

St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management

Hemlock Woolly Adelgid Stressed Tree Surveys **2018 Field Survey**

SLELO-PRISM Early Detection Surveillance



July 23rd, 30th, August 2nd, 3rd, 6th, 8th

Report prepared on August 9th by Emma Gutierrez and Sarah Kirkpatrick

Methods and Observations

In July and August of 2018, Early Detection team Emma Gutierrez and Sarah Kirkpatrick surveyed multiple sites in the SLELO region for signs and symptoms of Hemlock Woolly Adelgid (HWA). Since surveys were conducted after the “woolly” stage of the adelgid life cycle, the underside of new growth needles was checked for black nymphs along the stem. Additionally, other signs of poor health in hemlock like needle loss, branch dieback, and discoloration were noted at each location. These, however, could also be symptoms of other abiotic or biotic health factors in the environment.

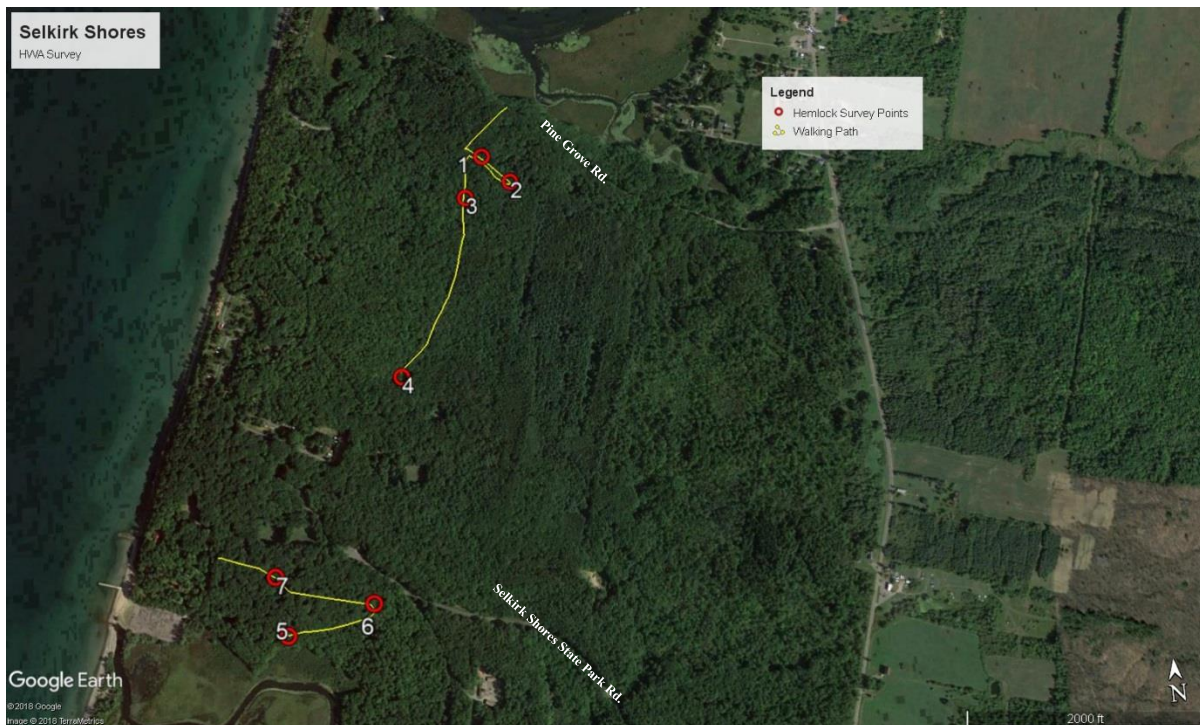
No nymphs were found on the needles during the 2018 surveys. Overall, the hemlock trees surveyed appeared healthy. Lower branch dieback was the most common sign noted, but most likely due to light availability instead of an infestation. Surveys for HWA would be best conducted in the fall months in the future, due to ease of identification of the woolly masses overwintering on the needles.

The following are observation location maps and observation tables for the nine (9) sites where surveys took place, each of which are located in the southern, most susceptible, portion of the SLELO Region.

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1. Selkirk Shores State Park

<i>Site</i>	<i>Description</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Observations</i>
1	Red Fox Trail	43.56243	-76.2003	Some lower branches dead; some needle loss in upper crown
2	Red Fox Trail	43.56168	-76.1994	Lower branches dead; no needle loss
3	Yellow Forest Trail	43.55703	-76.2037	Lower branches dead; no needle loss
4	Yellow Forest Trail	43.56139	-76.201	Lower branches dead; no needle loss
5	White Leaf Trail	43.55117	-76.2081	Some lower branches dead; no needle loss
6	Green Frog Trail	43.5517	-76.2052	Few to no lower branches dead; no needle loss
7	Green Frog Trail	43.55257	-76.20786	Some lower branches dead; no needle loss



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2. Mexico Point State Park

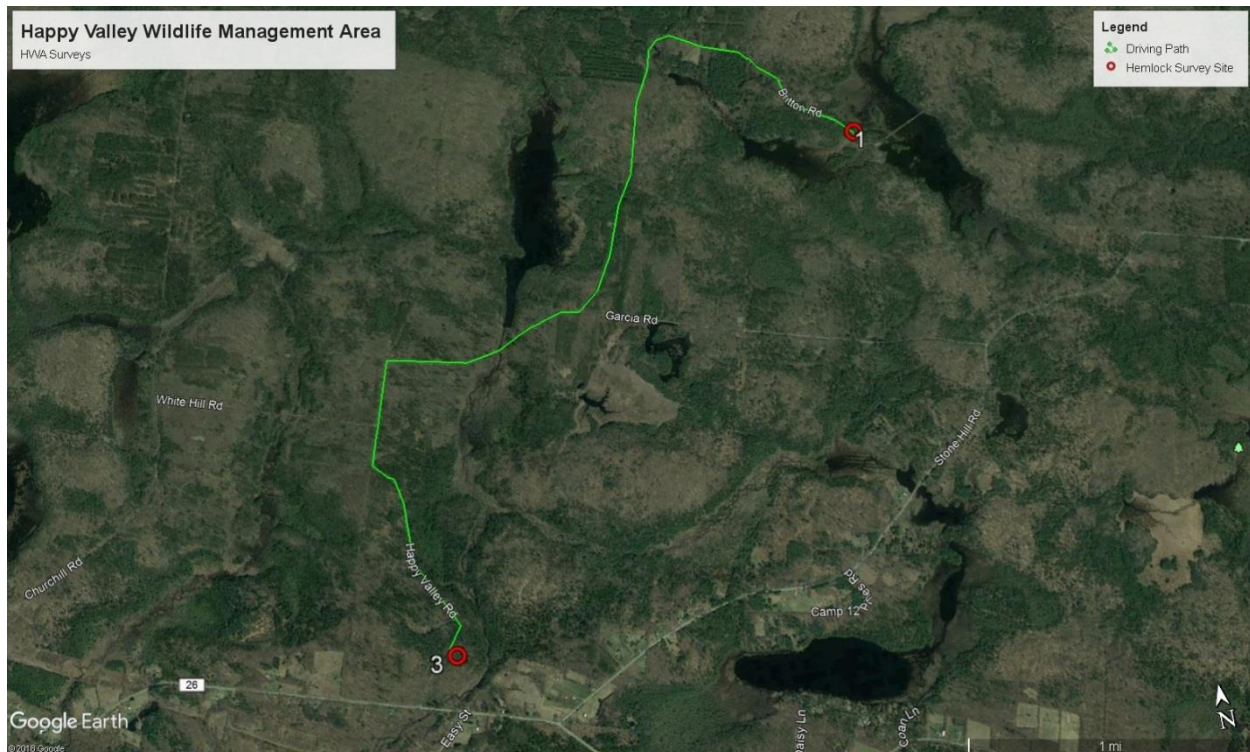
<i>Site</i>	<i>Description</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Observations</i>
1	Roops Loop	43.55245	-76.2592	Minimal loss of lower branches; no needle loss
2	Roops Loop	43.52183	-76.2593	Minimal loss of lower branches; no needle loss
3	Roops Loop	43.5206	-76.2586	Minimal loss of lower branches; no needle loss
4	Roops Loop	43.5198	-76.2573	Minimal loss of lower branches; no needle loss
5	Roops Loop	43.51964	-76.2562	Minimal loss of lower branches; no needle loss
6	Roops Loop	43.52064	-76.2568	Lower branches dead; some needle loss



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3. Happy Valley Wildlife Management Area

<i>Site</i>	<i>Description</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Observations</i>
1	Along Britton Rd	43.433923	-75.965109	Few branches dead; no needle loss
3	Along Happy Valley Rd	43.411059	-76.001906	No needle loss



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4. Trenton Greenbelt

<i>Site</i>	<i>Description</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Observations</i>
1	Yellow Trail	43.24519	-75.21046	Lower branches dead; no needle loss
2	Orange Trail	43.24559	-75.20864	Lower branches dead; no needle loss
3	Blue Trail	43.24350	-75.20242	Lower branches dead; no needle loss
4	Blue Trail	43.24390	-75.20592	Lower branches dead; no needle loss



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5. Salmon River Falls

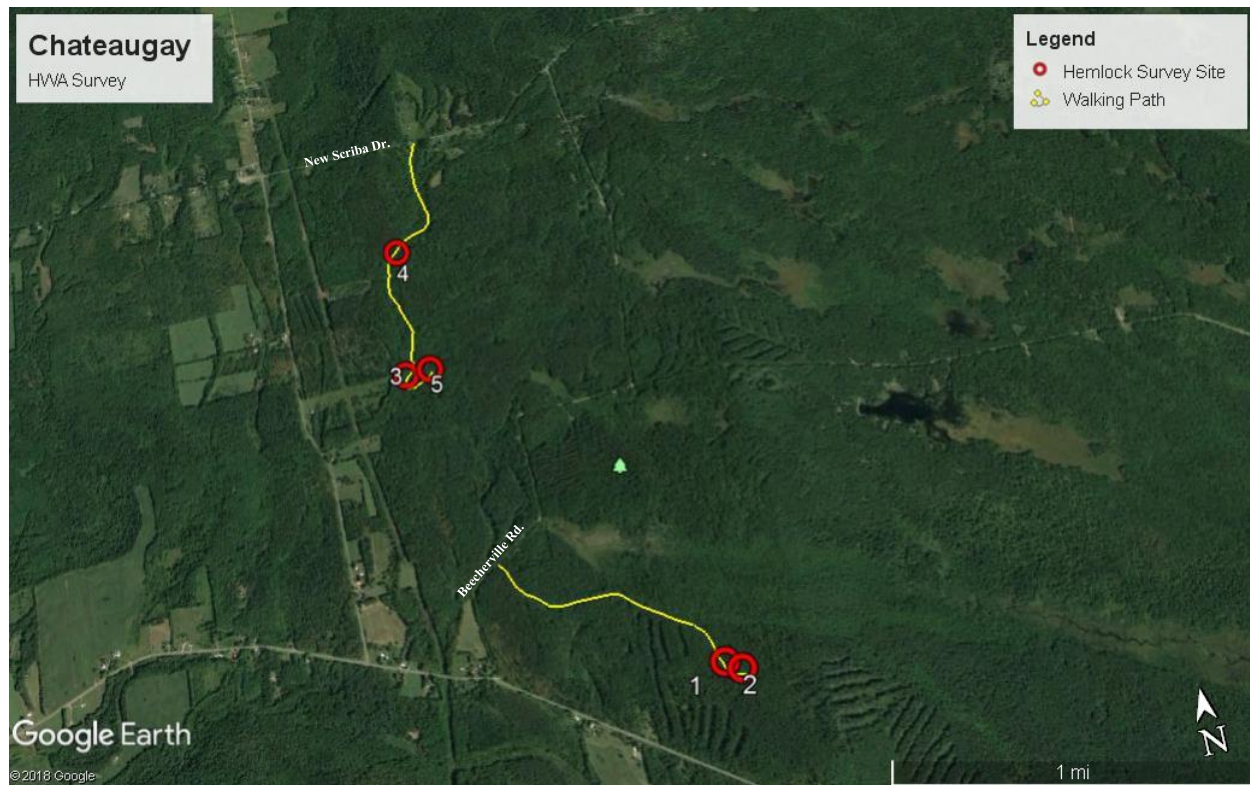
<i>Site</i>	<i>Description</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Observations</i>
1	Trailhead	43.54902	-75.94275	Little to no loss of needles
2	Along Trail	43.54764	-75.93579	Little to no loss of needles
3	Along Trail	43.54770	-75.93427	Few lower branches dead; little to no needle loss
4	Along Trail	43.54610	-75.92666	Some lower branches dead; little to no needle loss
5	Along Trail	43.54574	-75.92408	Little to no needle loss
6	End of Trail	43.54513	-75.92193	Lower branches dead; little to no needle loss



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6. Chateaugay State Forest

<i>Site</i>	<i>Description</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Observations</i>
1	Trail 4	43.57239	-75.94892	Lower branches dead
2	Trail 4	43.57198	-75.94806	Lower branches dead
3	Trail 1	43.58815	-75.96411	Lower branches dead
4	Trail 1	43.59459	-75.96341	Lower branches dead
5	Trail 7	43.58818	-75.96255	Lower branches dead



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7. Mad River State Forest

<i>Site</i>	<i>Description</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Observations</i>
1	Along McSpirit Rd.	43.40336	-75.76483	Dead lower branches
2	Along McSpirit Rd.	43.40884	-75.75922	Dead lower branches/ leaf loss
3	Along Rehm Rd.	43.40942	-75.74877	Loss of needles in upper crown
4	Along McSpirit Rd.	43.40554	-75.76733	Dead lower branches



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8. Buck Hill State Forest

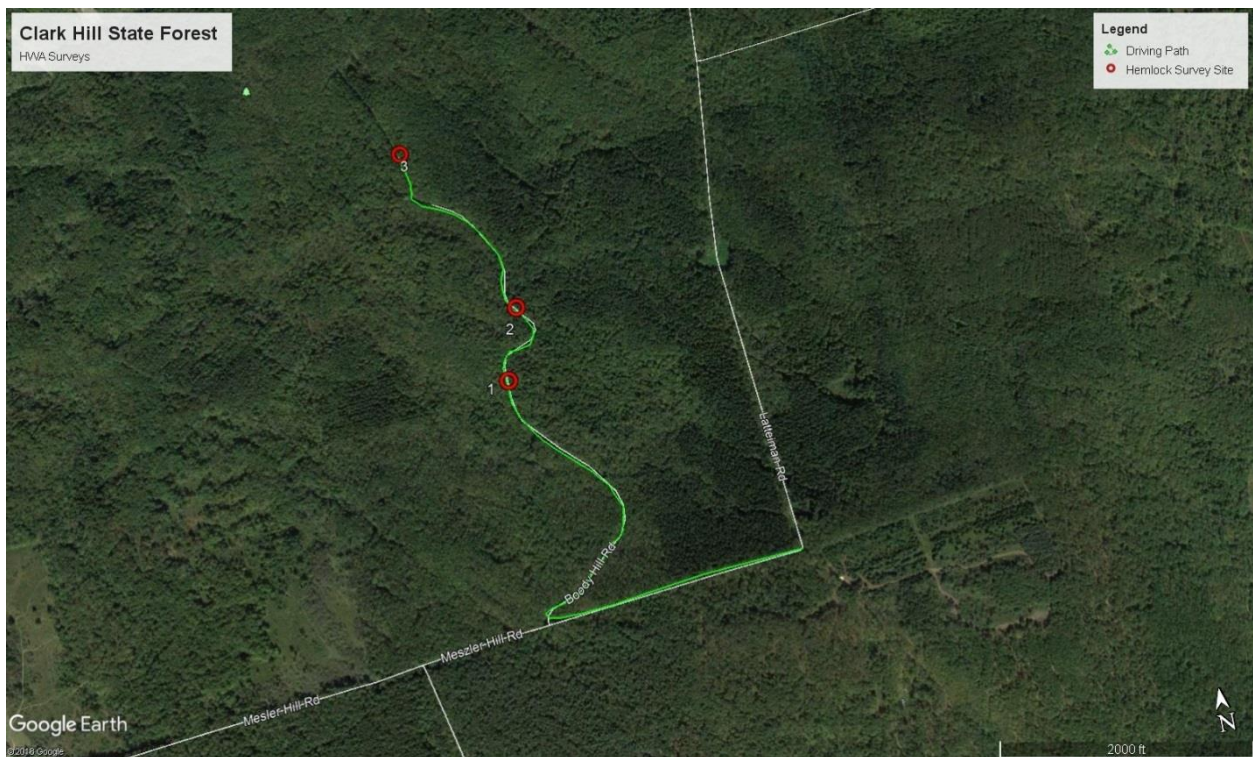
<i>Site</i>	<i>Description</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Observations</i>
1	Along Hertz Rd.	43.38232	-75.36503	Lower branches dead; little to no needle loss
2	Along Hertz Rd.	43.38032	-75.36469	Lower branches dead; little to no needle loss
3	Along Unnamed Rd.	43.36833	-75.37165	Lower branches dead; little to no needle loss



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9. Clark Hill State Forest

<i>Site</i>	<i>Description</i>	<i>Latitude</i>	<i>Longitude</i>	<i>Observations</i>
1	Along Boody Hill Rd.	43.35786	-75.31100	Some lower branch loss
2	Along Boody Hill Rd.	43.35956	-75.31038	Lower branches dead
3	Along Boody Hill Rd.	43.36398	-75.31328	No needle loss; some lower branch loss



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