



Invasive Species Found in the Eastern Upper Peninsula of Michigan



By Colby Squires

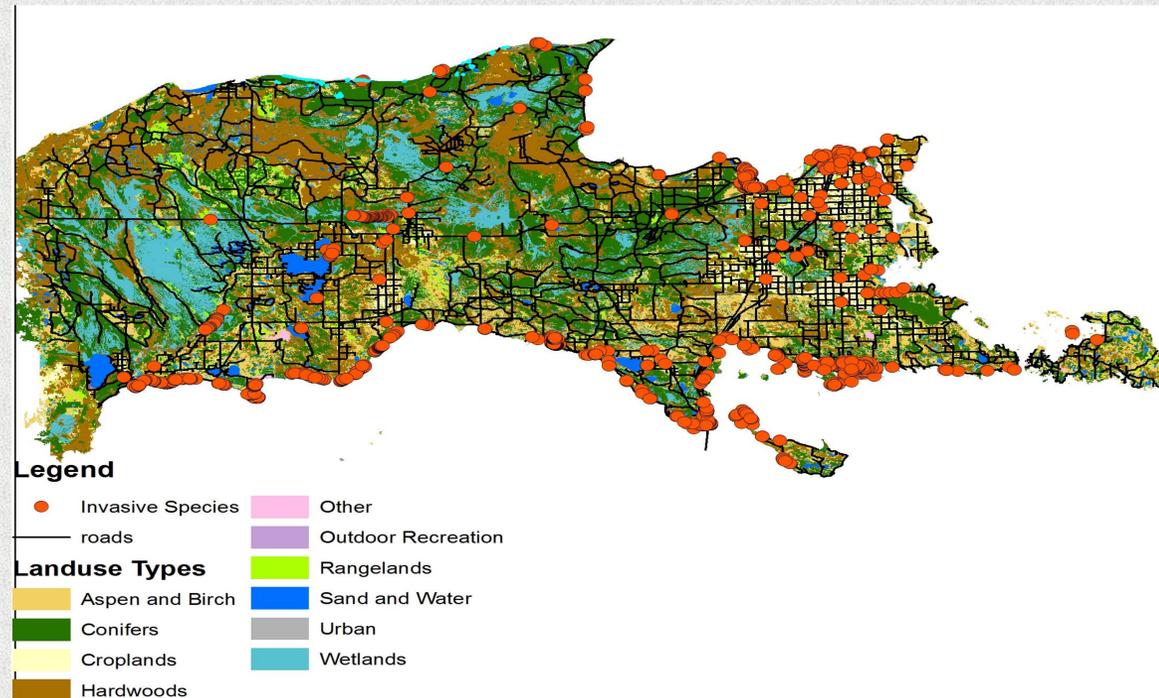
Introductions

This projects objective was to look at the known locations of invasive species such as garlic mustard, phragmites, Japanese knotweed, frogbit, and more. Then to take them and compare them to road locations at different distances. While also looking at which habitats the plants were found in. The location of this study was in the Eastern Upper Pennisula.

Methods

Data was received from the Chippewa/Luce/Mackinac Conservation District in excel spreadsheet format. This data contain the XY coordinates for the locations of the invasive species. This data was then brought into ArcMap. Using the XY coordinates the table data was turned into point feature classes. A land cover type raster data set was taking from Michigan Department of Technology, Management, and Budget and brought into ArcMap. Then buffers were created around the roads at distances of 0.1, 0.25, 0.5, and 1 mile. Then it was calculated to see how many plants were found within each distance. Also, it was plotted against the land use data to see how many were found in each habitat type.

Map



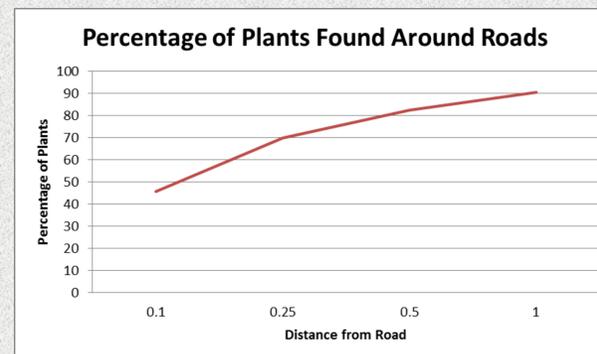
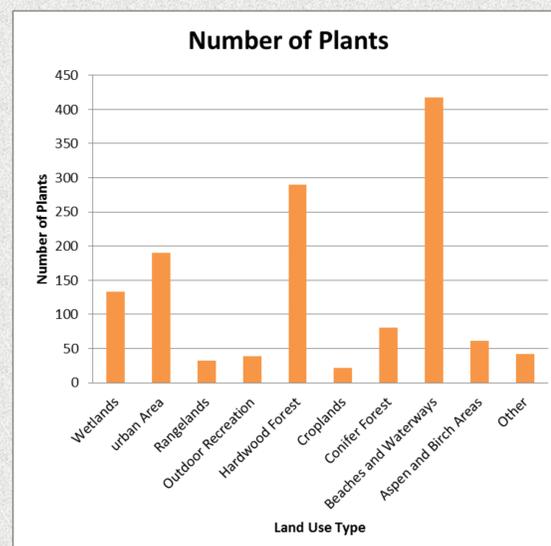
Results

From this map was can tell that most of the species are found in the shoreline environments, but with a few populations moving inland in wetland environments. Also there is a large number of plants in the understories of the hardwood forest, but they are being found in a wide range of habitats. Most of these are found along the roads as 90% are within at least one mile of a road and 45% are within a tenth of a mile of a road.

Conclusion

From these results we find that most of the plants are in wetland and shoreline areas and this makes sense as phragmites is one of the most prevalent invasive species in the Eastern Upper Peninsula. The locations of the known species can be helpful in knowing where to find the invasive species in the future, by looking at the habitat type they were found in to help predict the spread of it by looking in similar areas.

Data



Data Source

Species location data from the Chippewa/Luce/Mackinac Conservation District. Land cover and roads layers from Michigan Department of Technology, Management, and Budget.