GCTAC Meeting June 24th, 2013

Species Information Needs Prioritization

Attendees: Jodie, Jack, Sally, Charlie, Dave
Regrets: Lee, Michael, Andreas, Tongli, Tory

Dave provided a brief review of our catalogue as a foundation document (2009). It isn't specifically set out in our mandate, but the catalogue is an efficient way to address many of our mandate items and provide comparisons across species. The catalogues:

http://www.fgcouncil.bc.ca/ForTreeGCStatusReport1-Tr053.pdf

http://www.fgcouncil.bc.ca/ForTreeGCStatusReport2-Tr054.pdf

form our baseline documents. The assumptions used are most applicable to our wind-pollinated conifers in Technical Report 53 and are worth reviewing:

i) 5000 protected reproductively mature trees are considered adequate to maintain genetic diversity over many generations.

ii) Cumulative cover of a species was used as an estimation of population size. For each zone the number of protected areas with at least 2.5, 5, 10 and 50 ha of cumulative cover for the species was identified.

ii) For "minor" species with a discontinuous distribution; low frequency or that has narrow site requirements the GIS population estimates have a high degree of uncertainty.

Those are my assumptions distilled from TR 53 – there are probably many more, but those seemed the most critical.

Catalogue activities continued with Jodie performing ground-truthing and providing GCTAC with a report **"The Devil is in the Details: Empirical Testing of conservation status predictions of indigenous tree populations in British Columbia's protected areas"**. The report discussed some of the concerns with methodology and was a source of some interesting conversations. Some feedback was provided on the report, but it has not been 'published' as a GCTAC document. There was a lot of work that went into the data collection and analysis of that work – my preference would be for comments to be integrated (if they have not)and the report made available.

There have been some species specific studies at the Centre for Forest Conservation Genetics with pacific dogwood, Garry oak, whitebark pine and bigleaf maple. The forest genetics section are currently working on some Grand fir and trembling aspen work. Jodie will become involved again in writing the trembling aspen report at least. I have been consistent in the fact that I think there is enough work to go around and some species may benefit greatly through a MSc project and some species may just need to have some assumptions confirmed and require a much less rigorous study.

This really brings us to the current question of what information do we need, how will we get it and who will supply it. That's the background here is some of the points from our discussion.

The point was made that we need to separate information that deals with genecology (patterns of genetic variation) and population genetics (study of allele frequencies under evolutionary forces). Under Appendix 1 of the strategic plan we want to improve the description of "knowledge level' and this separation may help in that regard. The question of how is genetic architecture considered in a species' assessment was raised.

The question of genetic information vs. inventory was raised. If inventory is poor (and species is rare) does genetic information help us? How do we decide what resources we should allocated to inventory vs. genetic information. Are there other 'inventory' initiatives that we could piggyback on?

The idea of a species range was considered with questions like what if a species has only a small part of its range in BC? How do we discover problems or the 'fires' for these species.

It seemed like the next catalogue version would try and integrate climate change predictions so that they could be informative to conservation actions. The lack of a clear group wanting our information for decision making was discussed. The idea of a threshold for conservation also needs to consider whether a species is continuous or disjunct and whether it is derived from one or more glacial refugia. It was stated that seeds from different refugia should not be mixed 'demographics trumps genetics in the short-term'.

The meeting concluded with knowledge of ongoing activities that will hopefully help move this forward including:

1) CFCG review on information available for currently non-commercial species

2) A spreadsheet summary sheet of life history characteristics (suggested – no volunteers – might come out of the above)

3) A few presentations at Forest Genetics 2013 of interest

In terms of status those on the call considered that the catalogue is currently in the "Research on catalogue methods" arena vs. the cataloguing updates area. Regardless of any past transfer of the catalogue itself it appears to me that the next step in catalogue development rests with eth Centre for Forest conservation Genetics.

Minutes prepared by Dave Kolotelo and Jack Woods