

A floral survey of the yellow trail at Greenwoods Conservancy

Allison E. Barra*

ABSTRACT

As a continuation of a floral study at Greenwoods, a survey of plants along the Yellow Trail was conducted. As the study began, a pattern of communities was recognized, which included wetlands, meadows, and forests. The purpose of further studying this succession at Greenwoods is to provide an overview of the soil and plant types. Studying succession can also give insight as to what might have occurred at Greenwoods in the past and may provide a basis for future research on natural and unnatural changes that may occur.

INTRODUCTION

Greenwoods Conservancy, located in Burlington, NY, is a preserve of over one-thousand acres. It is protected under conservation easement, and is used by the Biological Field Station for education and research purposes (Taylor, 1994).

The purpose of this survey was to continue to learn more about Greenwoods Conservancy and its environment. Previous studies have been conducted on the flora on and around Cranberry Bog, and expanding the area of study to include the entire Yellow Trail would increase our knowledge of the flora, as well as the environment of Greenwoods as a whole. By studying the complete trail, several communities will be observed, unlike previous studies that mainly focused on one community (King, 1994; Meyers, 1994).

MATERIALS AND METHODS

To survey plants along the Yellow Trail, each section of the trail was first inspected to get an overview of what types of plants characterize each area. After this was done, the plants that distinguish each area were identified using field guides, (Peterson and McKenney, 1968; Petrides, 1958; Cobb, 1963) with the help of a graduate student, Jeannie Bennett-O'dea. Following identification of all the distinctive plants representative of each community, a table was made, including scientific and common name of each plant (from field guide), and what type of

*New York Academy of Science High School Research Trainee, summer 1996. Present address: Cherry Valley-Springfield Central School, Cherry Valley, NY.

ecosystem it was found in (Table 1). To locate these areas, a map of the Yellow Trail showing the various communities was constructed.

RESULTS

A variety of flora was identified during this study, representative of at least three different stages of succession (Table 1). The greatest species richness of plants was found in the meadow community. An abundance of Lady Fern (*Athyrium filix-femina*) was found in forest stage of succession. Only one area of the Yellow Trail appeared to be in a wetland community. This area was located around Beaver Dam Pond (refer to Figure 1). A pattern of the different communities (e.g., several stages) recognized generally alternated between meadow and forest, as depicted in Figure 1.

DISCUSSION

Many parts of Greenwoods Conservancy were once used as farmlands, which could be the reason why the pattern of communities generally alternates between forest and meadow. Evidence that this land was once used for farming includes an old foundation of a barn at the intersection of the Yellow and Green Trails (Figure 1). Other evidence consists of an additional foundation on the Red Trail. Farming is continuing at Greenwoods at the present time on Zakow Road, which also affects succession. Because areas of meadows contain few species of plants that block sunlight from others that are close to the ground, many types of wildflowers grow there.

The one area of the Yellow Trail that breaks the pattern of meadow and forest is the community around Beaver Dam Pond. This area contains such wetland species such as Sensitive Fern (*Onoclea sensibilis*, which is also found in the forest community bordering Cranberry Bog), and Welled Thistle (*Carduus crispus*).

This survey could be used as a basis for future study on succession. By looking at the changes in flora, the natural pattern of succession from meadow to old forest can be noticed. Observing the flora can also indicate any unnatural changes, such as construction or the establishment of some exotic species, that could occur. This survey has been done to add to the present knowledge about Greenwoods Conservancy.

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TABLE 1

Community	Scientific Name	Common Name
Meadow	<i>Vaccinium</i>	Blueberry
	<i>Crataegus</i>	Hawthorn
	<i>Achillea millefolium</i>	Yarrow
	<i>Spiraea latifolia</i>	Meadowsweet
	Labiatae (family)	Mint
	<i>Lotus corniculatus</i>	Bird's Foot Trefoil
	Rosaceae (family)	Blackberry
	<i>Hieracium aurantiacum</i>	Orange Hawkweed/ Indian Paintbrush
	<i>Fragaria virginiana</i>	Strawberry
	<i>Hypericum perforatum</i>	St. John's Wort
	<i>Malva neglecta</i>	Mallow
	<i>Rudbeckia hirta</i>	Black-Eyed Susan
	<i>Galium triflorum</i>	Bed Straw
	<i>Tragopogon pratensis</i>	Goat's Beard
	<i>Asclepias syriaca</i>	Milkweed
	<i>Stellaria media</i>	Chickweed
	<i>Rubus hispidus</i>	Dewberry
	<i>Vicia americana</i>	Purple Vetch
	<i>Rubus idaeus</i>	Raspberry
	<i>Tanacetum vulgare</i>	Tansy
	<i>Potentilla norvegica</i>	Cinquefoil
	<i>Prunella vulgaris</i>	Heal-all
	<i>Convolvulus sepium</i>	Field Bindweed
	Caprifoliaceae (family)	Honeysuckle

Community	Scientific Name	Common Name
Forest	<i>Stellaria graminea</i>	Stitchwort
	<i>Trifolium agrarium</i>	Hop Clover
	<i>Trifolium hybridum</i>	Alsike Clover
	<i>Erigeron annuus</i>	Fleabane
	<i>Pilea pumila</i>	Clearweed
	<i>Verbascum thapsus</i>	Mullein
	<i>Linaria vulgaris</i>	Butter and Eggs
	<i>Cirsium vulgare</i>	Bull Thistle
	<i>Silene cucubalus</i>	Bladder Campion
	<i>Chrysanthemum leucanthemum</i>	Daisy
	<i>Clematis virginiana</i>	Virgin's Bower
Wetland	<i>Ranunculus acris</i>	Buttercup
	<i>Circaea quadrisulcata</i>	Larger's Nightshade
	<i>Carduus crispus</i>	Wetted Thistle
	<i>Osmunda claytoniana</i>	Interrupted Fern
	<i>Onoclea sensibilis</i>	Sensitive Fern
Forest	<i>Oxalis montana</i>	Common Wood Sorrel
	<i>Acer pensylvanicum</i>	Striped Maple
	<i>Athyrium filix-femina</i>	Lady Fern
	<i>Osmunda cinnamomea</i>	Cinnamon Fern
	<i>Monotropa uniflora</i>	Indian Pipe
	<i>Onoclea sensibilis</i>	Sensitive Fern
	<i>Fagus grandiflora</i>	Beech
	<i>Tsuga canadensis</i>	Hemlock
	<i>Betula lutea</i>	Yellow Birch
	<i>Coptis groenlandica</i>	Goldthread

Community	<u>Scientific Name</u>	Common Name
Forest	<i>Acer</i>	Maple
	<i>Crataegus</i>	Hawthorn
	<i>Corylus</i>	Hazelnut
	<u><i>Juglans cinerea</i></u>	Butternut
	<i>Pinus strobus</i>	White Pine
	<i>Carpinus caroliniana</i>	Ironwood/Musclewood
	<i>Betula</i>	Birch
	<i>Pinus resinosa</i>	Red Pine
	<i>Mianthemum canadense</i>	Canadian Mayflower
	<i>Prunus</i>	Cherry
	Fagaceae (family)	Oak
	Pinaceae (family)	Spruce
	Oleaceae (family)	Ash
	<i>Fagopyrum sagittatum</i>	Buckwheat
	<i>Pinus banksiana</i>	Jack Pine
	<i>Circaea quadrisulcata</i>	Enchanter's Nightshade
	<i>Aralia nudicaulis</i>	Wild Sarsaparilla
	<i>Epipactis helleborine</i>	Helleborine
	<i>Podaphyllum peltatum</i>	Mayapple
	<i>Trientalis borealis</i>	Starflower
	<i>Pteridium aquilinum</i>	Braken Fern
	<i>Corylus cornuta</i>	Beaked Hazelnut
	<i>Acer rubrum</i>	Red Maple
	<i>Epifagus virgiana</i>	Beechdroppings
	<i>Actaea pachypoda</i>	Doll's Eyes (White Baneberry)

Community	Scientific Name	Common Name
Forest	<i>Lycopodium complanatum</i>	Running Pine
Forest	<i>Polystichum acrostichoides</i>	Christmas Fern
	<i>Polygonum scandens</i>	Climbing Buckwheat

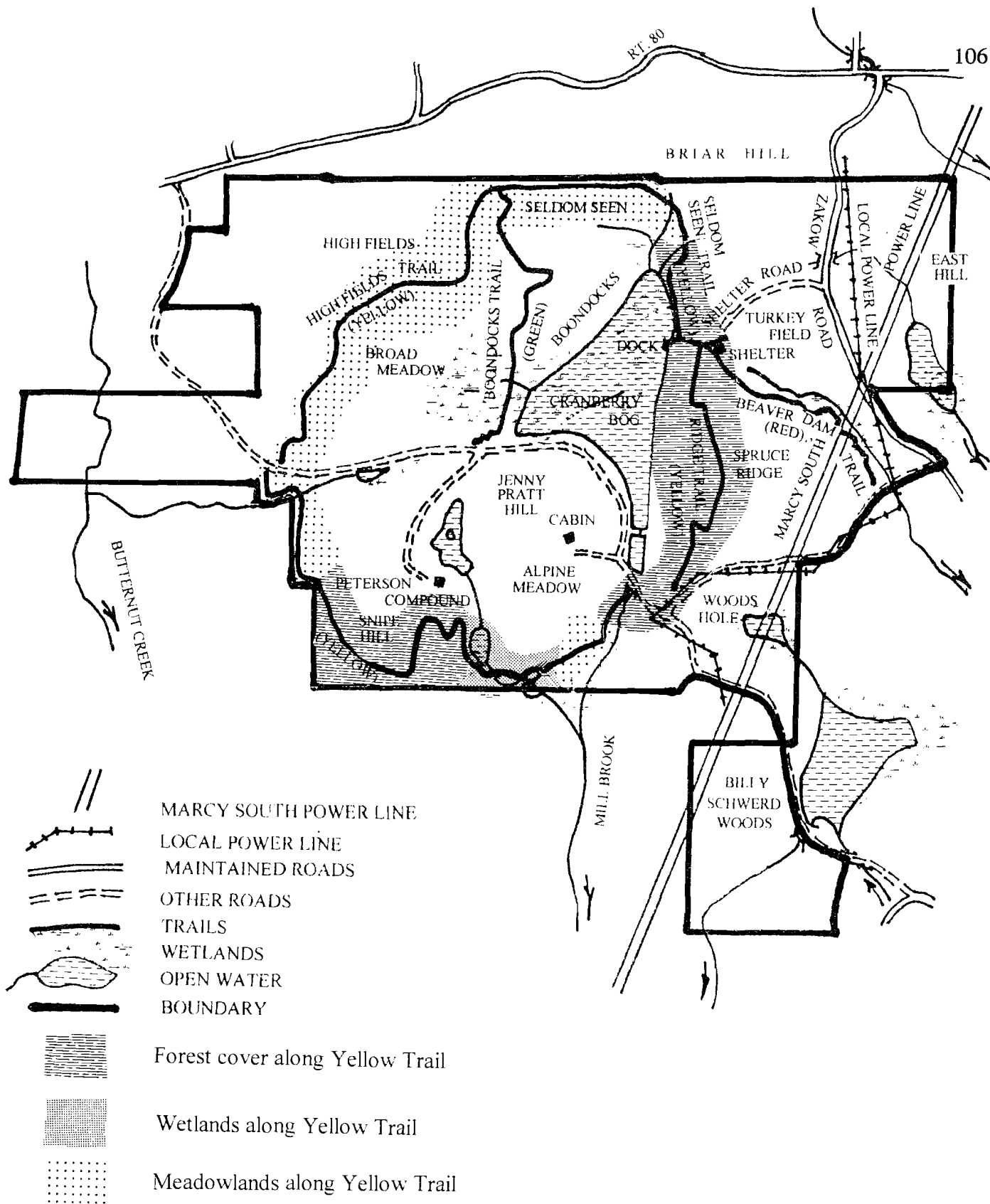


Figure 1. Greenwood Conservancy indicating land cover along the Yellow Trail.

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