

# Canadian Journal of Forest Research

Volume 41, Number 11, November 2011

# Revue canadienne de recherche forestière

Volume 41, numéro 11, novembre 2011

## The Role of Sensors in the New Forest Products Industry and Forest Bioeconomy

## [Le rôle des capteurs dans le secteur des nouveaux produits forestiers et la bioéconomie forestière]

- |   |           |  |
|---|-----------|--|
| Thanh Trung and Brigitte Leblon   | 2097–2099 | The role of sensors in the new forest products industry and forest bioeconomy  |
| D. Chen, T. Trung, H.-F. Jang,<br>D.W. Francis, and E.R. Grant          | 2100–2113 | High-throughput prediction of physical and mechanical properties of paper from Raman chemometric analysis of pulp fibres |
| Thomas Q. Hu, Michelle Zhao,<br>Paul Bicho, and Pierre Losier           | 2114–2119 | A method for estimating wood chip brightness and its applications  |
| Qiang Wei, Brigitte Leblon, and<br>Armand La Rocque                     | 2120–2140 | On the use of X-ray computed tomography for determining wood properties: a review  |
| Yin Yang, Meng Gong,<br>Brigitte Leblon, and Ying Hei Chui              | 2141–2149 | Linear window correlation: new image processing based approach to strain distribution analysis of wood                   |
| P.A. Cooper, D. Jeremic, S. Radivojevic,<br>Y.T. Ung, and B. Leblon     | 2150–2157 | Potential of near-infrared spectroscopy to characterize wood products  |
| Bryce MacMillan, Emil Veliyulin,<br>Clevan Lamason, and Bruce J. Balcom | 2158–2162 | Quantitative magnetic resonance measurements of low moisture content wood  |

*Continued on inside back cover / Suite au verso*



Front cover: "Spring bud burst." Photo by Mélanie Desrochers, 2009.

Page couverture : « Bourgeonnement printanier ». Photo par Mélanie Desrochers, 2009.



## Regular papers

### RAPID COMMUNICATION

Scott A. Pugh, Andrew M. Liebhold, and  
Randall S. Morin 2165–2175

### ARTICLES

C. Eiry Spence and David A. MacLean 2176–2192

J.L. Beverly, M.D. Flannigan,  
B.J. Stocks, and P. Bothwell 2193–2201

Charles Vigeant-Langlois and  
André Desrochers 2202–2208

Jane Medhurst, Maria Ottenschlaeger,  
Matthew Wood, Chris Harwood,  
Chris Beadle, and Juan Carlos Valencia 2209–2218

Joanne Rebbeck, Kurt Gottschalk, and  
Amy Scherzer 2219–2230

N.T. Johnston, S.A. Bird, D.L. Hogan, and  
E.A. MacIsaac 2231–2246

Stephen Wyatt, Stephanie Merrill, and  
David Natcher 2247–2258

## Articles ordinaires

### COMMUNICATION RAPIDE

Changes in ash tree demography associated with emerald ash borer invasion, indicated by regional forest inventory data from the Great Lakes States

### ARTICLES

Comparing growth and mortality of a spruce budworm (*Choristoneura fumiferana*) inspired harvest versus a spruce budworm outbreak

The association between Northern Hemisphere climate patterns and interannual variability in Canadian wildfire activity

Movements of wintering American marten (*Martes americana*): relative influences of prey activity and forest stand age

Stem eccentricity, crown dry mass distribution, and longitudinal growth strain of plantation-grown *Eucalyptus nitens* after thinning

Do chestnut, northern red, and white oak germinant seedlings respond similarly to light treatments? Growth and biomass

Mechanisms and source distances for the input of large woody debris to forested streams in British Columbia, Canada

Ecosystem management and forestry planning in Labrador: how does Aboriginal involvement affect management plans?