

APPLICATION FOR ECOLOGICAL RESERVE

1. Legal description of the area (or general "Metes and bounds" description)

2. Geographical location (relate to nearest settlement, mountain, river, etc.)

Charleston Creek (tributary of Nilkitkwa River), 16 miles north of Babine Lake.

3. Indicate the biogeoclimatic zone of which the reserve is representative.

SBS and ESSFb

4. Approximate total acreage.

3,617 acres

5. Purpose of the reserve.

To conserve forest ecosystems, developed on the promontories of Skeena Mountains (Bait Range)
 - (a) Primary (state acreage)

3,617 acres
 - (b) Others if any (state acreage)

-
 - (c) Buffer areas (state acreage)

-

6. Attach a map and indicate: (a) the perimeters and acreage of the areas detailed in 5 above, and
(b) indicate the species and total timber volumes in these areas.

Abies lasiocarpa, Betula papyrifera, Picea engelmannii, P. glauca, P. mariana (and their hybrids), *Pinus contorta, Populus tremuloides, P. trichocarpa.*

Signature

V.J. Krajina Jim Pojar
V.J. Krajina, Jim Pojar,

I.B.P. Surveyor
Peter Small, Calvins Parsons

INTERNATIONAL BIOLOGICAL PROGRAMME

SECTION CT : CONSERVATION OF TERRESTRIAL BIOLOGICAL COMMUNITIES

CHECK SHEET (Mark VII) FOR SURVEY OF IBP AREAS*

To be completed with reference to the GUIDE TO THE CHECK SHEET

Serial Number

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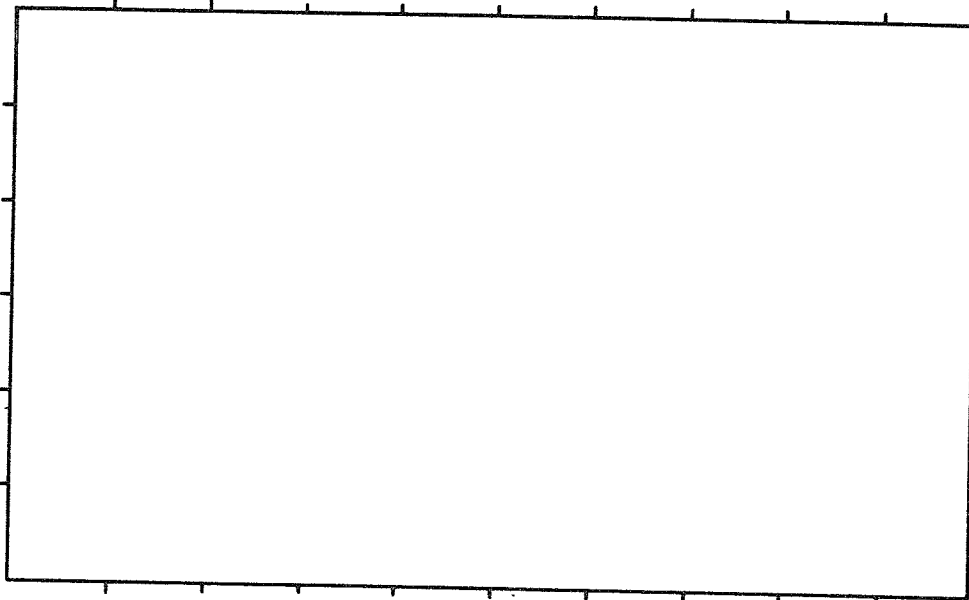
For Data Centre Use only

1.

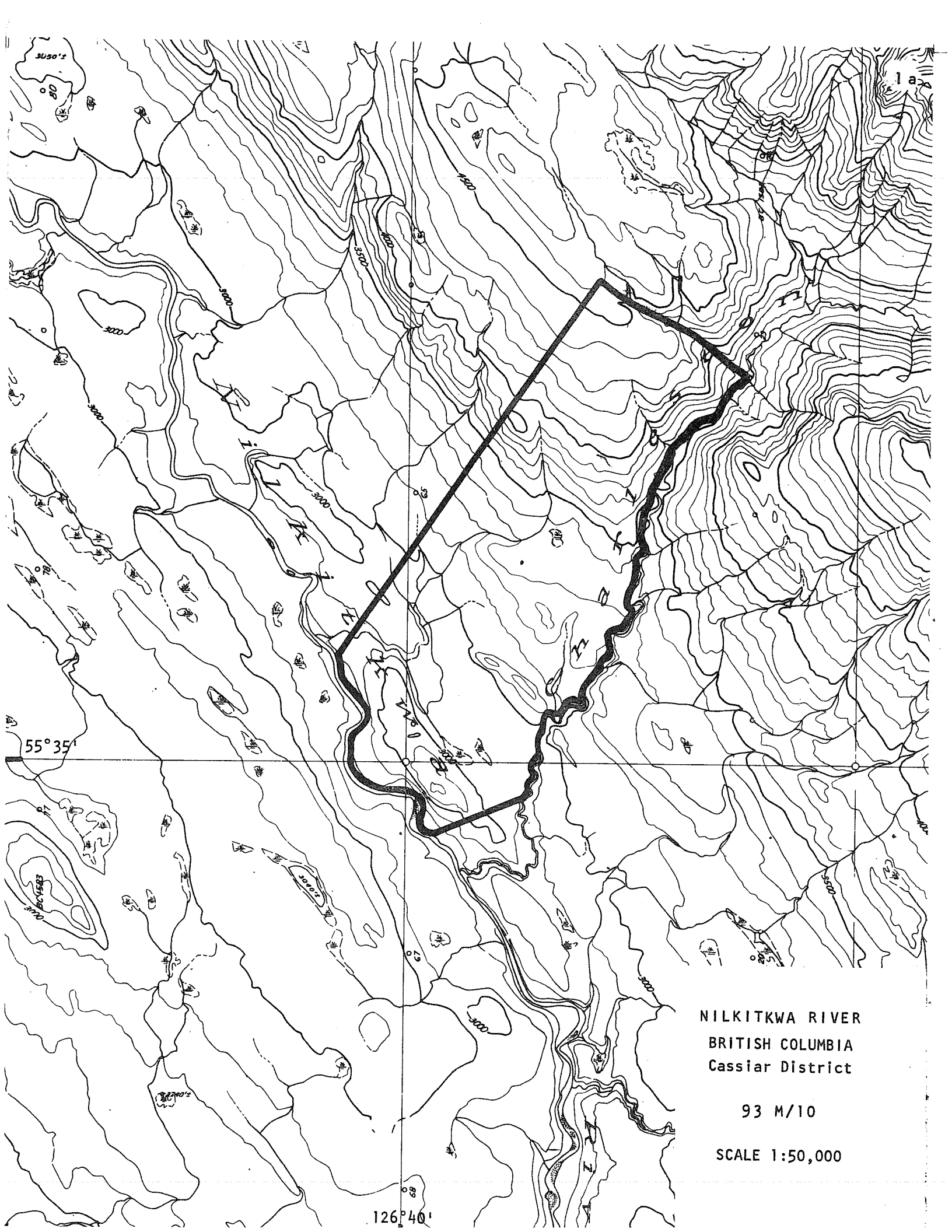
1. Name of surveyor V.J. Krajina*, Jim Pojar*, Peter Small**, and Calvin Parsons*.
2. Address of surveyor *Department of Botany, University of British Columbia, Vancouver, B.C.
 **Inventory Division, B.C. Forest Service, B.C.,
 Department of Lands, Forests, and Water Resources, Victoria
3. Check Sheet completed (a) on site X (b) from records X
4. Date Check Sheet completed November 3, 1974

2.

1. Name of IBP Area Charleston Creek (tributary of Nilkitkwa River), 16 miles N. of Babine Lake
2. Name of IBP Subdivision (or serial letter) SBS and ESSFb
3. Map of IBP Area* showing boundaries attached? Yes No
4. Sketch map of IBP Area*. Please mark direction of north, the scale and grid numbers where applicable.



* For "IBP Area", read IBP Area and/or IBP Subdivision.



55° 35'

126° 40'

NILKITWA RIVER
BRITISH COLUMBIA
Cassiar District

93 M/10

SCALE 1:50,000

3. Location of IBP Area*

1. Latitude 55 ° 34.5-38.5' N Longitude 126 ° 36-41' W
 2. Country Canada
 State or Province British Columbia County (Babine Lake) Smithers
 (State or Province County)

4. Administration

- National 1. Official category Crown Land
 2. Address of administration British Columbia Department of Lands, Forests,
 and Water Resources,
 Parliament Buildings,
 Victoria, B.C.

International Class

3. Included in U.N. List	Rejected from U.N. List	Area with formal conservation status	No formal cons. status
(A)	(B)	(C)	(D) X

5. Characteristics of IBP Area*

1. Surface area (state units of measurement) 3,617 acres
 2. Altitude (state units of measurement) Maximum 4600' (1400 m)
 Minimum 2800' (850 m)

6. Climate

Nearest climatological station :

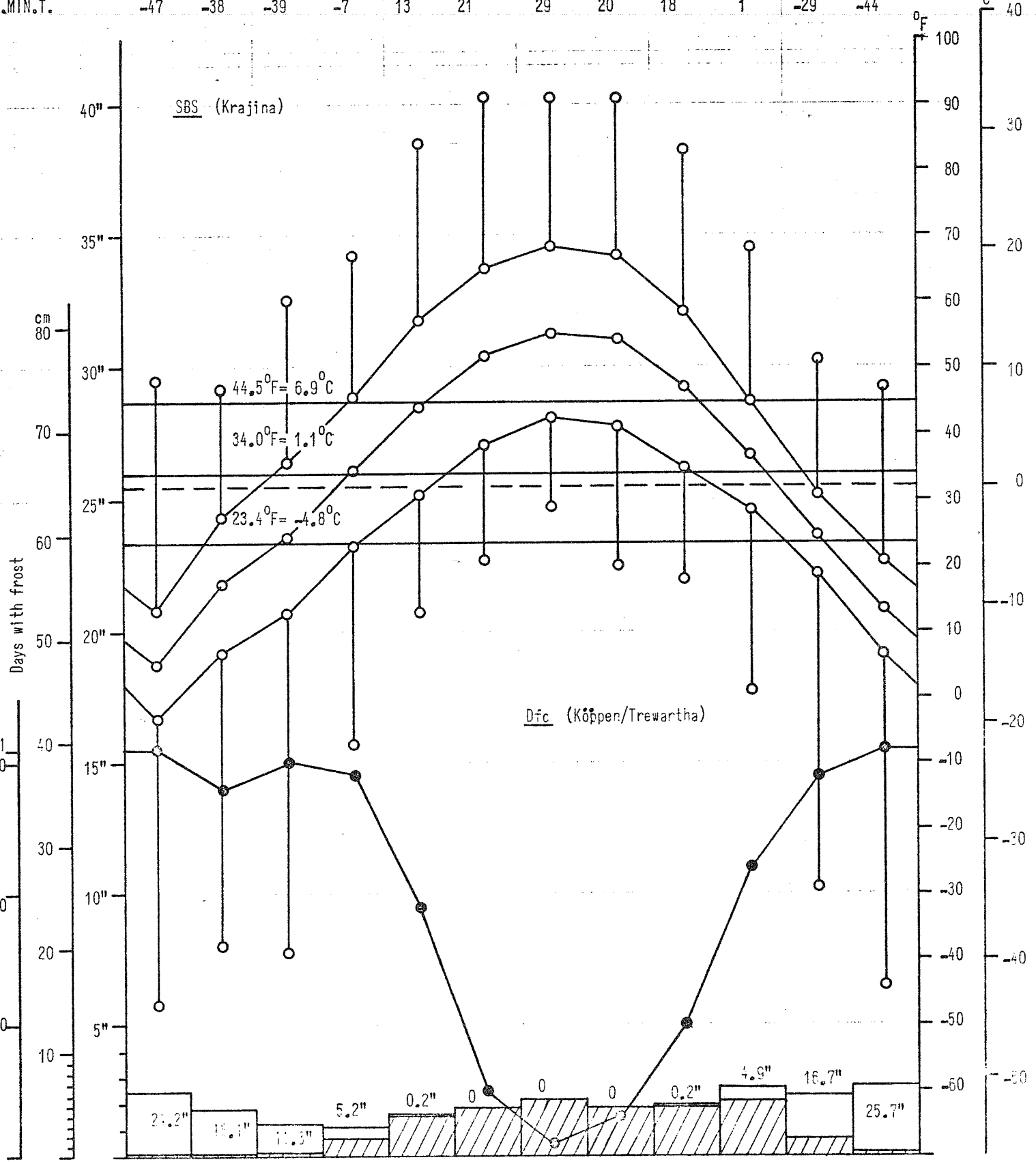
1. Name Babine (Lake)
 2. Climatological station on IBP Area*? Yes No X
 3. If (2) not, distance from edge of IBP Area* (state units) 16 miles
 4. Direction from IBP Area* South
 5. Additional data sheet attached? Yes X No

Babine Lake

BABINE LAKE 55°19'N, 126°37'W, 2360' ASL. record: 20-22 years.

Months above 50°F: 3, below 32°F: 5, A.M.T.P. 23.65", A.M.S.F. 106.5", snow % A.M.T.P.: 45.03, days with frost, yearly: 238

E.MAX.T.	48	47	60	67	84	91	91	91	83	68	51	47
M.D.MAX.T.	13.5	27.7	35.8	45.7	57.2	65.1	68.3	66.9	58.4	44.8	30.8	20.3
M.D.T.	5.1	17.2	24.2	34.4	44.1	51.7	55.2	54.1	46.8	36.7	24.8	13.5
M.D.MIN.T.	-3.3	6.7	12.6	23.0	30.9	38.2	42.2	41.2	35.1	28.5	18.8	6.6
E.MIN.T.	-47	-38	-39	-7	13	21	29	20	18	1	-29	-44



Days with frost	31	28	30	23	19	5	1	3	10	22	29	31
M.M.T.P.	2.49	1.65	1.23	1.16	1.56	1.80	2.12	1.68	1.97	2.59	2.35	2.65
Months	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

7. Vegetation and Soil

1

Vegetation

Biogeoclimatic zones:

SBS

ESSFb

Community Reference Number	Vegetation Code					Plant communities (give usual name using full Latin names of a species where applicable)	Area (state units)
	Primary Structural Group	Class	Group	Formation	Sub-Formation		
1	1	A	1	7	a	Hylocomio (splendens) - Ptilio (cristae-castrensis) - Lycopodio (annotini) - Piceetum glaucae - marianae	
2	1	A	1	7	a	Ptilio (cristae-castrensis) - Gymnocarpio (dryopteridis) - Piceo (glaucae - engelmannii) - Abietetum lasiocarpae	
3	1	A	1	7	a	Plagiomnio (ciliaris) - Heracleo (lanati) - Populo (tremuloidis) - Piceo (glaucae - engelmannii) - Abietetum lasiocarpae	
						lasiocarpae	
4	1	B	2	1	a	Plagiomnio (rugici) - Salicetum barclayi - drummondianae	
5	1	A	1	7	a	Pleurozio (schreberi) - Corno (canadensis) - Rubo (pedati) - Vaccinio (caespitosi) - Abieto (lasiocarpae) - Piceetum glaucae x engelmannii	
6	1	A	1	7	a	Hylocomio (splendens) - Ptilio (cristae-castrensis) - Streptopo (rosei) - Valeriano (sitchensis) - Gymnocarpio (dryopteridis) - Piceo (glaucae - engelmannii) - Abietetum lasiocarpae	
						Ptilio (cristae-castrensis) - Vaccinio (caespitosi - membranacei) - Abieto (lasiocarpae) - Piceetum engelmannii	
7	1	A	1	7	a		
8	1	B	2	1	a	Sphagno (recurvi) - Salico (barclayi) - Betuletum glandulosae	
9							
10							

Please give information about further communities on a separate sheet.

Charleston Creek - Partial list of plants

Vascular	<i>Abies lasiocarpa</i>
plants:	<i>Actaea rubra</i>
	<i>Alnus sinuata</i>
	<i>Aquilegia formosa</i>
	<i>Arnica cordifolia</i>
	<i>Betula glandulosa</i>
	<i>Betula papyrifera</i>
	<i>Calamagrostis canadensis</i>
	<i>Carex mertensii</i>
	<i>Clintonia uniflora</i>
	<i>Cornus canadensis</i>
	<i>Empetrum hermaphroditum</i>
	<i>Epilobium angustifolium</i>
	<i>Epilobium latifolium</i>
	<i>Equisetum arvense</i>
	<i>Equisetum sylvaticum</i>
	<i>Festuca occidentalis</i>
	<i>Geocaulon lividum</i>
	<i>Geranium erianthum</i>
	<i>Gymnocarpium dryopteris</i>
	<i>Juniperus nana</i>
	<i>Linnaea borealis</i>
	<i>Listera cordata</i>
	<i>Lonicera involucrata</i>
	<i>Lupinus arcticus</i>
	<i>Lycopodium annotinum</i>
	<i>Mertensia paniculata</i>
	<i>Oplopanax horridus</i>
	<i>Osmorhiza chilensis</i>
	<i>Pedicularis labradorica (!)</i>
	<i>Petasites palmatus</i>
	<i>Picea engelmannii</i>
	<i>Picea glauca</i>
	<i>Picea mariana</i>
	<i>Pinus contorta</i>
	<i>Populus tremuloides</i>
	<i>Pyrola secunda</i>
	<i>Pyrola virens</i>
	<i>Rubus pubescens</i>
	<i>Salix barclayi</i>
	<i>Salix bebbiana</i>
	<i>Salix scouleriana</i>
	<i>Shepherdia canadensis</i>
	<i>Spiraea menziesii</i>
	<i>Vaccinium caespitosum</i>
	<i>Vaccinium membranaceum</i>
	<i>Valeriana sitchensis</i>
	<i>Viola orbiculata</i>
bryo-	<i>Barbilophozia barbata</i>
phytes:	<i>Barbilophozia hatcheri</i>
	<i>Hylocomium splendens</i>
	<i>Plagiomnium ciliare</i>
	<i>Plagiomnium rugicum</i>

bryo- *Pleurozium schreberi*
phytes: *Ptilidium pulcherrimum*
(cont.) *Ptilium crista-castrensis*
 Rhizomnium spp.
 Sphagnum recurvum

lichens: *Cladina arbuscula*
 Cladina mitis
 Cladina rangiferina
 Cladonia gracilis
 Icmadophila ericetorum
 Nephroma arcticum
 Peltigera aphthosa
 Peltigera horizontalis
 Peltigera polydactyla
 Peltigera rufescens

7.
(cont.)

2

Soil

Biogeo-
climatic
zones:

SBS

ESSFb

Community Reference Number	Soil type	Other notes
1	ABC F ₅	Dystric Brunisol - Mini Podzol
2	ABC F ₅	Brunisol/Luvisol
3	ABC/AGC F ₅ /P ₂	Gleyed Brunisol (Regosolic)
4	A O	Low Moor
5	ABC F ₅	Humo Ferric Podzol
6	ABC/AGC F ₅ /P ₂	Gleyed Mini Podzol
7	ABC F ₅	Humo Ferric Podzol
8	A O	Low Moor
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

9. **Landscape**

1. General Landscape (give brief description) Mostly gently dissected hills above "Nechako Plateau" and promontories; in the background are the alps of Bait Range (Skeena Mountains).

2. Relief Type

	Flat	Undulating (0)-200 m.	Hilly 200-1000 m.	Mountainous > 1000 m.	%
Sharply dissected					
Gently dissected				10	10
Incised			60	30	90
Skeletonised					
%			60	40	100%

3. Special landscape features (list)

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10. **Coastline of IBP Area*** NONE

1. Protected bays and/or inlets

Many Few None

2. Substratum. % of coast

Rock	Boulder Beach	Shingle Beach	Sand Beach	Shell Beach	Mud	Coral	Ice
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. Physiography. % of coast

Cliffed	Sloping	Flat
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Special Coastal Features (list)

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5. Tide. Maximum range (state units of measurement)

6. Total length of coastline :

Less than 1 km. 1-10 km. Above 10 km.

11. Freshwater within IBP Area*

1.

	Permanent	Intermittent
General		
Standing	X	
Running	X	

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps	X			
Ponds	X		X	
Lakes			X	

3. Running Water

	Permanent	Intermittent
Springs, cold	X	
Springs, hot		
Streams	X	
Rivers	X	

4. Special freshwater features

12. Salt and Brackish Water within IBP Area*

NONE

Salt Lakes

Estuaries

Lagoon

Salt pools

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13. Adjacent Water Bodies (not within IBP Area*)

1. Fresh Lake River Stream

2. Salt and Brackish NONE Babine River

Estuary	Salt lake	Salt pool	Lagoon	Ocean		

14. Outstanding Floral and Faunal Features

- 1. None
- 2. Fauna

	Species diversity	Abundance of individuals	Superabundance of individuals	Rare species	Threatened/Relict species	Spp. of biogeographical interest	Exceptional Associations	Breeding or Nesting Populations	Migrating Populations	Wintering Populations		
Mammalia	X	X						X		X		
Aves	X	X						X		X		
Reptilia												
Amphibia		?										
Pisces	X	X						X	X			
Insecta	X	X						X		X		

- moose

3. Names of main threatened, endemic, relict and rare species

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4. Flora

	Species diversity	Abundance of particular species	Rare species	Threatened/relict species	Spp. of biogeographical interest	Exceptional associations	Outstanding specimens				
Angiospermae :											
trees		X									
shrubs	X	X									
herbs	X	X	X		X						
grass		X									
Gymnospermae	X	X									
Pteridophyta		X									
Bryophyta	X	X									
Lichens and Algae	X	X									

5. Names of main threatened, endemic, relict and rare species

Pedicularis labradorica is here at its most southern distribution in British Columbia. It could be considered as a glacial relict.

15. Exceptional Interest of IBP Area*

A very good cross-section of the whole ecosystematic spectrum of the SBS and ESSFb biogeoclimatic zones.

16. Significant Human Impact

1. General: None in entire IBP Area* (except by a new road which is barely touching the proposed area)
 None in part of IBP Area*
 Impact on entire IBP Area*

2. Particular

	Past impact	Present impact	Trend			
			Increasing	Decreasing	No change	No information
Cultivation					X	
Drainage					X	
Other soil disturbance					X	
Grazing					X	
Selective flora disturbance					X	
Logging					X	
Plantation					X	
Hunting			X			
Removal of predators					X	
Pesticides					X	
Introductions — plants					X	
Introductions — animals					X	
Fire	X				X	
Permanent habitation					X	
Recreation and tourism					X	
Research					X	

3. Additional details on each type of impact attached?

Yes NoX....

17. Conservation Status (required)

	Protection			Utilisation			Conservation Management			Permitted Research		
	none	partial	total	none	controlled	uncontrolled	none	to alter status	to maintain status	experimental	observational	prohibited
Flora			X	X					X		X	
Fauna			X	X					X		X	
Non-living			X	X					X		X	

18. References

1. List major biological/geographical references for the IBP Area.

Sheet attached? Yes No

2. List main maps available for the IBP Area.

List attached? Yes No 93 M/10

3. Aerial photographs for the IBP Area available?

For whole area^X For part of area None

19. Other Relevant Information

Because the new road is touching the proposed area, the ecological reserve could become an important study area opening ecological knowledge for future silviculture in these area.

V.J. Krajina Jim Pojar
 Signed V.J. Krajina, Jim Pojar,
 (Surveyor)