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DEPARTMENT OF LANDS AND FORESTS

BRITISH COLUMBIA FOREST SERVICE

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QUADRA ISLAND

by

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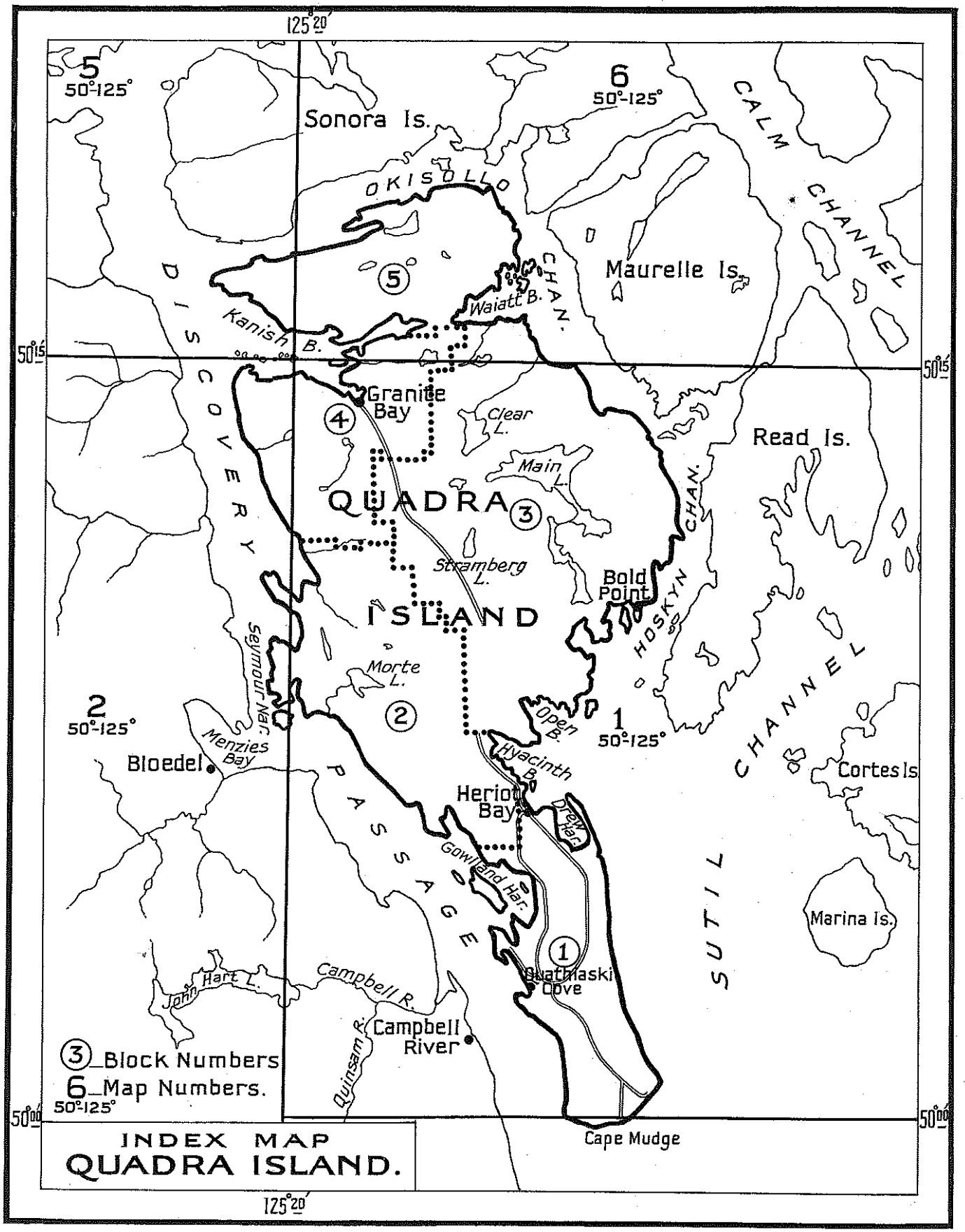

125°20'
5
50°-125°
6
50°-125°
Sonora Is.
OKISOLLO
CHAN.
CALM CHANNEL
Maurelle Is.
DISCOVERY
Kanish B.
Waiatt B.
50°15'
Granite Bay
Clear L.
Read Is.
Main L.
QUADRA
ISLAND
Stramberg L.
Bold Point
HOSKYN CHAN.
Morte L.
Seymour Nar.
2
50°-125°
Menzies Bay
Bloedel
Open B.
1
50°-125°
Hyacinth B.
Heriot Bay
Drew Har.
Gowlland Har.
PASSAGE
SUTIL CHANNEL
Cortes Is.
Marina Is.
Quathiaski Cove
John Hart L.
Campbell R.
Campbell River
Quinsam R.
3 Block Numbers
6 Map Numbers.
50°-125°
50°00'
Cape Mudge
INDEX MAP
QUADRA ISLAND.
125°20'

QUADRA ISLAND

DESCRIPTION OF AREA

Boundary Description

Quadra Island, which lies in the eastern half of the Sayward Land District, is separated from Vancouver Island by Discovery Passage. It is bounded on the north by Okisollo Channel, on the east by Hoskyn Inlet and Sutil Channel, and on the south by the Strait of Georgia.

General Topography

That portion of the island south of Heriot Bay is a flat, glacial deposit made up of stratified layers of sand, clay, and gravel, and seldom rises more than three hundred feet above mean sea level. From Gowlland Harbour north to an east-west line through Morte Lake the country is a series of bare, rocky hills separated by narrow, wooded gullies. From Morte Lake to Kahnish Bay the land rises steeply from the west shore of the island to form a highland of broken topography, which maintains an average elevation of approximately fifteen hundred feet above sea level. From Granite Bay a broad depression extends in a south-easterly direction to Open Bay. The north and east portions of the island are of irregular topography characterized by numerous rock outcrops throughout. Numerous lakes lying in low, irregular, rocky basins include Main, Village Bay, Clear, Stramberg, Morte, and Newton.

Climate

Quadra Island enjoys a moderate climate, typical of the region lying between the mountains of Vancouver Island and the Mainland.

Transportation Facilities

The greater proportion of travel to and from the Island is by steamer and water taxi through Quathiaski Cove. The steamer also calls once a week at Granite Bay. From Hyacinth Bay south the Island is fairly well supplied with secondary roads. Taxi service is available in this area. From Granite Bay it is possible to drive five miles southward to within a mile or so of the old Comox Logging Company railroad grade, which terminates at Open Bay. When Open Bay and Hyacinth Bay become connected by road the major portion of the Island will be easily accessible.

Settlements

Granite Bay: Its Post Office and small store serves the few scattered settlers in the vicinity and the Cold Creek Logging Company operation nearby. It was originally established for logging and mining activity which took place in the valley to the south in the early 1900's.

Quathiaski Cove: The cannery originally located here was destroyed by fire and never replaced. British Columbia Packer's Limited continue to supply service to fishermen in the vicinity. Two stores, a school, and a Post Office supply the needs of the settlement.

Heriot Bay: Located on the east coast of the Island, Heriot Bay is connected by road with Quathiaski Cove. Although it enjoys some popularity as a summer resort, it relies chiefly upon the fishing industry and minor lumbering and farming activity for its livelihood.

Bold Point: Important only as a Post Office centre for the few settlers in the vicinity. One large farm is located here.

Industries

Logging: The only operation of any size is the Cold Creek Logging Company, which is located on the south side of Kahnish Bay. This is a truck logging show with a complement of approximately twenty men. A number of small operators are logging south of Heriot Bay and in the vicinity of Gowlland Harbour. In some cases small sawmills are operated in conjunction with the logging. There is a minor amount of hand logging done in the area.

Fishing: Fishing is one of the principal sources of revenue for many of the settlers on the southern part of the Island. Important fishing grounds extend from Cape Mudge to Seymour Narrows.

Mining: Mining activity on the Island is now at a standstill. Fairly extensive development took place in the early 1900's on a dozen or more claims located in the lime belt running from Kahnish Bay to Open Bay. Traces of gold and copper were found but not in commercial quantities. Vanadium-bearing ore has been found just north of Gowlland Harbour but concentrations are not considered to be of economic importance.

Agriculture: With the exception of a few scattered farms south of Granite Bay and one at Bold Point, the major agricultural development has taken place between Heriot Bay and Cape Mudge. This general area was originally excluded from the Quadra Forest due to its agricultural possibilities. Farm produce which is not consumed locally finds a ready outlet through Campbell River.

DESCRIPTION OF FOREST

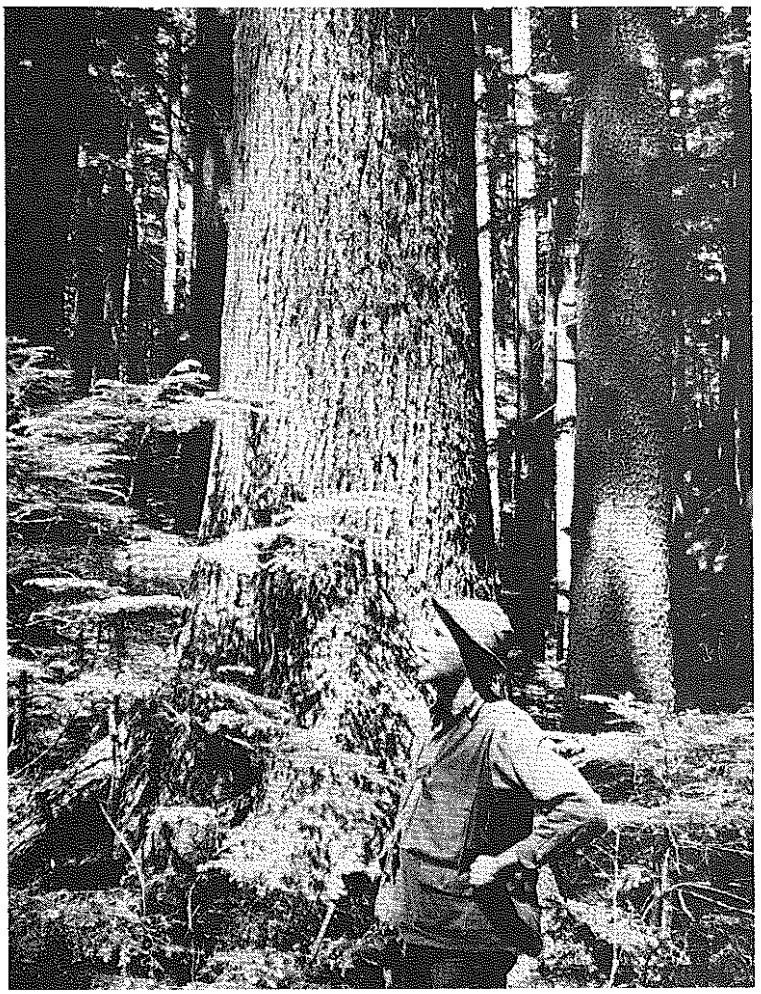
Forest Species

The following species, found on Quadra Island, are listed according to volume.

Common Name	Abbreviation	Botanical Name
Douglas fir	F	Pseudotsuga taxifolia
Western hemlock	H	Tsuga heterophylla
Western red cedar	C	Thuja plicata
Sitka spruce	S	Picea sitchensis
Balsam (fir)	B	Abies grandis - A. amabilis
Western white pine	Pw	Pinus monticola
Red alder	D	Alnus rubra
Broadleaf maple	Mb	Acer macrophyllum

Douglas fir: This species constitutes the major portion of the remaining timber on Quadra Island. Since the more-accessible, better-site timber has been removed, the remaining Douglas fir is to be found in the less-accessible, poorer-site areas. These areas have an average site-index of 100.

Western hemlock: Next to Douglas fir, Western hemlock constitutes the largest volume of commercial timber. Although the average site-index for hemlock on the Island is low (average 80), there are scattered pockets of fine sawlog timber.



Mature hemlock and Sitka spruce with suppressed hemlock understory. Strip No. 47, Compartment No. 4.

Western red cedar: The remaining volume of this species consists mainly of low-site-quality trees, which are suitable for sawlogs and shingle bolts.

Sitka spruce: The limited volume of this species appears to be free of any serious defect. Some trees are inclined to have a large number of limbs.

Balsam: Minor quantities of the true firs (lowland white fir and silver fir) are found throughout the area. Silver fir of the higher elevations is of better form and has fewer limbs than the white fir found near sea level. No serious defect was observed.

Western white pine: The prevalence of white pine blister rust makes the value of this species negligible.

Red alder: Extensive areas on Quadra Island which have been burned or logged-and-burned are now growing large volumes of healthy, clear-boled alder. Although the present market for alder is limited to minor quantities for fuelwood and lumber, a more extensive market will eventually develop for this short-rotation species.

Broadleaf maple: This species is confined to the area between Heriot Bay and Cape Mudge and is usually found associated with the fir-hemlock-spruce type. Small volumes and the lack of a suitable market make this species one of minor importance.

Area Classification and Timber Summary

TABLE I - CLASSIFICATION OF AREA BY OWNERSHIP AND FOREST COVER

(In Acres)

Classification	Crown Granted (acres)	Timber Leases and Licences (acres)	Crown Land (acres)	Totals (acres)
Productive Forest Area				
Mature Timber				
Accessible	860	1,460	7,080	9,400
Inaccessible	---	---	---	---
Totals	860	1,460	7,080	9,400
Immature Timber				
1 - 5 years	90	200	1,390	1,680
6 - 10 "	30		200	230
11 - 20 "	3,370	3,270	13,500	20,140
21 - 40 "	3,710	40	6,140	9,890
41 - 60 "	470	10	350	830
61 - 80 "	20		100	120
Totals	7,690	3,520	21,680	32,890
Not Satisfactorily Stocked				
Logged	1,200	110	640	1,950
Logged and burned	270	520	1,720	2,510
Burned	270	150	1,440	1,860
N.C.C. Deciduous			10	10
N.C.C. Coniferous	60		160	220
Totals	1,800	780	3,970	6,550
Total Productive Forest Area	10,350	5,760	32,730	48,840
Non-productive Forest Area				
Cultivated				830
Barren and scrub				15,470
Swamp and water				3,050
Total Non-productive Forest Area				19,350
GRAND TOTAL				68,190

Note: N.C.C. means Non-commercial Cover.

TABLE II - CLASSIFICATION OF AREA BY FOREST COVER AND COMPARTMENTS

(In Acres)

Comp.	Mature	Immature	Not Satisf'y Stocked			N.C.C.		Barren and Scrub			Cult'd	Water & Swamp		Total	Comp.
	Acc. ✱		Logged	Logged & Burned	Burned	Dec.	Con.	Barren	Scrub 1 ✱	Scrub 2 ✱/		Lakes	Swamp		
1	1,020	4,950	1,250	240	180		80	550	150	130	660		200	9,410	1
2	2,580	3,990	140	860	370		40	3,850	1,300	60	20	260	40	13,510	2
3	1,380	12,970	320	700	1,070		10	5,120	2,000	360	110	1,740	300	26,080	3
4	2,690	5,290	140	130				220	900		30	180	30	9,610	4
5	1,730	5,690	100	580	240	10	90	420	410		10	190	110	9,580	5
Total	9,400	32,890	1,950	2,510	1,860	10	220	10,160	4,760	550	820	2,370	680	68,190	

✱ There is no timber on the area that is inaccessible.

✱ Scrub 1. Areas of low site-value, but over long rotations capable of producing timber of possible future commercial value.

✱/ Scrub 2. Areas of low site-value not capable of producing timber of commercial value.

TABLE III - ESTIMATE OF MERCHANTABLE TIMBER BY OWNERSHIP, SPECIES, AND COMPARTMENTS

(In M.f.b.m. - 11" d.b.h. and over)
All accessible

Compt.	Ownership	Acres	F (M.f.b.m.)	C (M.f.b.m.)	H (M.f.b.m.)	S (M.f.b.m.)	B (M.f.b.m.)	Pw (M.f.b.m.)	D (M.f.b.m.)	Mb (M.f.b.m.)	Total (M.f.b.m.)
1	Crown Grant	800	5,790	30	3,630	2,820	1,330	80	840	300	14,820
	Alien T.L.'s										
	Crown Land	220	2,070		590	410	390	10	150	40	3,660
	Total	1,020	7,860	30	4,220	3,230	1,720	90	990	340	18,480
2	Crown Grant										
	Alien. T.L.'s	290	6,730	740	2,360	10	30	70			9,940
	Crown Land	2,290	39,620	6,230	26,070	50	450	820			73,240
	Total	2,580	46,350	6,970	28,430	60	480	890			83,180
3	Crown Grant	20	260	60	280			10			610
	Alien. T.L.'s	230	8,280	500	280	10					9,070
	Crown Land	1,130	32,900	2,710	5,680	50	80	150			41,570
	Total	1,380	41,440	3,270	6,240	60	80	160			51,250
4	Crown Grant										
	Alien. T.L.'s	790	10,130	2,250	10,890	10	190	350			23,820
	Crown Land	1,900	22,420	4,280	23,800	550	340	630			52,020
	Total	2,690	32,550	6,530	34,690	560	530	980			75,840
5	Crown Grant	40	30		10						40
	Alien. T.L.'s	150	1,840	440	1,650	40		80			4,050
	Crown Land	1,540	8,420	4,770	12,880	340		290			26,700
	Total	1,730	10,290	5,210	14,540	380		370			30,790
Total All Comp's.	Crown Grant	860	6,080	90	3,920	2,820	1,330	90	840	300	15,470
	Alien. T.L.'s	1,460	26,980	3,930	15,180	70	220	500			46,880
	Crown Land	7,080	105,430	17,990	69,020	1,400	1,260	1,900	150	40	197,190
	Total	9,400	138,490	22,010	88,120	4,290	2,810	2,490	990	340	259,540

Reproduction and Factors Affecting It

Table I (section 2) showed the proportionate areas of immature timber by ownership and age classes and also (section 3) the ownership and condition of that portion of the Island that was not satisfactorily restocking. The following tables show the causes of establishment of the 32,890 acres of immature timber (Table IV); the present condition of the 27,030 acres of cut-over land (Table V); and the origin of all young stands and areas not satisfactorily restocking (Table VI). Regeneration on the island is exceptionally good with eighty-four per cent of the cut-over land satisfactorily stocked. Twelve per cent will probably restock naturally and four per cent, representing recent logging, will require future examination.

TABLE IV - IMMATURE TIMBER BY CAUSE OF ESTABLISHMENT

	(Acres)
Logging	6,550
Logging and burning	16,020
Burning	10,320
Total	32,890

TABLE V - CONDITION OF CUT-OVER LAND

Condition	Logged		Logged & Burned		Total	
	Acres	%	Acres	%	Acres	%
Satisfactorily stocked	6,550	77	16,020	87	22,570	84
Areas that will probably restock naturally	1,150	13	2,040	11	3,190	12
Areas not recommended for planting due to dense debris, etc.			40	*	40	*
Recent logging or logging and burning, areas for future examination	650	8	430	2	1,080	4
Areas recommended for planting	150	2			150	*
Totals	8,500	100%	18,530	100%	27,030	100%

* Fractional percentages.

TABLE VI - ORIGIN OF ALL YOUNG STANDS AND AREAS N.S.R. *

(By Age Classes)

Age	Cause and Classification							
	Logging		Logged & Burned		Burning		Miscellaneous	
	Stocked	N.S.R.	Stocked	N.S.R.	Stocked	N.S.R.	Stocked	N.S.R.
	(Acres)	(Acres)	(Acres)	(Acres)	(Acres)	(Acres)	(Acres)	(Acres)
1- 5	130	560	1,490	820	60	250		
6-10	200	360	30	120				
11-20	700	820	10,460	700	8,980	1,180		
21-40	5,510	210	3,190	870	1,190	430		
41-60	10		760		60			
61-80			90		30			
Not Stated								230
Totals	6,550	1,950	16,020	2,510	10,320	1,860		230

* N.S.R. - Not satisfactorily Restocking.

Areas classed as not satisfactorily stocked may be due to an insufficient seed source following burning or an unsuitable seed-bed, resulting from heavy debris, following logging. The present forest cover will eventually supply sufficient seed to satisfactorily stock such areas.

A number of factors are responsible for the healthy regeneration picture on Quadra Island. In spite of the intensive burns which have covered a major portion of the island, the seed source on such areas has not been wholly destroyed. Scattered, thick-barked Douglas fir seem to have survived in even the more intensively burned areas. Much of the logging has been in scattered patches, especially in the southern part of the island, enabling satisfactory stocking to take place. Good seed-years occurring soon after fires also must have influenced the present condition.

Infestation, Diseases, etc.

The forests of Quadra Island may be regarded as reasonably free from infestation and disease. Douglas fir is subject to normal attacks of brown cubical rot (Polyporus Schweinitzii) and red ring-rot (Fomes [Trametes] Pini). Brown cubical rot (Polyporus Schweinitzii), red ring-rot (Fomes [Trametes] Pini), and mistletoe all appear on hemlock, the mistletoe being more prevalent in decadent stands. Butt-rot is common in cedar. Catface and spike-top defects are also present. White pine blister rust is prevalent on the island with the result that white pine seldom reaches maturity.

Suppressed 14 year-old hemlock reproduction on an area which has been logged and burned. Over-stocking is the reason for suppression.

Old logging-trestle, two miles east of Deepwater Bay, almost hidden by fir-hemlock stand established in 1915 following 1911 logging. Hemlock in foreground is the result of more recent logging and burning.

Note rock outcrops and general barren appearance of surface resulting from 1945 logging, followed by burning.

Comparison of 1930 Survey with that of 1947

Little new development has taken place on Quadra Island since 1930. However, the general forest picture shows considerable improvement. Although the 1930 survey did not include that portion of the island south of Heriot Bay, it reported 15,670 acres as under-stocked and recommended artificial restocking on a large proportion of the area. The results of the 1947 survey, covering the whole of the island, show only 6,550 acres as not satisfactorily stocked and indicate that most of the area will probably restock naturally.