

CURRICULUM VITAE - GREGORY A. GREENE

The University of British Columbia
Dept. of Forest & Conservation Sciences
2424 Main Mall
Vancouver, BC V6T 1Z4
Canada

map.n.trowel@gmail.com
Work: (604) 822-6310
Cell: (778) 918-0609

Education

University of British Columbia
Ph.D. Forest Sciences: Fire Ecology

Vancouver, BC, Canada
August 2019 (*Expected*)

University of British Columbia
M.Sc. Geography: Fire Ecology

Vancouver, BC, Canada
August 2011

California State Polytechnic University
B.Sc. Geography: Geographic Information Systems/Science (GIS)
Minor: Anthropology
Minor: Interdisciplinary GIS Applications

Pomona, CA, USA
June 2008

Professional Experience

*Alex Fraser Research Forest –
Research Assistant/Forest Technician 4*

**UBC Alex Fraser Research Forest
Williams Lake, BC, Canada
June 2016 – Present**

- Supervised field crews and office personnel.
- Developed and implemented Fuel Hazard Assessment protocols for pre- and post-harvest surface fuel loading.
- Sampled Vegetation Resource Inventory plots.
- Performed forest mensuration and operations duties, including timber cruising, skid trail layout, forestry road layout, regeneration surveys, planting quality assessments, Douglas-fir beetle surveys, and pile burning.
- Designed and administered the Alex Fraser Research Forest GIS database.
- Performed wildland firefighting duties during 2017 wildfire season.

Graduate Research/Teaching Assistant

**Depts. of Geography & Forest Sciences
Univ. of British Columbia - Vancouver, BC, Canada
August 2009 – Present**

- Developed research proposals, including safety protocols and Job Hazard Analyses (JHAs).
- Established/maintained research budgets and resolved logistical issues.
- Led field crews to identify and record fire-scarred trees, establish research plots, and safely operate chainsaws.
- Visually and statistically cross-dated tree-rings to build local & regional chronologies.
- Completed coursework in research methods, landscape ecology, statistics (linear/non-linear), vegetation/forest dynamics and advanced statistical methods in GIS.
- Responsible for teaching and conducting labs, advising students about coursework, proctoring examinations, and marking exams and assignments in conservation ecology, GIS, climatology and biogeography courses.
- Taught lessons in dendrochronology, climate change, mountain pine beetles, and orienteering to primary education (K-8) students at Grandview Elementary in Vancouver, BC.

Advisor: Dr. Lori L. Daniels

*Pacific Institute for Climate Solutions
(PICS) Intern – Database & GIS Analyst*

**Min. of Forests, Lands & Natural Resource Ops.
Rocky Mtn. Forest Dist.–Cranbrook, BC, Canada
2012**

- Compiled existing data from operational installations, research trials, and monitoring projects associated with ecological restoration (ER) treatments conducted over the past c. 15 years.
- Participated in project development concerning specific database and GIS needs assessments.
- Designed MS Access database to house ER Effectiveness Monitoring and Range Inventory (RI) data, including a front-end user interface and back-end relational structures.
- Designed data structures and relational attributes to link GIS and Microsoft Access databases.
- Created and edited GIS data pertinent to ER and RI projects.
- Wrote project proposal; Communicated results and findings to staff in the MoFLNRO Resource Management Division and Wildfire Management Branch, Rocky Mountain Forest District, and members of the RMT ER Program and Science Team.

*GIS Analyst
Julian Field Office*

**Environmental Resource Solutions, Inc.
Santa Rosa, CA
February 2009 – August 2009**

- Provided GIS support concerning forestry, fire management, environmental, and landscape/urban planning projects.
- Participated in project development concerning specific GIS needs assessments.
- Conducted all phases of system design and implementation.
- Compiled, maintained, and distributed spatial data, utilizing QA/QC and spatial database design concepts (e.g., topology, domain values, subtypes, etc).
- Monitored GIS functions and system efficiency, and implemented system changes to resolve problems and increase efficiency.
- Processed GPS data collected in the field using ArcGIS w/associated ArcPad extensions

*Rangeland Technician (Fire)
New Mexico Fire District*

**Department of the Interior, U.S. Fish and Wildlife Service
Bosque del Apache N.W.R. – San Antonio, NM
2006 – 2008 Wildfire Seasons**

- Performed duties as pertaining to a Range Technician (i.e. Suppression of Wildland Fire; Participation in Prescribed Fire; Training for Wildland Firefighting; etc.).
- Routinely evaluated fire facilities (i.e. engine bay, equipment cache, flammable materials cabinets, etc.) and equipment (i.e. fire engines, ATVs, pumps, ignition tools, etc.) to ensure OSHA standards, and identify any maintenance deficiencies.
- Routinely developed and participated in workplace safety briefings (i.e. daily situation reports, daily reviews of fire safety procedures, review of Job Hazard Analysis reports for every applicable task, etc.), and attended annual firefighter safety refresher courses.
- Wrote or contributed to Job Hazard Analysis (JHA) reports (i.e. pump operation, chainsaw operation, ditch dragon operation, etc.).
- Created and administered a GIS/GPS geodatabase for the planning and management of prescribed burns, habitat classification, property inventory, and various other activities for wildlife refuges throughout the state of New Mexico.

GIS/GPS Survey Coordinator

Sisupalgarh Fortification
P.I. Monica Smith - University of California, Los Angeles
P.I. Rabi K. Mohanty - Deccan College, Pune, India
Bhubaneswar, Orissa, India
2006 – 2007

- Managed the Sisupalgarh Project GIS/GPS database, as directed by Dr. Monica Smith and Dr. R.K. Mohanty.
- Surveyed and mapped a 2,000 year old, ~1km x 1km fortification.
- Updated team members on current/expected safety and situational awareness (i.e. weather conditions, proper intake levels of water, areas of dense/thorny vegetation, anticipated areas of cobra habitation, etc.).
- Trained team members in the proper usage of the GPS equipment and optimal data collection methods.
- Other duties included: GPS survey of entire Sisupalgarh Fortification; created GIS maps for use in publications/write-ups; recorded survey boundaries as plotted by the geophysical testing team; performed georectification of gradiometry image results.

GIS Consultant / Field Assistant

Tano Origins Archaeology Project - Burnt Corn Pueblo
P.I. James E. Snead - George Mason University
Santa Fe, NM
2005, 2006

- Managed the Tano Origins Archaeology Project GIS/GPS database, as directed by Dr. James E. Snead.
- Trained team members in the proper usage of the GPS equipment and optimal data collection methods.
- Other duties included: GPS survey of entire Burnt Corn Pueblo and surrounding community; created GIS maps for use in publications/write-ups; conducted extensive GIS analysis of groundstone in the Burnt Corn Pueblo vicinity; assisted with transect surveys, excavations, hand mapping, and completion of site forms.

GIS Technician

Center for GIS Research [CGISR]

California State Polytechnic Univ.
Pomona, CA
2005-2008

- Performed GIS Technician duties as necessary for completing projects on behalf of the Center for GIS Research.
- Trained new lab technicians, managed CGISR GPS equipment, and resolved maintenance issues.
- Reviewed and updated work plans and schedules to address immediate needs (i.e. changed lab technician work hours; altered anticipated work production due to computer issues, instructor needs, etc; informed supervisor of changes in work plans or schedules).
- Advised GIS students in the use of ArcGIS, ArcIMS, ArcView 3, ArcPad, ERDAS Imagine, and various other GIS/GPS and Remote Sensing software platforms.
- Other duties included: updated CGISR website regularly; organized and managed student computer accounts; assisted GIS Instructors during class sessions; installed and maintained CGISR hardware/software.

- Responsible for developing the Sevilleta National Wildlife Refuge GIS database.
- Conducted spatial analyses of habitat variations throughout the refuge to classify Wetland and Upland areas. Results were used to determine boundaries for Fire Management Units (FMUs) and Refuge Management Units (RMUs), as well as for calculating refuge acreage; all vital for determining the budget for the next fiscal year.
- Additional tasks included: Taking extensive GPS readings of all relevant refuge property, using Trimble GPS equipment and various OHVs; training in database management; and administering the Refuge Headquarters computer network.

Publications

- Greene, G.A. and Daniels, L.D. 2017. Spatial Interpolation and Mean Fire Interval Analyses Quantify Historical Mixed-Severity Fire Regimes. *International Journal of Wildland Fire*, 26:136-147.
- Greene, G.A. 2011. Historical Fire Regime of the Darkwoods: Quantifying the Past to Plan for the Future. MSc Thesis, University of British Columbia, Vancouver, British Columbia, Canada.
- Greene, G.A. and P.O. Leckman. 2011. "The Burnt Corn Landscape." *Burnt Corn Pueblo: Conflict and Conflagration in the Galisteo Basin, AD 1250-1325*. (Eds). James E. Snead and Mark W. Allen. Anthropological Papers 74, University of Arizona Press, Tucson.
- Mohanty, R.K., M.L. Smith, T. Matney, A. Donkin and G.A. Greene. 2007. Archaeological research at Sisupalgarh 2007: An Early Historical city in Orissa. *Puratattva (Journal of the Indian Archaeological Society)*, 37:142-154.
- Greene, G.A. 2006. Article Review: "Mace, Ruth. Transitions Between Cultivation And Pastoralism In Sub-Saharan Africa." *Current Anthropology* August-October, 1993, Vol. 34(4):363-382. Public Anthropology Journal Archive Project. <<http://www.publicanthropology.org/Archive/Ca1993.htm>>
- Greene, G.A. 2006. Article Review: "Aswani, Shankar and Sheppard, Peter. The Archaeology and Ethnohistory of Exchange in Precolonial and Colonial Roviana." *Current Anthropology* December, 2003, Vol. 44(S):S51-S78. Public Anthropology Journal Archive Project. <<http://www.publicanthropology.org/Archive/Ca2003.htm>>

Research Reports

- Greene, G.A. and B.J.R. Harris. 2015. "Ecosystem Restoration Program – Intensive Monitoring Protocols." *Report to the B.C. Ministry of Forests, Lands and Natural Resource Operations*. Submitted February 20.
- Daniels, L.D., H. Erasmus, B. Forge, G.A. Greene and S. Lavallee. 2014. "Monitoring fire intensity and severity: 2013 prescribed burn at the Westside Unit, Vaseux-Bighorn National Wildlife Area." *Report to the Canadian Wildlife Service*. Submitted October.
- Greene, G.A., O. Villemare-Cote and L.D. Daniels. 2014. "Climate change, wildfire, and landscape homogenization in western Canada." *Report to the Rocky Mountain Trench Society*. Submitted March 31.
- Greene, G.A. and L.D. Daniels. 2010. "Historical Fire Regime of the Darkwoods: 1449-2010 – A Preliminary Report." *Report to the Nature Conservancy of Canada and Kalesnikoff Lumber Co. Ltd.* Submitted December 9.

Presentations

- Daniels, L.D., W. Brookes, R.D. Chavardès, G.A. Greene, M-A.F. Leclerc, A.M.Pogue. 2018. "Tree-rings, landscape resilience and adaptation to the wicked problem of wildfire." *Ecological Society of America Annual Meeting*. Oral. August 5-10, New Orleans, LA.
- Greene, G.A. and L.D. Daniels. 2016. "How to Degrade our Dry Forests: High-grade then Suppress All Fires for a Century." *Wildland Fire Canada National Conference*. Poster. October 25, Kelowna, BC.
- Greene, G.A. and L.D. Daniels. 2016. "Historic Wildfires: The Space-Time Continuum." *Wildland Fire Canada National Conference*. Oral. October 25, Kelowna, BC.
- Greene, G.A. and L.D. Daniels. 2016. "How to Degrade our Dry Forests: High-grade then Suppress All Fires for a Century." *Southern Interior Silviculture Committee Meeting*. Illustrated Poster Session and Discussion. February 24, Kamloops, BC.
- L.D. Daniels, A. Pogue, R.D. Chavardès, M.A. Leclerc, and G.A. Greene. 2016. The Wildfire Trifecta: Forests, Fuels, and Climate. *Southern Interior Silviculture Committee Meeting*. Illustrated Poster Session and Discussion. February 24, Kamloops, BC.
- Greene, G.A. and L.D. Daniels. 2014. "Historic Wildfires: The Space-Time Continuum." *Foothills Research Institute – Healthy Landscapes Symposium*. Oral. December 7-8, Edmonton, AB.
- Greene, G.A. and L.D. Daniels. 2014. "Fire-Resilient Forests in Dry Ecosystems: The Effects of Fire Exclusion on Grasslands and Mixed-Conifer Forests in the Southern Rocky Mountain Trench." *Rocky Mountain Trench Natural Resources Society – Burning Questions Seminar*. Oral. May 21, Cranbrook, BC.
- Greene, G.A. and L.D. Daniels. 2013. "Fire-Scarred Edges and Pie-Slice Wedges: Examining the Success of the Partial Cross-Section Method in Obtaining Fire-Scar Information." *AmeriDendro Annual Meeting*. Poster. July 19, Tucson, AZ.
- Greene, G.A. and L.D. Daniels. 2012. "Mixed Severity Fires in Montane Forests: The Darkwoods of British Columbia." *Association for Fire Ecology - 5th International Fire Ecology and Management Congress*. Oral. December 6, Portland, OR.
- Greene, G.A. and L.D. Daniels. 2012. "Mixed Severity Fires in Mountain Forests: The Darkwoods of BC." *Wildland Fire Canada National Conference*. Oral. October 4, Kananaskis, AB.
- Greene, G.A. 2012. "Managing for Fire Resilient Forests in the Nature Conservancy of Canada's 'Darkwoods' – A Fire Ecology Perspective." *Forest Sciences Departmental Seminar*. Oral. March 7, University of British Columbia, Vancouver, BC.
- Greene, G.A. and L.D. Daniels. 2011. "Fire History of the Darkwoods: Quantifying the Past to Plan for the Future." *Association of American Geographers Annual Meeting*. Oral. April 13, Seattle, WA.
- Greene, G.A. 2008. "Topography Incarnate: Resurrecting an Ancient Indian Fortification." *California Geographic Society Annual Meeting*. Poster. May 2, Chico, CA.
- Greene, G.A. 2007. "Grinding With a View: The Spatial Relationship Between Groundstone and Ceremony in the Galisteo Basin." *Society for American Archaeology Annual Meeting*. Poster. April 17, Austin, TX.
- Leckman, P.O. and G.A. Greene. 2007. "Welcome to the Neighborhood: Visibility, Access, and Aggregation in the Burnt Corn Community." *Society for American Archaeology Annual Meeting*. Poster. April 17, Austin, TX.
- Allen, M.W. and G.A. Greene. 2006. "Archaeological Investigations at Several Springs Sites in the West-Central Mojave Desert: Results and Plans." *Great Basin Anthropological Conference*. Oral. October 21, Las Vegas, NV.
- Greene, G.A. 2005. "Wireless Sensor Monitoring for Electric Power Networks: Techniques via GIS." *GIS & Engineering Expo*. Poster & Oral. May 20, Pomona, CA.
- Greene, G.A., A. Alhambra, J. Fregoso, B. Luong, C. Ivanescu, and N. Sandoval. 2005. "An Evaluation of Cal Poly Pomona's Emergency Evacuation Plan (EEP) using GIS." *Engineering Symposium*. Oral. May 20, Pomona, CA.

Education & Outreach

Field Tours

- "Dry Forest Degradation." 2016. (Sponsor) *Rocky Mountain Trench Ecosystem Restoration Program*. May 13, Cranbrook, BC.
- "Waldo North Grassland Restoration Monitoring Program." 2015. (Sponsor) *Rocky Mountain Trench Ecosystem Restoration Program*. June 24, Cranbrook, BC.

Videos

- "Crowns & Roots, Burns & Blades: Restoring the Grasslands and Open Forests of the Rocky Mountain Trench." 2015. (Sponsor) *Rocky Mountain Trench Ecosystem Restoration Program*. (Director) J. Galdamez, (Writer) T. Barnes. Released January 15. <<http://vimeo.com/thinking/er>>

Workbooks

- "Grade 8 Workbook – Crowns & Roots: Restoring Grasslands." 2015. (Sponsor) *Rocky Mountain Trench Ecosystem Restoration Program*. Published January 15.
- "Grade 7 Workbook – Crowns & Roots: Restoring Grasslands." 2015. (Sponsor) *Rocky Mountain Trench Ecosystem Restoration Program*. Published January 15.

Media

- Barnes, T. 2016. "If This Tree Could Talk." *Canadian Rockies Annual*, 1:20-21.
- Bond, S., and Harris, B.J.R. 2013. "Tree-Rings Tell All." *Cranbrook Townsman Newspaper*. Published September 5. <http://www.cranbrooktownsman.com/breaking_news/222527941.html>

Awards

- 2016-17. UBC Research Forest Graduate Intern Award. (\$66,000)
- 2013-2015. NSERC IPS Award. (\$73,000)
2012. Association for Fire Ecology TREE Grant. (\$500)
2012. Adrian Weber Memorial Scholarship in Forest Ecology. (\$475)
2012. Mary and David Macaree Fellowship. (\$1,525)
2012. Pacific Institute for Climate Solutions Award. (\$10,000)
- 2011-2014. Faculty of Forestry Graduate Award. (\$25,000)
2010. MITACS Award. (\$15,000)
2008. California Geographic Society: *Student Travel Award*. (\$150)
2007. Alumni Association Scholarship: *Outstanding Leadership and Campus Involvement*. (\$1,500)
2006. David Abbott Swenson Scholarship: *Excellence in Geography*. (\$850)
2006. Cal Poly Pomona's Anthropological and Geographical Societies: *Most Active Member*.
2005. Cal Poly Pomona's *Service Learning Scholarship* for applying GIS as a public service. (\$800)
2005. Student Conservation Association's *Educational Award*. (\$1,000)

Memberships

- International Association of Wildland Fire – **(Member 2017-Present)**
- Association of BC Forest Professionals – **(Member 2016-Present)**
- B.C. Prescribed Fire Council – **(Secretariat 2015-Present)**
- Tree-Ring Society – **(Member 2015-Present)**
- Columbia Mountains Institute for Applied Ecology – **(Member 2012-Present)**
- Association for Fire Ecology – **(Member 2012-Present)**
- Graduate Student Society – **(Councilor Geography Dept. Representative, 2009-2011)**
- Cal Poly Pomona Mountaineering Society - **(Vice President 2007-08)**
- Cal Poly Pomona Anthropological Society - **(President 2006-07, Member 2005-08)**
- Cal Poly Pomona Geographical Society - **(President 2007-08, Member 2005-08)**
- Pi Gamma Mu (PGM), CA Kappa Chapter - Social Sciences Honors Society **(Webmaster 2005-06)**
- Eta Kappa Nu (HKN), CA Zeta Theta Chapter - Electrical Engineering Honors Society
- Tau Beta Pi (TBP), CA Nu Chapter - Engineering Honors Society

**Qualifications
& Skills**

Certified: Forester in Training (ABCFP #5621) – Exp. Apr. 28, 2022 (*Currently on Leave of Absence*)

Certified: Firearms Safety Training (Restricted & Non-Restricted) – Passed Exams Feb. 1, 2015

Certified: Occupational First Aid, Level 1 (BC, Canada) – Exp. May 25, 2018

Certified: Basic Chainsaw Operator (BC, Canada) – Exp. Indefinite

Certified: Wildlife and Danger Tree Assessor (BC, Canada) – Exp. May 12, 2014

Certified: ATV Operator, US Government Certification (USA) – Exp. Indefinite

Proficiency or experience in the following:

- Computer Languages: C / C++, Java, Visual Basic (VB), VBA
- Statistical Analysis Software: SAS, Minitab
- Landscape Ecology Software: Conefor Sensinode, Marxan
- Geographic Information Systems/Science Software: ArcGIS – ArcInfo 10/9/8, ArcView 3.3, ArcPad, Pathfinder Office
- Global Positioning Systems (GPS) Data Acquisition Equipment:
Trimble GPS: Geo-XT/XH/XM, GeoExplorer-3, Recon Datalogger, TSC-1 Datalogger,
ProXR/XRS Receivers