**EDUCATION**

2012-2016 PhD Forest and Conservation Science, University of British Columbia, Canada

Supervisor: Cindy Prescott

“*Incorporating forest health into monitoring the effects of soil disturbance during logging on long-term forest productivity using lodgepole pine in British Columbia, Canada*”

2015 Six-month foreign study program, University of Colorado, USA

Sponsor host: Thomas Veblen

“*The role of soil, geography, and climate on assessing ecosystem resilience*”

2009-2011 MSc Biology, York University, Canada

Supervisor: Christopher Lortie

“*Cushion plants in the alpine of British Columbia, Canada: Systematic review, trophic facilitation, and pollen limitation*”

2008 One-year academic exchange, University of Canterbury, New Zealand

2005-2009 BSc Environmental Science, University of British Columbia, Canada

Specialization: Ecology, plant physiology, soil science

**PUBLICATIONS**

**Reid, A.M.** and T.T. Veblen.Geodiversity, ecosystem resilience and climate change. Submitted to Frontier in Ecology and the Environment. 21 August 2015.

**Reid, A.M**., Chapman, B.K., and Prescott, C.E. 2016. Using spectral-reflectance indices of excess greenness and green chromatic coordinate to assess lodgepole pine stand vigour, mortality and disease occurrence. Forest Ecology and Management, **374**: 146-153. DOI: 10.1016/j.foreco.2016.05.006.

**Reid, A.M**., Chapman, B.K., and Prescott, C.E. 2016. Comparing lodgepole pine growth and disease occurrence at six Long-Term Soil Productivity (LTSP) sites in British Columbia, Canada. Canadian Journal of Forest Research, **146**: 595-599. DOI: 10.1139/cjfr-2015-0441.

**Reid, A.M**., Chapman, B.K., Kranabetter, J.M., and Prescott, C.E. 2015. Response of lodgepole pine health to soil disturbance treatments in British Columbia, Canada. Canadian Journal of Forest Research, **45**: 1045-1055. DOI: 10.1139/cjfr-2015-0029.

Kikvidze, Z., et al. 2015. The effects of foundation species on community assembly: a global study on alpine cushion plant communities. Ecology, **95**(8): 2064-2069.

**Reid, A.M.**, Hooper, R., Molenda, O. and Lortie, C.J. 2014. Ecological implications of reduced pollen deposition in alpine plants: a case study using a dominant cushion plant species [v2; ref status: indexed, <http://f1000r.es/3xc>]. F1000Research, **3**:130. DOI: 10.12688/f1000research.4382.1.

Schöb, C., et al. 2014. The context-dependence of beneficiary feedback effects on benefactors in plant facilitation. New Phytologist. DOI: 10.1111/nph.12908.

Cavieres, et al. 2014. Facilitative plant interactions and climate simultaneously drive alpine plant diversity. Ecology Letters, **17**: 193-202.

Schöb, et al. 2014. A global analysis of bidirectional interactions in alpine plant communities shows facilitators experiencing strong reciprocal fitness costs. New Phytologist, **202**: 95–105. DOI: 10.1111/nph.12641.

Butterfield, et al. 2013. Alpine cushion plants inhibit the loss of phylogenetic diversity in severe environments. Ecology Letters, **16**(4): 478-486.

**Reid, A.M.** and Lortie, C.J. 2012. Cushion plants are foundation species with positive effects extending to higher trophic levels. Ecospheres **3**(11). DOI: 10.1890/ES12-00106.1.

Lortie, C.J. and **Reid, A.M.** 2012. Reciprocal gender effects of a keystone alpine plant species on other plants, pollinators, and arthropods. Botany, **90**(4): 273-282.

Molenda, O., **Reid, A.M.** and Lortie, C.J. 2012. The alpine cushion plant *Silene acaulis* as foundation species: A bug’s-eye view to facilitation and microclimate. PLoS ONE **7**(5). DOI: 10.1371/journal.pone.0037223.

Lortie, C.J., Budden, A.E. and **Reid, A.M.** 2011. From birds to bees: Applying video observation techniques to invertebrate pollinators. Journal of Pollination Ecology, **6**(17): 125-128.

**Reid, A.M.,** Lamarque, L.J. and Lortie, C.J. 2010. A systematic review of the recent ecological literature on cushion plants: champions of plant facilitation. Web Ecology, **10**: 44–49.

Coleman, H.D., Beamish, L., **Reid, A.M.,** Park, J.-Y., and Mansfield, S.D. 2010. Altered sucrose metabolism impacts plant biomass production and flower development. Transgenic Research, **9**(2): 269-283.

**REPORTS**

**Reid, A.M.** 2016. Lodgepole pine resilience to western gall rust on soils with varying concentrations of soil calcium. Prepared for the BC Ministry of Forests Lands and Natural Resource Operations by Anya Reid Environmental Consulting.

**Reid, A.M.** December 2014. Soil calcium and forest health report. Prepared for the BC Ministry of Forests Lands and Natural Resource Operations by Anya Reid Environmental Consulting.

**Reid, A**.M. and Chapman, B. December 2013. Forest decline syndromes as a hallmark of ecosystem destabilization. Prepared for the BC Ministry of Forests Lands and Natural Resource Operations by Anya Reid Environmental Consulting.

**Reid, A.M.** and Chapman, B. March 2013. Effects of forest soil management during logging on long-term stand productivity. Prepared for the BC Ministry of Forests Lands and Natural Resource Operations by Anya Reid Environmental Consulting.

**Reid, A.M.** and Rusch, D. August 2012. Forest company compliance with old-growth forest management regulations in the interior of British Columbia. Prepared for the BC Ministry of Forests Lands and Natural Resource Operations.

**SELECTED PRESENTATIONS**

2016

*Nutritional implications of forest-floor removal at 15- to 20-year-old lodgepole pine stands in British Columbia.*

* Canadian Society of Soil Science Kamloops, Canada

2015

*Soil properties help explain the response of tree health to organic-matter removal: Lodgepole pine at six Long-Term Soil Productivity sites in British Columbia, Canada.*

* Soil Science Society of America Minneapolis, USA

*Is the response of forest productivity to soil disturbance linked to soil properties?*

* Soil 500 – Soil Seminar Course Vancouver, Canada

*Influence of soil disturbance during logging on long-term stand productivity.*

* Seminar talk for Tom Veblen’s lab Boulder, USA

2014

*Building resilience from the bottom up: The soil’s role in regulating forest health in British Columbia, Canada.*

* International Union of Forest Research Organization Salt Lake City, USA

*Soil disturbance and tree susceptibility in six British Columbian lodgepole pine stands.*

* Visiting student lecture in Altered Ecologies Boulder, USA

2013

*The influence of organic-matter removal during logging on soil fungi and forest health.*

* Soil seminar Vancouver, Canada

*Forest health, tree height and soil chemistry in the interior of British Columbia.*

* Belowground Ecosystem Group mini-symposium Vancouver, Canada

*Forest health at six LTSP sites in British Columbia.*

* British Columbia Ministry of Forests field tour Williams Lk, Canada

*The effects of soil disturbance during logging on belowground regulation of forest pathogens.*

* Boreal forest ecosystem course Umea, Sweden

2011 - 2012

*Alpine plants and pollinators of British Columbia.*

* Williams Lake Field Naturalists Williams Lk, Canada

Invited expert on alpine plants and pollinators.

* BBC TV Series titled ‘How to Grow a Planet’ Manning, Canada

*Nurse cushion plants also facilitate pollinators.*

* Canadian Society for Ecology and Evolution Conference Banff, Canada

*Alpine pollinators in British Columbia.*

* Canadian Pollination Initiative conference Guelph, Canada

2007 - 2010

*Rare plants and pollinators of Pink Mountain, British Columbia.*

* Northern Studies Training Program Toronto, Canada

*Options after an environmental science degree.*

* Environmental Science 200 course Vancouver, Canada

*British Columbia’s old-growth forests.*

* UBC’s Ancient Forest Committee Vancouver, Canada

**AWARDS AND SCHOLARSHIPS**

2015 George S. Allen Memorial Scholarship

2015 Mary and David Macaree Fellowship

2015 Canadian Society of Soil Science Student Travel Award

2015 NSERC Michael Smith Foreign Study Supplement

2014 Edward W. Bassett Memorial Scholarship in Reforestation

2014 Forestry Travel Fund and Award

2014 Hugh Robert Duncan Chisholm Scholarship in Forestry

2013-2016 NSERC Canadian Graduate Scholarship D3

2013-2016 Faculty of Forestry Graduate Award

2013 North American Forest Soil Conference Graduate Student Grant

2013 Donald S. McPhee Fellowship

2013 Kenneth Graham Memorial Scholarship

2013 J. Harry G. Smith Scholarship in Forest Resources Management

2012-2016 Forest and Conservation Sciences Four-Year Fellowship

2009-2011 York University Graduate Development Fund

2009-2011 York University Research Cost Fund

2009-2011 York University Fieldwork Cost Fund

2011 CANPOLIN Travel Award

2010 Northern Studies Training Program

2009 Ontario Graduate Scholarship in Science and Technology

2008 Choquette Family Student Mobility Award

2007 Jamie Smith Field Course Award

2006 NSERC Undergraduate Student Research Award

2005 Environmental Science Award

2005 Provincial Exam Scholarship

2005 President’s Entrance Book Award

**RESEARCH AND WORK EXPERIENCE**

2012-2016 Anya Reid Environmental Consulting

*Principle Scientist*

* Literature reviews and experimental design
* Data management and data analysis in R and JMP
* Fieldwork: soil sampling, tree growth and health assessments
* Remote sensing, aerial imagery, ENVI, ArcMap and GoogleEarth
* Hemi-spherical photography

2012 BC Ministry of Forests, Lands and Natural Resource Operations

*Regional Forest Health Technician*

* ArcGIS mapping of pest outbreak areas to inform management decisions
* Western spruce budworm spray program and fir beetle management
* Monitoring sanitation harvesting in Old Growth Management Areas
* Stand Development Monitoring

2009-2011 York University and the Canadian Pollination Initiative

*Principle Scientist*

* Site selection, experimental design and standard protocol modification
* Led six research assistants in conducting fieldwork in the alpine
* Led five lab technicians in conducting germination trials and seed sample processing
* Data management and analysis, report writing and presenting findings

2007 Enkon Environmental

*Wildlife Biologist’s Assistant*

* Wildlife and vegetation surveys of a prospective mine development and a ski resort expansion
* Recommendations for a protected wetland area

2007 Zirnhelt Ranch

*Invasive Species Management*

* Research on species ecology and organic methods of removal
* Located, marked, removed and disposed of invasive species
* General ranch duties: haying, herding cattle, etc.

2006 UBC Faculty of Forestry

*Undergraduate Student Research Assistant*

* Grew research plants in greenhouses, on media and in the field
* Conducted enzyme assays, and RNA, soluble sugars and starch extractions using polymerase chain reaction (PCR)
* Real-time and high-performance liquid chromatography analysis

**TEACHING EXPERIENCE**

2016 Restoration Ecology, UBC

* Upper-level undergraduate and graduate level seminar style course
* Discussions, readings, guest lectures, field tours

2016 Introduction to Soil Science, UBC

* Second year undergraduate course with approximately 200 students
* Provided the lab sections of this course

2011 Alpine Field Course, Canada and USA Universities

* Two-week field course on alpine plant ecology that took place in the Rocky Mountains of Montana and Alberta
* 25 fourth-year students from all over the USA and Canada

2010-2011 Evolution, York University

* Two lab sections of second-year evolution students: 50 students

2009-2010 Conservation Biology, York University

* Developed the lab curriculum for this fourth-year course
* Organized and taught the lab curriculum to the entire class: 50 students

2009-2010 Ecology, York University

* Taught two lab sections with 50 students each
* Students collected data on plants, birds and insects from the field, analyzed the data and wrote a report
* Standardized learning and marking with the other lab sections

**LEADERSHIP POSITIONS**

2015-2016 Canadian Society of Soil Science

*International Year of Soil committee*

* Create a calendar for the International Year of Soil
* Organize a film night during the Canadian Society of Soil Science’s annual meeting in Montreal that highlights the importance of soil and discussion the future of soil in Canada

2015-2016 Pacific Regional Society of Soil Science

*Outreach director and liaison*

* Collaborate with the Canadian Society of Soil Science and the American Society of Soil Science in organizing soil events and raising awareness of the importance of soil to humanity

2014-2015 Pacific Regional Society of Soil Science

*President*

* Chair meetings, write newsletters and co-ordinate society operations
* Organize summer soil ID field course of 20 students
* Organize the annual spring AGM/workshop of 180 participants

2014 International Union of Forest Research Organizations Conference

*Volunteer*

* Helped with registration
* Helped facilitate a day long field tour on forest assessment and inventory with the US Forest Service Assessment and Inventory branch

2013-2014 Pacific Regional Society of Soil Science

*President-elect*

* Helped co-ordinate the annual summer soil ID field course, fall field trip and spring workshop/AGM
* Updated the Society’s constitution from 1983
* Monthly meetings, assisting with presidential organizational duties

2013 North American Forest Soil Conference

*Volunteer*

* Introduced speakers

2012-2014 Pink Mountain Biodiversity Project

*Co-founder*

* Advice, leadership and organization
* Connecting students with research leaders

2012 Williams Lake Food Policy Council

*Member*

* Taught a fruit-tree grafting and planting workshop
* Helped plan a 25,000 ft2 community garden and orchard
* Supported community involvement

2008 University of Canterbury Environment Club

*Co-Director*

* Built a strong and dynamic team of active members
* Planned and led weekly meetings
* Liaised with the university staff and faculty to implement events
* Organized the first sustainability conference: two days, 42 presenters and 200 participants

2006-2009 UBC Ancient Forest Committee

*Founder/ President*

* Hosted and organized slideshows, potlucks and letter writing events
* Public speaking at community events to the media
* Networked with WCWC, University of Victoria, Simon Fraser University, Langara College

2008 National Institute for Water & Atmospheric Research

*Jollie Glacier Survey Volunteer*

* Snow variability: snow depth and density measurements
* Part of a long-term data collection effort in order to model snow variability with time and space

2006-2007 UBC Sustainability Conference

*Volunteer Coordinator/Treasurer*

* Applied for grants and donations; organized volunteers; contacted and introduced speakers

2006-2007 UBC Student Environmental Centre

*Social Coordinator*

* Motivated and inspired students to become involved
* Organized social events and networking opportunities

**COMMUNICATION TRAINING**

2016 TA training and orientation UBC

2015 Land and Food Systems Teaching Assistant Community of Practice UBC

2015 Facilitation basics part 1 and 2 UBC

2015 Mentoring workshop UBC

2015 TA training and orientation UBC

2014 Hootsuite and Sustainability Solutions Group: social media

and communication UBC

2013 COMPASS workshop: using message box for communication UBC

2012 TA training York

2007 Tri-mentoring program UBC

**SIGNIFICANT AFFILIATIONS**

Society of Soil Science of America - member

Pacific Regional Society of Soil Science - member and executive committee

Canadian Society of Soil Science - member and steering committee

North America Forest Soils - member

Society of Ecological Restoration - member

International Union of Forest Research Organizations - member

**CERTIFICATIONS**

Level 1 First Aid

Transportation Endorsement

Class 5 Driver’s License

WHIMIS Safety Training Level 1

Avalanche Safety

Bronze Medallion Lifesaving

**PERSONAL PASSIONS**

* Backcountry skiing, rock climbing, camping, hiking, biking and sailing
* Organic farming of vegetables, berries and apples
* Green building techniques and construction
* Experiential learning and research

**CONTACT INFORMATION**

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