

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

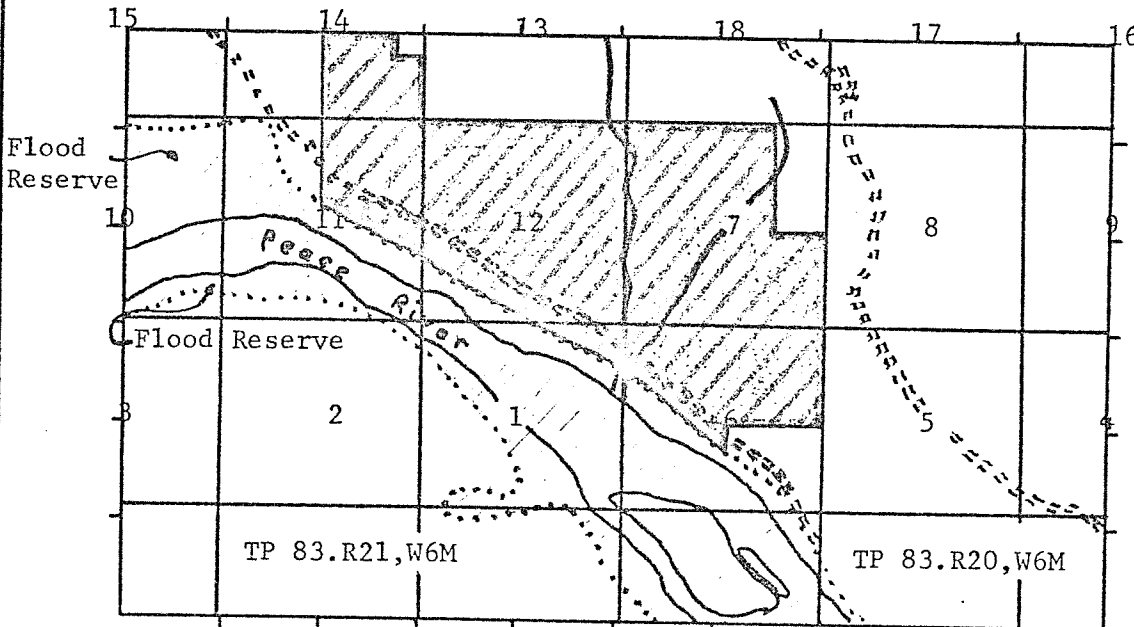
Serial Number

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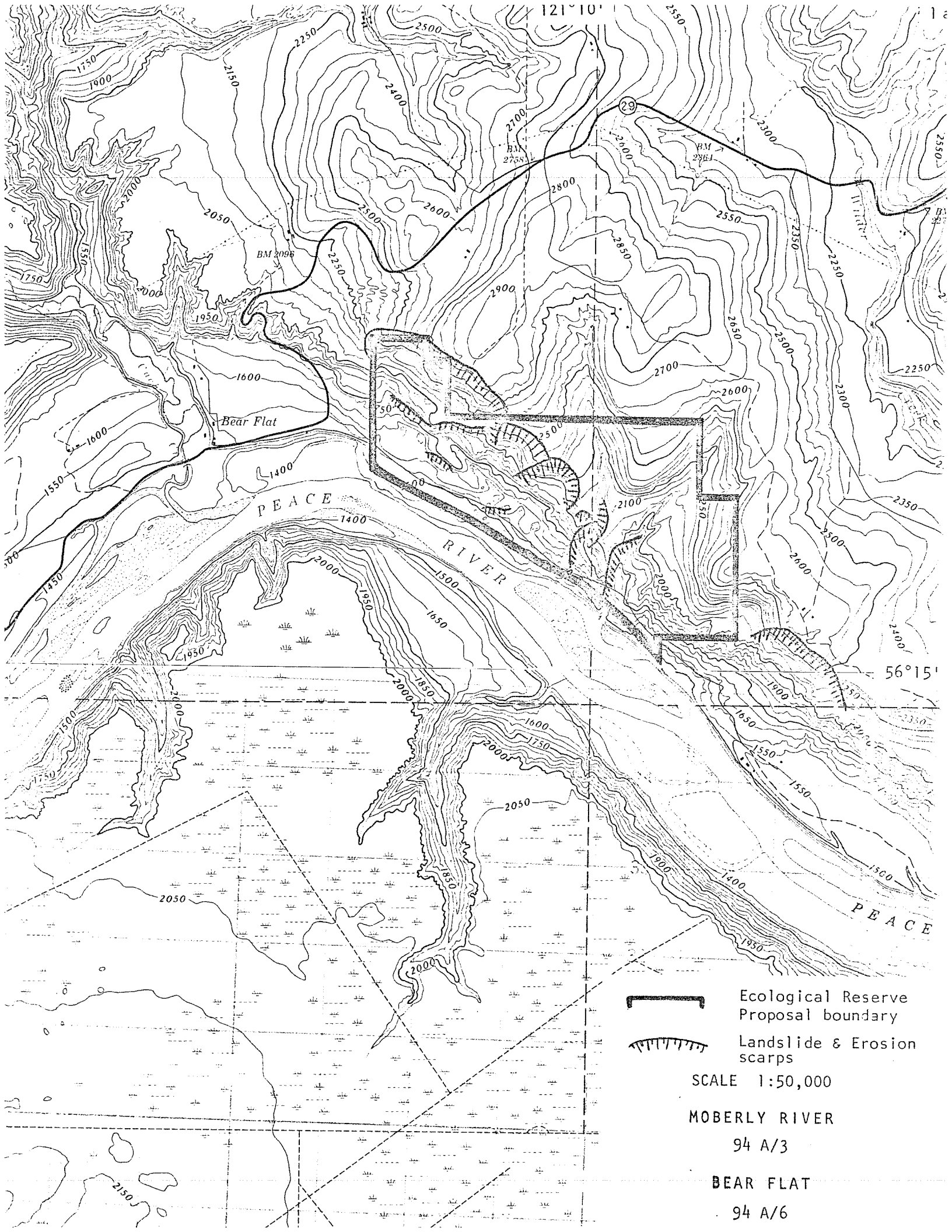
For Data Centre Use only

1. Name of surveyor * Dr. J. Elliott and B. Webster; **T.C. Brayshaw and C.C. Chuang
2. Address of surveyor * 9711 - 100th Avenue (Fish & Wildlife Branch)
Fort St. John, B.C.
** B.C. Provincial Museum, Victoria, B.C. V8W 1A1
3. Check Sheet completed (a) on site (b) from records
4. Date Check Sheet completed September 1975

2. Name of IBP Area Bear Flats
2. Name of IBP Subdivision (or serial letter) BWBS (Peace River Parklands)
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.



Bear Flat

PEACE RIVER

PEACE



Ecological Reserve Proposal boundary

Landslide & Erosion scarps

SCALE 1:50,000

MOBERLY RIVER

94 A/3

BEAR FLAT

94 A/6

3. Location of IBP Area*

1. Latitude.....56.....° 15.05-17' N Longitude...121°.....° 8.2-12.2' W
2. Country ..Canada.....
- State or Province ..British Columbia..... County ..Caribou.....
- (State or Province County ..Peace River Land District.....)

4. Administration

- National 1. Official category Crown Land.....
2. Address of administration Department of Lands.....
- 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) ..approximately 1818 acres.....
2. Altitude (state units of measurement) Maximum 2,500 feet (760 m).....
- Minimum 1,500 feet (455 m).....

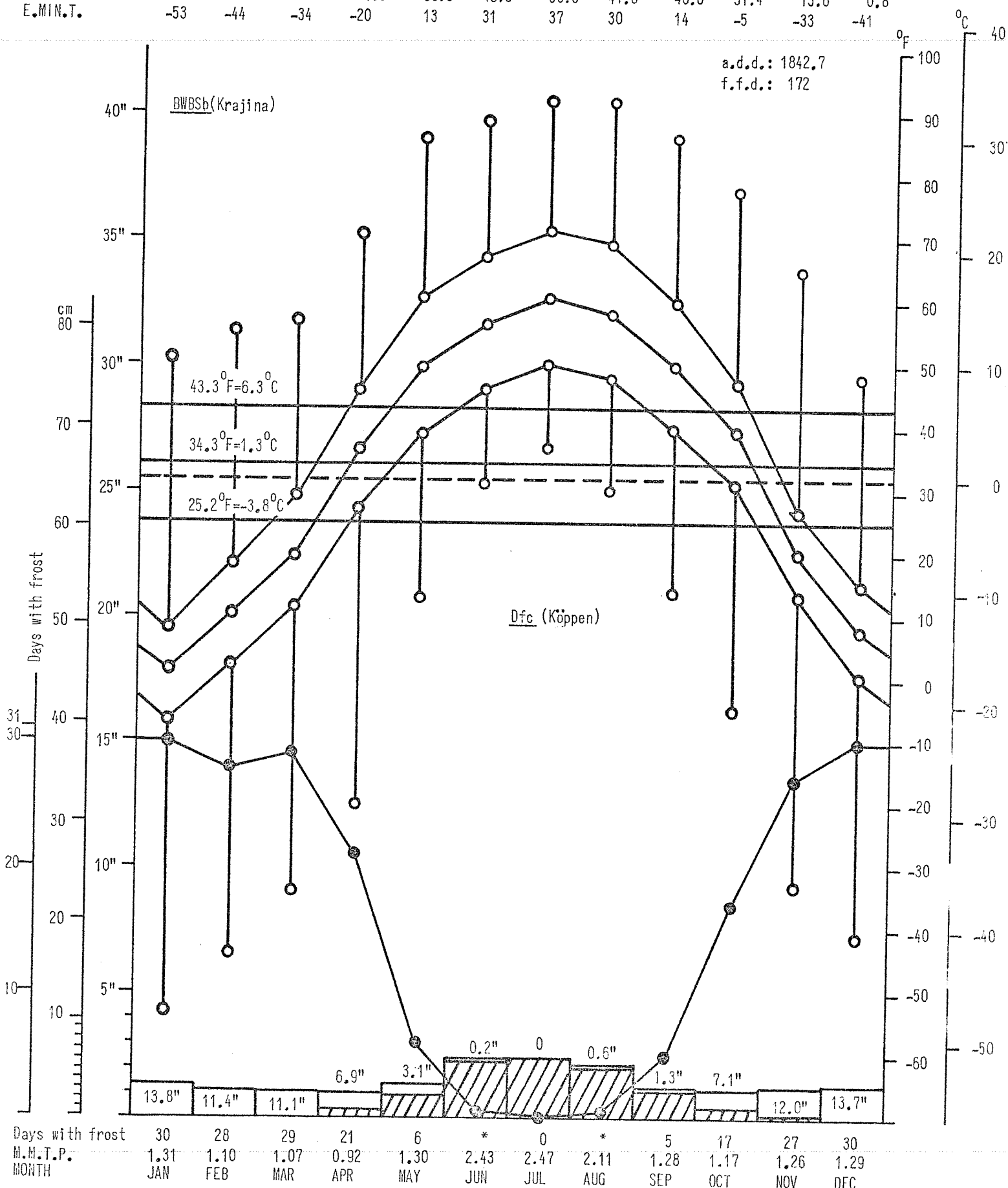
6. Climate

Nearest climatological station :

1. Name Fort St. John Airport.....
2. Climatological station on IBP Area*? Yes No ..X.....
3. If (2) not, distance from edge of IBP Area* (state units) 26 km (16 mi.).....
4. Direction from IBP Area* East.....
5. Additional data sheet attached? Yes ..X..... No ..

FORT ST. JOHN AIRPORT 56°14'N, 120°44'W, 2275' ASL. Record: 25-29 years. 159
 Months above 50°F: 3, below 32°F: 5, A.M.T.P. 17.71", A.M.S.F. 81.2", snow % A.M.T.P.: 45.85, days with frost, yearly: 193.

E.MAX.T.	51	55	57	71	86	89	92	92	86	78	65	48
M.D.MAX.T.	8.7	18.8	29.2	45.9	60.6	67.0	71.2	69.0	59.7	47.5	27.0	15.4
M.D.T.	1.0	10.5	20.4	36.5	49.7	56.5	60.6	58.4	49.9	39.5	20.3	8.1
M.D.MIN.T.	-6.8	2.2	11.6	27.0	38.8	46.0	50.0	47.8	40.0	31.4	13.6	0.8
E.MIN.T.	-53	-44	-34	-20	13	31	37	30	14	-5	-33	-41



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	2	1		<i>Populus tremuloides</i> - <i>Amelanchier</i> - <i>Rosa acicularis</i> - <i>Shepherdia</i> forest	70%
2	1	A	1/2	7	a	<i>Picea glauca</i> - <i>Populus tremuloides</i> forest	very small
3	1	M	2	1		<i>Stipa</i> spp. - <i>Agropyron</i> spp. grassland	10%
4	1	K	2	1		<i>Rosa acicularis</i> - <i>Symphoricarpos</i> <i>occidentalis</i> - <i>Amelanchier</i> - <i>Agropyron smithii</i>	5%
5	1	M	2	1		<i>Artemisia frigida</i> - <i>Grindelia squarrosa</i> - <i>Apocynum androsaemifolium</i> - <i>Agropyron</i> <i>smithii</i> (eroding slopes)	10%
6	1	A	2	1		<i>Betula neoalaskana</i> - <i>Cornus stolonife-</i> <i>ra</i> - <i>Salix rigida</i> - <i>Carex</i> spp. moist forest near water	very small
7	1	M	2	2		<i>Glyceria grandis</i> - <i>Calla palustris</i> pond margin	very small
8	1	M	2	2		<i>Juncus balticus</i> - <i>Puccinellia</i> , ± saline seep	very small
9							
10							

Please give information about further communities on a separate sheet.

7.
(cont.)

2

Soil

Community Reference Number	Soil type	Other notes
1		
2		
3		<u>Soils not surveyed.</u>
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

E.R.P. #248 Bear Flats

- visited August 20, 1976 by T. C. Brayshaw and C. C. Chuang;
August 10, 1977 by J. B. Foster, J. Pojar

grassland on S & SW facing slopes (500 m alt.):

Artemisia frigida, *A. borealis*, (*A. longifolia*)
Agropyron spicatum, *A. subsecundum*, *A. smithii*
Poa juncifolia
(*Opuntia fragilis*)
Grindelia squarrosa
Astragalus tenellus
Antennaria microphylla
Aster pansus
Erigeron? *speciosus*
Potentilla hippiana, *P. gracilis*
(*Juniperus horizontalis*)
Anemone multifida
Oxytropis splendens, *O. campestris*
Monarda fistulosa
Koeleria cristata
Geum triflorum
Androsace septentrionalis
Muhlenbergia richardsonii

grassland @ 600 m:

Geum aleppicum
Elymus innovatus
Stipa spartea, *S. columbiana*, *S. viridula*
Agropyron spicatum, *A. caninum*
Potentilla pensylvanica, *P. arguta*
Rosa acicularis
Solidago spathulata
Linum perenne

eroding slopes:

Atriplex dioica
Eleagnus commutata
Aster pansus
Hieracium umbellatum

aspen woods:

Aster ciliolatus
Comandra pallida
Heuchera richardsonii
Galium boreale
Betula papyrifera
Prunus pensylvanicus
Salix pyrifolia
Thalictrum sp.

by pond:

Cinna latifolia
Beckmannia syzigachne
Glyceria grandis
Sium suave
Calla palustris
Lemna trisulca
Salix rigida
Galium trifidum
Calamagrostis canadensis

woodland swamp:

Betula neoalaskana
Calamagrostis canadensis
Rumex flaccidifolius

seepage/marsh:

Scirpus lacustris
Hordeum jubatum
Suaeda depressa
Hippuris vulgaris
Ranunculus gmelini
Puccinellia nuttalliana
Juncus bufonius, J. balticus
Bidens cernuum

Jim Pajar

BEAR FLATS

H. Roemer's Notes, July 3, 1981

Achillea millefolium
Agropyron smithii
Agropyron trachycaulum
Allium cernuum
Amelanchier alnifolia
Androsace septentrionalis
Anemone cylindrica
Anemone multifida
Antennaria corymbosa
Apocynum androsaemifolium
Arctostaphylos uva-ursii
Artemisia frigida
Aster laevis
Aster conspicuus
Betula glandulosa
Betula papyrifera
Carex pensylvanica
Cerastium arvense
Crepis intermedia
Deschampsia caespitosa
Eleagnus commutatus
Eleocharis kamtschatica
Elymus sp.
Epilobium sp. (v. narrow lvs)
Erigeron caespitosus
Erigeron glabellus
Festuca saximontana
Fragaria virginiana
Galium boreale
Geum aleppicum
Geum triflorum
hedysarum boreale
Hordeum jubatum
Juncus balticus
Koeleria macrantha
Lepidium sp.
Linum lewisii
Medicago sativa
Monarda fistulosa
Muehlenbergia richardsonis
Oxytropis splendens
Penstemon gracilis
Picea glauca
Poa interior
Poa pratensis
Populus tremuloides
Potentilla cf. diversifolia
Potentilla sp.
Prunus virginiana
Pulsatilla patens
Ranunculus sceleratus
Ribes idaeus
Ribes oxycanthoides
Rosa acicularis
Salix sp.
Schizachne purpurascens
Senecio cymbalarioides
Senecio pauperculus
Smilacina stellata
Solidago missouriensis
Symphoricarpus occidentalis
Taraxacum officinale
Thalictrum venulosum
Triglochin maritima
Urtica dioica
Vicia americana
Viola adunca

11. Freshwater within IBP Area*

1.

	Permanent	Intermittent
General	X	
Standing		
Running	X	X

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps	X	X		
Ponds	X		X	
Lakes				

3. Running Water

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

4. Special freshwater features

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12. Salt and Brackish Water within IBP Area*

N/A

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

2. Salt and Brackish

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

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

None

15. Exceptional Interest of IBP Area*

This area is one of the very few parcels of Crown Land remaining.....
 along the south-facing breaks of the Peace River. It would be of
 interest primarily for an experimental and teaching area.

16. Significant Human Impact

1. General : None in entire IBP Area*

None in part of IBP Area*

Impact on entire IBP Area* X

2. Particular

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

*Cattle

3. Additional details on each type of impact attached?

Yes No X

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					
Fauna		X			X				X			
Non-living	X			X			X					

18. References

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

Sheet attached? Yes No

Raup, H.M., 1934, Phytogeographical studies in the Peace and Upper Liard River regions, Canada, with a catalogue of the vascular plants.

2. List main maps available for the IBP Area.

List attached? Yes No

94 A/3 (Moberly River)
94 A/6 (Bear Flat)

3. Aerial photographs for the IBP Area available? Enclosed.

For whole area For part of area None

19. Other Relevant Information

See p. 12.

Signed J. Elliot, B. Webster,
.....
(Surveyor)
T.C. Brayshaw, C.C. Chuang

BEAR FLAT I.B.P. ECOLOGICAL RESERVE CANDIDATE SITE

Remarks on Condition of Area

The hill slopes on and adjacent to the area, which overlook the Peace River, are obviously very unstable. The landscape is characterized by a series of breaks and scarps that mark the sites of former massive landslides, while the hummocky terrain below these scars marks where the slumping land came to rest. The accompanying map shows in brown the locations of the main scars. A photograph of a recent (1973) landslide a few miles upstream is included to show the kind of movement.

In addition to the spasmodic massive land movement, erosion of a more insidious form, as surface erosion, is continuous. This surface erosion affects not only the landslide scars, but also the vegetated slopes. The underlying shaly strata weather into a heavy dark clay, that when wet becomes semi-liquid and very slippery. After rain, masses of this material break loose from the steeper slopes and slither down on self-lubricating tracks, flattening the vegetation that is in the way (see photos). Such eroding slopes are revegetated only very slowly and with difficulty.

The Reserve site is subject to heavy grazing by cattle and some horses. The Reserve area is surrounded on three sides by ranches, but, in conversation with staff of the B.C. Forest Service Ranger Station in Ft. St. John, we got the impression that no grazing permits are issued for this area. It could be debated whether the grazing intensity is a cause of the surface erosion that is taking place; but it is our impression that it is at least aggravating a situation that is already highly erosion-prone.