Mapping to control an invasive species

Determined to stop her township from broadcast spraying all roadside ditches, MGV Margaret Smith set out to find an alternative method for eliminating invasive wild parsnip without killing valuable native plants. A partnership with UW-Extension, the town road committee, private homeowners and MGVs provided the solution: mapping the township mile by mile. Spraying was then limited to high-density areas and volunteers removed the species in low-density areas. After three years, large swaths of wild parsnip along roadsides in the Town of Kinnickinnic have been eliminated.

“Roadside plants are the gas stations, hotels, baby nurseries, grocery stores, rest stops for our birds, insects, butterflies and countless other species,” says Margaret. “These narrow corridors help wildlife survive, thrive and travel safely to larger habitats.”

It was this passion for nature that prompted Margaret to question the town’s decision to broadcast spray roadsides, which kills all plants. She rolled up her sleeves and got to work.

“It was a whole bunch of people working together to make it happen,” says Margaret. Around 20 landowners and MGVs attended a class by Diana Alfuth on plant ID and control. Niels Jorgensen, UW-Extension Geospatial Data Scientist, trained the group on an app used for mapping. UW-Extension Weed Specialist Mark Renz analyzed the mapping results (see map). And the town’s road committee joined in the effort to find new control options.

Mapping is the key. MGVs Marilyn Gorham, Karalyn Littlefield, Amanda Lawrence, Anita Justen and former MGV Denise Flaherty joined Margaret and homeowners in surveying and photographing parsnip patches along 79 miles of roads.

“The day I was out hunting wild parsnip was a beautiful day for a walk,” says Karalyn Littlefield. “The experience was rewarding. I’m particularly satisfied with our efforts as the results of our survey prevented blanket pesticide application.”

Marilyn Gorham remembers turning down a road while surveying and finding “it was alive with birds and butterflies feeding on the plants.” The area was identified as ‘clean,’ having no wild parsnips. “If this project wasn’t done, herbicides would have destroyed this important feeding ground,” she says.

Removal in low-density areas was accomplished with a parsnip predator, a special shovel that can cut the taproot two inches below the surface. An informative and entertaining video on using the parsnip predator can be found on the Prairie Enthusiasts website.

After the survey, Margaret uprooted wild parsnip along 17.4 miles of roadsides, areas that would have been sprayed.

She credits the town road committee for its willingness to look at different options, and urges all towns and cities to include a specialist in native plants on their road/street committees. Who sits at the table when decisions are made affects countless species.

“For me, it was important to speak up for the plants and animals who have no voice of their own,” she says.

Margaret holds a wild parsnip she removed with a parsnip predator. She protects her skin from the sap with long pants, long sleeves and gloves – no exposed skin because the sap can cause severe burns.

Margaret was named an “Invader Crusader” for 2020 by the Wisconsin Department of Natural Resources.

Diana Alfuth, Pierce County Horticulture Educator, nominated Margaret for her leadership in controlling wild parsnip in her area. “Margaret spearheaded an effort to collect information along the roadways, organized a group of volunteers to map the areas, and coordinated educational opportunities for local property owners,” wrote Diana. “This allowed the township to use the best control method, saving money on unneeded pesticide and protecting local wildflowers and pollinators.”

Margaret was one of four individuals to receive this year’s honor. It’s given to Wisconsin citizens and organizations for significant contributions to prevent, control or eradicate invasive species.

Congratulations, Margaret!