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January 2012

Climate change

The carbon neutrality assumption for forest bioenergy for electricity production: A case study for northwestern Ontario. Ter-Mikaelian, M.T., J. McKechnie, S.J. Colombo, J. Chen and H.L. MacLean. *For. Chron.* 87(5): 644-652.

Forest carbon management and carbon trading: A review of Canadian forest options for climate change mitigation. Golden, D.M., M.A. Smith and S.J. Colombo. *For. Chron.* 87(5): 625-635.

Opportunities and challenges for Ontario's forest bioeconomy. Puddister, D., S.W.J. Dominy, J.A. Baker, D.M. Morris, J. Maure, J.A. Rice, T.A. Jones, I. Majumdar, P.W. Hazlett, B.D. Titus, R.L. Fleming and S. Wetzel. *For. Chron.* 87(4): 468-477.

Forest bioenergy or forest carbon? Assessing trade-offs in greenhouse gas mitigation with wood-based fuels. McKechnie, J., S. Colombo, J. Chen and W. Mabee and H.L. MacLean. *Env. Sci. Technol.* 45(2): 789-795.

Carbon dynamics of North American boreal forest after stand replacing wildfire and clearcut logging. Seedre, M., B.M. Shrestha, H.Y.H. Chen, S. Colombo and K. Jogiste. *J. For. Res.* 16(3): 168-183.

Why we disagree about assisted migration: Ethical implications of a key debate regarding the future of Canada's forests. Aubin, I., C.M. Garbe, S. Colombo, C.R. Drever, D.W. McKenney, C. Messier, J. Pedlar, M.A. Saner, L. Venier, A.M. Wellstead, R. Winder, E. Witten and C. Ste-Marie. *For. Chron.* 87(6): 755-765.

The implementation of assisted migration in Canadian forests. Pedlar, J.H., D.W. McKenney, J. Beaulieu, S.J. Colombo, J.S. MacLachlan and G.A. O'Neill. *For. Chron.* 87(6): 766-777.

Assessment of assisted migration effects on spring bud flush in white spruce (*Picea glauca* [Moench] Voss) seedlings. Lu, P. and R. Man. *For. Chron.* 87(3): 391-397.

Assessing assisted migration as a climate change adaptation strategy for Ontario's forests: Project overview and bibliography. Eskelin, N., W. C. Parker, S.J. Colombo and P. Lu. *Ont. Min. Nat. Resour., Appl. Res. Devel. Br., Sault Ste. Marie, ON. Climate Change Res. Rep. CCRR-19.* 44 p.

Forest health and pathology

Abiotic and biotic factors used to assess decline risk in red pine (*Pinus resinosa* Ait.) plantations. McLaughlin, J.A., T. Hsiang, G. Halicki Hayden and S. Greifenhagen. *For. Chron.* 87(1): 99-115.

Forest landscape ecology

Expert knowledge as a basis for landscape ecological predictive models. Drew, C.A. and A.H. Perera. Ch. 12 in Drew, C.A., Y. Wiersma and F.H. Huettmann, eds. *Predictive Species and Habitat Modeling in Landscape Ecology: Concepts and Applications.* Springer, New York, NY.

What happens to tree residuals in boreal forest fires and what causes the changes? Perera, A.H., B.D. Dalziel, L.J. Buse, R.G. Routledge and M. Briennes. *Ont. Min. Nat. Resour., Ont. For. Res. Inst., Sault Ste. Marie, ON. For. Res. Rep. No. 174.* 24 p.

Red Lake 084 of 2011: A reconnaissance survey of a large boreal wildfire. Baysal, I., M. Ouellette and J. Antoszek. *Ont. Min. Nat. Resour., Ont. For. Res. Inst., Sault Ste. Marie, ON. For. Res. Info. Pap. No. 177.* 54 p. + append.

Forest management and ecology—boreal

Synthesis of silviculture options, costs, and consequences of alternative vegetation management practices relevant to boreal and temperate conifer forests: Introduction. Bell, F.W., N. Thiffault, K. Szuba, N.J. Luckai and A. Stinson. *For. Chron.* 87(2): 155-160.

Ecology and traits of plant species that compete with boreal and temperate forest conifers: An overview of available information and its use in forest management. Bell, F.W., M. Kershaw, I. Aubin, N. Thiffault, J. Dacosta and A. Wiensczyk. *For. Chron.* 87(2): 161-174.

An overview of the efficacy of vegetation management alternatives for conifer regeneration in boreal forests. Wiensczyk, A., K. Swift, A. Morneault, N. Thiffault, K. Szuba and F.W. Bell. *For. Chron.* 87(2): 175-200.

What are the environmental consequences of using silviculturally effective forest vegetation management treatments? Swift, K.I. and F.W. Bell. *For. Chron.* 87(2): 201-216.

Monitoring and understanding mammal assemblages: Experiences from Bending Lake, Fallingsnow, and Tom Hill. McLaren, B.E., K. Emslie, T. Honsberger, T. McCreedy, F.W. Bell and R.F. Foster. *For. Chron.* 87(2): 217-224.

Response of breeding song birds to vegetation management in conifer plantations established in boreal mixed-woods. Zimmerman, G., F.W. Bell, J. Woodcock, A. Palmer and J. Paloniemi. *For. Chron.* 87(2): 225-234.

Longer-term volume trade-offs in spruce and jack pine plantations following various conifer release treatments. Bell, F.W., J. Dacosta, M. Penner, A. Morneault, A. Stinson, B. Towill, N.J. Luckai and J. Winters. *For. Chron.* 87(2): 235-250.

Differences in extrinsic tree quality and value of fibre production following alternative vegetation management treatments in northwestern Ontario. Homagain, K., C.K. Shahi, M. Leitch, N.J. Luckai and F.W. Bell. *For. Chron.* 87(2): 251-258.

Benefit-cost analysis of vegetation management alternatives: An Ontario case study. Homagain, K., C.K. Shahi, N.J. Luckai, M. Leitch and F.W. Bell. *For. Chron.* 87(2): 260-273.

Modelling landscape-level effects of reduced herbicide use in two forests in northern Ontario. Dacosta, J., K. Szuba, F.W. Bell, T. Moore, K. Lennon, J. Leach, D. Bazeley and N.J. Luckai. *For. Chron.* 87(2): 290-309.

Timing and duration of herbaceous vegetation control in northern conifer plantations: 15th-year tree growth and soil nutrient effects. Hoepting, M.K. R.G. Wagner, J. McLaughlin and D.G. Pitt. *For. Chron.* 87(3): 398-413.

Effects of pre- and post-harvest spray with glyphosate and partial cutting on growth and quality of aspen regeneration in a boreal mixedwood forest. Man, R., J.A. Rice, L. Freeman and S. Stuart. *For. Ecol. Manage.* 262: 1298-1304.

Early effects of pre- and post-harvest herbicide application and partial cutting in regenerating aspen – jack pine mixtures in northeastern Ontario. Man, R., J.A. Rice and G.B. MacDonald. *Can. J. For. Res.* 41(5): 1082-1090.

Wind damage in a partially harvested boreal mixedwood stand in northeastern Ontario. Rice, J.A. and R. Man. *Ont. Min. Nat. Resour., Ont. For. Res. Inst., For. Res. Rep. No 175.* 13 p. + append.

Effects of artificial shade on early performance of white spruce seedlings planted on clearcuts. Man, R. and K.J. Greenway. *New For.* 41(2): 221-233.

Leaf area and clumping indices for a boreal mixedwood forest: lidar, hyperspectral, and Landsat models. Thomas, V., T. Noland, P. Treitz and J.H. McCaughey. *Int. J. Remote Sens.* 32(23): 8271-8297.

Retrieval of forest chlorophyll content using canopy structure parameters derived from multi-angle data: the measurement concept of combining nadir hyperspectral and off-nadir multispectral data. Simic, A., J.M. Chen and T.L. Noland. *Int. J. Rem. Sens.* 32(20): 5621-5644.

Variation in leaf nitrogen and phosphorous stoichiometry in *Picea abies* across Europe: An analysis based on local observations. Kang, H., H. Zhuang, L. Wu, Q. Liu, G. Shen, B. Berg, R. Man and C. Liu. *For. Ecol. Manage.* 261: 195-202.

Forest management and ecology – Great Lakes—St. Lawrence

Influence of herbaceous and woody competition on white pine regeneration in a uniform shelterwood. Pitt, D.G., A. Morneault, W.C. Parker, L. Lanteigne, M.K. Hoepting and A. Stinson. *For. Chron.* 87(5): 653-668.

Establishing a sustainable harvest for Canada yew (*Taxus canadensis* Marsh.) in Ontario. Noland, T.L., L. Rich and M.S. Packalen. *For. Chron.* 87(4): 529-536.

Abundance and function of large woody debris in small, headwater streams in the Rocky Mountain foothills of Alberta, Canada. Jones, T.A., L.D. Daniels and S.R. Powell. *River Res. Applic.* 27: 297-311.

RRASCAL: Root-Rut Assessment Calculator – background and provisional model. Anderson, H.W. Ont. Min. Nat. Resour., Ont. For. Res. Inst., Sault Ste. Marie, ON. For. Res. Info. Pap. No. 176. 56 p. + append.

Growth and yield/modelling

Individual tree diameter growth models for black spruce and jack pine plantations in northern Ontario. Subedi, N. and M. Sharma. For. Ecol. Manage. 261: 2140-2148.

Estimating wood volume of the stem and branches of sugar maple (*Acer saccharum* Marsh.) using a stem profile model with implicit height. Zakrzewski, W.T. For. Sci. 57(2): 117-133.

Effects of sample size and tree selection criteria on the performance of taper equations. Subedi, N., M. Sharma and J. Parton. Scand. J. For. Res. 26(6): 555-567.

Applying wavelet-based functional approach in modelling tree taper. Subedi, N. and M. Sharma. Ann. For. Sci. 68: 1039-1048.

Estimating volume of undersized round wood for commercial tree species in northwestern Ontario. Zakrzewski, V., M. Naslovar and W. Zagrobelny. Ont. Min. Nat. Resour., Ont. For. Res. Inst., Sault Ste. Marie, ON. For. Res. Note No. 70. 11 p. + append.

Soils/Hydrology

Recovery of carbon and nutrient pools in a northern forested wetland 11 years after harvesting and site preparation. Trettin, C.C., M.F. Jurgensen, M.R. Gale and J.W. McLaughlin. For. Ecol. Manage. 262: 1826-1833.

Biogeochemical cycling and chemical fluxes in a managed northern forested wetland, Michigan, USA. McLaughlin, J.W., E.M. Calhoun, M.R. Gale, M.F. Jurgensen and C.C. Trettin. For. Ecol. Manage. 261: 649-661.

Peatland stream lipid biogeochemistry features in an intermediate fen peatland, Ontario Canada. Packalen, M.S., S.T. Bagley and J.W. McLaughlin. Wetlands 31: 353-365.

Other

Ontario Forest Research Institute publications 2006-2010: A bibliography with abstracts. Buse, L.J., comp. Ont. Min. Nat. Resour., Ont. For. Res. Inst., Sault Ste. Marie, ON. For. Res. Info. Pap. No. 175. 50 p. + append.