

PINE BARK BEETLE

TRAPPING REPORT

UBC OKANAGAN CAMPUS GROUNDS

Eric Haupt
Forestry Consulting

November 9, 2018

UBC OKANAGAN PINE BEETLE TRAPPING REPORT – 2018

Lindgren funnel traps were set up this year as a pine bark beetle control measure to attract and collect western pine beetles (WPB) rather than have them attack ponderosa pine trees on UBCO campus property. Traps were previously used in 2006, 2007, 2008, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017.

Traps were set up with the purpose of attracting residual WPB in Campus trees as well as beetles flying onto UBCO Campus from surrounding properties. This report provides details and results of this years trapping program as well as recommendations..

Trap Sites

Ten clusters of three Lindgren funnel traps totaling thirty traps were set up at nine of the same locations as the previous year and site one was moved due to road construction. Refer to the attached map for site locations and site numbers.

Lures Used

WPB lures were used in all thirty Lindgren funnel traps. Mountain pine beetle lures were previously tried but were ineffective so their use has been discontinued.

Placement and Removal Dates

- | | |
|-----------|---|
| May 8 | Traps were set up and lures placed at five sites.. |
| May 10 | Traps were set up and lures placed at remaining five sites. |
| October 5 | Traps were removed and placed in wooden storage boxes in the Quonset Maintenance Yard after the insects were collected. |

Trap Monitoring and Insect Collections

Traps were checked and insects collected on July 25th and October 5th. It would have been beneficial to check the traps more often because of other insects and debris getting into the traps. The collected insects were dried, sorted and pine beetles counted. The attached table shows the sites, collection dates and the number of pine beetles counted.

Collection Comments

The traps continue to be effective. A total of 11,689 WPB were collected. The numbers collected were less than the previous year and below the 2015 collection of 12,567 beetles which was the previous lowest collection since the trapping commenced. The July 25th collection was 11,685 and October 5th collection was only 4 beetles. The October collection of 4 was remarkably lower than the fall 2017 collection of 2,096 beetles. Site 6 traps continue to collect the most beetles with 36% this year. Collection results as well as the comparison of the 2018 collection with previous years is shown on the attached table.

Summary

Pine beetle control using traps with WPB lures is still effective resulting in 11,689 western pine beetles being trapped which prevented a significant number of pine trees from being attacked. There were 5,744 less beetles caught this year compared with 2017

numbers. This years collection numbers are the lowest since trapping commenced in 2006. Year 2015 had the previous lowest collection at 12,567 beetles.

Nearly all of the beetles were trapped prior to the July collection date and only 4 beetles were counted in the fall collection. The low fall collection numbers indicate a declining population especially since we had a long hot dry summer.

No obviously attacked trees were observed while making the trap inspections and collections.

Recommendations

The pine beetle control measures using traps and verbenone repellents should be discontinued unless the winter Campus beetle survey attacked tree numbers are significant.

The pine beetle surveys of Campus trees should be continued at least for the next fiscal year even if trapping and repellent use is discontinued and suggest a summer and winter survey be done.

The pine beetle survey scheduled during January 2019 will identify the trees with current beetle populations. The survey results will help to determine the control measures that should be taken in 2019.

My observations and surveys in other areas indicate that the pine beetle populations are now almost at an endemic level.



Eric Haupt
Forest Health Consultant

November 9, 2018

UBCO PINE BEETLE CONTROL
LINDGREN FUNNEL TRAP COLLECTIONS – 2018

SITE	TRAP COLLECTION DATES				TOTAL	
	JULY 25		OCTOBER 5			
	WPB	RTB	WPB	RTB	WPB	RTB
1	725		0		725	
2	354		0		354	
3	382		0		382	
4	163		0		163	
5	1,044		0		1,044	
6	4,236		3		4,239	
7	1,059		0		1,059	
8	618		0		618	
9	1,109		1		1,110	
10	1,995		0		1,995	
TOTALS	11,685	0	4	0	11,689	0

2018 Collection Summary

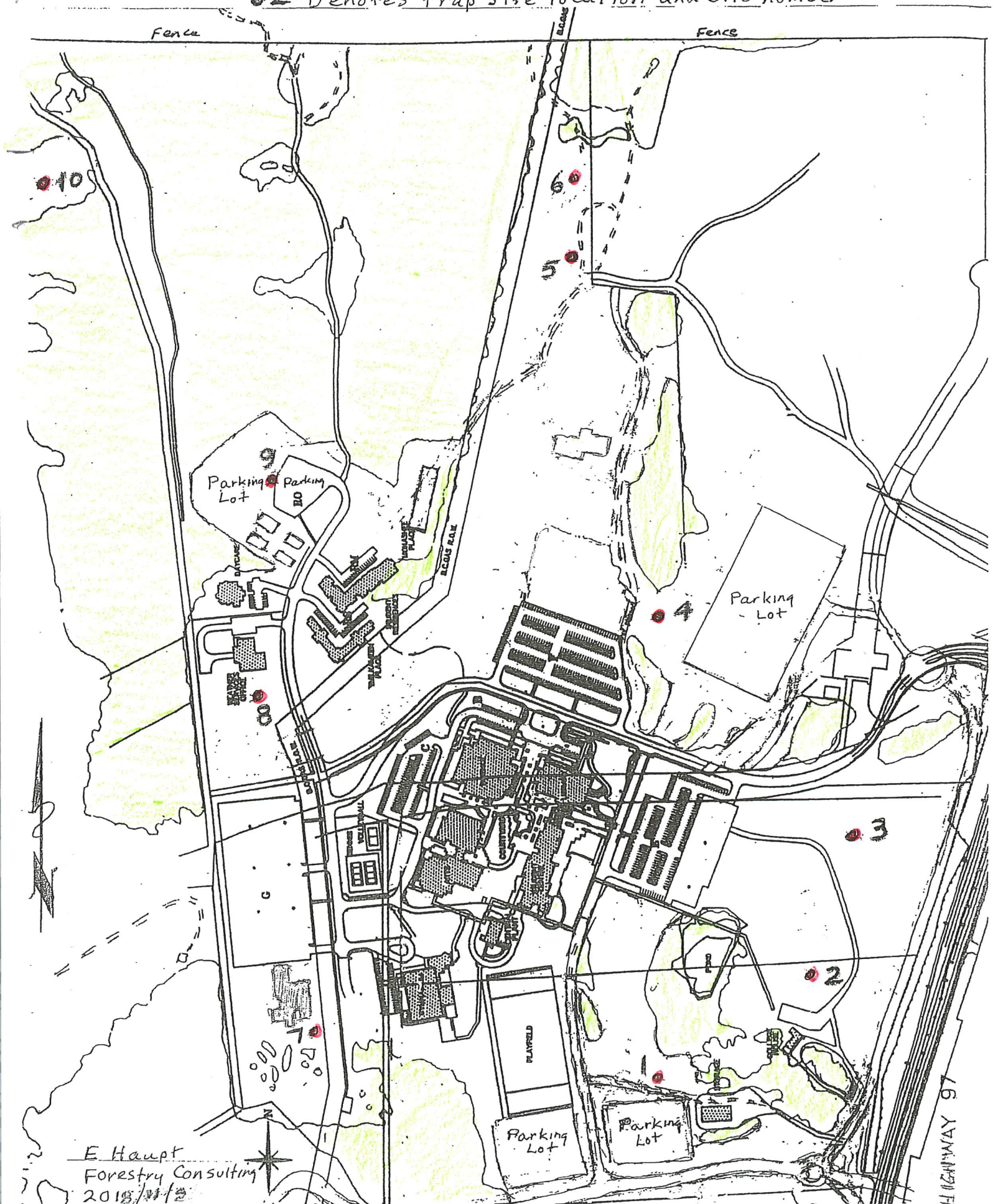
Western Pine Beetles (WPB)	11,689
Red Turpentine Beetles (RTB)	0
Total	11,689

Collection Comparisons

2018	11,689	(10 sites)
2017	17,433	(10 sites)
2016	24,472	(10 sites)
2015	12,568	(10 sites)
2014	23,231	(10 sites)
2013	42,912	(10 sites)
2012	75,560	(10 sites)
2011	48,324	(10 sites)
2010	41,022	(10 sites)
2008	38,644	(13 sites)
2007	31,499	(13 sites)
2006	28,079	(9 sites)

MAP OF 2018 VBCO PINE BEETLE TRAP SITES

2-D denotes trap site location and site number



E Haupt
Forestry Consulting
2018/11/19

UBCO FUNNEL TRAP COLLECTION HISTORY

<u>BARK BEETLE NUMBERS</u>			
<u>YEAR</u>	<u>SUMMER</u>	<u>FALL</u>	<u>TOTAL</u>
2006	21,231	6,745	27,976
2007	18,986	12,372	31,358
2008	21,553	17,026	38,579
2010	30,543	10,461	41,004
2011	24,437	23,876	48,813
2012	46,941	28,602	75,543
2013	39,208	3,702	42,911
2014	20,466	2,765	23,231
2015	10,574	1,993	12,567
2016	11,500	12,972	24,472
2017	15,337	2,096	17,433
2018	11,685	4	11,689