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.)
Lava beds near Zolzap Creek, Nass River Basin

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

CWHa

4. Approximate total acreage.

1800 acres

5. Purpose of the reserve. To preserve outstanding plant communities established over the lava beds after the last eruption.

(a) Primary (state acreage)

1800 acres

(b) Others if any (state acreage)

(c) Buffer areas (state acreage)

the remaining lava beds which should become a Provincial Park

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.
There are no commercial forest stands in the whole proposed area. Slightly better growth of trees is along the Zolzap Creek, but they should be preserved otherwise this whole area will be damaged by logging operations.

Signature V.J.Krajina & K.Klinka
I.B.P. Surveyor

Appl. no. 117.

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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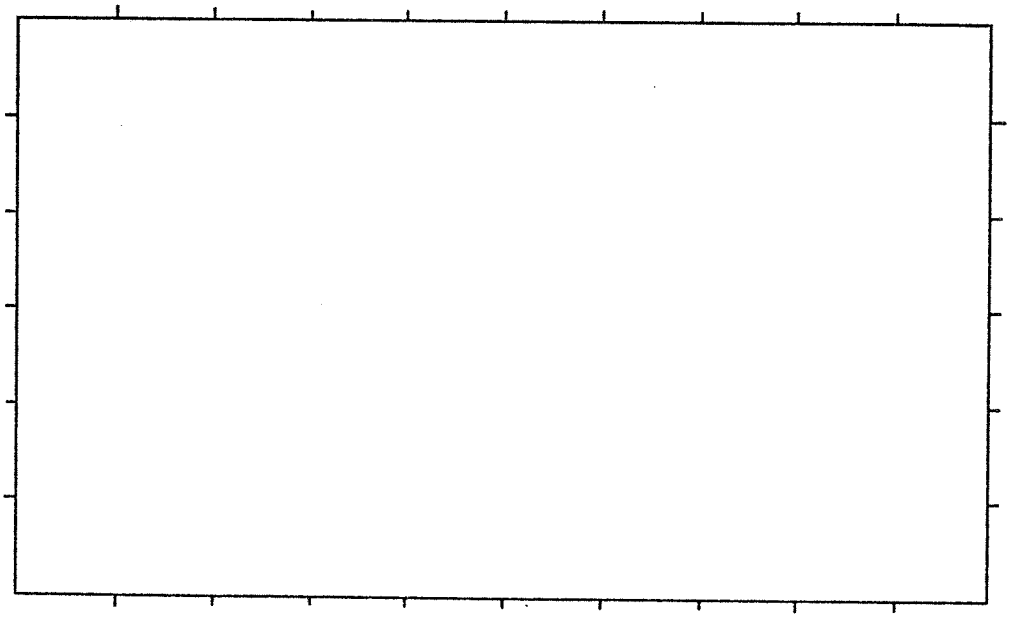
1.

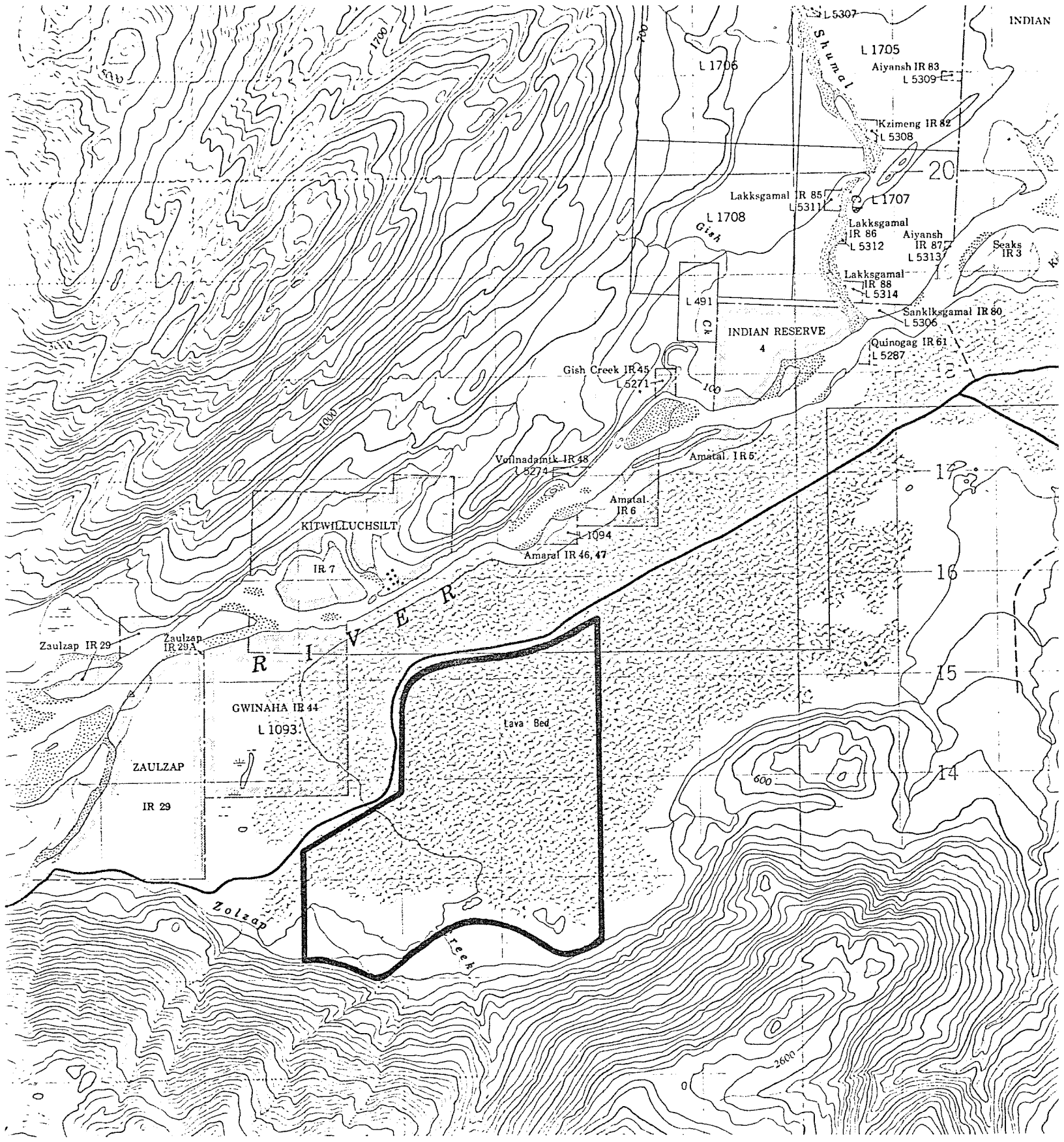
1. Name of surveyor V.J. Krajina*), K.Klinka, J.B.Foster, R.G.McMinn, R.M. Annas, M. Feller and V.J.P.Krajina
2. Address of surveyor *) Department of Botany
   University of British Columbia
   Vancouver 8, B.C., Canada
3. Check Sheet completed (a) on site X (b) from records X
4. Date Check Sheet completed October 12, 1973

2.

1. Name of IBP Area Lava beds near Zolzap Creek, Nass River Basin
2. Name of IBP Subdivision (or serial letter) CWHa
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.



TSEAX RIVER

CASSIAR DISTRICT

BRITISH COLUMBIA

Scale 1:50,000 Échelle

Miles 1 0 1 2 3 Milles

Metres 1000 0 1000 2000 3000 4000 Mètres

Yards 1000 0 1000 2000 3000 4000 Verges

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3. **Location of IBP Area***

1. Latitude 55 ° 09-12' N Longitude 129 ° 11-14.5' W
2. Country Canada
   State or Province British Columbia County Terrace
   (State or Province ..... County .....)

4. **Administration**

National 1. Official category Crown Lands (Tree Farm License no. 1)

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***

1. Surface area (state units of measurement) 1800 acres
2. Altitude (state units of measurement) Maximum 110' (33 m)
   Minimum 90' (27 m)

6. **Climate**

Nearest climatological station :

1. Name Aiyansh
2. Climatological station on IBP Area*? Yes ..... No X
3. If (2) not, distance from edge of IBP Area* (state units) 8 mi.
4. Direction from IBP Area* SW
5. Additional data sheet attached? Yes ..... No X

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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	0	2	1		Stereocaulonetum tomentosi	
2	1	0	1	2		Cladonio - Rhacomitrietum lanuginosi	
3	R	G	1	2		Sedetum divergentis (after fire)	
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

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7. (cont.) 2 **Soil**

Community Reference Number	Soil type	Other notes
1	AC F_3	Ranker
2	AC F_3	Ranker
3	AC F_3	Ranker (affected by fire)
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

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8. Similar Communities in Country (or State)

Community Reference Number	Protected					Protected and Unprotected				
	Abundant	Infrequent	None known	Decreasing	Increasing	Abundant	Infrequent	None known	Decreasing	Increasing
1			X					X		
2			X					X		
3			X					X		
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

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9. **Landscape**

1. General Landscape (give brief description) mostly pahoehoe lava beds, broken in several places probably by sunken lava tubes

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) sunken lava tubes and pahoehoe lava beds

10. **Coastline of IBP Area***

1. Protected bays and/or inlets — Many [ ] Few [ ] None [X]

2. Substratum. % of coast

Rock	Boulder Beach	Shingle Beach	Sand Beach	Shell Beach	Mud	Coral	Ice

3. Physiography. % of coast

Cliffed	Sloping	Flat

4. Special Coastal Features (list) .....

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

6. Total length of coastline :

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

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11. Freshwater within IBP Area*

1.

	Permanent	Intermittent
General		
Standing		
Running	X	X

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps				
Ponds				
Lakes				

3. Running Water

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

4. Special freshwater features .....

.....

12. Salt and Brackish Water within IBP Area* nil

Salt Lakes		Lagoon		.....	
Estuaries		Salt pools		.....	

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

1. Fresh [ ] Lake [ ] River [X] Stream [ ]

Nass River

2. Salt and Brackish nil

Estuary	Salt lake	Salt pool	Lagoon	Ocean		

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

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

Polystichum lonchitis, Trisetum spicatum (alpine & arctic element), Abies lasiocarpa (subalpine species at the elevation of 30 m a.s.l.), Tsuga heterophylla x T. mertensiana

15. **Exceptional Interest of IBP Area***

This area should be strictly preserved and not affected by any number of tourists who might easily destroy the most fragile vegetation of lichens and mosses (especially in dry spells of the summer).

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16. **Significant Human Impact**

1. General : None in entire IBP Area* .....
   substantial
   None in part of IBP Area* X (a small area was burned out and there is an interesting succession in development)
   Impact on entire IBP Area* .....

2. Particular

	Past impact	Present impact	Trend: Increasing	Trend: Decreasing	Trend: No change	Trend: 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		some Indians probably walked here
Recreation and tourism					X		
Research					X		

3. Additional details on each type of impact attached?

Yes ..... No X .....

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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 .....

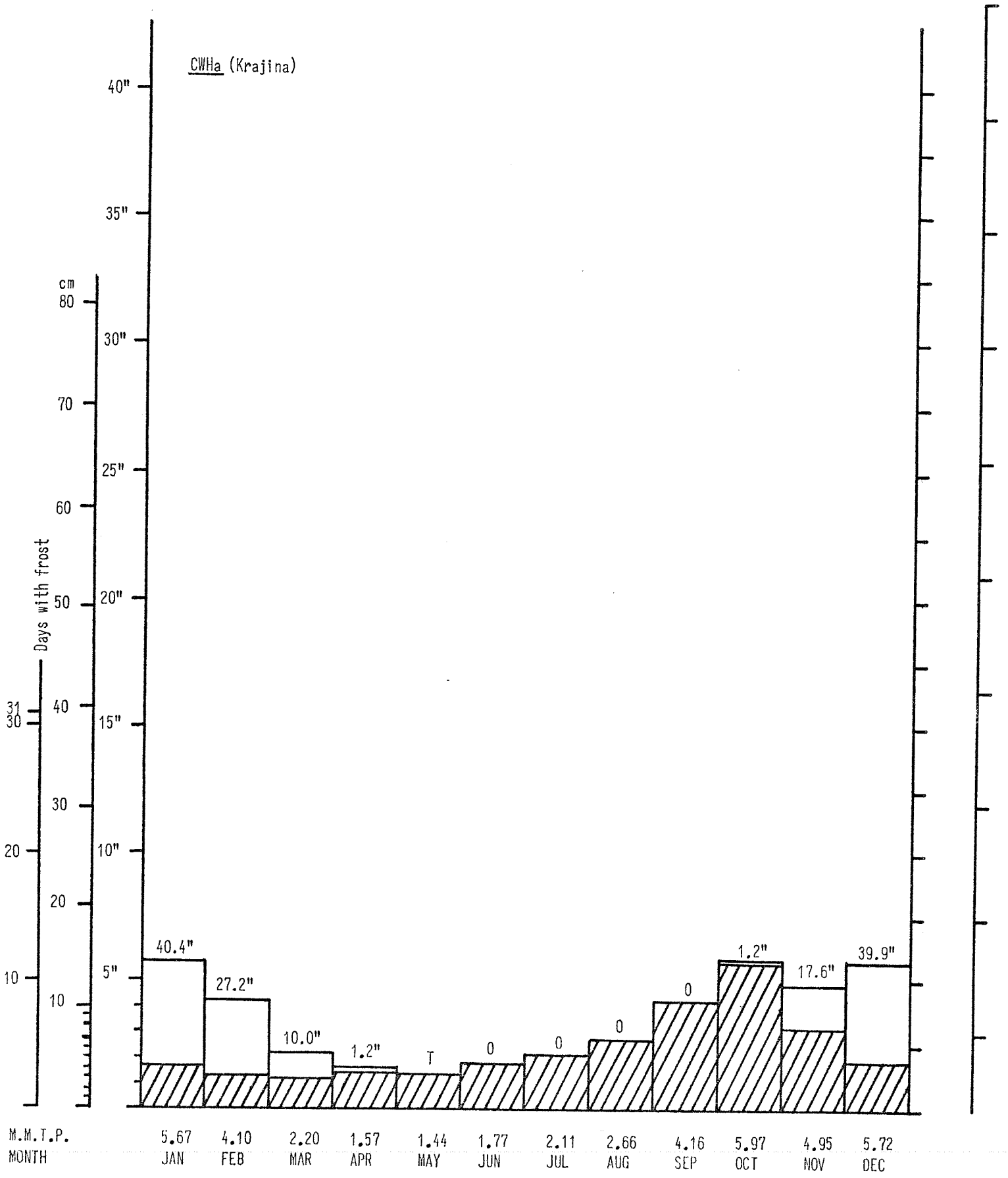
19. **Other Relevant Information**

It is expected that all the lava beds will be protected by a certain protection (Provincial Park?), however, this area should be more strictly protected by an ecological reserve (similarly as areas designated by applications nos. 113-116) as to ensure that at least some parts of lava beds will remain completely undisturbed.

Signed V.J.Krajina & K.Klinka

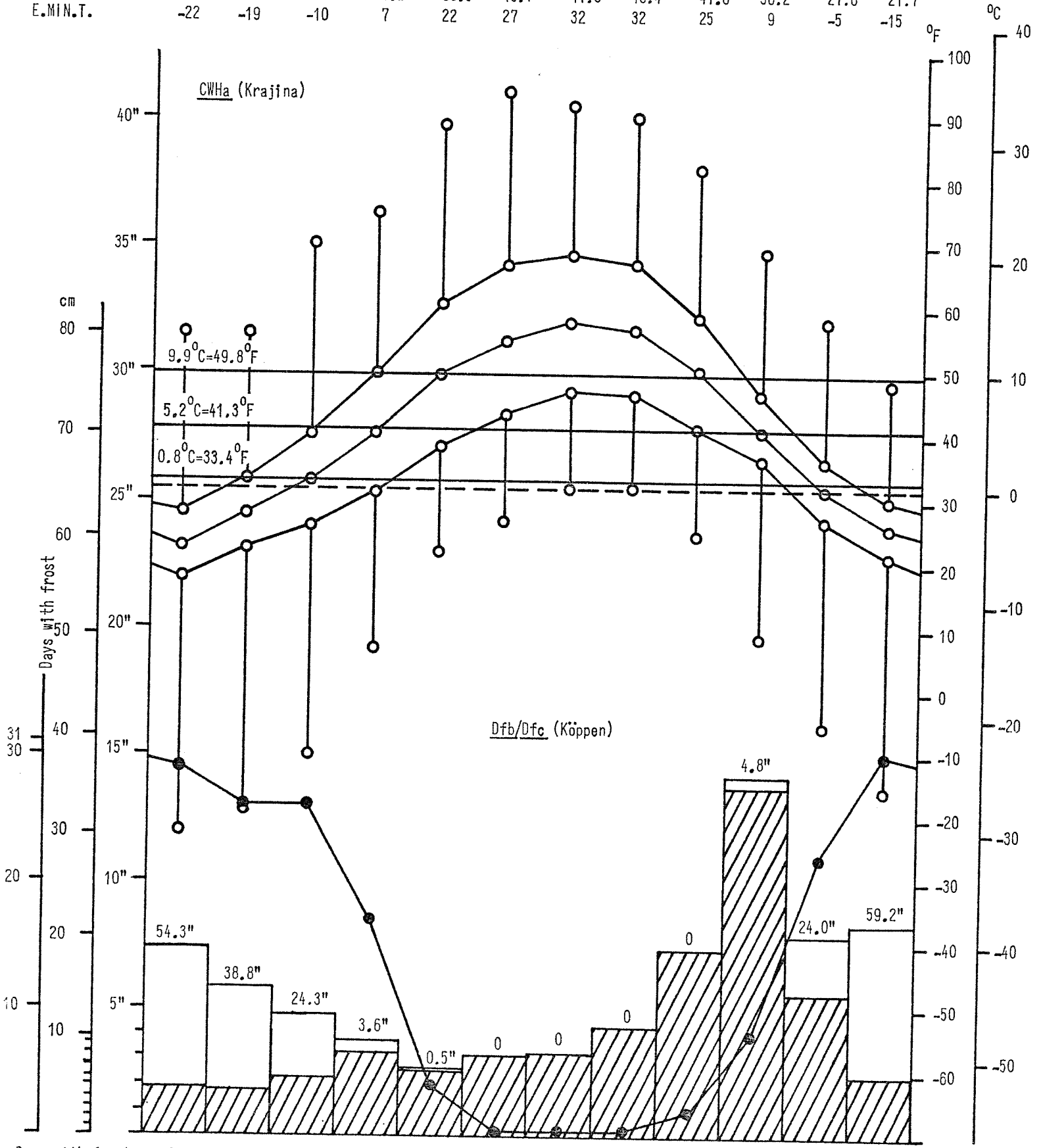
(Surveyor)

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.



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. 51.31", A.M.S.F. 209.5", snow % A.M.T.P.: 40.84, 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