

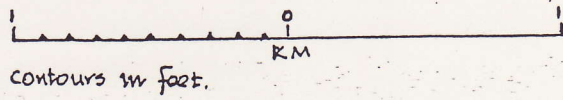
Map 1 - Access



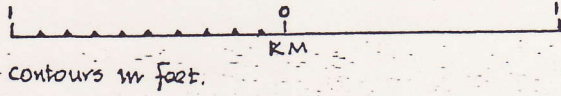
Photograph
1



Photograph
2

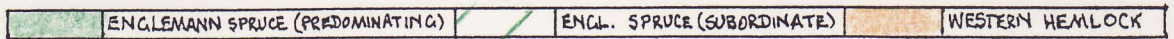
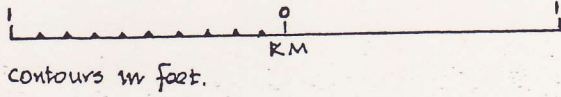


MAP 2 - BIOGEOCLIMATIC ZONES



*	ALPINE MEADOW		SUB.A.FIR (PREDOM)		SUB.A.FIR (SUBORD.)		WESTERN RED CEDAR
R	ROCK	SL.	SLIDE	BR.	BRUSH		

MAP 3 - SUB-ALPINE FIR AND WESTERN RED CEDAR DISTRIBUTION



MAP 4 - ENGLEMANN SPRUCE AND WESTERN HEMLOCK DISTRIBUTION

Type 5 (ungeneralized)

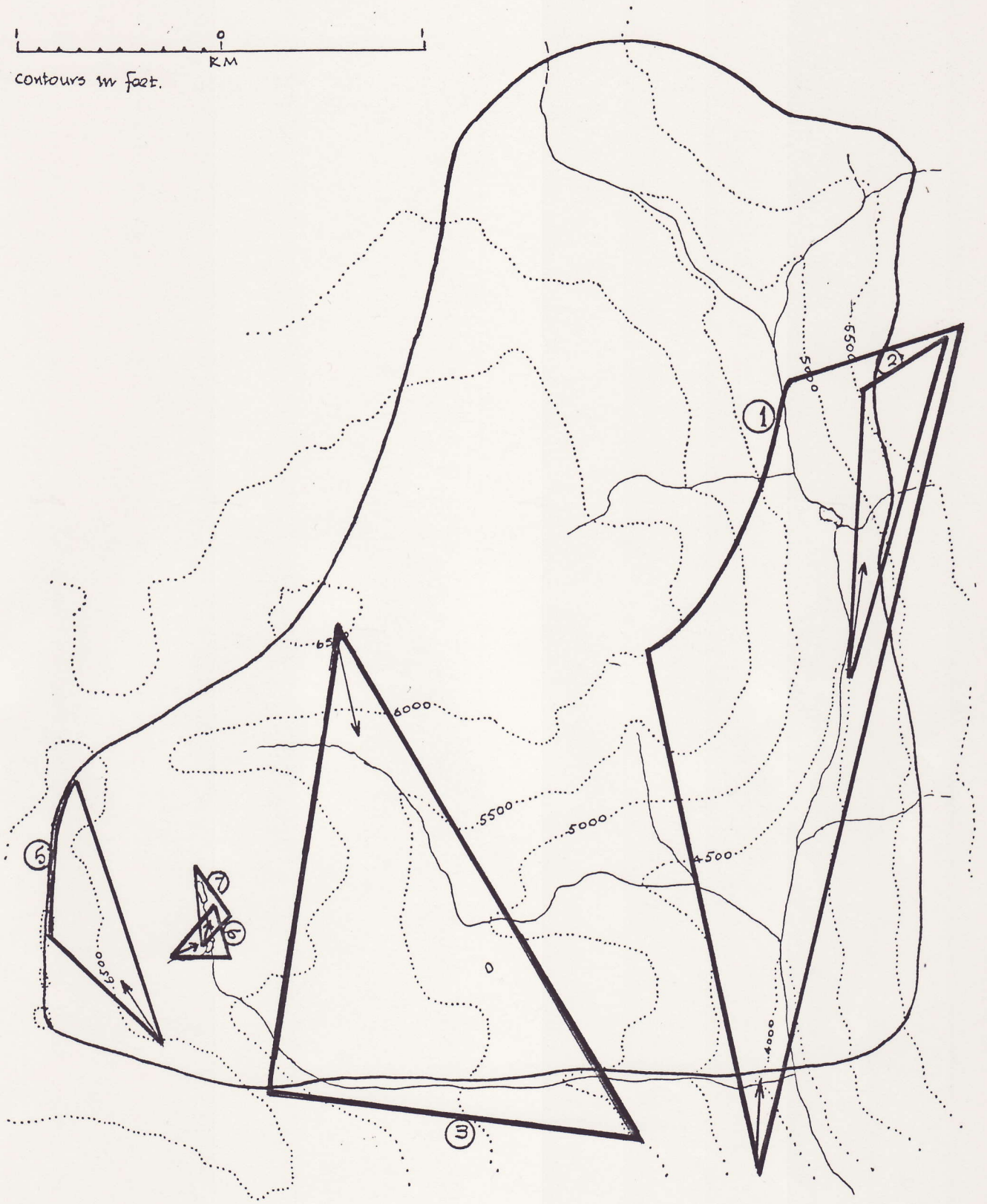
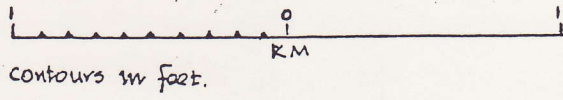
<i>Picea engelmannii</i>	<i>Alnus viridis</i>	<i>Athyrium filix-femina</i>
<i>Thuja plicata</i>	<i>Oplopanax horrida</i>	<i>Smilacina racemosa</i>
	<i>Vaccinium membranaceum</i>	<i>Epilobium angustifolium</i>
	<i>Rhododendron albiflorum</i>	<i>Valeriana sitchensis</i>
	<i>Taxus brevifolia</i>	<i>Tiarella unifoliata</i>

ENGELMANN SPRUCE - SUB-ALPINE FIR (ESSFb,ESSFbp)

As will be seen on Map 2, this zone in all its various permutations covers the greater part of Reserve #49. At its lowest, fir appears as an associate of the dominant spruce, becomes an equal partner higher in valleys and drainage channels (photograph 2, page 8), then assumes the predominant position with greater exposure over much of the upland. At its highest, fir might be considered as itself becoming a subordinate as increasing tundra-like conditions result in parkland coverage of widely spaced trees or alternatively, clumped trees interspersed by small meadows. Photograph 3 shows the park-like setting of the rolling uplands.



Photograph
3



MAP 5 - Location and angle of photographs



Photograph
5

Type 19. Dry Sites - Rocky Meadow (Mountain heathers - Luetkea)

	<i>Cassiope mertensiana</i>	<i>Luetkea pectinata</i>
	<i>Phyllodoce glandulifera</i>	<i>Luzula hitchcockii</i>
<i>Abies lasiocarpa</i>	<i>Juniperus communis</i>	<i>Hieracium gracile</i>

Terrain: colluvial blanket/ colluvial veneer over rock	Position: upper slope
Slope: 0 - 20°	Moisture: mesic
Drainage: rapid	

Type 20. Wet Sites - Snowpatch Meadow (Sedge - Western anemone)

-	-	<i>Carex nigricans</i>
		<i>Luzula hitchcockii</i>
		<i>Pulsatilla occidentalis</i>
		<i>Arnica latifolia</i>
		<i>Erigeron peregrinus</i>
		<i>Valeriana sitchensis</i>
		<i>Erythronium grandiflorum</i>
		<i>Vahlodia atropurpura</i>

Terrain: Morainial blanket	Position: upper slope
Slope: 0 - 25°	Moisture: sub-hygic
Drainage: moderate	



Photograph 4

Type 12. Sub-alpine Fir Clumps (Krumholtz)

Abies lasiocarpa	Cassiope mertensiana	Luetkea pectinata
	Phyllodoce	
	empetriformis	
	Vaccinium membranaceum	

Terrain: colluvial blanket/ veneer over rock	Position: upper slopes/ ridge tops
Slope: 0 - 20°	Moisture: mesic to sub-hygic
Drainage: good to moderate	Soil: sombric humo-ferric podzol/ lithic regosol

Several other minor yet distinct associations within the limits of the ESSF zone occur but are not readily connected with any of the foregoing. For convenience they are dealt with here.

Terrain: morainal blanket
Slope: 0 - 15°
Drainage: very poor

Position: depression
Moisture: hygric
Soil: partly organic



Photograph
6



Photograph
7

Photograph 6, taken on the 10th July from the base of a "Wet Slope" (Type 22), shows little advance in growth by