

PERSPECTIVES FROM THE
ALDO LEOPOLD WILDERNESS RESEARCH INSTITUTE

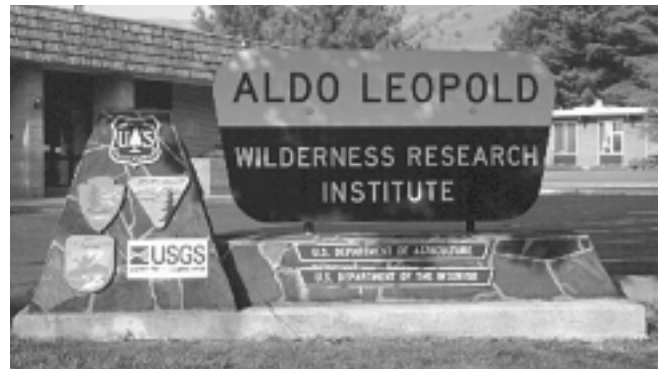
Social and Institutional Influences on Wilderness Fire Stewardship

BY KATIE KNOTEK

One of the priority research areas at the Aldo Leopold Wilderness Research Institute addresses the “need for improved information to guide the stewardship of fire as a natural process in wilderness while protecting social and ecological values inside and outside wilderness.” This research topic area was developed with the knowledge that wildland fire, as a natural disturbance process, can preserve ecological conditions inside and outside wilderness ecosystems and, at the same time, influence societal values across the interface between wilderness and nonwilderness lands.

Scientists at the Leopold Institute are studying how social and institutional factors influence the way fire managers and the public evaluate trade-offs in the stewardship of fire as a natural process. Scientists map human values-at-risk to assist decision making for fire and fuels management, assess public trust in management agencies and their ability to manage fire and fuels, and investigate public perceptions and management decisions regarding options for the use of fire and fuels treatment. Funding has been primarily through the National Fire Plan (U.S. Departments of Agriculture and Interior), the Joint Fire Science Program (a partnership of six federal wildland management and research organizations), and the Bitterroot Ecosystem Management Research project (interdisciplinary team of U.S. Forest Service scientists, Bitterroot National Forest and Northern Region managers, and the University of Montana).

The Northern Rocky Mountains is a unique and valuable laboratory for investigating social issues related to fire



management across landscapes that include federally protected wilderness. Recently, the planning phase of a landscape-level fuels treatment project on the Bitterroot National Forest provided the opportunity for Leopold Institute scientists to conduct a baseline assessment of personal and community values attached to the Bitterroot landscape, which extends from the valley floor to the crest of the Selway-Bitterroot Wilderness. Using GIS technology, Leopold Institute scientists mapped the spatial distribution of these values across the landscape, providing valuable social data for modeling efforts designed to evaluate social and resource trade-offs among alternative fuels treatments. In addition, a baseline measure of trust across communities adjacent to the Bitterroot National Forest helped scientists and managers to understand the factors that influence the relationship between the public and local land managers regarding fire and fuels management. Based upon

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Figure 6—Ellicott Rock Wilderness in North Carolina and South Carolina (USDA Forest Service). Photo courtesy of USDA Forest Service.

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this research, Leopold Institute scientists developed a simple monitoring tool to measure and monitor change in trust levels among participants in the forest's collaborative planning process for fuels treatment. Scientists, managers, and the public are actively collaborating to incorporate results from these research efforts into management decisions.

The use of management-ignited prescribed fire in wilderness in the Northern Rockies offers another excellent opportunity for Leopold Institute scientists to better understand social and institutional influences on

wilderness fire stewardship. Scientists have assessed public support for prescribed fire in wilderness with a survey of visitors to the Bob Marshall Wilderness Complex. In addition, a 10,000-acre (4,016 ha) prescribed burn in the Scapegoat Wilderness is serving as a case study for a focused assessment of public response to prescribed fire by members of the public residing in wilderness-proximate communities.

Scientists at the Leopold Institute seek to be responsive to national initiatives on fire and fuels management (e.g., the National Fire Plan and the

Healthy Forests Initiative) by providing land managers with the information needed to restore and maintain natural fire regimes in wilderness while protecting both local and national values across the landscape. This type of research will be critical in the future for understanding trade-offs made by decision makers at the interface between wilderness and nonwilderness lands. **IJW**

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