



New Publications

October–December 2003



ROCKY MOUNTAIN
Research Station

What's Inside . . .

- *RAWS network*
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SUBJECT	ORDER #	TITLE
RAWS network	31	A review of the Forest Service Remote Automated Weather Station (RAWS) network. Zachariassen, John; Zeller, Karl F.; Nikolov, Ned; McClelland, Tom. 2003. Gen. Tech. Rep. RMRS-GTR-119. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 153 p. + CD. Also available: http://www.fs.fed.us/rm/pubs/rmrs_gtr119.html <p>The RAWS network and RAWS data-use systems are closely reviewed and summarized in this report. RAWS is an active program created by the many land-management agencies that share a common need for accurate and timely weather data from remote locations for vital operational and program decisions specific to wildland and prescribed fires. A RAWS measures basic observable weather parameters such as temperature, relative humidity, wind speed, wind direction, and precipitation as well as “fuel stick” temperature. Data from almost 1,900 stations deployed across the conterminous United States, Alaska, and Hawaii are now routinely used to calculate and forecast daily fire danger indices, components, and adjective ratings. Fire business applications include the National Fire Danger Rating System (NFDRS), fire behavior, and fire use. Findings point to the fact that although the RAWS program works and provides needed weather data in support of fire operations, there are inefficiencies and significant problem areas that require leadership attention at the National level.</p>
New Mexico's forest resources	32	New Mexico's Forest Resources, 2000. O'Brien, Renee A. 2003. Resour. Bull. RMRS-RB-3. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 117 p. <p>This report presents a summary of the most recent inventory information for New Mexico's forest lands. Most of the data are from the inventory completed in 2000 that included National Forest System lands and reserved lands. This report includes descriptive highlights and tables of area, number of trees, biomass, volume, growth, mortality, successional stage, understory vegetation, removals, and net change. Most of the tables are organized by forest type, species, diameter class, or owner group. The report also describes inventory design, inventory terminology, and data reliability.</p>
Cavity-nesting birds	33	A field protocol to monitor cavity-nesting birds. Dudley, J.; Saab, V. 2003. Res. Pap. RMRS-RP-44. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 16 p. Also available: http://www.fs.fed.us/rm/pubs/rmrs_rp044.html <p>We developed a field protocol to monitor populations of cavity-nesting birds in burned and unburned coniferous forests of western North America. Standardized field methods are described for implementing long-term monitoring strategies and for conducting field research to evaluate the effects of habitat change on cavity-nesting birds. Key references (but not methodologies) for statistical analyses and habitat measurements are listed in our protocol. The protocol includes sections on study design, creation of field maps, conducting nest surveys, locating nest cavities by search image and bird behavior, recording data, nest monitoring, and data management.</p>



SUBJECT	ORDER #	TITLE
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Bald eagles	34	Evaluating Great Lakes bald eagle nesting habitat with Bayesian inference. Grubb, Teryl G.; Bowerman, William W.; Bath, Allen J.; Giesy, John P.; Weseloh, D. V. Chip. 2003. Res. Pap. RMRS-RP-45. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 10 p. <p>Bayesian inference facilitated structured interpretation of a nonreplicated, experience-based survey of potential nesting habitat for bald eagles (<i>Haliaeetus leucocephalus</i>) along the five Great Lakes shorelines. We developed a pattern recognition (PATREC) model of our aerial search image with six habitat attributes: (a) tree cover, (b) proximity, (c) type/amount of human disturbance, (d) potential foraging habitat/shoreline irregularity, and suitable trees for (e) perching and (f) nesting. This practical application of Bayesian inference demonstrates the technique's advantages for effectively incorporating available expertise, detailing model development processes, enabling exploratory simulations, and facilitating long-term ecosystem monitoring.</p>
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Government publications still available while supplies last

Ponderosa pine	35	Ecology, silviculture, and management of Black Hills ponderosa pine. Shepperd, Wayne D.; Battaglia, Michael A. 2002. Gen. Tech. Rep. RMRS-GTR-97. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 112 p.
Mistletoes	36	Mistletoes of North American conifers. Geils, Brian W.; Cibrián Tovar, Jose; Moody, Benjamin, tech. coords. 2002. Gen. Tech. Rep. RMRS-GTR-98. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 123 p.
Landbird's migration	37	Stopover ecology of landbirds migrating along the middle Rio Grande in spring and fall. Yong, Wang; Finch, Deborah M. 2002. Gen. Tech. Rep. RMRS-GTR-99. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 52 p.
Hayman Fire case study	38	Hayman Fire case study. Graham, Russell T., tech. ed. 2003. Gen. Tech. Rep. RMRS-GTR-114. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 396 p. Also available: http://www.fs.fed.us/rm/pubs/rmrs_gtr114.html
Hayman Fire summary	39	Hayman Fire case study: summary. Graham, Russell T., tech. ed. 2003. Gen. Tech. Rep. RMRS-GTR-115. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 32 p. Also available: http://www.fs.fed.us/rm/pubs/rmrs_gtr115.html

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 synoptic descriptions, 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 synopsis is fire and how it affects each species. Background information on taxonomy, distribution, basic biology and ecology of each species is also included. Synopses are thoroughly documented, and each contains a complete bibliography. Personnel from several land management agencies (USDA Forest Service, USDI-BIA, NPS, BLM, F&WS) 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>Acer platanoides</i>	Norway maple
<i>Artemisia bigelovii</i>	Bigelow sagebrush, flat sagebrush
<i>Artemisia cana</i>	silver sagebrush, hoary sagebrush, dwarf sagebrush, Bolander silver sagebrush, plains silver sagebrush, mountain silver sagebrush
<i>Artemisia frigida</i>	fringed sagebrush, pasture sage, prairie sagebrush, fringed sagewort
<i>Artemisia spinescens</i>	budsage, bud sage, bud sagebrush
<i>Baccharis pilularis</i>	coyote bush, coyote brush, baccharis, chaparral broom, dwarf baccharis
<i>Balsamorhiza sagittata</i>	arrowleaf balsamroot, balsamroot, breadroot, graydock
<i>Bouteloua curtipendula</i>	sideoats grama, sideoats gramagrass, tall grama, banderilla, banderita
<i>Bromus tectorum</i>	cheatgrass, broncgrass, downy brome, downy chess, soft chess
<i>Centrocercus</i> spp.	sage-grouse, sage hen, sage chicken
<i>Descurainia pinnata</i>	pinnate tansymustard, western tansymustard, green tansymustard
<i>Descurainia sophia</i>	flixweed tansymustard, herb-sophia
<i>Larix occidentalis</i>	western larch, hackmatack, western tamarack
<i>Ligustrum</i> spp.	Amur privet, Japanese privet, Chinese privet, European privet, common privet
<i>Lonicera japonica</i>	Japanese honeysuckle
<i>Nassella pulchra</i>	purple needlegrass, purple stipa, purple tussockgrass
<i>Pinus albicaulis</i>	whitebark pine
<i>Rosa multiflora</i>	multiflora rose
<i>Schoenocrambe linifolia</i>	flaxleaf plainsmustard, skeleton mustard
<i>Sisymbrium altissimum</i>	tumble mustard, tumbledustard, tumbling mustard, Jim Hill mustard, tall hedge-mustard
<i>Tamarix</i> spp.	tamarisk, saltcedar, French tamarisk, small-flowered tamarisk
<i>Tetradymia spinosa</i>	spiny horsebrush, shortspine horsebrush, catclaw-horsebrush, thorny horsebrush, cottonthorn



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Fire

- Applying logistic regression to determine regeneration risk to stand replacement fire on the Kootenai National Forest, Montana.** Hall, Wendy L.; Zuuring, Hans R.; Hardy, Colin C.; Wakimoto, Ronald H. 2003. *Western Journal of Applied Forestry*. 18(3): 155–162.
- Assessing canopy fuel stratum characteristics in crown fire prone fuel types of western North America.** Cruz, Miguel G.; Alexander, Martin E.; Wakimoto, Ronald H. 2003. *International Journal of Wildland Fire*. 12: 39–50.
- Assessing forest fire potential in Kalimantan Island, Indonesia, using satellite and surface weather data.** Sudiana, Dodi; Kuze, Khiroaki; Takeuchi, Nobuo; Burgan, Robert E. 2003. *International Journal of Wildland Fire*. 12: 175–184.
- Calculation of fire spread rates across random landscapes.** Finney, Mark A. 2003. *International Journal of Wildland Fire*. 12: 1–8.
- Evaluation of fire danger rating indexes using logistic regression and percentile analysis.** Andrews, Patricia L.; Loftsgaarden, Don O.; Bradshaw, Larry S. 2003. *International Journal of Wildland Fire*. 12: 213–226.
- Fire growth using minimum travel time methods.** Finney, Mark A. 2002. *Canadian Journal of Forest Research*. 32: 1420–1424.
- Get into the zone.** Butler, Bret; Forthofer, Jason. 2002. *Wildfire*. September/October: 16–22.
- Hands-on learning: its effectiveness in teaching the public about wildland fire.** Parkinson, Tamara M.; Force, Jo Ellen; Smith, Jane Kapler. 2003. *Journal of Forestry*. 101(7): 21–26.
- Managing fire-prone forests: roots of our dilemma.** Arno, Stephen F.; Allison-Bunnell, Steven. 2003. *Fire Management Today*. 63(2): 12–16.
- Patterns of white pine regeneration after fire and its implications for forest establishment in the presence of white pine blister rust—a research program within the US National Fire Plan.** Schoettle, Anna W. 2003. In: *Parks Canada whitebark and limber pine workshop, proceedings; 2003 February 18–19; Calgary, Alberta*. Parks Canada: 14–15. Available: http://www.whitebarkfound.org/PDF_files/WBPPProceedings.pdf
- Ponderosa pine mortality following fire in northern Arizona.** McHugh, Charles W.; Kolb, Thomas E. 2003. *International Journal of Wildland Fire*. 12: 7–22.
- Power of the fire—a thermodynamic analysis.** Nelson, Ralph M., Jr. 2003. *International Journal of Wildland Fire*. 12: 51–65.
- Reaction times and burning rates for wind tunnel headfires.** Nelson, Ralph M., Jr. 2003. *International Journal of Wildland Fire*. 12: 195–211.
- Restoring fire as an ecological process in short-grass prairie ecosystems: initial effects of prescribed burning during the dormant and growing seasons.** Brockway, Dale G.; Gatewood, Richard G.; Paris, Randi B. 2002. *Journal of Environmental Management*. 65: 135–152.
- A strategic assessment of forest biomass and fuel reduction treatments in Western States.** Rummer, Bob; Prestemon, Jeff; May, Dennis; Miles, Pat; Vissage, John; McRoberts, Ron; Liknes, Greg; Shepperd, Wayne D.; Ferguson, Dennis; Elliot, William; Miller, Sue; Reutebuch, Steve; Barbour, Jamie; Fried, Jeremy; Stokes, Bryce; Bilek, Edward; Skog, Ken. 2003. Washington, DC: U.S. Department of Agriculture, Forest Service, Research and Development. Available: <http://www.fs.fed.us/research/infocenter.html>
- Steppe plant response to seasonal fire.** Ford, Paulette L. 2003. In: *Allsopp, N.; Palmer, A. R.; Milton, S. J.; Kirkman, K. P.; Kerley, G. I. H.; Hurt, C. R.; Brown, C. J., eds. Proceedings of the VIIth International Rangelands Congress; 2003 July 26–August 1;*



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Durban, South Africa. Irene, South Africa: Document Transformation Technologies: 1125–1131.

Technical note: a technique for conducting small-plot burn treatments. Korfmacher, John L.; Chambers, Jeanne C.; Tausch, Robin J.; Roundy, Bruce A.; Meyer, Susan E.; Kitchen, Stanley. 2003. *Journal of Range Management*. 56: 251–254.

Time to burn? A new Forest Service tool for measuring duff moisture content can determine when to conduct prescribed burns. Robichaud, Peter R.; Bilskie, Jim. 2003. *Wildfire*. May/June. Available: http://wildfiremag.com/in_this_issue/

Water/soils

ANOVA of instream turbidity measurements for TMDL effectiveness monitoring of forest. Conroy, William J.; Barrett, Jeffrey C. 2003. In: ASAE annual international meeting; 2003 July 27–30; Las Vegas, NV. Paper No. 032349. St. Joseph, MI: American Society of Agricultural Engineers.

The challenges in developing the WEPP cumulative effects model. Elliot, William J.; Foltz, Randy B. 2003. In: Wide, Maria Iwarsson; Baryd, Berit, eds. 2nd forest engineering conference: techniques and methods; 2003 May 12–15; Växjö, Sweden. Uppsala, Sweden: Skogforsk: 55–58.

A framework for a restoration vision for the Rio Grande: hope for a living river. Fullerton, William; Batts, David. 2003. Albuquerque, NM: The Alliance for Rio Grande Heritage. 131 p. Available on line only: <http://www.ttsfo.com/services/projects/rio.htm>

Growth and nutrient content of herbaceous seedlings associated with biological soil crusts. Pendleton, R. L.; Pendleton, B. K.; Howard, G. L.; Warren, S. D. 2003. *Arid Land Research and Management*. 17: 271–281.

Hydrological processes and pathways affected by forest roads: what do we still need to learn? Luce, Charles H. 2002. *Hydrological Processes*. 16: 2901–2904.

Ice-driven creep on Martian debris slopes. Perron, J. Taylor; Dietrich, William E.; Howard, Alan D.; McKean, James A.; Pettinga, Jarg R. 2003. *Geophysical Research Letters*. 30(14): 1747, doi:10.1029/2003GL017603.

Modification of the evapotranspiration routines in the WEPP model: part 1. Conroy, William J.; Wu, Joan; Elliot, William. 2003. In: ASAE annual international meeting; 2003 July 27–30; Las Vegas, NV. Paper No. 032293. St. Joseph, MI: American Society of Agricultural Engineers.

Proposed modifications to the WEPP model to improve sediment yield predictions for TMDL scenario analyses. Conroy, William J.; Wu, Joan; Elliot, William. 2003. In: ASAE annual international meeting; 2003 July 27–30; Las Vegas, NV. Paper No. 032055. St. Joseph, MI: American Society of Agricultural Engineers.

Soil erosion in forest ecosystems and carbon dynamics. Elliot, William J. 2003. In: Kimble, J. M.; Heath, Linda S.; Birdsey, Richard A.; Lal, R., eds. The potential of U.S. forest soils to sequester carbon and mitigate the greenhouse effect. Boca Raton, FL: CRC Press:175–190.

Using vegetation to restore, stabilize, and protect stream channels. Wells, Gary. [n.d.]. In: Proceedings of Sino-US seminar on water & soil conservation. Beijing, China. Peoples Republic of China: Ministry of Water Resources. Washington, DC: U.S. Department of Agriculture: 233–235.

Agroforestry

Agroforestry decision and planning tools for watershed management. Ruark, Greg. [n.d.]. In: Proceedings of Sino-US seminar on water & soil conservation. Beijing, China. Peoples Republic of China: Ministry of Water Resources. Washington, DC: U.S. Department of Agriculture: 236–239.

Spatial modeling of biomass in Nebraska windbreaks. Hou, Qingjiang; Young, Linda J.; Brandle,



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James R.; Schoeneberger, Michele M. 2002. In: Proceedings: fourteenth annual Kansas State University Conference on applied statistics in agriculture; 2002 April 28–30; Manhattan, KS: 202–216.

Silviculture

Changes in needle morphology of shade-tolerant seedlings after partial overstory canopy removal. Youngblood, Andrew; Ferguson, Dennis E. 2003. Canadian Journal of Forest Research. 33: 1315–1322.

Effects of scarification disturbance on the seedling and midstory layer in a successional mixed-oak forest. Lhotka, John M.; Zaczek, James J. 2003. Northern Journal of Applied forestry. 20(2): 85–91.

Foliage height influences specific leaf area of three conifer species. Marshall, John D.; Monserud, Robert A. 2003. Canadian Journal of Forest Research. 33: 164–170.

Historical landscapes and forest structures. Graham, Russell T. 2002. In: Baumgartner, David M.; Johnson, Leonard R.; DePuit, Edward J., comps. Small diameter timber: resource management, manufacturing, and markets; symposium proceedings; 2002 February 25–27; Spokane, WA. Pullman: Washington State University: 25–31.

Economics

Contingent valuation and incentives. Champ, Patricia A.; Flores, Nicholas E.; Brown, Thomas C.; Chivers, James. 2002. Land Economics. 78(4): 591–604.

Further tests of entreaties to avoid hypothetical bias in referendum contingent valuation. Brown, Thomas C.; Ajzen, Icek; Hrubes, Daniel. 2003. Journal of Environmental Economics and Management. 46: 353–361.

Recent trends and factors influencing the market value of New Mexico ranches. Torell, L. Allen; Rimbey, Neil R.; Ramirez, Octavio A.; McCollum, Daniel W. 2003. Society for Range Management New Mexico Section Newsletter. Summer. Available: <http://usda-ars.nmsu.edu/JER/SRMSummr2003.htm>

Small-scale ranching and traditional economic practices in northern New Mexico, USA. Raish, Carol; McSweeney, Alice M.; Baldwin, Anne R. 2003. In: Allsopp, N.; Palmer, A. R.; Milton, S. J.; Kirkman, K. P.; Kerley, G. I. H.; Hurt, C. R.; Brown, C. J., eds. Proceedings of the VIIth International Rangelands Congress; 2003 July 26–August 1; Durban, South Africa. Irene, South Africa: Document Transformation Technologies: 1689–1691.

Social sciences

Culture loss and sense of place in resource valuation: economics, anthropology and indigenous cultures. Snyder, Robert; Williams, Daniel; Peterson, George. 2003. In: Jentoft, Svein; Minde, Henry; Nilsen, Ragnar, eds. Indigenous peoples; resource management and global rights. The Netherlands: Eburon Academic Publishers: 107–123.

Forces of reaction and changes of scale in the world system of states. Tainter, Joseph A. 2003. In: Ferguson, R. Brian, ed. The state, identity and violence: political disintegration in the post-cold war world. London: Routledge: 68–82.

Resource transitions and energy gain: contexts of organization. Tainter, Joseph A.; Allen, T. F. H.; Little, Amanda; Hoekstra, Thomas W. 2003. Conservation Ecology. 7(3): 4. [Online]. <http://www.consecol.org/vol7/iss3/art4>

Range management

Characterizing grazing disturbance in semi-arid ecosystems across broad scales, using diverse indices. Beever, Erik A.; Tausch, Robin J.; Brussard, Peter F. 2003. Ecological Applications. 13(1): 119–136.

Effects of grass bug feeding and drought stress on selected lines of crested wheatgrass. Nowak, Robert S.; Hansen, James D.; Nowak, Cheryl L. 2003. Western North American Naturalist. 63(2): 167–177.



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Indicators for maintenance and enhancement of multiple economic and social benefits to current and future generations. Tanaka, John; Torell, L. Allen; Swanson, Louis V.; Brunson, Mark; McCollum, Dan; Heintz, H. Theodore, Jr. 2003. In: Criteria and indicators for sustainable rangelands: a first approximation report by the Sustainable Rangelands Roundtable: chapter 5. Available: <http://sustainable.rangelands.cnr.colostate.edu>

Observation: leafy spurge control in western prairie fringed orchid habitat. Kirby, Donald R.; Lym, Rodney G.; Sterling, John J.; Sieg, Carolyn Hull. 2003. *Journal of Range Management*. 56(5): 466–473.

Watershed and riparian

Controlling flooding and water pollution with upland and streamside vegetation systems. Dosskey, Michael. [n.d.]. In: Proceedings of Sino-US seminar on water & soil conservation. Beijing, China. Peoples Republic of China: Ministry of Water Resources. Washington, DC: U.S. Department of Agriculture: 244–246.

Livestock grazing in riparian areas: environmental impacts, management practices and management implications. Clary, Warren P.; Kruse, William H. 2004. In: Baker, Malchus B., Jr.; Ffolliott, Peter F.; DeBano, Leonard F.; Neary, Daniel G., eds. *Riparian areas of the Southwestern United States: hydrology, ecology, and management*. Boca Raton, FL: Lewis Publishers: 237–258.

A project to evaluate fuels-reduction effects on vertebrates, vegetation, and water resources along the Middle Rio Grande. Finch, Deborah M.; Chung-MacCoubrey, Alice; Kelly, Jeffrey; Jemison, Roy. 2002. In: Taylor, John P., comp. *Proceedings from the conference on fire in riparian areas; 2000 March 31; Albuquerque, NM*: 69–89.

Riparian restoration on the Gila River, New Mexico, creates breeding habitat for Southwestern Willow Flycatchers. Boucher, Paul F.; Stoleson,

Scott H.; Shook, Roland S.; Pope, Ralph D.; Monzingo, Jerry. 2003. *Studies in Avian Biology*. 26: 135–142.

Ecosystem management

Collaboration between science and policy in the United States Forest Service for species and ecosystem assessments. Peterson, George L.; Kent, Brian; Maxwell, Jim. 2002. In: Barros, Santiago, ed. *Collaboration and partnership in forestry; division 6 IUFRO meeting; 2002 November 11–17; Valdivia, Chile*. Instituto Forestal: 47–60.

Expert panel statements: how can management effectively restore/recreate/maintain important features required to conserve biodiversity? Raivio, Suvi; Volney, Jan; Graham, Russell. 2002. In: Leech, Susan; Whittaker, Carolyn; Innes, John, eds. *Conference proceedings; BorNet international conference on biodiversity conservation in boreal forests; 2002 May 27–28; Uppsala, Sweden*. Vancouver, BC: BorNet Canada: 33–35. Available: <http://www.bornet.org>

Understory vegetation. Sutherland, Steve; Hutchinson, Todd F.; Windus, Jennifer L. 2003. In: *Characteristics of mixed-oak forest ecosystems in southern Ohio prior to the reintroduction of fire*. Gen. Tech. Rep. GTR NE-299. Newtown Square, PA: U.S. Department of Agriculture, Forest Service, Northeastern Research Station: 67–83.

Fish and wildlife

Alien invasions in aquatic ecosystems: toward an understanding of brook trout invasions and potential impacts on inland cutthroat trout in western North America. Dunham, Jason B.; Adams, Susan B.; Schroeter, Robert E.; Novinger, Douglas C. 2002. *Reviews in Fish Biology and Fisheries*. 12: 373–391.

Brown-headed cowbird attacks southwestern willow flycatcher nestlings. Woodward, Hope D.; Stoleson, Scott H. 2002. *The Southwestern Naturalist*. 47(6): 626–628.



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- Combining genetic markers and stable isotopes to reveal population connectivity and migration patterns in a neotropical migrant, Wilson's warbler (*Wilsonia pusilla*).** Clegg, Sonya M.; Kelly, Jeffrey F.; Kimura, Mari; Smith, Thomas B. 2003. *Molecular Ecology*. 12: 819–830.
- Combining inferences from models of capture efficiency, detectability, and suitable habitat to classify landscapes for conservation of threatened bull trout.** Peterson, James T.; Dunham, Jason. 2003. *Conservation Biology*. 17(4): 1070–1077.
- Estimating population size with correlated sampling unit estimates.** Bowden, David C.; White, Gary C.; Franklin, Alan B.; Ganey, Joseph L. 2003. *Journal of Wildlife Management*. 67(1): 1–10.
- Factors affecting survival and recruitment in female Merriam's turkeys.** Rumble, Mark A.; Wakeling, Brian F.; Flake, Lester D. 2003. *Intermountain Journal of Sciences*. 9(1): 26–37.
- A field evaluation of the Southwestern Willow Flycatcher survey protocol.** Shook, Roland S.; Stoleson, Scott H.; Boucher, Paul. 2003. *Studies in Avian Biology*. 26: 177–179.
- Habitat associations of Mexican Spotted Owl nest and roost sites in central Arizona.** May, Christopher A.; Gutiérrez, R. J. 2002. *Wilson Bulletin*. 114(4): 457–466.
- Influence of maximum water temperature on occurrence of Lahontan cutthroat trout within streams.** Dunham, Jason; Schroeter, Robert; Rieman, Bruce. 2003. *North American Journal of Fisheries Management*. 23: 1042–1049.
- Influences of temperature and environmental variables on the distribution of bull trout within streams at the southern margin of its range.** Dunham, Jason; Rieman, Bruce; Chandler, Gwynne. 2003. *North American Journal of Fisheries Management*. 23: 894–904.
- Integrating conservation genetic considerations into conservation planning: a case study of bull trout in the Lake Pend Oreille—lower Clark Fort River system.** Epifanio, John; Haas, Gordon; Pratt, Karen; Rieman, Bruce; Spruell, Paul; Stockwell, Craig; Utter, Fred; Young, William. 2003. *Fisheries*. 28(8): 10–24.
- Lone Harris's Hawk kills Great Blue Heron.** Woodward, Hope D. 2003. *Journal of Raptor Research*. 37(1): 85–86.
- Microhabitat use by breeding Southwestern Willow Flycatchers on the Gila River, New Mexico.** Stoleson, Scott H.; Finch, Deborah M. 2003. *Studies in Avian Biology*. 26: 91–95.
- Monitoring long-term reuse of trees by bats in pinyon-juniper woodlands of New Mexico.** Chung-MacCoubrey, Alice L. 2003. *Wildlife Society Bulletin*. 31(1): 73–79.
- Selection of fire-created snags at two spatial scales by cavity-nesting birds.** Saab, Victoria; Brannon, Ree; Dudley, Jonathan; Donohoo, Larry; Vanderzanden, Dave; Johnson, Vicky; Lachowski, Henry. 2002. In: Laudenslayer, William F., Jr.; Shea, Patrick J.; Valentine, Bradley E.; Weatherspoon, C. Phillip; Lisle, Thomas E., tech. coords. *Proceedings of the symposium on the ecology and management of dead wood in western forests; 1999 November 2–4; Reno, NV. Gen. Tech. Rep. PSW-GTR-181*. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station: 835–848.
- Southwestern Willow Flycatcher on the U Bar Ranch.** Stoleson, Scott. 2002. In: *The new ranch at work: the Quivira Coalition's first annual conference; 2002 January 18–19; Albuquerque, NM. Santa Fe, NM: The Quivira Coalition: 93–102*.
- Structural characteristics of forest stands within home ranges of Mexican spotted owls in Arizona and New Mexico.** Ganey, Joseph L.; Block, William M.; Ackers, Steven H. 2003. *Western Journal of Applied Forestry*. 18(3): 189–198.
- Temporal variation in synchrony among chinook salmon (*Oncorhynchus tshawytscha*) redd counts from a wilderness area in central Idaho.** Isaak,



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Daniel J.; Thurow, Russell F.; Rieman, Bruce E.; Dunham, Jason B. 2003. *Canadian Journal of Fisheries and Aquatic Sciences*. 60: 840–848.

Wintering bald eagle trends in northern Arizona, 1975–2000. Grubb, Teryl G. 2003. *The Southwestern Naturalist*. 48(2): 223–230.

Technology and development

Criteria for comparing the adaptability of forest growth models. Robinson, Andrew P.; Monserud, Robert A. 2003. *Forest Ecology and Management*. 172: 53–67.

How forest models are connected to reality: evaluation criteria for their use in decision support. Stage, Albert R. 2003. *Canadian Journal of Forest Research*. 33: 410–421.

Integration of satellite sensor data, fuel type maps and meteorological observations for evaluation of forest fire risk at the pan-European scale. López, Ana Sebastián; San-Miguel-Ayanz, Jesús; Burgan, Robert E. 2002. *International Journal of Remote Sensing*. 23(13): 2713–2719.

A non-parametric, supervised classification of vegetation types on the Kaibab National Forest using decision trees. Joy, S. M.; Reich, R. M.; Reynolds, R. T. 2003. *International Journal of Remote Sensing*. 24(9): 1835–1852.

Using radiotelemetry to determine home range size, habitat use, and movement patterns of Willow Flycatchers. Paxton, Eben H.; Cardinal, Suzanne N.; Koronkiewicz, Thomas J. 2003. *Studies in Avian Biology*. 26: 185–189.

Recreation/wilderness

Agency policy and the resolution of wilderness stewardship dilemmas. Cole, David N. 2003. *George Wright Forum*. 20(3): 26–33.

Applying public-purpose marketing in the USA to protect relationships with public lands. Watson,

Alan E.; Borrie, William T. 2003. In: Buckley, R.; Pickering, C.; Weaver, D. B., eds. *Nature-based tourism, environment and land management*. CAB International: 25–33.

The beneficial outcomes approach. Driver, Beverly L.; Manfredo, Michael J. 2003. *Urbanistica*. 120: 89–90.

The challenge of doing science in wilderness: historical, legal, and policy context. Landres, Peter; Alderson, Judy; Parsons, David J. 2003. *The George Wright Forum*. 20(3): 42–49.

The challenge of wilderness stewardship. Parsons, David J.; Cole, David N. 2003. *The George Wright Forum*. 20(3): 22–25.

Selecting indicators and understanding their role in wilderness experience stewardship at Gates of the Arctic National Park and Preserve. Glaspell, Brian; Watson, Alan; Kneeshaw, Katie; Pendergrast, Don. 2003. *The George Wright Forum*. 20(3): 59–71.

Water availability and recreational opportunities. Brown, Thomas C. 2004. In: Baker, Malchus B., Jr.; Ffolliott, Peter F.; DeBano, Leonard F.; Neary, Daniel G., eds. *Riparian areas of the Southwestern United States: hydrology, ecology, and management*. Boca Raton, FL: Lewis Publishers: 299–314.

Forest roads/transportation

Environmental impacts of forest roads: an overview of the state of the knowledge. Foltz, Randy B. 2003. In: Wide, Maria Iwarsson; Baryd, Berit, eds. *2nd forest engineering conference: techniques and methods; 2003 May 12–15; Växjö, Sweden*. Uppsala, Sweden: Skogforsk: 121–128.

GPS-assisted road surveys and GIS-based road erosion modeling using the WEPP model. Brooks, Erin S.; Boll, Jan; Elliot, William J. 2003. In: *The fight for survival; ASAE Pacific Northwest Region meeting; 2003 September 25–27; Clarkston, WA*. Paper No. PNW2003-9. St. Joseph, MI: American Society of Agricultural Engineers.



Available Elsewhere

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.

Infiltration rates on abandoned road-stream crossings. Foltz, Randy B.; Maillard, Emilie. In: ASAE annual international meeting; 2003 July 27–30; Las Vegas, NV. Paper No. 035009. St. Joseph, MI: American Society of Agricultural Engineers.

Locally available aggregate and sediment production. Foltz, Randy B.; Truebe, Mark. 2003. Transportation Research Record 1819. Paper No. LVR8-1050.

Simplified methods for evaluating road prism stability. Elliot, William; Ballerini, Mark; Hall, David. 2003. Transportation Research Record 1819. Paper No. LVR8-1095.

Pests/diseases

Bark beetle attacks on ponderosa pine following fire in northern Arizona. McHugh, Charles W.; Kolb, Thomas E.; Wilson, Jill L. 2003. Environmental Entomology. 32(3): 510–522.

Histology of white pine blister rust in needles of resistant and susceptible eastern white pine. Jurgens, Joel A.; Blanchette, Robert A.; Zambino, Paul J.; David, Andrew. 2003. Plant Disease. 87(9): 1026–1030.

A historical assessment of *Karenia brevis* in the western Gulf of Mexico. Magaña, Hugo A.; Contreras, Cindy; Villareal, Tracy A. 2003. Harmful Algae. 2: 163–171.

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.

Diel summer habitat use by bull trout, *Salvelinus confluentus*, in Eastern Cascades streams. Banish, Nolan Paul. 2003. Athens, GA: University of Georgia. 86 p. Thesis. (706) 542-0698.

Ecology and management of bats in pinyon-juniper woodlands of west-central New Mexico. Chung-MacCoubrey, Alice L. 2003. Albuquerque: University of New Mexico. 113 p. Dissertation. (505) 277-5761.

Genetic assessment of complex dynamics in an interior salmonid metapopulation. Arsenault, Helen Neville. 2003. Reno: University of Nevada. 212 p. Dissertation. (702) 784-6500.

Landscape-scale modeling of vegetation land cover and songbird habitat, Pinaleños Mountains, Arizona. Wynne, J. Judson. 2003. Flagstaff: Northern Arizona University. 105 p. Thesis. (520) 523-2171.



World Wide Web Publications

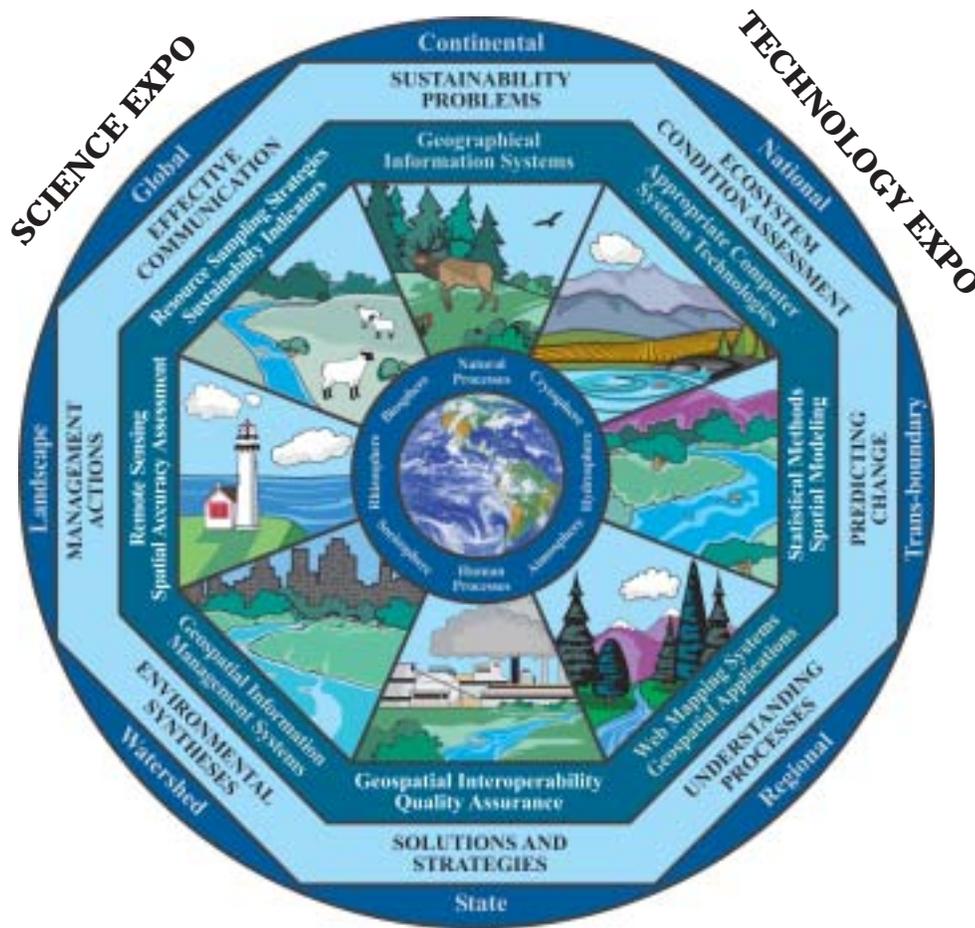
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- Accuracy assessment of percent canopy cover, cover type, and size class.** Schreuder, H. T.; Bain, S.; Czaplowski, R. C. 2003. Gen. Tech. Rep. RMRS-GTR-108. 10 p.
- A bibliography for the northern Madrean Biogeographic Province.** Ffolliott, Peter F.; DeBano, Leonard F.; Gottfried, Gerald J.; Huebner, Daniel P.; Edminster, Carl B., comps. 1999. Res. Note RMRS-RN-7. 3 p.
- Coarse woody debris: managing benefits and fire hazard in the recovering forest.** Brown, James K.; Reinhardt, Elizabeth D.; Kramer, Kylie A. 2003. Gen. Tech. Rep. RMRS-GTR-105. 16 p.
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- Economic, social, and cultural aspects of livestock ranching on the Española and Canjilon Ranger Districts of the Santa Fe and Carson National Forests: a pilot study.** Raish, Carol; McSweeney, Alice M. 2003. Gen. Tech. Rep. RMRS-GTR-113. 89 p.
- Field guide to Intermountain sedges.** Hurd, Emerenciana G.; Shaw, Nancy L.; Mastrogioseppe, Joy; Smithman, Lynda C.; Goodrich, Sherel. 1998. Gen. Tech. Rep. RMRS-GTR-10. 282 p.
- Field guide to old ponderosa pines in the Colorado Front Range.** Huckaby, Laurie Stroh; Kaufmann, Merrill R.; Fornwalt, Paula J.; Stoker, Jason M.; Dennis, Chuck. 2003. Gen. Tech. Rep. RMRS-GTR-109. 43 p.
- The Fire and Fuels Extension to the Forest Vegetation Simulator.** Reinhardt, Elizabeth; Crookston, Nicholas L., tech. eds. 2003. Gen. Tech. Rep. RMRS-GTR-116. 209 p.
- Forest Service programs, authorities, and relationships: a technical document supporting the 2000 USDA Forest Service RPA Assessment.** Schuster, Ervin G.; Krebs, Michael A. 2003. Gen. Tech. Rep. RMRS-GTR-112. 88 p.
- Growth of lodgepole pine stands and its relation to mountain pine beetle susceptibility.** Mata, S. A.; Schmid, J. M.; Olsen, W. K. 2003. Res. Pap. RMRS-RP-42. 19 p.
- Hayman Fire case study.** Graham, Russell T., tech. ed. 2003. Gen. Tech. Rep. RMRS-GTR-114. 396 p.
- Hayman Fire case study: summary.** Graham, Russell T., tech. ed. 2003. Gen. Tech. Rep. RMRS-GTR-115. 32 p.
- Heavy thinning of ponderosa pine stands: an Arizona case study.** Ffolliott, Peter F.; Baker, Malchus B., Jr.; Gottfried, Gerald J. 2000. Res. Pap. RMRS-RP-22. 6 p.
- Identification and ecology of old ponderosa pine trees in the Colorado Front Range.** Huckaby, Laurie Stroh; Kaufmann, Merrill R.; Fornwalt, Paula J.; Stoker, Jason M.; Dennis, Chuck. 2003. Gen. Tech. Rep. RMRS-GTR-110. 47 p.
- Indicators of rangeland health and functionality in the Intermountain West.** O'Brien, Renee A.; Johnson, Curtis M.; Wilson, Andrea M.; Elsbernd, Van C. 2003. Gen. Tech. Rep. RMRS-GTR-104. 13 p.
- Reestablishing natural succession on acidic mine spoils at high elevations: long-term ecological restoration.** Brown, Ray W.; Amacher, Michael C.; Mueggler, Walter F.; Kotuby-Amacher, Janice. 2003. Res. Pap. RMRS-RP-41. 49 p.
- Santa Rita Experimental Range: 100 years (1903 to 2003) of accomplishments and contributions; conference proceedings; 2003 October 30–November 1; Tucson, AZ.** McClaran, Mitchel P.; Ffolliott, Peter F.; Edminster, Carleton B., tech. coords. 2003. Proc. RMRS-P-30. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 197 p.
- Science and stewardship to protect and sustain wilderness values: Seventh World Wilderness Congress symposium; 2001 November 2–8; Port Elizabeth, South Africa.** Proc. RMRS-P-27. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 272 p.
- Statistical strategy for inventorying and monitoring the ecosystem resources of the Mexican States of Jalisco and Colima at multiple scales and resolution levels.** Schreuder, H. T.; Williams, M. S.; Aguirre-Bravo, C.; Patterson, P. L. 2003. Gen. Tech. Rep. RMRS-GTR-107. 15 p.
- A 20-year recount of bird populations along a Great Basin elevational gradient.** Woodyard, John; Renfro, Melissa; Welch, Bruce L.; Heister, Kristina. 2003. Res. Pap. RMRS-RP-43. 11 p.
- Wilderness visitors and recreation impacts: baseline data available for twentieth century conditions.** Cole, David N.; Wright, Vita. 2003. Gen. Tech. Rep. RMRS-GTR-117. 52 p.



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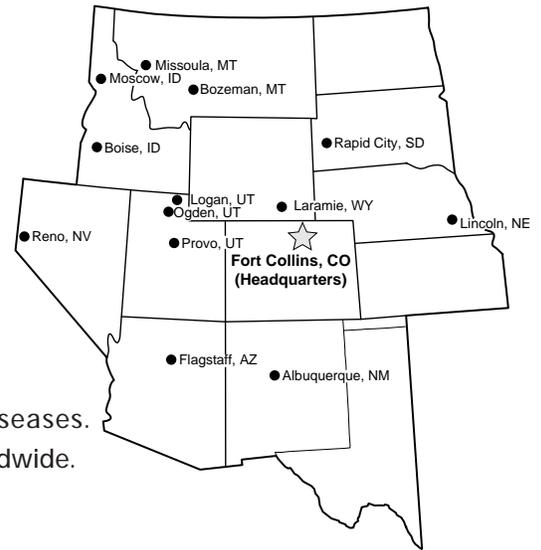
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