

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

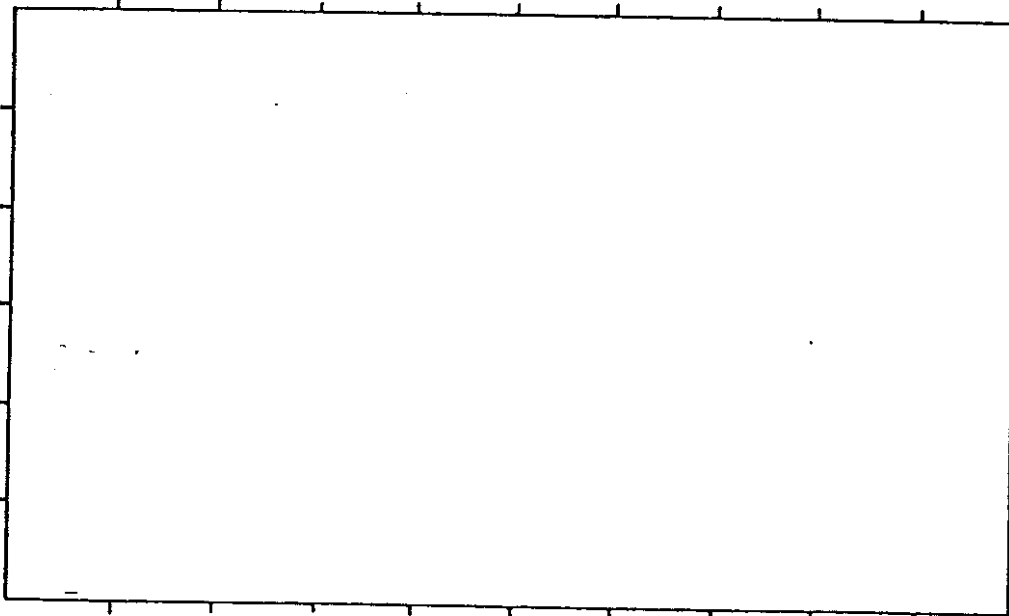
Serial Number

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For Data
Centre Use
only

1. 1. Name of surveyor s. A. & O. Ceska*, J. Pojar**, H. Roemer***
 2. Address of surveyor *Biology Dept., University of Victoria
 **Research Div., B.C. Forest Service, Smithers
 ***Ecological Reserves Unit, Victoria
 3. Check Sheet completed (a) on site (b) from recordsX.....
 4. Date Check Sheet completed January, 1981

2. 1. Name of IBP Area Trial Islands
 2. Name of IBP Subdivision (or serial letter)
 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.

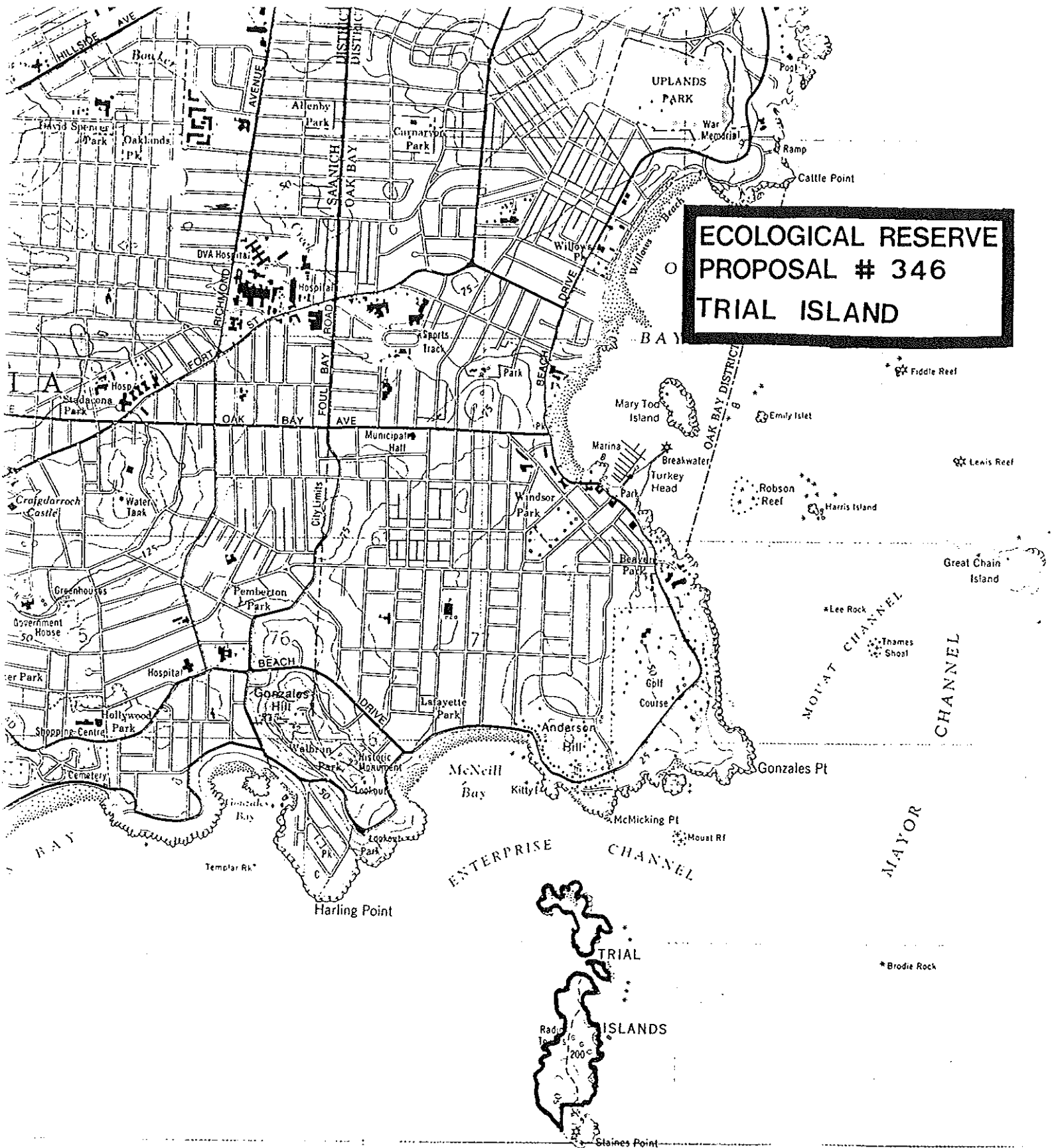


* For "IBP Area", read IBP Area and/or IBP Subdivision.

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.)
Trial Islands, 1 km south of Anderson Hill, Municipality of Oak Bay, Victoria, B. C.
3. Indicate the biogeoclimatic zone of which the reserve is representative.
Coastal Douglas fir zone, dry subzone (CDF a)
4. Approximate total acreage.
23 ha
5. Purpose of the reserve.
To permanently protect the most outstanding assemblage of rare and endangered species in B.C.
 - (a) Primary (state acreage)
23 ha
 - (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.
scrub Garry oak and trembling aspen

Signature(A. Ceska, H. Roemer)
I.B.P. Surveyor



**ECOLOGICAL RESERVE
PROPOSAL # 346
TRIAL ISLAND**

VICTORIA

92 B/6f&g

EDITION 3

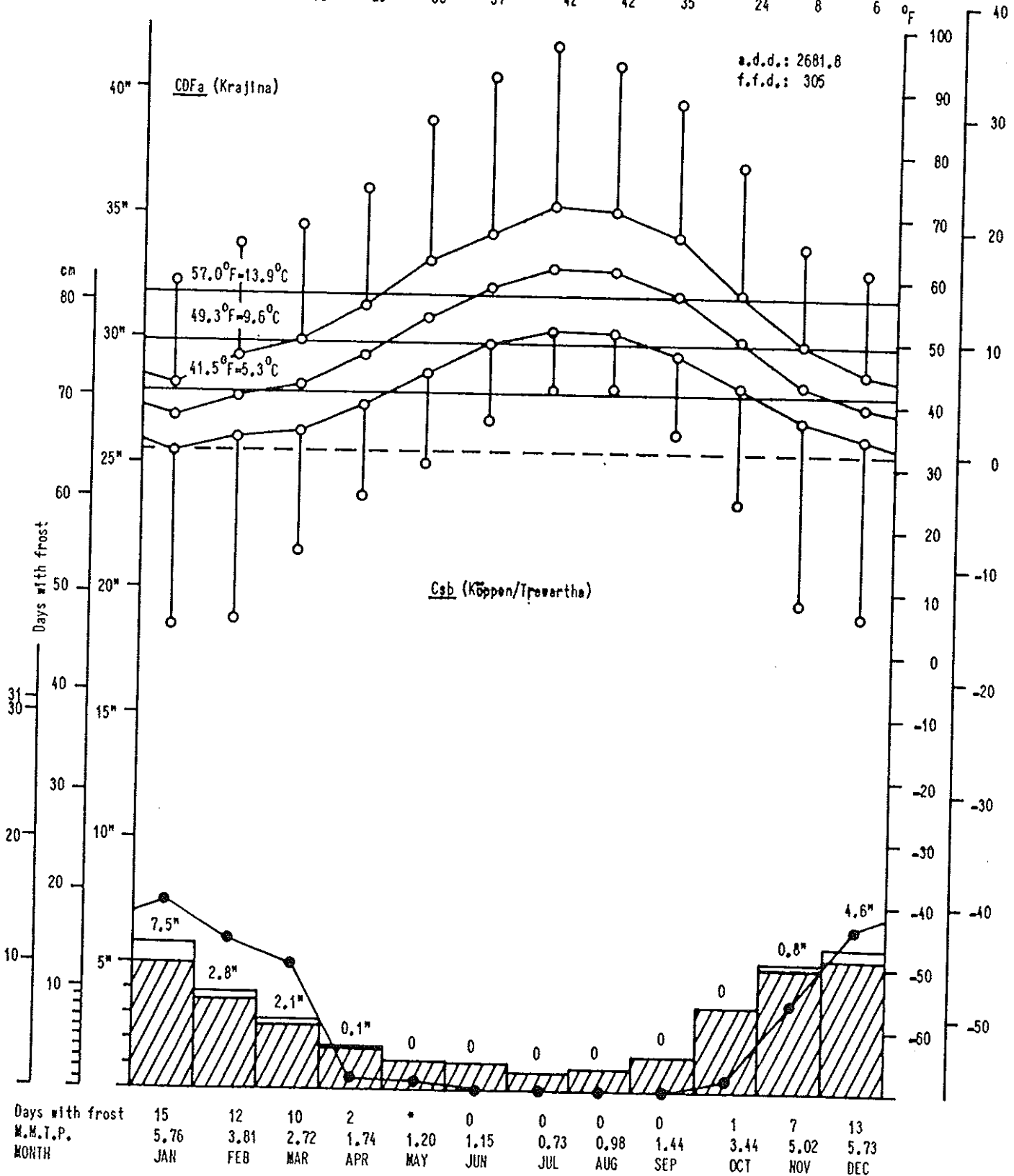
Scale 1:25,000 Échelle

N D E F U C A S T R A I T

VICTORIA INTERNATIONAL AIRPORT 48°39'N, 123°26'W, 67' ASL. Record: 30-31 years. 262

Months above 50°F: 5, below 32°F: 0, A.M.T.P. 33.72", A.M.S.F. 17.9", snow % A.M.T.P.: 5.30, days with frost, yearly: 60.

E.MAX.T.	59	65	68	74	85	92	97	94	88	78	65	61
M.D.MAX.T.	42.7	46.9	49.7	55.4	62.3	67.0	71.4	70.6	66.5	57.5	49.3	44.9
M.D.T.	37.3	40.5	42.4	47.4	53.4	58.1	61.5	60.9	57.1	50.0	43.2	39.6
M.D.MIN.T.	31.8	34.0	35.0	39.4	44.4	49.1	51.6	51.3	47.8	42.4	37.1	34.3
E.MIN.T.	4	5	16	25	30	37	42	42	35	24	8	6



ELEMENT and STATION	BRITISH COLUMBIA												YEAR	Type of Normal
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC		
000 VICTORIA GUNZALEZ HTS	LATITUDE 48 25 N LONGITUDE 123 19 W ELEVATION 228 FT ASL													
MEAN DAILY TEMPERATURE (DEG F)	39.3	42.4	44.3	48.7	53.8	57.3	60.2	59.9	57.7	51.6	45.0	41.4	50.1	1
MEAN DAILY MAXIMUM TEMPERATURE	43.0	46.9	49.8	55.1	61.0	64.5	68.0	67.3	64.7	56.8	49.0	45.0	55.9	1
MEAN DAILY MINIMUM TEMPERATURE	35.5	38.0	38.8	42.3	46.5	50.0	52.3	52.4	50.5	46.3	41.1	37.9	44.3	1
EXTREME MAXIMUM TEMPERATURE	56	62	69	75	85	95	95	91	89	77	66	59	95	1
NO. OF YEARS OF RECORD	72	71	72	72	72	72	71	72	72	73	73	73		
EXTREME MINIMUM TEMPERATURE	6	9	19	28	34	39	43	40	35	27	12	4	4	1
NO. OF YEARS OF RECORD	72	71	72	72	72	72	71	72	72	73	73	73		
NO. OF DAYS WITH FROST	8	3	2	6	0	0	0	0	0	0	1	4	18	1
MEAN RAINFALL (INCHES)	3.66	2.81	1.74	1.33	0.84	0.84	0.49	0.77	1.30	2.91	3.68	4.23	24.60	1
MEAN SNOWFALL	5.7	1.7	1.9	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.5	3.0	12.9	1
MEAN TOTAL PRECIPITATION	4.21	2.98	1.93	1.35	0.84	0.84	0.49	0.77	1.30	2.91	3.73	4.52	25.87	1
GREATEST RAINFALL IN 24 HRS	3.05	3.18	2.10	1.45	1.48	1.32	0.85	1.01	1.70	2.00	2.71	3.19	3.19	1
NO. OF YEARS OF RECORD	72	72	71	72	72	72	71	71	72	72	73	73		
GREATEST SNOWFALL IN 24 HRS	11.0	21.0	7.0	2.9	0.0	0.0	0.0	0.0	0.0	0.0	8.5	10.4	21.0	1
NO. OF YEARS OF RECORD	72	72	72	72	72	72	71	71	72	73	73	73		
GREATEST PRECIPITATION IN 24 HRS	3.05	3.18	2.10	1.45	1.48	1.32	0.85	1.01	1.70	2.00	2.71	3.19	3.19	1
NO. OF YEARS OF RECORD	72	72	71	72	72	72	71	71	72	72	73	73		
NO. OF DAYS WITH MEASURABLE RAIN	16	13	14	11	8	7	5	6	8	15	17	18	138	1
NO. OF DAYS WITH MEASURABLE SNOW	4	1	1	6	0	0	0	0	0	0	1	2	9	1
NO. OF DAYS WITH W. PRECIPITATION	18	14	14	11	8	7	5	6	8	15	17	19	142	1

3. Location of IBP Area*

- 1. Latitude 48° 23.4-24.2' N/S Longitude 123° 18.1-18.2' E/W
- 2. Country Canada
- State or Province British Columbia County
- (State or Province County)

4. Administration

- National - Official category Crown land
- 2. Address of administration Ministry of Lands, Parks and Housing
- Parliament Buildings
- Victoria, B. C. V8V 1X4
-
-

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*

- 1. Surface area (state units of measurement) 23 ha
- 2. Altitude (state units of measurement) Maximum 20 m
- Minimum 0 m

6. Climate

Nearest climatological station :

- 1. Name Victoria Gonzales
- 2. Climatological station on IBP Area*? Yes No .X.
- 3. If (2) not, distance from edge of IBP Area* (state units) 2 km
- 4. Direction from IBP Area* northwest
- 5. Additional data sheet attached? Yes .X. No

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	2	H	2			<i>Xanthoria - Parmelia - Ochrolechia</i> lichen community	
2	2	H	2			<i>Sedum spp. - Cladonia spp.</i>	
3	1	M	2	1		<i>Elymus mollis - Lathyrus japonicus</i>	
4	1	M	2	2		<i>Salicornia pacifica - Distichlis spicata</i>	
5	1	M	2	1		<i>Plantago bigelovii - Plagiobotrys scouleri</i>	
6	1	M	2	1		<i>Aira praecox - Festuca myuros - Camassia quamash</i>	
7	1	M	2	1		<i>Camassia quamash - Ranunculus occidentalis</i>	
8	1	M	2	1		Tall forb vegetation in various combinations with #7	
9	1	B	2	1	a	(<i>Quercus - Populus-</i>) <i>Symphoricarpos a. - Rosa n.</i>	
10							

Ecological Reserve Proposal 346

Trial Islands

Partial list of plant communities, species
 compiled from notes of Dr. A. Ceska (1974,76,80)
 Dr. J. Pojar (1977)

1. Xanthoria - Parmelia - Ochrolechia. Lichen community with occasional vascular plants on exposed shore rocks (entrophicated by organic debris, shells, sea spray).
 - Xanthoria elegans*
 - Parmelia saxatilis & taractica*
 - Ochrolechia sp.*
 - Plantago maritima*
 - Atriplex patula*
 - Festuca rubra*
 - Sagina crassicaulis*

2. Sedum - Cladonia. Various similar communities on rocky ground, less exposed to sea spray than #1.
 - Sedum lanceolatum var. nesioticum*
 - Sedum spathulifolium*
 - Grindelia integrifolia*
 - Rumex acetosella*
 - Eriophyllum lanatum*
 - R4* *Polygonum paronychia*
 - Cladonia uncialis*
 - Cladonia gracilis*
 - Cladonia pacifica*
 - Parmelia saxatilis*

3. Elymus mollis - Lathyrus japonicus. Small gravel beaches and among driftwood
 - Elymus mollis*
 - Lathyrus japonicus*
 - Achillea millefolium*
 - Grindelia integrifolia*
 - Vicia gigantea*
 - Galium aparine*

4. Salicornia pacifica - Distichlis spicata. Salt marsh.
 - Salicornia pacifica*
 - Distichlys spicata*
 - Spergularia canadensis & macrotheca*
 - Juncus balticus*
 - Puccinellia nutkaensis*
 - Plantago maritima*
 - (*Carex lyngbyei*)
 - Atriplex patula*

* see table on p. 5

5. Plantago bigelovii - Plagiobotrys scouleri. Vernal pool communities (very variable).

R4 ~~Plantago~~ *Plantago bigelovii*
 R4 *Plantago elongata*
Plagiobotrys scouleri
 R4 *Aira praecox*
 R3 *Myosurus minimus*
Aphanes occidentalis
 R2 *Limnanthes macconnii*
 R2 *Osoetes nuttallii*
 R4 *Agrostis microphylla*
 R2 *Anagallis minima*
 R1 *Orthocarpus bracteosus*
 R1 *Orthocarpus castillejoides*
 R4 *Orthocarpus pusillus*
Arenaria sp.
 R3 *Tillaea aquatica*
 R1 *Alopecurus carolinianus*

6. *Aira praecox - Festuca myurus - Camassia quamash.* "Vernal sward".
 on shallow soil over bedrock.

Aira praecox
Aira caryophyllea
Festuca myurus & megalura
Camassia quamash
Bromus mollis
Festuca rubra
Armeria maritima
Rumex acetosella
Plectritis congesta
Collinsia parviflora
Lomatium utriculatum
Aphanes occidentalis
Allium acuminatum
Hypochaeris radicata & glabra
Lupinus bicolor
Montia perfoliata var. glauca
 R2 *Montia dichotoma*
Saxifraga integrifolia
 R1 *Sanicula arctopoides*
Brodiaea coronaria
Dodecatheon hendersonii
Orthocarpus pusillus
Orthocarpus castillejoides
Festuca pacifica

7. Camassia quamash - Ranunculus occidentalis. Meadows on deeper soil, dry.

Camassia quamash
Ranunculus occidentalis
Cynosurus echinatus
Festuca rubra
Zygadenus venenosus
Fritillaria lanceolata
Dodecatheon pauciflorum
Plantago lanceolata
Plectritis congesta
Achillea millefolium
Luzula campestris
Festuca megalura
Bromus rigidus
Bromus sterilis
Allium cernuum
Trifolium tridentatum
Trifolium variegatum
Bromus mollis
Lomatium nudicaule
Lotus micranthus
R1 *Lotus formosissimus*
R3 *Habenaria greenei*
R? *Castilleja levisecta*
Taraxacum officinale
Orobanche uniflora
R3 *Orobanche grayana*
Cerastium arvense
Vicia sativa
Vicia hirsuta
Viola adunca
Sisyrinchium angustifolium
Brodiaea hyacinthina
R? *Danthonia californica*
Myosotis versicolor
Poa compressa
R2 *Aster curtus*
R2 *Sanicula bipinnatifida*

8. Tall forb vegetation, in various combinations with #7 (mostly on moister ground).

Juncus arcticus & *balticus*
 R? *Deschampsia holciformis*
Sidalcea hendersonii
Calamagrostis nutkatensis
Agrostis tenuis
Artemisia douglasiana
Trifolium wormskjoldii
Ranunculus repens
Ranunculus occidentalis & "californicus"
Camassia leichtlinii
 (*Heracleum lanatum*)
 (*Pteridium aquilinum*)
Aster sp.

9. (*Quercus g.*, *Populus trem.-*) *Symphoricarpos* - *Rosa*. Very dense, wind-shaped thickets.

Quercus garryana
Populus tremuloides var. *vancouverensis*
Salix scouleriana
Salix hookeriana
Pyrus fusca
Symphoricarpos albus
Holodiscus discolor
Amelanchier alnifolia
Rosa nutkana & *pisocarpa*
Rubus ursinus
Pteridium aquilinum
Bromus carinatus
Elymus glaucus
Polystichum munitum
Dactylis glomerata
Erythronium oreganum
Galium aparine
Sanicula crassicaulis

Ot' r species of various communities

- Solidago canadensis*
Silene sp.
Arctostaphylos uva-ursi
Leontodon nudicaulis
Gnaphalium purpureum
R1 *Lupinus densiflorus*
Prunella vulgaris
Epilobium angustifolium
Rumex occidentalis
Carex obnupta
R2 *Poa confinis*
Veronica peregrina
Stellaria media
Apocynum androsaemifolium
Fragaria chiloensis
Mimulus guttatus
R2 *Lupinus littoralis*
R3 *Calandrinia ciliata*
Trifolium dubium
Oxytropis campestris (collection Dr. N. Turner)

* Rare and Endangered Species Committee (1978)

- R1 - Species occurring in B.C. in single or few populations
R2 - Species occurring in several populations, locally common
R3 - Widespread or scattered distribution, small populations
R4 - Restricted distribution, large populations
R? - Species rare, but its distribution is poorly known

7.
(cont.)

2

Soil

Community Reference Number	Soil type	Other notes
1	C	Lithosol
2	C	Lithosol
3	AC I ₂	Regosol
4	AC S ₁ /I ₂	Saline Regosol
5	AGC P _{1/2}	Rego-Humic Gleysol (gleyed Rendzina?)
6	A(B)C F ₄	Eutric to Sombric Brunisol
7	A(B)C F ₄	Eutric to Sombric Brunisol
8	A(B)C F ₄	Gleyed Sombric Brunisol to Orthic Humic Gleysol
9	A(B)C F ₅	Gleyed Sombric Brunisol
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

9. Landscape

1. General Landscape (give brief description) Small, rocky islands without forest cover

2. Relief Type

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

3. Special landscape features (list) reefs, cliffs, small gravel beaches

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
85	10			5			

3. Physiography. % of coast

Cliffed	Sloping	Flat
30	50	20

4. Special Coastal Features (list) as above

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		

2. Standing Water

	Permanent	Intermittent	Unproductive	Productive
Swamps				
Ponds				
Lakes				

3. Running Water

	Permanent	Intermittent
Springs, cold		
Springs, hot		
Streams		
Rivers		

4. Special freshwater featuresvernal pools.....
.....

12. Salt and Brackish Water within IBP Area*

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		
				x		

4. Flora

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

5. Names of main threatened, endemic, relict and rare species (compare detailed list, p.3b)
 6 species of rarity class 1, 8 species of class 2, 5 species of class 3 and 4 rare species of as yet incompletely known occurrence

15. Exceptional Interest of IBP Area*

The greatest known concentration of rare and endangered species within a very restricted area anywhere in British Columbia

16. Significant Human Impact

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

2. Particular

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

Lighthouse

3. Additional details on each type of impact attached?
 Yes No

17. Conservation Status (recommended:)

	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												
Non-living												

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. 92B/6, f & g 1:25,000

List attached? Yes No ..x.....

3. Aerial photographs for the IBP Area available?

For whole areax..... For part of area None

19. Other Relevant Information These islands have been proposed as the site of a sewage treatment plant.

South Trial Island has a lighthouse on its southern end and a radio transmitter (CFAX) is situated in the centre of the island. Antennae and anchors for these are located in areas of high floristic values, but present no excessive disturbance at this time.

Signed

(Surveyor)
(A. Ceska, H. Roemer)