

## **Meeting Minutes for National Scope/CC Meeting (Y3M2)**

**Date:** 29-Jan-2018

**Chair:** Nicholas Coops

**Minutes:** Curtis Marr

**In attendance:** Vincent Roy (CWFC), John Caspersen (UofT), Alexis Achim (Laval), Doug Bolton (UBC), Kaysandra Waldron (Laval), Piotr Tompalski (UBC), Benoît St-Onge (UQAM), Nicholas Coops and Curtis Marr (UBC).

Regrets: Denis Cormier

### **AWARE Update**

AB work is going well. We will be doing additional field work due to an award from the Government of AB and West Fraser. There is interest from WF on using DAP and ground based photogrammetry to develop point clouds for bucking purposes. The student working on this, Chris Mulverhill, is also enthusiastic and will change from an MSc to a PhD.

In ON, RYAM lumber (formerly Tembec and now part of Rayonier) has been working on spruce budworm detection in Gordon Cosens. We are looking for other applications to keep RYAM engaged on AWARE research.

In NL, CBPP continues to work with Richard. A new project on bird habitat is starting up and this should improve chances for engagement with CBPP.

In NB, there is little dialogue from upper management on AWARE. Operationally, Heather Morrison continues to interact with Benoit's group to integrate research developments into JDI operations.

### **Project Updates**

Q01/02- Doug Bolton is working on tree lines to identify structural changes based on intersecting transects with treelines. Most examples are alpine tree lines. The transition zones should exhibit spectral changes.

Q2 – Kaysandra is working on her first paper and is very close to submitting it. This paper is on ecology and fire disturbance and is targeted for submission to Ecological Applications. She is working on LiDAR transects and done preliminary analysis of transects crossing fire zones. She is looking for information on areas with no fire disturbance for comparison.

Q03 – This topic is very large and it may be beyond the scope of an MSc. Melodie is expected to finish this semester but more work needs to be done for development of this research. Piotr will be developing tools as part of Q25.

Q04 – Karin has submitted a paper on transferability of metrics.

Q08 – JR has had his second paper accepted. This paper is on correcting scan angle bias and is expected to be out soon, as corrections have already been accepted. He has submitted his thesis and is working on a third paper. The third paper is a literature review, with Nicholas as one of the authors.

JR's R package is undergoing more development. A French student will be coming to Laval in March to work on the package development. JR wants to continue developing this package and is getting interested in individual tree level work. He prefers to stay in Quebec City for the near future and Alexis is looking for post-doctoral opportunities for him.

Benoit has developed some tools for the SEGMA package and released them to Karin and Murray Woods. He plans to release them to all AWARE researchers soon. While SEGMA and JR's lidar package go to different audiences and have different performance concerns, is there an interest from JR to delve into this code package?

Q11 – Spruce budworm work is continuing. Field work wrapped up in the summer.

Q21-23 JF has taken leave from his academic requirements but is still working 3-4 days/week in Benoit's lab. He works well with Parvez, the new PDF for Q23. Parvez started in December and has already become productive. He has some results that are good enough for presentation and has sent an abstract to IGARS 2018. More work will be required on this topic to convert it to a full research paper.

For extending species id to multiple sites, the goal is to use a master site that can match against the new site with minimal new data sampling required. Data needs a high density and Slave Lake in AB only has a density of about 1.5 points/m<sup>2</sup>.

The lab will use Richard's data as a second site but would like to get data from four sites by March, preferably within AWARE areas. Nicholas will contact Grant about data that might be available in ON. Q25 – Piotr will work on developing tools for scaling LiDAR transects based on work in Q3. He is looking at making accessible tools and plans to design an R package that will provide tools for scaling up LiDAR transects for wall-to-wall. He will try to keep all the routines within R. This approach is not easily adaptable to using photogrammetric point clouds.

### **Other Topics**

The drop in engagement with JDI is a concern that will hopefully be addressed with the revival of the CWFC cross country checkup. There is a meeting on Tuesday, Jan. 30<sup>th</sup> to discuss the content and timing of the cross country checkup.

The AGM is slated for June 5-7<sup>th</sup> with the two days reserved for AWARE researchers only. The third day will be open to the research community. Registration for this will be up by mid-February.

### **Action Items**

1. Nicholas – contact Grant about data for species ID research.