

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.)

North of Good Hope Lake, west of Cassiar - Watson Lake road

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

Boreal white and black spruce zone (BWBS), subalpine spruce - fir - willow - birch zone (SFWB), and alpine tundra zone (AT)

4. Approximate total acreage.

4512 acres

5. Purpose of the reserve.

Preservation of great diversity of plant associations in three biogeoclimatic zones

- (a) Primary (state acreage)

A: 1119 acres (up to 3500')

- (b) Others if any (state acreage)

B: 3393 acres (above 3500')

- (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.

Only in the A area are commercially useful trees: Picea glauca, P. mariana, Pinus contorta, Abies lasiocarpa, in the B area trees are short and scrubby.

L.K. Wade Jim Pojar K. I. Beamish

Signature L.K. Wade, K.I. Beamish, J. Pojar
I.B.P. Surveyor G. Otto,
A. Gurney

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

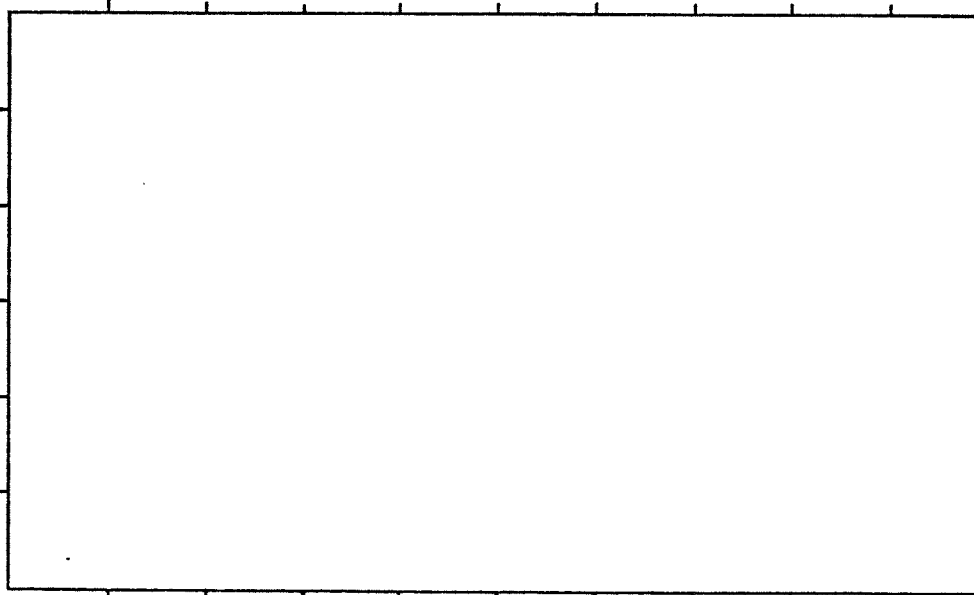
Serial Number

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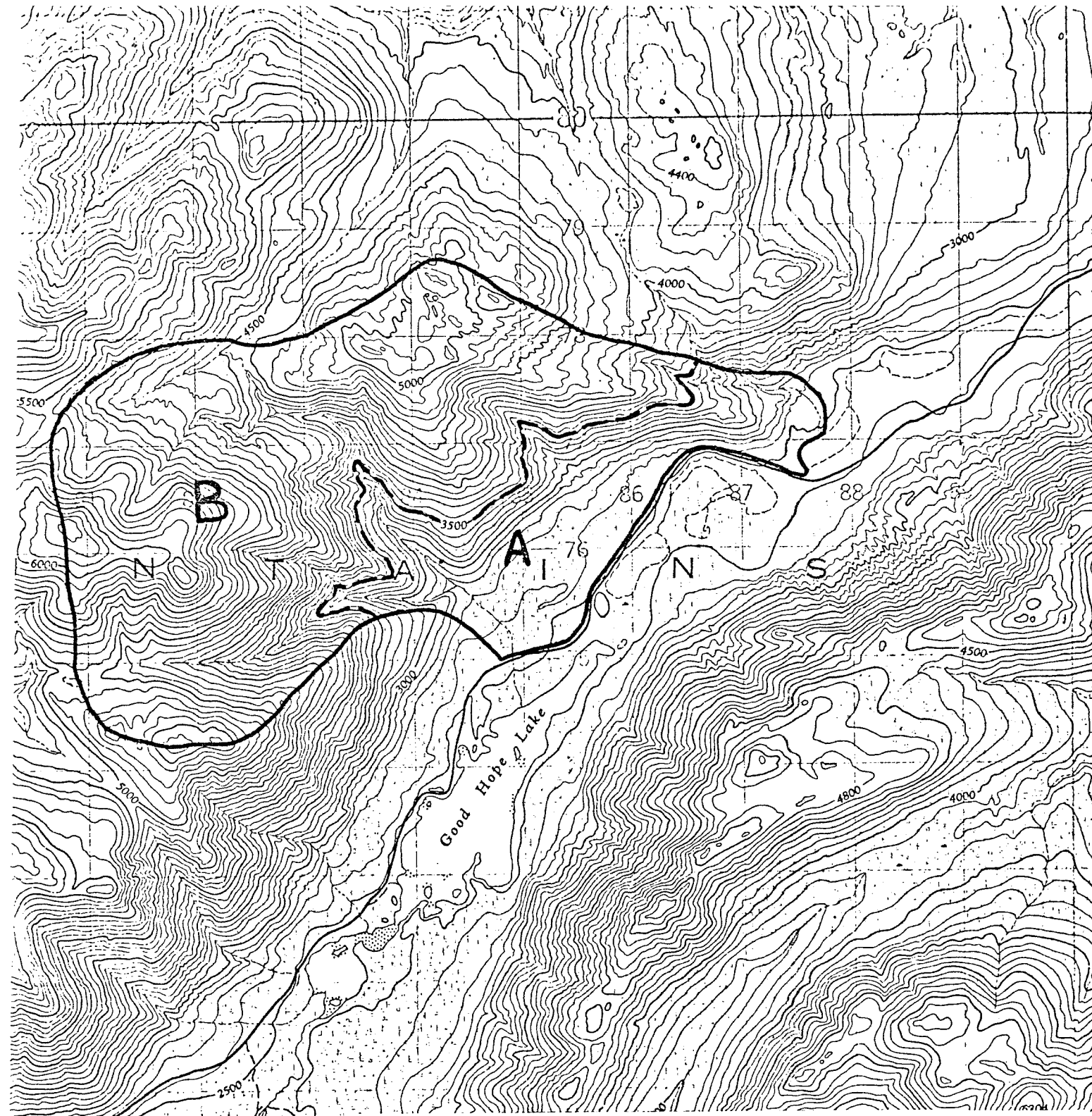
For Data Centre Use only

1. 1. Name of surveyor L.K.WADE*, K.I. BEAMISH**, J. POJAR**, G. OTTO** & A. GUPPY**
 2. Address of surveyor *Dept. of Biology, Capilano College, North Vancouver, B.C.
**Dept. of Botany, University of British Columbia, Vancouver, B.C.
 3. Check Sheet completed (a) on site X (b) from records
 4. Date Check Sheet completed JULY 1973

2. 1. Name of IBP Area North of Good Hope Lake, west of Cassiar - Watson Lake highway
 2. Name of IBP Subdivision (or serial letter) BWBS, SFWB, and 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.



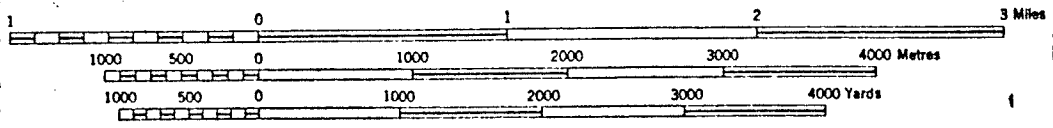
* For "IBP Area", read IBP Area and/or IBP Subdivision.



GOOD HOPE LAKE

CASSIAR DISTRICT
BRITISH COLUMBIA

SCALE 1:50,000
1.25 inches to 1 mile approximately



3. Location of IBP Area*

1. Latitude ⁵⁹.....° ¹⁸'N..... N Longitude..... ¹²⁹°..... ¹⁵'W..... W
2. Country CANADA.....
- State or Province BRITISH COLUMBIA..... County Prince Rupert.....
- (State or Province County)

4. Administration

- National 1. Official category Crown Land.....
2. Address of administration B.C. 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) X

5. Characteristics of IBP Area*

- 4512 acres A: 1119 acres (up to 3500')
- 3393 acres (above 3500')
1. Surface area (state units of measurement) 6350' (1905 m)
2. Altitude (state units of measurement) Maximum 2500' (750 m)
- Minimum 2500' (750 m)

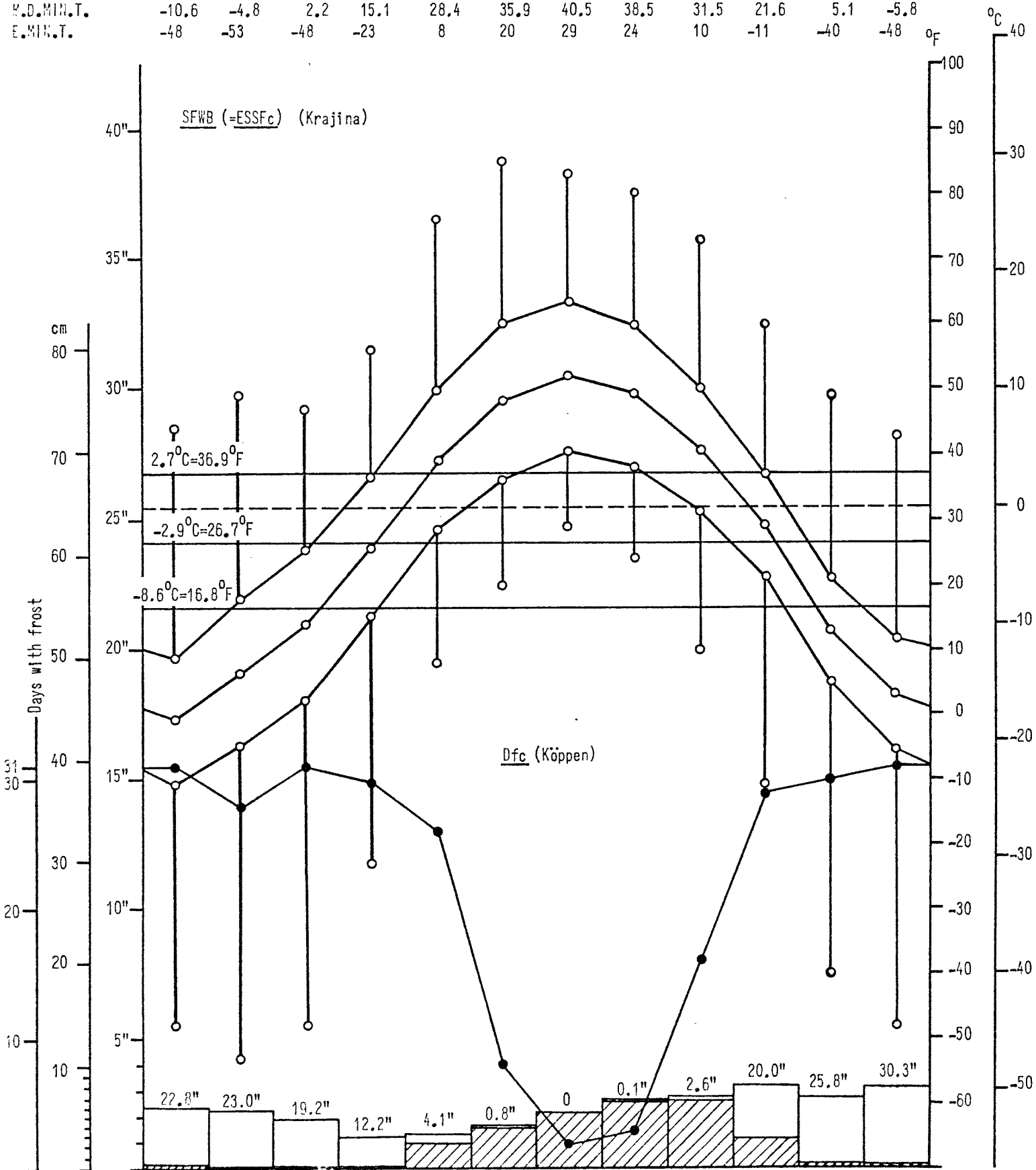
6. Climate

Nearest climatological station :

1. Name Cassiar.....
2. Climatological station on IBP Area*? Yes No ^X.....
3. If (2) not, distance from edge of IBP Area* (state units) 17 miles.....
4. Direction from IBP Area* west.....
5. Additional data sheet attached? Yes ^X No

CASILLAR 59°17'N, 129°51'W, 3535' ASL. Record: 11-17 years, adjusted.
 Months above 50°F: 1, below 32°F: 7, A.M.T.P. 27.57", A.M.S.F. 160.9", snow % A.M.T.P.: 58.36, days with frost, yearly: 265.

E.MAX.T.	44	49	47	56	76	85	83	80	73	60	49	43
M.D.MAX.T.	9.4	17.9	25.5	36.4	49.9	60.0	63.4	59.9	50.2	37.0	20.9	11.8
M.D.T.	-0.6	6.6	13.9	25.8	39.2	48.0	52.0	40.2	40.9	29.3	13.0	3.0
M.D.MIN.T.	-10.6	-4.8	2.2	15.1	28.4	35.9	40.5	38.5	31.5	21.6	5.1	-5.8
E.MIN.T.	-48	-53	-48	-23	8	20	29	24	10	-11	-40	-48



Days with frost	31	28	31	30	26	8	2	3	16	29	30	31
M.M.T.P.	2.42	2.32	1.96	1.25	1.42	1.70	2.14	2.62	2.75	3.17	2.71	3.11
MONTH	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC

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	C	1	2	a	<u>Dryas drummondii</u> - <u>Hedysarum mackenzii</u>	2800' - 4000'
2	1	C	1	2	a	<u>Dryas integrifolia</u> - <u>Pyrola</u> - <u>Salix reticulata</u>	4000'
3	1	C	1	2	a	<u>Dryas integrifolia</u> - <u>Cassiope tetragona</u>	4600'
4	1	N	2	1		<u>Saxifraga punctata</u> - <u>Anemone</u> - <u>Dodecatheon</u>	4000' - 4800'
5	1	N	2	1		<u>Anemone</u> - <u>Ranunculus</u> - <u>Myosotis</u>	5000' - 5500'
6	1	C	1	2	a	<u>Rhododendron</u> - <u>Pedicularis</u> - <u>Vaccinium</u>	5500'
7	1	C	1	2	a	<u>Cassiope</u> - <u>Vaccinium</u> - <u>Dryas integrifolia</u>	5500'
8	1	M	1	4		<u>Potentilla</u> - <u>Silene</u> - <u>Astragalus polaris</u>	6000'
9	1	M	1	4		<u>Silene</u> - <u>Sagina</u> - <u>Cetraria</u> - <u>Saxifraga caespitosa</u>	6100' - 6400'
10	1	M	1	4		<u>Dryas</u> - <u>Lloydia</u> - <u>Cetraria</u>	6400'
11	1	A	1	7	a	<u>Pinus</u> - <u>Picea glauca</u> - <u>Shepherdia</u>	2800'
12	1	A	1	7	a	<u>Pinus</u> - <u>Betula</u> - <u>Shepherdia</u>	2800'
13						<u>Woodsia</u> - <u>Cystopteris</u> on talus	3000'
14	1	A	1	7	a	<u>Pinus</u> - <u>Arctostaphylos</u> - <u>Pentstemon procerus</u> - <u>Senecio</u>	3200'
15	1	A	1	7	a	<u>Abies</u> - <u>Smilacina stellata</u> - <u>Hylaconium</u>	3200'
16	1	A	1	7	a	<u>Picea glauca</u> - <u>Viburnum</u> - <u>Vaccinium vitis-idaea</u>	2800'
17	2	G	2	1		<u>Pentstemon gormanii</u> - <u>Elymus innovatus</u>	2800'
18							
19							
20							

Please give information about further communities on a separate sheet

9. Landscape

1. General Landscape (give brief description) Steepy dissected mountains landscape with a stream with waterfall, several mountain peaks, large expanses of alpine tundra.

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2. Relief Type

	Flat	Undulating (0)-200 m.	Hilly 200-1000 m.	Mountainous > 1000 m.	%
Sharply dissected				40	40
Gently dissected				50	50
Incised				10	10
Skeletonised					
%				100	100%

3. Special landscape features (list) Mountain peaks (6350'), waterfall, stream

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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		
Standing		
Running	X	

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps				
Ponds	X			
Lakes				

3. Running Water

east boundary of proposed reserve

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

4. Special freshwater features stream with a waterfall

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*)

1. Fresh Lake River Stream
 Good Hope Lake

2. Salt and Brackish

Estuary	Salt lake	Salt pool	Lagoon	Ocean		

4. Flora

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

Very rich area with great diversity of plant associations of tree zones

— Boreal white and black spruce (BWBS)

— Subalpine spruce - fir - willow - birch (SFWB)

— Alpine tundra (AT)

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16. Significant Human Impact

1. General : None in entire IBP Area*
 None in part of IBP Area*
 Impact on entire IBP Area* negligible

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	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	

(probable)

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	

*except for species covered by game laws

18. References

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

Sheet attached? Yes No^X.....

2. List main maps available for the IBP Area.

Nat. Topo. Series Sheet 104P - McDame (1:250,000); 104 P/6 Ed. 1 ASE Series A 721

List attached? Yes No^X.....

Good Hope Lake (1:50,000)

3. Aerial photographs for the IBP Area available?

For whole area^X..... For part of area None

19. Other Relevant Information

Exceptionally rich and interesting area, from points of view of flora, fauna and scenery. Great diversity within a relatively small area.

Jim Pojar K. I. Beamish

Signed L.K. Wade, K.I. Beamish, J. Pojar,
(Surveyor) G. Otto, A. Guppy