

APPLICATION FOR ECOLOGICAL RESERVE

1. Legal description of the area (or general "Metes and bounds" description) The Botanical Beach area includes the seabed, overlying water column, shoreline and several islands, islets and rock outcrops enclosed by the boundaries of the extreme spring high water level and the 6 fathom (36 foot) depth contour between San Juan Point (48°31.9'N latitude) and the mouth of Tom Baird Creek (124°25.8'W longitude).
2. Geographical location (relate to nearest settlement, mountain, river, etc.) Botanical Beach is located near Port Renfrew, Vancouver Island, British Columbia. It is on the coast of Juan de Fuca Strait at the mouth of Port San Juan.
3. Indicate the biogeoclimatic zone of which the reserve is representative. The adjacent land to Botanical Beach belongs to the Coastal Western Hemlock zone.
4. Approximate total acreage.

3 3/4 square miles
5. Purpose of the reserve.
 - (a) Primary (state acreage)
 - (i) Conservation of a diverse assemblage of marine fauna and flora.
 - (ii) Preservation of an area of exceptional geological interest.
 - (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.

A list of conspicuous intertidal marine algae found in the area is given in Attachment I.

Signature D.V.Ellis and D.J. Steele
I.B.P. Surveyor

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

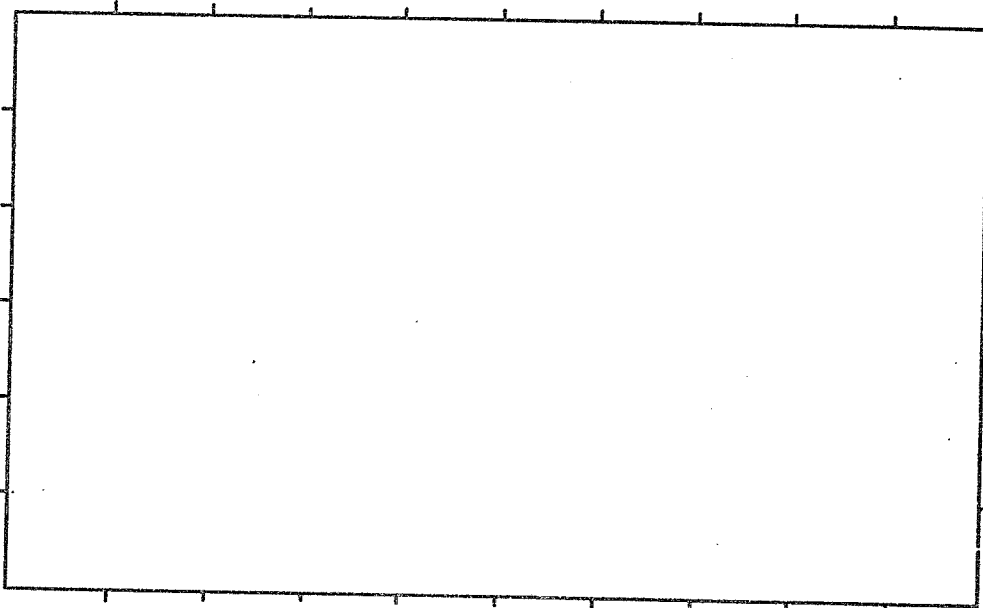
Serial Number

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For Data Centre Use only

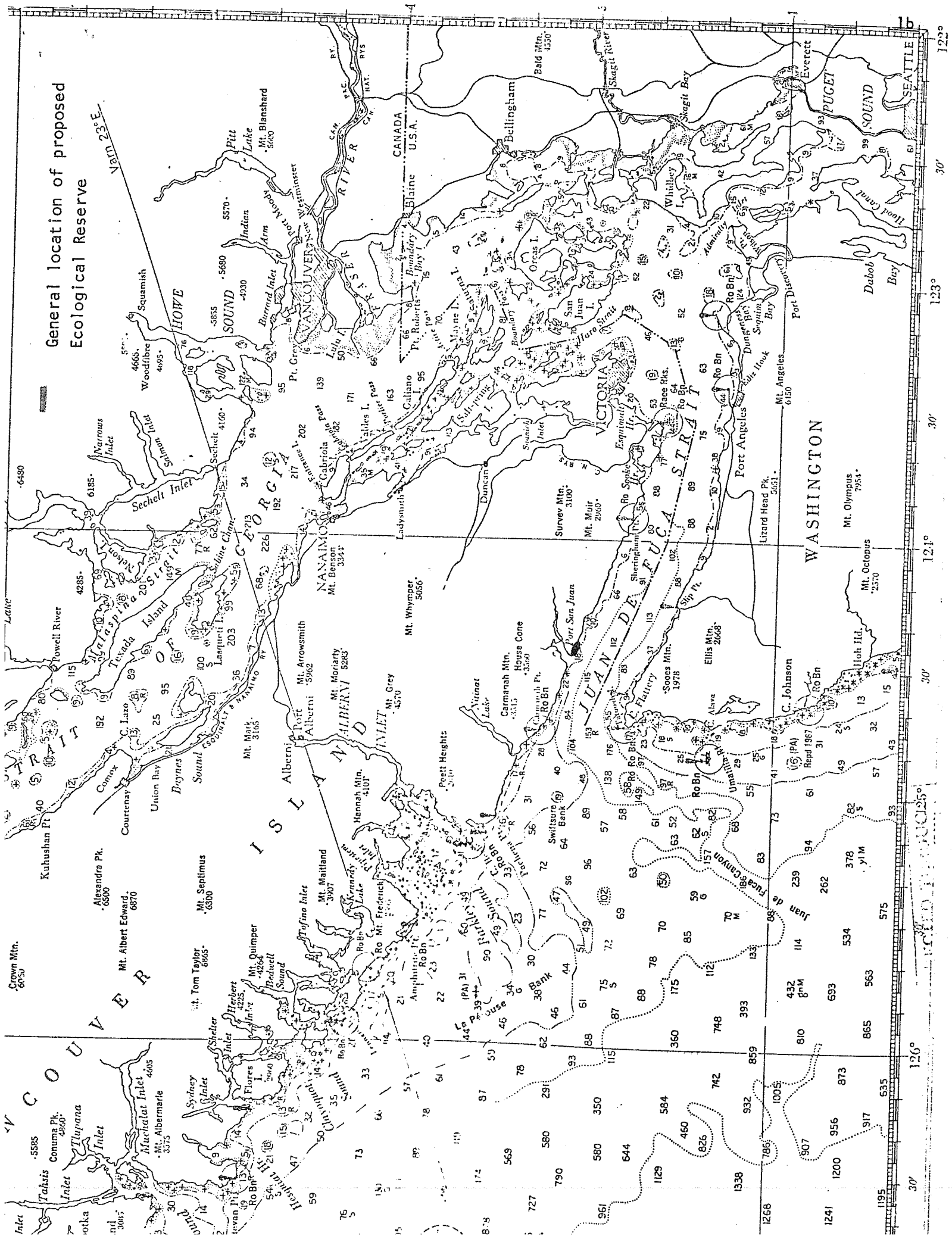
- 1.
1. Name of surveyor ... D.V. Ellis and D.J. Steele
 2. Address of surveyor Department of Biology
 - University of Victoria
 - Victoria, B.C.
 3. Check Sheet completed (a) on siteX..... (b) from recordsX.....
 4. Date Check Sheet completed July 30, 1974

- 2.
1. Name of IBP Area Botanical Beach, Port Renfrew
 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.

General location of proposed Ecological Reserve



3. Location of IBP Area*

- 1. Latitude $48^{\circ}31.25'$ to $48^{\circ}31.9'$ N Longitude $124^{\circ}23.9'$ to $124^{\circ}27.4'$ W
- 2. CountryCanada.....
 State or Province British Columbia County: Port Renfrew
 (State or Province County)

4. Administration

- National 1. Official category Crown Land
- 2. Address of administration Department of Lands, Forests and Water Resources
 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) <input checked="" type="checkbox"/>

5. Characteristics of IBP Area*

- 1. Surface area $3\frac{3}{4}$ square miles
- 2. Depth (state units of measurement) Maximum 36 feet
 Minimum

6. Climate

Nearest climatological station :

- 1. Name Port Renfrew
- 2. Climatological station on IBP Area*? Yes No
- 3. If (2) not, distance from edge of IBP Area* (state units) 2 miles
- 4. Direction from IBP Area* NNE
- 5. Additional data sheet attached? Yes No

7.

Vegetation and Soil

1

Vegetation

Community Reference Number	Vegetation Code					(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							
3							
4							
5							
6							
7							
8							
9							
10							
11						Conspicuous marine algae of the Botanical Beach Area are given in Attachment I.	
12							
13							
14							
15							
16							
17							
18							
19							
20							

ATTACHMENT I

1. *Fucus* sp
2. *Pelvetiopsis* *limitata*
3. *Halosaccion* *glandiforme*
4. *Phyllospadix* *scouleri*
5. *Codium* *setchellii*
6. *Nereocystis* *leutkeana*
7. *Postelsia* *palmaeformis*
8. *Calliarthron* *regenerans*
9. *Alaria* *nana*
10. *Macrocystis* *integrifolia*
11. *Cymathere* *triplicata*
12. *Egregia* *menziesii*
13. *Corallina* *vancouveriensis*
14. *Hedophyllum* *sessile*
15. *Prionitis* *lanceolata*
16. *Laminaria* *setchellii*
17. *Leathesia* *difformis*
18. *Endocladia* *muricata*
19. *Bangia* *fuscopurpurea*
20. *Rhodomela* *larix*
21. *Porphyra* *perforata*
22. *Prasiola* *meridronalis*
23. *Lessoniopsis* *littoralis*
24. *Pterygophora* *californica*
25. *Microcladia* *borealis*
26. *Odonthalia* *floccosa*
27. *Scytosiphon* sp
28. *Hymenema* sp
29. *Iridaea* *cordata*
30. *Gigartina* *cristata*
31. *Fossiella* sp
32. *Polyporolithon* (coralline epiphyte)
33. *Callophyllis*
34. *Heterochordaria*
35. *Phaeostrophion*
36. *Ectocarpus* sp (growing on beat up
Postelsia)
37. *Lithophyllum/Lithothamnion* sp

7.
(cont.)

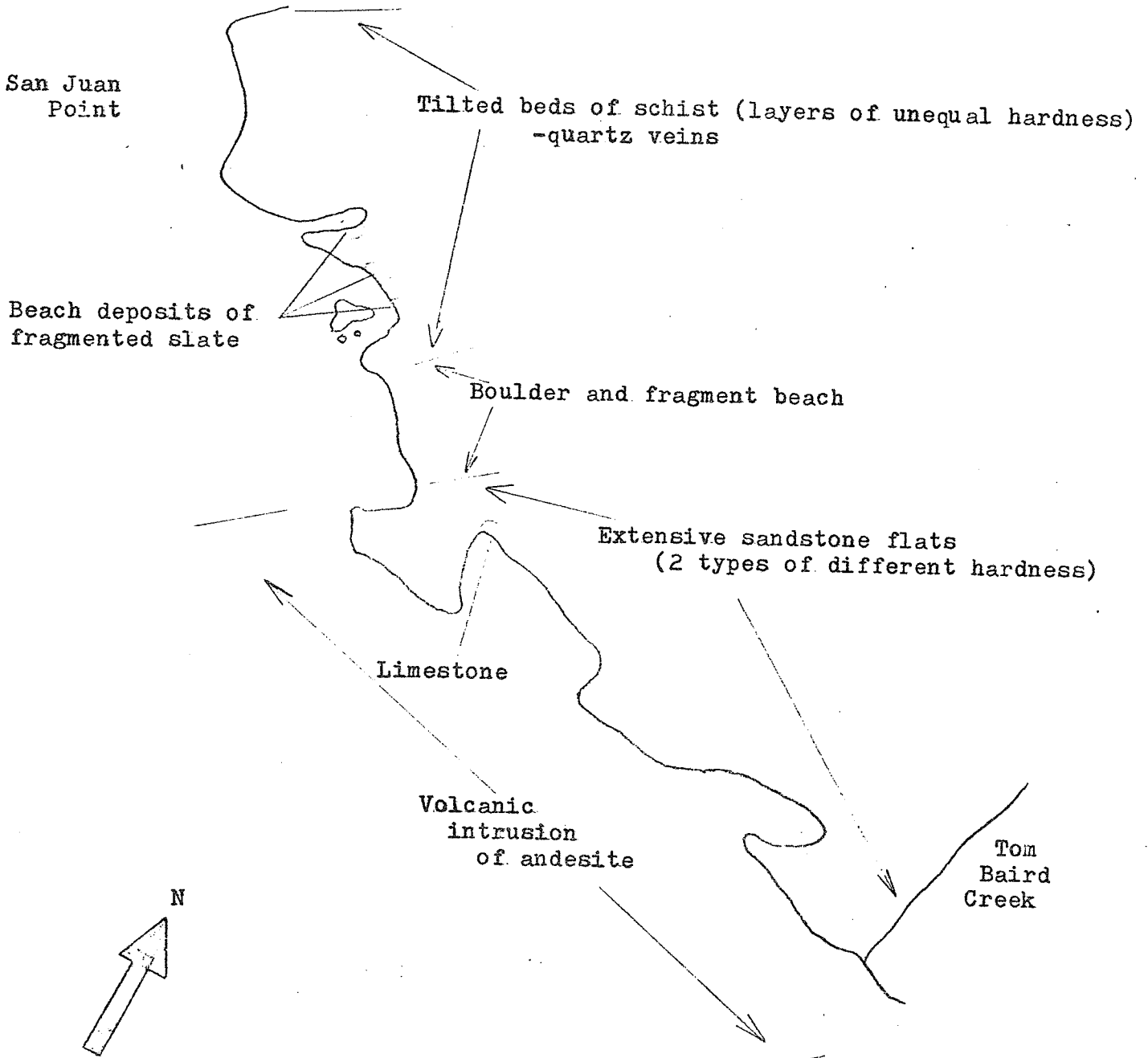
2

Substrate

Community Reference Number	Substrate Type	Other notes (See Attachment II)
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
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19		
20		

Attachment II

SUBSTRATE AND GEOLOGY



SCALE; 1:12,500

9. Landscape

1. General Landscape (give brief description)

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2. Relief Type

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

3. Special landscape features (list)

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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	Slate Fragment Beach	Sand Beach	Shell Beach	Mud	Coral	Ice
95	4	1					

3. Physiography. % of coast

Cliffed	Sloping	Flat
	25%	75%

4. Special Coastal Features (list)irregular shoreline is honeycombed with..... tidepools and depressions, tide rifts, perpendicular walls, overhanging ledges, caves, blowholes, wave resistant schist.

5. Tide. Maximum range (state units of measurement)12.3 feet.....

6. Total length of coastline : about 2 miles

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

11. Freshwater within IBP Area* none

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 features

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12. Salt and Brackish Water within IBP Area*

Salt Lakes	<input type="checkbox"/>	Lagoon	<input type="checkbox"/>	Ocean	<input checked="" 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		

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												
Aves												
Reptilia												
Amphibia												
Pisces												
Insecta												

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											
shrubs											
herbs											
grass											
Gymnospermae											
Pteridophyta											
Bryophyta											
Algae	X	X				X					

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

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15. Exceptional Interest of IBP Area*

Because of the geology of this region (sandstone flats and shelves),
wave erosion has resulted in a habitat for a very unique ecological
association. Such a situation is not found elsewhere on Vancouver
Island.

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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* X

2. Particular

	Past impact	Present impact	Trend			
			Increasing	Decreasing	No change	No information
Cultivation						
Drainage						
Other soil disturbance						
Grazing						
Selective flora disturbance		X	X			
Logging		X (the land adjacent to the area was logged about 5 years ago)				
Plantation						
Hunting						
Removal of predators		X	X			
Pesticides						
Introductions — plants						
Introductions — animals						
Fire						
Permanent habitation						
Recreation and tourism		X	X			
Research		X	X	(UBC has been conducting research there)		

3. Additional details on each type of impact attached?

Yes No X

17.

Conservation Status

	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? YesX..... No

2. List main maps available for the IBP Area.

List attached? Yes NoX..... Canadian Hydographic Chart #3607
National Topographic Map Sheet 92 c/9 West

3. Aerial photographs for the IBP Area available?

For whole areaX..... For part of area None

19.

Other Relevant Information

SignedD.V. Ellis, D.J. Steele.....
(Surveyor)

REFERENCES

Postelsia. 1901-06. The yearbook of the University of Minnesota
seaside station, Port Renfrew, British Columbia. Vol. 1-2.