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

St. Lawrence River/Thousand Islands Emerald Ash Borer Early Detection Survey

SLELO-PRISM Early Detection Surveillance

June 3rd and 29th 2015

Figure 1: Panoramic view of the St. Lawrence River at Kring Point State Park. Photo taken by Elizabeth MacEwen.

Report prepared by Elizabeth MacEwen and Caitlin Muller on July 1, 2015.

Survey Summary

On two separate occasions, early detection surveys for Emerald Ash Borer (EAB) were conducted at state parks along the St. Lawrence River within the SLELO-PRISM. These state parks included Jacques Cartier State Park, Keewaydin State Park, and Kring Point State Park. EAB has been detected on the other side of the St. Lawrence River in Canada. Due to its close proximity, the SLELO-PRISM determined that a survey for signs of EAB in this area was important. Several ash stands were observed for any significant signs of EAB. Signs of EAB include epicormic growth on the tree, canopy dieback, D-shaped exit holes, significant amounts of woodpecker damage, and of course, any emerald green beetles found.

Early detection crew member Elizabeth MacEwen first visited these parks on June 3rd for EAB surveillance. Ash stands were marked using a GPS unit and notes about the health of the ash trees were recorded. There were no clear signs of Emerald Ash Borer seen during this survey. Some observations noted were canopy die-back (Figure 2) and some epicormic growth (Figure 3), however, other diseases that also affect ash trees can result in these symptoms. Most ash tree stands in this survey seemed healthy. Although all three parks were surveyed, Jacques Cartier State Park did not have any recorded ash stands. Only one ash tree was seen throughout the park, which did appear to be healthy. Future monitoring should still be conducted at this park in case some ash trees were missed.

Figure 2: Some canopy die-back seen in an ash tree stand at Keewaydin State Park at waypoint 004 on June 3rd.

Figure 3: Very little epicormic growth seen at Keewaydin State Park at waypoint 005 on June 3rd.

Table 1: Ash tree stands in the various state parks, marked as waypoints, including notes on the health of the ash trees. These notes are from the June 3rd survey.

State Park	Waypoint	Latitude	Longitude	Notes
Kring Point	001	44.374785	-75.860651	Some possible die-back
	002	44.374468	-75.860763	Healthy stand
	003	44.375737	-75.859618	Healthy stand
Keewaydin	004	44.326164	-75.93175	Some canopy die-back
	005	44.324085	-75.933122	Little epicormic growth, some die-back

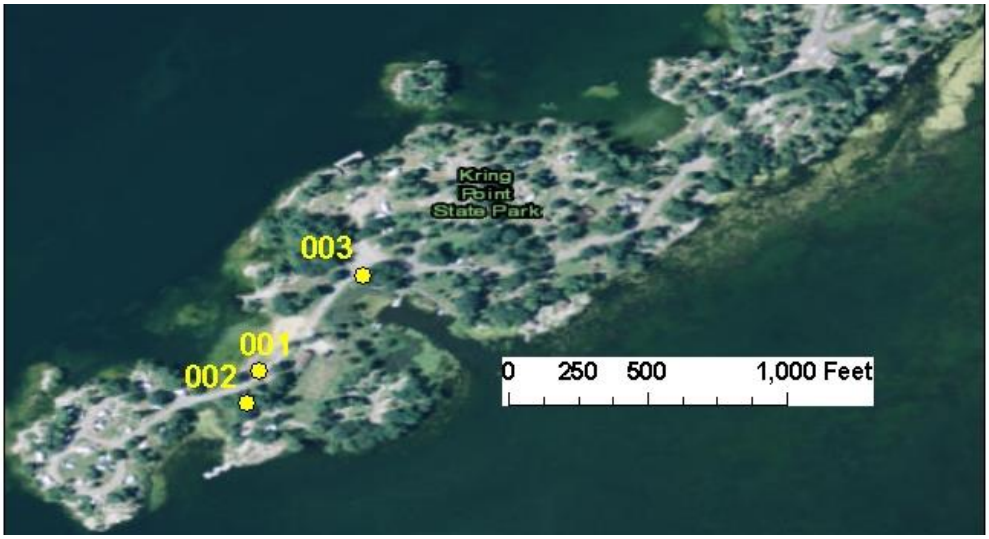

Figure 4: Map of Kring Point State Park, with ash stands recorded on June 3rd.

Figure 5: Map of Keewaydin State Park, with ash tree stands recorded on June 3rd.

Second Survey

On June 29th Early Detection Field Crew member Caitlin Muller re-visited the three parks. The ash stands marked by Elizabeth MacEwen in the prior survey were re-visted, and any ash trees that showed any symptoms of stress were marked. Jacques Cartier State Park had a small stand of ash present on both sides of the main road. Some of these trees dispayed eipicormic growth and canopy dieback. One ash had larger epicormic sprouts, indicating that the tree had been stressed for a long period of time (Figure 6).

At Kring Point State Park there was a large amount of stressed ash trees. Most ash trees in this park displayed blonding, the removal of the trees bark by woodpeckers, on the entire tree (Figure 7). The blonding was not drastic in most cases but was worth noting. The trees displaying blonding had varying amount of canopy dieback (Figure 8). On a few trees large circular exit holes were observed which may be due to native borers. Keewaydin State Park had few ash trees present in the campground. Those observed showed slight dieback and occasional epicormic sprouts.

While driving to each park along Route 12 visual survey showed that other ash trees were observing symptoms of epicormic sprouts and chlorosis of the leaves. Though all the symptoms ovserved are indicators of EAB the damage may be from other sources.

Figure 6. Larger epicormic sprouts found at Jacques Carter State Park. Photo taken by Caitlin

Figure 7. Blonding observed at Kring Point State Park. Photo taken by Caitlin Muller.

Figure 8. Canopy dieback observed in Kring Point State Park. Photo taken by Caitlin

Park	Waypoint	Latitude	Longitude	Notes
Jaques Carter	84	44.55833	-75.683204	Small ash stand
	85	44.558216	-75.682872	Epicormic sprouts
	86	44.558192	-75.682009	Large epicormic sprouts and dieback
	87	44.558224	-75.681256	Two ash trees, one with a lot of dieback.
Kring Point	88	44.376693	-75.856637	Some blonding
	89	44.376597	-75.856848	Large exit holes, some smaller exit holes. One tree almost dead
	90	44.374758	-75.860675	Blonding on all trees, some sprouts
	91	44.375058	-75.860215	Blonding on all trees, some sprouts
	92	44.374495	-75.860828	Blonding on all trees, some sprouts
	93	44.375729	-75.859607	Large ash trees, slight blonding and some sprouts
	94	44.376015	-75.859099	Declining ash behind campsite
	95	44.377886	-75.855432	Two small dying ash trees, large holes in trees
	96	44.377894	-75.855446	duplicate point
Keewaydin	97	44.325384	-75.933338	Back of campground, blonding
	98	44.324084	-75.93312	Some epicormic sprouts and dieback.

Table 2. Declining and damaged ash trees from the June 29th survey.

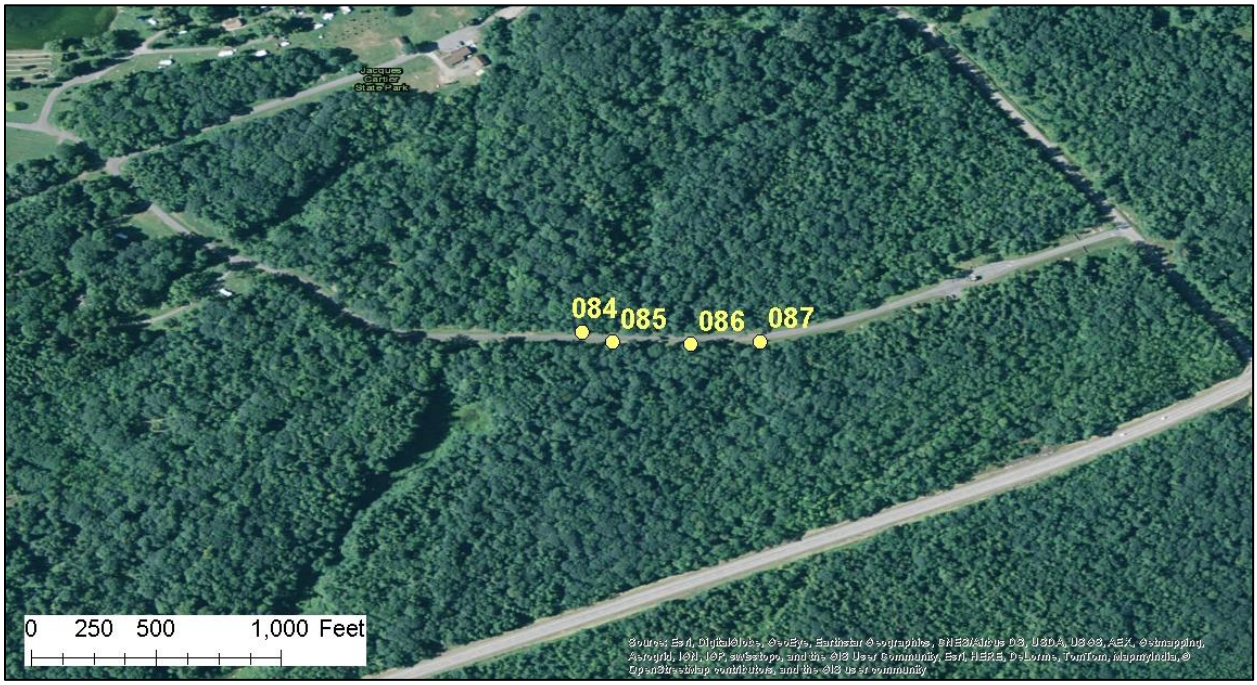

Figure 9. Map of Jacques Carter State Park

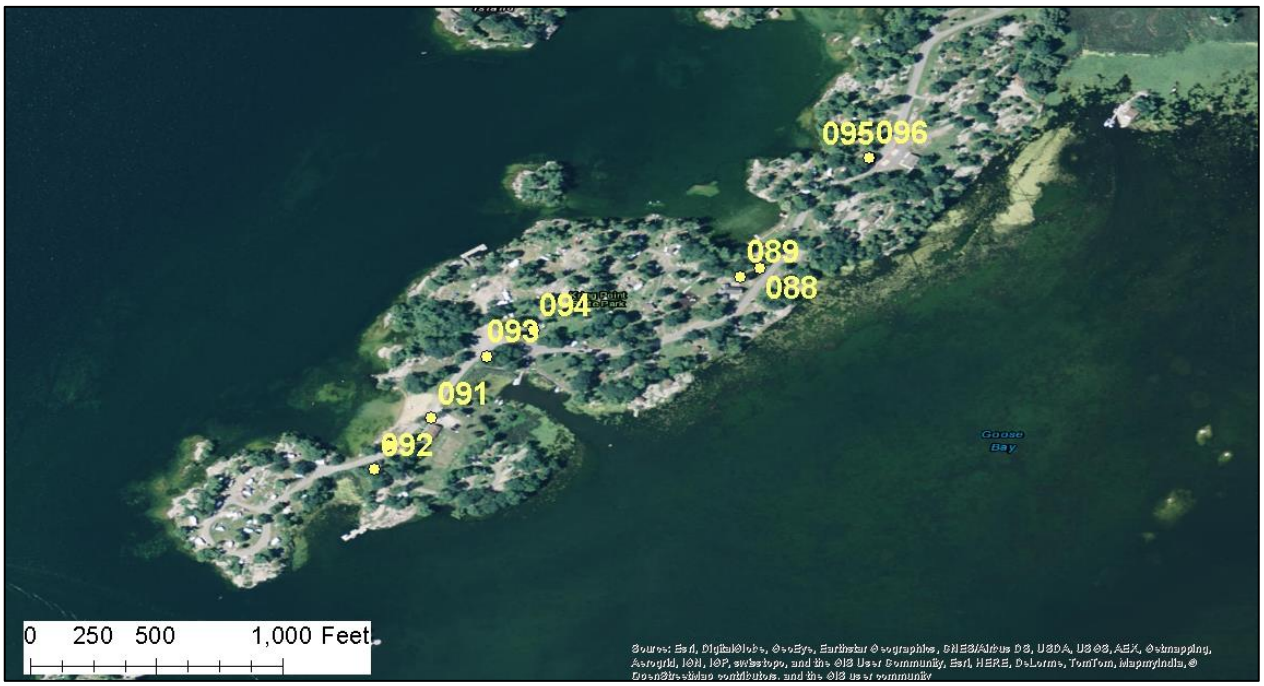

Figure 10. Map of Kring Point State Park

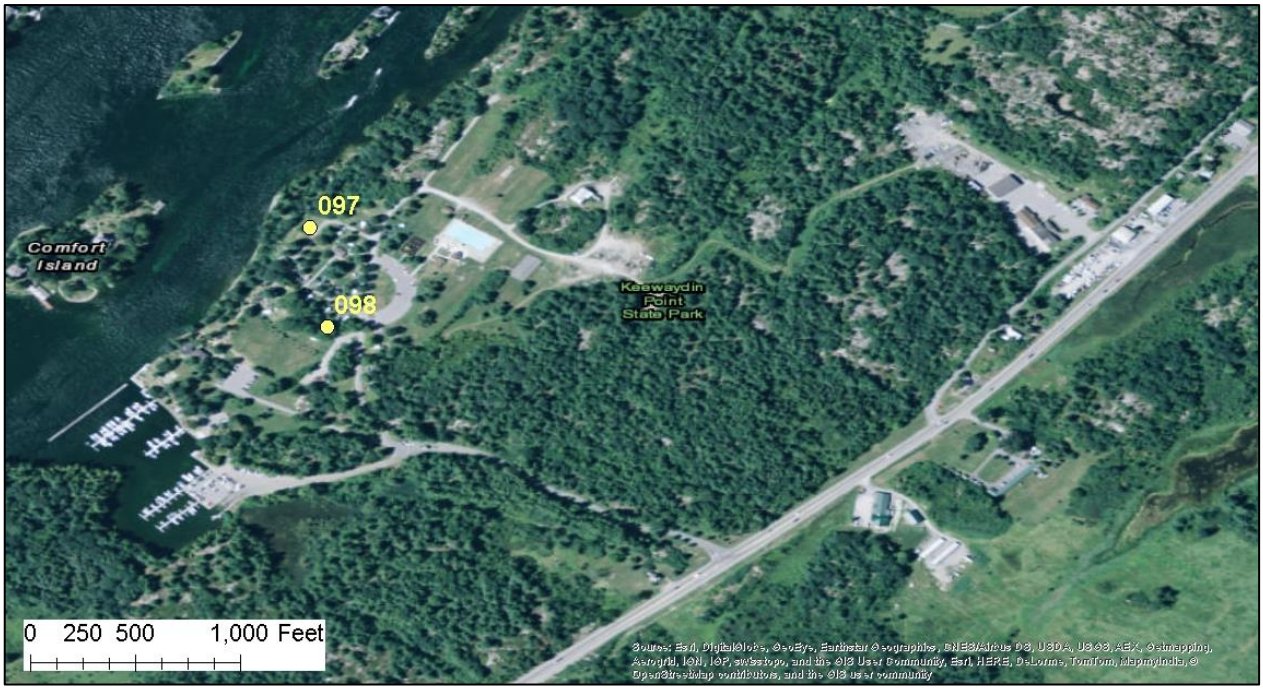

Figure 11. Map of Keewaydin State Park