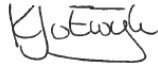


<b>AWARE Quarterly Progress Report</b> <b>Project ID: Q05</b> <b>Core Site: Ontario</b> <b>Title:</b> How well do existing LiDAR metrics developed in the Eastern Mixedwood Boreal forests transfer to Western Mixedwood Boreal forest types?		<b>Institution: Queen's University</b> <b>Project Supervisor: Paul Treitz</b> <b>HQP Name: Karin van Ewijk (PDF)</b>	
		<b>Committee Members</b> <input type="checkbox"/> See Progress Report Year: _____ <input type="checkbox"/> Names: _____	
<b>Report Period</b> Year: 2019 <input type="checkbox"/> Q1 <input type="checkbox"/> Q2 <input type="checkbox"/> Q3      xQ4 Apr-            Jul-            Oct-            Jan- Jun            Sep            Dec            Mar		<b>Number of Courses Left to Complete</b> <b>NA</b>	
<b>Research Progress During this Reporting Period</b> <ol style="list-style-type: none"> <li>Continued working on transferability of FRI variable models between the eastern and western boreal forests. Testing the transferability of FRI variables with two statistical approaches (lm and rf) to establish a methodology, using loocv validation to diminish the small sample size issue at Slave Lake. Initial results for LHT, BA, QMD and VOL from two modeling approaches (lm and rf) and single-site and multi-site (with even and uneven sample sizes from the two sites) datasets have been sent to all co-authors.</li> <li>Continued working with Yan Wai Yeung (Ryerson University) on intensity correction of the PRF 2016 multispectral data and the incorporation of corrected intensity metrics in the predictor set to predict ABA FRI attributes.</li> </ol>			
<b>Presentations Done</b> Van Ewijk, K., Tompalski, P., Treitz, P., Coops, N., Woods, M., and D. Pitt (2019). Transferability of Forest Resource Inventory Attributes, derived from LiDAR, in the Canadian Boreal Forest. Emerging Research Seminar Series, Queen's University, January 24 2019.			
<b>Papers Submitted</b> Van Ewijk, K, Treitz, P., Woods, M., Jones, T, and J. Caspersen (2019). Forest Site and Type Variability in ALS-based Forest Resource Inventory Attribute Predictions over Three Ontario Forest Sites. <i>Forests</i> , 10, 226; doi:10.3390/f10030226.			
Format: <i>Authors (Year). Title. Name of Journal or conference, page numbers</i>			
<b>Annual General Meetings</b> AGM1 X Attended X Reported results		AGM2 X Attended X Reported results	AGM3 X Attended X Reported results
<b>Research Targets for next Reporting Period</b> Continue working on FRI variable (LH, BA, QMD, and VOL) transferability between Hearst (ON) and Slave Lake (AB) and vice versa. Testing if under- and over-prediction observed in some transferred attribute			

models is forest type specific. Looking into the effect of site specific volume equations on the transferability of GTV (gross total volume).

Continue working on intensity correction and effect of intensity correction on ABA FRI attribute predictions.



HQP Signature:

Date: April 10, 2019



Project Supervisor Signature:

Date: April 12, 2019