

# Catalogue of Existing Information: A Companion to the Playbook to Guide Landscape Recovery Strategies & Priorities for Salmon Habitat Following Major Wildfires



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**PACIFIC SALMON  
FOUNDATION**

## EXECUTIVE SUMMARY

Wildfire size and the annual area burned have been increasing to unprecedented levels in recent years, across much of western North America, including British Columbia. The recent increases in annual area burned in British Columbia have been attributed, in part, to landscape-management practices that have increased standing fuel loads on the landscape. On a larger scale, the current occurrences of uncharacteristically large wildfires have been associated with warming and drying climate trends, which have been attributed climate change.

British Columbia did not have a strategic approach, or “Playbook,” to guide responses that aim to manage and restore fish populations and habitats affected by major wildfires. The Pacific Salmon Foundation, with funding provided by the British Columbia Salmon Restoration and Innovation Fund, has developed the first edition of the *Playbook to Guide Landscape Recovery Strategies & Priorities for Salmon Habitat Following Major Wildfires* (the Playbook). The Playbook was designed to be a comprehensive, real-world guidance tool. The purpose of the Playbook is to coordinate multiparty actions that can mitigate the impacts of major wildfires on fish and fish habitat. The Playbook specifically focuses on the five Pacific salmon species<sup>1</sup>, steelhead trout (*Oncorhynchus mykiss*), and supporting components of the food web.

To inform the scope and content of the Playbook, a search was undertaken for documentation relating to wildfire impacts on the following:

- fish and fish habitat;
- specific salmon life stage and populations that are put at risk by wildfires;
- watershed processes
- wildfire impacts to watersheds and salmon habitat
- watershed recovery methods that have the potential to be adapted to post-wildfire conditions;
- relevant legislation (Acts and Regulations);
- support tools;
- biophysical information and models that can be used to assess the wildfire risks to watersheds, salmon and salmon habitat; and,
- multiparty responses (e.g., government-to-government) to major wildfires.

Over 450 documents and media resources relevant to the scope and objectives of the Playbook were found and reviewed.

This *Catalogue of Existing Information* is a compilation of these published materials and includes a keyword index (subject phrases in most cases). The index includes hyperlinks to navigate throughout the document from source document to keyword or from keyword to source documents). The title field in each source annotation includes a direct hyperlink to the source

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<sup>1</sup> The five Pacific salmon species are: Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), sockeye salmon (*Oncorhynchus nerka*), pink salmon (*Oncorhynchus gorbuscha*) and chum salmon (*Oncorhynchus keta*). The Playbook also considered steelhead trout (*Oncorhynchus mykiss*).

document or media resource. In almost all cases, the hyperlink for legislation and regulations, support tools and models, videos, presentations and conference proceedings will take readers to the full original source. For open-access journal articles, the hyperlink will take readers to the complete downloadable document. For subscription-only journal articles, the hyperlink will direct readers to publisher websites that provide free access to abstracts with an option to purchase the entire article.

## ACKNOWLEDGEMENTS

The project's dedicated, thoughtful and experienced Working Group members provided guidance regarding the content and structure of the *Playbook to Guide Landscape Recovery Strategies & Priorities for Salmon Habitat Following Major Wildfires* and the *Catalogue of Existing Information*. Jeff Morgan chaired the Working Group and worked closely with EDI throughout the project.

Tanya Guenther, Cherie Frick and Todd French from EDI Environmental Dynamics Inc. (EDI) developed the structure, function and content of this Catalogue and worked tirelessly to incorporate new reference additions to it throughout the duration of the project. This catalogue includes those references provided in the Playbook and it also includes many more important references that were encountered *en route* to the finalization of the Playbook project.

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The project to develop the *Playbook to Guide Landscape Recovery Strategies & Priorities for Salmon Habitat Following Major Wildfires* project, including the *Catalogue of Existing Information*, was funded by a British Columbia Salmon Restoration and Innovation Fund (BC SRIF) grant to the Pacific Salmon Foundation (PSF).

## THE PROJECT TEAM

Jeff Morgan and Jason Hwang of the Pacific Salmon Foundation developed the vision for *Playbook to Guide Landscape Recovery Strategies & Priorities for Salmon Habitat Following Major Wildfires*, including the *Catalogue of Existing Information*. Both provided advice as the product was developed and a senior-level review of draft versions of this document. Jeff also acted as a contributor, providing important additional references for this Catalogue.

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## ACRONYMS AND ABBREVIATIONS

Acronym/abbreviation	Definition
BAER	burned area emergency response
BC	British Columbia
BC MoE	British Columbia Ministry of Environment
BC MoECCS	British Columbia Ministry of Environment and Climate Change Strategy
BC MoF	British Columbia Ministry of Forests
BC MoFLNRORD	British Columbia Ministry of Forests, Lands, Natural Resources Operations, and Rural Development
BMP	best management practice
CCA	Canadian Construction Association
COSEWIC	Committee on the Status of Endangered Wildlife in Canada
DFO	Fisheries and Oceans Canada
EDI	EDI Environmental Dynamics Inc.
ECCC	Environment and Climate Change Canada
FPB	Forest Practices Board of British Columbia
GIS	Geographic Information System
G2G	government-to-government
Gov. BC	Government of British Columbia
Gov. Canada	Government of Canada
HBV-EC	Hydrologiska Bryåns Vattenbatansavdelning–Environment Canada
IRMP	integrated resource management and planning
LAT	Landscape Analysis Tool
NOAA	National Oceanic and Atmospheric Administration

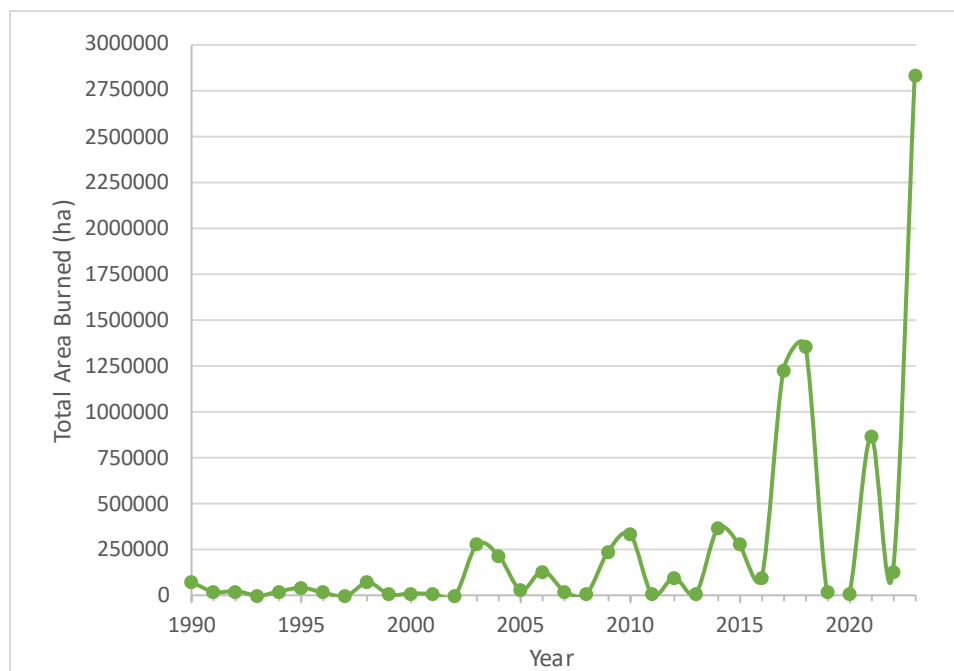
Acronym/abbreviation	Definition
PAH	polycyclic aromatic hydrocarbon
Playbook	<i>Playbook to Guide Landscape Recovery Strategies &amp; Priorities for Salmon Habitat Following Major Wildfires</i>
PSF	Pacific Salmon Foundation
SARA	<i>Species at Risk Act</i>
TOPMODEL	Topography Based Hydrological Model
SWAT	Soil & Water Assessment Tool
UNDRIP	<i>United Nations Declaration on the Rights of Indigenous Peoples Act</i>
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WEPP	Watershed Erosion Prediction Project Model



# 1 BACKGROUND

Wildfire size and the annual area burned have been increasing, to unprecedented levels in recent years, across western North America including British Columbia (BC). Between 1990 and 2001, BC wildfires burned an average of 30,000 hectares per year. In the 2017 and 2018 wildfire seasons records were set when 1.2 million hectares and 1.4 million hectares, respectively, were burned. The total area burned in 2021 again approached those figures and the fires of 2023 shattered all records as the total area burned exceeded 2.8 million hectares (Figure 1). At 619,000 hectares, the 2023 Donnie Creek wildfire is the largest wildfire on record for BC and while this wildfire did not involve salmon-bearing watersheds, other wildfires of the same magnitude have occurred in the Columbia, Fraser, Stikine and Liard River and Basins. The duration of the wildfire season in BC has also increased in conjunction with the increase in total area burned.

The uncharacteristically large wildfires that occurred in BC between 2017 and 2023 showed distinct geographic clusters. Many of these wildfires occurred in upper and middle Fraser River subbasins, which include critical spawning and rearing areas for Pacific salmon<sup>2</sup> and year-round habitat for many other socially and economically important salmonids (Figure 2).



<sup>2</sup> The five Pacific salmon species are: Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), sockeye salmon (*Oncorhynchus nerka*), pink salmon (*Oncorhynchus gorbuscha*) and chum salmon (*Oncorhynchus keta*).

Figure 1. Total area burned in BC between 1990 and 2023.

Data are primarily from the [National Forestry Database](#), with data for 2022 and 2023 from the [BC Wildfire Service](#).

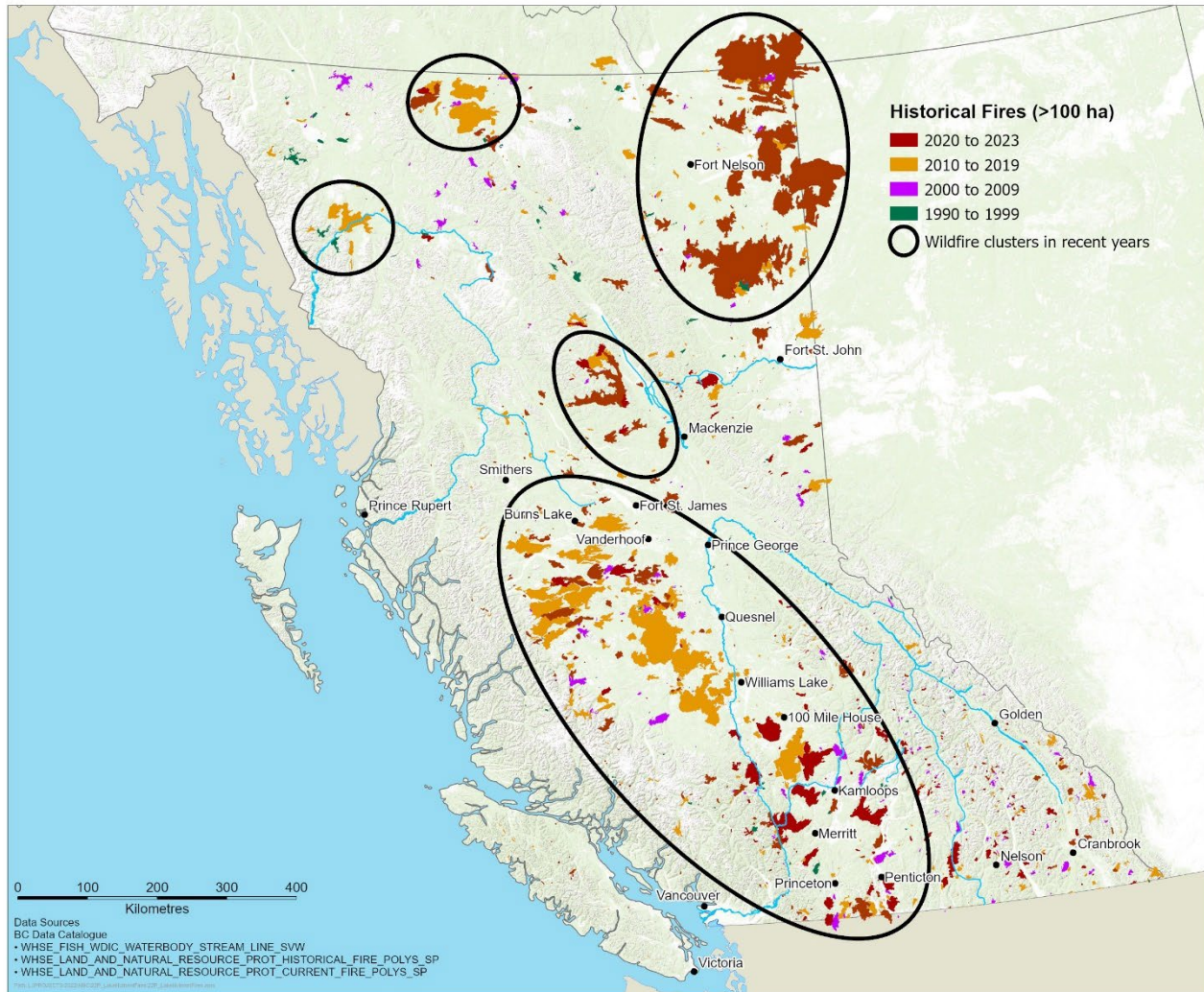


Figure 2. Distribution of BC wildfires >100 ha during the period 1990 to 2023.

Note: Data are from WHSE\_FISH\_WDIC\_WATERBODY\_STREAM\_LINE\_SVW and  
WHSE\_LAND\_AND\_NATURAL\_RESOURCE\_PROT\_HISTORICAL\_FIRE\_POLYS\_SP.

The recent increases in annual area burned in BC have been attributed, in part, to landscape-management practices that have increased standing fuel loads on the landscape and reduced the age and species diversity of forest stands<sup>3</sup>. However, it is believed that climate change is the primary driver of recent wildfire trends in BC, with climate change being a function of the buildup of anthropogenic greenhouse gases in the atmosphere. Wildfire-climate models predict that the occurrence of large fires will continue to increase, even with wildfire suppression efforts, if climate change forecasts are realized.

With the increasing wildfire trend across western North America, a surge in research has occurred to improve our understanding of the impacts of major wildfires on watershed processes (e.g., soils succession, hydrology, erosion and soils/sediment transport and delivery), water and sediment quality, fish and fish habitat, and communities, including First Nations peoples who have relied on fish for sustenance and other values for millennia. Literature suggests the impacts major wildfires can have on salmon habitat are linked, fundamentally, to the ways in which wildfires affect the properties including (but not limited to) impacts to soils, watershed hydrology and riparian function.

Responses to the aftermath of major wildfires are usually geared toward managing the health and safety of people and protecting livestock and agricultural lands, industrial, public and domestic infrastructure, and timber supplies. British Columbia has lacked a strategic approach, or “Playbook,” to guide responses that aim to manage and restore fish and habitats affected by major wildfires. The Pacific Salmon Foundation (PSF), with funding provided by the British Columbia Salmon Restoration and Innovation Fund (BC SRIF), has developed the first edition of the *Playbook to Guide Landscape Recovery Strategies & Priorities for Salmon Habitat Following*

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<sup>3</sup> see (and references within)

- Blanco, J.A. et al. 2015. **Fire in the woods or fire in the broiler: implementing rural district heating to reduce wildfire risks in the forest-urban interface.** *Process Safety and Environmental Protection* 96:1–13
- Brookes, W. et al. 2021. **A disrupted historical fire regime in central British Columbia.** *Frontiers in Ecology and Evolution* 9: Article 676961, doi: 10.3389/fevo.2021.676961. 14 pp.
- Copes-Gerbitz, K. 2022. **Transforming fire governance in British Columbia, Canada: an emerging vision for coexisting with fire.** *Regional Environmental Change* 22:48. 15 pp.
- Halofsky, J.E. et al. 2020. **Changing wildfire, changing forests: the effects of climate change on fire regimes and vegetation in the Pacific Northwest, USA.** *Fire Ecology* 16:4. 26 pp.
- Klenner, W. et al. 2008. **Dry forests in the southern interior of British Columbia: historic disturbances and implications for restoration and management.** *Forest Ecology and Management* 256:1711–1722.
- Ohlson, D.W. et al. 2006. **Multi-attribute evaluation of landscape-level fuel management to reduce wildfire risk.** *Forest Policy and Economics* 8:824–837.
- Stevens-Rumann, C.S. et al. 2016. **Prior wildfires influence burn severity of subsequent large fires.** *Canadian Journal of Forest Research* 46:1375–1385.

*Major Wildfires* (the Playbook). The Playbook was designed to be a comprehensive, real-world guidance tool. The purpose of the Playbook is to coordinate multiparty actions that can mitigate the impacts of major wildfires on fish and fish habitat. The Playbook specifically focuses on the five Pacific salmon species and supporting components of the food web: Chinook salmon (*Oncorhynchus tshawytscha*), coho salmon (*Oncorhynchus kisutch*), sockeye salmon (*Oncorhynchus nerka*), pink salmon (*Oncorhynchus gorbuscha*) and chum salmon (*Oncorhynchus keta*). The document also addresses steelhead (*Oncorhynchus mykiss*), which is a large, ocean-going trout with freshwater habitats that extend from coastal watersheds into BC's interior watersheds via major river systems such as the Fraser and the Skeena.

This *Catalogue of Existing Information* (the Catalogue) is a companion document to the Playbook. The entire report series (Table 1) is available on the [PSF website](#).

Table 1. The three documents created as part of the BC Salmon Restoration and Innovation Fund Playbook Project.

Release Date	Title
June 2022	<i>Proceedings of the Workshop on Salmon Recovery Processes, Planning and Practices in a Post-Wildfire Environment</i>
June 2024	<i>Catalogue of Existing Information: A Companion to the Playbook to Guide Landscape Recovery Strategies &amp; Priorities for Salmon Habitat Following Major Wildfires</i>
June 2024	<i>Playbook to Guide Landscape Recovery Strategies &amp; Priorities for Salmon Habitat Following Major Wildfires</i>

## 1.1 THE CATALOGUE OF EXISTING INFORMATION

To inform the scope and content of the Playbook, a search was undertaken for documentation relating to the following:

- wildfire impacts on fish and fish habitat;
- specific salmon life stage and populations that are put at risk by wildfires;
- watershed processes
- wildfire impacts to watersheds and salmon habitat
- watershed recovery methods that have the potential to be adapted to post-wildfire conditions;
- relevant legislation (Acts and Regulations);
- support tools;

- biophysical information and models that can be used to assess the wildfire risks to watersheds, salmon and salmon habitat; and,
- multiparty responses (e.g., government-to-government) to major wildfires.

This Catalogue is a compilation of the published materials used to inform the development of the Playbook. The primary purpose of the Catalogue was to develop a repository of readily available information that could serve the wildfire recovery community of BC. The secondary purpose was to inform the development of the Playbook.

As of June 2022, a total of 423 documents and media resources relevant to the scope and objectives of the Playbook were found and reviewed. Publication dates for these materials ranged from 1976 to 2022 (Figure 3). Of the 423 relevant documents and media resources, 371 (88%) were published between 2002 and 2022, with 173 being published between 2017 and 2022. Publication trends related to wildfires and associated policy, management and practices are positively correlated with wildfire trends in western North America (Figure 1, Figure 2 and Figure 3). Approximately 100 additional references were added to this Catalogue between June 2022 and May 2024, with many provided by reviewers of the draft Playbook.

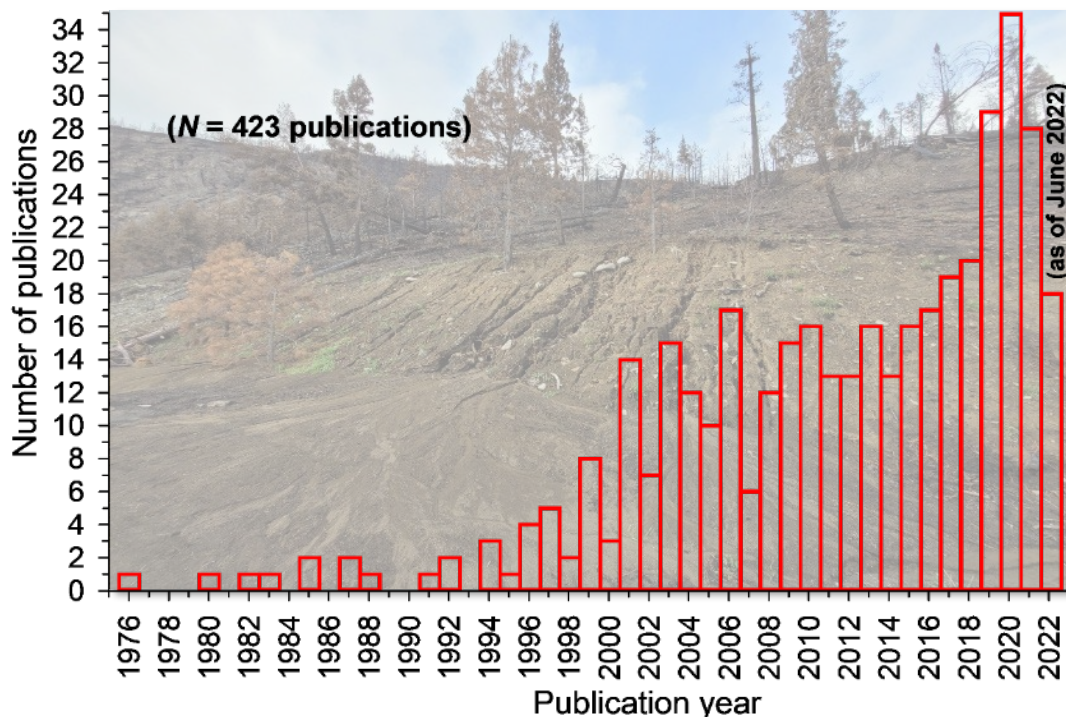


Figure 3. Publication year frequency distribution for the documentation that was used to inform the *Playbook to Guide Landscape Recovery Strategies & Priorities for Salmon Habitat Following Major Wildfires*.

The documents and media resources were grouped into one of five categories:

- 1) provincial and federal legislation (Acts and Regulations);
- 2) support tools and models;
- 3) videos, presentations and conference proceedings;
- 4) technical reports; and,
- 5) journal articles.

Journal articles, presentations and conference proceedings typically focused on specific themes and research results relating to wildfire impacts on watersheds and fish and fish habitat. In comparison, technical reports (i.e., First Nations, non-governmental organizations, consultant and government reports) often covered broad multidisciplinary topics relating to wildfire and fish and fish habitat. Topics covered by technical reports include risk assessment and mitigation, decision-making processes, integrated resource management and planning (IRMP), approaches to watershed and habitat restoration, best management practices (BMPs), and climate and wildfire trends.

## 2 METHODS

### 2.1 DOCUMENT SEARCH

Four databases/search engines were used to find the documentation used to inform the Playbook (Table 2). Reports and presentations were most often accessed through Google Scholar. Journal articles, and some reports, were accessed through University of Northern British Columbia (Prince George, BC) collections and archives. Subject area experts from First Nations, federal/provincial government and non-governmental organizations were consulted during this project, several of which provided key documents for the *Catalogue of Existing Information*, as did reviewers of drafts of the Playbook.

Table 2. Databases and internet search engine used to find and access the documentation used to inform the scope and content of the *Playbook to Guide Landscape Recovery Strategies & Priorities for Salmon Habitat Following Major Wildfires*.


Database/Search Engine	Core Collection or Relevant Subject Coverage
Clarivate Web of Science	Science Citation Index Expanded (SCIE) Social Sciences Citation Index (SSCI) Arts & Humanities Citation Index (AHCI) Emerging Sources Citation Index (ESCI) Book Citation Index (BKCI) Conference Proceedings Citation Index (CPCI)
Google Scholar	Uses Search Engine Optimization to search using keywords for all online peer-reviewed journals, books, conference papers, theses and dissertations and technical reports
Agricultural Online Access (AGRICOLA)	Agriculture, botany, chemistry conservation, forestry, human ecology, hydrology, plant sciences, pollution, public health rural sociology, soil science, water quality, weather and climate, wildlife, and zoology
ScienceDirect	Health sciences, life sciences, physical sciences and engineering, and social sciences and humanities

Information used to develop the Playbook was also obtained through presentations and discussions during a one-day webinar hosted by the PSF on January 26, 2022, *Workshop on Salmon Watershed Recovery in Post-Wildfire Environments: From Theory to Practice* (see Table 1). The presentations are annotated in Section 3.3 of the Catalogue. Relevant documentation was also obtained from members of the project's Working Group and Management Advisory Committee.

The Catalogue is intended to be a living document. It is expected that the Catalogue will be updated as new information on the interactions of wildfires and salmon habitat is published.

## 2.2 NAVIGATING THE CATALOGUE

The Catalogue of Existing Information in Section 3 includes keywords (i.e., subject phrases in most cases) with the index itself in Section 4. Keywords were selected to cover the scope of the Playbook’s objectives and topics. The index enables readers to use hyperlinks to move throughout the document from annotation to index or from index to annotation. [Blue](#) text indicates a hyperlink to the index in Section 4.

When moving throughout the document using index hyperlinks, an option does not exist to return to the last place visited in the document. Readers wishing to return will need to make note of the annotation or the page number they wish to return to. To return using the search feature, click on the search icon  and search by page number, author or keyword. The reader can then navigate throughout the document and return to an annotation. When moving from the index to an annotation, the keyword for that entry will appear at the top of the screen. The reader may need to scroll up to view the entire annotation.

**Tip:** If you know the topic, author or name of an article you would like to view, the quickest way to check if it is included in Section 3 is to use the search feature in your pdf reader.

The title field in each source annotation in Section 3 includes a hyperlink to the source document or media resource; specifically, [orange](#) text indicates a hyperlink to external documents/webpages. In almost all cases, hyperlinks for legislation, support tools and models, videos, presentations and conference proceedings will take readers to the full original source. For open-access journal articles, hyperlinks will take readers to the complete downloadable document. For subscription-only journal articles, hyperlinks will direct readers to publisher websites that provide free access to abstracts with an option to purchase the entire article. Note that every effort has been made to provide effective hyperlinks to external documents/webpages, but internet resources are ever-changing. If a hyperlink to a document does not work, please enter the document title into an internet search engine (e.g., Google) and this will help you reach the required document.

The 19 keywords/subject phrases that were used in Section 3 are described in subsequent text. “Related Keywords” are topics covered by the main keywords/subject phrases.



## 1. Aquatic Food Webs and Components

**Context:** Major wildfires can affect freshwater food webs and species/populations that Pacific salmon, in particular juveniles, are reliant on. Wildfires can also affect trophic status.

**Related Keywords:**

- attached algae
- bacteria
- benthic invertebrate
- chlorophyll
- cyanobacteria
- Ephemoptera, Plecoptera, Trichoptera (counts) and chironomid ratio
- eutrophication
- food web
- functional feeding group
- fungi
- invasive species
- macroinvertebrate
- macrophyte
- phytoplankton
- productivity
- protozoa
- shredders
- trophic status
- zooplankton

## 2. Ash

**Context:** Wildfire ash can be enriched with an array of chemicals including production-limiting nutrients, metals, polycyclic aromatic hydrocarbons (resulting from incomplete combustion of organic matter), and elements that comprise the major freshwater ions. Wildfire ash can significantly affect the chemistry of surface waters and sediments.

**Related Keywords:**

- ash chemistry
- charcoal
- wildfire aerosols
- wildfire smoke

## 3. Decision-Making Tools, Guidance

**Context:** Laws, policies, BMPs and general guidance documentation that can help plan and implement responses to major wildfires from a fish and fish habitat perspective. For access to the latest Federal and Provincial Acts and regulations, please follow the link to the [Canadian Legal Information Institute](#).

**Related Keywords**

- [Burned Area Emergency Response \(BAER\)](#)
- [Canada Navigable Waters Act](#)

- *Canadian Forest Fire Danger Rating System*
- *Committee on the Status of Endangered Wildlife in Canada (COSEWIC)*
- *Fish and Fish Habitat Protection Program*
- *Fisheries Act*
- *Forest Act*
- *Forest and Range Practices Act*
- *Heritage Conservation Act*
- law
- liabilities
- *Natural Resources Best Management Practices (BMPs) for British Columbia*
- *Navigable Protection Program*
- policies
- *Riparian Areas Protection Act*
- *Species at Risk Act (SARA)*
- *United Nations Declaration on the Rights of Indigenous Peoples Act (UNDRIP)*
- *Water Sustainability Act*
- *Water Sustainability Regulation*
- *Wildfire Act*
- *Wildfire Regulation*

#### 4. Decision-Making Tools, Information

**Context:** Existing data and information, including that generated with existing support tools and models (see 5. decision-making tools, support tools), can assist with the assessment of wildfire impacts to watersheds, hazard likelihood x consequence (= risk) estimations, and decision-making regarding responses to major wildfires from a fish and fish habitat perspective.

**Related Keywords:**

- *Areas of Interest*
- *Aquatic Species at Risk Maps*
- assessment results
- *BC Environmental Monitoring System*
- *BC Soil Information Finder Tool*
- *Biogeoclimatic Ecosystem Classification*
- *bedrock geology maps*
- *biophysical maps and data*
- consequences
- *Committee on the Status of Endangered Wildlife in British Columbia (COSEWIC) Designatable Units*
- *EcoCat: The Ecological Reports Catalogue*
- elements at risk maps
- *iMapBC*
- *Fish Inventory Data Queries*
- *Freshwater Atlas of British Columbia*
- *Geographic Information System (GIS) layers (GeoBC)*
- *Habitat Wizard*
- hazards inventories
- *HBV-EC results (see 5. decision-making tools, support tools)*
- *Historical Hydrometric Data Search*

- results of baseline studies
- results of **Burned Area Emergency Response (BAER)** assessment
- results of burn severity mapping
- results of multi-component risk assessment
- Soil & Water Assessment Tool (SWAT) results (see 5. decision-making tools, support tools)
- results of Wildfire Threat Assessments (see 5. decision-making tools, support tools)
- risk map
- **SARA Critical Habitat**
- **Sensitive Habitat Inventory Mapping**
- **terrain stability mapping**
- Topography Based Hydrological Model (TOPMODEL) results (see 5. decision-making tools, support tools)
- topographic maps
- triggering events
- values
- **Vegetation Resource Inventory**
- Watershed Erosion Prediction Project Model (WEPP) results (see 5. decision-making tools, support tools)

## 5. Decision-Making Tools, Support Tools

**Context:** Various support tools exist that can help: i) make decisions regarding responses to major wildfires from a fish and fish habitat perspective; ii) assess the impacts of wildfires on watersheds (e.g., hydrologic impacts); and iii) assess post-wildfire hazards x consequences (= risk).

**Related Keywords:**

- **Beaver Restoration Assessment Tool**
- **Digital Elevation Model**
- GIS-based risk assessment tools
- hazard-consequence (risk) matrices
- **HBV-EC tool (Hydrologiska Bryåns Vattenbalansavdelning- Environment Canada tool)**
- **Landscape Analysis Tool (LAT)**
- risk assessment framework
- risk management
- risk matrices
- **Soil & Water Assessment Tool (USGS)**
- **Terrain Stability Management Model**
- **TOPMODEL (Community Surface Dynamics Modeling System)**
- **Water Erosion Prediction Project Model (WEPP)**
- **Wildfire Threat Assessment Guide**

## 6. First Nations, Indigenous Knowledge and Cultural Resources

**Context:** First Nations in BC have traditionally relied upon Pacific salmon and other fish species for sustenance and other traditional uses. Responses to major wildfires from a fish and fish habitat perspective need to consider Indigenous knowledge, values and practices.

**Related Keywords:**

- cultural resources
- fish contamination
- food and water security
- Indigenous heritage
- Indigenous knowledge
- Indigenous practices
- Indigenous rights
- Indigenous ways of knowing
- Indigenous values
- sustenance
- traditional food harvesting areas
- worldviews

## 7. Fish and Fish Biology

**Context:** The literature indicates that wildfires can have positive and detrimental effects on fishes, depending on fire severity and other risk factors. The effects of wildfires on fishes can be species- and population-specific and related to life-stage sensitivities. The focus of the Playbook is Pacific salmon. However, much of the research undertaken on the impacts of major wildfires on fish and fish habitat has focused on species other than Pacific salmon. Research findings on species other than Pacific salmon can be extended to Pacific salmon in some circumstances and can inform recommendations for future studies. **(Note: Fish species studied in relation to wildfires are listed in Section 3).**

**Related Keywords:**

- adult life stage
- developmental biology
- embryo
- extinction
- extirpation
- fish kill
- fry
- hydrologic cues
- life-stage sensitivity
- mortality
- Pacific salmon
- population at risk
- population status
- population sensitivity and vulnerability
- rearing
- smolt
- species at risk
- species vulnerabilities

## 8. Fish Habitat, Channel Morphology and Processes

**Context:** By affecting watershed hydrology and riparian function, major wildfires can significantly affect habitat features such as stream channel morphology, large woody debris recruitment and distribution, structural complexity and bottom substrate composition.

**Related Keywords:**

- aggradation
- bank and channel erosion
- bank undercutting
- channel morphology
- debris dam
- debris flow
- debris torrent
- degradation
- habitat structural complexity
- habitat fragmentation
- hydrologic connectivity
- large woody debris
- log jam
- longitudinal study
- refugia
- riparian
- scour
- shading
- windthrow
- wood recruitment

## 9. Habitat Restoration and Habitat Management Techniques, Methodologies, Guidance and BMPS

**Context:** Methods for protecting, restoring, rehabilitating and creating fish and fish habitat have been developed for use in sectors related to forestry, agriculture, and infrastructure construction and maintenance. These methods can be adapted to protect, restore, rehabilitate, and create fish and fish habitat following major wildfires.

**Related Keywords:**

- aerial hydromulch
- beaver dam analogs
- bioengineering
- **Burned Area Emergency Response (BAER)**
- channel treatments
- contour-felled logs
- debris and infrastructure dams and blockages
- emergency stabilization and rehabilitation
- engineered sediment control
- geotextile sediment fence
- ground hydroseeding
- gully stabilization
- habitat creation
- habitat restoration
- hillslope stabilization
- in-channel structures and works
- landslide response
- methods/techniques
- mitigation
- mulch

- **Natural Resources Best Management Practices (BMPs) for British Columbia**
- permitting
- prioritization
- process-based restoration
- protection and safety treatments
- residual stand management
- restoration zones
- restoring hydrologic connectivity
- riparian restoration
- road and trail treatments
- salvage logging
- sediment cleaning
- sediment control
- seeding
- sequence of actions
- slash spreading
- soil scarification
- spatiotemporal approach
- straw mulch
- stream crossings

## 10. Hydrology and Hydrologic Processes

**Context:** Major wildfires can significantly affect watershed hydrology by changing soil properties (e.g., permeability to water), reducing evapotranspiration and increasing the volume of precipitation that reaches the ground. The hydrologic impacts of major wildfires drive many of the other effects that wildfires can have on freshwater systems.

**Related Keywords:**

- annual and basal flows
- burned area to catchment area ratio
- burn severity
- canopy interception
- cumulative effects
- dewatering
- flooding
- groundwater depletion
- interflow
- landscape gradient
- low flow
- net flow loss
- overland flow
- peak flow
- precipitation event
- rain event
- regional hydrology
- runoff timing
- snow accumulation
- spring melt
- stormwater
- sublimation
- total area burned
- vegetation type
- water deficit
- water storage capacity

## 11. Monitoring, Assessment Protocols and Adaptive Management

**Context:** Following a major wildfire, and before restoration actions (if needed) are implemented, assessment phases are required to understand and characterize the impacts of the wildfire on watersheds and fish and fish habitat. Monitoring is also required to evaluate the success of restoration works and to adapt actions to changing situations.

**Related Keywords:**

- adaptive management
- channel assessment
- debris-flow assessment
- **Emergency Response Plan (ERP)**
- establishing baselines
- evaluation of restoration projects
- fish passage assessment (hydrologic connectivity)
- fish sampling and monitoring
- geohazards and elements at risk assessment
- gully assessment
- light detection and ranging (Lidar)
- monitoring methods
- reconnaissance and detailed post-wildfire natural hazards risk assessments
- **Risk Assessment Method for Salmon**
- water and sediment quality monitoring
- terrain stability assessment and mapping
- watershed assessment

## 12. Multiparty, G2G (Co-Management, Collaboration) and IRMP Processes

**Context:** The impacts of major wildfires on fish and fish habitat can affect rights holders and stakeholders. Thus, the response to major wildfires, from a fish and fish habitat perspective, should involve collaborative decision making, partnerships, consideration of jurisdictional roles, and communications/response implementation frameworks.

**Related Keywords:**

- academia
- collaboration
- coordination
- cultural engagement
- federal ministries
- funding
- Indigenous governments
- integrated resource management and planning (IRMP)
- landowners
- First Nations
- food security
- forest management
- goal and objective setting
- forest tenure holders

- government
- government-to-government
- Indigenous
- industry
- interest groups
- joint leadership
- multiparty cooperation in a working forest/landscape
- municipal governments
- non-governmental organizations
- partnership
- provincial ministries
- recreation and tourism
- regional districts
- roles and responsibilities
- stakeholder
- strategic planning
- teamwork
- timeline establishment
- multiple and competing values
- zonation of wildfire hazards

### 13. Salmonid Enhancement

**Context:** Some major wildfires can have negative impacts on fish species and populations, including local extirpations. In these rare cases, species and population enhancement measures can be considered.

**Related Keywords:**

- broodstock capture
- conservation aquaculture
- egg takes
- fish transport
- outplants
- hatcheries
- spawning channel
- transplantation

### 14. Sediment Delivery, Transport and Budgets

**Context:** By affecting watershed hydrology and soil properties, major wildfires can significantly increase erosion, sediment delivery to surface waters and sediment transport by moving water. Suspended sediment can directly affect fishes including Pacific salmon. Deposition of excess sediment can infill spawning substrates.

**Related Keywords:**

- bedload transport
- organics
- particle size
- sediment accumulation
- sediment delivery
- sediment deposition
- sediment export
- sediment load
- sediment transport
- sediment yield
- sedimentation
- spawning gravel infilling
- suspended sediment
- suspended solids
- turbidity



## 15. Soils and Mass Wasting

**Context:** Vegetation removal and soils impacts caused by major wildfires can significantly reduce slope stability, triggering an increase in mass wasting events in watersheds that have high topographic relief. Mass wasting events can deliver large volumes of soil, sediment and other materials to fish-bearing streams and lakes including salmon-rearing lakes. In extreme cases, materials delivered to streams can result in hydrologic discontinuities (barriers to fish movement), introduce physical and chemical pollutants, increase turbidity, and infill spawning gravels. Wildfires, depending on burn temperature, can affect soil properties such as water infiltration capacity which, in turn, affects watershed hydrology.

**Related Keywords:**

- gully failure
- gully formation
- hydraulic conductivity
- landslide
- mass wasting
- rill erosion
- slope failure
- slumping
- soil drying
- soil erodibility
- soil infiltration capacity
- soil hydrophobicity
- soil permeability
- soil sealing
- soil wettability
- terrain stability
- torsion
- water repellent layer

## 16. Temperature

**Context:** Removal of riparian vegetation by wildfires can reduce stream shading and, thereby, increase water temperature and/or increase temperature extremes. Landscape exposure can affect the temperature of overland flows before they reach stream channels.

**Related Keywords:**

- temperature barrier
- temperature effects on growth
- temperature stress
- thermal habitat
- water temperature

## 17. Toxicology

**Context:** Wildfires can affect surface water and sediment chemistry and result in the formation of pyrogenic compounds such as polycyclic aromatic hydrocarbons (from incomplete combustion of organic matter). The chemical impacts of major wildfires can, in some circumstances, induce lethal and sublethal effects on fishes and supporting ecosystem components.

**Related Keywords:**

- bioaccumulation
- bioavailability
- biodilution
- bioenergetics
- biomagnification
- ecotoxicology
- oxidative stress
- toxicity

## 18. Water and Sediment Chemistry

**Context:** Wildfires can affect the delivery of chemicals including nutrients, metals, organics, synthetic pollutants, pyrogenic compounds (e.g., polycyclic aromatic hydrocarbons), and major ions to surface waters. Some of these chemicals remain mostly dissolved in the water column, whereas some can accumulate in fine bottom sediments.

**Related Keywords:**

- aluminum
- ammonia
- arsenic
- calcium
- cadmium
- carbon
- chloride
- cobalt
- copper
- cyanide
- dissolved organic carbon
- dissolved oxygen
- flame retardant
- hardness
- iron
- lead
- major ions
- magnesium
- manganese
- mercury
- metals
- methyl mercury
- nickel
- nitrogen
- nutrients
- organics
- phosphorus
- polycyclic aromatic compounds
- polycyclic aromatic hydrocarbons
- potassium
- silicon
- specific conductivity
- sulfate
- zinc

## 19. Wildfire Behaviour, Risk Factors and Trends

**Context:** The vulnerabilities of watersheds, fish and fish habitat to major wildfires are dependent on several geographic and temporal risk factors. Vulnerability and risk vary across the province.

**Related Keywords:**

- biogeoclimatic zone
- climate and climate change
- climate models
- drought
- fuel loads
- future trends
- **Initial Spread Index**
- insect infestation
- land use
- megafire
- natural disturbance trends
- soils
- spatial trends
- temporal trends
- topography
- vegetation type
- weather
- wildfire monitoring
- wildfire predictability
- wildfire severity
- wildfire suppression

### 2.3 CATALOGUE ANNOTATIONS

The literature and media resources included in the Catalogue of Existing Information were annotated in a standardized way as shown in Figure 4. The annotations are arranged in alphabetical order, by author, within each sub-section of Section 3. Following the citation information, each annotation includes:

- **Documentation (Type):** Legislation (Acts and Regulations), support tools and models (data/information sources and watershed models), videos, presentations and conference proceedings, technical reports, and journal articles.
- **Geographic Focus:** The geographic area that the work applies to. Typically, the country and general location where the work was undertaken.
- **Keywords:** The keywords (subject areas) from Section 2.2 that best describes the work. The index terms (Section 4) are linked to the keywords in Section 2.2.
- **Fish Species:** When relevant, the fish species that the study focused on (common names only). Salmonids listed in the annotations are linked in the index (Section 4).

- **Other Aquatic Organisms:** When relevant, aquatic organisms, other than fish, that the study focused on. Pacific salmon, particularly juveniles, could have trophic links to these organisms.
- 

Utter, F. 1998. **Genetic problems of hatchery-reared progeny released into the wild, and how to deal with them.** *Bulletin of Marine Science* 62:623–640.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
- salmonid enhancement

FISH SPECIES: salmon

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Figure 4. Example of the document/media resource annotation style that was used in the Catalogue of Existing Information.

## 3 CATALOGUE OF EXISTING INFORMATION

### 3.1 LEGISLATION (ACTS AND REGULATIONS)

Environment and Climate Change Canada (ECCC). 2016. *Policy on Critical Habitat Protection on Non-Federal Lands (Proposed)*. Species at Risk Act: Policies and Guidelines Series. ECCC, Ottawa. 9 pp. (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, guidance](#)

---

Government of British Columbia (Gov. BC). 1996. *Forest Act, RSBC, 1996, c. 157*. Government of British Columbia (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)

---

Gov. BC. 1997. *Riparian Areas Protection Act, SBC, 1997, c. 21*. Government of British Columbia (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, guidance](#)

---

Gov. BC. 2002. *Forest and Range Practices Act, SBC, 2002, c. 69*. Government of British Columbia (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, guidance](#)
- 

Gov. BC. 2004. *Wildfire Act, SBC, 2004, c. 31*. Government of British Columbia (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, guidance](#)
- 

Gov. BC. 2005. *Wildfire Act: Wildfire Regulation, B.C. Reg. 38/2005*. Government of British Columbia (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, guidance](#)
- 

Gov. BC. 2014. *Water Sustainability Act, SBC, 2014, c. 15*. Government of British Columbia (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, guidance](#)
- 

Gov. BC. 2015. *BC Wildfire Management Branch Rehabilitation Standard Operating Guidelines*. (Accessed April 28, 2024).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
-

Gov. BC. 2021. *Water Sustainability Act: Water Sustainability Regulation, B.C. Reg 11/2021*. Government of British Columbia (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
- 

Gov. BC. 2022. *A Users' Guide for Changes In and About a Stream in British Columbia: Understanding Your Obligations Under the Water Sustainability Act and Water Sustainability Regulation (Version 2022.01)*. Government of British Columbia, ISBN 978-0-7726-8046-4. 31 pp.

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
  - [fish habitat, channel morphology and processes](#)
  - [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
  - [monitoring, assessment protocols and adaptive management](#)
- 

Gov. BC. 2022. *Heritage Conservation Act, RSBC, 1996, c. 187*. Government of British Columbia (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, guidance](#)
  - [decision-making tools, information](#)
- 

Gov. BC. 2022. *Requirements and Best Management Practices for Making Changes In and About a Stream in British Columbia: Understanding Your Obligations Under the Water Sustainability Act and Water Sustainability Regulation (Version 2022.01)*. Government of British Columbia, ISBN 978-0-7726-8047-1. 26 pp.

---

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
- 

Gov. BC. not dated. *Working Around Water, Regional Terms & Conditions & Timing Windows*. Government of British Columbia (Accessed June 21, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, information
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
- 

Government of Canada (Gov. Canada). 1985. *Canadian Navigable Waters Act, RSC, 1985, c. N-22*. Government of Canada (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, guidance
- 

Gov. Canada. 1985. *Fisheries Act, RSC, 1985, c. F-14*. Government of Canada (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

---



KEYWORDS:

- decision-making tools, guidance
  - fish and fish biology
- 

Gov. Canada. 2002. *Species at Risk Act (SARA), SC, 2002, c. 29*. Government of Canada (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, guidance
  - fish and fish biology
- 

Gov. Canada. 2021. *United Nations Declaration on the Rights of Indigenous Peoples Act (UNDRIP), SC, 2021, c. 14*. Government of Canada (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, guidance
  - First Nations, Indigenous knowledge and cultural resources
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

United Nations. 2008. *United Nations Declaration on the Rights of Indigenous Peoples*. United Nations Report 07-58681-2008-4000. 15 pp.

DOCUMENTATION (TYPE): Legislation/Regulation

GEOGRAPHIC FOCUS: International

KEYWORDS:

- decision-making tools, guidance
  - First Nations, Indigenous knowledge and cultural resources
  - multiparty, G2G (co-management, collaboration) and IRMP processes
-

## 3.2 SUPPORT TOOLS AND MODELS

Bayly, M., Tekatch, A., Rosenfeld, J., Jarvis, L., and Enders, E. 2023. *Cumulative Effects Model for Prioritizing Recovery Actions (CEMPRA)*. Documentation prepared by ESSA Technologies Ltd. for the BC Ministry of Environment. 77 pp.

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- [decision-making tools, support tools](#)
- 

Beechie, T.J. 2023. *Habitat Assessment and Salmon Life-Cycle Models for the Chehalis Basin Aquatic Species Restoration Plan: Summary of Research Products*. U.S. Department of Commerce, National Oceanic and Atmospheric Administration (NOAA) Contract Report National Marine Fisheries Service - Northwest Fisheries Science Center (NWFSC)-CR-2023-05. <https://doi.org/10.25923/a4xn-mt35>

DOCUMENT (TYPE): Tools/Models

GEOGRAPHIC FOCUS: United States (Washington State)

KEYWORDS:

- [decision-making tools, support tools](#)
  - [fish and fish biology](#)
  - [fish habitat, channel morphology and processes](#)
  - [hydrology and hydrologic processes](#)
- 

Beven, K. and Binley, A. 2019. *TOPMODEL (Topography Based Hydrological Model), Model Item, OpenGMS*. 76 pp. ([link to additional documentation](#)).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: United Kingdom

KEYWORDS:

- [decision-making tools, support tools](#)
  - [hydrology and hydrologic processes](#)
-

BC Assembly of First Nations. not dated. *First Nations in BC (Interactive Map)*. British Columbia Assembly of First Nations (Accessed June 21, 2022)

DOCUMENT (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
  - [First Nations, Indigenous knowledge and cultural resources](#)
  - [multiparty, G2G \(co-management, collaboration\) and IRMP processes](#)
- 

BC Ministry of Environment (MoE). not dated. *Fish Inventories Data Queries (FIDQ)*. British Columbia Ministry of Environment (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
  - [fish and fish biology](#)
- 

British Columbia Timber Sales and BC Forest Service. 2014. *Terrain Stability Management Model*. British Columbia Timber Sales (Skeena) and British Columbia Forest Service (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, support tools](#)
  - [sediment delivery, transport and budgets](#)
  - [soils and mass wasting](#)
- 

BC Ministry of Forests, Lands, Natural Resources Operations, and Rural Development (MoFLNRORD) and BC Wildfire Service. 2020. *2020 Wildfire Threat Assessment Guide and Worksheets*. BC MoFLNRORD and BC Wildfire Service. 41pp.

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

---

KEYWORDS:

- decision-making tools, support tools
  - wildfire behaviour, risk factors and trends
- 

BC Ministry of Forests and Range. not dated. *Biogeoclimatic Ecosystem Classification Program*.  
British Columbia Ministry of Forests and Range (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - wildfire behaviour, risk factors and trends
- 

Carver, M. and Utzig, G. 2000. *A GIS-Based Hydrologic Decision-Support Tool for Strategic Planning in the Arrow Forest District Final Report – Revised*. Prepared for Arrow Forest District (Planning Project MA99DAR09PL), Castlegar, British Columbia. 37 pp.

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - soils and mass wasting
- 

Community Mapping Network. not dated. *Sensitive Habitat Inventory and Mapping (SHIM)*  
(Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - First Nations, Indigenous knowledge and cultural resources
  - fish and fish biology
  - multiparty, G2G (co-management, collaboration) and IRMP processes
-

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Cui, Y., Miller, D., Schiarizza, P. and Diakow, L.J. 2017. *British Columbia Digital Geology*. British Columbia Ministry of Energy, Mines and Petroleum Resources, British Columbia Geological Survey Open File 2017-8, Data version 2019-12-19. 9 p. (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
- 

Fisheries and Oceans Canada (DFO) and COSEWIC. not dated. *Aquatic Species at Risk Map*. Department of Fisheries and Oceans Canada and Committee on the Status of Endangered Wildlife in Canada (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, information](#)
  - [fish and fish biology](#)
- 

Flanagan, D.C., Ascough, J.C., Nearing, M.A. and Laflen, J.M. 2001. *The Water Erosion Prediction Project (WEPP) Model*. In: Harmon, R.S. and Doe, W.W. (Eds.) *Landscape Erosion and Evolution Modeling*. Springer, Boston, MA. 55 pp.

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- [decision-making tools, support tools](#)
  - [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
  - [hydrology and hydrologic processes](#)
  - [sediment delivery, transport and budgets](#)
  - [soils and mass wasting](#)
-

George, C., Dile, Y. and Srinivasan, R. 2022. *QGIS Interface for SWAT+: QSWAT+, Version 2.2*. 137 pp.

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Government of Alberta (Gov. Alberta). 2014. *Landscape Analysis Tool (LAT)*. Government of Alberta (Accessed May 3, 2022). ([click here for the associated user guide](#)).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (Alberta)

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
- 

Gov. Alberta. 2019. *Landscape Analysis Tool (LAT) User Guide*. Province of Alberta. 44 pp.

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
- 

Gov. BC. not dated. *Digital Elevation Model (DEM), Version 3.1.0*. Government of British Columbia (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

---

KEYWORDS:

- [decision-making tools, support tools](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Gov. BC. not dated. [Area of Interest \(AOI\)](#). FrontCounterBC, Natural Resource Online Services (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
- 

Gov. BC. not dated. [BC Digital Geology](#). British Columbia Geological Survey (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Gov. BC. not dated. [BC Habitat Wizard](#). Government of British Columbia (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
  - [fish and fish biology](#)
  - [fish habitat, channel morphology and processes](#)
- 

Gov. BC. not dated. [BC Soil Information Finder Tool \(SIFT\)](#). Government of British Columbia (Accessed June 15, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Gov. BC. not dated. *EcoCat Ecological Reports Catalogue*. BC Environmental Protection and Sustainability, Research, Monitoring & Reporting (Accessed May 12, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- aquatic food webs and components
  - decision-making tools, information
  - fish and fish biology
  - fish habitat, channel morphology and processes
- 

Gov. BC. not dated. *Environmental Monitoring System (EMS)*. BC Environmental Protection and Sustainability, Research, Monitoring & Reporting (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - temperature
  - toxicology
  - water and sediment chemistry
- 

Gov. BC. not dated. *Freshwater Atlas*. Government of British Columbia (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - hydrology and hydrologic processes
-



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Gov. BC. not dated. *GeoBC Data Catalogue*. Government of British Columbia (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
  - [First Nations, Indigenous knowledge and cultural resources](#)
  - [hydrology and hydrologic processes](#)
  - [soils and mass wasting](#)
- 

Gov. BC. not dated. *iMapBC*. Government of British Columbia (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
  - [hydrology and hydrologic processes](#)
- 

Gov. BC. not dated. *Terrestrial Ecosystem Data & Information*. BC Environmental Protection and Sustainability (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
- 

Gov. BC. not dated. *Vegetation Resources Inventory*. Government of British Columbia (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
-

- [wildfire behaviour, risk factors and trends](#)
- 

Gov. BC. 2023. *2021 Update: Provincial Strategic Threat Analysis (PSTA)*. British Columbia Public Safety and Emergency Services (Accessed May 7, 2024).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Gov. BC. 2023. *Cumulative Effects Framework Data*. (Accessed June 10, 2024).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
- 

Gov. BC. 2024. *Riparian Management Area Guidebook*. (Accessed June 10, 2024)

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
- 

Gov. Canada and University of BC. 2015. *Hydrologiska Byråns Vattenbalansavdelning — Environment Canada (HBV-EC), Version 3.53*. Environment Canada and University of British Columbia (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada

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KEYWORDS:

- [decision-making tools, support tools](#)
  - [hydrology and hydrologic processes](#)
- 

Gov. Canada. not dated. *Historical Hydrometric Data Search*. Government of Canada, Water Survey of Canada (Accessed June 8, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, information](#)
  - [hydrology and hydrologic processes](#)
  - [sediment delivery, transport and budgets](#)
- 

Holt, C.A., Freshwater, C., Holt, K. and Huang, A.-M. 2020. *A Quantitative Tool for Evaluating Rebuilding Plans for Pacific Salmon*. Canadian Technical Report of Fisheries and Aquatic Sciences 3402: 26 pp.

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (BC) and United States

KEYWORDS:

- [decision-making tools, support tools](#)
- [fish and fish biology](#)
- [monitoring, assessment protocols and adaptive management](#)

FISH SPECIES:

- salmon
- 

Natural Resources Canada. not dated. *Canadian Forest Fire Danger Rating System (CFFDRS)*. Natural Resource Canada (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, guidance](#)
-

Natural Resources Canada. 2019. *Canadian National Fire Database (CNFDB)*. Natural Resources Canada. 3 pp.

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Pacific Salmon Foundation – Salmon Watersheds Program. 2024. *Pacific Salmon Explorer*.

DOCUMENT (TYPE): Tools/Models

GEOGRAPHIC FOCUS: Canada (British Columbia)

KEYWORDS:

- decision-making tools, support tools
  - fish and fish biology
  - fish habitat, channel morphology and processes
- 

United States Department of Agriculture (USDA). 2022. *Soil and Water Assessment Tool (SWAT+), Version 2.1*. United States Department of Agriculture, Forest Service (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

USDA. not dated. *Forest Service WEPP Interfaces*. United States Department of Agriculture, Forest Service, RMRS Air, Water, and Aquatics Environments, Moscow, Idaho (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, support tools
-

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Utah State University. 2022. *Beaver Restoration Assessment Tool (BRAT)*, Version 3.1.0. Utah State University, Ecogeomorphology & Topographic Analysis Laboratory (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Tools/Models

GEOGRAPHIC FOCUS: United States (Utah)

KEYWORDS:

- decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
- 

Utah State University. not dated. *Beaver Restoration Assessment Tool*.

DOCUMENT (TYPE): Tools/Models

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, support tools
  - monitoring, assessment protocols and adaptive management
- 

### 3.3 VIDEOS, MICROSOFT® POWERPOINT PRESENTATIONS AND CONFERENCE PROCEEDINGS

Adams, J.T. and Simmons, D. 1999. *Ecological Effects of Fire Fighting Foams and Retardants: A Summary*. Australian Bushfire Conference, Albury (July 1999). 8 pp.

DOCUMENTATION (TYPE): Conference proceeding

GEOGRAPHIC FOCUS: Australia

KEYWORDS:

- fish and fish biology
  - monitoring, assessment protocols and adaptive management
  - toxicology
  - water and sediment chemistry
- 

Alila, Y. 2022. *Attribution Science: Why the Flood Regime in BC is Super-Sensitive to Disturbance*. In: *Proceedings of the Workshop on Salmon Recover Processes, Planning and Practices in a Post-Wildfire Environment* (January 26, 2022). Pacific Salmon Foundation, Vancouver. 38 pp. + Appendices, 33 minutes.

DOCUMENTATION (TYPE): Video

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
- 

Cluer, B. and Powers, P. 2020. *Stage 0 River Restoration*. NOAA- United States Fish and Wildlife Services Restoration Webinar, 1 hour, 17 minutes.

DOCUMENTATION (TYPE): Video

GEOGRAPHIC FOCUS: Europe and United States

KEYWORDS:

- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes

FISH SPECIES:

- coho salmon
  - lamprey
- 

Cannon, S.H., Gartner, J.E., Parrett, C. and Parise, M. 2003. *Wildfire-Related Debris Flow Generation Through Episodic Progressive Sediment Bulking Processes, Western U.S.A.* In: Rickenmann, D., Chen, C.L. (Eds.) *Debris-Flow Hazards Mitigation—Mechanics, Prediction, and Assessment, Proceedings of the 3<sup>rd</sup> International Conference on Debris-Flow Hazards Mitigation*, Davos, Switzerland, 10–12 September 2003. Balkema, Rotterdam. pp. 71–82.

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DOCUMENTATION (TYPE): Conference proceeding

GEOGRAPHIC FOCUS: United States (Colorado, New Mexico and South Dakota)

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

DeGagne, J. 2022. *Shovel Lake/Island Lake Wildfire Ecosystem Restoration Plans: A Collaborative Approach*. In: *Proceedings of the Workshop on Salmon Recover Processes, Planning and Practices in a Post-Wildfire Environment* (January 26, 2022). Pacific Salmon Foundation, Vancouver. 38 pp. + Appendices, 23 minutes.

DOCUMENTATION (TYPE): Video

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - First Nations, Indigenous knowledge and cultural resources
  - monitoring, assessment protocols and adaptive management
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - wildfire behaviour, risk factors and trends
- 

Evans, S.G. 2003. *Characterizing Landslide Risks in Canada*. *Proceedings of the 3<sup>d</sup> Canadian Conference on Geotechnique and Natural Hazards*. Canadian Geotechnical Society, Edmonton Canada, pp. 19–34.

DOCUMENTATION (TYPE): Conference proceeding

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, guidance
  - sediment delivery, transport and budgets
  - soils and mass wasting
-

Flitcroft, J. and Reeves, G. 2022. *Wildfire: A Disturbance That Hits the Aquatic Habitat Reset Button*. In: *Proceedings of the Workshop on Salmon Recover Processes, Planning and Practices in a Post-Wildfire Environment* (January 26, 2022). Pacific Salmon Foundation, Vancouver. 38 pp. + Appendices, 31 minutes.

DOCUMENTATION (TYPE): Video

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- aquatic food webs and components
- decision-making tools, guidance
- First Nations, Indigenous knowledge and cultural resources
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- soils and mass wasting
- temperature
- water and sediment chemistry

FISH SPECIES:

- brook trout
- bull trout
- cutthroat trout
- rainbow trout
- steelhead trout

OTHER AQUATIC ORGANISMS:

- invertebrates

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Giles, T. 2022. *Geomorphic Response to Wildfire in British Columbia*. In: *Proceedings of the Workshop on Salmon Recover Processes, Planning and Practices in a Post-Wildfire Environment* (January 26, 2022). Pacific Salmon Foundation, Vancouver. 38 pp. + Appendices, 31 minutes.

DOCUMENTATION (TYPE): Video

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- ash



- decision-making tools, guidance
  - decision-making tools, information
  - decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Gregory, S.V., Boyer, K.L. and Gurnell A.M. [Eds.]. 2003. *The Ecology and Management of Wood in World Rivers*. American Fisheries Society Symposium 37, Bethesda, Maryland. 431 pp.

DOCUMENTATION (TYPE): Conference proceeding

GEOGRAPHIC FOCUS: International

KEYWORDS:

- aquatic food webs and components
- decision-making tools, information
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- soils and mass wasting
- temperature
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- salmonids

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

John, C. Kane, A. and Dickson-Hoyle, S. 2022. *Indigenous Leadership in Wildfire Recovery and Restoration*. In: *Proceedings of the Workshop on Salmon Recover Processes, Planning and*

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*Practices in a Post-Wildfire Environment* (January 26, 2022). Pacific Salmon Foundation, Vancouver. 38 pp. + Appendices, 34 minutes.

DOCUMENTATION (TYPE): Video

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - First Nations, Indigenous knowledge and cultural resources
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - wildfire behaviour, risk factors and trends
- 

Lewis, D. 2022. *A GIS Indicator-Based Approach for Rapid, Post-Wildfire Watershed Assessments*. In: *Proceedings of the Workshop on Salmon Recover Processes, Planning and Practices in a Post-Wildfire Environment* (January 26, 2022). Pacific Salmon Foundation, Vancouver. 38 pp. + Appendices, 24 minutes.

DOCUMENTATION (TYPE): Video

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

MacHamer, M. and Jagt, K. 2021. *Boulder Creek Watersheds Pre-Fire Sediment Study*. Boulder Watershed Collective, Colorado Conservation Board Department of Natural Resources. 18 PowerPoint slides.

DOCUMENTATION (TYPE): MS PowerPoint

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- decision-making tools, guidance
-

- monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Nielson, N. and Nielson, J. 2022. *Miller Time: Cheers to Partnerships and PBR [Process-based Restoration]*. In: *Proceedings of the Workshop on Salmon Recover Processes, Planning and Practices in a Post-Wildfire Environment* (January 26, 2022). Pacific Salmon Foundation, Vancouver. 38 pp. + Appendices, 27 minutes.

DOCUMENTATION (TYPE): Video

GEOGRAPHIC FOCUS: United States (Utah)

KEYWORDS:

- aquatic food webs and components
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management
- multiparty, G2G (co-management, collaboration) and IRMP processes
- salmonid enhancement
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- cutthroat trout
  - speckled dace
- 

Pearsall, I., Hyatt, K. and Luedke W. 2020. *Risk Assessment Method for Salmon (RAMS)*. Pacific Salmon Foundation (Marine Science Program), Department of Fisheries and Oceans Canada (Pacific Biological Station) and Nicola Basin Collaborative Research & Technical Committee. 48 PowerPoint slides.

DOCUMENTATION (TYPE): MS PowerPoint

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
-

- decision-making tools, support tools
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management

FISH SPECIES:

- salmon
- 

Pollard, R. and Valdal, E. 2022. *Post Wildfire Land Base Recovery—An Overview of the Elephant Hill Initiative*. In: *Proceedings of the Workshop on Salmon Recover Processes, Planning and Practices in a Post-Wildfire Environment* (January 26, 2022). Pacific Salmon Foundation, Vancouver. 38 pp. + Appendices, 19 minutes.

DOCUMENTATION (TYPE): Video

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - First Nations, Indigenous knowledge and cultural resources
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

Polster, D.F. 2002. *Soil Bioengineering Techniques for Riparian Restoration*. *Proceedings of the 26<sup>th</sup> Annual British Columbia Mine Reclamation Symposium*, Dawson Creek, BC, pp. 230–239.

DOCUMENTATION (TYPE): Conference proceeding

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - soils and mass wasting
- 
-

Sullivan, K., Lisle, T.E., Dolloff, C.A., Grant, G.E. and Reid, L.M. 1987. *Stream Channels: The Link Between Forests and Fishes*. In: Salo, E.O. and Cundy, T.W. (Eds.). *Proceedings of Streamside Management: Forestry and Fishery Interactions Symposium*, University of Washington (February 12–14, 1986), pp. 39–97. Contribution No. 57, Institute of Forest Resources, Seattle. (Note: to find the downloadable pdf, you will need to enter the document title “Stream Channels: The Link Between Forests and Fishes” into the Treearch reached using the aforementioned link).

DOCUMENTATION (TYPE): Conference proceeding

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- salmonid enhancement
- sediment delivery, transport and budgets

FISH SPECIES:

- Salmon
- 

Wissmar, R.C. and Bisson, P.A. (Eds.). 2003. *Strategies for Restoring River Ecosystems: Sources of Variability and Uncertainty in Natural and Managed Systems*. American Fisheries Society, Bethesda, Maryland. 276 pp.

DOCUMENTATION (TYPE): Conference proceeding

GEOGRAPHIC FOCUS: International

KEYWORDS:

- aquatic food webs and components
  - decision-making tools, guidance
  - decision-making tools, support tools
  - fish and fish biology
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
-

- temperature
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- salmonids

### 3.4 TECHNICAL REPORTS

Arbeider, M., Ritchie, L., Braun, D., Jenewein, B., Rickards, K., Dionne, K., Holt, C., Labelle, M., Nicklin, P., Mozin, P., Grant, P., Parken, C., and Bailey, R. 2020. *Interior Fraser Coho Salmon Recovery Potential Assessment*. DFO Can. Sci. Advis. Sec. Res. Doc. 2020/025. xi+ 211 p.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
- decision-making tools, support tools
- fish habitat, channel morphology and processes

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Association of Professional Engineers and Geoscientists and Association of British Columbia Forest Professionals. 2008. *Guidelines for Management of Terrain Stability in the Forest Sector*. Association of Professional Engineers and Geoscientists of British Columbia and Association of British Columbia Forest Professionals. 18 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management

---

BC Ministry of Environment (MoE). 2006. *FIA Activity Standards Document*: Restoration & Rehabilitation Component, Aquatic Activity Area— Instream Structures and Treatments; Fish Passage (Project Planning, Assessment, and Prioritization); Treatment Effectiveness Evaluation;

---

and Inspection and Maintenance Activities. Strategic Resource Planning Component, Developing Management Unit or Watershed Level Strategies Activity Area—Watershed Restoration Plans Activity. British Columbia MoE. 27 pp.

**DOCUMENTATION (TYPE):** Technical report (methods)

**GEOGRAPHIC FOCUS:** Canada (BC)

**KEYWORDS:**

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
- 

BC MoE and Climate Change Strategy (MoECCS). 2019. *Preliminary Strategic Climate Risk Assessment for British Columbia*. British Columbia Ministry of Environment and Climate Change Strategy. 424 pp.

**DOCUMENTATION (TYPE):** Technical report (review)

**GEOGRAPHIC FOCUS:** Canada (BC)

**KEYWORDS:**

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

BC MoECCS. 2022. *Watershed Security Strategy and Fund: Discussion Paper*. British Columbia Ministry of Environment and Climate Change Strategy. 19 pp.

**DOCUMENTATION (TYPE):** Technical report (perspective/opinion)

**GEOGRAPHIC FOCUS:** Canada (BC)

**KEYWORDS:**

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 
-

BC Ministry of Forests (MoF), BC Ministry of Environment, Lands and Parks and DFO. 2001. *Watershed-Based Fish Sustainability Planning: Conserving B.C. Fish Populations and their Habitat*. British Columbia Ministry of Forests, British Columbia Ministry of Environment, Lands and Parks and Fisheries and Oceans Canada. 85 pp. (Note: if the aforementioned link does not take you to the pdf, please search the title on the internet and it should be accessible that way.)

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- aquatic food webs and components
- decision-making tools, guidance
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- multiparty, G2G (co-management, collaboration) and IRMP processes

FISH SPECIES:

- salmonids
- 

BC Ministry of Environment, Lands and Parks. 2000. *Environmental Risk Assessment (ERA): An Approach for Assessing and Reporting Environmental Conditions*. British Columbia Ministry of Environment, Lands and Parks, Habitat Branch, Technical Bulletin 1, ISBN 0-7726-4327-X. 70 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - water and sediment chemistry
- 

BC MoF. 1996. *Forest Practices Code of British Columbia: Channel Assessment Procedure Field Guidebook*. British Columbia Ministry of Forests. 95 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
-



- monitoring, assessment protocols and adaptive management
- 

BC MoF. 1999. *Forest Practices Code of British Columbia: Coastal Watershed Assessment Procedure Guidebook (CWAP) and Interior Watershed Assessment Procedure Guidebook (IWAP)*. British Columbia Ministry of Forests. 40 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

BC MoF. 1999. *Mapping and Assessing Terrain Stability Guidebook (2<sup>nd</sup> Ed.)*. Forest Practices Board of British Columbia Guidebook, British Columbia Ministry of Forests, Forest Practices Branch, Victoria BC. 36 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, support tools
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

BC MoF. 2001. *Forest Practices Code of British Columbia: Gully Assessment Guidebook (Fourth Edition)*. British Columbia Ministry of Forests. 60 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
-

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

BC MoFLNRO, BC MoE and DFO. 2012. *Fish-stream Crossing Guidebook. Revised Edition*. For. Prac. Invest. Br. Victoria, BC.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- hydrology and hydrologic processes
  - fish habitat, channel morphology and processes
- 

BC MoFLNRORD. 2021. *Modernized Land Use Planning: A Guide to Giving Legal Effect to Land Use Plan Content*. British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development. 31 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, information
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

BC MoFLNRORD. 2021. *Modernized Land Use Planning: A Guide to Effective Stakeholder Engagement*. British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development. 45 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
-

- [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
  - multiparty, G2G (co-management, collaboration) and integrated resource management planning and processes
- 

BC MoFLNRORD. 2022. *Socio-Economic and Environmental Assessment Guidance for Modernized Land Use Plans*. British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development. 120 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
  - [multiparty, G2G \(co-management, collaboration\) and IRMP processes](#)
- 

BC Risk Management Branch. 2022. *Risk Management Guideline for the B.C. Public Sector*. Government of British Columbia, Risk Management Branch. 24 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
  - [multiparty, G2G \(co-management, collaboration\) and IRMP processes](#)
- 

BC Timber Sales. 2022. *South Central Coast Forest Stewardship Plan*. BC Timber Sales, Strait of Georgia Business Area.

DOCUMENT (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (British Columbia)

KEYWORDS:

- [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
-

BC Ministry of Water, Land and Resource Stewardship and BC-First Nations Water Table. 2023. *Watershed security strategy and fund intentions paper.*

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

BC Wild Salmon Advisory Council. 2019. *Recommendations for a Made-in B.C. Wild Salmon Strategy.* British Columbia Wild Salmon Advisory Council, prepared for the Province of British Columbia. 27 pp. (Note: if the aforementioned link does not take you to the pdf, please search the title on the internet and it should be accessible that way.)

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- First Nations, Indigenous knowledge and cultural resources
- fish and fish biology
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management
- multiparty, G2G (co-management, collaboration) and IRMP processes

FISH SPECIES:

- salmon
- 

BC Wildfire Management Branch. 2015. *Rehabilitation Standard Operating Guidelines.*

DOCUMENTATION (TYPE): Technical report (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 
-

Beechie, T.J., Moir, H. and Pess, G. 2008. Hierarchical physical controls on salmonid spawning location and timing. In *Salmonid spawning habitat in rivers: physical controls, biological responses, and approaches to remediation*. American Fisheries Society Symposium 65 Ch. 5: 83–102. American Fisheries Society. 376 pp.

DOCUMENTATION (TYPE): Technical report (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Berg, L. 1983. *Effects of Short-Term Exposure to Suspended Sediment on the Behaviour of Juvenile Coho (Oncorhynchus kisutch)*. Doctor of Philosophy Thesis, University of British Columbia, Vancouver. 121 pp.

DOCUMENTATION (TYPE): Technical report (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- sediment delivery
- temperature

FISH SPECIES:

- coho salmon
- 

Berg, S. 2023. *Post-Natural Disturbance Forest Restoration Guidance – Wildfires*. Landscape Level Wildfire Recovery. BC MoF.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
-

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Bergström, S. 2015. *The HBV model – its structure and applications*. Swedish Meteorological and Hydrological Institute (SMHI).

DOCUMENTATION (TYPE): Technical report (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
- 

BGC Engineering Inc. 2021. *Post-Wildfire Geohazard Risk Assessment: Lytton Creek Fire*. Ministry of Forests, Lands, Natural Resource Operations and Rural Development.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - decision-making tools, support tools
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Brooks, K.N., Ffolliott, P.F., and Magner, J.A. 2012. *Hydrology and the Management of Watersheds*. Fourth Edition. Blackwell Publishing, Danvers, MA. 533 pp.

DOCUMENT (TYPE): Book

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- hydrology and hydrologic processes
- 

Canadian Construction Association. 2016. *Indigenous Engagement Guide*. Canadian Construction Association. 38 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

---

- decision-making tools, guidance
  - First Nations, Indigenous knowledge and cultural resources
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

Canadian Council of Ministers of the Environment. 2010. *Canadian Soil Quality Guidelines for Carcinogenic and Other Polycyclic Aromatic Hydrocarbons (PAHs)*. Canadian Council of Ministers of the Environment, Scientific Criteria Document (revised). 215 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- toxicology
- 

Canadian Science Advisory Secretariat. 2012. *Assessing the Effectiveness of Fish Habitat Compensation Activities in Canada: Monitoring Design and Metrics*. Fisheries and Oceans Canada.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- fish habitat, channel morphology and processes
  - monitoring, assessment protocols and adaptive management
- 

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DOCUMENTATION (TYPE): Technical report (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
  - fish habitat, channel morphology and processes
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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
- 

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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, guidance](#)
  - [decision-making tools, support tools](#)
- 

COSEWIC. 2020. *COSEWIC Assessment and Status Report on the Steelhead Trout *Oncorhynchus mykiss* (Thompson River and Chilcotin River Populations) in Canada*. Committee on the Status of Endangered Wildlife in Canada. Ottawa. xvi + 104 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [fish and fish biology](#)
  - [fish habitat, channel morphology and processes](#)
- 

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DOCUMENTATION (TYPE): Technical report (perspective/opinion)

GEOGRAPHIC FOCUS: Canada

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KEYWORDS:

- decision-making tools, guidance
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States (Pacific Northwest)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Curran, M., Chapman, B., Hope, G. and Scott, D. 2006. *Large-scale Erosion and Flooding after Wildfires: Understanding the Soil Conditions*. British Columbia Ministry of Forests and Range, Forest Science Program, Technical Report 030. 18 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada and United States

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
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DOCUMENTATION (TYPE): Technical report (policy)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

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- decision-making tools, guidance
  - decision-making tools, support tools
  - First Nations, Indigenous knowledge and cultural resources
- 

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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- First Nations, Indigenous knowledge and cultural resources
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management
- multiparty, G2G (co-management, collaboration) and IRMP processes
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- char
  - trout
  - salmon
  - whitefish
- 

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DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - wildfire behaviour, risk factors and trends
- 

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DOCUMENTATION (TYPE): Technical report (review)

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GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- First Nations, Indigenous knowledge and cultural resources
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- salmon
  - steelhead trout
- 

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DOCUMENTATION (TYPE): Technical report (policy)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, guidance
- 

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DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- fish and fish biology
- monitoring, assessment protocols and adaptive management
- salmonid enhancement

FISH SPECIES:

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- Atlantic salmon
  - salmon
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DOCUMENTATION (TYPE): Technical report (policy)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- decision-making tools, information
- decision-making tools, support tools
- fish and fish biology
- monitoring, assessment protocols and adaptive management

FISH SPECIES:

- salmon
- 

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DOCUMENTATION (TYPE): Technical report (policy)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- fish and fish biology
- multiparty, G2G (co-management, collaboration) and IRMP processes

FISH SPECIES:

- salmon
- 

Dunlap, K., Crabtree, S., Springer, T., Bruno, J., Duggan, J., Hughes, K., Toll, W., Howell, E. McDonald, M., Amato, V., Piehl, B., Schroder, E., Sanchez, S. and Timberlake T. 2021. *Colorado Post-Fire Recovery Playbook: Guidance for Counties, Tribes, Municipalities, and Water Providers*. 12 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States (Colorado)

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KEYWORDS:

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - First Nations, Indigenous knowledge and cultural resources
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - wildfire behaviour, risk factors and trends
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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - wildfire behaviour, risk factors and trends
- 

Earth Economics. 2021. *The Sociocultural Significance of Pacific Salmon to Tribes and First Nations*. Special Report to the Pacific Salmon Commission. 73 pp.

DOCUMENTATION (TYPE): Technical report (perspective/opinion)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- First Nations, Indigenous knowledge and cultural resources
- multiparty, G2G (co-management, collaboration) and IRMP processes

FISH SPECIES:

- Pacific salmon
- 

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DOCUMENTATION (TYPE): Technical report (methods)

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GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
- 

Engineers and Geoscientists British Columbia and Association of British Columbia Forest Professionals. 2020. *Watershed Assessment and Management of Hydrologic and Geomorphic Risk in the Forest Sector (Version 1.0)*. Engineers & Geoscientists of British Columbia and Association of British Columbia Forest Professionals. 68 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
  - [decision-making tools, support tools](#)
  - [hydrology and hydrologic processes](#)
  - [multiparty, G2G \(co-management, collaboration\) and IRMP processes](#)
  - [soils and mass wasting](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Flagg, T.A., Nash, C.E., Beckman, B.R., Berejikian, B.A., Colt, J., Dickhoff, W.W., Fairgrieve, W.T., Iwamoto, R.N., Larsen, D.A., Mahnken, C.V.W. and Maynard, D.J., 1999. *A Conceptual Framework for Conservation Hatchery Strategies for Pacific Salmonids*. United States Department of Commerce, NOAA Technical Memo. National Marine Fisheries Service - NWFSC-38. 54pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- [decision-making tools, guidance](#)
- [fish and fish biology](#)
- [monitoring, assessment protocols and adaptive management](#)
- [salmonid enhancement](#)

FISH SPECIES:

- [salmon](#)
-

Food and Agricultural Organization of the United Nations. 2013. *Indigenous Peoples' Food Systems and Well-Being Interventions and Policies for Healthy Communities*. Food and Agriculture Organization of the United Nations. 437 pp.

DOCUMENTATION (TYPE): Technical report (policy)

GEOGRAPHIC FOCUS: General

KEYWORDS:

- decision-making tools, guidance
  - First Nations, Indigenous knowledge and cultural resources
  - multiparty, G2G (co-management, collaboration) and IRMP processes
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Forest Practices Board of British Columbia (FPB). 2005. *Post-fire Site Rehabilitation: Final Report*. Forest Practices Board of BC, Special Investigation Report to the Government of BC. 39 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
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FPB. 2018. *Special Report: Conserving Fish Habitats under the Forest and Range Practices Act, Part 1, A Review of the BC Government Approach*. Forest Practices Board of British Columbia. 38 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - multiparty, G2G (co-management, collaboration) and IRMP processes
-

- sediment delivery, transport and budgets
- soils and mass wasting
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- salmon
  - trout
- 

FPB. 2020. *Special Investigation: Conserving Fish Habitat under the Forest and Range Practices Act Part Two: An Evaluation of Forest and Range Practices on the Ground*. Forest Practices Board of British Columbia. 30 pp.

DOCUMENTATION (TYPE): Technical Report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- multiparty, G2G (co-management, collaboration) and IRMP processes
- sediment delivery, transport and budgets
- soils and mass wasting
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - Dolly Varden char
  - longnose dace
  - salmon
  - trout
  - whitefish
- 

FPB. 2023. *Forest and Fire Management in BC: Toward Landscape Resilience – Special Report*. Forest Practices Board.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
-



Forest Renewal BC. not dated. *Ecological Restoration Guidelines for British Columbia*.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Gluns, D.R. 2000. *Snowline pattern during the melt season: evaluation of the H60 concept*. Editors Toews, D.A.A. and Chatwin, S. *Watershed Assessment in the Southern Interior of British Columbia: Workshop Proceedings, Penticton, British Columbia, Canada*. March 9–10, 2000.

DOCUMENTATION (TYPE): Technical report (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- hydrology and hydrologic processes
- 

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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, support tools
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management

FISH SPECIES:

- salmonids
- 

Gov. BC. not dated. *Natural Resources Best Management Practices*. BC Ministry of Environment and Climate Change Strategy (Accessed June 6, 2022).

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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, guidance](#)
- 

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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [aquatic food webs and components](#)
  - [decision-making tools, support tools](#)
  - [fish and fish biology](#)
  - [fish habitat, channel morphology and processes](#)
  - [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
  - [monitoring, assessment protocols and adaptive management](#)
  - [water and sediment chemistry](#)
- 

Gov. BC. not dated. *Forest and Range Evaluation Program Fish/Watershed Monitoring*. (Accessed March 2023).

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
  - [fish habitat, channel morphology and processes](#)
  - [hydrology and hydrologic processes](#)
  - [monitoring, assessment protocols and adaptive management](#)
- 

Gov. BC. 2023. *Wildfire suppression rehabilitation*. (Accessed May 29, 2024).

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

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KEYWORDS:

- [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
- 

Gov. BC. 2024. *Ministry of Emergency Management and Climate Readiness 2024/25 – 2026/27 Service Plan*. February 2024.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
- 

Gov. BC. 2024. *Provincial Monitoring British Columbia – Ground Sampling Procedures*. Ministry of Forests – Forest Analysis and Inventory Branch.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [monitoring, assessment protocols and adaptive management](#)
- 

Gov. Canada. not dated. *Species at Risk Public Registry* and *COSEWIC Status Reports*. ECCC and Committee on the Status of Endangered Wildlife in Canada (Accessed May 3, 2022).

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, information](#)
- 

Gov. Canada. 2023. *Species at Risk Public Registry*. (Accessed June 8, 2024).

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, information](#)
-

Grant, S.C.H., MacDonald, B.L. and Winston, M.L. 2019. *State of Canadian Pacific Salmon: Responses to Changing Climate and Habitats*. Fisheries and Oceans Canada, Science Branch, Pacific Region, Pacific Biological Station, Nanaimo, British Columbia. Canadian Technical Report of Fisheries and Aquatic Sciences 3332. 50 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
- fish and fish biology
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- Chinook salmon
  - chum salmon
  - coho salmon
  - pink salmon
  - sockeye salmon
- 

Greene, G.A. 2021. *Fire-resilient Ecosystems: Fire Exclusion and Selective Harvesting Degrade Dry Forests in British Columbia*. Doctoral dissertation, University of British Columbia.

DOCUMENTATION (TYPE): Technical report (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Gregory, R., Failing, L., Harstone, M., Long, G., McDaniels, T., and Ohlson, D. 2012. *Structured Decision Making: A Practical Guide to Environmental Management Choices, First Edition*. Online ISBN:9781444398557 |DOI:10.1002/9781444398557

DOCUMENTATION (TYPE): Technical report (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, guidance
-

Hall, E. 2010. *Maintaining Fire in British Columbia's Ecosystems: An Ecological Perspective*. Report submitted to the Wildfire Management Branch, Ministry of Forests and Range.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Hope, G., Jordan, P., Winkler, R., Giles, T., Curran, M., Soneff, K. and Chapman, B. 2015. *Post-Wildfire Natural Hazards Risk Analysis in British Columbia*. Government of British Columbia, Land Management Handbook No. 69. 55 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision making tools, information
  - hydrology and hydrologic processes
- 

Hurley, M and Jensen M.E. 2001. *Geomorphic Patterns, Processes, and Perspectives in Aquatic Assessment*. In: *A Guidebook for Integrated Ecological Assessments*. Springer, New York, NY. pp. 367–389.

DOCUMENTATION (TYPE): Technical report (methods)

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GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Johnson, D.H., Shrier, B.M. and Jennifer, S.O. 2007. *Salmonid Field Protocols Handbook: Techniques for Assessing Status and Trends in Salmon and Trout Populations*. American Fisheries Society and State of the Salmon, ISBN-13: 978-1888569-92-6. 478 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- decision-making tools, guidance
- fish and fish biology
- salmonid enhancement

FISH SPECIES:

- salmon
  - salmonids
- 

Johnston, N.T., and Slaney, P.A. 1996. *Fish Habitat Assessment Procedures*. Watershed Restoration Technical Circulation No. 8. Watershed Restoration Program. Ministry of Environment, Lands and Parks and Ministry of Forests.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
-

Kavanagh, R.J. and Hoggarth, C.T. not dated. *Rehabilitation and Enhancement of Aquatic Habitat Guide (Volume 1.0)*. Fisheries and Oceans Canada, Central and Arctic Region. 96 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and processes
  - water and sediment chemistry
- 

Kamloops Future Forest Strategy Team. 2009. *Adapting Forest Management in the Kamloops TSA to Address Climate Change*. Kamloops Future Forest Strategy Team. 186 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- fish habitat, channel morphology and processes
- monitoring, assessment protocols and adaptive management
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- salmonids
- 

Kuhnlein, H.V., Erasmus, B., Spigelski, D. and Burlingane, B. (Eds.). 2013. *Indigenous Peoples' Food Systems and Well-Being Interventions and Policies for Healthy Communities*. Food and Agriculture Organization of the United Nations, Centre for Indigenous Peoples' Nutrition and Environment. 437 pp.

DOCUMENTATION (TYPE): Technical report (policy)

GEOGRAPHIC FOCUS: Not indicated

KEYWORDS:

- decision-making tools, guidance
  - First Nations, Indigenous knowledge and cultural resources
-

- multiparty, G2G (co-management, collaboration) and IRMP processes
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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
- 

Lewis, D., Grainger, B. and Milne, M.J. 2016. *A GIS Indicator-Based Watershed Assessment Procedure for Assessing Cumulative Watershed Effects*. Prepared for the Government of British Columbia. 31 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - wildfire behaviour, risk factors and trends
- 

Ligon, F., Rich, A., Rynearson, G., Thornburgh, D. and Trush, W. 1999. *Report of the Scientific Review Panel on California Forest Practice Rules and Salmonid Habitat*. Prepared for The Resources Agency of California and the National Marine Fisheries Service, Sacramento, California.

DOCUMENT (TYPE): Technical report (methods, review)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- decision-making tools, guidance
  - hydrology and hydrologic processes
  - fish habitat, channel morphology and processes
  - monitoring, assessment protocols and adaptive management
-



FISH SPECIES:

- salmonids
- 

Luce, C., Morgan, P., Dwire, K., Isaak, D., Holden, Z., Rieman, B., Gresswell, R., Rinne, J., Neville, H.M., Gresswell, R. E., Dunham, J. B., Rosenberger, A.E. and Young, M.K. 2012. *Climate Change, Forests, Fire, Water, and Fish: Building Resilient Landscapes, Streams, and Managers*. Gen. Tech. Rep. RMRS-GTR-290. Fort Collins, CO: U.S. Department of Agriculture, Forest Mountain Research Station. 207 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, guidance
- fish habitat, channel morphology and processes
- fish and fish biology
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- soils and mass wasting
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- salmon
  - trout
- 

MacDonald L.H. and Larsen I.J. 2009. *Runoff and Erosion from Wildfires and Roads: Effects and Mitigation*. In: Bautista, S., Aronson, J. and Vallego, V.R. (Eds). Land Restoration to Combat Desertification: Innovative Approaches, Quality Control and Project Evaluation. Fundación Centro de Estudios Ambientales Mediterráneo, Valencia, Spain, pp. 145–167.

DOCUMENT (TYPE): Technical report (methods, review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - wildfire behaviour, risk factors and trends
- 
-

MacDonald, L.B., Leone, F.N. and Rowland, D.E. not dated. *Salmon Watershed Planning Profiles for the Fraser River Basin within the Vanderhoof Land and Resource Management Plan*. Department of Fisheries and Oceans Canada, Fraser River Action Plan and Habitat Management Unit. 91 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- soils and mass wasting
- water and sediment chemistry

FISH SPECIES:

- salmon
- 

MacDonald, L.H. and Stednick, J.D. 2003. *Forests and Water: A State-of-the-Art Review for Colorado*. Colorado River Water Conservation District, Colorado Water Resources Research Institute, Denver Water and Northern Colorado Water Conservancy District, Colorado Water Resources Research Institute Completion Report No. 196. 65 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - temperature
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Machmer, M. and Steeger, C. 2002. *Effectiveness Monitoring Guidelines for Ecosystem Restoration*. Final Report. Submitted to Habitat Branch, Ministry of Water, Land and Air Protection. March 2002.

DOCUMENT (TYPE): Technical report (review)

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GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- monitoring, assessment protocols and adaptive management
- 

Mason, B. and Knight, R. 2001. *Sensitive Habitat Inventory and Mapping*. Community Mapping Network. Vancouver, BC. 315pp.

DOCUMENT (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish and fish biology
  - fish habitat, channel morphology and processes
- 

McCullough, D.A. 1999. *A Review and Synthesis of Effects of Alterations to the Water temperature Regime on Freshwater Life Stages of Salmonids, with Special Reference to Chinook Salmon*. EPA 910-R-99-010. Prepared for the U.S. Environmental Protection Agency, Seattle, Washington.

DOCUMENT (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- fish habitat, channel morphology and processes

FISH SPECIES:

- salmonids
  - Chinook salmon
- 

Middleton, M.-A. and Allen, D.M. 2016. *Vulnerability Assessment for Groundwater Dependent Streams*. Simon Fraser University, Department of Earth Sciences. 73 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - monitoring, assessment protocols and adaptive management
-

Middleton, M.-A. and Allen, D.M. 2017. *Assessment of Hydraulic Connectivity Related to Groundwater Extraction on Selected Sensitive Streams: Stream Vulnerability Mapping*. Government of British Columbia, Water Sciences Series, Report No. WSS2017-04. 28 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
- 

Milne, M.J. & Associates. 2001. *Restoration Plan for Mosquito Creek*. Prepared for Pope & Talbot Ltd., Nakusp, British Columbia. 21 pp. (no hyperlink available)

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- sediment delivery, transport and budgets

FISH SPECIES:

- bull trout
  - kokanee
  - rainbow trout
- 

Morrow, B., Johnston, K. and Davies, J. 2013. *Wildland Urban Interface, Wildfire Threat Assessments in B.C.* British Columbia Ministry of Forests, Lands and Natural Resources Operations, Wildfire Management Branch. 85 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - monitoring, assessment protocols and adaptive management
  - multiparty, G2G (co-management, collaboration) and IRMP processes
-

- soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Murray, K.E., Bush, J.K., Haschenburger, J.K. and French R.H. 2008. *Technical and Field Guide: Management Practices for Natural Waterways*. Prepared for Departments of Public Works and Development Services, City of San Antonio, Texas. 81 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States (Texas)

KEYWORDS:

- fish habitat, channel morphology and processes
  - decision-making tools, guidance
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - sediment delivery, transport and budgets
  - water and sediment chemistry
- 

Musy, A. and Higy, C. 2011. *Hydrology A Science of Nature*. CRC Press. 356 pp.

DOCUMENT (TYPE): Book

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- hydrology and hydrologic processes
- 

Napper, C. 2006. *Burned Area Emergency Response Treatments (BAER)*. United States Department of Agriculture, Forest Service, National Technology & Development Program. Watershed, Soil, Air and Management 0625 1801–SDTDC. 254 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, guidance
-

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
- 

Neary, D.G., Ryan, K.C. and DeBano, L.F. (Eds.). 2005 (revised 2008). *Wildland Fire in Ecosystems: Effects of Fire on Soils and Water*. United States Department of Agriculture, Forest Service, Rocky Mountain Research Station General, Ogden, UT. Technical Report RMRS-GTR-42-vol.4. 250 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- soils and mass wasting
- toxicology
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- salmonids
- 

Nemens, D.G., Varner, J.M., Johnson, M.C. 2019. *Environmental effects of postfire logging: an updated literature review and annotated bibliography*. Gen. Tech. Rep. PNW-GTR-975. Portland, OR: U.S. Department of Agriculture, Forest Service, Pacific Northwest Research Station. 35 p.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Nicholls, D. and Ethier, T. 2018. *Post-natural Disturbance Forest Retention Guidance, 2017 Wildfires*. British Columbia Ministry of Forests, Lands, Natural Resources Operations and Rural Development. 26 pp.

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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- aquatic food webs and components
  - decision-making tools, guidance
  - fish and fish biology
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Nordin, L. and Malkinson, L. 2020. *Integrating GIS and Ground-Based Methodologies with Pour-Point Sample Design for Routine-Level Watershed Assessment*. Forest and Range Evaluation Program (FREP) Technical Guidance #7.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
- 

Parsons, A., Robichaud, P.R., Lewis, S.A., Napper, C. and Clark, J.T. 2010. *Field Guide for Mapping Post-Fire Soil Burn Severity*. United States Department of Agriculture, Forest Service, Rocky Mountain Research Station, General Technical Report RMRS-GTR-243. 49 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- ash
-

- decision-making tools, guidance
  - decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Pathak, P., Wani, S.P. and Sudi, R. 2005. *Gully Control in SAT Watersheds*. Global Theme on Agroecosystems Report No. 15. 28 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: India

KEYWORDS:

- decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
- 

Pike, R.G., Bennett, K.E., Redding, T.E., Werner, A.T., Spittlehouse, D.L., Moore, R.D., Murdock, T.Q., Beckers, J., Smerdon, B.D., Bladon, K.D. and Foord, V.N. 2010. Chapter 19 Climate change effects on watershed processes in British Columbia. In *Compendium of Forest Hydrology and Geomorphology in British Columbia*. BC Ministry of Forests and Range. pp.699–747.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- hydrology and hydrologic processes
-



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Pike, R.G. and Ussery, J.G. 2006. *Key Points to Consider When Pre-Planning for Post-Wildfire Rehabilitation*. FORREX (Forest Research Extension Partnership) Series 19, ISBN 1-894822-42-0. 26 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - wildfire behaviour, risk factors and trends
- 

Pike, R.G., Redding, T.E., Moore, R.D., Winkler, R.D. and Bladon, K.D. (Eds.). 2010. *Compendium of Forest Hydrology and Geomorphology in British Columbia, Volume 1 of 2*. British Columbia Ministry of Forest and Range and FORREX (Forest Research Extension Partnership), ISBN 978-0-7726-6331-3. 803. pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- aquatic food webs and components
  - decision-making tools, guidance
  - fish and fish biology
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - soils and mass wasting
  - temperature
  - water and sediment chemistry
-

- wildfire behaviour, risk factors and trends
- 

Pike, R.G., Redding, T.E., Moore, R.D., Winkler, R.D. and Bladon, K.D. (Eds.). 2010. *Compendium of Forest Hydrology and Geomorphology in British Columbia, Volume 2 of 2*. British Columbia Ministry of Forest and Range and FORREX (Forest Research Extension Partnership), ISBN 978-0-7726-6331-3. 805 pp.

**DOCUMENTATION (TYPE):** Technical report (review)

**GEOGRAPHIC FOCUS:** Canada (BC)

**KEYWORDS:**

- aquatic food webs and components
- decision-making tools, guidance
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- multiparty, G2G (co-management, collaboration) and IRMP processes
- soils and mass wasting
- temperature
- toxicology
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

**FISH SPECIES:**

- |                   |                   |
|-------------------|-------------------|
| • Arctic grayling | • cutthroat trout |
| • Atlantic salmon | • inconnu         |
| • brook trout     | • oolichan        |
| • bull trout      | • rainbow trout   |
| • char            | • sockeye salmon  |
| • Chinook salmon  | • steelhead trout |
| • coho salmon     | • whitefish       |
| • cisco           | • white sucker    |

**OTHER AQUATIC ORGANISMS:**

- invertebrates
- 
-

Potyondy, J.P. and Geier, T.W. 2011. *Watershed Condition Classification Technical Guide*. United States Department of Agriculture and United States Forest Service. 41 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- [decision-making tools, guidance](#)
  - [decision-making tools, support tools](#)
  - [decision-making tools, information](#)
  - [monitoring, assessment protocols and adaptive management](#)
  - [multiparty, G2G \(co-management, collaboration\) and IRMP processes](#)
- 

Price, K. and Daust, D. 2018. *Omineca ESI Risk Assessment for Biodiversity Management Options*. Prepared for Omineca Environmental Stewardship Initiative. 114 pp. (no hyperlink available)

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
  - [monitoring, assessment protocols and adaptive management](#)
  - [multiparty, G2G \(co-management, collaboration\) and IRMP processes](#)
- 

Price, K. and Daust, D. 2019. *Island Lake Wildfire Ecosystem Restoration Plan*. Prepared for Society for Ecosystem Restoration in Northern British Columbia and Omineca Environmental Stewardship Initiative. 93 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
  - [First Nations, Indigenous knowledge and cultural resources](#)
  - [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
  - [monitoring, assessment protocols and adaptive management](#)
  - [multiparty, G2G \(co-management, collaboration\) and IRMP processes](#)
-

Provincial Aquatic Ecosystems Technical Working Group – BC MoECCS and BC MoFLNRORD. 2020. *Interim Assessment Protocol for Aquatic Ecosystems in British Columbia – Standards for Assessing the Condition of Aquatic Ecosystems under British Columbia’s Cumulative Effects Framework*. Version 1.3 (December 2020). 51 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
- 

Ranalli, A.J. 2004. *A Summary of the Scientific Literature on the Effects of Fire on the Concentrations of Nutrients in Surface Waters*. United States Department of the Interior and United States Geological Survey, Open-File Report 2004-1296. 23 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: International

KEYWORDS:

- ash
  - toxicology
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Rauche, L. and Reid, B.J. 1986. *A Review of Fish Habitat Inventory & Evaluation Programs*. Fish Habitat Inventory & Information Program. Habitat Management Division – Fisheries Branch – Pacific & Yukon Region, Department of Fisheries & Oceans.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
- 

Reid, L.M. 1999. *Review of Methods to Complete Watershed Analysis on Pacific Lumber Lands in Northern California*. Prepared for National Marine Fisheries Service. 68 pp.

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DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States (California and Washington)

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - monitoring, assessment protocols and adaptive management
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - wildfire behaviour, risk factors and trends
- 

Rieman, B., Gresswell, R., and Rinne, J. 2012. *Fire and Fish: A Synthesis of Observation and Experience*. United States Department of Agriculture Forest Service RMRS-GTR. pp. 16.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, guidance
- fish and fish biology
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- salmon
- 

Robichaud, P.R., Ashmun, L.E. and Sims, B.D. 2010. *Post-fire treatment effectiveness for hillslope stabilization*. Gen. Tech. Rep. RMRS-GTR-240. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. 62 p

DOCUMENT (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
-

Salmon Enhancement Program (SEP). 1977. *Enhancement Techniques*. Fisheries and Environment Canada. Vancouver, BC.

DOCUMENT (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- fish and fish biology
- 

Sieffert, B. 2020. *Respecting Sovereignties: Indigenous/State Agreements in British Columbia and Their Alignment with a Dual Sovereignty Concept*. Master of Arts Thesis, University of Victoria, Department of Political Science, Victoria, BC. 143 pp.

DOCUMENTATION (TYPE): Technical report (perspective/opinion)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, guidance
  - First Nations, Indigenous knowledge and cultural resources
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

Slaney, P.A. and Zaldokas, D. (Eds.). 1997. *Fish Habitat Rehabilitation Procedures*. Watershed Restoration Program, British Columbia Ministry of Environment, Lands and Parks and British Columbia Ministry of Forests. Watershed Restoration Technical Circular No. 9. 312 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- aquatic food webs and components
  - fish and fish biology
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - temperature
  - water and sediment chemistry
-

FISH SPECIES:

- Arctic grayling
  - brook trout
  - brown trout
  - bull trout
  - Chinook salmon
  - chum salmon
  - coho salmon
  - cutthroat trout
  - Dolly Varden char
  - pink salmon
  - rainbow trout
  - sockeye salmon
  - steelhead trout
- 

Spence, B.C., Lomnický, G.A., Hughes, R.M., and Novitzki, R.P. 1996. *An Ecosystem Approach to Salmonid Conservation*. TR-4501-96-6057. ManTech Environmental Research Services Corp., Corvallis, OR. 370 pp.

DOCUMENT (TYPE): Technical report (methods, review)

GEOGRAPHIC FOCUS: United States (Pacific Northwest)

KEYWORDS:

- [decision-making tools, guidance](#)
- [hydrology and hydrologic processes](#)
- [fish habitat, channel morphology and processes](#)
- [monitoring, assessment protocols and adaptive management](#)

FISH SPECIES:

- salmonids
- 

Skeena Sustainability Assessment Forum. 2014. *Skeena Sustainability Assessment Forum's State of the Value Report for Fish & Fish Habitat*. Skeena Sustainability Assessment Forum and Skeena Environmental Stewardship Initiative. 190 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
- [decision-making tools, information](#)
- [monitoring, assessment protocols and adaptive management](#)
- [multiparty, G2G \(co-management, collaboration\) and IRMP processes](#)

FISH SPECIES:

- salmonids
-

Stalberg, H.C., Lauzier, R.B., MacIsaac, E.A., Porter, M. and Murray, C. 2009. *Canada' Policy for Conservation of Wild Pacific Salmon: Stream, Lake, and Estuarine Habitat Indicators*. Canadian Manuscript Report of Fisheries and Aquatic Science 2859. 135 pp.

DOCUMENTATION (TYPE): Technical report (policy)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
- decision-making tools, support tools
- fish and fish biology
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management
- multiparty, G2G (co-management, collaboration) and IRMP processes

FISH SPECIES:

- salmon
- 

Staley, D.M., Negri, J.A., Kean, J.W., Laber, J.M., Tillery, A.C. and Youberg, A.M. 2016. *Updated Logistic Regression Equation for the Calculation of Post-Fire Debris-Flow Likelihood in the Western United States*. U.S. Geological Survey Open-File Report 2016-1106, 13 p.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States (Western)

KEYWORDS:

- decision-making tools, information
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

USDA and United States Forest Service. 2017. *Adaptation to Wildfire: A Fish Story*. Science Findings, United States Department of Agriculture and United States Forest Service. 6 pp.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- fish and fish biology
-



- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - Chinook salmon
- 

USDA. not dated. *Burned Area Emergency Response (BAER)*. United States Department of Agriculture, Forest Service (Accessed June 7, 2022).

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, guidance
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

United States Fish and Wildlife Service. not dated. *Culvert Design Guidelines for Ecological Function*. (Accessed May 29, 2024).

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States (Alaska)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
- 

United States Fish and Wildlife Services. 2013. *Review of U.S. Fish and Wildlife Service Hatcheries in Washington, Oregon, and Idaho. Region-Wide Issues, Guidelines and Recommendations*. United States Fish and Wildlife Service, Hatchery Review Team, Pacific Region, Portland, Oregon. 38 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States (Pacific Northwest)

KEYWORDS:

- decision-making tools, guidance
- fish and fish biology
- monitoring, assessment protocols and adaptive management
- salmonid enhancement

FISH SPECIES:

- salmon
- 

United States Geological Survey (USGS). 2018. *The scientific background information for emergency assessment of post-fire debris-flow hazards*. Landslides Hazards Program.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States (Western)

KEYWORDS:

- decision-making tools, information
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Washington State Department of Natural Resources (WS DNR). 2011. *Standard Methodology for Conducting Watershed Analysis (Section 11)*. Washington State Department of Natural Resources. 125 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States (Washington)

KEYWORDS:

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - temperature
  - wildfire behaviour, risk factors and trends
-

Watershed Restoration Program - Provincial Coordination Team. 2004. *Watershed Restoration Planning and Priority Setting: An Emphasis on Fish Habitat*. Province of British Columbia, Integrated Watershed Restoration Plans. 50 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
  - [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
- 

Wheaton, J.M., Bennett, S.N., Bouwes, N., Maestas, J.D. and Shahveridian, S.M. 2019. *Low-Tech Process-Based Restoration of Riverscapes Design Manual (Version 1.0)*. Utah State University Restoration Consortium, Logan, UT, United States. 287 pp.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
  - [monitoring, assessment protocols and adaptive management](#)
- 

Wild Earth Guardians. 2020. *The Environmental Consequences of Forest Roads and Achieving a Sustainable Road System*. Wild Earth Guardians. 42 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- [fish and fish biology](#)
  - [fish habitat, channel morphology and processes](#)
  - [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
  - [hydrology and hydrologic processes](#)
  - [monitoring, assessment protocols and adaptive management](#)
  - [sediment delivery, transport and budgets](#)
-

FISH SPECIES:

- bull trout
  - salmon
- 

Wilford, D.J., Sakals, M.E., Grainger, W.W., Millard, T.H. and Giles, T.R. 2009. *Managing Forested Watersheds for Hydrogeomorphic Risks on Fans*. BC Ministry of Forests and Range, Forest Science Program, Victoria, BC Land Management Handbook 61.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, guidance](#)
  - [hydrology and hydrologic processes](#)
  - [monitoring, assessment protocols and adaptive management](#)
  - [sediment delivery, transport and budgets](#)
- 

Winkler, R., and Boon, S. 2015. *Revised snow recovery estimates for pine-dominated forests in Interior British Columbia*. Forest, Plans, and NR Operations – Extension Note 118.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [hydrology and hydrologic processes](#)
- 

Winkler, R., and Boon, S. 2017. *Equivalent clearcut area as an indicator of hydrologic change in snow-dominated watersheds of southern British Columbia*. Forest, Plans, and NR Operations – Extension Note 116.

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [hydrology and hydrologic processes](#)
- 

Winkler, R. and Lewis, D. 2020. *Overview Assessment of Potential Hydrologic Response to the Elephant Hill Wildfire (K20637, 2017) in the Bonaparte, Deadman River, and Battle Creek Watersheds*. Province of British Columbia, Canada. (no hyperlink available)

---

DOCUMENTATION (TYPE): Technical report (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- ash
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- Chinook salmon
  - steelhead trout
- 

Winkler, R.D., Moore, R.D., Redding, T.E., Spittlehouse, D.L., Smerdon, B.D., and Carlyle-Moses, D.E. not dated. **Chapter 7. The Effects of Forest Disturbance on Hydrologic Processes and Watershed Response.** In: Pike, R.G., Redding, T.E., Moore, R.D., Winkler, R.D. and Bladon, K.D (Eds). *Compendium of Forest Hydrology and Geomorphology in British Columbia Volume 1 of 2.* BC Min. For. Range, For. Sci. Prog., Victoria, B.C. and FORREX Forum for Research and Extension in Natural Resources, Kamloops, BC Land Manag. Handb. 66. pp. 179–212.

DOCUMENTATION (TYPE): Technical report (methods, review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- hydrology and hydrologic processes
- 

Wise, M.P., Moore, G.D. and VanDine, V.D. (Eds.). 2004. **Landslide Risk Case Studies in Forest Development Planning and Operations.** British Columbia Ministry of Forests, Research Branch, Victoria, BC Land Management. Handbook. No. 56. 119 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
- 
-

Young, M.K. 2012. *Aquatic Species Invasions in the Context of Fire and Climate Change*. United States Department of Agriculture Forest Service, Report RMRS-GTR-290. 13 pp.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, information
  - fish and fish biology
  - monitoring, assessment protocols and adaptive management
  - temperature
  - wildfire behaviour, risk factors and trends
- 

### 3.5 JOURNAL ARTICLES

Abatzoglou, J.T. and Kolden, C.A. 2013. *Relationships between climate and macroscale area burned in the western United States*. *International Journal of Wildland Fire* 22: 1003–1020.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Abrahams, E.R., Kaste, J.M., Ouimet, W. and Dethier, D.P. 2009. *Asymmetric hillslope erosion following wildfire in Fourmile Canyon, Colorado*. *Earth Surface Processes and Landforms* 43: 2009–2021.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- ash
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
-

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Achten, C. and Andersson, J.T. 2015. **Overview of polycyclic aromatic compounds (PAC)**. *Polycyclic Aromatic Compounds* 35(2–4): 177–186.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- toxicology
- 

Alexakis, D.E. 2020. **Contaminated land by wildfire effect on ultramafic soil and associated human health and ecological risk**. *Land* 9: 1–16.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- toxicology
  - wildfire behaviour, risk factors and trends
- 

Alexander, R.B., Boyer, E.W., Smith, R.A., Schwarz, G.E. and Moore, R.B. 2007. **The role of headwater streams in downstream water quality**. *Journal of the American Water Resources Association* 43(1): 41–59.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- hydrology and hydrologic processes
- 

Alexakis, D., Kokmotos, I., Gramvroula, D. and Varelidis, G. 2020. **Wildfire effects on soil quality: application on a suburban area of West Attica (Greece)**. *Geosciences Journal* 25: 243–253.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Greece

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KEYWORDS:

- ash
  - soils and mass wasting
  - toxicology
- 

Allen, E.W., Prepas, E.E., Gabos, S., Strachan, W.M.J. and Zhang, W. 2005. **Methyl mercury concentrations in macroinvertebrates and fish from burned and undisturbed lakes on the Boreal Plain.** *Canadian Journal of Fisheries and Aquatic Sciences* 62: 1963–1977.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta)

KEYWORDS:

- aquatic food webs and components
- toxicology
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- brook stickleback
- pearl dace

OTHER AQUATIC ORGANISMS:

- algae
  - invertebrates
- 

Alwathaf, Y. and El Mansouri, B. 2011. **Assessment of aquifer vulnerability based on GIS and ARCGIS methods: a case study of the Sana'a Basin (Yemen).** *Journal of Water Resource and Protection* 3:16396. 11 pp.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: Yemen

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
- 

Andela, N., Morton, D.C., Giglio, L., Chen, Y. van der Werf, G.R., Kasibhatla, P.S., DeFries, R.S., Collatz, G.J., Hantson, S., Kloster, S., Bachelet, D., Forrest, M., Lasslop, G., Li, F., Mangleon, S., Melton, J.R., Yue, C. and Randerson, J.T. 2017. **A human-driven decline in global burned area.** *Science* 356:1356–1362.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: International

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Anders, P.J. 1998. **Conservation aquaculture and endangered species: Can objective science prevail over risk anxiety?** *Fisheries* 23 (11): 28–31.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
- 

Araki, H., Berejikian, B.A., Ford, M.J. and Blouin, M.S. 2008. **Fitness of hatchery-reared salmonids in the wild.** *Evolutionary Applications* 1:342–355.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology

FISH SPECIES:

- salmonids
  - salmonid enhancement
- 

Arauz, I., Cognac, K.E. and Ronayne, M.J. 2022. **Influence of natural beaver dams on groundwater recharge dynamics in a stream–alluvial–bedrock aquifer system.** *Geological Society of America Abstracts with Programs* 54(5) doi: 10.1130/abs/2022AM-381778.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- hydrology and hydrologic processes
- 

Arkle, R.S. and Pilliod, D.S. 2010. **Prescribed fires as ecological surrogates for wildfires: a stream and riparian perspective.** *Forest Ecology and Management* 259:893–903.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- aquatic food webs and components
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
- Chinook salmon
- rainbow trout
- sculpin
- steelhead trout
- westslope cutthroat trout

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Balcioğlu, E.B. 2016. **Potential effects of polycyclic aromatic hydrocarbons (PAHs) in marine foods on human health: a critical review.** *Toxin Reviews* 35: 98–105.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- toxicology
- 

Ban, N.C., Frid, A., Reid, M., Edgar, B., Shaw, D. and Siwallace, P. 2018. **Incorporate Indigenous perspectives for impactful research and effective management.** *Nature Ecology and Evolution* 2: 1680–1683.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- First Nations, Indigenous knowledge and cultural resources
- 

Ban, Y., Zhang, P., Nascetti, A., Bevington, A.R. and Wulder, M.A. 2020. **Near real-time wildfire progression monitoring with sentinel-1 SAR Time Series and deep learning.** *Scientific Reports* 10:1322. 15 pp.

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DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: Canada (Alberta and BC) and United States (California)

KEYWORDS:

- [monitoring, assessment protocols and adaptive management](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Barber, T.R., Lutes, C.C., Doorn, M.R.J., Fuchsman, P.C., Timmenga, H.J. and Crouch, R.L. 2003. [Aquatic ecological risks due to cyanide releases from biomass burning](#). *Chemosphere* 50:343–348.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (North Carolina and Tennessee)

KEYWORDS:

- [ash](#)
- [fish and fish biology](#)
- [hydrology and hydrologic processes](#)
- [toxicology](#)
- [water and sediment chemistry](#)

FISH SPECIES:

- [rainbow trout](#)
- 

Baron, J.N., Gergel, S.E., Hessburg, P.F. and Daniels, L.D. 2022. [A century of transformation: fire regime transitions from 1919 to 2019 in southeastern British Columbia, Canada](#). *Landscape Ecology* 37(10): 2707–2727.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [wildfire behaviour, risk factors and trends](#)
- 

Bart, R.L. and Tague, C. 2017. [The impact of wildfire on baseflow recession rates in California](#). *Hydrological Processes*.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

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KEYWORDS:

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Bash, J., Berman, C.H. and Bolton, S. 2001. **Effects of turbidity and suspended solids on salmonids.** *Chemosphere* 50:343–348.

DOCUMENTATION (TYPE): Technical report (review)

GEOGRAPHIC FOCUS: United States (Washington)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- salmonid enhancement
- sediment delivery, transport and budgets
- temperature

FISH SPECIES:

- salmonids
- 

Bašić, T., Britton, J.R., Rice, S.P. and Pledger, A.G. 2017. **Impacts of gravel jetting on the composition of fish spawning substrates: Implications for river restoration and fisheries management.** *Ecological Engineering* 107: 71–81.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United Kingdom

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - sediment delivery, transport and budgets
- 

Basso, M., Vieira, D.C., Ramos, T.B. and Mateus, M. 2020. **Assessing the adequacy of SWAT model to simulate postfire effects on the watershed hydrological regime and water quality.** *Land Degradation and Development* 31:619–631.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

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KEYWORDS:

- ash
  - decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Battin, J., Wiley, M.W., Ruckelshaus, M.H., Palmer, R.N., Korb, E., Bartz, K.K. and Imaki, H. 2007. **Projected impacts of climate change on salmon habitat restoration**. *Proceedings of the National Academy of Sciences of the United States of America* 104:6720–6725.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Washington)

KEYWORDS:

- ash
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- Chinook salmon
- 

Baxter, C.V. and Hauer, F.R. 2000. **Geomorphology, hyporheic exchange, and selection of spawning habitat by bull trout (*Salvelinus confluentus*)**. *Canadian Journal of Fisheries and Aquatic Sciences* 57:1470–1481.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Montana)

KEYWORDS:

- fish and fish biology
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
-

- sediment delivery, transport and budgets

FISH SPECIES:

- bull trout
- 

Beaks, M.P., Moore, J.W., Hayes, S.A. and Sogard, S.M. 2014. **Wildfire and the effects of shifting stream temperature on salmonids**. *Ecosphere* 5:1–14.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- fish habitat, channel morphology and processes
- temperature
- toxicology
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- rainbow trout
  - steelhead trout
- 

Beaty, K.G. 1994. **Sediment transport in a small stream following two successive forest fires**. *Canadian Journal of Fisheries and Aquatic Sciences* 51:2723–2733.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Ontario)

KEYWORDS:

- hydrology and hydrologic processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Beechie, T. and Bolton, S. 1999. **An approach to restoring salmonid habitat-forming processes in Pacific Northwest watersheds**. *Fisheries* 24:6–15.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: United States (Washington)

KEYWORDS:

- decision-making tools, support tools
-

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - temperature
- 

Beechie, T., Imaki, H., Greene, J., Wade, A., Wu, H., Pess, G., Roni, P., Kimball, J., Stanford, J., Kiffney, P. and Mantua, N. 2012. **Restoring salmon habitat for a changing climate**. *River Research and Applications* 29:939–960.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States (Oregon and Washington)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - Chinook salmon
  - coho salmon
  - cutthroat trout
  - Dolly Varden char
  - rainbow trout
  - steelhead trout
- 

Beechie, T., Pess, G., Roni, P. and Giannico, G. 2008. **Setting river restoration priorities: a review of approaches and a general protocol for identifying and prioritizing actions**. *North American Journal of Fisheries Management* 28:891–905.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
-

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Beechie, T.J., Sear, D.A., Olden, J.D., Pess, G.R., Buffington, J.M., Moir, H., Roni, P. and Pollock, M.M. 2010. **Process-based principles for restoring river ecosystems**. *BioScience* 60:209–222.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Behera, B.K., Das, A., Sarkar, D.J., Weerathunge, P., Parida, P.K., Das, B.K., Thavamani, P., Ramanathan, R. and Bansal, V. 2018. **Polycyclic aromatic hydrocarbons (PAHs) in inland aquatic ecosystems: perils and remedies through biosensors and bioremediation**. *Environmental Pollution* 241: 212–233.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- toxicology
- 

Benavides-Solorio, J. and MacDonald, L.H. 2001. **Post-fire runoff and erosion from simulated rainfall on small plots, Colorado Front Range**. *Hydrological Processes* 15:2931–2952.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
-



Benda, L., Miller, D., Bigelow, P. and Andras, K. 2003. **Effects of post-wildfire erosion on channel environments, Boise River, Idaho.** *Forest Ecology and Management* 178:105–119.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Berejikian, B.A., Larsen, D.A., Swanson, P., Moore, M.E., Tatara, C.P., Gale, W.L., Pasley, C.R. and Beckman, B.R. 2012. **Development of natural growth regimes for hatchery-reared steelhead to reduce residualism, fitness loss, and negative ecological interactions.** *Environmental Biology of Fishes* 94:29–44.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- fish and fish biology
- salmonid enhancement

FISH SPECIES:

- salmon
  - steelhead
- 

Beschta, R.L., Rhodes, J.J., Kauffman, J.B., Gresswell, R.E., Minshall, G.W., Karr, J.R., Perry, D.A., Hauer, F.R. and Frisswell, C.A. 2004. **Postfire management on forested public lands of the western United States.** *Conservation Biology* 18:957–967.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- decision-making tools, guidance
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
-

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Bisson, P.A. and Bilby, R.E. 1982. **Avoidance of suspended sediment by juvenile coho salmon**. *North American Journal of Fisheries Management* 2:371–374.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Washington)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- sediment delivery, transport and budgets

FISH SPECIES:

- coho salmon
- 

Bisson, P.A., Dunham, J. and Reeves, Gordon. 2009. **Freshwater ecosystems and resilience of Pacific Salmon: habitat management based on natural variability**. *Ecology and Society* 14:45. 18 pp.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- aquatic food webs and components
  - decision-making tools, guidance
  - fish and fish biology
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - sediment delivery, transport and budgets
-

- soils and mass wasting
- temperature
- wildfire behaviour, risk factors and trends

**FISH SPECIES:**

- sockeye salmon
- 

Bisson, P.A., Rieman, B.E., Luce, C., Hessburg, P.F., Lee, D.C., Kershner, J.L., Reeves, G.H. and Gresswell, R.E. 2003. **Fire and aquatic ecosystems of the western USA: current knowledge and key questions.** *Forest Ecology and Management* 178:213–229.

**DOCUMENTATION (TYPE):** Journal article (review)

**GEOGRAPHIC FOCUS:** United States

**KEYWORDS:**

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - wildfire behaviour, risk factors and trends
- 

Bixby, R.J., Cooper, S.D., Gresswell, R.E., Brown, L.E., Dahm, C.N. and Dwire, K.A. 2015. **Fire effects on aquatic ecosystems: an assessment of the current state of the science.** *Freshwater Science* 34:1340–1350.

**DOCUMENTATION (TYPE):** Journal article (review)

**GEOGRAPHIC FOCUS:** International

**KEYWORDS:**

- aquatic food webs and components
  - ash
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
-

FISH SPECIES:

- cutthroat trout
- dace
- headwater chub
- rainbow trout

OTHER AQUATIC ORGANISMS:

- algae
  - invertebrates
- 

Bladon, K.D., Emelko, M.B., Silins, U. and Stone, M. 2014. **Wildfire and the future of water supply.** *Environmental Science and Technology* 48:8936–8943.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- aquatic food webs and components
  - ash
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - temperature
  - toxicology
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Blake, W.H., Theocharopoulos, S.P., Skoulikidis, N., Clark, P., Tountas, P., Hartley, R. and Amaxidis, Y. 2010. **Wildfire impacts on hillslope sediment and phosphorus yields.** *Journal of Soils and Sediments* 10:671–682.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Greece

KEYWORDS:

- ash
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - water and sediment chemistry
-

Blount, K., Ruybal, C.J., Franz, K.J., and Hogue, T.S. 2020. **Increased water yield and altered water partitioning follow wildfire in a forested catchment in the western United States.** *Ecohydrology* 13 (1).

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Montana)

KEYWORDS:

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Bodí, M.B., Doerr, S.H., Cerdà, A. and Mataix-Solera, J. 2012. **Hydrological effects of a layer of vegetation ash on underlying wettable and water repellent soil.** *Geoderma* 191:14–23.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Spain

KEYWORDS:

- ash
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Bodí, M.B., Martin, D.A., Balfour, V.N., Santín, C., Doerr, S.H., Pereira, P., Cerdà, A. and Mataix-Solera, J. 2014. **Wildland fire ash: production, composition and eco-hydro-geomorphic effects.** *Earth-Science Reviews* 130:103–127.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Bozek, M.A. and Young, M.K. 1994. **Fish mortality resulting from delayed effects of fire in the Greater Yellowstone Ecosystem.** *Great Basin Naturalist* 54 (1) Article 6.

DOCUMENTATION (TYPE): Journal article (original research)

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GEOGRAPHIC FOCUS: United States (Wyoming)

KEYWORDS:

- fish and fish biology
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - wildfire behaviour, risk factors and trends
- 

Brardinoni, F. and Hassan, M.A. 2006. **Glacial erosion, evolution of river long profiles, and the organization of process domains in mountain drainage basins of coastal British Columbia.** *Journal of Geophysical Research: Earth Surface* 111(F1).

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- hydrology and hydrologic processes
- 

Brardinoni, F. and Hassan, M.A. 2007. **Glacially induced organization of channel-reach morphology in mountain streams.** *Journal of Geophysical Research: Earth Surface* 112(F3).

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- hydrology and hydrologic processes
- 

Brito, D.Q., Passos, C.J.S., Muniz, D.H.F and Oliveira-Filho E.C. 2017. **Aquatic ecotoxicology of ashes from Brazilian savanna wildfires.** *Environmental Science and Pollution Research* 24: 19671–19682.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Brazil

KEYWORDS:

- aquatic food webs and components
  - ash
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery
-

- toxicology
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- zebrafish

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Brown, D.K., Echelle, A.A., Propst, D.L., Brooks, J.E. and Fisher, W.L. 2001. **Catastrophic wildfire and number of populations as factors influencing risk of extinction for Gila trout (*Oncorhynchus gilae*)**. *Western North American Naturalist* 61:139–148.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Arizona and New Mexico)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- wildfire behaviour, risk factors and trends

FISH SPECIES: Gila trout

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Buhl, K. J., and Hamilton, S. J. 1998. **Acute toxicity of fire-retardant and foam-suppressant chemicals to early life stages of chinook salmon (*Oncorhynchus tshawytscha*)**. *Environmental Toxicology and Chemistry: An International Journal* 17(8): 1589–1599.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- toxicology
- 

Burd, K., Tank, S.E., Dion, N., Quinton, W.L., Spence, C., Tanentzap, A.J. and Olefeldt, D. 2018. **Seasonal shifts in export of DOC and nutrients from burned and unburned peatland-rich catchments, Northwest Territories, Canada**. *Hydrology and Earth System Sciences* 22:4455–4472.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Northwest Territories)

---

KEYWORDS:

- hydrology and hydrologic processes
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Burles, K. and Boon, S. 2011. **Snowmelt energy balance in a burned forest plot, Crowsnest Pass, Alberta, Canada.** *Hydrological Processes* 25:3012–3029.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta)

KEYWORDS:

- ash
  - hydrology and hydrologic processes
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Burton, T.A. 2005. **Fish and stream habitat risks from uncharacteristic wildfire: observations from 17 years of fire-related disturbances on the Boise National Forest, Idaho.** *Forest Ecology and Management* 211:140–149.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - Redband trout
-



Caldwell, C.A., Jacobi, G.Z., Anderson, M.C., Parmenter, R.R., McGann, J., Gould, W.R., DuBey, R. and Jacobi, M.D. 2013. **Prescribe-fire effects on an aquatic community of a southwest montane grassland system.** *North American Journal of Fisheries Management* 33:1049–1062.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (New Mexico)

KEYWORDS:

- ash
- aquatic food webs and components
- fish habitat, channel morphology and processes
- sediment delivery, transport and budgets
- temperature
- water and sediment chemistry

FISH SPECIES:

- brown trout

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Calfee, R.D. and Little, E.E. 2003. **Effects of a fire-retardant chemical to fathead minnows in experimental streams.** *Environmental Science and Pollution Research* 10:296–300.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Missouri)

KEYWORDS:

- fish and fish biology
- toxicology
- water and sediment chemistry

FISH SPECIES:

- fathead minnow

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Calhoun, N. 2022. **Recent observations of post-fire debris flows in five megafires in the Western Cascades, Oregon.** GSA Connects 2022 Session No. 141. *Geological Society of American Abstracts with Programs* 54 (5). doi: 10.1130/abs/2022AM-382132

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Campos, I., Abrantes, N., Pereira, P., Micaelo, A.C., Vale, C. and Keizer, J.J. 2019. **Forest fires as potential triggers for production and mobilization of polycyclic aromatic hydrocarbons to the terrestrial ecosystem.** *Land Degradation & Development* 30: 2360–2370.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta and Northwest Territories)

KEYWORDS:

- soils and mass wasting
  - toxicology
- 

Campos-Ruiz, R., Parisien, M.-A. and Flannigan, M.D. 2018. **Temporal patterns of wildfire activity in areas of contrasting human influence in the Canadian boreal forest.** *Forests* 9:159. 19 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta and Northwest Territories)

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Cannon, S.H., Gartner, J.E., Rupert, M.G., Michael, J.A., Rea, A.H., and Parrett, C. 2010. **Predicting the probability and volume of postwildfire debris flows in the intermountain western United States.** *Geological Society of America Bulletin* 122 (1–2): 127–144.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Western, Idaho)

KEYWORDS:

- decision-making tools, information
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
-

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Carter, V.A., Brunelle, A., Power, M.J., DeRose, R.J., Bekker, M.F., Hart, I., Brewer, S., Spangler, J., Robinson, E., Abbott, M., Maezumi, S.Y. and Coddling, B.F. 2021. **Legacies of Indigenous land use shaped past wildfire regimes in the Basin-Plateau Region, USA.** *Communications Earth and Environment* 2:72. 9 pp.

DOCUMENTATION (TYPE): Journal (original research)

GEOGRAPHIC FOCUS: United States (Colorado and Utah)

KEYWORDS:

- [First Nations, Indigenous knowledge and cultural resources](#)
- 

Carvalho, F., Pradhan, A., Abrantes, N., Campos, I., Keizer, J.J., Cássio, F. and Pascoal, C. 2019. **Wildfire impacts on freshwater detrital food webs depend on runoff load, exposure time and burnt forest type.** *Science of the Total Environment* 692:691–700.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- [ash](#)
- [aquatic food webs and components](#)
- [water and sediment chemistry](#)
- [wildfire behaviour, risk factors and trends](#)

OTHER AQUATIC ORGANISMS:

- [bacteria](#)
  - [invertebrates](#)
  - [fungi](#)
- 

Chen, H., Chow, A.T., Li, X.-W., Ni, H.-G., Dahlgren, R.A., Zeng, H. and Wang, J.-J. 2018. **Wildfire burn intensity affects the quantity and speciation of polycyclic aromatic hydrocarbons in soils.** *ACS Earth and Space Chemistry* 2: 1262–1270.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- [ash](#)
  - [toxicology](#)
  - [wildfire behaviour, risk factors and trends](#)
-

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Chen, X., Wei, X. and Scherer, R. 2005. **Influence of wildfire and harvest on biomass, carbon pool, and decomposition of large woody debris in forested streams of southern interior British Columbia.** *Forest Ecology and Management*, 208 (1-3): 101-114.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
- 

Christie, M.R., Marine, M.L., French, R.A., Waples, R.S. and Blouin, M.S. 2012. **Effective size of a wild salmonid population is greatly reduced by hatchery supplementation.** *Heredity* 109:254-260.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- fish and fish biology
- salmonid enhancement

FISH SPECIES:

- rainbow trout
  - salmon
  - steelhead trout
- 

Church, M. 2002. **Geomorphic thresholds in riverine landscapes.** *Freshwater Biology* 47(4): 541-557.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- hydrology and hydrologic processes
- 

Cienciala, P. 2021. **Vegetation and geomorphic connectivity in mountain fluvial systems.** *Water* 13(5).

DOCUMENTATION (TYPE): Journal article (review)

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GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish habitat, channel morphology and processes
- 

Cienciala, P., Bernardo, M.M., Nelson, A.D. and Haas, A.D. 2022. **Interdecadal variation in sediment yield from a forested mountain basin: the role of hydroclimatic variability, anthropogenic disturbances, and geomorphic connectivity.** *Science of The Total Environment*, 826, p.153876.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Pacific Northwest)

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Clark, S.J. 2024. **Full floodplain connectivity: Realising opportunities for 'Stage 0' river restoration.** *River Research and Applications. Special Issue Paper.* <https://doi.org/10.1002/rra.4283>

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
- 

Cluer, B., and Thorne, C. 2014. **A stream evolution model integrating habitat and ecosystem benefits.** *River Research and Applications* 30: 135–154.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Western)

KEYWORDS:

- decision-making tools, information
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
-

- sediment delivery, transport and budgets
- 

Cole, R.P., Bladon, K.D., Wagenbrenner, J.W. and Coe, D.B.R. 2020. **Hillslope sediment production after wildfire and post-fire forest management in northern California.** *Wildfire and Hydrological Processes* 34:5242–5259.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

Coogan, S.C.P., Robinne, F.-N., Jain, P. and Flannigan, M.D. 2019. **Scientists' warning on wildfire – a Canadian perspective.** *Canadian Journal of Forest Research* 49:1015–1023.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Coombs, J.S. and Melack, J.M. 2013. **Initial impacts of a wildfire on hydrology and suspended sediment and nutrient export in California chaparral watersheds.** *Hydrological Processes* 27:3842–3851.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- ash
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - water and sediment chemistry
-

- [wildfire behaviour, risk factors and trends](#)
- 

Copes-Gerbitz, K., Daniels, L.D. and Hagerman, S.M. 2023. [The contribution of Indigenous stewardship to an historical mixed-severity fire regime in British Columbia, Canada](#). *Ecological Applications* 33(1): p.e2736.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [First Nations, Indigenous knowledge and cultural resources](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Crampe, E.A., Segura, C. and Jones, J.A., 2021. [Fifty years of runoff response to conversion of old-growth forest to planted forest in the HJ Andrews Forest, Oregon, USA](#). *Hydrological Processes* 35(5), p.e14168.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- [hydrology and hydrologic processes](#)
  - [sediment delivery, transport and budgets](#)
- 

Crowley, M.A., Cardille, J.A., White, J.C. and Wulder, M.A. 2019. [Multi-sensor, multi-scale, Bayesian data synthesis for mapping within-year wildfire progression](#). *Remote Sensing Letters* 10:302–311.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- [decision-making tools, support tools](#)
  - [decision-making tools, information](#)
  - [wildfire behaviour, risk factors and trends](#)
-

Crozier, L.G., McClure, M.M., Beechie, T., Bograd, S.J., Boughton, D.A., Carr, M., Cooney, T.D., Dunham, J.B., Greene, C.M., Haltuch, M.A., Hazen, E.L., Holzer, D.M., Huff, D.D., Johnson, R.C., Jordan, C.E., Kaplan, I.C., Lindley, S.T., Mantua, N.J., Moyle, P.B., Myers, J.M., Nelson, M.W., Spence, B.C., Weitkamp, L.A., Williams, T.H., and Willis-Norton, E. 2019. **Climate vulnerability assessment for Pacific salmon and steelhead in the California Current Large Marine Ecosystem**. *PLoS ONE* 14(7): e0217711. <https://doi.org/10.1371/journal.pone.0217711>

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- decision-making tools, information
  - decision-making tools, support tools
  - fish and fish biology
  - fish habitat, channel morphology and processes
- 

Cummins, K.W. and Klug, M.J. 1979. **Feeding ecology of stream invertebrates**. *Annual Review of Ecology, Evolution, and Systematics* 10:147–172.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- aquatic food webs and components
  - fish habitat, channel morphology and processes
- 

Cunjak, R.A. 1996. **Winter habitat of selected stream fishes and potential impacts from land-use activity**. *Canadian Journal of Fisheries and Aquatic Sciences* 53 (Suppl. 1):267–282.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- First Nations, Indigenous knowledge and cultural resources
  - fish and fish biology
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - temperature
- 
-



Cutting, K.A., Ferguson, J.M., Anderson, M.L., Cook, K., Davis, S.C. and Levine, R. 2018. **Linking beaver dam affected flow dynamics to upstream passage of Arctic grayling.** *Ecology and Evolution* 8:12905–12917.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Montana)

KEYWORDS:

- fish habitat, channel morphology and processes
- monitoring, assessment protocols and adaptive management
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- fish and fish biology

FISH SPECIES:

- Arctic grayling
- 

Daigle, P. 2010. **A summary of the environmental impacts of roads, management responses, and research gaps: A literature review.** *BC Journal of Ecosystems and Management* 10(3):65–89.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish and fish biology
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
- 

David, A.T., Asarian, J.E. and Lake, F.K. 2018. **Wildfire smoke cools summer river and stream water temperatures.** *Water Resources Research* 54:7273–7290.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- ash
  - fish and fish biology
-

- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- temperature

FISH SPECIES:

- char
- Chinook salmon
- coho salmon
- trout

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Davidson, S.L. and Eaton, B.C. 2018. **Beyond regime: a stochastic model of floods, bank erosion, and channel migration.** *Water Resources Research* 54 (9): 6282–6298.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, information
- hydrology and hydrologic processes
- sediment delivery, transport and budgets

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Davidson, S.J., Elmes, M.C., Rogers, H., van Beest, C., Petrone, R., Price, J.S. and Strack, M. 2019. **Hydrogeologic setting overrides any influence of wildfire on pore water dissolved organic carbon concentration and quality at a boreal fen.** *Ecohydrology* 12:e2141. 11 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (AB)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - water and sediment chemistry
-

Davis, J., Lautz, L., Kelleher, C., Vidon, P., Russoniello, C. and Pearce, C. 2021. **Evaluating the geomorphic channel response to beaver dam analog installation using unoccupied aerial vehicles.** *Earth Surface Processes and Landforms* 46:2349–2364.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Wyoming)

KEYWORDS:

- decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Detenbeck, N.E., DeVore, P.W., Niemi, G.J. and Lima, A. 1992. **Recovery of temperate-stream fish communities from disturbance: a review of case studies and synthesis of theory.** *Environmental Management* 16:33–53.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish and fish biology
- hydrology and hydrologic processes
- sediment delivery, transport and budgets
- temperature

FISH SPECIES:

- minnow
  - salmonids
- 

Diabat, M., Haggerty, R., and Wondzell, S.M. 2013. **Diurnal timing of warmer air under climate change affects magnitude, timing and duration of stream temperature change.** *Hydrological Processes* 27:2367–2378.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- hydrology and hydrologic processes
  - temperature
  - wildfire behaviour, risk factors and trends
- 
-

DiBiase, R.A. and Lamb, M.P. 2020. **Dry sediment loading of headwater channels fuels post-wildfire debris flows in bedrock landscapes.** *Geology* 48(2): 189–193.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Dietrich, J.P., Myers, M.S., Strickland, S.A., Van Gaest, A. and Arkoosh, M.R. 2013. **Toxicity of forest fire retardant chemicals to stream-type Chinook salmon undergoing parr-smolt transformation.** *Environmental toxicology and Chemistry* 32:236–247.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- fish and fish biology
- toxicology
- water and sediment chemistry

FISH SPECIES:

- Chinook salmon
- 

Dietrich, J.P., Van Gaest, A.L., Strickland, S.A., Hutchinson, G.P., Krupkin, A.B. and Arkoosh, M.R. 2014. **Toxicity of PHOS-CHEK LC-95A and 259F fire retardants to ocean- and stream-type Chinook salmon and their potential to recover before seawater entry.** *Science of the Total Environment* 490:610–621.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- fish and fish biology
- toxicology
- water and sediment chemistry

FISH SPECIES:

- Chinook salmon
-

Di Napoli, M., Marsiglia, P., Di Martire, D., Ramondini, M., Ullo S.L. and Calcaterra, D. 2020. **Landslide susceptibility assessment of wildfire burnt areas through earth-observation techniques and a machine learning-based approach.** *Remote Sensing* 12:2505. 28 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Italy

KEYWORDS:

- decision-making tools, information
  - decision-making tools, support tools
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Doerr, S.H., Shakesby, R.A., Blake, W.H., Chafter, C.J., Humphreys, G.S. and Wallbrink, P.J. 2006. **Effects of differing wildfire severities on soil wettability and implications for hydrological response.** *Journal of Hydrology* 319:295–311.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Australia (New South Wales)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - soils and mass wasting
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Duggan, J.M., Eichelberger, B.A., Ma, S., Lawler, J.J. and Ziv, G. 2015. **Informing management of rare species with an approach combining scenario modeling and spatially explicit risk assessment.** *Ecosystem Health and Sustainability* 1:1–18.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Washington)

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
-

- [monitoring, assessment protocols and adaptive management](#)
- 

Dunham, J.B., Vinyard, G.L. and Rieman, B.E. 1997. [Habitat fragmentation and extinction of Lahontan cutthroat trout](#). *North American Journal of Fisheries Management* 17:1126–1133.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Nevada)

KEYWORDS:

- [fish and fish biology](#)
- [fish habitat, channel morphology and processes](#)
- [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
- [hydrology and hydrologic processes](#)

FISH SPECIES:

- cutthroat trout

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Dunham, J.B., Young, M.K., Gresswell, R.E. and Rieman, B.E. 2003. [Effects of fire on fish populations: landscape perspectives on persistence of native fishes and nonnative fish invasions](#). *Forest Ecology and Management* 178:183–196.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: North America

KEYWORDS:

- [fish and fish biology](#)
- [fish habitat, channel morphology and processes](#)
- [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
- [hydrology and hydrologic processes](#)
- [monitoring, assessment protocols and adaptive management](#)
- [sediment delivery, transport and budgets](#)
- [wildfire behaviour, risk factors and trends](#)

FISH SPECIES:

- brook trout
  - brown trout
  - bull trout
  - cutthroat trout
-

- Gila trout
  - rainbow trout
  - steelhead trout
- 

Dunham, J.B., Rosenberger, A.E., Luce, C.H. and Rieman, B.E. 2007. **Influences of wildfire and channel reorganization on spatial and temporal variation in stream temperature and the distribution of fish and amphibians.** *Ecosystems* 10:335–346.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- fish habitat channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- rainbow trout

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Dusheck, J. 2021. **Wildfire smoke could cause malformations in fish.** *Frontiers in Ecology and the Environment (Dispatches)* 19:144–148.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
- toxicology
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- zebrafish
-

Earl, N. and Simmonds, I. 2018. **Spatial and temporal variability and trends in 2001–2016 global fire activity**. *Journal of Geophysical Research: Atmospheres* 123:2524–2536.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: International

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Eaton, B.C., Andrews, C.A.E., Giles, T.R. and Phillips, J.C. 2010. **Wildfire, morphologic change and bed material transport at Fishtrap Creek, British Columbia**. *Geomorphology* 118:409–424.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Eaton, B.C., Moore, R.D. and Giles, T.R. 2010. **Forest fire, bank strength and channel instability: the 'unusual' response of Fishtrap Creek, British Columbia**. *Earth Surface Processes and Landforms* 35:1167–1183.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Ebel, B.A. and Moody, J.A. 2020. **Parameter estimation for multiple post-wildfire hydrologic models**. *Wildfire and Hydrological Processes* 34:4049–4066.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- hydrology and hydrologic processes
-



- [soils and mass wasting](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Ebel, B.A., Moody, J.A. and Martin, D.A. 2012. [Hydrologic conditions controlling runoff generation immediately after wildfire](#). *Water Resources Research* 48:W03529. 13 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- [ash](#)
  - [hydrology and hydrologic processes](#)
  - [monitoring, assessment protocols and adaptive management](#)
  - [sediment delivery, transport and budgets](#)
  - [soils and mass wasting](#)
  - [water and sediment chemistry](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Ebel, B.A., Shephard, Z.M., Walvoord, M.A., Murphy, S.F., Partridge, T.F., and Perkins, K.S. 2023. [Modeling post-wildfire hydrologic response: review and future directions for applications of physically based distributed simulation](#). *Earth's Future* 11 (2).

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: South America, Africa, Asia

KEYWORDS:

- [decision-making tools, information](#)
  - [hydrology and hydrologic processes](#)
- 

Ebersole, J.L., Wigington Jr, P.J., Baker, J.P., Cairns, M.A., Church, M.R., Hansen, B.P., Miller, B.A., LaVigne, H.R., Compton, J.E. and Leibowitz, S.G. 2006. [Juvenile coho salmon growth and survival across stream network seasonal habitats](#). *Transactions of the American Fisheries Society* 135:1681–1697.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

---

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes

FISH SPECIES:

- coho salmon
- 

Eby, L.A., Helmy, O., Holsinger, L.M. and Young, M.K. 2014. **Evidence of climate-induced range contraction in bull trout (*Salvelinus confluentus*) in a Rocky Mountain watershed, U.S.A.** *PLOS ONE* 9:e98812. 9 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Montana)

KEYWORDS:

- fish and fish biology
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- brook trout
  - bull trout
- 

Emelko, M.B., Silins, U., Bladon, K.D. and Stone, M. 2011. **Implications of land disturbance on drinking water treatability in a changing climate: demonstrating the need to “source water supply and protection” strategies.** *Water Research* 45:461–472.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta)

KEYWORDS:

- water and sediment chemistry
- wildfire behaviour, risk factors and trends

OTHER ORGANISMS:

- algae
- 

Estrany, J., López-Tarazón, J.A. and Smith, H.G. 2016. **Wildfire effects on suspended sediment delivery quantified using radionuclide tracers in a Mediterranean catchment.** *Land Degradation and Development* 27:1501–1512.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Spain

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Evans, C.D., Malcolm, I.A., Shilland, E.M., Rose, N.L., Turner, S.D., Crilly, A., Norris, D., Granath, G. and Monteith, D.T. 2017. **Sustained biogeochemical impacts of wildfire in a mountain lake catchment**. *Ecosystems* 20:813–829.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United Kingdom

KEYWORDS:

- sediment delivery, transport and budgets
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Evans, M.C., Tulloch, A.I.T., Law, E.A., Raiter, K.G., Possingham, H.P. and Wilson, K.A. 2015. **Clear consideration of costs, condition and conservation benefits yields better planning outcomes**. *Biological Conservation* 191:716–727.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Australia

KEYWORDS:

- decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - wildfire behaviour, risk factors and trends
- 

Fairfax, E. and Whittle, A. 2020. **Smokey the beaver: beaver-dammed riparian corridors stay green during wildfire throughout the western United States**. *Ecological Applications* 30:e02225. 8 pp.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Falcon-Lang, H. 1998. **The impact of wildfire on an Early Carboniferous coastal environment, North Mayo, Ireland.** *Palaeogeography, Palaeoclimatology, Palaeoecology* 139:121–138.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Ireland

KEYWORDS:

- fish and fish biology
- sediment delivery, transport and processes
- soils and mass wasting
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- shark

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Falke, J.A., Flitcroft, R.L., Dunham, J.B., McNyset, K.M., Hessburg, P.F. and Reeves, G.H. 2015. **Climate change and vulnerability of bull trout (*Salvelinus confluentus*) in a fire-prone landscape.** *Canadian Journal of Fisheries and Aquatic Sciences* 72:304–318.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Washington)

KEYWORDS:

- fish habitat, channel morphology and processes
  - decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - temperature
-

- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
- 

Fausch, K.D., Taniguchi, Y., Nakano, S., Grossman, G.D. and Townsend, C.R. 2001. **Flood disturbance regimes influence rainbow trout invasion success among five Holarctic regions.** *Ecological Applications* 11:1438–1455.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Japan and United States

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- salmonid enhancement
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- rainbow trout
- 

Feldhaus, J.W., Heppell, S.A., Li, H., and Mesa, M.G. 2010. **A physiological approach to quantifying thermal habitat quality for Redband Rainbow Trout (*Oncorhynchus mykiss gairdneri*) in the south Fork John Day River, Oregon.** *Environmental Biology of Fishes* 87:277–290.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- fish and fish biology
- temperature

FISH SPECIES:

- rainbow trout
- 
-

Feurdean, A., Florescu, G., Tanțu, I., Vannièrè, B., Diaconu, A.-C., Pfeiffer, M., Warren, D., Hutchinson, S.M., Gorina, N., Gațka, M. and Kirpotin, S. 2020. **Recent fire regime in the southern boreal forests of western Siberia is unprecedented in the last five millennia.** *Quaternary Science Reviews* 244:106495. 16 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Russia (Siberia)

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Flannigan, M., Stocks, B., Turetsky, M. and Wotton, M. 2009. **Impacts of climate change on fire activity and fire management in the circumboreal forest.** *Global Change Biology* 15:549–560.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: Canada, Russia (Siberia) and United States (Alaska)

KEYWORDS:

- multiparty, G2G (co-management, collaboration) and IRMP processes
  - wildfire behaviour, risk factors and trends
- 

Flitcroft, R.L., Brignon, W.R., Staab, B., Bellmore, J.R., Burnett, J., Burns, P., Cluer, B., Giannico, G., Helstab, J.M., Jennings, J. and Mayes, C. 2022. **Rehabilitating valley floors to a stage 0 condition: A synthesis of opening outcomes.** *Frontiers in Environmental Science* 10: p.892268.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Pacific Northwest)

KEYWORDS:

- decision-making tools, guidance
  - fish and fish biology
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
- 

Flitcroft, R.L., Falke, J.A., Reeves, G.H., Hessburg, P.F., McNyset, K.M. and Benda L.E. 2016. **Wildfire may increase habitat quality for spring Chinook salmon in the Wenatchee River subbasin, WA, USA.** *Forest Ecology and Management* 359:126–140.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Washington)

KEYWORDS:

- aquatic food webs and components
- decision-making tools, guidance
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- sediment delivery, transport and budgets
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - Chinook salmon
  - rainbow trout
  - steelhead trout
- 

Florsheim, J.L., Chin, A., O'Hirok, L.S. and Storesund, R., 2016. **Short-term post-wildfire dry-ravel processes in a chaparral fluvial system.** *Geomorphology* 252: 32–39.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- sediment delivery, transport and budgets
- 

Forkel, M., Dorigo, W., Lasslop, G., Chuvieco, E., Hantson, S., Heil, A., Teubner, I., Thonicke, K. and Harrison, S.P. 2019. **Recent global and regional trends in burned area and their compensating environmental controls.** *Environmental Research Communications* 1:051005. 9 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: International

KEYWORDS:

- wildfire behaviour, risk factors and trends
-

Fraser, D.J. 2008. **How well can captive breeding programs conserve biodiversity? a review of salmonids** *Earth Surface Processes and Landforms* 31:1643–1656.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
- salmonid enhancement

FISH SPECIES:

- salmonids
- 

Fraser, D.J. Weir, L.K., Bernatchez, L., Hansen, M.M. and Taylor, E.B. 2011. **Extent and scale of local adaptation in salmonid fishes: review and meta-analysis**. *Earth Surface Processes and Landforms* 31:1643–1656.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
- salmonid enhancement

FISH SPECIES:

- salmonids
- 

Garcia, E. and Carignan, R. 2005. **Mercury concentrations in fish from forest harvesting and fire-impacted Canadian boreal lakes compared using stable isotopes of nitrogen**. *Environmental toxicology and Chemistry* 24:685–693.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Quebec)

KEYWORDS:

- aquatic food webs and components
  - fish and fish biology
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - toxicology
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
-



FISH SPECIES:

- brook trout
- burbot
- lake trout
- northern pike
- walleye
- white sucker
- whitefish
- yellow perch

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Garcia, E., Carignan, R. and Lean D.R.S. 2007. **Seasonal and inter-annual variations in methyl mercury concentrations in zooplankton from boreal lakes impacted by deforestation or natural forest fires.** *Environmental Monitoring and Assessment* 131:1–11.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Quebec)

KEYWORDS:

- aquatic food webs and components
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- toxicology
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

OTHER AQUATIC ORGANISMS:

- algae
  - invertebrates
- 

Garcia-Comendador, J., Fortesa, J., Calsamiglia, A., Garcias, F. and Estrany, J. 2017. **Source ascription in bed sediments of a Mediterranean temporary stream after the first post-fire flush.** *Journal of Soils and Sediments* 17:2582–2595.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Spain

KEYWORDS:

- ash
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
-

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - water and sediment chemistry
- 

Gartner, J.E., Cannon, S.H., and Santi, P.M. 2014. **Empirical models for predicting volumes of sediment deposited by debris flows and sediment-laden floods in the transverse ranges of southern California.** *Engineering Geology* 176: 45–56.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- decision-making tools, information
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Gido, K.B., Propst, D.L., Whitney, J.E., Hedden, S.C., Turner, T.F. and Pilger, T.J. 2019. **Pockets of resistance: response of arid-land fish communities to climate, hydrology, and wildfire.** *Freshwater Biology* 64:761–777.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (New Mexico)

KEYWORDS:

- ash
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- sediment delivery, transport and budgets
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- desert sucker
  - fathead minnow
  - flathead catfish
  - green sunfish
  - headwater chub
  - loach minnow
-

- longfin dace
  - red shiner
  - smallmouth bass
  - Sonora sucker
  - speckled dace
  - western mosquitofish
  - yellow bullhead
- 

Giles-Hansen, K., Li, Q., and Wei, X. 2019. **The cumulative effects of forest disturbance and climate variability on streamflow in the Deadman River Watershed.** *Forests* 10 (2): 196.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (British Columbia)

KEYWORDS:

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Gillett, N.P., Weaver, A.J., Zwiers, F.W. and Flannigan, M.D. 2004. **Detecting the effect of climate change on Canadian forest fires.** *Geophysical Research Letters* 31:L18211. 4 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, support tools
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Gimenez, A., Pastor, E., Zarate, L., Planas, E. and Arnaldos, J. 2004. **Long-term forest fire retardants: a review of quality, effectiveness, application and environmental considerations.** *International Journal of Wildland Fire* 13:1–15.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
  - toxicology
  - water and sediment chemistry
- 
-

Girona-Garcia, A., Vieira, D.C.S., Silva, J., Fernandez, C. Robichaud, P.R. and Keizer, J.J. 2021. **Effectiveness of post-fire soil erosion mitigation treatments: A systematic review and meta-analysis.** *Earth-Science Reviews*. 217: 103611.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
  - [hydrology and hydrologic processes](#)
  - [monitoring, assessment protocols and adaptive management](#)
  - [sediment delivery, transport and budgets](#)
- 

Gleason, K.E., McConnell, J.R., Arienzo, M.M., Chellman, N. and Calvin, W.M. 2019. **Four-fold increase in solar forcing on snow in western U.S. burned forests since 1999.** *Nature Communications* 10:1–8.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- [hydrology and hydrologic processes](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Gleason, K.E., Nolin, A.W. and Roth, T.R. 2013. **Charred forests increase snowmelt: effects of burned woody debris and incoming solar radiation on snow ablation.** *Geophysical Research Letters* 40:4654–4661.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- [hydrology and hydrologic processes](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Gleason, K.E. and Nolin, A.W. 2016. **Charred forests accelerate snow albedo decay: parameterizing the post-fire radiative forcing on snow for three years following fire.** *Hydrological Processes* 30:3855–3870.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- hydrology and hydrologic processes
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Gomi, T., Sidle, R.C. and Richardson, J.S. 2002. **Understanding processes and downstream linkages of headwater systems: headwaters differ from downstream reaches by their close coupling to hillslope processes, more temporal and spatial variation, and their need for different means of protection from land use.** *BioScience* 52(10): 905–916.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- hydrology and hydrologic processes
- 

Gonino, G., Branco, P., Benedito, E., Ferreira, M.T. and Santos, J.M. 2019. **Short-term effects of wildfire ash exposure on behaviour and the hepatosomatic condition of potamodromous cyprinid fish, the Iberian barbel *Luciobarbus bocagei* (Steindachner, 1864).** *Science of the Total Environment* 665:226–234.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- ash
- fish and fish biology
- fish habitat, channel morphology and processes
- temperature
- water and sediment chemistry

FISH SPECIES:

- Iberian barbel
- 

Goss, M., Swain, D.L., Abatzoglou, J.T., Sarhadi, A., Kolden, C.A., Williams, A.P. and Diffenbaugh, N.S. 2020. **Climate change is increasing the likelihood of extreme autumn wildfire conditions across California.** *Environmental Research Letters* 15:094016. 14 pp.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Gowan, C., Young M.K., Fausch, K.D. and Riley, S.C. 1994. **Restricted movement in resident stream salmonids: a paradigm lost?** *Canadian Journal of Fisheries and Aquatic Sciences* 51:2626–2637.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish habitat, channel morphology and processes
- fish and fish biology
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- salmonid enhancement

FISH SPECIES:

- salmonids
- 

Gresswell, R.E. 1999. **Fire and aquatic ecosystems in forested biomes of North America.** *Transactions of the American Fisheries Association* 128:193–221.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: North America

KEYWORDS:

- aquatic food webs and components
  - ash
  - fish and fish biology
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soil and mass wasting
  - temperature
  - toxicology
-

- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- brook trout
- brown trout
- bull trout
- Chinook salmon
- coho salmon
- cutthroat trout
- Gila trout
- rainbow trout
- Redband trout

OTHER AQUATIC ORGANISMS:

- algae
  - invertebrates
- 

Gronsdahl, S., Moore, R.D., Rosenfeld, J. McCleary, R. and Winkler, R. 2019. **Effects of forestry on summertime low flows and physical fish habitat in snowmelt-dominant headwater catchments of the Pacific Northwest**. Special Issue Canadian Geophysical Union. Hydrological Processes 22 (25): 3152–3168.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- hydrology and hydrologic processes
  - fish habitat, channel morphology and processes
- 

Guerra, A. 1994. **The effect of organic matter content on soil erosion in simulated rainfall experiments in W. Sussex, UK**. *Soil Use and Management* 10:60–64.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United Kingdom

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Hale, R.C., Alaei, M., J.B. Manchester-Neesvig, H.M. Stapleton, and Ikononou. M.G. 2003. **Polybrominated diphenyl ether flame retardants in the North American Environment**. *Environ. Int.* 29 (6): 771e779.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: North America

KEYWORDS:

- toxicology
- 

Hall, S.J., and Lombardozzi, D. 2008. **Short-term effects of wildfire on montane stream ecosystems in the southern Rocky Mountains: one- and two-years post-burn.** *Western North American Naturalist* 68:453–462.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- aquatic food webs and components
- ash
- hydrology and hydrologic processes
- temperature
- toxicology
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Hallema, D.W., Robinne, F.-N. and Bladon, K.D. 2018. **Reframing the challenge of global wildfire threats to water supplies.** *Earth's Future* 6:772–776.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: North America

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - wildfire behaviour, risk factors and trends
-



Hallema, D.W., Sun, G., Bladon, K.D., Norman, S.P., Caldwell, P.V., Liu, Y. and McNulty, S.G. 2017. **Regional patterns of post-wildfire streamflow response in the western United States: the importance of scale-specific connectivity.** *Hydrological Processes* 31:2582–2598.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- ash
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Hallema, D.W., Sun, G., Caldwell, P.V., Norman, S.P., Cohen, E.C., Liu, Y., Bladon, K.D. and McNulty, S.G. 2018. **Burned forests impact water supplies.** *Nature Communications* 9:1307. 8pp.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Hanes, C.C., Wang, X, Jain, P., Parisien, M.-A., Little, J.M. and Flannigan, M.D. 2019. **Fire-regime changes in Canada over the last century.** *Canadian Journal of Forest Research* 49:256–269.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, information
  - wildfire behaviour, risk factors and trends
-

Hantson, S., Pueyo, S. and Chuvieco, E. 2015. **Global fire size distribution is driven by human impact and climate**. *Global Ecology and Biogeography* 24:77–86.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: International

KEYWORDS:

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Hardy, J.P., Melloh, R., Koenig, G., Marks, D., Winstral, A., Pomeroy, J.W. and Link, T. 2004. **Solar radiation transmission through conifer canopies**. *Agricultural and Forest Meteorology* 126:257–270.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- temperature
  - wildfire behaviour, risk factors and trends
- 

Harper, A.R., Santin, C., Doerr, S.H., Froyd, C.A., Albin, D., Otero, X.L., Viñas, L. and Pérez-Fernández, B. 2019. **Chemical composition of wildfire ash produced in contrasting ecosystems and its toxicity of *Daphnia magna***. *International Journal of Wildland Fire* 28:726–737.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: International

KEYWORDS:

- aquatic food webs and components
- ash
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- water and sediment chemistry
- toxicology

FISH SPECIES:

- zebrafish
-

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Harris, H.E., Baxter, C.V. and Davis, J.M. 2015. **Debris flows amplify effects of wildfire on magnitude and composition of tributary subsidies to mainstem habitats.** *Freshwater Science* 34:1457–1467.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- aquatic food webs and components
- ash
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- water and sediment chemistry

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Havel, A., Tasdighi, A. and Arabi, M. 2018. **Assessing the hydrologic response to wildfires in mountainous regions.** *Hydrology and Earth System Science* 22:2527–2550.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Healey, M.C. 2009. **Resilient salmon, resilient fisheries for British Columbia, Canada.** *Ecology and Society* 14(1): 13 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

---

KEYWORDS:

- fish habitat, channel morphology and processes
  - salmonid enhancement
- 

Hély, C., Bergeron, Y., and Flannigan, M.D. 2000. **Effects of stand composition on fire hazard in mixed-wood Canadian boreal forest.** *Journal of Vegetation Science* 11(6): 813–824.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Boreal forest)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Hindar, K., Ryman, N., and Utter, F. 1991. **Genetic effects of cultured fish on natural fish populations.** *Canadian Journal of Fisheries and Aquatic Sciences* 48:945–957.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
- salmonid enhancement

FISH SPECIES:

- salmonids

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Hitt, N.P. 2003. **Immediate effects of wildfire on stream temperature.** *Journal of Freshwater Ecology* 18:171–173.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Montana)

KEYWORDS:

- ash
  - temperature
  - toxicology
  - water and sediment chemistry
-

- wildfire behaviour, risk factors and trends

FISH SPECIES:

- cutthroat trout

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Hobday, A.J., Smith, A.D.M., Stobutzki, I.C., Bulman, C., Daley, R., Dambacher, J.M., Deng, R.A., Dowdney, J., Fuller, M., Furlani, D., Griffiths, S.P., Johnson, D., Kenyon, R., Knuckey, I.A., Ling, S.D., Pritcher, R., Sainsbury, K.J., Sporcic, M., Smith, T., Turnbull, C., Walker, T.I., Wayte, S.E., Webb, H., Williams, A., Wise, B.S., and Zhou, S. 2011. **Ecological risk assessment for the effects of fishing.** *Fisheries Research* 108(1–2): 372–384.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Australia

KEYWORDS:

- decision-making tools, information
  - decision-making tools, support tools
- 

Hoffman, K.M., Christianson, A.C., Dickson-Hoyle, S., Copes-Gerbitz, K., Nikolakis, W., Diabo, D.A., McLeod, R., Michell, H.J., Al Mamun, A., Zahara, A. and Mauro, N. 2022. **The right to burn: barriers and opportunities for Indigenous-led fire stewardship in Canada.** *FACETS* 7:464–481.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- First Nations, Indigenous knowledge and cultural resources
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - wildfire behaviour, risk factors and trends
- 

Hoffman, K.M., Christianson, A.C., Gray, R.W. and Daniels, L. 2022. **Western Canada's new wildfire reality needs a new approach to fire management.** *Environ. Res. Lett* 17(6): p.061001.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: Canada (western)

KEYWORDS:

- wildfire behaviour, risk factors and trends
-

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Hohner, A.K., Cawley, K., Oropeza, J., Summers, R.S. and Rosario-Ortiz, F.L. 2016. **Drinking water treatment response following a Colorado wildfire**. *Water Research* 105:187–198.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - water and sediment chemistry
- 

Hohner, A.K., Rhoads, C.C., Wilkerson, P. and Rosario-Ortiz, F.L. 2019. **Wildfires alter forest watersheds and threaten drinking water quality**. *Accounts of Chemical Research* 52:1234–1244.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Holden, Z.A., Luce, C.H., Crimmins, M.A. and Morgan, P. 2012. **Wildfire extent and severity correlated with annual streamflow distribution and timing in the Pacific Northwest, USA (1984–2005)**. *Ecohydrology* 5:677–684.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
-

Holsinger, L.M., Parks, S.A., Saperstein, L.B., Loehman, R.A., Whitman, E., Barnes, J. and Parisien, M.-A. 2021. **Improved fire severity mapping in the North American boreal forest using a hybrid composite method**. *Remote Sensing in Ecology and Conservation* 112:879. 14 pp.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: Canada and United States

KEYWORDS:

- [decision-making tools, support tools](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Honda, M. and Suzuki, N. 2020. **Toxicities of polycyclic aromatic hydrocarbons for aquatic animals**. *International Journal of Environmental Research and Public Health* 17:1363. 23 pp.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- [aquatic food webs and components](#)
- [fish and fish biology](#)
- [toxicology](#)
- [water and sediment chemistry](#)

OTHER AQUATIC ORGANISMS:

- [invertebrates](#)
- 

Howell, P.J. 2006. **Effects of wildfire and subsequent hydrologic events on fish distribution and abundance in tributaries of North Fork John Day River**. *North American Journal of Fisheries Management* 26:983–994.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- [fish and fish biology](#)
  - [fish habitat, channel morphology and processes](#)
  - [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
  - [hydrology and hydrologic processes](#)
  - [temperature](#)
-

- wildfire behaviour, risk factors and trends

FISH SPECIES:

- brook trout
  - Chinook salmon
  - rainbow trout
  - sculpin
  - speckled dace
  - steelhead trout
- 

Hudy, M., Coombs, J.A., Nislow, K.H. and Letcher, B.H. 2010. **Dispersal and within-stream spatial population structure of brook trout revealed by pedigree reconstruction analysis.** *Transactions of the American Fisheries Society* 139:1276–1287.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Virginia)

KEYWORDS:

- fish habitat, channel morphology and processes
- monitoring, assessment protocols and adaptive management
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- fish and fish biology
- salmonid enhancement

FISH SPECIES:

- brook trout
- 

Huffman, E.L., MacDonald, L.H. and Stednick, J.D. 2001. **Strength and persistence of fire-induced soil hydrophobicity under ponderosa and lodgepole pine, Colorado Front Range.** *Hydrological Processes* 15:2877–2892.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- hydrology and hydrologic processes
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
-



Hungr, O., Leroueil, S. and Picarelli, L. 2014. **The Varnes classification of landslide types, an update.** *Landslides* 11: 167–194.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- [soils and mass wasting](#)
- 

Ice, G.G., Neary, D.G. and Adams, P.W. 2004. **Effects of wildfire on soils and watershed processes.** *Journal of Forestry* 102: 16–20.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- [fish habitat, channel morphology and processes](#)
  - [hydrology and hydrologic processes](#)
  - [sediment delivery, transport and budgets](#)
  - [soils and mass wasting](#)
  - [temperature](#)
  - [water and sediment chemistry](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Iqbal, M., Hussain Syed, J., Katsoyiannis, A., Naseem Malik, R., Farooqi, A., Butt, A., Li, J., Zhang, G., Cincinelli, A., and Jones, K.C. 2017. **Legacy and emerging flame retardants (FRs) in the freshwater ecosystem: A review.** *Environmental Research* 152: 26–42.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- [toxicology](#)
- 

Isaak, D.J., Luce, C.H., Reiman, B.E., Nagel, D.E., Peterson, E.E., Horan, D.L, Parkes, S. and Chandler, G.L. 2010. **Effects of climate change and wildfire on stream temperatures and salmonid thermal habitat in a mountain river network.** *Ecological Applications* 20:1350–1371.

DOCUMENTATION (TYPE): Journal article (original research)

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GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - rainbow trout
- 

Isaak, D.J., Muhlfeld, C.C., Todd, A.S., Al-Chokhachy, R., Roberts, J., Kershner, J.L., Fausch, K.D. and Hostetler, S.W. 2012. **The past as a prelude to the future for understanding 21<sup>st</sup>-Century climate effects on Rocky Mountain trout.** *Fisheries* 137:542–556.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, guidance
  - fish and fish biology
  - monitoring, assessment protocols and adaptive management
  - multiparty, G2G (co-management, collaboration) and IRMP processes
  - wildfire behaviour, risk factors and trends
- 

Iskin, E.P. and Wohl, E. 2021. **Wildfire and the patterns of floodplain large wood on the Merced River, Yosemite National Park, California, USA.** *Geomorphology* 389:107805. 12 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
- 

Jackson, M. and Roering, J.J. 2009. **Post-fire geomorphic response in steep, forested landscapes: Oregon Coast Range, USA.** *Quaternary Science Reviews* 28(11–12): 1131–1146.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

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KEYWORDS:

- hydrology and hydrologic processes
  - soils and mass wasting
- 

Jager, H.I., Long, J.W., Malison, R.L., Murphy, B.P., Rust, A., Silva, L.G.M., Sollmann, R., Steel, Z.L., Bowen, M.D., Duhham, J.B., Ebersole, J.L and Flitcroft, R.L. 2021. **Resilience of terrestrial and aquatic fauna to historical and future wildfire regimes in western North America.** *Ecology and Evolution* 11:12259–12284.

DOCUMENTATION (TYPE): Journal Article (review)

GEOGRAPHIC FOCUS: North America

KEYWORDS:

- aquatic food webs and components
- ash
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- soils and mass wasting
- temperature
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
- rainbow trout
- salmon
- steelhead trout

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Janowitz-Koch, I., Rabe, C., Kinzer, R., Nelson, D., Hess, M.A. and Narum, S.R. 2018. **Long-term evaluation of fitness and demographic effects of a Chinook salmon supplementation program.** *Evolutionary Applications* 12:456–469.

DOCUMENTATION (TYPE): Journal article (original research)

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GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- fish and fish biology
- salmonid enhancement

FISH SPECIES:

- Chinook salmon
- 

Jech, S., Adamchak, C., Stokes, S.C., Wiltse, M.E., Callen, J., VanderRoest, J., Kelly, E.F., Hinckley, E.L.S., Stein, H.J., Borch, T. and Fierer, N. 2024. **Determination of soil contamination at the wildland-urban interface after the 2021 Marshall Fire in Colorado, USA.** *Environmental Science & Technology* 58(9): 4326–4333.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- toxicology
- 

Jiménez-Pinilla, P., Lozano, E., Mataix-Solera, J., Arcenegui, V., Jordán, A. and Zavala, L.M. 2016. **Temporal changes in soil water repellency after a forest fire in a Mediterranean calcareous soil: influence of ash and different vegetation type.** *Science of the Total Environment* 572:1252–1260.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Spain

KEYWORDS:

- ash
  - hydrology and hydrologic processes
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Johansen, M.P., Hakonson, T.E., and Breshears, D.D. 2001. **Post-fire runoff and erosion from rainfall simulation: contrasting forests with shrublands and grasslands.** *Hydrological Processes* 15:2953–2965.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (New Mexico)

KEYWORDS:

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- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Johnson, S.L. 2004. **Factors influencing stream temperatures in small streams: substrate effects and a shading experiment.** *Canadian Journal of Fisheries and Aquatic Sciences* 61:913–923.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- fish habitat, channel morphology and processes
  - temperature
- 

Johnson, S.L. and Jones, J.A. 2000. **Stream temperature responses to forest harvest and debris flows in Western Cascades, Oregon.** *Canadian Journal of Fisheries and Aquatic Sciences* 57(S2):30–39.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- fish habitat, channel morphology and processes
  - temperature
- 

Jonas, J.L., Berryman, E., Wolk, B. Morgan, P. and Robichaud, P.R. 2019. **Post-fire wood mulch for reducing erosion potential increases tree seedlings with few impacts on understory plants and soil nitrogen.** *Forest Ecology and Management* 453: 117567

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Western)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
-

- wildfire behaviour, risk factors and trends
- 

Jones, H.P. and Schmitz, O.J. 2009. **Rapid recovery of damaged ecosystems**. *PLOS ONE* 4: e5653. 6 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- monitoring, assessment protocols and adaptive management
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Jones, J., Ellison, D, Ferraz, S, Lara, A., Wei, X, and Zhang, Z. 2022. **Forest restoration and hydrology**. *Forest Ecology and Management* 520 (2022) 120342.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- hydrology and hydrologic processes
- 

Kato, A., Thau, D., Hudak, A.T., Meigs, G.W. and Moskal, L.M. 2020. **Quantifying fire trends in boreal forests with Landsat time series and self-organized criticality**. *Remote Sensing of Environment* 237:111525. 12 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta and Northwest Territories)

KEYWORDS:

- decision-making tools, support tools
  - wildfire behaviour, risk factors and trends
- 

Kauffman, J.B. and Krueger, W.C. 1984. **Livestock Impacts on Riparian Ecosystems and Streamside Management Implications. A Review**. *Journal of Range Management* 37 (5): 430–438.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

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KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Keller, E.A., Valentine, D.W. and Gibbs, D.R. 1997. **Hydrological response of small watersheds following the southern California Painted Cave Fire of June 1990.** *Hydrological Processes* 11:401–414.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and processes
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Kelly, E.N., Schindler, D.W., St. Louis, V.L., Donald, D.B., and Vladicka, K.E. 2006. **Forest fire increases mercury accumulation by fishes via food web restructuring and increased mercury inputs.** *Proceedings of the National Academy of Sciences of the United States of America* 103:19380–19385.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta)

KEYWORDS:

- aquatic food webs and components
- monitoring, assessment protocols and adaptive management
- toxicology
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - lake trout
  - cisco
  - rainbow trout
-

Kemp, P., Sear, D., Collins, A., Naden, P. and Jones, I. 2011. **The impacts of fine sediment on riverine fish**. *Hydrological Processes* 25:1800–1821.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- aquatic food webs and components
- fish and fish biology
- fish habitat, channel morphology and processes
- sediment delivery, transport and budgets

FISH SPECIES:

- salmonids
- 

Khorshidi, M.S., Dennison, P.E., Nikoo, M.R., AghaKouchak, A., Luce, C.H. and Sadegh, M. 2020. **Increasing concurrence of wildfire drivers tripled megafire critical danger days in Southern California between 1982 and 2018**. *Environmental Research Letters* 15:104002. 9 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Kinoshita, A.M, and Hogue, T.S. 2015. **Increased dry season water yield in burned watersheds in Southern California**. *Environmental Research Letters* 10 (1): 014003.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Kirchmeier-Young, M., Zwiers, F.W. Gillett, N.P. and Cannon, A.J. 2017. **Attributing extreme fire risks in western Canada to human emissions**. *Climatic Change* 144:365–379.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (western)

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KEYWORDS:

- temperature
  - wildfire behaviour, risk factors and trends
- 

Kirchmeier-Young, M.C., Gillett, N.P., Zwiers, F.W., Cannon, A.J. and Anslow, F.S. 2019. **Attribution of the influence of human-induced climate change on an extreme fire season.** *Earth's Future* 7:2–10.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- hydrology and hydrologic processes
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Klassen, J. and Allen, D.M. 2017. **Assessing the risk of saltwater intrusion in coastal aquifers.** *Journal of Hydrology*. 551: 730–745.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - hydrology and hydrologic processes
- 

Knapp, R.A. and Matthews, K.R. 1996. **Livestock grazing, golden trout, and streams in the Golden Trout Wilderness, California: impacts and management implications.** *North American Journal of Fisheries Management* 16(4): 805–820.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- fish habitat, channel morphology and processes
- 

Koetsier, P., Tuckett, Q. and White, J. 2007. **Present effects of past wildfires on the diets of stream fish.** *Western North American Naturalist* 67:429–438.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- aquatic food webs and components
- fish and fish biology
- fish habitat, channel morphology and processes
- temperature

FISH SPECIES:

- rainbow trout

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Kohl, L., Meng, M., de Vera, J., Bergquist, B., Cooke, C.A., Hustins, S., Jackson, B., Chow, C.-W. and Chan, A.W.H. 2018. **Limited-retention of wildfire-derived PAHs and trace elements in indoor environments**. *Geophysical Research Letters* 46: 383–391.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (AB)

KEYWORDS:

- toxicology
- 

Koontz, E.D., Steel, E.A. and Olden, J.D. 2018. **Stream thermal responses to wildfire in the Pacific Northwest**. *Freshwater Science* 37:731–746.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - Chinook salmon
  - rainbow trout
  - steelhead trout
-

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Kopp, B.J., Lange, J. and Menzel, L. 2017. **Effects of wildfire on runoff generating processes in northern Mongolia**. *Regional Environmental Change* 17: 1951–1963.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Mongolia

KEYWORDS:

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Kostow, K. 2009. **Factors that contribute to the ecological risks of salmon and steelhead hatchery programs and some mitigating strategies**. *Reviews in Fish Biology and Fisheries* 19:9–31.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, guidance
- fish and fish biology
- monitoring, assessment protocols and adaptive management
- salmonid enhancement

FISH SPECIES:

- Chinook salmon
  - steelhead trout
  - rainbow trout
- 

Kreutzweiser, D.P., Capell, S.C. and Holmes, S.B. 2009. **Stream temperature responses to partial-harvest logging in riparian buffers of boreal mixed wood forest watersheds**. *Canadian Journal of Forest Research* 39:497–506.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Ontario)

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - temperature
-

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Kunze, M.D. and Stednick, J.D. 2006. **Streamflow and suspended sediment yield following the 2000 Bobcat Fire, Colorado**. *Hydrological Processes* 20:1661–1681.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and processes
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Lande, R. 1988. **Genetics and demography in biological conservation**. *Science* 241:1455–1460.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish habitat, channel morphology and processes
  - fish and fish biology
  - salmonid enhancement
- 

Langhans, C., Nyman, Petter, Noske, P.J., Van der Sant, R., Lane, P.N.J. and Sheridan, G.J. 2017. **Post-fire hillslope debris flows: evidence of a distinct erosion process**. *Geomorphology* 295:55–75.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Australia (Victoria)

KEYWORDS:

- ash
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
-

Larsen, S. and Ormerod, S.J. 2010. **Low-level effects of inert sediments on temperate stream invertebrates** *Freshwater Biology* 55:476–486.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Australia (Victoria)

KEYWORDS:

- aquatic food webs and components
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- sediment delivery, transport and budgets

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Lau, C.-A., Jakob, M., and Wong, H. 2022. **Fires and Floods: A Year of Climate Change Driven Disasters in British Columbia, Canada**. GSA Connects 2022 Session No. 180. *Geological Society of American Abstracts with Programs* 54 (5). doi: 10.1130/abs/2022AM-381760

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, information
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Leach, J.A. and Moore, R.D. 2010. **Above-stream microclimate and stream surface energy exchanges in a wildfire-disturbed riparian zone**. *Hydrological Processes* 24:2369–2381.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - temperature
  - wildfire behaviour, risk factors and trends
-

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Leach, J.A. and Moore, R.D. 2011. **Stream temperature dynamics in two hydrogeomorphically distinct reaches**. *Hydrological Processes* 25:679–690.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - temperature
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Legler, J., and Brouwer, A. 2003. **Are brominated flame retardants endocrine disruptors?** *Environ. Int.* 29 (6): 879e885.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- toxicology
- 

LeMoine, M.T., Eby, L.A., Clancy, C.G., Nyce, L.G., Jakober, M.J. and Isask, D.J. 2020. **Landscape resistance mediates native fish species distribution shifts and vulnerability to climate change in riverscapes**. *Global Change Biology* 26:5492–5508.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Montana)

KEYWORDS:

- fish habitat, channel morphology and processes
- fish and fish biology
- hydrology and hydrologic processes
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - cutthroat trout
  - longnose dace
  - slimy sculpin
-

Leonard, J.M., Magaña, H.A., Bangert, R.K., Neary, D.G. and Montgomery, W.L. 2017. **Fires and floods: the recovery of headwater stream systems following high-severity wildfire**. *Fire Ecology* 13:62–84.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Arizona)

KEYWORDS:

- aquatic food webs and components
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- water and sediment chemistry
- sediment delivery, transport and processes
- temperature
- wildfire behaviour, risk factors and trends

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Leverkus, A.B., Buma, B., Wagenbrenner, J., Burton, P.J., Lingua, E., Marzona, R., and Thorn, S. 2021. **Tamm review: does salvage logging mitigate subsequent forest disturbances?** *Forest Ecology and Management* 481 1 February 2021, 118721.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Libohova, Z., Seybold, C., Wysocki, D., Wills, S., Schoeneberger, P., Williams, C., Lindbo, D., Stott, D. and Owens, P.R. 2018. **Reevaluating the effects of soil organic matter and other properties on available water-holding capacity using the National Cooperative Soil Survey Characterization Database**. *Journal of Soil and Water Conservation* 73:411–421.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

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- hydrology and hydrologic processes
  - soils and mass wasting
- 

Lindenmayer, D.B. and Likens, G.E. 2010. **The science and application of ecological monitoring.** *Biological Conservation* 143(2010): 1317–1328.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- monitoring, assessment protocols and adaptive management
- 

Liu, H., Randerson, J.T., Lindfors, J., and Chapin, F.S. 2005. **Changes in the surface energy budget after fire in boreal ecosystems of interior Alaska: an annual perspective.** *Journal of Geophysical Research-Atmospheres* 110:D13101. 12 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Alaska)

KEYWORDS:

- temperature
  - wildfire behaviour, risk factors and trends
- 

Lopez, A.M., Avila, C.C.E., VanderRoest, J.P., Roth, H.K., Fendorf, S., and Borch, T. 2024. **Molecular insights and impacts of wildfire-induced soil chemical changes.** *Nature Reviews Earth & Environment* 5: 431–446.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- soils and mass wasting
  - toxicology
- 

Lutz, J.A., Key, C.H., Kolden, C.A., Kane, J.T. and van Wagtenonk, J.W. 2011. **Fire frequency, area burned, and severity: a quantitative approach to defining a normal fire year.** *Fire Ecology* 7:51–65.

DOCUMENTATION (TYPE): Journal article (original research)

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GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- monitoring, assessment protocols and adaptive management
  - wildfire behaviour, risk factors and trends
- 

Lyon, J.P. and O'Connor, J.P. 2008. **Smoke on the water: can riverine fish populations recover following a catastrophic fire-related sediment slug?** *Austral Ecology* 33:794–806.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Australia (Victoria) and United States (Montana)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- soils and mass wasting
- water and sediment chemistry

FISH SPECIES:

- |                        |                        |
|------------------------|------------------------|
| • Australian smelt     | • Murray cod           |
| • barred galaxias      | • Macquarie perch      |
| • brook trout          | • rainbow trout        |
| • brown trout          | • river blackfish      |
| • flat headed galaxias | • southern pygmy perch |
| • golden perch         | • trout cod            |
| • mountain galaxias    | • two-spined blackfish |
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MacDonald, L.H. and Coe, D. 2007. **Influence of headwater streams on downstream reaches in forested areas.** *Forest Science* 53(2): 148–168.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- hydrology and hydrologic processes
-

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Macfarlane, W.W., Wheaton, J.M., Bouwes, N., Jensen, M.L., Gilbert, J.T., Hough-Snee, N. and Shivik, J.A. 2017. *Modeling the capacity of riverscapes to support beaver dams*. *Geomorphology* 277:72–99.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: United States (Utah)

KEYWORDS:

- fish habitat, channel morphology and processes
  - decision-making tools, guidance; hydrology and hydrologic processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Madej, M.A., Eschenbach, E.A., Diaz, C., Teasley, R. and Baker, K. 2006. **Optimization strategies for sediment reduction practices on roads in steep, forested terrain**. *Earth Surface Processes and Landforms* 31: 1643–1656. (no hyperlink available)

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Magilligan, F.J. and McDowell, P.F., 1997. **Stream channel adjustments following elimination of cattle grazing**. *Journal of the American Water Resources Association* 33(4): 867–878.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
-

Mahat, V., Anderson, A. and Silins, U. 2015. **Modelling of wildfire impacts on catchment hydrology applied to two case studies**. *Hydrological Processes* 29:3687–3698.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: Canada (Alberta and BC)

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Mahat, V., Silins, U, and Anderson, A. 2016. **Effects of wildfire on the catchment hydrology of southwest Alberta**. *Catena* 147: 51–60.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta)

KEYWORDS:

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Maina, F.Z. and Siirila-Woodburn, E. 2020. **Watersheds dynamics following wildfires: nonlinear feedbacks and implications on hydrologic responses**. *Hydrological Processes* 34:33–50.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- hydrology and hydrologic processes
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Malmon, D.V., Reneau, S.L., Katzman, D., Lavine, A. and Lyman, J. 2007. **Suspended sediment transport in an ephemeral stream following wildfire**. *Journal of Geophysical Research* 112:F02006. 16 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (New Mexico)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Mansilha, C., Carvalho, A., Guimarães, P. and Marques, J.E. 2014. **Water quality concerns due to forest fires: polycyclic aromatic hydrocarbons (PAH) contamination of groundwater from mountain areas.** *Journal of Toxicology and Environmental Health, Part A: Current Issues* 77:806–815.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - toxicology
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Mansilha, C., Duarte, C.G., Melo, A., Ribeiro, J., Flores, D. and Marques, J.E. 2019. **Impact of wildfire on water quality in Caramulo Mountain ridge (central Portugal).** *Sustainable Water Resources Management* 5:319–331.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
  - toxicology
  - water and sediment chemistry
-

Mansilha, C., Melo, A., Martins, Z.E., Ferreira, I.M.P.L.V.O, Pereira, A.M. and Marques, J.E. 2020. **Wildfire effects on groundwater quality from springs connected to small public supply systems in a peri-urban forest area (Braga Region, NW Portugal)**. *Water* 12:1146. 16 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- ash
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - toxicology
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Manzetti, S. 2013. **Polycyclic aromatic hydrocarbons in the environment: environmental fate and transformations**. *Polycyclic Aromatic Compounds* 33: 311–330.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- toxicology
- 

Marcoux, H.M., Gergel, S.E. and Daniels, L.D. 2013. **Mixed-severity fire regimes: how well are they represented by existing fire-regime classification systems?** *Canadian Journal of Forest Research* 43(7): 658–668.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- wildfire behaviour, risk factors and trends
- 

Mataix-Solero, J., Cerda, A., Arcenegui, V., Jordan, A., and Zavala, L.M. 2011. **Fire effects on soil aggregation: A review**. *Earth-Science Reviews* 109(1–2): 44–60.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

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KEYWORDS:

- [soils and mass wasting](#)
- 

McClure, M.M., Calson, S.M., Beechie, T.J., Pess, G.R., Jorgensen, J.C., Sogard, S.M., Sultan, S.E., Holzer, D.M., Travis, J., Sanderson, B.L., Poer, M.E and Carmichael, R.W. 2008. [Evolutionary consequences of habitat loss for Pacific anadromous salmonids](#). *Evolutionary Applications* 1:300–318.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: North America (Pacific Northwest)

KEYWORDS:

- [habitat restoration and habitat management techniques, methodologies, guidance and BMPs](#)
- [fish and fish biology](#)
- [salmonid enhancement](#)

FISH SPECIES:

- salmonids
- 

McEachern, P., Prepas, E.E. and Planas, D. 2002. [Phytoplankton in boreal subarctic lakes following enhanced phosphorus loading from forest fire: impacts on species richness, nitrogen and light limitation](#). *Lake and Reservoir Management* 18:138–148.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta)

KEYWORDS:

- [water and sediment chemistry](#)
  - [hydrology and hydrologic processes](#)
  - [aquatic food webs and components](#)
  - [toxicology](#)
- 

McGuire, L.A., Ebel, B.A., Rengers, F.K., Vieira, D.C.S., and Nyman, P. 2024. [Fire effects on geomorphic processes](#). *Nature Reviews Earth & Environment*.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

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KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Meffe, G.K. and Minckley, W.L. 1987. **Persistence and stability of fish and invertebrate assemblages in a repeatedly disturbed Sonoran Desert stream.** *American Midland Naturalist* 1:177–191.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Arizona)

KEYWORDS:

- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- aquatic food webs and components
- fish and fish biology

FISH SPECIES:

- desert mountain-sucker
- loach minnow
- longfin dace
- roundtail chub
- Sonora sucker
- speckled dace

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Megahan, W.F. and Clayton, J.L. 1983. **Trace subsurface flow on roadcuts on steep, forested slopes.** *Soil Science Society of America Journal* 47 (6): 1063–1067.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- hydrology and hydrologic processes
- 

Milne, M.J. and Lewis, D. 2011. **Consideration for rehabilitating naturally disturbed stands: Part 1 – Watershed hydrology.** *BC Journal of Ecosystems and Management* 11: 55–65.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

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KEYWORDS:

- decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and processes
  - wildfire behaviour, risk factors and trends
- 

Minshall, G.W., Robinson, C.T. and Lawrence, D.E. 1997. **Postfire responses of lotic ecosystems in Yellowstone National Park, U.S.A.** *Canadian Journal of Fisheries and Aquatic Sciences* 54: 2509–2525.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Wyoming, Montana, Idaho)

KEYWORDS:

- fish habitat, channel morphology and processes
- 

Monaghan, K.A., Machado, A.L., Wrona, F.J. and Soares, A.M.V.M. 2016. **The impact of wildfire on stream fishes in an Atlantic–Mediterranean climate: evidence from an 18-year chronosequence.** *Knowledge and Management of Aquatic Ecosystems* 417:28. 11 pp.

DOCUMENTATION (TYPE): Journal Article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- ash
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management
- temperature
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- brown trout
  - European eel
  - Northern Iberian chub
-



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Montgomery, D.R. and Buffington, J.M. 1997. Channel-reach morphology in mountain drainage basins. *Geological Society of America Bulletin* 109(5): 596–611.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not stated

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Moody, J.A. and Martin, D.A. 2001. **Initial hydrologic and geomorphic response following a wildfire in the Colorado front range.** *Earth Surface Processes and Landforms* 26:1049–1070.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Moody, J.A. and Martin, D.A. 2001. **Post-fire intensity–peak discharge relations for three mountain watersheds in the western USA.** *Hydrologic Processes* 15:2981–2993.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado, New Mexico and South Dakota)

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
-

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Moody, J.A. and Martin, D.A. 2009. **Synthesis of sediment yields after wildland fire in different rainfall regimes in the wester United States**. *International Journal of Wildfire* 18:96–115.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Moody, J.A., Shakeby, R.A., Robichaud, P.R., Cannon, S.H. and Martin D.A. 2013. **Current research issues related to post-wildfire runoff and erosion processes**. *Earth-Science Reviews* 122:10–37.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Moore, R.R. and Wondzell, S.M. 2005. **Physical hydrology and the effects of forest harvesting in the Pacific Northwest: a review**. *Journal of the American Water Resources Association* 41:763–784.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: United States (western)

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KEYWORDS:

- fish habitat, channel morphology and processes
  - decision-making tools, guidance
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
- 

Morita, K. and Yamamoto, S. 2002. **Effects of habitat fragmentation by damming on the persistence of stream-dwelling charr populations.** *Conservation Biology* 16:1318–1323.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Japan

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- salmonid enhancement

FISH SPECIES:

- char
- 

Muir, D.C.G. and Galarneau, E. 2021. **Polycyclic aromatic compounds (PACs) in the Canadian environment: links to global change.** *Environmental Pollution* 273:116425. 15 pp.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- hydrology and hydrologic processes
- water and sediment chemistry
- toxicology
- wildfire behaviour, risk factors and trends

OTHER AQUATIC ORGANISMS:

- invertebrates
-

Murphy, B.P., Czuba, J.A., and Belmont, P. 2019. **Post-wildfire sediment cascades: a modeling framework linking debris flow generation and network -scale sediment routing.** *Earth Surface Processes and Landforms* 44(11): 2126–2140.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States (Utah)

KEYWORDS:

- decision-making tools, information
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
- 

Nadel-Romero, E., Khorchani, M., Lasanta, T. and García-Ruiz, J.M. 2019. **Runoff and solute outputs under different land uses: long-term results from a Mediterranean mountain experimental station.** *Water* 11: 976. 19 pp.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: Mediterranean

KEYWORDS:

- hydrology and hydrologic processes
  - water and sediment chemistry
- 

Naish, K.A, Taylor, J.E., Levin, P.S., Quin, T.P., Winton, J.R., Huppert, D. and Hilborn, R. 2009. **Factors that contribute to the ecological risks of salmon and steelhead hatchery programs and some mitigating strategies.** *Reviews in Fish Biology and Fisheries* 19:9–31.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
- salmonid enhancement

FISH SPECIES:

- rainbow trout
  - salmon
  - salmonids
  - steelhead trout
-

Nash, C.S., Grant, G.E., Charnley, S., Dunham, J.B., Gosnell, H., Hausner, M.B., Pilliod, D.S. and Taylor, J.D. 2021. **Great expectations: deconstructing the process pathways underlying beaver-related restoration.** *BioScience* 71:249–267.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- sediment delivery, transport and budgets

FISH SPECIES:

- salmonids
- 

Naylor, B.J., Mackereth, R.W., Kreuzweiser, D.P. and Sibley, P.K. 2012. **Merging END concepts with protection of fish habitat and water quality in a new direction for riparian forests in Ontario: a case study of science guiding policy and practice.** *Freshwater Science* 31:248–257.

DOCUMENTATION (TYPE): Journal article (policy)

GEOGRAPHIC FOCUS: Canada (Ontario)

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

Neville, H., Duham, J., Rosenberger, A., Umek, J. and Nelson, B. 2009. **Influences of wildfire, habitat size, and connectivity on trout in headwater streams revealed by patterns of genetic diversity.** *Transactions of the American Fisheries Society* 138:1314–1327.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- fish and fish biology
  - fish habitat, channel morphology and processes
-

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- cutthroat trout
  - rainbow trout
- 

Newaz, M.S., Mackereth, R.W., Mallik, A.U. and McCormick, D. 2020. **How much boreal lake shoreline is burned by wildfire? Implications for emulating natural disturbance in riparian forest management.** *Forest Ecology and Management* 473:118283. 9 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Ontario)

KEYWORDS:

- fish habitat, channel morphology and processes
  - monitoring, assessment protocols and adaptive management
  - wildfire behaviour, risk factors and trends
- 

Niemeyer, R.J., Bladon, K.D. and Woodsmith, R.D. 2020. **Long-term hydrologic recovery after wildfire and post-fire forest management in the interior Pacific Northwest.** *Hydrological Processes* 34:1182–1197.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Washington)

KEYWORDS:

- hydrology and hydrologic processes
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Nitschke, C.R. and Innes, J.L. 2008. **Climatic change and fire potential in south-central British Columbia, Canada.** *Global Change Biology* 14(4): 841–855.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, support tools
  - wildfire behaviour, risk factors and trends
- 

Nitschke, C.R. and Innes, J.L. 2012. **Potential effect of climate change on observed fire regimes in the Cordilleran forests of South-Central Interior, British Columbia.** *Climatic Change* 116: 579–591.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- decision-making tools, support tools
  - wildfire behaviour, risk factors and trends
- 

Nunes, B., Silva, V., Campos, I., Pereira, J.L., Pereira, P., Keizer, J.J., Gonçalves, F. and Abrantes, N. 2017. **Off-site impacts of wildfires on aquatic systems – biomarker responses of the mosquitofish *Gambusia holbrooki*.** *Science of the Total Environment* 581:305–313.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- aquatic food webs and components
- ash
- fish and fish biology
- hydrology and hydrologic processes
- toxicology
- water and sediment chemistry

FISH SPECIES:

- mosquitofish

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Nyman, P., Sheridan, G.J., Moody, J.A., Smith, H.G., Noske, P.J. and Lane, P.N.J. 2013. **Sediment availability on burned hillslopes.** *Journal of Geophysical Research: Earth Surface* 118:2451–2467.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Australia and United States

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KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Oakley, N.S., Lancaster, J.T., Kaplan, M.L. and Ralph, F.M. 2017. **Synoptic conditions associated with cool season post-fire debris flows in the Transverse Ranges of southern California.** *Natural Hazards* 88:327–354.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

O’Laughlin, J. 2005. **Conceptual model for comparative ecological risk assessment of wildfire effects on fish, with and without hazardous fuel treatment.** *Forest Ecology and Management* 211:59–72.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, support tools
  - monitoring, assessment protocols and adaptive management
  - wildfire behaviour, risk factors and trends
- 

O’Leary, D.S. III, Bloom, T.D., Smith, J.C., Zemp, C.R. and Medler, M.J. 2016. **A new method comparing snowmelt timing with annual burned area.** *Fire Ecology* 12:41–51.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:



- decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Oliveira-Filho, E., Brito, D.Q., Dias, Z.M.B., Guarieiro, M.S., Carvalho, E.L., Fascineli, M.L., Niva, C.C. and Grisolia, C.K. 2018. **Effects of ashes from Brazilian savanna wildfire on water, soil and biota: an ecotoxicological approach.** *Science of the Total Environment* 618:101–111.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: South America (Brazil)

KEYWORDS:

- aquatic food webs and components
- ash
- fish and fish biology
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- soils and mass wasting
- toxicology
- water and sediment chemistry

FISH SPECIES:

- zebrafish

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Olivella, M.A., Ribalta, T.G., de Febrer, A.R., Mollet, J.M. and de las Heras, F.X.C. 2006. **Distribution of polycyclic aromatic hydrocarbons in riverine waters after Mediterranean forest fires.** *Science of the Total Environment* 355:156–166.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Spain

KEYWORDS:

- ash
  - fish habitat, channel morphology and processes
-

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - temperature
  - toxicology
  - water and sediment chemistry
- 

Owens, P.N., Blake, W.H., Giles, T.R. and Williams, N.D. 2012. **Determining the effects of wildfire on sediment sources using  $^{137}\text{Cs}$  and unsupported  $^{120}\text{Pb}$ : the role of landscape disturbances and driving forces.** *Journal of Soils and Sediments* 12:982–994.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- ash
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - water and sediment chemistry
- 

Owens, P.N., Giles, T.R., Petticrew, E.L., Leggat, M.S., Moore, R.D. and Eaton, B.C. 2013. **Muted responses of streamflow and suspended sediment flux in a wildfire-affected watershed.** *Geomorphology* 202:128–139.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- aquatic food webs and components
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
-

Palmer, J. 2022. **The one-two punch of fires and mudslides.** *Nature* 601:184–186.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: Canada (BC) and United States (western)

KEYWORDS:

- hydrology and hydrologic processes
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Pander, J., Mueller, M. and Geist, J. 2015. A comparison of four stream substratum restoration techniques concerning interstitial conditions and downstream effects. *River Research and Applications* 31(2): 239–255.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
- 

Patoine, A., Pinel-Alloul, B., Prepas E.E. and Carignan, R. 2000. **Do logging and forest fires influence zooplankton biomass in Canadian boreal shield lakes?** *Canadian Journal of Fisheries and Aquatic Science* 57 (Suppl. 2):155–164.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Quebec)

KEYWORDS:

- aquatic food webs and components
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- water and sediment chemistry

FISH SPECIES:

- brook trout
- whitefish
- yellow perch

OTHER AQUATIC ORGANISMS:

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- invertebrates
- 

Patoine, A., Pinel-Alloul, B. and Prepas E.E. 2002. **Influence of catchment deforestation by logging and natural forest fires on crustacean community size structure in lakes of the eastern boreal Canadian forest.** *Journal of Plankton Research* 24:601–616.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (eastern)

KEYWORDS:

- aquatic food webs and components
- fish and fish biology
- monitoring, assessment protocols and adaptive management
- water and sediment chemistry

FISH SPECIES:

- |                  |                |
|------------------|----------------|
| • brook trout    | • pearl dace   |
| • burbot         | • walleye      |
| • finescale dace | • whitefish    |
| • golden shiner  | • white sucker |
| • lake chub      | • yellow perch |
| • northern pike  |                |

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Pearce, C., Vidon, P., Lutz, L., Kelleher, C. and Davis, J. 2021. **Short-term impact of beaver dam analogues on streambank erosion and deposition in semi-arid landscapes of the western USA.** *River Research and Applications* 37:1032–1037.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Wyoming)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
-

Pedersen, M.L., Kristensen, E.A., Kronvang, B. and Thodsen, H., 2009. **Ecological effects of re-introduction of salmonid spawning gravel in lowland Danish streams.** *River Research and Applications* 25(5): 626–638.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Denmark

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Peterson, D.P., Rieman, B.E., Horan, D.L. and Young, M.K. 2014. **Patch size but not short-term isolation influences occurrence of westslope cutthroat trout above human-made barriers.** *Ecology of Freshwater Fish* 23:556–571.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Montana; Idaho)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes

FISH SPECIES:

- westslope cutthroat trout
- 

Phillis, C.C., Moore, J.W., Buoro, M., Hayes, S.A., Garza, J.C. and Pearse, D.E. 2016. **Shifting thresholds: rapid evolution of migratory life histories in steelhead/rainbow trout, *Oncorhynchus mykiss*.** *Journal of Heredity* 107:51–60.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- salmonid enhancement

FISH SPECIES:

- rainbow trout
  - steelhead trout
-

Pimentel, R. and Arheimer, B. 2021. **Hydrological impact of a wildfire in a boreal region: the Västmanland Fire 2014 (Sweden)**. *Science of the Total Environment* 756:143519. 16 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Sweden

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Pollock, M.M., Beechie, T.J., Wheaton, J.M., Jordan, C.E., Bouwes, N., Weber, N. and Volk, C. 2014. **Using Beaver Dams to Restore Incised Stream Ecosystems**. *BioScience* xx(4):1-12

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Poole, G.C. and Berman, C.H. 2000. **Pathways of human influence on water temperature dynamics in streams**. *Environmental Management*.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- hydrology and hydrologic processes
  - temperature
-

Poole, G.C. and Berman, C.H. 2001. **An ecological perspective on in-stream temperature: natural heat dynamics and mechanisms of human-caused thermal degradation.** *Environmental Management* 27:787–802.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - temperature
- 

Possingham, H.P., Bode, M. and Klein C.J. 2015. **Optimal conservation outcomes require both restoration and protection.** *PLOS Biology* 13:e1002052. 15 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Philippines

KEYWORDS:

- decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Powers, P.D., Helstab, M. and Niezgod, S.L., 2019. **A process-based approach to restoring depositional river valleys to Stage 0, an anastomosing channel network.** *River Research and Applications* 35(1): 3–13.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, support tools
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Puglis, H. J., and Lacchetta, M. 2023. **Toxicity of Wildland Fire Retardants to Rainbow Trout in Short Exposures.** *Environmental Toxicology and Chemistry* 43(2): 398–404.

DOCUMENTATION (TYPE): Journal article (original research)

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GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- toxicology
- 

Pulg, U., Barlaup, B.T., Sternecker, K., Trepl, L. and Unfer, G. 2013. **Restoration of spawning habitats of brown trout (*Salmo trutta*) in a regulated chalk stream.** *River Research and Applications* 29(2): 172–182.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Germany

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Pulg, U., Lennox, R.J., Stranzl, S., Espedal, E.O., Gabrielsen, S.E., Wiers, T., Velle, G., Hauer, C., Dønnum, B.O. and Barlaup, B.T. 2022. **Long-term effects and cost-benefit analysis of eight spawning gravel augmentations for Atlantic salmon and Brown trout in Norway.** *Hydrobiologia* 849(2): 485–507.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Norway

KEYWORDS:

- decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Puttock, A., Graham, H.A., Cunliffe, A.M., Elliott, M. and Brazier, R.E. 2017. **Eurasian beaver activity increases water storage, attenuates flow and mitigates diffuse pollution from intensively managed grasslands.** *Science of the Total Environment* 576: 430–443.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United Kingdom

KEYWORDS:

- aquatic food webs and components
-



- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - toxicology
  - water and sediment chemistry
- 

Ré, A., Campos, I., Saraiva, M.J., Puga, J., Keizer, J.J., Gonçalves, J.M., Pereira, J.L. and Abrantes, N. 2020. **Wildfire effects on two freshwater producers: combining *in-situ* and laboratory bioassays.** *Ecotoxicology and Environmental Safety* 194:110361. 11 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- aquatic food webs and components
- hydrology and hydrologic processes
- toxicology
- water and sediment chemistry

OTHER AQUATIC ORGANISMS:

- algae
  - macrophytes
- 

Ré, A., Rocha, A.T., Campos, I., Marques, S.M., Keizer, J.J., Gonçalves, F.J.M, Pereira, J.L. and Abrantes, N. 2021. **Impacts of wildfires in aquatic organisms: biomarker responses and erythrocyte nuclear abnormalities in *Gambusia holbrooki* exposed in situ.** *Environmental Science and Pollution Research* 28:51733–51744.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- fish and fish biology
- hydrology and hydrologic processes
- toxicology
- water and sediment chemistry

FISH SPECIES:

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- mosquitofish
- 

Reale, J.K., Archdeacon, T.P., Van Horn, D.J., Gonzales, E.J., Dudley, R.K., Turner, T.F. and Dahm, C.N. 2021. **Differential effects of a catastrophic wildfire on downstream fish assemblages in an aridland river.** *Aquatic Ecology* 55:483–500.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (New Mexico)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- temperature

FISH SPECIES:

- minnow
- 

Reeves, G.H., Benda, L.E., Burnett, K.M., Bisson, P.A. and Sedell, J.R. 1995. **A disturbance-based approach to maintaining and restoring freshwater habitats of evolutionarily significant units of anadromous salmonids in the Pacific Northwest.** *American Fisheries Society Symposium* 17:334–349.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - coho salmon
  - cutthroat trout
  - steelhead trout
-

Reeves, G.H., Bisson, P.A., Rieman, B.E. and Benda, L.E. 2006. **Postfire logging in riparian areas.** *Conservation Biology* 20: 994–1004.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- decision-making tools, guidance
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Reeves, G.H., Williams, J.E., Burnett, K.M. and Gallo, K. 2006. **The aquatic conservation strategy of the northwest forest plan.** *Conservation Biology* 20: 319–329.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- decision-making tools, support tools
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management
- multiparty, G2G (co-management, collaboration) and IRMP processes
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- bull trout
  - Chinook salmon
  - coho salmon
  - Oregon chub
  - shortnose sucker
  - steelhead trout
- 

Rengers, F.K., McGuire, L.A., Kean, J.W., Staley, D.M. and Youberg, A.M. 2019. **Progress in simplifying hydrologic model parameterization for broad applications to post-wildfire flooding and debris-flow hazards.** *Earth Surface Processes and Landforms* 44:3078–3092.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
- 

Rengers, F.K., McGuire, L.A., Kean, J.W., Staley, D.M., Dobre, M., Robichaud, P.R. and Swetnam, T. 2021. **Movement of sediment through a burned landscape: sediment volume observations and model comparisons in the San Gabriel Mountains, California, USA.** *Journal of Geophysical Research: Earth Surface* 126:e2020JF006053. 25 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- fish habitat, channel morphology and processes
  - decision-making tools, support tools
- 

Rice, S. 1998. **Which tributaries disrupt downstream fining along gravel-bed rivers?** *Geomorphology* 22(1): 39–56.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- hydrology and hydrologic processes
- 

Richter, A. and Kolmes, S.A. 2005. **Maximum temperature limits for Chinook, coho, and chum salmon, and steelhead trout in the Pacific Northwest.** *Review in Fisheries Science* 13:23–49.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: North America (western)

KEYWORDS:

- fish habitat, channel morphology and processes
  - fish and fish biology
  - temperature
-

FISH SPECIES:

- Chinook salmon
  - chum salmon
  - coho salmon
  - steelhead trout
- 

Reynaud, S. and Deschaux, P. 2006. **The effects of polycyclic aromatic hydrocarbons on the immune system of fish: a review.** *Aquatic toxicology* 77:229–238.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- aquatic food webs and components
  - fish and fish biology
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - toxicology
  - water and sediment chemistry
- 

Richards, C. and Minshall, G.W. 1992. **Spatial and temporal trends in stream macroinvertebrate communities: the influence of catchment disturbance.** *Hydrobiologia* 241:173–184.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- aquatic food webs and components
- fish habitat, channel morphology and processes

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Richardson, J.S., Zhang, Y. and Marczak, L.B. 2010. **Resource subsidies across the land–freshwater interface and responses in recipient communities.** *River Research and Applications* 26(1): 55–66.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish habitat, channel morphology and processes
-

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Rieman, B. and Clayton, J. 1997. **Wildfire and native fish: issues of forest health and conservation of sensitive species.** *Fisheries* 22:6–15.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, guidance
- fish and fish biology
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- soils and mass wasting
- temperature
- wildfire behaviour, risk factors and trends

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Rieman, B.E., Hessburg, P.F., Luce, C. and Dare, M.R. 2010. **Wildfire and management of forests and native fishes: conflict or opportunity for convergent solutions?** *BioScience* 60:460–468.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, guidance
- fish and fish biology
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- salmon

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Rieman, B., Lee, D., Burns, D., Gresswell, R., Young, M., Stowell, R., Rinne, J. and Howell, P. 2003. **Status of native fishes in the western United States and issues for fire and fuels management.** *Forest Ecology and Management* 178:197–211.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- decision-making tools, information
  - monitoring, assessment protocols and adaptive management
  - multiparty, G2G (co-management, collaboration) and IRMP processes
- 

Riggs, C.E., Kolka, R.K., Nater, E.A., Witt, E.L., Wickman, T.R., Woodruff, L.G., and Butcher, J.T. 2017. **Yellow perch (*Perca flavescens*) mercury unaffected by wildland fires in northern Minnesota.** *Journal of Environmental Quality* 46:623–631.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Minnesota)

KEYWORDS:

- water and sediment chemistry
- hydrology and hydrologic processes
- temperature
- toxicology
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- yellow perch
- 

Rinne, J.N. 1996. **Short term effects of wildfire on fishes and aquatic macroinvertebrates in the southwestern United States.** *North American Journal of Fisheries Management* 16:653–658.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Arizona)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- brook trout
- rainbow trout

OTHER AQUATIC ORGANISMS:

- invertebrates
-

Robichaud, P.R, Wagenbrenner, J.W., Brown, R.E., Wohlgemuth, P.M., and Beyers, J.L. 2008. **Evaluating the effectiveness of contour-felled log erosion barriers as a post-fire runoff and erosion mitigation treatment in the western United States.** *International Journal of Wildland Fire* 17 (2): 255–273.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - wildfire behaviour, risk factors and trends
- 

Robinne, F.-N., Bladon, K.D., Miller, C., Parisien, M.-A., Mathieu, J.M. and Flannigan, M.D. 2018. **A spatial evaluation of global wildfire-water risks to human and natural systems.** *Science of the Total Environment* 610–611:1193–1206.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, information
  - monitoring, assessment protocols and adaptive management
  - wildfire behaviour, risk factors and trends
- 

Robinne, F.-N., Hallema, D.W., Bladon, K.D. and Buttle, J.M. 2020. **Wildfire impacts on hydrologic ecosystem services in North American high-latitude forests: a scoping review.** *Journal of Hydrology* 581:124360. 15 pp.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: Canada and United States (Alaska)

KEYWORDS:

- decision-making tools, information
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - temperature
  - wildfire behaviour, risk factors and trends
-



Rodeles, A.A., Galicia, D. and Miranda, R. 2021. **A simple method to assess the fragmentation of freshwater fish *meta*-populations: Implications for river management and conservation.** *Ecological Indicators* 125:107557. 9 pp.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: Spain

KEYWORDS:

- decision-making tools, support tools
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management

FISH SPECIES:

- brown trout
  - Iberian barbel
  - Cobitis vettonica
  - Spanish minnow carp
- 

Roni, P., Beechie, T.J., Bilby, R.E., Leonetti, F.E., Pollock, M.M. and Pess, G.R. 2002. **A review of stream restoration techniques and a hierarchical strategy for prioritizing restoration in Pacific Northwest watersheds** *North American Journal of Fisheries Management* 22:1–20.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- aquatic food webs and components
- decision-making tools, guidance
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- water and sediment chemistry

FISH SPECIES:

- Chinook salmon
  - pink salmon
  - chum salmon
  - sockeye salmon
  - coho salmon
  - steelhead trout
  - cutthroat trout
-

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Rosenberger, A.E., Dunham, J.B., Neuswanger, J.R. and Railsback, S.F. 2015. **Legacy effects of wildfire on stream thermal regimes and rainbow trout ecology: an integrated analysis of observation and individual-based models.** *Freshwater Science* 34:1571–1584.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- rainbow trout
- 

Rust, A.J., Randell, J., Todd, A.S. and Hogue, T.S. 2019. **Wildfire impacts on water quality, macroinvertebrates, and trout populations in the Upper Rio Grande.** *Forest Ecology and Management* 453:117636. 16 pp.

DOCUMENTATION (TYPE): journal article (original research)

GEOGRAPHIC FOCUS: United States (Colorado)

KEYWORDS:

- aquatic food webs and components
- fish and fish biology
- fish habitat, channel morphology and processes
- sediment delivery, transport and budgets
- soils and mass wasting
- temperature
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- brown trout
  - rainbow trout
-

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Santos, F., Wymore, A.S., Jackson, B.K., Sullivan, M.P., McDowell, W.H. and Berhe, A.A. 2019. **Fire severity, time since fire, and site-level characteristics influence streamwater chemistry at baseflow conditions in catchments of the Sierra Nevada, California, USA.** *Fire Ecology* 15:1–15.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- monitoring, assessment protocols and adaptive management
  - toxicology
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Saxe, S., Hogue, T.S. and Hay, L. 2018. **Characterization and evaluation of controls on post-fire streamflow response across western US watersheds.** *Hydrology and Earth Systems Sciences* 22:1221–1237.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California, Florida, Idaho, Kentucky Oregon)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
  - temperature
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Schindler, D.W., Newbury, R.W., Beaty, K.G., Prokopowich, J., Ruszczyński, T. and Dalton, J.A. 1980. **Effects of a windstorm and forest fire on chemical losses from forested watersheds and on the quality of receiving streams.** *Canadian Journal of Fisheries and Aquatic Sciences* 37:328–334.

DOCUMENTATION (TYPE): Journal article (original research)

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GEOGRAPHIC FOCUS: Canada (Ontario)

KEYWORDS:

- hydrology and hydrologic processes
  - toxicology
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Schoen, E.R., Wipfli, M.S., Trammell, E.J., Rinella, D.J., Floyd, A.L., Grunblatt, J., McCarthy, M.D., Meyer, B.E., Morton, J.M., Powell, J.E., Prakash, A., Reimer, M.N., Stuefer, S.L., Toniolo, H., Wells, B.M. and Witmer, F.D.W. 2017. **Future of Pacific salmon in the face of environmental change: lessons from one of the world's remaining productive salmon regions.** *Fisheries* 42:538–553.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: United States (Alaska)

KEYWORDS:

- decision-making tools, guidance
- multiparty, G2G (co-management, collaboration) and IRMP processes
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- Chinook salmon
  - chum salmon
  - coho salmon
  - pink salmon
  - sockeye salmon
- 

Schulze, S.S. and Fischer, E.C. 2020. **Prediction of water distribution system contamination based on wildfire burn severity in wildland urban interface communities.** *ACS ES&T Water* 1(2): 291–299.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Scott, D.F. 1993. **The hydrological effects of fire in South African mountain catchments.** *Journal of Hydrology* 150 (2–4): 409–432.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: South Africa

KEYWORDS:

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Seibert, J., McDonnell, J.J. and Woodsmith, R.D. 2010. **Effects of wildfire on catchment runoff response: a modelling approach to detect changes in snow-dominated forested catchments.** *Hydrology Research* 41:378–390.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Washington)

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Segura, C., Bladon, K.D., Hatten, J.A., Jones, J.A., Hale, V.C. and Ice, G.G. 2020. **Long-term effects of forest harvesting on summer low flow deficits in the Coast Range of Oregon.** *Journal of Hydrology* 585 (2020) 124749

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- hydrology and hydrologic processes
- 

Sequeira, M.D., Castilho, A.M., Tavares, A.O. and Dinis, P. 2020. **Assessment of superficial water quality of small catchment basins affected by Portuguese rural fires in 2017.** *Ecological Indicators* 11: 105961.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

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- toxicology
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
- 

Sestrich, C.M., McMahon, T.E. and Young, M.K. 2011. **Influence of fire on native and nonnative salmonid populations and habitat in a western Montana basin.** *Transactions of the American Fisheries Society* 140:136–146.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Montana)

KEYWORDS:

- aquatic food webs and components
- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- temperature
- water and sediment chemistry

FISH SPECIES:

- brook trout
- brown trout
- bull trout
- cutthroat trout
- longnose dace
- longnose sucker
- mountain whitefish
- rainbow trout
- slimy sculpin

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Shanley, C.S., Pyare, S, Goldstein, M.I., Alaback, P.B., Albert, D.M., Beier, C.M., Brinkman, T.J., Edwards, R.T., Hood, E., MacKinnon, A., McPhee, M.V., Patterson, T.M., Suring, L.H., Tallmon, D.A., and Wipfli, M.S. 2015. **Climate change implications in the northern coastal temperate rainforest of North America.** *Climatic Change* 130: 155–170.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: North America

KEYWORDS:

- hydrology and hydrologic processes
  - temperature
- 

Shaw, E.A., Lange, E., Shucksmith, J.D. and Lerner, D.N. 2016. **Importance of partial barriers and temporal variation in flow when modelling connectivity in fragmented river systems.** *Ecological Engineering* 91:515–528.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United Kingdom

KEYWORDS:

- decision-making tools, guidance
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs

FISH SPECIES:

- Atlantic salmon
  - European perch
- 

Sidele, R.C. and Bogaard, T.A. 2016. **Dynamic earth system and ecological controls of rainfall-initiated landslides.** *Earth-Science Reviews* 159: 275–291.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
- 

Silins, U., Bladon, K.D., Kelly, E.N., Esch, E., Spence, J.R., Stone, M., Emelko, M.B., Boon, S., Wagner, M.J., Williams, C.H.S. and Tichkowsky, I. 2014. **Five-year legacy of wildfire and salvage logging impacts on nutrient runoff and aquatic plant, invertebrate, and fish productivity.** *Ecohydrology* 7:1508–1523.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta)

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KEYWORDS:

- aquatic food webs and components
- fish and fish biology
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- water and sediment chemistry

FISH SPECIES:

- cutthroat trout
- rainbow trout

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Silins, U., Stone, M., Emelko, M.B. and Bladon, K.D. 2009. **Sediment production following wildfire and post-fire salvage logging in the Rocky Mountain headwaters of the Oldman River basin, Alberta.** *Catena* 79:189–197.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta)

KEYWORDS:

- fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - wildfire behaviour, risk factors and trends
- 

Silva, V., Abrantes, N., Costa, R., Keizer, J.J., Gonçalves, F. and Pereira, J.L. 2016. **Effects of ash-loaded post-fire runoff on the freshwater clam *Corbicula fluminea*.** *Ecological Engineering* 90:180–189.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- ash
  - aquatic food webs and components
  - monitoring, assessment protocols and adaptive management
-



- toxicology
- water and sediment chemistry

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Silva, V., Pereira, J.L., Campos, I., Keizer, J.J. Gonçalves, F. and Abrantes, N. 2015. **Toxicity assessment of aqueous extracts of ash from forest fires**. *Catena* 135:401–408.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Portugal

KEYWORDS:

- ash
- aquatic food webs and components
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- toxicology
- water and sediment chemistry

OTHER AQUATIC ORGANISMS:

- algae
  - invertebrates
  - bacteria
- 

Simon, E., Choi, S.-D., Park, M.-K. 2016. **Understanding the fate of polycyclic aromatic hydrocarbons at a forest fire site using a conceptual model based on field monitoring**. *Journal of Hazardous Materials* 317:632–639.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: South Korea

KEYWORDS:

- ash
  - decision-making tools, support tools
  - toxicology
- 

Skakun, R., Whitman, E., Little, J.M. and Parisien, M.-A. 2021. **Area burned adjustments to historical wildland fires in Canada**. *Environmental Research Letters* 6:064014. 12 pp.

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, guidance
  - wildfire behaviour, risk factors and trends
- 

Smith, H.G., Blake, W.H. and Owens, P.N. 2013. **Discriminating fine sediment sources and the application of sediment tracers in burned catchments: a review.** *Hydrological Processes* 27:943–958.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: International

KEYWORDS:

- ash
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - water and sediment chemistry
- 

Smith, H.G., Sheridan, G.J., Lane, P.N.J., Nyman, P. and Haydon, S. 2011. **Wildfire effects on water quality in forest catchments: a review with implications for water supply.** *Journal of Hydrology* 396:170–192.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: International

KEYWORDS:

- ash
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - toxicology
  - water and sediment chemistry
-

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Smoot, E.E., and Gleason, K.E. 2021. **Forest fires reduce snow-water storage and advance the timing of snowmelt across the western U.S.** *Water* 13:3533–3547.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Soulis, K.X. 2018. **Estimation of SCS curve number variation.** *Hydrological Sciences Journal* 63:1332–1346.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: Greece

KEYWORDS:

- decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
- 

Spencer, C.N., Gabel, K.O. and Hauer, F.R. 2003. **Wildfire effects on stream food webs and nutrient dynamics in Glacier National Park, USA.** *Forest Ecology and Management* 178:141–153.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Montana)

KEYWORDS:

- aquatic food webs and components
  - ash
  - fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
-

- water and sediment chemistry

FISH SPECIES:

- cutthroat trout

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Spielman, D., Brook, B.W. and Frankham, R. 2004. **Most species are not driven to extinction before genetic factors impact them.** *Proceedings of the National Academy of Sciences* 101:15261–15264.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- monitoring, assessment protocols and adaptive management
  - salmonid enhancement
- 

Stanfield, L. and Jones, M.L. 2003. **Factors influencing rearing success of Atlantic salmon stocked as fry and parr in Lake Ontario tributaries.** *North American Journal of Fisheries Management* 23:1175–1183.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Ontario)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- salmonid enhancement

FISH SPECIES:

- Atlantic salmon
- 

Stednick, J.D. 1996. **Monitoring the effects of timber harvest on annual water yield.** *Journal of hydrology* 176(1-4): 79-95.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- hydrology and hydrologic processes
-

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Stein, E.D., Brown, J.S., Hogue, T.S., Burke, M.P. and Kinoshita, A. 2012. **Stormwater contaminant loading following southern California wildfires**. *Environmental Toxicology and Chemistry* 31:2625–2638.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- ash
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - toxicology
  - water and sediment chemistry
- 

Tang, H., McGuire, L.A., Rengers, F.K., Kean, J.W., Staley, D.M. and Smith, J.B. 2019. **Evolution of debris-flow initiation mechanisms and sediment sources during a sequence of postwildfire rainstorms**. *Journal of Geophysical Research: Earth Surface* 124:1572–1595.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
- 

Taylor, M.D., Chick, R.C., Lorenzen, K., Agnalt, A., Leber, K.M., Blankenship, H.L., Vander Haegen, G. and Loneragan, N.R. 2017. **Fisheries enhancement and restoration in a changing world**. *Fisheries Research* 186:407–412.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- fish and fish biology
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - salmonid enhancement
-

Teclé, A. and Neary, D. 2015. **Water quality impacts of forest fires**. *Journal of Pollution Effects and Control* 3:1000139. 14 pp.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: United States (Arizona, California, New Mexico and Oregon)

KEYWORDS:

- ash
- hydrology and hydrologic processes
- sediment delivery, transport and budgets
- temperature
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- Apache trout
- Gila trout

OTHER AQUATIC ORGANISMS: algae

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Thomas, M.A., Rengers, F.K., Kean, J.W., McGuire, L.A., Staley, D.M., Barnhart, K.R. and Ebel, B.A. 2021. **Postwildfire soil-hydraulic recovery and the persistence of debris flow hazards**. *Journal of Geophysical Research: Earth Surface* 126:e2021JF006091. 25 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
- 

Tillery, A.C. and Rengers, F.K. 2020. **Controls on debris-flow initiation on burned and unburned hillslopes during an exceptional rainstorm in southern New Mexico, USA**. *Earth Surface Processes and Landforms* 45:1051–1066.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (New Mexico)

KEYWORDS:

- fish habitat, channel morphology and processes
-

- hydrology and hydrologic processes
  - soils and mass wasting
- 

Tonn, W.M., Boss, S.M., Aku, P.K.M., Scrimgeour, G.J. and Paszkowski, C.A. 2004. **Fish assemblages in subarctic lakes: does fire affect fish–environment relations in northern Alberta?** *Transactions of the American Fisheries Society* 133:132–143.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (Alberta)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- Arctic grayling
  - sucker
  - northern pike
- 

Tranmer, A.W., Benjankar, R. and Tonina, D. 2020. **Post-wildfire riparian forest recovery processes along a regulated river corridor.** *Forest Ecology and Management* 478:118513. 13 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Tuckett, Q.M. and Koetsier. 2018. **Post-fire debris flows delay recovery and create novel headwater stream macroinvertebrate communities.** *Hydrobiologia* 814:161–174.

DOCUMENTATION (TYPE): Journal (original research)

GEOGRAPHIC FOCUS: United States (Idaho)

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KEYWORDS:

- aquatic food webs and components
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- wildfire behaviour, risk factors and trends

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Tullos, D.D., Penrose, D.L., Jennings, G.D. and Cope, W.G. 2009. **Analysis of functional traits in reconfigured channels: implications for the bioassessment and disturbance of river restoration.** *Journal of the North American Benthological Society* 28(1): 80–92.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (North Carolina)

KEYWORDS:

- fish habitat, channel morphology and processes
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
- 

Tymstra, C., Stocks, B.J. Cai, X. and Flannigan, M.D. 2020. **Wildfire management in Canada: review, challenges and opportunities.** *Progress in Disaster Science* 5:100045. 13 pp.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, guidance
  - decision-making tools, support tools
  - monitoring, assessment protocols and adaptive management
  - wildfire behaviour, risk factors and trends
-



Uecker, T.M., Kaspari, S.D., Musselman, K.N., and Skiles, S.M. 2020. **The post-wildfire impact of burn severity and age on black carbon snow deposition and implications for snow water resources, Cascade Range, Washington.** *Journal of Hydrometeorology* 21(8): 1777–1792.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Cascade Range, Washington)

KEYWORDS:

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Utter, F. 1998. **Genetic problems of hatchery-reared progeny released into the wild, and how to deal with them.** *Bulletin of Marine Science* 62:623–640.

DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- fish and fish biology
- salmonid enhancement

FISH SPECIES:

- salmon
- 

Uzun, H., Dahlgren, R.A., Olivares, C., Erdem, C.U., Karanfil, T. and Chow, A.T. 2020. **Two years of post-wildfire impacts on dissolved organic matter, nitrogen, and precursors of disinfection by-products in California stream waters.** *Water Research* 181:115891. 12 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - temperature
  - toxicology
  - water and sediment chemistry
  - wildfire behaviour, risk factors and trends
-

van der Veen, I. and de Boer, J. 2012. **Phosphorus flame retardants: properties, production, environmental occurrence, toxicity and analysis.** *Chemosphere* 88 (10): 1119e1153.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- toxicology
- 

Van Westen, C.J., Castellanos, E. and Kuriakose, S.L., 2008. **Spatial data for landslide susceptibility, hazard, and vulnerability assessment: an overview.** *Engineering Geology* 102:112–131.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, information
  - decision-making tools, support tools
  - hydrology and hydrologic processes
  - soils and mass wasting
- 

Van Westen, C.J., Van Asch, T.W. and Soeters, R. 2006. **Landslide hazard and risk zonation – why is it still so difficult?** *Bulletin of Engineering Geology and the Environment* 65:167–184.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- decision-making tools, support tools
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
  - soils and mass wasting
- 

Vaz, P.G., Merten, E.C., Warren, D.R., Durscher, K., Tapp, M., Robinson, C.T., Rego, F.C. and Pinto, P. 2015. **Fire meets inland water via burned wood: and then what?** *Freshwater Science* 34:1468–1481.

DOCUMENTATION (TYPE): Journal article (original research)

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GEOGRAPHIC FOCUS: United States (Minnesota)

KEYWORDS:

- aquatic food webs and components
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

OTHER AQUATIC ORGANISMS:

- invertebrates
- 

Venkatesh, K., Preethi, K. and Ramesh, H. 2020. **Evaluating the effects of forest fire on water balance using fire susceptibility maps**. *Ecological Indicators* 110:105856. 14 pp.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: India

KEYWORDS:

- decision-making tools, information
  - decision-making tools, support tools
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
- 

Venne, L.S., Trexler, J.C. and Frederick, P.C. 2016. **Prescribed burn creates pulsed effects on a wetland aquatic community**. *Hydrobiologia* 771:281–295.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Florida)

KEYWORDS:

- aquatic food webs and components
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - monitoring, assessment protocols and adaptive management
  - sediment delivery, transport and budgets
  - water and sediment chemistry
-

FISH SPECIES:

- bluefin killifish
- eastern mosquitofish
- Everglades pygmy sunfish
- golden topminnow
- redfin pickerel
- sailfin molly
- spotted sunfish

OTHER AQUATIC ORGANISMS:

- amphibians
  - invertebrates
- 

Verkaik, I., Rieradevall, M., Cooper, S.D., Melack, J.M., Dudley, T.L. and Prat N. 2013. **Fire as a disturbance in Mediterranean climate streams**. *Hydrobiologia* 719:353–382.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: Africa (southern), Australia, Mediterranean and United States (California)

KEYWORDS:

- ash
- aquatic food webs and components
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- temperature
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- barbel
- European chub
- rainbow trout

OTHER AQUATIC ORGANISMS:

- algae
  - invertebrates
- 

Wagenbrenner, J.W., Ebel, B.A., Bladon, K.D., and Kinoshita, A.M. 2021. **Post-wildfire hydrologic recovery in Mediterranean climates: a systematic review and case study to identify current knowledge and opportunities**. *Journal of Hydrology* 602.

DOCUMENTATION (TYPE): Journal article (review)

---

**GEOGRAPHIC FOCUS:** United States (California and Arizona) and the Mediterranean Basin (Spain, Portugal, Italy, Israel, France and Greece).

**KEYWORDS:**

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Wagner, M.J., Bladon, K.D., Silins, U., Williams, C.H.S., Martens, A.M., Boon, S., MacDonald, R.J., Stone, M., Emelko, M.B. and Anderson, A. 2014. [Catchment-scale stream temperature response to land disturbance by wildfire governed by surface-subsurface energy exchange and atmospheric control](#). *Journal of Hydrology* 517:328–338.

**DOCUMENTATION (TYPE):** Journal article (original research)

**GEOGRAPHIC FOCUS:** Canada (Alberta)

**KEYWORDS:**

- hydrology and hydrologic processes
  - temperature
  - wildfire behaviour, risk factors and trends
- 

Walsh, J.C., Connors, K., Hertz, E., Kehoe, L., Martin, T.G., Connors, B., Bradford, M.J., Freshwater, C., Frid, A., Halverson, J., Moore, J.W., Price, M.H.H. and Reynolds, J.D. 2020. [Prioritizing conservation actions for Pacific salmon in Canada](#). *Journal of Applied Ecology* 57:1688–1699.

**DOCUMENTATION (TYPE):** Journal article (methods)

**GEOGRAPHIC FOCUS:** Canada (BC)

**KEYWORDS:**

- decision-making tools, guidance
- fish and fish biology
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- monitoring, assessment protocols and adaptive management

**FISH SPECIES:**

- Chinook salmon
  - chum salmon
  - coho salmon
  - pink salmon
  - sockeye salmon
-

Wang, X., Studens, K., Parisien, M.-A., Taylor, S.W., Candau, J.-N., Boulanger, Y. and Flannigan, M.D. 2020. **Projected changes in fire size from daily spread potential in Canada over the 21<sup>st</sup> century.** *Environmental Research Letters* 15:104048. 13 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- [decision-making tools, information](#)
  - [monitoring, assessment protocols and adaptive management](#)
  - [wildfire behaviour, risk factors and trends](#)
- 

Waples R.S. 1999. **Dispelling some myths about hatcheries.** *Fisheries* 24:12–21.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- [fish and fish biology](#)
- [salmonid enhancement](#)

FISH SPECIES:

- salmon
- 

Waples, R.S., Beechie, T. and Pess, G.R. 2009. **Evolutionary history, habitat disturbance regimes, and anthropogenic changes: what do these mean for resilience of Pacific salmon populations?** *Ecology and Society* 14(1): 3.

DOCUMENTATION (TYPE): Journal article (review)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- [fish and fish biology](#)
- 

Waples, R.S., Pess, G.R. and Beechie, T. 2008. **Evolutionary history of Pacific salmon in dynamic environments.** *Evolutionary Applications* 1:180–206.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Pacific Northwest)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- salmonid enhancement

FISH SPECIES:

- salmon
- 

Warkentin, L., Parken, C.K., Bailey, R. and Moore, J.W. 2022. **Low summer river flows associated with low productivity of Chinook salmon in a watershed with shifting hydrology.** *Ecological Solutions and Evidence* 3:e12124. 12 pp.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- temperature

FISH SPECIES:

- Chinook salmon
- 

Weber, C., Nilsson, C., Lind, L., Alfredsen, K.T. and Polvi, L.E. 2013. **Winter disturbances and riverine fish in temperate and cold regions.** *BioScience* 63:199–210.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada (BC)

KEYWORDS:

- fish and fish biology
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
  - monitoring, assessment protocols and adaptive management
- 

Westerling, A.L., Hidalgo, H.G., Cayan, D.R. and Swetnam, T.W. 2006. **Warming and earlier spring increase western U.S. forest wildfire activity.** *Science* 313:940–943.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (western)

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KEYWORDS:

- hydrology and hydrologic processes
  - wildfire behaviour, risk factors and trends
- 

Wetherell, L.R., Ely, L.L., Roering, J.J., Walsh, M.K., Burchfield, M.J., Nace, K.E., Wetherell, M.M. and Struble, W.T. 2021. **Quantifying sedimentation patterns of small landslide-dammed lakes in the central Oregon Coast Range.** *Earth Surface Processes and Landforms* 46:1375–1392.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- ash
  - habitat restoration and habitat management techniques, methodologies, guidance and BMPs
  - hydrology and hydrologic processes
  - sediment delivery, transport and budgets
  - soils and mass wasting
  - wildfire behaviour, risk factors and trends
- 

Whipple, A.A. and Viers, J.H. 2019. **Coupling landscapes and river flows to restore highly modified rivers.** *Water Resources Research*. 55 (6): 4512–4532.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: not indicated

KEYWORDS:

- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- 

Whiteley, A.R., Coombs, J.A., Cembrola, M., O'Donnell, M.J., Hudy, M., Nislow, K.H. and Letcher, B.H. 2015. **Effective number of breeders provides a link between interannual variation in stream flow and individual reproductive contribution in a stream salmonid.** *Molecular Ecology* 24:3585–3602.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Virginia)

KEYWORDS:



- fish and fish biology
- fish habitat, channel morphology and processes
- habitat restoration and habitat management techniques, methodologies, guidance and BMPs
- salmonid enhancement

FISH SPECIES:

- brook trout
  - salmon
- 

Whitney, J.E., Gido, K.B., Hedden, S.C., Macpherson, G.L., Pilger, T.J., Propst, D.L. and Turner, T.F. 2017. **Identifying the source population of fish re-colonizing an arid-land stream following wildfire-induced extirpation using otolith microchemistry.** *Hydrobiologia* 797:29–45.

DOCUMENTATION (TYPE): Journal article (methods)

GEOGRAPHIC FOCUS: United States (New Mexico)

KEYWORDS:

- fish and fish biology
- fish habitat, channel morphology and processes
- monitoring, assessment protocols and adaptive management
- water and sediment chemistry

FISH SPECIES:

- longfin dace
  - speckled dace
- 

Whitney, J.E., Gido, K.B., Pilger, T.J., Propst, D.L. and Turner, T.F. 2015. **Consecutive wildfires affect stream biota in cold- and warmwater dryland river networks.** *Freshwater Science* 34:1510–1526.

DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (New Mexico)

KEYWORDS:

- aquatic food webs and components
- ash
- fish and fish biology
- hydrology and hydrologic processes
- sediment delivery, transport and budgets
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

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- brown trout
- bullhead
- catfish
- carp
- chub
- longfin dace
- minnow
- mosquitofish
- rainbow trout
- redbside shiner
- smallmouth bass
- sucker fathead minnow
- sunfish

**OTHER AQUATIC ORGANISMS:**

- invertebrates
- 

Whitney, J.E., Gido, K.B., Pilger, T.J., Propst, D.L. and Turner, T.F. 2016. **Metapopulation analysis indicates native and non-native fishes respond differently to effects of wildfire on desert streams.** *Ecology of Freshwater Fish* 25:376–392.

**DOCUMENTATION (TYPE):** Journal article (original research)

**GEOGRAPHIC FOCUS:** United States (New Mexico)

**KEYWORDS:**

- ash
- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- temperature
- wildfire behaviour, risk factors and trends

**FISH SPECIES:**

- brown trout
  - bullhead
  - catfish
  - carp
  - chub
  - fathead minnow
  - longfin dace
  - minnow
  - mosquitofish
  - rainbow trout
  - redbside shiner
  - smallmouth bass
  - sucker
  - sunfish
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**DOCUMENTATION (TYPE):** Journal article (original research)

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GEOGRAPHIC FOCUS: United States (western)

KEYWORDS:

- decision-making tools, support tools
- fish and fish biology
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- cutthroat trout
- 

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (California)

KEYWORDS:

- ash
- aquatic food webs and components
- fish and fish biology
- hydrology and hydrologic processes
- monitoring, assessment protocols and adaptive management
- sediment delivery, transport and budgets
- temperature
- water and sediment chemistry
- wildfire behaviour, risk factors and trends

OTHER AQUATIC ORGANISMS:

- algae
  - invertebrates
- 

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

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KEYWORDS:

- aquatic food webs and components
  - fish habitat, channel morphology and processes
  - hydrology and hydrologic processes
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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: United States (Oregon)

KEYWORDS:

- fish habitat, channel morphology and processes
- hydrology and hydrologic processes
- temperature
- wildfire behaviour, risk factors and trends

FISH SPECIES:

- Chinook salmon
  - trout
- 

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DOCUMENTATION (TYPE): Journal article (perspective/opinion)

GEOGRAPHIC FOCUS: United States

KEYWORDS:

- hydrology and hydrologic processes
  - soils and mass wasting
  - temperature
  - wildfire behaviour, risk factors and trends
- 

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC FOCUS: Canada

KEYWORDS:

- decision-making tools, support tools
  - temperature
  - wildfire behaviour, risk factors and trends
- 

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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC Focus: Thailand

KEYWORDS:

- hydrology and hydrologic processes
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DOCUMENTATION (TYPE): Journal article (original research)

GEOGRAPHIC Focus: Thailand

KEYWORDS:

- hydrology and hydrologic processes
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