Pacific Southwest Research Station Programs

United States Department of Agriculture

Forest Service
Pacific Southwest Research Station

Air Pollution and Global Change Impacts on Western Forest Ecosystems

Center for Urban Forest Research

Chemical Ecology and Management of Forest Insects

Cumulative Effects of Forest Management on Hillslope Processes, Fishery Resources, and Downstream Environments

Ecology and Management of Western Forests Influenced by Mediterranean Climate

Institute of Forest Genetics

Institute of Pacific islands Forestry

Prescribed Fire and Fire Effects

Research Natural Areas

Sierra Nevada Research Center

Sudden Oak Death Research

Timber Management/Wildlife Habitat Interactions

Wildland Fire Management Research, Development, and Application

Wildland Recreation and Urban Cultures

Pacific Southwest Research Station
Publications List

October 1, 2004–May 31, 2008

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Publications also available at:
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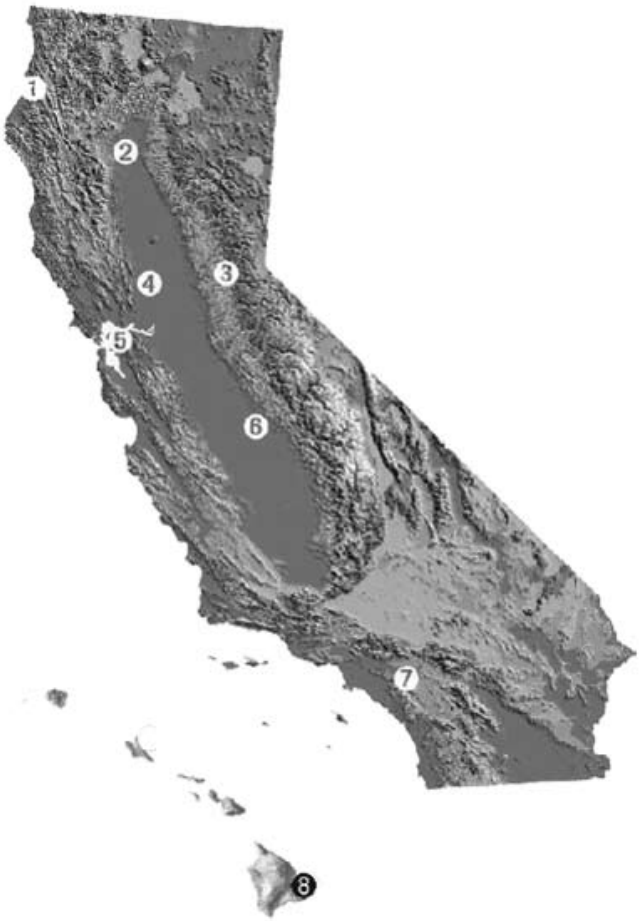
The Pacific Southwest Research Station

The Pacific Southwest Research Station represents the research and development branch of the USDA Forest Service in the states of California and Hawaii and the U.S.-affiliated Pacific Islands. Our primary work occurs in California (the most populous state with the fifth largest economy in the world) and Hawaii (a strategic location in the Pacific Rim economies and tourism). We develop and deliver science-based information, technologies, and applications to help people make well-informed decisions about natural resource management, conservation, and environmental protection.

The Pacific Southwest Research Station has eight primary sites in California and Hawaii.



1. Redwood Sciences Laboratory, Arcata

2. Silviculture Laboratory, Redding

3. Institute of Forest Genetics (Historic), Placerville

4. Research Facilities, Davis

5. Sciences Laboratory and Station Headquarters, Albany

6. Forest Sciences Laboratory, Fresno

7. Forest Fire Laboratory, Riverside

8. Institute of Pacific Islands Forestry, Hilo

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USDA

New PSW Series Publications

2002 Fire conference proceedings

Order 1

Proceedings of the 2002 fire conference: managing fire and fuels in the remaining wildlands and open spaces of the Southwestern United States. Narog, Marcia G., tech. coord. 2008. [CD only]. Gen. Tech. Rep. PSW-GTR-189. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 365 p.

Many issues confront scientists, land managers, policymakers, and the public who deal with or are affected by management of fire and fuels across the Southwestern United States (Utah, Colorado, Arizona, Nevada, New Mexico, and California). The 2002 Fire Conference was convened to tackle these concerns. It began with a plenary session addressing the central problems of fire and fuels management in the Southwest. Concurrent sessions with over 100 oral presentations covered a wide range of topics, including fire ecology, fire behavior, fire history, fire prevention, fire education, restoration and rehabilitation, air quality, wildlife-fire interactions, fire planning, watershed responses to fire, invasive species responses to fire, National Environmental Policy Act and other regulations, and vegetation-fire interactions. More than 50 posters displayed in an afternoon session rounded out the program. The 39 papers and 17 extended abstracts included in this volume serve as a reference for the management of fire and fuels concerns in the Southwestern United States.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr189/

Partners in Flight proceedings

Order 2

Bird conservation implementation and integration in the Americas: Proceedings of the Third International Partners in Flight conference. Ralph, C. John; Rich, Terrell D., eds. 2005. Gen. Tech. Rep. PSW-GTR-191. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 651 p. 2 volumes. NOTE: Also available on CD.

These two volumes contain, in part, papers presented at the Third International Partners in Flight Conference. The conference gathered together researchers, educators, foresters, monitoring specialists, planners, and land managers to discuss the past, present, and future directions of conservation, land planning, and research for birds in North and South America, with a primary focus on landbirds. The papers in these volumes represent a broad array of subjects, including management planning, conservation, educational outreach programs, ornithological research, and research methodologies.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr191/Asilomar/

Goosenest Adaptive Management Area

Order 3

Ecological research at the Goosenest Adaptive Management Area in northeastern California. Ritchie, Martin W. 2005. Gen. Tech. Rep. PSW-GTR-192. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 128 p.

This paper describes the establishment of an interdisciplinary, large-scale ecological research project on the Goosenest Adaptive Management Area of the Klamath National Forest in northeastern California. This project is a companion to PSW-GTR-179. Led by researchers from the Pacific Southwest Research Station in Redding, California, an interdisciplinary team of scientists designed an experiment to evaluate the use of mechanical treatments and prescribed fire to accelerate late-successional conditions in the Goosenest Adaptive Management Area.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr192/

Sierra Nevada symposium

Order 4

Proceedings of the Sierra Nevada science symposium. Murphy, Dennis D.;Stine, Peter A., eds. 2004. Gen. Tech. Rep. PSW-GTR-193. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 287 p. NOTE: Also available on CD.

Land and resource management issues in the Sierra Nevada are becoming increasingly complex and controversial. The symposium addressed four primary objectives: (1) to highlight ecological research and monitoring activities ongoing in the Sierra Nevada; (2) to provide access for all interested parties to information on Sierran research activities, databases, and Web sites; (3) to identify new research needs and priorities of organizations, particularly those interested in managing resources or lands in the Sierra; and (4) to explore opportunities to expand and leverage collaborative research opportunities in the Sierra Nevada, including those that encourage interagency, student, and intern involvement.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr193/

Redwood region symposium

Order 5

Proceedings of the redwood region forest science symposium: What does the future hold? Standiford, Richard B.; Giusti, Gregory A.; Valachovic, Yana; Zielinski, William J.; Furniss, Michael J., tech. eds. 2007. Gen. Tech. Rep. PSW-GTR-194. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 553 p.

This symposium was intended to promote the dissemination of scientific evidence to managers, policymakers, other scientists and interested public, and, in turn, to inform policy decisions. Thus, the presentations will range from the discussion of recently gathered scientific knowledge to the integration of that knowledge into planning and management processes and tools. We support the many other efforts intended to achieve these and similar goals and acknowledge the need to coordinate all such efforts.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr194/

Biodiversity in the South Coast Ecoregion

Order 6

Planning for biodiversity: bringing research and management together: proceedings of a symposium for the South Coast Ecoregion. Kus, Barbara E.; Beyers, Jan L., tech. coords. 2005. Gen. Tech. Rep. PSW-GTR-195. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 274 p.

The papers in this proceedings volume reflect the breadth of issues facing the science and management communities in southern California, ranging from the threats of fire, air pollution, grazing, exotic species invasion, and habitat loss on native habitats and sensitive species, including birds, mammals, reptiles and amphibians, to the role of mycorrhizal fungi as indicators of biological change.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr195/

Second sudden oak death proceedings

Order 7

Proceedings of the sudden oak death second science symposium: the state of our knowledge. Frankel, Susan J.; Shea, Patrick J.; Haverty, Michael I., tech. coords. 2006. Gen. Tech. Rep. PSW-GTR-196. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 571 p.

The Sudden Oak Death Second Science Symposium provided a forum for current research on sudden oak death, caused by the exotic, quarantine pathogen, *Phytophthora ramorum*. Ninety papers and forty-six posters on the following sudden oak death/*P. ramorum* topics are included: biology, genetics, nursery and wildland management, monitoring, ecology, and diagnostics. Several papers on *P. kernoviae* and other forest *Phytophthora* species are also presented.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr196/

To order a publication, please see back cover

Insects and diseases of California oaks

Order 8

A field guide to insects and diseases of California oaks. Swiecki, Tedmund J.; Bernhardt, Elizabeth A. 2006. Gen. Tech Rep. PSW-GTR-197. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 151 p.

This publication focuses on the relatively small number of microorganisms (primarily fungi) and arthropods (primarily insects) that are capable of causing noticeable damage to oaks in California. We have included agents that cause serious damage to oaks, as well as some common agents that produce conspicuous impacts even if they are not especially detrimental to oak health.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr197/

Ponderosa pine proceedings

Order 9

Proceedings of the symposium on ponderosa pine: issues, trends, and management. Ritchie, Martin W.; Maguire, Douglas A.; Youngblood, Andrew, tech. coords. 2005. Gen. Tech. Rep PSW-GTR-198. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 281 p.

Ponderosa pine is one of the most widely distributed tree species in western North America. It is highly valued as a source of lumber, but also is key to the health and social value of western forests, whether growing in pure stands or in mixture with other conifer and hardwood species. The symposium was convened to provide a venue for researchers and managers to explore the current state-of-our-knowledge, including management practices that help managers to adapt to constantly changing constraints and objectives.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr198/

Midwest community tree guide

Order 10

Midwest community tree guide: benefits, costs, and strategic planting. McPherson, E. Gregory; Simpson, James R.; Peper, Paula J.; Maco, Scott E.; Gardner, Shelley L.; Cozad, Shauna K.; Xiao, Qingfu. 2006. Gen. Tech. Rep. PSW-GTR-199. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 99 p.

This report quantifies benefits and costs for typical small, medium, and large deciduous (losing their leaves every autumn) trees: crabapple, red oak, and hackberry. The analysis assumed that trees were planted in a residential yard or public site (streetside or park) with a 60-percent survival rate over a 40-year timeframe. Tree care costs were based on results from a survey of municipal and commercial arborists. Benefits were calculated by using tree growth curves and numerical models that consider regional climate, building characteristics, air-pollutant concentrations, and prices.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr199/

Piedmont community tree guide

Order 11

Piedmont community tree guide: benefits, costs, and strategic planting. McPherson, E. Gregory; Simpson, James R.; Peper, Paula J.; Gardner, Shelley L.; Vargas, Kelaine E.; Maco, Scott E.; Xiao, Qingfu. 2006. Gen. Tech. Rep. PSW-GTR-200. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 99 p.

This report quantifies benefits and costs for small, medium, and large broadleaf trees and one coniferous tree in the Piedmont region. The species chosen as representative are dogwood (*Cornus florida*), Southern magnolia (*Magnolia grandiflora*), red maple (*Acer rubrum*), and loblolly pine (*Pinus taeda*), respectively. The analysis describes "yard trees" (those planted in residential sites) and "public trees" (those planted on streets or in parks). Tree care costs and mortality rates are based on results from a survey of municipal and commercial arborists. Benefits are calculated using tree growth curves and numerical models that consider regional climate, building characteristics, air pollutant concentrations, and prices.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr200/

Coastal plain community tree guide

Order 12

Coastal plain community tree guide: benefits, costs, and strategic planning. McPherson, E. Gregory; Simpson, James R.; Peper, Paula J.; Gardner, Shelley L.; Vargas, Kelaine E.; Maco, Scott E.; Xiao, Qingfu. 2006. Gen. Tech. Rep. PSW-GTR-201. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 105 p.

This report quantifies benefits and costs for representative large, medium, and small broadleaf trees and coniferous trees in the Coastal Plain region.The species chosen as representative are the southern live oak (*Quercus virginiana*), southern magnolia (*Magnolia grandiflora)*, flowering dogwood (*Cornus florida*), and loblolly pine (*Pinus taeda*). Benefits are calculated using tree growth curves and numerical models that consider regional climate, building characteristics, air pollutant concentrations, and prices. Tree care costs and mortality rates are based on results from a survey of municipal and commercial arborists.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr201/

Northeast community tree guide

Order 13

Northeast community tree guide: benefits, costs, and strategic planting. McPherson, E. Gregory; Simpson, James R.; Peper, Paula J.; Gardner, Shelley L.; Vargas, Kelaine E.; Xiao, Qingfu. 2007. Gen. Tech. Rep. PSW-GTR-202. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 106 p.

We present benefits and costs for representative small, medium, and large deciduous trees and coniferous trees in the Northeast region derived from models based on indepth research carried out in the borough of Queens, New York City. Average annual net benefits (benefits minus costs) increase with mature tree size and differ based on location. Two hypothetical examples of planting projects are described to illustrate how the data in this guide can be adapted to local uses, and guidelines for maximizing benefits and reducing costs are given.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr202/

2005 National silviculture proceedings

Order 14

Restoring fire-adapted ecosystems: proceedings of the 2005 national silviculture workshop. Powers, Robert F., tech. ed. 2007. Gen. Tech. Rep. PSW-GTR-203, Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 306 p.

Many federal forests are at risk to catastrophic wildfire owing to past management practices and policies. Mangers of these forests face the immense challenge of making their forests resilient to wildfire, and the problem is complicated by the specter of climate change that may affect wildfire frequency and intensity. Some of the Nation's leading scientists and practitioners present approaches to tackling the problem.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr203/

Hardwood stands in northern California

Order 15

Growth of thinned and unthinned hardwood stands on a good site in northern California. McDonald, Philip M.; Vaughn, Nicholas R. 2007. Gen. Tech. Rep. PSW-GTR-204. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 23 p.

Pacific madrone (*Arbutus menziesii* Pursh), tanoak (*Lithocarpus densiflorus* (Hook. & Arn.) Rehd.), and California black oak (*Quercus kelloggii* Newb.) are three hardwood species commonly found in the Sierra Nevada of California, an area better known for its mixed-conifer forests. Hardwood stands in this region currently are unmanaged and underutilized for commodity production. However, some landowners are now asking "How fast do these hardwoods grow?" and "Will thinning increase growth and yield?" Twelve young-growth, mixed-hardwood stands on the Challenge Experimental Forest in north-central California were thinned from an average basal area of 202 ft^2 per acre to different levels of residual basal area that ranged from 66 to 153 ft^2 per acre. An additional stand (control) provided information on development in an untreated condition.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr204/

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Temperate Interior West community tree guide

Order 16

Temperate Interior West community tree guide: benefits, costs, and strategic planting. Vargas, Kelaine E.; McPherson, E. Gregory; Simpson, James R.; Peper, Paula J.; Gardner, Shelley L.; Xiao, Qingfu. 2007. Gen. Tech. Rep. PSW-GTR-206. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 108 p.

We present benefits and costs for representative small, medium, and large deciduous trees and coniferous trees in the Temperate Interior West region derived from models based on indepth research carried out in Boise, Idaho. Average annual net benefits increase with tree size and differ based on location. Two hypothetical examples of planting projects are described to illustrate how the data in this guide can be adapted to local uses, and guidelines for maximizing benefits and reducing costs are given.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr206/

Los Angeles 1-million tree assessment

Order 17

Los Angeles 1-million-tree canopy cover assessment. McPherson, Gregory E.; Simpson, James R.; Xiao, Qingfu; Chunxia, Wu. 2008. Gen. Tech. Rep. PSW-GTR-207. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 52 p.

The Million Trees LA initiative intends to chart a course for sustainable growth through planting and stewardship of trees. The purpose of this study was to measure Los Angeles's existing tree canopy cover (TCC), determine if space exists for 1 million additional trees, and estimate future benefits from the planting. High-resolution QuickBird remote sensing data, aerial photographs, and geographic information systems were used to classify land cover types, measure TCC, and identify potential tree planting sites. Benefits were forecast for planting 1 million trees between 2006 and 2010, and their growth and mortality were projected until 2040. Two scenarios reflected low (17 percent) and high (56 percent) mortality rates. Numerical models were used with geographic data and tree size information for coastal and inland climate zones to calculate annual benefits and their monetary value. Recommendations included developing a decision support tool for tree selection and tracking, as well as establishing a model parking lot greening program.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr207/

Third Sudden oak death proceedings

Order 18

Proceedings of the third sudden oak death third science symposium. Frankel, Susan J.; Kliejunas, John T.; Palmieri, Katharine M., tech. coords. 2008. Gen. Tech. Rep. PSW-GTR-214, Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 491 p.

The Sudden Oak Death Third Science Symposium provided a forum for current research on sudden oak death, caused by the exotic, quarantine pathogen, *Phytophthora ramorum*. One hundred and seventeen submissions describing papers and posters on the following sudden oak death/ *P. ramorum* topics are included: biology, genetics, nursery and wildland management, monitoring, ecology, and diagnostics.

Online: http://www.fs.fed.us/psw/publications/documents/psw_gtr214/

Off-highway vehicle management

Order 19

Manager perceptions of issues and actions for off-highway vehicle management on national forests in California. Chavez, Deborah J.; Knap, Nancy, E. 2006. Res. Pap. PSW-RP-250. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 253 p.

Off-highway vehicles (OHVs) are an illustration of unmanaged recreation. OHVs are motorized vehicles capable of traveling off-road year-round and include over-snow vehicles (OSVs). OHV issues are complex and require research attention. Of particular interest are the perceptions of managers of OHV activity. A survey of 45 managers of OHV areas on National Forests in California was conducted.

This paper is intended to provide a practical reference for future research on OHV use on public lands and a source of ideas for federal and state land managers nationally. Appendixes provide information about specific actions USFS managers in California are taking to manage respective OHV problems and how effective they perceive these actions to be.

Online: http://www.fs.fed.us/psw/publications/documents/psw_rp250/

Ponderosa pine plantation

Order 20

Development of vegetation in a young ponderosa pine plantation: effect of treatment duration and time since disturbance. McDonald, Philip M.; Fiddler, Gary O. 2007. Res. Pap. PSW-RP-251. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 23 p.

The density and development of deerbrush (*Ceanothus integerrimus* Hook. & Arn.), other shrubs, forbs, graminoids, and ponderosa pine (*Pinus ponderosa* Dougl. ex Laws. var. *ponderosa*) seedlings were evaluated in a young plantation in northern California from 1988 through 1997. Treatment regimes consisted of manual release (grubbing) over 3 to 6 years and resulted in vegetation recovery times of 4 to 10 years. In general, release statistically improved pine growth regardless of timing or duration, but delayed release was more costly.

Online: http://www.fs.fed.us/psw/publications/documents/psw_rp251/

FS law enforcement officer report

Order 21

Forest Service law enforcement officer report: nationwide study. Chavez, Deborah J.; Tynon, Joanne F. 2007. Res. Pap. PSW-RP-252. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 284 p.

This study is the first in a series of studies to evaluate perceptions of USDA Forest Service law enforcement personnel of the roles, responsibilities, and issues entailed in their jobs. An e-mail survey was administered to 404 law enforcement officers (LEOs) in national forests across the United States. In all, 294 surveys were completed and returned. In response to questions about the safety of forest visitors many respondents believed that forest visitors are safe from other visitors and are physically safe from site features.

Online: http://www.fs.fed.us/psw/publications/documents/psw_rp252/

FS special agent in charge report

Order 22

Forest Service special agent in charge report: nationwide study. Chavez, Deborah J.; Tynon, Joanne F. 2007. Res. Pap. PSW-RP-253. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 42 p.

This study is the second in a series of studies to evaluate perceptions of USDA Forest Service law enforcement personnel of the roles, responsibilities, and issues entailed in their jobs. An e-mail survey was administered to the nine Forest Service special agents in charge across the United States. All nine completed and returned the survey.

Online: http://www.fs.fed.us/psw/publications/documents/psw_rp253/

FS patrol captain and patrol commanders report

Order 23

Forest Service patrol captain and patrol commanders report: nationwide study. Chavez, Deborah J.; Tynon, Joanne F. 2007. Res. Pap. PSW-RP-254. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 38 p.

This is the third in a series of studies to evaluate perceptions of USDA Forest Service law enforcement personnel of the roles, responsibilities, and issues entailed in their jobs. An e-mail survey was administered to the 79 Forest Service patrol captains and patrol commanders (PCs) across the United States. Seventy completed and returned the questionnaire.

Online: www.fs.fed.us/psw/publications/documents/psw_rp254/

FS special agents report

Order 24

Forest Service special agents, assistant special agents in charge, senior special agents, and supervisory special agents report: nationwide study. Chavez, Deborah J.; Tynon, Joanne F. 2007. Res. Pap. PSW-RP-255. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. 43 p.

This is the fourth in a series of studies to evaluate perceptions of USDA Forest Service law enforcement personnel of the roles, responsibilities, and issues related to their jobs. An e-mail survey was administered to the 89 Forest Service special agents, assistant special agents in charge, senior special agents, and supervisory special agents (SAs) across the United States. Seventy completed and returned the questionnaire.

Online: http://www.fs.fed.us/psw/publications/documents/psw_rp255/

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Science Perspectives

Order 25

Repelling invaders: Hawaiian foresters use ecology to counter invasive species. Denslow, Julie; Johnson, Tracy; Cordell, Susan. 2008. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. Science Perspective. Spring 2008. 5 p.

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Saving the soil: lessons from the long-term soil productivity experiment. Powers, Robert F. 2007. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. Science Perspective. Summer 2007. 5 p.

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Tested by fire: the Cone Fire and the lessons of an accidental experiment. Skinner, Carl; Ritchie, Martin. 2007. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. Science Perspective. Spring 2007. 5 p.

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Restoring forest health: fire and thinning effects on mixed-conifer forests. North, Malcolm M. 2006. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. Science Perspective. Summer 2006. 5 p.

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Caspar Creek Experimental Watersheds: cumulative effects of forest practices on downstream resources. Lisle, Thomas E.; Harvey, Bret; Reid, Leslie; Keppeler, Elizabeth; Lewis, Jack; Eads, Rand; Hilton, Sue; Nakamoto, Rod; Viser, Deb. 2005. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. Science Perspective. Fall 2005. 5 p.

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Managing wildland fires: integrating weather models into fire projections. Fujioka, Francis. 2004. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. Science Perspective. Fall 2004. 5 p.

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High Sierra ecosystems: the role of fish stocking in amphibian declines. Matthews, Kathleen R. 2003. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. Science Perspective. Fall 2003. 5 p.

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Climate change: detecting climate's imprint on California forests. Millar, Constance I. 2003. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Research Station. Science Perspective. Spring 2003. 5 p.

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