

CIRMOUNT: HELPING RESOURCE MANAGERS PLAN FOR THE EFFECTS OF CLIMATE CHANGE

In July 2006 the Consortium for Integrated Climate Research in Western Mountains (CIRMOUNT) released the report, “Mapping New Terrain: Climate Change and America’s West” (CIRMOUNT Committee 2006). Officially established in 2004 during its Mountain Climate Sciences Symposium at Lake Tahoe, California, CIRMOUNT is a collaboration of ecologists and physical scientists who are researching mountain climate and ecosystems in western North America. Constance Millar, cochair of CIRMOUNT, describes the organization as “a grass-roots consortium, without central funding,” whose advancement is a result of the “collective projects and progress of consortium scientists working in their own units.” A core group of 15 scientists drives CIRMOUNT’s activities and encourages projects that will help the consortium meet its goals, which are aligned with those of the U.S. Federal Climate Change Program (see <http://www.climatescience.gov>). As such, CIRMOUNT has dedicated itself to developing a forum for responding to society as it grapples with the effects of climate change in mountain ecosystems. In addition, the Mountain Research Initiative—an international, multidisciplinary scientific organization that addresses global change issues in mountainous regions around the world—has endorsed CIRMOUNT as a regional pilot project (see <http://mri.scnatweb.ch>).

Though society's recognition of climate change has been slow, and "grappling" has only just begun, CIRMOUNT is plowing ahead as it seeks to identify critical climate change issues facing western North America. Through its six work groups, collaboration among other scientific programs and organizations, and a biennial science conference (MTNCLIM), CIRMOUNT is developing priorities for action to address climate-driven issues such as water supply, forest dieback, wildfire, the urban-wildland interface, biodiversity, and wildlife. The six task-oriented work groups are (1) Mountain Climate Network (MONET), which coordinates a network of monitoring stations; (2) Mountain-Based Hydrologic Observations (HO), which provides consistency in monitoring water resources and interactions between hydrology and climate; (3) Mountain Ecosystem Response to Climate, which encourages scientific knowledge of the effects of climate change on ecosystems, in particular incorporating this information into planning and conservation; (4) International Relations, which promotes CIRMOUNT activities worldwide; (5) North American GLORIA (global observation research initiative in alpine environments), which monitors alpine plant response to climate change using international protocols; and (6) Paleoclimatic Archives for Resource Management, which provides access and applications of paleoclimatic and paleoecologic data for a range of users, including resource managers.

As "Mapping New Terrain: Climate Change and America's West," points out, "Climate change has been widely overlooked in mountain land-use planning and natural-resource policy." In an effort to remedy this situation, each CIRMOUNT work group has projects with applications in resource management; moreover, consortium participants encourage natural resource managers, resource program managers, and resource policy makers to join the dialog about the application of science in resource management. For example, Stephenson et al. (2006) highlights the Western Mountain Initiative in which CIRMOUNT plays a key role in predicting responses of western mountain ecosystems to climatic variability and change. In addition, various climate centers compile and provide data for National Park Service use. The Western Regional Climate Center compiles all the information available on climate monitoring for the national parks. These stations may be accessed in real-time at <http://www.wrcc.dri.edu/>. Moreover, the California Climate Change Center is installing long-term monitoring stations, several of which are in national parks (e.g., Yosemite National Park and Devils Postpile National Monument).

The cochairs of the consortium encourage all those interested in mountain climate research, including park managers, to participate. According to Millar, “We have a listserv; [park managers] can join work groups, come to conferences, [and] become involved in any of the management-related projects.” For more information contact Constance Millar (USDA Forest Service, Pacific Southwest Research Station) at 510-559-6435 or cmillar@fs.fed.us.

References

- Stephenson, N., D. Peterson, D. Fagre, C. Allen, D. McKenzie, J. Baron, and K. O'Brien. 2006. Response of western mountain ecosystems to climatic variability and change: The Western Mountain Initiative. *Park Science* 24(1):24–29.
- CIRMOUNT Committee. 2006. Mapping new terrain: Climate change and America's West. Report of the Consortium for Integrated Climate Research in Western Mountains (CIRMOUNT). Miscellaneous Publication PSW-MISC-77. Pacific Southwest Research Station, USDA Forest Service, Albany, California, USA. Available at http://www.fs.fed.us/psw/cirmount/publications/pdf/new_terrain.pdf (accessed 22 January 2007).

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