

= Leopold Report =

The Leopold Report , officially known as Wildlife Management in the National Parks , is a 1963 paper composed of a series of ecosystem management recommendations that were presented by the Special Advisory Board on Wildlife Management to United States Secretary of the Interior Stewart Udall . Named for its chairman and principal author , zoologist and conservationist A. Starker Leopold , the report proved influential for future preservation mandates .

After several years of public controversy regarding the forced reduction of the elk population in Yellowstone National Park , Udall appointed an advisory board to collect scientific data to inform future wildlife management of the national parks . The committee observed that culling programs at other national parks had been ineffective , and recommended different management of Yellowstone 's elk population . In addressing the goals , policies , and methods of managing wildlife in the parks , the report suggested that in addition to protection , wildlife populations should be managed and regulated to prevent habitat degradation . Touching upon predator control , fire ecology , and other issues , the report suggested that the National Park Service ( NPS ) hire scientists to manage the parks using current scientific research .

The Leopold Report became the first concrete plan to manage park visitors and ecosystems under unified principles . It was reprinted in several national publications , and many of its recommendations were incorporated into the official policies of the NPS . Although the report is notable for proposing that park management have a fundamental goal of reflecting " the primitive scene ... a reasonable illusion of primitive America " , some have criticized it for its idealism and limited scope .

= = Background = =

Yellowstone National Park was established by the United States Congress on March 1 , 1872 , as the first U.S. national park , and quickly became a popular tourist destination . At first , national parks were overseen by a variety of agencies and lacked bureaucratic support . In 1916 , more than four decades after Yellowstone 's founding , President Woodrow Wilson signed a bill creating the National Park Service ( NPS ) , giving it the power " to conserve the scenery and the natural and historic objects and wildlife therein , and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations . " The NPS was tasked with both preservation and tourism , two divergent goals that would prove divisive during the resurgence of the conservation movement in the 1940s and 1950s .

NPS managers became interested in attracting more tourists to Yellowstone during the 1910s and 1920s . Species such as elk and antelope were considered a major attraction for park visitors , and an attempt was made to increase their numbers through winter feeding and predator control . The effort was successful , and the number of elk expanded significantly , but to the detriment of other wildlife such as bighorn sheep . Despite sporadic reductions of elk by hunters , the animals still posed a problem to the northern range ecosystems , mainly because of overgrazing . In the winter of 1961 , park rangers responded to this dilemma by shooting and killing approximately 4 @, @ 300 elk . This aggressive reduction by the Park Service caused a massive public outcry ; network television and newspaper coverage of the culling resulted in public opposition and congressional hearings . The International Association of Game and Fish Commissioners protested the " slaughtering of elk by hired killers " rather than by sportsmen , and schoolchildren from across the country were inspired to write letters of condemnation . Facing public backlash , the NPS announced it would stop killing elk .

= = Advisory Board and reporting = =

The controversy surrounding the reduction of elk in Yellowstone shed a negative light upon the NPS and their management of wildlife populations within the country 's national parks . In response to what was deemed a " crisis in public relations " , Secretary of the Interior Stewart Udall

assembled the Special Advisory Board on Wildlife Management in 1962 to conduct thorough studies to be conducted on its science and resource management . The purpose of the board was to collect scientific data and investigate the necessity of wildlife population control . Chairing the board was A. Starker Leopold , the eldest son of noted conservationist Aldo Leopold . A respected zoologist , professor of ecology , and Assistant to the Chancellor at the University of California , Berkeley , Leopold was joined on the board by other prominent scientists and conservationists : Professor Stanley A. Cain of the Department of Conservation at the University of Michigan ; Ira N. Gabrielson , formerly of the U.S. Fish and Wildlife Service ( FWS ) and President of the Wildlife Management Institute ; Thomas L. Kimball , executive director of the National Wildlife Federation ; and Clarence Cottam , former assistant director of the FWS and director of the Welder Wildlife Foundation .

The formation of the Advisory Board was historically important , as this was the first time an outside group was asked to evaluate wildlife programs within the NPS . The report was officially named " Wildlife Management in the National Parks " when it was first presented on March 4 , 1963 , but it became informally known as the " Leopold Report " . At the same time , a separate Advisory Board was formed by the National Academy of Sciences ( NAS ) to produce " A Report by the Advisory Committee to the National Park Service on Research " . The NAS Report , more commonly known as the Robbins Report , was named after its primary author , biologist William J. Robbins . The Robbins Report was released on August 1 , 1963 , five months after the Leopold Report .

= = Recommendations = =

The report began by arguing that not only was it necessary to control the elk population in Yellowstone National Park , but direct reduction of elk was presented as the most suitable option . According to scientific findings , reduction programs at other national parks had not been implemented on a large enough scale ; as a result , the Advisory Board recommended future reductions of animals should " be larger and in many cases repeated annually " . The report also supported the concept of carrying capacity , and the idea that the elk population could be actively managed to restore its natural balance .

Although the Advisory Board recommendations focused on wildlife and habitat management , they also touched upon the recreation of primitive , uncontrolled conditions . Revisiting fire ecology and the importance of fire , which had long been suppressed in national parks and other federal lands , the report recommended the use of prescribed fire as a cheap and natural tool for shaping the park environment .

Predator control was also reviewed , and deemed unnatural and unpopular . Recreational hunting was strongly opposed , but the report allowed for select members of the public to assist in the " sole purpose of animal removal " . The main goal of the NPS , the report explained , was to preserve national parks primarily for the " aesthetic , spiritual , scientific and educational values they offered to the public " .

The report strayed from arguments based on scientific data and veered into environmental philosophy , concluding that national parks should serve a historical purpose . One of the most popular passages in the report is from the section " The Goal of Park Management in the United States " ; here , the report alludes to recreating an unaltered landscape , a sentiment touching upon a national park ideal : " As a primary goal , we would recommend that the biotic associations within each park be maintained , or where necessary recreated , as nearly as possible in the condition that prevailed when the area was first visited by the white man . A national park should represent a vignette of primitive America . " It continues :

Restoring the primitive scene is not done easily nor can it be done completely . Some species are extinct . Given time , an eastern hardwood forest can be regrown to maturity but the chestnut will be missing and so will the roar of pigeon wings . The colorful drapanid finches are not to be heard again in the lowland forests of Hawaii , nor will the jack @-@ hammer of the ivory @-@ bill ring in southern swamps . The wolf and grizzly bear cannot readily be reintroduced into ranching communities , and the factor of human use of the parks is subject only to regulation , not elimination . Exotic plants , animals , and diseases are here to stay . All these limitations we fully realize . Yet , if

the goal cannot be fully achieved it can be approached . A reasonable illusion of primitive America could be recreated , using the utmost in skill , judgment , and ecologic sensitivity . This in our opinion should be the objective of every national park and monument .

Most importantly , the Leopold Report emphasized the need for scientific research and ecological management expertise in the national parks . Acknowledging the harm caused to nature by humans , the Advisory Board asked for the implementation of " a set of ecologic skills unknown in this country today " . A call to arms was raised for exploring new methods of active protection and restoration of plant and animal life in the national parks : " Americans have shown a great capacity for degrading and fragmenting native biotas . So far we have not exercised much imagination or ingenuity in rebuilding damaged biotas . It will not be done by passive protection alone . "

= = Reception and publication = =

The report was first presented on March 4 , 1963 , and originally published in the Transactions of the Twenty @-@ Eighth North American Wildlife and Natural Resources Conference . Conrad L. Wirth , director of the NPS from 1951 to 1964 , stated that the report reworded the Service 's 1916 mandate into " modern language " , using a scientific perspective to redefine the basic purpose of national parks . Secretary Udall supported the report and instructed the NPS to incorporate the findings into the agency 's operations . In a memorandum dated May 2 , 1963 , he reiterated the purpose of the national park in the scope of the Leopold Report : " ... a primary goal of park management is to maintain the biotic associations within each park as nearly as possible in that relationship which existed at a predetermined time period . The goal then is to create or maintain the mood of wild America . "

The Advisory Board was reconstituted in part as a permanent Natural Sciences Advisory Board to the NPS . In 1964 , Wirth 's successor , George B. Hartzog , Jr . , established the Division of Natural Science Studies , naming biologist George Sprugel , Jr. the Service 's chief scientist . The memorable idea of a " vignette of primitive America " drew popular attention from readers and the report received widespread publicity and praise amongst conservationists . It was reprinted in several national publications and was also noted in the Sierra Club Bulletin . Leopold often said that had he known the report would be widely read and dissected , he probably would have written it more carefully .

= = Legacy = =

The Leopold Report was the first concrete plan for managing park visitors and ecosystems under unified principles . With an infusion of scientists and resource programs , it set into motion a series of ecologically positive legislative actions in the 1960s and into the 1970s . While direct management of the elk population in Yellowstone National Park continues to spark debate amongst scientists , the report nonetheless successfully influenced multiple areas of park management . Prior to the report 's publication , California 's Sequoia National Park was beset by a thick underbrush , which the report directly referred to as a " dog @-@ hair thicket ... a direct function of overprotection from natural ground fires " . This underbrush would have been naturally eradicated by lightning storms , but because of policies that supported wildfire suppression , the growth threatened the park 's Giant Sequoia trees . As a direct result of the report 's advice regarding the usefulness of controlled burning , in 1964 the park began performing trial controlled burns , which led to a 1968 policy championing the continuation of burns for the betterment of the park 's forest ecosystems . Fire ecologist Bruce Kilgore credited the Leopold Report as being a true catalyst for change , stating that it was the " document of greatest significance to National Park Service [ fire ] policy " .

Although the Robbins Report did not receive the same recognition as the Leopold Report , it reached similar conclusions . However , unlike the Leopold Report , the Robbins Report criticized the NPS for its lack of scientific research and made recommendations for sweeping changes in the structure of the NPS , with a proposal for a strong focus on a science @-@ based approach . In 1972 , the far more detailed Cain Report was released ; amounting to 207 pages in comparison to

the Leopold Report 's scant 28 , its committee was chaired by Stanley A. Cain , who also worked on the Leopold Report . Although this report made similar recommendations to the one primarily written by Leopold , it stated that little had been done to advance the previous report 's findings , especially in terms of predator control . As a result of the Cain Report 's recommendations , President Richard Nixon signed Executive Order 11643 , which restricted the usage of poisons such as strychnine and sodium cyanide for predator control .

The report 's visionary goal for preservation has been both lauded and criticized . Author of the book *Searching for Yellowstone : Ecology and Wonder in the Last Wilderness* , Paul Schullery , wrote of the report : " Scholars return to it for new interpretations and even inspiration regularly , speakers invoke it on all occasions , and it is trotted out to prove almost every perspective in debates about modern park management . " On the other hand , Alston Chase , a vocal critic of the National Park Service , disapproved of the limited scope of the Leopold Report , arguing that it had " inadvertently replaced science with nostalgia , subverting the goal it had set out to support " . The report 's insistence to return parks to the condition that " prevailed when the area was first visited by the white man " has also been criticized for ignoring the Native Americans ' historical presence in the area . Historian and author Philip Burnham in particular stated in his 2000 book , *Indian Country , God 's Country : Native Americans and the National Parks* , that although Leopold et al. were more progressive than their predecessors , they " still dismissed native people as passive onlookers " .