



## **Seedling Regeneration Survey in 14 North Saanich Parks**

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For Friends of North Saanich Parks  
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## Abstract

Fourteen North Saanich parks were surveyed to inventory the amount of tree seedlings present. 400m<sup>2</sup> plots were established in each park in representative areas, with two parks being split into two sections, making sixteen plots. Species, height, location, canopy cover, distance to the nearest parent tree, and substrate were recorded. It was found that high amounts of canopy cover were found to be the only consistent factor in seedling growth.

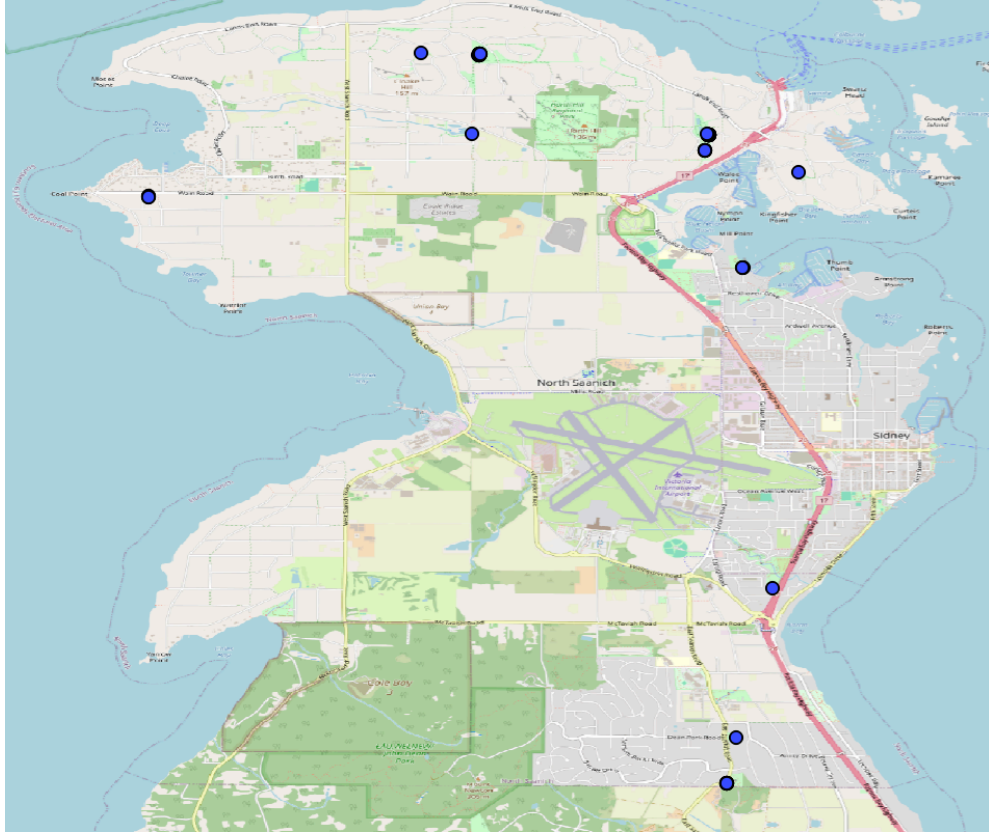
## Acknowledgements

We respectfully acknowledge that this inventory took place on the traditional territories of the W̱SÁNEĆ people, specifically, the BOKEĆEN (Pauquachin) First Nation and W̱SÍKEM (Tseycum) First Nation, whose historical relationships with the land continue to this day. Thank you to Steve Grossnickle and Sharon Hope for their expertise and guidance.

## Introduction

Friends of North Saanich Parks (FNSP), an ecosystem restoration organization, operates within the CDFmm BEC zone. The zone is located at the southern tip of Vancouver Island, within the unceded territories of the Lək̓ʷəŋən and W̱SÁNEĆ peoples, extending as far north as Bowser, and encompassing the southern Gulf Islands (BEC WEB, n.d). This report is part of an inventory of park natural resources including vegetation associations, stand characteristics, soils and site attributes. This information could contribute to future research into the characteristics of various forest successional stages found in North Saanich parks. More specifically, the report documents in part the nature of the ecosystems present in each park through the seedling species, and seedling distribution.

Fourteen North Saanich Parks were surveyed, with Reay Creek and Green Park being split into two sections, making sixteen plots. These plots include; Highview South, Sycamore, Sumac, Readings, Green Deciduous, Green Coniferous, Denham Till, R.O. Bull, Prentice Pond, H.M.S. Plumper, Nymph Point, Lillian Hoffar, Reay Creek Coniferous, Reay Creek Deciduous, Gulf View, and Quarry. These parks contain a wide variety of stand development stages and geographic size. Figure 1 shows the locations of parks with seedlings found within them.



**Figure 1.** A map of North Saanich with the locations of each of the parks with seedlings present within the plots.

## Methods

Each park was made up of one 400m<sup>2</sup> representative plot or two, 200m<sup>2</sup> plots. The decision to create more than one plot depended on the park's size and vegetation diversity. Parks such as Green Park and Reay Creek were too diverse in terms of vegetation types to establish a single representative plot, so they were divided into two areas according to their vegetation associations.

The representative plots were chosen to be as homogenous as possible. The plots were surveyed for regeneration by walking the area until a seedling was found. Species identification occurred based on previous knowledge. Species, height, overhead canopy cover, and distance to the nearest tree of the same species were recorded. If the species was unknown, images were taken and later identified with iNaturalist. The canopy cover was measured in two ways. The first method involved using a densiometer and taking readings while standing in the middle of the plot. Following the densiometer's instructions, a reading was taken in each cardinal direction. This was then averaged to give the canopy cover value. The second method involved taking a reading by using a hand as a focal point to estimate the percentage of canopy cover directly above a seedling. The slope was taken using a clinometer.

In Green Park Coniferous, there were too many seedlings to measure individually, so a square meter was measured in each lateral third of the plot, dividing it into areas of 20x6.66 m<sup>2</sup>. Seedlings were counted in each of the representative square meters and the results were applied to the rest of the third.

All tree seedlings were measured, regardless of species. Eight total species were recorded: Big Leaf Maple (*Acer macrophyllum*), Maple sp. (*Acer sp.*), Willow sp. (*Salix sp.*), Red Alder (*Alnus rubra*), Garry Oak (*Quercus garryana*), Douglas Fir (*Pseudotsuga menziesii*), Grand Fir (*Abies grandis*), and Western Red Cedar (*Thuja plicata*).

Seedlings were categorized based on height: 0cm-5cm, 6cm-10cm, 11cm-20cm, 21cm-40cm, and 41cm-100cm. These categories were labelled as 1, 2, 3, 4, and 5, respectively. (S. Hope, personal communication, April 5, 2024)

## **Results**

Results are reported as seedlings found within the 400m<sup>2</sup> surveyed plots of each park.

### **Highview South**

No seedlings recorded

### **Sycamore**

One size class 5 Western Red Cedar found growing on a nursery stump.

### **Sumac**

Two different size classes of Big Leaf Maple were found, 2 and 3, with 6 and 9 seedlings found of each respectively. 3 seedlings of the Maple sp. in size class 2 were recorded. 3 size class 5 Western Red Cedar seedlings were found, as well 1 size class 5 Red Alder.

### **Readings**

No seedlings were recorded in Readings Park.

### **Green Coniferous**

3 size 2 Douglas Fir seedlings were recorded. 2664 size class 1 Big Leaf Maple seedlings were found, 6394 size class 2, and 267 size class 3. Figure 4 shows the seedling density within Green Coniferous.

### **Green Deciduous**

1 size class 3 Big Leaf Maples were found. 2 size class 3 Grand Firs were found, as well as 1 size class 4, and 3 size class 5.

### **Denham Till**

No seedlings were found in Denham Till.

**R.O. Bull**

2 size class 3 Big Leaf Maple's were found. 2 size class 2 Douglas Fir seedlings were also found.

**Prentice Pond**

1 size class 5 Willow was reported.

**H.M.S. Plumper**

No seedlings were reported in H.M.S. Plumper Park.

**Nymph Point**

No seedlings were reported in Nymph Point Park.

**Lillian Hoffar**

1 size class 1 Maple sp. was found, as well as 1 size class 2. 1 size class 1 Big Leaf Maple was found.

**Reay Creek Deciduous**

No seedlings were found in the deciduous section of Reay Creek.

**Reay Creek Coniferous**

1 size class 3 Red Alder seedling was found.

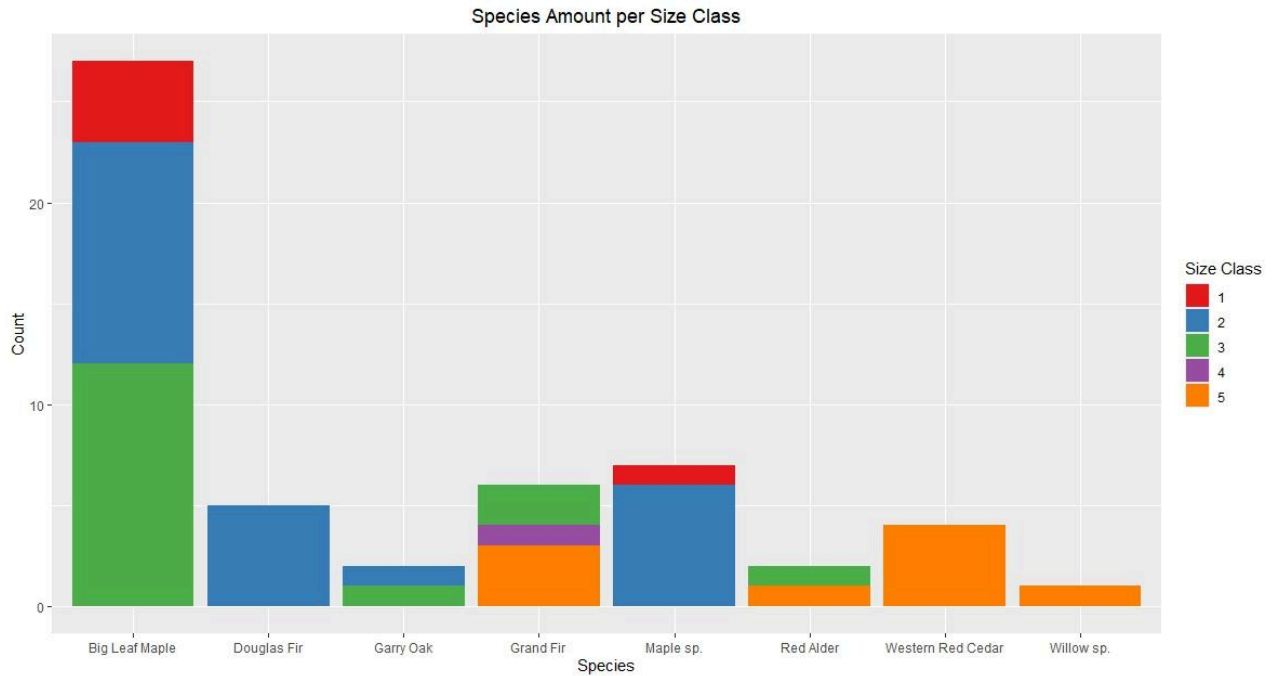
**Gulf View**

1 size class 2 Garry Oak seedling was found.

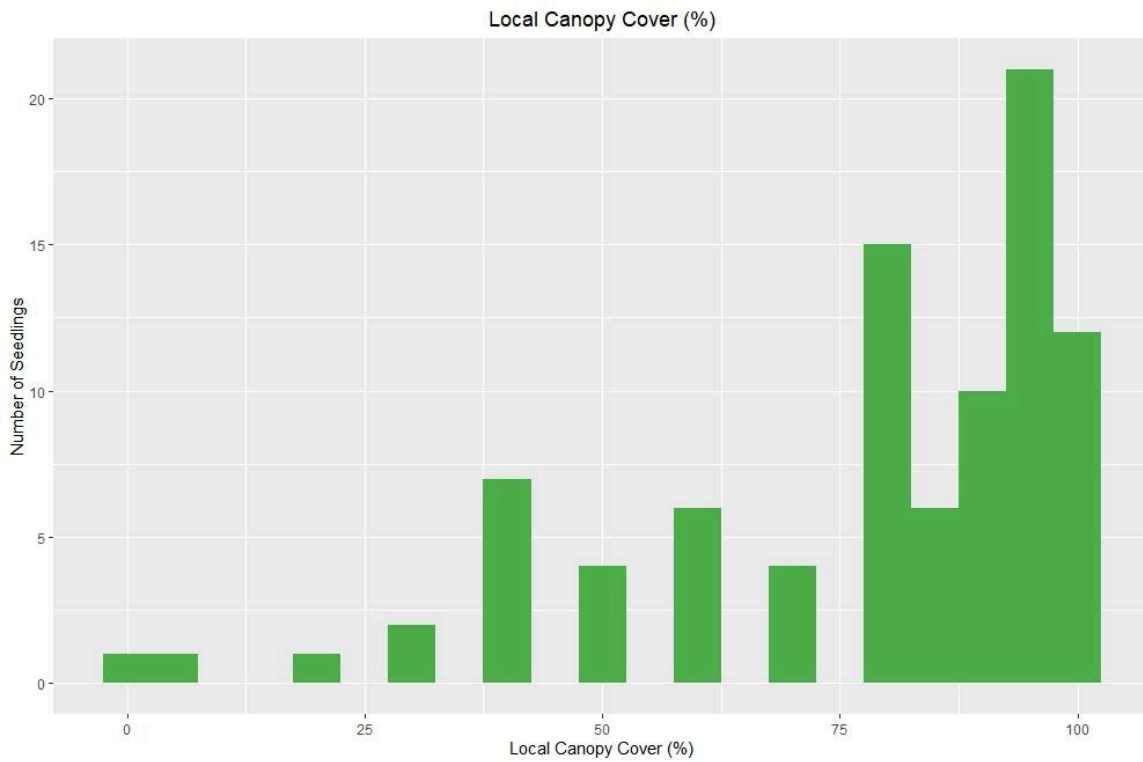
**Quarry**

3 size class 1 Big Leaf Maple's were found, as well as 5 size class 2. 2 size class 2 Maple sp. were found. 1 size class 2 Garry Oak seedling was found.

Figure 2 shows the distribution of species per size class. The canopy cover percentage over each individual seedling is shown in Figure 3.



**Figure 2.** Graph of the amount of seedlings per species per size class.



**Figure 3.** Graph showing the total amount of canopy cover of each seedling. Most seedlings had 50% or more canopy cover.



**Figure 4.** Picture showing the density of Big Leaf Maple seedlings found within the Green Park Coniferous plot.

### Discussion

Considering Green Park Coniferous as an outlier with much higher seedling numbers allows for more insights into the rest of the plots. Out of the 16 plots surveyed, six had no seedlings within the plots. There do not appear to be any common characteristics linking these six plots. They vary in terms of seral stages, dominant canopy cover, understory growth, and moisture regimes. Some plots have dense understory cover, such as Reay Creek, where 95% of the ground was covered in English Ivy.

Among the remaining ten plots, the presence of higher levels of canopy cover is the most consistent factor. The substrate and slope vary widely, as does the distance to the nearest potential parent tree, although it must be noted that most sites have a parent tree within the plot.

Only four plots had conifer seedlings within them: R.O. Bull, Sumac, Sycamore, and Green Park Deciduous and Coniferous.

Each plot had very different attributes, making it challenging to draw conclusions as to why some plots had no or very few seedlings while Green Park Coniferous had over 9000. Factors such as moisture regime, aspect, substrate, understory, overstory, slope, and distance from the parent tree could all have different effects on seedling germination and growth.

Many seedlings were found outside of the plots after conducting the surveys, especially in plots where no seedlings were found within the plots. Using a belt transect method that could have run the length of a park, instead of limiting the study to just one area, may have resulted in a more effective sampling scheme. This method may have provided a better overall picture of the park by making the surveyed area span the entire length of the park, instead of just the most representative area of a park.

A follow-up study on seedling mortality in Green Park North would prove to be very informative. Looking into herbivory, soil moisture, shade tolerance, and light tolerance as seedling mortality reasons would make future management plans more comprehensive and fruitful. In Gashwiler, n.d. Douglas Fir's and Western Red Cedar's had high levels of first-year mortality mainly due to weather, animals, and disease. Fried *et al.*, 2011 shows Big Leaf Maple seedling emergence and mortality in relation to canopy cover. Weber *et al.*, 2017 discusses the location of a seedling in relation to its location within a forest and how mortality is affected. Seeing how these factors change and fluctuate in North Saanich would give a clearer picture of management strategies and protections.

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<https://doi.org/10.1016/j.foreco.2016.11.019>

Appendix

Park	Species	Height (cm)	Height Class	Plot location	Slope	Terrain	Growing on	distance to nearest tree of same species (cm)
Sumac	Big Leaf Maple	11	3	48.69231, -123.44337	13	gently sloping	moist soil	285
Sumac	Big Leaf Maple	20	3	48.69231, -123.44337	13	same	same	233
Sumac	Big Leaf Maple	10	2	48.69231, -123.44337	13	same	same	330
Sumac	Big Leaf Maple	7	2	48.69231, -123.44337	13	same	same	351
Sumac	Big Leaf Maple	6	2	48.69231, -123.44337	13	same	same	503
RO Bull	Big Leaf Maple	13	3	48.67678, -123.47951	17	gently sloping	soil	379
RO Bull	Big Leaf Maple	12	3	48.67678, -123.47951	17	gently sloping	soil	379
RO Bull	Douglas Fir	7	2	48.67666, -123.47956	17	gently sloping	soil	410
RO Bull	Douglas Fir	8	2	48.67666, -123.47956	17	gently sloping	soil	357
Gulf View	Garry Oak	11	3	48.61748, -123.41531	7	gently sloping	soil	N/A

Prentice	Willow	102	5	48.67940, -123.4084 8	0	wet slight standin g water, flat, kinda marshy	wet soil	410
Lillian Hoffar	Maple sp.	6	2	48.66891, -123.4145 5	0	flat with depress ions	soil	N/A
Lillian Hoffar	Maple sp.	5	1	48.66896, -123.4146 0	0	flat with depress ions	soil	N/A
Lillian Hoffar	Big Leaf Maple	5.5	1	48.66896, -123.4146 0	0	flat with depress ions	soil	390
Sumac	Big Leaf Maple	10.5	2	48.69225, -123.4433 9	13	gently sloping	wet soil	595
Sumac	Big Leaf Maple	14	3	48.69225, -123.4433 9	13	gently sloping	wet soil	580
Sumac	Maple sp.	9.5	2	48.69225, -123.4433 9	13	gently sloping	wet soil	N/A
Sumac	Big Leaf Maple	9	2	48.69225, -123.4433 9	13	gently sloping	wet soil	600
Sumac	Big Leaf Maple	19	3	48.69225, -123.4433 9	13	gently sloping	wet soil	683
Sumac	Big Leaf Maple	19	3	48.69225, -123.4433 9	13	gently sloping	wet soil	683
Sumac	Big Leaf Maple	19	3	48.69225, -123.4433 9	13	gently sloping	wet soil	586

Sumac	Big Leaf Maple	10	2	48.69225, -123.4433 9	13	gently sloping	wet soil	939
Sumac	Maple sp.	7	2	48.69225, -123.4433 9	13	gently sloping	wet soil	1093
Sumac	Maple sp.	8	2	48.69225, -123.4433 9	13	gently sloping	wet soil	1090
Sumac	Big Leaf Maple	19	3	48.69230, -123.4433 8	13	gently sloping	wet soil	1740
Sumac	Big Leaf Maple	16	3	48.69230, -123.4433 8	13	gently sloping	wet soil	1743
Sumac	Big Leaf Maple	19	3	48.69230, -123.4433 8	13	gently sloping	wet soil	1760
Sumac	Western Red Cedar	57	5	48.69230, -123.4433 8	13	gently sloping	wet soil	595
Sumac	Western Red Cedar	42	5	48.69231, -123.4433 2	13	gently sloping	wet soil	250
Sumac	Western Red Cedar	66	5	48.69231, -123.4433 2	13	gently sloping	wet soil	201
Sumac	Alder	55	5	48.69231, -123.4433 2	13	gently sloping	wet soil	525
Sycamore	Western Red Cedar	49	5	48.69250, -123.4497 1	29	steep slope	nursery stump	N/A
Green Coniferous	Big Leaf Maple	6.5	2	48.68351, -123.4182 5	16	gentle slope	soil	675

Green Coniferous	Big Leaf Maple	5	1	48.68351, -123.41825	16	gentle slope	soil	678
Green Coniferous	Big Leaf Maple	10	2	48.68351, -123.41825	16	gentle slope	soil	675
Green Coniferous	Big Leaf Maple	10	2	48.68351, -123.41825	16	gentle slope	soil	679
Green Coniferous	Big Leaf Maple	11.5	3	48.68351, -123.41825	16	gentle slope	soil	681
Green Coniferous	Big Leaf Maple	7	2	48.68351, -123.41825	16	gentle slope	soil	682
Green Coniferous	Big Leaf Maple	8	2	48.68351, -123.41825	16	gentle slope	soil	688
Green Coniferous	Big Leaf Maple	9.5	2	48.68351, -123.41825	16	gentle slope	soil	683
Green Coniferous	Big Leaf Maple	8	2	48.68351, -123.41825	16	gentle slope	soil	684
Green Coniferous	Big Leaf Maple	9	2	48.68351, -123.41825	16	gentle slope	soil	686
Green Coniferous	Big Leaf Maple	4.5	1	48.68351, -123.41825	16	gentle slope	soil	690
Green Coniferous	Big Leaf Maple	6	2	48.68351, -123.41825	16	gentle slope	soil	695
Green Coniferous	Big Leaf Maple	9.5	2	48.68351, -123.41825	16	gentle slope	soil	715

Green Coniferous	Big Leaf Maple	7	2	48.68351, -123.41825	16	gentle slope	soil	705
Green Coniferous	Big Leaf Maple	3	1	48.68351, -123.41825	16	gentle slope	soil	703
Green Coniferous	Big Leaf Maple	7	2	48.68351, -123.41825	16	gentle slope	soil	693
Green Coniferous	Big Leaf Maple	9.5	2	48.68351, -123.41825	16	gentle slope	soil	690
Green Coniferous	Big Leaf Maple	7	2	48.68351, -123.41825	16	gentle slope	soil	689
Green Coniferous	Big Leaf Maple	4.5	1	48.68351, -123.41825	16	gentle slope	soil	685
Green Coniferous	Big Leaf Maple	5	1	48.68351, -123.41825	16	gentle slope	soil	681
Green Coniferous	Big Leaf Maple	7.5	2	48.68351, -123.41825	16	gentle slope	soil	685
Green Coniferous	Big Leaf Maple	6.5	2	48.68349, -123.41844	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	10	2	48.68349, -123.41844	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	7	2	48.68349, -123.41844	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	6.5	2	48.68349, -123.41844	16	gentle slope	soil	1260

Green Coniferous	Big Leaf Maple	7	2	48.68349, -123.4184 4	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	5	1	48.68349, -123.4184 4	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	5.5	1	48.68349, -123.4184 4	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	8	2	48.68349, -123.4184 4	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	5	1	48.68349, -123.4184 4	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	7.5	2	48.68349, -123.4184 4	16	gentle slope	soil	1260
Green Coniferosu	Big Leaf Maple	7	2	48.68349, -123.4184 4	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	8	2	48.68349, -123.4184 4	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	4.5	1	48.68349, -123.4184 4	16	gentle slope	soil	1260
Green Coniferous	Big Leaf Maple	5	1	48.68349, -123.4184 4	16	gentle slope	soil	1260
Green Coniferous	Douglas Fir	9.5	2	48.68356, -123.4441 8	16	gentle slope	soil	240
Green Coniferous	Douglas Fir	8.5	2	48.68349, -123.4183 7	16	gentle slope	soil	370

Green Coniferous	Douglas Fir	8	2	48.68355, -123.41846	16	gentle slope	soil	360
Green Deciduous	Grand Fir	18.5	3	48.68172, -123.41878	9	gentle slope	soil with leaf litter	1170
Green Deciduous	Grand Fir	16	3	48.68172, -123.41878	9	gentle slope	soil with leaf litter	1290
Green Deciduous	Big Leaf Maple	15	3	48.68172, -123.41878	9	gentle slope	soil with leaf litter	157
Green Deciduous	Grand Fir	59	5	48.68172, -123.41878	9	gentle slope	soil with leaf litter	1370
Green Deciduous	Grand Fir	36	4	48.68172, -123.41878	9	gentle slope	soil with leaf litter	1350
Green Deciduous	Grand Fir	64	5	48.68172, -123.41878	9	gentle slope	soil with leaf litter	1450
Green Deciduous	Grand Fir	75	5	48.68172, -123.41878	9	gentle slope	soil with leaf litter	1490
Quarry	Big Leaf Maple	12	2	48.61245, -123.41633	23	gentle slope	soil	455
Quarry	Big Leaf Maple	4	1	48.61245, -123.41633	23	gentle slope	soil	486
Quarry	Garry Oak	10	2	48.61245, -123.41633	23	gentle slope	soil	N/A
Quarry	Big Leaf Maple	7	2	48.61245, -123.41633	23	gentle slope	soil	342

Quarry	Big Leaf Maple	8	2	48.61245, -123.4163 3	23	gentle slope	soil	368
Quarry	Big Leaf Maple	9	2	48.61245, -123.4163 3	23	gentle slope	soil	440
Quarry	Big Leaf Maple	4.5	1	48.61245, -123.4163 3	23	gentle slope	soil	460
Quarry	Maple sp.	9	2	48.61245, -123.4163 3	23	gentle slope	soil	N/A
Quarry	Big Leaf Maple	3	1	48.61245, -123.4163 3	23	gentle slope	soil	449
Quarry	Big Leaf Maple	7	2	48.61245, -123.4163 3	23	gentle slope	soil	384
Quarry	Maple sp.	6	2	48.61245, -123.4163 3	23	gentle slope	soil	N/A
Reay Creek Deciduous	Red Alder	18.5	3	48.63378, -123.4113 1	0	flat	soil	N/A

**Table 1.** Recorded seedling data

Park	Plot	North	East	South	West
Denham Till	1	9.36	12.48	6.24	11.44
RO Bull	1	5.2	2.08	3.12	7.28
Sycamore	2	37.44	7.28	10.4	49.92
Sycamore	1	10.4	17.68	9.36	10.4
Highview S	1	13.52	7.28	7.28	3.12

Sumac	1	11.44	17.68	6.24	10.4
Readings	1	14.56	16.64	17.68	20.8
Green	1	6.24	9.36	17.68	18.72
Green	2N	4.16	7.28	26	21.84
Green	2S	4.16	9.36	8.32	12.48
Plumper	1	29.12	14.56	16.64	13.52
Prentice	1	7.28	18.72	28.08	15.6
Nymph	1	20.8	13.52	19.76	17.68
Lillian Hoffer	1	19.76	16.64	9.36	7.28
Lillian Hoffer	2	38.48	53.04	35.36	50.96
Quarry	1	14.56	9.36	11.44	11.44
Gulf View	1	21.84	9.36	17.68	12.48
Gulf View	2	17.68	8.32	9.36	18.72
Reay Creek	1C	15.6	19.76	16.64	10.4
Reay Creek	2C	12.48	17.68	9.36	21.84
Reay Creek	3C	12.48	14.56	4.16	15.6
Reay Creek	1D	9.36	6.24	12.48	16.64
Reay Creek	2D	5.2	3.12	5.2	6.24

**Table 2.** The canopy cover of each plot, measured using a densiometer

<u>Park</u>	<u>Species</u>	<u>Total Percent Cover</u>	<u>Percent Cover (primary)</u>	<u>Species (primary)</u>	<u>Percent Cover (secondary)</u>	<u>Species (secondary)</u>
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<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>80</u>	<u>Maple</u>	<u>15</u>	<u>Cedar</u>
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>85</u>	<u>80</u>	<u>Maple</u>	<u>5</u>	<u>Cedar</u>
<u>Sumac</u>	<u>Alder</u>	<u>85</u>	<u>85</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>90</u>	<u>85</u>	<u>Maple</u>	<u>5</u>	<u>Cedar</u>
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>90</u>	<u>85</u>	<u>Maple</u>	<u>5</u>	<u>Cedar</u>
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>85</u>	<u>Cedar</u>	<u>10</u>	<u>Maple</u>
<u>RO Bull</u>	<u>Big Leaf Maple</u>	<u>50</u>	<u>25</u>	<u>Grand</u>	<u>25</u>	<u>Douglas Fir</u>
<u>RO Bull</u>	<u>Big Leaf Maple</u>	<u>50</u>	<u>25</u>	<u>Grand</u>	<u>25</u>	<u>Douglas Fir</u>
<u>RO Bull</u>	<u>Douglas Fir</u>	<u>5</u>	<u>5</u>	<u>Cedar</u>	<u>0</u>	
<u>RO Bull</u>	<u>Douglas Fir</u>	<u>0</u>	<u>0</u>		<u>0</u>	
<u>Gulf View</u>	<u>Garry Oak</u>	<u>95</u>	<u>90</u>	<u>June Plum</u>	<u>5</u>	<u>Grand</u>
<u>Prentice</u>	<u>Willow</u>	<u>60</u>	<u>60</u>	<u>Alder</u>	<u>0</u>	
<u>Lillian Hoffar</u>	<u>Maple sp.</u>	<u>90</u>	<u>90</u>	<u>Douglas</u>	<u>0</u>	
<u>Lillian Hoffar</u>	<u>Maple sp.</u>	<u>90</u>	<u>90</u>	<u>Cedar</u>	<u>0</u>	
<u>Lillian Hoffar</u>	<u>Big Leaf Maple</u>	<u>85</u>	<u>85</u>	<u>Douglas Fir</u>	<u>0</u>	
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>90</u>	<u>60</u>	<u>Douglas Fir</u>	<u>30</u>	<u>Cedar</u>
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>95</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Maple sp.</u>	<u>90</u>	<u>90</u>	<u>Cedar</u>	<u>0</u>	

<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>90</u>	<u>90</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>60</u>	<u>60</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>60</u>	<u>60</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>60</u>	<u>60</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>90</u>	<u>90</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Maple sp.</u>	<u>50</u>	<u>50</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Maple sp.</u>	<u>40</u>	<u>40</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>40</u>	<u>40</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>40</u>	<u>40</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Big Leaf Maple</u>	<u>40</u>	<u>40</u>	<u>Cedar</u>	<u>0</u>	
<u>Sumac</u>	<u>Western Red Cedar</u>	<u>40</u>	<u>30</u>	<u>Douglas Fir</u>	<u>10</u>	<u>Cedar</u>
<u>Sumac</u>	<u>Western Red Cedar</u>	<u>30</u>	<u>30</u>	<u>Alder</u>	<u>0</u>	
<u>Sumac</u>	<u>Western Red Cedar</u>	<u>30</u>	<u>30</u>	<u>Alder</u>	<u>0</u>	
<u>Sumac</u>	<u>Alder</u>	<u>70</u>	<u>70</u>	<u>Maple</u>	<u>0</u>	
<u>Sycamore</u>	<u>Western Red Cedar</u>	<u>95</u>	<u>95</u>	<u>Douglas Fir</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>

<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>100</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>

<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>20</u>	<u>Cedar</u>	<u>20</u>	<u>Cedar</u>
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	

<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>80</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Douglas Fir</u>	<u>90</u>	<u>45</u>	<u>Cedar</u>	<u>45</u>	<u>Douglas Fir</u>
<u>Green Coniferous</u>	<u>Douglas Fir</u>	<u>85</u>	<u>85</u>	<u>Cedar</u>	<u>0</u>	
<u>Green Coniferous</u>	<u>Douglas Fir</u>	<u>85</u>	<u>85</u>	<u>Cedar</u>	<u>0</u>	

<u>Green Deciduous</u>	<u>Grand Fir</u>	<u>95</u>	<u>95</u>	<u>Maple</u>	<u>0</u>	
<u>Green Deciduous</u>	<u>Grand Fir</u>	<u>95</u>	<u>95</u>	<u>Maple</u>	<u>0</u>	
<u>Green Deciduous</u>	<u>Big Leaf Maple</u>	<u>95</u>	<u>95</u>	<u>Maple</u>	<u>0</u>	
<u>Green Deciduous</u>	<u>Grand Fir</u>	<u>85</u>	<u>85</u>	<u>Maple</u>	<u>0</u>	
<u>Green Deciduous</u>	<u>Grand Fir</u>	<u>95</u>	<u>95</u>	<u>Maple</u>	<u>0</u>	
<u>Green Deciduous</u>	<u>Grand Fir</u>	<u>95</u>	<u>95</u>	<u>Maple</u>	<u>0</u>	
<u>Green Deciduous</u>	<u>Grand Fir</u>	<u>95</u>	<u>95</u>	<u>Maple</u>	<u>0</u>	
<u>Quarry</u>	<u>Big Leaf Maple</u>	<u>90</u>	<u>90</u>	<u>Cedar</u>	<u>0</u>	
<u>Quarry</u>	<u>Big Leaf Maple</u>	<u>70</u>	<u>70</u>	<u>Cedar</u>	<u>0</u>	
<u>Quarry</u>	<u>Garry Oak</u>	<u>50</u>	<u>50</u>	<u>Cedar</u>	<u>0</u>	
<u>Quarry</u>	<u>Big Leaf Maple</u>	<u>60</u>	<u>60</u>	<u>Cedar</u>	<u>0</u>	
<u>Quarry</u>	<u>Big Leaf Maple</u>	<u>40</u>	<u>40</u>	<u>Cedar</u>	<u>0</u>	
<u>Quarry</u>	<u>Big Leaf Maple</u>	<u>20</u>	<u>20</u>	<u>Cedar</u>	<u>0</u>	
<u>Quarry</u>	<u>Big Leaf Maple</u>	<u>60</u>	<u>45</u>	<u>Cedar</u>	<u>15</u>	<u>Maple</u>
<u>Quarry</u>	<u>Maple</u>	<u>70</u>	<u>70</u>	<u>Cedar</u>	<u>0</u>	

<u>Quarry</u>	<u>Big Leaf Maple</u>	<u>70</u>	<u>70</u>	<u>Cedar</u>	<u>0</u>	
<u>Quarry</u>	<u>Big Leaf Maple</u>	<u>80</u>	<u>30</u>	<u>Cedar</u>	<u>50</u>	<u>Maple</u>
<u>Quarry</u>	<u>Maple</u>	<u>40</u>	<u>30</u>	<u>Cedar</u>	<u>10</u>	<u>Maple</u>
<u>Reay Creek Deciduous</u>	<u>Red Alder</u>	<u>95</u>	<u>80</u>	<u>Dogwood</u>	<u>15</u>	<u>Alder</u>

**Table 3.** Total canopy cover percentage, divided by species.