PERSPECTIVES FROM THE
ALDO LEOPOLD RESEARCH INSTITUTE

The Importance of Archiving Baseline Wilderness Data

BY DAVID N. COLE

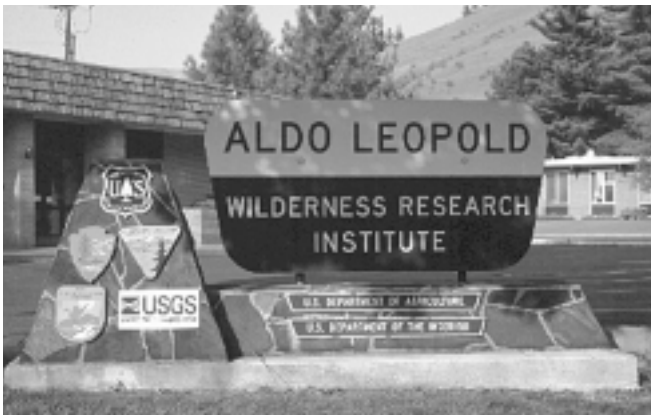
Baseline wilderness data are of considerable importance for several reasons. One of the primary values of wilderness is as a reference that contrasts with those lands where humans dominate the landscape. Leopold (1941) called wilderness "a base-datum of normality, a picture of how healthy land maintains itself." To realize this value, baseline data on wilderness conditions are needed, for comparison at some future time and for comparison to other lands. Baseline data also contribute knowledge needed to effectively steward wilderness. Baseline recreation data are particularly important to managing recreation in wilderness.

The most important types of recreation data are data on use and user characteristics, the results of visitor surveys/studies, and surveys of recreation impacts. Such data have been collected by land management agencies, by the research staff employed by land management agencies, and by academic institutions. Regardless of who collects such data, their value as a baseline can only be realized if they are properly archived, a process that takes careful planning and a significant investment of resources.

Unfortunately, baseline wilderness recreation data are sparse. Barely one-half of the wildernesses in the National Wilderness Preservation System (NWPS) have any baseline recreation data (Cole and Wright 2004). Data on use levels are so sketchy that there is no effort to regularly estimate or report recreation use of the NWPS.

Information about those data that have been collected for each unit in the NWPS (through 2000) is compiled in Cole and Wright (2003) and a searchable database is located on the Internet (http://leopold.wilderness.net/links.htm).

Moreover, the data that do exist are at risk. Much of the data is stored in paper files that are subject to being lost, misplaced, or forgotten. Increasingly data is being stored electronically, and some of these data are being captured on corporate databases. However, data collected by researchers (federal researchers, professors, and graduate students), even if it is stored electronically, can easily be lost. Data from classic visitor studies, stored on tape, have already been lost due to disintegration of that medium. In other cases, it has been impossible to find machines capable of reading tapes, and stored data have been thrown away to make space for new data.



Many studies that have been described as baseline studies cannot serve that purpose because resultant data have not been adequately archived. Adequate archiving requires a commitment to safe and accessible storage of data on a durable medium, using up-to-date technology, as well as careful documentation in the form of metadata. Since storage technology is always changing, data will regularly need to be rewritten, using the latest technology.

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for more protected areas where wilderness programs for reflection and personal growth can be conducted.

The next international gathering of the Wilderness Guides Council will be hosted by the U.S. Wilderness Guides Council in April 2009. For more information, contact www.wildernessguidescouncil.org. **IJW**

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Data should be stored in multiple places so it cannot be catastrophically lost. The availability of data should be advertised and made available (such as through the Internet), so it can be used in the future. Metadata is information about the content, quality, condition, and other characteristics of data. It describes the who, what, why, when, and where of data collection. The most helpful metadata carefully explain exactly how someone could replicate data collection and analysis in the future.

The Leopold Institute has recently been investing in careful archiving of some of the datasets that its scientists have compiled over the past 40 years. These include some of the earliest data on wilderness visitors and recreation impacts. We also rescued data on river recreation visitors, obtained in the 1970s by the Forest Service's River Recreation Research Unit (Lime et al. 1981), from tape and the trash bin. Data have been migrated from the tapes on which they were stored and are being archived. Data on campsite impact, repeated periodically over time, from a sample of wildernesses throughout the NWPS, have been archived. Although this effort has only begun, some datasets are already available (http://leopold.wilderness.net/research/fprojects/F010.htm). **IJW**

REFERENCES

Cole, D. N., and V. Wright. 2003. *Wilderness Visitors and Recreation Impacts: Baseline Data Available for Twentieth Century Conditions*. General Technical Report RMRS-GTR-117. Ogden, UT: USDA Forest Service, Rocky Mountain Research Station.

———. 2004. Information about wilderness visitors and recreation impacts: Is it adequate? *International Journal of Wilderness* 10(1): 27–31.

Leopold, A. 1941. Wilderness as a land laboratory. *Living Wilderness* 6: 3.

Lime, D. W., R. C. Knopf, and G. L. Peterson. 1981. The national river recreation study: A growing new data base with exciting potential. In *Some Recent Products of River Recreation Research*. General Technical Report NC-63. St. Paul, MN: USDA Forest Service, North Central Forest Experiment Station.

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