

Jed Long

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Spatial Pattern Analysis & Research Lab
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Education

Currently:

University of Victoria

PhD Candidate, Department of Geography

Dissertation: Developing Quantitative Methods for Movement Data

Victoria, BC

2009 -

University of Victoria

MSc, Geography

Thesis: Quantifying Change in the Spatial Pattern of Forests: Assessing Impacts of Mountain Pine Beetle Infestation and Harvest

Victoria, BC

2009

Centre of Geographic Sciences

Advanced Diploma, Geographic Information Systems (GIS)

Lawrencetown, NS

2007

University of Guelph

BSc, Physical Science

Minor: GIS and Environmental Analysis

Guelph, ON

2006

Publications

Refereed Journals

Long, J.A., Nelson, T.A. (2011) Time geography and wildlife home range delineation. *Journal of Wildlife Management*. DOI: 10.1002/jwmg.256.

Long, J.A., Hazlitt, S.L., Nelson, T.A., Laberee, K. (2011) Estimating 30-year change in coastal old-growth habitat for a forest nesting seabird in British Columbia, Canada. *Endangered Species Research*. 14(1): 49-59.

Long, J., Nelson, T., Wulder, M. (2010) Regionalization of landscape pattern indices using multivariate cluster analysis. *Environmental Management*. 46(1): 134-142.

Long, J.A., Nelson, T.A., Wulder, M.A. (2010) Characterizing forest fragmentation: Distinguishing change in composition from configuration. *Applied Geography*. 30(3):426-435.

Long, J.A., Nelson, T.A., Wulder, M.A. (2010) Local indicators for categorical data (LICD): impacts of scaling decisions. *The Canadian Geographer*. 54(1):15-28.

In Preparation

Long, J.A., Nelson, T.A. A review of quantitative methods for movement data. *International Journal of Geographical Information Science*.

Long, J.A., Nelson, T.A. Measuring dynamic interaction in movement data. *Transactions in GIS*.

Long, J.A., Robertson, C., Nathoo, F.S., Nelson, T.A. A Bayesian space-time model for ecological spread processes applied to a mountain pine beetle outbreak in Western Canada. *Spatial and Spatio-Temporal Epidemiology*.

Reports

Nelson, T.A., Long, J.A., Laberee, K. (2009) Change in Available Marbled Murrelet Nesting Habitat from 1978 to 2008 in British Columbia, Canada. Victoria, BC: *Report for the Ministry of Environment, Species at Risk Coordination Office (SaRCO)*, working document 1. 26p.

Long, J.A., Nelson, T.A., Wulder, M.A. (2009) Preliminary analysis on the regionalization of landscape pattern indices using multivariate cluster analysis - MPBI working paper. Victoria, BC: *Mountain Pine Beetle Program Project #7.32*, working document 1. 31p.

Long, J.A., Nelson, T.A., Wulder, M.A. (2008) Preliminary analysis on the impacts of mountain pine beetle management on the spatial pattern of forests - MPBI working paper. Victoria, BC: *Mountain Pine Beetle Program Project #7.32*, working document 1. 30p.

Oral Presentations

Long, J.A., Nelson, T.A. (2011) Advances in wildlife telemetry data: An opportunity for space-time geography. *Annual meeting of the Association of American Geographers (AAG)*. Apr. 12-17; Seattle, WA.

Long, J.A., Nelson, T.A. (2011) Sports, time geography, and mobility data. *Spatial Knowledge and Information (SKI) Canada*. Mar. 4-6; Fernie, BC. *Student Presentation Award*.

Long, J.A., Robertson, C., Nelson, T.A., Nathoo, F. (2010) Modeling spread of mountain pine beetle in Western Canada. *Geomatics Canada Conference/GEOIDE Annual Scientific Conference*. Jun. 15-18; Calgary, AB.

Long, J.A., Robertson, C., Nathoo, F., Nelson, T.A. (2010) Bayesian forecasting of ecological range expansion: The case of the mountain pine beetle. *NICDS Workshop on Statistical Methods for Geographic and Spatial Data in the Management of Natural Resources*. Mar. 3-5; Montreal, QC.

Long, J.A., Nelson, T.A., Wulder, M.A. (2009) Quantifying forest composition and configuration following insect infestation and mitigation. *Annual meeting of the Association of American Geographers (AAG)*. Mar. 22-27; Las Vegas, NV.

Long, J.A., Nelson, T.A., Wulder, M.A. (2009) A decision framework for local indicators for categorical data. *Spatial Knowledge and Information (SKI) Canada*. Feb. 19-21; Fernie, BC.

Long, J.A., Nelson, T.A., Wulder, M.A. (2008) Living on the edge: Spatial pattern implications of the current mountain pine beetle epidemic. *Spatial Knowledge and Information (SKI) Canada*. Feb. 15-17; Fernie, BC.

Poster Presentations

Long, J.A., Robertson, C., Nathoo, F.S., Nelson, T.A. (2011) Application of a Bayesian space-time spread model to the mountain pine beetle outbreak in Western Canada. *GEOMED*. Oct. 20-22; Victoria, BC.

Long, J.A., Nelson, T.A. (2011) A new interaction statistic for movement data. *GEOIDE Annual Scientific Conference*. May 16-17; Toronto, ON.

Long, J.A., Nelson, T.A. (2010) Time geography and animal home ranges. *Geomatics Canada Conference/GEOIDE Annual Scientific Conference*. Jun. 15-18; Calgary, AB.

Teaching

Sessional Instructor

GEOG*418/518 <i>Advanced Spatial Analysis & Geostatistics</i>	University of Victoria 2012
GEOG*391 <i>Special Topics in Geography: Geocaching</i>	University of Victoria 2010,2011

Teaching Assistant

GEOG*418/518 <i>Advanced Spatial Analysis & Geostatistics</i>	University of Victoria 2009
GEOIDE Summer School <i>Modeling Spatial Patterns</i>	GEOIDE 2009
GEOG*222 <i>Introduction to Maps and GIS</i>	University of Victoria 2008
GEOG*322 <i>Digital Remote Sensing</i>	University of Victoria 2007

Invited Talks

BIOL*312 <i>Entomology - Guest lecture on mountain pine beetle</i>	University of Victoria 2009-2011
Mathematics & Statistics Seminar <i>Climbing stairs: Geography, statistics and an example from the mountain pine beetle</i>	University of Victoria 2010

Other Research Experience

Research Assistant

Department of Mathematics & Statistics, University of Victoria <i>Space-time modeling of ecological range expansion</i>	2009-2010
Department of Geography, University of Victoria <i>Provincial mapping of marbled murrelet nesting habitat (Project GIS lead)</i>	2009
Department of Geography, University of Victoria <i>Spatial analysis of dendrochronology data</i>	2008
Department of Geography, University of Victoria <i>Examining use of local indicators for categorical data</i>	2008

Awards and Scholarships

NSERC PGS-D Fellowship	2010-2013
Graphic Office Interiors Scholarship	2009
Pacific Century Scholarship	2009
Pacific Forestry Centre Graduate Award	2008, 2009
University of Victoria Graduate Award	2007
James F. Doig Award	2007
Geomatics Canada Scholarship	2007
Guy Lavoie Memorial Scholarship	2007
Dean's Honour Roll	2002-2007
Queen Elizabeth Aiming for the Top Scholarship	2002-2006
University of Guelph Entrance Scholarship	2002
Algonquin Forestry Authority Scholarship	2002
North Bay/Mattawa Conservation Authority Scholarship	2002

Memberships

- Canadian Association of Geographers
- Canadian Institute of Geomatics

Service

Session Chair, Health Geography and Spatial Data <i>GEOMED Conference</i>	2011 <i>Victoria, BC</i>
Learning GPS <i>Let's Talk Science</i>	2008 <i>Victoria, BC</i>
I have also acted as a referee for the journals <i>Landscape Research</i> and <i>Applied Geography</i> .	