

Ecological impacts of fire trails on plant assemblages in edge habitat adjacent to trails

www.nrfirescience.org/resource/16333

Fire trails provide access into vegetation for controlled burns in fire-prone regions of the world. We examined the ecological impacts of fire trails on plant assemblages in edge habitat adjacent to trails in eucalypt woodlands of World Heritage Blue Mountains National Park, southeastern Australia. We found that understory plant...

Author(s): Daniel W. Krix, Matthew C. Hingee, Leigh J. Martin, Megan L. Phillips, Brad R. Murray

Year Published: 2017

Type: Document

Book or Chapter or Journal Article

Effects of wildfire on the value of recreation in western North America

www.nrfirescience.org/resource/15023

Wildfires play an integral role in forest ecosystems of western North America. In an attempt to measure the level and value of ecosystem damage caused by wildfires, papers employing nonmarket valuation techniques-stated preference, revealed preference, and combined methods-are reviewed. A systematic review of results shows a portion...

Author(s): Ranjit S. Bawa

Year Published: 2017

Type: Document

Book or Chapter or Journal Article

The rising cost of wildfire operations: effects on the Forest Service's non-fire work

www.nrfirescience.org/resource/13425

Over 100 years ago, President Theodore Roosevelt established the U.S. Forest Service to manage America's 193-million acre national forests and grasslands for the benefit of all Americans. Today, that mission is being consumed by the ever-increasing costs of fighting fires. This report documents the growth over the past 20 years of...

Author(s): United States Department of Agriculture

Year Published: 2015

Type: Document

Technical Report or White Paper

The ecological importance of severe fire - Site visits to Lolo Creek and Blue Mountain burned areas

www.nrfirescience.org/resource/12652

Dr. Dick Hutto, professor of Organismal Biology and Ecology at the University of Montana, took participants of the May 2014 Large Wildland Fires Conference to recently burned sites to discuss fire effects. Hutto was enthused and excited about "the magical biology" occurring on recently burned sites. Magical biology includes...

Author(s): Corey L. Gucker

Year Published: 2014

Type: Document

Research Brief or Fact Sheet

Appendix 1: Regional summaries - Great Plains

www.nrfirescience.org/resource/11902

Natural vegetation of the Great Plains is primarily grassland and shrubland ecosystems with trees occurring in scattered areas along streams and rivers, on planted woodlots, as isolated forests such as the Black Hills of South Dakota, and near the biogeographic contact with Rocky Mountains and eastern deciduous forests. Trees are...

Author(s): Linda A. Joyce
Year Published: 2013
Type: Document
Synthesis, Technical Report or White Paper

Effects of wildfire on national park visitation and the regional economy: a natural experiment in the Northern Rockies

www.nrfirescience.org/resource/12040

Federal wildland fire management policy in the United States directs the use of value-based methods to guide priorities. However, the economic literature on the effect of wildland fire on nonmarket uses, such as recreation, is limited. This paper introduces a new approach to measuring the effect of wildfire on recreational use by...

Author(s): John W. Duffield, Chris J. Neher, David A. Patterson, Aaron M. Deskins
Year Published: 2013
Type: Document
Book or Chapter or Journal Article

Integrating fuel treatment into ecosystem management: a proposed project planning process

www.nrfirescience.org/resource/8206

Concern over increased wildland fire threats on public lands throughout the western United States makes fuel reduction activities the primary driver of many management projects. This single-issue focus recalls a management planning process practiced frequently in recent decades - a least-harm approach where the primary objective is...

Author(s): Keith Stockmann, Kevin D. Hyde, J. Greg Jones, Dan R. Loeffler, Robin P. Silverstein
Year Published: 2010
Type: Document
Book or Chapter or Journal Article, Management or Planning Document

Mapping tradeoffs in values at risk at the interface between wilderness and non-wilderness lands

www.nrfirescience.org/resource/11063

On the Flathead Indian Reservation in Montana, U.S., the Mission Mountains Tribal Wilderness is bordered by a buffer zone. To successfully improve forest health within that buffer zone and restore fire in the wilderness, the managing agency and the public need to work together to find solutions to increasingly threatening fuel...

Author(s): Alan E. Watson, Roian Matt, Tim Waters, Kari Gunderson, Stephen J. Carver, Brett Davis
Year Published: 2009
Type: Document
Conference Proceedings

Recreation visitor attitudes towards management-ignited prescribed fires in the Bob Marshall Wilderness Complex, Montana

www.nrfirescience.org/resource/16051

Research at the Bob Marshall Wilderness Complex in Montana explored differences in recreation visitors' attitudes towards the use of management-ignited prescribed fires in the wilderness. A mail-back survey of visitors (n = 291) during the 2004 season revealed that over half of visitors would accept prescribed fires in wilderness...

Author(s): Katie Knotek, Alan E. Watson, William T. Borrie, Joshua G. Whitmore, David Turner
Year Published: 2008
Type: Document
Book or Chapter or Journal Article

The roles of natural and human disturbances in forest soil erosion

www.nrfirescience.org/resource/8170

Forests provide numerous benefits for society, including fibre, wildlife and recreation. Forest managers are challenged to balance ecosystem health with maintaining public forest lands for multiple uses. During the first half of the last century, public forest management emphasized the harvesting of forest resources. In recent years...

Author(s): William J. Elliot

Year Published: 2006

Type: Document

Book or Chapter or Journal Article

Five-year operational trial of verbenone to deter mountain pine beetle (*Dendroctonus ponderosae*; Coleoptera: Scolytidae) attack of lodgepole pine (*Pinus contorta*)

www.nrfirescience.org/resource/11410

The antiaggregation pheromone verbenone was operationally tested for 5 yr to deter mass attack by the mountain pine beetle on lodgepole pine in campgrounds and administrative areas surrounding Redfish and Little Redfish Lakes at the Sawtooth National Recreation Area in central Idaho. Each year, five-gram verbenone pouches were...

Author(s): Robert Progar

Year Published: 2005

Type: Document

Book or Chapter or Journal Article

Red Lodge, Montana: steps to improve community preparedness for wildfire

www.nrfirescience.org/resource/11104

This is a government publication outlining the steps to wildfire preparedness in Red Lodge, MT. The key features include homeowners' associations, which lead in fuel reduction around properties; USFS recreation residences, which conduct fuel reduction projects; evacuation plans and fuel breaks; regulations; and relationships, which...

Author(s): Victoria Sturtevant, Linda E. Kruger

Year Published: 2004

Type: Document

Research Brief or Fact Sheet

The effects of fire on hiking demand: a travel cost study of Colorado and Montana

www.nrfirescience.org/resource/10968

Surveys were conducted on 33 sites within National Forests in Colorado and Montana to test how forest fires affected recreation demand in the two states. Data were collected on the actual number of visits and on the intended number of visits if the area had been subject to a recent high intensity crown fire, a recent prescribed fire...

Author(s): Hayley Hessel, John B. Loomis, Armando Gonzalez-Caban

Year Published: 2003

Type: Document

Conference Proceedings

The dynamic path of recreational values following a forest fire: a comparative analysis of states in the Intermountain West

www.nrfirescience.org/resource/7924

This analysis examines the dynamic path of recreational values following a forest fire in three different

states in the intermountain western United States. The travel cost demand analysis found that annual recreation values after a fire follow a highly nonlinear intertemporal path. The path is S-shaped, providing a range of...

Author(s): Jeffrey Englin, John B. Loomis, Armando Gonzalez-Caban

Year Published: 2001

Type: Document

Book or Chapter or Journal Article

Testing transferability of forest recreation demand in three intermountain states with application to forest fire effects

www.nrfirescience.org/resource/11052

Surveys of visitors to National Forests in Colorado, Idaho, and Wyoming were conducted to determine whether non-motorized recreation visitation responded to different fire ages and fire intensities. Actual and intended behavior data was combined using a negative binomial count data travel cost model. The intended behavior trip...

Author(s): John B. Loomis, Jeffrey Englin, Jared McDonald, Armando Gonzalez-Caban

Year Published: 2000

Type: Document

Conference Proceedings

Fire and invasive species within the temperate and boreal coniferous forests of western North America

www.nrfirescience.org/resource/10966

Invasive, nonnative plant species have been a concern of land managers within the temperate and boreal coniferous forest eco-region for nearly a century. Fire management, timber harvest, grazing, mining, recreation, and agriculture have not only exacerbated invasive species establishment and spread, but have been impacted by such...

Author(s): Richy J. Harrod, Sarah Reichard

Year Published: 2000

Type: Document

Conference Proceedings, Synthesis

Effects of fire on the economic value of forest recreation in the Intermountain West: preliminary results

www.nrfirescience.org/resource/11051

Visitors to National Forests in Colorado, Idaho, and Wyoming were asked how their visitation rates would change with the presence of a high-intensity crown fire, prescribed fire, and a 20-year-old high-intensity fire at the area they were visiting. By using pairwise t-tests, visitors to forests in Colorado showed a statistically...

Author(s): John B. Loomis, Jeffrey Englin, Armando Gonzalez-Caban

Year Published: 1999

Type: Document

Conference Proceedings, Technical Report or White Paper

Restoring recreational and residential forests

www.nrfirescience.org/resource/11249

Several decades of fire suppression following logging around the turn-of-the-century has produced dense, evenage stands of ponderosa pine (*Pinus ponderosa*) and Douglas-fir (*Pseudotsuga menziesii*). They contrast with the original forests where frequent, low-intensity fires gave rise to open, parklike, and often uneven-age stands of...

Author(s): Joe H. Scott

Year Published: 1996
Type: Document
Technical Report or White Paper

Effects of the Gates Park Fire on recreation choices

www.nrfirescience.org/resource/11094

The 1988 Gates Park Fire, along the North Fork of the Sun River in the Bob Marshall Wilderness, provided an opportunity to explore fire effects on wilderness visitor choices. Recreation visitors along the North and South Fork drainages were interviewed to assess the effects of 1988 fires on their 1989 visits. The Gates Park fire had...

Author(s): Timothy G. Love, Alan E. Watson

Year Published: 1992

Type: Document

Research Brief or Fact Sheet

Changes in recreation values after fire in the Northern Rocky Mountains

www.nrfirescience.org/resource/11111

Changes in recreation values after wildfire in the northern Rocky Mountains were determined by estimating the difference in the present net value of recreation activity with and without fire. To estimate the value of recreation activity at burned and unburned sites, a contingent market valuation approach was used. Hypothetical...

Author(s): Patrick J. Flowers, Henry J. Vaux, Philip D. Gardner, Thomas J. Mills

Year Published: 1985

Type: Document

Research Brief or Fact Sheet

Regional socio-economic vulnerability assessment

www.nrfirescience.org/resource/13761

Understanding differences in social vulnerability across a region can help public land management agencies assess potential tradeoffs associated with managing natural resources in the face of climate change. Regional social vulnerability assessments can also inform the development of policies and programs that aim to assist...

Type: Media

Webinar

Evaluation of cultural ecosystem services using social media data

www.nrfirescience.org/resource/15234

Social media provides unique opportunities to understand how people experience their environments. We're using the Yahoo Flickr Creative Commons (YFCC) 100M dataset, which contains the metadata for 100 million Flickr images, to understand not only where people enjoy the environment, but why. We're using qualitative data analysis...

Type: Media

Webinar

Climate change adaptation, from concept to standard practice

www.nrfirescience.org/resource/14384

The U.S. Forest Service is working with other federal agencies and stakeholders to develop climate change vulnerability assessments and adaptation strategies for national forests and adjacent lands in the western United States. Teams of research scientists and resource managers are working across large biogeographic landscapes to (1...

Type: Media

Webinar