



VERMONT FOREST PEST PLANNING ROADSIDE ASH TREE INVENTORY

Brattleboro



ABOUT THE PROJECT

The Vermont Forest Pest Planning Case Studies were developed to share the process that nine Vermont communities undertook to inventory their town's ash trees and develop an Emerald Ash Borer Preparedness Plan. These towns varied widely in population, size, and resources, which makes each town's experience and lessons learned unique.

An extensive tree survey was conducted in Brattleboro in 1996, which documented approximately 400 ash trees in the town's right-of-way (ROW). This data gave First Detector Bob Everingham and the other members of the Brattleboro Tree Advisory Committee a starting place for creating an Emerald Ash Borer (EAB) Preparedness Plan. Brattleboro paid student interns a stipend using the \$500 EAB Incentive. Bob, with the help of Antioch University student interns John Ogorzalek and Kelsey Hamilton, conducted an ash tree inventory in the summer of 2013 in order to update their data and develop recommendations for the Selectboard on mitigating the impacts of EAB.

Volunteers and interns collected two sets of data: ash trees in the downtown area and parks (prominent trees that are valued by the town), and ash trees in the ROW of back roads. They did not inventory all back roads. Instead, using a protocol developed by the US Forest Service (iTree Streets), Brian Bannon with the Brattleboro Planning Department and an intern selected 48 road segments representing a random 6% sample of the total roads. As Bob reflected, "we took a novel approach for how we collected the data. The previous inventory data was either in paper format or a very outdated digital format. I wanted to make it easy and I didn't want to have to spend a lot of time doing digital data entry so I looked for mobile apps that were able to collect GPS coordinates, operate offline without a data or phone connection, and were free, or nearly free." Bob discovered an Open Data Kit (ODK) platform for Android devices that fit all of those criteria.

In addition to the data collection from the inventory, members of the Tree Advisory Committee and First Detectors educated the public at the annual Strolling of the Heifers and local festivals and participated in Ash Tree Awareness Week. These events focused on educating the public about the transporting of firewood, ash tree identification, and early detection. Posters and educational pamphlets were also put up in local businesses.

FAST FACTS

LOCATION:

Brattleboro is located in Windham County in the southeastern corner of Vermont.

POPULATION: 12,049

LAND AREA: 32.4 miles²

MILES OF TOWN-MAINTAINED ROADS: 85.3

MILES OF ROAD

INVENTORIED: 48 segments of road totalling 5 miles that represent 6% of the roads in Brattleboro.

ASH TREES INVENTORIED: 300

TIME: 80 volunteer hours

PROJECT PARTNERS: Forest Pest First Detectors, Tree Warden, Tree Advisory Committee, graduate student interns, Brattleboro Planning Department

FINANCIAL RESOURCES: Urban & Community Forestry Program \$500 EAB Incentive

EQUIPMENT: Nexus tablet, ODK platform for Android devices

PLANNING RESOURCES: EAB planning templates and resources on VTinvasives.org



FIRST DETECTOR BOB EVERINGHAM AND OTHER VOLUNTEERS SPREAD THE WORD ABOUT EAB IN THE STROLLING OF THE HEIFERS PARADE IN BRATTLEBORO..





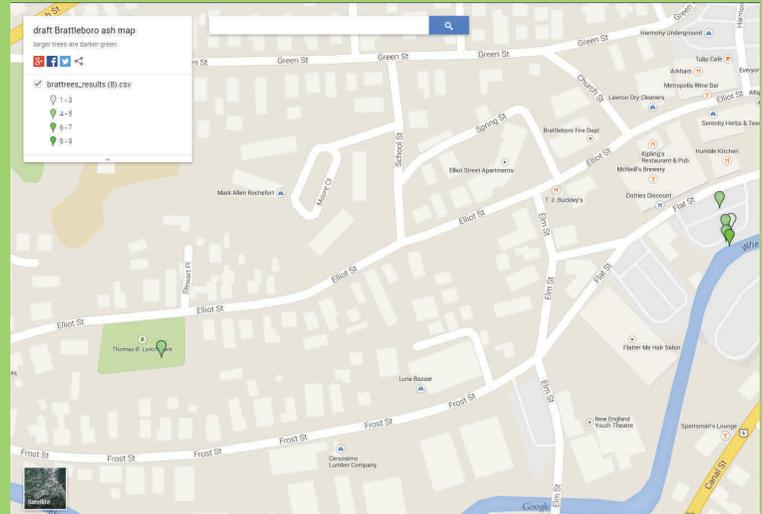
HOW THEY DID IT

Roadside walking survey

1. Volunteers, 2 interns, and members of the Brattleboro Tree Advisory Committee conducted a walking inventory of parks and streets in downtown Brattleboro and 6% of back roads.
2. Data was recorded for all ash within the road right-of-way (ROW) using an Open Data Kit (ODK), a Nexus tablet software. The ROW is 3 rods on all roads, which is 24.9' from the road center line.
3. With internet access or a phone signal the data was uploaded to the app server and then exported from the app server into an Excel spreadsheet. (The data can also be exported into a Fusion table or as a KML file, which is a GIS file.) Data was then analyzed and mapped.

Parameters Collected

Tree health: Rating of condition (1 = dead, 2 = poor, 3 = fair, 4 = good health), dieback, woodpecker damage



A SECTION OF BRATTLEBORO'S INVENTORY MAP THAT CAN BE CREATED USING GOOGLE FUSION.

Diameter at breast height in increments: 0-3", 3-6", 6-12", 12-18", 18-24", 24-30", 30-36", 36-42", 42"+

Location: GPS waypoint marked and photo taken of each tree

I think it has brought people together; it has been a community building thing. -Bob Everingham, Forest Pest First Detector

LESSONS LEARNED

- A **rapid** assessment is a critical first step. There's no need to reinvent the wheel. Brattleboro and other communities are happy to share their protocols, forms, and tools.
- Student interns can provide boots on the ground for inventorying, help with mapping and research, and act as a catalyst for community action. It's important to note that students may not be as invested in the long term compared to local citizens, so choosing the right role for them is important. A community will need to provide some level of oversight and guidance, hand holding, quality control, and project review.
- Outreach and education is important at all points of the preparedness planning process. Bob briefed the Selectboard about EAB at the beginning and received their blessing for moving forward. He then co-led an ash walk and put up posters to keep the community informed and then presented the inventory results and recommendations to the Selectboard.