

Participatory geographic information systems as an organizational platform for the integration of traditional and scientific knowledge in contemporary fire and fuels management

www.nrfirescience.org/resource/15030

Traditional knowledge about fire and its effects held by indigenous people, who are connected to specific landscapes, holds promise for informing contemporary fire and fuels management strategies and augmenting knowledge and information derived from western science. In practice, however, inadequate means to organize and communicate...

Author(s): Brooke Baldauf McBride, Fernando Sanchez-Trigueros, Stephen J. Carver, Alan E. Watson, Roian Matt, William T. Borrie, Linda Moon Stumpff

Year Published: 2017

Type: Document

Book or Chapter or Journal Article

Returning fire to the land - Celebrating traditional knowledge and fire

www.nrfirescience.org/resource/15224

North American tribes have traditional knowledge about fire effects on ecosystems, habitats, and resources. For millennia, tribes have used fire to promote valued resources. Sharing our collective understanding of fire, derived from traditional and western knowledge systems, can benefit landscapes and people. We organized two...

Author(s): Frank K. Lake, Vita Wright, Penelope Morgan, Mary E. McFadzen, Dave McWethy, Camille Stevens-Rumann

Year Published: 2017

Type: Document

Book or Chapter or Journal Article

Opportunities to utilize traditional phenological knowledge to support adaptive management of social-ecological systems vulnerable to changes in climate and fire regimes

www.nrfirescience.org/resource/13956

The field of adaptive management has been embraced by researchers and managers in the United States as an approach to improve natural resource stewardship in the face of uncertainty and complex environmental problems. Integrating multiple knowledge sources and feedback mechanisms is an important step in this approach. Our objective...

Author(s): Christopher A. Armatas, Tyron J. Venn, Brooke Baldauf McBride, Alan E. Watson, Stephen J. Carver

Year Published: 2016

Type: Document

Book or Chapter or Journal Article, Synthesis

Climate change and indigenous peoples: a synthesis of current impacts and experiences

www.nrfirescience.org/resource/14756

A growing body of literature examines the vulnerability, risk, resilience, and adaptation of indigenous peoples to climate change. This synthesis of literature brings together research pertaining to the impacts of climate change on sovereignty, culture, health, and economies that are currently being experienced by Alaska Native and...

Author(s): Kathryn Norton-Smith, Kathy Lynn, Karletta Chief, Karen Cozzetto, Jamie Donatuto, Margaret Hiza Redsteer, Linda E. Kruger, Julie Maldonado, Carson Viles, Kyle P. Whyte

Year Published: 2016

Type: Document

Synthesis, Technical Report or White Paper

Forest site classification for cultural plant harvest by tribal weavers can inform management

www.nrfirescience.org/resource/13813

Do qualitative classifications of ecological conditions for harvesting culturally important forest plants correspond to quantitative differences among sites? To address this question, we blended scientific methods (SEK) and traditional ecological knowledge (TEK) to identify conditions on sites considered good, marginal, or poor for...

Author(s): Susan S. Hummel, Frank K. Lake

Year Published: 2015

Type: Document

Book or Chapter or Journal Article

Social science research on Indigenous wildfire management in the 21st century and future research needs

www.nrfirescience.org/resource/12910

This article reviews social science research on Indigenous wildfire management in Australia, Canada and the United States after the year 2000 and explores future research needs in the field. In these three countries, social science research exploring contemporary Indigenous wildfire management has been limited although there have...

Author(s): Amy Christianson

Year Published: 2015

Type: Document

Book or Chapter or Journal Article, Synthesis

Fire and tribal cultural resources

www.nrfirescience.org/resource/13815

Native American tribes regard plants that have evolved with frequent fire and other natural resources as living cultural resources that provide, water, food, medicines, and other material goods while also sustaining tribal cultural traditions. Collaborations between management agencies and tribes and other Native American groups can...

Author(s): Frank K. Lake, Jonathan Long

Year Published: 2014

Type: Document

Book or Chapter or Journal Article

Traditional ecological knowledge: a model for modern fire management?

www.nrfirescience.org/resource/13810

For many thousands of years, aboriginal peoples worldwide used fire to manage landscapes. In North America, the frequency and extent of fire (both human caused and natural) were much reduced after European colonization. Fire exclusion became the policy in the United States for most of the 20th century as the country became more...

Author(s): Gail Wells

Year Published: 2014

Type: Document

Research Brief or Fact Sheet

The many elements of traditional fire knowledge: synthesis, classification, and aids to cross-cultural problem solving in fire-dependent systems around the world

www.nrfirescience.org/resource/12537

I examined the hypothesis that traditional social-ecological fire systems around the world include common elements of traditional fire knowledge (TFK). I defined TFK as fire-related knowledge, beliefs, and practices that have been developed and applied on specific landscapes for specific purposes by long time inhabitants. In all, 69...

Author(s): Mary R. Huffman
Year Published: 2013
Type: Document
Book or Chapter or Journal Article, Synthesis

Aboriginal precedent for active management of sagebrush-perennial grass communities in the Great Basin

www.nrfirescience.org/resource/12146

Until recently, most contemporary ecologists have ignored or diminished anecdotal historical accounts and anthropologists' reports about aboriginal fire in the Great Basin. Literature review shows that Indians practiced regular use of fire for many purposes, including the obvious reasons of increasing the availability of desired...

Author(s): Kent J. McAdoo, Brad W. Schultz, Sherman R. Swanson
Year Published: 2013
Type: Document
Book or Chapter or Journal Article, Synthesis

Historical and cultural fires, tribal management and research issue in Northern California: trails, fires and tribulations

www.nrfirescience.org/resource/12539

Indigenous people's detailed traditional knowledge about fire, although superficially referenced in various writings, has not for the most part been analyzed in detail or simulated by resource managers, wildlife biologists, and ecologists. . . . Instead, scientists have developed the principles and theories of fire ecology, fire...

Author(s): Frank K. Lake
Year Published: 2013
Type: Document
Book or Chapter or Journal Article, Synthesis

Listening and learning from traditional knowledge and western science: a dialogue on contemporary challenges of forest health and wildfire

www.nrfirescience.org/resource/8329

Native Americans relied on fire to maintain a cultural landscape that sustained their lifeways for thousands of years. Within the past 100 years, however, policies of fire exclusion have disrupted ecological processes, elevating risk of wildfire, insects, and disease, affecting the health and availability of resources on which the...

Author(s): Larry Mason, Germaine White, Gary Morishima, Ernesto Alvarado, Louise Andrew, Fred Clark, Mike Durglo, Jim Durglo, Margaret Friedlander, Kathy Hamel, Colin C. Hardy, Tony Harwood, Faline Haven, Everett Isaac, Laurel James, Robert Kenning, Adrian Leighton, Pat Pierre, Carol Raish, Bodie Shaw, Steven Smallsalmon, Vernon Stearns, Howard Teasley, Matt Weingart, Spus Wilder
Year Published: 2012
Type: Document
Book or Chapter or Journal Article

National to local: a pre & post assessment of the Fuel Characteristic Classification System (FCCS) landscape variables for the Confederated Salish and Kootenai Tribes

www.nrfirescience.org/resource/13486

A modified Fuel Characteristic and Classification System (FCCS) fuelbed was created for the Confederated Salish & Kootenai Tribes (CSKT) of Montana. This crosswalk of data combined two principal sources of data: (1) locally the Bureau of Indian Affairs (BIA) Continuous Forest Inventory Data (CFI) and (2) nationally the US Forest...

Author(s): Laurel L. James
Year Published: 2012
Type: Document
Dissertation or Thesis

Wildland fire in ecosystems: effects of fire on cultural resources and archaeology

www.nrfirescience.org/resource/141

This state-of-knowledge review provides a synthesis of the effects of fire on cultural resources, which can be used by fire managers, cultural resource (CR) specialists, and archaeologists to more effectively manage wildland vegetation, fuels, and fire. The goal of the volume is twofold: (1) to provide cultural resource/...

Year Published: 2012
Type: Document
Synthesis, Technical Report or White Paper

Living artifacts: the ancient ponderosa pines of the West

www.nrfirescience.org/resource/8160

Until late in the nineteenth century, magnificent ponderosa pine forests blanketed much of the inland West. They covered perhaps 30 million acres, an area the size of New York state, spreading across the mountains of New Mexico, Arizona, and California and flourishing throughout the eastern Cascades, the intermountain Pacific...

Author(s): Stephen F. Arno, Lars Ostlund, Robert E. Keane
Year Published: 2008
Type: Document
Book or Chapter or Journal Article

Traditional ecological knowledge: applying principles of sustainability to wilderness resource management

www.nrfirescience.org/resource/12545

Traditional ecological knowledge within specific cultural and geographical contexts was explored during an interactive session at the 8th World Wilderness Congress to identify traditional principles of sustainability. Participants analyzed the traditional knowledge contained in ten posters from Canada and...

Author(s): Nancy C. Ratner, Davin L. Holen
Year Published: 2007
Type: Document
Conference Proceedings

Culturally scarred trees in the Bob Marshall Wilderness, Montana, USA- interpreting Native American historical forest use in a wilderness area

www.nrfirescience.org/resource/7966

Wilderness areas are primarily set aside to protect natural ecosystems and processes. However, most protected areas have a long history of native peoples' land use predating their protection. The general paucity of evidence in the form of historical records, in combination with romantic views of native peoples' effects on nature,...

Author(s): Lars Ostlund, Robert E. Keane, Stephen F. Arno, R. Andersson
Year Published: 2005
Type: Document
Book or Chapter or Journal Article

Native burning in western North America: implications for hardwood forest management

www.nrfirescience.org/resource/11062

It is now widely acknowledged that frequent low-intensity fires once structured many western forests. What is not generally recognized, however, is that most of those fires were purposefully set by native people, not started by lightning. Data from the Rocky Mountains attest to the widespread use of fire by native people, as does...

Author(s): Charles E. Kay

Year Published: 2000

Type: Document

Conference Proceedings, Technical Report or White Paper

Fire regimes on andesitic mountain terrain in northeastern Yellowstone National Park, Wyoming

www.nrfirescience.org/resource/8196

A fire history investigation was conducted for three forest community types in the Absaroka Mountains of Yellowstone National Park, Wyoming. Master fire chronologies were based on fire-initiated age classes and tree fire scars. The area's major forest type, lodgepole pine (*Pinus contorta* Dougl. var. *latifolia*) ecosystems, revealed a...

Author(s): Stephen W. Barrett

Year Published: 1994

Type: Document

Book or Chapter or Journal Article

Indian fires as an ecological influence in the Northern Rockies

www.nrfirescience.org/resource/7910

The importance of fire as an ecological disturbance in the Northern Rockies is well accepted. Lightning is generally thought to have been the main source of ignition prior to settlement by Europeans. But writings of explorers and pioneers mention deliberate burning by Indians frequently enough to warrant an investigation of its...

Author(s): Stephen W. Barrett, Stephen F. Arno

Year Published: 1982

Type: Document

Book or Chapter or Journal Article

Indian fires in the pre-settlement forests of western Montana

www.nrfirescience.org/resource/12043

Presents preliminary results of a two-year study examining the pattern of Indian fires in western Montana's lower elevation forests. Interviews and historic journals were used to reconstruct the characteristics of aboriginal burning. Fire scar data from paired stands indicate substantial differences in fire frequency between Indian...

Author(s): Stephen W. Berrett

Year Published: 1980

Type: Document

Conference Proceedings, Technical Report or White Paper

Indigenous fire knowledge and traditional fire systems around the world

www.nrfirescience.org/resource/14149

In this presentation, Mary Huffman (The Nature Conservancy, Fire Learning Network) shares the results of her comparison of indigenous fire knowledge from 25 countries on six continents. She starts with the question, what do people around the world know about fire, and examines the traditional fire knowledge of people who have been...

Type: Media

Webinar

Culturally peeled trees handbook

www.nrfirescience.org/resource/12391

This guide was developed to help identify Culturally Peeled Trees. Culturally Peeled Trees are a specific type of Culturally Modified Tree. The term is used to describe the mostly pre-reservation practice by aboriginal or native people of 'peeling,' or removing, the bark/cambium layer of a tree for a variety of procurement and...

Author(s): Marcy Reiser, Laurie S. Huckaby

Type: Document

Research Brief or Fact Sheet

The creator's gift of fire: traditional knowledge, responsibility, and world renewal

www.nrfirescience.org/resource/13812

Returning Fire to the Land -- Celebrating Traditional Knowledge and Fire Workshop, Nov 7-9, 2012 - Pablo, Montana. Workshop keynote presentation by Frank Lake, USFS - PSW Research Station and Bill Tripp, Karuk Tribe

Type: Media

Video

Catching fire: prescribed burning in Northern California

www.nrfirescience.org/resource/205

Catching Fire tells a compelling story of how a small but committed group of local, tribal, state and federal land managers are bringing back the use of prescribed fire as a tool to protect communities and ecosystems across Northern California. It examines the use of fire by the Karuk Tribe of California, and the connection between...

Type: Media

Video

Braids of truth - Part 2: climate change

www.nrfirescience.org/resource/14446

Part 2 of 3. Elders, scientists and cultural leaders discuss the effects of climate change on the earth, culture and peoples and the differences between western science and traditional ecological principles.

Type: Media

Video

Braids of truth - An introduction

www.nrfirescience.org/resource/14444

A short introduction to the 3-part series "Braids of Truth" an exploration of Traditional Ecological Knowledge, Climate Change and Collaboration Challenges.

Type: Media

Video

Incorporating tribal traditional knowledge and community values into wildland fire management

www.nrfirescience.org/resource/13816

This presentation provides background information on existing federal agency fire planning and management activities. Additionally, it discusses opportunities for how tribes and communities can coordinate with fire managers to identify values at risk and recommend mitigation actions or other treatments to reduce non-desired impacts...

Type: Media

Webinar

Learning from our ancestors: combining ancient knowledge systems and modern science to achieve restoration

www.nrfirescience.org/resource/13236

The webinar describes traditional ecological knowledge and invaluable contributions of Native wisdom to ecological restoration. Specific case studies are presented where traditional ecological knowledge is incorporated into wildlife management plans and fire and fuel management.

Type: Media

Webinar

Braids of truth - Part 3: collaboration challenges

www.nrfirescience.org/resource/14447

Part 3 of 3. How can agencies, institutions and tribal cultures communicate about issues that relate to ecology and lifeways when the terms can mean different things? Is it learning how to talk or how to listen?

Type: Media

Video

Braids of truth - Part 1: fire and forest management

www.nrfirescience.org/resource/14445

Part 1 of a 3 part series. Elders and forest professionals discuss the traditional and contemporary uses of fire and challenges to forest management practices.

Type: Media

Video