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HOW MILITARY ENVIRONMENTAL
ACTIVISTS CONSERVED THIRTY MILLION
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ENVIRONMENTAL LAW—THE DEPARTMENT OF DEFENSE NATURAL RESOURCES CONSERVATION PROGRAM: HOW MILITARY ENVIRONMENTAL ACTIVISTS CONSERVED THIRTY MILLION ACRES FOR MILITARY USE AND THE PROTECTION OF ENDANGERED SPECIES

Susan Perkins Stark *

INTRODUCTION

In *It's A Wonderful Life*,¹ lead actor Jimmy Stewart's character, George Bailey, is confronted by an angel. The angel reveals that Bailey's ordinary acts of goodwill in his early life had in fact been essential ingredients to the decades-later good fortune of many of the citizens of the fictional town of Bedford Falls.²

So it was with James N. Perkins. As he did every day, a nearly eighty-year-old Perkins walked to the end of his driveway to retrieve his mail.³ On this particular day in November 2010, an unusual letter appeared. Jean Mansavage, a historian with the Air Force Historical Studies Office in Washington, DC, had written to inform Perkins that implementation of a program that had been Perkins' brainchild during his tenure with the United States Air Force more than five decades earlier had resulted in nearly thirty million acres of land managed by the Department of Defense having been placed into conservation. The world's largest concentration of endangered species was now protected on these military lands.⁴

Over the next three years, Mansavage worked closely with Perkins to elicit his recollections and complete the history of the US Air Force Fish and Wildlife ("USFWS") Conservation Program, now published in her book entitled, *Natural Defense:*

^{*} Daughter of James N. Perkins, god-daughter of Corey Ford, and a 2015 graduate of Western New England University School of Law where she was a quarter-finalist in the 2015 Jeffrey G. Miller Pace National Environmental Law Moot Court Competition.

^{1.} IT'S A WONDERFUL LIFE (Liberty Films 1946).

^{2.} *Id*.

^{3.} JIM PERKINS, By Way of Luck: How Chance Shaped a Storied Life 1 (2015).

^{4.} *Id.* at 2.

U.S. Air Force Origins of the Department of Defense Natural Resource Conservation Program.⁵ This compilation of USFWS history by Jean Mansavage details how thirty million acres of military lands were conserved for endangered species.⁶ This Article reveals Mansavage's account and the interplay between the people and the legislation that created the US Department of Defense's most successful protection of its lands. A second lieutenant only in his early twenties when he worked at the Pentagon, Perkins had the good fortune to have worked with his mentor, Corey Ford, and Generals Henry Harley "Hap" Arnold, Carl A. "Tooey" Spatz, Nathan F. Twining, and Thomas D. White to create the USFWS Conservation Program out of which grew the Department of Defense Natural Resources Conservation Program. Now, over a half century later, Perkins is the only person alive to tell the story firsthand.

I. MILITARY LANDS AND AUTHORITY OVER THEIR USE

Today, of the 2.3 billion total acres of land in the United States,⁷ the federal government owns and manages at least an estimated 635–640 million acres.⁸ The Forest Service, National Park Service, the US Fish and Wildlife Service, and the Bureau of Land Management administer about 610 million acres.⁹ Through the National Security Act of 1947,¹⁰ Congress created the Department of Defense ("DoD"), consolidating the Department of War, Department of the Navy, and the Department of the Air Force.¹¹ The DoD owns about 19.5 million acres, the largest holdings of which are in California, New Mexico, Arizona, Utah, and Alaska.¹² Globally, the DoD owns, leases, and manages over

^{5.} JEAN A. MANSAVAGE, AIR FORCE HISTORICAL STUDIES, NATURAL DEFENSE: U.S. AIR FORCE ORIGINS OF THE DEPARTMENT OF DEFENSE NATURAL RESOURCE CONSERVATION PROGRAM (2014) http://www.afhso.af.mil/shared/media/document/AFD-140731-037.pdf.

^{6 .} *Id*.

^{7.} Ruben N. Lubowski et al., USDA Economic Research Services, Major Uses of Land in the United States, 2002 (2006), http://www.ers.usda.gov/media/250091/eib14_1_pdf.

^{8.} CAROL HARDY VINCENT, LAURA A. HANSON & JEROME P. BJELOPERA, FEDERAL LAND OWNERSHIP: OVERVIEW AND DATA, CONGRESSIONAL RESEARCH SERVICE 1 (2014), https://fas.org/sgp/crs/misc/R42346.pdf.

^{).} *Id.*

^{10.} Id. at 10. See also, National Security Act of 1947 § 2, 50 U.S.C. § 3002 (1947).

^{11.} National Security Act of 1947 § 2, 50 U.S.C. § 3002 (1947).

^{12.} Vincent, supra note 8.

28 million acres.¹³ On those acres sits approximately 420 large military installations,¹⁴ defined as installations over 500 acres. Three hundred and forty installations are large enough to require active management plans.¹⁵

The military's authority over its lands is delegated by Congress. As such, the military continuously engages in cooperative negotiations with Congress to retain its delegated authority. Constitutional sources of Congressional authority over federal lands derive from the Property Clause of the US Constitution,¹⁶ the Enclave Clause, and the Commerce Clause.¹⁷ Congress' authority to govern public lands is broad and without limitation.¹⁸ Congress has delegated to each military department authority to manage land within its department,¹⁹ and military use is the primary purpose of DoD administered land.²⁰ Congress has also limited the delegation of its authority to the DoD through various legislation, including the Sikes Act of 1949 and 1960 and its subsequent numerous amendments,²¹ and the Engle Act of 1958.²²

^{13.} Base Structure Report, Fiscal Year 2010 Baseline (A Summary of DoD's Real Property Inventory), U.S. DEP'T OF DEFENSE, DoD-36–DoD-78 (2010), http://www.globalsecurity.org/military/library/report/2009/090930_fy10_baseline_dod_b sr.pdf.

^{14. 10} U.S.C. § 2801(c)(4) (2008) ("The term 'military installation' means a base, camp, post, station, yard, center, or other activity under the jurisdiction of the Secretary of a military department or, in the case of an activity in a foreign country, under the operational control of the Secretary of a military department or the Secretary of Defense, without regard to the duration of operational control.").

^{15.} L. Peter Boice, Threatened and Endangered Species on DoD lands (2013).

^{16.} U.S. CONST. art. IV, § 3, cl. 2 ("[D]ispose of and make all needful Rules and Regulations respecting the Territory or other Property belonging to the United States.").

^{17.} Marla Mansfield, *A Primer of Public Land Law*, 68 WASH. L. REV. 801, 803 (1993); U.S. CONST. art. I, § 8, cl. 12; U.S. CONST. art. I, § 8, cl. 3.

^{18.} Kleppe v. New Mexico, 426 U.S. 529, 530 (1976) (citing United States v. San Francisco, 310 U.S. 16, 29 (1940)).

^{19.} For examples of each military department's programs, see L. Peter Boice, Managing Endangered Species on Military Lands, (July/Aug. 1996), http://www.umich.edu/~esupdate/library/96.07-08/boice.html; L. Peter Boice, Endangered Species on U.S. Air Force Lands, (Sept. 1996), http://www.umich.edu/~esupdate/library/96.09/boice2.html.

^{20.} Vincent, *supra* note 8. *See also* DEPARTMENT OF DEFENSE, INSTRUCTION 4715.03 2 (2011) ("The principal purpose of DOD lands, waters, airspace, and coastal resources is to support mission-related activities. All DOD natural resources conservation program activities shall work to guarantee DOD continued access to its land, air, and water resources for realistic military training and testing and to sustain the long-term ecological integrity of the resource base and the ecosystem services it provides.").

^{21.} See generally Sikes Act of 1949, 16 U.S.C.A. § 670 (West 2016). For a history

Congress has also curtailed unbridled military discretion on how it uses its lands by mandating that the DoD follow all federal legislation, including the National Environmental Policy Act ("NEPA"), the Clean Water Act ("CWA" or "FWPCA"), the Clean Air Act ("CAA"), and the Endangered Species Act ("ESA").²³

In recent years, the military has sought from Congress a relaxation of environmental controls on the premise that federal environmental laws negatively impact military readiness.²⁴ In response, Congress has provided exemptions to several environmental statutes in the interest of national security so that military training needs are not restricted.²⁵ For instance, the 107th and 108th Congress provided for military exemptions to the Migratory Bird Treaty Act, the ESA, and the Marine Mammal Protection Act.²⁶

In contrast, in the later 1950s, the military responded to public condemnation of its "natural resource stewardship practices" by adopting environmental conservation practices that helped the military to retain control of land use to protect national security. Federal environmental legislation, such as the NEPA, the CWA, the CAA, and the ESA would not be enacted into law for well over

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of the Sikes Act, see Legislative History of the Sikes Act, U.S. FISH & WILDLIFE SERV., FISH & AQUATIC CONSERVATION, http://www.fws.gov/fisheries/sikes_act/sikes_act_history.html [https://perma.cc/WZY7-LP2R] (last visited Apr. 28, 2016).

^{22.} Engle Act of 1958, 43 U.S.C. §§ 155–158 (1958).

^{23.} See, e.g., Summary of the National Environmental Policy Act, U.S. ENVTL. PROT. AGENCY, http://www.epa.gov/laws-regulations/summary-national-environmental-policy-act [https://perma.cc/3482-7S3E] (last visited Apr. 28, 2016). See generally National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4347 (1969); 33 U.S.C. §§ 1251–1387 (1972); 42 U.S.C. §§ 7401–7671(q) (1970); Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (1973).

^{24.} David M. Bearden, Exemptions from Environmental Law for the Department of Defense: Background and Issues for Congress, CONGRESSIONAL RESEARCH SERV. (May 15, 2017), Order Code RS22149, 2.

^{25.} Id.

^{26.} *Id. See generally* Migratory Bird Treaty Act of 1918, 16 U.S.C. §§ 703–712 (2003); Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (2003); Marine Mammal Protection Act of 1972, 16 U.S.C. §§ 1361–1423(h) (1994).

^{27.} MANSAVAGE, supra note 5, at 66.

^{28.} See, e.g., MANSAVAGE, supra note 5, at 87 ("The Air Force and Wildlife Conservation Program that existed in 1958 arose from successive decisions by senior leaders who endorsed proactive natural resource management activities on service installations.").

a decade.²⁹ Prior to the enactment of these watershed environmental acts,³⁰ Congressional legislation and judicial interpretation of the relationship between the states and the military were shaping military control and restrictions on its control of military land use.³¹

II. EARLY LAND CONSERVATION AND THE MILITARY

Signed by President Abraham Lincoln, the Homestead Act of 1862 distributed federal lands to private control and development in earnest.³² But, in the early twentieth century, tensions between the utilitarian perspective on land use and preservationists had developed.³³

Reflecting his love of the outdoors and growing sentiment favoring natural resource conservation,³⁴ in 1903, President Theodore Roosevelt established the first federal wildlife refuge to protect waterfowl.³⁵ By the end of his presidency, over fifty wildlife refuges had been established.³⁶ In 1916, Congress created the National Park Service "to manage the existing national parks, monuments and reservations that had by that time been set aside for natural, scenic, and historic values and to provide for their enjoyment so as to leave them unimpaired for future generations."³⁷ "In 1939, the Bureau of Fisheries and the Bureau

^{29.} NEPA was signed into law by President Nixon on January 1, 1970. Linda Luther, *The National Environmental Policy Act: Background and Implementation*, CRS REPORT FOR CONGRESS (Nov. 16, 2005), http://www.fta.dot.gov/documents/Unit1_01CRSReport.pdf. *See generally* National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4347 (1969); 33 U.S.C. §§ 1251–1387 (1972); 42 U.S.C. §§ 7401–7671(q) (1970); Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (1973).

^{30.} See generally Sikes Act of 1949, 16 U.S.C.A. § 670 (2014).

^{31.} See, e.g., id.

^{32.} Teaching with Documents: The Homestead Act of 1862, THE NAT'L ARCHIVES, https://www.archives.gov/education/lessons/homestead-act/[https://perma.cc/DYF7-AXJH] (last visited Apr. 28, 2016).

^{33.} See Ann E. Chapman, American Conservation in the Twentieth Century, NAT'L PARK SERV., https://www.nps.gov/nr/travel/massachusetts_conservation/
American_Conservation_in_the_Twentieth_Century.html [https://perma.cc/6UCE-FFSN] (last visited Apr. 28, 2016); see also Pinchot and Utilitarianism: What is "the Greatest Good"?, THE GREATEST GOOD: A FOREST SERVICE CENTENNIAL FILM, http://www.fs.fed.us/greatestgood/press/mediakit/facts/pinchot.shtml?sub3 [https://perma.cc/LR38-DUQX] (last visited Apr. 28, 2016) (explaining that utilitarianism means "use" for the benefit of people as compared to preservation).

^{34.} President Theodore Roosevelt's administration and his chief forester, Gifford Pinchot, promoted use of the term "conservation." Chapman, *supra* note 33.

^{35.} *Id.*

^{36.} Id.

^{37.} Id.

of Biological Survey were transferred to the Department of Interior"³⁸ where they were combined to form the US Fish and Wildlife Service in 1940 "to conserve, protect, and enhance fish, wildlife, and their habitats."³⁹ While at the US Fish and Wildlife Service, author and influential environmentalist, Rachel L. Carson, "developed the concepts she presented in *Silent Spring*,"⁴⁰ an influential book on environmental thinking that exposed the toxic effects on people and wildlife of DDT and other pesticides.⁴¹

Land under military control grew from about three million acres to nearly thirty million acres from the 1940s to the 1960s,⁴² an era of increasing public and Congressional concern about natural resources and the environment.⁴³ Sponsored by Florida Congressman Robert L. F. Sikes, the Sikes Act authorized wildlife conservation activities on the half-million acre Eglin Air Force Base, the former Choctawhatchee National Forest, on the Florida panhandle.⁴⁴ These wildlife conservation activities included authorizing the commander at Eglin "to reinvest fees for hunting and fishing licenses into conservation activities on the base."⁴⁵ The 1949 Sikes Act also authorized the military to manage fish and game in cooperation with the US Fish and Wildlife Service.⁴⁶

The Sikes Act's legislative process "heightened [Air Force General] Thomas D. White's awareness of the increasing political importance of conservation issues to Congress and the American public."⁴⁷ Heretofore, "[t]he Air Force's first conservation efforts were largely informal, unofficial, and carried out through local rod

^{38.} *History Management*, U.S. FISH & WILDLIFE SERV., http://www.fws.gov/fire/who_we_are/history.shtml [https://perma.cc/DZ8Z-V3S7] (last visited Apr. 28, 2016).

^{39.} Chapman, supra note 33.

^{40.} MANSAVAGE, supra note 5, at 77.

^{41.} Chapman, supra note 33.

^{42.} Dorothy M. Gibb & Joseph S. Ferris, *Balancing Biodiversity Conservation with Multiple Uses, in* CONSERVING BIODIVERSITY ON MILITARY LANDS: A GUIDE FOR NATURAL RESOURCES MANAGERS 90, 90 (Nancy Benton et al. eds., 2008), http://www.dodbiodiversity.org/ch5/Chapter.5.Multiple_Uses.pp90-103.pdf [https://perma.cc/DSK8-2HX6].

^{43.} Chapman, supra note 33.

^{44.} MICHAEL W. GIESE, A FEDERAL FOUNDATION FOR WILDLIFE CONSERVATION: THE EVOLUTION OF THE NATIONAL WILDLIFE REFUGE SYSTEM, 1920–1968 306 (American University, 2008).

^{45.} MANSAVAGE, supra note 5, at 8–10.

^{46.} Sikes Act Training Courses, DOD NATURAL RESOURCES TRAINING PROGRAM, http://www.dodworkshops.org/files/Training/SikesCourses.html (last visited Apr. 28, 2016) [https://perma.cc/5VYQ-PQJY].

^{47.} MANSAVAGE, supra note 5, at 99.

and gun clubs established by commanders on large bases."⁴⁸ However, while Congress deliberated the Sikes Act, the Air Force assumed responsibility for and became the executive agent for the Department of Defense on fish and wildlife issues.

III. THE OUTDOOR ACTIVITIES OF THE SENIOR LEADERSHIP OF THE AIR FORCE SHAPED ITS CULTURE AND POSITIONED THE BRANCH AS THE MILITARY'S LAND STEWARD

The Air Force was ideally suited to manage fish and wildlife responsibilities. The Air Force of the 1950s had a well-documented wildlife conservation culture⁴⁹ that had evolved from the longstanding "outdoor interests and concerns" of its military leaders, Generals Henry H. Arnold, Carl A. Spaatz, Nathan F. Twining, and Thomas D. White, and their early appreciation of the natural world.⁵¹ According to John F. Reiger, popular magazines about hunting and fishing, including *The American Sportsman* founded in 1871, Forest and Stream founded in 1873, and American Angler founded in 1881, introduced conservation to early twentieth century boys who later became military leaders.⁵² Nearly "seventy percent of Army and Air Force leaders came from [small] rural towns⁵³ and "[t]hat 'out-of-doors existence, the concern with nature, sport, and weapons which is part of rural culture,' influenced many men from these areas to join the military."54 Moreover, Air Force aviators had "an unparalleled perspective of the landscape below" and "an awareness of intricate relationships among mountains and prairies, oceans and rivers, and forests and fields."55

General Henry "Hap" Arnold was one of the early pioneers of aviation, having been taught to fly by Orville Wright.⁵⁶ After

^{48.} *Id.*

^{49.} *Id.* at 7–8.

^{50.} *Id.* at 116 n.24; *see* MORRIS JANOWITZ, THE PROFESSIONAL SOLDIER: A SOCIAL AND POLITICAL PORTRAIT (Reissue 1964). There are several comments on "distinct personality" of the Air Force. *Id.* at 31–32.

^{51.} MANSAVAGE, *supra* note 5, at 7–8.

^{52.} MANSAVAGE, *supra* note 5, at 18; *see id.* at 17 n.18 (providing a discussion of the role of sport hunters and fishermen in the early conservation movement).

^{53.} *Id.* at 18.

^{54.} *Id.*

^{55.} Id. at 34.

^{56.} Bill Yenne, *Hap Arnold: America's Forgotten General*, REAL CLEAR HISTORY (Nov. 1, 2013), http://www.realclearhistory.com/articles/2013/11/01/hap_arnold_americas_forgotten_general_151.html [https://perma.cc/MD5T-EY8G].

World War I, then-Major Hap Arnold juxtaposed his concern that airmen were not retaining their proficiency with his love of the outdoors.⁵⁷ Arnold and US Army Lt. Col. Coert duBois devised a plan to keep Air Service pilots current and in service operating aerial reconnaissance patrols to detect, suppress, and prevent wildfires in national forests.⁵⁸ Arnold and duBois conceived programs to train airmen in forestry basics, safeguarding timber, and fostered exchange of information among pilots. The Air and Forest Services established a recreational camp in Gold Lake, California "[t]o maintain the morale of pilots and fire observers who flew long, hazardous missions over mountainous and vast forested expanses of land."⁵⁹

IV. THE BEGINNINGS OF THE SOCIAL ACTIVISM OF US
AIR FORCE GENERALS AND COREY FORD, ALASTAIR MACBAIN,
AND JIM PERKINS TO PROMOTE THE US AIR FORCE
CONSERVATION PROGRAM IN CONGRESS AND TO THE PUBLIC

In 1934, then-Lt. Col. Hap Arnold flew a Martin B-10B bomber 8,290 miles round-trip from Washington, D.C., to Fairbanks, Alaska.⁶⁰ While in Alaska, Hap Arnold met and fished with "two nationally published outdoor writers, author and humorist Corey H. Ford" and "Alastair MacBain, who would later direct the US Fish and Wildlife Service's public affairs division."⁶¹ Ford and MacBain were conducting field research for a series on American wildlife for *The Saturday Evening Post.*⁶² By the time Arnold retired from the US Army, the chance meeting turned into a collaboration between Ford, MacBain and later, Jim Perkins, to promote the military's interest in preserving military installations and their wildlife.

Corey Ford had published prolifically about the outdoors and the Air Force. Born in New York City in 1902, Corey Ford attended Columbia University from 1919 to 1923, where he began

^{57.} MANSAVAGE, supra note 5, at 22.

^{58.} Id. at 23.

^{59.} *Id.*

^{60.} Martin B-10, NATIONAL MUSEUM OF THE U.S. AIR FORCE (Apr. 7, 2015), http://www.nationalmuseum.af.mil/Visit/MuseumExhibits/FactSheets/Display/tabid/509/Article/197393/martin-b-10.aspx [https://perma.cc/33GB-8B38].

^{61.} MANSAVAGE, supra note 5, at 27.

^{62.} Id.

writing for popular magazines.⁶³ Between 1925 and 1932, Ford published seven of the over thirty books he published throughout his career.⁶⁴

The 1932 election of President Franklin D. Roosevelt ushered in the "New Deal" programs to address social and economic concerns. Roosevelt's New Deal agenda also included the environment.⁶⁵ In 1933, Congress passed the Emergency Conservation Work Act creating the Civilian Conservation Corps ("CCC").⁶⁶ The CCC received great public support and its success was substantially enabled by the military.⁶⁷ Also beginning in 1933, Army Lt. Col. Hap Arnold "supervised a district of thirty CCC camps, composed of more than 7,000 men who fought fires and planted trees across the western United States."⁶⁸

In 1934, President Roosevelt's Committee on Wild-Life Restoration recommended "[e]xtensive restoration of our wild life" to restore "health, happiness and prosperity to the people of the United States."⁶⁹ The committee also expressed concern about the destruction of "wild-life resources, through waste and neglect."⁷⁰ A member of the Wildlife Restoration Committee, Aldo Leopold, "thought the states ought to be given administrative responsibilities on most federally purchased game lands."⁷¹ Leopold also "urged the designation *conservation district* rather than *game area*."⁷² At the same time, Leopold took issue with some of the practices of the

^{63.} The Papers of Corey Ford at Dartmouth College, RAUNER SPECIAL COLLECTIONS LIBRARY, http://ead.dartmouth.edu/html/ml30.html (last visited Apr. 28, 2016) [hereinafter "Papers of Corey Ford"].

^{64.} *Id. See generally* Corey Ford, Three Rousing Cheers for the Rollo Boys (1925); Corey Ford, The Gazelle's Ears (1926); Corey Ford, Meaning No Offense (1928); Corey Ford, Salt Water Taffy (1929); Corey Ford, The John Riddell Murder Case: A Philo Vance Parody (1930); Corey Ford, Coconut Oil: June Triplett's Amazing Book Out of Darkest Africa! (1931); Corey Ford, In the Worst Possible Taste (1932).

^{65.} CCC Brief History, CIVILIAN CONSERVATION CORPS LEGACY, http://www.ccclegacy.org/CCC_Brief_History.html [https://perma.cc/5ZHC-MR8T] (last visited Apr. 28, 2016).

^{66.} Id.

^{67.} Id.

^{68.} MANSAVAGE, supra note 5, at 25.

^{69.} THOMAS H. BECK ET AL., REPORT OF THE PRESIDENT'S COMMITTEE OF WILDLIFE RESTORATION, U.S. DEP'T OF AGRIC. 15 (1934), http://hdl.handle.net/2027/mdp.39015006169281?urlappend=%3Bseq=7 [https://perma.cc/XLF3-AXMQ].

^{70.} Ic

^{71.} SUSAN L. FLADER, THINKING LIKE A MOUNTAIN: ALDO LEOPOLD AND THE EVOLUTION OF AN ECOLOGICAL ATTITUDE TOWARD DEER, WOLVES AND FORESTS 131(photo. reprint 1994) (1974).

^{72.} Id. at 134.

CCC, it "seem[ing] to him that most CCC field officers simply preferred building roads to doing technical work such as . . . making plantings for game."⁷³

During the 1930s, Corey Ford and Alastair MacBain's articles and books "educate[d] the American public about the gloomy status of the country's fish and wildlife."⁷⁴ Ford travelled all over the world, extensively in Alaska and Canada, to gather material for magazine articles and screenplays, almost always on the subjects of the outdoors, the environment, aviation, and the Air Force.⁷⁵ Ford wrote and travelled in partnership with Alastair MacBain.⁷⁶

Throughout the 1930s and 1940s, the two collaborated on more than fifty adventure stories and magazine articles published in *Collier's*⁷⁷ and *The Saturday Evening Post.*⁷⁸ Their topics were often men in the armed services and conservation issues. A citation to their joint works in the letter announcing MacBain's appointment to the FWS staff acknowledged that their writings promoted public awareness of environmental issues.⁷⁹ Alastair MacBain would become the chief information officer of the US Fish and Wildlife Service in 1950 and charged with generating "widespread publicity for the Service' given the on-going need for public information."⁸⁰ There, he would supervise Rachel Carson, who was producing the "*Conservation in Action* series, twelve texts produced by the United States Fish and Wildlife Service . . . from 1947–1957 . . . to publicize the [USFWS] refuge service and conservation work."⁸¹

The research of Ford and MacBain brought them into

^{73.} Id.

^{74.} MANSAVAGE, supra note 5, at 29.

^{75.} PERKINS, *supra* note 3; Interview with James N. Perkins, in Kent, Conn. (Dec. 4, 2015); MANSAVAGE, *supra* note 5, at 27–30.

^{76.} Id. at 27.

^{77.} Collier's Editor-in-Chief, Thomas A. Beck, was Chairman of the Connecticut Board of Fisheries and Game. MANSAVAGE, supra note 5, at 27.

^{78.} See THE FICTIONMAGS INDEX, http://www.philsp.com/homeville/FMI/s/s1972.htm [https://perma.cc/SK8C-J8HR]. See also MANSAVAGE, supra note 5, at 119–20.

^{79.} Press Release, Alastair MacBain Joins FWS Staff, Dep't of the Interior, Info. Serv., Fish & Wildlife Serv. (Aug. 3, 1950), http://www.fws.gov/news/Historic/News Releases/1950/19500803a.pdf.

^{80.} Cynthia E. Britt, Rachel Carson and Nature as Resource, Object, and Spirit: Identification, Consubstantiality and Multiple Stakeholders in the Environmental Rhetoric of the Conservation in Action Series 69–70 (Aug. 6, 2010) (unpublished Ph.D. dissertation, University of Louisville) (citing Fish & Wildlife Serv. Conference, *notes* (Jan. 15, 1951)) (on file with the University of Louisville's Institutional Repository).

^{81.} Id. at IV.

consultation with the era's leading conservationists, including Aldo Leopold and Ira Gabrielson.⁸² Throughout, Ford also "maintained his ties to the US Air Force as a reserve officer," and "[h]is enduring relationships with Air Force leaders from World War II allowed him to devise and perform special active-duty assignments for several Air Force chiefs of staff."⁸³

In early 1942, capitalizing on the popularity of the Ford-MacBain civilian writing duo during World War II, Lt. Gen. Hap Arnold engaged his long-time fishing companions to "explain[] the role of the USAAF [the US Army Air Forces] in the war effort" by telling "stories about the young men fighting the war in the USAAF." Ford and MacBain wrote stories in *Collier's*, *Liberty Magazine*, *The Saturday Evening Post*, and more than fifty other magazines. Hap Arnold "recognized that Ford and MacBain with their access to both national newspapers and magazines could give him a direct line to his valued constituencies: the American people, the US Congress and the White House."

To conduct their research, Ford and MacBain had access to the "first commanders of the US Air Force [allowing them] to convey their understanding of evolving environmental concepts to the generals." After MacBain was drafted, to retain control of the authors, "Arnold commissioned Ford as a major and MacBain as a captain on February 25, 1944." Now, because they were both military officers and leading conservation writers, Ford and MacBain would be able to promote the creation and implementation of the Air Force's Natural Resources Conservation Program more than a decade later.

V. COREY FORD AND JIM PERKINS

In 1910, two priests travelling through the highest village in the Pindus Mountains, the Vlach Village of Samarina, Greece, were implored by Helen Mastaka Pisperikos to allow her twelve-year-old son, Demetrius Pisperikos, to travel with them to Athens to try

^{82.} MANSAVAGE, *supra* note 5, at 29. Ira N. Gabrielson was the Chief of the Bureau of Biological Survey from 1935 to 1946. *Id.*

^{83.} Id. at 78.

^{84.} Id. at 30.

^{85.} Id. at 29.

^{86.} *Id.*; PERKINS, *supra* note 3, at 41.

^{87.} Interview with James N. Perkins, in Kent, Conn. (Dec. 4, 2015).

^{88.} MANSAVAGE, supra note 5, at 30.

^{89.} Id. at 29.

^{90.} Britt, supra note 80.

to get on a boat to the United States.⁹¹ Several years later, on the other side of the Pindus in the Vlach village of Baiesa, now Vovousa, Greece, John and Chiamo Tegu also migrated their family, including their oldest daughter, Lucia, to the United States to escape poverty and persecution.

Renamed Nick Perkins at Ellis Island in 1910, Demetrius Pisperikos settled in northern New Hampshire. The Tegus settled in St. Johnsbury in Vermont's Northeast Kingdom. The mountainous northern New England, its unspoiled outdoors, rich with wildlife, and its long, harsh winters were reminiscent of the Pindus Mountains. Soon, Nick Perkins sought a Vlach wife and was matched with Lucia Tegu.

Born to Nick Perkins and Lucia Tegu Perkins, in Littleton, New Hampshire, in 1933, James N. Perkins grew up in the environs around the White Mountain National Forest. When he was not working in his father's diner, Jim and his buddies hiked and walked in their homemade wool clothes through the streams and over poorly marked rough trails "from Franconia Notch, beginning at Mt. Lafayette, across from Cannon Mountain, to Mt. Guyot and to Mt. Garfield; from Crawford Notch, Mt. Adams and Mt. Jefferson." Perkins recounts in his book, *By Way of Luck*, the experiences that developed in him a deep appreciation and comfort with the New England wilderness, its wildlife, and flora.

When Perkins enrolled in Dartmouth College in 1951, his perspective on wildlife, the outdoors, the government, and military aviation had been definitively shaped by his early experiences that favor conservation of natural resources and public service via the military. For instance, reflecting values that encouraged military service in this World War II era, Perkins recalls that the "prize" for success in educational games played at Perkins' school was mock advancement up the ranks of the military. Perkins' uncle, Steven Tegu was an aviator and regaled the stories of another Vlach family of pioneer aviators. Perkins heard, first-hand, about the horror of local farmers having their cattle shot point-blank in the head by a

^{91.} PERKINS, supra note 3, at 19.

^{92.} Id. at 6.

^{93.} *Id.* at 7.

^{94.} *Id.* at 6–9.

^{95.} *Id.* at 8.

^{96.} See T. Steven Tegu, The Tamposi Brothers, Pioneers in American Civil Aviation, THE SOCIETY, http://www.farsarotul.org/nl15_3.html [https://perma.cc/XVM2-KUKX].

government program to stave off bovine tuberculosis.⁹⁷ This caused locally delivered milk to be forever replaced by pasteurized milk having to be bought in stores.⁹⁸

At Dartmouth, Perkins joined the ROTC and pledged the Delta Kappa Epsilon ("DKE") fraternity. In 1952, Ford joined Dartmouth College in Hanover, New Hampshire, and was the advisor to the DKE fraternity.⁹⁹ Corey Ford would become Perkins' close friend, mentor, and writing partner.¹⁰⁰ Ford shared Perkins' early childhood experiences in New Hampshire, having vacationed there as a child. Ford "built a house, Stony Broke," in Freedom, New Hampshire in 1931, and had become entrenched in New Hampshire.¹⁰¹ In 1938, Ford, together with Alastair MacBain, acquired the "Yonder" farm in 1938 in Ivanhoe, North Carolina.¹⁰² After Ford had been commissioned into the Air Force in 1944, he remained in the Air Force Reserves after discharge in 1945.¹⁰³

So it was that Corey Ford had a natural kinship with Perkins. Perkins grew up in remote Littleton, north of New Hampshire's White Mountains. Ford's house in Freedom was just south of the White Mountains. Perkins was Air Force ROTC. Ford was Air Force. Both were DKE.

^{97.} PERKINS, supra note 3, at 10.

^{98.} Interview with James N. Perkins, in Kent, Conn. (Dec. 4, 2015).

^{99.} Papers of Corey Ford, supra note 63.

^{100.} Interview with James N. Perkins, in Kent, Conn. (Dec. 4, 2015).

^{101.} Papers of Corey Ford, supra note 63.

^{102.} Id.

^{103.} *Id.*

VI. MILITARY LAND USE, CONSERVATION, AND TURNING A PROBLEM INTO A SOLUTION

Shifts in public attitudes toward the environment developed before World War II and continued thereafter.¹⁰⁴ Early conservationists were giving voice to environmental issues. In 1951, Rachel Carson published *The Sea Around Us.*¹⁰⁵ Carson would later publish *A Silent Spring* in 1962, which is credited with igniting the modern environmental movement.¹⁰⁶ Also in this era, Ford and Perkins began a collaboration publishing articles in *The Saturday Evening Post* about the outdoors, the environment, and also the Air Force and military responsibility for its lands.¹⁰⁷

During the 1950s, public interest in conservation grew into public disenchantment with how the military was managing its lands, despite conservation-oriented military leadership. In 1955, the year Perkins graduated from Dartmouth, public disenchantment with military land use grew to outrage over the US Army, under Brigadier General Emil Lenzer's command, having rounded up 220 bison pastured at Fort Huachuca, Arizona, for gunfire slaughter by huntsmen, who "haul[ed] the carcasses to the skinning racks and claim[ed] the animal's head." After World War II, the land at Fort Huachuca had been deeded to the state of Arizona. 109

Responsible for administering 35,000 of the 76,000 acres,¹¹⁰ the Arizona Game and Fish Commission created a permanent game preserve in 1949, and "established a herd of 114 bison for scientific study and rangeland research."¹¹¹ But, the Air Force and Army in 1951 reasserted jurisdiction in response to the Korean War, and the bison came in conflict with military objectives.¹¹² Previously, Arizona had issued a warrant for Lenzer's arrest in 1949 for authorizing an illegal deer hunt after the close of the deer season

^{104.} MANSAVAGE, supra note 5, at 48.

^{105.} RACHEL CARSON, THE SEA AROUND US (Oxford University Press 1991).

^{106.} RACHEL CARSON, SILENT SPRING (First Mariner Books 2002); Eliza Griswold, *How "Silent Spring" Ignited the Environmental Movement*, N.Y. TIMES (Sept. 21, 2012), http://www.nytimes.com/2012/09/23/magazine/how-silent-spring-ignited-the-environmental-movement.html?_r=0.

^{107.} PERKINS, *supra* note 3, at 26–27.

^{108.} MANSAVAGE, supra note 5, at 1-4.

^{109.} Id.

^{110.} *Id.*

^{111.} *Id.*

^{112.} *Id.* at 1–2.

"by shooters lacking Arizona hunting licenses." 113

At the time of the Fort Huachuca bison slaughter in 1955, tension had been fomenting between military control of its lands and state fish and wildlife laws. Whereas in the 1940s and into the 1950s, the public generally "lacked concern about wildlife on existing military lands," public attitudes were shifting toward protecting wildlife. In 1941, the Army "abandon[ed] plans for a training center near North America's last refuge of trumpeter swans in Montana" due to public pressure. And, in 1955, the Army faced public objection when it "tried to incorporate 10,700 acres of a national wildlife refuge into the Fort Sill Military Reservation." This eventually led to Congressional testimony.

Since 1940, the Department of Defense had vastly increased land under its control. Public pressure to use military lands intensified, as did scrutiny by conservationists. The testimony to Congress in 1955 was "a blanket condemnation of military wildlife policies." Testimony from conservationists led the Engle committee members to conclude that Congress had to act to remedy "abuses of sound conservation practices" on military installations that the Department of Defense was unable or unwilling to fix. This testimony would lead to the 1958 passage

^{113.} *Id.* at 2–3.

^{114.} *Id.* at 87.

^{115.} JAMES R. ARNOLD & ROBERTA WIENER, THE U.S. ARMY CORPS OF ENGINEERS AND NATURAL RESOURCE MANAGEMENT ON ARMY INSTALLATIONS 1941–1987, 29 (1989), http://www.publications.usace.army.mil/Portals/76/Publications/EngineerPamphlets/EP_870-1-40.pdf.

^{116.} Id. at 30.

^{117.} Id.

^{118.} *Id.* "In 1940, the military controlled 2.5 million acres (excluding Alaska). By the early 1960s, the figure had risen to 28.7 million acres." G. Blair, *A Critique of Army Policy*, 29 J. OF WILDLIFE MGMT. 215, 216. Note that,

[[]t]he War Department was one of the first federal government agencies, dating back to 1789. Following World War II, the National Military Establishment (NME) was created in 1947. It included the Department of the Army, the Department of the Navy, and the newly-established Department of the Air Force. The Department of Defense (DoD) came into existence in 1949 and succeeded the NME.

Government Documents - Military and Veterans Agencies: Department of Defense, About the Agency, UNIV. OF HAWAI'I AT MANOA LIBRARY, http://guides.library.manoa.hawaii.edu/dod (last visited Apr. 28, 2016). See also, About the Department of Defense, U.S. DEP'T OF DEF., http://www.defense.gov/About-DoD [https://perma.cc/9TC3-VVF9] (last visited Apr. 28, 2016).

^{119.} Arnold & Wiener, supra note 115, at 29-30.

^{120.} MANSAVAGE, *supra* note 5, at 63 (citing H.R. REP. No. 84-2856, at 27 (1956)).

of the Engle Act limiting military land withdrawals and requiring the military to revise its fish and wildlife conservation practices. ¹²¹ In 1960, Congress would amend the 1949 Sikes Act to establish "procedures for conserving fish and wildlife and allowing public access to outdoor recreation on military land." ¹²²

Against this backdrop, in 1956, James N. Perkins went on active duty and training at Ellington Air Force base.¹²³ A transfer to the Pentagon was engineered by Corey Ford ten months later.¹²⁴ At his first staff meeting, Perkins became aware of the Air Force's concern about the testimony before Congress.¹²⁵ Perkins was in the "assembly of a dozen or so officers, Colonels and Lt. Colonels and a Major or two," most of whom were combat pilot veterans from World War II and Korean War.¹²⁶

Major General Eugene B. "Ben" LeBailley, the deputy director of the Office of Public Information, had called the meeting as a brainstorming session. The House Committee on Interior and Insular Affairs was considering a bill that could open military land to exploitation by commercial interests, "potentially giv[ing] mining, timber, oil, and gas interests access and possible development rights on Air Force bases." The Major General was searching for ideas.

After the meeting, Perkins had an idea to "designate all Air Force lands as conservation districts," and he presented a rough plan the next morning to his immediate superior, Major Tim Dunn. There would be "well-defined land, water, wildlife and timber management programs" working in ways that would not interfere with military operations. Perkins instinctively incorporated the social activism element in his plan that he knew would be necessary to effectuate the idea—" encourage powerful conservation groups such as the National Wildlife Federation and

^{121. 43} U.S.C. 155 (1958, Pub. L. No. 85-337). See http://www.blm.gov/style/medialib/blm/ca/pdf/caso/43_cfr_2310_withdrawals.Par.61199.File.dat/EngleAct.pdf [https://perma.cc/283A-C6ZJ].

^{122.} Arnold & Wiener, supra note 115, at IX.

^{123.} PERKINS, supra note 3, at 40.

^{124.} *Id.*

^{125.} Id. at 3

^{126.} Id. at 40.

^{127.} MANSAVAGE, supra note 5, at 79.

^{128.} Id.

^{129.} PERKINS, supra note 3, at 3.

^{130.} *Id.* at 4.

^{131.} Id. at 4-5.

the Wilderness Society, whose interests might also be served . . . to lobby against the bill."¹³²

Major Tim Dunn immediately asked for a one-page memorandum from Perkins, which Perkins, then a prolific writer on the outdoors, quickly provided. General LeBailley was intrigued and asked for more details. General LeBailley was intrigued and asked for more details. He Corey Ford recalled himself to active duty, and soon Ford and Perkins were travelling to Eglin Air Force Base, Matagorda Island, Wendover, and several other Air Force installations to conduct further research.

Based on the "opinions and suggestions of personnel most interested in the success of an Air Force-wide conservation program," Colonel Ford and Second Lieutenant Perkins drafted a memorandum entitled "Air Force Fish and Wildlife Conservation Program."136 The four stated purposes of the program were (1) Game Reservoirs-Creating new wildlife habitats; (2) Conservation Education-Developing knowledge wildlife of resource management among service personnel and civilians: (3) Recreation–Establishing additional opportunities; Goodwill in the Community-Improving base and civilian relations by relieving current rod and gun pressure on surrounding civilian areas.137

Ford and Perkins' memorandum was emphatic from the outset. Air Force personnel needed to be convinced that this was not "merely another restrictive law enforcement regulation from headquarters, but [] a sincere farseeing effort to develop the nation's resources." The writers suggested that the Air Force

Designate all domestic U.S. Air Force bases as conservation districts for the protection of wildlife and the management of soil, water and timber resources. Issue guidelines. Require base commanders to designate a field grade officer to be responsible for inaugurating and managing the program. Promote the program widely. Attract the attention of conservation—minded agencies and organizations such as the National Wildlife Federation and the U.S. Fish and Wildlife Service and ask for their support of the program and their opposition to turning over public lands to private interests for their exploitation.

Id

134. MANSAVAGE, supra note 5, at 80.

^{132.} Id. at 5.

^{133.} Id. The memorandum reads:

^{135.} Id.

^{136.} See MANSAVAGE, supra note 5, at 80, ch.4, n.32 (citing Corey Ford and James N. Perkins, "Air Force Fish and Wildlife Conservation Program," memo, n.d. (ca. Jan. 15, 1957), Ford Papers, box 4, folder 71).

^{137.} Id.

^{138.} Id. at 2.

would "avoid later misunderstandings" if magazine articles and other sources of information made the public aware that this program was "not a selfish attempt to provide exclusive hunting and fishing for a privileged few."139 The memorandum also included suggestions from Ford's former collaborator, Alastair MacBain, now the Director of Information of the US Fish and Wildlife Service, of civilian agencies that could provide technical advice and assistance to the Air Force. These included representatives from the US Forestry Service, the Conservation Service, the Sports Fishing Institute, International Association of Fish, Game, and Conservation Commissioners, the American Fisheries Society, the Wildlife Management Institute, the Remington Arms Corporation, the Olin-Mathieson Corporation, the National Wildlife Federation, and the Audubon Society.

Perkins took the memorandum directly to General Thomas D. White, the Air Force Chief of Staff. In short order, General White invited Ford and Perkins to meet with him, along with Generals Nathan F. Twining and Carl A. "Tooey" Spatz. 141 Subsequently, General White approved the conservation program and "appointed Lt. Col. Benjamin E. Royal to the provost marshal directorate, Office of the Inspector General, to rewrite Air Force conservation regulations to meet the evolving standards of the ongoing Engle committee hearings, and to issue the service's orders for the conservation program." Perkins was charged with promoting the conservation program within the Air Force and civilian conservation groups. 143

VII. AN ACTIVE CAMPAIGN TO PROMOTE CONSERVATION ON MILITARY INSTALLATIONS AND PRESERVE LANDS FOR MILITARY USE

As the Engle Committee researched military public land use and withdrawals, Ford and Perkins went to work publicizing the Air Force Fish and Wildlife Conservation Program.¹⁴⁴ Corey Ford arranged an invitation for General White to be the keynote

^{139.} Id.

^{140.} PERKINS, *supra* note 3, at 45.

^{141.} MANSAVAGE, supra note 5, at 80-81.

^{142.} *Id.* at 81–82.

^{143.} Id. at 82.

^{144.} Id.; See also, PERKINS, supra note 3, at 4.

speaker at the North American Wildlife Conference¹⁴⁵ which had gathered conservation officers from forty-eight states, senior US Department of Interior officials and executives from leading conservation organizations. General White's speech articulated the new understanding between the Air Force and the Fish and Wildlife Service.¹⁴⁶ He also "stressed the Air Force's commitment to adhere to all state and local fish and game regulations," which resonated with the conservationist audience.¹⁴⁷

Perkins hit the road visiting with organizations such as the Audubon Society, the US Forest Service, the National Wildlife Federation, and the Smithsonian Institute, explaining and obtaining support for the program.¹⁴⁸ Changes in military regulations were communicated to civilians by articles such as a Washington Post article, *You Can Hunt on AF Bases*, which informed civilians that they could hunt and fish on military lands if feasible.¹⁴⁹

The public relations lobbying campaign worked. The effort was so effective that the Engle Committee final "Report on Military Public Land Withdrawals" in March 1957 concluded that the "sum-total of the past 12-months actions by the military in hunting-fishing matters is very meritorious and meaningful progress." In August 1957, the Senate Committee on Interior and Insular Affairs found "substantial improvement in military-local relations in fishing, hunting, and trapping matters, with a limited number of matters still unresolved." 151

With the support of leading conservation organizations and senior military leadership behind them, Ford and Perkins got a breakthrough when *The Saturday Evening Post*, "arguably the most influential publication of the time," agreed to publish an article on the program. Ford and Perkins had dubbed the program "Operation Wildlife, publishing an intensely researched

^{145.} MANSAVAGE, supra note 5, at 82-83.

^{146.} Id. at 83.

^{147.} Id.

^{148.} PERKINS, supra note 3, at 46.

^{149.} MANSAVAGE, supra note 5, at 83.

^{150.} *Id.* at 86 (citing U.S. House of Representatives, Comm. on Interior and Insular Affairs, "Military Public Land Withdrawals," 85th Cong., 1st sess., Mar. 21, 1957, H. Rep. 215, 49–50).

^{151.} *Id.* at 86 (citing Senate Comm. on Interior and Insular Affairs, Report, "Military Public Land Withdrawals," 85th Cong., 1st sess., Aug. 13, 1957, S. Rep. 857, 53 (quote); U.S. Air Force, "Report of Proceedings, USAF Weapons Range Board," Oct. 9, 1956, AFHSO microfilm collection, reel 36497, frames 423, 1110-11, 1318-19).

^{152.} PERKINS, supra note 3, at 47.

collaborative article by that name in the January 4, 1958 issue of *The Saturday Evening Post.*"¹⁵³ The article made bold statements, such as "[h]enceforth all Air Force bases will be designed with a view to safeguarding the wildlife habitat."¹⁵⁴ It described rod and gun club efforts already under way at Edwards Air Force Base in the Mojave Desert where bubblers had been built for birds.¹⁵⁵ General White himself proclaimed that conservation was a defense effort in itself.¹⁵⁶

The Engle Act that passed in February 1958, required formal Congressional approval for "land withdrawals of more than 5,000 acres," 157 "state licenses for hunting and fishing and granted access [to military installations] by conservation officials for management and conservation activities." 158 However, as Perkins described it, "the bill in committee that promised commercial access to public lands [] disappeared so quickly that not a single Congressional committee member would admit having promoted it." 159 The military's socially active leadership had been successful in their campaign to influence Congress and the American people. As a result, military lands were conserved for military use and for the protection of endangered species.

CONCLUSION

James N. Perkins returned to civilian life in May 1958, and made a career in the publishing and entertainment industries over the next forty years. 160 Corey Ford published almost a dozen more books in the next decade before he passed away in 1969. 161 Perkins would remain active in local conservation efforts in northwest Connecticut. He would not know until he received Jean Mansavage's letter in 2010 that his efforts, and the efforts of Corey Ford, Alastair MacBain and the Generals leading the military in the 1950s, would result in the Department of Defense Natural Resources Conservation Program.

^{153.} Corey Ford & James N. Perkins, *Operation Wildlife*, SATURDAY EVENING POST, Jan. 4, 1958.

^{154.} Id. at 55.

^{155.} *Id.* at 54.

^{156.} Id. at 55.

^{157.} WILLIAM A. WILCOX, JR., THE MODERN MILITARY AND THE ENVIRONMENT: THE LAWS OF PEACE AND WAR 60 (2007).

^{158.} Arnold & Wiener, supra note 115, at 30.

^{159.} PERKINS, supra note 3, at 48.

^{160.} Interview with James N. Perkins, in Kent, Conn. (Dec. 4, 2015).

^{161.} Papers of Corey Ford, supra note 63.

The program "would function as the model for the other services and the Department of Defense." Subsequent legislation would further environmental stewardship on military lands. The Sikes Act of 1960 "made mandatory the fish and wildlife conservation measures that the Engle Act had not deemed compulsory," and induced the Department of Defense to "establish[] an umbrella conservation program" The 1960s and 1970s saw the passage of the Clean Air Act, the Clear Water Restoration Act, the National Environmental Protection Act, and the Endangered Species Act. The 1991, the "National Security Strategy of the United States ("NSS") [] environmental security as a key aspect of broader US national security. By 2013, the Department of Defense would be spending about \$4 billion on environmental programs.

Jean Mansavage's letter to Perkins in 2010 that invited him to tell the story of the origins of the Department of Defense Natural Resource Conservation program informed him, "I am not certain if you are aware of the impact that your research and proposal had on not only the US Air Force, but later all military conservation programs and ultimately all federal agencies' conservation programs, but it has endured." The letter added that the Department of Defense today "manages 30 million acres of land on which there exists the highest density of threatened and endangered species." Stunned, nearly five decades later stood Perkins in his driveway, tears in his eyes, the last of the cast of characters, the first to tell the story.

^{162.} MANSAVAGE, supra note 5, at 86.

^{163.} *Id.*

^{164.} Id. at 101.

^{165.} Id. at 103.

^{166.} Id. at 101.

^{167.} *Id.* at 107 (citing Office of the Under Sec'y for Def. for Acquisition, Technology, and Logistics, Fiscal Year 2012 Defense Environmental Programs Annual Report to Congress 1 (Nov. 2013), http://www.denix.osd.mil/arc/upload/FY12-Final-DEP-ARC.pdf).

^{168.} PERKINS, *supra* note 3, at 2.

^{169.} Id.