

January–March 2006

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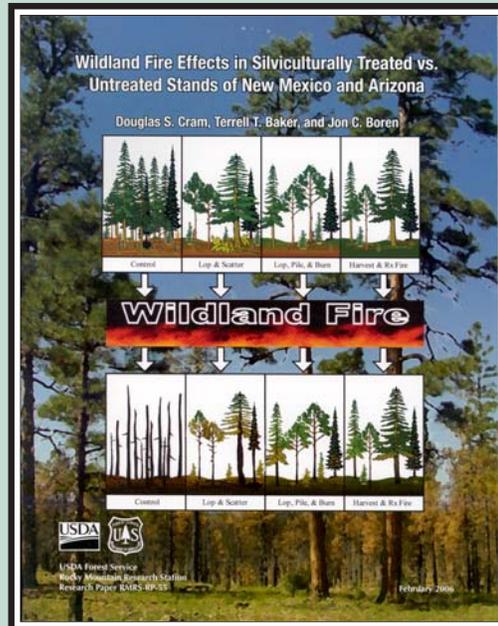
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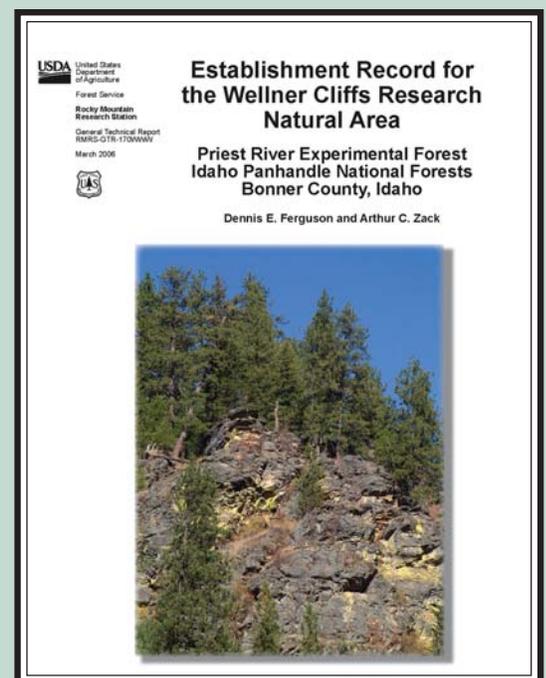
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	Order No.	
Spline model	1	<p>A spline model of climate for the Western United States. Rehfeldt, Gerald L. 2006. Gen. Tech. Rep. RMRS-GTR-165. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 21 p. Available: http://www.fs.fed.us/rm/pubs/rmrs_gtr165.html</p> <p>Monthly climate data of average, minimum, and maximum temperature and precipitation normalized for the period 1961 through 1990 were accumulated from approximately 3,000 weather stations in the Western United States and Southwestern Canada. Applications of the model in plant biology are illustrated for (1) generating climate estimates for locations specified by latitude, longitude, and elevation, (2) mapping climate variables, (3) separating species distributions in climatic space, and (4) relating genetic variation among populations to climatic gradients.</p>
Two-aged silvicultural treatments	2	<p>Two-aged silvicultural treatments in lodgepole pine stands can be economically viable. McCaughey, Ward W.; Martin, Steven J.; Blomquist, Dean A. 2006. Res. Note RMRS-RN-29. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 7 p. Available: http://www.fs.fed.us/rm/pubs/rmrs_rn029.html</p> <p>The Tenderfoot Research Project was developed in the late 1990s to evaluate and quantify ecological and biological effects of two-aged silvicultural treatments including prescribed fire in lodgepole pine forests. Research treatments were designed and installed on the Tenderfoot Creek Experimental Forest to create reserve stand structures that emulate stands created by natural fires, and to evaluate hydrologic and vegetative response. Timber products extracted through this research project included sawlogs, stud logs, posts, rails, firewood, and pulpwood.</p>
Wildland fire	3	<p>Wildland fire effects in silviculturally treated vs. untreated stands of New Mexico and Arizona. Cram, D.; Baker, T.; Boren, J. 2006. Res. Pap. RMRS-RP-55. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 28 p. Available: http://www.fs.fed.us/rm/pubs/rmrs_rp055.html</p> <p>Stand-replacement fires, particularly in ponderosa pine (<i>Pinus ponderosa</i>) forests, have replaced high-frequency, low-intensity historical fire regimes. We examined whether forest stands treated recently using silvicultural practices would be (1) less susceptible to stand-replacing crownfires, and (2) more ecologically and functionally resilient compared to untreated stands following extreme wildland fire. We compared fire severity indices, fireline intensity (btu/ft/s), stand characteristics including canopy bulk density (kg/m³), and post-fire recovery indices in silviculturally treated vs. untreated forest stands in New Mexico and Arizona.</p>

Government publications still available while supplies last

Order #		Order #	
4	Development of coarse-scale spatial data for wildland fire and fuel management. Schmidt, Kirsten M.; Menakis, James P.; Hardy, Colin C.; Hann, Wendel J.; Bunnell, David L. 2002. Gen. Tech. Rep. RMRS-GTR-87. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 41 p. + CD.	6	Rio Grande ecosystems: linking land, water, and people: toward a sustainable future for the Middle Rio Grande Basin. Finch, Deborah M.; Whitney, Jeffrey C.; Kelly, Jeffrey F.; Loftin, Samuel R. 1999. Proc. RMRS-P-7. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 245 p.
5	Fire, fuel treatments, and ecological restoration: Conference proceedings; 2002 April 16–18; Fort Collins, CO. Omi, Philip N.; Joyce, Linda A., tech. eds. 2003. Proc. RMRS-P-29. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 475 p.	7	Sustaining aspen in western landscapes: symposium proceedings; 13-15 June 2000; Grand Junction, CO. Shepperd, Wayne D.; Binkley, Dan; Bartos, Dale L.; Stohlgren, Thomas J.; Eskew, Lane G., comps. 2001. Proc. RMRS-P-18. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 460 p.

New Web-Only Publications

These publications have recently been made available electronically on our Web site:
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Pathology collection

Pathology collection of the Rocky Mountain Research Station. Popp, John B.; Lundquist, John E. 2006. Gen. Tech. Rep. RMRS-GTR-167WWW. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 9 p. Available: http://www.fs.fed.us/rm/pubs/rmrs_gtr167.html

The pathology collection located at the Rocky Mountain Research Station is fairly extensive. The oldest specimen in the collection was acquired in 1871; since then over 4,600 samples have been added. The data associated with the RMRS collection was converted from a card catalog to an electronic database, allowing greater flexibility in sorting and querying. The contents of this report includes information on each specimen and are useful for identifying whether a more extensive search of the electronic database is appropriate. It also serves as historical reference material.

Wellner Cliffs RNA

Establishment record for the Wellner Cliffs Research Natural Area. Ferguson, Dennis E.; Zack, Arthur C. 2006. Gen. Tech. Rep. RMRS-GTR-170WWW. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 40 p. Available: http://www.fs.fed.us/rm/pubs/rmrs_gtr170.html

This publication is the establishment report for Wellner Cliffs Research Natural Area (RNA), located on the Priest River Experimental Forest, Idaho Panhandle National Forests. The RNA features vegetation on dry cliffs that are embedded in mid-elevation moist western hemlock/western redcedar/grand fir forests. Immediately below the cliffs is riparian habitat that supports many wetland species, including a disjunct west coast moss, *Ulota megalospora*, whose first known occurrence in Idaho is in this RNA. This establishment report documents the boundaries of the RNA, the objectives for the RNA, its features, description of values, and management prescription.

Other Station-Authored Publications

Obtain the following publications through university libraries, the publisher, or other outlets. Forest Service employees in RMRS, R-2, R-3, and R-4, and some selected WO-Detached units may request these items from the RMRS Library at cclay@fs.fed.us or telephone: (970) 498-1205.

Fire and fuels

Cost of landscape silviculture for fire and habitat management. Hummel, S. Calkin, D.E. 2005. *Forest Ecology and Management*. 207: 385–404.

Effects of prescribed fire and season of burn on recruitment of the invasive exotic plant, *Potentilla recta*, in a semiarid grassland. Lesica, Peter; Martin, Brian. 2003. *Restoration Ecology*. 11(4): 516–523.

Establishment of aeri ally seeded big sagebrush following southern Idaho wildfires. Lysne, Cindy R.; Pellant, Mike. 2004. Tech. Bull. No. 2004-01. Boise, ID: U.S. Department of the Interior, Bureau of Land Management, Idaho State Office. 13 unnumbered pages.

Estimating forest canopy bulk density using six indirect methods. Keane, Robert E.; Reinhardt, Elizabeth D.; Scott, Joe; Gray, Kathy; Reardon, James. 2005. *Canadian Journal of Forest Research*. 35(3): 724–739.

Evaluating the ASTER sensor for mapping and characterizing forest fire fuels in northern Idaho. Falkowski, Michael J.; Gessler, Paul; Morgan, Penelope; Smith, Alistair M.S.; Hudak, Andrew T. 2004. In: North Idaho; proceedings of the tenth biennial USDA Forest Service Remote Sensing Applications conference; 2004 April 5–9; Salt Lake City, UT. Bethesda, MD: American Society for Photogrammetry and Remote Sensing. CD-ROM.

Fire and nutrient cycling in shortgrass steppe of the southern Great Plains, USA. Ford, P.L.; White, C.S. 2005. In: O'Mara, F.P.; Wilkins, R.J.; 't Mannetje, L.; Lovett, D. K.; Rogers, P.A.M.; Boland, T.M., eds. XX International Grassland Congress: offered papers. The Netherlands: Wageningen Academic Publishers: 744. Available: http://www.fs.fed.us/rm/pubs_other/rmrs_2005_ford_p001.html

FireWorks educational program and its effectiveness. Smith, Jane Kapler; McMurray, Nancy E. 2004. In: Engstrom, R.T.; Galley, K.E.M.; de Groot, W.J., eds. Proceedings of the 22nd Tall Timbers fire ecology conference: fire in temperate, boreal, and montane ecosystems. Tallahassee, FL: Tall Timbers Research Station: 231–235.

Forest Service large fire area burned and suppression expenditure trends, 1970–2002. Calkin, David E.; Gebert, Krista M.; Jones, J. Greg; Neilson, Ronald P. 2005. *Journal of Forestry*. 103(4): 179–183.

Physiological responses of ponderosas pine in western Montana to thinning, prescribed fire and burning season. Sala, Anna; Peters, Gregory D.; McIntyre, Lorna R.; Harrington, Michael G. 2005. *Tree Physiology*. 25: 339–348.

Invasive species

Assessing forest-pathogen interactions at the population level. Richardson, Bryce; Klopfenstein, Ned B.; Peever, Tobin L. 2005. In: Lundquist, J.E.; Hamelin, R.C., eds. From molecules to ecosystem—forest pathology in the era of genes and landscapes. St. Paul, MN: American Phytopathological Society Press: 21–30.

Focus on invasive plants in the Fire Effects Information System. Smith, Jane Kapler; Howard, Janet; McWilliams, Jack. 2004. In: Engstrom, R.T.; Galley, K.E.M.; de Groot, W.J., eds. Proceedings of the 22nd Tall Timbers fire ecology conference: fire in temperate, boreal, and montane ecosystems. Tallahassee, FL: Tall Timbers Research Station: 137–140.

Resource management and use

Factors affecting seed germination and seedling establishment of a long-lived desert shrub (*Coleogyne ramosissima*: Rosaceae). Meyer, Susan E.; Pendleton, Burton K. 2005. *Plant Ecology*. 178: 171–187.

High elevation grasslands as a crucial resource to ranchers of northern New Mexico. McSweeney, A.M.; Raish, C. 2005. In: O'Mara, F.P.; Wilkins, R.J.; 't Mannetje, L.; Lovett, D.K.; Rogers, P.A.M.; Boland, T.M., eds. XX International Grassland Congress: offered papers. The Netherlands: Wageningen Academic Publishers: 855.

Modeling landscapes and past vegetation patterns of New Mexico's Rio Del Oso Valley. Periman, Richard D. 2005. *Geoarchaeology: An International Journal*. 20(2): 193–210.

Regional, national and continental minerals indicators projects: commonalities and differences in process and product. Shields, Deborah J.; Solar, Slavko V.; Anciaux, Paul; Villas Boas, Roberto C. 2005. *Geologija*. 48(1): 161–170.

Traditional use practices and environmental conservation in southwestern National Forests, USA. McSweeney, A.M.; Raish, C. 2004. In: Camarda, I.; Manfredo, M.J.; Mulas, F.; Teel, T.L., eds. Global challenges of parks and protected area management; proceedings of the 9th ISSRM; 2002 October 10–13; La Maddalena, Sardinia, Italy. Sassari, Italy: Carlo Delfino: 385–392.

Uncharted territory—the charter forest experiment on the Valles Caldera National Preserve: an initial economic and policy analysis. Little, Joseph; Berrens, Robert P.; Champ, Patricia A. 2005. *Natural Resources Journal*. 45(1): 33–75.

Water and air

Distribution of *Tubifex tubifex* lineages and *Myxobolus cerebralis* infection in the tailwater of the San Juan River, New Mexico. DuBey, Robert; Caldwell, Colleen. 2004. *Journal of Aquatic Animal Health*. 16: 179–185.

Shrub control and water yield on Texas rangelands: current state of knowledge. Wilcox, Bradford P.; Dugas, William A.; Owens, M. Keith; Ueckert, Darrell N.; Hart, Charles R. 2005. Res. Rep. 05-1. College Station, TX: Texas A&M University, Texas Agricultural Experiment Station. 21 p.

Wildlife and fish habitat

An east-west comparison of migration in North American wood warblers. Kelly, Jeffrey F.; Hutto, Richard L. 2005. *The Condor*. 107: 197–211.

Establishment of the woody grass *Arundinaria gigantea* for riparian restoration. Dattilo, Adam J.; Rhoades, Charles C. 2005. *Restoration Ecology*. 13(4): 616–622.

Four new cestode species from the spiral intestine of the round stingray, *Urobatis halleri*, in the Northern Gulf of California, Mexico. Friggens, Megan M.; Duszynski, Donald W. 2005. *Comparative Parasitology*. 72(2): 136–149.

Geography of spring landbird migration through riparian habitats in southwestern North America.

Skagen, Susan K.; Kelly, Jeffrey F.; van Riper, Charles, III; Hutto, Richard L.; Finch, Deborah M.; Krueper, David J.; Melcher, Cynthia P. 2005. *The Condor*. 107: 212–227.

Historic changes in Rio Grande fish fauna: status, threats, and management of native species. Calamusso, Bob; Rinne, John N.; Edwards, Robert J. 2005. *American Fisheries Society Symposium* 45. Bethesda, MD: American Fisheries Society: 205–224.

Historical changes in large river fish assemblages of the Americas: a synthesis. Hughes, Robert M.; Rinne, John N.; Calamusso, Bob. 2005. *American Fisheries Society Symposium* 45. Bethesda, MD: American Fisheries Society: 603–612.

Introduction to historical changes to large river fish assemblages of the Americas. Hughes, Robert M.; Rinne, John N.; Calamusso, Bob. 2005. *American Fisheries Society Symposium* 45. Bethesda, MD: American Fisheries Society: 1–12.

Migration stopover ecology of western avian populations: a southwestern migration workshop. Skagen, S. K.; Melcher, C. P.; Hazlewood, R. 2004. *Open-File Rep.* 2004-1452. Reston, VA: U.S. Geological Survey, Biological Resources Discipline. 28 p.

Use of pinyon-juniper woodlands by bats in New Mexico. Chung-MacCoubrey, Alice L. 2005. *Forest Ecology and Management*. 204: 209–220.

Theses and Dissertations

These may be difficult to obtain, but are listed for your information. Please contact the named university if you are interested in obtaining a copy.

Activity budgets of black-tailed prairie dogs (*Cynomys ludovicianus*) in a Chihuahuan Desert grassland. Adams, Heather Marie. 2003. Las Cruces: New Mexico State University. 59 p. Thesis. (505) 646-2932.

Bracken fern communities of the Grand Fir Mosaic: biomass allocation and influence on selected soil properties. Jimenez, Jason M. 2005. Moscow: University of Idaho. 210 p. Thesis. (208) 885-6559.

Calorespirometric evidence for adaptation of black-brush and shadscale to growth season temperatures in cold deserts. Summers, Heidi Ann. 2005. Provo, UT: Brigham Young University. Thesis. (801) 378-2926.

Effects of bovine exclosure fencing on water quality and vegetative conditions, Bluewater Creek, New Mexico. Kundargi, Darrell. 2005. Albuquerque, University of New Mexico. 47 p. Thesis. (505) 277-5761.

The influence of riparian-canopy structure and coverage on the breeding distribution of the southwestern willow flycatcher. Brodhead, Katherine May. 2005. Bozeman: Montana State University. 112 p. Thesis. (406) 994-3161.

An investigation of community-based and integrated yellow starthistle management in southwestern New Mexico. Sommers, William David, IV. 2005. Tucson: University of Arizona. 110 p. Thesis. (520) 621-2211.

Plan B Report: Accuracy of the HEC-RAS to calculate flow depths and total energy loss with and without Bendway Weirs in a meander bend. Kasper, Kristin E. 2005. Fort Collins: Colorado State University. 158 p. Thesis. (970) 491-1842.

Post-fire establishment of vegetation communities following reseeding on southern Idaho's Snake River plain. Dalzell, Cynthia R. 2004. Boise, ID: Boise State University. 112 p. Thesis. (208) 426-3301.

Southwestern avian community organization in exotic *Tamarix*: environmental correlates of geographic and local-scale patterns. Walker, Hira Alison. 2005. Albuquerque: University of New Mexico. 128 p. Dissertation. (505) 277-5761.

Spatio-temporal trends of a black-tailed prairie dog colony reintroduction in a Chihuahuan Desert grassland. Northcott, Jason David. 2004. Las Cruces: New Mexico State University. 54 p. Thesis. (505) 646-2932.

Fire Effects Information Database

The Fire Effects Information database is available online through the Rocky Mountain Research Station Web site: <http://www.fs.fed.us/database/feis/>. FEIS provides up-to-date information about fire effects on plants and animals. It was developed at the USDA Forest Service Rocky Mountain Research Station's Fire Sciences Laboratory in Missoula, Montana. The FEIS database contains literature reviews, taken from current English-language literature of almost 900 plant species, about 100 animal species, and 16 Küchler plant communities found on the North American continent. The emphasis of each review is fire and how it affects each species. Background information on taxonomy, distribution, basic biology and ecology of each species is also included. Reviews are thoroughly documented, and each contains a complete bibliography. Managers from several land management agencies (U.S. Department of Agriculture, Forest Service, and U.S. Department of the Interior, Bureau of Indian Affairs, Bureau of Land Management, Fish and Wildlife Service, and National Park Service) identified the species to be included in the database. Those agencies funded the original work and continue to support maintenance and updating of the database. Species recently added include:

Species name	Common name
<i>Acacia constricta</i>	whitethorn acacia, all-thorn acacia, mescat acacia, twinthorn acacia
<i>Acacia greggii</i>	catclaw acacia, devilsclaw, gregg catclaw
<i>Arctostaphylos pungens</i>	pointleaf manzanita, Mexican manzanita
<i>Artimisia dracunculus</i>	tarragon, green sagebrush, silky wormwood, false tarragon
<i>Artemisia ludoviciana</i>	prairie sage, white sagewort, gray sagewort, white sagebrush, mountain sagewort, Louisiana sagewort, Mexican white sagebrush, white sagewort, green sagewort, cudweed sagewort
<i>Asarum caudatum</i>	wild ginger, British Columbia wildginger, longtail wildginger
<i>Atriplex lentiformis</i>	big saltbrush, big saltbush, quail bush
<i>Celastrus orbiculatus</i>	Oriental bitterweet, Asian bitteresweet, climbing spindleberry, round-leaved bitterweet
<i>Ceanothus cuneatus</i>	wedgeleaf ceanothus, buckbrush ceanothus, buckbrush
<i>Clintonia uniflora</i>	queencup beadlily, queen's cup, beadlily, blue bead, blue-bead lily, one-flowered clintonia, single-flowered clintonia, clintonia, bride's bonnet
<i>Cornus nuttallii</i>	Pacific dogwood, mountain dogwood, mountain flowering dogwood
<i>Dalea purpurea</i>	purple prairie clover, violet prairie clover
<i>Echinacea angustifolia</i>	purple coneflower, narrow-leaved coneflower, blacksamson
<i>Elaeagnus angustifolia</i>	Russian-olive, Russian olive
<i>Fraxinus nigra</i>	black ash, basket ash, swamp ash
<i>Galium aparine</i>	stickywilly, catchweed bedstraw, cleavers, goosegrass
<i>Galium boreale</i> , <i>G. triflorum</i>	northern bedstraw, sweetscented bedstraw, fragrant bedstraw
<i>Gaylussacia ursina</i>	bear huckleberry
<i>Hudsonia ericoides</i>	pinebarren goldenheather, false heather, golden-heather
<i>Lonicera</i> spp.	winter honeysuckle, Amur honeysuckle, Morrow's honeysuckle, Tatarian honeysuckle, European fly honeysuckle, Bell's honeysuckle
<i>Leucopoa kingii</i>	spike fescue, King fescue
<i>Microstegium vimineum</i>	Nepalese browntop, eulalia, Japanese stiltgrass, Japanese grass, Mary's grass, Nepal grass
<i>Prosopis pubescens</i>	screwbean mesquite, screwbean, tornillo
<i>Psathyrostachys juncea</i>	Russian wildrye
<i>Symphoricarpos longiflorus</i>	longflower snowberry, desert snowberry



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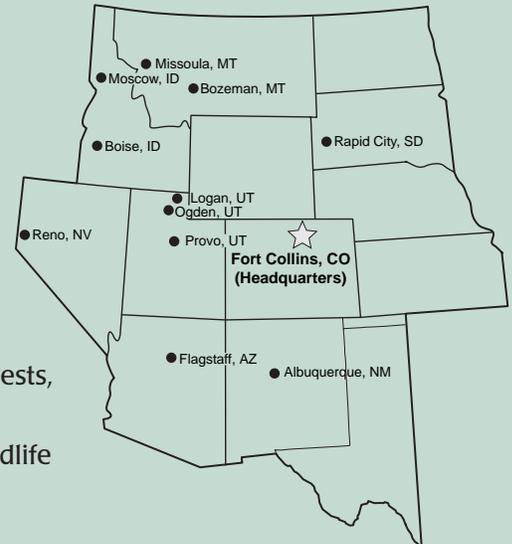
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