

# Newtown Highmeadow Vegetation Survey 2017

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In August 2017 an inventory of the vascular plant species of the highmeadows area of the Fairfield Hills Campus was conducted. Fifty 1M x 1M plots were established in the upper field (see map below). Sampled areas were spaced approximately 20 M apart. The plots were marked with a 3 ft tall green metal post, that remain in the field, so that the same areas can be revisited at a later time. All species within the plot were identified and the area covered by each plant type was estimated. In addition to the structured sampling methods an informal meander survey was conducted to capture any additional infrequent species missed by the plots. In October, representative herbarium specimens of plants that occurred in the plots or were observed during the meander survey were collected. A few species had too few individuals to collect, or the only representative individuals were within plots, these species are not represented in the herbarium collections. Collecting infrequent species could change the results of future surveys, therefore they were allowed to remain growing in the meadow.

A total of 36 species were observed during the vegetation survey (see attached excel file). Twenty-eight were captured in the plot sampling methods, and an additional 8 taxa were seen during the meander survey. The dominant species in the meadow were European forage grasses typically used for hay production. The ten most frequent plants seen in the surveys were introduced species. Seven invasive species were found at site, and

15 native species were seen. If the goal of this project is to create a native herbaceous meadow for pollinator habitat, management should be conducted in a way to increase the following species:

pearly everlasting *Anaphalis margaritacea*, wrinkled leaved goldenrod *Solidago rugosa*, butterfly weed *Asclepias tuberosa*, broad-leaved mountain-mint *Pycnanthemum muticum* and tower mustard *Turritis glabra*. Supplementing the meadow with native species that are valuable for pollinators maybe another management strategy to employ.

It is hoped that this initial survey provides good baseline data that can be used to compare the vegetation to at a future time and can inform the town on making effective management decisions.



Map: approximate location of the 50 1M x 1M vegetation plots.