Conference Call Summary – Dec. 10, 2019

Laurent, Christine, Tyler, Paul, Isabelle, Jon

**My summary of notes that seemed important to me:**

Landsat 7, 30m ,circa 2005, northern

Supervised classification, different between regions

Region 12 and 8 are problem areas – queen maud

Pre 2010 might not be updated

Industry data might be missing

Some of them might be same plot, date and time, but different surveyors

**Natalie’s note-taking**

GIS Tyler questions

* What Tyler currently working on
  + Areas of overlap and any plot/zone that is not on land with no habitat association
* Assign plots/zones to Bylot island next?
  + Already done. Surveyed separately
* When finish list Laurent gave for inconsistencies?
  + Model used to run analysis is very intensive and time consuming and if select area over 40,000 km2 system will crash so within region they are so large they had to be split into multiple subsets and when they were done they were processed by 40,000 km2 classified by habitat (good, poor etc). They got merged later and may have had a gap or overlap due to them being split
  + Gone back to subset data and removing areas where there is an overlap. Now double-checking on more areas of overlap
  + Deep water areas should not have any plots in this habitat. Region 6 had process not remove areas with large water bodies so Tyler will look at (Laurent found no adjusted plot boundaries from the lake)
  + Minor issues for the most part. Mainly fine-tuning. No data available in vegetation raster for some plots and zones and those plots are automatically removed. Could be due to cloud cover. Raster from NRCAN from landset 7. CIRCA 2005 Raster Dataset specific for northern portion of Canada. Not always consistent across all regions
* Shapefiles have corrected region codes for all plots that we can access?
  + Don’t have complete subregion set
  + Considering 12 and 8 as problem areas since processed before Tyler was there so don’t know if analyzed together or separately
  + Zones and plots are different, so look like done separately but don’t know if should be treated as separate subregions or not
  + Once done cleaning plots (hopefully early next week Dec. 16) then can review subregions
* May need to get list of questions for Jennie and have her on the phone to answer them so don’t have to keep going back to field notebooks
* Revisit after basic cleaning and decide if we need to talk to Jennie
* Need single large table with zone cluster, plot ID, habitat ID etc we can do ourselves but easiest if we had file with consistent file names etc. Is what working on now have any changes to attribute tables so consistent across subregions?
  + Yes and Tyler will work to keep it consistent. Python makes original column and new column for adjusted
  + He’ll make clear which one is best to use etc
* Have time needed to do this?
  + Yes
* Have various iterations of UTM for plot corners. Do we know where we should be getting plot corner information?
  + Corners have been adjusted by Tyler after the field season
  + Everything Isabelle provided on Excel spreadsheet have been adjusted in GIS files. If moved plots not in spreadsheet then may not have been updated in GIS
  + Plots from 2010 onwards have been fixed since that’s when Tyler arrived but anything before that may have errors
  + Pre-2010 plots may not have modified plot corners
* Plot names in Shapefile not match with Excel file?
  + Not all plots updated in each layer with surveyed plot name
  + Name would be in survey plots layer, may be a point file or polygon depending on the year but the name should be in there somewhere, may just need to look at different layer
  + Some data may be missing especially industry data
* So industry data should be in excel file so if missing coordinates from GIS files should we use what’s in Excel file?
  + Which file should we rely on for coordinates?
    - Excel should state if plot shifted, use Excel if plot was stated to be shifted but if not GIS would be better
    - Pre-2010 use Excel rather than GIS
    - Since no industry shapefiles, need create those from excel
    - If no plot data for that industry, Tyler can look. They should have been classified as well
    - This is post-2010
    - Tyler not have zone areas for industry subregions. Jennie for industry post 2010 she’d ask for Tyler to complete that data. Should line up with current zone and plots
    - Industry decided to create own plots at one point
  + Tyler will make a more clear file that indicates which plots have been surveyed

Post Tyler Questions

* Post 2010, plots link with grid/zone. Pre-2010 grid laid down after plots. Don’t know what zone each plot belongs to so don’t know which are cluster and which isn’t. How handle this?
  + Jon have all data used in first analysis
  + Jon go back and make sure understand how they handled that issue
  + Some plots straddle boarder of zone grid so two plots can be close to one another and are in same habitat they can be a cluster.
    - Isabelle says not the same. Have letters A B C D and that would be part of same cluster
    - Laurent says some plots not have letters to distinguish groups so this is problem?
  + Paul only need zone and cluster for their data
* Laurent will figure out what plots straddle zone line and what plots don’t have cluster letter groupings (A,B,C,D)
* Density is calculated per cluster (for the 2 plots in the cluster)
* Habitat assignment for plots done before Tyler. Issue where habitat assignment wrong where method differs
  + Not optimal to have the two be different
  + Jon reassign those habitat categories
  + Python used to give habitat assignment for not surveyed plots
  + Generate area coverage of habitat raster for surveyed plots and run Tyler’s logic in Excel (or do with Python script)
  + Python script include non-suitable areas
  + >70% unsuitable, it becomes unsuitable
* Plot ID: Laurent create link between GIS and Excel ID’s?
  + Yup, should have one shapefile that has correct ID’s
  + Christine thinks there will be issues with the ID’s where they won’t all be where they are or correct
  + Maybe once Tyler clean things up there won’t be any missing or some may still be missing
  + Should be a high priority
* There may not be any plots done around Ekati and Diavik
* Plots surveyed multiple times:
  + Solely for Intensive plots
  + Assumes they only existed in one year
  + Some were used in more than one year
  + Should be handled in the same way as Rapid surveys
  + Maybe take average across all years
  + Most are only 2 years repeat
  + Some plots are surveyed repeated years where did Intensive and Rapid surveys
  + May not be a big deal since only a few plots are like this near Igloolik and Mackenzie Delta
  + Take detection ratio for those plots?
  + Jon: 90ish intensive plots, 60ish are surveyed more than once, 20ish more than twice
* Missing dates:
  + One is missing dates
  + Baffin and PCI are missing dates
  + May have two date columns?
  + Two start time columns that have different information: various reasons such as a break in the middle, may need to take into account different surveyors to distinguish between plots that may be done at same time and same plot. These don’t count as the same survey. Done for intensive surveys so saw the same birds
* What different types of field selection means:
  + Field selected: people on ground decide where to do a plot when want to do an extra plot not pre-planned
  + Field modified: pre selected in GIS and then get to ground and 90% in water/snow so do it nearby so not in water/snow. Move plot in field
* How allocate the rest?
  + Laurent work on final decisions for intensive plots
  + Pressing needs not related to GIS files?
    - Christine moving onto habitat layers
  + Total vs estimates of how many birds to count. Some years used estimates where consider territories and centroids to exclude those not in plot