



Francois du Toit

PHD CANDIDATE

University of British Columbia, Vancouver

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Experience

Post-Doctoral Fellow

Vancouver, BC

FACULTY OF FOREST RESOURCES MANAGEMENT (UBC)

June 2019 - Present

- Assessment of wood attributes using remote sensing (AWARE) & Canadian Wood Fibre Center Forest Innovation Program.
 - Mentor graduate students on remote sensing practices and routines
 - Developed lidar processing and analysis frameworks to enhance forest inventory knowledge
 - Developed a structurally guided sampling package sgsR
 - Collaborated with international government, industry, and academic partners

Teaching assistant

Vancouver, BC

FACULTY OF FOREST RESOURCES MANAGEMENT (UBC)

May 2015 - March 2019

- Leading & supervising applied exercises to guide student knowledge of remote sensing concepts.
 - Guiding students to success in written and oral submissions
 - FRST 443 - Remote sensing for ecosystem management
 - FRST 521 - Advanced earth observation and image processing
 - Held weekly office hours, guest lectured, developed and graded assignments and research proposals

Planning Forester Intern - Co-op

Chetwynd, BC

CHETWYND FOREST INDUSTRIES - WEST FRASER MILLS LTD.

May 2014 - December 2014

- Working in a team and individually to implement West Fraser Management objectives.
 - Site plan preparation
 - Harvest planning & layout
 - Silviculture assessments and reforestation quality inspections
 - post-fire salvage planning and management
 - GIS management
 - Forest appraisals

Planning Forester Intern - Co-op

Williams Lake, BC

ALEX FRASER RESEARCH FOREST (UBC)

May 2013 - September 2013

- Implemented planning and management prescriptions.
 - Road & timber layout
 - Timber cruising
 - Volume determination
 - Avian habitat assessments

Education

University of British Columbia

Vancouver, BC

PHD REMOTE SENSING OF FORESTS

May 2015 - March 2019

- Assessing the role of digital aerial photogrammetry for characterizing forest structure and enhancing forest inventories

University of British Columbia

Vancouver, BC

BSC NATURAL RESOURCES CONSERVATION (HONS.& CO-OP)

September 2010 - January 2015

- Science and Management Major.
 - Cons 330: Conservation Policy
 - FRST 443: Remote Sensing Of Ecosystem Management
 - CONS 451: Integrated Field School

Technical Skills

Project Management	Technical Writing	Data Analytics
Effective Planning, Organization, Communication, Implementation	Publications, Official Reports, Funding Grants	R, Management, Manipulation, Visualization, Interpretation

Awards

PhD Funding

NSERC PGSD

Vancouver, BC

2018

PhD Funding

HARRY G. SMITH SCHOLARSHIP

Vancouver, BC

2018

Peer-Reviewed Publications

1. Toit, F. du, Coops, N. C., Goodbody, T. R. H., Stoehr, M., & El-Kassaby, Y. A. (2021). Deriving internal crown geometric features of Douglas-fir from airborne laser scanning in a realized-gain trial. *Forestry: An International Journal of Forest Research*. <https://doi.org/10.1093/forestry/cpaa046>
2. Toit, F. du, Coops, N. C., Tompalski, P., Goodbody, T. R. H., El-Kassaby, Y. A., Stoehr, M., Turner, D., & Lucieer, A. (2020). Characterizing variations in growth characteristics between Douglas-fir with different genetic gain levels using airborne laser scanning. *Trees - Structure and Function*, 34(3), 649–664. <https://doi.org/10.1007/s00468-019-01946-y>

Presentations

AWARE E-lecture Series

DIGITAL PHOTOGRAMMETRIC APPLICATIONS TO ENHANCED FOREST INVENTORY

Online

October 2019

Silvilaser

UNCOVERING SPATIAL AND ECOLOGICAL VARIABILITY IN GAP SIZE FREQUENCY DISTRIBUTIONS IN THE CANADIAN BOREAL FOREST

Foz de Iguazu, Brazil

October 2019

CIF-IFC Workshop

EXAMINING POTENTIAL APPLICATIONS OF UAS AND DIGITAL PHOTOGRAMMETRY FOR VARIOUS FOREST MANAGEMENT PURPOSES

Edmonton, AB

April 2019

FRI Forest Practitioners Conference

ASSESSING THE STATUS OF FOREST REGENERATION USING DIGITAL AERIAL PHOTOGRAMMETRY AND UNMANNED AERIAL SYSTEMS

Edmonton, AB

October 2018

AWARE Instructional Sessions

LIDAR THEORY, PROCESSING AND IMPLEMENTATION WORKSHOP

Kamloops, BC

February 2018

AWARE Instructional Sessions

LIDAR THEORY, PROCESSING AND IMPLEMENTATION WORKSHOP

Huntsville, ON

October 2017

AWARE Instructional Sessions

LIDAR THEORY, PROCESSING AND IMPLEMENTATION WORKSHOP

Kapuskasing, ON

October 2017

AWARE Instructional Sessions

LIDAR THEORY, PROCESSING AND IMPLEMENTATION WORKSHOP

Quesnel, BC

October 2017

Silvilaser

ASSESSING THE CAPACITY OF DAP TO ENHANCE INVENTORY KNOWLEDGE OF SPRUCE BUDWORM AFFECTED FORESTS

Blacksburg, USA

November 2017

Symposium on Systems and Analysis in Forest Resources

UPDATING AIRBORNE LASER SCANNING EFI METRICS USING UAV ACQUIRED DAP POINT CLOUDS

Suquamish, USA

August 2017

UAV and Remote Sensing Workshop

UAV AND DIGITAL PHOTOGRAMMETRY FOR FORESTRY PURPOSES

Nanjing, China

July 2017

Assessment of Wood Attributes for Remote Sensing AGM

ASSESSING THE CAPACITY OF DAP TO ENHANCE INVENTORY KNOWLEDGE OF SPRUCE BUDWORM AFFECTED FORESTS

Edmunston, NB

May 2017

ForestSAT

MODELLING RESIDUAL STAND VOLUME USING UNMANNED AERIAL VEHICLES AND DIGITAL AERIAL PHOTOGRAMMETRY

Santiago, Chile

November 2016

FP Innovations UAV Workshop

UAVS AND THE UNIVERSITY OF BRITISH COLUMBIA

Courtney, BC

October 2016

Canadian Remote Sensing Symposium

MODELLING RESIDUAL STAND VOLUME USING UNMANNED AERIAL VEHICLES AND DIGITAL AERIAL PHOTOGRAMMETRY

Winnipeg, MB

June 2016

Southern Interior Silviculture Committee

DAP POINT CLOUDS ACQUIRED FROM UNMANNED AERIAL SYSTEMS (UAS) FOR ENHANCING FOREST INVENTORIES

Kamloops, BC

February 2016

Alex Fraser Research Forest Proof of Concept Workshop

RESEARCH IN USE OF DRONES TO UPDATE LiDAR FOREST INVENTORIES. LiDAR HIGH RESOLUTION INVENTORY FOR THE IDF

Williams Lake, BC

June 2015