The

EDITED BY

Wilderness

Michael P. Nelson

Debate

AND

Rages

J. Baird Callicott

On

Continuing the Great New Wilderness Debate

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To Nina Leopold Bradley—for a lifetime of good, hard work on behalf of "things natural, wild, and free"

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the sick lands on both sides of the border, would be a good neighborly act well worthy of international consideration.

All wilderness areas, no matter how small or imperfect, have a large value to land-science. The important thing is to realize that recreation is not their only or even their principal utility. In fact, the boundary between recreation and science, like the boundaries between park and forest, animal and plant, tame and wild, exists only in the imperfections of the human mind.

**NOTE**


Julianne Lutz Warren

*Science, Recreation, and Leopold's Quest for a Durable Scale*  (2008)

At six o'clock in the evening of June 6, 1940, with the world's attention focused on war and Britain's fiasco at Dunkirk, Robert Sterling Yard dispatched a telegram from his Wilderness Society office in Washington, D.C., to Aldo Leopold in Madison, Wisconsin. Yard was president of the Wilderness Society, which he had cofounded with Leopold and others in 1935. In a few days the society would hold its annual meeting. On the agenda: a proposal to forge an alliance among conservation groups to wage a different kind of war, a war to protect the remaining wild places of America. The Wilderness Society was already fighting, as were a few other organizations. But their aims differed, and they were not working together. Aldo Leopold, Yard hoped, could unite their efforts.

Earlier that year Leopold had asked Yard how the Wilderness Society might “tie the wilderness idea in with more disinterested groups.” “The Ecological Society,” he suggested, “is, of course, one group presumably disinterested which has a narrow but vital interest in the idea.” Needed to bring the two groups together, Leopold proposed, were one or a few prominent conservationists—ambassadors of a shared mission—who
understood the needs and enjoyed the respect of both organizations. Leopold identified ecologist Robert Cushman Murphy as one possibility. Well known from his articles in the ESA’s journal, Murphy might "prepare a special discussion of the wilderness idea aimed toward the fusion" for the Wilderness Society’s upcoming council meeting. Leopold continued the discussion in a communication to Yard on June 4. The society, he said again, should "attempt in some way to join forces with the ecologists" who were "conducting an independent but parallel campaign for wilderness areas." As you know," Leopold reminded Yard, "V. E. Shelford, University of Illinois, is chairman of [the ESA’s] committee on Natural Areas." In his June 6 telegram Yard embraced Leopold’s idea warmly but had doubts about Shelford’s support and in any event needed something in writing to present at the annual meeting. "Your idea is grand," Yard declared, and “we have prominent ecologist members but Shelford does not understand us [stop] If Murphy will mail concise statement from New York on Wednesday, it will reach us in time for meeting [stop] Cannt you support it with something air-mailed say Monday or Tuesday [stop] May start something big [stop]."

Leopold promptly invited Murphy to the society’s upcoming meeting in D.C. The society needed “counsel of the kind you can give,” Leopold urged. “One of the points I have in mind is this,” Leopold continued.

The Wilderness Society as now constituted is interested mainly in wilderness recreation. Another group, the Ecological Society, is interested mainly in wilderness study. There is little or no cooperation between the two groups, though both need the same changes in public policy.

What needs to be done, I think, is to persuade both groups that wilderness recreation is destined to become more and more "studious," and wilderness studies more and more appreciative of aesthetics, i.e., recreation.

Therefore the two groups should get acquainted.

You are one of the few who would understand this. Neither Leopold nor Murphy could attend the annual meeting. Leopold’s resolution was discussed, however, and Yard promptly informed Leopold of the favorable outcome. "Your suggestion went big for a combination with the Ecological Society, was universally approved, and your resolution passed."

As Yard understood this project, the aim was to get two organizations to work in concert preserving wild places, big and small, for science as well as recreation. Organizational unity was desired to bring added strength to the work of achieving related goals. Aldo Leopold, though, was at a different place in his thinking and his hopes. As much as anyone Leopold championed coordination among conservation interests; they needed to work together, he said repeatedly, so that efforts by one group did not conflict with the work of others. Yet organizational unity was merely a side benefit that would come from coordination. What Leopold most wanted to merge was not organizations so much as rationales for preserving wilderness. And his goal was to create a larger, more vital aim that all wilderness groups could help promote. Wilderness preservation should become not an end in itself but part of a more encompassing effort to foster substantial cultural change. It should promote a new ecological perception of the land, new aesthetic preferences that linked beauty with wilderness, and a more humble understanding of
the human place in the natural order. Ultimately, Leopold wanted wilderness and wilderness preservation to become the base for yet another quest to form a society that could endure; a society founded, as he would ultimately put it, on “a durable scale of values.”

Leopold’s and Yard’s effort to promote joint work on wilderness protection yielded some fruit, although not in the lifetime of either. Leopold’s more ambitious vision, however, would languish for decades. Though there was plenty of common ground for conservation groups to stand on, most chose to protect and keep to their own small slice of it; few could understand the rugged cultural path that Leopold wanted to follow; even fewer were willing to pursue it with him.

In the effort to bring the ESA and Wilderness Society together, Murphy’s support would be helpful, but it was Victor Shelford whose influence counted, and Shelford would be a harder sell. Among ecologists active in preservation Shelford stood the tallest. An animal researcher at the University of Illinois, Shelford helped found the ESA in 1915 and served as its first president. He also led the ESA’s crusade to protect high-quality natural areas for ecologists and others to study. In 1917 Shelford took charge of the ESA’s new Committee for the Preservation of Natural Conditions. Immediately, the committee began identifying all types of “preserved and preservable areas in North America in which natural conditions persist.” Such a list, believed Shelford, was essential in working toward “the preservation of natural areas with original flora and fauna (or nearly so as may obtain)” and the maintenance of their natural relations and processes. A 1921 progress report identified various reasons for preservation (scientific, recreational, aesthetic, and material), yet it was the scientific rationale that loomed largest. Shelford directed the ESA effort until 1923, when he stepped aside to work intensively on the committee’s inventory of natural areas, published in 1926 as *A Naturalist’s Guide to the Americas*. Shelford chaired the ESA’s efforts to reorganize its preservation and study work in 1930, wrote its critical documents on nature reserves in 1931 and 1933, and directed both ESA programs through much of the decade. Shelford was also kept busy addressing conflict within the ESA over the organization’s proper role in political and activist land preservation efforts.

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After the Wilderness Society meeting in the summer of 1940, little happened in terms of efforts to unite forces with the ESA for the ensuing half year. Early in 1941 Yard returned to the subject, reminding Leopold of his promise to take further action by working with Murphy. Leopold thanked Yard for the reminder but suggested that the matter was too big to discuss with Murphy by mail; it would need to wait until the two could get together. A few weeks later the executive committee of the Wilderness Society took up the issue, according to the minutes of its meeting:

Last July, Aldo Leopold had undertaken to bring about activity in common with a group of ecologists, and, at the beginning of this year, [council member] Irving Clark had established an understanding with the National Research Council’s Committee for Preservation of Natural Conditions. Mr. Yard also had furthered negotiations for activity in common with the Committee for Preservation of Natural Conditions of the Ecologists Society of America.

The majority of the members of both these committees are discovered to be members of The Wilderness Society.

Also we have renewed relationship with Dr. Victor E. Shelford, who first organized preservation in the Ecological Society, a member of The Wilderness Society; and Dr. Robert F. Griggs of George Washington University and the Research Council. Dr. Griggs joined the Wilderness Society.

It is my plan to have the combined ecological activities under Aldo Leopold’s chairmanship.

The idea of putting Leopold in charge was obvious, given Leopold’s standing as an ecological researcher and his early advocacy of the wilderness cause. As Yard saw things, Leopold had been responsible for “sirring the idea and title of the wilderness area, and first spread it broadcast.” “It is you who invented the title wilderness areas,” Yard wrote to Leopold, “making practical certain ideals which had been in men’s minds for many years, and had occasionally crept timidly into print.” Leopold had been largely responsible for the establishment of the first U.S. Forest Service wilderness area in the Gila National Forest and penned early influential advocacy pieces in support of the cause. Among the founders of the Wilderness Society, Leopold stood out for his interest in the ecological aspects of wilderness preservation.
Leopold's original advocacy of wilderness had taken place within the Forest Service, where his argument for preservation employed the familiar "highest use" language and focused appropriately on recreation. Wilderness, he urged, was "a continuous stretch of country preserved in its natural state, open to lawful hunting and fishing, big enough to absorb a two weeks' pack trip, and kept devoid of roads, artificial trails, cottages, or other works of man." As Leopold promoted the wilderness cause, reaching out to broader audiences, he augmented his rationales for preservation while defining the term more expansively. Wilderness areas were useful as places to protect wildlife, particularly the species that had trouble living among or near humans. Wilderness areas also had historic and cultural values in that they reminded Americans of their frontier origins and gave them chances to reenact and be reinvigorated by "the more virile and primitive forms of outdoor recreation" that mimicked pioneer life. In his important 1925 writing on the subject, Leopold proposed that wilderness was not an all or nothing condition. It was "a relative condition," he urged, existing in varying degrees and in varying sizes, "from the little accidental wild spot at the head of a ravine in a Corn Belt woodlot to vast expanses of virgin country[,]... from the wild, roadless spot of a few acres left in the rougher parts of public forest devoted to timber-growing, to wild, roadless regions approaching in size a whole national forest or a whole national park."

Leopold took his original conception of wilderness as big recreation area to a more refined level in an important presentation. To the 1926 National Conference on Outdoor Recreation Leopold announced: "We come now to a... category of outdoor things which are God-made yet subject to inexorable destruction by normal economic forces, a category that "may be collectively designated as 'wilderness.'" Wilderness was not so much a place, Leopold was now saying, and certainly not just a large place for recreation as it was an element of wildness that dwelt in the landscape. It was simply untrue, Leopold told his audience, that "an area is either wild or not wild, that there is no place for intermediate degrees of wildness." Indeed, it was essential to retain "the small remaining wild spots," particularly in places where large wilderness areas were no longer intact. Also untrue was the assumption that wilderness only included mountains and other lands deemed scenic by the general public; to the contrary, "swamps, lakelands, river-routes, and deserts"—all representative types of "primeval America"—were worth protecting.

Around this time, too, Victor Shelford was heartily advancing the idea of setting aside large "nonscenic" grassland areas as national parks or monuments. There was an immediate need, in the midst of the Great Depression and dust bowl, to protect grassland tracts for ecological research as well as to save for posterity samples of historic conditions of covered wagon days. Grasslands, lacking such popular scenic values, largely had been overlooked by other preservation efforts. In the dominant view, grasslands should be cultivated, not honored and protected.

It was this very attitude—land understood as a resource factory consisting of individual parts and profitable uses, not as an interconnected whole and a place to live—that Leopold increasingly saw as the major obstacle to the developing wilderness idea. Most ecological preservationists, including Shelford, agreed philosophically yet showed little taste for cultural confrontations. They pressed instead for shorter-term answers, cloaking their efforts with publicly attractive labels or simply veering away from preserving lands in locales where criticism would be fierce. They thought to protect land, not to change people.

When the impetus to form the Wilderness Society came in the mid-1930s, the driving organizers were chiefly interested in preserving big wild places for recreational use, just as Leopold had proposed some fifteen years earlier. Now, however, Leopold brought his enlarging ideas to this table. Leopold had not been active in the nature protection work of the ESA, but he certainly knew about it, endorsed it, and viewed the ESA as an attractive ally. When invited by Bob Marshall in 1934 to serve on the founding committee for the proposed new society, Leopold immediately brought up the issue of preservation for science:

I have no criticism of the invitation, except that I would raise the question of whether we should definitely indicate that the Society includes only those interested in wilderness from the aesthetic and social point of view, or whether it should also include those desiring wilderness for ecological studies. My hunch is that the ecological group should be included,
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Leopold was slow in crafting that goal because he first had to gain an overall understanding of how land worked, what he referred to as a "common concept of land." That work had proceeded far enough by 1939 that Leopold was prepared to talk about it in his important presentation to the joint meeting of the ESA and the Society of American Foresters. By the following year Leopold was at work, turning his common, biotic concept of land into the normative conservation goal of land health.

It was in this context, a time when Leopold's conservation ideas all were coming together, that Leopold sought to unify and redirect the protection effort. In his 1941 article for the society's journal, Leopold endeavored not just to get society members to see the research values of wilderness areas (reminding them that "all wilderness areas, no matter how small or imperfect, have a large value to land-science") but to get them to think seriously about land health as an overall conservation vision. Wilderness as Leopold broadly defined it needed to dwell within landscapes that included human-altered lands; it needed to be merged with human land uses and interspersed among human settlements and cities. Full conservation had to attend above all to the functioning and composition of these larger mixed landscapes. Just as important, groups such as the Wilderness Society and the ESA needed to recognize that the main impediments to land health were primarily cultural. Reformers had to go beyond influencing specific land-use decisions of federal agencies: they had to initiate and orchestrate a major shift in dominant cultural values. Well-directed wilderness preservation could help accomplish that shift.

While Leopold was following his intellectual and moral journey, Victor Shelford—ten years his senior but due to outlive Leopold by twenty years—was following his own. Having reorganized the ESA's conservation committees in 1930, Shelford turned to work on a "nature sanctuary plan" for adoption by the ESA. Floated initially in 1931, the plan gained formal approval in 1932 and appeared in Ecology and Science in 1933. A nature sanctuary was defined as "a [plant and animal] community or community fragment covering a certain area within which fluctuations and other natural changes are allowed to go on un-
modified and uncontrolled.” Wherever possible, sanctuaries would contain large carnivores and other top-of-the-food-pyramid predators. Core research areas would be of value for scientists as well as for serious writers and artists who came to them for inspiration. Importantly (and a source of conflict with other preservation groups), the core areas would be restricted to other users, thus diminishing their recreational values. Surrounding the core areas would be buffer zones where more activities could take place but in which wildlife and ecological processes would be protected. Shelford’s sanctuary plan for the ESA was soon endorsed by the National Parks Association. Leopold would take note of it, keeping in his files the 1933 Ecology article along with the ESA’s 1935 “Confidential Memorandum on Sanctuaries to Include Predatory Animals.” So, too, would George Wright and colleagues of the National Park Service, whose efforts would provide important precedents for the emergence decades later of conservation biology.

Wearing his activist hat, Shelford was, of course, every bit as insistent as Leopold that nature preserves include the full array of biotic communities, not just places ordinary citizens deemed pretty. He was insistent, too, that preservation efforts include landscapes that humans had altered, especially when they were the best remaining examples of particular community types. Shelford’s sanctuary plan recommended classifying nature sanctuaries according to their degrees of human modification. Sanctuaries would be of three types—first through third classes—according to how much change had occurred in the plant and animal life. Human uses of first-class sanctuaries would be greatly limited; uses of second- and third-class sanctuaries would be limited to the extent practicably possible. All sanctuaries, however, would be biologically dynamic: “Nature” and “natural” are purely relative terms and can have significance only as averages, because the outstanding phenomenon of biotic communities is fluctuations in numbers of constituent organisms or reproductive stages of organisms over a period of one to thirty or more years. Thus, a Nature Sanctuary is primarily an area in which these fluctuations are allowed free play. Like Leopold, Shelford saw a need for ecologists to join forces with other conservation groups to push to protect natural areas. Indeed, a prime aim of the ESA’s preservation committee was to reach out to others, government agencies very much included, to help bring about protection for the nation’s remaining wild places. During the 1930s and into the 1940s, according to Shelford’s biographer, Shelford “considered forming a large union of societies interested in nature preservation.” But Shelford throughout entertained doubts about groups that lacked sound grounding in ecology and that were prepared to sacrifice natural conditions to satisfy human wants. Shelford came on strong with his criticism in a brief 1933 publication in Science written in his capacity as chair of the ESA’s Committee for the Preservation of Natural Conditions. In it Shelford drew a sharp line between preservation, which he strongly favored for nature sanctuaries, and the principles of conservation that appeared to govern federal agencies, including the National Park Service: “To conserve, as the term is now most frequently used, means to preserve while in use and it often implies ultimate depletion. In actual practice the operations carried on in the name of conservation are not designed to preserve the natural order: but to establish and maintain a different order as regards kind and abundance of plants and animals present.” The problem here for scientific researchers was acute, particularly when they wanted to study how natural areas changed on their own, free of human intervention. In nature sanctuaries of the type supported by the ESA, “the natural fluctuations of organisms are allowed free play and serve among other things to show what natural fluctuations in abundance are like.” On federal lands—even national park lands governed under the nonimpairment clause of the National Park Service charter—too much human-initiated change was taking place. “There is or has been so much interference with natural processes in the form of ‘control’ of this and that organism that the student of ‘wild life’ management who would seek a basis for more scientific treatment of the animals in his charge, is left without guiding principles or reliable information.” For ecologists wanting to study wild nature, conservation was not enough.

Suspicious not just of federal agencies but of conservation groups that seemed to elevate recreation over true preservation, Shelford was slow to form alliances. His preferred option by the early 1940s, according to his biographer, was to have the ESA take the lead with other groups providing assistance. Other societies could “affiliate themselves
with and contribute to the ESA, while depending on dedicated professional ecologists with the ESA as the active core.” Only the ESA “had the experience, scientific reputation, and sound conservation judgment needed to do the job.”

While Leopold turned his own conservation eye to the long term and to cultural change, he knew that many steps were needed to get the conservation movement as a whole to embrace his reformist view. One useful step, he could see, was to merge and elevate the two dominant ideas about wilderness preservation—wilderness for recreation and wilderness for science. The rationales sounded different, but they overlapped considerably. In their overlap Leopold spotted an attractive way for wilderness to help stimulate cultural change.

It was this possibility for synthesizing a shared rationale that Leopold had raised in his 1940 resolution prepared for the Wilderness Society’s meeting. Both the ESA and Wilderness Society, Leopold urged, “should realize that ecological observation is one of the highest forms of recreation, while ecological studies without an esthetic appreciation of the biota are dull and lifeless.” Leopold extended the idea in an article, “Wilderness Values,” which appeared the following year in the National Park Service’s yearbook. When it came to nature, Leopold contended, study and sport overlapped, particularly in their higher reaches. Indeed, he proposed, “there is no higher or more exciting sport than that of ecological observation.” The “false cleavage” in the public’s mind “between studies and sports,” Leopold continued,

explains why the Natural Area Committee of the Ecological Society does not cooperate with the Wilderness Society, though both are asking for the perpetuation of wilderness. “Serious” ecological studies of a professional nature are, of course, important, and they of course have a place in wilderness areas. The fallacy lies in the assumption that all ecology must be professional, and that wilderness sports and wilderness perception are two things rather than one. Good professional research in wilderness ecology is destined to become more and more a matter of perception; good wilderness sports are destined to converge on the same point.

Thus, it all came down to perception, to the need to cultivate a more elevated ecological orientation among the masses of citizens. In draw-

ing this conclusion Leopold reiterated a thesis offered in his 1938 essay, “Conservation Esthetic,” published in Bird-Lore and later reprinted in his Almanac. There he identified, as a key component of outdoor recreation, the fostering of “a perception of the natural processes by which the land and the living things upon it have achieved their characteristic forms (evolution) and by which they maintain their existence (ecology).” This form of interacting with nature, though often called “nature study,” was in truth “the first embryonic groping of the mass-mind toward perception.” “To promote perception” of this type, Leopold contended, was “the only truly creative part of recreational engineering.” This was an “important” truth, Leopold continued, “and its potential power for bettering the good life is only dimly understood.”

Leopold’s ruminations on the ESA—Wilderness Society interactions thus came together with his worries that careful nature study was rapidly becoming a professional activity engaged in only by a few. Society needed to move in precisely the opposite direction, he urged. More and more people should learn how nature worked and gain an ability to distinguish between sick and healthy lands. Conservation had to take place on all lands, public and private. This could happen only if private landowners came to see and value nature in new ways. If landscapes were to regain health, if conservation, that is, was to succeed in full, then citizens everywhere needed to know what healthy land looked like. They needed new senses of aesthetics that equated the beautiful with the healthy. They needed to sense their membership in the land community and their ethical duty as community members to help sustain the ecological whole. Wilderness could play a critical role in fostering this new cultural orientation, and it could do so, importantly, even when it was too small or too degraded to provide habitat for wilderness game or room for two-week pack trips. Small wilderness areas “are not wild in any strict ecological sense,” Leopold observed, “but they may nevertheless add much to the quality of recreation,” particularly recreation that helped people see how land worked.

As it turned out, the ESA’s nature preservation work was on its last legs. By 1938 ecologists within the society were already raising questions about the propriety of a professional scientific organization get-
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of which,” he admitted, “leaves me completely puzzled.” Even as he worked within the ESA, Leopold was also adding encouragement to the other side. To Howard Zahniser, new secretary of the Wilderness Society, he wrote on August 21, 1947: “I feel that the testimony of the conservation organizations [over an upcoming piece of legislation] will cancel out because it will deal too much with means rather than ends. . . . It has occurred to me that a new organization like the Wilderness Society might have some chance of pulling the older organizations together on a common program.” Leopold had raised the issue in broader terms in a letter the previous year to Benton MacKaye of the Wilderness Society. “I am thoroughly convinced of one basic point: that wilderness is merely one manifestation of a change of philosophy of land use and that the Wilderness Society, while focusing on wilderness as such, cannot ignore the other implications and should declare itself on them.” By then Leopold was sounding a familiar note. As early as 1925 Leopold understood wilderness as a cultural issue, not just a matter of pragmatic land use. “As a form of land-use,” he had suggested, wilderness was “premised on a qualitative conception of progress.” Just so, the aim of the Wilderness Society was far-reaching. The Wilderness Society, Leopold announced in its first issue, “is, philosophically, a disclaimer of the biotic arrogance of homo americanus. It is one of the focal points of a new attitude—an intelligent humility toward man’s place in nature.”

The outgoing ESA president traditionally gave a talk at the annual dinner in the year succeeding his one-year term. Leopold was planning his September 1948 talk well in advance. In a letter of January 3, 1948, to game breeder Wallace Grange, Leopold commented on his plan: “I disagree with you that we should make any blank sacrifices of wilderness values simply on the chance that we might need them in another war. If we lose our wilderness, we have nothing left, in my opinion, worth fighting for; or to be more exact, a completely industrialized United States is of no consequence to me. I am expressing these views in more detail in my presidential address to the Ecological Society.”

Leopold’s death in April 1948 kept him from giving his address, but it seems likely that Leopold planned to deliver some version of what became his final writing on wilderness, the essay of that name (probably unfinished) that
Leopold included in his manuscript of *A Sand County Almanac*. The intended scientific audience for the essay might explain why Leopold devoted so much space in it to matters of science and to the linkage between wilderness preservation and the promotion of land health.

Leopold’s plan was to end his book manuscript with “Wilderness” rather than with “The Land Ethic.” Had his wishes been followed, wilderness might have drawn greater attention over the years from Leopold scholars. More readers might have grasped the importance of wilderness and wilderness preservation in charting a new path for modern culture. In the piece, his final writing on wilderness, Leopold covered familiar ground. He reviewed the rationales for preservation, noted that wilderness reserves “must vary greatly in size and in degree of wildness,” and lamented the “under-aged brand of aesthetics which limits the definition of ‘scenery’ to lakes and pine trees.” What it all came down to, though, was culture and the role of wilderness in embodying vital values and fostering them within citizens. The ability to appreciate “the cultural value of wilderness,” Leopold announced in what he intended as the last paragraph of his book, came down “in the last analysis, to a question of intellectual humility.” More than that, Leopold said, it was “raw wilderness” that gave “definition and meaning to the human enterprise.” Modern culture was headed in the wrong direction. It needed to pause, reevaluate, and start again. Wilderness was the place where people—professional scientists and plain citizens alike—could regroup, learn about healthy lands, and thus decide how they might live so that their civilizations could endure. All history, Leopold opined, consisted of “successive excursions from a single-starting point,” to which humans returned “again and again to organize yet another search for a durable scale of values.” Wilderness provided that starting point, and it would need to do so for future generations, Leopold implied, again and again.

Yard’s death in 1945, the termination of the ESA’s preservation effort the same year, Leopold’s death in 1948—all would delay cooperative work to protect wilderness tracts in North America. But their successors would see the value of cooperation, and many groups would come together to fight for passage of the Wilderness Act of 1964. Leopold’s vision had embraced Shelford’s and the ESA’s scientific ideals and those

NOTES


Unknown to Leopold, Shelford was no longer chair of the ESA’s committee, though he continued to work on the cause, and he was widely viewed as the committee’s intellectual leader. See Robert A. Croker, *Pioneer Ecologist: The Life and Work of Victor Ernest Shelford 1877–1968* (Washington, D.C.: Smithsonian Institution Press, 1991), 127–33.

4. Aldo Leopold to Robert Cushman Murphy, June 8, 1949, LP 10-2, box 9, telegram attached.

5. Aldo Leopold, Resolution, LP 10-2, box 9.

6. Robert Sterling Yard to Aldo Leopold, June 18, 1949, LP 10-2, box 9; council members in attendance were Harold Anderson (treasurer), Harvey Broome, Bernard Frank, Benton MacKaye (vice president), and George Marshall. Founder Bob Marshall had recently passed away.


11. Ibid., 51, 64, 120–35.


14. Leopold’s wilderness advocacy is considered in Roderick Frederick Nash, *Wilderness and the American Mind*, 4th ed. (New Haven, Conn.: Yale
22. Ibid., 135–36.
24. Ibid., 9.
25. Croker, Pioneer Ecologist, 137.
27. The ESA’s study committee included in 1930 a committee on grasslands. In 1931 several of those involved in the ESA’s work and who were active in the National Research Committee (NRC) formed within the NRC the Committee on the Ecology of Grasslands, which in 1933 was appointed to the NRC’s Division of Biology and Agriculture. In 1939 Shelford resigned as chair of the Committee on the Ecology of Grasslands and was involved in the formation of a new nonprofit group, the Grassland Research Foundation, which was incorporated that October in Norman, Oklahoma. This foundation was to assist the NRC in obtaining grants. The NRC, however, was discontinued in 1943 upon the resignation of Paul Sears and the inability to find new leadership. The foundation then took on a life of its own, continuing on in grassland preservation work, and then merged in the late 1950s with the Nature Conservancy. See Shelford, Open Letter, and Victor Shelford to Jeff Kendall, September 23, 1957, SP 15/24/20, box 1.
28. Mr. H.G. Crawford of the Canadian Department of Agriculture recommended that the NRC Committee on the Ecology of Grasslands not favor of “experiment stations” so as not to give the impression of competing with “agricultural authorities,” who already used that term for their study sites oriented toward research on enhancing crop productivity. If criticism arose regarding grassland “study centers,” it was recommended that sites be moved to other locations. See Shelford, Open Letter, 1.
29. Ibid., 1.
32. Aldo Leopold to Robert Marshall, February 1, 1935, LP 10–2, box 9. Leopold hit the same theme hard in a 1940 talk to the Isak Walton League during which he lamented the lack of concern about the fragmentation of a
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high desert area that did not “conform at all to the classical picture of pine-bounded lakes.” The deficiency, Leopold contended, was “a plain lack of education in aesthetics.” Too many people were “still in the stage of evaluating wild land by its prettiness.” In the same talk Leopold also worked in his thoughts on the issue of size: “Surely there is room for some degree of wilderness in any tract of wild land, however small.” Leopold’s “What Shrinks Wilderness?” March 29, 1940, ms., LP 10-6, box 15. See Leopold’s “Origin and Ideals of Wilderness Areas,” *Living Wilderness* 5 (July 1940): 7, which lists as a critical job for the Wilderness Society the need “to secure the recognition, as wilderness areas, of the low-altitude desert tracts heretofore regarded as without value for ‘recreation’ because they offer no pines, lakes, or other conventional scenery.”


38. Shelford’s story has now been ably told by Croker in *Pioneer Ecologist*.


43. LP 10-2, box 2.


45. Victor Shelford and ESA Study Committee, Memorandum on Nature Sanctuaries or Nature Reserves, April 1932, SP 15/24/20, box 1.

46. As its baseline for natural conditions the ESA loosely used landscapes as modified by American Indians. Although Shelford’s report surmised that, in terms of overall vegetative types, landscapes “were probably not much affected” by Indians, the chief reason for going back no further in time was because information was lacking: “Just what original nature in any area was like from a biological viewpoint, is not known and never can be known with any great accuracy” (“A Nature Sanctuary Plan,” *Ecology* 14 [April 1933]: 240–45, 242).

47. Ibid., 247.


49. Victor Shelford, “Conservation versus Preservation,” *Science*, June 2, 1933: 535. In Shelford’s view, which he presented to the committee, “conservation” could not properly be used to talk about the ESA’s kind of preservation, particularly given the ESA’s strong support for protecting predators as vital parts of ecological communities. See ESA Committee for the Study of Plant and Animal Communities, To the Advisory Board and Others, n.d., SP 15/24/20, box 1.


51. Ibid.


54. Ibid.


56. Ibid., 107.

57. Ibid., 109. Leopold continued this theme in various later writings, including his essay “Wildlife in American Culture,” *Journal of Wildlife Management* 7, no. 1 (1943): 1–6, where he presented wildlife research as “a totally new form of sport,” the promotion of which was the “most important job confronting [the wildlife management] profession” (5).


60. Ibid., 138–44.

61. Ibid., 145–46; Arthur Melville Pearson, *A Legacy of Natural Lands*,
George B. Fell and the Natural Land Institute (Rockford, Ill.: Natural Land Institute, 2005), 13–15.

62. Leopold to Alfred C. Redfield, October 4, 1946, LP 10-2, box 2.
64. Aldo Leopold to William Dreyer, March 24, 1947, LP 10-3, box 2.
67. Leopold, "Wilderness as a Form of Land Use," 142.
68. Leopold, "Why the Wilderness Society?" 6.
70. Meine, Aldo Leopold, 524.
71. Leopold, A Sand County Almanac, 189, 191.