New York and found that coyotes are not limiting deer numbers in those states, and that coyote removal programs will do little to increase regional deer numbers.<sup>111</sup>

#### Pennsylvania Game Commission:

- To truly serve sportsmen, we must focus on proven means to restore small game hunting. . . . To pretend that predator control can return small game hunting to the state is a false prophecy. . . . The limiting factor is habitat we must focus our efforts on habitat."<sup>112</sup>
- "After decades of using predator control (such as paying bounties) with no effect, and the emergence of wildlife management as a science, the agency finally accepted the reality that predator control does not work...[Predators] don't compete with our hunters for game."

In a 2014 deer harvest report, the <u>South Carolina Department of Natural Resources</u> concluded that trying to control coyotes to manage predation of deer was ineffective.<sup>114</sup>

Dr. Scott Henke, researcher at <u>Texas</u> A&M <u>University-Kingsville</u>: "There's a belief that coyote control is necessary to help deer and quail populations. But it could actually do more harm than good."..."That same fawn taken by a coyote was likely to die from something else."<sup>115</sup>

#### Vermont Fish & Wildlife:

- "...we do not believe such short-term hunts will...bolster populations of deer or other game species."
- "The Vermont Fish & Wildlife Department believes that both predators and prey species are vital components in a healthy ecosystem. Deer and other prey species evolved with predators and as such, we neither regard predators as undesirable, nor do we view them as a significant threat to game populations. In fact, predators can help to maintain prey populations at levels that are in balance with their habitat."
- "Although a coyote may kill a fawn or deer in deep snow, it will also readily eat the carcass of a dead deer and other dead animals. Research has shown that although the coyote does prey on deer fawns in the spring and deer in the winter, it is not a major controlling factor on deer numbers with the possible exception of areas where deer populations are already low or winters are extremely severe. . . . The relationship between a predator, such as the coyote and its prey is complex. Predator populations tend to fluctuate in response to periodic changes in prey

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf.

<sup>&</sup>lt;sup>110</sup> "The Status and Impact of Eastern Coyotes in Northern New York," New York State Department of Environmental Conservation (June 1991), page 42, available at http://www.nysenvirothon.org/Referencesandother/coyotes.pdf.

<sup>111</sup> Eugenia V. Bragina, Roland Kays, Allison Hody, Christopher E. Moorman, Christopher S. Deperno, L. Scott Mills. "Effects on white-tailed deer following eastern coyote colonization." *The Journal of Wildlife Management*, March 20, 2019.

https://redwolves.com/newsite/wp-content/uploads/2019/04/Bragina\_et\_al-2019-The\_Journal\_of\_Wildlife\_Management.pdf

<sup>112</sup> Bob Frye, "Habitat, not predators, seen as key to wildlife populations," *Trib Live*, July 25, 2016

http://triblive.com/sports/outdoors/10756490-74/game-predator-predators.

<sup>&</sup>lt;sup>113</sup> Jeff Mulhollem, *Pennsylvania Game Commissioners Reply to Unified Sportsmen of Pennsylvania on Predator Questions*, Outdoor News (July 33, 2016). Available at: https://www.outdoornews.com/2016/07/22/pennsylvania-game-commissioners-reply-to-unified-sportsmen-of-pennsylvania-on-predators-questions/.

<sup>&</sup>lt;sup>114</sup> Charles Ruth, South Carolina Department of Natural Resources Deer Research & Management Project: "2014 South Carolina Deer Harvest Report" http://www.dnr.sc.gov/wildlife/deer/2014DeerHarvest.pdf

https://www.houstonchronicle.com/sports/outdoors/article/Meet-the-coyote-one-of-nature-s-great-13977657.php November 116 Vermont Fish & Wildlife, Eastern Coyote Issues – A Closer Look (Jan. 2017). Available at:

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf. 117 Vermont Fish & Wildlife, Eastern Coyote Issues – A Closer Look (Jan. 2017). Available at:

densities. Prey species in New England have evolved with predators such as wolves, mountain lions, and humans and are therefore well adapted to predation.... While coyotes kill other animals to eat and survive, including an occasional deer, they should not be subjected to an extermination program."<sup>118</sup>

- "We offer the following statements regarding coyotes and their interaction with deer:
  - . Coyotes capitalize on a variety of prey species including deer. Many studies have documented that coyotes, black bears and bobcats all kill fawns in the spring. However, researchers have concluded there is no evidence suggesting fawn survival rates are preventing deer population growth. Coyotes also kill some deer in the winter, but again, not to an extent that prevents deer population growth.
  - . Coyotes are also scavengers on carcasses of deer that may die of malnutrition or other causes. Just because a coyote is feeding on a deer does not mean the coyotes killed that deer.
  - . Even the complete removal of coyotes from Vermont would not ensure a healthy, abundant deer herd. Winter deer habitat is the 'critical' factor that limits and controls total deer numbers in the long term.
  - . We are not aware of any scientific evidence from studies done in the Northeast, indicating that coyotes either control or limit the numbers of deer in healthy deer populations, particularly if coyote predation is taken into consideration when determining antlerless harvest rates. There are numerous scientific studies that suggest that coyotes do not regulate deer populations.
  - . Vermont's deer herd is healthy. In Vermont, winter severity is perhaps the most significant factor driving deer population fluctuations from year to year. Populations of all wild animals naturally fluctuate." <sup>119</sup>

#### West Virginia Division of Natural Resources:

- "Predator control of coyotes because of wildlife predation is unwarranted and unnecessary."
- "While the coyote is a significant predator on wildlife populations, it should be noted that predation is a natural part of the ecosystem. The addition of the coyote to the ecosystem can change ecological balances of predator and prey species, but it will not eliminate other species from the environment."
- "Hunters should note that in the results of a recent study on white-tailed deer fawn survival, only 9 percent of total losses was attributed to coyotes. Given the varied diet of coyotes, it is unlikely that they will limit deer numbers in West Virginia.<sup>122</sup>
- "Coyotes have stabilized at densities in mid-western states that are not threatening to other wildlife species."
- "The coyote takes a proportion of fawns in West Virginia, but in many areas this predation may be beneficial to the health of the deer herd." 124

<sup>&</sup>lt;sup>118</sup> "Coyote," Vermont Fish & Wildlife Department, available at https://vtfishandwildlife.com/learn-more/vermont-critters/mammals/coyote.

<sup>119 &</sup>quot;Eastern Coyote Issues: A Closer Look," Vermont Fish & Wildlife, available at

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf. <sup>120</sup> "Eastern Coyote Impacts Of The Eastern Coyote On Wildlife Populations, West Virginia Division of Natural Resources, available at http://www.wvdnr.gov/hunting/CoyoteResearch.shtm.

<sup>121 &</sup>quot;Eastern Coyote Impacts Of The Eastern Coyote On Wildlife Populations, West Virginia Division of Natural Resources, available at http://www.wvdnr.gov/hunting/CoyoteResearch.shtm.

<sup>&</sup>lt;sup>122</sup> Clifford L. Brown, "Coyote," West Virginia Division of Natural Resources, Winter 2005, http://www.wvdnr.gov/wildlife/magazine/archive/05Winter/coyotes.pdf.

<sup>&</sup>lt;sup>123</sup> "Eastern Coyote Impacts Of The Eastern Coyote On Wildlife Populations, West Virginia Division of Natural Resources, available at http://www.wvdnr.gov/hunting/CoyoteResearch.shtm.

<sup>&</sup>lt;sup>124</sup> "Eastern Coyote Impacts Of The Eastern Coyote On Wildlife Populations, West Virginia Division of Natural Resources, available at http://www.wvdnr.gov/hunting/CoyoteResearch.shtm.

Wisconsin Department of Natural Resources: "Coyotes do not commonly prey upon deer, although they are capable of taking fawns and weakened adults. As with any predator-prey relationship, coyotes help keep their prey populations healthy and in balance with the environment." 125

#### Dave Rippe of Wyoming Game and Fish Department:

- "Habitat quality is the most important factor determining not only the number of animals surviving in a given area, but also the extent to which other mechanisms affect the population."
- "Because of the close tie to their prey base, it is rare that predators remove enough animals to negatively impact a prey population. Occasionally, in combination with harsh winter weather, a large predator population will drive a prey population lower than it would have been due to the winter alone. When this situation occurs, it is frequently a symptom of a more subtle and complicated problem: a wildlife habitat in poor condition."
- "Predator control (or reduction) is employed when predators are believed to be too numerous and/or taking too many desirable prey animals (e.g. deer, antelope, and game birds). The expected result of any predator control action is two-fold: first, to reduce the number of predators; and second, to increase the number of prey animals. However, predator control will not help restore a population of deer, antelope or other animals declining because of habitat deterioration or overuse. . . . Habitat improvement, as an alternative to predator control programs, may be the only long-term solution to low populations of deer, antelope, waterfowl, pheasants, and other wildlife." 128
- "More often, predator control programs also reduce non-target bird and mammal populations and upset the ecological balance of the area, leading to compounded problems." <sup>129</sup>
- "Researchers have found that where sufficient, high quality wildlife habitats exist, predator control is unnecessary. Animal populations ranging on poor or marginal habitats (e.g. the edge of their distribution range) will be affected more severely by all limiting factors, including predation. Maintenance of healthy food plants, strategic placement of watering areas, and development of cover will improve the ability of an area to support game species. With ample food, water, and cover, the odds of predators negatively impacting prey populations are substantially decreased. Habitat improvement, as an alternative to predator control programs, may be the only long-term solution to low populations of deer, antelope, waterfowl, pheasants, and other wildlife." 130
- "Before considering predator control as an option to increase game animal numbers, the following questions should be addressed: 1. Are predators definitely limiting prey numbers? If predators are not the primary limiting factor, their removal may only waste time and money, and could upset the ecological balance of the area, creating additional problems. . . . 3. Can the specific predators causing damage be removed efficiently and economically? Animals causing the problem should be targeted for removal rather than general predator control which is expensive and may create adverse impacts on the wildlife and wildlife habitat. Remember that predator control techniques must be specifically selected for an area and a situation; not all techniques

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<sup>&</sup>lt;sup>125</sup> Tami Ryan, "A howl over coyotes," *Wisconsin Natural Resources Magazine*, December 1999, https://dnr.wi.gov/wnrmag/html/stories/1999/dec99/coyote.htm#:~:text=Coyotes%20live%20in%20every%20Wisconsin,the%20so uthern%20and%20western%20portions.

 <sup>126</sup> Dave Rippe, "Predator Control and Wildlife," Wyoming Game and Fish Department, Habitat Extension Services, July 1995, https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf.
 127 Dave Rippe, "Predator Control and Wildlife," Wyoming Game and Fish Department, Habitat Extension Services, July 1995, https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf.
 128 Dave Rippe, "Predator Control and Wildlife," Wyoming Game and Fish Department, Habitat Extension Services, July 1995, https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf.
 129 Dave Rippe, "Predator Control and Wildlife," Wyoming Game and Fish Department, Habitat Extension Services, July 1995, https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf.
 130 Dave Rippe, "Predator Control and Wildlife," Wyoming Game and Fish Department, Habitat Extension Services, July 1995, https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf.

- can be employed in all areas or for all situations. 4. Will predator control damage other wildlife or environmental values? Predator control benefits will be negated if the program fails to provide safeguards for other environmental components. Predators are merely one feature of a complex natural system; any strategy to control them must protect other system components."<sup>131</sup>
- "For thousands of years, predation has been one component of the natural environment: predators culling inferior prey and scavenging animal carcasses. Predation rarely controls the growth of a population of animals. In fact, in situations where predators are having a significant effect on wildlife populations, predation may actually be a symptom of the real problem: a lack of quality, wildlife habitats. Before implementing a predator control program, it is important to carefully weigh the extensive time and cost of such a program against its intended benefits, and to consider that predation may simply be a symptom of a larger problem which could benefit more from the resources." 132

## Statements on the important ecological role of coyotes

California Department of Fish and Wildlife: "Coyotes play an important role in the ecosystem, helping to keep rodent populations under control." <sup>133</sup>

Florida Fish and Wildlife Conservation Commission: "Coyotes help maintain balanced ecosystems by controlling the populations of rodents and smaller predators, such as foxes, opossums and raccoons, which naturally occur in higher densities and can quickly overpopulate areas of habitat. Coyotes are native to North America, have been in Florida for many years, and will continue to make their homes around the state." <sup>134</sup>

Illinois Department of Natural Resources: "Coyotes are valuable members of the wildlife community and do more good than harm where humans are concerned." 135

Indiana Department of Natural Resources: "Coyotes eat mostly small rodents and rabbits. This makes them an important member of the food chain." <sup>136</sup>

The Izaak Walton League of America: "The League recognizes the intrinsic value of predatory species and their important ecological roles." <sup>137</sup>

Michigan Department of Natural Resources: "Coyotes are valued by many people throughout Michigan as a part of the ecosystem, a predator, and a recreational opportunity." 138

https://www.michigan.gov/documents/dnr/coyotes\_smart\_brochure\_ada\_544517\_7.pdf

 <sup>131</sup> Dave Rippe, "Predator Control and Wildlife," Wyoming Game and Fish Department, Habitat Extension Services, July 1995, https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf.
 132 Dave Rippe, "Predator Control and Wildlife," Wyoming Game and Fish Department, Habitat Extension Services, July 1995, https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf.
 133 "Keep Me Wild: Coyote," California Department of Fish and Wildlife, https://wildlife.ca.gov/Keep-Me-Wild/Coyote
 134 "Coyotes," Florida Fish and Wildlife Conservation Commission, https://myfwc.com/conservation/you-conserve/wildlife/coyotes/

<sup>135 &</sup>quot;Coyote," Illinois Department of Natural Resources, https://www.dnr.illinois.gov/conservation/wildlife/Pages/Coyote.aspx 136 "Living with Wildlife: Coyotes," Indiana Department of Natural Resources, https://www.in.gov/dnr/fishwild/files/fw-uw\_factsheet\_coyote.pdf

<sup>&</sup>lt;sup>137</sup> The Izaak Walton League of America: "Conservation Policies 2019," pg. 54 https://www.iwla.org/docs/default-source/about-iwla/2019-policy-book.pdf?sfvrsn=44

<sup>138 &</sup>quot;Coyotes," Michigan Department of Natural Resources,

#### Missouri Department of Conservation:

- "Coyotes feed on smaller animals and thus keep their populations in check; they also kill old, injured, sick animals unfit to survive. As scavengers, they eat carrion and therefore help clean the woods and fields." 139
- "Under normal circumstances it appears that coyotes cause little conflict in urban landscapes and can even be viewed as an asset instead of a liability."

New Hampshire Fish and Game: "[W]hen farms are situated in a coyote territory with no depredation, the resident coyote may actually be an asset to the farm by removing rodents and preventing problem coyotes from moving into the area." <sup>141</sup>

#### New York State Department of Environmental Conservation:

- "The Eastern coyote is firmly established in New York. They live in New York as an integral part of our ecosystems."<sup>142</sup>
- Coyote "predation may improve the overall health of the prey population" through "isolation and removal of prey with contagious diseases or parasites" and "[alleviation of] prey population pressure on limited food supplies during critical periods."<sup>143</sup>

Oregon Department of Fish and Wildlife: "Coyotes play an important role in the food chain by controlling mice, rats and other rodents and scavenging on dead wildlife that otherwise could spread disease. Rodents make up the bulk of the coyote diet in both urban and rural settings. Many areas, such as cemeteries and golf courses, have reported declines in damage associated with gophers once coyotes appeared. Coyotes also help to control geese in urban areas and on agricultural lands where flocks can forage and destroy young crops. Coyotes sometimes kill domestic and free-roaming cats for food or to remove competition. This can be controversial with some members of the public; however, a positive consequence of coyotes preying on feral cats can be an increase in nesting success for neo-tropical songbirds." 144

Pennsylvania Game Commission: "Predators – whether they be hawks, owls, eagles, bears or foxes – are an important part of Penns Woods." <sup>145</sup>

Tennessee Wildlife Resources Agency: "The coyote is a valuable member of the wildlife community. It feeds on rodents and thus helps prevent the damage the abundant rodent population might otherwise cause. They eat old, sick, or injured wild animals unable to survive. As a scavenger of dead animals, both wild and domestic, they help clean up the woods and fields." 146

#### Vermont Fish & Wildlife:

— "The Fish & Wildlife Department recognizes that people have many differing views on the value of predators. We believe, however, that coyotes are important members of the ecosystem and have evolved together with many of nature's existing prey species. Conservation of the coyote is

https://www.wildlife.state.nh.us/wildlife/profiles/coyote.html

<sup>139</sup> The Missouri Department of Conservation: "Coyote" at https://nature.mdc.mo.gov/discover-nature/field-guide/coyote

<sup>140 &</sup>quot;Urban Coyotes," Missouri Department of Conservation," https://mdc.mo.gov/conmag/2009/08/urban-coyotes

<sup>141 &</sup>quot;Eastern Coyote (Canis latrans var.)," New Hampshire Fish and Game,

<sup>142 &</sup>quot;Coyote Conflicts," New York State Department of Environmental Conservation, https://www.dec.ny.gov/animals/6971.html

<sup>&</sup>lt;sup>143</sup> The Status and Impact of Eastern Coyotes in Northern New York," New York State Department of Environmental

Conservation (June 1991), page 7-8, available at http://www.nysenvirothon.org/Referencesandother/coyotes.pdf.

<sup>144 &</sup>quot;Living with Wildlife: Coyotes," Oregon Department of Fish and Wildlife,

https://www.dfw.state.or.us/wildlife/living\_with/docs/living\_with\_coyotes.pdf

<sup>&</sup>lt;sup>145</sup> B. Frye. (July 25, 2016). "Habitat, not predators, seen as key to wildlife populations," *Trib Live*,

 $http: /\!/ triblive.com/sports/outdoors/10756490-74/game-predator-predators.$ 

<sup>&</sup>lt;sup>146</sup> "Controlling Coyotes in Tennessee," Tennessee Wildlife Resources Agency (January 2003), available at https://www.tn.gov/content/dam/tn/twra/documents/mammals/coyotecontrol.pdf

important to maintaining ecosystem integrity because of the vital role they play as predators. . . . Coyotes fill the role of a natural predator, a role that is important for maintaining the dynamics and health of our ecosystems."<sup>147</sup>

- "Public attitudes towards coyotes are becoming increasingly positive[.]" 148
- "The Vermont Fish & Wildlife Department believes that both predators and prey species are vital components in a healthy ecosystem. Deer and other prey species evolved with predators and as such, we neither regard predators as undesirable, nor do we view them as a significant threat to game populations. In fact, predators can help to maintain prey populations at levels that are in balance with their habitat." 149
- "[T]he adaptable and wily coyote is here to stay and to partially fill the niche left by wolves." 150

Virginia Department of Game and Inland Fisheries: "Although frequently unwelcome by people living in urban and suburban neighborhoods, coyotes can provide benefits to these communities. Coyotes eat rats and other destructive rodents in cities, as well as rabbits and groundhogs that munch on flowers and gardens in suburban areas. They also prey upon fawns in overpopulated deer herds and help control Canada geese that wreak havoc on golf courses and baseball fields. Research has even shown that coyotes reduce the presence of free roaming and feral cats in urban natural areas, thereby increasing songbird nesting success." <sup>151</sup>

Washington Department of Fish & Wildlife: "If your property is the home territory of coyotes that don't harm livestock, they will keep away other coyotes that are potential livestock killers. Coyotes also benefit ranchers and other property owners by helping control populations of mice, rats, voles, moles, gophers, rabbits, and hares." <sup>152</sup>

#### West Virginia Division of Natural Resources:

- "Predators serve a valuable function to keep prey species in balance with their habitat. Rodents such as rats and mice would be soon out of control without predators."
- "The coyote takes a proportion of fawns in West Virginia, but in many areas this predation may be beneficial to the health of the deer herd."

Wisconsin Department of Natural Resources: "As with any predator-prey relationship, coyotes help keep their prey populations healthy and in balance with the environment. When coyotes consume animal carcasses, they help prevent the spread of disease within wildlife populations. In agricultural areas, coyotes prey on rodents that damage crops." 155

<sup>&</sup>lt;sup>147</sup> "Coyote," Vermont Fish & Wildlife Department, available at https://vtfishandwildlife.com/learn-more/vermont-critters/mammals/coyote.

<sup>&</sup>lt;sup>148</sup> Vermont Fish & Wildlife, Eastern Coyote Issues – A Closer Look (Jan. 2017). Available at:

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf. 149 Vermont Fish & Wildlife, Eastern Coyote Issues – A Closer Look (Jan. 2017). Available at:

https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf.

<sup>&</sup>lt;sup>150</sup> Vermont Fish & Wildlife, Eastern Coyote Issues – A Closer Look (Jan. 2017). Available at: https://vtfishandwildlife.com/sites/fishandwildlife/files/documents/Hunt/trapping/Eastern-Coyote-Position-Statement.pdf.

<sup>151 &</sup>quot;Living with coyotes near your home in Virginia," Virginia Department of Game and Inland Fisheries, https://www.dgif.virginia.gov/wp-content/uploads/Living-with-Coyotes-Near-Your-Home-in-Virginia.pdf

<sup>152 &</sup>quot;Living with Wildlife," Washington Department of Fish and Wildlife, available at http://wdfw.wa.gov/living/coyotes.html.
153 "Eastern Coyote Impacts Of The Eastern Coyote On Wildlife Populations, West Virginia Division of Natural Resources, available at http://www.wvdnr.gov/hunting/CoyoteResearch.shtm.

<sup>154 &</sup>quot;Eastern Coyote Impacts Of The Eastern Coyote On Wildlife Populations, West Virginia Division of Natural Resources, available at http://www.wvdnr.gov/hunting/CoyoteResearch.shtm.

<sup>&</sup>lt;sup>155</sup> Tami Ryan, "A howl over coyotes," Wisconsin Natural Resources Magazine, December 1999,

https://dnr.wi.gov/wnrmag/html/stories/1999/dec99/coyote.htm#:~:text=Coyotes%20live%20in%20every%20Wisconsin,the%20so uthern%20and%20western%20portions.

Dave Rippe of <u>Wyoming Game and Fish Department</u>: "In meeting their own food demands, predators help reduce prey numbers where an overabundance of prey animals exists. Predators also remove animals with poor survival characteristics: the weak, sick, injured, or unwary." <sup>156</sup>

# Statements on the interaction between coyotes, people, and pets

#### Colorado Parks and Wildlife:

- "Responsible pet ownership is key in reducing coyote conflicts."
- "Coyotes are naturally curious but are usually timid animals and run away if confronted." 158
- "Although naturally curious, coyotes are usually timid animals and normally run away if confronted. Coyote attacks on humans are rare. In many cases these attacks occur as a result of people feeding coyotes."

Illinois Department of Natural Resources: "Attacks on humans are extremely rare considering the range and abundance of coyotes. A study published in 2007 found 187 reliable reports of attacks on humans, most of which (157) occurred in California, Arizona and Nevada. Many of these incidents occurred where people were feeding coyotes intentionally, causing them to lose their fear of humans." <sup>160</sup>

Indiana Department of Natural Resources: "Although their presence tends to concern people who are unfamiliar with coyotes, they are usually more afraid of humans than we are of them. In some cases, coyotes may attack and kill small pets. But coyote attacks on humans are exceptionally rare." <sup>161</sup>

Louisiana Department of Wildlife & Fisheries: "Coyote attacks on humans are extremely rare, but have occurred." 162

#### Maine Department of Inland Fisheries & Wildlife:

- "Although people often blame coyotes when a pet goes missing or is found dead, many other animals – including dogs cats, bears, fishers, bobcats and foxes – could be responsible, as well as vehicles, disease, weather or even furious neighbors." 163
- "To date, there have been no documented coyote attacks on humans in Maine. There are documented cases in other states. Often the animals responsible had become accustomed to the presence of people, were fed, and/or were targeting dogs that accompanied people. A Wildlife Extension Specialist at the University of California studied southern California the

https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/FAQs-Urban-Coyotes.pdf

https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/FAQs-Urban-Coyotes.pdf

Dave Rippe, "Predator Control and Wildlife," Wyoming Game and Fish Department, Habitat Extension Services, July 1995, https://wgfd.wyo.gov/WGFD/media/content/PDF/Habitat/Extension%20Bulletins/B57-Predator-Control-and-Wildlife.pdf.
 "Most Commonly Asked Questions about Urban Coyotes," Colorado Parks and Wildlife,

<sup>&</sup>lt;sup>158</sup> "Most Commonly Asked Questions about Urban Coyotes," Colorado Parks and Wildlife,

<sup>159 &</sup>quot;Your guide to avoiding human-coyote conflicts," Colorado Parks & Wildlife, https://cpw.state.co.us/Documents/WildlifeSpecies/LivingWithWildlife/CoyoteConflictBrochure.pdf

<sup>160 &</sup>quot;Coyote," Illinois Department of Natural Resources, https://www2.illinois.gov/dnr/conservation/wildlife/Pages/Coyote.aspx 161 "Living with Wildlife: Coyotes," Indiana Department of Natural Resources, https://www.in.gov/dnr/fishwild/files/fw-uw\_factsheet\_coyote.pdf

Travis Dufour, "Living with Coyotes," Louisiana Department of Wildlife & Fisheries Wildlife Division - Private Lands Program, https://www.wlf.louisiana.gov/assets/Resources/Publications/Landowner\_Assistance/Living\_with\_Coyotes\_low-res.pdf.
 "Coyote," Maine Department of Inland Fisheries & Wildlife, https://www.maine.gov/ifw/fish-wildlife/wildlife/living-with-wildlife/avoid-resolve-conflict/coyotes.html

West's most densely populated area – and found that from 1988 to 1997 there were 53 coyote attacks on humans resulting in 21 injuries." <sup>164</sup>

Michigan Department of Natural Resources: "Coyotes are shy creatures, avoiding people whenever possible." 165

Nebraska Game and Parks Commission: "Most interactions that people experience with coyotes are interactions between coyotes and dogs due to the territorial nature of both animals. Coyote attacks on people are very rare; coyotes typically avoid people." 166

#### New York State Department of Environmental Conservation:

- "Potential does exist for coyote attacks in New York. However, a little perspective may be in order. On average, 650 people are hospitalized and one person killed by dogs each year in New York State. Nationwide, only a handful of coyote attacks occur yearly." 167
- "Do coyotes kill cats? Absolutely, but so do foxes, dogs, bobcats, vehicles, and even great horned owls. Cat owners need to be aware that cats allowed to roam free are at risk from many different factors. To protect your cat, keep it indoors, or allow it outside only under supervision." 168

#### Ohio Department of Natural Resources Division of Wildlife:

- "Coyotes are not going away. Don't create a conflict where it doesn't exist—just seeing a coyote does not mean it's behaving badly. Modifying human behavior is the best way to reduce conflicts with coyotes."
- "Coyote attacks on people are very rare." There are roughly 3-5 injuries per year across North America, and all cases are associated with feeding. The Division further states, "[There are] only 2 reported fatalities since recordkeeping began (pre-1960)."
- "Coyotes aren't 'good' or 'bad' they just are. They are just wild animals surviving in a human dominated world. It's up to us to modify our behavior to limit negative interactions." 171

#### Oregon Department of Fish and Wildlife:

- "Coyotes are generally wary of humans and usually won't stick around long once they've been spotted.... Once seen by humans, coyotes will usually bolt."
- "Coyotes differ from most other wildlife speices in cities in that they can be considered a nuisance without any evidence of damage, but simply by being seen. . . . Many people are not familiar with normal coyote behavior so often misconceptions and fear results." <sup>173</sup>

https://www.michigan.gov/documents/dnr/coyotes\_smart\_brochure\_ada\_544517\_7.pdf

<sup>164 &</sup>quot;Coyote," Maine Department of Inland Fisheries & Wildlife, https://www.maine.gov/ifw/fish-wildlife/wildlife/living-with-wildlife/avoid-resolve-conflict/coyotes.html

<sup>165 &</sup>quot;Coyotes," Michigan Department of Natural Resources,

 <sup>166 &</sup>quot;Game and Parks reminds pet owners to be vigilant against coyotes," Nebraskaland, Nebraska Game and Parks Commission, September 8, 2017, http://magazine.outdoornebraska.gov/2017/09/game-parks-reminds-pet-owners-vigilant-coyotes/
 167 "Coyote conflicts," New York State Department of Environmental Conservation, https://www.dec.ny.gov/animals/6971.html
 168 "Coyote Conflicts," New York State Department of Environmental Conservation, https://www.dec.ny.gov/animals/6971.html
 169 "Today's Coyotes: Life History and Living with Wildlife," Ohio Department of Natural Resources Division of Wildlife, https://www.cwpd.org/wp-content/uploads/2020/02/ohio-div-wildlife-coyote-presentation.pdf

<sup>&</sup>lt;sup>170</sup> "Today's Coyotes: Life History and Living with Wildlife," Ohio Department of Natural Resources Division of Wildlife, https://www.cwpd.org/wp-content/uploads/2020/02/ohio-div-wildlife-coyote-presentation.pdf

<sup>&</sup>lt;sup>171</sup> "Today's Coyotes: Life History and Living with Wildlife," Ohio Department of Natural Resources Division of Wildlife, https://www.cwpd.org/wp-content/uploads/2020/02/ohio-div-wildlife-coyote-presentation.pdf

<sup>&</sup>lt;sup>172</sup> "Living with Wildlife: Coyotes," Oregon Department of Fish and Wildlife, https://www.dfw.state.or.us/wildlife/living\_with/docs/living\_with\_coyotes.pdf

<sup>173 &</sup>quot;Living with Wildlife: Coyotes," Oregon Department of Fish and Wildlife,

 $https:/\!/www.dfw.state.or.us/wildlife/living\_with/docs/living\_with\_coyotes.pdf$ 

- "As the populations of both people and coyotes increase, more frequent encounters between the two are ineveitable. Therefore education is an important factor in dispelling misinformation about coyotes and coexisting with these remarkable animals."174
- "Most of the time, coyotes are considered by some to be more of a nuisance than actually a threat. Prevention is always the best medicine when it comes to avoiding, minimizing or correcting problems with coyotes. By far the greatest number of conflicts between humans and coyotes are those in which the animal has become habituated to a residential area by the behavior of human beings. Nine times out of ten, these problems arise because people have attracted the coyote by giving it access to food or shelter. Giving a wild animal food is never a good idea. Fortunately, most of these situations are easily prevented or corrected by removing food sources and access to shelter."175

#### Texas Parks & Wildlife:

- "Urban and suburban coyotes, like urban deer, are symptoms of a broader issue. People continue to expand housing subdivisions and other human development into what used to be open range wildlife habitat, especially on the expanding fringes of large metropolitan areas. This is increasing the potential for encounters and conflicts between people and wildlife." 176
- "Trapping and similar nuisance control actions cannot eliminate urban coyote problems, although this can be part of the solution in some situations. The real solution and the greater need facing Texans right now is public education. We need to inform and empower people to take steps to coexist with coyotes and other urban wildlife. There are some common sense precautions people can take to manage coyotes[.]"177

#### Washington Department of Fish and Wildlife:

- "Coyotes are curious but timid animals and will generally run away if challenged."
- "Humans increase the likelihood of conflicts with coyotes by deliberately or inadvertently feeding the animals, whether by handouts or by providing access to food sources such as garbage, pet food or livestock carcasses. . . . Prevention is the best tool for minimizing conflicts with coyotes and other wildlife."

#### Wisconsin Department of Natural Resources:

- $-\hspace{0.1cm}$  "Coyotes are typically not aggressive toward humans and are generally fearful of them." $^{179}$
- "Their presence can be unnerving or frightening but generally they are more afraid of you than you are of them. In some cases, they may attack and kill small pets, but coyote attacks on humans are exceptionally rare."180

<sup>174 &</sup>quot;Living with Wildlife: Coyotes," Oregon Department of Fish and Wildlife, https://www.dfw.state.or.us/wildlife/living\_with/docs/living\_with\_coyotes.pdf

<sup>175 &</sup>quot;Living with Wildlife: Coyotes," Oregon Department of Fish and Wildlife,

https://www.dfw.state.or.us/wildlife/living\_with/docs/living\_with\_coyotes.pdf

<sup>176 &</sup>quot;Urban coyotes," Texas Parks & Wildlife, https://tpwd.texas.gov/huntwild/wild/nuisance/coyote/177 "Urban coyotes," Texas Parks & Wildlife, https://tpwd.texas.gov/huntwild/wild/nuisance/coyote/

<sup>178 &</sup>quot;Living with Wildlife: Coyotes," Washington Department of Fish and Wildlife,

http://lmcbeachclub.com/documents/CoyotesFactSheet.pdf

<sup>&</sup>lt;sup>179</sup> Tami Ryan, "A howl over coyotes," Wisconsin Natural Resources Magazine, December 1999,

https://dnr.wi.gov/wnrmag/html/stories/1999/dec99/coyote.htm#:~:text=Coyotes%20live%20in%20every%20Wisconsin,the%20so uthern%20and%20western%20portions.

<sup>180 &</sup>quot;Nuisance, urban and damaging wildlife," Wisconsin Department of Natural Resources, https://dnr.wi.gov/topic/WildlifeHabitat/damage.html