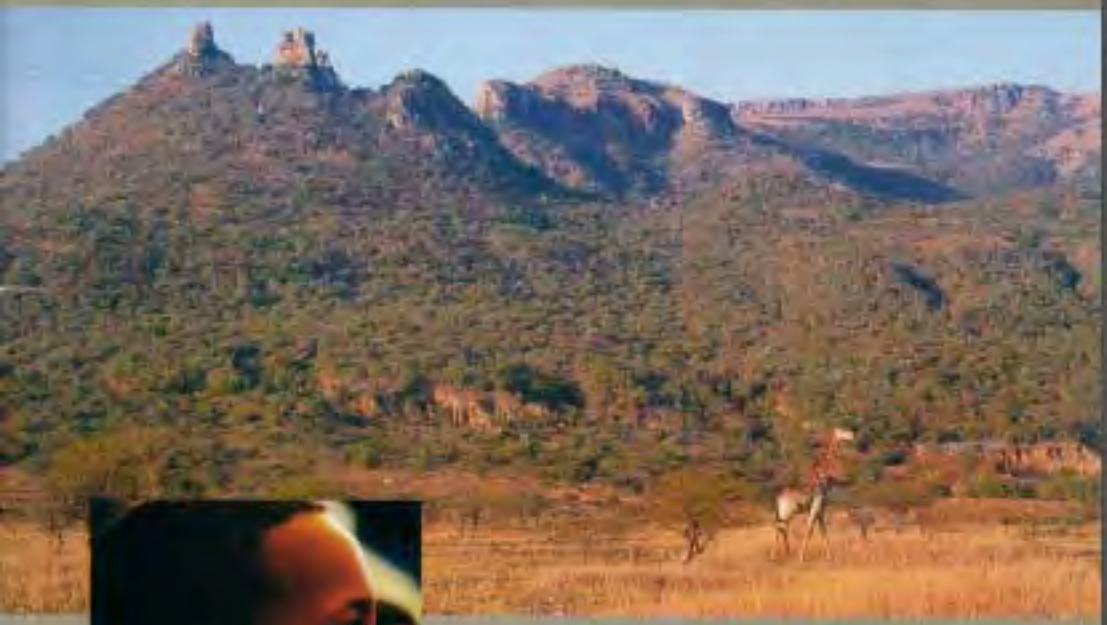
INTERNATIONAL

JOURNAL OF WILDERNESS



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AUGUST 1996 VOLUME 1, NUMBER 4

For Wilderness Worldwide

August 1996 Volume 2, Number 2

International Journal of Wilderness

The *International Journal of Wilderness* links wilderness professionals, scientists, educators, environmentalists, and interested citizens worldwide with a forum for reporting and discussing wilderness ideas and events; inspirational ideas; planning, management, and allocation strategies; education; and research and policy aspects of wilderness stewardship.

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Submissions: Contributions pertinent to wilderness worldwide are solicited, including articles on wilderness planning, management, and allocation strategies; wilderness education, including descriptions of key programs using wilderness for personal growth, therapy and environmental education; wilderness related science and research from all disciplines addressing physical, biological, and social aspects of wilderness; and international perspectives describing wilderness worldwide. Articles, commentaries, letters to the editor, photos, book reviews, announcements and information for the wilderness calendar are encouraged. A complete list of manuscript submission guideline is available from the managing editor.

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Cover photograph of South Africa proposed wilderness area in KwaZulu/Natal by Dr. Ian Player.
Inset photograph by Margot Morrison.

Wanted: Local Wilderness Advocacy

BY JOHN C. HENDEE, MANAGING EDITOR

IN "SOUL OF THE WILDERNESS" in *IJW,* Volume 2, Number 1, economist Tom Powers extolled the value of wilderness for the new economics of the West, in which the quality of the environment is the key to attracting and sustaining new jobs (Powers 1996). His view is echoed elsewhere, such as in "Working Toward a New Governance in the West" by Don Snow (1995), an article that describes the dynamics of the current shift away from centralized management of federal natural resources and toward community-level involvement and influences in land management decisions. According to Snow, the era of subsidies and supports for public land and water that created a kind of nationalized economy in the West is coming to an end. The heavily subsidized "old economy" that rested on minerals, logging, and agriculture, is giving way to a largely free market "new economy" of information and services.

Not that state legislatures in the West look any different, where "wise users" and environmentalists still confront one another, but, according to Snow (and those of us with ringside seats), new coalitions are forming to work things out. The old ways of deciding coupled with reduced federal subsidies often promise only gridlock or less. These new coalitions may rest on homespun collaboration and relationships built among former adversaries. Such collaboration can build trust and community. When they do, common goals and democracy in the true Jeffersonian sense can result. This process can—and in some places is already—build a new process of governance resting on consensus and agreement ... of local affected parties. Such coalitions can have compelling political power. They can be influential, even decisive, in natural resource decisions.

So where is wilderness in this process? The same local influences operating in big government are operating in big conservation. Local chapters, if not independent, local environmental groups, are more credible and effective at the community level than big national organizations. The article on the Federal Advisory Committee Act in this issue of *IJW* suggests barriers to local citizen involvement in wilderness, but those issues will be resolved as a result of the larger political forces favoring localism. The same pressures are emerging internationally as stated in the articles on community-based conservation in Namibia and wilderness in the new South Africa.

So, we need more community-level advocacy for wilderness allocation and stewardship. Think globally, but join locally, and urge your friends to do to the same. **IJW**

REFERENCES

Snow, Don. 1995. Working toward a new governance in the west. *Changing Northwest: Newsletter of the Northwest Policy Center,* 7(3): 4-5.

The International Journal of Wilderness will have feature articles on a special country or region in each issue. Submissions are welcome to the managing editor for all related feature articles on international wilderness, or manuscripts for peer reviews on education, management, research, policy, and other topics. Future featured countries include:

Issue	Need Submissions by	Country
Volume Two, Issue Three December 1996	(7/96)	United States
Volume Three, Issue One March 1997	(10/96)	Asia
Volume Three, Issue Two June 1997	(1/97)	New Zealand
Volume Three, Issue Three September 1997	(4/97)	Antarctica
Volume Three, Issue Four December 1997	(7/97)	South America

Soul of the Wilderness

Biodiversity, Ecological Integrity, and Wilderness

BY REED F. NOSS

A FEW YEARS AGO I SPOKE AT A WILDERNESS MANAGEMENT SYMPOSIUM about the relationship between wilderness protection and the conservation of biodiversity. The major theme of the meeting was the nonrecreational values of wilderness, but I was the only one who talked much about biological values and how wilderness provides vital habitat for species that are sensitive to human activities. I also introduced the relatively arcane idea that true wilderness provides for "higher-level" aspects of biodiversity, namely the landscape-scale processes and shifting-habitat mosaics that can be expressed only in wild areas many thousands or millions of acres in size—areas where natural disturbance regimes overrule the actions of humans. I acknowledged that most designated wilderness areas, like other conventional parks and reserves, are too small to encompass these patterns and processes. But I argued that small wilderness areas (approximately 10,000 acres/ 25,000 ha) aren't real wilderness. You can't even get lost in them.

Verdant forested sand dunes of Lake St. Lucia, South Africa (above). Article author Reed F. Noss (right).

If asked to speak on the same topic today, I would present a similar message. But I'm less confident now that the wilderness preservation and biodiversity conservation movements are converging. Over the last few years I have been forced to rethink some of my assumptions; for example, that large, wild areas are essential components of a conservation strategy, and that wildness and biodiversity are compatible objectives. I had taken it for granted that these things are true, but increasingly I have encountered skeptics who argue that the battle for biodiversity will be won or lost in the human-dominated landscape—the "matrix"—and that wilderness areas are merely cultural artifacts, trivial remnants of a romanticized past to which we can never hope to return. I am amazed at how few defenders of wilderness there are among the modern conservation crowd. Scientists in particular are uncomfortable with the wilderness idea because it seems so subjective, soft, and nonquantifiable. Biodiversity they sincerely embrace, but these same scientists would just as soon leave wilderness to the backpackers, poets, and tree-huggers. So I have rethought my position. My conclusion, for the time being at least, is that large, wild areas—whether or not we call them wilderness—remain among the most important components of a conservation network. I believe more strongly than ever that wilderness, and natural areas in general, should be evaluated primarily in terms of their contribution to the broad goals of protecting and restoring native biodiversity and ecological integrity to our planet. However, I am less optimistic than I once was on whether scientists, activists, recreationists, managers, and the broader public can ever agree on how biodiversity and wilderness concerns should be reconciled. And I am more adamant about the need for active management, at least of a restorative nature, for wilderness areas too small to manage themselves.

We Need to Save Large Areas

In some ways biodiversity and wilderness (or more generally, wildness) are perfectly compatible. First, both biodiversity and wilderness values are best fulfilled in large areas. From the wilderness point of view, large areas are, all else being equal,

Rare, lowland coastal rainforest. North Queensland, Australia (left). (Photo by Vance Martin.) Rainforest harvest, Queensland, Australia (above). (Photo by Vance Martin.) High mountains contain the least biodiversity (far right). (Photo by Tom MacDonald.)

simply wilder. They are more awe inspiring. But "bigger is better" is also the most fundamental, best documented principle of conservation biology. Although biologists have long argued over whether one large reserve is superior to several smaller reserves of equivalent total area (and have generally agreed that the question is a red herring), few doubt for a moment that individual reserves and the total area in reserve networks should be as large as possible. Large areas hold more species, contain larger and more viable populations of species that are area-sensitive, are easier to manage (per unit area, anyway), and are less affected by nasty human influences (ATVs, poachers, feral cats, nonnative weeds, etc.) coming across their boundaries. The animals most closely associated with wilderness—large, mammalian predators—are among the species of greatest concern to conservation biologists, because they are extremely sensitive to human harassment, occur in low densities, and have shown dramatic declines in most regions. By establishing large, interconnected wilderness areas, or more generally by keeping road density low across large landscapes, we contribute to the conservation of these species. Across the world, areas where human activities are excluded or highly restricted have proven to be valuable havens for wildlife. For example, the Korean Demilitarized Zone is the major stronghold for wintering and migrant white-naped and red-crowned cranes, among other imperiled species. Just look at any map showing the pre-European settlement and present distributions of grizzly bears, wolves, pumas, and other large carnivores in North America; the only places these species remain are the wildest and least accessible.

... wilderness, and natural areas in general, should be evaluated primarily in terms of their contribution to the broad goals of protecting and restoring native biodiversity and ecological integrity ...

A second way in which wildness and biodiversity are compatible has to do with benchmarks. As Aldo Leopold pointed out in 1941, wilderness provides a "base-datum of normality" for a "science of land health." Despite the arrogant claims of many proponents of ecosystem management, we know little more today than in Leopold's time about how to manage the land in a fully sustainable way. However, thanks to ecologists we have learned a bit more about how ecosystems function under natural conditions and how human activities affect these processes. We are doing a lot more conscious experimentation in land management today than in Leopold's time. This is all well and good, but because our ecosystem management experiments span entire landscapes, there is a greater need than ever for control areas that also span entire landscapes. These control areas, or benchmarks of normality, must be big wilderness. Paradoxically, most of these control areas will themselves require "some kinds of management—restoration, maintenance, and protection—to ensure that they effectively represent natural systems. For example, prescribed burning often will be necessary to maintain fire-dependent vegetation in areas where fires have been suppressed and that are too small to receive frequent lightning strikes.

There are other ways in which biodiversity and wildness are compatible and mutually reinforcing, but we must also acknowledge ways in which they are not. Particularly in the temperate zone, the landscapes richest in biodiversity (in terms of species richness, for example) already have been either converted to agriculture or other intensive human uses, or have been degraded due to alteration of natural disturbance or hydrological regimes,

road-building, invasion of exotic species, and other insults. We might be able to establish restoration projects or biodiversity management areas in such landscapes, but these areas will hardly meet the conventional criteria of wilderness. In the Pacific Northwest region of the United States, designated wilderness areas contain fewer northern spotted owls than managed forests for a simple reason: Most wilderness areas are at high elevations beyond the distribution of the owl. Larry Harris's landmark book, *The Fragmented Forest,* contains a graph showing a dramatic decline in the number of species of amphibians, reptiles, and mammals as elevation increases in western Oregon; wilderness areas generally contain the fewest species, private lands the most, and multiple-use lands lie in-between. Moreover, many of our most imperiled species—endemic plants, invertebrates, and small vertebrates—do not require wilderness but could persist quite well in relatively small, isolated reserves if these areas were properly buffered and well managed.

Traditional Conservation Versus Conservation Biology

Many traditional conservationists are uncomfortable with the increasing influence of conservation biology in the environmental movement and, occasionally, in land protection decisions. Speaking at the 1995 North American regional meeting of the World Conservation Union Commission on National Parks and Protected Areas, Michael McCloskey, chairman of the Sierra Club, expressed concern that "the preservation of biodiversity is put forth as the raison d'etre for protected areas" and that "every other reason for having them is treated as secondary, if not trivial and old-fashioned." McCloskey noted that the diversity of reasons for having protected areas has expanded the constituency for them. He then chastised me and other conservation biologists for heaping disdain on protected areas, because they are not in the right places or are too small, too far apart, or not managed or buffered well. McCloskey s central point is that criticizing our protected-areas system is counterproductive because "it will be all too easy for the public to conclude that such systems should be dismembered if this is the message they get from leaders in the environmental community." Within The Wildlands Project, a coalition of scientists and activists interested in restoring native biodiversity and wildness to every region of North America, it has proved difficult to reconcile the wild and the diverse. When its budget hit an all-time low, The Wildlands Project opted to maintain the portion of its program focused on wildness and activism and to gut the science program, just as many of the mainstream conservation groups (e.g., the National Audubon Society) have done and as the federal land-managing agencies routinely do (slash science budgets, that is).

I found myself and the program I initiated without funding and resigned in January 1996 as The Wildlands Project's science director.

Wildness is just as meaningful to me as biodiversity. When it comes right down to it, the emotional and aesthetic reasons for protecting wild areas are more important to me than the scientific reasons. But are we not somewhat selfish in our love for wilderness, our craving to be alone in places that humble and excite us, that are beautiful, or that challenge us recreationally or spiritually? Does any other species feel this way about wilderness? Does any organism besides a few fanatic Homo sapiens need wilderness? Let's face it: Wildness is a more anthropocentric conservation criterion than biodiversity. I can think of no conservation goal less biased, more biocentric, more all-encompassing than protecting and restoring native biodiversity and ecological integrity. Wilderness areas, designated and otherwise, contribute to this goal and are essential for some species, at least given the human attitudes and behaviors that currently make nonwilderness unsafe or unlivable for them. But wilderness is not the whole picture. Wildness, however exalted it makes us feel, is incomplete as a conservation objective. Unless wilderness contributes to the higher goals of biodiversity and ecological integrity, in these times of mass extinction and degradation of ecosystems on a global scale it is perhaps frivolous to spend much time trying to protect it. In many cases our efforts would be more fruitfully employed in ecological restoration, in trying to help heal the landscapes we have already damaged. A greater number of species would probably benefit.

So how can we make wilderness designation and management more

responsive to the most pressing needs of the 21st century? First, we need to re-evaluate the criteria used to select conservation areas, including but not limited to wilderness, to make sure they are fully consistent with what modern ecology and conservation biology have to teach us. Wilderness areas and other reserves should be selected primarily to represent all kinds of ecosystems and species assemblages (the goal of the U.S. National Biological Service's Gap Analysis project), maintain viable populations of all native species in natural patterns of abundance and distribution, sustain ecological and evolutionary processes within normal ranges of variation, and be adaptable to a changing environment. These biocentric objectives must be primary if we are truly serious about averting the biodiversity crisis. But then, nearly as important, must come the objective of encouraging human activities that are compatible with the maintenance of ecological integrity and discouraging those that are not. Within wilderness and other protected areas, some of the most compatible and necessary activities are scientific research, monitoring, and active restoration and management of native biodiversity These activities have been nonexistent in many wilderness areas, which seem to be viewed more as public playgrounds. Hence, we have wilderness areas where overgrazing by livestock is severe, forests are unnaturally dense and unhealthy due to lack of fire, lakes are stocked with fish not native to them, and trails are eroding. Acknowledging that biodiversity and ecological integrity should be foremost objectives for wilderness designation and management—and that active management usually will be necessary in these areas—does not mean we destroy the wild. It does not mean we forget about all other values of wilderness and lose the constituencies we have gained. It certainly does not mean we stop defending truly wild areas. It is only a matter of recognizing priorities. Spending time in wilderness continues to be my greatest inspiration, my motivation to keep up the good fight. But I suggest that what we fight for be extended from our own gratification to encompass, as far as we can determine, the needs of all other species. It is the least we can do for them. **IJW**

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Wilderness in the New South Africa

BY WAYNE ELLIOT

White rhino cow and two-year-old calf, Umfolozi Game Reserve (left). (Photo by Wayne Elliot.) Baviaanskloof ("Baboons Ridge") Wilderness Area in the Eastern Cape Province (below). (Photo by Vance Martin.)

Abstract: South Africa is redefining itself in the post-apartheid era. Currently, 11 wilderness areas are protected by law, with numerous others zoned within protected areas. The principle challenges lie in developing uniform wilderness management standards, legislating a wilderness act, and enabling local communities such as those that exist in KwaZulu/Natal to manage and receive direct benefit from their adjacent wildland areas.

Introduction

THE WILDERNESS MOVEMENT IN SOUTH AFRICA HAS ITS ROOTS in what is now the province of KwaZulu/Natal. It was in these Zululand reserves that Ian Player, as a young game ranger, first became aware of the fundamental principles of the wilderness concept after reading literature from The Wilderness Society in the United States, during their struggle to create the Wilderness Act.

The first wilderness trails (treks) were conducted in Umfolozi Game Reserve in 1957, guided by Player and his friend and mentor, Magubu Ntombela. During the following year, the southern half of Umfolozi Game Reserve was set aside as a wilderness area, followed by the northeastern sector of Lake St. Lucia. Both areas, although still administered as wilderness areas, are not protected by law and are subject to the management policies of the regional conservation authority.

It was only in 1973 that the first wilderness area was legally designated when, in terms of specific amendments to the Forestry Act, regions of the Natal Drakensberg and Cape Cedarberg were proclaimed as wilderness areas. These areas were under the control of the Department of Forestry (national level), headed at that time by the farsighted forester and wilderness advocate, Danie Ackerman. During the past two decades, the wilderness concept has enjoyed increasing support, and there are now designated wilderness areas within many protected areas, notably within the Kruger National Park and the Drakensberg, Zululand, and Cape reserves.

As Table 1 indicates, 11 areas, totaling nearly 680,000 acres (275,000 ha), have been designated under the Forest Act as wilderness. An additional four areas are candidates for wilderness or for addition to existing wilderness, totaling more than 378,000 acres (153,000 ha). The largest of the new areas, Baviaanskloof Wilderness Area, will provide protection to approximately 165,000 acres (67,000 ha) in the Cape Fynbos region, an area containing more than 6,000 endemic species out of the 8,500 total species (Bainbridge 1984). It is also important to note that, among the wilderness zones (administrative protection only) is the Lake St. Lucia Wilderness, a unique achievement in that it is completely marine, demarcated by a fence barely protruding above the lake's surface.

There is an urgent need to legally protect the remaining wildlands and create a wilderness act for South Africa. Currently these areas, particularly those within existing protected areas, are not protected by law and are managed according to the respective policies of the various conservation organizations. Historically, this has meant that the wilderness concept

Table 1: Wilderness Areas in South Africa

Name	Area (acres)	Area (hectares)	Province
Legally Declared under Forest Act			
Mdedelelo	66,700	27,000	Natal
Mkhomazi	118,600	48,000	Natal
Ntendeka	12,900	5,200	Natal
Mlambonja	34,600	14,000	Natal
Mzimkulu	70,000	28,300	Natal
Wolkberg	43,000	17,400	Transvaal
Cedarberg	159,100	64,400	Cape
Groendal	53,900	21,800	Cape
Boosmansbos	35,100	14,200	Cape
Grootwinterhoek	58,400	23,600	Cape
Doringrivier	27,500	11,000	Cape
Total Area	679,800	274,900	
Wilderness Zones in National Parks or Game Reserves			
Umfolozi GR	61,800	25,000	Natal
Lake St. Lucia	44,300	17,700	Natal
Kruger NP (18 zones)	1,680,500	672,200	Transvaal
Proposed National Forest Wilderness Areas			
Tewate	50,600	20,500	Natal
Kammanassi	123,500	50,000	Cape
Kogelberg	39,500	16,000	Cape
Baviaanskloof	165,000	66,000	Cape

Source: Bainbridge 1990.

within these organizations has been developed solely by the few dedicated staff who understand and are committed to the wilderness philosophy. Changes in policy or staff often results in a dramatic change in emphasis and limits the support the wilderness concept may previously have enjoyed.

Many of the reserves are surrounded by large rural populations, and there is increasing pressure to develop the reserves and generate economic benefits for the neighboring communities. Because wilderness areas are not utilized by a wide spectrum of tourists and are therefore limited in terms of economic viability, many people argue against their continued preservation. Although the wilderness concept is gaining support amongst conservation staff, it is vital that these areas be legally protected.

Non-Government Organizations at Work

Importantly, there are a number of non-government organizations (NGOs) that are actively working toward achieving legal protection of the wilderness areas. The hope is that these NGOs will become influential in achieving the necessary legal protection and also realize the important role of monitoring the management of these wildlands by the conservation agencies and other authorities.

The recently formed Wildlands Trust, together with other NGOs will play a crucial role in ensuring the protection of wildlands within South Africa and indeed throughout Africa. The reacceptance of South Africa by the international community means that the conservation expertise inherent in this country can now be made available to the rest of Africa. This has particular relevance in spreading the wilderness philosophy into Africa, which is an exciting challenge.

Perhaps the most influential NGO in terms of developing a wilderness ethic in this country has been the Wilderness Leadership School. Founded by Ian Player more than 30 years ago, the school has taken many people on wilderness trails (treks) throughout Southern Africa. Targeting youth and particularly potential leaders, the school has been instrumental in generating wide support for the wilderness concept. An exciting and recent initiative has been the reassignment of staff from the Department of Nature Conservation, (KwaZulu/Natal) to the school. These staff members not only gain a wider perspective and a sound understanding of the wilderness philosophy, but also assist the school in taking treks. The evolving relationship between NGOs such as the Wildlands Trust, the Wilderness Leadership School, and the formal conservation authorities is an important development and is necessary to ensure that the wilderness ethic becomes entrenched in the policies and management styles of the conservation organizations.

Education and Training

An increasingly important aspect of wilderness management that needs to be addressed, particularly from a formal conservation point of view, is the inclusion of wilderness courses in the tertiary education programs. Currently the tertiary qualifications required to join a conservation agency lack any wilderness content, and it is up to an individual to pursue his or her own wilderness education. This is usually achieved through enrolling in a correspondence course. Fortunately, an increasing awareness of the need for formal wilderness courses to be included in the curricula and recent initiatives, particularly in the Western Cape, will perhaps allow this important aspect to be realized.

Another element requiring urgent attention within the formal conservation agencies is the establishment of a definite career path for staff who wish to remain as wilderness trail guides. A number of the conservation bodies have dedicated staff positions for trails officers and, although making an important contribution to instilling a wilderness ethic in the management of a reserve, these are often junior staff who do not have influence in the general management of a reserve. After a period doing trails, these officers usually become section officers. This does not allow for continuity, particularly in terms of creating a core of officers that are experienced and well versed in the philosophy of wilderness. The selection of staff to become wilderness guides and the establishment of a suitable career path must be addressed. Also encouraging is the increasing desire on the part of some experienced field officers to remain as trail guides.

There is a definite need for wilderness training within the formal conservation agencies, and generally the NGOs have taken the lead in this regard. Although most of the literature comes from the United States, the challenge lies in making the wilderness concept relevant to the African situation. This realization has generated considerable debate because of some unique challenges facing South Africa today.

Management Challenges

The status and management of wilderness areas often differ considerably, given the policies of the respective provincial and national conservation agencies. It is essential that the natural character and integrity of a wilderness area be protected. Most wilderness zones within parks and reserves are managed according to the policies inherent in a particular conservation organization. The wilderness area in Umfolozi Game Reserve, for example, is managed within the guidelines laid down in the management plan, relevant to protecting the wild character of the area. This may include using helicopters to remove captured rhinoceroses (to avoid the use of numerous other vehicles), or trying to stop aircraft overflights below prescribed altitudes. Conversely, the management of the wilderness area in Tembe Elephant Park may allow for vehicle access, given the international border and associated problems. There are also wilderness areas, particularly in the Drakensberg Mountains, where local tribesmen can be found harvesting natural resources.

Wilderness trailists (trekkers) overlooking the Black Umfolozi river, Umfolozi Game Reserve Wilderness Area. (Photo by Wayne Elliot.)

The manner in which the wild character of an area is managed is therefore open to interpretation. This situation needs to be resolved as soon as possible in order to create a legally binding definition of a wilderness area relevant to the South African situation. Once this has been achieved, the wilderness areas currently protected would achieve a status that would apply throughout South Africa, and management plans then could be applied accordingly.

Given the differing interpretations and management styles of wilderness areas, it is important that these aspects be monitored by an independent organization in order to ensure that the wild character of these areas is maintained. Within the province of KwaZulu/Na-tal, two such NGOs exist, namely the Wilderness Foundation and the Wildlands Trust. Both are committed to monitoring the management of wilderness areas and actively working toward ensuring their survival in southern Africa.

With the country's change in government over the past two years, conservation agencies have had to adapt to a rapidly evolving socioeconomic climate. Historically, game reserves and parks were viewed as elitist retreats, particularly for the white section of the population. Little attention was given to the neighboring communities, and the relationships between the conservation authorities and neighbors were often characterized by an element of alienation. The developing social dynamic has meant that previously excluded neighboring communities now are becoming actively involved in realizing the economic benefits that the parks offer. Furthermore, there is an evolutionary process of meaningful participation by communities in the management of these parks and reserves, especially as it relates to harvesting natural resources and providing for ecotourism.

The KwaZulu/Natal Case Study

The province of KwaZulu/Natal has a long and proud conservation history, and

the wilderness ethic there is reasonably supported by conservation authorities. The first game reserves in Africa—Umfolozi and St. Lucia—were proclaimed in 1897. It was in these same reserves that the modern wilderness movement in southern Africa was founded, when Ian Player and Magubu Ntombela led the first wilderness trails in 1957.

This province has approximately 25% of the South African population, most of whom are rural people living in areas that lack the most basic technological infrastructure. Often the catalyst to initiating development is a game reserve that needs improvement. How this is accomplished, and for what objectives, is critically important to the future of wildlands in the region. The twin pressures of meeting the increasing demands of foreign tourists, and the need for economic development of rural communities, are the framework in which the conservation agencies must defend and manage wilderness areas.

Hippo displaying, Ndumu Game Reserve. (Photo by Wayne Elliot.

The wildlands of KwaZulu/Natal are managed in three distinct ways: by the formal conservation agencies that manage the proclaimed areas, by joint management between the authorities and local communities, and through monitoring of natural areas that have no official conservation status. Areas proclaimed as game and nature reserves collectively comprise just over 10% of the area within the province. (Nationally, South Africa currently has only about 6% under formal conservation authorities are actively involved in the management of these areas, the communities own the land and are the custodians of the natural resources.

The increase in foreign tourists, plus the growing interest in the cultural and historical aspects of the indigenous people, mean that the community conservation areas have high potential for economically sustainable ecotourism, which could ensure the conservation of wildlands in these regions.

conservation designation.) Community conservation areas (those jointly managed) often have a wild character, particularly in the more remote regions, and these areas deserve better protection. Although the

... cultural values related to the environment ... must be encouraged and enhanced in order for the wilderness concept to survive. ... but the real challenge lies in rediscovering the spiritual relationship to the land and creating an appropriate land ethic.

Community Participation

Generally, given their poverty and unsustainably high population growth, rural communities need direct economic benefit from local protected areas. An operational and management style sensitive to the needs and priorities of communities, without compromising the integrity of the natural environment, is vital. This is an enormous challenge for the conservation authorities and often requires a new, holistic management approach that embraces local cultural values related to nature, and that fosters a sense of accountability by local communities to the natural environment.

Historically, communities were not involved in the business arrangements of tourism initiatives within protected areas, with participation instead limited to simple employment and the selling of curios. This approach, however, does not satisfy the demand for communities becoming "business" partners in tourism ventures. Recent initiatives have seen the active involvement of neighboring communities in the operational management of tourism camps. In addition to members of the communities being employed as guides or cooks, they are also represented on the boards of directors that manage these tourism facilities, thereby realizing the adage "from the kitchen into the boardroom." Park revenues and other financial benefits can now flow into the communities. This form of direct participation should provide the degree of accountability and responsibility for

communities necessary to support the future protection of the parks and their wilderness areas.

The Department of Nature Conservation in KwaZulu/Natal province has initiated an exciting venture in this regard. Working closely with local communities, often in the most rural and impoverished situations, the department formed a not-for-profit company called Isivuno, which in Zulu means "to harvest." This company is responsible for developing and managing ecotourism facilities within the protected areas under the department's control. Importantly, these ventures involve the local neighboring communities as meaningful business partners who receive direct financial benefits from the profits made by the facilities. The structuring of the "business" arrangements are often complicated, given the lack of expertise in business and the lack of available funds within these communities. But after nearly two years the Isivuno model of sustainable business partnerships has proven successful. It holds great potential for including communities in the management of wildlands through appropriate ecotourism ventures, and for creating awareness within rural areas of the need to protect parks and reserves, including wilderness areas.

Appropriate Development

Another challenge to wilderness conservation lies within the conservation agencies themselves. The wilderness ethic is not always understood by reserve managers and often has little support from the conservation staff. Wildlands are still sometimes viewed as areas awaiting development and, given the increasing tourism demand on the reserves, training in new models of tourism must be encouraged. For example, tourist camps historically were developed within the boundaries of the reserves, often at the most scenic or prominent natural feature. These existing camps dominate a large area in terms of noise and visual aesthetics, and additional upgrading and development only makes matters worse. Larger camps result in increased traffic, busloads of tourists and the need to develop appropriate facilities such as restaurants, shops, and more staff. All of this diminishes the areas' wilderness values.

An obvious alternative is to develop camps on the periphery of the reserves. This option greatly reduces the general impact of visitors to the area and, by being on the boundary of the reserve, allows neighboring communities to become directly involved in the economic benefits. Shops, curio sales, and other supportive services ultimately can be a local community's responsibility and will increase the active and meaningful participation of communities, greatly assisting in improving the economic situation in areas adjacent to the reserves.

In this post-colonial, post-apartheid era, the reconstruction of traditional society is very important. *Caring for the Earth: A Strategy for Sustainable Living* (1991) identified two important challenges in this regard: to change attitudes and practices, and to enable local management of conservation areas. In South Africa, and KwaZulu/Natal in particular, meeting these challenges is vital if protected areas are to survive.

The abundance of natural resources in South Africa contributed greatly to the growth and continued survival of the communities. The indigenous people lived in a wilderness that provided food, materials for housing and clothes, and importantly, provided the spiritual power on which they built their faith. The last 100 years has witnessed an ever-increasing detachment from the land, both physically and spiritually. There are many reasons for this, ranging from the arrival of missionaries, to victory by the British armies over the tribes, to the apartheid policies that dominated this country for 50 years.

Local communities now rightly demand participation in the decision-making process for the protected areas. These areas are often viewed as ancestral land and important to cultural identity. Detachment from the land, particularly from a spiritual point of view, holds inherent dangers for the continued existence of wildlands. The cultural values related to the environment—social history, use of plants and animals, ancestry—must be encouraged and enhanced in order for the wilderness concept to survive.

This goal is achievable, but the real challenge lies in rediscovering the spiritual relationship to the land and creating an appropriate land ethic. This is why it is so important to preserve the wildlands of South Africa and allow the wilderness to be the foundation upon which our new nation builds a meaningful relationship with the natural world. **IJW**

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The California Desert Protection Act—

A Time for Desert Parks and Wilderness

BY JAY WATSON AND PAUL BRINK

THE CROWNING ACHIEVEMENT OF THE 30th anniversary year of the United States' Wilderness Act of 1964 was the spectacular triumph of seeing the California Desert Protection Act (CDPA) signed into law by President Clinton on October 31. (Public Law 103-433).

Article authors Jay Watson (left) and Paul Brink (right).

After a decade of intensive public debate, this landmark measure had become the law of the land. Not since the 1964 act established and endowed the National Wilderness Preservation System (NWPS) with 9.1 million acres of wilderness had a single bill added as much land to the system in the lower 48 states. All told, the CDPA designated over 7.6 million acres of wilderness. Its major features include:

- Sixty-nine new wilderness areas encompassing 3,667,020 acres, of which 3,571,520 acres are Bureau of Land Management (BLM) wilderness, and 95,500 acres are National Forest wilderness.

- The addition of 1,300,000 acres to Death Valley National Monument and its redesignation as a national park. At 3,367,627 acres, it is the largest park in the lower 48 states, with 3,162,000 acres (95%) of the park being designated wilderness.

- An increase in Joshua Tree National Monument by 234,000 acres and its redesignation as a national park. The 132,000 acres within the addition have become wilderness.

- The establishment of a 1,419,800-acre Mojave National Preserve under the National Park Service. Within the preserve, 695,000 acres are designated wilderness.

- The designation of 9,000 acres as wilderness at two national wildlife refuges under the U.S. Fish and Wildlife Service.

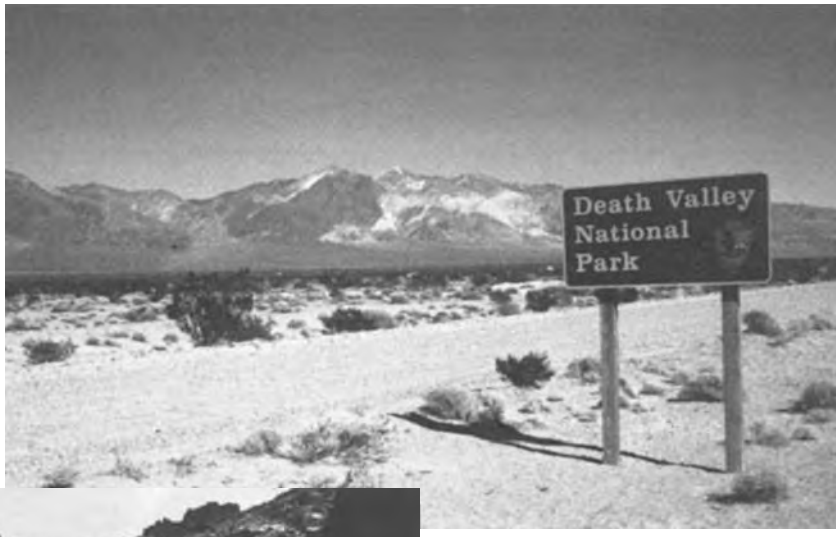
The legislation almost fell prey to election-year politics during the final weeks of the 103rd Congress. Its fate was ultimately decided by the U.S. Senate during the dramatic final hours of that Congress. Earlier, with time running out in the session, opponents of the bill in the House of Representatives attempted to kill the bill through endless procedural maneuvers, including an attempt to "run out the clock" by prolonging debate and offering more than 40 weakening amendments. One *San Francisco Examiner* editorial called the effort to kill the bill "death by amendment."

In the end, Representative George Miller (D-CA), chairman of the House Natural Resources Committee, and Representative Bruce Vento (D-MN), chairman of the House Subcommittee on National Parks, Public Lands, and Forests were successful in passing the bill out of the House. Once the CDPA emerged from the House it went to the Senate, where opponents mounted a filibuster of the bill. But, in the final moments of the 103rd Congress, public pressure, the relentless efforts of The Wilderness Society, Sierra Club, National Parks and Conservation Association, and California Desert Protection League, along with the commitment of Senator Dianne Feinstein (D-CA), all combined to break the filibuster.

In an unfortunate postscript to the enactment of this landmark law, its centerpiece—the Mojave National Preserve—came under almost immediate attack by the 104th Congress. Working through the appropriations process, House opponents of the preserve sought to close it, either by starving it of operating funding, or by mandating that it be managed for so-called historical uses. Again, in the end, those provisions were dropped, leaving a fully funded preserve in the hands of the Park Service.

The CDPA also marked the beginning of a new era for the BLM in California. Before the CDPA became law, the BLM

managed only five wilderness areas totaling 14,000 acres in the state. Because these were small and attached to larger wilderness areas managed by the Forest Service or Park Service, the BLM's wilderness management role was minimal. Following enactment of the CDPA, the BLM became the manager of 69 new wilderness areas totaling nearly 3.6 million acres. Now, nearly a quarter of BLM lands in California are included in the NWPS. Of the 13.8 million acres of federally designated wilderness in California, 25% are now managed by the BLM. From a national perspective, the CDPA more than doubled the number of wilderness areas managed by the BLM and increased the total BLM wilderness acres by nearly 70%. Only two other states have significant amounts of BLM wilderness: Arizona (1.4 million acres) and New Mexico (129,000 acres).



Death Valley Road with wilderness in background. Ninety-five percent of Death Valley is now wilderness (above). Watering tanks for Bighorn Sheep in Wilderness Canyon of Death Valley National Park (left). (Photos by John Hendee.)

The Transition to Wilderness

Both prior to and following enactment of the CDPA, the BLM moved proactively to prepare for implementation of the sweeping legislation. Agency personnel began to examine closely the CDPA's requirements and to discuss both the immediate and long-term tasks necessary for the transition to wilderness management in the California Desert. Eventually, this led to the development of a document titled *A California Wilderness Transition Policy and Guidance Document,* which outlined a five-year wilderness transition strategy. This document was tailored to the CDPA and was perhaps the most comprehensive wilderness transition document ever written by the BLM. The document focused on completing fourteen objectives, both short-and long-term in nature, as follows:

1. Preparing Congressional Wilderness Maps and Legal Descriptions—The CDPA required the BLM to prepare a final set of maps and legal descriptions for each wilderness area. This task has been less than simple to complete. The act created over 3,000 miles of wilderness boundary lines, and many boundaries followed roads or rights of ways that no longer exist. Others were based on what turned out to be incorrect survey lines. In addition, many boundaries did not follow any identifiable feature. Therefore, the BLM has had to field check nearly every boundary prior to completing official maps and legal descriptions.

2. Locating and Signing Wilderness Boundaries—In addition to the BLM, a broad range of users need to know where wilderness boundaries are located: hunters, hikers, campers, adjacent land owners, and right-of-way holders. It is important to sign boundaries because it helps BLM rangers to legally protect wilderness areas from unauthorized use and resource damage. The BLM's short-term goal is to mark all boundaries at key access points.

3. Notifying the Public of Wilderness Designation—It is important that the public be aware of the new wilderness areas and the management changes associated with these areas. It not only helps reduce potential resource/user conflicts but is also the first step in promoting a wilderness ethic. Within one month of CDPA enactment, the BLM notified all inholders, mining claimants, governmental agencies, and the public at large of its existence. Specifically crafted letters were developed for each group. In the process, numerous outreach forums were held at the field level. Within the first six months of designation, over 25,000 mailings had been sent out and a number of other informational materials were made available.

4. Updating BLM Records—After wilderness designation, the BLM began updating its records to reflect how rights of way, grazing permits, mining claims and mining plans of operation, recreation permits, cooperative agreements, and resource management plans were affected by the CDPA.

5. Developing Maps for Administrative and Public Use—Since passage of the CDPA, there has been tremendous

demand by the public and BLM for wilderness maps, the best educational tool for preventing resource conflicts and building public understanding. In addition to creating official maps and legal descriptions, the BLM will provide a series of maps tailored for different audiences. Eventually, all maps will be digitized.

6. Notifying the Public about Proposed Actions in Wilderness—Prior to a Wilderness Study Survey (WSA) becoming wilderness, the BLM notified all interested persons about proposed actions in WSAs. This process also facilitated public involvement in the BLM s decision-making process. A similar process has been set up for actions proposed to take place in wilderness areas. Mailing lists were updated and notifications are being sent out on a regular basis.

7. Developing Policies for Wilderness Management—The BLM anticipates taking five years to complete wilderness management plans for all 69 wilderness areas. These plans provide the long-term management direction for each wilderness area. They are also a mechanism to resolve issues in wilderness areas that cannot be resolved by existing law, regulation, or policy. Until a plan is completed, management direction for a specific area may be lacking.

   Accordingly, the BLM identified a need to develop written policies addressing the various special management provisions set forth in the CDPA (e.g., wildlife management by the California Department of Fish and Game, law enforcement activities of the Border Patrol, and access to private inholdings). These policies were developed in cooperation with the National Park Service to promote inter-agency consistency in the California Desert Conservation Area.

8. Employee Training—The BLM was initially concerned that the CDPA might create a climate of uncertainty within the agency. Recognizing the importance of clear employee understanding of the CDPA's intent, the management limitations set forth in The Wilderness Act, and the necessity of a sound appreciation of the role of wilderness in land management, the BLM organized a series of training sessions.

   A team of instructors provided wilderness management training to each of the BLM and Park Service offices affected by the CDPA. The training focused on ensuring consistent interagency management using The Wilderness Act as the basis for this consistency. In addition, in May 1995 the BLM, Park Service, Forest Service, and Fish and Wildlife Service held the first statewide Interagency Wilderness Management Training for Line Officers in Death Valley National Park. The Wilderness Society was invited to present the keynote address at this training session.

9. Responding to Emergencies in Wilderness—The Wilderness Act provides management exceptions for emergencies, usually in the event of fire or medical emergencies. To facilitate a consistent reaction among the BLM offices, guidance was provided for dealing with these types of crises. Emphasis is now being placed on working cooperatively with other government agencies, such as sheriff's departments, Border Patrol, the California Department of Forestry, and county search and rescue teams to ensure compliance with The Wilderness Act and the CDPA. The BLM is also developing a series of memorandums of understanding with these agencies.

10. Public Outreach—Providing information to the public is crucial in wilderness management. Outreach is important to instill public appreciation and support for wilderness. It also helps prevent future impacts to wilderness resources and can reduce anxiety among those affected. In addition to the maps, brochures, and mailings already mentioned above, the BLM is working with other agencies to disperse information to the public.

11. Completing Wilderness Management Plans—The BLM's policy is to complete activity-management plans for all wilderness areas. The focus of these plans is to provide long-term guidelines for area management. As mentioned above, the BLM expects it to take five to ten years to complete all the plans for the 69 new wilderness areas. These plans not only provide a management vision for each wilderness area, but also use an ecosystem approach by bringing together and consolidating other resource plans affecting the wilderness area. This ensures resource management consistency and a focused long-term management direction for both the wilderness area and the surrounding lands or uses affecting it.

    As a trial, the BLM is currently in the process of completing a plan which "clusters" wilderness areas managed by the BLM and the Forest Service in the southern portions of the Sierra Mountains. It would include six newly designated wilderness areas. A draft of the plan is anticipated in 1996.

12. Ongoing Wilderness Monitoring, Reclamation, Surveillance, Compliance, etc. to Ensure Wilder ness Values Are Maintained or Enhanced—The BLM has a legal responsibility to manage its new wilderness areas to maintain or enhance their wilderness character. The BLM must treat these areas as a resource and ensure appropriate on-the-ground decisions. Effective on-the-ground management requires monitoring (recurring inventories to determine trends in wilderness resource conditions), surveillance (identifying and preventing degrading actions to the wilderness character), compliance examinations (ensuring actions are implemented consistent with the terms and conditions of the use authorization), public

outreach, reclamation, and the maintenance or construction of developments (e.g., trails).

13. Identifying Staffing and Equipment Needs for Implementation—The transition document provided an estimate of costs for implementation of the CDPA over a five-year period. The cost estimates proved to be very important to the BLM. They were often used by the Department of the Interior and Congress when assessing the BLM s long-term budget needs to implement the CDPA. These figures were also used extensively throughout the entire political process. In the end, California's BLM wilderness budget increased by over $1 million even during the current budget reduction period.

14. Implementing the Special Provisions in the CDPA—A number of unique wilderness provisions were included in the CDPA, and nearly all involved provisions for allowing vehicle use in wilderness. An example of one of the provisions is the requirement that the BLM allow for vehicle access for law enforcement agencies into wilderness. The act stated in Section 103(g):

"Nothing ... may be construed to preclude Federal, State, and local law enforcement agencies from conducting lav/ enforcement and border operations as permitted before the date of enactment of this Act, including the use of motorized vehicles and aircraft, on any lands designated by this Act."

A second provision went beyond established precedents regarding wildlife management in wilderness. The act stated in Section 103 (f):

"Management activities to maintain or restore fish and wildlife populations and the habitats to support such populations may be carried within wilderness areas designated by this title and shall include the use of motorized vehicles by the appropriate State agencies."

To avoid different interpretations of the implementation of these provisions, the BLM developed a series of policy documents to guide field personnel.

Conclusion

Wilderness has a rich history and tradition in California. When The Wilderness Act was signed into law in 1964 by President Lyndon Johnson, it designated 9.1 million acres of wilderness nationwide. Of that, 1.25 million acres were in California—more than in any other state. Since then, Congress has moved to designate wilderness in California a total of 16 times—more times than in any other state. Today, there are almost 14 million acres of wilderness in California—more than in any other state outside Alaska.

Through its passage of the CDPA, the U.S. Congress continued that proud tradition of wilderness by protecting a significant portion of California's remaining wildlands. Perhaps the CDPA s greatest gift is that it offers the American people an opportunity to completely rethink how they value arid landscapes. **IJW**

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The Federal Advisory Committee Act—

Implications for U.S. Wilderness Management

BY LINDA MERIGLIANO AND EDWIN E. KRUMPE

Abstract: *Since the early 1980s, citizen task groups in the United States have worked collaboratively to reach consensus and develop recommendations for wilderness management direction. Recently all of these groups have been disbanded because the way in which they were being formed and used was determined to violate the Federal Advisory Committee Act (FACA) of 1972. The FACA applies anytime the federal government asks a group that includes nonfederal employees to provide recommendations or advice of any kind. The FACA does not prevent the formation of advisory groups, but it does impose a process that is viewed as burdensome. This, in concert with an executive office moratorium on forming new federal advisory committees, has effectively precluded public work group input on wilderness and other land management issues. Increased reliance on a variety of other public involvement processes will be necessary to devise and implement wilderness plans and management decisions reflecting public input.*

PLANNING EFFORTS TO DEVELOP WILDERNESS MANAGEMENT DIRECTION often have used citizen task groups, which characteristically have met about 20 times over a two- or three-year period to work toward mutual understanding and consensus (McCoy et al. 1995). This form of intensive public involvement in wilderness management evolved for two primary reasons: (1) Recognition that wilderness management occurs in a political environment where citizens hold veto power. In this arena, effective implementation of plans will occur only if people affected by plans and decisions feel a sense of ownership in their direction. (2) Wilderness research on recreational impacts suggested a need for management focused on achieving desired conditions and thus limiting change to what is acceptable, rather than defining carrying capacity merely as how much use an area can physically or socially withstand (Stankey et al. 1985). This shift in thinking in terms of desired conditions highlighted the value-based nature of decisions and the need for agreement among diverse interests about which conditions are desired and how much change in them is acceptable (Krumpe and Stokes 1993).

Task groups were first used to develop wilderness management direction in the early 1980s for the Bob Marshall Wilderness in Montana (Ashor et al. 1986; Stokes 1988, 1990). Since that time, numerous other wilderness planning efforts have used citizen task groups (McCoy et al. 1995). As experience with "wilderness planning increased, techniques for involving citizens were refined. However, in 1994 a lawsuit over President Clinton's forest plan for the Pacific Northwest forests (Northwest Forest Resource Council vs. Espy, D.D.C. 3/21/94) focused national attention on the FACA. The judge ruled that, because the Forest Ecosystem Management Assessment Team provided advice and recommendations to federal officials, but included nonfederal employees in an advisory capacity, the team's activities were conducted in violation of the FACA. This ruling caused federal agencies to closely scrutinize the use of citizen task groups for wilderness management planning. It was determined that the way in which citizen task groups were being formed and used violated the FACA. As a result, all of these groups have been disbanded. However, managers continue to receive direction to build collaborative relationships with the public and involve the public in more meaningful ways (USDA 1993; Cortner and Shannon 1993; Magill 1991, Thomas 1995). And clearly, the need to develop plans that can be implemented effectively has not diminished. The result has been confusion over how to effectively involve the public without violating the FACA.

The FACA, The Law

The FACA (PL 92-463) is not a new law. Passed in 1972, it was a well-intentioned piece of legislation designed to "level the playing field" so that decision makers were not unduly influenced by one group. The intent of the law is three-fold:

1. reduce the influence of special interest groups in the decision-making process;
2. provide the public equal access to the decision-making process; and
3. prevent the establishment of unnecessary committees and control the costs associated with such committees.

The term "advisory committee" is defined in section 3 of the act to be,"... any committee, board, commission, council, conference, panel, task force, or other similar group, or any subcommittee or other subgroup thereof (hereafter in this paragraph referred to as 'committee'), which is a) established by statute or reorganization plan, or b) established or utilized by the President, or c) established or utilized by one or more agencies, in the interest of obtaining advice or recommendations for

(Peer Reviewed)

the President or one or more agencies or officers of the Federal Government, except that such term excludes ... (iii) any committee which is composed wholly of full-time officers or employees of the Federal Government. ... (PL 92-463, Sec 3)."

The FACA applies anytime the federal government asks a group that includes nonfederal employees to provide recommendations or advice of any kind. It is important to recognize that the FACA does not prevent the formation of advisory groups, but it does affect how groups are formed and used (see General Service Administration regulations, 41 CFR 101-6.1001-101-6.1035 [1990]). The language in the FACA is broadly written, and thus is open to a wide range of interpretations. The act also contains considerable gray area, and future legal challenges will no doubt further refine how this law is interpreted. Just considering a single factor such as group membership, frequency of meetings, or group composition may not indicate a clear violation of the FACA. Rather, court decisions look at the totality of circumstances surrounding the group to determine if the intent of the FACA has been violated. In attachments to a memo to Forest Service employees, the chief of the U.S. Forest Service identified the following "red-flag" questions that might signal a group's violation of the FACA (USDA 1994):

1. Who created the group and why? If the group's formation was not initiated by the federal government, then it is less likely to be considered an advisory committee subject to the FACA. However, it could become an advisory committee if it is used as such by a federal agency.
2. Does anybody other than regular full-time federal employees participate in the group? If a nonfederal employee "participates" in the group but is not a "member," then the difference between "participant" and "member" status may be scrutinized to ensure that it is not a mere subterfuge.
3. Does the group give advice or recommendations about specific federal decisions? If the group is only collecting data, then it is less likely to be considered an advisory committee under the FACA.
4. Does the group give the appearance of exerting "undue influence" on a specific federal decision? If so, it is more likely to be considered an advisory committee under the FACA.
5. Do the group members work to reach consensus or do they work independently? If the goal of the group is to present consensus recommendations, it is more likely to be considered an advisory committee under the FACA.

Article authors Edwin Krumpe (left) and Linda Merigliano (below).

The same memo further explains that the FACA does not apply to:

1. Meetings with preexisting groups. Any organization or group may request to meet with a manager to present its views about an issue.
2. Meetings with individuals.
3. Meetings with groups if the purpose is to obtain individual opinions. However, if the agency requests group advice or recommendations, then it is covered by the FACA.
4. Public meetings that are open to all interested parties for the purpose of exchanging views and information.

Using Advisory Committees under the FACA

It is no simple task to form a federal advisory committee. The regulations from the U.S. Department of Agriculture (USDA 1993a) take 23 pages to describe the procedures for the establishment, operation, duration, and accessibility to the public of advisory committees. An advisory committee can be chartered if it is determined that formation of such a committee is in the public interest; or its functions are not already being performed and cannot be performed by the agency, another existing advisory committee, or other means such as a public hearing. Chartering a committee requires publication of a notice in the Federal Register regarding the committee's objectives and scope. All meetings must be open to the public with meeting notices and agendas published in the Federal Register 45 to 15 days in advance, meeting notes must be available to the public, and a designated federal employee must approve agendas and attend each meeting. To further complicate things, in late 1993 President Clinton issued Executive Order 12838, which requires agencies to reduce the number of advisory committees that they use and to limit the future use of such committees unless urgent need is demonstrated. This has effectively halted attempts to charter any new federal advisory committees for wilderness planning or management.

Nevertheless, the FACA should not be used as an excuse for not involving the public in a meaningful way; however, managers must be aware of the consequences of violating the FACA in their public involvement programs. The major risk is that, if someone disagrees with a decision, he or she may appeal on the grounds that the proposal was developed in violation of the FACA. This could result in years of work being thrown out with subsequent loss of public trust. Managers are encouraged to consult with public involvement specialists and legal counsels to review all the factors in a particular situation so that the FACA is not violated.

The FACA, the Conflict in Land Management

At the core of American society is our fundamental belief in a government "by the people—for the people," an idea that is upheld by democratic principles such as the right to openly express one's views. Thomas Jefferson called for citizen participation through a free press, debate, and open inquiry (Kemmis 1990). Shortly after his government appointment in 1898, Gifford Pinchot advised foresters of their responsibilities, noting that, "It is more trouble to consult the public than to ignore them, but that is what you are hired for" (McCoy et al. 1994). In the 1960s and 1970s, increasing concern about environmental quality, an atmosphere of "questioning authority," and distrust of "the establishment" prompted renewed demands that citizens be given access to the decision-making process. This citizen uprising was reflected in legislation such as The Wilderness Act of 1964, The National Environmental Policy Act of 1969, The National Forest Management Act of 1976, and The Federal Land Policy Management Act of 1976. The FACA, while not specifically directed at land management, was also passed during this period in 1972.

Public involvement in the land management agencies has traditionally been based on a model in which managers solicit comments from "the public" regarding a proposed action, act as the arbitrator weighing the pro and con arguments, and then make decisions that supposedly incorporate this information to best represent "net public benefit" or the common good (Kemmis 1990; Merigliano and Marsh 1994). Assumptions underlying this model are that professional managers know what is best, and land management decisions are primarily technical questions that can be addressed through rational analysis techniques that are value-free (Magill 1991). There is no burden on citizens to listen to other viewpoints, respond to one another, or try to agree (Kemmis 1990).

An increasing number of appeals and disenchantment with land management planning suggests that the traditional public involvement model is not working (Shands 1992; Blahna and Yonts-Shepard 1990; Gericke and Sullivan 1994). Alternative public involvement models view land managers as social change agents who share authority with citizens to chart future direction (Force and McLaughlin 1982). One such model is transactive planning (Friedmann 1973). This model is based on the idea that scientific information must be joined with personal knowledge and values to implement effectively decisions regarding the public good (McCoy et al. 1994). Many recent publications have affirmed this notion (USDA 1993; Shands 1992; Stokes 1990; Gericke and Sullivan 1994; Sirmon et al. 1993).

Components common to these alternative planning models are (1) open dialogue, (2) mutual learning, and (3) collaboration to jointly develop solutions, usually through consensus (Ashor et al. 1986; McCoy et al. 1994; USDA 1993). The FACA does not prevent open dialogue or mutual learning. However, it does pose a major barrier regarding jointly developed solutions due to the provisions preventing federal agencies from soliciting or adopting group recommendations.

Conflict over land management is increasing due to resource scarcity and an increasing human population with more diverse values. For this reason, the need for citizens to explore issues in-depth, understand different viewpoints, and suggest collaborative solutions has never been greater. But, it is human nature for people to associate with others who share similar values. Thus, unless there is some assurance that decision makers will adopt, or at least seriously consider, the solution that is reached, it is very hard for people to really listen to others who are espousing different views.

The Future under the FACA

A major tenet of ecosystem management is to work collaboratively with "partners" to address issues at larger scales. This approach necessitates working across current political and jurisdictional boundaries. The FACA has begun to affect not only task groups working on wilderness management planning, but also larger-scale ecosystem efforts (Durbin 1994). This has led to increased efforts to "fix FACA." In March of 1995, the Unfunded Mandates Reform Act (PL 104-4) passed with a provision to amend the FACA. Section 204(b) provides an exemption from the FACA to allow federal agencies to hold meetings with elected officers of state, local, and tribal governments to exchange views, information, and advice relating to federal programs that explicitly or inherently share intergovernmental responsibilities or administration. This clearly does not change the FACA to the extent that federal agencies would be able to use citizen task groups to develop consensus recommendations, but it opens the door for advice from elected officials.

In conclusion, the FACA has become a practical deterrent to public involvement through advisory groups, even though it actually outlines a process to establish advisory committees when they are deemed to be in the public interest. But, it imposes a process on the agencies that is viewed as burdensome. This, in concert with the moratorium on forming new federal advisory committees, has effectively precluded public-work-group input to wilderness and other land management

issues. Efforts to narrow the scope of the FACA, thereby relaxing some of the restrictions of public involvement, will likely continue. Concerns about effects of the FACA have been expressed by members of both political parties, but for now, managers clearly must continue to find meaningful ways other than public work groups to involve citizens in land management decisions.

Even without forming an official federal advisory committee, effective public involvement under the FACA is possible by creating an environment that fosters two-way dialogue, mutual learning, and continuous relationship-building with interested and affected citizens. This will require using a variety of other methods, such as public meetings with facilitated small group sessions, workshops, open houses, field trips, kiosks at malls or public events, issue briefings to the media, newsletters with mail-back response forms, coffeehouse chats, "spit and whittle" sessions (USDA 1993), and adherence to the basic keys to successful public involvement (Bleiker and Bleiker 1990; Merigliano and Marsh 1994). However, it can be argued that these other methods of public involvement are no substitute for the open dialogue, mutual learning, understanding, collaborative decisions, and consensus that results from working with a citizen task group over a prolonged period of time (Friedmann 1973; Ashor et al. 1986). Nor do these other methods of public involvement produce the same level of shared ownership, partnership, and support for wilderness management and planning direction. It is the authors' opinion that so long as agencies are unable or reluctant to apply the full process required by the FACA to create advisory committees for wilderness planning and management, citizen work groups will be precluded from participating in the wilderness planning process and wilderness will be the loser. **IJW**

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Wilderness Management by Mail—

Correspondence Education to Meet the Needs of Tomorrow's Managers

BY DAVID PORTER AND RALPH SWAIN

Abstract: *The wilderness management correspondence study program, begun in 1989 as a U.S. Department of Interior (USDI)-Bureau of Land Management (BLM) led interagency cooperative effort with Colorado State University (CSU), proved successful in serving wilderness managers and others seeking to enhance their knowledge of wilderness stewardship. In 1993 the program was transferred to the U.S. Forest Service and by 1995 had attracted a total of 900 students. In 1995 the program moved to the University of Montana's (UM) Center for Continuing Education, in cooperation with the UM School of Forestry, to be close to the interagency Arthur Carhart National Wilderness Training Center. The program has been renamed the Wilderness Management Distance Education (WMDE) Program and is being updated in response to the rapidly changing environment of public land management.*

DID YOU KNOW YOU CAN RECEIVE wilderness management academic training without leaving the comforts of your home or office? Correspondence study, a form of distance education, has become commonplace for universities, corporations, and government agencies. Distance education to train wilderness students and managers in the United States and abroad has evolved into a successful, cost-effective way to help people enhance their wilderness management knowledge and ethics skills without leaving their homes or offices.

The Growing Appeal for Distance Education

A correspondence study program in wilderness management was created in 1989 in a collaborative effort by the four U.S. federal wilderness management agencies (Forest Service, Park Service, Bureau of Land Management, and the Fish and Wildlife Service). Six individual courses were developed. These courses were designed to meet a broad range of knowledge needs in the fields of natural resources and wilderness planning and management (see Figure 1).

The major objectives of the series of wilderness management courses were to provide fundamental knowledge, in sequential building blocks, to help wilderness managers maintain professional proficiency at a reasonable cost. Today six years after the courses were developed, the program has evolved into a successful education and training tool. Enrollment data and feedback suggest that the courses meet needs of federal land managers in the United States; a much broader audience of federal, city, and state recreation planners; and conservation organization members, educators, interested citizens, international wildland managers, and students.

Meeting Training Needs

The Wilderness Management Correspondence Education Program (WMCEP) grew out of necessity. Rapidly changing management programs, management techniques, pressures on wilderness and associated wildland resources, and shrinking budgets for training required that federal land managers develop a cost-effective, up-to-date training curriculum.

Additionally, the National Wilderness Preservation System (NWPS) has grown dramatically. When The Wilderness Act was passed in 1964, it designated nine million acres in the NWPS. By 1995, 31 years later, the NWPS had grown to over 100 million acres, 4% of the US. land mass. The additional acres, accompanied by increasingly complex management requirements and diverse wilderness uses brought unanticipated new challenges to wilderness management. Education of wilderness managers lagged behind this significant land expansion in the wilderness system. Distance education was one way of helping close this gap. Keeping abreast of changing social and political trends and requirements for wildland conservation has required that the courses keep pace with the dynamic influences on management.

Developing a Wilderness Ethic

Development of a wilderness ethic is one of the primary purposes of the WMCEP. A wilderness ethic helps to provide a moral and philosophical foundation for wilderness managers' attitudes and behavior regarding wilderness, and for humankind's relationship with wilderness. It helps wilderness managers understand and define wilderness, explaining why and how it is different from other types of lands.

These courses, in addition to providing technical knowledge, show students that behind wilderness management practices are certain values. These values are what makes wilderness unique. Without a thorough understanding of the unique benefits and values held in wilderness, managers may have a difficult time convincing themselves, fellow resource managers, or the public that actions being taken are the right ones.

Program History

In 1989, with a look to the future, the four U.S. federal land management agencies teamed up with CSU to design professional, fully accredited wilderness education courses to be offered cost-effectively via correspondence. Between 1989 and 1991, David Porter, USDI BLM wilderness specialist developed the six wilderness management courses in partnership with CSU's Department of Natural Resource Recreation and Tourism. Dave worked with a team of agency experts, researchers, and academic scientists to develop each course. Soon, the WMCEP became a highly successful training tool for managers who could not afford to travel to training locations and for managers working in remote areas. The courses were also taken by some university students who did not have access to wilderness courses at their institutions. By 1993, the WMCEP was so successful that it received the U.S. Forest Service's National Wilderness Education Award for excellence in wilderness education.

In July 1993 the administration of the WMCEP was transferred from BLM to the U.S. Forest Service. The program continued at CSU, but the program direction was given to the interagency Arthur Carhart National Wilderness Training Center (ACNWTC) in Missoula, Montana. U.S. Forest Service wilderness specialist Ralph Swain maintained an office on the campus of CSU as a satellite office to the ACNWTC.

From 1993 to 1995 course enrollment grew from 600 to 900 students, and the program attracted interest and enrollment in the courses by non-agency students, including conservation organization members; staff from Outward Bound, the National Outdoor Leadership School, and The Wilderness Society; teachers from the National Geographic Alliance; and wildland managers and students from South America, Africa, and Canada. The most important product of the WMCEP is not the enrollment, but the more enlightened wilderness management style growing out of what these students learned.

Protecting areas like the Kenai National Wildlife Refuge Wilderness in Alaska takes knowledge and skills, some of which can be provided by taking advantage of the Wilderness Management Distance Education Program.

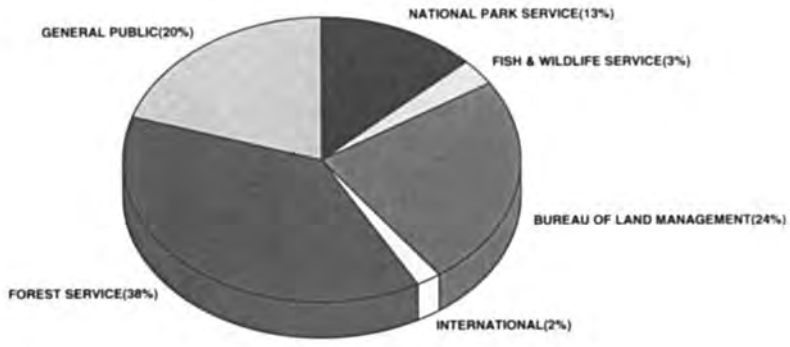
In July 1995 the WMCEP was physically moved to the ACNWTC, and a new partnership was forged with UM's Center of Continuing Education, in cooperation with the UM School of Forestry The new partnership established the courses under a new name, the Wilderness Management Distance Education (WMDE) Program. This move allowed for a more comprehensive training package to be physically housed and managed from the Carhart Center, reducing overhead and staff costs in response to federal budget cutbacks. In addition, the agency-university partnership offering the distance education program was continued at the new location. Participants completing courses now have the option of seeking academic credit through UM's School of Forestry—just as they were able to pursue credit through CSU at the previous location.

Future Directions

The WMDE Program began accepting enrollment in October 1995. Today, UM's Center of Continuing Education administers the day-to-day operations of the WMDE Program. The School of Forestry, under the leadership of assistant professor Dr. Wayne Freimund, oversees course development and curriculum updating in cooperation with program manager Ralph Swain of the U.S. Forest Service.

Currently, several options are being explored to meet the changing needs

Figure 1



of WMDE students. First, the existing six courses will be reviewed and updated. Revisions may include relationships to ecosystem management; management of natural systems; implications of new legislation, such as the Federal Advisory Committee Act and the Americans with Disabilities Act; and more on restoration and rehabilitation of wilderness impacts, to name a few. Additionally, the program may use the latest in electronic technology such as the internet and World Wide Web and explore new ways to deliver the courses to broader and more diverse national and international audiences. Other technologies, such as satellite down-links and video conferencing will also be explored.

Maintaining the Vision

Looking back to 1989, much has been accomplished by using correspondence study as a way to deliver wilderness management education. Today the investment in distance education is paying off and the future for continued wilderness correspondence training looks bright.

How to Enroll

To learn more about the WMDE program or to enroll in a course, contact Clare Kelly at the UM Center of Continuing Education, telephone: (406) 243-4523, or fax: (406) 243-2047. If you have questions about course content, contact Ralph Swain at the Carhart Center, telephone: (406) 626-5208, or fax: (406) 626-5395.

Six Course Offerings

1. Wilderness Philosophy and Development of a Wilderness Ethic—The philosophical origin of the wilderness concept and the themes and values wilderness provides are discussed. Also, a look at the history of wilderness and at the conservation movement in the United States as well as wilderness in the international context are provided. In addition, managing wilderness as a distinct resource and the nonrecreational benefits of wilderness are explored.

2. National Wilderness Preservation System and Related Areas—Provides a look at the early history and key components of wilderness legislation since 1964, related natural systems, and the similarities and differences in agency mandates and policies.

3. Management of the Wilderness Resource—Ecosystem characteristics and basic principles of wilderness management are explored. Separate chapters delve into management of specific wilderness resources such as fire, wildlife, and cultural resources; management of special provisions such as grazing, minerals, and motorized/mechanical uses; and the use of Geographical Information Systems.

4. Management of Wilderness Recreation Resources—Managing for quality visitor experiences, including examples of common problems and solutions, are topics that are explored and discussed. Managing to minimize recreational impacts is covered in detail in a separate chapter. Other chapters include wilderness education and information techniques, as well as a discussion on how to deal with emergencies and law enforcement actions.

5. Wilderness Management Planning—The differences in planning approaches among the four federal agencies are presented and discussed. Basic concepts, a format for writing a "good" plan, and direction on how to implement a plan are explored. A special discussion of the Limits of Acceptable Change planning system is presented.

6. Wilderness Management Skills and the Future of Wilderness—The use of primitive means to achieve management objectives and use of the "minimum tool," and no-trace camping methods are highlighted. How to recruit, supervise, train, and effectively use volunteers to enhance wilderness programs are presented. This course will also help answer the questions: What does the future hold? How can I become a better wilderness management professional?

Quotes from past students:

"As a ranger I deal with field management of wilderness on a regular basis and this course has given me a better understanding of the decision-making process necessary when dealing with the public and managers."

—Stan Kerlin, BLM
Desert District, California

"I think the course will make me much more effective at articulating the concept of wilderness to the public, and explain that it is not a new concept but rather something that dates back quite a while."

—Lynn Watkms, BLM,
El Centro, California

"The significance of such a course [Wilderness Management Planning] should not be understated. It represents a substantial opportunity to influence the effective management of our national wilderness resources in a direct and positive way. [The course] is academically rich, technically sound, and eminently practical.

—Angela Berger,
Environmental Services,
Dames & Moore, Inc.,
New Mexico.

IJW

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Wilderness @ Internet

Finding the Information

Abstract: *Over the last few years there has been a revolution in the availability of information and in the development and application of tools for managing information. More and more organizations and more and more countries are being drawn into the information superhighway The following excerpt describes different types of internet resources and examples of some World Wide Web (WWW) sites that cover environmental issues.*

ONE OF THE MOST POWERFUL COMPUTER COMMUNICATIONS ADVANCES is the development of the internet, which is the most widely used network for science information distribution and retrieval (recent estimates indicate millions of users). A number of programs and services are available through the internet to enable protected area managers to manage their own information and to retrieve information from others. The most commonly used features follow:

E-mail

Electronic mail or e-mail greatly facilitates contact between individuals, and also allows the user to send and receive computer files. E-mail can be used to enhance networking and ease the receipt and delivery of information such as contents pages of journals.

List Servers

This is an extension of e-mail, whereby users can choose to be on mailing lists for particular topics. Individuals subscribing to such lists receive all messages sent to the list by other subscribers. This facilitates e-mail discussions on identified topics of interest to the participants. For example, all protected area managers within a country could have their own list server as a forum for discussing matters of mutual interest.

Anonymous File Transfer Protocol (FTP)

This is a network tool that enables users from different sites to access computer files and browse them or bring them onto their own computer, making it a powerful tool for data exchange. There are several tools that have been developed to assist FTP users in finding the desired data. For example, "ARCHIE" is a locator, a tool for locating files at remote sites by filename search.

Gopher

Gopher is used to locate and retrieve available files from other linked computer systems through the use of a graphic interface. Its use is straightforward, and information is located independently of the site where it is residing.

World Wide Web

The WWW allows the user to retrieve information resources via interfaces that use an "intelligent text," technically called hypertext. Using these interfaces, called up from known systems, displays the linked information (which may be on the same WWW server/interface or another on the other side of the world). WWW handles data, images, text, and sound. There are various "search engines" for finding information available on WWW servers, the most familiar being the Web Crawler and the Worldwide Web Worm. In addition, many of the best WWW servers already in existence provide lists of other servers with related information. The best way to describe how these tools can revolutionize the location and retrieval of information is to give some examples of WWW servers developed by a range of organizations.

Web Sites

Dialog {http://www.dialog.com/dialogl .html}

Dialog is described as "the world's most comprehensive online information source." It comprises over 450 databases containing over 330 million articles, abstracts, and citations covering a wide range of topics with particular emphasis on news, business, science, and technology. The dialog services that are of potential relevance to park managers include: (1) references to and abstracts of articles from more than 100,000 international publications on science and technology, social sciences, and humanities, (2) full text of articles from more than 2,500 journals, magazines, and newsletters, and (3) full text of over 60 newspapers and stories from a range of wire services.

Environmental Resource Information Network

(ERIN) {URL:http//kaos.erin.gov.au/erin.html}

Through its computer network, ERIN is progressively building up a holistic picture of the current state of knowledge about the Australian environment, drawing data together from a wide range of disciplines. There is a diversity of information on the natural resources of Australia and on their management at state and federal levels. This information is compiled from a range of national and international sources, and in a number of cases links directly to the WWW servers of those sources.

Missouri Botanic Garden (MBG)

{URL:http:/straylight.tamu.edu/MoBot/welcome.html}

MBG maintains a WWW server describing its activities and. including significant information on the plant species of certain parts of the Americas.

Dear Internet Editor:

I am a wilderness ranger for the Kalmiopsis Wilderness on the Siskiyou National Forest, Chetco Ranger District in southern Oregon U.S.A. Our ranger district now has internet access with an outside server (the DG just wasn't adequate) and we will provide the public with information from our own "homepage," some of which will be wilderness related.

I have already run across several sites providing wilderness/backcountry/hiking information and I share them here for *IJW* readers:

Leave No Trace: http://www.nols.edu/LNT/LNTHome

Alpine Lakes Wilderness: http://www.washington.edu:1181/trails/alpine/

Boundary Waters Canoe Area Wilderness: http://sowhat.micro.umn.edu/~steve/bwcaw.html

American Hiking Society: http://www.teleport.com/~walking/ahs.htm

Great Outdoors (GORP)—http://www.gorp.com

Hiking and Walking: http://teleport.com/~walking/hiking.html

Backcountry Home Page: http://io.datasys.swri.edu

Wilderness Medicine: http://www.css.itd.umich.edu/users/colinj/wild-med.html

Recreation/backcountry user newsgroup with web site for information from that newsgroup called "distilled wisdom": http://rtfm.mit.edu/pub/usenet/rec.backcountry

Hope this helps and glad that the first issues of *IJW* has finally come into the world. Happy Trails!

—Rene Casteran, Chetco RD
Siskiyou National Forest, R-6
Telephone: (541) 469-2196
E-mail: rencas@harborside.com
Data General: R06F11D01A

World Conservation Monitoring Centre (WCMC)

{URL: http//www. wcmc.org.uk}

WCMC has developed a WWW server that both describes the work of the centre and gives examples of many of the services and products that the centre provides.

Fletcher School of Law and Diplomacy (FSLD)

{URL:http.7/www. tufts.edu/departments/fletcher/multilaterals.html}

The WWW server compiled by FSLD of Massachusetts, USA, includes text copies of a substantial number of international agreements relating to environmental issues.

(

This review was provided by Jeremy Harrison, head of information services at the World Conservation Monitoring Centre in Cambridge, United Kingdom. E-mail: jerry.harrison @wcmc. org.uk.)

(Excerpted from an article by the author that appeared in *Parks International* magazine.)

NBS Databases Accessible over the Internet

{http://www.im.nbs.gov/bbs/bbs.html.}

Several bird-related databases are available over the internet through the home page of the NBS Patuxent Environmental Science Center on the WWW Once on the home page, various pointers will direct users to the following databases: (1) North American breeding bird survey, (2) breeding bird census, (3) Christmas bird count, and (4) bird banding.

The Protected Areas Virtual Library (PAVL)

A system of parks or nature reserves to conserve areas of natural and cultural importance has been established in most countries through international programs to fulfill a broad range of conservation, social, and economic needs. Information is needed on all aspects of these systems including conservation, management, tourism, and scientific research. This information is now becoming available through electronic media. The PAVL provides a mechanism for easy access to this information on the internet.

A "virtual library" is an organized set of links to items (documents, software, images, databases) resident on different computer sources on the internet. The purpose of a virtual library is to enable users to find information that exists elsewhere on the network from a central "virtual" location, providing seamless links to information. This library is maintained by a custodian (in this case WCMC), which regularly reviews information to identify new web-based sources.

The PAVL's current links include national activities such as Australia's terrestrial and aquatic protected areas, marine protected areas, and the Great Barrier Reef Marine Park Authority. There are also links to several international programs including the 1993 UN List of National Parks and Protected Areas and the UNESCO Man and Biosphere (MAB) Reserves. Finally, there are several links to international information transfer programs such as The Convention on Biological Diversity and the World Heritage Convention.

The PAVL can be accessed on the WWW at http://www.wcmc.org.uk/~dynamic/pavl/, or for those with internet access but without a graphical interface, a nongraphical interface can be accessed by using the following commands:

telnet rsl.ox.ac.uk
type the following for "login": lynx
then type: g http://www.wcmc.org.uk/ dynamic/pavl/

(This review was provided by Jeremy Harrison, World Conservation and Monitoring Centre; e-mail: jerry.harrison@wcmc.org.uk.) **IJW**

Environmental Values, Environmental Ethics, and Wilderness Management—
An Empirical Study

BY ROBERT E. MANNING AND WILLIAM A. VALLIERE

Abstract: This study explored the environmental values and ethics of wilderness visitors and how these influence attitudes toward wilderness management Visitors to the Breadloaf Wilderness in Vermont USA supported multiple values of wilderness, including recreation, aesthetics, ecological protection, and scientific research. Visitors also subscribed to a diversity of environmental ethics, including anthropocentric (including stewardship and utilitarian ethics) and biocentric (including radical environmental ethics). Visitor values and ethics explained 37% of the variance in attitudes toward a series of wilderness purism-related management issues. Study findings suggest that increasing conflict over wilderness management may be inevitable, that protection of the ecological integrity of wilderness is essential to satisfy the multiple values and ethics of wilderness visitors, and that wilderness should be managed more systematically to meet the diverse and sometimes competing values and ethics of wilderness visitors.

SINCE PASSAGE OF THE WILDERNESS ACT (PL 88-577) in 1964, wilderness management has emerged as an important public policy issue. Specific wilderness management issues are highly diverse and include the role of natural fire in wilderness ecosystems, reintroduction of predators, environmental impacts of recreation, visitor crowding, appropriate recreation activities, and the level and type of visitor facilities and services. In many cases, these issues are highly controversial.

Information on visitor attitudes toward such issues can help guide wilderness management, and a number of such studies have been conducted (Stankey 1973; 1980; Lucas 1980; Hendee et al. 1968; Watson et al. in press). However, it may be equally useful to explore the underlying ideas that may drive such attitudes'. We think the environmental values and ethics of wilderness visitors can help explain their attitudes toward wilderness management. Thus, this study focused on three concepts:

1. Environmental Values—Nature can be seen to carry a number of values that may be of importance to humans. These values can be understood as the functions or products of nature from which humans derive material or nonmaterial benefits. Examples include nature as a place for outdoor recreation and nature as a source of raw materials for economic development. Some values in nature accrue directly to individuals, while others are more indirectly diffused through society as a whole.

The diversity of wilderness values found in this study suggests increasing conflict over wilderness management.

2. Environmental Ethics—It is inevitable that humans interact with nature. But what ideas govern or structure this interaction? What is the appropriate relationship between humans and nature, and how is this determined? For purposes of this study, environmental ethics are defined as the diversity of ideas that drive human-nature relationships. Examples include stewardship of nature as a religious duty and intrinsic rights of nature.

3. Attitudes Toward Wilderness Management—Wilderness management issues are diverse, and visitor attitudes toward management issues have been found to vary. Wilder

(Peer Reviewed)

ness purism is a general concept used to characterize attitudes toward a variety of wilderness management issues (Hendee et al. 1968; Stankey 1972; Shafer and Hammitt 1995). Wilderness purism refers to the extent to which an individual's attitudes conform to principles highlighted in The Wilderness Act, such as naturalness, solitude, and lack of developed facilities and services. The concept of wilderness purism was used in this study as the focus of attitudes toward wilderness management.

Study Objectives and Methods

The overall purpose of this study is to empirically explore the relationship between the concepts described above. For example, what are the environmentally related values and ethics of wilderness visitors? Moreover, how are these values and ethics related to attitudes toward wilderness management? To answer these questions, three objectives were defined: (1) conceptualize and classify environmental values and ethics, (2) develop scales to measure environmental values and ethics, and (3) analyze relationships between environmental values and ethics and wilderness management.

There is a rich literature in history, philosophy, and a variety of environmentally related fields regarding environmental values and ethics. Much of this literature is reviewed in contemporary texts, including Bailes (1985), Calicott (1995), Des Jardins (1993), Elliot and Gare (1983), Glacken (1956), Hargrove (1989), Merchant (1993), Nash (1983; 1989), Petulla (1988), Simmons (1993), Taylor (1896), Rolston (1988), Van DeVeer and Pierce (1994), Worster (1977, 1993), and Zimmerman (1993). Based on this literature, 11 potential values of wilderness were identified (see Table 1) and 16 environmental ethics were identified (see Table 2). The 16 environmental ethics were further classified into five broad categories. We do not necessarily suggest that these broad categories of ethics are ideas that are clustered together within segments of society; rather, they represent groups of ideas that we believe have some conceptual commonality.

Table 1: Wilderness Values

Value	Statement	Average Importance Rating*	Standard Deviation
Aesthetic	Wilderness is a place to enjoy the beauty of nature.	5.55[a]	0.78
Education	Wilderness is a place to learn how things are connected ecologically.	5.15[b]	0.93
Recreation	Wilderness is a place to enjoy outdoor recreation activities.	5.07[b]	0.97
Therapeutic	Wilderness is a place to regain and/or maintian one's health and mental well-being.	5.07[b]	1.12
Ecological	Wilderness is a place to protect the environment in order to ensure our own survival.	4.56[c]	1.42
Scientific	Wilderness is a place to conduct scientific studies of the natural environment.	4.44[c]	1.22
Intellectual	Wilderness is a place to go to think because civilization cannot interrupt.	4.34[d]	1.43
Historical/cultural	Wilderness is a place that is important to the history of this country.	4.31[d]	1.43
Moral/ethical	Wilderness is a place to express our moral or ethical obligation to protect other living things.	3.84[e]	1.74
Spiritual	Wilderness is a place to get closer to God.	3.54[e]	1.89
Economic	Wilderness is a place to get raw materials for society to grow in the future.	2.36[f]	1.28

*1 = "not at all important," 6="extremely important"
a–f = denotes statistically significant differences based on t-tests.

The second study objective involved development of scales to measure the values and ethics outlined above. Values were measured with a battery of statements describing the 11 potential values of wilderness (see Table l). To attain these values, respondents were asked to rate the degree of importance they attached to wilderness as a place. A six-point response scale was used, ranging from "not-at-all" to "extremely" important.

The third study objective was accomplished by means of a survey of wilderness visitors. The values and ethics scales were incorporated into a written questionnaire. In addition, a third battery of questions was developed to measure attitudes toward wilderness management. These questions were directed at the issue of wilderness purism as described earlier. A series of 18 statements was constructed addressing selected management issues representative of wilderness purism. These

Both wilderness values and environmental ethics can be isolated and measured (and) are significantly related to wilderness purity.

Ethics were measured by means of a battery of statements that attempted to capture alternative dimensions of each of the 16 environmental ethics. An 11-point response scale was used, anchored at "strongly agree" and "strongly disagree." An initial group of 104 statements was pretested on 150 undergraduate students who were asked to comment on any problems, ambiguities, or other difficulties in interpreting and responding to the statements. Based on this pretest, 62 statements were retained. Each environmental ethic was measured with between two and five statements. Representative statements are shown in Table 2.

statements are shown in Table 3. Respondents were asked the extent to which they agreed with each statement. An 11-point response scale was used, anchored at "strongly agree" and "strongly disagree."

The questionnaire was administered by mail to a sample of 251 visitors to the Breadloaf Wilderness in Vermont, following procedures recommended by Dillman (1978). Sampling was conducted at six sites within the wilderness on 28 randomly selected days from July through October 1992. An interviewer contacted each wilderness visitor encountered, briefly explained the study,

Table 2: Environmental Ethics

Category	Ethic	Representative Statement
Anti-environment		
	Threat to survival	Nature is a threat to human survival.
	Spiritual evil	Nature is evil.
Benign indifference		
	Storehouse of raw materials	Nature is a valuable storehouse of raw materials.
	Religious dualism	Humans and nature are fundamentally different.
Utilitarian conservation		
	Anthropocentric humanitarianism	Human cruelty toward animals is wrong because it could lead to cruelty toward other humans.
	Efficiency	Humans should manage nature as efficiently as possible.
	Quality of life	Nature is important because it adds to the quality of our lives.
	Ecological survival	Protecting ecological processes is important to human survival.
Stewardship		
	Religious duty	It is our religious/spiritual duty to take care of nature.
	Future generations	Nature should be protected for future generations of humans.
	Reverence for life—God's creatures	Humans should protect nature because it is God's creation.
	Reverence for life—mysticism	All living things have a spirit.
Radical environmentalism		
	Humanitarianism	Humans should not cause needless pain and suffering to animals.
	Animism/organicism/pantheism	Nature should be protected because it is sacred.
	Liberalism/natural rights-evolutionary	As products of evolution, humans have a responsibility to care for the rest of nature.
	Liberalism/natural rights-ecological processes	As part of nature, humans have a responsibility to care for the rest of nature.

and asked for the visitor's name and mailing address. Only four visitors declined to participate. A questionnaire and cover letter were then mailed to each study participant, followed by a reminder postcard, second questionnaire, and cover letter to participants not responding within three weeks. Participants were provided with a stamped, self-addressed envelope in which to return the completed questionnaire. A response rate of 78% was attained, yielding 196 completed questionnaires.

Study Findings

Wilderness Values—Visitors felt that wilderness is important for most of the values included in the study, and a clear hierarchy of values was identified (see Table 1). Direct use-related values, those that accrue more directly to individuals, tended to be rated as more important. These include aesthetic appreciation, education, outdoor recreation, and therapeutic values, which comprised the first two tiers of importance in Table 1. Less direct values, those that accrue less directly to individuals but more to society in general, constituted the third and fourth tiers of importance and included the values of ecological integrity to human survival, wilderness as a scientific resource, and wilderness as a historical/cultural resource. More abstract values of wilderness, including wilderness as an expression of moral/ethical obligation to nature and the spiritual value of wilderness, represented a fifth tier of importance. The economic value of wilderness as a source of raw materials was rated lowest in importance.

Environmental Ethics—Data from the 62 environmental ethics statements were factor analyzed to test the validity of the statements as measures of the 16 environmental ethics originally conceptualized. The relationship between these resulting 17 factors and the original 16 environmental ethics derived from the literature review is shown in Figure 1. The two lists of environmental ethics are very similar.

Responses to the statements comprising each environmental ethic factor were added to form an index score. Because factors contained unequal numbers of statements, these raw scores were standardized by transforming them back to the original 11-point response scale. These standardized index scores are graphed in Figure 2.

As with wilderness values, it is clear that wilderness visitors subscribed to a diversity of environmental ethics. Stewardship-based environmental ethics, particularly as they relate to duties to future generations and the general importance of nature, enjoyed especially strong support. Strong support for utilitarian conservation ethics, including quality of life, ecological survival, and efficiency was also pervasive across the sample. Radical environmental ethics, ideas that tend to challenge the traditionally anthropocentric western worldview regarding nature, also tended to be strongly embraced. Environmental ethics comprising the benign indifference and anti-environment categories were generally not supported, with the exception of some support for the view of nature as a storehouse of raw materials.

Wilderness Purity—Findings regarding wilderness purity are shown in Table 3. In some dimensions of wilderness purity, such as allowing snowmobiling and hunting, visitors strongly favored a high degree of wilderness purity. However, on other dimensions of wilderness purity, such as shelters and signs, a decidedly nonpurist attitude prevailed. Visitors to the Breadloaf Wilderness preferred an experience that has some elements of primitive or pure wilderness recreation and some elements of a more developed recreation experience.

To explore relationships between wilderness values, environmental ethics, and wilderness purity, multiple linear regression was employed. Respondent scores on the overall index of wilderness purity were used as the dependent

Table 3: Wilderness Purism Statements

Statement	Average Level of Agreement*	Standard Deviation
Snowmobiles should not be allowed in the Breadloaf Wilderness.	3.78	2.43
Camping shelters should continue to be allowed along the Long Trail within the Breadloaf Wilderness.†	3.32	2.31
Hunting should not be allowed in the Breadloaf Wilderness.	3.05	3.31
Bridges across streams should only be provided in the Breadloaf Wilderness where public safety or erosion protection requires them.	2.74	2.86
Extirpated species like wolves and catamounts should be reintroduced to the Breadloaf Wilderness.	1.47	3.18
Down trees across trails in the Breadloaf Wilderness should be left if they cannot be removed using hand tools.	0.70	3.68
Lightning-caused fires should be allowed to burn in the Breadloaf Wilderness when they do not threaten human lives or property.	-0.01	3.63
Fishing should not be allowed in the Breadloaf Wilderness.	-0.09	3.81
Visitor conveniences (e.g., shelters, toilets, campfire rings) detract from the wilderness experience in the Breadloaf Wilderness.	-0.14	3.32
Chainsaws and other motorized equipment should not be used for maintenance in the Breadloaf Wilderness.	-0.20	3.63
No fish stocking should be done in the Breadloaf Wilderness.	-0.88	3.64
The number of visitors to the Breadloaf Wilderness should be limited.	-0.93	3.27
Limiting responses to emergencies in the Breadloaf Wilderness enhances the wilderness experience.	-1.46	3.43
Downed trees across trails in the Breadloaf Wilderness should be left where they have fallen.	-1.71	3.02
Some trees should be selectively cut in the Breadloaf Wilderness to improve scenic views.†	-1.92	3.26
Trail signs are not appropriate along the Long Trail within the Breadloaf Wilderness.	-2.71	2.82
Mileage estimates on the trail signs along the Long Trail should be removed within the Breadloaf Wilderness.	-3.21	2.42
Emergency rescues of people in the Breadloaf Wilderness should not be allowed.	-4.28	1.58

* -5 = "strongly disagree," +5 = "strongly agree."
† These statements were reverse coded so an overall additive index of wilderness purism could be developed.

Table 4: Relationships Between Values, Ethics and Wilderness Purity

Relationship	Significant Variables	Beta Values	B Values
Wilderness Values and Wilderness Purism	Educational	.202	.325
	Scientific	-.178	-.208
	Spiritual	-.176	-.132
	Therapeutic	.196	.249
	Aesthetic	-.413	-.716
	Moral/ethical	.165	.137
R square = .172 Significance = .000			
Environmental Ethics and Wilderness Purism	Threat to survival	.131	.109
	Human rights	-.134	-.116
	Religious stewardship	-.401	-.234
	Future generations	-.209	-.263
	Humanitarianism	.223	.177
	Animism/organicism/ pantheism	.358	.194
R square = .254 Significance = .000			
Wilderness Values, Environmental Ethics and Wilderness Purism	Education	.230	.392
	Scientific	-.202	-.229
	Aesthetic	-.276	-.472
	Intellectual dualism	.134	.099
	Human rights	-.163	-.141
	Storehouse of raw materials	.169	.110
	Religious stewardship	-.431	-.245
	Future generations	-.166	-.202
	Humanitarianism	.288	.224
	Animism/organicism/ pantheism	.319	.169
R square = .373 Significance = .000			

variable. Respondent scores on each of the wilderness values and environmental ethics factors were used as the independent variables. Three multiple regressions were conducted: values against wilderness purity, ethics against wilderness purity, and values and ethics against wilderness purity (Table 4).

Both wilderness values and environmental ethics are significantly related to attitudes toward wilderness purity. Wilderness values explain approximately 17% of the variance in the overall wilderness purity index. Six of the 11 wilderness values entered the equation. As might be expected intuitively, the more importance respondents attached to educational, therapeutic, and moral/ethical values of wilderness, the more purist their overall attitude toward wilderness management. However, the more importance respondents attached to the scientific, spiritual, and aesthetic values of wilderness, the less purist their overall attitudes toward wilderness management. These inverse relationships are not intuitively obvious except that these values may sometimes require or be enhanced by some manipulation or management of the environment.

Environmental ethics are more strongly related to wilderness purity, explaining approximately 25% of the variance in the overall wilderness purity index. Six of the 17 environmental ethics entered the equation. The more strongly respondents believed in the environmental ethics of animism/organicism/pantheism, humanitarianism, and threat to survival, the more purist their overall attitude toward wilderness management. The first two of these environmental ethics come from the radical environmentalism category, and their positive relationship with wilderness purity makes intuitive sense. The positive relationship between the threat to survival ethic and wilderness purity makes less intuitive sense, but is probably relatively unimportant as both the relationship and support for the ethic were weak. The more strongly respondents believed in the environmental ethics of religious stewardship, future generations, and human rights to use nature, the less purist their overall attitude toward wilderness management. These ethics come from the utilitarian conservation and stewardship categories and thus may imply more sympathy for human management of some elements of wilderness.

Finally, wilderness values and environmental ethics together explain approximately 37% of the variance in the overall index of wilderness purity. Ten values and ethics entered the equation, generally the same variables as outlined above.

Conclusions and Implications

Several conclusions and implications might be drawn from this study. First, it is apparent that wilderness values and environmental ethics can be isolated and measured. Traditionally, such environmentally related values and ethics have been treated primarily at a conceptual level. However, these intellectual ideas can be defined more explicitly, classified, and

measured through scale development and associated survey and statistical techniques. While the values and ethics-related classification systems and measurement scales are subject to continued refinement, they suggest that an empirical approach to understanding these issues can be potentially productive and useful.

Second, the descriptive study findings provide some direct insights into environmentally related values and ethics that visitors bring with them to the wilderness. Visitors value wilderness for many reasons. Although more direct or individually related values, such as recreation, are rated as most important, less directly or more societally related values and more abstract values, such as ecological protection and expression of moral/ethical obligations, are also rated as important. In addition, visitors subscribe to a diversity of environmental ethics, including those that might generally be described as anthropocentric (including stewardship and utilitarian ethics) and biocentric (including radical environmental ethics).

Descriptive findings also provide insight into visitor attitudes toward wilderness management, especially as they relate to the issue of wilderness purism. Again, a diversity of attitudes was represented. Visitors to the Breadloaf Wilderness were strong wilderness purists with respect to some issues such as snowmobiling and hunting and were clearly not strong wilderness purists with respect to some other issues such as signs and shelters.

These descriptive findings suggest several wilderness management implications. Number one, more conflict over wilderness management may be inevitable. The diversity of wilderness values and environmental ethics found in this study suggests that wilderness is subject to multiple demands, and some of these demands may inherently conflict. For example, use of wilderness for recreation causes some ecological impact. This may in turn be antithetical to the value of wilderness as an expression of moral/ethical obligation to preserve nature or to the value of wilderness as a scientific resource. Similarly, the mix of anthropocentric and biocentric environmental ethics may present competing and potentially conflicting demands on wilderness management.

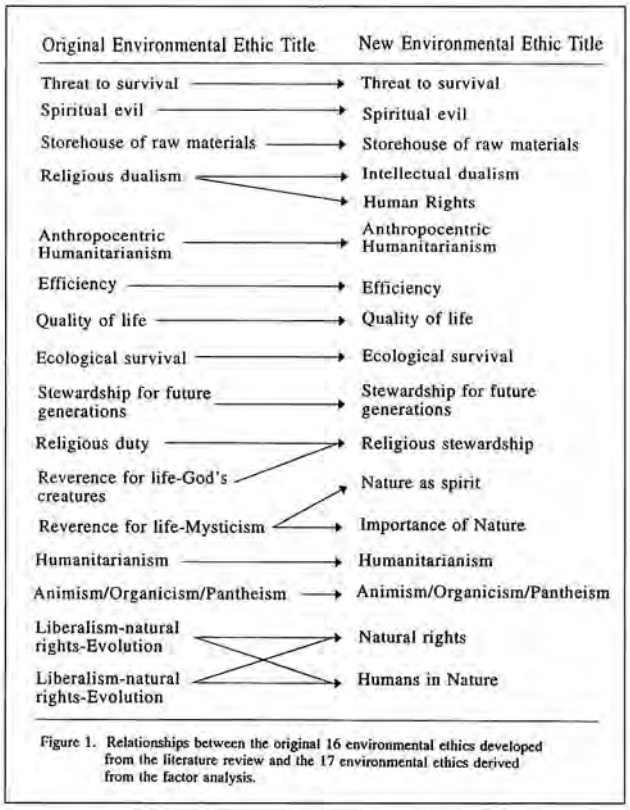

Figure 1. Relationships between the original 16 environmental ethics developed from the literature review and the 17 environmental ethics derived from the factor analysis.

Number two, it may be wise for wilderness managers to be especially careful to prevent or minimize ecological impacts to wilderness. Many of the values of wilderness identified in this study are heavily dependent upon maintaining the ecological integrity of wilderness. Moreover, many of the environmental ethics identified are biocentric, future-oriented, and are highly dependent upon maintaining ecological integrity. While a number of values and ethics are more anthropocentric and utilitarian, these can and probably should be realized without threatening ecological integrity. In doing so, wilderness can best meet the multiple demands placed upon it by contemporary society.

Number three, wilderness managers probably should give more explicit attention to nonrecreation values. It is clear from study findings that visitors attain multiple values from wilderness,

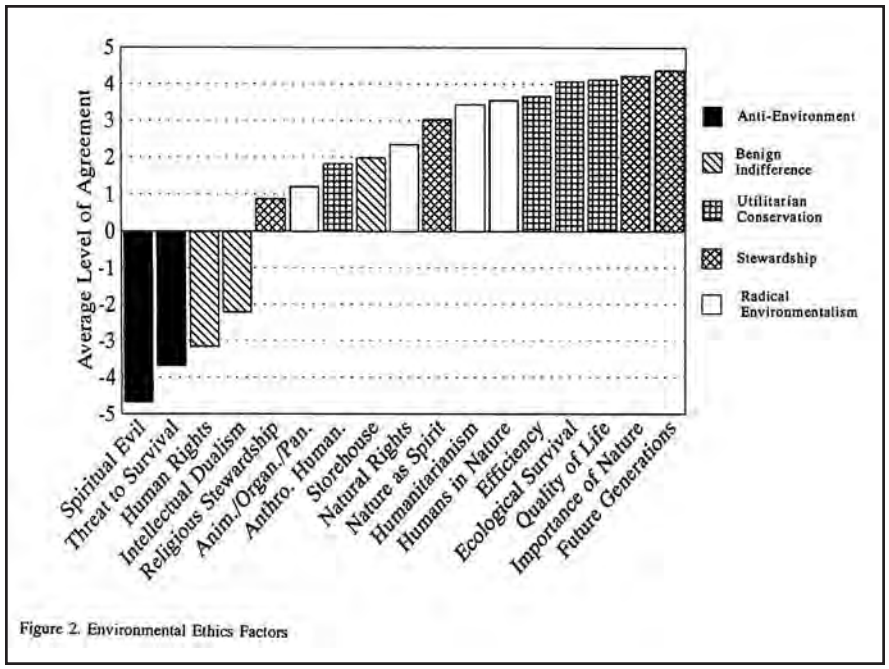

Figure 2. Environmental Ethics Factors

and that recreation is only one of many benefits. However, wilderness management is often focused primarily on recreation-oriented values (Manning 1992).

The third general conclusion to be drawn from this study is that values and ethics explained approximately 37% of the variance in respondent scores on the overall wilderness purity index. These statistical relationships show that beliefs in selected wilderness values and environmental ethics are associated with certain attitudes toward wilderness management. These types of relationships may help establish an empirical basis for a comprehensive wilderness management policy. For example, some wilderness areas may emphasize selected wilderness values and adopt associated management policies. This approach to management may allow wilderness managers to more effectively meet the diverse and sometimes competing values and ethics of wilderness visitors, while avoiding the potential conflict described above.

Although this study suggests several conclusions and implications, it has limitations as well. Data are drawn from visitors to only one wilderness area, so the degree to which study findings are generalizable is unknown. Moreover, the conceptualization and measurement of these concepts, wilderness values, environmental ethics, and attitudes toward wilderness management, are subject to continued refinement. Exploration of attitudes toward wilderness management was limited to issues related to wilderness purism. Finally, the study included only direct visitors to wilderness. The environmental values, ethics, and attitudes of people who do not visit wilderness areas may differ significantly from the sample population. **IJW**

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Wilderness *as* a Resource for Healing in South Africa

BY MAMPHELA RAMPHELE

[Editor's Note: The Wilderness Leadership School (WLS) has, since its inception 35 years ago, always invested in people. It nurtures an environmental ethic by enabling South Africans to rediscover quality of life within themselves and the land of their birth through experiencing the wilderness. The power of a wilderness experience \s the sudden understanding of the indivisible relationship between you and your environment.

In a developing country like South Africa, environmental issues relate to every facet of human life. They relate to the struggle for clean water, adequate shelter, and human dignity, struggles relentlessly played out in the settlements throughout South Africa. As our country embarks on its reconstruction and development program, nature conservation and sustainability must be seen as an important investment in the social and political well-being of all people.

South African youth ready for "trail." Patrick Marsh, Trail Officer, lower right.

Within the new South Africa, the WLS mission remains: "To restore a balanced relationship between nature and humanity by providing a direct experience of wilderness ..."

Equally, conservation of wildlands must be recognized as an investment in a reawakening of the human spirit, for embedded in the lives of ordinary South Africans is the violence of the past and present. The subtle power of a wilderness experience, of nature relatively undisturbed by human influence, fosters new insight into our place in the world, heals the wounds of violence, and helps build a new nation.

Within the new South Africa, the WLS mission remains: "to restore a balanced relationship between nature and humanity by providing a direct experience of wilderness." The WLS achieves these objectives by influencing a wide range of existing leaders through youth leader (scholarship) courses, teacher training, communication leader courses, opinion (political) leader trails, and special research projects such as that being conducted by Dr. Ramphele.

—Andrew Muir, Margot Morrison]

FROM TIME IMMEMORIAL, THE WILDERNESS HAS BEEN ASSOCIATED with the search for meaning and the need for restoration of interior balance, and has been a place where one is likely to encounter one's creator or experience special connectedness with the source of one's being. Indeed, the wilderness is used as a site of many rituals and rites of passage by indigenous people worldwide and by citizens of developed nations. But what value would young people derive from a wilderness experience they did not seek, and not imagine could be accessible to them? We explored that question with South African youth from the New Crossroads Township in Cape Town going on wilderness trails (treks) in cooperation with the WLS. The township environment stands in sharp contrast to the idealism of the wilderness as a safe haven. They live in New Crossroads, an African township in Cape Town born out of the bitter struggle against the antiurbanization strategies of the former Nationalist government that formed the core of the apartheid policy The scars of the struggle for access to urban resources are evident everywhere. The grudging response by the former apartheid regime is reflected in the poorly constructed houses in various states of disrepair, piles of garbage on the sidewalks due to poor removal services, and lack of basic community facilities such as clinics, shops, and recreational facilities. The rage of

township residents toward symbols of authority is reflected in angry graffiti on concrete walls and burnt-out cars and tires on the streets.

New Crossroads has 1,738 residential sites and 48 designated public spaces for churches, creches, schools, and businesses. There are three primary schools, one high school, one creche, and three churches serving an estimated 10,500 people. The high population density is reflected by hundreds of people who always seem to be spilling into the streets. The streets act as extensions of the limited home environments; children meet and play there, adults shout across them to converse with neighbors, and lovers seek corners in the darkness of the night to share stolen kisses.

Of the population, 36% are under 16 years, and 13% are from 10 to 14 years old (the target of our research), of which 92% go to school. Of the households, 32% are female-headed, 67 percent are male-headed, and 1% have children living on their own with no resident head. Average weekly income per household is $83, and the houses consist of one to three bedrooms, a kitchen, and a living room. Occupancies range from 3 to 15 per residential site, and many residents have built shacks in their backyards to accommodate their large households or to sublet for extra income.

The township is thus characterized by overcrowding, lack of proper services, high noise levels and many other indicators of urban poverty. Constraints of physical space have profound implications for social relations; conflicts over space as a scarce resource are a reality of life. So too are conflicts over other scarcities, such as taxi wars. Here, survival of the fittest as a dictum assumes a particular significance. Children being the least powerful members of society lose out in terms of the allocation of scarce resources, including physical space (Ramphele 1993).

Relationships between children and adults are complex. The shared love and care is often marred by what our informants regard as cruelty: "Adults are cruel. They just beat, beat, beat. You get beaten at home, at school, and in the streets," said a 14 year old. Children are also affected by the violence in the wider society. The culture of political intolerance and conflict has its roots in the institutional violence of apartheid that deliberately impoverished black people while promoting a privileged lifestyle for whites, as detailed in the Second Carnegie Enquiry into poverty in South Africa (Wilson and Ramphele 1989). Degrading poverty and daily humiliation by a racist system has bred self-hatred and criminal violence in most black townships.

Fresh from the township, a youth receives help from Andrew Muir on his first experience of a river.

The negative impact of violence on adolescent development is evident in the children with whom we interact. They have come to understand social life as organized around power relationships in which the powerful impose their will on the weak, who have no alternative but to submit (Ramphele 1993). While mindful of the growing body of literature on children in adverse circumstances (Werner and Smith 1983; Garmezy 1991; Straker 1992; Dawes and Donald 1994), we nonetheless recognize that the adolescents we took into the wilderness were bruised to varying degrees by their social environment.

The Research Process

Forty-eight adolescents between 10 and 14 years old were randomly selected from our 1991 demographic data base. They were divided into groups of eight, each group being taken on a weekend trip into the wilderness areas in the Cape Peninsula at least three times over a period of two years. The South African nature conservation laws provide for declared "wilderness areas" limit human access as a strategy for preserving their flora and fauna. In reality such areas have been largely inaccessible to blacks, given racial discriminatory laws that made even the Kruger National Park, an international tourist attraction, a white preserve until only a few years ago. The Cape Peninsula is world renowned for its beauty and has a number of declared wilderness areas within easy reach of Cape Town.

But what value would young people derive from a wilderness experience they did not seek, and did not imagine could be accessible to them?

Trailists discover the natural life in a wilderness puddle.

At least three adults accompanied the adolescents on each hiking trip. The WLS, founded by Dr. Ian Player and active in promoting the use of the wilderness for personal growth, arranged all the trips. Andrew Muir, the Cape regional director from 1989 through 1993 for the WLS and now its national director, raised sponsorship for proper hiking outfits and provisions for the adolescents as well as provided logistical support for the trips. The trips began with the challenging environmental exposure. As the adolescents became more confident, exploration of more rugged environs was introduced.

The sample of adolescents was further reduced to a group of 16 chosen on the basis of the following criteria: leadership or creative qualities; particularly difficult family circumstances, such as violent family relations; and at-risk factors (such as being on the verge of dropping out of school or joining gangs). We also had a gender balance in our sample, with eight boys and eight girls. This group of young people constitute a longitudinal study sample and will be followed up into their adulthood. The goals of the longitudinal study are to document the life trajectories of African township children with a view to identifying the resilience factors in their social environment as well as in their individual personalities. We also intend to examine some of the subtle or hidden costs of resilience that do not seem to have received much attention thus far in the literature. We hope that our study will enrich the debate on more supportive social policies in the changing South African political landscape.

... wilderness does offer a social leveling space which permits a healing process to occur even in our fractured society.

The research methods used are multiple. The wilderness provides a milieu with a socially leveling effect that enhanced participant observation opportunities. Discussions were held with individuals to explore various issues; each adolescent made entries into notebooks during the weekends to record their impressions, important insights, and feedback. Photographs were used to document important moments, and the wilderness data were complemented by home visits, visits to schools, and workshops where further participant observation and discussion occurred.

Silence Was a New Experience

"There is nothing like silence to suggest a sense of space," Bachelard, a French philosopher, observed in his book entitled *The Poetics of Space* (1969). The ability to tolerate silence could be taken as the single most important measure of change in behavior in the group of adolescents we studied. The level of noise during our first few trails was exceedingly high, as observed in numerous aspects.

Peer conversations were high-pitched affairs. The logic seemed to be that the louder one shouts the more likely one is to succeed in putting a case across. A particularly striking example was an argument about whether snakes had legs. It was only after one of the adolescents asked the adults that the shouting match stopped. There were many other examples where arguments were settled by brute force—either vocally or through the threat of physical violence. In such cases only factual information lowered tension levels.

But the impact of long-term exposure to high levels of noise seemed to be a contributing factor. People continually exposed to high levels of noise risk permanent damage to their hearing, so it is possible that sensitivity to noise diminishes over time in a high-noise-level environment. (I have noticed with my own speech how much lower the tone has become with exposure to lower noise levels.)

Bedside chatter during the first few trips, especially by the 10 to 12 year olds, nearly drove the adult leaders insane. The excitement of an outing, the high blood sugar level after a hearty meal, and the novelty of sleeping in a group contributed to the problem. It was only when we learned to mix the age groups, and after the adolescents adapted to the idea of silence, that the problem abetted.

Fear of emptiness occasioned by silence was an interesting phenomenon to observe. During the first few trails it was almost impossible to get the adolescents to walk in silence for any length of

time. "If one keeps one's mouth shut for too long, it starts rotting," ventured one of the girls when asked why she could not be silent for any length of time. Another said "Why has God given us tongues?" But others admitted that it was a matter of habit and even in a classroom situation they cannot bear to be silent. This is not surprising, given the noise levels to which these children were accustomed in order to survive in the township environment. Little space is accorded them to be heard without first having to scream—adults are too preoccupied with survival to afford the luxury of listening to children. Over time, most of the adolescents began to appreciate the need to be silent and to listen to the sounds of nature around them.

We observed other measures of growth over the three years, some due to natural maturation, but others we think indicate the impact of our work with them. The following areas are worth noting:

Peer Relations—Peer conflict was very high initially. Most of the children knew one another from then-neighborhoods or schools. Peer harassment included humiliating comments on one another's physical attributes, family circumstances, and other hurtful words aimed at diminishing others. The level of teasing was also high. Laughter was used as a powerful weapon against one's peers, something researchers studying inner city black youth in the United States have also noted (Silverstein 1975; Nightingale 1993). The degradation of poverty and powerlessness that children see around them seems to trigger both a deprecation of self and of others sharing the humiliation. It is noteworthy that when I asked them under what circumstances they would beat their own children, all of them replied that they would do so if the child ever were to make them an object of scorn and laughter.

During the program there was a significant change in peer relations toward more caring and considerate interactions. This was in part due to growing friendships, but was also noticeable among those not particularly intimate. Dumo, a name we have given to one of our focus adolescents, says of the experience, "We are taught to treat others with respect so that they too can treat us with respect."

Gender Relations—The tendency to replicate the unequal gender relations that prevail in New Crossroads—and the rest of South Africa—also declined considerably. In the initial stages we repeatedly had to challenge the boys to share chores with the girls, as well as to discourage the girls from seeing themselves as the people to wash and clean up. It is gratifying to see them sharing naturally now, a change aptly captured by one of the girls on the trails:

> "We were also told when we were working that there is neither a girl nor a boy. There is nothing like, 'A girl is supposed to wash dishes.' Even a boy is supposed to. Even gardening work, girls are supposed to do gardening. We were taught about cleanliness, at home and in the streets. We were told not to leave papers in the streets, saying 'This is not my home.' When parents are sleeping we should not make noise if we are awake, because they did not make noise when we were sleeping. On all the trails, I liked the way we were taught manners."

But such laudable statements of the ideal are challenged by their lived experience. All the males in the sample, like their peers in the township, will have to go through the circumcision ritual where they are taught how to be real men, which requires that women must be unambiguously women and know their place in society—at the bottom—figuratively and otherwise. We intend to study how they deal with the contradictory approaches to gender relations.

Adult/Adolescent Relations—Relationships between adults and adolescents on the trails were complex. They are defined by the South African traditions of race, class, and gender differentials. Age differences, although important, take a back seat whenever blacks and whites interact. On one of the first trails one of the children from a particularly violent family environment, whom we shall call Bonga, wrote on a black board in our hut: "Down with the white man!" Andrew Muir, the only "white man on the trail, was not amused. The same child three years later has nothing but tenderness for Andrew, whom he now associates with caring, love, and respect.

Bonga could not make eye contact with adults in 1991. Up to that time his interactions with adults had been marked by pain—repeated beatings by his father, his teachers, and older boys in the streets. He physically shuddered on one occasion when I put my arm around him to comfort him from the pain of being laughed at by his peers for crying from hunger. It was six o'clock in the evening and he had not had any breakfast or lunch. The snack we had given all of them earlier had only made him hungrier—an understandable reaction for a twelve year old. He dived into additional food he was given at my request. It is gratifying to see him glow when one embraces him now.

It is also noteworthy that the adolescents called me by my first name, most unusual for African children who are brought up to treat adults with reverence. So strong is the custom that even I have a problem breaking free from it, using first names for people older than myself. Thus it was a measure of the intimacy that evolved between the adolescents and the adults that we were on a first-name basis. At the end of one of the trails one of the girls made this entry into her notebook: "We very much enjoyed having our friends Mamphela and Andrew with us this weekend."

The fact that Andrew Muir did most of the cooking also has had an impact on gender relations and on the young people's attitudes about possibilities for equitable relations between blacks and whites. They were released from the bur-

den of chores that adults often load on them as a consequence of poverty. The wilderness trails offered them the space to be children again.

Adolescent/Environment Relations—The impact of living in crowded, harsh, and neglected environs showed up in the adolescents' relationships to the environment.

Littering was a major problem. However much Andrew explained the importance of leaving the environment in the state we found it, candy wrappers would be dropped casually along the way, peels of fruit left with gay abandon after meals or thrown into pools. It took repeated reminders over almost a year to change this behavior. The adolescents assure me now that they try to propagate the message in the township amongst their peers, but their success at this level will depend on fundamental changes in levels of service provision by local authorities.

Attitudes toward other creatures is conditioned by one's level of security within the universe. It is difficult to see how someone who is not treated with respect could easily respect others, let alone creatures of species lower than humans. Bonga's instinct whenever he saw wild creatures was to kill them. "If I had a gun I would go poof! poof!" he said in response to the sound of baboons in a nearby hill. He also found it tempting to throw stones at birds or any other creature coming his way. He also harbored hunting fantasies nurtured by his part-rural upbringing in the Eastern Cape, where he lived with his paternal grandmother until he was eight years old.

Fear of the wild is not something wilderness lovers focus upon. My own childhood memories of fear of the dark and the unknown wilderness it holds were rekindled in 1991 on a trail in the Umfolozi Game Reserve, in Natal. Ian Player, the leader of our hiking group, was amazed at the fear I displayed. Andrew Muir literally had to hold my hand across the darkness while with pounding heart, I sat out my turn minding the campfire, imagining the worst. I could thus empathize with the adolescents who balked at the idea of sleeping under the stars.

Instruction in proper fording of a swollen stream.

The presence of baboons, normally associated with witchcraft in adolescent culture, compounded their fear. They would tell stories of how so-and-so reported seeing a baboon being ridden by a witch in someone's backyard. The lack of control over one's circumstances in life fuels fear of the wild, which is seen as the source of misfortune and danger. Our trails offered nowhere near the challenges of facing the night alone, but it was nevertheless interesting to watch how the adolescents huddled together in mutual support against the secrets of the darkness around them. There was always a scramble for the central sleeping spots. Yet over time, fear gradually gave way to quiet contemplation of the mysteries of the night. A comment by one of the girls is revealing:

> "When we were told we are going to sleep outside I thought I would not be able to sleep. I was terrified. But when I got into my sleeping bag I got warm like I am at home and I fell asleep."

It is noticeable how all the adolescents have become increasingly curious about life around them in the wilderness areas. Andrew Muir taught them about the Western Cape *fynbos* (indigenous plant life) with its rich variety of species, the animal species we came across, as well as the relationship between plants, animals, and humans. These were informal lessons that seem to have left their mark on the young people as evidenced by the high levels of detail recollection in the children's trail reports:

> "I woke up very early in the morning and I heard some birds singing and frogs making their noises and I enjoyed washing in the dam. I like being a member of the Wilderness Leadership School because here we are learning about the wildlife [sic] and on the way we saw beautiful flowers such as Proteas, Ericas and we sat on the mountain and saw the Indian Ocean."

Mastery and self-confidence are important elements in normal development of young people and their understanding of their place in society, and consequently in the larger scheme of things within the universe. Ecological balance is thus tied up with balance

within us as humans. Areas where our adolescents increased their competence included the facility to converse fluently in English (some of them specifically mentioned it as a positive outcome of the trail experience), swimming, and knowledge of flora and fauna.

Unresolved Contradictions

Tough questions remain unanswered. On three occasions during our trail interactions the young people indicated some difficulty in treating the wilderness as a place to intermittently escape to. "Why can't you build us schools here so that we do not have to go back to the township with its noise and pain?" asked some of them after unsuccessfully attempting to prevent departure by running away into the wild. Another one asked why we could not simply set up a permanent settlement and remain immersed in the surrounding beauty and peace. Yet another asked what sense there could be in having places like the Groot Winterhoek with its vast expanses of open veld left "underutilized" while so many squatters struggle for a piece of land on which to set up house. These are uncomfortable questions about the affordability of "the wilderness" in a world where the majority of people are merely struggling to survive.

A comment by an adult-woman resident of New Crossroads also needs to be taken into consideration as we ponder the paradigm of the wilderness as a place of relaxation. "I grew up having to walk up and down mountains on the tails of cattle. There is no way I am going to spend my precious free weekend now doing the same thing as an adult."

Like O'Hea, my experience in this research process has reminded me about how hard it is to contemplate when one is reduced to survival. Survival sets one's consciousness at a level of basic and immediate human needs and so occupies it with food, clothing, and shelter that gives no attention to deeper levels of reality" (O'Hea 1993).

Conclusion

Our data suggest that the wilderness does offer a social leveling space that permits a healing process to occur even in our fractured society. Social relationships at various levels seem to benefit: adult/child, black/white, child/child, and male/female. We hope that the longitudinal study we are conducting will throw more light on this possibility.

There are, however, cautionary notes in this apparently successful symphony. The majority of those who enjoy the wilderness experience do so out of choice. That choice is made possible by the process of modernity, which has made leisure affordable. It is thus ironic that those of us who have benefited from modernity need the continued existence of areas untouched and unspoiled by that very modernity in order to sustain our lifestyles with a measure of sanity. Is the cost of having vast areas of the globe "frozen in time" for the primary purpose of satisfying our quest for the peace and healing we derive from them justified?

Ecological balance has to extend beyond the campaigns waged by environmental activists. Ecological balance has to be reflected in daily human relations. There can be no sustainable environmental protection without sustainable development that places people at the center of the universe where they truly belong. The challenge for those who revere the wilderness is to consistently act with due reverence in relation to the least powerful members of the human race.

DR. MAMPHELA RAMPHELE is vice chancellor of the University of Cape Town, and is a medical doctor, an anthropologist, and a mother. She presented the preliminary findings of her research with the Wilderness Leadership School at the 5th World Wilderness Congress (Norway 1993), and in this article updates the results of their collaborative project.

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[Editor's Note: In most developing countries, wildlands are still utilized by local people as they have been for millennia. Increasingly rural communities are therefore recognized as important users and stakeholders \n the management and protection of wildland, wildlife, and wilderness values. Southern Africa has been a leader in this concept and this article describes how community-based conservation is being approached in Namibia (southwest Africa). Further news on Namibia's steps toward wilderness recognition and management will be in future issues of IJW.

—Vance G. Martin]

Reversing Marginalization—
Private Community-Based Conservation in Namibia

BY BRIAN T. B. JONES AND ELISABETH BRAUN

Abstract: *Namibia's community-based conservation efforts attempt to integrate wildlife management, utilization, and tourism in communal areas through a conservancy model. If successful, this approach will help rural communities gain greater self-sufficiency, increased financial benefits, and improved sustainability of wildlife and wildland resources through partnership with government and commercial elements. The goal is responsible natural-resource decision making that reverses the present marginalization of rural communities and stems the loss of biodiversity and wilderness values outside protected areas.*

Introduction

NAMIBIA IS A SPARSELY POPULATED, DESERT-DOMINATED COUNTRY on the southwestern coast of Africa astride the tropic of Capricorn. About twice the area of California, its population is approximately 1.6 million with an estimated annual growth rate of 3%. Namibia has set aside 39,947 square miles, or 12.6%, of its national lands as protected areas, not including 85,863 square miles of wilderness. Namibia's most pressing environmental problems are desertification, water resource management, and the democratization of environmental governance.

The need to involve local communities in conservation has long been recognized in modern conservation theory (Hales 1989). It is argued that if local communities have control over the use of resources and can derive a direct financial benefit from this use, they will have an incentive to use the resources sustainably. Furthermore, where wildlife such as elephants and other predators cause stock and crop losses, people are willing to conserve these animals if the benefits from conservation outweigh the costs (Metcalfe 1993).

Since the advent of colonial rule in Namibia, control over wildlife as a resource has been increasingly centralized by the state. By the 1960s wildlife was owned by the state and could be used consumptively only by its express permission, which also severely limited the types of use. In 1968 the state granted limited rights over wildlife to commercial farmers who met certain conditions. This has done much to halt a decline in wildlife numbers on commercial land and has spawned a burgeoning wildlife industry (Berry 1990).

Such rights had never before been given to farmers in communal areas of Namibia. Possibly as a direct result of this, there was a marked decrease in wildlife, and poaching was particularly rife in the 1970s. The exception was in those areas where there has been long-standing community involvement in wildlife conservation, such as in the northern Kunene Region (Carter 1990). In a series of surveys carried out by the Ministry of Environment and Tourism (MET) it was learned that people on communal lands are committed to the conservation of wildlife for cultural and aesthetic reasons, but are alienated from wildlife as a resource because of more pressing considerations, such as poverty and the need for land for a rapidly growing population.

Namibia still has significant populations of wildlife on most of its northern communal lands, and there are remnant populations of various species in other regions. For example, a large proportion of Namibia's elephant population spends at least part of the year outside protected areas. Because it was evident that past discriminatory treatment of wildlife on commercial and communal lands had contributed to a considerable reduction of wildlife on communal lands, Namibia needed to develop appropriate new policies to redress this situation. If successful, this would ensure the continued survival of wildlife in communal areas and would prevent game reserves from becoming islands of wildlife preservation and wilderness values surrounded by potentially hostile communal people. In line with current conservation thinking, such policies must be developed with rural communities as partners. They must also acknowledge that communal people have the right to derive financial benefits from wildlife living on communal lands, and that conserving natural resources by wise and sustainable resource management is of paramount importance for the protection of Namibia's biodiversity—as well as for the communal financial benefits accrued.

Namibia still has large herds of animals, such as elephants, living outside game parks. These animals are an important national asset, yet schemes are currently being devised to allow local communities living alongside wildlife to receive benefits from these animals. (Photo by Chris Weaver.)

Wildlife, Conservation, and Tourism in Namibia

Namibia's wildlife and wild country are important national assets with considerable international value. It is one of the cornerstones of the country's tourism industry, which is currently the third largest sector of the Namibian economy and the only one presently experiencing strong growth. In addition to growth within the more obvious tourist industry sectors, such as hotels and tour operators, commercial land owners are benefiting financially from wildlife management through a wide range of activities. Gross revenues to the private sector from trophy fees, daily guiding fees, and game meat sales amounted to N$19.6 (U.S.$5.6) million in 1993 (Ashley and Healy 1994). Indirect earnings derived from food, travel, and purchase of other goods and services would more than double this figure to over U.S.$10 million. Tourism can therefore play a significant role in Namibian rural development. This is of particular importance as sustainable tourism is one of very few economic activities that can be undertaken in remote rural areas by local communities.

Wildlife on Commercial Lands

There is a vast discrepancy between benefits accrued from wildlife utilization on Namibia's commercial farmland and on communal land. This is mainly a result of South African colonial policy, which focused attention and resources exclusively on commercial farming areas. For example, if commercial farmers meet certain conditions, largely related to fencing, they obtain the right to use the game on their farms to derive an income. Thus farmers may capture and sell game, sell animals to trophy and sports hunters, cull game for meat, or use their farms for safari-style tourism. This is done by permit from the MET in order to ensure that the principle of sustainability is being met.

The extension of rights of access, utilization, and benefit from wildlife to commercial farmers in the past resulted in an increase in game on commercial farmlands and a change in attitude among commercial farmers toward wildlife. Whereas in the past wildlife was viewed as belonging to the state, as competing with domestic stock for grazing, and being good only for *biltong* (dried meat), farmers began to realize that game had a substantial commercial value. This realization has resulted in more than 70% of Namibia's wildlife being held on commercial farms today. After many years of absence some game farmers, aware of the healthy financial benefits to be derived, have even begun to reintroduce such species as elephant, rhinoceros, and lion to commercial lands. The state has also benefited from game utilization on commercial farmlands. In 1992 the estimated revenue was about N$41 (U.S. $11.7) million, much of which was in foreign currency.

In line with preindependence realities, no attempt was made in the past to extend the rights and benefits outlined above to residents in communal areas. It is commonly accepted today that the discrimination of the past needs to be redressed, and people living on communal lands must be given the same rights as are given to commercial farmers.

Wildlife Conservancies

A significant advance in wildlife utilization on commercial farmland has been the emergence of the conservancy concept developed by the MET. Individual farmers have realized that it is advantageous to pool their land and financial resources to make available a larger unit on which integrated management practices can be carried out. This is particularly pertinent in Namibia's arid environment, where wildlife moves over large areas in search of food and water. For commercial lands, the MET defines a conservancy as a group of farms on which neighboring landowners have pooled their resources for purposes of conserving and utilizing wildlife on their combined properties. Through cooperative management of wildlife, farmers can enhance their productivity, stabilize yields, and increase their individual revenues. Not yet in existence on communal lands, these conservancies would be formed by a community or

group of communities within a defined geographical area that would jointly manage, conserve, and utilize the wildlife and other natural resources within this area. While the advantages of a conservancy are obvious to commercial farmers, the specific advantages of a communal conservancy for its participants includes improvement of the status and variety of wildlife on communal land, increase of game numbers, improvement of habitat, greater return of income, better control of poaching, and equally important, the empowerment of communal area residents in decision-making and self-sufficiency as well as improved community cooperation and planning for resource management.

The introduction of community game guards in several areas of Namibia has resulted in closer liaison between communities, non-governmental organizations, and the Ministry of Environment and Toursim.

Conservation in Communal Areas

Rural African communities in precolonial times had well-established natural resource and wildlife management systems based on religious beliefs, the rights of chiefs, other cultural values, and ownership of resources. However, successive colonial administrations throughout Africa have alienated rural people from their environment by taking away their rights and responsibilities in favor of centralizing control over natural resources and making many traditional practices illegal. Eurocentric views of conservation led to the creation of a network of protected areas all over the African continent. Local people were rarely consulted, and their needs for natural resources contained within these reserves rarely were considered. In most cases people were moved off land about to be proclaimed as a wildlife preservation area and were relegated to a status of the rural dispossessed. Having lost "ownership" of wildlife, local people saw little reason to conserve the "state's game." Poaching became viewed as a legitimate activity by rural communities, and conservation practices in communal areas came to mean "law enforcement," usually with little or no attention being given to community involvement.

Community-Based Conservation

New approaches to conservation, which take into account people s needs, consult people, involve them directly in decision making, and enable them to derive financial benefits from conservation, have been developed in many parts of the world over the past few decades.

... conservancies would be formed by a community or group of communities within a defined geographical area that would jointly manage, conserve, and utilize the wildlife and other natural resources within this area.

Community-based approaches also have been successfully applied in several areas of southern Africa. In Zimbabwe, under the Communal Areas Management Programme for Indigenous Resources project, the country's wildlife department has devolved authority over wildlife utilization to regional councils, enabling them to gain a direct income from conservation. One of the main sources of income for the council is trophy hunting, with elephants the species bringing in the most money. The sizable elephant populations existing in southern Africa, Zimbabwe, Zambia, South Africa, and Namibia do not support the widely accepted (outsider) view that elephants must be protected at all cost. Councils have gained the right to sell trophy hunting concessions and have fetched up to N$30,000 (U.S.$8,575) per elephant. The government, in cooperation with the communities, sets a realistic quota, and at least 50% of the profit goes to the community, which decides itself how the funds should be distributed (Maphosa 1990). A similar project in Zambia, the Administrative Management Design program, has resulted in a considerable decline in poaching and an increase in revenue from wildlife used by local people for development projects (Mwenya et al. 1990).

In Namibia, successful community-based projects have been developed in the Kunene Region by local nongovernmental organizations (NGOs) and the MET. In former Kaokoland, a community of Himba and Herero people have received as much as N$25,000 (U.S.$7,150) over a period of two to three years from tourists

who use their land and resources. In northern Kunene Region, the cooperation gained from local people in conserving wildlife has resulted in sufficient game being available for the members of the communities involved to cull for meat. The key to local cooperation has been a community-game-guard system that has given communities a sense of responsibility for wildlife as a sustainable resource.

Although financial gain is important, the most significant element in these three examples is the link that has been established between conservation, wildlife utilization, benefits, and rural development. Once income is derived by local communities for the use of wildlife, they develop a vested interest in conserving the game animals. Local communities are also empowered to make decisions concerning wildlife management and the distribution of benefits. Communities are thus achieving greater local self-sufficiency and relying less on direct government support.

Extending Rights to Communal Areas

The main constraint to further communal development in Namibia has been the lack of an enabling environment that provides an appropriate policy framework and legislation, giving rights over wildlife—including financial—to rural communities. In order to provide such an environment, a number of key issues are currently being addressed. These include issues related to land and resource tenure; the determination of appropriate beneficiaries and resource users; the establishment of a direct link between benefits and sustainable use; the propagation of community decision making versus government regulations; allowing for equity with commercial farmers; the establishment of an appropriate management structure; and enabling legislation.

The Namibian Cabinet has approved a policy that allows for conservancies on communal land to be the vehicle for assigning rights over wildlife to communal farmers. If communal area residents form a conservancy that is registered by the MET, they will gain the right to trophy hunting, sport hunting, hunting for meat, live sale of game, and tourism concessions. They will be able to retain all income gained from these activities, subject to income tax, and will be able to decide how to use this income. It is estimated that some communities with significant wildlife and tourism resources could earn up to N$600,000 (US.$171,430) a year. Once conservancies have gained rights over wildlife and tourism, they will be able to decide on the best possible use of their land. Where crops and livestock are of only marginal potential, they will have the option to develop consumptive and non-consumptive wildlife-based enterprises.

The MET is now developing legislation to put into effect the policy approved by the cabinet. The MET and conservation NGOs have been working closely with various local communities to assist them in forming conservancies. It is expected that once legislation is passed, several communities will form conservancies and begin to manage their wildlife themselves, with extension support from the MET and NGOs.

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ELISABETH BRAUN is a U.S. researcher, writer, and photographer who has recently spent three years in Namibia as an associate of The WILD Foundation. She is the author of *Portraits in Conservation: Eastern and Southern Africa* (Golden, Colo.: North American Press, 1995) and of the forthcoming *African Wisdoms* (Fulcrum Publishing, 1997).

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Announcements and Wilderness Calendar

Jon Roush Resigns from The Wilderness Society

On March 6, Jon Roush resigned his position as president of The Wilderness Society (TWS), leaving with pride and knowing that the organization is in good shape and has a strong future. Jon came to TWS 26 months ago to help re-focus the organization for a rapidly changing environment, rebuild the senior management team and morale, reverse a downward trend in membership, and put the organization back on sound financial footing.

Under Jon's leadership, these goals and more have been achieved with a new strategic vision and plan, new senior managers, membership up 30,000 and rising, and a healthy budget surplus. During Jon's tenure, TWS provided national leadership on crucial wilderness issues, including the California Desert, the Arctic National Wildlife Refuge, the Utah wilderness bill, National Forest policy, and the defense of public lands.

Leaders in TWS s governing council will initiate immediately a national search for a successor. In the mterim, TWS's senior management team will provide leadership. Good luck, Jon, and thank you and TWS for your support of *IJW.*

The Wildlands Project

When an animal species is forced to exist as a small, isolated population, it becomes genetically weak and more vulnerable to disease, inbreeding, and possibly extinction. Members of the Wildlands Project hope to preserve animal species and habitats by establishing safe corridors that link larger protected core areas, like a national park. These corridors would allow for seasonal migration, dispersal of young animals to new territories, and reduction of the inbreeding threat. "We seek not only the reflowering of North America, but to inspire similar efforts throughout the world," says project leader, Dave Foreman. To become locally involved, contact: The Wildlands Project, 117 East Fifth Street, Suite F, McMinnville, OR 97128, USA. (Excerpted from *Taproot,* a publication of the Coalition for Education in the Outdoors, 1996.)

New Electronic *Conservation Ecology* Journal Available Online

Conservation Ecology is a new peer-reviewed journal of the Ecological Society of America. Article preparation, submission, review, and publication will be entirely electronic. *Conservation Ecology* is intended to supplement, rather than supplant, similar existing periodicals. Papers will range from theoretical to applied and will focus on (1) the ecological bases for the conservation of ecosystems, landscapes, species, populations, and genetic diversity; (2) habitat restoration; and (3) resource management.

Online access and subscriptions are offered without charge. Access to the journal will be via the Worldwide Web, Gopher, and e-mail over the internet. Find the journal at http:/ /journal, biology, carleton.ca/journal/overview.html.

Aldo Leopold Stamp

The 50th anniversary of the death of renowned author and conservationist Aldo Leopold will be in 1998, and the 50th anniversary of his celebrated book, *A Sand County Almanac,* in 1999. A proposal has been made to honor his memory with a dedicated postage stamp. Letters of endorsement should be sent to: Citizen's Stamp Advisory Committee, *c/o* Stamp Management, U.S. Postal Service, 475 L'Enfant Plaza, Southwest Room 5301, Washington, D.C. 20060-2420, USA.

Alberta Wilderness Association Celebrates Three Victories in a Row★

Since the beginning of 1996, the Alberta Wilderness Association of Canada has enjoyed an unprecedented three victories in a row. This winning streak started on the afternoon of January 11, with the establishment of the 792-square-kilometer Wildland Park in the Elbow-Sheep Wilderness.

Next came the announcement on January 17 of the creation of the Kakwa Wildland Park in Northern Alberta on the British Columbia (B.C.) border. Finally came the news

that the Alberta Energy and Utilities Board had issued an interim directive that will protect an internationally significant wetland in the Hay-Zama Lakes Area of northwestern Alberta. Understandably, the Alberta Wilderness Association is encouraged by this "progress" and the wildlife and wilderness it protects.

• New Wildland Park for Alberta— Ever since the Town of Cochrane announced that it was building its own water treatment plant on the Bow River, water quality has become a hot topic in Calgary. The Elbow River, however, also plays a major role in supplying water to Calgary, and protecting it is every bit as important as the Bow. The Alberta government took a major step forward toward protecting that water supply when it legally established 792 square kilometers of the Elbow-Sheep wilderness, located in the Rocky Mountains of Kananaskis Country, as a wildland park. The wilderness lies just 40 kilometers southwest of Calgary. From its major peaks and bowls are born several key streams. Its tranquil scenery is the home for bighorn sheep, mountain goat, elk, and occasionally wolves.

• Kakwa Wildland Park Becomes a Reality—Lucky are those few who have experienced the rare beauty of the Kakwa. Forming the northern stretch of the Rockies and bordering B.C., the Kakwa ranges from lofty mountain peaks to rounded, forested hills. A plateau known as Caw Ridge is celebrated for its abundance of wildlife. It is principal habitat for black and grizzly bears, wolverine, wolf, bighorn sheep, the endangered mountain caribou, and Alberta's largest population of mountain goats.

The campaign to protect the Kakwa was launched in 1971 by the Wild Kakwa Society based out of Grande Prairie. The work of the Wild Kakwa Society began to pay off on January 17, when the Lieutenant Governor of Alberta signed into being the Kakwa Wildlife Provincial Park. The park blankets 649.3 square kilometers of the 1,467-square-kilometer Wild Kakwa Wilderness on the Alberta side of the B.C. border.

The park's founding brings into legal reality the 1987 announcement of the Kakwa Wildland Recreation Area by the former environment minister Don Sparrow and an Alberta government throne speech in 1975 that promised a provincial park. Its significance, however, seems to be that it heralds a huge leap forward by the Alberta government in the arena of wilderness protection.

• The Protection of the Hay-Zama—In late January the Alberta Energy and Utilities Board issued an interim directive that will guide future oil and gas activities in the Hay-Zama Lakes region of Northwestern Alberta. The Hay-Zama lakes area is a varied area covering thousands of square kilometers of marshes, open water, willow swamps, floodplain woodlands, and wet meadows.

Although oil and gas exploration has been allowed in the lakes, the Hay-Zama Committee was established more than ten years ago to address concerns over exploration in the area.

The directive outlines an orderly and fair cessation of practices in the area with the highest risk. The efforts of the Hay-Zama Committee will protect the spectacularly diverse cultural and biological values of the Hay-Zama Complex, while initiating the retreat of exploration from the area. The directive that the committee recently issued is the collaborative work of government, industry, the Alberta Energy and Utilities Board, and the conservation community.

⋆ Announcement by Bruce Ramsay.

Wilderness Grazing

In a precedent-setting decision in February, U.S. Forest Service Chief Jack Ward Thomas's office ruled that congressional grazing guidelines for wilderness don't allow construction of "a substantial number of new improvements" in a wilderness. This overturned a 1995 Gila National Forest decision authorizing 15 earthen impoundments for Diamond Bar rancher Kit Laney in the Gila and Aldo Leopold wilderness areas.

Although the proposed water holes were meant to move cows uphill from degraded rivers and streams on the 227-square-mile grazing allotment, environmentalists contended the tanks would degrade upland areas by causing more cattle pressure on them.

This decision makes it harder to build large watering tank developments in wilderness, and easier for U.S. Forest Service officials to reduce cattle numbers when the land is in bad shape. Gila National Forest Supervisor Abel Camarena was given 180 days to rewrite his 1995 decision. (Excerpted from *High Country News.)*

Conferences

Wolves of America: A conference on wolf biology, recovery, management, and activism. November 14–16, Albany, NY, USA. Sponsored by Defenders of Wildlife. Telephone: (202) 789-2844, ext. 334.

Association for Experiential Education, International Conference, September 26–29, 1996, Spokane, WA, USA. Telephone: (303) 440-8844.

Institute on Americans Outdoor Conference, November 8–10, 1996. Telephone: (317) 349-5100.

North America Association for Environmental Education, November 1–5, 1996. Telephone: (513) 676-2514.

National Society for Experiential Education, October 23–26, 1996. Telephone: (919) 787-3263.

Book Reviews

BY JAMES R. FAZIO, BOOK REVIEW EDITOR

Wild Ideas edited by David Rothenberg. 1995. University of Minnesota Press, Minneapolis and London. 225 pp., $19.95 (paperback).

Wild Ideas is an attractive little book. Its appearance makes you want to read it. Its size is not overwhelming, it has adequate margins for inveterate notemakers, and its chapter titles are irresistible—"The Princess of the Stars: Music for a Wilderness Lake," "The Idea of North: An Iceberg History," "Healing by the Wilderness Experience," and ten others.

Most of the 13 authors in this collection of essays were presenters at the 5th World Wilderness Congress in Norway. There, according to the foreword by Vance Martin *(IJW* executive editor), philosophy was placed on equal footing with science, management, economics, and education. Few would argue with the wisdom of such a holistic approach to examining wilderness, especially if the future of Earth's wild places are to benefit from discussions across disciplines, cultures, and especially from theorists communicating with policy makers. But whether this book contributes to that discussion is questionable. Jargon coupled with an expectation that the reader shares the writer's intellectual background do not contribute to widening the insights of philosophy. There are exceptions. Some of the authors, such as Marvin Henberg in "Pancultural Wilderness," attempt to communicate with the wider audience not schooled in philosophy. He takes the time to explain what is meant by "the body of deconstructive literary theory" so we can understand how it fits into an explanation of why sharing the meaning of" wild" across languages is difficult.

Some other authors are less charitable. Unfortunately, too often at the end of a page or chapter, the reaction has to be—what did the author say? What does this mean? How can this possibly have application to solving the problems that face wilderness? By and large, the book was written by philosophers for philosophers.

David Rothenberg, editor of this compendium, tries to help. His introduction provides an absolutely essential guide to the contents. Overall, Rothenberg explains, the essays are intended to challenge our notions of wilderness and wild places that have been central to the development of conservation and environmentalism. They are intended to bring out deeper meanings of wilderness, as opposed to assuming they are simply places within designated boundaries. The first section does this by arguing over the concept of wilderness and problems, including how best to spread the concept worldwide. Section two bears in on the challenges of translating the idea of wilderness across oceans and cultures. Section three, perhaps even more challenging (to readers, at least) is "The Art of the Wild"—different ways of perceiving, writing about, and celebrating the extremes of the natural world. The final section attempts to point out where the idea of wilderness must go to survive into the next century.

There are rays of brilliance hidden in this book, and they break through like flashes of sun in dissipating fog. Rothenberg's epilogue, "Paradox Wild," is one of them. And perhaps in a sentence he summarizes the book: "Wild is a power word, a beguiling force, both a romantic and classical concept. It will elude explanation, and we continue to fight to explain it, and to evoke it." There is even *one* chapter, "Beauty and the Beasts: Predators in the Sangre de Cristo Mountains" by Tom Wolf, that is both easy to read and instructive.

Certainly there is much to be gained from the intellectual exercise of wrestling with terms such as "contemporary epistemological relativism." Similarly, for those of us who tend to read mostly on topics of science or management, there is much to be learned from those who dwell with equal enthusiasm on the arts. If only we could reach out to each other with greater clarity than is found in much of *Wild Ideas.*

But you be the judge. Here is a test, a prototypical passage, if there can be such a thing, from a book with 13 authors. It is taken from "Silent Wolves: The Howl of the Implicit" by Irene Klaver. The editor calls it "phenomenology in action":

> Silent is the stream's roaring path through the forest, not because there is no sound but because the water's speaking is immediate, unmediated, without representation. The river does not name. Silence is not-naming, it is letting things appear without interpreting, translating, or casting in static forms; silence affords a place for many sounds. Indiscriminately the river takes up what comes along and has its say by washing away.

If the foregoing sample from *Wild Ideas* excites your intellect, this book is for you. If it does not, you will find *Wild Ideas* wildly frustrating.

Guardians of the Parks—A History of the National Parks and Conservation Association by John C. Miles. 1995. Taylor & Francis, with National Parks and Conservation Association, Washington, D.C. 363 pp., $29.95 (hardcover)

Citizen organizations such as the National Parks and Conservation Association (NPCA, see National Parks Association) play vital roles in the American political system. This thorough and detailed book reveals how the group helps to ensure that the national parks meet their highest purposes, sometimes to the discomfiture of the U.S. Department of Interior National Park Service (NPS) director.

John Miles has done a great service to history and to the present generation. He carefully combed, studied, and documented the fascinating evolution of the NPCA, which started in 1919 as an elite group and grew (recently) into a very large organization. Professor Miles plumbed the archives of the NPCA and somehow pulled a sensible story from them. He extracted both color and substance from minutes of meetings, correspondence, *National Parks* magazine articles, and scholarly writings.

The story has two major strands. The first tells of key NPCA "star" executives such as Robert Sterling Yard, Devereux Butcher, Anthony Wayne Smith, and Paul Pritchard, along with directors such as William P. Wharton and Sigurd Olson. The supporting cast includes directors Herbert Hoover, G. B. Grinnell, John Merriam, Lawrence Merriam, Clarence Cottam, Fred Packard, and Destry Jarvis. Many of them appear in a rich collection of photographs.

The second strand revolves around recurring issues and themes. Readers learn about NPCA's concerns with:

- education and interpretation in the national park system;
- water fights in places such as Glacier, Grand Canyon, Big Bend, Everglades, and Dinosaur (the best account I've read);
- wariness toward Mission 66, Grand Teton, and Kings Canyon;
- and maintaining "standards" in parks, despite little success in defining them clearly.

The book also reveals how fragile are the threads that hold together such an organization, yet how persistent are the issues and needs. National Park policy didn't just evolve out of Congress or the NPS. The vital input of the NPCA through the decades is finally written down concisely. When the NPS wouldn't produce a comprehensive park system plan, the NPCA staff did it for them. When the NPS needed to improve interpretation, the NPCA pushed vigorously and did much of the work itself for some time.

From chapter to chapter, the book progresses chronologically from 1919 to 1993. It ceases mention of the NPS developments in 1988, ignoring many positive results since then. Within each chapter, however, the text meanders among dates and topics, sometimes distracting sequential readers. This reader needed (1) a simple time-line graphic showing dates of key personnel and policy changes and (2) tables summarizing membership (never over 50,000 until 1989) and budget, now irretrievably sprinkled through the text.

Several puzzles remained unmentioned: Why hasn't NPCA pushed wilderness designation of Yellowstone and Grand Canyon? What position did NPCA take on urban parks? How does the board justify its historic insistence on high park standards and significance with its recent "all parks at any cost" stance? Why is there no mention of interpretation in the index despite the NPCA's own Freeman Tilden Award to the top NPS interpreters.

Dr. Miles has written a balanced and sensible book. He warns against overemphasizing tensions and differences. He presents people with their strengths and weaknesses. Except for a subtle partisan political bias, the evenhanded analysis of issues and careful documentation gives this book considerable weight and value.

Guardians of the Parks makes evident that NPCA's work will not go away. The jetport near the Everglades has gone, but the U.S. Army Corps of Engineers' water schemes and population sprawl continue to threaten the "River of Grass." The "wise" use movement proves that commercial interests of old still try to gnaw at the parks and monuments after all these decades. The NPCA—"conscience of the National Park Service"—cannot rest.

*Reviewed by Douglas M. Knudson, Professor of Forestry, Purdue University.

Troubled Waters: The Fight for the Boundary Waters Canoe Area Wilderness by Kevin Proescholdt, Rip Rapson, and Miron L. Heinselman. 1995. North Star Press, St. Cloud, Minnesota. 332 pp., $19.95 (paperback)

For the thousands of people who each year enjoy the presumably untroubled waters of the greatest canoe country on earth, *Troubled Waters* ought to be required reading. I mean that the many who benefit ought to know and appreciate the struggles and sacrifice of a handful of heroes on their behalf. And for the serious student of wilderness policy—of what it takes to make it happen anywhere, everywhere—this political history is an absolute must.

The Boundary Waters Canoe Area (BWCA), covering a substantial portion of Superior National Forest in northern Minnesota USA, just below Quetico Provincial Park in Ontario, Canada, has been the field of one battle after another down through the years. The principal focus of this work, however, is the monumental campaign in the 1970s to bring the area into the National Wilderness Preservation System, free of intrusive logging, mining, motor boating, and snowmobiling. The three authors all were intimately involved, which accounts for the detailed blow-by-blow account of events within the region and in Washington, D.C. In a few spots there may seem more insider information than the reader really needs, but it's all history and it hangs together.

Hubert Humphrey and Walter F. Mondale, both influential U.S. senators from Minnesota, and both former vice presidents of the United States, are key figures in the book but definitely not the heroes. They come across as compromisers, dealing with a great resource as petty politicians, not as statesmen. When, for instance, an official of President Carter's administration earnestly approached Mondale at a social function for any advice he might offer about the BWCA, the vice president shrugged and said, "Some of my friends are for it, some of my friends are against it, and I'm with my friends." Then Mondale turned and walked off.

More the heroes are Sigurd Olson, the celebrated author and conservationist who was ridiculed and ostracized by redneck neighbors at Ely, in the north country but never wavered from the wilderness cause; Miron (Bud) Heinselman, the forest ecologist who retired early from the U.S. Forest Service to devote his energy to saving the BWCA through the Friends of the Boundary Waters Wilderness; and Philip Burton, the California congressional leader who ingeniously maneuvered the wilderness legislation to passage.

But my favorite hero is Don Fraser, the congressman from Minneapolis, whose principled devotion to the boundary waters cost him a Senate seat when the anti-wilderness faction in the north stirred up enough votes to defeat him in the Democratic primary. As Burton declared on the House floor:

> Don Fraser stood for the full protection he knew the resource deserves, and he has never strayed from that commitment despite personal attacks and terrible damage to his own political career. His one mission throughout this entire battle has been to see this unique water wilderness passed unimpaired to future generations. Don Fraser will not be back in the 96th Congress, but his legacy for future generations will endure.

Mondale, as this book shows, undercut Fraser. So did Representative James Oberstar, the congressman of the north country, who delivered a mean-spirited speech on the floor of the House equating Fraser s defeat with a referendum on the BWCA.

I believe these data are of prime importance in the unending struggle to protect the BWCA and, beyond it, the surviving shreds of wildness wherever they may be. Even now, Representative Oberstar, a Democrat, and Senator Rod Grams, a Republican, are pressing legislation to open the million-acre BWCA wilderness to motor-boats, trucks, and jeeps, and to create a locally dominated citizens council for the BWCA (and another for nearby Voyageurs National Park) to dictate how these internationally significant treasures should be managed.

That is the legacy they choose to leave, but the overriding lesson of *Troubled Waters* is that citizens who enjoy wilderness need to care about it too, with principle and vigilance strong enough to get the message across to politicians so they understand and respond to it in-kind.

*Reviewed by Michael Frome, conservation author and journalist.

Letters to the Editor

Dear Dr. Hendee:

Thank you very much for the copies of the inaugural issue of the *International Journal of Wilderness.* It is a very beautiful magazine, and interesting too for those, such as me and my friends, who are thirsty for philosophy, conservation, and management news about the wilderness idea in a world dimension. I am very proud of our collaboration with the journal. We are honored for the inclusion of Italy in your first editorial and for the recognition of our work. Thank you very much!

Here are two copies of the last issue of our magazine, dedicated to the Italian (and Alps Mountains) very first "Wilderness Area" established by local authorities.

Yours sincerely,
Franco Zunino
Wilderness Associazione Italiana
CPn.61
67050 Villavallelonga, Italy

Dear Dr. Hendee:

Max Oelschlaeger took a courageous stand against sustainable development ("Development and Overpopulation Threaten Wilderness," *IJW* 1, [2]). It is very tempting to look for the one perfect solution to population and economic problems. If it's not examined closely, sustainable development sounds like a panacea.

As Oelschlaeger points out, continued "development" in the common usage of the word is not sustainable, even if done with the utmost care, with all of the "soft" technology we have at our disposal today.

What, then, is to be done? To abandon environmentally sensitive development, where development takes place, would not be wise; we must do what we can to soften the blow. To immediately stop all development of any kind is, unfortunately, not politically or physically possible. The real issue, overpopulation, must be brought to the forefront of the debate. The bloated human population is the real culprit and we must recognize that until the human population is vastly reduced—no matter what we do to mitigate destructive development—wilderness is going to continue to disappear and we are going to lose not only our wildlands, but that part of ourselves and our culture that desperately needs wilderness.

Sincerely,
Brian Suderman
Gustavus, Alaska USA

Dear Dr. Hendee:

Don Duff's article, "Fish Stocking in U.S. Federal Wilderness Areas—Challenges and Opportunities" (*IJW* 1, [1]) raised important issues. Early residents of North America might be indicted for planting fish indiscriminately as they moved westward, but many of their stocks we brand as exotics today were well known to these immigrants. They imported them to improve the resource and make it similar to that left behind in Europe. In the late 19th century the US. government sponsored fish culture and moved native and introduced fishes throughout North America. For a time in the 1880s, "carp ponds" were maintained in Washington, D.C., from which carp were shipped across the country on order. Spencer F Baird (first US. Fish Commissioner) charged Livingston Stone to raise salmonids and distribute them widely across the United States. Their actions were right for their time in understanding natural systems.

Today, a different script is evolving in management for fishes, natural systems, and forests and wilderness areas, with the ideas of biodiversity and the ecosystem approach frequently mentioned. I am convinced that the foundation of fisheries management is solidly rooted in how systems function, and it is demonstrated by the success of management for fishes. I am equally convinced that most modern fish management in wilderness is not indiscriminate. Rather, it is conceived with care, accounting for stocks of native fishes, naturalized introduced stocks, natural recruitment, maintenance of fishless waters, and by opportunities to reintroduce native fishes. This is Wyoming's approach, and it is not uncommon in wilderness fish management generally.

Before the 1994 workshop on Wild and Planted Trout, 45 issues were identified through a survey of experts and angler groups and were rated in importance by 80 participants. Of the top eleven priority issues, two concerned fisheries in wilderness.

All fisheries agencies must agree on common ground for resource management. At the final fisheries stewardship roll call, fisheries managers (state, federal, and private) will be judged according to how well they cared for the resource. Yes, stocking fish in wilderness has impacted natural systems. Stocking has yielded very positive results on balance with the negatives inferred in the article. Fisheries managers are addressing the challenges and opportunities of fish stocking and management in wilderness.

Sincerely,
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