

Wildfire, Research, and a Climate Station

Ward McCaughey, Research Forester, Forests and Woodlands Ecosystems Science Program, RMRS, Missoula, MT

In August, the human-caused Tin Cup Fire took off a few miles to the north of where the Fire Sciences Laboratory crew was busy collecting fuels data on the Trapper Bunkhouse study site west of Darby. The fire demonstrated how quickly wildfire can escape initial attack in untreated stands, especially under extremely dry conditions, and how treated areas helped moderate fire intensities, especially important around homes. These kinds of treatments are a goal of the Trapper Bunkhouse Land Stewardship Project where BEMRP is conducting research to document the ecological effects as well as the effectiveness of fuel treatments in the wildland-urban interface.

As the BEMRP representative from the Forests and Woodlands Ecosystems Science Program, I participated on the Trapper Bunkhouse Treatment Development Team since 2004. This team included RMRS scientists and Bitterroot National Forest managers tasked with developing a study design to test fuel reduction treatments. Early in the year we installed temporary pilot plots to determine within and between stand variability for early grouping of proposed treatment units and determine statistical reliability of the study design. We then worked with Mick Harrington's and Steve Sutherland's crews from the Fire Sciences Laboratory and Forest personnel to establish a grid of permanent plots in proposed treatment units, then collected



Andreas Roeger taking a diameter measurement on a Douglas-fir in a research unit in the Leavens Gulch area of the Bitterroot National Forest in July of 2007. (Photo by Ward McCaughey)

overstory, regeneration, and understory data. When all pre-treatment data have been collected, we'll be ready if and when the Forest can implement the treatments, which we hope will happen in 2008.

Our program crew included two volunteer students from Germany—Johannes Kopp and Andreas Roeger—who were studying forest engineering at the University of Applied Forest Sciences of Rottenburg, Germany. Others on the crew included Janelle Anderson, a work/study student from the University of Montana, and two term employees—Karen Stockmann and Matt Burbank.

We have another project at the Tenderfoot Creek Experimental Forest on the Lewis and Clark National Forest where we study the lodgepole pine forest type (see <http://www.fs.fed.us/rm/ecology/demo/tenderfoot/>). Because Tenderfoot is known for its past and current research efforts, it has been selected along with the Fraser Experimental Forest in Colorado, Sierra Ancha Experimental Forest in Arizona, and Glacier Lakes Ecosystem Experiments Site in Wyoming to receive a \$36,000 International Cooperative Program (ICP) Level II specialized climate station. This climate station will monitor and measure critical loads of nitrogen, sulfur, and ozone, as well as standard meteorological parameters such as wind speed, wind direction, solar radiation, precipitation, relative humidity, and temperature. Bob



Matt Burbank (right) explaining understory tree measurement procedures to Johannes Kopp in a research unit in the Leavens Gulch area of the Bitterroot National Forest, in July of 2007. (Photo by Ward McCaughey)

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BEMRP and Jamaica?



Marilyn Headley (second from left), Conservator of Forests, Jamaican Forestry Department, asks questions about the role of research in the U.S. Forest Service. (Photo by Dana Roth)

Sharon Ritter, Research/Management Coordinator and ECO-Report Editor, BEMRP, RMRS, Stevensville, MT

While it wasn't quite as good as actually going to Jamaica, visiting with Jamaican forest managers on the Bitterroot was still fun. In late September 2007, the Northern Region hosted a visit from Marilyn Headley—Conservator of Forests, Keith Porter—Senior Director (both from the Forestry Department) and Lorna Jones-Lee from the Cabinet Office in Jamaica; Karyll Aitcheson, Coordinator for the joint USFS/ USAID Protected Areas and Rural Enterprise Project in Jamaica; Dana Roth, Caribbean Program Specialist for Forest Service International Programs; Kirsten Kaiser, Forest Planner on the Kootenai National Forest; and Tom Rhode, Regional Planner for the Northern Region.

In spring 2007, Kirsten and Tom visited Jamaica to help Forestry Department consultants and local forest management committees develop a land management plan and identify sustainable livelihood projects for one of their protected areas. This trip to the Northern Region was an opportunity for members of the Jamaican Forestry Department and government to learn how the Forest Service conducts its land management programs and coordinates with other entities.

Greg Jones and I represented BEMRP by taking them to the Lick Creek Demonstration/Research Forest. We talked about how and why RMRS established the BEMRP partnership and how researchers and managers work together. We emphasized the importance of research and in particular having the research and management branches as separate, independent entities

within the Forest Service (see Len Ruggiero's article in last year's ECO-Report at <http://www.fs.fed.us/rm/ecopartner/ecoreport.shtml>).

With the newly available Lick Creek autotour brochure and last year's ECO-Report in hand, we also talked about how we share research results with the public and resource managers. The visitors weren't shy about asking questions. Their warmth and openness made for an enjoyable morning.



Tour guests included: Kneeling: Tom Rhode. Standing left to right: Keith Porter, Kirsten Kaiser, Marilyn Headley, Dana Roth, Karyll Aitcheson, Lorna Jones-Lee. (Photo by Tim Love)

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Musselman, RMRS Research Plant Physiologist, will help with installation on all RMRS sites. According to Bob, "Level II Critical Loads stations were initially established more than 20 years ago in Europe by the European Union International Cooperative Program as part of the Convention on Long-range Transport of Air Pollutants, of which most European countries and the United States and Canada are signatories. This is the first network of ICP Level II stations to be established in the United States as a coordinated effort by the U.S. Forest Service." We feel honored and lucky that Tenderfoot was selected as one of the locations and look forward to making use of the additional data it will provide.

