Meeting Minutes for ON Core Site Meeting Y3M3

Date: 8-Mar-2018

Chair: Nicholas Coops

Minutes: Curtis Marr

In attendance: McCartney (Tembec), Benoit St-Onge (UQAM), George Graham (Hearst), Tristan Goodbody (UBC), Murray Woods (CWFC), Paul Treitz (Queens), Karin van Ewijk (Queens), Nicholas Coops and Curtis Marr (UBC).

Regrets: Denis Cormier (FPI), Alexis Achim (Laval), Dan Bowes (CFP)

AWARE Update

NL – work is progressing but there are staffing issues. Richard's PhD student pulled out two weeks before her projected start date and Richard is now restructuring his research to mitigate delays caused by this disruption. Q18 just started and will focus on bird habitat. Using the work from Q3, Doug and Piotr are working together to develop an R package to for scaling/extrapolation.

NB – The cross country checkup will be held in Fredericton, NB on Mar. 20,21st. Access is available by webinar and interested people should contact Curtis or Adam Dick for more details. Ian Taviss is the new industrial liaison at JDI. He will be talking with Benoit next week to discuss the 20K for data acquisition. Parvez Rana, the new pdf, started on Q23. He is looking at standardizing feature values across sites. In Black Brook, data was collected in two sessions, resulting in different intensities. Parvez is solving the intensity difference to standardize the data across all of Black Brook. Nicholas is looking for more datasets for Parvez to use. WF has not got anything but Ryam may have some data and this will need to be verified.

Benoit is also ready to release SEGMA. This package, which delineates trees and gives features like height, will be released to AWARE researchers first. Release is targeted for the second week of March. The package will eventually be released to the public.

AB – Field work will take place this summer, due to the a FRIAA award. Felix will come to Slave Lake to collect samples. Chris Mulverhill will also collect data. He will use a combination of drone/air LiDAR and ground based photogrammetric point clouds to create bucking reports.

Projects

Q5 – WF, and the forest industry in general, is interested in the transferability of metrics. Karin has started work on this system and has collected sufficient data to begin. She will start by examining similar forest areas in two sites and try to transfer Lorey's height. Additional training data from Slave Lake will be used to see if performance can be improved.

Q9 – This question is being researched by Ayla Brombach at Nipissing. She is looking at predicting soil moisture conditions and using that to predict growth and wood properties. She has obtained a 10 m DEM and will use that to develop hydrological indicators. Some additional work needs to be done to

resolve differences in the plot network in NL. Although LiDAR coverage is insufficient to provide sufficient variation in DEM, LiDAR data in specific areas can be used to compare modelling predictions.

Q11- Tristan collected data in Gordon Cosens in 2017 with several other AWARE researchers and Ryam Lumber. He has analyzed his data and found that spectral information was better at modelling cumulative defoliation. Structural metrics were better at modelling forest inventories in landscapes.

In addition to defoliation data, tree cookies and foliage samples were collected. Alexis is looking at getting moisture data out of the cores. Jeff has some of the foliage samples and is using those to help make predictions on how different eco-sites might be affected based on nutrient availability.

Q14- Rebecca's work is progressing well. Her main goal is to predict average stem age in boreal forest. She has completed collecting a dataset with 140 plots x 10 samples/plot and has begun age modelling. There should be results by the AGM.

Q18 – Sam Herniman has started on habitat research and is already collaborating with Ayla Brombach. Paul is also interested in this research and would like to increase collaboration with his MSc student.

Single Photon LiDAR

Nothing is happening in 2018 due to the failure to provide a procurement arrangement. Single photon is a new technology and sample data is restricted or scarce in the public domain. Murray Woods sent an LOI on evaluating the technology. There was a positive response but there will be no activity in 2018. Romeo Malette is rumoured to be collected early in the process, once the process begins.

EFRI Accuracy Proposal

Grant and Nicholas wrote a proposal on accuracy assessment. This has been accepted and a full proposal will now need to be developed. As Hearst Forest did a traditional photo-interpreted forest resource assessment in addition to a LiDAR collection based on 2007 image and LiDAR collection, this may allow a comparison of cases. Murray Woods and Paul Treitz have offered to provide feedback for the full proposal before it is submitted.

AGM

The next AGM will be in Montreal from June 5-7th. This will be held at FPI headquarters in Point Claire. Registration is open and invitations have been sent. AWARE researchers and supporters can get an invitation by contacting Curtis.

Action Items

1) Grant – send Ryam Quebec shape files to Benoit.
2) Grant – check Gordon Cosens dataset for data density.
3) Curtis – set up meeting with Paul, Sam, Joane Luther and Lisa Venier.
4) Grant/Nicholas – complete full eFRI proposal and send to Murray Woods and Paul Treitz for evaluation.
5) Curtis – organize poster session logistics for AGM.