



# New Publications

January to March 2010

Integrated Science Working For You

Air, Water,  
& Aquatic  
Environments



Fire, Fuel,  
& Smoke



Forests &  
Woodlands  
Ecosystems



Grasslands,  
Shrublands,  
& Desert  
Ecosystems



Human  
Dimensions



Inventory,  
Monitoring,  
& Analysis



Wildlife  
& Terrestrial  
Habitats



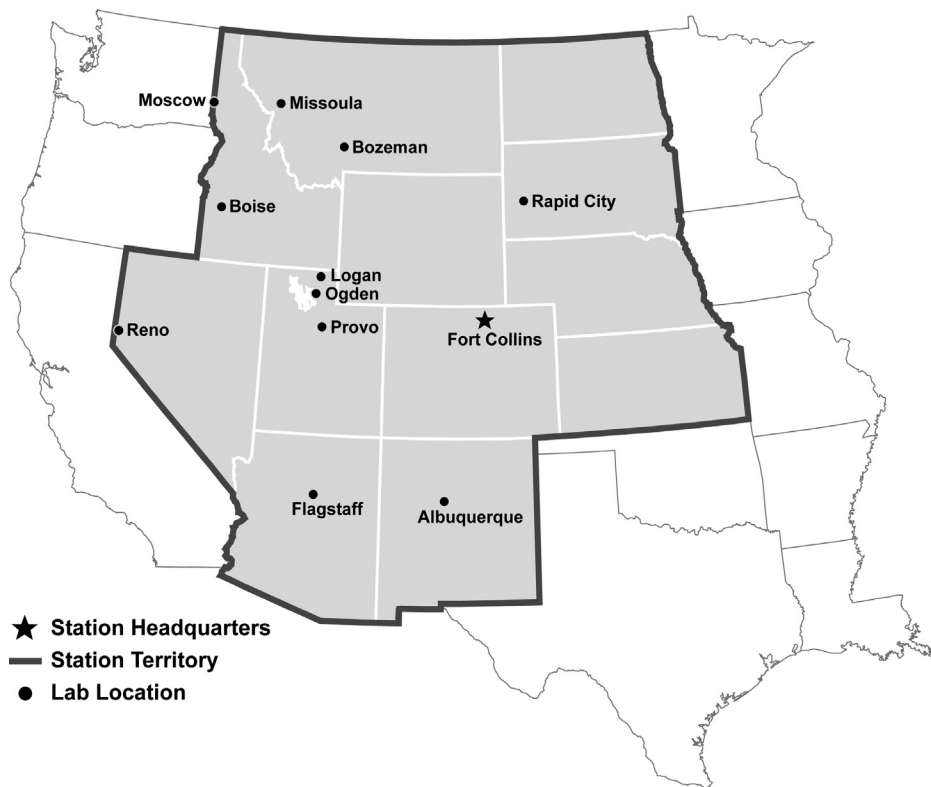
## Contents

<b>New Series Publications . . . . .</b>	<b>3</b>
Cumulative watershed effects . . . . .	3
Whitebark pine ecosystem restoration . . .	3
Evaluating wilderness scientific proposals . . . . .	4
Wildfire risk and hazard: first approximation. . .	4
<b>Journal and Other Publications . . . . .</b>	<b>5</b>
Air, water, and aquatic environments . . .	5
Fire, fuel, and smoke . . . . .	5
Forests and woodlands ecosystems. . . .	6
Grasslands, shrublands, and desert ecosystems . . . . .	7
Human dimensions. . . . .	7
Inventory, monitoring, and analysis . . .	8
Wilderness research. . . . .	8
Wildlife and terrestrial habitats . . . . .	8
<b>Author Index . . . . .</b>	<b>9</b>

Ordering Information . . . . . Inside back cover  
Contact Us . . . . . Inside back cover

Publications also available at:  
<http://www.fs.fed.us/rm/publications>

# The Rocky Mountain Research Station



The Rocky Mountain Research Station is one of five regional units that make up the USDA Forest Service Research and Development organization—the most extensive natural resources research organization in the world. We maintain 14 research locations throughout a 12-state territory encompassing the Great Basin, Southwest, Rocky Mountains, and parts of the Great Plains. The Station employs over 400 permanent full-time employees, including more than 100 research scientists

Scientists conduct research that spans an area containing 52% of the nation's National Forest System lands (54 National Forests and Grasslands). In the lower 48 states, our territory also includes 55% of the nation's BLM lands; 48% of the designated wildernesses; 37% of National Park Service lands; numerous other public and tribal lands; and 41% of the non-urban/rural private lands.

We administer and conduct research on 14 experimental forests, ranges and watersheds while maintaining long-term databases for these areas. We also oversee activities on more than 260 Research Natural Areas and lead ecosystem management and research partnership projects in Arizona, Montana, New Mexico, and Nevada.

For more information, please visit us on the Web at: <http://www.fs.fed.us/rmrs>.



The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).

To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, DC 20250-9410, or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

## New RMRS Series Publications

### Cumulative watershed effects

Order 1

**Cumulative watershed effects of fuel management in the western United States.** Elliot, William J.; Miller, Ina Sue; Audin, Lisa, eds. 2010. Gen. Tech. Rep. RMRS-GTR-231. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 299 p.

Fire suppression in the last century has resulted in forests with excessive amounts of biomass, leading to more severe wildfires, covering greater areas, requiring more resources for suppression and mitigation, and causing increased onsite and offsite damage to forests and watersheds. Forest managers are now attempting to reduce this accumulated biomass by thinning, prescribed fire, and other management activities. These activities will impact watershed health, particularly as larger areas are treated and treatment activities become more widespread in space and in time. Management needs, laws, social pressures, and legal findings have underscored a need to synthesize what we know about the cumulative watershed effects of fuel management activities. To meet this need, a workshop was held in Provo, Utah, in April, 2005, with 45 scientists and watershed managers from throughout the United States. At that meeting, it was decided that two syntheses on the cumulative watershed effects of fuel management would be developed, one for the eastern United States, and one for the western United States. For the western synthesis, 14 chapters were defined covering fire and forests, machinery, erosion processes, water yield and quality, soil and riparian impacts, aquatic and landscape effects, and predictive tools and procedures. We believe these chapters provide an overview of our current understanding of the cumulative watershed effects of fuel management in the western United States.

Online: [http://www.fs.fed.us/rm/pubs/rmrs\\_gtr231.html](http://www.fs.fed.us/rm/pubs/rmrs_gtr231.html)

### Whitebark pine ecosystem restoration

Order 2

**Management guide to ecosystem restoration treatments: Whitebark pine forests of the northern Rocky Mountains, U.S.A.** Keane, Robert E.; Parsons, Russell A. 2010. Gen. Tech. Rep. RMRS-GTR-232. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 133 p.

Whitebark pine is declining across much of its range in North America because of the combined effects of mountain pine beetle epidemics, fire exclusion policies, and widespread exotic blister rust infections. This management guide summarizes the extensive data collected at whitebark pine treatment sites for three periods: (1) pre-treatment, (2) 1 year post-treatment, and (3) 5 years post-treatment (one site has a 10 year post-treatment measurement). Study results are organized here so that managers can identify possible effects of a treatment at their own site by matching it to the most similar treatment unit in this study, based on vegetation conditions, fire regime, and geographical area. This guide is based on the Restoring Whitebark Pine Ecosystems study, which was initiated in 1993 to investigate the effects of various restoration treatments on tree mortality, regeneration, and vascular plant response on five sites in the northern Rocky Mountains. The objective was to enhance whitebark pine regeneration and cone production using treatments that emulate the native fire regime. Since data summaries are for individual treatment units, there are no analyses of differences across treatment units or across sites.

Online: <http://www.treesearch.fs.fed.us/pubs/34699>

**Wilderness scientific study proposals****Online Only**

**A framework to evaluate proposals for scientific activities in wilderness.** Landres, Peter, ed. 2010. Gen. Tech. Rep. RMRS-GTR-234WWW. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 74 p.

Every year, the four Federal wilderness management agencies—U.S. DOI Bureau of Land Management, Fish and Wildlife Service, National Park Service, and the USDA Forest Service—receive hundreds of proposals to conduct scientific studies within wilderness. There is no consistent and comprehensive framework for evaluating such proposals that accounts for the unique legal requirements of conducting such work inside wilderness, specifically the primary mandate of the 1964 Wilderness Act to “preserve wilderness character.” This mandate demands that the standard for approving scientific activities be higher inside wilderness than in other areas. This evaluation framework provides an approach for thinking through and documenting how proposals for scientific activities in wilderness may be evaluated in these wilderness management agencies based on four sequential filters: (1) Initial Review Filter, (2) Quality of Proposal Filter, (3) Legal and Policy Filter, and (4) Impacts and Benefits Filter. By using this framework, managers and scientists alike know up-front how proposals will be evaluated, fostering better communication. This framework aims to reduce conflict, help make defensible decisions, and document how those decisions are made. Our goals in developing this framework are to increase the relevance of science to improving wilderness stewardship and to bring the benefits of wilderness to society while preserving wilderness character.

Online: [http://www.fs.fed.us/rm/pubs/rmrs\\_gtr234.html](http://www.fs.fed.us/rm/pubs/rmrs_gtr234.html)

**Wildfire risk and hazard****Order 3**

**Wildfire risk and hazard: procedures for the first approximation.** Calkin, David E.; Ager, Alan A.; Gilbertson-Day, Julie, eds. 2010. Gen. Tech. Rep. RMRS-GTR-235. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 62 p.

This report was designed to meet three broad goals: (1) evaluate wildfire hazard on Federal lands; (2) develop information useful in prioritizing where fuels treatments and mitigation measures might be proposed to address significant fire hazard and risk; and (3) develop risk-based performance measures to document the effectiveness of fire management programs. The research effort described in this report is designed to develop, from a strategic view, a first approximation of how fire likelihood and fire intensity influence risk to social, economic, and ecological values at the national scale. The approach uses a quantitative risk framework that approximates expected losses and benefits to highly valued resources from wildfire. Specifically, burn probabilities and intensities are estimated with a fire simulation model and are coupled with spatially explicit data on human and ecological values and fire-effects response functions to estimate the percent loss or benefit. This report describes the main components of the risk framework, including the burn probability models, highly valued resource data, and development of response functions, and illustrates the application to the State of Oregon. The State of Oregon was selected for prototype due to the wide range of variability in ecoregions represented in the state. All of the highly valued resource themes were represented in the mix of developed and natural resources present in the state. National risk and hazard approximation results for the Continental United States are available at the following location: [www.fs.fed.us/wwetac/wflc/](http://www.fs.fed.us/wwetac/wflc/).

Online: [http://www.fs.fed.us/rm/pubs/rmrs\\_gtr235.html](http://www.fs.fed.us/rm/pubs/rmrs_gtr235.html)

## Journals and Other Publications

Obtain the following publications through university libraries, the publisher, or other outlets. Forest Service employees may request these items from the National Forest Service Library at FSLibrary-DocsFC@fs.fed.us or telephone: (970) 498-1205. We have also provided links to electronic copies when available.

### Air, water, and aquatic environments

**Biomass burning and urban air pollution over the Central Mexican Plateau.** Crouse, J.D.; DeCarlo, P.F.; Blake, D.R.; and others. 2009. *Atmospheric Chemistry and Physics*. 9: 4929-4944. Online: <http://www.treesearch.fs.fed.us/pubs/33779>.

**Carbon pools and fluxes in small temperate forest landscapes: Variability and implications for sampling design.** Bradford, John B.; Weishampel, Peter; Smith, Marie-Louise; Kolka, Randall; Birdsey, Richard A.; Ollinger, Scott V.; Ryan, Michael G. 2010. *Forest Ecology and Management*. 259: 1245-1254. Online: <http://www.treesearch.fs.fed.us/pubs/34663>.

**Declining annual streamflow distributions in the Pacific Northwest United States, 1948-2006.** Luce, C. H.; Holden, Z. A. 2009. *Geophysical Research Letters*. 36: L16401. doi:10.1029/2009GL039407. 6 p. Online: <http://www.treesearch.fs.fed.us/pubs/34431>.

**Do riparian plant community characteristics differ between *Tamarix* (L.) invaded and non-invaded sites on the upper Verde River, Arizona?** Johnson, Tyler D.; Kolb, Thomas E.; Medina, Alvin L. 2009. *Biological Invasions*: doi10.1007/s10530-009-9658-2. Online: <http://www.treesearch.fs.fed.us/pubs/34105>.

**Effects of climate change on Forest Service strategic goals.** U.S. Department of Agriculture, Forest Service 2010. Short Subjects from SAP 4.4 National Forests, No. 2. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 2 p. Online: <http://www.treesearch.fs.fed.us/pubs/34701>.

**Effects of forest biomass use on watershed processes in the western United States.** Elliot, William J. 2010. *Western Journal of Applied Forestry*. 25(1):12-17. Online: <http://www.treesearch.fs.fed.us/pubs/34478>.

**Emissions of trace gases and aerosols during the open combustion of biomass in the laboratory.** McMeecking, Gavin R.; Kreidenweis, Sonia M.; Baker, Stephen; Carrico, Christian M.; Chow, Judith C.; Collett, Jeffrey L. Jr.; Hao, Wei Min; Holden, Amanda S.; Kirchstetter, Thomas W.; Malm, William C.; Moosmuller, Hans; Sullivan, Amy P.; Wold, Kyle E. 2009. *Journal of Geophysical Research*. 114: D19210. Online: <http://www.treesearch.fs.fed.us/pubs/34677>.

**Essentials of LIDAR multiangle data processing methodology for smoke polluted atmospheres.** Kovalev, V.A.; Petkov, A.; Wold, C.; Urbanski, S.; Hao, W.M. 2009. Missoula, Montana. National Institute of Research & Development for Optoelectronics: 7-9. Online: <http://www.treesearch.fs.fed.us/pubs/34680>.

**Impacts of forest management on runoff and erosion.** Elliot, William J.; Glaza, Brandon D. 2009. Proceedings of the Third Interagency Conference on Research in the Watersheds; 8-11 September 2008; Estes Park, CO. U.S. Geological Survey Scientific Investigations Report 2009-5049: 117-127. Online: <http://www.treesearch.fs.fed.us/pubs/34683>.

**Linkages between forest soils and water quality and quantity.** Neary, Daniel G.; Ice, George G.; Jackson, C. Rhett. 2009. *Forest Ecology*

and Management. 258: 2269-2281. Online: <http://www.treesearch.fs.fed.us/pubs/34674>.

**Process-based principles for restoring river ecosystems.** Beechie, Timothy J.; Sear, David A.; Olden, Julian D.; Pess, George R.; Buffington, John M.; Moir, Hamish; Roni, Philip; Pollock, Michael M. 2010. *Bioscience*. 60(3): 209-222.

**Shifting dominance of riparian *Populus* and *Tamarix* along gradients of flow alteration in western North American rivers.** Merritt, David M.; Poff, N. LeRoy. *Ecological Applications*. 20(1): 135-152. Online: <http://www.treesearch.fs.fed.us/pubs/34668>.

**Terrestrial-style slow-moving earthflow kinematics in a submarine landslide complex.** Mountjoy, Joshu J.; McKean, Jim; Barnes, Philip M.; Pettinga, Jarg R. 2009. *Marine Geology*. 267: 114-127.

**Trace gas and particle emissions from domestic and industrial biofuel use and garbage burning in central Mexico.** Christian, T.J.; Yokelson, R.J.; Cardenas, B.; and others. 2010. *Atmospheric Chemistry and Physics*. 10: 565-584. Online: <http://www.treesearch.fs.fed.us/pubs/34758>.

**Understanding the science of climate change: Talking points—Impacts to the Atlantic Coast.** Loehman, Rachel; Anderson, Greer. 2009. Natural Resource Report NPS/NRPC/NRR—2009/095. Fort Collins, CO: U.S. Department of the Interior, National Park Service, Natural Resource Program Center. 32 p.

**Understanding the science of climate change: Talking points—Impacts to prairie potholes and grasslands.** Loehman, Rachel. 2009. Natural Resource Report NPS/NRPC/NRR—2009/138. Fort Collins, CO: U.S. Department of the Interior, National Park Service, Natural Resource Program Center. 31 p.

**Understanding the science of climate change: Talking points—Impacts to western mountains and forests.** Loehman, Rachel. 2009. Natural Resource Report NPS/NRPC/NRR—2009/090. Fort Collins, CO: U.S. Department of the Interior, National Park Service, Natural Resource Program Center. 32 p. Online: <http://www.treesearch.fs.fed.us/pubs/33773>

**Water quality trends in the Entiat River subbasin: 2007-2008.** Booker, Andy; Woodsmith, Richard D.; McCormick, Frank H.; Polivka, Karl M. 2009. Res. Note PNW-RN-563. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 26 p. Online: <http://www.treesearch.fs.fed.us/pubs/34291>.

### Fire, fuel, and smoke

**After action reviews [fire]—who conducts them?** Black, Anne E.; Sutcliffe, Kathleen; Barton, Michelle. 2009. *Fire Management Today*. 69(3): 15-17.

**Effects of biomass removal treatments on stand-level fire characteristics in major forest types of the northern Rocky Mountains.** Reinhardt, Elizabeth D.; Holsinger, Lisa; Keane, Robert. 2010. *Western Journal of Applied Forestry*. 25(1): 34-41. Online: <http://www.treesearch.fs.fed.us/pubs/34706>.

- The effects of wildfire on native tree species in the middle Rio Grande bisques of New Mexico.** Johnson, Brad; Merritt, David. 2009. Fort Collins: Colorado State University. 45 p. Online: <http://www.treeseearch.fs.fed.us/pubs/34669>.
- Evaluating the ecological benefits of wildfire by integrating fire and ecosystem simulation models.** Keane, Robert E.; Karau, Eva. 2010. *Ecological Modelling*. 221: 1162-1172.
- Determination of smoke plume and layer heights using scanning lidar data.** Kovalev, Vladimir A.; Petkov, Alexander; Wold, Cyle; Urbanski, Shawn; Hao, Wei Min. 2009. *Applied Optics*. 48(28): 5287-5294. Online: <http://www.treeseearch.fs.fed.us/pubs/34681>.
- Fine fuel heating by radiant flux.** Frankman, David; Webb, Brent W.; Butler, Bret W.; Latham, Don J. 2010. *Combustion Science and Technology*. 182: 215-230. Online: <http://www.treeseearch.fs.fed.us/pubs/34711>.
- Flame interactions and burning characteristics of two live leaf samples.** Pickett, Brent M.; Isackson, Carl; Wunder, Rebecca; Fletcher, Thomas H.; Butler, Bret W.; Weise, David R. 2009. *International Journal of Wildland Fire*. 18: 865-874. Online: <http://www.treeseearch.fs.fed.us/pubs/34672>.
- Forest treatment residues for thermal energy compared with disposal by onsite burning: Emissions and energy return.** Jones, Greg; Loeffler, Dan; Calkin, David; Chung, Woodam. 2010. *Biomass and Bioenergy*. 11 p. In press, but available online: doi: 10.1016/j.biombioe.2010.01.016.
- The key decision log: Facilitating high reliability and organizational learning.** Black, Anne E. 2009. *Fire Management Today*. 69(2): 5-10.
- Lessons learned from prescribed fire in ponderosa pine forests of the southern Sierra Nevada.** Bagne, Karen E.; Purcell, Kathryn L. 2009. In: Rich, T. D.; Arizmendi, C.; Demarest, D.; Thompson, C., eds. *Tundra to tropics: Connecting birds, habitats and people; proceedings of the 4th international Partners in Flight conference; February 13-16 2008; McAllen, TX. Partners in Flight: 679-690*. Online: <http://www.treeseearch.fs.fed.us/pubs/34413>.
- A method for mapping fire hazard and risk across multiple scales and its application in fire management.** Keane, Robert E.; Drury, Stacy A.; Karau, Eva C.; Hessburg, Paul F.; Reynolds, Keith M. 2010. *Ecological Modeling*. 221: 2-18. Online: <http://www.treeseearch.fs.fed.us/pubs/34708>.
- Modeling fuel succession.** Davis, B. H.; van Wagtenonk, J.; Beck, J.; van Wagtenonk, K. 2009. *Fire Management Today*. 69(2): 18-21.
- Monitoring post-wildfire vegetation response with remotely sensed time-series data in Spain, USA and Israel.** van Leeuwen, Willem J.D.; Casady, Grant M.; Neary, Daniel G.; Bautista, Susana; Alloza, Jose Antonio; Carmel, Yohay; Wittenberg, Lea; Malkinson, Dan; Orr, Barron J. 2010. *International Journal of Wildland Fire*. 19: 75-93. Online: <http://www.treeseearch.fs.fed.us/pubs/34538>.
- A multi-disciplinary approach to fire management strategy, suppression costs, community interaction, and organizational performance.** Black, Anne E.; Gebert, Krista; McCaffrey, Sarah; Steelman, Toddi; Canton-Thompson, Janie. 2009. *Fire Management Today* 69(2): 11-14.
- Observations of bird numbers and species following a historic wildfire in Arizona ponderosa pine forest.** Follitt, Peter F.; Stropki, Cody L.; Chen, Hui. 2009. *Journal of the Arizona-Nevada Academy of Science*. 41(1): 16-23. Online: <http://www.treeseearch.fs.fed.us/pubs/34682>.
- Post-wildland fire desertification: Can rehabilitation treatments make a difference?** Neary, Daniel G. 2009. *Fire Ecology*. 5(1): 129-144. Online: <http://www.treeseearch.fs.fed.us/pubs/34675>.
- A surface fuel classification for estimating fire effects.** Lutes, Duncan C.; Keane, Robert E.; Caratti, John F. 2009. *International Journal of Wildland Fire*. 18: 802-814. Online: <http://www.treeseearch.fs.fed.us/pubs/34679>.
- Use of artificial landscapes to isolate controls on burn probability.** Parisien, M.-A.; Miller, C.; Ager, A.A.; Finney, M.A. 2010. *Land-scape Ecology* 25: 79-94.

## Forests and woodlands ecosystems

- Applying ecological insights to increase productivity in tropical plantations.** Binkley, Dan; Laclau, Jean-Paul; Stape, José Luiz; Ryan, Michael G. 2010. *Forest Ecology and Management*. 259: 1681-1683.
- Bark beetle-caused mortality in a drought-affected ponderosa pine landscape in Arizona, USA.** Negrón, José F.; McMillin, Joel D.; Anhold, John A.; Coulson, Dave. 2009. *Forest Ecology and Management*. 257: 1353-1362. Online: <http://www.treeseearch.fs.fed.us/pubs/31938>.
- The Brazil *Eucalyptus* potential productivity project: influence of water, nutrients and stand uniformity on wood production.** Stape, José Luiz; Binkley, Dan; Ryan, Michael G.; and others. 2010. *Forest Ecology and Management*. 259: 1684-1694.
- Congruent climate-related genecological responses from molecular markers and quantitative traits for western white pine (*Pinus monticola*).** Richardson, B.A.; Rehfeldt, G.E.; Kim, M-S. 2009. *International Journal of Plant Science*. 170: 1120-1131. Online: <http://www.treeseearch.fs.fed.us/pubs/34670>.
- Co-occurrence of the invasive banded and European elm bark beetles (Coleoptera: Scolytidae) in North America.** Lee, Janna C.; Aguayo, Ingrid; Aslin, Ray; Durham, Gail; Hamud, Shakeeb M.; Moltzan, Beruce D.; Munson, A. Steve; Negrón, José F.; Peterson, Travis; Ragenovich, Iral R.; Witcosky, Jeffrey J.; Seybold, Steven J. 2009. *Annals of the Entomological Society of America*. 102(3): 426-436. Online: <http://www.treeseearch.fs.fed.us/pubs/33183>.
- Effects of fuel treatments on carbon-disturbance relationships in forests of the northern Rocky Mountains.** Reinhardt, Elizabeth; Holsinger, Lisa. 2010. *Forest Ecology and Management*. 259: 1427-1435.
- Effects of irrigation on water use and water use efficiency in two fast growing *Eucalyptus* plantations.** Hubbard, Robert M.; Stape, José; Ryan, Michael G.; Almeida, Auro C.; Rojas, Juan. 2010. *Forest Ecology and Management*. 259: 1714-1721.
- Emerging themes in the ecology and management of North American forests.** Sharik, Terry L.; Adair, William; Baker, Fred A.; Battaglia, Michael; and others. 2010. *International Journal of Forestry Research*. 2010: Article ID 964360. 11 p. doi: 10.1155/2020/964260. Online: <http://www.treeseearch.fs.fed.us/pubs/34665>.
- Estimating root biomass and distribution after fire in a Great Basin woodland using cores and pits.** Rau, Benjamin M.; Johnson, Dale W.; Chambers, Jeanne C.; Blank, Robert R.; Lucchesi, Annmarie. 2009. *Western North American Naturalist*. 69(4): 459-468. Online: <http://www.treeseearch.fs.fed.us/pubs/34236>.
- Explaining growth of individual trees: Light interception and efficiency of light use by *Eucalyptus* at four sites in Brazil.** Binkley, Dan; Stape, José Luiz; Bauerele, William L.; Ryan, Michael G. 2010. *Forest Ecology and Management*. 259: 1704-1713.

- Factors controlling *Eucalyptus* productivity: How water availability and stand structure alter production and carbon allocation.** Ryan, Michael G.; Stape, José Luiz; Binkley, Dan; and others. 2010. *Forest Ecology and Management*. 259: 1694–1703.
- Fall fertilization of *Pinus resinosa* seedlings: Nutrient uptake, cold hardiness, and morphological development.** Islam, M. Anisul; Apostol, Kent G.; Jacobs, Douglass F.; Dumroese, R. Kasten. 2009. *Annals of Forest Science*. 66: 704. Online: <http://www.treesearch.fs.fed.us/pubs/34664>.
- The flight periodicity, attack patterns, and life history of *Dyocoetes confusus* Swaine (Coleoptera: Curculionida: Scolytinae), the western balsam bark beetle, in north central Colorado.** Negrón, José F.; Popp, John B. 2009. *Western North American Naturalist* 69(4): 447–458. Online: <http://www.treesearch.fs.fed.us/pubs/34673>.
- Forest soil disturbance monitoring protocol: Volume I: Rapid assessment.** Page-Dumroese, Deborah S.; Abbott, Ann M.; Rice, Thomas M. 2009. Gen. Tech. Rep. WO-GTR-82a. Washington, DC: U.S. Department of Agriculture, Forest Service. 31 p. Online: <http://www.treesearch.fs.fed.us/pubs/34427>.
- Forest soil disturbance monitoring protocol: Volume II: Supplementary methods, statistics, and data collection.** Page-Dumroese, Deborah S.; Abbott, Ann M.; Rice, Thomas M. 2009. Gen. Tech. Rep. WO-GTR-82b. Washington, DC: U.S. Department of Agriculture, Forest Service. 64 p. Online: <http://www.treesearch.fs.fed.us/pubs/34426>.
- Maintaining soil productivity during forest or biomass-to-energy thinning harvests in the western United States.** Page-Dumroese, Deborah S.; Jurgensen, Martin; Terry, Thomas. 2010. *Western Journal of Applied Forestry*. 25(1): 5–11. Online: <http://www.treesearch.fs.fed.us/pubs/34236>.
- Modelling spruce bark beetle infestation probability.** Zolubas, Paulius; Negrón, José; Munson, A. Steven. 2009. *Baltic Forestry*. 15(1): 23–27. Online: <http://www.treesearch.fs.fed.us/pubs/34430>.
- National Forest management options in response to climate change.** U.S. Department of Agriculture, Forest Service 2009. Short Subjects from SAP 4.4 National Forests, No. 1. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 2 p. Online: <http://www.treesearch.fs.fed.us/pubs/34702>.
- Restoring whitebark pine forests of the northern Rocky Mountains, USA.** Keane, Robert E.; Parsons, Russell A. 2010. *Ecological Restoration*. 28(1): 56–70.
- Science-management collaborations: Developing adaptation options for National Forests.** U.S. Department of Agriculture, Forest Service 2010. Short Subjects from SAP 4.4 National Forests, No. 3. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 2 p. Online: <http://www.treesearch.fs.fed.us/pubs/34700>.
- Stand characteristics and downed woody debris accumulations associated with a mountain pine beetle (*Dendroctonus ponderosae* Hopkins) outbreak in Colorado.** Klutsch, Jennifer G.; Negrón, José F.; Costello, Sheryl L.; Rhoades, Charles C.; West, Daniel R.; Popp, John; Caissie, Rick. 2009. *Forest Ecology and Management*. 258: 641–649. Online: <http://www.treesearch.fs.fed.us/pubs/34115>.
- Subalpine vegetation pattern three decades after stand-replacing fire: Effects of landscape context and topography on plant community composition, tree regeneration, and diversity.** Coop, Jonathan D.; Massatti, Robert T.; Schoettle, Anna W. 2010. *Journal of Vegetation Science*. doi: 10.1111/j.1654-1103.2009.01154x. Online: <http://www.treesearch.fs.fed.us/pubs/34713>.
- Sustainable biofuels from forests: Meeting the challenge.** Buford, Marilyn A.; Neary, Daniel G. 2010. *Biofuels and Sustainability Reports*. February. Washington, DC: Ecological Society of America. 9 p.
- Sustaining *Pinus flexilis* ecosystems of the southern Rocky Mountains (USA) in the presence of *Cronartium ribicola* and *Dendroctonus ponderosae* in a changing climate.** Schoettle, Anna W.; Snieszko, Richard A.; Burns, Kelly S. 2009. In: Noshad, David; Noh, Eun Woon; King, John; Snieszko, Richard A., eds. *Breeding and genetic resources of five-needle pines; proceedings of the conference 2008*; Yangyang, Korea. Seoul: Korea Forest Research Institute. 63–65. Online: <http://www.treesearch.fs.fed.us/pubs/34716>.
- Tracking the footsteps of an invasive plant pathogen: Intercontinental phylogeographic structure of the white pine blister rust fungus, *Cronartium ribicola*.** Richardson, B.A.; Kim, M-S.; Klopfenstein, N.B.; Ota, Y.; Woo, K.S.; Hamelin, R.C. 2009. In: Noshad David; Noh Eun Woon; King, John; Snieszko, Richard A. *Breeding and genetic resources of five-needle pines; proceedings of the conference 2008*, Yangyang, Korea. Seoul, Korea: Korea Forest Research Institute: 56–60. Online: <http://www.treesearch.fs.fed.us/pubs/34671>.
- Tree squirrel habitat selection and predisposal seed predation in a declining subalpine conifer.** McKinney, Shawn T.; Fiedler, Carl E. 2009. *Oecologia*. 162(3): 697–707. Online: <http://www.treesearch.fs.fed.us/pubs/34678>.
- Understory cover and biomass indices predictions for forest ecosystems of the Northwestern United States.** Suchar, Vasile A.; Crookston, Nicholas L. 2009. *Ecological Indicators*. 10: 602–609. Online: <http://www.treesearch.fs.fed.us/pubs/34571>.

## Grasslands, shrublands, and desert ecosystems

- The effect of disturbance history on hawkweed invasion (Montana).** Jones, Alexis; Crone, Elizabeth. 2009. *Ecological Restoration*. 27:2: 139–141. Online: <http://www.treesearch.fs.fed.us/pubs/34432>.
- Hybridization between invasive populations of Dalmatian toadflax (*Linaria dalmatica*) and yellow toadflax (*Linaria vulgaris*).** Ward, Sarah M.; Fleischmann, Caren E.; Turner, Marie F.; Sing, Sharlene E. 2009. *Invasive Plant Science and Management*. 2(4): 369–378. Online: <http://www.treesearch.fs.fed.us/pubs/34235>.
- Livestock grazing, wildlife habitat, and rangeland values.** Krausman, Paul R.; Naugle, David E.; Frisina, Michael R.; Northrup, Rick; Bleich, Vernon C.; Block, William M.; Wallace, Mark C.; Wright, Jeffrey D. 2009. *Rangelands*. 31(5): 15–19. Online: <http://www.treesearch.fs.fed.us/pubs/34479>.
- Parasitism by *Cuscuta pentagona* sequentially induces JA and SA defense pathways in tomato.** Runyon, Justin B.; Mescher, Mark C.; Felton, Gary W.; De Moraes, Consuelo M. 2010. *Plant, Cell and Environment*. 33: 290–303. Online: <http://www.treesearch.fs.fed.us/pubs/34704>.
- Small-mammal seed predation limits the recruitment and abundance of two perennial grassland forbs.** Bricker, Mary; Pearson, Dean; Maron, John. 2010. *Ecology*. 9(1): 85–92. Online: <http://www.treesearch.fs.fed.us/pubs/34715>.

## Human dimensions

**Exploring early twenty-first century developed forest camping experiences and meanings.** Gast, Barry A.; Williams, Daniel R.; Roggenbuck, Joseph W. 2010. *Leisure Sciences*. 32: 90-107. Online: <http://www.treeseearch.fs.fed.us/pubs/34710>.

**Homebuyers and wildfire risk: A Colorado Springs case study.** Champ, Patricia Ann; Donovan, Geoffrey H.; Barth, Christopher M. 2010. *Society and Natural Resources*. 23: 58-70. Online: <http://www.treeseearch.fs.fed.us/pubs/34714>.

**Housing growth in and near United States protected areas limits their conservation value.** Radeloff, Volker C.; Stewart, Susan I.; Hawbaker, Todd J.; Gimmi, Urs; Pidgeon, Anna M.; Flather, Curtis H.; Hammer, Roger B.; Helmers, David P. 2010. *Proceedings of the National Academy of Sciences*. 107(2): 940-945. Online: <http://www.treeseearch.fs.fed.us/pubs/34707>.

**Sustaining visitor use in protected areas: Future opportunities in recreation ecology research based on the USA experience.** Monz, Christopher A.; Cole, David N.; Leung, Yu-Fai; Marion, Jeffrey L. 2009. *Environmental Management*. doi 10.1007/s00267-009-9406-5. Online: <http://www.treeseearch.fs.fed.us/pubs/34676>.

## Inventory, monitoring, and analysis

**Analyzing designed experiments in distance sampling.** Buckland, Stephen T.; Russell, Robin E.; Dickson, Brett G.; Saab, Victoria A.; Gorman, Donal N.; Block, William M. 2009. *Journal of Agricultural, Biological, and Environmental Statistics*. 14: 432-442. Online: <http://www.treeseearch.fs.fed.us/pubs/34436>.

**A comparison of approaches to mitigate hypothetical bias.** Champ, Patricia A.; Moore, Rebecca; Bishop, Richard C. 2009. *Agricultural and Resource Economics Review*. 38(2): 166-180. Online: <http://www.treeseearch.fs.fed.us/pubs/34684>.

**Data on distribution and abundance: Monitoring for research and management.** Cushman, Samuel A.; McKelvey, Kevin S. 2009. In: Cushman, S.A.; Huettman, F., eds. *Spatial complexity, informatics, and wildlife conservation*. New York, NY: Springer: 111-129. Online: <http://www.treeseearch.fs.fed.us/pubs/34435>.

**Discrete return lidar in natural resources: Recommendations for project planning, data processing, and deliverables.** Evans, Jeffrey S.; Hudak, Andrew T.; Russ, Faux; Smith, Alistair M.S. *Remote Sensing*. 1(4): 776-794. Online: <http://www.treeseearch.fs.fed.us/pubs/34575>.

**Incorporating remotely sensed tree canopy cover data into broad scale assessments of wildlife habitat distribution and conservation.** Martinuzzi, Sebastian; Vierling, Lee A.; Gould, William A.; Vierling, Kerri T.; Hudak, Andrew T. 2009. *Journal of Applied Remote Sensing*. 3: 033568. Online: <http://www.treeseearch.fs.fed.us/pubs/34539>.

**Landscape-scale parameterization of a tree-level forest growth model: A k-nearest neighbor imputation approach incorporating LiDAR data.** Falkowski, Michael J.; Hudak, Andrew T.; Crookston, Nicholas L.; Gessler, Paul E.; Uebler, Edward H.; Smith, Alistair M.S. 2010. *Canadian Journal of Forest Research*. 40: 184-199. Online: <http://www.treeseearch.fs.fed.us/pubs/34572>.

**LiDAR utility for natural resource managers.** Hudak, Andrew Thomas; Evans, Jeffrey Scott; Smith, Alistair Matthew Stuart. 2009. *Remote Sensing*. 1(4): 934-951. Online: <http://www.treeseearch.fs.fed.us/pubs/34574>.

**Quantification of live aboveground forest biomass dynamics with Landsat time-series and field inventory data: A comparison of**

**empirical modeling approaches.** Powell, Scott L.; Cohen, Warren B.; Healey, Sean P.; Kennedy, Robert E.; Moisen, Gretchen G.; Pierce, Kenneth B.; Ohmann, Janet L. 2010. *Remote Sensing of Environment*. 114: 1053-1068. Online: <http://www.treeseearch.fs.fed.us/pubs/34662>.

**Use of abundance of one species as a surrogate for abundance of others.** Cushman, Samuel A.; McKelvey, Kevin S.; Noon, Barry R.; McGarigal, Kevin. 2010. *Conservation Biology*. doi: 10.1111/j.1523-1739.01396.x. 11 p. Online: <http://www.treeseearch.fs.fed.us/pubs/34429>.

## Wilderness research

**Deliberating the experiential qualities of wilderness: Similar meanings, but divergent standards.** Seekamp, Erin; Cole, David N. 2009. *International Journal of Wilderness*. 15(3): 23-28.

**Do recreation motivations and wilderness involvement relate to support for wilderness management? A segmentation analysis.** 2010. Hall, Troy E.; Seekamp, Erin; Cole, David. *Leisure Sciences*. 32: 109-124. Online: <http://www.treeseearch.fs.fed.us/pubs/34709>.

**A new tool to evaluate proposals for climate change research in U.S. wilderness.** Landres, P. 2009. *International Journal of Wilderness*. 15(3): 29-30.

**Protecting ecotourism resources in a time of rapid economic and environmental transformation in Asia.** Watson, Alan; Ostergren, Dave; Fix, Peter; Overbaugh, Bill; McCollum, Dan; Kruger, Linda; Madsen, Martha; Yang, He. 2009. In: Xiaowen, Jie; Xuerming, Xu; Schneider, Ingrid, eds. 2009. *Strategic management engineering: Enterprise, environment and crisis*. Proceedings of 2009 International Conference on Strategic Management. Sichuan University Press: 185-201.

**Reflections on WILD9.** Parsons, David J. 2010. *International Journal of Wilderness*. 16(1): 32, 48.

**Wilderness: An international community knocking on Asia's door.** Watson, Alan; Martin, Vance; Lin, Chau Chin. 2009. *Journal of National Park (Taiwan)*. 19(4): 1-9.

**Wildland fire and the wilderness visitor experience.** Schroeder, Sierra L.; Schneider, Ingrid E. 2010. *International Journal of Wilderness*. 16(1): 20-25.

## Wildlife and terrestrial habitats

**Avifauna response to hurricanes: Regional changes in community similarity.** Rittenhouse, Chadwick D.; Pidgeon, Anna M.; Albright, Thomas P.; Culbert, Patrick D.; Clayton, Murray K.; Flather, Curtis H.; Chengquan, Huang; Masek, Jeffrey G.; Radeloff, Volker C. 2010. *Global Change Biology*. 16: 905-917. Online: <http://www.treeseearch.fs.fed.us/pubs/34705>.

**The bioclimatic envelope of the wolverine (*Gulo gulo*): Do climatic constraints limit its geographic distribution?** Copeland, J.P.; McKelvey, K.S.; Aubry, K.B.; Landa, A.; Persson, J.; Inman, R.M.; Krebs, J.; Lofroth, E.; Golden, H.; Squires, J.R.; Magoun, A.; Schwartz, M.K.; Wilmot, J.; Copeland, C.L.; Yates, R.E.; Kojola, I.; May, R. 2010. *Canadian Journal of Zoology*. 88: 233-246. Online: <http://www.treeseearch.fs.fed.us/pubs/34712>.

**Black-chinned hummingbird nest-site selection and nest survival in response to fuel reduction in a southwestern riparian forest.** Smith, D. Max; Finch, Deborah M.; Hawksworth, David L. 2009. *The Condor*. 111(4): 641-652. Online: <http://www.treeseearch.fs.fed.us/pubs/34412>.

**Ecosystem geography: From ecoregions to sites.** Bailey, Robert G. 2010. 2nd ed. Springer. 243 p. Order online: <http://www.springer.com/life-sciences/ecology/book/978-1-4419-0391-4>.

**Mapping snags and understory shrubs for a LiDAR-based assessment of wildlife habitat suitability.** Martinuzzi, Sebastian; Vierling, Lee A.; Gould, William A.; Falkowski, Michael J.; Evans, Jeffrey S.; Hudak, Andrew T.; Vierling, Kerri T. 2009. Remote Sensing of Environment. 113: 2533-2546. Online: <http://www.treesearch.fs.fed.us/pubs/34573>.

**Short-term responses of red squirrels to prescribed burning in the interior Pacific Northwest, USA.** Russell, Robin E.; Lehmkuhl, John

F.; Buckland, Stephen T.; Saab, Victoria A. 2010. Journal of Wildlife Management. 74(1): 12-17. Online: <http://www.treesearch.fs.fed.us/pubs/34477>.

**Small-scale response in an avian community to a large-scale thinning project in the southwestern United States.** Bagne, Karen E.; Finch, Deborah M. 2009. In: Rich, T. D.; Arizmendi, C.; Demarest, D.; Thompson, C., eds. Tundra to tropics: Connecting birds, habitats and people; proceedings of the 4th international Partners in Flight conference; February 13-16 2008; McAllen, TX. Partners in Flight: 669-678. Online: <http://www.treesearch.fs.fed.us/pubs/34414>.

## Author Index

### A

Abbott, Ann M. 7  
Adair, William 6  
Ager, Alan A. 4, 6  
Aguayo, Ingrid 6  
Albright, Thomas P. 8  
Alloza, Jose Antonio 6  
Almeida, Auro C. 6  
Anderson, Greer 5  
Anhold, John A. 6  
Apostol, Kent G. 7  
Aslin, Ray; 6  
Aubry, K.B. 8  
Audin, Lisa 3

### B

Bagne, Karen E. 6, 9  
Bailey, Robert G. 8  
Baker, Fred A. 6  
Baker, Stephen 5  
Barnes, Philip M. 5  
Barth, Christopher M. 8  
Barton, Michelle 5  
Battaglia, Michael 6  
Bauerele, William L. 6  
Bautista, Susana 6  
Beck, J. 6  
Beechie, Timothy J. 5  
Binkley, Dan 6, 7  
Birdsey, Richard A. 5  
Bishop, Richard C. 8  
Black, Anne E. 5, 6  
Blake, D.R. 5  
Blank, Robert R. 6  
Bleich, Vernon C. 7  
Block, William M. 7, 8  
Bookter, Andy 5  
Bradford, John B. 5  
Bricker, Mary 7  
Buckland, Stephen T. 8, 9  
Buffington, John M. 5  
Buford, Marilyn A. 7  
Burns, Kelly S. 7  
Butler, Bret W. 6

### C

Caissie, Rick 7  
Calkin, David E. 4, 6  
Canton-Thompson, Jani 6  
Caratti, John F. 6  
Cardenas, B. 5  
Carmel, Yohay 6  
Carrico, Christian M. 5  
Casady, Grant M. 6  
Chambers, Jeanne C. 6  
Champ, Patricia A. 8  
Chengquan, Huang 8  
Chen, Hui 6  
Chow, Judith C. 5  
Christian, T.J. 5  
Chung, Woodam 6  
Clayton, Murray K. 8  
Cohen, Warren B. 8  
Cole, David N. 8  
Collett, Jeffrey L. Jr. 5  
Coop, Jonathan D. 7  
Copeland, C.L. 8  
Copeland, J.P. 8  
Costello, Sheryl L. 7  
Coulson, Dave 6  
Crone, Elizabeth 7  
Crockston, Nicholas L. 7, 8  
Crouse, J.D. 5  
Culbert, Patrick D. 8  
Cushman, Samuel A. 8

### D

Davis, B. H. 6  
DeCarlo, P.F. 5  
De Moraes, Consuelo M. 7  
Dickson, Brett G. 8  
Donovan, Geoffrey H. 8  
Drury, Stacy A. 6  
Dumroese, R. Kasten 7  
Durham, Gail 6

### E

Elliot, William J. 3, 5  
Evans, Jeffrey S. 8, 9

### F

Falkowski, Michael J. 8, 9  
Felton, Gary W. 7

Fiedler, Carl E. 7  
Finch, Deborah M. 8, 9  
Finney, M.A. 6  
Fix, Peter 8  
Flather, Curtis H. 8  
Flather, Curtis H. 8  
Fleischmann, Caren E. 7  
Fletcher, Thomas H. 6  
Folliott, Peter F. 6  
Frankman, David 6  
Frisina, Michael R. 7

### G

Gast, Barry A. 7  
Gebert, Krista 6  
Gessler, Paul E. 8  
Gilbertson-Day, Julie 4  
Gimmi, Urs 8  
Glaza, Brandon D. 5  
Golden, H. 8  
Gorman, Donal N. 8  
Gould, William A. 8, 9

### H

Hall, Troy E. 8  
Hamelin, R.C. 7  
Hammer, Roger B. 8  
Hamud, Shakeeb M. 6  
Hao, Wei Min 5, 6  
Hawbaker, Todd J. 8  
Hawksworth, David L. 8  
Healey, Sean P. 8  
Helmets, David P. 8  
Hessburg, Paul F. 6  
Holden, Amanda S. 5  
Holden, Z. A. 5  
Holsinger, Lisa 5, 6  
Hudak, Andrew T. 8, 9

### I

Ice, George G. 5  
Inman, R.M. 8  
Isackson, Carl 6  
Islam, M. Anisul 7

### J

Jackson, C. Rhett 5  
Jacobs, Douglass F. 7

Johnson, Brad 6  
 Johnson, Dale W. 6  
 Johnson, Tyler D. 5  
 Jones, Alexis 7  
 Jones, Greg 6  
 Jurgensen, Martin 7

**K**

Karau, Eva C. 6  
 Keane, Robert 3, 5, 6, 7  
 Kennedy, Robert E. 8  
 Kim, M-S. 6, 7  
 Kirchstetter, Thomas W. 5  
 Klopfenstein, N.B. 7  
 Klutsch, Jennifer G. 7  
 Kojola, I. 8  
 Kolb, Thomas E. 5  
 Kolka, Randall 5  
 Kovalev, Vladimir A. 5, 6  
 Krausman, Paul R. 7  
 Krebs, J. 8  
 Kreidenweis, Sonia M. 5  
 Kruger, Linda 8

**L**

Laclau, Jean-Paul 6  
 Landa, A. 8  
 Landres, P. 8  
 Landres, Peter 4  
 Latham, Don J. 6  
 Lee, Janna C. 6  
 Lehmkuhl, John F. 9  
 Leung, Yu-Fai 8  
 Lin, Chau Chin 8  
 Loeffler, Dan 6  
 Loehman, Rachel 5  
 Lofroth, E. 8  
 Lucchesi, Annmarie 6  
 Luce, C. H. 5  
 Lutes, Duncan C. 6

**M**

Madsen, Martha 8  
 Magoun, A. 8  
 Malkinson, Dan 6  
 Malm, William C. 5  
 Marion, Jeffrey L. 8  
 Maron, John 7  
 Martinuzzi, Sebastian 8, 9  
 Martin, Vance 8  
 Masek, Jeffrey G. 8  
 Massatti, Robert T. 7  
 May, R. 8  
 McCaffrey, Sarah 6  
 McCollum, Dan 8  
 McCormick, Frank H. 5  
 McGarigal, Kevin 8  
 McKean, Jim 5  
 McKelvey, Kevin S. 8  
 McKinney, Shawn T. 7  
 McMeecking, Gavin R. 5  
 McMillin, Joel D. 6  
 Medina, Alvin L. 5  
 Merritt, David 5, 6  
 Mescher, Mark C. 7  
 Miller, C. 6

Miller, Ina Sue 3  
 Moir, Hamish 5  
 Moisen, Gretchen G. 8  
 Moltzan, Beruce D. 6  
 Monz, Christopher A. 8  
 Moore, Rebecca 8  
 Moosmuller, Hans 5  
 Mountjoy, Joshu J. 5  
 Munson, A. Steven 6, 7

**N**

Neary, Daniel G. 5, 6, 7  
 Negrón, José F. 6, 7  
 Noon, Barry R. 8  
 Northrup, Rick 7

**O**

Ohmann, Janet L. 8  
 Olden, Julian D. 5  
 Ollinger, Scott V. 5  
 Orr, Barron J. 6  
 Ostergren, Dave 8  
 Ota, Y. 7  
 Overbaugh, Bill 8

**P**

Page-Dumroese, Deborah S. 7  
 Parisien, M.-A. 6  
 Parsons, David J. 8  
 Parsons, Russell A. 3, 7  
 Pearson, Dean 7  
 Persson, J. 8  
 Pess, George R. 5  
 Peterson, Travis 6  
 Petkov, Alexander 5, 6  
 Pettinga, Jarg R. 5  
 Pickett, Brent M. 6  
 Pidgeon, Anna M. 8  
 Pierce, Kenneth B. 8  
 Poff, N. LeRoy 5  
 Polivka, Karl M. 5  
 Pollock, Michael M. 5  
 Popp, John B. 7  
 Powell, Scott L. 8  
 Purcell, Kathryn L. 6

**R**

Radeloff, Volker C. 8  
 Ragenovich, Iral R. 6  
 Rau, Benjamin M. 6  
 Rehfeldt, G.E. 6  
 Reinhardt, Elizabeth 5, 6  
 Reynolds, Keith M. 6  
 Rhoades, Charles C. 7  
 Rice, Thomas M. 7  
 Richardson, B.A. 6, 7  
 Rittenhouse, Chadwick D. 8  
 Roggenbuck, Joseph W. 8  
 Rojas, Juan 6  
 Roni, Philip 5  
 Runyon, Justin B. 7  
 Russell, Robin E. 8, 9  
 Russ, Faux 8  
 Ryan, Michael G. 5, 6, 7

**S**

Saab, Victoria A. 8, 9  
 Schneider, Ingrid E. 8  
 Schoettle, Anna W. 7  
 Schroeder, Sierra L. 8  
 Schwartz, M.K. 8  
 Sear, David A. 5  
 Seekamp, Erin 8  
 Seybold, Steven J. 6  
 Sharik, Terry L. 6  
 Sing, Sharlene E. 7  
 Smith, Alistair M.S. 8  
 Smith, D. Max 8  
 Smith, Marie-Louise 5  
 Sniezko, Richard A. 7  
 Squires, J.R. 8  
 Stape, José Luiz 6, 7  
 Steelman, Toddi 6  
 Stewart, Susan I. 8  
 Stropki, Cody L. 6  
 Suchar, Vasile A. 7  
 Sullivan, Amy P. 5  
 Sutcliffe, Kathleen 5

**T**

Terry, Thomas 7  
 Turner, Marie F. 7

**U**

Uebler, Edward H. 8  
 Urbanski, Shawn 5, 6

**V**

van Leeuwen, Willem J.D. 6  
 van Wagtenonk, J. 6  
 van Wagtenonk, K. 6  
 Vierling, Kerri T. 8, 9  
 Vierling, Lee A. 8, 9

**W**

Wallace, Mark C. 7  
 Ward, Sarah M. 7  
 Watson, Alan 8  
 Webb, Brent W. 6  
 Weise, David R. 6  
 Weishampel, Peter 5  
 West, Daniel R. 7  
 Williams, Daniel R. 7  
 Wilmot, J. 8  
 Witcosky, Jeffrey J. 6  
 Wittenberg, Lea 6  
 Wold, Cyle E. 5, 6  
 Woodsmith, Richard D. 5  
 Woo, K.S. 7  
 Wright, Jeffrey D. 7  
 Wunder, Rebecca 6

**Y**

Yang, He 8  
 Yates, R.E. 8  
 Yokelson, R.J. 5

**Z**

Zolubas, Paulius 7

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY/STATE/ZIP \_\_\_\_\_

Affix  
first-class  
postage  
stamp

Publications Distribution  
Rocky Mountain Research Station  
USDA Forest Service  
240 W. Prospect Road  
Fort Collins, CO 80526-2098 U.S.A.

## Contact us

Mail: Publications  
Rocky Mountain Research Station  
240 W. Prospect Road  
Fort Collins, CO 80526 U.S.A.

Phone: (970) 498-1392  
Fax: (970) 498-1122  
E-Mail: [rschneider@fs.fed.us](mailto:rschneider@fs.fed.us)  
Web site: <http://www.fs.fed.us/rm/publications>

## How to Order

### With name label on order card:

1. Circle desired current order number on order form located on back cover (e.g., #6: RMRS-GTR-209).
2. Cut off postcard, affix correct postage and mail.

### Without name label on order card:

1. Print your name and address on label.
2. Follow steps 1, and 2 above.

### By phone or electronically:

Use the contact media listed above.

PRSRT STD  
POSTAGE AND FEES PAID  
USDA-FS  
PERMIT NO. G-40

U.S. DEPARTMENT OF AGRICULTURE  
FOREST SERVICE  
ROCKY MOUNTAIN RESEARCH STATION  
240 W. PROSPECT ROAD  
FORT COLLINS, COLORADO 80526-2098 U.S.A.

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300

**January—March 2010**

**Order #**

- Please take my name off the mailing list.
- I would like to receive the New Publication List as an e-mail (no paper copy will be sent). My e-mail is: \_\_\_\_\_

**1**  
**2**  
**3**



-----

*Cut along line*

Your name will remain on the mailing list unless you ask that we remove it.  
Please make address corrections above.