

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.)

Mt. Bell-Irving, north of Meziadin Lake, Nass River and Bell-Irving Basins.

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

CWHa (b), MH/ (ESSF), AT

4. Approximate total acreage.

23,125 acres

5. Purpose of the reserve.
To preserve the drier but very snowy CWH zone, the very snowy and very cool subalpine MH zone, and a little of the snowy alpine tundra zone.
 - (a) Primary (state acreage)
(A) 13,723 acres (the CWHa and lower portion of the MH).
 - (b) Others if any (state acreage)
(B) 9,402 acres (non-productive upper portion of the MH and the AT).
 - (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.
The major trees are: mountain hemlock, Engelmann spruce, subalpine fir, western hemlock and lodgepole pine, aspen, black cottonwood and paper birch. Productivity is rather low, except a narrow strip north of the Nass River.

Vlad J. Krajina, K. Klinka, J.B. Foster
V.J.Krajina, K.Klinka, J.B.Foster,

Signature R.G.McMinn and R.M.Annas.
I.B.P. Surveyor

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

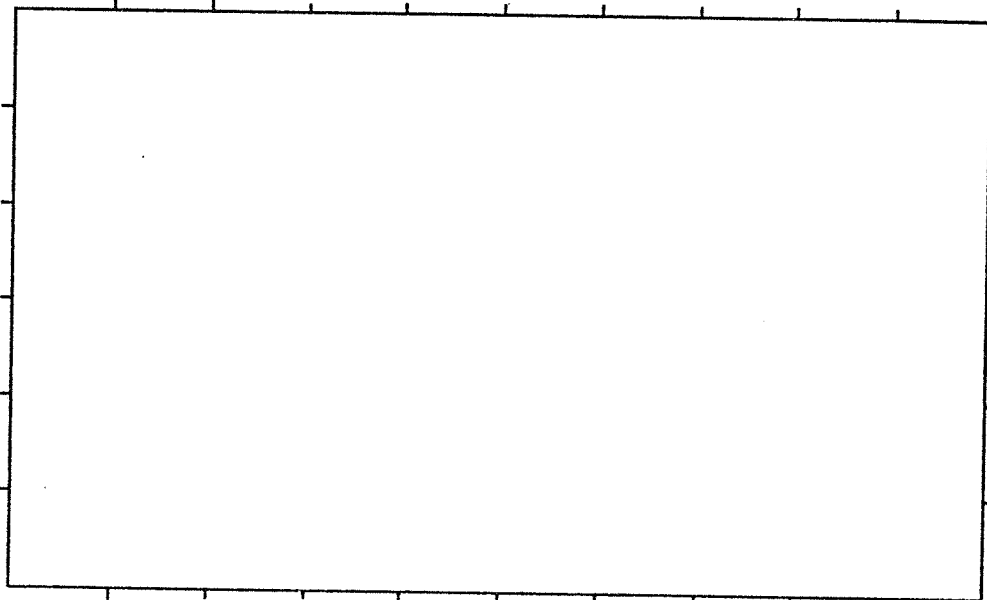
Serial Number

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For Data Centre Use only

1. 1. Name of surveyor V.J.Krajina*), Karel Klinka, J.B.Foster, R.G.McMinn and R.M.Annas.
2. Address of surveyor *) Dept. of Botany, University of British Columbia, Vancouver, B.C., Canada.
3. Check Sheet completed (a) on site X (b) from records X
4. Date Check Sheet completed November 2, 1973.

2. 1. Name of IBP Area Mt. Bell-Irving, north of Medziadin Lake, Nass River and Bell-Irving River.
2. Name of IBP Subdivision (or serial letter) CWHa/(b), MH/(ESSF), AT.
3. Map of IBP Area* showing boundaries attached? Yes X 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.



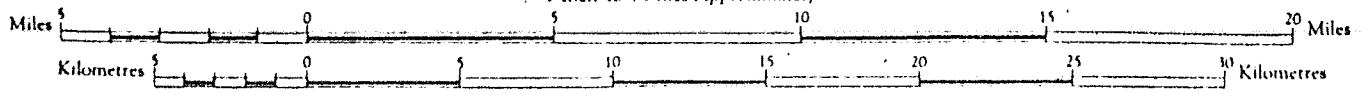
CH,

BOWSER LAKE

BRITISH COLUMBIA

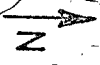
Contour interval 500
 All Elevations in Feet above Mean
 North American Datum

Scale 1 : 250,000
 1 Inch to 4 Miles Approximately

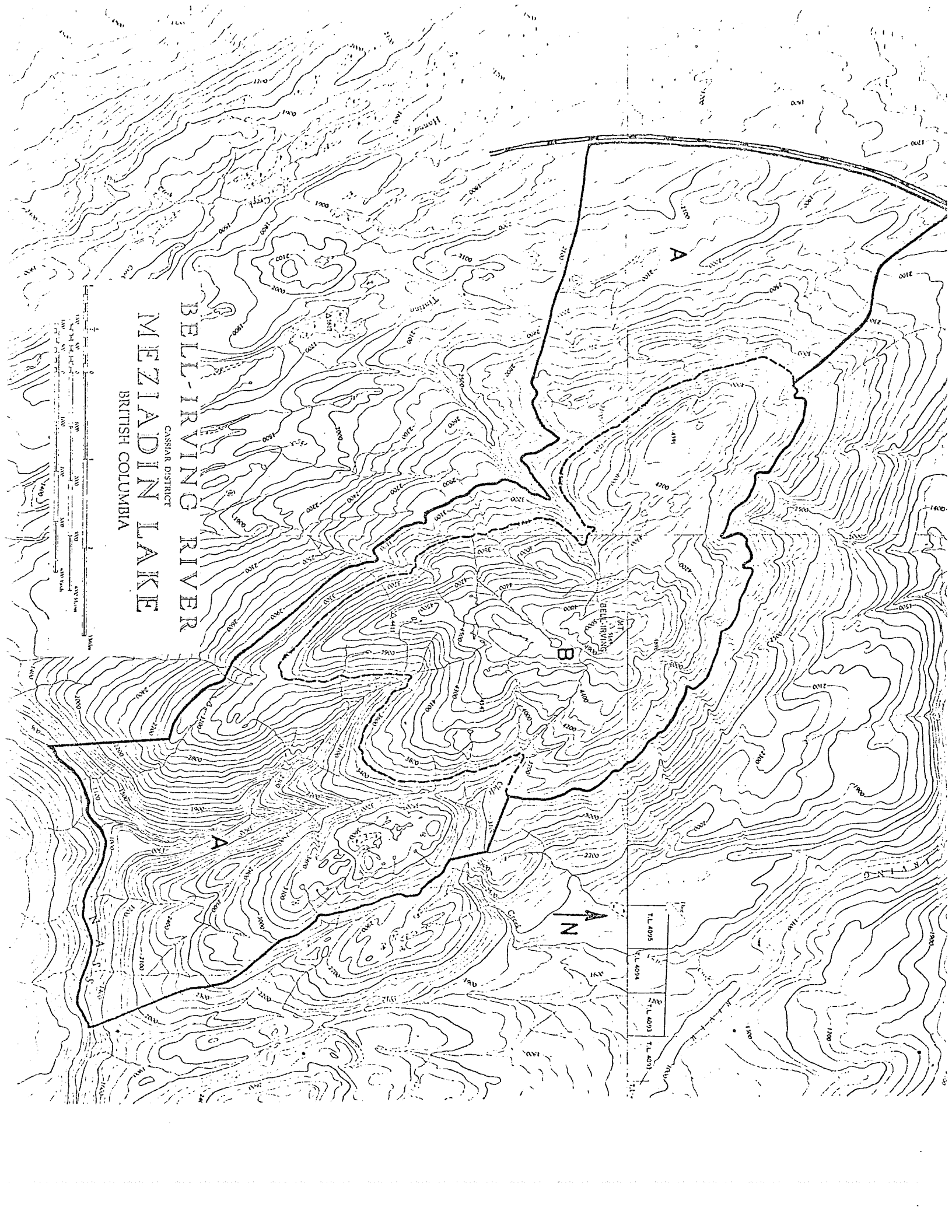


MEZIADIN LAKE
BELL-IRVING RIVER
BRITISH COLUMBIA

CASSIAR DISTRICT



TL 4095	TL 4093
TL 4094	TL 4091



3. Location of IBP Area*

1. Latitude 56.....° 09,5-18' N ~~N~~ Longitude 129.....° 07-22' W ~~E~~/W
2. Country Canada.....
 State or Province British Columbia..... County Terrace.....
 (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,
Victoria, B.C. Canada.

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)

5. Characteristics of IBP Area*

Total: 23125 acres

1. Surface area (state units of measurement) A: 13,723 acres. B: 9,402 acres (above 3,500')
2. Altitude (state units of measurement) Maximum 5148' (1554.4m)
 Minimum 850' (255m)

6. Climate

Nearest climatological station :

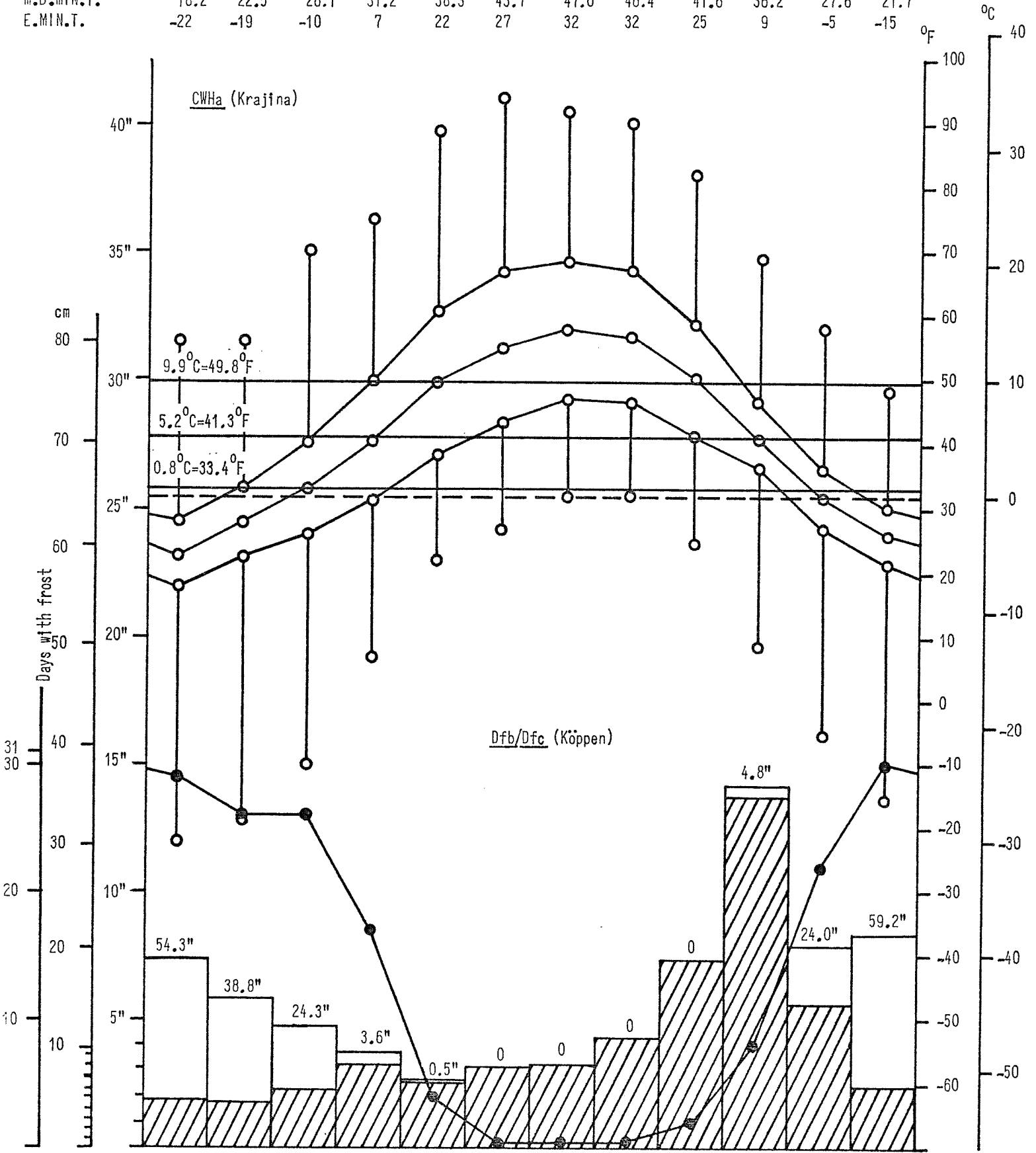
1. Name Stewart ; *) Aiyansh
2. Climatological station on IBP Area*? Yes No X...
3. If (2) not, distance from edge of IBP Area* (state units) 35mi. ; *) 64mi.
4. Direction from IBP Area* SW ; *) SSSE
5. Additional data sheet attached? Yes X No

Stewart and Aiyansh.

STEWART 55°57'N, 129°59'W, 15' ASL. Record: 25-56 years.

Months above 50°F: 4, below 32°F: 3, A.M.T.P. 72.57", A.M.S.F. 209.5", snow % A.M.T.P.: 28.86, days with frost, yearly: 73.

E.MAX.T.	56	56	70	75	89	94	92	90	82	69	58	48
M.D.MAX.T.	28.1	33.5	40.6	49.6	60.8	66.7	68.7	67.1	58.8	46.6	36.1	30.4
M.D.T.	23.2	28.0	33.4	40.4	49.5	55.2	57.8	56.8	50.1	41.4	32.0	26.0
M.D.MIN.T.	18.2	22.5	26.1	31.2	38.3	43.7	47.0	46.4	41.6	36.2	27.6	21.7
E.MIN.T.	-22	-19	-10	7	22	27	32	32	25	9	-5	-15

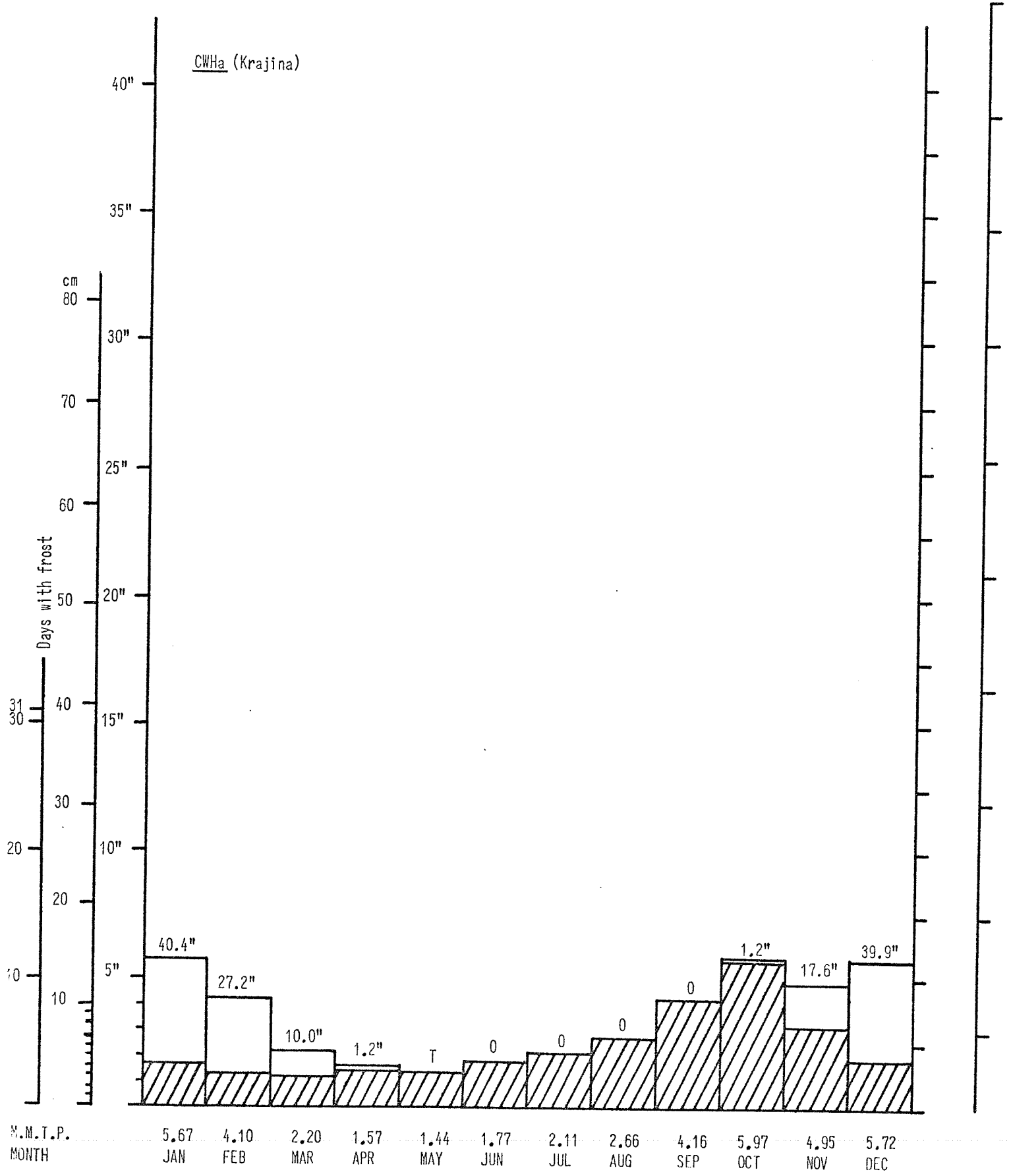


Days with frost	29	26	26	17	4	*	*	*	2	8	22	30
M.M.T.P.	7.35	5.78	4.75	3.65	2.61	3.10	3.29	4.34	7.25	14.14	7.98	8.33
MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

AIYANSH, 55°14'N, 129°01'W, 750' ASL. Record: 25-29 years.

A.M.T.P. 43.32", A.M.S.F. 137.5", snow % A.M.T.P.: 31.74.

CWHa (Krajina)



7. Vegetation and Soil

1

Vegetation

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(splendentis) - Ptilio(cristae-castrensis) - Tsugetum heterophyllae	
2	1	A	1	7	a	Gymnocarpio(dryopteridis) - Corno(canadensis) - Abietetum(lasiocarpae) - Tsugetum heterophyllae	
3	1	A	1	7	a	Pleurozio(schreberi) - Rubo(pedati) - Tsugetum heterophyllae	
4	1	A	1	7	a	Oplopanaco(horridi) - Piceo(engelmannii) - Abietetum lasiocarpae	
5	1	A	1	7	a	Corno(stoloniferae) - Populo(trichocarpae) - Piceo(engelmannii) - Abietetum lasiocarpae	
6	1	A	1	7	a	Rubo(pedati) - Vaccinio(alaskaensis) - Tsugetum mertensianae	
7	1	A	1	7	a	Gymnocarpio(dryopteridis) - Rhizomnio(nudi) - Tsugo(mertensianae) - Abietetum lasiocarpae	
8	1	A	1	7	a	Veratro(viridis) - Oplopanaco(horridi) - Abietetum lasiocarpae	
9	1	C	1	2	b	Phyllodoco(glanduliflorae) - Cassiopetum mertensianae	
10	1	B	2	1		Mertensio(paniculatae) - Petasiteto(frigidae) - Alnetum sinuatae	
11	1	F	1	2		Cassiopo(mertensianae) - Abietetum lasiocarpae	
12	1	B	1	6		Nano-tsugetum mertensianae	
13	1	C	1	2	b	Cassiopetum mertensianae	
14	1	M	2	1		Caricetum nigricantis	
15	1	N	2	1		Calthetum leptosepalae	
16	1	N	2	1		Erigerono(peregrini) - Senecionetum triangularis	
17							
18							
19							
20							

CWha/(b):

MH:

AT:

7.
(cont.)

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Soil

Community Reference Number	Soil type	Other notes
1	ABC F ₅	Ferro-Humic Podzol
2	ABC F ₅	Ferro-Humic Podzol
3	ABC F ₅	Humo-Ferric Podzol
4	ABGC F ₅ /P ₂	Gleyed Podzol
5	AC I ₂	Regosol
6	ABC F ₅	Ferro-Humic Podzol
7	ABC F ₅	Luvisol
8	ABGC F ₅ /P ₂	Gleyed Podzol
9	ABC F ₅	Mini-Podzol
10	AGC P ₂	Gleysol
11	ABC F ₅	Mini-Podzol
12	ABC F ₅	Podzol
13	ABC F ₅	Brown Podzolic (Brunisol)
14	AGC I ₂	Snow Basin Anmoor
15	AGC P ₂	Gleysol
16	AGC P ₂	Gleysol
17		
18		
19		
20		

CWHa/b

MH:

AT:

9. Landscape

1. General Landscape (give brief description) An isolated mountain group, with
highest mountain of Mt. Bell-Irving.

2. Relief Type

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

3. Special landscape features (list) several small lakes (ponds) at the top
of mountains.

10. Coastline of IBP Area*

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	X	
Standing	X	
Running	X	

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps	X		X	
Ponds	X		X	
Lakes				

3. Running Water

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

4. Special freshwater features

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12. Salt and Brackish Water within IBP Area*

nil

Salt Lakes	<input type="checkbox"/>	Lagoon	<input type="checkbox"/>	<input type="checkbox"/>
Estuaries	<input type="checkbox"/>	Salt pools	<input type="checkbox"/>	<input type="checkbox"/>

13. Adjacent Water Bodies (not within IBP Area*) Nass River, Bell-Irving River.

1. Fresh Lake River Stream

2. Salt and Brackish nil

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										
Aves		X										
Reptilia												
Amphibia												
Pisces												
Insecta		X										

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				X					
shrubs		X				X					
herbs		X				X					
grass		X				X					
Gymnospermae		X				X					
Pteridophyta		X									
Bryophyta		X				X					
Lichens and Algae		X				X					

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

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15. Exceptional Interest of IBP Area*

Relatively great masses of snow press down the timber line as
 well as lower limits of two biogeoclimatic zones (MH,AT)

16. Significant Human Impact

1. General : None in entire IBP Area* X
 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	
Permanent habitation					X	
Recreation and tourism					X	
Research					X	

3. Additional details on each type of impact attached?

Yes No X

17. Conservation Status (future)

	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

3. Aerial photographs for the IBP Area available?

For whole area X For part of area None

19. Other Relevant Information

The subalpine mountain hemlock (MH) zone is well developed here even if the area is fairly distant from the Pacific Ocean. Great quantities of snow are responsible for it. However, there is no amabilis fir (Abies amabilis).

V.J. Krajina, K. Linka, J.B. Foster
 V.J. Krajina, K. Linka, J.B. Foster,

Signed R.G. McMinn and R.M. Annas.

 (Surveyor)