The Science Application & Communication (SA&C) staff is pleased to announce the winners of the 2015 RMRS Science You Can Use Bulletin award call. The Bulletin is a science synthesis publication created by RMRS with a current circulation of several thousand land and resource managers, decision makers, and scientists in the Interior West, as well as our Congressional representatives. Each Bulletin delivers a feature-length story highlighting the work of RMRS scientists, technicians, and collaborators, synthesizing a variety of their scientific studies and publications and providing key findings and management implications.

Earlier this year, SA&C issued a request for proposals to RMRS scientists and technicians for research they would like to see featured in the Bulletin. A review panel selected six proposals of the nine submitted. Each selected proposal receives $3,000 in project funding and a Bulletin featuring the science in mid-late 2015 and early 2016 and optional Science You Can Use Lunch Date interactive webinars.

The winning proposals are:

- **Burgeoning Biomass: Creating efficient and sustainable forest biomass supply chains in the Rockies, Part II** - *Nate Anderson, Deborah Page-Dumroese, Daniel McCollum, Richard Bergman (USFS-FPL), Karl Englund (WSU), Tyron Venn (UM)*

- **Making WUI communities more fire resilient: Beyond a one-size-fits-all strategy for building adaptive capacity** - *Daniel Williams* and multiple university collaborators

- **Forests, Fire, and Water: Using RMRS tools to prioritize forest management** - *William Elliot* and multiple university and non-profit collaborators

- **Mapping Roads to Success** - *Charles Luce* and *Tom Black*, and multiple RMRS, federal agency, non-profit, and university collaborators

- **The Short and Long of Slash Pile Burning** - *Chuck Rhoades* and *Paula Fornwalt*, and multiple USFS collaborators

- **Fire Effects Information System: Fire ecology research synthesized for managers** - *Jane Kapler Smith, Janet Fryer, Kris Zouhar, Eva Masin*, and multiple collaborators

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**Butler Named to National Grassland Council**

Newly elected GSD Research Ecologist **Jack Butler**, Rapid City, will serve on the National Grassland Council for a 3-year term. R1 Deputy Regional Forester Jane Darnell has assumed the position of Council Chair replacing recently retired Tom Schmidt, and R3 Deputy Regional Forester Jim Upchurch is now the Council Vice-Chair. The National Grassland Council’s mission is to provide conservation leadership for the national grasslands and to foster an environment considering the views of those with grassland interests in natural resource decisions. The Council advises the FS Chief, Regional Foresters, and Station Directors on national grasslands policy, budget, and organizational issues, facilitating communication and coordination of activities across national grassland unit boundaries.
ORISE fellow Matt Groce, (photo, left) currently stationed at the Boise Aquatic Sciences Lab, recently served as the Technology Transfer Specialist for RMRS and Regions 1, 4, and 6. Matt worked closely with program scientists to facilitate researcher-manager collaboration throughout the Pacific Northwest and Intermountain Regions. His major contributions include redesign of the AWAE website, implementation assistance of the Research Information Tracking System (RITS), the revision, editing, and redesign of 17 existing Science Briefings and creation of 26 new ones. Working with AWAE Research Fisheries Biologist Dan Isaak, Boise, and Research Fisheries Biologist Mike Young, Missoula, he designed the recently launched Climate Shield website. Finally, he helped to create fish occupancy maps for cutthroat and bull trout across different climate scenarios based on Dan and Mike’s analysis. Thank you, Matt!

Welcome

RD&A Hires Two Resilience Managers

The Human Performance RD&A is pleased to announce the appointment of Health, Wellness and Resilience Training Managers Michelle Reugebrink and Bequi Livingston. Michelle’s appointment is permanent and Bequi is serving a 120-day detail. Together, they are responsible for building the Comprehensive Wellbeing and Resilience effort, based on their work in Regions 3 and 5, into a national program. Michelle served as the Regional Health and Safety Manager in R5. She continues her development as a professional coach and trainer in this field. Her credentials include certifications in Integrative Health, the Corporate Athlete program, and most recently Trauma-Sensitive Yoga & Resiliency to benefit First Responders. Bequi served as the R3 Fire Operations Health and Safety Specialist for the past 10 years, developing the FireFit program and the Women in Wildland Fire Boot Camp. Bequi’s credentials include certification in Integrative Health, the Corporate Athlete program, Personal Fitness, and Group Fitness. Both have backgrounds in wildland fire operations and as Peer-coach Trainers. Their new roles enable them to continue to develop their successful Comprehensive Wellbeing and Resilience workshops to meet the needs and demands of the entire Agency. Welcome, Michelle and Bequi!

Brazilian PhD Student comes to Moscow

RMRS welcomes Natália Risso Fonseca (photo, left), a visiting Ph.D. student from the Departamento de Fitopatologia, Universidade Federal de Viçosa, Minas Gerais, Brazil. Natália will collaborate with FWE personnel in Moscow, including Research Plant Pathologist Ned Klopfenstein, visiting scientist/RMRS Collaborator Mee-Sook Kim, Biological Science Laboratory Technician John Hanna, and RMRS Collaborators Amy Ross-Davis and Sara Ashiglar. As a part of her Ph.D. studies, Natália will conduct DNA-based characterization of powdery mildew pathogens of trees. This study represents an ongoing effort to characterize potentially invasive forest pathogens. She will work at the Moscow Forestry Sciences Lab until December 2015.

Our Condolences

Robert “Bob” Winokur, also known as Trapper, died at his home in Estes Park on March 27 of mesothelioma. He was 67. In 1977, Bob began his 19-year career as an Information Management Specialist at the U.S. Forest Service’s Rocky Mountain Research Station. Bob ran for Fort Collins City Council in 1987, serving seven years as council member and mayor. His wife Chris, their children and grandchildren survive him. To view the obituary, go to the Allnutt Funeral Home webpage.
Dumroese Steps Down as Editor of Native Plants Journal

GSD Research Plant Physiologist Kasten Dumroese, Moscow, resigned as editor-in-chief of the Native Plants Journal after leading the first 15 volumes through the publication process. Kas started the journal, dedicated to native plant propagation and outplanting, using startup funding from State and Private Forestry and the National Center for Reforestation, Nurseries, and Genetics Resources. The journal is novel in that it publishes refereed research from scientists as well as general technical papers from practitioners in the field to foster “cross-pollination” among professionals in the discipline. Since its premier in 2000, Kas oversaw the publication of more than 450 articles, contributed by nearly 600 authors. The journal, published by the University of Wisconsin Press, is entering its 16th year.

Hot Off the Press

Mild Winters Not to Blame for All MPB Outbreaks

In the last 15 years, bark beetles in the western US have killed more than 140,000 square miles of pine forests, about the size of Montana. A new study in the journal Landscape Ecology suggests that while warmer winter temperatures do not provide as well for beetle-killing cold, other factors may play a more important role in the beetles’ ability to kill large numbers of pine trees. The authors found factors such as forest composition and year-round temperatures that affect the seasonal rhythms of beetle development as well as host-tree stress influence the extent of mountain pine beetle-caused tree mortality in the western United States.

FWE Research Entomologist and study co-author Barbara Bentz, Logan, said in a recent news release, “Our analyses clearly show that winters have warmed across mountain pine beetle habitats in the western US. Although warming winters have contributed to increased mountain pine beetle survival and outbreaks in the coldest areas, such as the northern Rocky Mountains, population outbreaks were not explained in areas with historically warm winters.”

Water Repellency of Two Forest Soils after Biochar Addition

A team of RMRS scientists recently found that practical application of black carbon (biochar) to improve forest soil might be limited because biochar is hydrophobic. Authors FWE Research Soil Scientist Deb Dumroese, AWAE Research Engineer Pete Robichaud, AWAE Hydrologist Robert Brown, and FWE Biological Science Technician Joanne Tirocke, Moscow, addressed the impact on water infiltration into biochar-treated soil. The team tested the water repellency of biochar applications, either mixed or surface applied, to two forest soils of varying texture at four different application rates and five soil moisture contents, using three methods to measure water infiltration. Generally, all three-infiltration methods gave similar results. Surface applications of biochar on both soil textures resulted in less water infiltration than the mixing treatments.

GSD Year-in-Review Update

The 2014 issue of the GSD Update looks back at selected studies and significant results of recent research and science delivery by Grassland, Shrubland, and Desert Ecosystem Program (GSD) scientists. The GSD Program’s research lines up with the strategic research priorities of the USDA Forest Service and RMRS. Two highlighted priorities include research that supports ecosystem resiliency and native and invasive species management, and the role of climate in species adaptation, restoration and management.
**Middle East Nursery Improvement Project**

The USFS International Programs organized and led a team of nursery and natural resource specialists to Jordan to provide a two-day training course in early March. The Course, part of a broader collaboration with the Ministry of Agriculture-Forestry Department on tree nursery improvements, included nursery enhancements, a seedling experiment trial using new technologies, regional collaboration in reforestation, and field site assessments in outplanting areas. GSD Biological Technician Matt Fisk, Boise, participated on the team due to his expertise in seedling establishment and native plant restoration techniques. Matt and co-author Research Biologist Francis Kilkenny, Boise, contributed a session titled “Native Plants: Selection-Collection-Processing,” connecting nursery propagation and native plant materials to the landscape. Thirteen nursery managers from around Jordan, plus regional directors, and department heads from the Ministry attended daily.

![Workshop participants](image1)

*Workshop participants – photo courtesy of Matt Fisk*

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**Social Vulnerability Webinar**

The next installment of the Social Vulnerability Webinar Series: Communities, Climate Change, and National Forests takes place Wednesday, April 8, from 12:00 – 1:00 pm MDT. The series explores the vulnerability of communities to climate change and ways natural resource managers can integrate social vulnerability assessment into planning and decision-making.

The April 8 presentation, titled “Understanding Risk and Exposure in an Urban Case Study,” features speakers Patricia Winter and Pamela Padgett, PSW. Register early for the webinar, as participation is limited to the first 100 participants. Connect to the webinar up to 15 minutes prior to the presentation start time.

The U.S. Forest Service Rocky Mountain Research Station’s Human Dimensions Science Program and the University of Montana College of Forestry and Conservation sponsor the Social Vulnerability Webinar Series.

**Deb Dumroese to Present to House and Senate Staffers**

FWE Research Soil Scientist Deborah Page-Dumroese, Moscow, has been invited by National C-FAR (Coalition for Food and Agricultural Research) to give a presentation to House and Senate staffers on April 20 in Washington, DC. Deb will present her talk, “Waste to Wisdom: Using Crop and Forest Residues to Create Bioenergy and Biochar.” Susan Stein, Director of the National Agroforestry Center will be her guide for the day. The day will consist of a talk to House staffers in the morning and a noon talk to Senate staffers.

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**Goodbye**

On April 3, we say goodbye to Grants Management Specialist Esmeralda Reynolds. Esmeralda has accepted a promotion opportunity with USDA APHIS, Wildlife Services. Though we will miss her, we are very happy and excited for her and wish her the best!

*Esmeralda Reynolds – RMRS file photo*
RMRS is eligible to compete for a $3,000 microgrant, if we are one of three units with the highest percentage of employee-completion rates for the Green Information Technology (IT)/Power-IT-Down AgLearn module by April 17, 2015. Please complete this optional training in AgLearn by searching for “1310 National Power-IT-Down and Green Information Technology (IT)” in the AgLearn Course Catalog. Click “Run” to open a screen in a new window and begin the module. In order to register the training as “completed,” a user must complete the very short evaluation survey after taking the course. The module only takes a few minutes to complete. SusOps will announce the winners on Earth Day, April 22. Please contact Amelia Lavelle, ameliaclavelle@fs.fed.us for more information.

Water month ended March 31 with a plea to be mindful of your interactions with water. Take a moment to reflect on the role water plays in your life. From the time you get up in the morning, to the time you go to sleep, how many times have you touched, listened to or drank water? We talk about water as “other” forgetting that humans are up to 60 percent water. Protecting our drinking water protects our health.

April begins the focus on Sustainability Leadership. Have you taken the Telework Week Pledge? Participate in Telework Week, April 6-10, 2015 by pledging on the USDA Telework Week 2015 survey. Last year, more than 2,000 Forest Service employees pledged, saving $240,000 in commuting costs and removing 300,000 pounds of pollutants from the air. Use the telework calculator to estimate your cost savings and environmental footprint reduction associated with your telework agreement or eligibility. For more information on water, sustainability leadership and Forest Service Sustainable Operations, visit the SusOps Demonstration website.

April is Distracted Driving Awareness Month. Distracted driving occurs any time you take your eyes off the road, your hands off the wheel, and your mind off your primary task of driving safely. Any non-driving activity you engage in is a potential distraction and increases your risk of being involved in a motor vehicle crash. The National Highway Traffic Safety Administration (NHTSA) reports that in 2012, 16% of all motor vehicle crashes in the United States involved a distracted driver. This includes 3,328 people killed, 421,000 people injured, and 540 non-occupants, such as pedestrians and cyclists, killed because of distracted driving.

What are some of these possible distractions?
- Dialing, talking, or text-messaging on a cell phone
- Using another handheld device such as a tablet computer or portable GPS
- Adjusting the radio
- Accessing Wi-Fi
- Reading a map
- Programming the navigation system
- Eating or drinking
- Connecting or disconnecting a portable music device
- Applying makeup
- “Rubbernecking” to look at a crashed car
- Reaching for things inside the vehicle
- Arguing with passengers
- Hands-free cell phones and electronic devices

You owe it to yourself, your family, and your friends to arrive home safely. Please visit the website links (above) to learn more.