

Ecosystem Services

Just Another Catch Phrase?

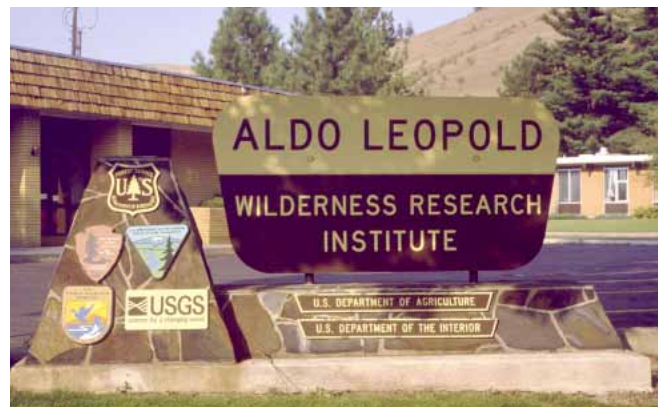
BY EMILY WEIDNER

The “ecosystem services” concept has emerged as a popular area of discussion among policy makers and conservation advocates. Ecosystem services are the benefits people derive from nature and include the provision of water, food, wood, and fiber; regulation of climate, flood, drought, and disease; maintenance of biodiversity; and recreational, aesthetic, spiritual, and cultural values. Ecosystem services brings together traditionally disparate fields of ecology, economics, and geography to address how the services are generated, how they flow across the landscape, who benefits from them, and by how much.

Because wilderness agencies have been providing ecosystem services to the public for decades, they have focused much of their research agendas in this arena, though they rarely labeled it as ecosystem services research. Indeed the Leopold Institute’s body of work has included considerable research on benefits and values of wilderness, and trade-offs of wilderness values under various management scenarios (e.g., active restoration, fire suppression)—all components of ecosystem services research. But apart from a new catch phrase, what can the ecosystem services perspective provide for wilderness?

First, it raises awareness of the value of wilderness. Wilderness values can be described in ways that matter to people and help inform the public of the breadth of wilderness benefits. Imagine being able to describe areas in terms of human benefits such as gallons of potable water, or tons of carbon sequestered, in addition to existing measures such as number of recreational visitors, or number of acres. This would certainly provide additional rationale for a steady or increasing wilderness management budget, and engender additional support for wilderness designation.

The ecosystem services perspective also helps in understanding how people value wilderness. Understanding how



different stakeholder groups value wilderness can bring more transparency to intended beneficiaries of management actions, and can help ensure a just planning approach. Additionally, with public participation a key step of any forest planning or major management action, having a better idea of how people value wilderness areas and other public lands can help build trust amongst stakeholder groups.

Finally, it better informs decisions that include trade-offs between services. Considering the suite of ecosystem services provides a more complete picture of the impacts of various management scenarios on ecosystem services. And understanding how and where services are generated across the landscape and the ecological or social pathways the services take to reach the beneficiaries provides the groundwork for understanding how decisions affect different stakeholders and their values of wilderness. This will be essential as managers are increasingly faced with complex management decisions related to fire, climate change, and insects and disease.

In order to use ecosystem services to raise awareness of the value of wilderness, better understand how people value wilderness, and better inform decisions that include trade-offs between services, we need to develop the methods, create

user-friendly tools, and conduct case studies to serve as a proof of concept. Ecologists, economists, modelers, and geographers will have to work together to help build spatial tools that allow for ecosystem services assessments, assessment of measurable and immeasurable economic values of services, and scenario building that show the effects of management and natural disturbances such as fire, climate change, and insects and disease.

The Leopold Institute has begun a new research stream on ecosystem services beginning with a multiphase project called “The Role of Wilderness in Sustaining Ecosystem Services across Landscapes and Society.” Focusing in on the Frank Church-River of No Return Wilderness in Idaho as a case study, this project seeks to identify the ecosystem services, their beneficiaries, and stakeholder perception of relative importance of the services; assess non-market values of the services; and develop a decision-support framework

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to inform managers about wilderness ecosystem services and how wilderness management and natural disturbance (fire, climate change, insects and disease) affect these services. Results of the phase-one analysis are planned for publication in 2011.

Additionally, with growing momentum behind the ecosystem services concept among wilderness professionals, the North American Intergovernmental Committee on Cooperation for Wilderness Conservation (an outcome of an MOU on Cooperation for Wilderness Conservation signed by federal agencies of the United States, Canada, and Mexico) formed a working

group called Valuing Ecosystem Services from Wilderness and Payment Mechanisms. Led by the U.S. Forest Service, this group has a mission to exchange information and best practices on innovative approaches to governance of wilderness areas, and to promote consideration of mechanisms of payment for ecosystem services related to nonfederal wilderness conservation.

EMILY WEIDNER is a presidential management fellow from the Ecosystem Services and Markets Program Area of the USDA Forest Service and assigned to the Aldo Leopold Wilderness Research Institute in Missoula, MT; email: eweidner@fs.fed.us.

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an important bequest of this generation to the future.

Perhaps the most important role of the public lands is to safeguard wilderness, nature untamed. Wilderness is at the core of a healthy society. Wilderness, above all its definitions, purposes, and uses, is sacred space, with sacred power, the heart of a moral world. Wilderness preservation is not so much a system or a tactic, but a way of understanding the sacred connection with all of life, with people, plants, animals, water, sunlight, and clouds. It's an attitude and way of life with a spiritual ecological dimension.

But the longer I work to protect and preserve wilderness, the more I believe there is more to it.

Crusades for social issues, whether for peace, racial equality, gender rights, or the environment, show how people—at times a very few—can and do bring needed change. Moreover, the effort itself is rewarding, the change in oneself matters most, more than whatever success the effort may bring. In protecting these wildernesses to remain forever mysterious and primeval, we discover ourselves, and our inner spirits called souls.

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MICHAEL FROME is a well-published author, including the book *Regreening the National Parks*, 1991, Tucson, AZ: University of Arizona Press; email: MFrome@aol.com.