

## Carla M. Burton

### Personal Data:

Citizenship: Canadian

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### Education:

Ph.D. (Environmental Studies), University of Victoria, 2012.

M.Sc. (Environmental Studies), University of Victoria, 2003.

Diploma (Restoration of Natural Systems), University of Victoria, 2002.

B.Ed. (Elementary), University of British Columbia, 1992.

### Employment History:

1995 to present: Partner, Symbios Research and Restoration, Smithers / Prince George / Terrace, BC.

- Independent researcher and environmental consultant in the areas of floristic and vegetation surveys, ecosystem restoration, mine reclamation, ethnobotany.

1992-1995 – Elementary Teacher, Vancouver School Board, Vancouver, B.C.

1980-1992 – Medical Assistant, Gabriola, B.C.

### Selected Reports and Projects

Symbios Research & Restoration. 2013. Rare Plants and Ecosystems Along the Proposed Prince Rupert Gas Transmission Route. Prepared for Ecosystem Dynamics Inc., Prince George, B.C.

Burton, C.M. 2010. A Proposed Revegetation Strategy for Dust Control at Williston Lake Reservoir. Prepared for B.C. Hydro, Burnaby, B.C. Symbios Research and Restoration, Prince George, B.C. 24 p.

Burton, C. M. 2007. Evaluation of Plant and Tailings Treatments for Reclamation. Prepared for Huckleberry Mines Ltd, Houston, B.C. Symbios Research and Restoration, Prince George, B.C. 16 p.

Burton, C.M., V. Huff, R.J. Hebda, and V. Schaefer. 2006. Grasses of Northern Interior British Columbia. Phase 1: Report on Current State of Botanical and Restoration Knowledge. Prepared for B.C. Ministry of Energy, Mines and Petroleum Resources, Oil and Gas Commission. University of Victoria, Restoration of Natural Systems Program, Victoria, B.C. 105 p.

Burton, C.M. 2005. A Regional Profile of Commercial Harvesting of Non-timber Forest Products in the Prince George, British Columbia, Area. Prepared for Royal Roads University. Symbios Research & Restoration, Prince George, B.C.

Burton, C. 2005. Production and Evaluation of High-Diversity Native Herbaceous Plant Seed for Use in Northern Reclamation. Establishment Report to Industrial Forestry Service Ltd. (IFS) and Industrial Research Assistance Program (IRAP). Symbios Research and Restoration, Prince George, B.C.

Burton, C.M., and D. Connell. 2005. Boom, Bust, and Bugs: Central Interior BC's Forest Systems Under Stress. Background Case Study Description Prepared for a CIDA Workshop on "Livelihoods and Ecosystems: Dealing with Complexity in the Forest of the Central Interior." May 17-18, 2005, School of Planning, University of Northern British Columbia, Prince George, B.C. 10 p.

Burton, C.M. 2004. An Annotated Bibliography for Co-management of Timber and Non-timber Forest Products. Prepared for Royal Roads University, October 2004. Symbios Research & Restoration, Prince George, B.C.

**Selected Reports and Projects (continued)**

- Burton, C.M., and P.J. Burton. 2003. A Manual for Growing and Using Seed from Herbaceous Plants Native to the Northern Interior of British Columbia. Symbios Research & Restoration, Smithers, B.C. 168 p.
- Burton, P.J., and C.M. Burton. 2002. Floristic Inventory of Kitwanga Fort National Historic Site: Species at Risk, Ethnobotany, and Considerations for Historical Restoration. Prepared for Parks Canada, Western Canada Service Centre, Vancouver, B.C. Symbios Research & Restoration, Smithers, B.C. 24 p.
- Burton, P.J., and C.M. Burton. 2002. Phase II Campground Restoration Prescriptions for Exchamsiks River Provincial Park. Prepared for the B.C. Min. of Water, Land and Air Protection, Parks Div., Terrace Office. Symbios Research & Restoration, Smithers, B.C. 40 p.
- Burton, P.J., and C.M. Burton. 2001. Development and Testing of Native Grasses and Legumes for Seeding in the Northern B.C. Interior. Final Report to the Science Council of B.C. and Forest Renewal B.C. Symbios Research & Restoration, Smithers, B.C. 63 p.
- Burton, P., and C. Burton. 2001. Revegetation of the Riparian Zone Near the Bulkley River at Noranda's Rail Loading Facility, Topley, B.C. Prepared for Noranda Mining and Exploration Inc., Granisle, B.C. Symbios Research & Restoration, Smithers, B.C. 8 p.
- Burton, P., C. Burton, and L. McCulloch. 2000. Exploring Options for the Management of Wild Berries in the Kispiox Forest District: Phase One of a Pilot Project Focusing on the Suskwa River Area. Prepared for the B.C. Ministry of Forests, Kispiox Forest District, Hazelton, BC. Symbios Research & Restoration, Smithers, B.C. 56 p.
- Burton, C.M. 2000. Riparian Restoration Plantings in the Upper Bulkley Watershed: Completion Report. Prepared for the Community Futures Development Corporation of Nadina, Houston, B.C. Symbios Research & Restoration, Smithers, B.C. 38 p.
- Burton, P., and C. Burton. 2000. Phase I Campground Restoration Prescriptions for Exchamsiks River Provincial Park. Prepared for the B.C. Ministry of Water, Land and Air Protection, Parks Division, Terrace Office. Symbios Research & Restoration, Smithers, B.C. 31 p.
- Symbios Research & Restoration. 1997. Assessment of Flora and Vegetation and Impact Significance, Lower Kitlope River. Prepared for B.C. Ministry of Environment, Lands and Parks, Skeena District, Terrace, B.C.

**Publications**

- Burton, C.M. and P.J. Burton. 2014. Prospects for sustainability of *Oplopanax horridus*, an important ethnobotanical resource in northwestern British Columbia. *Ethnobotany Research and Applications*, in revision.
- Turner, N.J., C.M. Burton, and J. van Eijk. 2013. Plants in language and classification among B.C. First Nations. *BC Studies* 179:135-158.
- Burton C.M. 2012. Wilaat Hooxhl Nisga'ahl Yáns: Gik'uuhl-gi, Guuñ-sa ganhl Angoogañ -- Using Plants the Nisga'a Way: Past, Present and Future Use. Ph.D. Dissertation, University of Victoria, Victoria, B.C. 349 p.
- Turner, N. J., and C.M. Burton. 2009. Soapberry: unique northwestern foaming fruit. In Festschrift for Thomas M. Hess, David Beck and G.L. Rowicka Editors. SURFgroepen, Netherlands.
- Burton C.M., P.J. Burton, R. Hebda, and N.J. Turner. 2006. Determining the optimal sowing density for a mixture of native plants used to revegetate degraded ecosystems. *Restoration Ecology*, 14(3), 379-390.

**Publications (continued)**

- Burton, C.M., and N.J. Turner. 2004. Book Review of *Fire: A Brief History*, by Stephen J. Pyne and *Wildfire Wars: Frontline Stories of BC's Worst Forest Fires*, by Keith Keller. *BC Studies* Summer/Autumn 2004, nos. 142/143, pp. 304-308.
- Burton, C.M. 2003. Determining Optimum Seeding Densities of a Native Plant Mixture on Degraded Sites. M.Sc. Thesis, School of Environmental Studies, University of Victoria, Victoria, B.C. 144 p.
- Burton, C.M., and P.J. Burton. 2003. A Manual for Growing and Using Seed from Several Herbaceous Plants Native to the Northern Interior of British Columbia. Symbios Research & Restoration, Smithers, B.C. 168 p.
- Burton, P.J., C.M. Burton, T.W. Sipe, and D.E. Hibbs. 2003. Tree regeneration and understory vegetation in an eastern hardwood forest 20 years after creation of small forest openings. Pages 27 to 28 in A. Barker Plotkin, J.S. Pallant, and D. Recos-Smith, editors. Abstracts from the 14th Annual Harvard Forest Ecology Symposium, 12 February 2003. Long Term Ecological Research (LTER) Program, Harvard Forest, Petersham, Massachusetts.
- Burton, P.J., and C.M. Burton. 2002. Promoting genetic diversity in the production of large quantities of native plant seed. *Ecological Restoration* 20(2):117-123.
- Burton, C.M., and P.J. Burton. 2001. Fertilization can reduce the amount of seed needed to revegetate degraded soils (British Columbia). *Ecological Restoration* 19(1):57-58.
- Burton, C.M. 1999. Starting a non-timber forest products enterprise: the Wilp Sa Maa'y Harvesting Co-operative. *Ecoforestry* 14(4):20-23.
- Burton, C.M., and P. Burton 1998. Making native plant seed available for mainstream land management. *Menziesia* 3(1):8-10. (Newsletter for the Native Plant Society of British Columbia).

**Selected Presentations**

- Schaefer, V., and C. Burton 2007. Collaborating on Restoration Projects. Presented at the College of Applied Biology Annual Conference. May 3<sup>rd</sup> 2007. Victoria, B.C.
- Burton, C.M., N.J. Turner, and C. Brown. 2007. Sharing innovation: Soapberry (*Shepherdia canadensis*) indigenous use and cultural value in northwestern North America. Presented at the Annual Conference of the Society for Ethnobiology, March 2007, San Francisco, California.
- Burton, C.M., P. Burton, A. Eastham, R. Robichaud, and M. Sinner. 2006. Testing the ability of four native plant species to grow on mine tailings. Poster presented at the 30<sup>th</sup> Annual British Columbia Mine Reclamation Symposium, 19-22 June, 2006, Smithers, BC.
- Turner, N.J., C.M. Burton, and A. Vallillee. 2005. Developing Ecocultural Symbiosis: Caretaking Relationships in Land and Resource Management. Presented at a symposium on "Moving Beyond the Critiques of Co-Management: Theory and Practice." February 4-5, 2005, Wilfred Laurier University, Waterloo, Ontario.
- Burton, C.M., and P.J. Burton. 2004. Effects of seeding density and fertilization on growth of native and exotic herbaceous species on degraded sites. Poster presented at the 16<sup>th</sup> International Conference of the Society for Ecological Restoration, August 24-26, 2004, Victoria, B.C., and at the 5<sup>th</sup> International Conference on Disturbance Dynamics in Boreal Forests, August 1-5, 2004, Dubna, Russia.
- Burton, P., B. Schultz, C. Burton, and A. Simpson. 2004. Restoration of all-terrain vehicle (ATV) damage in the subalpine meadows of Seven Sisters Provincial Park, British Columbia. Presented at the 16<sup>th</sup> International Conference of the Society for Ecological Restoration, August 24-26, 2004, Victoria, BC.

**Selected Presentations (continued)**

- Burton, C.M., and P.J. Burton. 2004. Long-term effects of seeding densities and fertilization treatments using seed from herbaceous species native to the northern interior of British Columbia. In R. Seaton, compiler. CD Proceedings of the 16th Annual Society for Ecological Restoration Conference. B.C. Chapter of the Society for Ecological Restoration, Victoria, B.C. 10 p.
- Burton, P., and C. Burton. 2004. How to develop a revegetation seeding prescription. Workshop presented at the 16<sup>th</sup> International Conference of the Society for Ecological Restoration. 24 Aug. 2004, Victoria. B.C.
- Burton, C.M. 2003. Determining Optimum Seeding Densities of a Native Plant Mixture on Degraded Sites. Harvard Forest Seminar Series, Harvard University, Petersham, Mass., February 7, 2003.
- Burton, C.M. 2002. Native Plant Seeding of a Day Use Area in Babine Mountains Provincial Park. Presented (in partial fulfillment of the requirements of ER390) to the ER314 class and The School of Environmental Studies, University of Victoria, October 9, 2002
- Burton, C.M., and P.J. Burton. 2000. Fertilization can reduce the amount of seed needed to revegetate degraded soils. Poster presented at the Twelfth Annual International Conference of the Society for Ecological Restoration, Sept. 4-7, 2000, Liverpool, U.K.
- Burton, C.M. 2000. The Wilp Sa Maa'y Harvesting Co-operative: Starting a Community Based Non-Timber Forest Products Enterprise. Invited presentation to "Agroforestry: Forestry for the Future" workshop, June 1, 2000, Burns Lake, B.C. Sponsored by Burns Lake and District Community Economic Development Association.
- Burton, P.J., and C.M. Burton. 2000. The Wilp Sa Maa'y Harvesting Co-operative and Wild Berry Research in Gitksan Traditional Territory. Invited presentation to a Non-Timber Forest Products Workshop, May 24, 2000, Creston, B.C. Sponsored by the Ktunaxa-Kinbasket Treaty Council.
- Burton, C.M., and P.J. Burton. 1998. Making native plant seed available for revegetation of disturbed land in the northern interior of British Columbia. Poster presented at "Helping the Land Heal Conference: Ecological Restoration in British Columbia." Nov. 5-8, 1998, Victoria, B.C., and at the Eleventh Annual International Conference of the Society for Ecological Restoration, Sept. 23-25, 1999, San Francisco, California.
- Burton, C.M. 1998. Wilp Sa Maa'y: A Co-operative Approach to Developing Non-Timber Forest Products. Invited presentation, "More than Just Trees: Non-Timber Forest Related Business Opportunities Workshop," Sept. 16, 1998, Prince Rupert, B.C.
- Burton, P.J., and C.M. Burton. 1997. Interactive effects of substrate and canopy cover on conifer germination and first-year survivorship. Poster presented at the Annual Meeting of the Ecological Society of America, August 10-14, 1997, Albuquerque, New Mexico, U.S.A. Also presented at "Silvicultural Systems Workshop," Nov. 4-6, 1997, Richmond, B.C.
- Burton, P.J., and C.M. Burton. 1995. A program to develop native grass and legume mixtures for forest road and landing revegetation. Presentation made at "The Native Plant Forum," Nov. 25, 1995, Vernon, B.C. Sponsored by the B.C. Ministry of Forests.