

BEMRP: Beyond the Bitterroot

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Sometimes a name says it all, and sometimes a name is just a name. Joe's Income Tax and Bookkeeping Service probably does just what it says. On the other hand, there's AT&T. Until 2005, the initials stood for American Telephone & Telegraph, but in the last couple of decades when you saw "AT&T," you didn't think of the telegraph. You thought about other services and products—cell phones, fiber optics, and wireless internet.

The Bitterroot Ecosystem Management Research Project is kind of like AT&T in that research we conduct reflects more than our name implies. The executive committee has Bitterroot National Forest representatives, but our decisions on what research to conduct follow our mission statement: "Strengthen the scientific theory and practice of managing Rocky Mountain ecosystems." This applies not only to the Forest Service, but also to the public and other resource managers.

Much of the research we conduct does not take place on the Bitterroot National Forest. More importantly, all of the research we conduct applies elsewhere and has been used by managers to benefit private and public lands. Here are just a few examples of BEMRP-funded multi-disciplinary research valued locally and elsewhere.

BEMRP's first big research project did start locally at the Lick Creek Demonstration/Research Forest in 1993. Following a prescription designed jointly with scientists, the Forest conducted thinning and prescribed fire treatments to reduce probability of stand-replacement fire and improve tree health. Monitoring shows that physiological performance of trees improved, and both



Ward McCaughey stands in front of two-age shelterwood treatments in lodgepole pine stands at the Tenderfoot Experimental Forest on the Lewis and Clark National Forest. This is another project BEMRP has supported that has applicability throughout the Northern Rockies. (Photo by Matt Wotherspoon)

canopy and surface fuels were reduced. These results are applicable elsewhere in dry ponderosa pine forests.

Managers throughout the Intermountain West hope to protect and enhance rare old-growth stands, so they're interested in results of another BEMRP study. This one is taking place in an old-growth ponderosa pine/western larch stand that historically experienced frequent fire regimes but has been at increased risk of insect infestation and high intensity fires due to fire exclusion. The study demonstrated that thinning and prescribed fire results in improved vigor of old trees and reduced probability of stand-replacement fire.

Due to concern over global climate change, there is world-wide interest in how we can reduce our use of sequestered carbon and decrease our release of carbon and other greenhouse gases into the atmosphere. A study in the Bitterroot looked at the quantity, cost, and carbon balance associated with utilization of biomass from fuel reduction and forest health restoration treatments. The concepts and methodology are applicable West-wide. This study led to working with the Northern Region to develop a way to estimate net carbon effects of fuel reduction and restoration treatments.

BEMRP modeling efforts have found application beyond the Northern Region. The private Vermejo Park Ranch in New Mexico is using MAGIS, SIMPPLLE, and FLAMMAP models to look at long-range benefits of fuel and forest restoration treatments to the ecosystem. Models developed with BEMRP funding have been used for planning projects in Alaska, California, New Mexico, Colorado, and elsewhere in Montana.

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Banding a chipping sparrow to study the effects of invasive plants on songbird breeding productivity. (Photo by Chris Templeton)

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on.” Bob Ekey, representing The Wilderness Society, agreed and expressed his appreciation that “a lot of people really rose to the challenge to stretch themselves. Many of them had never really sat down at the table together before.”

Brian said that dealing with hard issues like reintroducing fire requires focusing on areas of agreement, not disagreement: “Think of two overlapping circles, with the overlap representing areas of agreement. The more people **talked** and really **listened**, the more they found that the overlap, the area of agreement, was bigger than they thought.”

“Where the rubber hits the road,” said Mary, “is the implementation, what it looks like on the ground.” The next step will be to apply the collaborative model and principles on some actual projects. They want to replicate the diversity of their group within local working groups, and find projects that will show results fairly quickly.

Julia Altemus, representing the Montana Logging Association, said that getting a project in its early stages will be the key to success. That means “bringing an area that is ‘out of balance’ to the Forest Service as a project, an area that hasn’t already started in the NEPA process.” Julia said that a bundled project is preferable—for example, one that combines fisheries improvements, has some timber harvest, and improves roads and trails.

The group selected the Lolo and Bitterroot National Forests for pilot projects. According to Mary, “The time is right. People are willing to come to the table to find solutions.” Brian, Mary, Julia, and Bob agree that success in these forest-level efforts would be getting good

projects designed and implemented on the ground. That includes finding funding to get the work done. Nonprofits and the Forest Service’s Regional Office are interested in providing some funding, but eventually they would like Congress to step up to the plate to provide serious support on a much broader scale.

Mary feels that success at the local level will come because there is a high level of trust in the representatives that were on the original working group. Thanks to them, she expects a high level of buy-in to the forest restoration principles. The group, now called the Montana Forest Restoration Committee, will oversee these local efforts. They hope to see their hard work pay off, and because they set the example on collaborating and have provided a carefully designed framework, it just might.



Restoration Principle #9. Emphasize ecosystem goods and services and sustainable land management. Stream improvement, Kootenai National Forest. (Photo by Paul Hooper, USDA Forest Service, Bugwood.org)

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BEMRP-funded social science research has focused on understanding how people interact with the Forest Service and how the agency can more effectively communicate with the public. Research that started in the Bitterroot Valley on understanding the meanings people place on public lands has since expanded to the Flathead and Blackfoot Reservations, the Kootenai National Forest, and will appear in a textbook for land managers elsewhere interested in using this methodology. Similarly, BEMRP work to develop a toolkit for off-highway travel planning was circulated nationally by our Washington Office and a paper summarizing findings on the historical, ecological and social implications of dams in the Selway-Bitterroot Wilderness was presented at an international conservation congress.

Research on invasive weeds and biocontrol impacts on small mammals has documented previously unrecognized side effects of biological control in natural

systems, examined ways to reduce those nontarget effects in biological control programs, and illustrated how to mitigate this problem within knapweed-infested systems in the West. This information is applicable to the practice of biological control worldwide.

Other research showed that spotted knapweed has very significant impacts on native ecosystems by reducing abundance and richness of native plants and invertebrates and by reducing recruitment of native songbirds. Information gained is directly applicable to grasslands and savannahs of the northern Rocky Mountains but has generic ramifications for understanding how invasive weeds impact native systems across North America.

The Bitterroot Ecosystem Management Research Project is more than its name implies. We are proud of the quality of multi-disciplinary research we have produced by focusing research locally but with an eye to widespread applications, by taking advantage of long-term study sites, and by fostering relationships with our partners.