



Ecological Inventory Report

Pocumtuck Ridge Deerfield, Massachusetts



Prepared by UMass Extension's
Natural Resource and Environmental Conservation Program

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THE DEERFIELD LAND TRUST



For the Deerfield Land Trust

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In memory of Roberta Poland (1899-1989)



She botanized the Pocumtuck Ridge, lived on it, and loved it.

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INTRODUCTION

The Pocumtuck Ridge in Deerfield, Massachusetts is an area of historical, cultural, scenic and ecological value. Its protection is a priority for the Deerfield Land Trust, the Town of Deerfield and the Massachusetts Department of Environmental Management. In spite of this, relatively few biological inventories have occurred north of the Mount Sugarloaf State Park. The last surveys of significance were conducted by Roberta Poland (1899-1989), a local botanist who, for nearly 50 years, maintained careful records of her botanical discoveries and deposited over 2000 specimens from the Ridge at the UMass Herbarium. Former Massachusetts State Botanist Bruce Sorrie also visited a portion of the ridge in 1991, but to our knowledge no additional work has occurred in the last decade.

Ecological inventories are useful because they can help identify and prioritize parcels for conservation based on their biological and ecological values. In 2002, in cooperation with UMass Extension and the University of Massachusetts, the Deerfield Land Trust secured a grant from the MA Department of Environmental Management's Greenways and Trails Program to conduct an ecological inventory of Pocumtuck Ridge north of the state park. The survey team consisted of Laurie Sanders, Kasey Rolih, Karen Searcy and Molly Hale. Using notes from Poland's collection, photo interpretation and ground-truthing, the boundaries of important natural communities were mapped, and the more than a dozen locations of plants, lichens and animals of conservation interest were relocated or discovered.

This report includes a summary of the Pocumtuck Ridge's natural plant communities, conservation issues related to each natural plant community type, and a list of recommended actions based on the survey findings. A preliminary checklist to the vascular flora of the Pocumtuck Ridge (Appendix 1) is based on the specimens collected by Roberta Poland and stored at the UMass herbarium.

SITE INFORMATION

The Pocumtuck Ridge Focus Area encompasses approximately 3936 acres in the eastern portion of Deerfield, MA (See Topographic Map). The prominent ridge forms a backdrop to South Deerfield, and is

Land Use Acreage	
Category	Acreage
Forested Uplands	3659
Wetlands	50
Agricultural (pasture, crop)	154
Developed (Residential, Roads, Gravel Pits)	20
Powerline/Cultural Shrubland	83
Total acres mapped: 3936	

bordered by agricultural fields and the Connecticut River on the east side and a mix of residential, agricultural and commercial uses on the west. The underlying bedrock is variable. Most of the ridge consists of the 200-million year old sedimentary rock known as Sugarloaf arkose, but isolated outcrops of volcanic basalt occur on the eastern side and along the ridge's northern extension. Surficially, the side slopes are covered with glacial till. Near the valley floor, the till is replaced by clays and silts that were deposited below Glacial Lake Hitchcock (13,000-17,000 ybp) and more recently, by the Connecticut River.

Of the 3936 acre survey area, 3659 (93%) is forested; the remaining land includes pasture and hayfields (154 acres), powerlines (86 acres), wetlands (50 acres), and developed areas (roads, gravel pits and residential development) (103 acres). With respect to ownership, 935 acres have some level of protection; approximately 141 acres are controlled by the Town of Deerfield, while another 779 acres are

protected by the state, area conservation organizations (Deerfield Land Trust, Valley Land Fund, Pocumtuck Stewards of the Land) or through the Massachusetts' Agricultural Preservation Restriction Program¹ (See Open Space Map). The remaining land (3231 acres) is held in private ownership, with roughly 540 acres owned by private schools. Currently 441 acres of the private land are enrolled in Chapter 61.

Prior to conducting field work, letters were sent to all the property owners, and although no owner responded to deny access, all "No Trespassing" signs were heeded and these areas were excluded from the field survey.

Why Care About Lichens?

Lichens are the result of a symbiotic association between a fungus, a green alga, and sometimes a third partner, a cyanobacterium. They are long-lived organisms that, in contrast to many vascular plants and non-lichenized fungi, lack a protective cuticle and so absorb airborne nutrients and pollutants over their entire outer surface.



Many lichens have high habitat and substrate specificities; for instance, some only grow on acidic substrates, while others only live on basic (pH neutral) surfaces; some species are found exclusively on exposed, sandy soil near the coast, others occur only on mossy rocks in mature, protected northern hardwood forests. Because of their habitat specificity and sensitivity to pollution (especially acid rain from sulfur dioxide), lichens are good indicators for habitat alteration and air quality. In New England, lichens with a cyanobacterial partner and fruticose (shrubby) lichens with green algal partners are especially susceptible to air pollution. Researchers believe that the lichen diversity in New England has been severely compromised by human activities during the last 300 years.

Although Massachusetts does not yet protect rare lichens through the Massachusetts Endangered Species Act, other states do. In addition, since 1994 the U.S. Forest Service has collected lichens on selected plots throughout the country and is using lichen abundance and diversity as a measure of forest health.

¹ The number of protected acres is slightly inflated because it includes some APR lands that extend beyond the boundary of the focus area.

METHODS

We visited the Pocumtuck Ridge Focus Area on seven separate field days in April, June, August, September, October and November 2002, for a total of 130 person hours. Our objectives were to map natural communities, discover new or historic locations for rare species, carry out targeted searches for lichens and rare plants, conduct searches for rare animals, identify potential vernal pools, and locate infestations of invasive species. Species in the following groups were recorded: plants, lichens, dragonflies and damselflies, and amphibians. No reptiles or tiger beetles were observed, and birds and mammals were not recorded. Location information from the Massachusetts' Natural Heritage and Endangered Species (NHESP) database was relied upon to re-locate historic records of species protected under the Massachusetts Endangered Species Act. Species that are maintained on the Massachusetts "Watch-List" were also targeted; the "Watch List" is a non-regulatory list of species that may be in decline in Massachusetts and may be added to the Massachusetts Endangered Species List in the future.

Natural communities were mapped according to the Natural Heritage Endangered Species Program's Draft Classification of the Natural Communities of Massachusetts (Swain & Kearsley July 2001; <http://www.state.ma.us/dfwele/dfw/nhesp/nhclass.htm>). Natural community boundaries were based on ground-truthing, aerial photography interpretation, and information derived from GIS datalayers. Given the extent of the focus area, the natural community delineations could be further refined and may have small inclusions of other natural community types. Maps identifying natural communities were generated using geographic information systems (GIS). A 1:5000 color black and white orthophoto flown in 1997 and a 1:12000 color infrared flown April 1999 were used as base maps for the natural community mapping and plant inventory. Digitized maps were created with the following datalayers: natural communities, vernal pools, permanently protected open space, Chapter 61 lands, BioMap core polygons, streams and ponds. Plant taxonomy follows Sorrie and Somers, 2001.

Natural Community Types Observed in the Pocumtuck Ridge Focus Area

Upland

1. Acidic Rocky Summit/Rock Outcrop (ARS)
2. Acidic Rock Cliff (ARC)
3. Circumneutral Rock Cliff (CRC)
4. Circumneutral Talus Forest/Woodland (CTF)
5. Acidic Talus Forest (ATF)
6. Oak-Hemlock-White Pine (OHW)
7. Successional White Pine Forest (SWPF)
8. Mixed Oak (MO)
9. Red Oak-Sugar Maple Transition (ROSM)
10. Cultural Grassland (CG)
11. Cultural Shrubland (CS)

Freshwater

1. Red Maple Swamp (RMS)
2. Circumneutral Hemlock-Hardwood Swamp (CHHS)
3. Vernal Pools (VP)
4. Shallow Emergent Marsh (SEM)
5. Shrub Swamp (SS)
6. Open Water (OW)

RESULTS & DISCUSSION

Eight species protected under the Massachusetts Endangered Species Act or currently Watch-Listed in Massachusetts were found, two rare lichens were detected, eight vernal pools were confirmed, and seventeen distinct natural community types were identified within the focus area (See Natural Communities Map). Of the natural communities, 11 are upland and 6 are wetland.

Although the natural community descriptions in the Swain and Kearsley's Classification of the Natural Communities of Massachusetts are generalized, the descriptions below are based on the species actually observed in Deerfield.

Upland Natural Communities

Acidic Rocky Summit/Rock Outcrop (ARS)

This community type is found in scattered locations on the eastern slope of the Pocumtuck Ridge and on the crest of the west-facing ridge, south from Pine Nook Road. The community type is characterized by broad swaths of open rock, patches of lichen and moss, little vegetation and stunted trees. The soils are thin, acidic, and droughty. The most common herbaceous plants include little bluestem (*Schizachyrium scoparium*), poverty grass (*Danthonia spicata*), common hair grass (*Deschampsia flexuosa*), pale corydalis (*Corydalis sempervirens*) and cow wheat (*Melampyrum lineare*). Less frequently observed are rusty cliff fern (*Woodsia ilvensis*), bristly sarsaparilla (*Aralia hispida*), sourgrass (*Rumex acetosella*), pussytoes (*Antennaria plantaginifolia*), bastard toadflax (*Comandra umbellata*), yarrow (*Achillea millefolium*), and common harebell (*Campanula rotundifolia*). Shrubs include sand cherry (*Prunus pumila* var. *susquehanae*), scrub oak (*Quercus ilicifolia*), huckleberry (*Gaylussacia baccata*), low-bush blueberry (*Vaccinium pallidum*), and sweet low blueberry (*V. angustifolium*). Near the margins, where soils are deeper, chestnut oak (*Quercus prinus*), red oak (*Quercus rubra*), eastern hemlock (*Tsuga canadensis*) and white pine (*Pinus strobus*) are common.



Karen Searcy and Deborah Shriver look for plants on Little Pocumtuck Ridge, looking north.

The lichens were species that are typically found growing on exposed rocks, and include species of *Acarospora*, *Caloplaca*, *Lepraria*, *Physia*, *Xanthoparmelia*, several species of the reindeer lichens, *Cladina* and *Cladonia*, and the two common umbilicate lichens, *Umbilicaria mammulata* and *Lasalia papulosa*.

Radio Tower & Vicinity

The most abundant lichen on the exposed summit near the radio tower is *Cladonia uncialis*. Robust patches of *C. uncialis* cover the rocks and soil on level ground as well as on steep slopes below stunted chestnut oaks. One curious find here was two thalli of *Hypogymnia physodes* on old wood lying close to the soil. This species is moderately sensitive to air

pollution but is probably equally sensitive to a dry climate. Its presence in this rather xeric habitat may indicate a past environment that had more moisture and cleaner air.

Little Pocumtuck

On the open summits of Little Pocumtuck, the most abundant lichens are members of the genus *Stereocaulon*. *Xanthoparmelia* species and *Acarospora fuscata* are also common.

Conservation Notes

- Ridgetops like these are valuable for dragonflies, which use hilltops during their adult phase for foraging. Several rare species are found in the Connecticut River, and this area is likely used by many—if not all—of them.
- Although non-native species were present, none are species that are likely to threaten the ecology of this community type.
- Beyond the ecological value of these rocky balds, these areas are of geological, scenic and recreational interest. The main ridge, as well as Little Pocumtuck, both have trails that criss-cross their summits.

Acidic Rock Cliff (ARC)

Dry, acidic rock cliffs are found in many areas on the Pocumtuck Ridge; the longest, continuous belt occurs just below the west-facing ridge and is composed of Sugarloaf arkose. Smaller acidic cliffs consisting of traprock are found on the east side of the Pocumtuck Ridge; these include the cliffs on Little Pocumtuck and innumerable small knobs of exposed bedrock to the south of Little Pocumtuck. On both the east and west sides the cliffs are nearly vertical and range between 5-30 feet in height. Most are too dry and shady to support many vascular plants. The few plant species that find a foothold, do so in the moister crevices; these include polypody (*Polypodium virginianum*), rusty cliff-fern (*Woodsia ilvensis*), common harebell, bristly sarsparilla, marginal fern (*Dryopteris marginalis*) and Virginia creeper (*Parthenocissus quinquefolia*).

Many of the lichens species found on acidic, sunny rock cliffs are the same as those on acidic rocky summits (see above). However, we found two areas that were of special interest with respect to lichens.

- On a sheltered, partly shaded vertical traprock face below the summit of Little Pocumtuck is a large patch of the fruticose lichen, *Ramalina intermedia*. Ramalinas are sensitive to air pollution and require humid conditions. They are also uncommon in southern New England, where forests are young and relatively dry. This site is in a narrow, protected valley and that, in combination with the moist rock, may explain its presence.
- Lichens are abundant and relatively diverse within the narrow band of sandstone cliffs that is hidden below the forest canopy. These cliffs, which occur in the central portion of the west-facing slope, are stable, shady, and moist from

groundwater seepage and appear to have a calcareous influence. The cliffs provide appropriate habitat for several unusual species, including the nitrogen-fixing lichens *Collema cf. fuscovirens*, *Leptogium cyanescens*, and *L. lichenoides*, and at least three species of *Peltigera* (*evansiana*, *neckeri*, and *polydactylon*). All are sensitive to air pollution and forest disturbance. *Peltigera neckeri* may be a new record for Massachusetts.

Conservation Notes

- Although no nests were found, ravens (*Corvus corax*) were regularly heard calling near the cliffs. Ravens have nested in Massachusetts with increasing frequency during the last twenty years, and the species is still tracked annually by MassWildlife. Of even greater interest is the presence of a pair of peregrine falcons (*Falco peregrinus*-Endangered) at the south end of Mount Sugarloaf during summer 2002. The pair have apparently established a territory where the cliffs are higher and more extensive. Although it is unlikely that the cliffs in the Focus Area would ever be used by peregrines for nesting, the surrounding forest may be used by these fast-flying raptors for hunting.
- Asiatic bittersweet was occasionally found in this habitat, but at present does not appear to be a serious problem.
- These areas are of geological, ecological and scenic interest.

Circumneutral Rock Cliff (CRC)

Circumneutral rock cliffs occur along a discontinuous, north-south running traprock ridge that extends between Pine Nook Road and Keets Road. The word “circumneutral” refers to the pH of the rock, and means “close to neutral”, or a pH of 6.0-7.0. Neutral soils and rocks have a greater ability to bind nutrients like calcium and phosphorus, which are essential for plant growth. Because of this, circumneutral soils and rocks have distinct and specific flora and lichen communities.



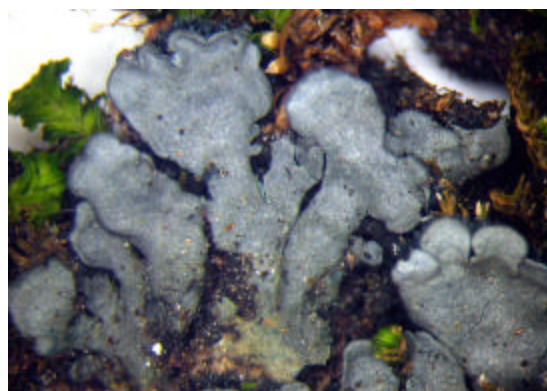
The elegant fronds of ebony spleenwort growing in a circumneutral, rocky nook on the Pocumtuck Ridge.

On the Pocumtuck Ridge, large sections of the circumneutral cliffs are too dry to support any plants or lichens. Moister areas, however, have a rich and interesting assemblage of plants and lichens. In terms of vascular plants, of greatest interest are the ferns. Within the rocky nooks one finds clusters of the beautiful and delicate ferns known as ebony spleenwort (*Asplenium*

platyneuron) and fragile fern (*Cystopteris fragilis*). Even more exciting to botanists are species that are much less common in the state, such as purple cliffbrake (*Pellaea atropurpurea*), walking fern (*Asplenium rhizophyllum*), blunt-leaved cliff fern (*Woodsia obtusa*), and wall-rue (*Asplenium ruta-muraria*-Threatened). Noteworthy herbaceous species in this area include rock pellitory (*Parietaria pensylvanica*-Watch Listed), round-leaved dogwood (*Cornus rugosa*) and square-stemmed goldenrod (*Solidago squarrosa*), and in open, drier areas the native bittersweet (*Celastrus scandens*). Other plant species found on the circumneutral cliffs include, in moister areas: blue-stemmed goldenrod (*Solidago caesia*), columbine (*Aquilegia canadensis*), Virginia creeper, and round-leaved harebell; and in drier areas: little blue stem, poverty grass, common hair grass, bluegrass (*Poa compressa*), wild rye (*Elymus* sp.), plantain-leaved pussytoes, silverrod (*Solidago bicolor*), goldenrod (*S. arguta*), red cedar (*Juniperus virginiana*), true solomon's seal (*Polygonatum pubescens*), huckleberry (*Gaylussacia baccata*), false honeysuckle (*Diervilla lonicera*), witch hazel (*Hammamelis virginiana*), and poison ivy (*Toxicodendron radicans*). Nearby trees include red oak, black birch (*Betula lenta*), yellow birch (*Betula alleghaniensis*), white ash (*Fraxinus americana*), hemlock, sugar maple (*Acer saccharum*), and basswood (*Tilia americana*).

Lichens, especially the cyanobacteria-containing macrolichens, are common on the moist, partly shady and protected bases of the cliffs. Water running down the rocks from above, and nutrients like calcium carried with it, create a higher pH environment suitable to cyanolichens. On the traprock cliffs near Keets Road, several species of cyanolichen were found; because sexual reproductive structures were lacking on many of these species, they have been tentatively identified as *Collema* cf. *tenax*, *C. cf. fuscovirens*, *Leptogium cynaescens*, *L. lichenoides*, and the unusual *Peltigera ponojensis*.

Among lichens, cyanolichens are somewhat peculiar because they can fix atmospheric nitrogen, an important ability in the nitrogen-limited forests of the northeast. Nitrogen fixation is pH-sensitive and acidic precipitation from air pollution (acid rain, auto exhaust, etc) can severely inhibit the process. Cyanolichens, however, can partially compensate for poor air quality by growing on more neutral substrates. Nevertheless, the combination of air pollution, habitat alteration, and the lack of mature, humid forests in the Northeast has resulted in a loss of the region's diversity and abundance of lichens. Therefore, one of the most surprising aspects of the lichen flora on the Pocumtuck is its relative diversity of cyanolichens. The circumneutral rock



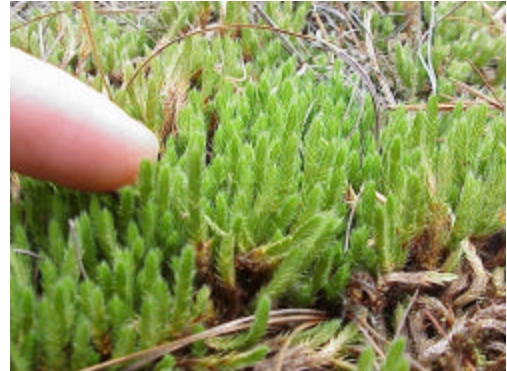
Salted shell lichen, *Coccocarpia palmicola*, seen here under magnification, was believed to be extirpated from New England, until its discovery on the Pocumtuck Ridge in 2002.

outcrops, both on arkose sandstone and traprock within protected forest habitats, provide excellent refuge for cyanobacteria-containing lichens. These include *Collema subflaccidum*, *C. tenax*, *Coccocarpia palmicola*, *Leptogium cyanescens*, *L. lichenoides*, *Peltigera canina*, and *P. praetextata*. Most exciting was the discovery of the salted shell lichen, *Coccocarpia palmicola*, a diminutive species that has not been recorded for Massachusetts or New England for many decades and was believed to be extirpated from New England. Once recorded up and down the East Coast, the most recent New England record is

from the 1920s, in South Haddam, Connecticut; the most recent record from the Northeast region is from 1988 in Fundy National Park, New Brunswick, Canada. *Coccocarpia palmicola* will grow on trees or shady, moss-covered rocks and is very sensitive to air pollution. In the Pocumtuck one small specimen grows on a shady, narrow, moss-covered traprock ledge with shallow soil; again, a protected environment.

The Isolated Outcrop

An isolated rock outcrop on the east-facing slope of the Pocumtuck Ridge was found to have a large population of Rock Spikemoss (*Selaginella rupestris*-Watch Listed), Carolina cranesbill (*Geranium carolinianum*)-a new county record!) and a rich array of lichens in the genus *Cladonia*. Curiously this site was scraped by heavy equipment in the distant past, which created the exposed rock conditions for this odd subset of plants and lichens.



Rock spikemoss (*Selaginella rupestris*), a watch-listed species, was found in one small area on the Ridge. The site is one of the largest known patches in the Connecticut River Valley.

Conservation Notes

At present there is no sign of human foot traffic in this area. Collecting of plants or rock quarrying are the greatest potential threats to these special areas. From an ecological perspective, this community type is one of the most significant on the Ridge.

Acidic Talus Forest (ATF)

This habitat is common on the talus slopes below Little Pocumtuck, near River Ferry Road/Pole Swamp Brook and all of the unnamed hills with talus slopes. Typically there is a gradient of vegetation; with exposed rocks at the top and gradually more trees and understory vegetation at the base (Swain and Kearsley, 2000). On the Pocumtuck Ridge, most of the Acidic Talus Forests are dominated by dense stands of hemlock, while a few support a mix of hemlock and deciduous trees (red oak, black birch, yellow birch and red maple). In hemlock-dominated areas, the acidity and shade severely limit the understory vegetation; in deciduous-dominated talus areas, ferns (Christmas fern (*Polystichum acrostichoides*), marginal shield fern (*Dryopteris marginalis*), lady fern (*Athyrium filix-femina*), intermediate fern (*Dryopteris intermedia*) are abundant as is Virginia creeper, maple-leaved viburnum (*Viburnum acerifolium*), and rock polypody. Near the drier, sunnier summits bracken fern (*Pteridium aquilinum*) and Pennsylvania sedge (*Carex pennsylvanica*) are commonly encountered. Many of the rocks in the talus slopes below the traprock cliffs are covered with lichens, especially *Cladonia* and the nitrogen-fixing species *Stereocaulon*.

Conservation Notes

- Although rarely encountered on the Pocumtuck Ridge, the non-native, invasive shrub known as winged euonymus (*Euonymus alatus*) was found on some of the acidic talus slopes. When possible, these plants were removed by hand, but

volunteer field crews could be asked to conduct surveys for this species and remove it when encountered.

- Many common mammals use this type of habitat for shelter, most notably porcupines, which are found occasionally on the Pocumtuck Ridge. Raccoons, skunks and opossums also take advantage of these areas. Fisher and bobcat may be present on the ridge, and probably take advantage of these areas for shelter and hunting.

Circumneutral Talus Forest/Woodland (CTF)

Circumneutral talus forest occurs on the slopes adjacent to the traprock ridges found between Pine Nook Road and River Ferry Road and along the ridge running south of Keets Road. Given its narrow width, this community type has been combined with Circumneutral Rock Cliffs on the Natural Communities map. The canopy ranges from open to closed and includes a mix of deciduous species and hemlock. Most common is a mix of sugar maple, hemlock, red maple (*Acer rubrum*), red oak, black birch, yellow birch and white ash (*Fraxinus americana*). In the sub-canopy striped maple (*Acer pensylvanicum*), mountain maple (*Acer spicata*), ironwood (*Carpinus caroliniana*), witch hazel, chokecherry (*Prunus virginiana*), American fly honeysuckle (*Lonicera canadensis*), purple-flowering raspberry (*Rubus odoratus*), hazelnut (*Corylus* spp.) and false honeysuckle are commonly observed. Herbaceous plants are diverse and characteristic of species that depend on fertile, neutral soils. These include herb robert (*Geranium robertianum*), blood root (*Sanguinaria canadensis*), spikenard (*Aralia racemosa*), round-lobed hepatica (*Hepatica americana*), wild ginger (*Asarum canadense*), Virginia creeper, poison ivy, red baneberry (*Actaea rubra*), white baneberry (*Actaea pachypoda*), enchanter's nightshade (*Circaea alpina*), horsebalm (*Collinsonia canadensis*), maidenhair fern (*Adiantum pedatum*), silvery spleenwort (*Deparia acrostichoides*), oak fern (*Gymnocarpium dryopteris*) and many sedges. In the upper drier areas, maidenhair spleenwort (*Asplenium trichomanes*) was also found. Of conservation interest was the discovery of two small stations of purple clematis (*Clematis occidentalis*), a species of Special Concern in Massachusetts. Historically Roberta Poland found

Figure 1. Thirty species of ferns occur in a narrow band within the northern portion of the Pocumtuck Ridge:

1. *Adiantum pedatum*
2. *Asplenium platyneuron*
3. *Asplenium rhizophyllum*
4. *Asplenium rutamuraria*
5. *Asplenium trichomanes*
6. *Athyrium felix-femina*
7. *Deparia acrostichoides*
8. *Botrychium virginianum*
9. *Cystopteris fragilis*
10. *Dennstaedtia punctilobula*
11. *Dryopteris cristata*
12. *Dryopteris goldiana*
13. *Dryopteris intermedia*
14. *Dryopteris marginalis*
15. *Gymnocarpium dryopteris*
16. *Matteucia struthiopteris*
17. *Onoclea sensibilis*
18. *Osmunda cinnamomea*
19. *Osmunda claytoniana*
20. *Osmunda regalis*
21. *Pellaea atropurpurea*
22. *Phegopteris connectilis*
23. *Phegopteris hexagonoptera*
24. *Polypodium virginianum*
25. *Polystichum acrostichoides*
26. *Pteridium aquilinum*
27. *Thelypteris noveboracensis*
28. *Thelypteris palustris*
29. *Woodsia ilvensis*
30. *Woodsia obtusa*

climbing fumitory (*Adlumia fungosa*-Threatened) in this area. It is likely that this delicate climbing vine is still present, but was missed during the survey.

Conservation Notes

Of the 52 species of ferns found in Massachusetts, thirty were encountered within the area defined by the circumneutral talus slopes, the adjacent circumneutral cliffs and the wetland areas to the immediate west. This area represents one of the richest sites for fern diversity in Massachusetts. Figure 1 includes a list of the ferns found within this area.

Mixed Oak (MO)

The mixed oak community type characterizes the top of the ridge and most of the forest on the west facing slopes. Red oak is dominant, but white oak (*Quercus alba*), red maple, black cherry (*Prunus serotina*), hemlock, white pine and black birch are abundant. On and near the ridge top chestnut oak and shagbark hickory (*Carya ovata/glabra*) are common components. The understory includes dense stands of mountain laurel (*Kalmia latifolia*) along with broad patches of low-bush blueberry, sweet low-blueberry and huckleberry. Maple-leaved viburnum is extremely common, sheep laurel (*Kalmia angustifolia*) is occasionally encountered, and in open, sunny areas, sweet fern (*Comptonia peregrina*) is abundant. Trailing arbutus (*Epigaea repens*), partridgeberry (*Mitchella repens*), wintergreen (*Gaultheria procumbens*), indian cucumber root (*Medeola virginiana*), Canada mayflower (*Maianthemum canadense*), wild sarsaparilla (*Aralia nudicaulis*), and Christmas fern are common throughout the understory. In drier, exposed areas near the ridgetop common hair grass, Pennsylvania sedge, poverty grass, cow wheat, wintergreen, wild azalea (*Rhododendron prinophyllum*), hop hornbeam (*Ostrya virginiana*) and pinweed (*Lechea intermedia*) are common.



Large whorled pogonia (*Isotria verticillata*) occurs in many areas of the oak forest on the Pocumtuck Ridge. The largest populations of this Watch-Listed species were found on the west-facing slope, where hundreds of individual stems were observed.

Of conservation interest is the extensive population of large whorled pogonia (*Isotria verticillata*-Watch Listed) on the Pocumtuck Ridge. It is found primarily on the gradual slopes in the central portion of the west-facing ridge, but was also observed in other areas. Large whorled pogonia is presently a watch-listed species in Massachusetts; hundreds of plants were observed on the Pocumtuck Ridge.

Conservation Notes

- Because of its dryness and acidity, this community type is likely to yield few state-listed plant or animal species. However, it is possible that a new station for the orange sawfly moth (*Rhodesia aurantiago*), a threatened species, will be discovered on the drier, sunnier areas near the ridgetop. The larvae chew perfectly round entrance holes into the green seed capsules of smooth false foxglove and fern-leaved false foxglove (*Aureolaria* spp.), both of which were observed in this area. The caterpillars, which are active in September and early October, consume the immature seeds, and then overwinter as a pupa. The fruit capsules on these plants should be searched to see if a population of these moths occurs on the Ridge.
- Sections of the mixed oak forest near the top of the ridge are used by some species of dragonflies during their early adult phase. These insects can spend several weeks on hilltops, basking and foraging before returning to water to mate and lay eggs. Half a dozen rare species of dragonflies are known from the nearby Connecticut River, and it is likely that these ridges are used by them, as well as by more common species of dragonflies. In fact, the southern end of the Pocumtuck Ridge was identified as a priority area in the MA NHESP Biomap because of the hilltop habitat used by a rare dragonfly species known as the Cobra Clubtail (*Gomphus vastus*), a Species of Special Concern.
- Many of the slopes covered by this community type are gradual, and if access were available, would be suitable for building. Therefore, from a perspective of safe guarding the continuity of the ridge and its veil of contiguous forest, protecting these woods is important.
- Finally, the extensive oak forest here often produces an abundant crop of acorns, an important food source for many animals, from deer and bear to chipmunks and wild turkeys. The understory of blueberries is used by many forest birds, and the extent of this forest makes it important nesting habitat for songbirds, such as red-eyed vireos, scarlet tanagers, black and white warblers, ovenbirds, great crested flycatchers, robins and other non-migratory forest species.

Oak-Hemlock, with White Pine (OHW)

Oak-hemlock-white pine forests are the other dominant community type of the Pocumtuck Ridge. It is most common on the midslopes where the soils are rocky, shallow and well-drained. In moister areas, hemlock becomes dominant, while in drier areas the forest grades to oak, with scattered white pine or mixed oak. There is a gradual continuum in the forest's composition that varies depending on soil acidity, moisture, and past land use history.

Along with hemlock and white pine, the most common deciduous trees in the overstory are red oak, white oak, black birch, black cherry and red maple. Re-sprouts of American chestnut (*Castanea americana*) are common, but on the Pocumtuck Ridge beech (*Fagus grandifolia*) was

a rare associate. The shrub layer contains a mix of witch hazel, mountain laurel, low-bush blueberry, and maple leaved viburnum. Starflower (*Trientalis borealis*), wild oats (*Uvularia sessilifolia*), wintergreen, ground pine (*Lycopodium obscurum*), wild sarsaparilla, hay-scented fern (*Dennstaedtia punctilobula*), bracken, woodland aster (*Aster divaricatus*), and Christmas fern are common in the understory.

In areas where timbering has occurred in recent years, gray birch (*Betula populifolia*) and white birch (*Betula papyrifera*) were present, as are large patches of hay-scented fern. In moister areas, interrupted fern, New York fern (*Thelypteris novaeboracensis*), whorled wood aster (*Aster acuminatus*) are common, and pink ladyslipper (*Cypripedium acaule*) are occasionally encountered. Sassafras (*Sassafras albidum*) is also a component of this community type, but is generally infrequent.

Conservation Notes

- Where this community occurs on or near the ridgetop, it is likely that it is used by hilltopping dragonflies. Several rare dragonfly species are found in the Connecticut River, and this area is likely used by many—if not all—of them.
- Many of the slopes covered by this community type are gradual, and if access were available, would be suitable for building. Therefore, from a perspective of protecting the continuity of the ridge and its contiguous forest, protecting these woods is important.
- A large area of discarded trash was discovered in one small section on the western side. See topographic map for location.
- Additional fieldwork in this community type would likely reveal inclusions of other natural community types (e.g. successional white pine forest, red oak-sugar maple transition, acid talus forest).

Successional White Pine Forest (SWPF)

Not far below the radio communication towers is a former field that has matured into a white pine stand. The land is owned by the Town of Deerfield and has been recently logged. Although it is still dominated by white pine, many deciduous species co-occur (red maple, red oak, white oak, black cherry, black birch). The shrub layer is variable, and reflects past land use alterations. Blackberry and raspberry mingle with more common woodland herbs, such as lady fern, Christmas fern, Canada mayflower, partridgeberry, and intermediate woodfern. Non-native honeysuckle (*Lonicera morrowii*), Asiatic bittersweet (*Celastrus orbiculatus*) and multiflora rose (*Rosa multiflora*) are found in this small habitat type.

Conservation Notes

Asiatic bittersweet, honeysuckle and multiflora rose are common here and could become a seed source for dispersal to other areas on the ridge.

Red Oak-Sugar Maple Transition (ROSM)

The red oak-sugar maple transition community type is found at the break in the slope on the western side of the ridge and along several of the stream corridors. The soils are more neutral and moister, and support a greater diversity of plant life. In addition to the two dominants, other common canopy trees include black birch, white oak, red maple and white ash. The herbaceous layer contains many species associated with rich mesic woods, especially along stream corridors. These include maidenhair fern, bloodroot, zigzag goldenrod (*Solidago flexicaulis*), perfoliate bellwort (*Uvularia perfoliata*), spikenard (*Aralia racemosa*), wild ginger, silvery spleenwort and the orchids, spotted coralroot (*Corallorrhiza maculata*) and rattlesnake plantain (*Goodyera pubescens*). The soils are not quite rich enough for some of the real gems found in rich mesic forests, such as ginseng (*Panax quinquefolius*—Special Concern) or large-leaved orchid (*Platanthera platyphylla*). Neither of these were ever recorded by botanist Roberta Poland during the 50 years she tramped these hillsides. Poland, however, did find several stations of yellow ladyslippers (*Cypripedium calceolus*), presumably in pockets of richer soils that would match a red oak-sugar maple transition forest. Her discoveries of yellow ladyslippers, along with Lily leaved Twayblade (*Liatris lilifolia*) and late flowering coralroot (*Corallorrhiza odontorhiza*—Special Concern) were on the east side of the Pocumtuck Ridge. None of these taxa were discovered during 2002, but it is likely that future searches may rediscover these historic and noteworthy populations.



Purple-spotted coralroot, an infrequent orchid in Massachusetts, seen here in the circumneutral soils within the red oak-sugar maple transition.

Smaller units of this community type occur within the Mixed Oak and Hemlock-White Pine-Oak communities. More field work is required to further refine the boundaries of these smaller units. It is especially likely that examples of this community type will be found along the east-facing slope of the Ridge, adjacent to River Road.

Conservation Notes

- Although no rare plant species were found in this community type, it is worth investigating the Ridge further (a) to discover pockets of these richer sites within the larger matrices of Mixed Oak and Oak-Hemlock-White Pine, and (b) to search for stations of yellow ladyslipper, lily-leaved twayblade, and potentially American ginseng.
- Rare vernal pool species like Jefferson's salamander (*Ambystoma jeffersonianum*—Special Concern) and marbled salamanders (*Ambystoma opacum*—Threatened) would be expected to use this habitat when they are not at breeding ponds. In

addition to these rarities, many other animals take advantage of this habitat type, but none depend exclusively on it.

Cultural Grasslands/ Hayfields and Pastures

These habitats are principally found on the properties of the University of Massachusetts (former dairy farm), Arthur Rogers, Woolman Hill, Deerfield Academy (off of Keets Road) and in and around the Sportsman's Club. The Rogers' fields include both pasture and hayfield. In one hayfield, there is some wet meadow habitat, which appeared appropriate for Adder's Tongue Fern (*Ophioglossum pusillum*—Special Concern). Roberta Poland collected this species on the Ridge in a habitat she described as “my amphitheatre.” A search for *Ophioglossum* was made in June 2002 in what we believe to be Poland's “amphitheatre”, but we were unsuccessful. This date may have been too early in the fern's development, and future searches are recommended.

Conservation Notes

- The Rogers' fields, as well as many of the remaining grassland areas, are used for nesting by bobolinks and provide important nectaring areas for many species of butterflies. Nesting boxes in this area would attract bluebirds and tree swallows, and potentially great crested flycatchers and kestrels.
- The maintenance of this community type enhances the diversity of species found within the Pocumtuck Ridge focus area. Although many of the grasses are non-native, they are not aggressive invasive species and pose no risk to adjacent natural areas. These areas should be monitored for the spread of multiflora rose (already detected), Asiatic bittersweet (already detected), barberry (already detected), and black swallow-wort (*Cynanchum nigrum*) and European swallow-wort (*C. rossicum*). Swallow-wort is not yet present, but is found in many areas throughout the region and can seriously compromise the quality of these areas for forage and wildlife habitat. If possible, these species should be controlled.

Cultural Shrublands

Cultural shrublands are found along the powerline and on the abandoned ski slopes owned by Deerfield Academy. The vegetation on the ski slopes are the result of natural succession, while the powerline vegetation is periodically brush-hogged and herbicided. In both areas, the flora includes a mix of grasses and low shrubs (sweet fern, mountain laurel, blackberries and raspberries).

Conservation Notes

- The abandoned ski slope and powerline appear to be too narrow for early successional species like rufous-sided towhees. They may, however, serve as corridors for birds, mammals and certain insects.
- Off-road vehicles use some of the powerline areas and can create erosion problems near streams. These areas may also contain certain invasive, non-native

plant species. Due to time restrictions, invasive species were not monitored along these corridors.

Freshwater Wetlands

Circumneutral Hemlock-Hardwood Swamp (CHHS)

Just off River Ferry Road, a little west from the traprock ridge, lies a small hemlock-hardwood wetland with an unusual array of plant species. Aside from red maple and clusters of winterberry (*Ilex verticillata*), we found high-bush cranberry (*Viburnum trilobum*), black ash (*Fraxinus nigra*), several clusters of Goldie's fern (*Dryopteris goldiana*—Watch Listed) and swamp saxifrage (*Saxifraga pensylvanica*). All four taxa are typical of soils that are circumneutral. The other associates were more typical and included crested woodfern (*Dryopteris cristata*), spinulose woodfern (*Dryopteris carthusiana*), and golden ragwort (*Senecio aureus*). This site is worth another visit as interesting sedges may also be present. It did not appear to have the appropriate topography to also function as a vernal pool.

Red Maple Swamp (RMS)

A red maple swamp is found on property owned by Arthur Rogers. It can be subdivided into two areas: (1) a large, amphitheatre-shaped wetland to the north and (2) a red maple swamp bordering a small stream to the south

- 1.) The amphitheatre-shaped wetland is dominated by red maple and hemlock, with lesser components of yellow birch, white ash, white pine, and American elm (*Ulmus americana*). On higher hummocks, mountain laurel is common. In wetter soils grow spicebush (*Lindera benzoin*), highbush blueberry (*Vaccinium corymbosum*), common winterberry, and nannyberry (*Viburnum lentago*). The herbaceous layer is varied, in part due to past logging activities. Broad swaths of cinnamon fern (*Osmunda cinnamomea*), sensitive fern (*Onoclea sensibilis*), royal fern (*Osmunda regalis*), marsh fern (*Thelypteris palustris*), false hellebore (*Veratrum viride*), spotted touch-me-not (*Impatiens capensis*), field horsetail (*Equisetum arvense*) and marsh horsetail (*Equisetum sylvaticum*). This site bears further investigation.
- 2.) The red maple swamp along the small, perennial stream supports a mix of species that prefer circumneutral soils. The overstory is dominated by red maple and hemlock, but yellow birch is widespread. The herbaceous layer includes long beech fern (*Phegopteris connectilis*), silvery spleenwort (*Deparia acrostichoides*), cinnamon fern, foamflower (*Tiarella cordifolia*), and many other wetland plants common to our region. Most notable



Triangle grape fern, a diminutive species on the Massachusetts' Watch List, was found growing in moss near a small stream.

was the discovery of Triangle Grape Fern (*Botrychium lanceolatum*), a diminutive species that is currently Watch Listed in Massachusetts. In addition, the stream itself provides habitat to the Southern Pygmy Clubtail Dragonfly (*Lanthus vernalis*), another Watch-Listed species in Massachusetts. On June 20, 2002, we observed nine adults in light gaps near the stream, perching on speckled alder (*Alnus incana*), spicebush, spotted Joe-Pye weed (*Eupatorium maculatum*) and other vegetation. Other dragonfly species found here include Delta Spotted River Cruiser (*Corduleagaster diastatops*), Ebony Jewelwing (*Calopteryx maculata*), and Eastern Pondhawk (*Erythemis simplicollis*). Other small streams on the ridge may also support southern pygmy clubtails.

Smaller red maple-dominated swamps occur within the focus areas, but were not delineated. One occurs above Pole Swamp Brook, near Pine Nook Road, and several small pockets are found on the west side of the ridge, along a topographic bench at the base of the slope leading to the rock cliffs. Ground water breaks out at the surface in these areas, and a mix of wetland species can be found. Additional reconnaissance is required to delineate the extent and boundaries of these areas. At present they have been lumped with Hemlock-White Pine-Oak assemblages or Red Oak-Sugar Maple Transition.

Conservation Notes

The stream associated with wetland #2 may also be large enough to support wood turtles (*Clemmys insculpta*-Special Concern). It would be valuable to return next summer to document the number of the southern pygmy clubtails, a species that depends on small, clean streams in its larval stage. Of note, Asiatic bittersweet was common along certain sections of this stream.

Shallow Emergent Marsh (SEM)

The only shallow emergent marsh within the study area occurs at the headwaters of Clapp Pond. It was detected through aerial photography but was not inspected in the field due to “No Trespassing” signs.

It is likely that the vegetation includes a variety of common species: tussock sedge (*Carex stricta*), wool grass (*Scirpus cyperinus*), marsh Fern, marsh St. Johnswort (*Triadenum virginicum*), candlewick rush (*Juncus effusus*), swamp candles (*Lysimachia terrestris*), reed canary grass (*Phalaris arundinacea*), red maple, winterberry and speckled alder.

Conservation Notes

This is the only emergent marsh within the focus area, and therefore, in all likelihood, increases the diversity of species. Shallow emergent marshes can provide habitat for spotted turtles, painted turtles, snapping turtles, garter and ribbon snakes, red-wing blackbirds, song sparrows, common yellowthroats, herons, cottontails, muskrats and mink. This area may also support breeding areas for Fowler’s and American toads.

Shrub Swamp (SS)

A single buttonbush dominated shrub swamp was observed on the east side of the ridge. The area appears to function much like a woodland vernal pool, but had no standing open water at the time it was surveyed. The surrounding canopy was dominated by red maple, black gum and scattered hemlock.

Conservation Notes

Because of varying hydrology, it is likely that this shrub swamp also functions as a vernal pool. Although no larval marbled salamander larvae were found in October 2002, this site appears to be suitable for this rare species as well as other amphibians. This site might be used by box turtles (*Terrapena carolina*-Special Concern) but is probably too shrubby to provide good habitat for spotted turtles (*Clemmys guttata*-Special Concern). This site may provide breeding habitat for state-listed four-toed salamanders (*Hemidactylium scutatum*-Special Concern).

Open Water/Ponds (OW)

Within the study area are four manmade ponds that hold water year-round; (1) Clapp Pond at the south end, (2) an unnamed pond near Keets Road, (3) an unnamed pond on land owned by Woolman Hill, and (4) an unnamed pond on land owned by Arthur Rogers.

The largest of these is Clapp Pond, which is surrounded by a mix of red maple, hemlock, and white pine. Black cherry, black birch and witch hazel are also common. In a rocky nook, on the pond's eastern boundary the forest includes several large trees, many exhibiting bark characteristics suggesting that they are quite old. The understory varies depending on hydrology and light. While some areas are dominated by species associated with shady, dry acid woods (Southern Ground-Cedar (*Diphasiastrum digitatum*), ground pine, partridgeberry (*Mitchella repens*), Canada mayflower, bracken, sweet lowbush blueberry, sheep laurel (*Kalmia angustifolia*)); other areas with more light and moisture are dominated by species like sensitive fern, royal fern, cinnamon fern, monkey flower (*Mimulus ringens*), touch-me-not (*Impatiens capensis*), and mad-dog skullcap (*Scutellaria lateriflora*). Winterberry and alder are common along the ponds shorelines, and water willow (*Decodon verticillata*) is common in its shallow waters.

The pond on Keets Road is also surrounded by a mix of deciduous species (oak, red maple, birch), as well as an occasional black willow (*Salix nigra*) on the boundary. In deeper areas water willow is abundant, while the mudflats include a mix of grasses, tickseed sunflowers (*Bidens* sp.) and other species common in open, moist conditions. The northern pond is adjacent to two other manmade depressions, all three of which were used in the past as farm ponds. The two adjacent ponds dry out, and fingernail clams were found in abundance, indicating that they function as vernal pools. A single spotted salamander was found in October in the middle pond, but no marbled salamander larvae or adults were observed in any of these ponds. Future investigations, however, are warranted.

The ponds on the Woolman Hill and Rogers' lands were not investigated.

Conservation Notes

These open water ponds should be monitored for water chestnut (*Trapa natans*), an aggressive floating aquatic that has been detected in many quiet water bodies within the Connecticut River Valley. The ponds on Rogers and Woolman Hill should be investigated to see if they function as vernal pools, and if so, if Jefferson's salamanders (Special Concern) and marbled salamanders (Threatened) are present. These open water areas provide habitat for many species of dragonflies and damselflies, frogs and turtles and water birds (great blue herons, green herons, wood ducks). Northern water snakes are likely to use these areas. Clapp Pond has fish species, and therefore does not meet the criteria for a vernal pool.

Vernal Pools

Twelve sites were identified and mapped as potential vernal pools by the MA Division of Fisheries and Wildlife. Of these, eight were investigated during this survey and all appear to function as vernal pool habitat. Five of the investigated pools are natural, the other three are man-made.

- Natural Ponds

Fairy shrimp, spotted salamander egg masses and wood frog tadpoles were observed in the shallow woodland pools on the UMass property. Fingernail clams were found in the woodland pools near River Ferry Road. The shrub swamp (described earlier) appears to function as a vernal pool as well. A sixth natural vernal pool occurs on the Rogers property along Pine Nook Road.

The UMass ponds dry annually, are dominated by herbaceous vegetation, and lack trees; the ponds near River Ferry Road probably act as a single vernal pool and are wooded (black gum (*Nyssa sylvatica*), red maple). The Rogers' pool is a small depression that fills with groundwater and lacks vegetation. It is surrounded by forest and lies near the base of a small traprock ridge and talus slope.

- Manmade Ponds

Two ponds occur near Keets Road, while the third is in the forest, just south of Deerfield Academy's abandoned ski slopes. The Keets Road ponds have fingernail clams, and wood frog larvae was observed in the third pool. All three ponds may also provide breeding habitat for spring peepers, American toads, Fowler's toads, gray treefrogs, spotted salamanders, Jefferson's salamanders and marbled salamanders.

Conservation Notes

All of the vernal pools were investigated for marbled salamanders in the fall 2002. This threatened species was observed within the focus area in 1995. Although no marbled salamanders were found during the survey, future investigations are warranted. In addition, the four additional areas identified as potential vernal pools in the GIS datalayer that were not investigated during 2002 should be inspected to determine if they function as vernal pool habitat.

SUMMARY

The Pocumtuck Ridge Focus Area contains a valuable mix of upland and freshwater wetland communities, supports at least eight vascular plants and animals being tracked by MA NHESP and one rare and several unusual lichens. Its largely unbroken forest provides valuable stopover habitat for migrating songbirds during both spring and fall, and is habitat for many mammals, reptiles and amphibians, and invertebrates. What's more, its trails provide recreational opportunities and the views of the Valley and foothills of the Berkshires from the summit are spectacular.

The upland communities, most notably the circumneutral cliffs and talus, are of high quality and have not been significantly degraded by invasive exotic species or fragmentation by roads, driveways and development. The upland areas help buffer the Ridge's wetland habitats, thereby protecting water quality and quantity. They also provide important habitat for certain wildlife species (e.g. spotted salamanders, wood frogs, etc) that depend on both wetlands and uplands during their life cycle.

Although scant, the ridge's freshwater wetlands are valuable to many plant and animal species. Of greatest interest are the small streams that provide habitat for the southern pygmy clubtail dragonfly and the vernal pools, which provide habitat for a host of wetland plant and animal species, including the state-listed Marbled Salamander.

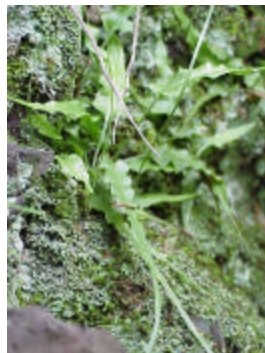
Based on this preliminary survey, the following actions are recommended:

- Protect the circumneutral ledges and surrounding forests. This is especially important for lichens as sudden changes in the adjacent forest canopy would alter the humid, shady, and protected microenvironment required by these ecologically sensitive species.
- Protect vernal pool habitats.
- Protect the gradual slopes to maintain the ridge's forest continuity, which benefits migratory songbirds that require contiguous, unfragmented forest to breed successfully.
- Maintain open hayfields and pasture areas to encourage grassland bird habitats. Adopt mowing regimes that are conducive to these species.
- Conduct targeted rare species surveys for selected vascular plants, amphibians (Jefferson's salamander, marbled salamander), reptiles (spotted turtle, box turtle) dragonflies, damselflies, butterflies and moths would likely turn up additional state-listed species.
- Control the spread of multiflora rose in pasture areas. Monitor and manage the presence of other non-native, invasive species along forest edges and in more sensitive natural areas (e.g. vernal pools).

- Clean-up the dump in the wooded area on the western slope.
- Restrict off-road vehicle access.

State-listed and Watch-listed Species Reported from Pocumtuck Ridge Focus Area Deerfield, MA

Endangered, Threatened & Special Concern Species		Status
<i>Adlumia fungosa</i>	Climbing Fumitory-T	Historical Record
<i>Ambystoma opacum</i>	Marbled Salamander-T	Historical Record
<i>Asplenium rutamuraria</i>	Wall Rue-T	Observed 2002
<i>Clematis occidentalis</i>	Purple Clematis-SC	Observed 2002
<i>Corallorrhiza odontorhiza</i>	Autumn Coralroot-SC	Historical Record
<i>Morus rubra</i>	Red Mulberry-E	Historical Record
<i>Ophioglossum pusillum</i>	Adder's Tongue Fern-T	Historical Record
Watch-Listed Species		
<i>Botrychium lanceolatum</i>	Triangle Grape Fern	Observed 2002
<i>Dryopteris goldiana</i>	Goldie's Fern	Observed 2002
<i>Isotria verticillata</i>	Large Whorled Pogonia	Observed 2002
<i>Lanthus vernalis</i>	Southern Pygmy Clubtail	Observed 2002
<i>Parietaria pensylvanica</i>	Rock Pellitory	Observed 2002
<i>Selaginella rupestris</i>	Rock Spikemoss	Observed 2002



Walking Fern
(Asplenium rhizophyllum)



Purple Cliff Brake
(Pellaea atropurpurea)

**Natural Community Mapping
GIS Data Layers
December 2002
Natural Resource and Environmental Conservation Program—UMass Extension,
Amherst, MA**

Images

Mosaic.sid
USGS.sid

Source

Black&White Orthophotos, 1:5000, MassGIS
USGS Topographic Maps, MassGIS

Shapefiles

Pocumtuck Focus Area
Natural Communities
Protected Open Space

UMass Extension
UMass Extension based on descriptions by MA NHESP
Derived from MassGIS Open Space Layer and parcel maps
provided by the town of Deerfield

Chapter 61 Lands

Derived from MassGIS Open Space Layer and parcel maps
provided by the town of Deerfield

Vernal Pools

UMass Extension and MassGIS

Streams

MassGIS

Ponds

MassGIS

BioMap Core

MassGIS/MA NHESP



A vernal pool on the Pocumtuck Ridge.



Roberta Poland

1899-1989

Mrs. Poland taught mathematics and physics at Deerfield Academy at a time when few females were members of the Academy's faculty. Mrs. Poland retired from teaching in 1968. Her husband died in 1977. She continued to live in Deerfield and was known for the nature walks she guided every Sunday afternoon for years. She died February 26 at the age of 89.

Mrs. Poland had taught previously at Abbott Academy, the girls' school which merged with Andover. She had a B.A. from Swarthmore and a master's from University of Pennsylvania.

Her husband Burdett accepted a faculty position at Deerfield in 1942 to teach chemistry. She stayed at Abbott one year longer as head of the science department, before joining the Deerfield faculty in 1943. For most of her years at the Academy, Roberta Poland and Helen Boyden, both science teachers, were the only two female members of the faculty.

Although Roberta taught physics she was by avocation a botanist, and botany is what she did full-time after her retirement. You may have seen her, an old woman with arresting white hair carrying a stick, a large plastic picnic bag for plant specimens, clippers, and a trowel, prowling the road edges in search of elusive species. By the time of her death she had collected more than 8,000 different plants in the town of Deerfield. There is probably no other town in Massachusetts and possibly New England whose flora have been inventoried so completely. And there are many specimens in her Deerfield collection that have already disappeared from the landscape.

Roberta was a quiet woman of remarkable achievement. She collected up until the year of her death and she was delighted by plants until the day she dies. Ever cheerful and forward-looking, continually absorbed in her ongoing exploration of the world, Roberta Poland was a woman whose ninety years were all abundantly worth living.

This tribute was penned for the Deerfield Academy magazine by Lyn Mattoon, a good friend and apprentice to Roberta Poland. Lyn frequently accompanied Roberta on her Deerfield walks.

Appendix 1:
**Preliminary Checklist to the
Flora of the Pocumtuck Ridge, Deerfield, MA**

From specimens collected by Roberta Poland (1899-1989) and stored at the
Herbarium of the University of Massachusetts
University of Massachusetts
Amherst, MA
01003

FAMILY	GENUS	SPECIES	AUTHORITY	COMMON NAME	LOCATION	ACCES- SION #	COLL. DATE
Aceraceae	Acer	pensylvanicum	L.	Striped Maple	south end Pocumtuck, near pond	301550	19 May 1971
Aceraceae	Acer	saccharum	Marshall	Sugar Maple	No. Hillside Rd. @ Christmas tree farm	301564	19 Jun 1971
Aceraceae	Acer	saccharum	Marshall	Sugar Maple	south from old RR station, near Country Rd., on east side of tracks	301566	15 Jul 1977
Alismataceae	Sagittaria	latifolia	Willd.	Duck-potato	Clapp Pond.	300505	17 Aug 1954
Alismataceae	Sagittaria	latifolia	Willd.	Duck-potato	Clapp Pond.	300506	31 Aug 1979
Amaranthaceae	Amaranthus	albus	L.	Tumbleweed	West side of Connecticut River rd. a bit north of Melnicks.	301079	24 Oct 1983
Amaranthaceae	Amaranthus	caudatus	L.	Love-lies-bleeding	N. side of first house n. of Hillside rd. on e. side of Ct. River rd. House formerly and for many years owned by Nicholas Melnick.	301084	14 Oct 1983
Amaranthaceae	Amaranthus	hybridus	L.	Green Amaranth	Weed at steps of our (B.K. Poland's) house on Stage rd.	301086	03 Sep 1969
Amaranthaceae	Amaranthus	retroflexus	L.	Redroot	Field, E. side of Ct. River Rd. - 2nd one No. of Mr. Ed Melnick.	301145	05 Oct 1974
Amaranthaceae	Amaranthus	retroflexus	L.	Redroot	Straw flower field n. of property owned by Nicholas Melnick on Ct. River rd.	301095	14 Oct 1983
Anacardiaceae	Rhus	copallinum	L.	Winged Sumac	Stage Road Poland's property	301539	17 Aug 1975
Anacardiaceae	Rhus	typhina	L.	Staghorn Sumac	Country Road	301542	26 Jun 1970
Apiaceae	Aegopodium	podagraria	L.	Goutweed	intersection Country Road and Pine Nook	301598	08 Jun 1973
Apiaceae	Cicuta	maculata	L.	Spotted Cowbane , Water-hemlock	West side, at the North end of Clapp Pond.	302245	23 Aug 1980
Apiaceae	Osmorhiza	longistylis	(Torr.) DC	Anise Root	County Road	301615	26 Jun 1970
Apiaceae	Zizia	aurea	(L.) Koch.	Golden Alexanders	backside of County road	301604	29 May 1967
Apiaceae	Zizia	aurea	(L.) Koch.	Golden Alexanders	Pocumtuck opposite the ski jump, sandy woods road	301624	19 Aug 1966
Aquifoliaceae	Ilex	verticillata	L.	Winterberry	Country Road at north side of "turn around" south of the cottage	301531	29 Sep 1966
Aquifoliaceae	Nemopanthis	mucronatus	(L.) Trel.	Mountain-holly	swamp west side of Pine Nook Road north of Keith (Rogers) Hill Farm	301533	20 May 1965
Araceae	Arisaema	triphyllum	(L.) Schott	Jack-in-the-Pulpit	Woods on Stage Rd, at Poland's house.	300742	1 Jun 1972
Asclepiadaceae	Asclepias	exaltata	L.	Poke-milkweed	downhill from ski area	301511	27 Jun 1961
Aspleniaceae	Asplenium	platyneuron	(Linnaeus) Britton, Sterns & Poggenburg	Ebony Spleenwort	West off Connecticut R. Rd. West at the second gully north of Melnicks and up the hill to the talus slope	300142	8 Oct 1967
Asteraceae	Anaphalis	margaritacea	(L.) Benth. & Hook.	Pearly Everlasting	where Hillside Rd. and Connecticut River Rd. cross	302448	3 Sep 1964
Asteraceae	Aster	ciliolatus	Lindl.	Northern Heart-leaf Aster	County Rd. - south of Child's Cottage	302478	14 Oct 1966
Asteraceae	Aster	cordifolius	L.	Blue Heart-leaf Aster	Pine Nook Rd. - top of Pocumtuck - near ski jump	302480	28 Sep 1966
Asteraceae	Aster	divaricatus	L.	White Wood-aster	under the deck of Ms. Poland's house	302481	23 Sep 1978
Asteraceae	Aster	divaricatus	L.	White Wood-aster	on road into Clapps pond	302482	3 Sep 1968
Asteraceae	Aster	laevis	L.	Smooth Aster	County Rd. @ turn around	302488	26 Sep 1966
Asteraceae	Aster	lateriflorus	(L.) Britton	Goblet-aster	west side - north end of Clapp's pond	302491	27 Sep 1979
Asteraceae	Aster	lateriflorus	(L.) Britton	Goblet-aster	west side of Clapp's Pond	302522	18 Sep 1978

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Asteraceae	Bidens	connata	Muhl.	Purplestem Beggar-ticks	Clapps Pond edge	302604	9 Sep 1978
Asteraceae	Bidens	connata	Muhl.	Purplestem Beggar-ticks	west off of Connecticut River Rd. - near rock along brook	302603	15 Sep 1969
Asteraceae	Cirsium	altissimum	(L.) Sprengel	Tall Thistle	road near the upper end of Clapp's Pond	302615	
Asteraceae	Cirsium	arvense	(L.) Scop.	Canada Thistle	Pine Nook Rd. near Eagle Brook School	302618	27 Jul 1982
Asteraceae	Cirsium	vulgare	(Savi) Tenore	Common Thistle	roadside Connecticut River Rd. - near Pine Nook Rd.	302622	21 Sep 1969
Asteraceae	Eupatorium	purpureum	L.	Sweet Joe-pye-weed	Connecticut River roadside South of where Pole Swamp Brook crosses road.	303776	23 Jul, 1973
Asteraceae	Euthamia	graminifolia	(L.) Nutt.	Grass-leaf Goldenrod	in Ms. Poland's backyard	302641	16 Sep 1980
Asteraceae	Helianthus	tuberosus	L.	Jerusalem Artichoke	Wapping Rd.	302681	13 Sep 1982
Asteraceae	Hieracium	caespitosum	Dumort	King-devil	Poland residence - back yard	302552	11 Jun 1974
Asteraceae	Hieracium	scabrum	Michx.	Rough Hawkweed	Stage Rd. - west side	302554	26 Jul 1981
Asteraceae	Lactuca	canadensis	L.	Yellow Wild Lettuce	opposite the Deerfield ski jump	302561	5 Aug 1971
Asteraceae	Lactuca	canadensis	L.	Yellow Wild Lettuce	on walk to Clapp's pond	302564	6 Aug 1985
Asteraceae	Leontodon	taraxacoides	(Villars) Merat.	von Leysser's Fall - dandelion	@ edge of Stage Rd. by house	302571	17 Jun 1985
Asteraceae	Rudbeckia	hirta	L.	Black-eyed Susan	West Stage Rd.	302582	22 Oct 1971
Asteraceae	Solidago	caesia	L.	Bluestem-goldenrod	Pocumtuck - entrance to a path	302633	1 Sep 1962
Asteraceae	Solidago	nemorialis	Aiton	Gray Goldenrod	Pine Nook Rd. opposite ski jump	302646	28 Sep 1966
Berberidaceae	Berberis	thunbergii	DC.	Japanese Barberry	County Rd.	301274	22 May 1966
Berberidaceae	Podophyllum	peltatum	L.	May-apple	Wapping Rd. On a bank. No. end, E. side, opposite the back of the Stockade.	301272	21 May 1965
Berberidaceae	Podophyllum	peltatum	L.	May-apple	Pocumtuck, near Y.L.	301278	01 Jun 1961
Betulaceae	Betula	populifolia	Marshall	Grey Birch	South end of Clapps Pond	300583	11 May 1970
Bignoniaceae	Catalpa	bignonioides	Walter	Catalpa	start at Eagle Brook Hill, follow underpass, turn south, second south, on east side	301736	09 Jul 1955
Bignoniaceae	Catalpa	ovata	G. Don	Chinese Catalpa	Ct. River Road, near intersection with Pine Nook Road	301734	25 Jun 1955
Bignoniaceae	Catalpa	speciosa	Warder	Cigar-tree	Poland yard	301731	27 Jun 1983
Boraginaceae	Echium	vulgare	L.	Viper's Bugloss	Whatley/Glen logging road on northeast side of cellar hole	301712	11 Sep 1971
Brassicaceae	Alyssum	alyssoides	(L.) L.	Pale Alyssum	So. end of Pocumtuck - Field just over the track from the Gables (the 1954 location, not the 1967 location).	301285	12 May 1954
Brassicaceae	Camelina	microcarpa	Andrz.	Small-seeded False Flax	Field @ So. end of Pocumtuck, E of Nelsons Pyrofax Plant - take field rd. almost to the brook - on the right of the field rd.	301353	20 May 1954
Brassicaceae	Cardamine	parviflora	L.	small-flowered Bittercress	On rock near tiny pond - S end of wooded area on rd. to Hill Top Farm, on Pocumtuck; W side of rd.	301296	28 May 1963
Brassicaceae	Cardamine	pensylvanica	Muhl.	Common Bittercress	Stream that drains Clapps pond - not far above the swamp.	301355	15 May 1982

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Brassicaceae	Cardamine	pensylvanica	Muhl.	Common Bittercress	W. side of Stage Rd., opposite Polands house; temporary standing water.	301298	29 Apr 1976
Brassicaceae	Sisymbrium	officinale	(L.) Scop.	Hedge-mustard	Conn. River Rd. opposite Mrs. Nicolas Melnicks.	301341	Nov 1970
Brassicaceae	Thlaspi	arvense	L.	Penny-cress	No. of Intersection of Hillside and Ct. River rd. - S side of first gully- E. side of Ct. River rd.	301343	21 May 1981
Campanulaceae	Campanula	rotundifolia	L.	Harebell	Pocumtuck	302405	8 Jul 1955
Campanulaceae	Lobelia	spicata	Lam.	Spiked Lobelia	opposite ski jump, Pocumtuck	302414	27 Jul 1971
Caprifoliaceae	Linnaea	borealis	L.	Twinflower	Pocumtuck - No. of Hilltop Farm to the wooded area on the E. side.	301868	28 May 1963
Caprifoliaceae	Lonicera	dioica	L.	Wild Honeysuckle	Ct. River Rd., No. of Hillside- E. side of Rd.- No. of the mulberry.	301870	25 May 1977
Caprifoliaceae	Lonicera	dioica	L.	Wild Honeysuckle	Roadside, bank of Laurel Hill Cemetery. Pine Nook Rd.	301871	31 May 1966
Caprifoliaceae	Lonicera	morrowii	A. Gray	Morrow Honeysuckle	County Rd., W. side.	301872	22 Jul 1970
Caprifoliaceae	Symphoricarpos	albus	(L.) S. F. Blake	Snowberry	Roadside of Conn. River Rd. - West side just No. of Hillside Rd.	301975	16 Sep 1970
Caprifoliaceae	Viburnum	acerifolium	L.	Maple-leaf Viburnum	Pocumtuck, top of Eagle Brook Hill.	301858	13 Jun 1966
Caprifoliaceae	Viburnum	lentago	L.	Nannyberry	Pocumtuck.	301968	23 May 1951
Caryophyllaceae	Cerastium	arvense	L.	Field Chickweed	Pasture above the talus slope which is no. of Hillside rd. on w. side of Ct. river rd.	301107	12 May 1982
Caryophyllaceae	Cerastium	nutans	Raf.	Nodding Chickweed	Bank above first gully no. of Hillside on Ct. River rd. - E. side of Ct. River rd.	301109	18 May 1981
Caryophyllaceae	Cerastium	viscosum	L.	Clammy Mouse-ear Chickweed	No. of intersection of Hillside and Ct. River rd. at first gully on e. side of road.	301113	18 May 1981
Caryophyllaceae	Cerastium	vulgatum	L.		E. side of County rd.- just so. of former turning place which was so. of Childs cottage	301116	29 Jun 1974
Caryophyllaceae	Cerastium	vulgatum	L.		From Roberta Polands front yard on Stage rd.	301114	20 May 1985
Caryophyllaceae	Lychnis	flos-cuculi	L.	Ragged Robin	Intersection of rt.'s 5 & 10 and N. Hillside.	301153	02 Jun 1976
Caryophyllaceae	Silene	noctiflora	L.	Night-flowering Catchfly	Ct. River rd., w. side of rd. no. of Hillside Rd.	301191	09 Sep 1986
Caryophyllaceae	Stellaria	borealis	Bigelow	Northern Starwort	W. side, no. end, beyond Clapp's Pond.	301165	06 Jul 1981
Celastraceae	Celastrus	orbiculatus	Thunb.	Oriental Bittersweet	E. side of the Ct.R Rd,near the intersection with Hillside & Ct R Rd (Nicholas Melnick's house) across rd so. of barn and gully	301526	07 Oct 1983
Celastraceae	Celastrus	scandens	L.	American Bittersweet	Country Road, hedge on west side	301528	17 Jun 1966
Chenopodiaceae	Chenopodium	standleyanum	Aellen	Wodland Goosefoot	Roadside near Hilltop Farm.	302224	10 Sep 1969
Cistaceae	Helianthemum	bicknellii	Fern.	Bickell's Frostweed	Under the high tension wires at the turn around- Country rd.	301365	26 Jun 1970
Cistaceae	Lechea	intermedia	Leggett	Large-podded Pinweed	Pocumtuck Mt. Rd to the barricade. Around this on the no. side then e. to a dirt rd. N up hill on the dirt rd. Somewhere after barr.	301373	20 Sep 1988
Cistaceae	Lechea	minor	L.	Thyme-leaf Pinweed	Down Pocumtuck to barricade; continue E. to a dirt rd. on your left (No.). Take this No.	302191	06 Sep 1988

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Cistaceae	Lechea	mucronata	Raf.	Hairy Pinweed	Down Pocumtuck through the circle of logs almost to end of the ditch, then No. on the edge of the grassy place.	301230	12 Oct 1987
Cistaceae	Lechea	racemulosa	Michx.		Down Pocumtuck. to barway. Around it on the So. end. Go E. until a dirt rd. leading No. Appears. Up the hill on this, then search.	301224	06 Sep 1988
Clusiaceae	Hypericum	majus	(A. Gray) Britton	Larger Canadian St. John's Wort	So. end of wooded area of Pine Nook Rd., Pocumtuck. On way into headwaters of Kieths brook.	301412	03 Aug 1963
Clusiaceae	Hypericum	mutilum	L.	Dwarf St. John's Wort	Pocumtuck, near headwaters of Keiths brook - wet area.	301415	03 Aug 1963
Clusiaceae	Hypericum	mutilum	L.	Dwarf St. John's Wort	That wet spot just beyond Stage Rd. at foot of first hill on way to the pond.	301414	12 Aug 1988
Clusiaceae	Hypericum	punctatum	Lam.	Spotted St. John's Wort	Logging rd. At first leveling off place above Conn. River Rd.	301402	15 Jul 1966
Commelinaceae	Tradescantia	bracteata	Small		On the right side of the steps to the drive- way at Poland's house on Stage Rd.	300752	27 May 1973
Commelinaceae	Tradescantia	virginiana	L.	Virginia Spiderwort	Left side of steps to driveway of Poland's house on Stage Rd.	300750	11 Jun 1973
Convolvulaceae	Ipomoea	hederacea	Jacq.	Ivy-leaved Morning-glory	east of RR underpass on road to Eagle Brook	301522	05 Aug 1971
Convolvulaceae	Ipomoea	hederacea	Jacq.	Ivy-leaved Morning-glory	Pine Nook Road, roadside north of Deerfield Academy ski jump	301525	22 Sep 1978
Cornaceae	Cornus	florida	L.	Flowering Dogwood	Pocumtuck mixed woods, wooded hillside	301594	30 May 1966
Cornaceae	Cornus	racemosa	L.	Gray Dogwood	Country Road	301592	02 Jul 1967
Crassulaceae	Sedum	purpureum	(L.) J.A. Shultes	Live-forever, Orpine	West side of No. Hillside - between Stage Rd. and Hillside.	301387	16 Aug 1977
Cupressaceae	Juniperus	communis	Linnaeus	Pasture - juniper	UMass pasture, Connecticut River Road, west side, No. of Hillside	300468	16 Sep 1979
Cupressaceae	Juniperus	communis	Linnaeus	Pasture - juniper	UMass pasture, west side of Connecticut River Road, No. of Hillside	300471	16 Sep 1979
Cupressaceae	Juniperus	virginiana	Linnaeus	Eastern Red Cedar	Pasture west of Connecticut River Rd., near pole 145, No. of Hillside.	300470	16 Sep 1979
Cupressaceae	Juniperus	virginiana	Linnaeus	Eastern Red Cedar	Pasture west of Connecticut River Rd., near pole 145, No. of Hillside.	300469	16 Sep 1979
Cyperaceae	Bulbostylis	capillaris	(L.) C. B. Clarke	Sand-sedge	Clapp Pond brook	301008	4 Jul 1954
Cyperaceae	Carex	albicans	Willd.	Variable Sedge	West Side of Connecticut River, north of Hillside Rd. At the foot of talus slope	302261	29 May 1982
Cyperaceae	Carex	angustior	Mackenz.		South end of Pocumtuck. Trip was up field road near Pyrofax.	300765	2 Jun 1953
Cyperaceae	Carex	arctata	W. Boott	Northern Wood-sedge	Woods opposite my house (Stage Road), up hill from the Goodyera pubescens patch.	300771	20 May 1980
Cyperaceae	Carex	bebbii	(L. H. Bailey) Fern.	Bebb's Broom-sedge	East at Pyrofax Plant. (field east at Gables, not the present location of Gables.)	300774	4 Jun 1953
Cyperaceae	Carex	blanda	Dewey	Woodland-sedge	In the field at the south edge of the talus slope which is on the west side of Ct. River Road, north of Hillside.	302255	9 May 1982
Cyperaceae	Carex	bromoides	Willd.	Brome-like Sedge	Swamp formed by flood waters of the brook that drains Clapps Pond.	302294	28 May 1982

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Cyperaceae	Carex	canescens	L.	Silvery Bog-sedge	Clapp Pond. Near inlet at the north end of the pond, on the east side.	300781	23 Jun 1970
Cyperaceae	Carex	cephalophora	Muhl.	Oval-headed Sedge	Stage Road. Clothes line at Poland home.	300785	6 Jun 1972
Cyperaceae	Carex	debilis	Michx.	Southern Stalked Sedge	Path to ridge opposite my house, near the bottom of the path under a laurel bush.	302262	2 Jul 1982
Cyperaceae	Carex	intumescens	Rudge	Bladder-sedge	Clapps Pond area	300855	7 Sep 1978
Cyperaceae	Carex	leptalea	Wahlenb.	Delicate Sedge	Clapp Pond; west side	300864	1 Jun 1979
Cyperaceae	Carex	lupulina	Muhl.	Hop-sedge	North of Clapps Pond, following on the east side the channel of the brook that runs into Clapp Pond.	300862	3 Jul 1979
Cyperaceae	Carex	pallescens	L.	Pale Sedge	East side of Ct. River Rd., north of Hillside opposite south end of UMass property, opposite Lonicera dioica	300875	20 May 1977
Cyperaceae	Carex	pensylvanica	Lam.	Pennsylvania Sedge	Stage Road. Northwest corner of our property.	300884	7 May 1973
Cyperaceae	Carex	plantaginea	Lam.	Plantain -leaf Sedge	Near Stage Rd. On a path to upper ridge opposite my house.	300887	20 May 1980
Cyperaceae	Carex	prasina	Wahlenb.	Twisted Drooping Sedge	Country Road on the east side and a bit south of Bert Child's cottage.	300893	24 May 1978
Cyperaceae	Carex	projecta	Mackenzie	Beaded Broom-sedge	Connecticut River road, first gully north of Hillside, east side of road, north side of bridge.	300894	27 Jun 1977
Cyperaceae	Carex	sparganioides	Muhl.	Bur-sedge	East side of Connecticut River Road, north of Hillside. By pole 140.	302258	29 May 1982
Cyperaceae	Carex	stipata	Muhl.	Awl-fruited Sedge	Between Clapp Pond and Connecticut River Rd along a woods road.	300954	19 May 1982
Cyperaceae	Carex	stricta	Lam.	Tussock-sedge	Pocumtuck Farms; opposite Sam Child's	300956	5 May 1953
Cyperaceae	Carex	stricta	Lam.	Tussock-sedge	West end of North Hillside Rd. in a wet area on the north side of the road.	300958	5 May 1987
Cyperaceae	Carex	swanii	(Fern.) Mackenzie	Swan's Sedge	Stage Rd. in our "Poland's" back yard.	300959	22 Jul 1977
Cyperaceae	Carex	tribuloides	Wahlenb.	Blunt Broom-sedge	First gully north of Hillside on the Connecticut River Road.	302157	27 Jun 1977
Cyperaceae	Carex	umbellata	Schk.	Short-beaked Sand-sedge	Connecticut River Rd. north of Hillside opposite the end of the UMass pasture.	302154	20 May 1977
Cyperaceae	Carex	utriculata	F. Boott	Beaked Sedge	East side of Pocumtuck, east on bridle path opposite Deerfield Academy ski slope.	302259	14 Jul 1962
Cyperaceae	Cyperus	esculentus	L.	Tuberous Flatsedge	First stream north of intersection of Conn. River Rd. and Hillside Rd.	301014	9 Sep 1953
Cyperaceae	Cyperus	filiculmis	Vahl		Backyard of Stage road house.	301018	16 Aug 1973
Cyperaceae	Cyperus	filiculmis	Vahl		Beyond the turn around area at E. end of Pocumtuck Rd.	301015	23 Aug 1987
Cyperaceae	Dulichium	arundinaceum	(L.) Britton	Threeway Sedge	Clapp Pond	302247	3 Sep 1968
Dennstaedtiaceae	Dennstaedia	punctilobula	(Michxaux) T. Moore	Hay-sented fern	Country Road	300134	14 Oct 1969
Dennstaedtiaceae	Pteridium	aquilinum	(Linnaeus) Kuhn	Eastern Bracken fern	Edge of Stage Rd. Dirt extension opposite my house.	300221	21 May 1978
Dryopteridaceae	Athyrium	filix-femina	(Linnaeus) Roth ex Mertens	Southern Lady fern	West side of Clapp Pond	300169	1 Jun 1979
Dryopteridaceae	Athyrium	filix-femina	(Linnaeus) Roth ex Mertens	Southern Lady fern	Country Road near Child's Cottage	300140	14 July 1971

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Dryopteridaceae	Cystopteris	fragilis	(Linnaeus) Bernhardt	Fragile Fern	West side of Connecticut River Rd. Opposite N. Melnicks	300160	1 Jul 1970
Dryopteridaceae	Dryopteris	clintoniana	(D. C. Eaton) Dowell.	Clinton's Wood-fern	Stream from Clapp Pond, east of Clapp Pond	300440	28 Jun 1981
Dryopteridaceae	Dryopteris	clintoniana	(D. C. Eaton) Dowell.	Clinton's Wood-fern	South end of Pocumtuck, east side. Go up field road by Nelson Gesplant, into woods then parallel to edge of brook	300213	25 May 1953
Dryopteridaceae	Dryopteris	cristata	(Linnaeus) A. Gray	Crested Wood-fern	North side of the brook that drains Clapp Pond.	300205	14 Jul 1981
Dryopteridaceae	Dryopteris	intermedia	(Muhlenberg ex Willd.) A. Gray	Intermediate Wood-fern	Edge of swamp formed by stream from Clapp pond.	300209	2 Jul 1982
Dryopteridaceae	Dryopteris	spinulosa	(O. F. Mueller) Watt	Spinulose Wood-fern	On west side of Clapps Pond, near beginning of the path up the west side.	300203a	16 Jul 1981
Dryopteridaceae	Dryopteris	spinulosa	(O. F. Mueller) Watt	Spinulose Wood-fern	Swamp formed by brook from Clapps Pond	300187	2 Jul 1972
Dryopteridaceae	Dryopteris	spinulosa	(O. F. Mueller) Watt	Spinulose Wood-fern	Swampy woods along the brook that drains Clapps Pond	300438	10 Sep 1979
Dryopteridaceae	Dryopteris	x boottii	(Tuckerman) Underw.	Boott's Wood-fern	Fern patch in our (Poland) vacant lot Stage Rd.	300302	11 Oct 1971
Dryopteridaceae	Dryopteris	x slossoniae	Wherry	Slosson's Wood-fern	Swamp, Keith's woods, Pocumtuck.	300303	12 Aug 1951
Dryopteridaceae	Dryopteris	x triploidea	Wherry	Triploid Wood-fern	The swamp down stream from Clapp Pond.	300185	4 Jul 1982
Dryopteridaceae	Dryopteris	x triploidea	Wherry	Triploid Wood-fern	The swamp down stream from Clapp Pond.	300186	4 Jul 1982
Dryopteridaceae	Gymnocarpium	dryopteris	(Linnaeus) Newman	Oak-fern	North off Pine Nook Road, east side of Pole Swamp Brook, north almost to the bridle path.	300177	19 Sep 1971
Dryopteridaceae	Onoclea	sensibilis	Linnaeus	Sensitive Fern	Pocumtuck, east of the ski jump	300135	27 Jul 1971
Dryopteridaceae	Woodsia	ilvensis	(Linnaeus R. Brown	Rusty Woodsia	Top of second ridge, between Pine Nook Rd. and Pole Swamp Rd. nearer Pine Nook	300233	21 Jul 1947
Dryopteridaceae	Woodsia	obtusa	(Spreng.) Torrey	Blunt-lobed Woodsia	Melnick's Talus slope	300290	7 Jul 1955
Equisetaceae	Equisetum	arvense	L.	Common Horsetail	Poland property at the edge of Stage Rd	300031	04/26/1973
Equisetaceae	Equisetum	sylvaticum	L.	Woodland-horsetail	Country road, past Child's Cottage, past turn off to west field	300087	05/16/1967
Ericaceae	Epigaea	repens	L.	Trailing Arbutus	West of Pine Nook Rd. on Pocumtuck. North of wall separating hill top farm field from woods	300988	22 Apr 1966
Ericaceae	Gaultheria	procumbens	L.	Wintergreen	Pocumtuck, so. end of Pine Nook Rd. -west side Cut over hillside near headwaters of Kettle brook.	300989	22 Apr 1966
Ericaceae	Gaylussacia	baccata	(Wangenh.) K. Koch	Black Huckleberry	Open area in n.w. corner of Hillside and Conn. River rd.	300992	26 Jul 1967
Ericaceae	Gaylussacia	baccata	(Wangenh.) K. Koch	Black Huckleberry	Pasture opposite Tilo and Pocumtuck farms. E. of old R.R. about opposite the farm bldg. E. of R.R. where cows have made a path.	300994	27 Jul 1974
Ericaceae	Gaylussacia	frondosa	(L.) T.& G.	Dangleberry	E. from Hilltop farm on Pocumtuck, then north. Follow a woods road past a burnt out cottage. Digitalis abundant on the woods road.	300997	03 Jul 1970
Ericaceae	Kalmia	latifolia	L.	Mountain Laurel	Wooded hill side, Pocumtuck.	301000	08 Jun 1965
Ericaceae	Lyonia	ligustrina	(L.) DC.	Maleberry	Clapps pond, west side, approximately opp. south end of Decodon verticillatus stand.	301021	10 Jul 1979
Ericaceae	Vaccinium	angustifolium	Aiton	Lowbush-blueberry	Pine Nook Rd. South end, west side. Top of hill, above the pond.	301025	18 May 1975

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Ericaceae	Vaccinium	angustifolium	Aiton	Lowbush-blueberry	Pasture, E. side of 5&10. Opp. Filo and Pocumtuck farm. E. of old R.R. About opposite the farm building.	301026	27 Jul 1974
Ericaceae	Vaccinium	corymbosum	L.	Highbush-blueberry	Swamp no. of Keith's Cross rd. - west of Pine Nook rd.	301030	20 May 1965
Ericaceae	Vaccinium	corymbosum	L.	Highbush-blueberry	Pocumtuck - logging road off Pine Nook rd. - small swamp at entrance to path to the pond.	301031	06 May 1968
Ericaceae	Vaccinium	pallidum	Aiton	Early Sweet blueberry	On the way to Clapps Pond- beyond the Polystichum patch opposite the hair grass.	301038	13 Jul 1970
Ericaceae	Vaccinium	stamineum	L.	Deerberry	Pocumtuck	301036	08 Jun 1965
Euphorbiaceae	Acalypha	gracilens	A. Gray	Slender Three-seeded Mercury	North side of Pine Nook or Keith's Road at top of hill above Meg Davenport's house which is on Connecticut River Road.	303780	10 Sep 1969
Fabaceae	Desmodium	glutinosum	(Muhl.) A. Wood	Cluster-leaf Tick-trefoil	Pocumtuck.	301927	21 Jul 1971
Fabaceae	Desmodium	marilandicum	(L.) DC.	Maryland Tick-trefoil	Roadside at top of hill above Eagle Brook.	301928	07 Sep 1975
Fabaceae	Desmodium	paniculatum	(L.) DC.	Panicled Tick-trefoil	Up bridle path opposite ski jump; Pocumtuck.	301934	02 Sep 1975
Fabaceae	Trifolium	campestre	Schreber	Low Hop-clover	Rest area at intersection of routes 5+10 and North Hillside.	301949	09 Jul 1979
Fabaceae	Vicia	tetrasperma	(L.) Moench	Four-seed Vetch	Vacant lot of B.K. Poland, on So. side.	301954	12 Jun 1970
Fagaceae	Quercus	ilicifolia	Wangenheim	Scrub-oak	Top of talus slope - ridge west side of Pine Nook Rd.	300625	14 Sep 1955
Fagaceae	Quercus	velutina	Lamarck	Black Oak	North side of Stage Road house opposite middle bedroom.	300634	10 Oct 1970
Fagaceae	Quercus	velutina	Lamarck	Black Oak	North side of our Stage Rd. house, opposite middle bedroom window.	300633	13 May 1970
Fumariaceae	Adlumia	fungosa	(Aiton) Greene	Climbing Fumatory	On Pocumtuck - On the talus slope on the E. side of Pole Swamp brook, between Pine Nook rd. and River Ferry rd.	301909	27 Jul 1982
Fumariaceae	Corydalis	sempervirens	(L.) Pers.	Pale Corydalis	Pine Nook rd.- No. side, at cut through rocks- on rocks east off Pine Nook Road about .10 mile south of ski jump	301206	23 May 1953
Gentianaceae	Bartonia	virginica	(L.) BSP	Screw-stem	Pocumtuck roadside	301569	27 Jul 1952
Gentianaceae	Gentiana	clausa	Raf.	Bottle-gentian	north end west side of Clapp Pond	301509	05 Sep 1972
Gentianaceae	Gentiana	clausa	Raf.	Bottle-gentian	Field E. side of Conn. River Rd. Near, but No. of intersection of Conn. River rd. and Hillside. Opposite rock ledge.	301568	09 Sep 1980
Geraniaceae	Erodium	cicutarium	(L.) L'Her.	Redstem-filaree	Roadside of Pine Nook Rd. Pocumtuck.	301314	01 Aug 1960
Geraniaceae	Geranium	maculatum	L.	Wild Geranium	In the weeds on the W. side of County Rd. So. of the next road.	301319	30 May 1966
Geraniaceae	Geranium	robertianum	L.	Herb-Robert	Country road- east side of roadside. North of Ainsworth's cottage.	301320	12 Jul 1968
Grossulariaceae	Ribes	cynosbati	L.	Prickly Gooseberry	Pocumtuck. Near ski jump. So. side of road, west side of ridge. Rocky slope.	302148	02 Jul 1967
Grossulariaceae	Ribes	cynosbati	L.	Prickly Gooseberry	North of Melnicks brook (Conn River Road) to north end of talus slope. Either at the base or up the brook to top of slope on left.	302149	23 May 1967
Grossulariaceae	Ribes	lacustre	(Pers.) Poir.	Bristly Black Currant	At old cellar hole on McLellan Farm Rd. East Deerfield, near R.R. yard.	302189	25 Jun 1955
Grossulariaceae	Ribes	odoratum	H. H. Wendl.	Garden Red Currant	Melnicks talus slope.	300963	23 May 1967
Grossulariaceae	Ribes	sativum	Syme	Garden Red Currant		300965	4 May 1968

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Hamamelidaceae	Hamamelis	virginiana	L.	Witch-hazel	Roadside of County Road	301383	10 Oct 1969
Iridaceae	Iris	pseudacorus	L.	Yellow Iris	Ditch in field near Pine Nook Cemetery.	300902	16 Jun 1971
Iridaceae	Sisyrinchium	angustifolium	Miller	Stout Blue-eyed Grass	Country Road in front of Harry Child's cottage.	302235	29 Jun 1974
Iridaceae	Sisyrinchium	montanum	Greene	Meadow Blue-eyed Grass	On walk to Clapp Pond	300907	23 Jun 1970
Juglandaceae	Carya	glabra	(Miller) Sweet	Pignut-hickory	Path to ridge, opposite RGP's house, north side near top of a young tree (4 ft. high).	300646	20 Oct 1980
Juglandaceae	Carya	glabra	(Miller) Sweet	Pignut-hickory	Pocumtuck St, end of Pine Nook Rd, go to pond then on south side continue to top of hill, turn toward pond at edge of ledge.	300645	18 May 1975
Juglandaceae	Carya	glabra	(Miller) Sweet	Pignut-hickory	County Rd, north and before big gully.	300642	16 May 1975
Juglandaceae	Carya	glabra	(Miller) Sweet	Pignut-hickory	County Rd, but not far from entrance - east side, opposite the large willow.	300643	29 June 1974
Juglandaceae	Carya	tomentosa	(Poiret) Nuttall	Mockernut Hickory	The ridge above Poland's house (Stage Rd), somewhat north and directly above the house.	300652	9 Nov. 1983
Juglandaceae	Carya	tomentosa	(Poiret) Nuttall	Mockernut Hickory	A woods road on the ridge, about a third of the way to the power line from Poland house on Stage Rd.	300653	7 Oct. 1978
Juncaceae	Juncus	brevicaudatus	(Engelm.) Fern.	Short-tailed Rush	Shrub bordered swale in field east of Nelson Pyrofax's station, at intersection of Routes 5 & 10 and Hillside. Field just over tracks.	300822	28 Jul 1968
Juncaceae	Juncus	bufonius	L.	Toad Rush	Intersection of Routes 5 & 10 and Hillside. Shrub bordered swale in the field.	300818	28 Jul 1968
Juncaceae	Luzula	multiflora	(Ehrhart) Lejeune	Common Wood-rush	County Road, east side, not far from entrance	300845	16 May 1975
Juncaceae	Luzula	multiflora	(Ehrhart) Lejeune	Common Wood-rush	County Rd., a bit south of Ainsworth's cottage, on west side of road in a field.	300844	11 May 1966
Lamiaceae	Lycopus	rubellus	Moench.	Gypsywort	Pine Nook Rd., Pocumtuck, right side headed toward Conn. Deerfield Village side of rock cut, near end	300252	18 Aug 1961
Lamiaceae	Lycopus	uniflorus	Michx.	Northern Water-horehound	Pasture opposite Pocumtuck Farm, E. of old RR.	300233a	27 Jul 1974
Lamiaceae	Lycopus	virginicus	L.	Virginiana Water-horehound	Just north of the intersection of Hillside and River Rd at mouth of brook that enters the Connecticut River.	300246	10 Sep 1953
Lamiaceae	Mentha	x piperita	L.	Peppermint	Intersection of No. Hillside and rte. 5 & 10.	300268	30 Jul 1972
Lamiaceae	Perilla	frutescens	(L.) Britton	Perilla-mint	Stage Rd.	300278	10 Oct 1973
Lauraceae	Lindera	benzoin	(L.) Blume	Spice Bush	Pocumtuck swamp area. At the headwaters of Kettle brook.	301268	01 Jul 1966
Liliaceae	Allium	canadense	L.	Wild Garlic	(1) West side of Deerfield River, end of Martin Falls Rd. (2) East side of Pocumtuck collected 2 Jun 1953	300358a	5 May 1954
Liliaceae	Hemerocallis	fulva	(L.) L.	Orange Day-lily	Corner of Hillside and Connecticut River Road.	300333	26 Jul 1967
Liliaceae	Hemerocallis	lilioasphodelus	L.	Yellow Day-lily	Connecticut River Rd. East side by several telephone poles. (near pole 146?)	300332	5 Jun 1970
Liliaceae	Maianthemum	canadense	Desf.	Canada Mayflower	Pocumtuck	300344	12 May 1951

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Liliaceae	Maianthemum	canadense	Desf.	Canada Mayflower	Country Road.	300343	21 May 1965
Liliaceae	Medeola	virginiana	L.	Indian Cucumber	Pocumtuck	300346	8 Jun 1965
Liliaceae	Smilacina	racemosa	(L.) Desf.	False Solomon's Seal	Pine Nook Road	300350	13 Jun 1971
Liliaceae	Uvularia	perfoliata	L.	Perfoliate Bellwort	Pocumtuck. West side, S. end of Pine Nook Road near pond.	300313	12 May 1964
Linaceae	Linum	virginianum	L.	Virginia Yellow Flax	Nicholas Melnicks; Ct. River Rd. So. of talus slope.	301255	15 Jun 1970
Melastomataceae	Rhexia	virginica	L.	Northern Meadow Beauty	gravel border, South side of my Stage Road house	301463	16 Jul 1970
Monotropaceae	Monotropa	hypopithys	L.	Pinesap	Pocumtuck, east side of Pole swamp, brook near Pine Nook Road	301685	25 Aug 1950
Najadaceae	Najas	flexilis	(Willd.) Rostk. & Schmidt.	Common Naiad	Clapp Pond, west side	300545	1 Sep 1969
Oleaceae	Fraxinus	americana	L.	White Ash	County Rd. to West Rd. - cross brook, uphill on right.	301457	01 May 1973
Oleaceae	Fraxinus	americana	L.	White Ash	E. side Ct. River Rd., So. side of 1st gully No. of Hillside.	301470	25 May 1975
Oleaceae	Fraxinus	americana	L.	White Ash	Pocumtuck, So. end E. side.	301468	10 Jun 1971
Oleaceae	Fraxinus	pennsylvanica	Marshall	Red Ash, Green Ash	Ct. River Rd., No. of Hillside, first gully on E. side of rd.	301466	27 Jun 1977
Oleaceae	Syringa	vulgaris	L.	Common Lilac	Pine Nook Rd. - not far from intersection with Kieths Cross Rd.	301471	22 May 1980
Onagraceae	Circaea	alpina	L.	Small Enchanter's Nightshade	southeastern portion of the back of B. Child's summer cottage on County Road on a wet brook bed	301799	07 Jul 1964
Onagraceae	Epilobium	angustifolium	L.	Fireweed	behind Poland property, follow "new road" north to end, then turn right onto edge of woods	301801	11 Jul 1986
Onagraceae	Epilobium	ciliatum	Raf.	American Willow-herb	Keith swamp	301808	03 Aug 1982
Onagraceae	Oenothera	parviflora	L.	Small-flowered Evening-primrose	Stage Road, under the deck at the Poland house	302160	02 Aug 1983
Onagraceae	Oenothera	parviflora	L.	Small-flowered Evening-primrose	Pocumtuck Drive, near the top	301692	27 Sep 1987
Onagraceae	Oenothera	parviflora	L.	Small-flowered Evening-primrose	Poland property, behind house	301826	19 Aug 1977
Onagraceae	Oenothera	perennis	L.	Small Sundrops	Old Stage Road, at foot of first hill	301693	15 Aug 1987
Onagraceae	Oenothera	perennis	L.	Small Sundrops	foot of first hill on Old Stage Road	301658	11 Aug 1987
Ophioglossaceae	Botrychium	bitermatum	(Savigny) L. Underwood	Sparce-lobed Grape-fern	Country Road, north of the cottage. West side of the road at south of a deep gully.	300117	23 Oct 1972
Ophioglossaceae	Botrychium	bitermatum	(Savigny) L. Underwood	Sparce-lobed Grape-fern	Pocumtuck, bridle path opposite the ski jump near the swamp.	300118	19 Aug 1966
Ophioglossaceae	Botrychium	dissectum	Sprengel	Dissected Grape-fern	Off Hillside Rd., west of the Poland house.	300414	9 Sep 1971
Ophioglossaceae	Botrychium	dissectum	Sprengel	Dissected Grape-fern	Country Road, north of the cottage once owned by B. Child.	300479	14 Oct 1969
Ophioglossaceae	Botrychium	matricariifolium	(Doll) A. Braun	Daisy-leaf Grape-fern	East side of Pocumtuck, near the University of Massachusetts farm land.	300416	25 May 1962

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Ophioglossaceae	Botrychium	multifidum	(S. G. Gmelin) Ruprecht	Leathery Grape-fern	East side of Pocumtuck just beyond the cut through the second ridge.	300096	4 Sep 1950
Ophioglossaceae	Botrychium	oneidense	(Gilbert) House	Blunt-lobed Grape-fern	West side of Clapp's Pond, a short distance north of the south tip of the Decodon verticillata patch	300102	23 Aug 1980
Ophioglossaceae	Ophioglossum	pusillum	Rafinesque	Adder's Tongue Fern	Keith's woods, small amphitheater. South of swamp, East of large Amphitheater Pocumtuck	300100	12 Aug 1951
Ophioglossaceae	Ophioglossum	vulgatum	L.	Adder's Tongue Fern	East side of Pocumtuck, East of Saw Mill	300492	20 Jul 1951
Orchidaceae	Corallorhiza	maculata	Raf.	Spotted Coral-root	Pine Nook Rd. - Top of hill above Eagle Brook - near spring or reservoir of town water. After 2 nights of temps in low 20's	302179	29 Oct 1950
Orchidaceae	Corallorhiza	odontorhiza	(Willd.) Nutt.	Autumn Coral-root	East side of Pocumtuck opposite ski jump. Ski jump not there in 1950 or 1951.	302182	27 Aug 1951
Orchidaceae	Corallorhiza	odontorhiza	(Willd.) Nutt.	Autumn Coral-root	East side of Pocumtuck opposite ski jump. Ski jump not there in 1950 or 1951	302181	4 Sep 1950
Orchidaceae	Cypripedium	acaule	Aiton	Pink Lady's Slipper	Pocumtuck Mountain	300365	15 May 1953
Orchidaceae	Cypripedium	calceolus	L.	Small Yellow Lady's Slipper	E. P. N-1 Locality not clear	300315	18 May 1949
Orchidaceae	Goodyera	pubescens	(Willd.) R. Br.	Downy Rattlesnake - plantain	Stage Road. Up hill from my home, at foot of white birch.	300409	12 Sep 1979
Orchidaceae	Goodyera	tesselata	Lodd.	Checkered Rattlesnake- plantain	Pocumtuck. East side almost halfway along the wooded area at the top of the mountain.	300386	19 Jul 1960
Orchidaceae	Goodyera	tesselata	Lodd.	Checkered Rattlesnake- plantain	Pocumtuck. (Pine Nook Road, east side)	300385	13 Jul 1949
Orchidaceae	Habenaria	clavellata	(Michx.) Sprengel	Club-spur Orchid	Pine Nook Rd. just beyond cut through the second ridge. Headwaters of a tributary of Pole Swamp Brook.	300564	27 Jul 1952
Orchidaceae	Habenaria	clavellata	(Michx.) Sprengel	Club-spur Orchid	East side of Pocumtuck. East from Pine Nook Rd. S on Pine Nook beyond cut thru 2nd ridge to first upgrade. East along s. wall	300565	15 Aug 1950
Orchidaceae	Habenaria	hookeri	Torr.	Hooker's Orchid	Eagle Brook bridal path	300484	30 May 1945
Orchidaceae	Habenaria	hyperborea	(L.) R. Br.	Northern Green Orchid	Pocumtuck, My amphitheater.	300421	30 May 1949
Orchidaceae	Habenaria	lacera	(Michx.) Lodd.	Ragged- fringed Orchid	East side of Pocumtuck, pasture east of saw mill.	300432	20 Jul 1951
Orchidaceae	Habenaria	psycodes	(L.) Sprengel	Small Purple- fringed Orchid	Pocumtuck Headwaters of Keith's brook	300459	13 Aug 1972
Orchidaceae	Habenaria	psycodes	(L.) Sprengel	Small Purple- fringed Orchid	Pocumtuck swamp opposite the ski jump.	300458	5 Aug 1950
Orchidaceae	Habenaria	psycodes	(L.) Sprengel	Small Purple- fringed Orchid	Pocumtuck, near head waters of Keith Brook.	300436	24 Jul 1949
Orchidaceae	Habenaria	psycodes	(L.) Sprengel	Small Purple- fringed Orchid	Pocumtuck, swamp opposite the ski jump.	300460	5 Aug 1971

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Orchidaceae	Isotria	verticillata	(Willd.) Raf.	Large Whorled Pogonia	(1) 4 Jun 1961 Pole Swamp Rd. (2) 25 May 1953 S. end of Pocumtuck (3) 6 Jun 1961 S. end of Pocumtuck	300411	
Orchidaceae	Isotria	verticillata	(Willd.) Raf.	Large Whorled Pogonia	Near Eagle Brook Hut.	300488	30 May 1945
Orchidaceae	Liparis	lilifolia	(L.) Rich.	Purple Twayblade	Pocumtuck, East off Pine Nook Rd. near S end of wooded area on E (N of Hilltop orchard)	300559	2 Jun 1953
Orchidaceae	Liparis	loeselii	(L.) Rich.	Green Twayblade	Pocumtuck, east off Pine Nook Rd. Opposite road to amphitheater, down hill to pasture fence.	300556	21 Jun 1952
Orchidaceae	Orchis	spectabilis	L.	Showy Orchis	West side Pine Nook at reservoir between path to rock and second ridge.	300530	30 May 1945
Orchidaceae	Spiranthes	cernua	(L.) Rich.	Nodding Ladies' Tresses	Top of hill that goes up past Eagle Brook, just at the top on the right.	300521	16 Sep 1951
Orchidaceae	Spiranthes	cernua	(L.) Rich.	Nodding Ladies' Tresses	Edge of Clapp pond.	300518	2 Sep 1950
Orchidaceae	Spiranthes	lacera	(Raf.) Raf.	Southern Slender Ladies' Tresses	Sam Child's pasture, E side RR tracks, south of Bert Child's summer cottage.	300525	6 Sep 1950
Orchidaceae	Spiranthes	lacera	(Raf.) Raf.	Southern Slender Ladies' Tresses	West off Conn. River Rd., N. of Hillside, S. of Melnicks Brook, much nearer the latter. near pole 146	300523	30 Aug 1963
Orchidaceae	Spiranthes	lacera	(Raf.) Raf.	Southern Slender Ladies' Tresses	On the way into Clapps Pond from So. end of Pocumtuck. (Now through Charlie Deans real estate development)	300524	2 Sep 1950
Orchidaceae	Spiranthes	romanzoffiana	Cham.	Hooded Ladies' Tresses	Woods road beside Melnicks Brook	300562	25 Jul 1948
Orobanchaceae	Orobanche	uniflora	L.	One-flowered Cancer root	woods between San Childs and tracks @ WappingMa, site dates are: 5/29/45, 6/10/50, 5/29/586/27/67	301773	
Osmundaceae	Osmunda	cinnamomea	Linnaeus	Cinnamon Fern	Clapp Pond, around the margin	300202	18 Sep 1978
Osmundaceae	Osmunda	cinnamomea	Linnaeus	Cinnamon Fern	Clapp pond	300373	22 May 1979
Osmundaceae	Osmunda	cinnamomea	Linnaeus	Cinnamon Fern	Clapp Pond, around the margin	300203	18 Sep 1978
Osmundaceae	Osmunda	cinnamomea	Linnaeus	Cinnamon Fern	Clapp Pond, around the margin.	300201	18 Sep 1978
Osmundaceae	Osmunda	regalis	Linnaeus	Royal Fern	Clapp Pond, east side	300158	4 Oct 1978
Phytolaccaceae	Phytolacca	americana	L.	Pokeweed	Roadside of Ct. River Rd.- E. side- just No. of Hillside.	301280	27 Jul 1975
Pinaceae	Picea	abies	(Linnaeus) H. Karsten	Norway Spruce	Pocumtuck. Start toward Clapp pond, then take wood road that diagonals off to the right.	300540	1 Jul 1982
Pinaceae	Picea	glauca	(Moench) Voss	White Spruce	Pocumtuck. East side of Pine Nook Road.	300537	7 Jun 1963
Pinaceae	Pinus	strobus	Linnaeus	White Pine	SE. corner of Poland's home on Stage Road.	300516	15 Nov 1972
Pinaceae	Tsuga	canadensis	(Linnaeus) Carriere	Canadian Hemlock	Pocumtuck. Collected from the path beside the ski jump.	300542	28 Oct 1972
Poaceae	Glyceria	acutiflora	Torr.	Sharp-scaled Mannagrass	west side of Clapps Pond	302833	16 Jul 1981

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Poaceae	Glyceria	melicaria	(Michx.) C. E. Hubbard	Slender Managrass	Keiths Swamp - south end	302839	8 Sep 1971
Poaceae	Glyceria	striata	(Lam.) A. Hitchc.	Fowl Meadow-grass	brook beside Clapps Pond	302842	28 Jun 1981
Poaceae	Leptoloma	cognatum	(Schultes) Chase	Fall Witch-grass	Stage Rd. - Ms. Poland's backyard	302856	13 Aug 1980
Poaceae	Lolium	perenne	L.	Perennial Rye-grass	Pine Nook - opposite entrance to Laurel Hill Cemetery	302854	17 Jul 1961
Poaceae	Oryzopsis	asperifolia	Michx.	Spreading Ricegrass	Kostuicks' old pasture now a sand pit	302866	10 May 1971
Poaceae	Panicum	capillare	L.	Witch-grass	Pocumtuck Dr.	303203	22 Aug 1987
Poaceae	Panicum	commutatum	Schultes	Changeable Panic-grass	north side of Keith Rd. - @ top of hill above Connecticut River Rd.	303206	10 Sep 1969
Poaceae	Panicum	dichotomum	L.	Forked Panic-grass	Pocumtuck - depression up over a hill west side of Pine Nook Rd.	303215	7 Jul 1971
Poaceae	Panicum	lanuginosum	Elliott	Fascicled Panic-grass	North of Keiths Rd. @ top of hill above Connecticut River Rd.	303219	10 Sep 1969
Poaceae	Panicum	lanuginosum	Elliott	Fascicled Panic-grass	Pocumtuck Rd.	303221	7 Jul 1971
Poaceae	Panicum	linearifolium	Scribn.	Linear-leaved Panic-grass	Stage Rd. east side of road	303223	12 Jun 1970
Poaceae	Panicum	sphaerocarpon	Elliott	Round-fruited Panic-grass	by Ms. Poland's home on Stage Rd. in South Deerfield	303228	27 Jun 1977
Poaceae	Panicum	xanthophysum	A. Gray	Yellow Panic-grass	Pocumtuck Rd.	303236	7 Jul 1971
Poaceae	Poa	palustris	L.	Fowl-meadow Grass	Clapps Pond	303132	16 Jul 1981
Poaceae	Puccinella	pallida	(Torr.) R. T. Clausen	Pale Manna-grass	west side of Clapps pond	302840	16 Jul 1981
Polemoniaceae	Phlox	paniculata	L.	Perennial Phlox	farm yard in back of Pocumtuck Farm bldgs.	301720	31 Jul 1970
Polemoniaceae	Phlox	subulata	L.	Moss-phlox	escape to lawn in front lawn of Roberta Poland's house	301718	13 May 1974
Polygalaceae	Polygala	paucifolia	Willd.	Fringed Polygala	County Rd.	301323	21 May 1965
Polygalaceae	Polygala	paucifolia	Willd.	Fringed Polygala	Wet woods on Pocumtuck.	301322	26 May 1966
Polygalaceae	Polygala	verticillata	L.	Whorled Milkwort	West side of Conn. River rd. Between poles 145 and 146.	301326	03 Aug 1965
Polygonaceae	Fagopyrum	esculentum	Moench	Buckwheat	Edge of our porch. (Roberta G. Poland)	301118	20 Aug 1955
Polygonaceae	Polygonum	aviculare	L.	Knotweed	Stage rd. At the south edge of my lawn.	301045	06 Oct 1986
Polygonaceae	Polygonum	hydropiper	L.	Water-pepper	Pasture lane- n. side of Melnicks brook.	301055	09 Aug 1954
Polygonaceae	Polygonum	hydropiperoides	Michx.	False Water-pepper	Clapps Pond	301059	17 Aug 1954
Polygonaceae	Polygonum	tenuis	Michx.	Rock Knotweed	Pasture - s. side of Melnicks brook which drains Clapps Pond. On talus slope.	301130	01 Sep 1954
Polypodiaceae	Polypodium	virginianum	Linnaeus	Common Polypody	Near Deerfield Academy Ski Jump. Pocumtuck West side of basaltic ridge.	300154	9 Sep 1979
Polypodiaceae	Polypodium	virginianum	Linnaeus	Common Polypody	Clapp Pond	300155	14 Jun 1946
Primulaceae	Lysimachia	x producta	(A. Gray) Fern.		County Road	301793	02 Jul 1967
Pteridaceae	Adiantum	pedatum	Linnaeus	Maidenhair Fern	Pocumtuck	300126	19 Sep 1971
Pteridaceae	Adiantum	pedatum	Linnaeus	Maidenhair Fern	Thick fern glade reached from cross country ski trail, near the ski jump. Pocumtuck	300159	9 Sep 1979

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Ranunculaceae	Actaea	pachypoda	Elliott	Doll's Eyes	County road; wooded roadside.	301919	02 Jun 1967
Ranunculaceae	Anemone	quinquefolia	L.	Wood-anemone	Pine Hill. Clapps Pond.	300062	28 Apr 1951
Ranunculaceae	Aquilegia	canadensis	L.	Wild Columbine	Pocumtuck. Hawk's Rd.- E. side of Rd. on rocks - top of hill above Hawk's homestead.	302062	08 May 1951
Ranunculaceae	Caltha	palustris	L.	Marsh-marigold	In a swamp which is the headwaters of Kieth's brook, Pocumtuck.	301980	30 Apr 1965
Ranunculaceae	Ranunculus	acris	L.	Common Meadow-buttercup	West off Conn. River road near pole 146; wet area of abandoned pasture.	301936	?? Jul 1964
Ranunculaceae	Ranunculus	ambigens	S. Wats.	American Spearwort	Clapps Pond- in the water on west side.	301914	18 Sep 1978
Ranunculaceae	Ranunculus	bulbosus	L.	Bulbous Buttercup	Abandoned pasture on W. side of Conn. River Rd., near pole 146.	301917	01 Jun 1964
Ranunculaceae	Ranunculus	hispidus	Michx.	Marsh-buttercup	Pole Swamp, Pocumtuck.	301994	05 Jun 1950
Ranunculaceae	Thalictrum	thalictroides	(L.) A. J. Eames & B. Boivin	Rue-anemone	In dry woods on the woods road to Clapps Pond.	302063	01 May 1948
Ranunculaceae	Thalictrum	thalictroides	(L.) A. J. Eames & B. Boivin	Rue-anemone	Edge of woods road- County rd.	301977	13 May 1965
Rosaceae	Agrimonia	gryposepala	Wallr.	Common Agrimony	Bridle Path, Pocumtuck -opposite ski jump. Inthe path about halfway to swamp.	302027	19 Aug 1966
Rosaceae	Amelanchier	arborea	(Michx. f) Fern.	Downy Shadbush	At pond on Pocumtuck.	302008	06 May 1967
Rosaceae	Amelanchier	sanguinea	(Pursh) DC.	Round-leaved Shadbush	Opposite Pocumtuck Farms, "Sassafras Knoll".	302019	04 May 1953
Rosaceae	Aronia	arbutifolia	(L.) Elliot	Red Chokeberry	A small patch on the ridge above my Stage Rd.house. North to a point where a path goes over and down the west side from the ridge.	302131	18 May 1982
Rosaceae	Fragaria	vesca	L.	Woodland Strawberry	On a rocky slope on the east side of Pole Swamp brook.	302034	01 Jul 1952
Rosaceae	Fragaria	vesca	L.	Woodland Strawberry	Talus slope on west side, at north end of headquarters for Keith's brook.	302033	20 Jun 1968
Rosaceae	Fragaria	vesca	L.	Woodland Strawberry	Pocumtuck- So. end, W. side of pine Nook Rd.	302032	06 May 1968
Rosaceae	Fragaria	virginiana	Duchesne	Wild Strawberry	County Rd. - first open field on west after the cottage.	302036	25 May 1966
Rosaceae	Geum	laciniatum	Murray	Floodplain Avens	North end of Clapp's Pond.	302042	23 Jun 1970
Rosaceae	Prunus	pensylvanica	L.f.	Pin-cherry	South end of Pocumtuck.	302133	12 May 1954
Rosaceae	Prunus	virginiana	L.	Choke-cherry	County road.	302094	02 Jun 1967
Rosaceae	Pyrus	malus	L.	Apple	On Pocumtuck.	302066	06 May 1968
Rosaceae	Rosa	carolina	L.	Carolina Rose	County road.	302072	26 Jun 1970
Rosaceae	Rosa	majalis	Herrm.	Cinnamon Rose	No. Hillside road opposite the Mootel (not a typo).	302077	12 Jun 1970
Rosaceae	Rosa	multiflora	Thunb.	Multiflora Rose	Pasture opposite Stage Rd. - off No. Hillside - Charles Dodge's pasture.	302083	03 Jun 1976
Rosaceae	Rosa	virginiana	Mill.	Virginiana Rose	West side of Ct. River Rd. - North almost to Melnicks, No. end of UMass pasture.	302227	30 Jun 1970
Rosaceae	Rosa	virginiana	Mill.	Virginiana Rose	Top of hill, So. end of Pocumtuck, what was the end of the new development	302238	12 Sep 1954
Rosaceae	Rosa	wichuraiana	Crepin	Memorial Rose	South end of Wapping Road. East side of the north end of the first field to the south.	302234	12 Jun 1970
Rosaceae	Rubus	flagellaris	Willd.	Northern-dewberry	Stage Road, opposite Poland house	302212	7 Jun 1974

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Rosaceae	Rubus	occidentalis	L.	Black Raspberry	County road to "Nest road"- the E side of the No. end of the bridge.	302084	29 May 1968
Rosaceae	Rubus	pubescens	Raf.	Swamp-dewberry	Swamp headwaters to Keiths brook.	302112	27 Jun 1975
Rosaceae	Rubus	pubescens	Raf.	Swamp-dewberry	Pocumtuck - So. end, W. side, in swamp below big rock.	302113	25 May 1975
Rosaceae	Rubus	x neglectus	Peck		First Gully, E. side of Ct. River Rd. N. of Hillside, South side of the gully.	302219	27 Jun 1977
Rosaceae	Rubus	x neglectus	Peck		First gully E. side of Ct. River Rd. No. of Hillside. South side of the gully.	302218	27 Jul 1977
Rosaceae	Rubus	x neglectus	Peck		Along R.R. tracks, E. side. South from old RR passenger station.	302220	15 Jul 1975
Rosaceae	Sorbaria	sorbifolia	(L.) A. Braun	False Spiraea	Intersection of Pine Nook and County Rd. - near R.R. underpass, along a brook.	302111	02 Jul 1967
Salicaceae	Salix	nigra	Marshall	Black Willow	Foot of ski jump, Pocumtuck.	300710	31 Aug 1969
Scrophulariaceae	Agalinis	tenuifolia	(M. Vahl.) Raf.	Slender Gerardia	Ct. River roadside, north of Hillside	301750	03 Sep 1968
Scrophulariaceae	Linaria	canadensis	(L.) Dum.-Cours	Blue Toadflax	field at NE corner of N Hillside to routes 5 & 10, north of Field Road	301763	10 Jun 1953
Scrophulariaceae	Lindernia	dubia	(L.) Pennell	False Pimpernel	corner North Hillside and near routes 5 & 10 just over the RR tracks on the east side	301767	17 Aug 1973
Scrophulariaceae	Pedicularis	canadensis	L.	Wood-betony	west off Ct. River Road, near Pole 145, south of brook near head water at abandoned pasture	301778	01 Jun 1964
Scrophulariaceae	Pedicularis	canadensis	L.	Wood-betony	Pocumtuck, Pine Nook roadside	301777	19 May 1967
Scrophulariaceae	Scrophularia	lanceolata	Pursh	American Hare-figwort	My Vacant Lot (Roberta G. Poland).	301839	14 Jun 1982
Scrophulariaceae	Scrophularia	marilandica	L.	Maryland Figwort	Edge of first field No. of gully which is No. of Hillside on Ct. River rd.	301847	19 Jun 1973
Scrophulariaceae	Scrophularia	nodosa	L.	Wood-figwort	Ct. River rd. - E. side - No. of Hillside- No. side of 1st Gully (So. edge of 1st uncultiv. field) in thicket about 1/2 way down So. edge	301851	08 Jul 1978
Scrophulariaceae	Verbascum	blattaria	L.	Moth-mullein	north on Ct. River Road, from Hillside to first field road on east	301781	23 Jul 1974
Scrophulariaceae	Veronica	arvensis	L.	Corn-speedwell	on Poland front lawn	301787	05 Jun 1988
Scrophulariaceae	Veronica	arvensis	L.	Corn-speedwell	path in front of the talus slope on the west side of Ct. River Road, north of Hillside & the "funny big stump"	301789	09 May 1982
Scrophulariaceae	Veronica	chamaedrys	L.	Birdseye-speedwell	escape onto lawn at Poland's on Stage Road	301790	14 May 1976
Scrophulariaceae	Veronica	scutellata	L.	Marsh Speedwell	Pocumtuck, opposite ski jump.	301836	27 Jul 1971
Scrophulariaceae	Veronica	serpyllifolia	L.	Thyme-leaf Speedwell	On the lawn of Poland's Stage rd. House.	301833	06 May 1982
Scrophulariaceae	Veronica	serpyllifolia	L.	Thyme-leaf Speedwell	Poland's lawn.	301834	15 May 1976
Selaginellaceae	Selaginella	apoda	(L.) Spring	Meadow-spikemoss	West side of Connecticut River Rd. Near the mouth of Melnicks Brook	300073	08/04/1954
Solanaceae	Solanum	nigrum	L.	European Balck Nightshade	In the field on the north side of Melnick's home on the east side of the Connecticut River Road.	302357	14 Oct 1983
Sparganiaceae	Sparganium	americanum	Nutt.	Common Bur-reed	Clapp Pond	300495	7 Sep 1978

FAMILY	GENUS	SPECIES	AUTHORITY	COMMON NAME	LOCATION	ACCES-SION #	COLL. DATE
Thelypteridaceae	Phegopteris	hexagonoptera	(Michaux) Fee	Southern Beech-fem	Pole Swamp Brook, north of Pine Nook Rd, and north of the bridle path. N.E. side of the brook.	300180	31 Jul 1949
Ulmaceae	Ulmus	rubra	Muhl.	Slippery Elm	Connecticut River Road, No. of Hillside west side, near pole 137.	300536	18 May 1975
Ulmaceae	Ulmus	rubra	Muhl.	Slippery Elm	Connecticut River Rd. No. of Hillside near pole 137.	300562a	8 May 1975
Ulmaceae	Ulmus	rubra	Muhl.	Slippery Elm	Connecticut River Rd. No. of Hillside just so. of pole 137.	300464	22 May 1975
Verbenaceae	Verbena	hastata	L.	Blue Vervain	West side of the Connecticut River Road, North of Hillside.	302392	25 Jun 1970
Violaceae	Viola	conspersa	Reichenb.	American Dog-violet	County Rd. - pasture directly opp. house- downin the gully.	301425	04 May 1964
Violaceae	Viola	incognita	Brainerd	Large-leaf White Violet	Out Stage Rd. to the Christmas farm, then E.	301501	09 May 1970
Violaceae	Viola	macloskeyi	F. Lloyd	Northern White Violet	Keith Swamp.	301400	08 May 1965
Violaceae	Viola	palmata	L.	Three-lobed Violet	Pocumtuck, West side of Pine Nook Road.	301497	28 May 1963
Violaceae	Viola	palmata	L.	Three-lobed Violet	From my (Roberta G. Poland) flower border of my house.	301453	19 May 1978
Violaceae	Viola	renifolia	A. Gray	Kidney-leaf Violet	Pocumtuck - E. side of Pole Swamp Brook- between Pine Nook rd. and cut-in ridge.	301486	01 Jul 1952
Violaceae	Viola	saggitata	Aiton	Arrow-leaf Violet	So. end of Pine Nook Rd., W. side - On way into Kieth swamp- on the ground near the rock ledge.	301428	22 May 1967
Violaceae	Viola	saggitata	Aiton	Arrow-leaf Violet	Polands' back yard, Stage Rd.	301395	28 May 1971
Violaceae	Viola	sagittata	Aiton	Arrow-leaf Violet	At the base of the big oak in my (Roberta G. Poland) front yard.	301449	09 May 1983
Violaceae	Viola	sororia	L.	Common Blue Violet	From path down to Kieth Swamp, No. end of between Rocky ledge and swamp.	301493	26 May 1966
Vitaceae	Parthenocissus	quinquefolia	(L.) Planchon	Virginia Creeper	top of river bank, east edge of field on east side of Ct. River Road, north of inter- section with Hillside	301654	25 Jun 1970
Vitaceae	Vitis	aestivalis	Michx.	Silver-leaved Grape	County Road	301647	10 Oct 1969
Vitaceae	Vitis	aestivalis	Michx.	Summer Grape	County road to west road, at top of rise on west side of bridge are green grapes	301646	22 Jul 1970
Vitaceae	Vitis	novae-angliae	Fern.	New England Grape	County Road, east side, south of the cottage and north of the turn around	301642	31 May 1970
Vitaceae	Vitis	novae-angliae	Fern.	New England Grape	Clapp Pond walk	301643	23 Jun 1970
Vitaceae	Vitis	novae-angliae	Fern.	New England Grape	County Road to West Road, cross bridge continue west following woods edge, about 25 ft. beyond top of rise over bridge	301652	Sep 1968