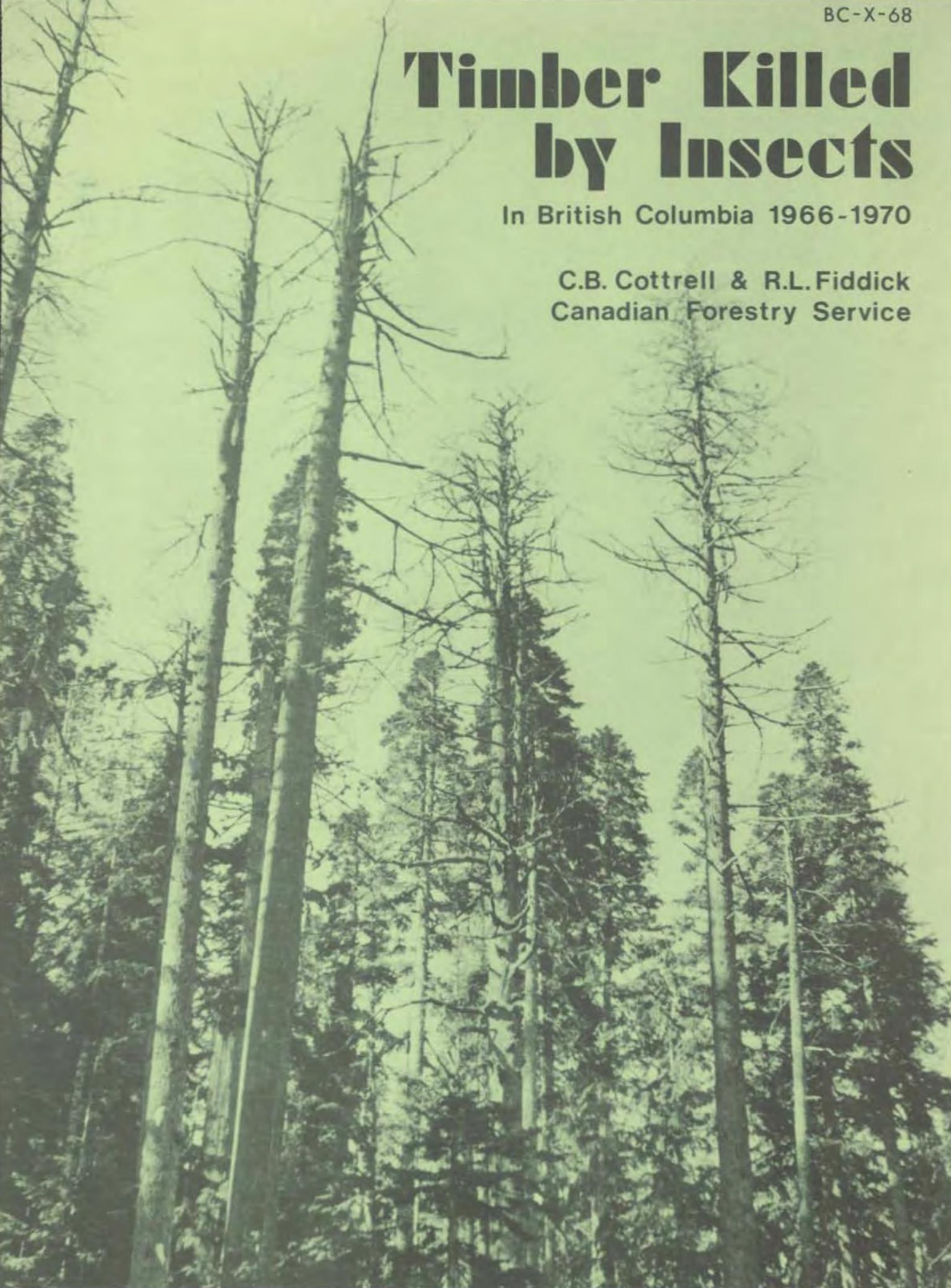


Timber Killed by Insects

In British Columbia 1966-1970

C.B. Cottrell & R.L. Fiddick
Canadian Forestry Service



TIMBER KILLED BY INSECTS IN BRITISH COLUMBIA

1966 - 1970

BY

C. B. COTTRELL AND R. L. FIDDICK

PACIFIC FOREST RESEARCH CENTRE

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INTRODUCTION

This report is the fourth five-year appraisal of forest trees killed by insects in British Columbia. Quality loss or reduced increment, due to severe defoliation, is not included.

The basic data were gathered by the Forest Insect and Disease Survey, Canadian Forestry Service, Victoria, British Columbia, through air and ground surveys. Since it was not feasible to cover the whole Province by air annually, appraisals were most intensive during outbreak situations.

The cooperation of the British Columbia Forest Service is gratefully acknowledged, especially for aircraft provided during surveys of extensive outbreaks.

METHODS

Aerial surveys and vantage point counts of dead trees, supported by representative measurements, were used in obtaining the volume estimates for this report. Initial estimates of damage were achieved by aerial mapping of infested or dead timber as indicated by discolored crowns. Trees were counted directly in areas of sparse mortality. Where mortality occurred among groups of trees, the number of trees killed in each group was estimated. Widespread continuous outbreaks were mapped by two or three damage classes. Classes were based on the percentage of trees killed per acre. Vantage point surveys consisted of counts with binoculars of discolored trees on adjoining slopes or valleys.

Appraisal of white spruce trees killed by bark beetles in the Nelson, Kamloops and Prince George Forest Districts required a "damage class" type of aerial observation supplemented by ground cruises. Mortality surveys of Douglas-fir, true firs and pines were accomplished by the direct count method supplemented by height and diameter measurements of sample trees for volume conversion. In the case of insect defoliators, it was necessary to classify and map infestations from the air, followed by annual re-examination of ground cruise strips to record progressive mortality until the effect of defoliation was no longer evident.

Volume calculations were based on British Columbia Forest Service volume tables. Gross volumes are presented without deductions for cull or breakage. Data are arranged by region and compartment within each Forest District.

RESULTS AND DISCUSSION

Just over 164 million cubic feet of standing timber was killed by insects in British Columbia from 1966 to 1970, inclusive, compared with more than one billion cubic feet from 1960 to 1965 (Cottrell and Fiddick, 1968). Bark beetles (Dendroctonus and Dryocoetes) were responsible for most of the mortality (Table 1).

Spruce beetles in the Kamloops, Nelson and Prince George Forest Districts were the most destructive bark beetles. In the Kamloops Forest District, where spruce beetles had not recently caused notable damage, there were severe outbreaks near Quesnel Lake and in the Barton Hill-Okanagan forests. In Nelson Forest District, heavy attacks occurred in the East Kootenays from 1967 to 1969 (Andrews and Molnar, 1969), and in the West Kootenays in 1968 and 1969 (Collis and Harris, 1970). Spruce beetle outbreaks flared again in the Prince George Forest District but tree mortality was much less than in the previous five-year period. All spruce beetle infestations declined after the cold winter of 1968-69 except in the Central Okanagan area of the Kamloops Forest District.

Douglas-fir beetles killed less than three million cubic feet of Douglas-fir, a considerable reduction from the more than nine million in the preceding five-year period. Most of the recent mortality occurred in 1967 and 1968. Counts of trees killed in 1970 were the smallest in at least 20 years.

The less than five million cubic feet of alpine fir killed by western balsam bark beetle in association with a forest disease is a sharp reduction from the 480 million feet from the 1961 to 1965 mortality.

The amount of western white and lodgepole pine killed by the mountain pine beetle declined, while mortality of ponderosa pine increased slightly. Infestations were largest toward the end of the current five-year period.

Defoliator outbreaks occurred but, except for some mortality of western hemlock caused by the green-striped forest looper on northern Vancouver Island, the loss was mainly in the form of reduced increment (Table 2).

No data were collected on mortality of Abies spp. killed by balsam woolly aphid during this period.

Table 1. Volume of timber killed by bark beetles in British Columbia
1961-65 and 1966-70

Tree species	Total volume (ft ³)	
	1961-65	1966-70
Engelmann spruce	104,225	120,968,565
White spruce	504,964,805	29,946,380 ^{1/}
Douglas-fir	9,308,815	2,705,350
Alpine fir	480,389,190	4,305,725
Western white pine	12,436,985	1,927,535
Lodgepole pine	4,128,400	2,550,870
Ponderosa pine	788,900	1,021,715 ^{1/}
Totals	1,012,121,320	163,426,140

^{1/}

including mortality caused by engraver beetles, Ips spp.

Table 2. Volume of timber killed by defoliating insects in British Columbia 1961-65 and 1966-70.

Tree species	Total volume (ft ³)	
	1961-65	1966-70
Western hemlock	8,559,000	931,320
Western red cedar	97,000	
Douglas-fir	93,000	
Totals	8,749,000	931,320

REFERENCES

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Appendix 1

Engelmann and white spruce killed by spruce beetle,

Dendroctonus rufipennis, 1966-70

Region	Comp.	Location	No. acres	Total vol (ft ³)
KAMLOOPS FOREST DISTRICT				
14	31	Mt. Gottfriedsen	350	503,300
	42	White Rocks Mtn	500	719,000
	43	Lambly L	250	200,000
	45	White Rocks Mtn.	2,500	2,340,000
	53	Shorts Cr	450	1,266,000
			4,050	5,028,300
25	33	Brenda L	50	25,350
	35	Mt. Gottfriedsen	100	143,800
	36	Dome Rock Mtn	650	934,700
			800	1,103,850
38	16	Ashton Cr	20	7,500
	22	Vidler Ridge	10	1,500
			30	9,000
43	3	Adams L	600	360,000
	5	Adams L	120	30,000
	11	Michael Cr	200	280,000
	13	Adams R	120	30,000
			1,040	700,000
44	4	Kwikoit Cr	850	552,000
			850	552,000
56	26	Wolverine L	6,400	4,196,000
	27	Spanish L	6,900	6,905,000
	28	Keithley Cr	17,350	15,678,000
	29	Wilby Cr	700	207,000
	31	Little R	5,450	3,278,000
	47	Grain Cr	3,820	2,631,000
	48	Freshette L	4,300	5,580,000
	51	Edney L	2,000	1,332,000
	53	McCauley L	320	94,800
			47,240	39,901,800

Appendix 1 - continued

Region	Comp.	Location	No. acres	Total vol (ft ³)
57	2	Fishtrap Cr	2,700	1,338,000
	3	Beauregard L	4,700	3,666,000
	7	Nehalliston Cr	450	133,000
	9	Moira L	1,290	382,000
	10	Grizzly L	450	133,000
	16	Mud L	1,200	936,000
			<u>10,790</u>	<u>6,588,000</u>
58	18	Bone Cr	<u>20</u>	<u>4,500</u>
			<u>20</u>	<u>4,500</u>
Total for Kamloops Forest Dist.			64,820	53,887,450

NELSON FOREST DISTRICT

16	3	Neptune Cr	50	11,000
	4	Murphy Cr	<u>100</u>	<u>22,000</u>
			<u>150</u>	<u>33,000</u>
17	4	Kid Cr	1,750	1,995,000
	11	Placer Cr	680	376,720
	26	Hall Cr	50	11,000
	32	Kokanee Cr	50	11,000
	41	Pork Cr	<u>1,760</u>	<u>4,387,680</u>
			<u>4,290</u>	<u>6,781,400</u>
18	2	Bloom Cr	<u>250</u>	<u>150,000</u>
			<u>250</u>	<u>150,000</u>
19	3	Rabbit Cr	300	193,500
	4	Bighorn Cr	2,300	6,687,010
	6	Lodgepole Cr	500	1,770,500
	11	Tanglefoot Cr	475	1,862,475
	12	Sulphur Cr	495	683,100
	14	Summer L	2,540	5,810,040
	15	Quinn Cr	1,180	2,426,940

Appendix 1 - continued

Region	Comp.	Location	No. acres	Total vol (ft ³)
19	23	McEvoy Cr	400	357,200
	29	Line Cr	280	991,200
	33	Kilmarnock Cr	1,475	2,087,250
	35	Kilmarnock Cr	90	115,740
			10,035	22,984,955
20	1	Grizzly Gulch	1,105	3,549,135
	2	Sage Cr	2,090	4,999,430
	3	Twenty-nine Mi. Cr	5,265	17,752,625
	4	Commerce Cr	340	831,720
	5	Harvey Pass	1,435	2,690,290
			10,235	29,823,200
21	2	Wildhorse R	710	1,322,160
	5	Lussier R	500	312,500
	9	Findlay Cr	200	125,000
	28	White R	3,300	2,062,500
	33	Palliser R	300	180,000
	34	Albert R	250	150,000
			5,080	4,152,160
22	2	Perry Ridge	50	11,000
			50	11,000
23	14	Cayuse Cr	50	11,000
			50	11,000
24	7	Goathide Cr	280	403,640
	9	Trapping Cr	975	600,000
	10	Kettle R	900	450,000
	14	Bruer Cr	680	1,139,680
			2,835	2,593,320
40	4	Howser Ridge	440	575,080
			440	575,080
Total for Nelson Forest Dist.			33,415	67,115,115

Appendix 1 - continued

Region	Comp.	Location	No. acres	Total vol (ft ³)
PRINCE GEORGE FOREST DISTRICT				
55	23	Saunders	10 10	3,000 3,000
56	1	Whites Landing	30	9,000
	2	Marvin Cr	10	3,000
	3	Ahbau Cr	2,920	1,378,400
	4	Ahbau L	5,690	2,488,200
	6	Umiti Cr	435	163,300
	7	Lightning Cr	450	263,400
	9	Fontaine Cr	960	405,300
	10	Halliday Cr	570	241,100
	11	Sovereign Cr	545	212,100
	12	Porter Cr	360	154,800
	13	Swift R	510	187,100
	14	Victoria Cr	2,380	2,338,300
	17	Cantin Cr	110	67,900
	20	Gerimi Cr	110	77,900
	30	Cunningham Cr	10 15,090	4,000 7,993,800
59	33	Slim Cr	20	6,000
	45	McGregor R	280	125,300
	46	Seebach Cr	30	9,000
	47	Otter Cr	490	2,201,500
	48	James Cr	10	3,000
	50	Cargill Cr	230	72,800
	53	Herrick Cr	10	3,000
	56	McGregor R (E)	50	15,000
	65	Driscoll Cr	10	3,000
	68	Kenneth Cr	60	20,100
	69	McGregor R (W)	120	36,800
	73	Bowron R (N)	10	3,000
	74	Purden L	10	3,000
	76	Spruce Cr	20	6,000
	77	Ames Cr	260	141,500
	79	Wendle Cr	350	139,700
	83	Kruger Cr	250	103,700

Appendix 1 - continued

Region	Comp.	Location	No. acres	Total vol (ft ³)
59	84	Towkuh Cr	690	351,100
	90	Spectacles L(s)	30	10,700
	94	Herring Cr	10	3,000
	95	Olson Cr	40	12,000
	96	Averil Cr	20	6,000
	114	Wansa L	1,550	1,022,700
	115	Pitoney L	1,880	1,141,100
	116	George Cr	680	328,900
	117	George Cr	1,440	914,700
	118	Jerry Cr	2,680	1,197,300
	119	Narrow L	610	637,100
	120	Willow R	420	293,900
	121	Stony L	3,180	2,517,800
	122	Stephanie Cr	1,040	442,400
	123	Willow R	2,230	1,435,400
	124	Crescent L	1,340	1,054,900
	125	Big Valley Cr	1,250	707,000
	126	Pundata Cr	330	182,600
	134	Stone Cr	140	64,500
	138	Stone Cr	70	32,200
	144	Colebank L	190	267,600
	145	Naver Cr	5,600	3,910,100
			27,630	19,425,400
60	8	Mt. McKenzie	10	3,000
			10	3,000
69	62	Misinchinka R	10	3,000
	67	Calbourne Cr	10	3,000
	72	Firth L	180	80,600
	75	Anzac R	320	193,600
	82	Parsnip R	300	211,500
	83	Table R	30	9,000
	86	Parsnip R	30	9,000
	87	Hominka R	130	57,300
	92	Parsnip R	1,820	647,600
	93	Parsnip R	270	96,900
	102	Carp L	30	12,500
	105	Kerry L	460	137,500

Appendix 1 - continued

Region	Comp.	Location	No. acres	Total vol (ft ³)
69	106	Weedon Cr	80	25,200
	107	Weedon L	120	36,400
	108	Redrocky Cr	430	233,200
	109	Davie L (W)	350	461,900
	111	Chuchinka Cr	190	132,300
	112	Angusmac Cr	120	35,600
	113	Coffee Pot Mtn	190	55,700
	114	McEwan L	110	33,100
			5,180	2,474,900
Total for Prince George Forest Dist.			47,920	29,900,100

PRINCE RUPERT FOREST DISTRICT

66	15	Babine L	70	12,280
			70	12,280
Total for Prince Rupert Forest Dist.			70	12,280

Total for British Columbia			146,225	150,914,945
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Appendix 2

Douglas-fir killed by Douglas-fir beetle,

Dendroctonus pseudotsugae, 1966-70

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
KAMLOOPS FOREST DISTRICT					
13	9	Ashnola R	100	70	7,000
	45	Shrimpton Cr	30		2,100
	47	Swanson Cr	20		1,400
	52	Princeton	20		1,400
	75	Thalia L	10		700
	76	Missezula L	65		4,550
	77	Bluey L	95		6,650
	78	Coby Cr	15		1,050
			355		24,850
14	17	Penticton Cr	30	65	1,950
	19	Liddell Cr	10		650
	31	Lacoma Cr	10		650
	37	Belgo Cr	25		1,625
	38	Mission Cr	10		650
	44	Range Cr	10		650
	45	Lambly Cr	25		1,625
	55	Whiteman Cr	25		1,625
	57	Naswhito Cr	10		650
	58	Equesis Cr	55		3,575
	59	Pinaus L	125		8,125
			335		21,775
25	3	Monte L	30	85	2,550
	5	Spences Bridge	80	70	5,600
	6	Soap L	40		2,800
	8	Dot	10		700
	9	Spius Cr	45	85	3,825
	14	Lindley Cr	20	70	1,400
	15	Garcia L	75		5,250
	17	Kane L	15		1,050
	26	Quilchena Cr	10		700

Appendix 2 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
25	27	Kentucky L	25	70	1,750
	28	Douglas Cr	10		700
	30	Jackson L	60		4,200
	31	Wasley L	45		3,150
	37	Frankward Cr	10		700
	39	Peter Hope L	20	64	1,280
	48	Hector Cr	100	70	7,000
	49	Mamit L	40		2,800
			635		45,455
33	8	Downton Cr	50	70	3,500
	11	Anderson L	10		700
	15	Bridge R	80		5,600
	16	Yalakom R	70		4,900
	18	Jones Cr	10		700
	19	Williams Cr	20		1,400
	20	Gun L	105		7,350
			345		24,150
34	1	Steffens Cr	20	70	1,400
	2	Broom Cr	75		5,250
	3	Bose L	70		4,900
	5	Mt. Anne	10		700
	7	Twin L	10		700
	8	Barnes L	20	80	1,600
	9	Burr Cr	85		6,800
	12	Skuhun Cr	35		2,800
	13	Canford	20		1,600
			345		25,750
35	2	Campbell L	55	80	4,400
	3	Frisken L	10		800
	10	Brussels L	25		2,000
			90		7,200
36	3	Monte L	50	76	3,800
	4	Ingram Cr	20		1,520
	8	Chapperon Cr	50		3,800
	10	Paxton Cr	70		5,320
			190		14,440

Appendix 2 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
37	1	Falkland	50	76	3,800
	5	Blair Cr	10		760
	9	White L	20		1,520
	15	Eagle R	40		3,040
			120		9,120
38	6	Mabel L	20	76	1,520
	18	Hidden L	25		1,900
	19	Latewhos Cr	10		760
	23	Reiter Cr	25		1,900
	28	Cherry Cr	10		760
	29	Monashee Cr	15		1,140
			105		7,980
43	1	Spapilem Cr	150	100	15,000
	2	Adams L	80		8,000
	5	Adams L	110		11,000
			340		34,000
44	1	Adams L	170	100	17,000
	4	Kwikoit Cr	200		20,000
	5	Adams L	120	76	9,120
			490		46,120
45	2	Paul L	75	76	5,700
	7	Niskonlith L	10		760
	8	Hiuihill Cr	65		4,940
	9	Skwaam Bay	100		7,600
			250		19,000
46	3	Jamieson Cr	35	80	2,800
	4	Tranquille Cr	115	100	11,500
	6	Tranquille Cr	270		27,000
	8	Rousseau Cr	10	80	800
	9	Carabine Cr	60	100	6,000
	10	Sabiston Cr	35	80	2,800
	11	Criss Cr	465	100	46,500
	12	Cultus L	750		75,000
	13	Barricade Cr	30		3,000
	14	Deadman R	470	85	39,950
	15	Criss Cr	25	100	2,500
	17	Deadman R	450	90	40,500
	18	Vidette L	15		1,350
			2,730		259,700

Appendix 2 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
47	1	Hawks Cr	795	76	60,420
	2	Spokin L	565		42,940
	3	Williams L	2,210		167,960
	4	Borland Cr	3,245		246,620
	5	Jones Cr	100		7,600
	6	San Jose R	1,110		84,360
	7	Knife Cr	1,325	100	132,500
	8	Lac La Hache (W)	110		11,000
	9	Bear L	290		29,000
	10	Lac La Hache (E)	90	76	6,840
	11	Tatton L	95		7,220
	17	Chimney L	335		25,460
	18	Alkali Cr	50		3,800
	19	Kirkpatrick Cr	25		1,900
	20	Dog Cr	20	70	1,400
	22	Canoe Cr	355		24,850
	23	Little Big Bar L	180		12,600
	24	Jesmond Cr	10		700
	25	Porcupine Cr	160		11,200
	26	Cutoff Valley Cr	125		8,750
	29	Fiftyone Cr	10		700
	31	Loch Lomond	10		700
	38	Rayfield R	45	100	4,500
	42	Maiden Cr	80	70	5,600
	43	Hat Cr	45		3,150
	44	Hat Cr	40		2,800
	45	Pavilion L	55		3,850
	46	Fountain Cr	150		10,500
	47	Cinquefoil L	25		1,750
	50	Skoonka Cr	100		7,000
	51	Twaal Cr	180		12,600
	52	Oregon Jack Cr	55		3,850
	53	Cornwall Cr	35		2,450
	54	Battle Cr	250		17,500
	55	Lopez Cr	30	80	2,400
	56	Scottie Cr	40	90	3,600
	58	Loon L	95	70	6,650
	59	Brigade Cr	20		1,400
	60	Upper Loon L	20		1,400
			12,480		979,520

Appendix 2 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
48	7	Coster Cr	20	70	1,400
	8	Churn Cr	130		9,100
	12	Gaspard Cr	1,205	85	102,425
	13	Gaspard Cr	140		11,900
	16	McEwen Cr	90		7,650
	18	Mons L	10		850
	25	Minton Cr	565	76	42,940
	26	Chilcotin R	700		53,200
	27	Towdykin L	555		42,180
	57	Chilcotin R	210		15,960
	60	Meldrum Cr	10		760
	61	Callanan L	250		19,000
	64	S. Anahim Cr	435		33,060
			4,320		340,425
56	26	Lawless Cr	400	76	30,400
	48	Tasse L	10		760
	50	Ussa L	10		760
	51	Bootjack L	70		5,320
	52	Tyee L	610		46,360
	53	Big L	390		29,640
	57	Horsefly L	40		3,040
	58	Horsefly L	75		5,700
	59	McKusky Cr	100		7,600
	60	McKinley L	110		8,360
	61	Horsefly L	30		2,280
	64	Archie Cr	10		760
	67	Bosk L	10		760
	69	McLeese L	230		17,480
			2,095		159,220
57	1	Whitewood Cr	10	70	700
	7	Lemieux Cr	10		700
	10	Dutch L	40	100	4,000
	11	Clearwater R	10		1,000
	13	Canim L	30	70	2,100
	14	Drewry L	10		700
	16	Canim L	10		700
	18	Canim Cr	10		700
	19	Canim L	10		700
	21	Canim L	15		1,050
	25	Clearwater R	60	100	6,000
			215		18,350

Appendix 2 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
58	1	Johnson L	170	90	15,300
	3	E. Barriere L	80		7,200
	9	Johnston Cr	10		900
			260		23,400
Total for Kamloops Forest Dist.			25,700		2,060,455

NELSON FOREST DISTRICT

15	2	Christina L	100	60	6,000
	11	Midway	75	58	4,350
	12	Westbridge	205		11,890
	13	Kelly R	60		3,480
	14	Thone Cr	95		5,510
			535		31,230
17	38	Fry Cr	55	60	3,300
	41	Carney Cr	200		12,000
			255		15,300
18	21	Cranbrook	50	55	2,750
	37	Sawyer Cr	75		4,125
			125		6,875
19	2	Newgate	50	58	2,900
	4	Wigwam R	330		19,140
	6	Lodgepole Cr	75		4,350
	10	Bull R	100		5,800
			555		32,190
21	5	Lussier R	50	60	3,000
	11	Toby Cr	15		900
	15	Horsethief Cr	20		1,200
	23	Kootenay R	110		6,600
	26	Whiteswan L	795		47,700
	34	Albert R	10		600
			1,000		60,000

Appendix 2 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
24	1	Crouse Cr	125	60	7,500
	2	Rhone Cr	90		5,400
	3	Beaverdell	565		33,900
	4	Carmi	515		30,900
	6	Beaverdell Cr	255		15,300
	7	Lakevale	145		8,700
	9	China Butte	650		39,000
	17	Dear Cr	445		26,700
			2,790		167,400
40	1	Hamill Cr	25	60	1,500
	4	Duncan L	50		3,000
			75		4,500
41	35	Blackwater Cr	130	60	7,800
	49	Bush R	15		900
	55	Kinbasket L	25		1,500
			170		10,200
Total for Nelson Forest Dist.			5,505		327,695

PRINCE GEORGE FOREST DISTRICT

42	22	Dawson Cr	30	88	2,640
	24	Foster Cr	10		880
	25	Howard Cr	275		24,200
	26	Hugh Allan Cr	125		11,000
	29	Windfall Cr	25		2,200
			465		40,920
55	3	Narcosli Cr	85	88	7,480
	4	Narcosli Cr	30	70	2,100
	20	Charleson Cr	10		700
	21	Blackwater R	790	88	69,520
	22	Tako Cr	220	70	15,400
	23	Saunders	150		10,500
	24	Blackwater R	90		6,300
	77	Blackwater R	110		7,700
			1,485		119,700

Appendix 2 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
56	1	Marvin Cr	90	70	6,300
	2	Cottonwood Canyon	200	100	20,000
	22	Cuisson Cr	<u>35</u>	76	<u>2,660</u>
			325		28,960
59	14	Castle Cr	450	76	34,200
	19	Castle Cr	40		3,040
	73	Bowron R (N)	10		760
	74	Purden L	20		1,520
	76	Grizzly Bear Cr	15	88	1,320
	97	Barney Cr	85	100	8,500
	101	Eaglet L	<u>60</u>		<u>6,000</u>
			680		55,340
68	74	Pinchi Mtn	90	76	6,840
	80	Trembleur L	<u>10</u>		<u>760</u>
			100		7,600
69	115	Summit L	<u>25</u>	76	<u>1,900</u>
			25		1,900
Total for Prince George Forest Dist.			3,080		254,420

VANCOUVER FOREST DISTRICT

10	8	Cogburn Cr	10	86	860
	10C	Big Silver Cr	40		3,440
	12B	Tretheway Cr	10		860
	12C	Tipella Cr	10		860
	13	Sloquet Cr	90		7,740
	19A	Glacier L	<u>20</u>		<u>1,720</u>
			180		15,480
12	18	Skagit R	<u>75</u>	86	<u>6,450</u>
			75		6,450

Appendix 2 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
26	6	Spuzzum Cr	175	86	15,050
	8	Chapmans	40		3,440
	9	Scuzzy Cr	80		6,880
	15	Nahatlatch R	25		2,150
	22	Tsileuh Cr	130		11,180
			450		38,700
27	26	N. Lillooet L	25	86	2,150
			25		2,150
Total for Vancouver Forest Dist.			730		62,780
Total for British Columbia			35,015		2,705,350

Appendix 3

Alpine fir killed by western balsam bark beetle, Dryocoetes confusus,
in association with a forest disease, Ceratocystis dryocoetidis,
1966-70

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
KAMLOOPS FOREST DISTRICT					
12	13	Skaist Cr	30	35	1,050 1,050
13	9	Keremeos Cr	100	35	3,500
	10	Winters Cr	500		17,500
	18	Duruisseau Cr	50		1,750
	57	Lamont Cr	100		3,500
	58	Whipsaw Cr	280		9,800
	62	Placer Cr	50		1,750
	64	Copper Cr	550		19,250
	66	Monument Cr	50		1,750
	68	Chuwanten L	120		4,200
	85	Granite Cr	500		17,500
	90	Olivine Mtn	100	40	4,000 84,500
			2,400		
14	15	Skulaow Cr	60	45	2,700
	23	Crescent Cr	100		4,500
	27	Gemmill L	100		4,500
	31	Trepanier Cr	600		27,000
	35	Pooley Cr	50		2,250
	36	Joe Rich Cr	100		4,500
	42	Paynter L	700		31,500
	45	Terrace Cr	1,600		72,000
	47	Oyama L	250	35	8,750
	51	BX Cr	50		1,750
	52	Wilson Cr	900		31,500
	53	Terrace Mtn	550	45	24,750
	54	Bouleau L	1,700		76,500
	55	Whiteman Cr	1,000		45,000
	60	Fortune Cr	150	35	5,250
	63	Goat Mtn L	500		17,500 359,950
			8,410		

Appendix 3 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
25	10	Prospect Cr	30	35	1,050
	12	Maka Cr	10		350
	21	Bottletop Cr	45		1,575
	22	Juliet Cr	35		1,225
	24	Coldwater R	20		700
	33	Brenda L	300		10,500
	35	Pennask Cr	300		10,500
	44	Frogmoore L	50		1,750
	46	Mt. Bob	<u>150</u>		<u>5,250</u>
			940		32,900
33	8	Phair Cr	30	35	1,050
	9	Duffy L	110		3,850
	15	Dickey Cr	<u>150</u>		<u>5,250</u>
			290		10,150
37	3	Larch Hills	70	45	3,150
	4	Fly Hill	300		13,500
	6	Chase Cr	1,000		45,000
	14	Yard Cr	1,750		78,750
	15	Queest Mtn	450		20,250
	16	Queest Cr	1,000		45,000
	17	Three Valley L	200	35	7,000
	18	Crazy Cr	100		3,500
	20	Anstey R	<u>400</u>		<u>14,000</u>
			5,270		230,150
38	1	Wap Cr	200	35	7,000
	2	Wap Cr	180		6,300
	3	Noisy Cr	150		5,250
	4	Greenbush L	75		2,625
	6	Whip Cr	200		7,000
	11	Sicamous Cr	4,000	45	180,000
	12	Kingfisher Cr	80		3,600
	13	Hunters Range	6,300		283,500
	16	Ashton Cr	300	35	10,500
	18	Hidden L	50		1,750
	19	Latewhos Cr	350	40	14,000
	24	Ireland Cr	300		12,000
	28	Cherry Cr	100	35	3,500
	29	Monashee Cr	100		3,500
	31	Ferry Cr	200		7,000
	35	McAuley Cr	<u>500</u>		<u>17,500</u>
			13,085		565,025

Appendix 3 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
43	6	Cayenne Cr	400	35	14,000
	10	Celista Cr	75		2,625
			475		16,625
44	3	Shuswap L	650	45	29,250
	4	Vegetation Cr	100		4,500
			750		33,750
45	3	Louis L	1,175	35	41,125
	5	Lupin L(s)	250		8,750
	6	Heffley L	1,000		35,000
	7	Niskonlith Cr	350		12,250
	8	Hiuhill Cr	20		700
	9	Moira L	500		17,500
	10	Sullivan L	3,500		122,500
	11	Martin Meadows L	1,000		35,000
	12	Fadear Cr	500		17,500
	13	Barlett Cr	3,000		105,000
	14	Louis Cr	1,000		35,000
			12,295		430,325
46	2	McCauley Cr	100	45	4,500
	3	Wentworth Cr	750		33,750
			850		38,250
47	40	Bonaparte L	20	35	700
	48	Laluwissin Cr	20		700
	49	Botanie L	300		10,500
			340		11,900
56	26	Spinks Cr	15	35	525
	27	Grogan Cr	100		3,500
	29	Seller Cr	15		525
	30	Cariboo R	70		2,450
	40	Mitchell L	10		350
	41	Cameron Cr	275		9,625
	42	Roaring Cr	110		3,850
	43	Niagara Cr	50		1,750
	45	Isaiah Cr	105		3,675
	48	Abbot Cr	200		7,000
	51	Bootjack L	125		4,375
	53	Garen L	70		2,450

Appendix 3 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
56	56	Woodjam Cr	100	35	3,500
	63	Bill Miner Cr	50		1,750
	67	McKinley Cr	20		700
	68	McNeil L	100		3,500
			1,415		49,525
57	1	Bob Cr	2,200	45	99,000
	2	Fishtrap Cr	250		11,250
	3	Peterson Cr	1,500		67,500
	4	Hoopatatkwa L	500		22,500
	5	Caverhill Cr	200		9,000
	6	Latremouille Cr	675		30,375
	7	Tawee L	400		18,000
	9	Moira L	500		22,500
	10	Gill L	250		11,250
	11	Maury L	320		14,400
	19	Hendrin Cr	330		14,850
	20	Deception Cr	50		2,250
	21	Mahood L	135		6,075
	26	Murtle L	50		2,250
	27	Murtle L	50		2,250
			7,410		333,450
58	1	S. Barriere L	550	35	19,250
	2	N. Barriere L	50		1,750
	3	Fison Cr	30		1,050
	5	Fennell Cr	50		1,750
	6	Newhykulston Cr	100		3,500
	7	Rennie Cr	25		875
	9	Reg Christie Cr	20		700
	12	Sundt Cr	25		875
	14	Froth Cr	10		350
	15	Blue R	30		1,050
	16	Mud L	100		3,500
			990		34,650
Total for Kamloops Forest Dist.			54,950		2,332,200

Appendix 3 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
NELSON FOREST DISTRICT					
15	9	Granby R	<u>120</u> 120	35	<u>4,200</u> 4,200
17	38	Fry Cr	<u>100</u> 100	35	<u>3,500</u> 3,500
18	37	Sawyer Cr	<u>25</u> 25	35	<u>875</u> 875
19	3	Wigwam R	20	35	700
	4	Bighorn Cr	100		3,500
	6	Harvey Pass	20		700
	10	Bull R	200		7,000
	26	Alexander Cr	<u>50</u> 390		<u>1,750</u> 13,650
20	2	Sage Cr	50	35	1,750
	3	Cabin Cr	400		14,000
	5	Flathead Townsite	<u>75</u> 525		<u>2,625</u> 18,375
21	2	Wildhorse Cr	200	35	7,000
	28	White R	<u>20</u> 220		<u>700</u> 7,700
39	1	Slewiskin Cr	<u>20</u> 20	35	<u>700</u> 700
41	47	Bush R	25	35	875
	53	Sullivan R	175		6,125
	55	Kinbasket L	<u>50</u> 250		<u>1,750</u> 8,750
Total for Nelson Forest Dist.			1,650		57,750

Appendix 3 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
PRINCE GEORGE FOREST DISTRICT					
42	28	Canoe R	50	35	1,750
	30	Canoe R	25		875
	31	Ptarmigan Cr	220		7,700
	34	Dave Henry Cr	55		1,925
			350		12,250
55	2	Narcosli Cr	25	35	875
	21	Tako Cr	150		5,250
	23	Saunders	150		5,250
			325		11,375
56	1	Whites Landing Cr	400	45	18,000
	2	Lazaroff L	20		900
	8	Lightning Cr	1,500		67,500
			1,920		86,400
59	4	Moose L	135	35	4,725
	9	Spittal Cr	150		5,250
	15	Nevin Cr	30		1,050
	21	Dore R	300		10,500
	22	Dore R	220		7,700
	23	McIntosh Cr	600		21,000
	24	McKale Cr	350		12,250
	25	East Twin Cr	1,200		42,000
	26	West Twin Cr	1,500		52,500
	27	La Salle Cr	1,300		45,500
	28	Goat R	600		21,000
	30	Snowshoe Cr	700		24,500
	31	Ptarmigan Cr	600		21,000
	32	Dome Cr	400		14,000
	34	Humbug Cr	150		5,250
	35	Morkill R	600		21,000
	37	Morkill R	350		12,250
	41	Walker Cr	50	45	2,250
	46	Seebach Cr	15		675
	53	Spakwaniko	20		900
	55	Herrick Cr	50		2,250
	56	McGregor R	40		1,800
	62	Slim Cr	475		21,375
	64	Tumuch L	600		27,000
	65	Hungary Cr	2,000		90,000
	68	Kenneth Cr	500		22,500

Appendix 3 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
59	72	Purden L (N)	75	45	3,375
	73	Bowron R (N)	25		1,125
	76	Grizzly Bear Cr	150		6,750
	77	Bowron R (S)	170		7,650
	82	Indianpoint Cr	100		4,500
	84	Bowron R (S)	575		25,875
	85	Summit Cr	100		4,500
	116	Thursday Cr	1,800		81,000
	118	Jerry Cr	100		4,500
	121	Stony L	350		15,750
	122	Stephanie Cr	200		9,000
	145	Naver Cr	125		5,625
			<u>16,705</u>		<u>659,875</u>
60	7	Fyfe L	100	35	3,500
	17	Leigh Cr	<u>50</u>		<u>1,750</u>
			<u>150</u>		<u>5,250</u>
68	62	Stuart L	30	45	1,350
	74	Tezzeron L	50		2,250
	79	Tezzeron L	20		900
	83	Kuzkwa R	25		1,125
	85	Trembleur L	10		450
	99	Mt. Klock	100		4,500
	104	Tsitsutl Cr	50		2,250
	107	Sakeniche R	350		15,750
	109	Takla Range	310		13,950
	113	Takla Range	<u>50</u>		<u>2,250</u>
			<u>995</u>		<u>44,775</u>
69	6	Weston Cr	45	45	2,025
	7	Dina L	30		1,350
	9	Nation R	400		18,000
	37	Airline L	95		4,275
	46	Tsayta L	220		9,900
	47	Nation R	230		10,350
	53	Morfee L(s)	50		2,250
	55	Tsedeka Cr	50		2,250
	57	Scovil Cr	250		11,250
	58	Mischinsinlika Cr	20		900
	59	Mischinsinlika Cr	200		9,000
	62	Misinchinka R	1,550		69,750
	64	Bijoux Cr	500		22,500

Appendix 3 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
69	66	Isadore Cr	25	45	1,125
	67	Canyon Cr	25		1,125
	69	Reynolds Cr	150		6,750
	71	Chuyazega Cr	50		2,250
	72	Hodda Cr	105		4,725
	74	Destilida Cr	20		900
	75	Anzac R	20		900
	81	Wooyadilinka Cr	120		5,400
	92	Gable Mtn	50		2,250
	95	Tudyah L	25		1,125
	103	Tsatchuka Cr	70		3,150
	111	Mt. Averil	40		1,800
	115	Teapot Mtn	10		450
			4,450		195,750
70	44	Pine Pass	600	35	21,000
	47	Callazon Cr	50		1,750
	48	Pine R	50		1,750
			700		24,500
Total for Prince George Forest Dist.			25,595		1,040,175

PRINCE RUPERT FOREST DISTRICT

60	148	Nadina L	1,200	30	36,000
	156	Troitsa L	130		3,900
			1,330		39,900
65	16	McDonell L	450	30	13,500
	34	Sedan Cr	500		15,000
	35	Mill Cr	500		15,000
	55	Swordgrass L	250		7,500
	82	Skeena R	2,500		75,000
	83	Skeena R	5,500		165,000
	90	Sustut R	9,500		285,000
			19,200		576,000

Appendix 3 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
66	83	Babine R	<u>400</u> 400	30	<u>1,200</u> 1,200
67	11	Telkwa R	1,200	30	36,000
	22	Gabriel Cr	150		4,500
	44	McKendrick Cr	6,400		192,000
	48	McKendrick Cr	<u>1,500</u> 9,250		<u>45,000</u> 277,500
75	50	Upper Nass R	700	30	21,000
	54	Upper Nass R	700		21,000
	62	Upper Nass R	700		21,000
	88	Upper Nass R	<u>600</u> 2,700		<u>18,000</u> 81,000
Total for Prince Rupert Forest Dist.			32,880		975,600
Total for British Columbia			115,075		4,305,725

Appendix 4

Western white pine killed by mountain pine beetle,

Dendroctonus ponderosae, 1966-70

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
KAMLOOPS FOREST DISTRICT					
12	13	Skaist Cr	200	64	12,800
	14	Allison Pass	<u>1,000</u>	71	<u>71,000</u>
			<u>1,200</u>		<u>83,800</u>
14	61	Vance Cr	<u>80</u>	31	<u>2,480</u>
			<u>80</u>		<u>2,480</u>
33	8	Phair Cr	<u>150</u>	60	<u>9,000</u>
			<u>150</u>		<u>9,000</u>
37	13	Larch Hills	700	71	49,700
	15	Eagle R	85		6,035
	16	Malakwa	20		1,420
	18	Crazy Cr	10		710
	19	Perry R	<u>65</u>		<u>4,615</u>
			<u>880</u>		<u>62,480</u>
38	1	Wap L	105	52	5,460
	2	Wap Cr	50		2,600
	3	Wap Cr	20		1,040
	5	Shuswap R	155		8,060
	6	Wap Cr	50		2,600
	7	Mabel L (E)	120	71	8,520
	8	Curwen Cr	160		11,360
	9	Vigue Cr	315		22,365
	10	Spectrum Cr	335		23,785
	12	Kingfisher Cr	20		1,420
	13	Johnson Cr	25	52	1,300
	19	Latewhos Cr	10		520
	20	Sugar L	1,060		55,120
	21	Sitkum Cr	70		3,640
	22	Outlet Cr	80		4,160
	23	Ireland Cr	110	71	7,810
	24	Ireland Cr	1,705		121,055

Appendix 4 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
38	25	Trinity Va	75	52	3,900
	27	Cherry Cr	220		11,440
	29	Monashee Cr	<u>45</u>		<u>2,340</u>
			<u>4,730</u>		<u>298,495</u>
43	1	Adams L	650	52	33,800
	2	Adams L	530		27,560
	5	Momich L	255	40	10,200
	6	Stukemapten L	375		15,000
	7	Humamilt L	1,255		50,200
	10	Ratchford Cr	200	52	10,400
	11	Adams L	<u>50</u>		<u>2,600</u>
			<u>3,315</u>		<u>149,760</u>
44	1	Nikwikwaia Cr	15	52	780
	4	Kwikoit Cr	<u>200</u>		<u>10,400</u>
			<u>215</u>		<u>11,180</u>
58	2	N. Barriere L	75	40	3,000
	3	E. Barriere L	1,110		44,400
	5	N. Barriere L	50		2,000
	9	Vavenby	40		1,600
	10	Otter Cr	10		400
	15	Blue R	310		12,400
	16	Mud L	3,355		134,200
	23	Serpentine Cr	<u>40</u>		<u>1,600</u>
			<u>4,990</u>		<u>199,600</u>
Total for Kamloops Forest Dist.			15,560		816,795

NELSON FOREST DISTRICT

15	2	Christina L	<u>75</u>	30	<u>2,250</u>
			<u>75</u>		<u>2,250</u>
17	21	Priest R	100	30	3,000
	24	Erie Cr	2,850		85,500
	26	Hall Cr	120		3,600

Appendix 4 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
17	29	Nelson Cr	100	30	3,000
	40	Kaslo	75		2,250
	41	Carney Cr	170		5,100
	42	Davis Cr	375		11,250
			3,790		113,700
22	4	Slocan L	85	30	2,550
	11	Slocan L	450		13,500
	12	Slocan L	30		900
	13	Carpenter Cr	350		10,500
	14	Wilson Cr	315		9,450
			1,230		36,900
23	4	Whatshan L	140	30	4,200
	5	Whatshan L	50		1,500
	6	Whatshan R	175		5,250
	11	Caribou Cr	150		4,500
			515		15,450
39	1	Slewiskin Cr	70	30	2,100
	3	Kuskanax Cr	430		12,900
	5	Cape Horn	525		15,750
	6	Saddle Mtn	525		15,750
	8	Cusson Cr	2,525		75,750
	9	Fosthall Cr	1,755		52,650
	10	Vanstone Cr	150		4,500
	11	Pingston Cr	4,950		148,500
	12	Pingston Cr	1,700		51,000
	13	Shelton Cr	2,315		69,450
	14	Halfway R	1,125		33,750
	15	McKenzie Cr	2,205		66,150
	16	Staubert L	2,675		80,250
	17	Incomappleux R	525		15,750
	18	Incomappleux R	195		5,850
	21	N.E. Arm Arrow L	600		18,000
	22	Akolkolex R	400		12,000
	25	Cranberry R	10		300
	27	Revelstoke	120		3,600
	28	St. Leon	125		3,750
			22,925		687,750
40	4	Duncan L	800	30	24,000
	5	Duncan L	225		6,750
	7	Duncan R	300		9,000

Appendix 4 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
40	12	Poplar Cr	475	30	14,250
	14	Hope Cr	115		3,450
	15	Trout L	1,880		56,400
	17	Trout L	<u>2,050</u>		<u>61,500</u>
			<u>5,845</u>		<u>175,350</u>
41	49	Bush R	220	30	6,600
	60	Boat Encampment	60		1,800
	69	Tabernacle Cr	<u>10</u>		<u>300</u>
			<u>290</u>		<u>8,700</u>
42	1	Rogers Pass	345	30	10,350
	5	LaForme Cr	475		14,250
	6	Frisby Cr	200		6,000
	9	Downie Cr	20		600
	16	Nichols Cr	<u>10</u>		<u>300</u>
			<u>1,050</u>		<u>31,500</u>
Total for Nelson Forest Dist.			35,720		1,071,600

PRINCE GEORGE FOREST DISTRICT

42	29	Windfall Cr	370	52	19,240
	31	Canoe R	<u>70</u>	30	<u>2,100</u>
			<u>440</u>		<u>21,340</u>
Total for Prince George Forest Dist.			440		21,340

VANCOUVER FOREST DISTRICT

10	14	Fire L	40	95	3,800
	19A	Glacier Cr	<u>110</u>		<u>10,450</u>
			<u>150</u>		<u>14,250</u>
27	29	Birkenhead L	<u>50</u>	71	<u>3,550</u>
			<u>50</u>		<u>3,550</u>
Total for Vancouver Forest Dist.			200		17,800
Total for British Columbia			51,920		1,927,535

Appendix 5

Lodgepole pine killed by mountain pine beetle,

Dendroctonus ponderosae, 1966-70

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
KAMLOOPS FOREST DISTRICT					
13	17	Ashnola R	650	24	15,600
	30	McNulty Cr	100		2,400
	40	Shinnish Cr	30		720
	47	Rampart Cr	10		240
	52	Princeton	<u>30</u>	34	<u>1,020</u>
			820		19,980
14	15	Riddle Cr	100	24	2,400
	19	Isintok Cr	100		2,400
	22	Empress Cr	200	34	6,800
	29	Greata Cr	30		1,020
	30	Jack Cr	75		2,550
	34	Daves Cr	30		1,020
	36	Joe Rich Cr	4,170	25	104,250
	37	Belgo Cr	125		3,125
	38	Mission Cr	1,000	34	34,000
	39	Pearson Cr	100		3,400
	41	Power Cr	15		510
	42	Paynter L	205		6,970
	43	Art Pond	15		510
	44	Sweid Cr	40		1,360
	45	Lambly Cr	1,705	25	42,625
	55	Whiteman Cr	200		5,000
	59	Equesis Cr	<u>50</u>		<u>1,250</u>
			8,160		219,190
25	25	Nicola R	10	30	300
	32	Pennask L	25		750
	38	Range Cr	<u>20</u>		<u>600</u>
			55		1,650
33	8	Cayoosh Cr	110	22	2,420
	9	Cayoosh Cr	11,000		242,000
	16	La Rochelle Cr	50		1,100
	20	Gun L	975		21,450
	22	Downton L	350		7,700
	23	Pearson Cr	<u>300</u>		<u>6,600</u>
			12,840		281,270

Appendix 5 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
34	2	Billy L	175	22	3,850
	3	Highland Va	40		880
	13	Promontory Mtn	50		1,100
			265		5,830
37	1	Cedar Hill	100	22	2,200
	19	Perry R	10		220
	49	Coldstream Cr	100		2,200
			210		4,620
38	28	Cherry Cr	20	22	440
	29	Monashee Cr	50		1,100
	31	Ferry Cr	25		550
			95		2,090
47	1	Whiskey Cr	13,425	22	295,350
	2	Okeefe L	115		2,530
	3	Asahal L	20,100		442,200
	4	Cariboo Bill L	7,000		154,000
	5	Spokin L	50		1,100
	6	San Jose R	400		8,800
	7	Maze L	200		4,400
	19	Place L	500		11,100
	24	Jesmond Cr	30		660
			41,820		920,040
48	17	Big Cr	200	22	4,400
	18	Big Cr	50		1,100
	24	Chilcotin R	60		1,320
	26	Haines Cr	500		11,000
			810		17,820
56	28	Cariboo L	315	22	6,930
	29	Seller Cr	125		2,750
	30	Harveys Cr	2,050		45,100
	31	Little R	1,550		34,100
	52	Tyee L	2,720		59,840
	61	McLeese L	1,115		24,530
	69	Soda Cr	65		1,430
			7,940		174,680
57	1	Whitewood Cr	50	30	1,500
			50		1,500

Appendix 5 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
58	6	Dunn L	<u>25</u> 25	24	<u>600</u> 600
		Total for Kamloops Forest Dist.	73,090		1,649,270

NELSON FOREST DISTRICT

15	6	Burrel Cr	<u>100</u> 100	26	<u>2,600</u> 2,600
19	17	Bull R	<u>230</u> 230	26	<u>5,980</u> 5,980
21	5	Coyote Cr	2,100	26	54,600
	8	Canal Flats	200		5,200
	9	Finlay Cr	150		3,900
	10	Dutch Cr	175		4,550
	11	Toby Cr	295		7,670
	14	Windermere L	360		9,360
	15	Horse thief Cr	105		2,730
	16	Forster Cr	200		5,200
	20	Brisco	125		3,250
	21	Steamboat Mtn	60		1,560
	24	White R	650		16,900
	25	Elk Cr	8,900		231,400
	33	Palliser R	<u>25</u> 13,345		<u>650</u> 346,970
22	4	Slocan L	<u>70</u> 70	20	<u>1,400</u> 1,400
24	6	Beaverdell Cr	50	20	1,000
	7	Kallis Cr	<u>4,000</u> 4,050		<u>80,000</u> 81,000
39	11	Ledge Cr	<u>200</u> 200	20	<u>4,000</u> 4,000

Appendix 5 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
41	25	Golden	50	26	1,300
	35	Redgrave	6,850		178,100
	49	Bush L(s)	200		5,200
			7,100		184,600
		Total for Nelson Forest Dist.	25,095		626,550

PRINCE GEORGE FOREST DISTRICT

42	30	Canoe R	60	30	1,800
	31	Ptarmigan Cr	50		1,500
	32	Canoe R	35		1,050
			145		4,350
55	2	Narcosli Cr	150	30	4,500
	3	Narcosli Cr	200		6,000
	4	Narcosli Cr(s)	600		18,000
	6	Tingley Cr	985		29,550
	17	Baker Cr	15		450
			1,950		58,500
56	19	Moffat L	205	30	6,150
	22	Cuisson Cr	600		18,000
	69	Cuisson L	475		14,250
			1,280		38,400
59	6	Swift Cr	50	30	1,500
			50		1,500
68	105	Bivouac Cr	100	37	3,700
	109	Dominion Point	600		22,200
			700		25,900
		Total for Prince George Forest Dist.	4,125		128,650

Appendix 5 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
PRINCE RUPERT FOREST DISTRICT					
65	41	Seeley L	1,400	20	28,000
	46	Burdick Cr	200	40	8,000
	48	Date Cr	650		26,000
	56	Kispiox R	<u>1,600</u>	20	<u>32,000</u>
			<u>3,850</u>		<u>94,000</u>
66	16	Donald Ldg	110	20	2,200
	29	Wright Bay	<u>150</u>	32	<u>4,800</u>
			<u>260</u>		<u>7,000</u>
75	28	Weegett Cr	<u>1,000</u>	40	<u>40,000</u>
			<u>1,000</u>		<u>40,000</u>
Total for Prince Rupert Forest Dist.			5,100		141,000
VANCOUVER FOREST DISTRICT					
33	10	Haylmore Cr	<u>200</u>	27	<u>5,400</u>
			<u>200</u>		<u>5,400</u>
Total for Vancouver Forest Dist.			200		5,400
Total for British Columbia			107,610		2,550,870

Appendix 6

Ponderosa pine killed by mountain pine beetle,

Dendroctonus ponderosae, 1966-70

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
KAMLOOPS FOREST DISTRICT					
13	36	Jura	750	41	30,750
	51	Gould L	1,000		41,000
	52	Deer Valley Cr	1,500		61,500
	53	S. of Princeton	535		21,935
	56	Allenby	300		12,300
	76	Missezula L	40		1,640
	77	Bluey L	10		410
			4,135		169,535
14	5	Wolfcub Cr	1,320	29	38,280
	6	Baldy Cr	325		9,425
	7	Okanagan Falls	40	54	2,160
	13	Skaha Cr	100		5,400
	20	Bearpaw Cr	100		5,400
	24	Darke Cr	105		5,670
	34	Cardinal Cr	25	29	725
	37	Belgo Cr	100		2,900
	41	Power Cr	45		1,305
	43	McDougal Cr	150		4,350
	45	Lambly Cr	250	18	4,500
	47	Wood L	30	30	900
	50	S. of Lavington	25		750
	52	Wilson Cr	15		450
	53	Shorts Cr	200		6,000
	54	Whiteman Cr	40		1,200
	56	Equesis Cr	130		3,900
			3,000		93,315
25	5	Spences Bridge	470	41	19,270
	6	Skeikut Cr	1,315		53,915
	7	Shakan Cr	40		1,640
	8	Nuaitch Cr	15		615
	9	Spius Cr	50		2,050
	10	Prospect Cr	10		410
	14	S. of Merritt	75		3,075

Appendix 6 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
25	18	Salem Cr	20	41	820
	25	Hamilton Cr	25		1,025
	27	Kentucky L	15		615
	38	Chapperon L	10,000 12,035	30	300,000 383,435
33	13	Seton L	100	29	2,900
	19	Bridge R	10	41	410
	20	Gun L	325		13,325
	22	Lajoie L	215 650		8,815 25,450
34	1	Promontory Mtn	50	41	2,050
	2	W. of Mamit L	50		2,050
	5	Mt Anne	15		615
	8	Barnes Cr	455		18,655
	9	Quiltanton L	35		1,435
	12	Shukum Cr	50		2,050
	13	Promontory Mtn	185 840		7,585 34,440
35	2	Walker L	65	41	2,665
	4	Coal Hill	25		1,025
	10	Durand Cr	10 100		410 4,100
36	7	Salmon L	1,100	30	33,000
	8	Index L	300 1,400		9,000 42,000
	1	Falkland	15	30	450
37	6	Olsand Cr	75 90		2,250 2,700
	2	King L	10	30	300
45	4	Pritchard	1,425		42,750
	6	Lyons L	10		300
	7	Niskonlith L	10		300
	8	Little Shuswap L	10 1,465		300 43,950

Appendix 6 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
46	2	McQueen Cr	15	41	615
	3	Jamieson Cr	10		410
	4	Tranquille Cr	100		4,100
	6	Sylvester Cr	50		2,050
	9	Carabine Cr	30		1,230
	10	Savona	10		410
	11	Criss Cr	240		9,840
	12	Cultus L	10		410
	13	Deadman Cr	205		8,405
	55	Lopez Cr	20		820
				<u>690</u>	<u>28,290</u>
47	26	Cutoff Valley Cr	265	41	10,865
	29	Fiftyone Cr	50		2,050
	42	Maiden Cr	40		1,640
	43	Hat Cr	2,270		93,070
	44	Hat Cr	260		10,660
	45	Pavilion	10		410
	51	Venables Va	75		3,075
	54	Tsotin L	200		8,200
	55	Cache Cr	450		18,450
	56	Scottie Cr	25		1,025
	58	Loon L	10		410
			<u>3,655</u>		<u>149,855</u>
	48				
48	7	Coster Cr	80	41	3,280
	8	Churn Cr	50		2,050
	12	Gaspard Cr	15		615
				<u>145</u>	<u>5,945</u>
Total for Kamloops Forest Dist.			28,205		983,015

NELSON FOREST DISTRICT

15	3	Granby R	95	40	3,800
	11	Rock Cr	320		12,800
	12	Kettle Va	55		2,200
				<u>470</u>	<u>18,800</u>

Appendix 6 - continued

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
23	2	Christina L	<u>100</u> 100	30	<u>3,000</u> 3,000
24	7	Lois	<u>130</u> 130	50	<u>6,500</u> 6,500
		Total for Nelson Forest Dist.	700		28,300
		Total for British Columbia	28,905		1,011,315

Appendix 7

White spruce killed by engraver beetle, Ips spp., 1966-70

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
PRINCE GEORGE FOREST DISTRICT					
56	123	Lodi L	<u>20</u> 20	50	<u>1,000</u> 1,000
59	83	Indian L	30	50	1,500
	84	West Cr	20		1,000
	85	Atan L	40		2,000
	90	Spectacle L(s)	60		3,000
	114	Wansa L	30		1,500
	115	Pitoney L	80		4,000
	116	Thursday Cr	200		10,000
	119	Narrowlake Cr	<u>200</u> 660		<u>10,000</u> 33,000
Total for British Columbia					
			680		34,000

Appendix 8

Ponderosa pine killed by engraver beetle, Ips spp., 1966-70

Region	Comp.	Location	No. trees	Avg vol per tree	Total vol (ft ³)
KAMLOOPS FOREST DISTRICT					
14	46	Ellison	500	13	6,500
	58	Irish Cr	300		3,900
			800		10,400
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Total for British Columbia			800		10,400
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Appendix 9

Western hemlock killed by green-striped forest looper,

Melanolophia imitata, 1966-70

Region	Comp.	Location	No. acres	Avg vol per acre	Total vol (ft ³)
VANCOUVER FOREST DISTRICT					
1	20A	Atkins Cove	280	466	130,480
	21B	Port Alice	200	3,935	787,000
	21D	Ketchen I	40	142	5,680
	21F	Julian Cove	20	408	8,160
			540		931,320
Total for British Columbia					
			540		931,320