

UPDATE

Recent Publications and News

1. Selecting and Testing an Instrument for Surveying Stream Shade

by P. Teti and R. Pike.

Download the JEM article (798Kb) at:
www.forrex.org/jem/2005/vol6/no2/vol6_no2_art1.pdf

2. Post-Wildfire Watershed Rehabilitation in BC: Workshop Summary

Did you miss this workshop held on June 8, 2005? Presentations, posters, and an overall summary of take-home messages from the workshop are now available on the FORREX Web site:

www.forrex.org/programs/wildfire/

3. Carnation Creek Fish-Forestry Interaction Project Poster and Brochure

Two new publications from the Carnation Creek Fish-Forestry Interaction Project have recently been released. These publications (brochure and poster) summarize some of the long-term research results of the experiment and also outline the project's objectives, study components, and future directions.

"The effects of forestry practices on watershed processes and fish populations have been studied for 35 years at Carnation Creek. This intensive, single-watershed case study has generated the longest series of continuous data on fish-forestry interactions anywhere. Carnation Creek's long-term research approach has shown that key forestry-related changes continue to occur more than two decades after the main period of harvesting concluded, in spite of tree regeneration and growth throughout the watershed that is contributing to hydrologic recovery."

Brochure:

www.for.gov.bc.ca/hfd/pubs/Docs/Bro/Bro80.htm

Poster:

www.for.gov.bc.ca/hfd/pubs/Docs/P/P076.htm

4. Small stream channels and their riparian zones in forested catchments of the Pacific Northwest

A set of review papers published as a special issue of the *Journal of the American Water Resources Association*, Vol. 41(4), August 2005.

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An ongoing concern in forest management is the risk associated with negative effects on riparian and aquatic ecosystems. The most common approach to protecting the values associated with streams and their riparian zones is the retention of riparian buffer strips and (or) special management zones. However, there are significant discrepancies among jurisdictions in the Pacific Northwest (PNW) about requirements for riparian protection along small headwater streams. Some jurisdictions require buffers that extend up to, and sometimes upslope of, the perennial channel network and include intermittent streams. Other jurisdictions do not require reserves along non-fish-bearing streams (unless they are a designated community water source) or even the smaller fish-bearing streams (Young 2000; Blinn and Kilgore 2001; Lee et al. 2004). The diversity of riparian management standards throughout the PNW has provoked increasing debate and highlighted the uncertainties in the current state of knowledge regarding small stream riparian systems and requirements for protection.

This special issue of *JAWRA* presents nine papers that review the current state of knowledge about the physical, chemical, and biological characteristics of small streams and their riparian zones as they relate to forest management in the PNW. These papers grew out of a symposium and workshop, "Small Stream Channels and Their Riparian Zones: Their Form, Function and Importance in a Watershed Context," held at the University of British Columbia in February 2002. These events were sponsored by the University of British Columbia, BC Ministry of Forests, BC Ministry of Sustainable Resource Management, Forest Renewal BC, Fisheries and Oceans Canada, and USDA Forest Service.

List of Article Titles and Authors

- Physical Hydrology and the Effects of Forest Harvesting in the Pacific Northwest: A Review
R. Dan Moore and Steve M. Wondzell
- Forest Harvesting and Streamwater Inorganic Chemistry in Western North America: A Review
Michael C. Feller
- Riparian Microclimate and Stream Temperature Response to Forest Harvesting: A Review
R. Dan Moore, David L. Spittlehouse, and Anthony Story
- Geomorphology of Steepland Headwaters: The Transition from Hillslopes to Channels
Lee Benda, Marwan A. Hassan, Michael Church, and Christine L. May
- Sediment Transport and Channel Morphology of Small, Forested Streams
Marwan A. Hassan, Michael Church, Thomas E. Lisle, Francesco Brardinoni, Lee Benda, and Gordan E. Grant
- Suspended Sediment Dynamics in Small Forest Streams of the Pacific Northwest
Takashi Gomi, R. Dan Moore, and Marwan A. Hassan
- Spatial and Temporal Dynamics of Wood in Headwater Streams of the Pacific Northwest
Marwan A. Hassan, Dan L. Hogan, Stephen A. Bird, Christine L. May, Takashi Gomi, and David Campbell
- Organic Matter Dynamics in Small Streams of the Pacific Northwest
John S. Richardson, Robert E. Bilby, and Carin A. Bondar
- Riparian Communities Associated with Pacific Northwest Headwater Streams: Assemblages, Processes, and Uniqueness
John S. Richardson, Robert J. Naiman, Fredrick J. Swanson, and David E. Hibbs

Literature Cited

- Blinn, C.R. and M.A. Kilgore. 2001. Riparian management practices: A summary of state guidelines. *Journal of Forestry* 99(8):11-17.
- Lee, P., C. Smyth, and S. Boutin. 2004. Quantitative review of riparian buffer width guidelines from Canada and the United States. *Journal of Environmental Management* 70:165-180.
- Young, K.A. 2000. Riparian zone management in the Pacific Northwest: Who's cutting what? *Environmental Management* 26:131-144.