

## Young Pine Project – 2008 work outline

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In 2005, the majority of aerial and ground surveys were conducted in the core MPB outbreak area of Prince George, Quesnel, Vanderhoof, Central Cariboo, 100 Mile House and Nadina Forest Districts. Small areas within the Chilcotin, Kamloops and Okanagan Shuswap areas were surveyed but young pine attack in these three districts was still very low and sporadic. In 2005 a total of 1,186 polygons over 152 mapsheets (9 Districts) (Table 1) were aerially assessed. In 2006 a total of 2,526 polygons over 226 mapsheets (7 Districts) (Table 2) were aerially assessed, and in 2007 2,188 polygons over 259 mapsheets (10 Districts) (Table 2) were aerially assessed.

Table 1. Number of mapsheets and polygons aerially assessed, by District, in 2005.

District	2005 Aerial Surveys	
	# maps	# polygons
100 Mile House	28	217
Central Cariboo	28	161
Chilcotin	3	7
Nadina	22	140
Prince George	14	121
Quesnel	26	225
Vanderhoof	28	272
Kamloops	1	5
OkanaganShuswap	2	38
<b>Total</b>	<b>152</b>	<b>1,186</b>

Table 2. Number of mapsheets and polygons aerially assessed, by District, in 2006 and 2007, showing hectares surveyed.

### 2006 aerial survey summary

	DCH	DMH	DQU	DNA	DCC	DPG	DVH
Ha	4,413	12,302	21,423	5,494	16,376	9,018	18,906
# maps	13	32	41	16	43	37	44
# stands	165	357	424	127	503	415	535

### 2007 aerial survey summary

	DCH	DMH	DQU	DND	DCC	DJA	DCS	DHW	DKA	DOS
Ha	7,264	12,502	10,324	8,869	9,249	2,857	7,422	2,558	7,122	4,851
# maps	25	25	21	29	25	18	40	15	38	23
# stands	214	307	220	197	247	172	237	93	320	181

In 2005, a special request was made to Vegetation Resource Inventory (VRI) (BCMOFR 2005) to provide the inventory data base for the Northern and Southern Interior Forest Regions of pine leading stands (20-55 years) grouped by 50-80% pine and >80% pine. Another request has been made in 2008 to refresh the dataset and include stands now 20 years of age. In 2008, we plan to conduct aerial surveys in 12 Districts (DCH, DMH, DQU, DPG, DVH, DND, DCC, DJA, DCS, DHW, DKA and DOS) and estimate approximately 340 maps will be surveyed covering approximately 3,200-3,500 polygons. Some stands surveyed in past years as well as new stands will be surveyed in 2008. Photographs will be taken of each polygon surveyed and data will be collected noting percent red and grey attack, adjacent risk and future risk. Data will be transferred to FFT on a weekly basis when surveys start in late June 2008.

Twenty-four permanent sample plots have been established in young stands throughout B.C. and will be re-evaluated in 2008 for current attack, brood production and success, checking, bark sloughing and other parameters. Numerous spacing trials established in 1987-1990 will be assessed for MPB attack in 2008 (Table 3).

Table 3. Summary of mountain pine beetle attack in five spacing trials (upper table) and average pine density in each by spacing regime.

	Ave. % pine attacked				
	Monte Cr	Stump Lake	Riske Creek	Daves Cr	TFL 15
2 m	75.7	23.7	0.8	0	0
2.5 m	72.2	41.1	2.7	0.6	0
3.0 m	83.5	47.1	3.1	0	0
no spacing	18.4	12.6	0	0	0
Average	38.5	22.2	0.9	0.1	0

Average stem density (sph) in each trial, by spacing regime.

	Average density (stems per ha)				
	Monte Cr	Stump Lake	Riske Cr.	Daves Cr.	TFL 15
2.0 m	1,935	1,940	2,425	1,033	1,129
2.5 m	1,330	1,495	1,690	795	1,101
3.0 m	1,000	1,210	1,145	805	795
unspaced	8,025	6,350	6,300	4,975	9,401

The first estimation from the model being developed to estimate damage in young pine stands will be completed by the end of April 2008. This project will keep in close contact with the FFT group and identify which stands may need ground assessment to verify some assumptions of model results.