**2014 Seedling Surveys\_ SCBI**

**Last Update:** 08/16/2014

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The woody seedlings annual survey for 2014 was completed between May 28-July22, 2014. All tree, shrub, and woody vines with stems under 1 cm dbh were identified to species; their height measured, and mapped their location within 1x1 m plots. We also estimated percentage of leaf litter and recorded presence of invasive species cover (percentage or count) in each plot. In total 123 seedling plots (40 plot stakes) were surveyed in 2014 (4069 seedlings, 316 new, 390 dead).

**Plots location/description**

See diagram below for dimensions of seedling plots. Hollow circles represent PVC pipes at the diagonal corners. One PVC pipe stake of each seedling plot is placed 2 meters from the central grid rebar. In 2012 yellow brushes were installed in the other two corners of the seedling plot for a more permanent and better orientation of the plots.

Yellow brushes

1.44

1 m

**Plot Stake**

**N**

1 m

1 m

1 m

1 m

1 m

2 m

2 m

2 m

**Plot selection**

In 2014 forty (40) seedling plots were randomly selected to be measure. The selection was based on the distribution of plot per “habitat type” defined as: *riparian (Fraxinus Americana), tulip dominant (Liriodendron tulipifera), and oak dominant (Quercus spp.)*. Habitat type of the SCBI plot is based on McGarvey et al (2013) cluster analysis of plot quadrats (20x20m) and its overstory composition.

**About the plots and tagging new seedlings**

Seedling plots will inevitably lose tags and/or PVC pipes throughout the winter season, and must be re-installed and checked for tag retention every spring. The document “FIXING SEEDLING PLOT CORNERS.docx” describes how to re-install PVC pipes (V:\SIGEO\Seedling plots\Protocols)

In 2012 tags were removed from seedling under 10 cm height. Those seedlings were relocated (based on local coordinates) and measured if alive and are indicate in the database as “TR” only. In 2014 we did locate individuals without tags based on local coordinates given in 2012. In 2014 all individuals >10cm height were tagged.

In 2014 new stems (recruitments) were tagged. Since we reused tags from previous years all tags were engrave them with “00”. All new seedlings are specified in the database as “New 2014”.

In 2012 and 2014 we removed tags from the plot when the seedling was certainly dead and indicated in notes as “TR, D” (tag removed, dead).

Height is measured in cm to the length of the longest woody stem of the seedling. In the case of woody vines, such as *Lonicera japonica*, we measured the length of the longest vine. Estimates of percentage leaf litter (%L) and % invasive species (%I) was written next to the plot map.

**Map**

The folder V:\SIGEO\Seedling plots\ spatial\_data contains a shape file of the seedling plot locations and a .mxd file called “SIGEOSeedlingPlotLocations.mxd” which is a map of the SIGEO plot with the location of all of the seedling plots. There are 120 groups of three 1 m2 seedling plots randomly-selected around leaf litter baskets.

**Dataset**

First read the R scrip called “Seedling plots” to understand what I did to clean and organized the data for 2014.There was a lot of cleaning before prepping the datasets for this year seedling census.

The final dataset is called “Seedling2014” in V:\SIGEO\Seedling plots\Data.

Notice that there are two columns in yellow, those are the 2012 measurement.