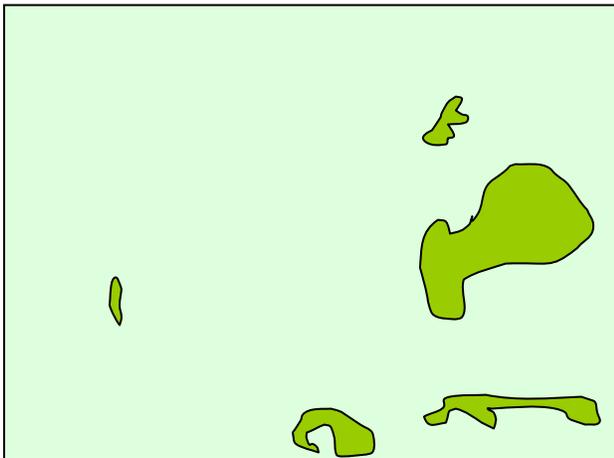


## Old Growth.....Islands?

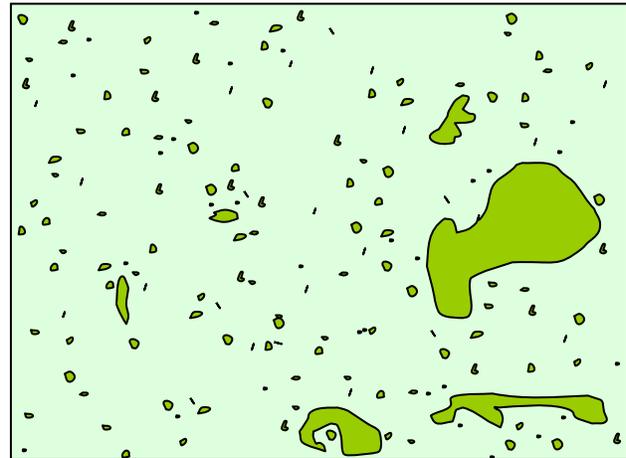
Why not? We tend to think of old growth only as a landscape-scale attribute. Traditional old growth concerns include total forest area (Quicknote #15) and the size and integrity of the largest patches (Quicknote #14). However, depending on how one defines "old growth", there may be much more to it.

We already know that forest fires in the Alberta foothills leave a large number of residual islands down to a fraction of a hectare in size (Quicknote #18). Island remnants represent a range of ages, but a portion of them will be old forest. If we assume the proportion of the area of old forest islands is approximately the same as the proportion of old forest area on a given landscape, most old forest patches are island remnants. In fact, between 92-98% of the total number of old forest patches in the foothills of Alberta are islands remnants (depending on the landscape). This translates into 10-15% of the total area of old forest accounted for by islands.

The impact of these islands on landscape pattern is striking. In the diagram below are two different images of a hypothetical, but conceptually accurate landscape. The image on the left shows only the old forest patches that would be visible from a stand origin or inventory map. The image on the right shows those same large patches, *plus* the average proportional density of old forest island remnants that would exist on that same landscape. Thus, while large patch old forest may be dynamic in time and space across large areas (Quicknote #17), island old forest is much more ubiquitous.



**Landscape Showing Old Forest Patches**



**Landscape Showing Old Forest Patches - Including Islands**

Obviously, island old forest will not share the same structural and functional characteristics as larger old forest patches since few islands, if any, have interior forest. However, at the very least they function as seed sources, "life-boat" refugia, and habitat of a different sort. And their prevalence across foothills landscapes suggests that these functions are historically important.

If we accept this expanded version of old forest, it challenges current old growth strategies to be more holistic. Such plans should recognize and include operational planning issues if they are going to truly reflect sustainability. It also means broadening our ideas about the form and function of residual island remnants. Presumably young islands function differently than do old ones. Lastly, this note reveals an interesting, yet logical intersection between two seemingly distinct natural pattern attributes.