

MANAGING AN AMERICAN PREDATOR: WILDLIFE LAW AND THE MOUNTAIN LION

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ABSTRACT

To date, how American governments have managed mountain lion populations has received little to no attention in the legal scholarship. There is a substantial body of legal scholarship examining the management of grizzly bear and wolf populations, largely because managing these predators under the Endangered Species Act raises complex administrative law and federalism questions. And even when predator management is discussed generally, the focus remains on wolves; mountain lions are treated as a sort of adjunct species, the presumption being that managing mountain lions is effectively like managing wolves. But that is not the case. Mountain lions pose dramatically different management challenges than wolves.

To begin, for the past fifty years, wolves in the lower 48 have been managed under the federal ESA; “wolf law” today is largely, if not entirely, federal administrative law. In contrast, “Mountain Lion Law” is entirely state law; each state manages (or does not manage) its mountain lions as it sees fit, usually under a managed sport hunting model. But perhaps the most salient distinction between wolf and mountain lion management is that wolves do not attack people, and mountain lions do. Remarkably, in the long arc of American history, there are no documented reports in the lower 48 of a healthy wild wolf killing or even attacking a human. In contrast, in the summer of 2025 alone, mountain lions attacked an eleven-year-old girl in Malibu, California; a four-year-old child hiking with his family on a popular National Park trail in Washington; a man walking his dog in a suburb of Phoenix; and a summer camp employee in Northern California.

Such attacks make good copy; every mountain lion attack is detailed in the press, often in gruesome detail. Consequently, mountain lion management has become a national discussion. Against this backdrop, perhaps the time is ripe for a dedicated legal history of the American mountain lion.

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INTRODUCTION

When the Pilgrims landed at Plymouth Rock in 1620, there were five “apex” predators roaming what would become the contiguous United States.¹ Grizzly bears roamed the western states, extending from the Pacific, across the Rocky Mountains, and into the Great Plains.² Jaguars patrolled the Southwest

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1. Apex predators are defined here as large mammalian carnivores that have no natural predators and can take large prey. In conservation biology, apex predators sit at the top of a trophic cascade. See Arian D. Wallach et al., *What is an apex predator?*, 124 *OIKOS* 1453, 1453 (2015). In ecosystems with larger predators, coyotes are generally considered “mesopredators,” existing one rung below apex predators in a trophic cascade. Laura R. Prugh et al., *The Rise of the Mesopredator*, 59 *BIOSCIENCE* 779, 780 (2009).
 2. See *Grizzly Bear*, U.S. FISH & WILDLIFE SERV., <https://perma.cc/RL27-XPQP>. The grizzly bear is generally considered a subspecies (*Ursa arctos horribilis*) of the broader brown bear species (*Ursa arctos*). See *id.*

from California to Louisiana.³ And mountain lions,⁴ wolves,⁵ and black bears⁶ were just about everywhere, including the coastal forests around Plymouth and other colonial outposts.

Each of these apex predators existed in relative equilibrium with North America's Indigenous Nations.⁷ But the early American colonists could not tolerate sharing the Eastern woods with the native mountain lions, gray wolves, and black bears. To begin, the "wild beasts" were frighteningly unfamiliar.⁸ When the *Mayflower* sailed, the last time a wild cat as large as a mountain lion roamed England was during the Bronze Age.⁹

The real problem, though, was property damage. The local apex predators consumed a meaningful number of the livestock and draft animals that were foundational to the colonial experiment.¹⁰ The colonists responded by adapting a scheme first developed by the English Crown to rid its forests of weasels.¹¹ In 1630, just ten years after the *Mayflower* sailed, the Massachusetts Bay Company established a bounty on the local wolves, agreeing to pay ten shillings for each wolf killed.¹²

And so began the "extermination era" of apex predator management in America. For the next 350 years, the destruction of any and all apex predators was a formal policy objective of every American government, be it colonial,

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3. See *Jaguar (Panthera onca)*, U.S. FISH & WILDLIFE SERV., <https://perma.cc/5UGT-MYVB>.
 4. See COUGAR: ECOLOGY AND CONSERVATION, at vii (Maurice Hornocker & Sharon Negri eds., 2010).
 5. See Paul C. Paquet & Lu N. Carbyn, *Gray Wolf (Canis Lupus and Allies)*, in *WILD MAMMALS OF NORTH AMERICA: BIOLOGY, MANAGEMENT, AND CONSERVATION* 482, 483 (George A. Feldhamer et al. eds., 2003). Unless otherwise specified, as used herein, "wolf" or "wolves" refers collectively to 1) the widely-distributed gray wolf, which once ranged throughout the contiguous United States, save the Southeast and parts of California; 2) the Mexican gray wolf, a localized subspecies of the gray wolf, which was once common in west Texas, southern New Mexico, and Arizona; and 3) the smaller red wolf, considered a separate species, and native to the coastal plains of the Southeastern United States. See *id.*; see also NAT'L ACADS. OF SCIS., ENG'G, & MED., *EVALUATING THE TAXONOMIC STATUS OF THE MEXICAN GRAY WOLF AND THE RED WOLF* 42, 51–52 (2019).
 6. See *Black Bear Range*, N. AM. BEAR CTR., <https://perma.cc/2RUL-WUS2>.
 7. See VIRGINIA DEJOHN ANDERSON, *CREATURES OF EMPIRE: HOW DOMESTIC ANIMALS TRANSFORMED EARLY AMERICA* 15–42 (2004).
 8. In his history *Of Plimoth Plantation*, William Bradford described the Pilgrims encountering "a hideous and desolate wilderness, full of wild beasts and wild men—and what multitudes there might be of them they knew not." WILLIAM BRADFORD, *OF PLIMOTH PLANTATION*, bk. 1, ch. IX (1630–50).
 9. See László Bartosiewicz, *Animals in Bronze Age Europe*, in *THE OXFORD HANDBOOK OF THE EUROPEAN BRONZE AGE* 328, 340 (Harry Fokkens & Anthony Harding eds., 2013).
 10. See ANDERSON, *supra* note 7, at 143–46.
 11. See *infra* Part I.A.
 12. George C. Coggins & Parthenia B. Evans, *Predators' Rights and American Wildlife Law*, 24 ARIZ. L. REV. 821, 827 (1982).

territorial, state, or federal.¹³ Indeed, the destruction of local apex predators was so crucial to the public welfare that setting up a bounty system could be a reason for organizing a government in the first place: Scholars trace the government of the Oregon Territory to the “Wolf Meetings” of 1843, where settlers met for the purpose of establishing a bounty system on wolves.¹⁴

Wolves were always the first target.¹⁵ Considering their hunting style—loud, in packs, often in the open—they were surely the most obtrusive and fearsome of the beasts in the local woods.¹⁶ But bounties on black bears and mountain lions quickly followed.¹⁷ And so it would go. As Americans pushed westward, they brought with them bounties on mountain lions, wolves, and black bears.¹⁸ And as the western settlers encountered new apex predators, they added those to the bounty list. By the 1870’s counties in California were paying up to \$10 for each grizzly scalp redeemed.¹⁹ And in 1885, the Arizona Territory Legislature, in one of its first official acts, placed a bounty on jaguars, binding itself to pay \$10 for each jaguar scalp redeemed.²⁰

The bounty system, in combination with habitat loss and fragmentation, proved an effective tool of regional extirpation. By the early 1900s, gray wolves

13. See *infra* Part I.A; see also *State v. Theriault*, 41 A. 1030, 1034 (Vt. 1898) (reviewing acts passed in 1797 intended “to destroy noxious wild animals, wolves, and panthers, by the payment of bounties with money raised by enforced taxation”); *Bounties*, ch. 82, 1912 Ariz. Acts, Resolutions, and Memorials (enacting bounties as one of the first acts of the Arizona Legislature after statehood in 1912).
14. See Dane Bevan, *Public Meeting at Champoege, 1843*, OREGON HISTORY PROJECT, <https://perma.cc/DB7S-2B92>.
15. See ANDREA SMALLEY, *WILD BY NATURE* 84–85 (2017) (describing “the ravenous Woolves” as the early Colonists “leading animal antagonist” that brought “the greatest prejudice to the Planters”); see also Maurice Hornocker & Howard Quigley, *Mountain Lion: Pacific Coast Predator*, in *RESTORING AMERICA’S WILDLIFE, 1937–1987* 178–79 (Harold Kallman et al. eds., 1987) (observing that the wolf was “first to meet the wrath of the colonists”).
16. *How Wolves Hunt*, *LIVING WITH WOLVES*, <https://perma.cc/53BW-AANR>.
17. See Annalea K. Bowers et al., *Early History of the Wolf, Black Bear, and Mountain Lion in Arkansas*, 55 J. ARK. ACAD. SCI. 22, 24–26 (2001) (discussing bounties on wolves and mountain lions); see Jack W. Raybourne, *The Black Bear: Home in the Highlands*, in *RESTORING AMERICA’S WILDLIFE, 1937–1987*, at 108–09, 111 (Harold Kallman et al. eds., 1987) (reviewing history of bounties on black bears).
18. See, e.g., *An Act to Encourage the Destruction of Wolves and Lions*, ch. XXXVIII, § 1, 1891 N.M. Laws 85, 86.
19. See Michael F. Magliari, *The California Indian Scalp Myth*, 100 CAL. HIST. 4, 20 (2023); see also *An Act to Encourage the Destruction of Certain Wild Animals in the Counties of Mendocino, Del Norte, Humboldt, Placer, Lake, San Luis Obispo, and Colusa, and to Provide a Bounty for Same*, THE STATUTES OF CALIFORNIA, PASSED AT THE TWENTY-FIRST SESSION OF THE LEGISLATURE, 1875–76, BEGAN ON MONDAY, DECEMBER 6, 1875, AND ENDED ON MONDAY, APRIL 3, 1876 (Sacramento: State Printing Office ed., 1876), 533–34.
20. Lonnie Underhill, *Scalp Hunters: Arizona’s Wild Animal Bounty Laws, 1885–1921*, 59 J. W. 74, 75–76 (2020) (reviewing legislation); see also DAVID BROWN & CARLOS LÓPEZ GONZÁLEZ, *BORDERLAND JAGUARS* 145 (2001) (documenting five dollar bounty paid for a jaguar in 1913 by Pecos County, Texas).

were largely extirpated east of the Mississippi.²¹ So too were Mountain lions and black bears, though both would hold on tenaciously in isolated “wastelands” where conflict and hunting pressures were minimized. (Mountain lions found refuge deep in the Everglades.²² Black bears clung to the spine of the Southern Appalachians.)²³ Grizzly bears were gone from the Great Plains; by 1900, they had been pushed into remote western mountain ranges.²⁴ Finally, by the early 1900’s jaguars were “extremely rare” in Texas and non-existent in New Mexico.²⁵ Only a small breeding population persisted in Arizona.²⁶

For a moment, though, the extermination stalled. In the West, where the remaining apex predators were concentrated, state bounty systems were undermined by fraud, taxpayer revolts, and the vast, mountainous rangelands.²⁷ Some state governments responded by putting full-time hunters on the payroll, but to finish off the killing, western livestock interests pushed for federal intervention.²⁸ In 1915, Congress obliged, creating a new Branch of Predator and Rodent Control, dedicated to the destruction of “animals injurious to agriculture and animal husbandry.”²⁹ An entire federal agency was now dedicated to the extirpation of America’s apex predators.

In the end, the amount of killing was staggering. When the Endangered Species Act (ESA) was passed in 1973,³⁰ formally ending the extermination era of apex predator management, the gray wolf population had been reduced from likely hundreds of thousands at the start of the colonial era,³¹ to a few hundred isolated in the Great Northern Woods of Minnesota and Isle Royale in Michigan.³² (Consider that to reduce a reproducing population of wolves from 500,000 to 500 over 350 years requires killing many, many millions of wolves.) Red wolves, which had roamed the entire Southeast, were reduced to fewer

21. STANLEY P. YOUNG & EDWARD A. GOLDMAN, *THE WOLVES OF NORTH AMERICA* 58 (1944) (reviewing historic evolution of wolf populations in various regions and states).

22. Hornocker & Quigley, *supra* note 15, at 178.

23. See Raybourne, *supra* note 17, at 111.

24. David J. Mattson & Troy Merrill, *Extirpations of Grizzly Bears in the Contiguous United States, 1850–2000*, 16 *CONSERVATION BIOLOGY* 1123, 1125 (2002).

25. See BROWN & LÓPEZ GONZÁLEZ, *supra* note 20, at 37, 91.

26. *Id.*

27. See *infra* Part I.B.

28. See *id.*

29. An Act Making Appropriations for the Department of Agriculture for the Fiscal Year Ending June Thirtieth, Nineteen Hundred and Fifteen, ch. 131, 38 Stat. 415, 434 (1914). See Coggins & Evans, *supra* note 12, at 835.

30. See Endangered Species Act, 16 U.S.C. §§ 1531–1544.

31. DAVID MECH, *THE WOLF: THE ECOLOGY AND BEHAVIOR OF AN ENDANGERED SPECIES* 27–34 (1970); see also Jennifer A. Leonard et al., *Legacy Lost: Genetic Variability and Population Size of Extirpated U.S. Gray Wolves (Canis lupus)*, 14 *MOLECULAR ECOLOGY* 9, 15 (2005).

32. U.S. FISH & WILDLIFE SERV., *RECOVERY PLAN FOR THE EASTERN TIMBER WOLF* 13 (1992), <https://perma.cc/H8X7-7NBV>.

than 100 individuals in coastal southeast Texas and southwestern Louisiana.³³ Grizzly bears, which likely numbered around 50,000 at the time of the Lewis and Clark expedition,³⁴ were reduced to 700–800 bears, isolated in national parks and wilderness areas in Washington, Idaho, Montana, and Wyoming.³⁵ California alone had roughly 10,000 grizzlies as late as the 1840s; they were gone by 1924.³⁶ Whatever the jaguar population was before the arrival of Anglos in the Southwest, a breeding population has not existed in the United States since 1949, when the last naturally occurring female was documented in Arizona.³⁷ (While a few jaguars have been documented in Arizona in recent years, these are itinerant males roaming over the border from nearby mountain ranges in the Mexican state of Sonora.)³⁸

The destruction of these apex predators was so near complete by the 1970s that wolves and grizzly bears were among the earliest species protected under the ESA. Gray wolves (labeled “timberwolves” at the time) and red wolves were automatically listed as endangered upon the ESA’s passage in 1973.³⁹ The grizzly bear was listed as threatened in 1975.⁴⁰ (Mexican wolves, which were initially presumed to be subsumed under the gray wolf species, were listed in 2015 as a distinct endangered species.⁴¹) With ESA protections, it immediately became

33. See *Red Wolf Recovery Program*, U.S. FISH & WILDLIFE SERV., <https://perma.cc/T82N-RSU5>.

34. See *Grizzly Bear*, *supra* note 2.

35. *Id.*

36. Alexander Lee et al., *The Ethics of Reintroducing Large Carnivores: The Case of the California Grizzly*, 19 CONSERVATION AND SOC’Y 81 (2021); see also PETER ALAGONA, AFTER THE GRIZZLY: ENDANGERED SPECIES AND THE POLITICS OF PLACE IN CALIFORNIA 12–13 (2013).

37. See Randall D. Babb, et al., *Updates of Historic and Contemporary Records of Jaguars (Panthera onca) from Arizona*, 49 J. ARIZ.-NEV. ACAD. SCI. 65, 69 (2021). There is a record of a female jaguar taken in Arizona in 1963; however, it is likely this jaguar was imported from Belize for hunting purposes. See *id.* at 67; see also BROWN & LÓPEZ GONZÁLEZ, *supra* note 20, at 37, 91 (observing that jaguars were extremely rare in Texas by 1900 and extirpated from New Mexico by 1909).

38. See Babb, *supra* note 37, at 70.

39. See 16 U.S.C. § 1533(c); Determination of Certain Species as Endangered Species, 32 Fed. Reg. 4001, 4001 (Mar. 11, 1967) (codified as amended at 50 C.F.R. § 17.11). The gray wolf was formally listed as endangered (and the timber wolf label discontinued) in 1978. Reclassification of the Gray Wolf in the United States and Mexico with Determination of Critical Habitat in Michigan and Minnesota, 43 Fed. Reg. 9585, 9607–16 (Mar. 9, 1978) (codified at 50 C.F.R. pt. 17); see also KRISTINA ALEXANDER & M. LYNNE CORN, CONG. RSCH. SERV., RL34238, GRAY WOLVES UNDER THE ENDANGERED SPECIES ACT (ESA): DISTINCT POPULATION SEGMENTS AND EXPERIMENTAL POPULATIONS 1 (2011).

40. Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (2006); Amendment Listing the Grizzly Bear of the 48 Conterminous States as a Threatened Species, 40 Fed. Reg. 31734, 31734–36 (July 28, 1975) (codified at 50 C.F.R. § 17.11).

41. Endangered and Threatened Wildlife and Plants; Endangered Status for the Mexican Wolf, 80 Fed. Reg. 2488, 2488–512 (Jan. 16, 2015) (codified at 50 C.F.R. § 17.11). Because of its functional extirpation in the U.S., the jaguar’s history with the ESA is complicated. Endangered and Threatened Wildlife and Plants; Final Rule to Extend Endangered Status for the Jaguar in the United States, 62 Fed. Reg. 39147 (July 22, 1997) (codified at 50 C.F.R.

illegal to kill wolves and grizzly bears.⁴² It is hard to overstate how quickly the public policy around apex predator management shifted. In a blink of time, American policy whiplashed from pursuing full extermination of apex predators to pursuing, often at great cost, their successful rebound.⁴³

Wolves and grizzly bears needed the help of the ESA. But mountain lions and black bears did not. Both were bountied from the start of American history and later systematically hunted by government agents.⁴⁴ (One count suggests that just between 1937 and 1977, federal hunters alone killed at least 10,000 mountain lions.)⁴⁵ But neither black bears nor mountain lions were ever listed as endangered or threatened under the ESA.⁴⁶ They were pushed into isolated wilderness, certainly, but even at their lowest numbers in the 1950s and 1960s, sustaining populations persisted, especially in the West.⁴⁷

Today, 50 years after the end of the extermination era, some apex predators in the lower 48 are doing better than others. Jaguars remain functionally extirpated in the United States;⁴⁸ and efforts to reestablish red wolves in the Southeast have been ineffective.⁴⁹ On the other hand, after interventions

§ 17.11(h)). Jaguars were included on the endangered species list under the original ESA, but in 1980 the USFWS concluded jaguars were listed erroneously because populations only persisted outside the United States. *See id.* at 39148–49. After litigation, the jaguar was reinstated to the endangered species list in 1997. *Id.*; *see also* Eric W. Sanderson, et al., *A Systematic Review of Potential Habitat Suitability for the Jaguar Panthera Onca in Central Arizona and New Mexico, USA*, 56 ORYX 117–18 (2022) (reviewing history of ESA protections).

42. *See* 16 U.S.C. § 1538. The statute makes it unlawful to “take” protected species; in turn the statute defines “take” very broadly to mean “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” *Id.* § 1532(19).
43. *See, e.g., Mexican Gray Wolf, Costs of the Recovery Program*, RANGELANDS GATEWAY, <https://perma.cc/Q9YA-D8YU> (reviewing that from 1977 to 2012, “federal and state government cumulative costs on the Mexican wolf recovery program were estimated to be a minimum of \$28.8 million”); *see also* Jack H.L. Whiteley, *Property in Wolves*, 108 CORN. L. REV. 617, 626 (2023) (“This second wave did not just include wolves; it prioritized them.”).
44. *See infra* part I.B.
45. ROBERT BUSCH, *THE COUGAR ALMANAC: A COMPLETE NATURAL HISTORY OF THE MOUNTAIN LION* 77 (1996).
46. Of black bear populations, only a subspecies, the Louisiana black bear, was ever listed as threatened; it was delisted in 2016. *See* Endangered and Threatened Wildlife and Plants; Final Rule to List the Louisiana Black Bear as Threatened, 57 Fed. Reg. 588 (Jan. 7, 1992) (codified at 50 C.F.R. § 17.11(h)); Endangered and Threatened Wildlife and Plants; Removal of the Louisiana Black Bear From the Federal List of Endangered and Threatened Wildlife and Removal of Similarity-of-Appearance Protections for the American Black Bear, 81 Fed. Reg. 13124 (Mar. 11, 2016) (codified at 50 C.F.R. § 17.11(h)).
47. *See* Raybourne, *supra* note 17, at 108–09; Hornocker & Quigley, *supra* note 15, at 180.
48. *See* Babb, *supra* note 37, at 69–71.
49. There are hundreds of red wolves in captive breeding programs, but fewer than 20 live in the wild on the North Carolina coast. *See Red Wolf*, U.S. FISH & WILDLIFE SERV., <https://perma.cc/E3BL-J7CJ>.

under the ESA, gray wolf,⁵⁰ Mexican wolf,⁵¹ and grizzly bear populations have tenuously stabilized,⁵² though most populations remain “threatened” or “endangered.”⁵³ The mountain lion and the black bear? Their populations have practically exploded. Today, there are well over 300,000 black bears across the lower 48;⁵⁴ breeding populations exist in at least thirty-nine states.⁵⁵ And there are up to 30,000 mountain lions in the lower 48.⁵⁶ (Mountain lions require large territories and live at much lower densities than black bears.) Along with a

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50. Endangered and Threatened Wildlife and Plants; Finding for the Gray Wolf in the Northern Rocky Mountains and the Western United States, 89 Fed. Reg. 8391, 8394 (proposed Feb. 7, 2024) (to be codified at 50 C.F.R. pt. 17) (observing that as of the end of 2022, there were approximately 2,797 wolves across seven Western states, spread among at least 286 packs). The report confirms that “wolf abundance in the Western United States has generally continued to increase and occupied range has continued to expand since reintroduction in the 1990s.” *Id.*
 51. See U.S. FISH & WILDLIFE SERV., 5-YEAR EVALUATION OF THE MEXICAN WOLF RECOVERY PLAN 22 (Dec. 20, 2024), <https://perma.cc/XW4R-AE5D> (observing that Mexican wolf populations are increasing and “our recovery strategy is effective at progressing toward recovery goals for the United States population of Mexican wolves”).
 52. See U.S. FISH & WILDLIFE SERV., *Grizzly Bear Recovery Program 2021 Annual Report* 3–4 (June 1, 2022), <https://perma.cc/8XGR-7WEK>.
 53. The Mexican wolf remains endangered. See U.S. FISH & WILDLIFE SERV., 5-YEAR EVALUATION OF THE MEXICAN WOLF RECOVERY PLAN, *supra* note 51, at 7. The grizzly bear is a “threatened species” under the ESA. See *Grizzly Bear*, U.S. FISH & WILDLIFE SERV., *supra* note 2. The gray wolf has been delisted entirely from the Endangered Species Act in Montana, Idaho, and Wyoming and the Eastern halves of Oregon and Washington; it is listed as “threatened” in Minnesota; and it remains endangered everywhere else. See Endangered and Threatened Wildlife and Plants; Reinstatement of Endangered Species Act Protections for the Gray Wolf (*Canis Lupus*) in Compliance with Court Order, 88 Fed. Reg. 75506, 75507 (Nov. 3, 2023) (codified at 50 C.F.R. pt. 17).
 54. See Rocky D. Spencer et al., *How Agencies Respond to Human-Black Bear Conflicts: A Survey of Wildlife Agencies in North America*, 18 *Ursus* 217, 219 (2007) (compiling population reports from each state).
 55. See Brian K. Scheik & Walter McCown, *Geographic Distribution of American Black Bears in North America*, 25 *Ursus* 24, 29–30 (2014).
 56. Wildlife biologists struggle to offer reliable estimates of mountain lion density/population. See Sean M. Murphy et al., *Review of Puma Density Estimates Reveals Sources of Bias and Variation, and the Need for Standardization*, 35 *GLOB. ECOLOGY & CONSERVATION*, art. no. e02109, at 2 (2022). Most reports of the total mountain lion population in the lower 48 rely on an estimate of 30,000 offered by the Mountain Lion Foundation, an advocacy group. See *How Many Lions Are in the United States?*, MOUNTAIN LION FOUND., <https://perma.cc/4XWA-M9QD>. Notably, the Foundation’s population estimate for a state can be lower than the respective state wildlife agency’s estimate. Thus, compilations of estimates offered by individual state wildlife agencies usually suggest a population of 35,000 to 45,000 in the lower 48. See, e.g., James Ball, *Mountain Lion Population by State: 2023 Data*, WILDLIFEBOSS (Jan. 16, 2023), <https://perma.cc/ZJ8N-SXHL>.

small, enduring population in the Everglades, reproducing mountain lion populations are now found from the Dakotas to Texas and all points west.⁵⁷

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Before 1973, managing apex predators was not a significant administrative challenge for wildlife agencies. A formal policy of extermination is straightforward and easy to execute—see a predator, kill a predator.⁵⁸ Today, things are far more complicated. When it comes to wolves and grizzly bears, wildlife agencies must manage issues of scarcity. There are still so few wolves and grizzlies that policymakers and conservationists cannot agree whether they remain in danger of regional extinction.⁵⁹ On the other hand, when it comes to black bears and mountain lions, state wildlife agencies must manage issues of abundance. The challenge for wildlife managers is how to manage so many black bears and so many mountain lions in so many places. In rural areas, this means managing their coexistence with livestock and the wild ungulates like deer and elk that are the preferred quarry of American hunters.⁶⁰ But in suburban and exurban areas, this means managing their coexistence with humans. For black bears, this is a matter of public nuisance; black bears raid trash cans and bird feeders from California to New Jersey.⁶¹ But for mountain lions, it is a matter of public safety.

57. At the end of the extermination era of predator management, breeding populations of mountain lions endured in Arizona, California, Colorado, Florida, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Texas, Washington and Wyoming. Through natural migration, breeding populations were later established in South Dakota, North Dakota, and Nebraska in the 1990s. See SAM WILSON ET AL., NEB. GAME & PARKS COMM'N, MOUNTAIN LION MANAGEMENT PLAN 7 (2017), <https://perma.cc/6XMV-ZX3C>.
58. In his influential essay, *Thinking Like a Mountain*, Aldo Leopold described his response when, as a young forester in 1909, he discovered an unsuspecting wolf family passing below a perch: "In those days we had never heard of passing up a chance to kill a wolf. In a second, we were pumping lead into the pack." ALDO LEOPOLD, A SAND COUNTY ALMANAC AND SKETCHES HERE AND THERE 129–130 (Special Commemorative Edition, 1987) (1949).
59. See, e.g., Michal Drew, *Federal Court Overturns Decision Denying Endangered Species Protections to Wolves*, DAILY MONTANAN (Aug. 5, 2025), <https://perma.cc/2K3M-H8KD>; Micah Drew, *Feds Reject State Petitions to Delist Grizzly Bears, Reaffirms Status in Montana*, IDAHO CAPITAL SUN (Jan. 9, 2025), <https://perma.cc/3DQU-RWAH>.
60. See, e.g., Macy Kipkin, *Utah is Culling Mountain Lions to Study the Impact on Deer*, KUER (Jan. 9, 2026), <https://perma.cc/GM7Z-FNU2> (reviewing support from hunting and livestock interests for Utah Division of Wildlife Resources' plan to cull mountain lions from six rural wildlife hunt units); Brogan Holcombe, et al., *The Virginia Appalachian Carnivore Study*, Black Bears and White-tailed Deer in the Appalachian Mountains of Virginia, VA. DEP'T OF WILDLIFE RES. (June 3, 2025), <https://perma.cc/2C3S-HEYA> (studying black bear consumption of deer fawns in the Appalachian Mountains).
61. See, e.g., Joshua Rhett Miller, *Black Bear Encounters are Surging in 18 States*, NEWSWEEK (August 2, 2024), <https://perma.cc/A7SF-FW2B>; Kate Morgan, *Black Bears in the Backyard: Why They're Everywhere, and What to Do*, WASH. POST (Oct 10, 2023), <https://perma.cc/6FYX-5D7B>; Jennifer Holland, *Black Bears Are Rebounding—What Does That Mean for People?* NAT'L GEOGRAPHIC (June 26, 2015), <https://perma.cc/JS46-NHTR>. There are, of course,

Just after noon on February 17, 2024, sixty-year-old Kari Bergere was in a pack of five bike riders on a popular gravel riding trail in Fall City, Washington, a bedroom community thirty minutes west of Seattle.⁶² At some point in the ride, two mountain lions sprang from the brush. One attacked Bergere, knocking her off her bike and biting onto her lower face and neck.⁶³ With smaller prey, mountain lions generally bite the rear cranium or cervical vertebrae, efficiently severing the spinal cord⁶⁴; but with taller prey such as deer or elk, after knocking the animal to the ground, mountain lions generally engage a powerful bite on the prey's throat or neck until suffocation occurs.⁶⁵ This offers some explanation for what happened next. The mountain lion, an adolescent male weighing seventy-five pounds, locked its jaws on Bergere's face and neck for fifteen minutes, despite Bergere's fellow riders repeatedly dropping a twenty-five-pound rock on the lion's head.⁶⁶ When the mountain lion finally unlatched, a fellow rider pinned the exhausted animal down with his bike.⁶⁷ The first arriving wildlife officer shot and killed the lion.⁶⁸ Bergere survived, but with significant disfigurement.⁶⁹

To be sure, the risk of any one person being attacked by a mountain lion is vanishingly small.⁷⁰ But that does not mean that mountain lion attacks on

documented reports of black bears attacking people in the lower 48, but these attacks are rarely predatory; the vast majority of black bear attacks are either defensive in nature or committed by animals pursuing human foodstuffs (rather than the humans). See Janell M. Scharhag et al., *Characteristics of Non-Fatal Attacks by Black Bears: Conterminous United States, 2000–2017*, 15 HUMAN–WILDLIFE INTERACTIONS 191, 196 (2021). In contrast, nearly all mountain lion attacks on humans are predatory; that is, the mountain lion intends to kill and eat their (our) meat. See Paul Beier, *Cougar Attacks on Humans in the United States and Canada*, 19 WILDLIFE SOC'Y BULL. 403, 403–12 (1991) (cataloging predatory attacks).

62. Dyer Cooper, *How a Washington State Woman Narrowly Avoided a Mountain Lion Attack*, NPR (Mar. 26, 2024), <https://perma.cc/N735-CDUL>.

63. See *id.* Notably, two mountain bikers were attacked in 2018 not too far away from where Bergere was attacked. Andreas Preuss & AnneClaire Stapleton, *Cougar Kills Mountain Biker, Injures Another in Washington State*, CNN (May 22, 2018), <https://perma.cc/W9NA-5FHR>.

64. See KEVIN HANSEN, COUGAR: THE AMERICAN LION 49 (1992); Kerry Murphy & Toni K. Ruth, *Diet and Prey of a Perfect Predator* in COUGAR ECOLOGY AND CONSERVATION 122. See also Denise McKee, MD, *Cougar Attacks on Humans: A Case Report*, 14 WILDERNESS AND ENVIRONMENTAL MEDICINE 171 (2003).

65. See HANSEN, *supra* note 64, at 49 Murphy & Ruth, *supra* note 64 at 122. See also MARK ELBROCH, COUGAR CONUNDRUM 79 (2020).

66. See Cooper, *supra* note 62.

67. See *id.*

68. See *id.*

69. See *id.*

70. Whenever there is a mountain lion attack on a human, the local state wildlife agency invariably asserts that an American is 1,000 times more likely to be struck by lightning than attacked by a mountain lion. See, e.g., Katie Dowd, *Northern California Summer Camp Worked Injured by Mountain Lion*, SFGATE (June 22, 2025), <https://perma.cc/828J-7NEX>. I can find no support for this statistic in the literature. Nor, as presented, does the statistic recognize that those who live in mountain lion country, especially those who recreate outside

Americans are uncommon. Approximately a month after Bergere was attacked, a mountain lion attacked two brothers in California, killing one and disfiguring the other.⁷¹ And, in the summer of 2025 alone, mountain lions attacked an eleven-year-old girl in Malibu, California;⁷² a four-year-old child hiking with his family on a popular National Park trail in Washington;⁷³ a man walking his dog in a suburb of Phoenix;⁷⁴ and a summer camp employee in Northern California.⁷⁵ Finally, in January 2026, as this article was in press, a mountain lion attacked and killed a 46-year-old female hiker on a forest trail in Estes Park, Colorado.⁷⁶ The local coroner's office listed the hiker's death as asphyxia due to "external neck compression."⁷⁷

There is good reason to believe that these attacks will only become more common.⁷⁸ In 1973, at the end of the extermination era of predator management, except for a remnant population in Florida, mountain lions were concentrated in deep wilderness west of the Rockies.⁷⁹ In the fifty years since, they have migrated out of the wilderness in all directions. In the first place, mountain lions have slowly migrated east into the Western Plains. There are now established breeding populations of mountain lions in the Dakotas and Nebraska.⁸⁰

in exurban areas with wild ungulate populations, have a much higher risk of a mountain lion conflict than, say, those who live in New York City. Nor does the lightning strike comparison include mountain lion attacks on domestic pets, which exponentially outnumber attacks on humans, and which, for many Americans, is tantamount to an attack on a member of the family. Yet even with all that, it remains that the risk of any one person living in mountain lion country being attacked will always be vanishingly low.

71. See Johnny Diaz, *Mountain Lion Kills Man and Injures His Brother in California*, N.Y. TIMES (Mar. 24, 2024), <https://perma.cc/DVD7-YZFM>.
72. *Mountain Lion Attacks 11-Year-Old Girl at Home in Malibu, California*, AP NEWS (Aug. 11, 2025), <https://perma.cc/8M8C-7UAR>.
73. *Mountain Lion Bites 4-Year-Old on Popular Olympic National Park Trail, Injuring Child*, AP NEWS (July 21, 2025), <https://perma.cc/3665-YGFS>.
74. Rachel Raposas, *Arizona Man Kills Mountain Lion to Protect Pet Dog from Animal Attack*, PEOPLE (May 27, 2025), <https://perma.cc/TH4X-R3KD>.
75. Aidin Vaziri, *Mountain Lion Killed after Attacking Northern California Summer Camp Employee*, S.F. CHRON. (June 26, 2025), <https://perma.cc/V96C-J5HH>.
76. See Olivia Prentzel, *Human DNA Found on All Four Paws of Mountain That Killed Hiker in Northern Colorado*, COLO. SUN (Jan. 5, 2026), <https://perma.cc/VE9L-3CTV>.
77. *Id.*
78. See *infra* Part IV.
79. See Charles Anderson, et al., *Cougar Management in North America*, in COUGAR ECOLOGY AND CONSERVATION 41–42 (2010), <https://perma.cc/BH7K-S5BR>.
80. NEB. GAME & PARKS COMM'N, MOUNTAIN LION MANAGEMENT PLAN (2017), <https://perma.cc/88HP-CPJT>; S.D. DEP'T OF GAME, FISH, AND PARKS, SOUTH DAKOTA MOUNTAIN LION MANAGEMENT PLAN 2019–2029 (Sept. 2019), <https://perma.cc/PF4Q-J35X>; N.D. GAME & FISH DEP'T, *Mountain Lion Hunting*, <https://perma.cc/AA87-5JAU>.

And in 2025, kittens were documented for the first time in both Oklahoma and Michigan, suggesting emerging breeding populations.⁸¹ In addition, itinerant mountain lions (usually young males searching for fresh territory) are persistently reported in at least eight additional midwestern states.⁸²

More dramatic is mountain lions' migration from deep wilderness into populated areas of the West. Because mountain lions easily adapt to suburban and exurban habitats where deer, a favored prey, congregate,⁸³ it is a fair estimate that tens of millions of Americans currently live adjacent to active mountain lion habitats.⁸⁴ Indeed, mountain lions can today be found within twenty-five miles of dozens of metropolitan areas, including Dallas,⁸⁵ Phoenix⁸⁶, Los Angeles,⁸⁷ San Francisco,⁸⁸ Seattle,⁸⁹ and Denver.⁹⁰ And the number of Americans living in mountain lion country grows larger every year as suburban subdivisions intrude into the wilderness and mountain lions simultaneously move the other way to reclaim their former territory.⁹¹

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To date, how American governments have managed mountain lion populations has received little to no attention in the legal scholarship. There is a substantial body of legal scholarship examining the management of grizzly

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81. See Okla. Dep't of Wildlife Conservation, *Mountain Lion Kittens Confirmed in Oklahoma* (June 10, 2025), <https://perma.cc/GAK2-XK7M>; Rob Mentzer, *Discovery of Cougar Cubs in Upper Michigan Could Be Turning Point for Recolonization*, WIS. PUB. RADIO (Mar. 25, 2025), <https://perma.cc/A3DD-TDQ6>.
 82. See Michelle A. LaRue & Clayton K. Nielsen, *Population Viability of Recolonizing Cougars in Midwestern North America*, 321 *ECOLOGICAL MODELLING* 121, 121–29 (2016).
 83. See David Stoner, et al., *Conflict, Coexistence, or Both? Cougar Habitat Selection, Prey Composition, and Mortality in a Multiple-use Landscape*, 107 *CAL. FISH & WILDLIFE* 147, 165–66 (2021).
 84. Rokosu Daniel, *16 American States with Mountain Lions: Complete Population Map 2025*, *ANIMAL OF THINGS* (July 11, 2025), <https://perma.cc/96ZM-FV7Q>.
 85. See Amelia Mugavero, *3rd Mountain Lion Sighting in North Texas in Recent Weeks Has Residents Concerned*, CBS TEX. (Nov. 13, 2024), <https://perma.cc/YX42-MJBF>.
 86. See Nicole Krasean, *Verrado residents report more mountain lion sightings*, FOX 10 PHX. (June 2, 2025), <https://perma.cc/5CVY-X22D>.
 87. See Laura J. Nelson & James Queally, *P-22, the Celebrity Mountain Lion of Los Angeles, Has Died*, L.A. TIMES (Dec. 17, 2022), <https://perma.cc/8THB-JVPF>.
 88. See Olga R. Rodriguez & Haven Daley, *Mountain Lion roams posh San Francisco neighborhood before being captured*, ASSOCIATED PRESS (Jan. 27, 2026), <https://perma.cc/7W4W-JJAN>.
 89. See *Cougar sightings reported at Seattle's Discovery Park*, KIRO 7 (Dec. 31, 2020), <https://perma.cc/8DWZ-TTT3>.
 90. See Nate Lynn, *Mountain lion caught on camera in downtown Denver*, 9NEWS (June 24, 2022), <https://perma.cc/T3XP-PSAC>.
 91. See *Challenges Facing Pumas at the Urban Edge*, FELINE CONSERVATION FUND, <https://perma.cc/Q3H3-Q9VF>.

bear⁹² and wolf populations,⁹³ largely because managing these predators under the ESA raises complex administrative law and federalism questions. And even when predator management is discussed generally, the focus remains on wolves; mountain lions are treated as a sort of adjunct species, the presumption being that managing mountain lions is effectively like managing wolves.⁹⁴ But that is not the case.

To begin, mountain lions are regulated under an entirely different management regime than wolves. The federal ESA has explicitly regulated wolves since its enactment in 1973;⁹⁵ thus, “wolf law” today is entirely federal administrative law. “Mountain lion law,” in contrast, is entirely state law. No federal statute purports to regulate mountain lions; thus, each state manages

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92. See, e.g., Lara D. Guercio & Timothy P. Duane, *Grizzly Bears, Gray Wolves, and Federalism, Oh My! The Role of the Endangered Species Act in De Facto Ecosystem-Based Management in the Greater Glacier Region of Northwest Montana*, 24 J. ENV'T L. & LITIG. 285 (2009); Brian L. Kuehl, *Conservation Obligations Under the Endangered Species Act: A Case Study of the Yellowstone Grizzly Bear*, 64 U. COLO. L. REV. 607 (1993); Andrew B. Erickson, *Grizzly Bear Recovery, Whitebark Pine, and Adequate Regulatory Mechanisms Under the Endangered Species Act*, 42 ENV'T L. 943 (2012); Philip Kline, *Grizzly Bear Blues: A Case Study of the Endangered Species Act's Delisting Process and Recovery Plan Requirements*, 31 ENV'T L. 371 (2001); Max Chaffetz, *Clarifying the Endangered Species Act's "Distinct Population Segment" Policy Through the Lens of Grizzly Bears*, GEO. ENV'T L. REV. ONLINE (2019), <https://perma.cc/WU8S-EW87>; Robert B. Keiter, *Grizzlies, Wolves, and Law in the Greater Yellowstone Ecosystem: Wildlife Management Amidst Jurisdictional Complexity and Tension*, 22 WYO. L. REV. 303, 354 (2022).
 93. See, e.g., Christopher T. Cook, *Reintroduction of the Gray Wolf: The Battle over the Future of Endangered Species Policies*, 5 DRAKE J. AGRIC. L. 487 (2000); Valerie Bittner, *Wolves in the Crosshairs: A Scientific Case Against the Final Rule of the U.S. Fish and Wildlife Service Removing Northern Rocky Mountain Gray Wolves from the Endangered Species List*, 15 U.C. L. N.W. J. ENV'T L. & POL'Y 281 (2009); Edward A. Fitzgerald, *Premature Gray Wolf Delisting*, 62 NAT. RES. J. 183 (2022); Robert C. Moore, *The Pack Is Back: The Political, Social, and Ecological Effects of the Reintroduction of the Gray Wolf to Yellowstone National Park and Central Idaho*, 12 T.M. COOLEY L. REV. 647 (1995); Whitney G. Stohr, *Trophic Cascades and Private Property: The Challenges of a Regulatory Balancing Act and Lessons the UK can Learn from the Reintroduction of the American Gray Wolf*, 2 U. BALT. J. LAND & DEV. 15 (2012); Stephen Milak, *The Uncertain Future of the Mexican Gray Wolf*, GEO. ENV'T L. REV. ONLINE 1 (2017); Jesse Honig and David Takacs, *Wolf Law*, 41 UCLA J. ENV'T L. & POL'Y 39 (2023) (recounting history of gray wolves and ESA protections).
 94. See, e.g., John A. Erwin, *Litigating Predator Management*, 2025 UTAH L. REV. 97 (2025) (offering only passing references to mountain lion management); Nicholas Massey, *Protecting Natural Stewardship: Public Trusts, Wildlife Trusts, and the Effect of Trophic Cascades*, 18 DUKE J. CONST. L. & PUB. POL'Y 267 (2023) (failing to mention mountain lions). Mountain lion management does come up in scholarship addressing efforts to revive big horn sheep, but only because mountain lion predation can undermine these recovery efforts. See, e.g., Peter Haynes, *The Clash Between Public Opinion and Wildlife Science in the Catalina Bighorn Sheep Reintroduction Project*, 4 ARIZ. J. ENV'T L. & POL'Y 1011, 1013 (2014) (reviewing controversy over killing of mountain lions preying on reintroduced bighorn sheep).
 95. See 16 U.S.C. § 1533(c), *supra* note 39.

(or does not manage) its mountain lions as it sees fit.⁹⁶ There is also this important distinction: wolves do not attack people; they pose no public safety threat. Remarkably, in the long arc of American history, there are no documented reports in the lower 48 of a healthy wild wolf killing or even attacking a human.⁹⁷

But mountain lions do attack people. And, therefore, when it comes to managing mountain lions, public safety is a central concern. Indeed, mountain lion attacks on Americans has become a national conversation; notably, the *New York Times Magazine* ran a 2024 cover article on mountain lion attacks.⁹⁸ Against this backdrop, the time is ripe for a dedicated legal history of the American mountain lion.

The following discussion is presented in five parts. Part I examines the “extermination era” of American apex predator management when every American government employed formal legal regimes designed to extirpate local mountain lion populations. Part II explores the trends in American wildlife policy that, by the 1960s and 1970s, led to the abrupt end of the extermination era of mountain lion management. Part III reviews the suite of “modern” mountain lion management regimes employed by the various states with breeding populations. Part IV discusses proposals to reintroduce mountain lions in the East. Finally, Part V examines the human experience of sharing a home landscape with an apex predator.

I. THE EXTERMINATION ERA

A. *The Common Law Roots*

Some of America’s Indigenous Nations likely viewed mountain lions with antipathy, but there is nothing to suggest that they were a source of significant

96. In an 1896 decision, *Geer v. Connecticut*, the Supreme Court recognized that the individual states retained “undoubted authority to control the taking and use” of wildlife within their borders. 161 U.S. 519, 523 (1896). That state authority can be preempted by a federal statute that necessarily regulates wildlife within the state. See *Missouri v. Holland*, 252 U.S. 416, 435 (1920) (rejecting state challenge to federal Migratory Bird Treaty Act); *Gibbs v. Babbitt*, 214 F.3d 483, 486–87 (4th Cir. 2000) (affirming federal regulation of purely intrastate wildlife under the ESA). However, because there are no federal wildlife statutes that cover mountain lions, the states retain full authority to manage their populations.

97. John D. C. Linnell et al., NORWEGIAN INST. FOR NAT. RSCH., *WOLF ATTACKS ON HUMANS: AN UPDATE FOR 2002–2020*, at 7, 14–16 (2021). But see *Fatal wolf attack unnerves Alaska village*, NBC NEWS (March 17, 2010), <https://perma.cc/CFV8-ARKF> (documenting a thirty-two-year-old jogger determined to have been killed by wolves in “only the second documented case of a wild wolf killing a human in North America”).

98. See Malcolm Brooks, *A Mountain Lion Attacked My Nephews. What Could Have Stopped It?*, N.Y. TIMES MAG. (Dec. 31, 2024), <https://perma.cc/3B9C-FRV2>.

conflict.⁹⁹ In contrast, for the early European colonists, mountain lions and other apex predators were a source of significant conflict: They consumed a meaningful number of the livestock essential to the colonial experiment.

Domesticated livestock were recorded at Plymouth as early as 1623,¹⁰⁰ and by the 1640s, every household in the colony likely owned cattle (and most also owned swine).¹⁰¹ The livestock were essential to the subsistence farming that underlaid the colonial economy; they provided meat and milk for sustenance and draught work in the fields.¹⁰² But unlike farmers in Europe, most colonists opted for open-range management, allowing their livestock to roam freely across the countryside.¹⁰³ Quite foreseeably, the local mountain lions, wolves, and black bears adapted their diets to include the introduced cows, pigs, and sheep now roaming the Eastern woods.¹⁰⁴

The colonists quickly concluded they had a predator problem. And to address it, they looked back to the English common law. The law of wild animals in 1620 was not terribly complicated. Technically, wild animals (*ferae naturae*) were owned by no one (*res nullius*) when in their natural, uncaptured state.¹⁰⁵ However, by royal prerogative, the Crown retained exclusive ownership of favored, beneficial wild animals—species like whales, sturgeons, and swans whose meat, skins, and fur were of some human value.¹⁰⁶ A binary categorization emerged. First, there were the “game” species: wild animals that fulfill human needs. Under English law, game could be hunted only with the formal blessing

99. For a general discussion of Indigenous Nations’ relationship with wild animals, see ANDERSON, *supra* note 7, at 15–42. For a specific discussion of Indigenous Nations’ interactions with mountain lions, see CHRIS BOLGIANO, MOUNTAIN LION 1–27 (1995). See also HORNOCKER & NEGRI, *supra* note 4, at 5–7.

100. See ANDERSON, *supra* note 7, at 98.

101. See Craig S. Chartier, *Livestock in Plymouth Colony*, PLYMOUTH ARCHAEOLOGICAL REDISCOVERY PROJECT (2017), <https://perma.cc/YQX4-Y39E> (reviewing probate records to establish percent of households owning livestock); see also ANDERSON, *supra* note 7, at 103–104 (recounting that by the 1650s there were 12,000 cattle and 3,000 sheep in the Massachusetts Bay Colony).

102. For a general discussion of the importance of livestock to the early colonial economies, see ANDERSON, *supra* note 7, at 104–105, 144–150.

103. See *id.* at 114.

104. See SMALLEY, *supra* note 15, at 6 (“Wild beasts devastated migrant populations of English livestock imported to pastoralize the landscape.”); see also WILLIAM WOOD, NEW ENGLAND’S PROSPECT, ch. VI (1634) (describing relentless predation on colonial livestock); ANDERSON, *supra* note 7 at 101 (observing that “Colonists did complain incessantly about losing livestock to predators, a problem English husbandman no longer encountered”).

105. 2 WILLIAM BLACKSTONE, COMMENTARIES ON THE LAWS OF ENGLAND 298–99 (1765); see also Michael C. Blumm & Lucus Ritchie, *The Pioneer Spirit and the Public Trust: The American Rule of Capture and State Ownership of Wildlife*, 35 ENV’T L. 673, 677–78 (2005).

106. BLACKSTONE, *supra* note 105, at 298–99; Blumm & Ritchie, *supra* note 105, at 681–82.

of the King.¹⁰⁷ If an animal was not designated as game, it was, by default, “vermin,” a wild animal of no use to humans.¹⁰⁸ Under the common law, vermin could be killed by anyone, anytime, for any reason or no reason at all.¹⁰⁹ The colonists, naturally, categorized the local predators as vermin, ripe for killing.¹¹⁰

But the local wolves, bears, and mountain lions were not simply “good for nothing” vermin. They were a noxious threat—to the livestock based economy for sure, but also to the spiritual goals of the community.¹¹¹ The early colonists sought to bring a certain Christian orderliness to the American landscape, to tame the ungodly wilderness and remake it in the form of an European countryside finely tuned to serve humans’ (and God’s) interests.¹¹² In this sense, the presence of wolves, mountain lions, and bears was a savage affront to Christian orderliness. And this gave the animals’ extermination a spiritual impetus in addition to an economic one.¹¹³

To reinforce the religious imperative of extermination, a deep-seated cultural demonization of apex predators prevailed.¹¹⁴ Wolves had long been a stand-in for the devil in Christian theology.¹¹⁵ The colonists simply extended the demonization to mountain lions and other North American predators.

107. See JOHN MANWOOD, A TREATISE AND DISCOURSE OF THE LAWES OF THE FORREST 27, 29–30 (1598) (reviewing royal prerogative over game and describing punishments for poaching).

108. See *id.* at 30–31.

109. See *id.*

110. Surely, to the modern ear, what is missing from the early common law formulation is any recognition of the “intrinsic” value of wild animals. But the common law of the time reflected an entrenched Christian doctrine that God had ordained all the beasts of the world for human dominion—to manipulate, consume, and kill as humans perceived in their best interests. ANDERSON, *supra* note 7, at 45, 52–53. See also *Genesis* 1:26–28. The notion that an animal might have a spirit worthy of respect (or might simply have a right to live on) was beyond the thinkers of the day. Consider that when John Locke first proposed laws against animal cruelty in 1693, he justified them not because animals have a dignity worthy of respect, but because being cruel to animals warps the minds of the human torturer. JOHN LOCKE, THOUGHTS CONCERNING EDUCATION § 116 (1693).

111. See generally Dale D. Goble, *Of Wolves and Welfare Ranching*, 16 HARV. ENVTL. L. REV. 101, 102 (1992).

112. See *id.*; see also HORNOCKER & NEGRI, *supra* note 4, at 7.

113. See Goble, *supra* note 111, at 102. In Goble’s words, taming the American wilderness was to the early colonists a “special mission from God” that “required the domination of the wilderness and the destruction of the wolf, that ‘beast of waste and desolation,’ the ultimate symbol of wildness both in the wilderness and in human psyches.” *Id.* See also HORNOCKER & NEGRI, *supra* note 4, at 7 (“[T]he colonists attacked wilderness with vengeance and evangelism.”).

114. LISA MIGHETTO, WILD ANIMALS AND AMERICAN ENVIRONMENTAL ETHICS 79 (1991).

115. Goble, *supra* note 111, at 101 (“European cultures traditionally have viewed wolves as darkness incarnate, the devil barely disguised.”); MIGHETTO, *supra* note 114, at 79. (“Americans had inherited from Europe a long tradition of horror tales regarding [wolves.]”). See also Martin A. Nie, *The Sociopolitical Dimensions of Wolf Management and Restoration in the United States*, 8 HUM. ECOLOGY REV. 1, 2 (2001).

The demonization proved tenacious. Writing in 1916, here is how Theodore Roosevelt described a mountain lion that his son had shot from a tree in Arizona: “the Lord of stealthy murder, facing his doom with a heart both Craven and cruel.”¹¹⁶

B. *The Bounty System*

In addition to providing both a common-law basis and a spiritual mandate to exterminate mountain lions and other predators, England also provided a ready legal mechanism to promote their destruction. The Preservation of Grain Act,¹¹⁷ passed in 1532 by Henry VIII and strengthened by Elizabeth I in 1566, made it compulsory for every man, woman, and child to kill as many animals as possible that appeared on an official list of “vermin;” for each animal killed, the laws provided for payments made from church treasuries.¹¹⁸ These “Tudor Era Vermin Laws” created the modern “bounty system,” in which a government encourages the eradication of a noxious vermin species by committing to pay private citizens a sum for each individual of the targeted species killed.¹¹⁹ By the time the Mayflower sailed, the bounty system was a well-established legal mechanism for pursuing the extermination of disfavored wild animals.

Thus, it was only ten years into the colonial experience, in 1630, six years after the first livestock arrived in the colony, that Plymouth Colony adopted America’s first formal bounty on an apex predator, paying a generous bounty of ten shillings for each gray wolf killed.¹²⁰ Bounties on black bears and mountain lions soon followed.¹²¹ Connecticut adopted the first bounty on black bears in 1666 when the colony agreed to pay fifty shillings for the destruction of an adult bear and twenty shillings for the destruction of a cub.¹²² And in 1684, Connecticut became the first American government to place a bounty on

116. THEODORE ROOSEVELT, *A BOOK-LOVER’S HOLIDAYS IN THE OPEN* 22 (1916). *See also* MIGHETTO, *supra* note 114, at 80 (describing demonization of mountain lions).

117. Preservation of Grain Act 1532, 23 Hen. 8.

118. *See* ROGER LOVEGROVE, *SILENT FIELDS: THE LONG DECLINE OF A NATION’S WILDLIFE* 4, 11 (2007).

119. *See id.* at 4, 15.

120. *See* Coggin and Evans, *supra* note 12, at 826. (“From the beginning of settlement, 17th-century Americans opted for elimination of competing species, and their anti-predator attitude was shortly translated into law.”).

121. Recent studies suggest that mountain lions avoid sharing territory with wolves; it may have been that a bounty on mountain lions was not necessary until wolf populations had been decimated and mountain lions moved into new territory closer to settlements on the coastal plains. *See generally* L. Mark Elbroch et al., *Recolonizing Wolves Influence the Realized Niche of Resident Cougars*, 54 *ZOOLOGICAL STUD.* 1, 9 (2015) (observing that reintroduction of wolves into the Southern Yellowstone Ecosystem “impacted the realized niche of resident cougars”).

122. *See* Raybourne, *supra* note 17, at 108–09 (reviewing history of bounties on black bears).

mountain lions when it bound itself to pay twenty shillings for each “catamount” killed.¹²³ Other state governments followed suit.¹²⁴

C. Killing Mountain Lions

During the early colonial era, mountain lions were likely killed only when the opportunity arose, i.e., when colonists saw one near a homestead or while hunting other game. Mountain lions are not exactly easy for humans, even well-armed ones, to track and hunt. Mountain lions are, like their preferred game, generally active in the low light of dawn and dusk.¹²⁵ They do not travel in conspicuous packs. Instead, they are solitary ambush predators that hunt, kill, and feed in thick cover.¹²⁶ (Each element is in contrast with wolves, which are far easier to hunt and kill.) For a human on foot or on a horse to have a successful mountain lion hunt, the best bet would be to happen upon tracks in newly fallen snow and to follow them.¹²⁷

By the mid-1700s, however, colonial hunters were commonly using trained hunting hounds to pursue fox, raccoons and other “furbearers.”¹²⁸ The hounds

123. See KEVIN HANSEN, COUGAR: THE AMERICAN LION 56 (1992). Through history, Americans have called mountain lions many names, including cougar, catamount, panther, wildcat, puma, and painter. See generally MARK ELBROCH, COUGAR CONUNDRUM xiii (2020). “Mountain lion” is used here because it is the term used by federal wildlife agencies. See, e.g., *Mountain Lion Safety*, U.S. FISH & WILDLIFE SERV., <https://perma.cc/5H4V-GG9V>. There are still regional variations in use. Mountain lions are called panthers in Florida and cougars in the Pacific Northwest. See *Mountain Lions in California*, CAL. DEP’T OF FISH & WILDLIFE, <https://perma.cc/KE23-Q36Y>.

124. The South Carolina colony adopted in 1700 “An Act for the Encouragement of Killing and Destroying Beasts of Prey and Birds.” Using an early colloquialism for mountain lions, the Act offered a fixed bounty for every “tyger” killed. See Nic Butler, *South Carolina’s War Against Beasts of Prey, 1693–1790*, CHARLESTON CNTY. PUB. LIBR. (Oct. 9, 2020), <https://perma.cc/Q887-MJJY>. Notably, South Carolina adopted its first “Act for Destroying Beasts of Prey” in 1693, but the early versions of the statute did not use bounties to encourage the destruction of mountain lions. See *id.* Instead, the early statute commanded that hunters from local tribes produce the skins of predators as a form of tribute. *Id.* The Acts were grotesquely coercive. The 1695 version provided that if an “Indian bowman, capable to kill deer” failed to deliver his annual tribute, the defaulter was to be brought to Charleston and “upon his bare back severely whipped in sight of the inhabitants of the saide towne.” *Id.*

125. See KENNETH A. LOGAN & LINDA L. SWEANOR, DESERT PUMA: EVOLUTIONARY ECOLOGY AND CONSERVATION OF AN ENDURING CARNIVORE 39 (2001) (observing that mountain lions are “cryptic, crepuscular, and nocturnal”).

126. See generally HORNOCKER & NEGRI, *supra* note 4, at 119–23 (reviewing mountain lion hunting behavior).

127. See Alexander Crowell & C. Dana, *The Panther Hunt* (Nov. 24, 1881) (on file with the Vt. Hist. Soc’y), <https://perma.cc/L36J-CLXC> (reviewing killing of last “catamount” in Vermont after hunter found tracks in new snow).

128. See Brad Fitzpatrick, *The Tradition of Hunting with Hounds*, GUN DOG (June 17, 2023), <https://perma.cc/W4SV-8RCP>.

would sometimes pick up the scent track of a mountain lion,¹²⁹ and American hunters soon discovered that the big, menacing North American cat had a fatal weakness. Because wolf packs prey on mountain lion kittens and aggressively drive mountain lions from kills,¹³⁰ mountain lions evolved to fear canines; they instinctively retreat to a tree when pursued.¹³¹ Thus, when a hound encountered a lion's scent trail and pursued it, the hunt invariably ended with a lion in a tree prepared to wait out the canines below.¹³² While this behavior might have worked by outlasting a wolf pack, for a human hunter with dogs, it just made for an easy shot, even with a musket.

With the bounty system's incentives, the ease of hound hunting, and the depletion of the deer that were its chief food source, the extirpation of the mountain lion generally tracked east to west.¹³³ By the 1880's, the destruction of mountain lion populations east of the Rockies was near-complete, save for a small population in the Florida Everglades.¹³⁴ And as mountain lion populations were chased west, the bounties for their killing doggedly followed. Indeed, in some areas of the west, bounty systems uniquely incentivized the killing of mountain lions. In 1885, the Arizona Territory Legislature introduced "An Act to Encourage the Destruction of Wild Animals."¹³⁵ The state would pay \$2.50 per wolf killed and \$10 per bear or jaguar killed. But, attesting to their local menace (and the challenge of hunting them), the bounty for mountain lions was set at \$25.¹³⁶

Still, in the expansive public land ranges of the West, it could be hard to find interested lion hunters.¹³⁷ And those who were interested often appeared to be abusing the system.¹³⁸ In 1901, Hey Davis, an Arizona bounty hunter, turned

129. See CHRIS BOLGIANO, *MOUNTAIN LION: AN UNNATURAL HISTORY OF PUMAS AND PEOPLE* 53 (1995).

130. See Toni K. Ruth & Kerry Murphy, *Competition with Other Carnivores for Prey*, in *COUGAR: ECOLOGY AND CONSERVATION* 163–66 (2010).

131. See BOLGIANO, *supra* note 129, at 53.

132. See *id.*

133. See R. Bruce Gill, *To Save a Mountain Lion: Evolving Philosophy of Nature and Cougars*, in *COUGAR ECOLOGY & CONSERVATION* 8 (2009).

134. U.S. FISH & WILDLIFE SERV., *EASTERN COUGAR* 1, <https://perma.cc/D8ML-T6N2>.

135. Underhill, *supra* note 20, at 74 (reviewing legislation).

136. *Id.* at 75–76.

137. See CHRISTIAN YOUNG, *IN THE ABSENCE OF PREDATORS* 23 (2002) (reviewing that the bounty system had only limited success in the West “due. . . to the vastness of the range”). See Joshua Binus, *Federal Plan to Wipe Out Predatory Beasts Succeeds*, *OR. HIST. PROJECT* (2005), <https://perma.cc/AP57-4S4Q> (reporting complaints from Oregon sheep ranchers that despite supplementing bounties, they could not find mountain lion hunters to work their holdings).

138. See Coggins & Evans, *supra* note 12, at 827–88. See also Whiteley, *supra* note 43, at 644–45 (observing that the bounty system “encourage[d] repeat players to ensure that a breeding population of [predators] continues to exist” and that “when different jurisdictions offered different prices for . . . pelts, they encouraged people to falsify the jurisdictions in which [predators] were taken.”).

in 200 mountain lion scalps for payment under the Territorial bounty law (a one-time payout equaling almost \$200,000 in today's money).¹³⁹ He then increased his take by sending fifty of the choicest lion skins and scalps to a fur buyer in the East. Davis acknowledged that he had used eighty trained hounds to hunt the lions and was training an additional eighty pups as mountain lion trackers.¹⁴⁰

Funding predator bounties began to drain state and territorial budgets and taxpayers' patience.¹⁴¹ Indeed, Montana abolished its bounty program altogether in 1887.¹⁴² This did not, however, provide mountain lions and other apex predators with a long respite from the killing. Livestock interests quickly agreed to directly fund the state bounty programs. In this way, Montana's bounty system was revived in 1891.¹⁴³

Naturally, western livestock interests were eager to shift the financial burden of predator extermination and appealed to Congress, arguing that they were leasing federal grazing lands and were entitled to enjoy them free of predators.¹⁴⁴ Congress responded first in 1905 by repurposing the U.S. Department of Agriculture's Division of Economic Ornithology and Mammalogy, which, to date, had a scientific, even conservation-based, approach to wildlife management.¹⁴⁵ It was recast as the Division of Biological Survey with a new focus on predator extermination.¹⁴⁶ Next, in 1915, Congress created a new Branch of Predator and Rodent Control (PARC) within the Biological Survey.¹⁴⁷ PARC was given the express mission to hasten the extermination of apex predators, especially those around the western public grazing lands.¹⁴⁸

139. *Id.* at 79.

140. *Id.*

141. *See id.* ("In Maricopa County, William McDonald brought in so many wildcat scalps that the county treasurer urged the legislature to repeal the bounty on wildcats."). *See also* Gill, *supra* note 133, at 9 (suggesting that by 1914, western state and territorial governments were paying over \$1,000,000 a year funding bounty programs).

142. *See* Michael D. Wise, *Living Like a Wolf: Predation and Production in the Montana-Alberta Borderlands* 81 (Feb. 2012) (Ph.D. dissertation, University of Minnesota), <https://perma.cc/7TBQ-5LYY>.

143. *See id.* Presumably finding it more cost-effective than a bounty program, some states directly hired hunters to kill mountain lions. *See* Gill, *supra* note 133, at 9; ELBROCH, *supra* note 65, at xvii (observing that California employed up to five people charged with the task of killing mountain lions); Hornocker & Quigley, *supra* note 15, at 179 (noting that every state in the West had a famous "lion killer").

144. *See* Coggins & Evans, *supra* note 12, at 832–33. *See also* MIGHETTO, *supra* note 114, at 84–85.

145. *See* Donald W. Hawthorne, *The History of Federal and Cooperative Animal Damage Control*, SHEEP & GOAT RSCH. J. 1, 6 (2004).

146. *See* Tiffany Bacon, *The Implementation of the Animal Damage Control Act: A Comment on Wildlife Services' Methods of Predatory Animal Control*, 32 J. NAT'L ASS'N ADMIN. L. JUDICIARY 362, 365 (2012). *See also* YOUNG, *supra* note 137, at 22–24 (2002). For a detailed description of the Survey's activities during this era, see also Coggins & Evans, *supra* note 12, at 834–35.

147. *See* Coggins & Evans, *supra* note 12, at 835.

148. Bacon, *supra* note 146, at 365–68; June C. Edverson, *Predator Control and Regulated Killing: A Biodiversity Analysis*, 13 UCLA J. ENV'T L. & POL'Y 31, 33 (1994–95).

PARC quickly formed district offices in the western states holding the remaining mountain lions and recruited an army of professional hunters, trappers, and poisoners to complete the extermination program.¹⁴⁹ Indeed, by the 1930s, PARC employed more than 200 hunters dedicated exclusively to killing mountain lions.¹⁵⁰ At the same time, Congress directly allocated funds to PARC for an “Eradication Methods Laboratory” to conduct experiments on live animals to test innovative extermination methods.¹⁵¹ Yet while PARC was researching industrial methods to rid American lands once and for all of mountain lions, a nascent wildlife conservation ethic was acquiring public support. And while this new ethic would not subsume mountain lions and other predators for decades, the tide was shifting.

II. VALUING MOUNTAIN LIONS

A. *The Early Wildlife Conservation Movement*

Scholars generally trace America’s modern wildlife conservation regimes, which would eventually subsume mountain lions, to two ecological disasters.¹⁵² The first was the near extinction of the American Bison. Estimates are that up to 30 million bison roamed the Great Plains before European settlement.¹⁵³ Contemporary observations of their abundance, though accepted as accurate, still seem fanciful. The first trains crossing the Plains would sometimes have to stop for hours at a time to let the herds—estimated in the *hundreds of thousands*—pass.¹⁵⁴

A commercial market for “bison robes,” supplied by Western Plains Indigenous Nations, was well-established by the 1830’s after the first steamboats began to ascend the Missouri River.¹⁵⁵ And by the 1840’s, localized overhunting was already a problem.¹⁵⁶ But the demand for bison exploded in the 1870’s as new industrial processes for tanning bison hides were developed and new railroads offered easy transportation from the Plains to the tanneries in the East.¹⁵⁷ Armed with modern rifles and efficient hunting techniques, Euro-American

149. See MIGHETTO, *supra* note 114, at 85; Hawthorne, *supra* note 145, at 13.

150. Gill, *supra* note 133, at 9.

151. Bacon, *supra* note 146, at 365; Hawthorne, *supra* note 145, at 14.

152. See, e.g., MIGHETTO, *supra* note 114, at 28.

153. See ANDREW C. ISENBERG, *THE DESTRUCTION OF THE BISON: AN ENVIRONMENTAL HISTORY, 1750–1920*, at 25–30 (2000).

154. See JOEL ASAPH ALLEN, *HISTORY OF THE AMERICAN BISON* 462 (1877); WILLIAM T. HORNADAY, *THE EXTERMINATION OF THE AMERICAN BISON* 439 (1889).

155. See ISENBERG, *supra* note 153, at 93–94, 97.

156. See *id.* at 93–94. The early “bison robe” market was largely supplied by the nomadic Indigenous Nations of the Western Plains, who by the 1840s were already trading with the steamboats 100,000 “bison robes” a year. See *id.*

157. See *id.* at 130–31; see also SMALLEY, *supra* note 15, at 206–07; MIGHETTO, *supra* note 114, at 29.

“hide hunters” flooded the Plains.¹⁵⁸ Just as the historic numbers of bison are hard to grasp, so too is their slaughter. By 1890, there were fewer than 1,000 bison left in America.¹⁵⁹

Then there is the passenger pigeon. Estimates are that when Europeans arrived on the North American continent, there were *billions* of passenger pigeons in their forest habitat east of the Rockies.¹⁶⁰ John James Audubon once described a flock blocking the sun *for three days*.¹⁶¹ But passenger pigeons, if anything, were easier to harvest than bison. Millions of birds would roost and nest together at night. Hunters used poison gas, fire, clubs, and incessant sorties of gunfire to kill the pigeons, their corpses stacking on the ground.¹⁶² Or you could fashion a giant net and harvest them in bulk like a three-man team working a single roosting in Michigan in 1878 who captured and killed 50,000 pigeons.¹⁶³ Given their abundance, the passenger pigeon proved an important source of affordable food protein in America. By the 1880s, pigeons were being packed into barrels and shipped by the ton to America’s burgeoning urban centers.¹⁶⁴ But the passenger pigeon’s abundance was a survival technique; when their numbers were sufficiently reduced (and their hardwood forest habitats cleared), their colonies collapsed.¹⁶⁵ By 1912, there were no passenger pigeons left in the wild.¹⁶⁶

1. *The Rise of the Sport Hunting Ethic*

The decimation of the bison herds and the extinction of the passenger pigeon (and the reporting of such in the popular media) compelled a reckoning—Americans were finally prepared to acknowledge that the wildlife that had seeded their march to the Pacific was not, in fact, inexhaustible.¹⁶⁷ There was already a change afoot in attitude about the natural world. The Romantics and Transcendentalists rejected the antipathy toward wild nature

158. See ISENBERG, *supra* note 153, at 133–141 (tracing devastation wreaked by Euroamerican market hunters first in the Southern Plains then in the Northern Plains).

159. See *id.* at 143.

160. See JOEL GREENBERG, *A FEATHERED RIVER ACROSS THE SKY* 1 (2014).

161. See *id.* at 50.

162. See *id.* at 91–108 (describing varied means by which pigeons were killed and harvested).

163. See *id.* at 107.

164. See *id.* at 88–89 (observing that one retailer shipped up to 20,000 birds at a time); Blumm & Ritchie, *supra* note 105, at 691 (“The species was so abundant that it became a chief staple in metropolitan meat markets.”).

165. See GREENBERG, *supra* note 160, at 194–95. See also MIGHETTO, *supra* note 114, at 29 (observing that overhunting and habitat loss undermined pigeons’ evolved safety in numbers survival strategy).

166. See GREENBERG, *supra* note 160, at 177.

167. See MIGHETTO, *supra* note 114, at 28–29.

that had pervaded the first centuries of American experience.¹⁶⁸ In wildness, the Romantics saw beauty and spiritual restoration, not wickedness.¹⁶⁹ From these foundations, a new nature appreciation movement emerged in the late nineteenth century, one that began to assign aesthetic and moral values to wildlife.¹⁷⁰

At the same time, in the late 1800s, a new technocratic conservation movement emerged that argued that the wanton destruction of wildlife had to stop, not necessarily because the killing was misguided or wrong, but because it was bad management practice.¹⁷¹ From a pure conservationist perspective, the goal was not necessarily to stop market hunting, but rather to manage the harvest to produce sustainable yields.¹⁷²

But scholars largely attribute the rise of an American wildlife conservation movement to a gentleman's "sport hunting" movement that became ascendant in the late 1800s.¹⁷³ The so-called "sport hunters" expressly distinguished themselves from "market hunters," those who indiscriminately killed wild animals to sell at market. The sport hunters pursued game not for market (as did the buffalo and pigeon hunters), but for the psychospiritual experience of testing one's mettle in nature.¹⁷⁴ To that end, sport hunters promoted "fair chase" principles that ensured a successful hunt demanded physical vigor and mental guile.¹⁷⁵

The sport hunters were acutely concerned about the loss of American wildlife. But their concerns were not so much about the disappearing animals as about the disappearing opportunity to hunt them. Critically, the sport hunters did not simply argue that the loss of game species threatened their favored

168. See Bradley Dean, *Natural History, Romanticism, and Thoreau*, in *AMERICAN WILDERNESS: A NEW HISTORY* 73 (2007).

169. *Id.* at 76 (explaining that "[n]ature . . . had become the Romantic Era's palliative").

170. See MIGHETTO, *supra* note 114, at 44–47; see also John Muir, *Wild Wool*, in *JOHN MUIR: A READING BIBLIOGRAPHY BY KIMES* 361, 364 (1875) ("I have never yet happened upon a trace of evidence that seemed to show that any one animal was ever made for another as much as it was made for itself.").

171. See John F. Organ & Richard E. McCabe, *History of State Wildlife Management in the United States*, in *STATE WILDLIFE MANAGEMENT AND CONSERVATION* 1, 9 (2018).

172. See MIGHETTO, *supra* note 114, at 84 (describing a Pinchotian conservation ethic).

173. See generally THOMAS R. DUNLAP, *SAVING AMERICA'S WILDLIFE: ECOLOGY AND THE AMERICAN MIND, 1850–1990* 9–11 (1988); TARA KATHLEEN KELLY, *THE HUNTER ELITE: MANLY SPORT, HUNTING NARRATIVES, AND AMERICAN CONSERVATION, 1880–1925* 231 (2018) (describing influence as "massive"). But see Leonard Brennan, et al., *Social Economic and Ecological Challenges*, in *NORTH AMERICAN MODEL OF WILDLIFE CONSERVATION* 132 (2024) (noting that a narrative focusing on the role of sport hunting in wildlife conservation "fails to recognize the formative contributions made by women and leaders of the nonconsumptive, more preservationist side of the conservation movement"); M.N. Peterson & M.P. Nelson, *Why the North American Model of Wildlife Conservation is Problematic for Modern Wildlife Management*, 22 *HUM. DIMENSIONS WILDLIFE* 43 (2017) ("Another equally viable historical account of wildlife conservation during this period places naturalists, women, and the Audubon Society at the center of the story.").

174. See DUNLAP, *supra* note 173, at 8–10.

175. *Id.*

recreational pursuit. Rather, the sport hunters argued that the loss of game species actually threatened an essential robust “Americanness.”¹⁷⁶ Without game to hunt, the sport hunters contended, the country’s increasingly urbanized young men would lose the rugged, able character that was central to the nation’s success.¹⁷⁷ Because these principles continue to inform the modern wildlife regimes that regulate mountain lions today, some context is helpful.

In 1890, the U.S. Census Bureau announced that the American West had become so populated and settled that there was no longer an identifiable western “frontier” to be tamed.¹⁷⁸ America’s manifest destiny was, in effect, complete. In 1893, the historian Frederick Jackson Turner published an essay titled *The Significance of the Frontier in American History*.¹⁷⁹ In it, Turner argued the American experience of building communities along the ever westward-pushing frontier had created an essential democratic and individualistic American character.¹⁸⁰ The frontier, Turner explained, takes the man “from the railroad car and puts him in the birch canoe,”¹⁸¹ and fosters in him the essential American traits, including a “coarseness and strength combined with acuteness and inquisitiveness” and a command of the physical world that makes him “powerful to effect great ends.”¹⁸² Turner’s “frontier thesis” struck an optimistic tone overall. Still, it implicitly raised the question: Without a frontier to conquer, will the generations that follow lose the traits forged by the frontier? Turner’s essay proved a bit of sensation; intellectual circles began debating if the American character was destined for decline.¹⁸³

Contemporaneous with Turner, Theodore Roosevelt was also developing his own “frontier thesis,” which he roughed out in a four-volume tome, *The Winning of the West*, published in serial form from 1889 to 1896.¹⁸⁴ Roosevelt’s

176. *See id.*

177. *See id.*

178. *See* Frederick Jackson Turner, *The Significance of the Frontier in American History*, in ANNUAL REPORT OF THE AMERICAN HISTORICAL ASSOCIATION FOR THE YEAR 1893 199 (1893).

179. *See id.*

180. *See id.* at 200 (“This perennial rebirth, this fluidity of American life, this expansion westward with its new opportunities, its continuous touch with the simplicity of primitive society, furnish the forces dominating American character.”).

181. *Id.* at 201.

182. *Id.* at 226–27. There are numerous well-founded critiques of the Frontier Thesis. *See, e.g.*, PATRICIA NELSON LIMERICK, *THE LEGACY OF CONQUEST: THE UNBROKEN PAST OF THE AMERICAN WEST* 20–25 (1987); *see also* HENRY NASH SMITH, *VIRGIN LAND: THE AMERICAN WEST AS SYMBOL AND MYTH* 250–60 (1970); Richard Hofstadter, *Turner and the Frontier Myth*, 18.4 AM. SCHOLAR 433–43 (1949).

183. *See generally* David Wrobel, *The Closing Gates of Democracy: Frontier Anxiety Before the Official End of the Frontier*, 32 AM. STUDIES 49 (1991) (suggesting that “frontier anxiety” long pre-dated the 1890s); Organ & McCabe, *supra* note 171, at 7.

184. *See* I–IV THEODORE ROOSEVELT, *THE WINNING OF THE WEST* (1889–1896).

thesis was more militaristic and, inescapably, racial than Turner's.¹⁸⁵ Turner focused on how carving out communities along the frontier shaped the American democratic character.¹⁸⁶ Roosevelt's thesis, on the other hand, emphasized how the violent suppression of the frontier and the Indigenous Nations encountered there by "English-speaking peoples,"¹⁸⁷ while brutal, "was necessary to the greatness of the race."¹⁸⁸

But Roosevelt's frontier thesis emphasized more than martial combat; it also afforded a character-building power to the taking of game along the frontier.¹⁸⁹ Indeed, Roosevelt afforded special power to the sport hunter's ritual of the "chase," which Roosevelt argued "cultivates that vigorous manliness for the lack of which in a nation, as in an individual, the possession of no other qualities can possibly atone."¹⁹⁰ For Roosevelt, then, the proper response to the closing of the "character-building" frontier was two-fold. First was to seek new opportunities abroad for American men to engage in martial combat.¹⁹¹ Second was to seek the preservation of a sustaining population of wild game at home for Americans to hunt in the field.

To the latter end, in 1887, Roosevelt co-founded the Boone and Crockett Club, a federation of mostly aristocratic Eastern big-game sport hunters who wielded remarkable political influence at the turn of the twentieth century.¹⁹² (Several U.S. senators were in the Club; Roosevelt was governor of New York throughout the 1890s and became President in 1901.)¹⁹³ The Club's constitution reflected Roosevelt's frontier thesis. One of the Club's enumerated founding objectives was to "work for the preservation of the large game of this country, and, so far as possible, to further legislation for that purpose, and to assist in

185. See, e.g., RICHARD SLOTKIN, *A GREAT DISORDER: NATIONAL MYTH AND THE BATTLE FOR AMERICA* 127–28 (2024).

186. See Turner, *supra* note 178, at 216 ("In the crucible of the frontier the immigrants were Americanized, liberated, and fused into a mixed race, English in neither nationality [n]or characteristics.").

187. I THEODORE ROOSEVELT, *THE WINNING OF THE WEST* 1–27 (1889).

188. III THEODORE ROOSEVELT, *THE WINNING OF THE WEST* 174 (1894).

189. DANIEL JUSTIN HERMAN, *HUNTING AND THE AMERICAN IMAGINATION* 219 (2001) (observing that for Roosevelt, hunters embodied the essence of the "strenuous life" without which the nation would devolve into irrelevancy on the world stage); RICHARD SLOTNICK, *Nostalgia and Progress, Theodore Roosevelt's Myth of the Frontier*, 33.5 AM. Q. 608, 612 (1981) ("[F]or Roosevelt, the myth of the hunter was the structuring principle of his own myth of the frontier.").

190. THEODORE ROOSEVELT, *THE WILDERNESS HUNTER* vii (1893).

191. See generally Theodore Roosevelt, *The Strenuous Life* (Apr. 10, 1899).

192. MIGHETTO, *supra* note 114, at 31–32; see also Thomas Lund, *Nineteenth Century Wildlife Law: A Case Study of Elite Influence*, 33 ARIZ. ST. L.J. 935 (2001).

193. MIGHETTO, *supra* note 114, at 31–32.

enforcing the existing laws.”¹⁹⁴ But protecting wildlife was in service to the Club’s first founding objective, which was “to promote manly sport with rifle.”¹⁹⁵

The Boone and Crockett Club’s constitution reflected the early intellectual basis of what would become America’s wildlife conservation movement. As the wildlife conservation historian Thomas Dunlap explains, game species had to be conserved because hunting game was

an arena for forming and testing the character of Americans that would substitute for the now vanishing frontier. Later generations, going to the field, could re-create the pioneer experience and develop the virtues of the pioneers. To accomplish this, wildlife, or at least the species that were quarry for the chase, had to be saved¹⁹⁶

By the 1890s, the sport-hunting movement was exerting influence at the state level, prompting enactment of new hunting laws to conserve game species and the creation of new state “game” commissions to enforce the laws.¹⁹⁷ But the movement’s main early accomplishment was its promotion of the 1900 Lacey Act,¹⁹⁸ the first federal wildlife conservation statute.¹⁹⁹ (The Act is named after its sponsor, John F. Lacey, a U.S. Representative from Iowa who was also a member of the Boone & Crockett club.)²⁰⁰ The Lacey Act seems like a modest anti-poaching statute at first—its central provision made it illegal for common carriers to transport from one state to another any part of wildlife “killed in violation of the laws of the State, Territory or District in which the same were killed.”²⁰¹ But the Act was strategically designed to collapse the national market for wildlife, thereby putting the market hunters out of business.²⁰²

A year after the Lacey Act, Theodore Roosevelt ascended to the Oval Office, and he began using his executive powers over federal public lands to create wildlife refuges to protect vulnerable wildlife species. In 1903, he created America’s first wildlife refuge, the Pelican Island Bird Reservation in Florida, to stop the

194. *Constitution and By-Laws of the Boone and Crockett Club (founded December 1887)*, in AMERICAN BIG-GAME HUNTING: THE BOOK OF THE BOONE & CROCKETT CLUB 336–40 (Theodore Roosevelt & George Bird Grinnell eds., 1901), <https://perma.cc/2WB8-QLY9>.

195. *Id.*

196. DUNLAP, *supra* note 173, at 6 (1988); *see also* Organ & McCabe, *supra* note 171 at 7–8; MIGHETTO, *supra* note 114, at 34 (reviewing Roosevelt’s view at 34 (“Fearing that that nation might lost its vitality, Roosevelt suggested that Americans could regain the ‘hardihood, self-reliance, and resolution’ of the pioneers through hunting in the wilderness.”))

197. *See* DAVID JUSTIN HERMAN, HUNTING AND THE AMERICAN IMAGINATION 240 (2001).

198. Lacey Act, ch. 553, 31 Stat. 187 (1900) (codified as amended at 16 U.S.C. §§ 3371–3378).

199. *See* HERMAN, *supra* note 189, at 240.

200. *See* KELLY, *supra* note 173, at 232.

201. Lacey Act § 3.

202. *See* Robert S. Anderson, *The Lacey Act: America’s Premier Weapon in the Fight Against Unlawful Wildlife Trafficking*, 16 PUB. LAND L. REV. 27, 40 (1995).

plundering of bird feathers.²⁰³ By the end of his term in 1908, Roosevelt had created fifty-five such wildlife refuges.²⁰⁴ He also created four national parks and eighteen national monuments, where the government often limited hunting.²⁰⁵

And yet, by the early 1930s, it was apparent that the end of market hunting and a system of geographically isolated wildlife refuges were insufficient to stem further decline in America's wildlife.²⁰⁶ While most states had "fish and game" agencies by the early 1900s, these agencies were underfunded, and available resources were dedicated to enforcing game laws that lacked a scientific basis.²⁰⁷ Even with closed seasons and bag limits, overharvesting was rampant.²⁰⁸ Finally, the 1920s saw a surge in hunters pursuing the remaining game species.²⁰⁹ (Economic hardship played a role.)²¹⁰ In 1934, a President's Committee on Wildlife Restoration chronicled "incontrovertible evidence of a critical and continuing decline in our wild-life resources."²¹¹ In response, in 1937 Congress passed the Federal Aid in Wildlife Restoration Act, popularly known today as the Pittman-Robertson Act for its Congressional sponsors.²¹²

The Pittman-Robertson Act's main innovation was the creation of a dedicated funding system for wildlife conservation programs that relied on taxes and fees paid by hunters themselves.²¹³ In the first place, the Act commandeered the revenue from a tax on guns and ammunition (the tools of hunting) and dedicated it exclusively to state-led wildlife restoration and conservation projects.²¹⁴ In the second place, to qualify for federal funds, the Act required a state to pass legislation dedicating all revenue from the sale of hunting and fishing licenses to wildlife conservation.²¹⁵ Within five years, all fifty states had passed the required legislation.²¹⁶ The Pittman-Roberson Act remains in effect and

203. Exec. Order of March 14, 1903, withdrawing Pelican Island, Florida, as a federal bird reservation (on file with the U.S. National Archives).

204. *Birds, Poachers, the 'Ladies Mile', and Theodore's Intervention*, Nat'l Park Serv. (Mar. 9, 2025), <https://perma.cc/ZBV7-WY7S>.

205. *Theodore Roosevelt and Conservation*, NAT'L PARK SERV. (Nov. 16, 2017), <https://perma.cc/9ZLZ-CMUN>.

206. See Lonnie Williamson, *Evolution of a Landmark Law, in RESTORING AMERICA'S WILDLIFE* 1, 2 (1987).

207. See Organ and McCabe, *supra* note 171, at 13–14.

208. See *id.* at 13.

209. Williamson, *supra* note 206, at 5.

210. *Id.* at 2.

211. THOMAS HAMBLY BECK ET AL., U.S. DEP'T OF AGRIC., REPORT OF THE PRESIDENT'S COMMITTEE ON WILD-LIFE RESTORATION vii (1934).

212. Pittman-Robertson Act, ch. 899, 50 Stat. 917 (1937) (codified as amended 16 U.S.C. §§ 669–669k)

213. *Id.*

214. *Id.* §§ 3–4.

215. *Id.* § 1.

216. MARK K. DESANTIS ET AL., CONG. RSCH. SERV., IF12229, THE PITTMAN-ROBERTSON WILDLIFE RESTORATION ACT (2022), <https://perma.cc/E4QD-PDZG> (indicating that all 50 states are currently receiving Pittman-Robertson funds).

its innovative “user-pay” model still largely funds state wildlife agencies. (As discussed below, these “hunter-paid” revenue streams have a direct impact on efforts to reform modern mountain lion management.)

But the Act did more than create a rich and dedicated funding stream for wildlife conservation; it also encouraged the modernization of state wildlife regimes. To qualify for funding, states had to identify specific science-based projects.²¹⁷ If the Lacey Act closed the chapter on America’s profligate over-hunting of wildlife, it was the Pittman-Robertson Act that opened the chapter of modern wildlife conservation.

2. *The Predator Exception to Wildlife Conservation*

All the same, this first wave of wildlife conservation did not change the law’s view of mountain lions and other apex predators. They remained noxious vermin, and sound wildlife management still required their extermination.²¹⁸ The views of William Temple Hornaday, the influential director of the New York Zoological Park from 1896 to 1926, are emblematic. Hornaday was a renowned wildlife advocate who was instrumental in early efforts to conserve American Bison.²¹⁹ Yet he also acknowledged that there were “bad species” unworthy of protection: He argued that predatory hawks should be shot on sight, that the great horned owl was a “murderer” and that the wolf was “the acme of cruelty.”²²⁰

Some contemporary voices argued for restraint in killing predators.²²¹ The American Society of Mammalogists, for instance, opposed federal predator control policies throughout the 1920s.²²² These voices, however, were fighting 300 years of policy inertia and a still quite deep-seated demonization of predators. In 1928, Paul G. Redington, chief of the Biological Survey, the federal agency dedicated to predator extermination, dismissed “those who want to see

217. Pittman-Robertson Wildlife Restoration Act, *supra* note 212, § 4. Even today, state wildlife agencies “receive[] between \$4.5 million and \$34.7 million” in funding for wildlife management from Pittman-Robertson allocations. R. ELIOT CRAFTON, CONG. RSCH. SERV., R45667, PITTMAN-ROBERTSON WILDLIFE RESTORATION ACT: UNDERSTANDING APPORTIONMENTS FOR STATES AND TERRITORIES 6 (2019).

218. Goble, *supra* note 111, at 106 (noting that new game laws “protected only ‘good’ animals; conservation did not include wolves or other predators”); MIGHETTO, *supra* note 114, at 84 (noting that “[i]ronically, the campaign against [predators] was directed for the most part by individuals and agencies associated with the conservation movement”).

219. See generally William T. HORNADAY, OUR VANISHING WILD LIFE: ITS EXTERMINATION AND PRESERVATION 367–548 (1913) (laying out Hornaday’s views).

220. See T.R. Dunlap, *Values for Varmints: Predator Control and Environmental Ideas, 1920–1939*, 53 PAC. HIST. REV. 141, 145 (1983) (quoting Hornaday).

221. See Gill, *supra* note 133, at 11–12.

222. See James A. Pritchard, *The American Society of Mammalogists, The Ecological Society of America, and Politics of Preservation*, 13 STUD. HIST. BIOLOGY 2, 87–93 (2021).

the mountain lion, the wolf, the coyote, and the bobcat perpetuated as part of the wildlife of the country.”²²³

If anything, Redington and western livestock interests doubled down, and in 1931, Congress passed the Animal Damage Control Act, injecting new energy into the apex predator extermination program.²²⁴ The Act’s singular goal was the “eradication, suppression, or bringing under control” of a variety of wild species, chief among them mountain lions and wolves.²²⁵ The Act also provided funding for research dedicated to innovating and sharing new ways to complete the destruction of apex predators.²²⁶

Thus, while the 1937 Pittman-Robertson Act was being celebrated for modernizing wildlife conservation, the Branch of Predator and Rodent Control was researching new ways to destroy predators once and for all. The key innovation was poison.²²⁷ While baiting meat with strychnine had long been a practice of ranchers to kill scavenging predators, the new poisons promised killing on an industrial scale.²²⁸ In 1944, the Branch of Predator and Rodent Control began using sodium monofluoroacetate (SMF), a poison commonly known as Compound 1080, that was far more lethal than strychnine.²²⁹ Agents of the Board of Predator Control would generally use the poison in meat left at “bait stations” for unsuspecting predators.²³⁰ From 1944 to 1972, as many as 15,000 SMF baits were set in western mountains and rangelands *each year*.²³¹ In sum, while the unfettered slaughter of most wildlife had ended by the 1930s, that was not the case for mountain lions. But then the mule deer herd on the Kaibab Plateau in Arizona began to starve.

B. Mountain Lions and the Science of Game Management

The first time Theodore Roosevelt visited the Grand Canyon, in 1903, it was during a whistlestop tour as President.²³² Standing on the edge of the South Rim, the new President famously proclaimed, “Leave it as it is. Man cannot

223. DUNLAP, *supra* note 173, at 48. *See also* Dunlap, *supra* note 220, at 148 (quoting U.S. Bureau of Biological Survey biologist’s argument that “[l]arge predatory mammals, destructive to livestock and game, no longer have a place in our advancing civilization”).

224. 7 U.S.C. §§ 8351–56; *see also* Bacon, *supra* note 146, at 366–67.

225. *See id.* For a detailed discussion of the Animal Damage Control Act, *see* Coggins & Evans, *supra* note 12, at 835–36.

226. *See* Bacon, *supra* note 146, at 366–67.

227. Coggins & Evans, *supra* note 12, at 839–40; *see also* Edvenson, *supra* note 148, at 41.

228. Coggins & Evans, *supra* note 12, at 829–30.

229. Edvenson, *supra* note 148, at 41–42.

230. *See* A. STARKER LEOPOLD ET AL., *WILDLIFE MANAGEMENT IN THE NATIONAL PARKS* 10 (1963), <https://perma.cc/7FP3-4CD7> (describing standard practice); Edvenson, *supra* note 148, at 42, 57.

231. Edvenson, *supra* note 148, at 41–42. *See also* Gill, *supra* note 133, at 13.

232. *President Passes Through Flagstaff*, COCONINO SUN (May 9, 1903), <https://perma.cc/ME44-RDN6>.

improve on it; not a bit. The ages have been at work on it, and man can only mar it.”²³³ Ten years later, he returned to the Grand Canyon, this time to hunt mountain lions.²³⁴ It was what today we might call a volunteer or service vacation. Roosevelt, traveling with two of his sons, was most certainly on vacation: hunting big game, particularly mountain lions, was a favorite pastime.²³⁵ But killing the mountain lions of the Kaibab plateau was also a public service. At least as Roosevelt understood it, killing mountain lions was essential to promoting the great Kaibab mule deer populations.

Roosevelt had a particular interest in the Kaibab mule deer. The Kaibab plateau, which extends both north and south from the rim of the Grand Canyon in Arizona, was first placed within the “Grand Canyon Forest Reserve” in 1893.²³⁶ Then, as President in 1906, Roosevelt protected 600,000 acres on both sides of the canyon in a new Grand Canyon Game Preserve.²³⁷ With the new designation, hunting was prohibited and grazing restricted to protect “the finest deer herd in America.”²³⁸ Next, in 1908, armed with new powers under the Antiquities Act to protect federal lands from private exploitation, Roosevelt protected an additional 6,000,000 acres below the rim of the Grand Canyon as a new National Monument, closing ten times as much land to hunting.²³⁹

At the time of Roosevelt’s executive actions, there was general agreement that the Kaibab mule deer population was unduly suppressed at just a few thousand deer.²⁴⁰ It is now accepted that the mule deer herds were struggling due to a number of factors including overgrazing by domestic cattle and sheep, which reduced the available forage.²⁴¹ Nevertheless, officials assigned a good portion of the blame to the local apex predators, which were presumed to be suppressing the mule deer population through their ravenous appetites.²⁴²

233. *Id.*

234. Theodore Roosevelt, *A Cougar Hunt on the Rim of the Grand Canyon*, in *A BOOK-LOVER’S HOLIDAYS IN THE OPEN* 1–28 (1916).

235. See MIGHETTO, *supra* note 114, at 36–37 (reviewing Theodore Roosevelt’s penchant for hunting predators).

236. See 27 Stat. 1064 (1893) (“Setting apart forest reservation, Arizona. February 20, 1893”).

237. See 34 Stat. 607 (1906) (“An Act for the Protection of Wild Animals in the Grand Canyon Forest Reserve”) [hereinafter “Act for the Protection of Wild Animals”]; see also YOUNG, *supra* note 137, at 17–18. See also Sarah Bohl Gerke & Paul Hirt, *Kaibab National Forest, Nature, Culture and History at the Grand Canyon*, <https://perma.cc/7JG8-5X7L>.

238. See Act for the Protection of Wild Animals, *supra* note 237.

239. See 36 Stat. 2197 (1908) (establishing Grand Canyon National Monument).

240. See generally John Burk, *The Kaibab deer incident: a long persisting myth*, 23 BIOSCIENCE 113, 113 (1973) (reviewing historical perceptions).

241. See *id.* (arguing that it was the competition from grazing livestock that suppressed the Kaibab deer population); see also Graeme Caughley, *Eruption of Ungulate Populations, with Emphasis on Himalayan Thar in New Zealand*, 51 ECOLOGY 53, 54–56 (1970). But see Dan Binkley et al., *Was Aldo Leopold Right About the Kaibab Deer Herd?*, 9 ECOSYSTEMS 227, 236, 240 (2006) (expressing skepticism that reduction of livestock caused irruption).

242. See Burk, *supra* note 240, at 113 (reviewing contemporary perceptions).

Indeed, Hornaday of the New York Zoological Society suggested in 1913 that mountain lions and wolves “should be shot out of the entire Grand Canyon National Forest.”²⁴³ Consequently, officials accepted it as an unalloyed good that between 1906 and 1923, somewhere around 700 mountain lions, thousands of coyotes, and some small number of wolves were killed on the Kaibab Plateau.²⁴⁴

Guiding Roosevelt’s 1913 hunt was the famed North Rim ranger and mountain lion hunter Jim Owens.²⁴⁵ Owens likely killed over 600 mountain lions during his tenure on the North Rim.²⁴⁶ And as a testament to his success at depleting the local population, in two weeks of hunting, Roosevelt’s group were only able to track and kill two mountain lions.²⁴⁷ (During a 1901 hunt in Colorado, Roosevelt alone had killed twelve mountain lions.)²⁴⁸ Owens’ trained hounds picked up each lion’s scent trail, began the chase, and the mountain lion climbed a tree or rocky outcrop. Roosevelt’s party would follow on horse, and someone would shoot the stranded lion.²⁴⁹

To read Roosevelt’s description of the plateau in 1913, the eradication program was a great success; he described meadows full of deer unmolested by predators.²⁵⁰ When, during their hunt, Roosevelt’s son shot a mountain lion cornered by hounds on a rock face, Roosevelt celebrated the killing of “the destroyer of the deer.”²⁵¹

By the early 1920s, the Kaibab mule deer population had recovered, perhaps too well.²⁵² One study suggested the herd had rebounded to close to 100,000 animals by 1924.²⁵³ That winter, reports widely circulated that the available forage on the Plateau was depleted and that the deer were on the verge of starvation.²⁵⁴ There was national press: a New York Times writer predicted that all the deer would die over the winter of 1925–26.²⁵⁵

The plight of the Kaibab mule deer drew the attention of leading figures in what would become the field of game management, many of whom offered ready

243. See YOUNG, *supra* note 137, at 27.

244. See JOHN E. MITCHELL & DUANE R. FREEMAN, U.S. DEP’T OF AGRIC., WILDLIFE-LIVESTOCK-FIRE INTERACTIONS ON THE NORTH KAIBAB: A HISTORICAL REVIEW 3 (1993) (reviewing predator control efforts).

245. Roosevelt, *supra* note 234, at 4–6.

246. See YOUNG, *supra* note 137, at 19–20.

247. Roosevelt, *supra* note 234, at 20–23.

248. J.A. Maguire, *Our Editor-in-Chief Interviews Teddy Roosevelt After His Mountain Lion Hunt, From the Archives*, OUTDOOR LIFE (May 16, 2023), <https://perma.cc/MV6U-8QYH>.

249. Roosevelt, *supra* note 234, at 20–28.

250. *Id.* at 13.

251. *Id.* at 22.

252. See MITCHELL & FREEMAN, *supra* note 244, at 3.

253. See *id.* Retrospective studies suggest these numbers were fanciful. See Caughley, *supra* note 241.

254. See MITCHELL & FREEMAN, *supra* note 244, at 3–4.

255. William A. Du Poy, *Forest Reserve Becomes a Range of Death*, N.Y. TIMES MAG. (Dec. 15, 1925), at 8.

explanations for the starving deer. The notion that predators played a role in healthy prey populations was already percolating, and the Kaibab deer irruption offered an appealing illustration of predator-prey balance.²⁵⁶ In a 1927 book, *Animal Ecology*, Charles Elton tied the irruption directly to the suppression of predators: “Owing to the absence of their usual carnivorous enemies (e.g., cougars and wolves) [the deer] increased so much that they began to over-eat their food-supply[.]”²⁵⁷ More influential was the work of D.I. Rasmusson, who specifically emphasized the role of mountain lions in controlling the deer population:²⁵⁸ “The cougar seemingly has a very definite place in the biotic relations of the pinon-juniper community, if by its abundance and its pressure on deer, the deer population is controlled.”²⁵⁹ The irruption proved his thesis: “The removal of eight hundred mountain lions from the area, from 1907 to 1930, appears to be the major cause of the great increase in numbers of deer.”²⁶⁰

The studies connecting the Kaibab deer irruption to the destruction of mountain lions were remarkably influential. Aldo Leopold, often credited with founding both the field of game management and the field of environmental ethics, frequently used the story of the Kaibab deer irruption to demonstrate the critical role of predators in biotic communities.²⁶¹ The story appeared in textbooks and persisted in popular literature.²⁶² It even made an appearance in Rachel Carson’s *Silent Spring* in 1962.²⁶³ Indeed, it is not too much to say that the modern notion that mountain lions “belong” in nature owes much to the Kaibab deer irruption.²⁶⁴ This outcome is ironic because retrospective studies have established that the connection between predator suppression on the Kaibab Plateau and the abundance of deer in the 1920s was likely illusory.²⁶⁵ The deer most certainly irrupted, if they even irrupted in the first place, because of the return of forage after livestock were removed from the Plateau before 1920.²⁶⁶ Today, it is probably best to consider the Kaibab deer irruption as a “useful fiction” for early game management scientists. In the end, the science was mostly right: predators can play a role in maintaining healthy prey populations. The illustration was just faulty.²⁶⁷

256. *See id.* (asserting that by eradicating predators “so were the deer given unusual opportunity to multiply”).

257. CHARLES ELTON, *ANIMAL ECOLOGY* 115 (1927).

258. *See* YOUNG, *supra* note 137, at 199–203 (reviewing that Rasmusson’s work directly informed Aldo Leopold’s subsequent views of predator-prey dynamics on the Kaibab plateau).

259. *See* YOUNG, *supra* note 137, at 158 (quoting Rasmusson’s doctoral dissertation).

260. *Id.*

261. *See id.* at 203–04.

262. *Id.* at 204–05.

263. *Id.* at 210–211; RACHEL CARSON, *SILENT SPRING* 248 (Mariner Books 2002) (1962).

264. *See generally* YOUNG, *supra* note 137, at 210–11.

265. *See* Caughley, *supra* note 241 (reviewing that numbers relied on for studies were specious).

266. *See* Burk, *supra* note 240, at 113 (suggesting that it was the removal of livestock from the forest reserves that caused the population explosion because of the sudden availability of abundant forage)

267. *See generally* YOUNG, *supra* note 137, at 212.

In any event, while the role of apex predators in balancing ecosystems was beginning to take form in the 1930s, scientists in the mold of Leopold did not immediately exercise influence at state wildlife agencies.²⁶⁸ Even after passage of the Pittman-Roberston Act in 1937 with its promise of science-based wildlife management, wildlife managers were simply not yet prepared to push against the inertia of a 350-year-old ethos that the only good mountain lion was a dead one.²⁶⁹ And then the tide turned decisively in favor of the mountain lion.

By the 1960s, an entire generation of wildlife biologists had been acculturated to viewing the mountain lion as a key element in predator-prey population dynamics.²⁷⁰ In 1967, Paul Errington, a former student of Leopold's, articulated what has become the modern scientific embrace of the role of predation in natural systems. Predators, Errington wrote, "belong[] in the equation of Life."²⁷¹

Other forces also favored the mountain lion. Publication of Rachel Carson's *Silent Spring* in 1962 provoked the American public to reassess its relationship with the natural world.²⁷² And beginning in the 1960s, wildlife biologists began publishing a series of pioneering mountain lion studies relying on treeing lions with hounds, tranquilizing them, and collaring them with radio collars.²⁷³ These studies provided the first reliable science on mountain lions, and, as is often the case, familiarity bred appreciation.²⁷⁴

268. See GILL, *supra* note 133, at 12.

269. See Organ & McCabe, *supra* note 171, at 17–18.

270. See DUNLAP, *supra* note 173, at 17. ("Biology, including the subdiscipline of ecology, was becoming an established academic, scientific specialty. A community of scientists was forming in colleges, museums, and state and federal agencies."); Tony J. Peterle, *Substituting Facts for Myths*, in RESTORING AMERICA'S WILDLIFE, 1937–1987 i, 59 (1987) (reviewing development of a "new breed of supervisors familiar with research concepts").

271. PAUL L. ERRINGTON, OF PREDATION AND LIFE 239 (1967); see also Nelson G. Hairston et al., *Community Structure, Population Control, and Competition*, 94 AM. NAT. 1, 421 (1960) (articulating salutary role of predators in food chains).

272. CARSON, *supra* note 263; see also MARK HAMILTON LYTLE, THE GENTLE SUBVERSIVE: RACHEL CARSON, SILENT SPRING, AND THE RISE OF THE ENVIRONMENTAL MOVEMENT 142–165 (2007).

273. See, e.g., Maurice G. Hornocker, *An Analysis of Mountain Lion Predation Upon Mule Deer and Elk in the Idaho Primitive Area*, 21 WILDLIFE MONOGRAPHS 1, 3–39 (1970); see also LOGAN & SWEANOR, *supra* note 125, at 45 (reviewing early studies and techniques).

274. Popular media in the 1960s also likely played a role in encouraging tolerance of mountain lions, largely by anthropomorphizing them. For instance, a 1959 episode of the television show *Magical World of Disney* sympathetically followed two mountain lion kittens named Chimbica and Tawny as they struggled to survive a dangerous world. *Killers of the High Country*, THE MAGICAL WORLD OF DISNEY, (Walt Disney Prods., aired Oct 16, 1959). Even more sympathetic to the plight of the mountain lion was the portrayal of an orphaned mountain lion in the 1967 feature film *Charlie, the Lonesome Cougar* that was often shown as a double feature with Disney's *The Jungle Book*. CHARLIE, THE LONESOME COUGAR (Walt Disney Prods. 1967).

In 1960, most states with mountain lion populations still pursued their extermination through bounty laws.²⁷⁵ And then, in the space of a decade, the bounty system that had condemned American mountain lions for 350 years was dismantled. By 1970, every state with a mountain lion population had abrogated its bounty statutes; the destruction of mountain lions was no longer a formal governmental policy.²⁷⁶ Even the federal Bureau of Predatory and Rodent Control reformed its mission, ending broad extirpation programs in favor of targeted removal of specific predators causing damage.²⁷⁷ (The bureau was subsequently named the “Office of Animal Damage Control.” Today it is called “Wildlife Services.”)²⁷⁸

It is hard to measure the extent of the devastation to mountain lion populations during the extermination era. Estimating current mountain lion populations is difficult enough;²⁷⁹ projecting historical numbers is a fool’s errand. What we do know is that, in 1620, sustaining mountain lion populations existed throughout the United States.²⁸⁰ But by 1970, the last populations had been pushed into the deep wilderness of the eight westernmost states and Florida.²⁸¹

III. MODERN LEGAL REGIMES FOR MANAGING MOUNTAIN LIONS

A. Game Animal

By 1972, every state with mountain lions had ended their bounty system, and federal officials were no longer pursuing outright extermination.²⁸² In turn, state wildlife agencies moved to formally manage their remaining

275. See Anderson, et al., *Cougar Management in North America*, in COUGAR: ECOLOGY AND CONSERVATION 42 (Maurice Hornocker & Sharon Negri eds., 2009).

276. See Hornocker & Quigley, *supra* note 15, at 181.

277. See generally A.S. LEOPOLD, ET AL., U.S. FISH & WILDLIFE PUBL’N, PREDATOR AND RODENT CONTROL IN THE UNITED STATES (1964) (promoting reform of PARC’s mission to end broad extirpation programs and focus on preservation of all species); see also *History of Wildlife Services Story Map*, U.S. DEP’T OF AGRIC., ANIMAL & PLANT HEALTH INSPECTION SERV., <https://perma.cc/G8CD-2ESR>.

278. See *History of Wildlife Services Story Map*, *supra* note 277.

279. See generally Howard Quigley & Maurice Hornocker, *Cougar Population Dynamics*, in COUGAR: ECOLOGY AND CONSERVATION 75 (Maurice Hornocker & Sharon Negri eds., 2009).

280. See generally LOGAN & SWEANOR, *supra* note 125, at 15.

281. See Hornocker & Quigley, *supra* note 15, at 180. As dramatic as these losses are, however, they pale in comparison to the decimation suffered by the wolf. The difference might have come down to the fact that it is hard to poison a mountain lion. Mountain lions are solitary and only eat fresh kills; the bait traps with poisoned meat that wiped out whole packs of wolves were less effective against mountain lions. See ELBROCH, *supra* note 65, at 5.

282. Hornocker & Quigley, *supra* note 15, at 181. In 1958, Florida had given mountain lions protection from hunting entirely. FLA. FISH & WILDLIFE CONSERVATION COMM’N, FLORIDA PANTHER CONSERVATION PLAN 4 (2024).

mountain lions.²⁸³ At the time, American wildlife law still adhered to the traditional common law categories of vermin and game.²⁸⁴ Thus, if mountain lions were no longer vermin—animals with no human value that could be destroyed anytime and for any reason—they had to be game, a wild animal that benefits humans and warrants conservation. Colorado became the first western state to reclassify the mountain lions as a game animal in 1965.²⁸⁵ By 1972, every Western state with a mountain lion population, had reclassified mountain lions as game animals.²⁸⁶

As state game animals, mountain lions entered into a well-established legal regime. In the 1960's, wildlife conservation was effectively game management: State wildlife agencies focused their energies exclusively on game species and managed that wildlife for the singular purpose of providing sustainable hunting opportunities.²⁸⁷ Most states have since formally expanded the mission of their state wildlife agencies to include the conservation of all wildlife and to recognize wildlife values beyond preserving a hunting culture.²⁸⁸ Nevertheless, with regard to mountain lions, managing populations through sport hunting remains state wildlife managers' central mission.

1. General Regulatory Scheme

As a general matter, state wildlife agencies manage mountain lion populations following a "managed sport hunting" model that encourages mountain lion hunting, to a point. After establishing a mountain lion harvest quota based on an estimate of a sustainable yield, state agencies ensure hunters do not exceed the quota by (1) closing hunting during parts of the year; (2) restricting the number of available hunting "tags" (permits); and (3) imposing "bag limits," i.e., a cap on the number of game that can be killed by one person.²⁸⁹

283. *Id.*

284. *See supra* section I.A.

285. *See* Hornocker & Quigley, *supra* note 15, at 181. Florida first moved to switch the mountain lion from vermin to game in 1950. *See Florida Panther Conservation Plan*, *supra* note 282, at 4.

286. *See* Hornocker & Quigley, *supra* note 15, at 181.

287. *See* Organ & McCabe, *supra* note 171, at 14–15.

288. *See, e.g., Colorado Parks and Wildlife*, COLO. DEP'T NAT. RES., <https://perma.cc/4UN6-HCXR> ("The mission of Colorado Parks and Wildlife is to perpetuate the wildlife resources of the state, to provide a quality state parks system, and to provide enjoyable and sustainable outdoor recreation opportunities that educate and inspire current and future generations to serve as active stewards of Colorado's natural resources."). *But see* IDAHO CODE § 36-103 (1976) (emphasizing that wildlife should be managed to "provide for the citizens of this state and, as by law permitted to others, continued supplies of such wildlife for hunting, fishing and trapping").

289. *See generally* Charles Anderson et al., *Cougar Management in North America*, in *COUGAR ECOLOGY AND CONSERVATION* 43–44 (2010); Richard A. Beausoleil et al., *Research to Regulation: Cougar social behavior as a guide for management*, 37 *WILDLIFE SOC'Y BULL.* 680, 681 (2013) (reviewing management strategies).

The modern approach is for wildlife agencies to identify “discrete mountain lion management zones” (the nomenclature varies) covering discrete habitats within the state that support mountain lion populations.²⁹⁰ With the state so divided into these administrative units, wildlife agencies, relying on data collected by their scientists each year, establish unique quotas for each of the distinct management zones.²⁹¹ Successful hunters must promptly report their harvest, and when the management zone’s threshold has been met, the open season for that unit immediately closes.²⁹²

There are other common elements of the managed sport hunting regime. Mountain lion hunting regulations generally discourage female mortality both because the loss of reproducing females has unique effects on population dynamics and because of humane concerns about the risk of orphaned kittens.²⁹³ Many states with regulated hunting have lower quotas for female lions²⁹⁴ and all these states prohibit taking a lion with kittens present or a “spotted” young lion.²⁹⁵ Finally, for data collection purposes, states generally require that successful hunters present, for inspection by state wildlife biologists, the head and the hide from the harvested animal.²⁹⁶

A rough rule of thumb is that mountain lion populations have an intrinsic growth rate of around 15%. That is, in the absence of human-caused mortality, one would expect a mountain lion population to grow by approximately 15% per year.²⁹⁷ Most states, therefore, set their annual mountain lion hunting quota at or near 15% of the mountain lion population in a given management zone. In Arizona, for example, for 2025–26, across all management zones, the statewide mountain lion harvest quota was set at 359 lions,²⁹⁸ representing about 13%

290. See Beausoleil, *supra* note 289, at 684; see also Anderson et al, *supra* note 79, at 43.

291. See Beausoleil, *supra* note 289, at 684. By way of example, the Arizona Fish and Game Department has delineated sixteen mountain lion management zones across the state. ARIZ. GAME & FISH DEP’T, 2025–26 ARIZONA HUNTING REGULATIONS 48 (2025), <https://perma.cc/57LT-SG74> [hereinafter 2025–26 ARIZONA HUNTING REGULATIONS]. Phoenix and its suburbs are located in Mountain Lion Management Zone J. See *id.* The harvest threshold in this zone for the 2025–26 hunting season was fifty-four mountain lions. See *id.* at 47.

292. See, e.g., COLO. PARKS & WILDLIFE, 2025–26 COLORADO MOUNTAIN LION 3–4 (2025), <https://perma.cc/BYE4-EZKT> [hereinafter 2025–2026 COLORADO MOUNTAIN LION].

293. See, e.g., *id.* at 3.

294. See, e.g., COUGAR POPULATION AND HARVEST MANAGEMENT MATRIX, N.M. DEP’T GAME & FISH, <https://perma.cc/8K8Q-TW93> (listing separate female harvest limits).

295. See, e.g., 2025–2026 COLORADO MOUNTAIN LION, *supra* note 292, at 4; 2025–26 ARIZONA HUNTING REGULATIONS, *supra* note 291, at 47.

296. See Anderson et al., *supra* note 79 at 46; see, e.g., 2025–26 ARIZONA HUNTING REGULATIONS, *supra* note 291, at 46; 2025–2026 COLORADO MOUNTAIN LION, *supra* note 292, at 3.

297. See, e.g., Beausoleil, *supra* note 289, at 683–84; see also COLO. PARKS & WILDLIFE, COLORADO WEST SLOPE MOUNTAIN LION (PUMA CONCOLOR) MANAGEMENT PLAN 15–16 (2020), <https://perma.cc/QVV9-R4XL>.

298. See 2025–26 Mountain Lion Harvest Thresholds and Zone Status, ARIZ. GAME & FISH DEP’T, <https://perma.cc/ABX2-C2RE>.

of the estimated Arizona mountain lion population of about 2,800.²⁹⁹ (Although Arizona Game and Fish does not appear to publish the numbers, when vehicle strikes and non-hunting removals by wildlife officials are combined with the hunting harvest, total human-caused mortality surely comes closer to the 15% harvest goal.)³⁰⁰ Importantly, these harvest numbers are not entirely about providing sustainable hunting opportunities in the future; they are also about social tolerance—taking 15% of a population also decreases the potential for human conflicts that might arise from a larger population of mountain lions.³⁰¹ In other words, the 359-lion quota in Arizona is not just the number of mountain lions that can be hunted and killed; it is the number that should be hunted and killed.

2. *Setting Harvest Objectives*

In wildlife management, when setting population goals for a particular species, wildlife managers first assess the landscape's ecological carrying capacity, i.e., the number of a species that a balanced ecosystem can sustain.³⁰² But they also assess the landscape's "social carrying capacity," i.e., the number of a wildlife species that the human community will accept before conflicts make the species' presence intolerable.³⁰³ Thus, Nebraska's "Mountain Lion Management Plan" contemplates mountain lion populations that are "resilient, healthy, and socially acceptable."³⁰⁴ And Colorado's East Slope Mountain Lion Management Plan aims to balance "what the landscape and social tolerance can support."³⁰⁵

A landscape's social carrying capacity for mountain lions is determined by the interests of three stakeholders. First, there are livestock owners concerned about mountain lions' destruction of property.³⁰⁶ Second, there are hunting

299. See *Frequently Asked Questions About Mountain Lion Management in Arizona*, ARIZ. GAME & FISH DEP'T, <https://perma.cc/MN78-RPEM>.

300. By way of example, in Washington, a large percentage of the mountain lions killed each year by humans occurs outside of the hunting context; that is, a fair portion of lions are killed because of livestock depredation or other conflicts with humans. See *2024 Statewide Cougar Harvest Statistics*, WASH. DEP'T OF FISH & WILDLIFE, <https://perma.cc/U67J-VBL6>.

301. See *Frequently Asked Questions About Mountain Lion Management in Arizona*, *supra* note 299 (acknowledging that hunters provide "a valuable management tool" for managing human-mountain lion conflicts).

302. See Kurt VerCauteren et al., *State Management of Human-Wildlife Conflicts*, in *STATE WILDLIFE MANAGEMENT AND CONSERVATION* 162 (2018).

303. See *id.* at 162–63; see also Daniel J. Decker and Ken G. Purdy, *Toward a Concept of Wildlife Acceptance Capacity in Wildlife Management*, 16 *WILDLIFE SOC'Y BULL.* 53, 53–54 (1988).

304. NEB. GAME & PARKS COMM'N, *MOUNTAIN LION MANAGEMENT PLAN* (2023), <https://perma.cc/D4U4-VXDS>.

305. COLO. PARKS & WILDLIFE, *EAST SLOPE MOUNTAIN LION MANAGEMENT PLAN* (2024), <https://perma.cc/4N8K-MLAY> [hereinafter *EAST SLOPE MOUNTAIN LION MANAGEMENT PLAN*].

306. See, e.g., Sonya Bennett-Brandt, *To Catch a Predator: The Wildlife Detective Helping Ranchers and Mountain Lions Coexist*, *THE GUARDIAN* (July 16, 2023), <https://perma.cc/28TX-3W96> (reviewing that many "farmers and ranchers feel that mountain lion protections come at an unreasonable cost to livestock owners").

groups concerned about mountain lions' suppression of large ungulates—the deer, elk, bighorn sheep, and antelope that are the preferred quarry of American big game hunters.³⁰⁷ Finally, there are the human communities sharing space with mountain lions concerned about attacks on people and their pets.³⁰⁸

Thus, even if Arizona's ecosystems could support a population of 10,000 mountain lions without degrading the habitat (the ecological carrying capacity), that many mountain lions in Arizona would, inescapably, mean more mountain lions taking livestock, more mountain lions consuming elk, and more mountain lions attacking humans. And that would exceed the landscape's social carrying capacity.³⁰⁹ The public will not tolerate mountain lions causing heavy livestock losses, depleting preferred game, or regularly attacking suburbanites. Thus, wildlife managers manage mountain lion population size and distribution to limit conflict with humans and keep mountain lion populations within the social carrying capacity.³¹⁰

3. *Meeting the Harvest Objective*

Once harvest objectives are viewed not just as a tool for providing sustainable hunting opportunities but also as a tool for managing social tolerance of mountain lions, quotas are not a limit; they are a goal. But meeting the goal can be a challenge because mountain lion hunting is both difficult and expensive.

Mountain lion hunting in its modern form is a bit unexpected if you are not a hunter. Few hunters go walking in the woods hoping to come upon a lion.

307. See, e.g., Mike Koshmrl, *Killing More Lions May Not Help Mule Deer. Wyoming Okays It Anyway*, WYOFILE (Sept. 14, 2023), <https://perma.cc/452V-8W8E> (reviewing pressure from hunting groups to increase mountain lion quotas to lower predation on flagging mule deer herds).

308. See Jim Robbins, *Deadly Encounter: Mountain Lion Attacks Spark Controversy*, YALEENVIRONMENT360 (Jan. 23, 2025), <https://perma.cc/4UM3-H9RV> (reviewing public pressure to change mountain lion management after a deadly attack on two brothers).

309. See generally Jeremy Bruskotter & Robyn S. Willson, *Determining Where the Wild Things Will Be: Using Psychological Theory to Find Tolerance for Large Carnivores*, 7 CONSERVATION LETTERS 158–59 (2013) (reviewing that “human tolerance” of carnivores “define their distributions and densities”).

310. In broad strokes, the basic strategy for managing social tolerance of mountain lion has been to follow a so-called source-sink model. See THOMAS D. I. BECK, COUGAR MANAGEMENT GUIDELINES 43–44, 73–75 (2005); see also EAST SLOPE MOUNTAIN LION MANAGEMENT PLAN, *supra* note 305, at 12 (describing incorporation of source-sink model into management plan). In this model, in habitats where social tolerance is low, wildlife managers can keep mountain lion populations suppressed by allowing liberal hunting opportunities, even if the total “take” puts the local population below sustainability. This population becomes a population “sink.” To make up for the population lost in the “sink” habitats, in areas where social tolerance is high, wildlife managers regulate hunting to retain a healthy “source” population to revive the sink habitat as necessary. See *id.* at 23; see also A.M. Andreasen, et al., *Identification of Source-sink Dynamics in Mountain Lions of the Great Basin*, 21 MOLECULAR ECOLOGY 5690, 5698–99 (2012) (describing source-sink model).

Mountain lions are quite stealthy; an experienced outdoorsperson might go a lifetime without seeing one in the wild. A hunter might walk through the woods after a fresh snow and hope to encounter fresh mountain lion tracks, but most hunters rely on aids to hunt mountain lions. Some hunters will draw a mountain lion in by playing an electronic recording of a wounded prey animal,³¹¹ but more commonly, hunters will track and pursue mountain lions with hunting hounds.³¹²

The early mountain lion hunters who used dogs (“houndsmen” in the parlance) traveled fast on foot or horseback, following the baying of their hounds on the chase and decoding the auditory cues provided by the dogs.³¹³ Today, however, the dogs generally wear GPS collars.³¹⁴ Once the hounds are on a mountain lion track, the hunter can follow their progress on an iPad screen.³¹⁵ When the dogs’ GPS collars stop moving, it indicates a treed lion.³¹⁶ Then, using the GPS coordinates, the hunter can travel directly to the site and efficiently dispatch the lion.³¹⁷ An average recreational hunter will not have the means or the time to train hunting dogs and outfit them with GPS collars,³¹⁸ which means that to be a successful mountain lion hunter, you need to hire a guide. And guides are not cheap. In Arizona, hunting guides advertise six-day guided trips with hounds starting at \$8,000.³¹⁹ In Idaho, guides advertise week-long trips for \$7,500.³²⁰

Against this backdrop, to meet harvest objectives, states have drastically liberalized access to mountain lion hunting. While elk hunters must generally

311. For a description of using an electronic call to assist in mountain lion hunting, see Scott Haugen, *Best Strategies for Calling in a Mountain Lion*, GAME & FISH MAG. (Jan. 28, 2025), <https://perma.cc/2AUT-SJ4W>.

312. See, e.g., Benjamin Ghasemi et al., *Public Perspectives on Hunting Mountain Lions and Black Bears in Colorado*, 6 CONSERVATION SCI. & PRAC. 1, 1 (2024) (reviewing data indicating that the majority of successful lion kills in Colorado come with the aid of dogs).

313. See generally HARLEY SHAW, SOUL AMONG LIONS 64 (1989) (describing hound hunting and referring to a hound “barking treed”).

314. See ELBROCH, *supra* note 65, at 191–92. There are numerous videos online demonstrating the process of hunting with hounds wearing GPS collars. See, e.g., High Country News, *Tracking Mountain Lions with Dogs in Colorado*, YouTube (July 28, 2015), <https://perma.cc/GD2Y-NVP3>

315. See ELBROCH, *supra* note 65, at 191–92.

316. See, e.g., *id.*

317. See, e.g., *id.*; see also Joshua Partlow, *Hounds Chased a Yellowstone National Park Mountain Lion into a Tree. Then Montana Gov. Greg Gianforte Shot It*, WASH. POST (Mar. 1, 2022), <https://perma.cc/9D28-HMZF> (reporting on Governor of Montana’s take of a mountain lion using radio-collared dogs).

318. See HARLEY SHAW, SOUL AMONG LIONS 34–37 (2000) (discussing challenge of training dogs to track mountain lions).

319. See, e.g., *Predator Hunting*, RAGING POINT OUTFITTERS, <https://perma.cc/UF4Z-GQ3X>; *Huntin’ Fool Adventures*, HUNTIN’ FOOL, *Arizona Experienced Mountain Lion Outfitter and Guide Service*, Huntin’ Fool, <https://perma.cc/A2NK-LVU4>.

320. *Mountain Lion Hunts*, BITTERFOOT OUTFITTERS, <https://perma.cc/3GAM-HPNX>.

enter a lottery months before the hunt and get lucky in the draw,³²¹ most states impose no limit on the number of mountain lion tags that can be issued; you can pick one up anytime over-the-counter at a sporting goods store.³²² And mountain lion tags can be quite cheap. Whereas an elk tag in Arizona will cost a resident \$148, a mountain lion tag is only \$15.³²³

While not expressly acknowledged, the wildlife agencies' plain goal with these liberalized tag regulations is to encourage "incidental take" of mountain lions. The presumption is not that all hunters given mountain lion tags will actively hunt mountain lions; rather, the presumption seems to be that if a hunter seeking other game "incidentally" encounters a mountain lion, the hunter will opportunistically harvest the animal.³²⁴ In effect, the states deputize hunters seeking other game to help control the mountain lion population. Idaho offers a good illustration of this strategy. The Idaho Fish and Game Department issues approximately 34,000 mountain lion tags a year for an annual harvest of only 650 mountain lions.³²⁵

Recently, Idaho has gone even further to encourage mountain lion hunting. In 2021, the Idaho Fish and Game Commission effectively lifted any quotas on mountain lion hunting harvests and opened hunting all year.³²⁶ The official explanation was that harvest objectives were not being met under previous restrictions and a higher harvest was necessary "to address human-safety, predation, and depredation related conflicts."³²⁷ Similar changes were made in Utah in 2023, when the state legislature similarly removed any harvest quotas and opened hunting all year.³²⁸

One might see in the above a sort of backsliding toward the extermination era where governments enlisted hunters to rid the local landscape of mountain lions. But, importantly, mountain lions have not been recast as vermin in

321. See, e.g., *2025 Pronghorn and Elk Hunt Draw Information*, ARIZ. GAME & FISH, at 2, <https://perma.cc/8WKD-RBBZ>; *2025 Colorado Big Game Hunting*, COLO. PARKS & WILDLIFE, at *11, <https://perma.cc/9KVM-Z6AM>.

322. See, e.g., *2025 Pronghorn and Elk Hunt Draw Information*, *supra* note 321, at 2 (reviewing that mountain lion hunting only requires a "not-permit tag" available over the counter).

323. See *id.* at 3.

324. Richard A. Beausoleil et al., *Research to Regulation: Cougar Social Behavior as a Guide for Management*, 37 WILDLIFE SOC'Y BULL. 680, 682 (2013) (reviewing Washington's experience).

325. See IDAHO MOUNTAIN LION MGM'T. PLAN, 2024-2029 1 IDAHO DEP'T. OF FISH & GAME (July 2024), <https://perma.cc/29QQ-W6K2>.

326. See *id.* at 12.

327. *Id.* at 12.

328. See UTAH DIV. OF WILDLIFE RES., COUGAR GUIDEBOOK 4 (2025); see also Brian Maffly, *Cox signs bill that includes year-round cougar hunting, trapping*, SALT LAKE TRIB. (Mar. 18, 2023), <https://perma.cc/GZ49-TLQY>.

Idaho and Utah; mountain lions remain game animals, and hunting remains regulated. In both states, it remains unlawful, for example, to kill very young lions and females with kittens.³²⁹ And, wildlife officials continue to monitor the harvest. In both Idaho and Utah, all harvested mountain lions must still be presented for inspection and recording by wildlife officials.³³⁰

The two states differ, however, in how quickly they can respond to the data they collect from inspections. In Idaho, the lifting of quotas on mountain lion hunting was an administrative action.³³¹ If the data suggests a risk of population collapse, the Idaho Game Commission can quickly change course. Notably, the Idaho Fish and Game Department remains committed to monitoring harvest trends and has pledged to “make recommendations to alter harvest when warranted to meet management goals.”³³² By contrast, the harvest thresholds in Utah were lifted not through agency action but rather by way of a “midnight rider” added to an important state public lands bill.³³³ (The move was reportedly made to appease sheep/wool interests objecting to the bill.)³³⁴ It is now statutory law in Utah that no quota shall be placed on the harvesting of mountain lions.³³⁵ As such, it will take legislative action to reimpose harvest thresholds. Indeed, it is at least conceivable that in the face of legislative indifference or deadlock, mountain lion populations in Utah could be allowed to collapse.³³⁶ (For now the data does not suggest a sudden surge in the harvest of mountain lions by hunters in Utah.)³³⁷

329. See UTAH DIV. OF WILDLIFE RES., *supra* note 328, at 18; *Idaho Big Game 2025 Seasons and Rules*, IDAHO DEP’T. OF FISH & GAME 74, <https://perma.cc/MG7X-W5QS>.

330. See UTAH DIV. OF WILDLIFE RES., *supra* note 328, at 20; *Idaho Big Game 2025 Seasons and Rules*, *supra* note 329, at 74.

331. See Emily Jones, *F&G approves major expansion to mountain lion hunting*, IDAHO MOUNTAIN EXPRESS (Mar 22, 2021), <https://perma.cc/F7JH-2NZX> (reviewing agency action).

332. IDAHO MOUNTAIN LION MGM’T. PLAN 2024-2029, *supra* note 325, at 12.

333. See Maffly, *supra* note 328.

334. Emily Arnsten, *How did mountain lions become a bargaining chip in a political debate over Utah’s public lands?*, THE CORNER POST (Jan. 30, 2024), <https://perma.cc/SML5-MCEU>.

335. See Wildlife Related Amendments, Utah H.B. 469 (2023), 2023 Utah Laws Ch. 345 (enacted) (amending numerous statutes regulating wildlife to strip cougars of usual protections for game animals).

336. The provision has been challenged by a diverse group of wildlife and hunting advocates who argue that the law will likely lead to local extirpation of mountain lions, which would violate the Utah Constitution’s “Right to Hunt” provision. See Leia Larsen, *Utah’s Mountain Lions Could Vanish in Three Years, Lawsuit Claims*, SALT LAKE TRIB. (Oct. 20, 2023), <https://perma.cc/J7MB-HXXD>.

337. See Heather H. Bernales & Darren DeBloois, *Utah Cougar Annual Report*, UTAH DEPARTMENT OF NATURAL RESOURCES, DIVISION OF WILDLIFE RESOURCES 8 (2024), <https://perma.cc/T88E-S5L8>.

B. Specially Protected Animal

There have long been voices that oppose state-sanctioned hunting of mountain lions.³³⁸ It's fair to say, though, that these voices have struggled to be heard by state wildlife managers, who operate within an institution designed in the first place to promote sport hunting of game animals.³³⁹ Indeed, the connection between wildlife conservation and sport hunting is central to what scholars formally refer to, and often celebrate as, the North American Model of Wildlife Conservation.³⁴⁰ Today, most states have formally expanded the mission of their state wildlife agencies to recognize wildlife values beyond preserving a hunting culture.³⁴¹ Nonetheless, scholars recognize that a paradigm still prevails in which "consumptive" users of wildlife (i.e., sport hunters and anglers, who "consume" the resource) are preferred over non-consumptive users (i.e., wildlife viewers or, perhaps, those who simply take pleasure in the persistence of wild nature).³⁴²

338. See, e.g., *About the Mountain Lion Foundation*, MOUNTAIN LION FOUNDATION, <https://perma.cc/98M6-BNK7> (reviewing the formation of a Foundation in the 1980s to block mountain lion hunting in California); Miles Blumhardt, *Will Mountain Lion Hunting Be Banned in Colorado? Group Takes Aim at Ending Practice*, FORT COLLINS COLORADOAN, June 15, 2024, <https://perma.cc/86PX-L7PB> (describing advocacy group "Cats Aren't Trophies" and its goal of ending mountain lion hunting in Colorado).

339. See Mahoney et al., *Setting the Stage for Evaluation*, in THE NORTH AMERICAN MODEL OF WILDLIFE CONSERVATION 4–5 (2019).

340. See generally Valerius Geist et al., *Why Hunting Has Defined the North American Model of Wildlife Conservation*, 37 TRANS. N. AM. WILDLIFE & NAT. RESOURCES CONF. 175 (2001). The hunting-centric North American Model has been effectively critiqued. See e.g., ANA HEISTER, BEYOND THE NORTH AMERICAN MODEL OF WILDLIFE CONSERVATION: FROM LETHAL TO COMPASSIONATE CONSERVATION (2022); see also Andrea M. Feldpausch-Parker, *Privileging Consumptive Use: A Critique of Ideology, Power, and Discourse in the North American Model of Wildlife Conservation*, 15 CONSERVATION & SOC. 34, 34 (2017) ("We contend that the NAMWC is part of a power-laden and ideologically driven discourse that serves to bolster the dominance of the consumptive use ideology within the wildlife management sphere."). But see Colin Schmitt, *Ballot Box Biology*, 14 CHIC. KENT J. ENV'T & ENERGY L. 1, 7 (2025) (arguing in favor of NAMWC's "elevated status of hunters as consumptive users, and the exclusion of non-consumptive users and non-hunters").

341. See *Our Mission*, ARIZ. GAME & FISH DEP'T, <https://perma.cc/33CW-XEEV> ("To conserve Arizona's Diverse wildlife resources and managed for safe compatible outdoor recreation opportunities for current and future generations."); *NDOW at Work*, NEV. DEP'T OF WILDLIFE, <https://perma.cc/C25J-UHHN> (reciting mission statement: "[T]o protect, conserve, manage and restore wildlife and its habitat for the aesthetic, scientific, educational, recreational, and economic benefits to citizens of Nevada and the United States"). But see *Fish and Game Management Statement*, IDAHO FISH & GAME, <https://perma.cc/7GX5-69H9> (establishing that wildlife shall be "preserved, protected, perpetuated, and managed" so as to provide "continued supplies of such wildlife for hunting, fishing, and trapping").

342. See Mahoney, *supra* note 339, at 5–6; see also Peterson & Nelson, *supra* note 173, at 8 ("The suggestion that legitimate use of wildlife centers around hunting and trapping . . . clearly contributes to a form of governance where a small minority shapes management impacting everyone.").

The existence of a pro-hunter/consumptive-user bias at wildlife agencies is probably inescapable. Preserving game to facilitate hunting opportunities was the reason state wildlife agencies were created in the first place.³⁴³ From inception, the agencies were structured to serve sport hunting interests; other policy objectives were always going to be subservient. (Administrative law scholars would describe state wildlife agencies as classic “path-dependent” institutions.)³⁴⁴ But any pro-hunting bias at state wildlife agencies is also reinforced by the purse strings.

One of the outcomes of the 1937 Pittman-Robertson Act is that contemporary hunters and anglers themselves fund the balance of state wildlife agency budgets.³⁴⁵ As noted above, the Act prompted all states to pass laws dedicating the revenue from the sale of state hunting and fishing licenses fees exclusively to fund state wildlife agencies.³⁴⁶ Today, license and administrative directly paid by hunters and anglers cover, on average, over 35% of state wildlife agency budgets.³⁴⁷ In addition, again pursuant to the Pittman-Robertson Act, hunters contribute some part of the federal taxes on firearms and ammunition that fund, on average, another 15% of state wildlife budgets.³⁴⁸ Naturally, when an agency is being largely funded by one particular stakeholder, its leaders will become attuned to that stakeholder’s values.³⁴⁹

It comes as no surprise then that state wildlife agencies have struggled to accommodate voices that object to hunting mountain lions.³⁵⁰ And efforts to reform wildlife agencies through statehouse lobbying have not found traction

343. See *supra* notes 202–222 and accompanying text.

344. See generally Paul Pierson, *Increasing Returns, Path Dependence and the Study of Politics*, 94 AM. POL. SCI. REV. 251 (2000). For a broad academic discussion of wildlife bureaucracies, see Dean Lueck, *An Economic Guide to State Wildlife Management*, STATE WILDLIFE MANAGEMENT 6–17 (2000).

345. See ASS’N OF FISH & WILDLIFE AGENCIES, THE STATE CONSERVATION MACHINE 9 (2017).

346. Pittman-Robertson Act, ch. 899, 50 Stat. 917 (1937).

347. See THE STATE CONSERVATION MACHINE, *supra* note 345, at 9.

348. *Id.* At one time, it was fair to say that hunters paid most of these taxes, as they were the primary purchasers of guns and ammunition; see Cong. Rsch. Serv., R45667, Pittman-Robertson Wildlife Restoration Act: Understanding Apportionment for States and Territories 18 (2019). That is no longer the case; today, taxes on handguns and AR-15 weapons (and related ammunition) make up a sizable portion of the Pittman-Robertson revenue distributed to states. See *id.*

349. See Erika Lietzan, *User Fee Programs*, 76 ADMIN. L. REV. 375, 433 (2024) (reviewing concerns that “an agency dependent on user fees may favor its own interests (choosing outcomes that ensure a continuing flow of fees) or favor the interests of fee payers over other considerations”).

350. See Mahoney, *supra* note 339, at 4–5.

because of fiscal concerns,³⁵¹ effective lobbying by hunting groups,³⁵² and opposition by influential rural legislators.³⁵³ In response, those in favor of abolishing or minimizing mountain lion hunting have, with varying success, taken questions of mountain lion management directly to the voters through the “citizen initiative” feature of the western state constitutions.³⁵⁴ And that brings us to California.

California shut its mountain lion bounty system down in 1963, earlier than other states.³⁵⁵ Then, in 1971, Governor Ronald Reagan issued an executive order placing a permanent moratorium on all mountain lion hunting.³⁵⁶ The hunting moratorium stayed in place until 1990, when the state wildlife board, over the objections of hunting opponents, proposed lifting the moratorium in favor of managing mountain lions as a game animal with an annual hunting season.³⁵⁷ Mountain lion advocates responded by gathering signatures to present the issue directly to the voters through California’s initiative process.³⁵⁸ In turn, in 1990, California voters passed Proposition 117, the California Wildlife Protection Act.³⁵⁹

The new law cast the mountain lion as a “specially protected mammal,” and it became “unlawful to take, injure, possess, transport, import, or sell a mountain lion or a product of a mountain lion, except as specifically provided.”³⁶⁰ Outside of self-defense,³⁶¹ in California, you can kill a mountain lion only in

351. The main concern is how to replace the revenue generated from hunting permits and fees if sport hunting was curtailed. *Cf.* Andrew Moore, *Decline in Hunting Threatens Conservation Funding*, N.C. STATE COLL. NAT. RES. NEWS (Jan. 27, 2021), <https://perma.cc/5W9M-ZB8Y> (discussing wildlife agencies’ attempts to recruit and retain hunters to maintain funding).

352. *See, e.g.*, Katie Hill, *Vermont Tones Down an Animal Rights Overhaul of its Wildlife Board after Hunter Pushback*, OUTDOOR LIFE (Mar. 29, 2024), <https://perma.cc/YS8R-MLZP>; *see also* Vermont BHA Opposes Legislative Bill to Eliminate the Fish and Wildlife Board, BACKCOUNTRY HUNTERS & ANGLERS (Feb. 17, 2024), <https://perma.cc/STK6-TFTK>; *see also* Torin Miller, *Action Alert: Oppose Political Wildlife Management in Vermont*, NAT’L DEER ASS’N (Jan. 30, 2024), <https://perma.cc/HP7T-D2GU>.

353. *See* Bruce Rocheleau, *The Politics of State Wildlife Management: Why Anti-Conservation Forces Usually Win*, MEDIUM (Aug. 14, 2019), <https://perma.cc/97MQ-Z49W> (citing the influence of rural legislatures as a reason why a bill restricting hunting failed in Indiana but passed in Illinois).

354. *See generally* Tyler M. Welch, *Can Citizens Better Use the Ballot Initiative to Protect Wildlife?: The Case of the Mountain Lion in the West*, 25 COLO. NAT. RES., ENERGY & ENV’T L. REV. 419 (2014).

355. Technically, in 1963, Governor Jerry Brown placed a four-year moratorium on paying bounties under the then-existing law. Dan Jenkins, *The Cougar Moves Up from Vermin to Trophy*, SPORTS ILLUSTRATED, at 64 (Nov. 6, 1967). In 1967, California formally appealed its bounty law. *Id.*

356. ELBROCH, *supra* note 65, at 34–38 (recounting California’s legislative experience).

357. *Id.*

358. *Id.*

359. Cal. Proposition 117, Wildlife Protection Act of 1990 (approved June 5, 1990).

360. *See* CAL. FISH & GAME CODE § 4800(a)–(b).

361. *See id.* § 4800(c).

exceptional circumstances.³⁶² So-called “depredation permits” are available if a mountain lion is destroying property,³⁶³ but if you do not catch a lion amid an attack on livestock, the requirements can be fairly onerous.³⁶⁴ For instance, in 2018, after a controversy over the issuance of a depredation permit for P-45, a tagged and well-known mountain lion that killed alpacas on a ranch in Malibu, the state created a “three-strike rule” for the area around the Santa Monica Mountains.³⁶⁵ In that area, landowners must first try nonlethal means of deterring a predatory mountain lion at least two times before a predation permit from the state will be issued.³⁶⁶

Wildlife scholars generally rely on a so-called traditionalist-mutualism spectrum to describe a person’s “wildlife value orientation.”³⁶⁷ Broadly, those who ascribe to a fully “traditionalist” wildlife value orientation embrace human mastery of animals and perceive wildlife as appropriate for human use, control and management.³⁶⁸ On the other end of the spectrum, those who ascribe fully to the mutualist wildlife value orientation view wildlife as living within an extended social community with humans; mutualists emphasize care, protection and compassion for wild animals.³⁶⁹ And tellingly, “[m]utualists are more likely to view wildlife in human terms, with personalities and characteristics like humans.”³⁷⁰

It is fair to say that the California electorate leans heavily toward the mutualist end of the wildlife value orientation spectrum. Consider that just a few years after approving the initiative to ban mountain lion hunting, California experienced an unusual cluster of gruesome mountain lion attacks. In eighteen months between September 1993 and March 1995, mountain lions attacked and maimed a ten-year-old girl, attacked and killed a forty-year-old woman, attacked and injured a forty-eight-year-old man and woman, attacked and killed a fifty-six-year-old woman, and attacked a twenty-seven-year-old man.³⁷¹ Notably, these attacks did not sour Californians on mountain lions. After the

362. *See id.* §§ 4801–4801.5.

363. *See id.* § 4802.

364. *See id.* § 4807; *see also* ELBROCH, *supra* note 65, at 58–59 (describing the process).

365. *See id.* at xix–xxi.

366. *See id.*

367. *See* AMERICAN’S WILDLIFE VALUES: THE SOCIAL CONTEXT OF WILDLIFE MANAGEMENT IN THE U.S., W. ASS’N OF FISH & WILDLIFE AGENCIES ET AL. 13–14 (2020), <https://perma.cc/E52H-MVJN>. The “traditionalist” orientation is often referred to as a “domination” orientation in the literature. *See* MICHAEL J. MANFREDO, WHO CARES ABOUT WILDLIFE?: SOCIAL SCIENCE CONCEPTS FOR EXPLORING HUMAN-WILDLIFE RELATIONSHIPS AND OTHER ISSUES IN CONSERVATION 197–98 (2008).

368. *Id.* at 198.

369. *Id.* at 198–99; *see also* Michael J. Manfredo et al., *The Changing Sociocultural Context of Wildlife Conservation*, 34 CONSERVATION BIOLOGY 1549, 1552 (2020).

370. *See* Manfredo, *supra* note 367, at 199.

371. *See Verified Mountain Lion-Human Attacks*, CAL. DEP’T OF FISH AND WILDLIFE, <https://perma.cc/WG2G-AJ5U>.

attacks above, in 1996, a new citizen initiative, Proposition 197, was placed on the ballot to treat mountain lions, like other jurisdictions, as game with open hunting seasons.³⁷² The effort was roundly defeated, 58% to 42%.³⁷³

California's mutualist bent endures. In 2022, California state wildlife officials euthanized a mountain lion, tagged P-22 by wildlife biologists, that had become a bit of a celebrity for eking out a life in Los Angeles' Griffith Park.³⁷⁴ (P-22, aged and crippled by a vehicle collision, had begun attacking pets being walked in the area around the Park.)³⁷⁵ The Los Angeles Times described a "tearful" news conference where the director of the California Department of Fish and Wildlife announced P-22's death, declaring, "This really hurts, and I know that."³⁷⁶ Later, a more formal memorial for P-22 was held at the Greek Theater. The Guardian described a sold out crowd of 6000 that "cried, sang, and swayed together."³⁷⁷

California's mutualism appears to be unique. Subsequent efforts in other states to ban mountain lion hunting through the citizen initiative process have failed.³⁷⁸ A 2018 effort to ban mountain lion hunting in Arizona via a ballot initiative failed to obtain sufficient signatures to qualify for the ballot.³⁷⁹ A 2024 initiative in Colorado to ban mountain lion hunting, though it made the ballot, failed by 55% to 45%.³⁸⁰ On the other hand, in the 1990s, both Washington and Oregon adopted, through the initiative process, bans on the use of hounds to

372. Cal. Prop. 197, Amendment of the California Wildlife Protection Act of 1990 (Prop. 117): Mountain Lions (Mar. 26, 1996).

373. See California Proposition 197, Repeal Protection Status of Mountain Lions Measure (March 1996), BALLOTPEdia, available at <https://perma.cc/SU7R-5GUG>.

374. See Laura J. Nelson & James Queally, *P-22, the Celebrity Mountain Lion of Los Angeles, Has Died*, L.A. TIMES (Dec. 17, 2022), <https://perma.cc/8THB-JVPF>.

375. See *id.*

376. See *id.*

377. See Katherine Gammons, *Celebrities and Scientists Mourn Mountain Lion P-22 at Sold-Out Memorial*, GUARDIAN (Feb. 6, 2023), <https://perma.cc/3U2B-ZQ72>. For an assessment of mountain lions from a mutualist perspective, see generally BETH PRATT, *WHEN MOUNTAIN LIONS ARE NEIGHBORS: PEOPLE AND WILDLIFE WORKING IT OUT IN CALIFORNIA* (2024); LESLIE PATTEN, *TRACKING A MOUNTAIN LION'S SOUL THROUGH SCIENCE AND STORY* (2024).

378. Some states actually responded to the California experiment by imposing supermajority requirements on constitutional initiatives addressing wildlife policy. See UTAH CONST. art. VI, § 1 ("Legislation initiated to allow, limit, or prohibit the taking of wildlife or the season for or method of taking wildlife shall be adopted upon approval of two-thirds of those voting.").

379. *Arizona Ban Hunting Wild Cats Initiative (2018)*, BALLOTPEdia, <https://perma.cc/5V9N-LSKL>.

380. Colo. Prop. 127, Prohibit Hunting of Mountain Lion, Bobcat, and Lynx Initiative (Nov. 5, 2024) (citizen-initiated statute; rejected by 54.7% of voters). Observers attribute the initiative's defeat to heavy rural county opposition, and concerns about "ballot box biology" arising out of a 2020 initiative approving wolf reintroduction in Colorado. Dan Boyce, *In Big Cat Ballot Measure, a Divide That Sees Hunting as a Foundation. . . or a Brutal Relic*, CPR NEWS (Nov. 1, 2024), <https://perma.cc/P83R-BX8F>.

hunt mountain lions.³⁸¹ Though hound hunting is surely the most effective way to hunt mountain lions, in the long run neither of the initiatives ended up reducing the state's mountain lion harvest because both states quickly liberalized tag requirements and lengthened hunting seasons to encourage incidental take of mountain lions by hunters seeking other game.³⁸²

C. *Still Vermin*

Of all the lower 48 states with mountain lion populations, only Texas has chosen not to provide the species with any form of protection. While other states, faced with the common-law vermin-game categories, reclassified mountain lions as game, Texas took a different course. In 1971, two bills were introduced in the Texas Legislature. The first bill sought to reclassify mountain lions from “vermin” to “game animals,” which would allow hunting but with population protections. The second bill sought to entirely ban mountain lion hunting.³⁸³ Neither bill passed, and, by default, mountain lions were left with the common-law “vermin” designation.³⁸⁴ (The modern statutory label is “non-game.”)³⁸⁵ The state no longer pursued their extermination as a matter of policy, but mountain lions in Texas were left wholly unprotected.³⁸⁶ And that is where things remain. Today, you merely need to have a valid hunting license to take a mountain lion.³⁸⁷ Otherwise, mountain lions can be killed anytime, anywhere, for any reason, and in any quantity.³⁸⁸

In modern wildlife management, even in states that no longer restrict their mountain lion harvest, there has always been one point of consensus: Killing kittens or females with kittens is verboten.³⁸⁹ But in Texas, there are no rules against killing mountain lion kittens or a mother with kittens.³⁹⁰ Indeed, in Texas, one can kill an entire mountain lion family at once.³⁹¹

381. Or. Measure 18, Prohibit Baited Bear Hunting and Cougar Hunting with Dogs (approved Nov. 8, 1994), codified at Or. Rev. Stat. §§ 498.164–66; Wash. Initiative 655, Prohibit Bait and Hound Hunting of Bear and Cougar (approved Nov. 5, 1996), codified at Wash. Rev. Code § 77.15.245.

382. Richard A. Beausoleil et al., *Research to Regulation: Cougar Social Behavior as a Guide for Management*, 37 WILDLIFE SOC'Y BULL. 680, 682 (2013) (reviewing Washington's experience); OR. DEP'T FISH & WILDLIFE, 2006 OREGON COUGAR MANAGEMENT PLAN 17–18, 38 (2006), <https://perma.cc/YZ4U-RUGP> (reviewing Oregon experience).

383. TEX. PARKS & WILDLIFE DEP'T, MOUNTAIN LION STAKEHOLDER GROUP FINAL REPORT 4 (2024), <https://perma.cc/L8ZS-PKT7>.

384. *Id.* at 19.

385. See Tex. Parks & Wildlife Code Ann. § 67.001.

386. TEX. PARKS & WILDLIFE DEP'T, *supra* note 383, at 19.

387. *Nongame, Exotic, Endangered, Threatened & Protected Species*, TEX. PARKS & WILDLIFE, <https://perma.cc/NT7P-4E88>.

388. *Id.*

389. See *supra* note 339 and accompanying text.

390. See *Nongame, Exotic, Endangered, Threatened & Protected Species*, *supra* note 387.

391. See *id.*

To be fair, in 2024, the Texas Parks and Wildlife Commission passed its first protections for mountain lions since abolishing the bounty system in 1970.³⁹² But the protections are modest. First, canned hunts, where a hunting guide captures a mountain lion and then releases it to ensure a paying customer's successful hunt, are no longer legal.³⁹³ Second, while trapping mountain lions remains legal, now trappers must not "allow a live mountain lion to be captured in a trap or snare for more than 36 hours."³⁹⁴ (Previously, there was no requirement that trap be checked at all, raising the specter of a mountain lion starving to death after being trapped.) Otherwise, in Texas, you can kill any mountain lion anywhere, anytime, and by most any means. Even gray squirrels in Texas get more protection.³⁹⁵ Nevertheless, mountain lion populations persist in the borderland regions of West and South Texas. It is, however, difficult to assess the population's long-term survival because the Texas Parks and Wildlife Department relies on unreliable voluntary public reports to track the state's mountain lion population.³⁹⁶

IV. REINTRODUCTION

A healthy mountain lion population will naturally expand its range. An adult male mountain lion will roam a territory of anywhere from 150 square kilometers to 700 square kilometers.³⁹⁷ They will share this territory with one or two females, but not another male.³⁹⁸ A male mountain lion will fight to the death with another male encroaching on its territory.³⁹⁹ Indeed, death by an older male is one of the leading causes of mortality in mountain lions.⁴⁰⁰

As one might expect, mountain lion populations first expand when young males go searching for a territory outside that of their father or another established male.⁴⁰¹ But a sustaining population of mountain lions requires, of

392. 31 TEX. ADMIN. CODE § 65.950 et seq. (2024).

393. *Id.* at § 65.950(b)(2).

394. *Id.* at § 65.950(b)(3).

395. See Tex. Parks & Wildlife Code Ann. § 61.021(a) (West) (restricting hunting of "game animals") (West); § 63.001 ("The following animals are game animals: mule deer, white-tailed deer, pronghorn antelope, desert bighorn sheep, *gray or cat squirrels*, fox squirrels or red squirrels, and collared peccary or javelina.") (emphasis added).

396. L. Mark Elbroch & Patricia Harveson, *It's Time to Manage Mountain Lions in Texas*, 45 WILDLIFE SOC'Y BULL. 2, 9–10 (2022).

397. See Ken Logan & Linda Sweanor, *Behavior and Social Organization of a Solitary Carnivore*, in COUGAR ECOLOGY AND CONSERVATION 112 (1991).

398. *Id.* at 112–113.

399. *Id.*

400. *Id.* at 111, 113.

401. *Id.* at 108–109. For a discussion of the dispersal of a young male lion from South Dakota to Connecticut, see generally Christopher H. Hawley et al., *Long-Distance Dispersal of a Subadult Male Cougar from South Dakota to Connecticut*, 97 J. MAMMALOGY 1435 (2016) (describing a subadult male lion's dispersal route).

course, female mountain lions, which experience far less pressure to disperse great distances. A female mountain lion will often find an already-claimed territory nearby where the resident male will tolerate her presence for mating purposes.⁴⁰² Female mountains, therefore, expand their range at a slower pace than males.⁴⁰³ Nevertheless, since the end of the extermination era, through this pattern of dispersal—far-roaming males followed slowly by females—mountain lions have gradually reclaimed their former range from west to east.⁴⁰⁴

In 1970, outside the Everglades, mountain lion populations were confined to deep wilderness in states west of the Rockies.⁴⁰⁵ In the 50 years since, they have fully recolonized the western states and extended their range into the Great Plains. Today, established reproducing populations are found as far east as the Dakotas, Nebraska, and Texas.⁴⁰⁶ And new states will surely be colonized. In the last year alone, both Michigan and Oklahoma verified for the first time the presence of a female mountain lion with kittens.⁴⁰⁷ And roaming lions regularly travel farther east into Missouri, Illinois, Iowa, Wisconsin, Minnesota, and Arkansas.⁴⁰⁸

But there is a limit to the migration. While wildlife biologists anticipate a continued eastward migration of mountain lions into the Midwest,⁴⁰⁹ they are doubtful that in the next 100 years, mountain lions will naturally recolonize the East Coast outside of Florida.⁴¹⁰ Thus, if mountain lions are going to return to the East, it appears we will have to make the active choice to reintroduce them.

There is already some momentum toward reintroduction in the East. Researchers have already identified core eastern landscapes that might support recolonizing mountain lions.⁴¹¹ And a number of groups have begun formally

402. See Logan & Sweanor, *supra* note 397, at 108–09.

403. Michelle A. LaRue et al., *Cougars Are Recolonizing the Midwest: Analysis of Cougar Confirmations During 1990–2008*, 76 J. WILDLIFE MGMT. 1364, 1367 (2012).

404. *Id.* at 1366–67.

405. See Hornocker & Quigley, *supra* note 15, at 180.

406. See *State-by-State: States with Confirmed Breeding Populations*, MOUNTAIN LION FOUNDATION, <https://perma.cc/27VM-3LT9>.

407. See *First Cougar Cubs Verified in Michigan in More Than a Century*, MICH. DEP'T OF NAT. RES., (Mar. 13, 2025), <https://perma.cc/TLU9-LM6F>; Tess Maune, *ODWC Confirms First Reproducing Female Mountain Lions Documented in the State*, NEWS ON 6 (June 10, 2025), <https://perma.cc/7NJT-J2EC>.

408. See LaRue et al., *supra* note 403, at 1366 (cataloguing confirmed mountain lion sightings in the Midwest as of 2008).

409. See Michelle A. LaRue & Clayton K. Nielsen, *Population Viability of Recolonizing Cougars in Midwestern North America*, 321 ECOLOGICAL MODELING, 121 (2016).

410. See Thomas W. Glass et al., *Limited Cougar Recolonization of Eastern North America Predicted by an Individual-Based Model*, 298 BIO. CONSERVATION, 7 (2024) (reviewing that natural recolonization models “did not predict reproducing cougars east of central Minnesota or north of Orlando in Florida by 2100”).

411. See Veronica Vovovich et al., *Determining Puma Habitat Suitability in the Eastern U.S.A.*, 32 BIODIVERSITY & CONSERVATION, 921 (2023).

advocating for reintroduction.⁴¹² Indeed, the Rewilding Institute has already outlined a reintroduction plan for the Northeast relying on the translocation of 50 unrelated mountain lions from Western States.⁴¹³ And there are tentative signs of legislative momentum: A bill proposed in the Vermont Legislature in 2025 would have instructed the Vermont Department of Fish and Wildlife to conduct a feasibility study for reintroducing mountain lions into Vermont.⁴¹⁴

Advocates offer lots of reasons to return mountain lions to their historical range in the East. There would be certain ecological benefits. The theory that mountain lions help maintain “biotic equilibrium” is now a foundational precept of wildlife biology; it is widely accepted that the return of apex predators to an ecosystem can spur trophic cascades that positively impact the natural order.⁴¹⁵ In this vein, advocates submit that if returned to the East, mountain lions would mediate overabundant deer populations,⁴¹⁶ allowing forage to recover.⁴¹⁷ Less expected are the purported human public health and safety benefits (“ecosystem services”) that might flow from the return of mountain lions. A 2016 study predicted that reintroducing mountain lions in the East would reduce deer populations enough to reduce deer-motor-vehicle collisions by 22%.⁴¹⁸ The study suggested that the reduction in collisions would prevent, over 30 years, more than 21,000 human injuries, more than 150 human deaths, and millions of dollars in property damage.⁴¹⁹

Recolonization efforts to date have focused on the Northeast, and for good reason. First, livestock operations in the Northeast generally do not rely on the extensive, unfenced grazing lands that make western livestock operations unusually susceptible to predation.⁴²⁰ And with the Northeast’s exploding deer populations, hunters are unlikely to complain about competition for preferred

412. See Edward Helmore, *Can Mountain Lions Make a Comeback in the US North-East? One Group Hopes So*, THE GUARDIAN (Nov. 18, 2025), <https://perma.cc/8ZCP-PA8Z>.

413. Christa Rose, *Carnivore Reintroductions – Before, During and After; Variables and Case Studies to Consider for the Northeastern U.S. (Part 2)*, REWILDING INST. (July 26, 2023), <https://perma.cc/4TGD-BHPE>.

414. See H. 473, 2025 Leg., 78th Sess. (Vt. 2025), <https://perma.cc/FZA7-N95H>.

415. See Laura R. LaBarge et al., *Pumas Puma concolor as Ecological Brokers: A Review of Their Biotic Relationships*, 52 MAMMAL REV. 360, 361–62 (2022).

416. See *id.* at 367, 369.

417. See generally, Thomas Rooney & Donald Waller, *Direct and Indirect Effects of White-Tailed Deer in Forest Ecosystems*, 181 FOREST ECOLOGY & MGMT. 165, 167–72 (2003). It’s also possible mountain lions in the East would suppress populations of overabundant mesopredators, such as coyotes and red foxes. See Thomas M. Newsome et al., *Top Predators Constrain Mesopredator Distributions*, 8 NATURE COMMS. 1, 4 (2017).

418. Sophie Gilbert et al., *Socioeconomic Benefits of Large Carnivore Recolonization Through Reduced Wildlife-Vehicle Collisions*, 10 CONSERVATION LETTERS 431, 435 (2017).

419. *Id.*

420. In 2017, Montana had 569 livestock operations with 500 or more beef cows. Between them, New York and the six New England States had two. See U.S. DEP’T OF AG., AC-17-A-51, CENSUS OF AGRICULTURE (2019), at 395–405.

game.⁴²¹ That leaves one compelling argument against reintroduction (or even encouraging natural migration): sharing a landscape with mountain lions will inescapably result in at least some mountain lion attacks on humans and their pets.⁴²² It's worth reviewing what that really means.

V. MOUNTAIN LIONS AND PUBLIC SAFETY

In the lower 48, an average adult female mountain lion weighs 80 to 120 pounds and adult males 120 to 150 pounds.⁴²³ (The largest recorded mountain lion in the lower 48, killed in Arizona, weighed 275 pounds.)⁴²⁴ Mountain lions are obligate carnivores; they must eat animal flesh to survive. In the lower 48, their preferred prey is wild ungulates, hoofed animals like deer and elk, though they will also prey on smaller mammals.⁴²⁵ Mountain lions did not evolve to pursue prey for long distances; instead, they are “stalk-and-ambush” predators.⁴²⁶ They rely on stealth to get within reach of a prey animal—most attacks occur from within ten meters—and then explode with speed and power, bounding or galloping toward the prey and bringing it to the ground.⁴²⁷ In a successful attack, the prey is subdued with a bite to the back of the neck that efficiently severs the spinal cord or with a bite to the throat that either kills directly or leads through time to asphyxiation.⁴²⁸

Without question, mountain lions do not generally view human beings as prey; if they did, there would surely be more reports of attacks. Nevertheless, attacks on humans (and their household pets) have become a regular feature of nightly news in the West.

A. Representative Human-Mountain Lion Conflicts

Based on news reports, here is a sampling of human-mountain lion “incidents” in the western United States for each month in 2024.⁴²⁹ On the

421. See Scooty Nickerson, *New England's Deer Population is Skyrocketing. Here's Why That is Particularly a Problem in Eastern Massachusetts*, Bos. GLOBE (Nov. 29, 2024), <https://perma.cc/SQ3W-KECJ>.

422. See Gilbert et al., *supra* note 418, at 435 (recognizing that the major costs of carnivore recolonization include attacks on humans and pets).

423. LOGAN & SWEANOR, *supra* note 125, at 18.

424. *Id.*

425. See Kerry Murphy & Toni K. Ruth, *Diet and Prey Selection of a Perfect Predator*, in COUGAR ECOLOGY AND CONSERVATION 129 (2010).

426. See *id.* at 121–22.

427. See *id.* at 121.

428. See *id.* at 122.

429. This paper follows the typology established in Aldredge, et. al., *Human-cougar Interactions in the Wildland-Urban Interface of Colorado's front Range*, 9 ECOLOGY & EVOLUTION 10415, 10419 (2019). (“We will refer to a direct human encounter with a cougar or property

morning of January 10, 2024, two men were trail running near Ojai, California, approximately 15 miles inland from Ventura Beach.⁴³⁰ Running behind them was one of the runners' fifty-pound Husky-Pitbull mix.⁴³¹ The men heard the dog yelp and turned to see a mountain lion drag the dog into the brush; both men rushed forward, the lion gave up the fight, and the dog escaped with puncture wounds to its throat and neck.⁴³²

On February 17, 2024, as reviewed in the introduction, a mountain lion attacked sixty-year-old Kari Bergere outside Seattle.⁴³³ Recall that after knocking Bergere off her bike along a well-traveled bike path, the mountain lion locked its jaws on Bergere's face for fifteen minutes, causing permanent disfigurement.⁴³⁴

In the early afternoon of March 23, 2024, two brothers, eighteen-year-old Wyatt and twenty-one-year-old Taylen Brooks, were searching for antlers shed by deer along a wooded Forest Service road about thirty miles outside Sacramento, California, when they noticed a mountain lion stalking them.⁴³⁵ The brothers, experienced outdoorsmen, followed all guidelines for such an encounter: they made themselves look big, maintained eye contact, yelled, and threw objects.⁴³⁶ Nonetheless, when Wyatt stumbled, the lion attacked, leaping and biting his head and knocking him to the ground.⁴³⁷ Taylen rushed to his younger brother's aid and began beating the lion. Distracted, the lion turned its attention to Taylen, knocking him to the ground and latching onto the young man's neck.⁴³⁸ Wyatt, his face and head heavily lacerated from the first attack, tried to beat the cat off his brother to no avail; he finally ran to an area with cell coverage and called 911.⁴³⁹ When the police arrived, they followed drag marks

damage by a cougar as a conflict and a report that a cougar was seen in the area as a sighting. Collectively, we will refer to these as 'cougar incidents.'").

430. Peet Deneen, *My Running Buddy and I Charged the Mountain Lion that was Trying to Kill His Dog*, OUTDOOR LIFE, (Feb. 2, 2024), <https://perma.cc/493N-B8LB>.

431. *Id.*

432. *See id.* The dog was off leash, arguably making a cougar conflict more likely. *See id.* However, there are plenty of news reports of pets on-leash being attacked by cougars. *See, e.g.,* Marianne Ratcliff, *Ojai Woman Loses Tug-of-War Trying to Pull Dog from Lion's Jaw on Ladera Road*, OJAI VALLEY NEWS (Feb. 26, 2023), <https://perma.cc/R98W-KHHV>. Notably, P-22, the famous mountain lion of Los Angeles' Griffith Park, was euthanized when, injured and in his dotage, he attacked three dogs in a month. One of those dogs was a chihuahua on their owners' leash. Laura J. Nelson & James Queally, *P-22, the L.A. Celebrity Mountain Lion, Euthanized due to Severe Injuries*, L.A. TIMES, (Dec. 17, 2022), <https://perma.cc/VWE9-FHCG>.

433. *See supra* notes 66–73 and accompanying text.

434. *See id.*

435. *See* Malcolm Brooks, *A Mountain Lion Attacked My Nephews. What Could Have Stopped It?*, N.Y. TIMES MAG. (Dec. 31, 2024), <https://perma.cc/6LLM-76BJ>.

436. *Id.*

437. *Id.*

438. *Id.*

439. *Id.*

through the brush to find the mountain lion crouching over Taylen's lifeless body.⁴⁴⁰ The lion was driven away from the body and shot and killed.⁴⁴¹

In the early morning of April 9, 2024, a cougar killed a dog in the yard of a home in Ogden, Utah, a city of 85,000 forty miles north of Salt Lake City.⁴⁴² The Utah Division of Wildlife Resources advised keeping family pets indoors at night and "keeping an eye on small children."⁴⁴³

On the afternoon of May 15, 2024, a twenty-four-year-old woman went running with her dog on the Mount Baldy Trail outside Bozeman, Montana.⁴⁴⁴ She heard a yelp and turned to see her dog being dragged away by a mountain lion.⁴⁴⁵ The dog was never recovered.⁴⁴⁶

On June 11, 2024, a runner on the popular Angel's Rest Trail, twenty-five miles from downtown Portland, Oregon, discovered that a mountain lion was stalking him.⁴⁴⁷ The runner walked backwards slowly, following the advice that one should never turn one's head from a stalking lion.⁴⁴⁸ However, when he stumbled, the lion moved to pounce and swiped at him with a paw.⁴⁴⁹ The runner responded aggressively, and the lion briefly retreated.⁴⁵⁰ The stalking continued for another quarter of a mile before the lion gave up the hunt.⁴⁵¹

On July 11, 2024, a mountain lion was seen running through a suburban neighborhood in Laredo, Texas, a city of 250,000.⁴⁵² Police were compelled to euthanize the animal.⁴⁵³ The police department later explained: "We were hoping for a better outcome but were left with no choice due to the potential danger the surrounding neighborhood would have been exposed to if the feline escaped and encountered a person or domesticated animal in its path."⁴⁵⁴

440. *Id.*

441. *Id.*

442. Tim Gurrister, *DWR Issues Alert After Cougar Kills Dog in Ogden Foothills*, GEPHARDT DAILY (Apr. 10, 2023), <https://perma.cc/5388-QN79>. See also United States Census Bureau, Quick Facts, Ogden City Utah, available at <https://perma.cc/8LXK-8KWZ>.

443. *Id.*

444. Jolee Saltee, *Mountain Lion Attack on Woman's Dog at Mount Baldy Raises Concerns Among Hikers*, KBZK (May 22, 2024), <https://perma.cc/T5WZ-FUAJ>.

445. *Id.*

446. *Id.*

447. See Emily Girsch, *Portland Man Stalked by Cougar used Survival Tips Learned on YouTube to Get Away*, KATU2 (June 13, 2024), <https://perma.cc/XF5J-ZQZL>.

448. *Id.*

449. *Id.*

450. *Id.*

451. *Id.*

452. Justin Reyes & Marissa Rodríguez Limón, *Mountain Lion Spotted in South Laredo Shot and Killed by Officials*, KGNS-TV (July 12, 2024), <https://perma.cc/YR6V-TGYT>.

453. *Id.*

454. Madalynn Lambert, *Laredo Police Kill a Mountain Lion to Protect the Public, LPD Says*, KSAT.COM (July 12, 2024), <https://perma.cc/M8LG-9KNA>.

On August 10, 2024, a man in Sylmar, a suburban Los Angeles neighborhood, was walking down a residential street with his pit bull on a leash.⁴⁵⁵ In a flurry, a mountain lion attacked the dog.⁴⁵⁶ The dog's neck was snapped in an instant.⁴⁵⁷ Despite his efforts to save the dog, the man was unhurt.⁴⁵⁸

On September 1, 2024, a five-year-old boy was picnicking with his family at a day-use picnic area in the Santa Monica Mountains, roughly five miles inland from Malibu, California.⁴⁵⁹ A mountain lion sprang from the brush, bit onto the boy's head, and began carrying the child away. The boy's father tackled the lion, which released the child.⁴⁶⁰ The boy survived but with significant injuries.⁴⁶¹ (Most mountain lion attacks on humans involve children, whose small size tracks the lion's usual natural prey and whose quick, erratic moves and high-pitched voices attract lions' attention.)⁴⁶²

In late October 2024, a man in Santa Cruz County, California, south of San Francisco, let his German Shepherd outside, and a mountain lion attacked it.⁴⁶³ The dog limped back to the door about twenty minutes later with severe injuries, including bite marks across her body and a puncture wound to her skull.⁴⁶⁴

On the morning of November 8, 2024, police in Greeley, Colorado, a city of 105,000, shot and killed a mountain lion that had roamed onto the grounds of a public K-8 school.⁴⁶⁵ The police implemented a secure perimeter, locking the school down and issuing "a reverse 911 CodeRed alert advising people in the area to shelter in place."⁴⁶⁶ Following orders based on public safety concerns,

455. Jasmine Mendez, 'Cougar Country': L.A. Neighborhood Gears Up After Recent Mountain Lion Attack, L.A. TIMES (Aug. 24, 2024), <https://perma.cc/9YA3-TT3Q>.

456. *Id.*

457. *Id.*

458. *Id.*

459. *Mountain Lion Attacks 5-Year-Old at Malibu Creek Park and is Euthanized*, ASSOCIATED PRESS (Sept. 4, 2024), <https://perma.cc/6Q9Y-4M76>.

460. *Id.*

461. *Id.*

462. Paul Beier, *Cougar Attacks on Humans in the United States and Canada*, 19 WILDLIFE SOC'Y BULL. 403, 407 (1991). There have been a few notable attacks on children in the last few years: On May 28, 2022, a nine-year-old girl was attacked in Washington while playing hide and seek at a bible camp. Aaron Shill, 'Tough' and 'Brave' 9-Year-Old Girl Is Recovering After Fighting Off a Cougar Attack, DESERET NEWS (June 1, 2022), <https://perma.cc/L3VB-UCCH>. And on July 29, 2023, an eight-year-old child was attacked while camping with his family in Olympic National Park. *8-Year-Old Attacked by Cougar at Lake Angeles, Avoids Serious Injuries*, NAT'L PARK SERV. (July 30, 2023), <https://perma.cc/K3S5-TNFH>.

463. *Dog Recovering from Serious Injuries After Mountain Lion Attack in Santa Cruz County*, ABC7 (Oct. 30, 2024), <https://perma.cc/54W7-593E>.

464. *Id.*

465. Jonathan Limehouse, *Colorado Police Shot, Kill Mountain Lion After Animal Roamed on School's Campus*, USA TODAY (Nov. 13, 2024), <https://perma.cc/HM8J-PPZY>.

466. *Id.*

a police officer shot and killed the lion when it attempted to break through the secure perimeter.⁴⁶⁷

Finally, on the morning of December 18, 2024, a woman in Ketchum, Idaho, let her cat outside into her backyard, which was surrounded by a six-foot fence.⁴⁶⁸ A mountain lion leaped over the fence, grabbed the cat, and retreated back over the fence.⁴⁶⁹ Wildlife officials later trapped and euthanized the lion.⁴⁷⁰

B. Mitigation of Risk

Beyond adopting a management plan designed to keep mountain lion numbers within the social carrying capacity, state wildlife agencies employ two additional tools to limit conflict. First, when human attacks occur, all state wildlife agencies adhere to a strict policy of euthanizing the mountain lion.⁴⁷¹ There does not appear to be a uniform mandate for euthanizing a lion attacking family pets, but this seems to be the usual practice.⁴⁷² On the other hand, if a lion is only sighted near people or only shows defensive behavior, many state wildlife agencies will first harass, or “haze,” the mountain lion to encourage its voluntary departure before resorting to euthanasia.⁴⁷³

The final tool wildlife agencies rely on to minimize human-mountain lion conflict is education. All state wildlife agencies publish guidelines for reducing conflicts with mountain lions. They are fairly uniform: At home, light your walkways, and prune back shrubs and trees that might provide cover to mountain lions.⁴⁷⁴ “Keep dogs and cats indoors, especially from dusk to dawn.”⁴⁷⁵

467. *Id.*

468. Moosetrack Megan, *Fish and Game Euthanizes a Mountain Lion near Ketchum That Had Killed a Family Pet*, MONT. OUTDOOR (Dec. 27, 2024), <https://perma.cc/K2UU-UTWR>.

469. *Id.*

470. *Id.*

471. See, e.g., ARIZ. GAME & FISH DEP’T, LIVING WITH MOUNTAIN LIONS (2019) (noting that lions that threaten public safety “must be lethally removed”); *Living with Mountain Lions*, COLO. PARKS & WILDLIFE, <https://perma.cc/UHG2-57LC>; *WDFW Response to Dangerous Wildlife Complaints*, WASH. DEP’T OF FISH & WILDLIFE, <https://perma.cc/E57M-RJCF>.

472. See generally CAL. DEP’T OF FISH & WILDLIFE, *supra* note 477; ARIZ. GAME & FISH DEP’T, *supra* note 482; COLO. PARKS & WILDLIFE, *supra* note 471; WASH. DEP’T OF FISH & WILDLIFE, *supra* note 471 (providing no official response policy for attacks on pets).

473. See, e.g., Korinna Domingo et al., *Coexistence FAQs*, WALLIS ANNENBERG WILDLIFE CROSSING, <https://perma.cc/E9GG-HMRE> (“If a cougar is deemed a ‘No Harm-No Foul’ animal and does not pose a threat, California Department of Fish and Wildlife staff will work to encourage the animal back to its nearest suitable habitat.”); *Fish and Game Uses Non-lethal Hazing to Move a Mountain Lion in Ketchum*, IDAHO FISH & GAME (Jan. 9, 2020), <https://perma.cc/U9R8-6FRU>.

474. See e.g., *What to Do If You Encounter a Mountain lion in Utah*, UTAH DIV. WILDLIFE RES. (May 21, 2024), <https://perma.cc/5FZV-L3F3>; *Cougar (Puma concolor)*, WASH. DEP’T OF FISH & WILDLIFE, <https://perma.cc/7U7R-AWD2>.

475. See RUSSELL LINK ET AL., WASH. DEP’T OF FISH & WILDLIFE, LIVING WITH WILDLIFE, COUGARS (MOUNTAIN LIONS) 4 (2005), <https://perma.cc/D2DP-AHVV>.

If you are recreating outdoors, the general advice is to think like prey: Avoid being alone and never run alone.⁴⁷⁶ Do not recreate in the early morning or after dark when mountain lions prefer to hunt,⁴⁷⁷ and stay “aware of your surroundings, particularly when hiking in dense cover or when sitting, crouching, or lying down.”⁴⁷⁸ Do not wear headphones,⁴⁷⁹ and avoid clothing such as hoodies that obstruct peripheral vision.⁴⁸⁰

There are specific guidelines for children, who are far more likely to be attacked by a mountain lion than adults.⁴⁸¹ When outdoors, keep children close at all times, and, if possible, keep the child between two adults.⁴⁸² At home, never let children play outside alone.⁴⁸³ If children do play outside alone, the Washington State Department of Fish and Wildlife suggests constructing an enclosed play area using “a chain-link or heavy woven wire fence that is 10 feet high with 3-foot extensions installed at a 65-degree angle on each post . . . [then] string barbed wire or four electric wires between the extensions, alternating positive and negative wires.”⁴⁸⁴

Finally, there are guidelines for how to behave in the event of a direct encounter with a mountain lion: Maintain eye contact and do not run, as running may trigger the lion’s chase instincts.⁴⁸⁵ Try to remain standing; to protect your head and neck, never bend over or crouch down, even if to pick up a rock or stick.⁴⁸⁶ Pick up children.⁴⁸⁷ Raise your arms and jacket above your head to appear larger.⁴⁸⁸ Speak to the lion firmly and aggressively in a loud voice and slowly back away.⁴⁸⁹ If an attack occurs, fight back with all your might.⁴⁹⁰

476. See UTAH DIV. WILDLIFE RES., *supra* note 474.

477. See *Human-Wildlife Conflicts: Mountain Lions*, CAL. DEP’T OF FISH & WILDLIFE, <https://perma.cc/QC5B-ZFZQ>.

478. See LINK ET AL., *supra* note 475.

479. See UTAH DIV. WILDLIFE RES., *supra* note 474.

480. See ELBROCH, *supra* note 65, at 51 (“There is nothing more foolish than jogging or mountain biking in mountain lion habitat at dusk or dawn while wearing headphones or a hoodie so that you cannot hear twigs snapping or see animal closing in.”).

481. See Paul Beier, *Cougar Attacks on Humans in the United States and Canada*, 19 WILDLIFE Soc’y BULL. 403, 410 (1991).

482. *Crossing Paths with Wildlife*, COLO. PARKS & WILDLIFE, <https://perma.cc/WBC3-LKNR>.

483. See *id.*; WASH. DEP’T OF FISH & WILDLIFE, *supra* note 471.

484. WASH. DEP’T OF FISH & WILDLIFE, *supra* note 471.

485. *What to Do If You Encounter a Mountain Lion in Utah*, *supra* note 474; see, e.g., *Mountain Lion Safety*, U.S. FISH & WILDLIFE SERV., <https://perma.cc/GFL2-42C6>.

486. See, e.g., *Mountain Lion Safety*, *supra* note 123.

487. See *id.*

488. See *id.*

489. See *id.*

490. See ELBROCH, *supra* note 65, at 52–53.

Hit, punch, and beat the animal with your fists and feet. Wrestle it.⁴⁹¹ Attack the animal's face, especially the eyes, with sharp objects or your fingers.⁴⁹² If knocked to the ground, try to get up.⁴⁹³ Keep fighting as long as necessary to convince the animal that you will not be subdued.⁴⁹⁴

CONCLUSION

One of the more compelling explanations for how apex predators impact a landscape is through the creation of a "landscape of fear."⁴⁹⁵ In this model, the presence of a predator shapes prey behavior and ecological processes independent of discrete attacks on prey. That is, a landscape might change as much by elk moving away from meadows out of fear of wolves than by the actual consumption of elk by wolves.⁴⁹⁶ In the same vein, the most dramatic impact of humans living alongside mountain lions may not be the rare attacks, but rather the ways humans alter their behavior out of fear of mountain lions.⁴⁹⁷ At a basic level, if the guidelines suggested by state wildlife agencies are abided, humans in mountain lion country will change their home landscapes and outdoor recreation patterns because of the risk (fear) of predation. However, a rational response to the presence of mountain lions might be to avoid the outdoors altogether or to never let one's children play outside. These are the costs of living with mountain lions.

But what of those who venture into the woods, irrespective of the presence of a predator? It may be that a landscape of fear changes the very experience of being in nature. It is a fair observation that Western expressions of nature as a source of psychic restoration and moral education did not evolve in a landscape of fear. Consider this stanza from William Wordsworth's 1798 poem *The Table Turned*:

One impulse from a vernal wood
May teach you more of man,
Of moral evil and of good,
Than all the sages can.⁴⁹⁸

491. *Id.*

492. *Id.*

493. *Id.*

494. *See generally Living With Mountain Lions*, *supra* note 471.

495. The term was coined by Laundré, Hernández, and Altendorf in their study of wolf reintroduction in Yellowstone. John W. Laundré et al., *Wolves, Elk, and Bison: Reestablishing the "Landscape of Fear" in Yellowstone National Park, U.S.A.*, 79 CAN. J. ZOOLOGY 1401 (2001).

496. *See id.* at 1409.

497. *See* Penteriani et al., *Humans as Prey: Coping with Large Carnivore Attacks Using a Predator-Prey Interaction Perspective*, 11 HUM.-WILDLIFE INTERACTIONS 192, 196–197 (2017) (noting that humans in areas with large predators "are also subject to the same landscape of fear that has been described for other prey species").

498. William Wordsworth, *The Tables Turned*, in LYRICAL BALLADS 117 (1798).

When he wrote those words, Wordsworth was living in Somerset, in the South of England.⁴⁹⁹ Wordsworth's suggestion that nature might be a force of spiritual good rather than evil was revelatory, but it is worth noting that Wordsworth's inspiration came from walks through the pastures and woodlands of a pacified landscape. The last apex predators in his "vernal wood" had been destroyed centuries earlier.⁵⁰⁰

Consider too this oft-quoted observation from Henry David Thoreau:

There are moments when all anxiety and stated toil are becalmed in the infinite leisure and repose of nature.⁵⁰¹

When Thoreau wrote those words, he was describing lounging on the banks of the Merrimack River north of Lowell, Massachusetts⁵⁰² during a 1839 canoe trip with his brother.⁵⁰³ That section of the Merrimack River, like Walden Pond where Thoreau would later decamp, is in Eastern Massachusetts, an area that in 1839 was no less pacified than Wordsworth's Somerset. Mountain lions, wolves, and black bears had long been extirpated from the region.⁵⁰⁴ It was, therefore, in a natural world free of mortal danger that Thoreau achieved such serenity. Later, writing in his journal, Thoreau specifically acknowledged that he communed with a pacified nature free of predators⁵⁰⁵ Thoreau lamented, "when I consider that the nobler animals have been exterminated here . . . I cannot but feel as if I lived in a tamed, and, as it were, emasculated country."⁵⁰⁶ But what if the emasculation was a condition precedent to his psychic repose?

* * *

In a 2023 paper, a team of wildlife conservation scientists set out to identify those areas of the East that would be suitable for recolonization by

499. JONATHAN WORDSWORTH, *THE MUSIC OF HUMANITY: A CRITICAL STUDY OF WORDSWORTH'S RUINED COTTAGE* 24–25 (1969) (indicating that *The Table Turned* was composed at Alfoxden House); Venessa Thorpe, *Rural Idyll where Ancient Mariner met Kubla Khan saved for nation*, *THE GUARDIAN*, Feb. 15, 2020) (confirming that Alfoxden House is "in the village of Holford, near Bridewater, Somerset.").

500. European Brown Bears were gone from England by 500 C.E.; wolves were gone by 1300. See Debbie Graham, *Britain's Lost Beasts: When did the Moose, Wolf, and Bear go Extinct in UK*, *BBC COUNTRYSIDE* (Apr. 22, 2024), <https://perma.cc/U732-6FW6>.

501. HENRY DAVID THOREAU, *A WEEK ON THE CONCORD AND MERRIMACK RIVERS* 162 (1893).

502. *Id.* at 159, 162. See also *id.* at 157 (establishing that Thoreau was memorializing day three of his canoe trip when he canoed upstream on the Merrimack from Lowell in the vicinity of Tyngsborough, Massachusetts).

503. *Id.* at ix.

504. See *infra* section I.B.

505. See ODELL SHPARD, ED., *THE HEART OF THOREAU'S JOURNALS* 238 (1927).

506. Robert M. Thorson, *Thoreau's Great Insight for the Anthropocene: Wildness is an Attitude, not a Place*, *UConn TODAY* (Mar. 14, 2019), <https://perma.cc/T3KS-4BRC>.

mountain lions.⁵⁰⁷ Several criteria were assessed, including the availability of hunting cover, the presence of high-speed roadways, human density, public land ownership, local public tolerance, and the size of the available habitat.⁵⁰⁸ The researchers identified seventeen areas in the Upper Midwest, Ozarks, Appalachia, and New England that suitable for sustaining mountain lion populations.⁵⁰⁹ One of the areas of Eastern habitat identified as appropriate for mountain lion reintroduction was a “Maine West” area; it covered a section of White Mountain National Forest in New Hampshire that includes the so-called Presidential Range.⁵¹⁰

A short time ago, I went for a long hike across the Presidential Range. My pace was slower than I expected, and I found myself hiking in the dark. But it was a fine evening, and I was comfortable hiking by headlamp. At one point, I stopped alone in the woods and turned off my headlamp. The woods were deep and dark. With my headlamp off, I could not see my hand in front of my face. I sat for a few minutes in the darkness, listening to the insect sounds of the night forest. I could hear in the distance water flowing, and then on cue, peeper frogs began a chorus. It was magical, and I felt utterly, as Thoreau might say, “becalmed in the infinite leisure and repose of nature.”

Here is what I was not doing during that moment in the White Mountains: I was not thinking that I was in mountain lion country, deep in woods with good cover, in the dark, at a time that mountain lions like to hunt. I was not paying attention to my surroundings to identify any lurking dangers. I was not, in short, thinking like prey. Perhaps there is something to the notion that nature appreciation flourishes best when nature no longer presents a mortal danger. We can certainly share even more space with mountain lions. But do we want to?

507. See Vovovich et al., *supra* note 411, at 921–35.

508. *Id.* at 925–27.

509. *Id.* at 927.

510. *Id.* at 929.

