

MAR-16

FLORA OF RICHMOND NATIONAL
BATTLEFIELD PARK
(CHICKAHOMINY BLUFFS, COLD HARBOR,
FORT DARLING, FORT HARRISON,
GARTHRIGHT HOUSE, AND
WATT HOUSE UNITS)

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Abstract

Five units of Richmond National Battlefield Park were surveyed during the 1985 growing season (late March through October) in order to produce an inventory of the vascular flora. Each site was visited at three to four week intervals and species were recorded as they were encountered or collected for later study. This report includes descriptions and maps of vegetation zones of the park units studied and a checklist indicating the occurrence of each species by unit. The checklist includes 635 species and 1586 individual records of species per particular park unit. Native plants make up 76.5 percent of the species in the checklist; the remaining 23.5 percent are exotics, largely adventive from Eurasia.

Introduction

Richmond National Battlefield Park consists of ten non-contiguous units located in Chesterfield, Hanover, and Henrico counties plus the city of Richmond. The total area of these units is about 768.5 acres, about half of which consists of the Fort Harrison unit. In response to stated management needs by the National Park Service, inventories of the vascular flora were compiled for six units of Richmond National Battlefield Park during the 1985 growing season. The units studied were Fort Harrison, Cold Harbor, Fort Darling (Drewery's Bluff), Watt House, Chickahominy Bluffs, and Garthright House. These units represent 80 percent of the total acreage of Richmond National Battlefield Park.

To a great extent the kinds and diversity of plant life in a given area define and govern the entire biotic community. Thus, knowledge of an area's flora is fundamental for the Park Service to carry out its management commitments for the lands under its jurisdiction. These commitments include not only preservation of the natural environment but also preservation of historical artifacts such as the earthwork trenches and fortifications which dominate the landscape of the Richmond National Battlefield Park units. Since earthworks, by definition, are temporary structures, their preservation for historical purposes is a difficult problem. Rational use of plants, because of their soil-retaining features, may temper the effects of erosion and ameliorate the difficulties inherent in earthwork preservation. An inventory of naturally occurring plant species is thus fundamental for informed management of the park units of Richmond National Battlefield Park.

All units studied fall within the upper coastal plain of central Virginia. Although several standard references can be used to provide identifications for plants in the Richmond vicinity, there are few detailed vascular flora inventories for even small areas within this general region; Smith (1981) is virtually the only recent checklist for central Virginia. Thus, studies such as this can provide valuable information on the kinds and distribution of plant life in the Old Dominion.

Methods

Prior to initiation of field work a master checklist of species which might be encountered was prepared from the statewide distribution maps published by Harvill et al. (1977, 1981). Taxa were selected for inclusion in the master checklist primarily from those recorded in the central Virginia counties of Hanover, Henrico, and Chesterfield. Each of the sites studied were visited at intervals of three to four weeks during the growing season of 1985. Taxa were recorded in the master checklist as they were encountered in the field. Specimens which could not be sight-identified were collected for dissection and keying in the laboratory. Identifications were obtained from the keys in Radford et al. (1968), supplemented as needed by those in Fernald (1950), Gleason (1952) and Gleason and Cronquist (1963). Lists published by Linzey (1979) and the Fish and Wildlife Service (1980, 1983) were used to determine whether the taxa encountered are classified as rare, endangered, or threatened.

Collection data for specimens taken were recorded on National Park Service form 10-254D "Catalogue Worksheets". Labels were patterned after National Park Service form 10-512; these were produced on computerized word-processing equipment and printed on archival quality acid-free paper. Specimens collected are deposited in the herbaria of Virginia Commonwealth University (acronym = VCU) and/or the University of Richmond (acronym = URV) as permanent loans from the National Park Service.

Maps of each unit were prepared from base maps provided by the Richmond National Battlefield Park staff. Aerial photographs on file at the park headquarters were employed in defining vegetation zones within each unit. Formal ecological methods were not employed for vegetation analysis. The communities and habitats designated on the maps and described in the report text are based simply on our impressions from seven months of field experience in the sites. The descriptions of these habitats and community types should thus be considered merely a first approximation or ground work for later in-depth studies. The term "parkland" employed on vegetation zone maps refers to areas in which trees are widely scattered and undergrowth is routinely controlled by mowing.

Results

CHICKAHOMINY BLUFFS UNIT

This unit can be divided into five major habitats, as follows: the maintained area around the entrance and interpretive overlook, the wooded slope of the bluff, the stream flowing along the southeast boundary, the wooded swamp in the Chickahominy River flood plain (northern corner of unit), and the adjacent treeless meadow (eastern corner of unit).

The wooded slope of the bluff ranges from nearly mature hardwood forest with scattered old specimens of Pinus taeda (Loblolly Pine) to a transition region in which mature pines are gradually dying and being replaced by hardwoods such as Liriodendron tulipifera (Tulip Poplar), Liquidambar styraciflua (Sweet Gum), Carya glabra (Pignut Hickory), etc. Lonicera japonica (Japanese Honeysuckle), is somewhat invasive in the transition forest, but is not a major problem in the other sections of the bluff slope forest. Prominent understorey elements include ferns such as Polystichum acrostichoides (Christmas Fern), Asplenium platyneuron (Ebony Spleenwort), and Athyrium apenioides (Southern Lady Fern). Scattered clumps of Goodyera pubescens (Downy Rattlesnake Plantain), Tipularia discolor (Crane-Fly Orchid), and Chimaphila maculata (Spotted Wintergreen) are present. One colony of Ophioglossum vulgatum var. pycnostichum (Southern Adder's Tongue) was discovered growing in an earthwork trench near the base of the bluff.

The stream yielded typical hydrophytic species such as Sagittaria latifolia (Arrowhead), Lycopus virginicus (Bugle-Weed), Echinochloa crus-galli (Barnyard Grass), Leersia oryzoides (Cut Grass), Commelina communis (Dayflower), Aneilema keiskei, Apios americana (Wild Bean) and the weedy Panicum dichotomiflorum (Panic Grass).

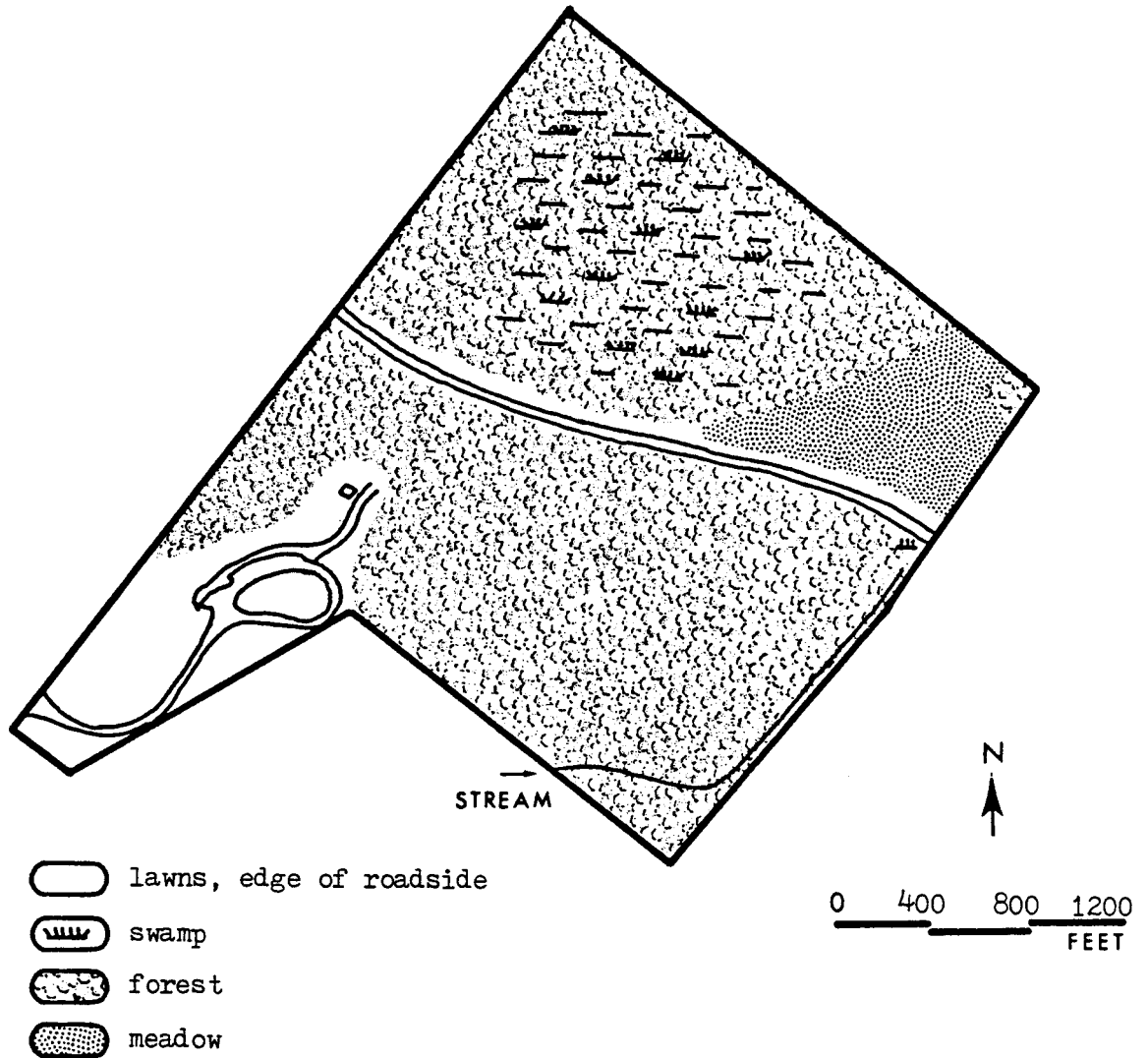
The wooded swamp is dominated by trees such as Acer rubrum (Red Maple) and Nyssa sylvatica (Sour Gum), with scattered individuals of Pinus taeda (Loblolly Pine) and Quercus palustris (Pin Oak). Understorey elements include Magnolia virginiana (Sweet Bay) and Viburnum cassinoides (Withe Rod). Ferns such as Osmunda cinnamomea (Cinnamon Fern), Woodwardia areolata (Netted Chain Fern), and Onoclea sensibilis (Sensitive Fern) are common at ground level. Some unusual specimens found in this area include Commelina virginica (Dayflower) (the only site for which it was found in the course of the study), and two orchids, Habenaria lacera (Green-Fringed Orchid) and Spiranthes gracilis (Slender Ladies Tresses), of which just one specimen was seen. Proserpinaca palustris (Mermaid Weed) was present in standing water, and Bartonia virginica occupied several of the higher spots within the swamp. Pileated woodpeckers were spotted on several occasions in this area.

The meadow consists of various grasses, primarily Festuca

obtusa (Fescue), and Tridens flavus (Tall Redtop), with scattered clumps of Lespedeza cuneata (Bush Clover). Acalypha gracilens (Three-seeded Mercury) was unusually abundant in this area, as were Croton glandulosus var. septentrionalis and Satureja calamintha var. nepeta (Basil-Thyme), this being the only site encountered in the course of the study for the latter two taxa.

In addition to the above, the disturbed ground along the access easement yielded a number of weedy taxa such as Chenopodium album (Lamb's Quarters), Artemisia vulgaris (Mugwort), Ambrosia artemisiifolia (Ragweed), Polygonum scandens (Knotweed), Lespedeza striata (Japanese Clover) and Lespedeza violacea (Bush Clover).

Map 1. Vegetation zones at Chickahominy Bluffs, Richmond
National Battlefield Park.



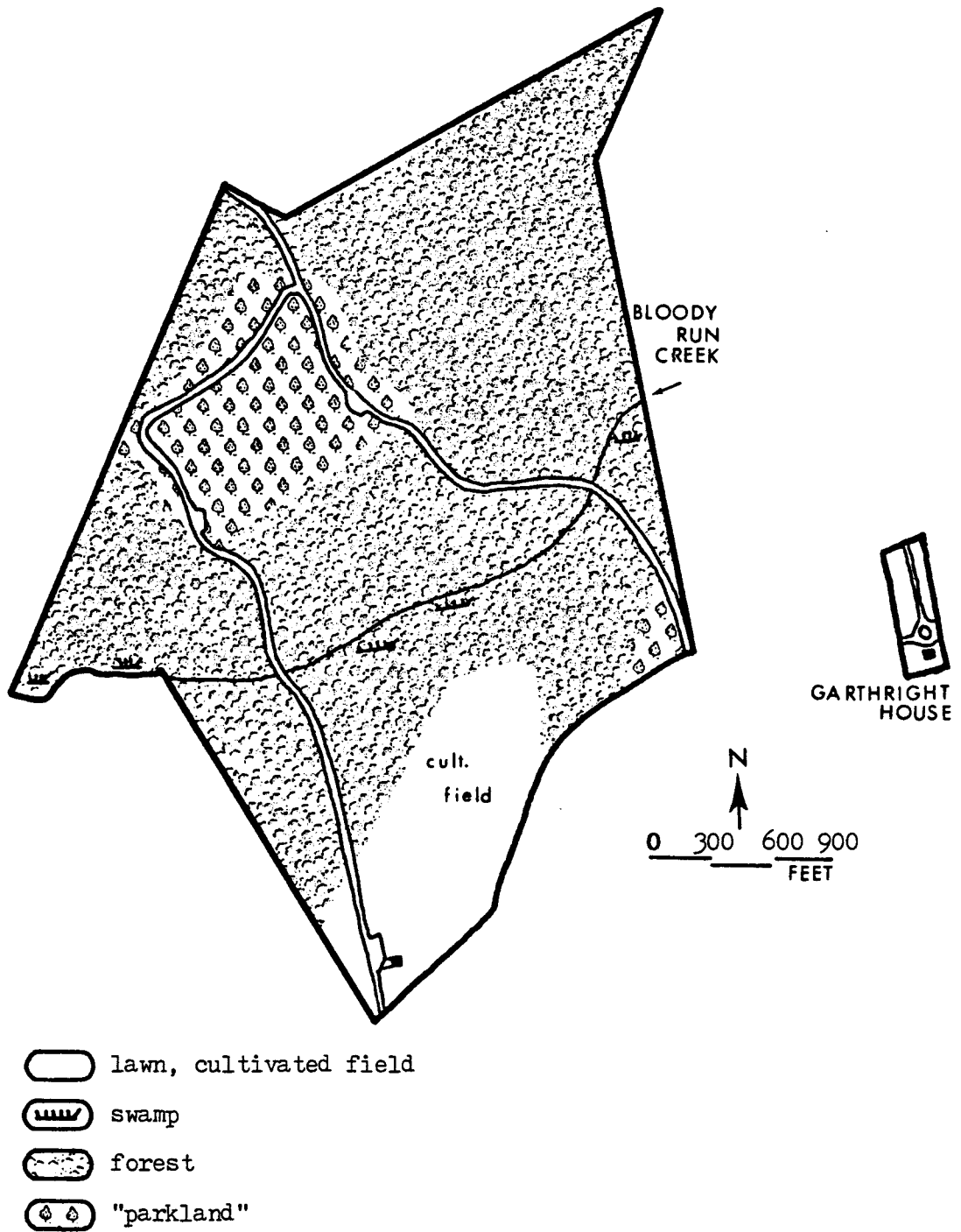
COLD HARBOR UNIT

Except for the area around the visitor center and the large cultivated field, most of the Cold Harbor unit consists of oak-hickory forest. Mature loblolly pines are scattered throughout, and occasionally form most of the canopy, e.g., near the southeast corner of the unit along State Route 156. This corner of the unit yielded Opuntia compressa (Prickly-Pear Cactus), Tragia urens and a large number of Helianthemum canadense (Frostweed), the only site in which these three taxa were found in the course of the study. Castanea pumila (Chinquapin), is a fairly common element of the understory and seems more abundant throughout the Cold Harbor unit than in any of the others studied. In places, e.g., along much of the western border of the unit, the understory shrubs and herbaceous cover are poorly developed, presenting an open park-like appearance. This is probably a consequence of sandy, rapidly draining and relatively infertile soil. A few clumps of Epigaea repens (Trailing Arbutus) were present on the earthworks in this region.

The main visitor area between the Confederate and Union trenches presents a distinctive assemblage of vegetation in comparison with the surrounding undisturbed forest. Notable herbaceous plants between the scattered trees include: Lechea spp. (Pin-weed), Lespedeza spp. (Bush Clover), Arnica acaulis (Leopard's Bane), Heterotheca graminifolia (Golden Aster), Heterotheca mariana (Golden Aster), Andropogon spp. (Broom Sedge), and Hypericum stragalum (St. Andrew's Cross).

Equally distinctive is the assemblage of plants along Bloody Run Creek. Presence of Rhododendron viscosum (Swamp Azalea), Magnolia virginiana (Sweet Bay), Smilax laurifolia (Cat Brier), and Viburnum cassinoides (Withe-Rod) distinguish this region from the adjacent dry forest. Hydrophytes found here and nowhere else in the study include Callitriche heterophylla (Water Starwort), Chelone glabra (Turtlehead), Orontium aquaticum (Golden Club), and Nuphar luteum (Yellow Water Lily). In early April lamprey eels were observed mating in the creek two yards upstream from the culvert on the entrance half of the loop road.

Map 2. Vegetation zones at Cold Harbor, Richmond National
Battlefield Park.



FORT DARLING UNIT

The Fort Darling unit consists of a large number of very distinctive habitats in close juxtaposition. Some areas are highly disturbed by recent earth-moving operations while nearby areas present the image of untouched nature. The most distinctive habitats within the unit include: the roadside near the entrance gate, the pine forest uphill (west) of the landfill, the landfill, the entrance road and parking area, the fort, the woods surrounding the fort, the small stream which flows into the James River, and the bank along the James River. If one counts the roadside areas, the lawn near the parking area, the former landfill, and the fort itself, there is, overall, a very high proportion of disturbed and or maintained vegetation to natural. Only those habitats with noteworthy plants are mentioned below.

The area near the entrance gate possessed a number of remarkable finds: Ratibida sp. (Coneflower), Gypsophila elegans, Silene armeria (Sweet William), Lythrum salicaria (Loosestrife), Papaver rhoeas (Poppy), Linum usitatissimum (Flax), Oenothera parviflora (Evening Primrose), and Linaria cf. maroccana. It is presumed that these plants developed from a commercial seed mixture sown following repairs to the pipeline which runs through the area. The persistence of these species in this habitat is a matter of conjecture.

The landfill consists mostly of a sparse cover of Andropogon virginicus (Broom Sedge) with scattered clumps of Lespedeza cuneata (Bush Clover), Rubus occidentalis (Blackberry), and Solidago spp. (Goldenrod), and scattered plants of Pycnanthemum tenuifolium (Mountain-Mint), and Panicum spp. (Panic Grass). A single large clump of Phragmites communis (Reed) seems very out of place on this hillside and probably sprang from refuse dumped during landfill operations. A cluster of Typha latifolia (Cattail), Ludwigia alternifolia (Seedbox), Ludwigia palustris, Mikania scandens (Climbing Hempweed), Polygonum spp. (Smartweed), Cyperus spp. (Sedge), and other similar species mark a spot where the fill has settled leaving a moist depression in an otherwise very xeric-appearing habitat.

The oak-hickory forest surrounding the fort yielded a few interesting records, e.g., Silene caroliniana (Wild Pink) and Carex nigromarginata (Sedge), among such typical elements as Stellaria pubera (Giant Chickweed), Saxifraga virginiana (Saxifrage), Botrychium dissectum (Common Grapefern), and Aureolaria virginica (False Foxglove). A stand of Asimina triloba (Pawpaw) not far from the edge of the bluff near the east end of the fort seemed out of place being near the top of the hill but absent in the valley below; it usually grows alongside bodies of water, not on well-drained slopes.

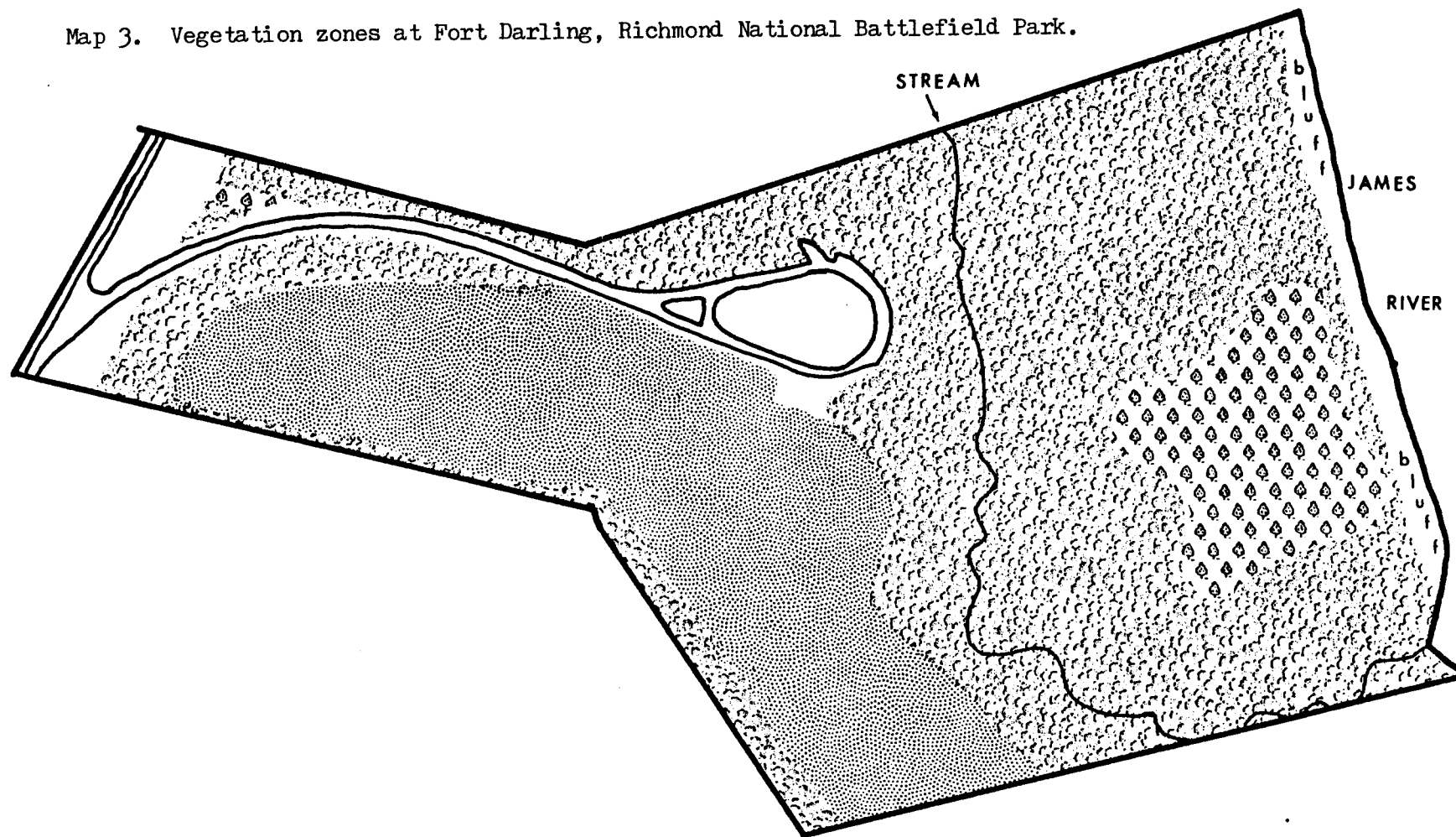
Within Fort Darling, maintenance (i.e. mowing) for visitor use purposes removes most of the plants to be expected under an

oak-hickory canopy. Vinca minor (Periwinkle) is present on some of the earthworks. A few violets, notably Viola emarginata, Viola papilionacea and Viola primulifolia occur scattered in the grasses which consist mostly of Danthonia spicata (Oat Grass). Arabis laevigata (Rock-Cress) and Penstemon canescens (Beard-Tongue) were found in the general vicinity of the large columbiad cannon, representing the only localities noted for these taxa in the course of the study.

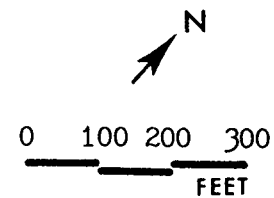
The mouth of the small valley which cuts through the southern end of the Drewry's Bluff and drains both the landfill and the nearby petroleum tank-farm contains a number of very interesting plant records, despite the degraded quality of its watershed. This valley includes a number of clumps of Xanthorhiza simplicissima (Yellowroot) and an abundant growth of Laportea canadensis (Wood-Nettle), both of which would be expected in the upper piedmont and mountains, and thus seem unusual for the upper coastal plain/fall zone. This site also included the only stations discovered in the study for Dentaria concatenata (Toothwort), Sedum ternatum (Stonecrop), Chaerophyllum procumbens (Wild Chervil), Chaerophyllum tainturieri (Wild Chervil), Osmorhiza longistylis (Anise-Root), and Claytonia virginica (Spring Beauty). Although several of these species might be reasonably expected to be found in some of the other units, the total assemblage for this area remains unique.

The base of the bluff just above the high water mark offers an interesting microhabitat formed by the seepage of ground water over the surface of the bank. This zone has a vertical extension of approximately one foot; it occurs in discontinuous patches along the river bank and is populated mostly by mosses and liverworts. The nonvascular plants of this zone include the large liverwort Marchantia polymorpha, as well as other unidentified species. Also of note is the occurrence of sub-fossilized wood fragments embedded in the sediments of the bluff at approximately the same level.

Map 3. Vegetation zones at Fort Darling, Richmond National Battlefield Park.



-  lawns, edge of roadside, face of bluff
-  forest
-  "parkland"
-  former landfill



FORT HARRISON UNIT

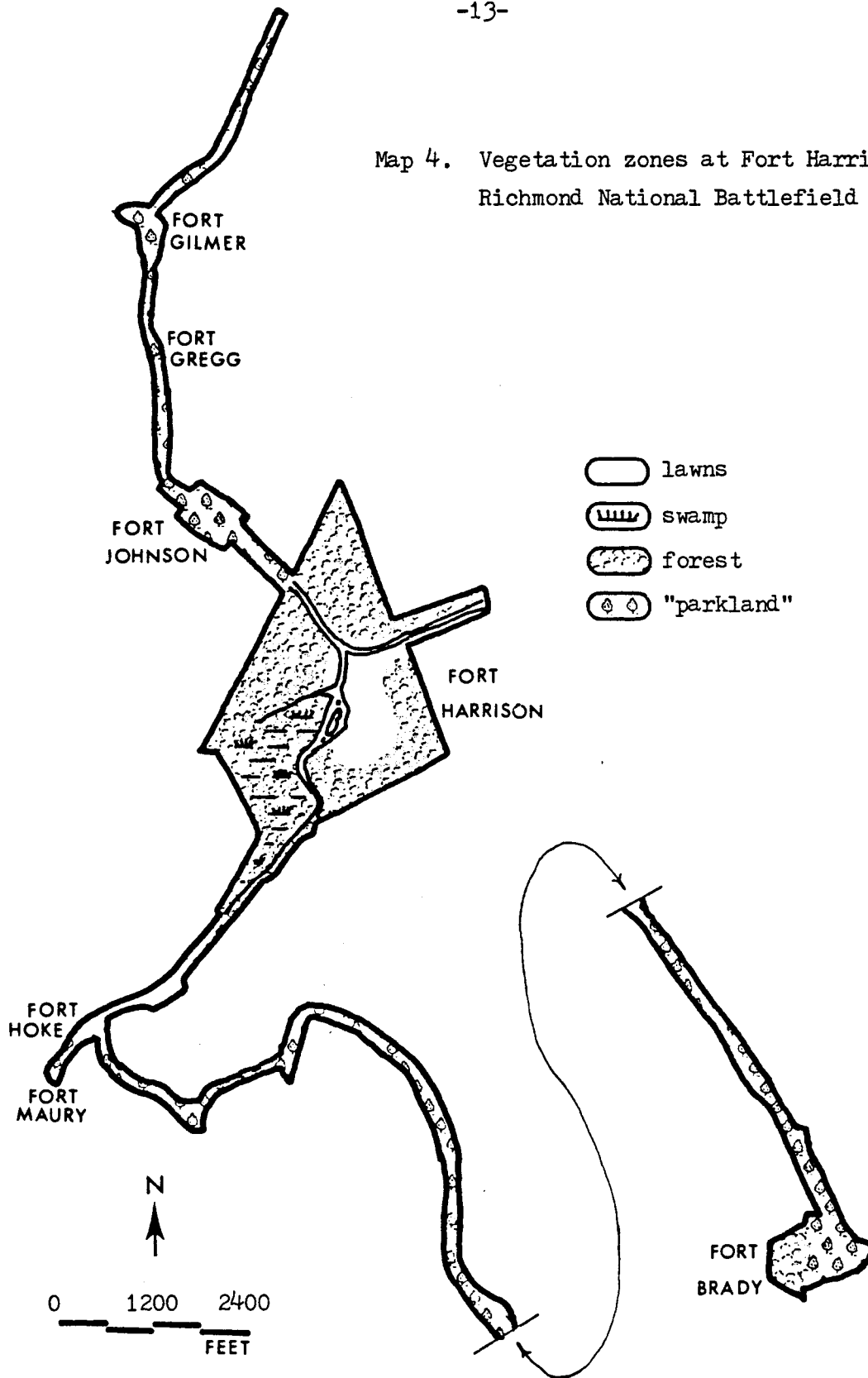
The Fort Harrison unit is a serpentine parcel of land bordering the entire length of Battlefield Park Road. For much of its length, the unit consists of little more than the immediate roadside, and is subject to various degrees of maintenance. For the most part, vegetation is oak-hickory forest, with scattered patches maintained as lawns. Most of the interesting habitats for plants occur at the wider regions of the unit which are the sites of several forts, the largest of which is Fort Harrison.

Three roadside finds for Fort Harrison Unit were not found elsewhere in the course of the study: Oxypolis rigidior and Oldenlandia uniflora in the seepage zone below the farm pond just north of Fort Johnson, and Quercus marilandica (Black-Jack Oak) also between Fort Gregg and Fort Johnson. Other finds unique to the study include: Eclipta alba and Cyperus pseudovegetus (Sedge) in the moist depression adjacent to the north side of the parking area at Fort Gilmer; Hypoxis hirsuta (Yellow Star-Grass) and Physalis heterophylla (Ground Cherry) along the roadside at Fort Johnson; Ilex verticillata (Black Alder) and Gentiana saponaria (Gentian) along the drainage ditch between Fort Harrison and Fort Hoke; Spiranthes gracilis (Slender Ladies' Tresses), Alopecurus carolinianus (Foxtail Grass), Aristida dichotoma (Three-Awn Grass), Aristida longespica (Three-Awn Grass), Tripsacum dactyloides (Gamma Grass), Cacalia atriplicifolia (Pale Indian Plantain), and Cirsium discolor (Thistle) on the earthworks at Fort Hoke; Cornus amomum (Red Willow) at Fort Maury; and Poa compressa (Bluegrass), Ostrya caroliniana (Hop Hornbeam), Anisostichus capreolatus (Cross Vine), Menispermum canadensis (Moonseed) and Passiflora lutea (Passionflower) at Fort Brady. Another interesting, if not unique, find within the unit was OphioGLOSSUM vulgatum var. pycnostichum (Southern Adder's Tongue Fern) at the bottom of the earthwork trench of Fort Hoke, and throughout much of the unmowed areas of Fort Brady.

The most distinctive habitat within the Fort Harrison Unit is the wooded swamp west of Fort Harrison and south of the staff residences. This area is dominated by ericaceous plants such as Leucothoe racemosa (Fetter-Bush), Lyonia mariana (Stagger-Bush), Rhododendron viscosum (Swamp Azalea), Vaccinium corymbosum (High-Bush Blueberry), V. stamineum (Squaw Huckleberry), V. tenellum, and V. vacillans (Early Sweet Blueberry). Further examination of this area might reasonably uncover a few more taxa for the Fort Harrison unit.

Fort Harrison itself, because of the regular maintenance, supports a relatively prosaic flora. Herbaceous plants such as Erianthus contortus (Plume Grass), Asclepias tuberosa (Butterfly Weed), and Euphorbia corollata (Flowering Spurge), as well as Rubus occidentalis (Blackberry) and various tree saplings are prominent on the earthworks.

Map 4. Vegetation zones at Fort Harrison,
Richmond National Battlefield Park.



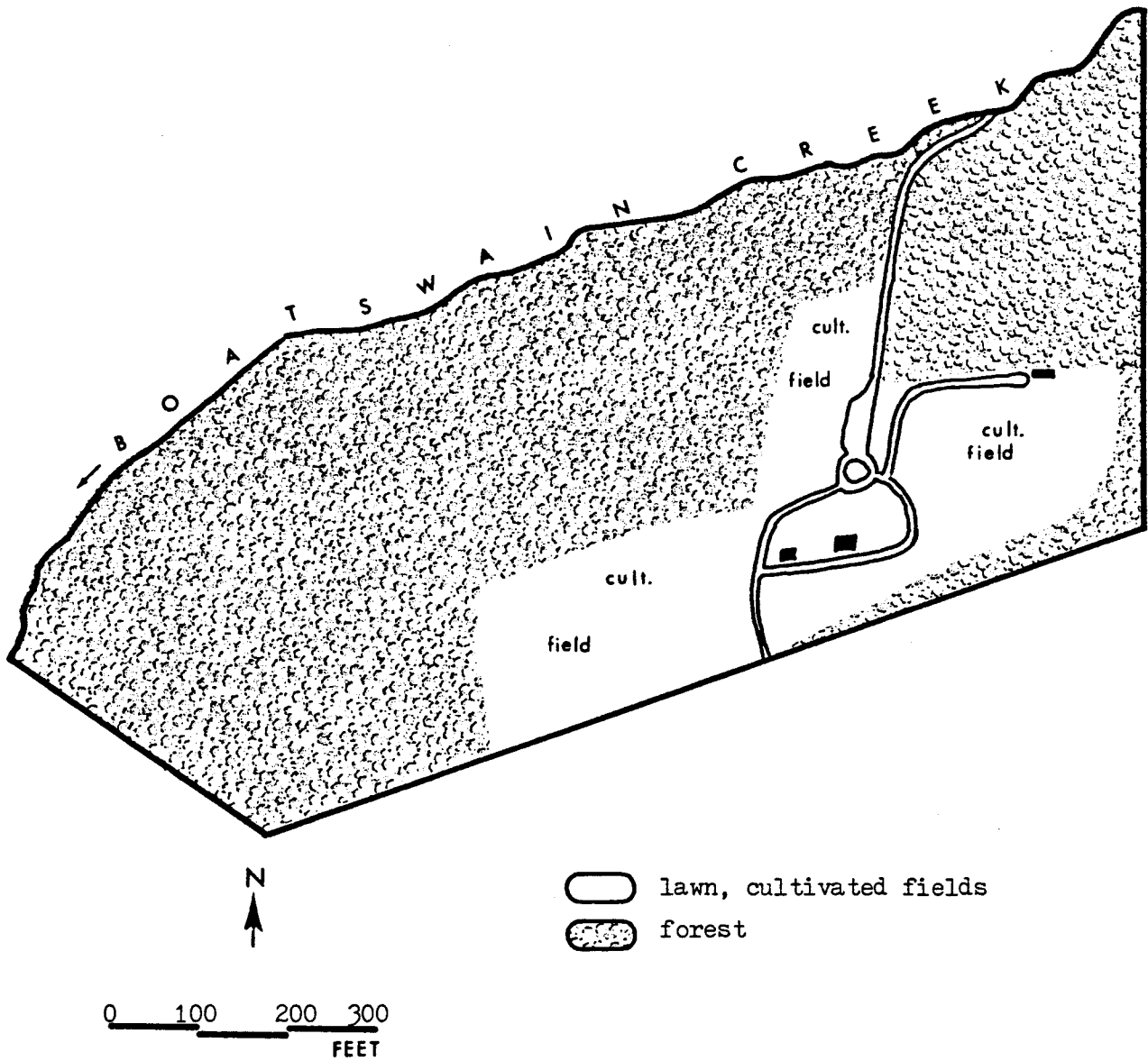
GARTHRIGHT HOUSE UNIT

This small unit is comprised of the historic Garthright house and its surrounding lawns. The flora consists entirely of ordinary lawn grasses and weeds, plus a few trees and shrubs, none of which are sufficiently noteworthy for specific mention here.

WATT HOUSE UNIT

Except for the lawns and cultivated fields surrounding Watt house, most of this unit is heavily forested. The forest ranges from loblolly-pine dominated young successional forest stage near the western end of the cultivated field, to mature hardwood forest along Boatswain Creek. The latter forest includes huge specimens of Quercus alba (White Oak), Liriodendron tulipifera (Tulip Poplar) and Ilex opaca (American Holly). Much of the forest near the cultivated fields are highly overgrown with Lonicera japonica (Japanese Honeysuckle) which has effectively eliminated much of the natural vegetation at ground level. This fact and the lack of habitat diversity probably explains the relatively low number of noteworthy plants encountered at this unit. A large specimen of Ulmus rubra (Slippery Elm) was found near Boatswain Creek, not far from the trail. The only other plant unique to the study found at this unit is Celastrus orbiculatus (Bittersweet), present at the edges of the trail at both its ends. This native of Asia is occasionally naturalized as an escape from cultivation, which, most likely, explains its presence at the Watt House unit.

Map 5. Vegetation zones at Watt House, Richmond National Battlefield Park.



CHECKLIST OF SPECIES

The following checklist details the occurrence of all taxa encountered in the units studied for the 1985 season. A total of 635 different species were recorded, of which 149, or 23.5 percent, are naturalized exotics. The vast majority of the exotics encountered are naturalized from Eurasia. An asterisk (*) indicates exotic species in the checklist. Overall, the checklist includes 1586 individual records of species occurring in particular park units.

The list is arranged by family in the following order: fern allies, ferns, conifers, monocots, and dicots. Within the monocots and dicots, families are listed alphabetically. Scientific and common names generally follow Radford et al. (1968). For genera in which several species are known by the same common name, that common name follows the last species of the genus. The checklist also indicates collectors and collection numbers for the 360 herbarium specimens prepared in the course of the study. The University of Richmond herbarium has a complete set of herbarium specimens; Virginia Commonwealth University's set is nearly complete.

None of the plant species encountered in Richmond National Battlefield Park were determined to be rare or endangered, according to the published lists in Linzey (1979) nor do they appear on Fish and Wildlife Service (1980, 1983) lists.

NAME	CB	CH	FD	FH	GH	WH	NOTES
LYCOPODIACEAE							
<u>Lycopodium flabelliforme</u> (Fernald) Blanchard (Running Pine)	..	CH	..	FH	..	WH	
<u>Lycopodium obscurum</u> L. (Groundpine)	CB	..	..	FH	..	..	
OPHIOGLOSSACEAE							
<u>Botrychium dissectum</u> Sprengel (Common Grapefern)	CB	..	FD	FH	..	WH	Hayden 1375
<u>Botrychium virginianum</u> (L.) Swartz (Rattlesnake Fern)	CB	..	FD	FH	..	..	Hayden 1138, 1179
<u>Ophioglossum vulgatum</u> var. <u>pycnostichum</u> Fern. (Southern Adder's Tongue)	CB	..	..	FH	..	..	Hayden 1137, 1177, 1189
OSMUNDACEAE							
<u>Osmunda cinnamomea</u> L. (Cinnamon Fern)	CB	CH	FD	FH	..	..	
<u>Osmunda regalis</u> L. (Royal Fern)	CB	CH	..	FH	..	..	
POLYPODIACEAE							
<u>Asplenium platyneuron</u> (L.) Oakes (Ebony Spleenwort)	CB	..	FD	FH	GH	WH	
<u>Athyrium asplenoides</u> (Michaux) A. Eaton (Southern Lady Fern)	CB	CH	..	FH	..	WH	Johnson & Hayden 118, 129
<u>Dryopteris marginalis</u> (L.) Gray (Marginal Shield Fern)	..	..	..	FH	..	..	
<u>Onoclea sensibilis</u> L. (Sensitive Fern)	CB	CH	..	FH	..	WH	
<u>Polypodium virginianum</u> L. (Rock Cap Fern)	CB	..	..	..	..	..	
<u>Polystichum acrostichoides</u> (Michaux) Schott (Christmas Fern)	CB	..	FD	FH	..	WH	
<u>Pteridium aquilinum</u> (L.) Kuhn (Bracken)	..	CH	..	FH	..	..	
<u>Thelypteris noveboracensis</u> (L.) Nieuwland (New York Fern)	CB	..	..	..	..	WH	Hayden 1300
<u>Woodwardia areolata</u> (L.) Moore (Netted Chain Fern)	CB	CH	FD	FH	..	WH	
CUPRESSACEAE							
<u>Juniperus virginiana</u> L. (Red Cedar)	CB	CH	FD	FH	GH	WH	
PINACEAE							
<u>Pinus echinata</u> Miller (Short-Leaf Pine)	CB	CH	..	FH	..	..	
<u>Pinus taeda</u> L. (Loblolly Pine)	CB	CH	FD	FH	GH	WH	
<u>Pinus virginiana</u> Miller (Scrub Pine)	CB	CH	FD	FH	..	WH	
ALISMATACEAE							
<u>Sagittaria latifolia</u> Willdenow (Arrowhead, Duck Potato)	CB	..	..	..	..	..	Hayden 1374
AMARYLLIDACEAE							
<u>Hypoxis hirsuta</u> (L.) Coville	..	..	..	FH	..	..	

(Yellow Star-Grass)

ARACEAE

<u>Arisaema triphyllum</u> (L.) Schott	CB	CH	..	..	..	WH	
(Jack in the Pulpit, Indian Turnip)							
<u>Drontium aquaticum</u> L.	..	CH	..	..	..	..	Hayden 1141
(Golden Club)							
<u>Peltandra virginica</u> (L.) Schott & Endlicher	CB	..	FD	..	..	..	
(Arrow Arum)							
<u>Symplocarpus foetidus</u> (L.) Nuttall	..	CH	..	..	..	..	Hayden 1142
(Skunk Cabbage)							

COMMELINACEAE

<u>Aneilema keiskei</u> Hasskarl	CB	..	..	FH	..	..	
* <u>Commelina communis</u> L.	CB	..	..	FH	..	WH	Hayden 1373
(Dayflower)							
<u>Commelina virginica</u> L.	CB	..	..	..	..	..	Hayden 1266
(Dayflower)							

CYPERACEAE

<u>Carex alata</u> Torrey	CB	..	FD	FH	..	..	Johnson & Hayden 37
<u>Carex annectans</u> (Bicknell) Bicknell	CB	..	FD	FH	GH	WH	Hayden 1175, Johnson & Hayden 18, 61
<u>Carex artitecta</u> Mackenzie	..	..	FD	..	..	..	Hayden 1122
<u>Carex blanda</u> Dewey	..	..	..	FH	..	..	Johnson & Hayden 84
<u>Carex caroliniana</u> Schweinitz	CB	..	FD	FH	..	..	Johnson & Hayden 36, Hayden 1206
<u>Carex communis</u> Bailey	CB	..	FD	FH	..	WH	Johnson & Hayden 03, Hayden 1116
<u>Carex crebriflora</u> Wiegand	..	..	..	FH	..	..	Hayden 1171
<u>Carex crinita</u> Lam.	CB	CH	..	FH	..	..	
<u>Carex debilis</u> Michaux	..	..	..	FH	..	..	Hayden 1162
<u>Carex digitalis</u> Willd.	..	..	FD	..	..	..	Hayden 1147
<u>Carex festucacea</u> Willdenow	..	..	..	FH	..	..	Johnson & Hayden 93
<u>Carex folliculata</u> L.	CB	CH	..	..	..	WH	Johnson & Hayden 12, 38
<u>Carex frankii</u> Kunth	..	..	..	..	..	WH	
<u>Carex gracilescens</u> Steudel	..	CH	..	..	..	..	Johnson & Hayden 23
<u>Carex howei</u> Mackenzie	..	CH	..	..	..	..	Johnson & Hayden 24
<u>Carex incompta</u> Bicknell	CB	CH	..	..	..	WH	Johnson & Hayden 09, 25, 34
<u>Carex intumescens</u> Rudge	..	CH	FD	FH	..	..	Hayden 1160
<u>Carex laevivaginata</u> (Kukenthal) Mackenzie	CB	CH	..	..	..	..	Johnson & Hayden 22, 33
<u>Carex lurida</u> Wahlenberg	CB	..	FD	..	..	..	Johnson & Hayden 32, Hayden 1194
<u>Carex nigromarginata</u> Schweinitz	..	..	FD	..	..	..	Hayden 1118
<u>Carex oligocarpa</u> Schkuhr.	CB	CH	..	..	..	WH	Johnson & Hayden 10, 26
<u>Carex reniformis</u> (Bailey) Small	..	..	..	FH	..	..	Johnson & Hayden 70
<u>Carex rosea</u> Willdenow	CB	..	FD	FH	..	..	Hayden 1146, 1185, Johnson & Hayden 39
<u>Carex stipata</u> Muhl. ex Schkuhr.	..	..	..	FH	..	..	Johnson & Hayden 69
<u>Carex stricta</u> Lam.	CB	..	..	..	..	..	Johnson & Hayden 35
<u>Carex swanii</u> (Fernald) Mackenzie	CB	CH	FD	FH	..	WH	Johnson & Hayden 11, 51, 53, 101
<u>Carex vulpinoidea</u> Michaux	CB	..	FD	FH	..	..	Hayden 1161, 1188, Johnson & Hayden 50
(sedge)							
* <u>Cyperus compressus</u> L.	CB	..	..	..	..	WH	Johnson & Hayden 176, Hayden 1369
<u>Cyperus filiculmis</u> Vahl	CB	..	..	..	..	WH	Johnson & Hayden 177, Hayden 1293
* <u>Cyperus iria</u> L.	CB	..	..	..	..	..	Hayden 1370
<u>Cyperus odoratus</u> L.	..	..	..	..	..	WH	Johnson & Hayden 178
<u>Cyperus ovularis</u> (Michaux) Torrey	CB	CH	FD	FH	..	WH	Johnson & Hayden 134, Hayden 1294

<u>Cyperus polystachyos</u> Rottboell var. <u>texensis</u> (Torrey) Fernald	..	..	..	FH	..	..	Johnson & Hayden 213
<u>Cyperus pseudovenetus</u> Steudel	..	..	..	FH	..	..	Johnson & Hayden 132, Hayden 1301
<u>Cyperus retrofractus</u> (L.) Torrey	CB	CH	FD	FH	..	..	Johnson & Hayden 149
<u>Cyperus retrorsus</u> Chapman	CB	..	..	..	..	..	Hayden 1361
<u>Cyperus strigosus</u> L.	..	..	FD	..	..	..	Johnson & Hayden 190
<u>Cyperus tenuifolius</u> (Steudel) Dandy (Sedge)	..	..	..	FH	..	..	Johnson & Hayden 214
<u>Dulichium arundinaceum</u> (L.) Britton (Three-Way Sedge)	..	CH	..	..	..	..	
<u>Eleocharis obtusa</u> (Willdenow) Schultes (Spike-Rush)	..	..	..	FH	..	..	Johnson & Hayden 133
<u>Fimbristylis autumnalis</u> (L.) R. & S.	..	..	FD	FH	..	..	Johnson & Hayden 165, 212
<u>Rhynchospora capitellata</u> (Michaux) Vahl	CB	..	..	FH	..	..	Hayden 1288, 1302
<u>Rhynchospora gracilentia</u> Gray	..	..	..	FH	..	..	Hayden 1306
<u>Rhynchospora inexpansa</u> (Michaux) Vahl (Beak Rush)	..	..	..	FH	..	..	Hayden 1310
<u>Scirpus atrovirens</u> Willdenow	CB	..	FD	FH	..	..	Johnson & Hayden 72
<u>Scirpus cyperinus</u> (L.) Kunth (Bulrush)	..	CH	FD	FH	..	..	Johnson & Hayden 191
DIOSCOREACEAE							
<u>Dioscorea villosa</u> L. (Wild Yam)	CB	CH	FD	FH	..	WH	
IRIDACEAE							
<u>Iris virginica</u> L. (Blue Flag)	CB	..	..	..	..	..	
<u>Sisyrinchium mucronatum</u> Michaux (Blue-eyed Grass)	CB	..	FD	FH	..	..	
JUNCACEAE							
<u>Juncus articulatus</u> L.	CB	..	..	..	..	..	Johnson & Hayden 41
<u>Juncus coriaceus</u> Mackenzie	CB	..	..	FH	..	..	Hayden 1289
<u>Juncus effusus</u> L.	CB	CH	FD	FH	..	..	
<u>Juncus elliotii</u> Chapman	..	..	FD	FH	..	..	Johnson & Hayden 71, 95
<u>Juncus marginatus</u> Rostk.	..	CH	..	..	..	..	Johnson & Hayden 27
<u>Juncus tenuis</u> Willdenow (Rush)	CB	..	FD	FH	..	WH	Johnson & Hayden 31, 113, 114
<u>Luzula echinata</u> (Small) Hermann (Wood Rush)	CB	CH	FD	FH	..	..	Johnson & Hayden 81, Hayden 1117
LILIACEAE							
* <u>Allium vineale</u> L. (Field Garlic)	CB	CH	FD	FH	GH	WH	
* <u>Asparagus officinalis</u> L. (Asparagus)	..	..	..	FH	..	..	Hayden 1173
<u>Erythronium americanum</u> Ker (Dog-Tooth Violet, Trout Lily)	CB	..	..	..	..	..	
* <u>Hemerocallis fulva</u> (L.) L. (Daylily)	..	..	FD	FH	..	..	
<u>Medeola virginiana</u> L. (Indian Cucumber-Root)	..	CH	..	..	..	WH	
* <u>Muscari racemosum</u> (L.) Miller (Grape Hyacinth)	..	..	..	FH	..	..	
* <u>Ornithogalum umbellatum</u> L. (Star of Bethlehem)	..	..	..	FH	..	..	

<u>Polygonatum biflorum</u> (Walter) Ell. (Solomon's Seal)	CB	CH	FD	FH	..	WH	Hayden 1153
<u>Smilacina racemosa</u> (L.) Desf. (False Solomon's Seal)	CB	CH	FD	..	..	WH	
<u>Smilax bona-nox</u> L.	..	..	..	FH	..	WH	
<u>Smilax herbacea</u> L.	CB	CH	FD	FH	..	WH	
<u>Smilax laurifolia</u> L.	..	CH	..	..	..	..	
<u>Smilax rotundifolia</u> L. (Greenbrier, Catbrier)	CB	CH	FD	FH	GH	WH	Hayden 1152
<u>Yucca filamentosa</u> L. (Bear Grass)	..	CH	FD	FH	..	..	
ORCHIDACEAE							
<u>Aplectrum hyemale</u> (Willdenow) Torrey (Adam-and Eve, Puttyroot)	..	CH	..	..	..	WH	
<u>Cypripedium acaule</u> Aiton (Pink Lady's Slipper)	CB	CH	FD	FH	..	..	
<u>Goodyera pubescens</u> (Willdenow) R. Brown (Downy Rattlesnake Plantain)	CB	..	..	..	..	WH	
<u>Habenaria lacera</u> (Michaux) Lodd. (Green Fringed Orchid)	CB	..	..	..	..	..	
<u>Spiranthes gracilis</u> (Bigelow) Beck (Slender Lady's Tresses)	CB	..	..	FH	..	..	
<u>Tipularia discolor</u> (Pursh) Nuttall (Crane-Fly Orchid)	CB	CH	FD	FH	..	WH	Hayden 1362
POACEAE							
<u>Agrostis hyemalis</u> (Walter) BSP. (Bent Grass)	CB	..	FD	..	..	..	Johnson & Hayden 42, Hayden 1207
<u>Agrostis stolonifera</u> L. (Redtop)	CB	..	FD	..	GH	WH	Johnson & Hayden 98, 117
* <u>Agrostis tenuis</u> Sibthorp (Bent Grass)	..	..	..	..	GH	..	Johnson & Hayden 124
* <u>Aira caryophylla</u> L. (Hair Grass)	CB	CH	FD	FH	GH	WH	Johnson & Hayden 19, Hayden 1159, 1190
<u>Alopecurus carolinianus</u> Walter (Foxtail Grass)	..	..	..	FH	..	..	Hayden 1172
<u>Andropogon gerardii</u> Vitman (Bluestem, Turkeyfoot)	..	CH	..	..	..	..	Johnson & Hayden 196
<u>Andropogon ternarius</u> Michaux (Beard Grass, Broom-Straw)	..	CH	..	FH	..	..	Johnson & Hayden 198, 206
<u>Andropogon virginicus</u> L. (Broom Sedge)	CB	CH	FD	FH	..	WH	
* <u>Anthoxanthum odoratum</u> L. (Sweet Vernal Grass)	CB	CH	FD	FH	GH	WH	Johnson & Hayden 80
<u>Aristida curtissii</u> (Gray) Nash	..	CH	..	..	..	..	Johnson & Hayden 195
<u>Aristida dichotoma</u> Michaux	..	..	..	FH	..	..	Johnson & Hayden 218
<u>Aristida longispica</u> Poiret	..	..	..	FH	..	..	Johnson & Hayden 216
<u>Aristida oligantha</u> Michaux (Three Awn Grass)	..	..	FD	FH	..	..	Johnson & Hayden 169, 219
* <u>Bromus commutatus</u> Schrader	CB	..	..	..	..	..	Johnson & Hayden 115
* <u>Bromus inermis</u> Leysser	CB	..	..	..	..	..	Johnson & Hayden 46
* <u>Bromus japonicus</u> Murray (Brome Grass)	CB	..	FD	FH	..	WH	Johnson & Hayden 78, Hayden 1201
<u>Cenchrus longispinus</u> (Hackel) Fernald	CB	..	..	..	..	..	

(Sandspurs)	CB	CH	FD	FH	GH	WH	
* <u>Cynodon dactylon</u> (L.) Persoon (Bermuda Grass)	CB	CH	FD	FH	GH	WH	
* <u>Dactylis glomerata</u> L. (Orchard Grass)	CB	..	FD	FH	GH	WH	
<u>Danthonia sericea</u> Nuttall	..	CH	FD	FH	..	WH	Johnson & Hayden 13, 61
<u>Danthonia spicata</u> (L.) R. & S. (Oat Grass)	CB	CH	FD	FH	..	..	Johnson & Hayden 28, 52, 54, Hayden 1205
<u>Dichanthelium clandestinum</u> (L.) Gould	..	..	FD	FH	..	..	Johnson & Hayden 59, 182
<u>Dichanthelium depauperatum</u> (Muhl.) Gould	..	..	..	FH	..	..	Johnson & Hayden 57
<u>Dichanthelium dichotomum</u> (L.) Gould	CB	..	..	FH	GH	WH	Johnson & Hayden 58, 60, 123
<u>Dichanthelium laxiflorum</u> (Lam.) Gould (Panic Grass)	..	..	FD	FH	..	..	Johnson & Hayden 89
* <u>Digitaria sanguinalis</u> (L.) Scopoli (Crab Grass)	CB	CH	FD	FH	..	WH	
* <u>Echinochloa crusgalli</u> (L.) Beauvois (Barnyard Grass)	CB	..	FD	FH	..	..	Hayden 1298
<u>Echinochloa walteri</u> (Pursh) Heller	CB	..	FD	..	..	..	Johnson & Hayden 164
* <u>Eleusine indica</u> (L.) Gaertner (Goose Grass)	..	..	FD	FH	..	WH	Johnson & Hayden 160
<u>Elymus virginicus</u> L. (Wild Rye Grass)	..	..	FD	FH	..	..	Johnson & Hayden 83, Hayden 1193
<u>Eragrostis capillaris</u> (L.) Nees	CB	CH	..	FH	GH	WH	Johnson & Hayden 126, Hayden 1312, 1382
* <u>Eragrostis pilosa</u> (L.) Beauvois	CB	..	..	..	..	..	Johnson & Hayden 45
<u>Eragrostis spectabilis</u> (Pursh) Steudel (Love Grass)	..	..	FD	..	..	..	Hayden 1196
<u>Erianthus contortus</u> Ell. (Beard Grass, Plume Grass)	..	CH	..	FH	..	..	Johnson & Hayden 143
* <u>Festuca myuros</u> L.	..	..	..	FH	..	..	Johnson & Hayden 66
<u>Festuca obtusa</u> Biehler	CB	..	FD	FH	GH	..	Johnson & Hayden 17, 48, 68
<u>Festuca octoflora</u> Walter	..	..	FD	..	..	..	Johnson & Hayden 97, Hayden 1208
* <u>Festuca ovina</u> L. (Fescue)	..	..	..	FH	..	..	Johnson & Hayden 67
<u>Glyceria septentrionalis</u> Hitchcock	CB	CH	..	..	..	..	Johnson & Hayden 43, 151
<u>Glyceria striata</u> (Lam.) Hitchcock (Manna Grass)	..	..	FD	..	..	..	Hayden 1192
<u>Hordeum pusillum</u> Nuttall (Barley)	CB	..	FD	..	GH	WH	Johnson & Hayden 14, Hayden 1203
<u>Hystrix patula</u> Koench (Bottlebrush Grass)	..	..	FD	..	..	..	Johnson & Hayden 105
<u>Leersia oryzoides</u> (L.) Swartz	CB	CH	..	FH	..	..	Johnson & Hayden 201, 210
<u>Leersia virginica</u> Willdenow (Cut Grass)	CB	CH	FD	..	..	WH	Johnson & Hayden 183, 199, Hayden 1297
* <u>Lolium multiflorum</u> Lam.	..	..	FD	..	..	..	Hayden 1200
<u>Lolium perenne</u> L.	CB	..	..	..	..	..	Johnson & Hayden 44
* <u>Lolium temulentum</u> L. (Rye Grass)	..	..	FD	..	..	..	Hayden 1199
<u>Melica nutica</u> Walter (Melic Grass)	..	..	FD	..	..	..	Hayden 1149
<u>Microstegium vimineum</u> (Trinius) A. Camus	CB	..	..	..	..	..	Hayden 1376
<u>Muhlenbergia schreberi</u> J. F. Gmelin (Muhly)	..	..	FD	FH	..	WH	Johnson & Hayden 180, 215

<u>Panicum agrostoides</u> Sprengel	..	..	..	FH	..	..	Hayden 1166, 1383
<u>Panicum dichotomiflorum</u> Michaux	CB	..	FD	FH	..	..	Johnson & Hayden 193, Hayden 1378
<u>Panicum tenue</u> Muhl.	..	..	..	FH	GH	..	Johnson & Hayden 122, 142
<u>Panicum verrucosum</u> Muhl.	..	CH	..	FH	..	..	Johnson & Hayden 200, Hayden 1311
<u>Panicum virgatum</u> L. (Panic Grass)	CB	CH	FD	FH	..	..	Johnson & Hayden 144
* <u>Paspalum dilatatum</u> Poiret (Dallis Grass)	..	..	FD	FH	..	WH	Johnson & Hayden 127
<u>Paspalum laeve</u> Michaux	CB	CH	FD	FH	..	WH	Johnson & Hayden 110, 209
<u>Paspalum setaceum</u> Michaux	CB	..	..	FH	GH	..	Johnson & Hayden 125, Hayden 1292
* <u>Phleum pratense</u> L. (Timothy)	..	..	FD	..	..	..	
* <u>Phragmites communis</u> Trinius (Reed)	..	..	FD	..	..	..	Johnson & Hayden 161
* <u>Poa annua</u> L.	CB	..	FD	FH	GH	WH	
<u>Poa autumnalis</u> Elliott	..	..	..	FH	..	..	Johnson & Hayden 56
* <u>Poa compressa</u> L.	..	..	..	FH	..	..	Johnson & Hayden 55
<u>Poa pratensis</u> L. (Blue Grass)	CB	..	..	FH	GH	WH	
<u>Setaria geniculata</u> (Lam.) Beauvois	CB	CH	FD	FH	..	WH	Johnson & Hayden 94, 148, 166
* <u>Setaria italica</u> (L.) Beauvois (Foxtail Grass)	..	..	FD	..	..	..	Johnson & Hayden 162
* <u>Sorghum halepense</u> (L.) Persoon (Johnson Grass)	..	..	FD	..	..	WH	
<u>Sphenopholis obtusata</u> (Michaux) Scribner (Wedge Grass)	CB	CH	..	FH	..	WH	Johnson & Hayden 15, Hayden 1187
* <u>Sporobolus poiretii</u> (R. & S.) Hitchcock (Smut Grass)	..	..	..	..	..	WH	Johnson & Hayden 128, 179
<u>Stipa avenacea</u> L. (Needle Grass)	CB	CH	..	FH	..	..	Hayden 1167
<u>Tridens flavus</u> (L.) Hitchcock (Tall Redtop)	CB	CH	FD	FH	..	WH	
<u>Tripsacum dactyloides</u> L. (Gamma Grass)	..	..	..	FH	..	..	
<u>Triticum aestivum</u> L. (Wheat)	..	..	FD	..	..	WH	Hayden 1198
<u>Uniola laxa</u> (L.) BSP.	CB	CH	FD	FH	..	..	Johnson & Hayden 136, 141
TYPHACEAE							
<u>Typha latifolia</u> L. (Cat-Tail)	CB	..	FD	..	..	..	
ACERACEAE							
<u>Acer negundo</u> L. (Box Elder, Ash-Leaved Maple)	CB	..	FD	FH	..	..	
<u>Acer rubrum</u> L. (Red Maple)	CB	CH	FD	FH	..	WH	
<u>Acer saccharinum</u> L. (Silver Maple)	..	..	FD	..	..	..	
AIZOACEAE							
* <u>Mollugo verticillata</u> L. (Carpet Weed, Indian Chickweed)	..	CH	..	..	GH	WH	
AMARANTHACEAE							
* <u>Amaranthus hybridus</u> L.	..	CH	..	..	..	WH	Johnson & Hayden 145

<u>Asclepias tuberosa</u> L. (Butterfly-Weed)	..	CH	FD	FH	..	..	
<u>Dynanchum laeve</u> (Michaux) Persoon (Black Swallow-Wort)	CB	..	..	FH	GH	..	Hayden 1313
ASTERACEAE							
* <u>Achillea millefolium</u> L. (Milfoil, Yarrow)	CB	..	FD	FH	GH	WH	
<u>Ambrosia artemisiifolia</u> L. (Ragweed)	CB	CH	FD	FH	GH	WH	
<u>Antennaria plantaginifolia</u> (L.) Richardson (Pussy-Toes)	CB	CH	FD	FH	..	..	Hayden 1136
* <u>Anthemis cotula</u> L. (Dog Fennel)	CB	..	FD	..	..	..	
<u>Arnica acaulis</u> (Walter) BSP. (Leopard's Bane)	..	CH	..	FH	..	..	
* <u>Artemisia vulgaris</u> L. (Mugwort)	CB	CH	FD	..	..	WH	
<u>Aster divaricatus</u> L. (Heart-leaved Aster)	..	..	FD	..	..	..	Johnson & Hayden 188
<u>Aster lateriflorus</u> (L.) Britton (Starved Aster)	..	..	..	..	..	WH	
<u>Aster patens</u> Aiton (Aster)	..	CH	..	..	..	..	
<u>Aster pilosus</u> Willdenow (Frost Aster)	..	CH	..	..	..	..	
<u>Aster vinineus</u> Lam. (Aster)	..	..	..	FH	..	..	
<u>Bidens bipinnata</u> L.	CB	..	..	FH	..	WH	
<u>Bidens discoidea</u> (T. & G.) Britton	..	CH	..	..	..	..	
<u>Bidens polylepis</u> Blake (Beggar Ticks)	CB	..	FD	..	..	..	Hayden 1195
<u>Cacalia atriplicifolia</u> L. (Pale Indian-Plantain)	..	..	..	FH	..	..	
* <u>Centaurea cyanus</u> L. (Bachelor's Button, Cornflower, Raggedy Sailors)	CB	..	FD	..	..	..	
* <u>Chrysanthemum leucanthemum</u> L. (Ox-eye Daisy)	CB	..	FD	FH	GH	..	
* <u>Cichorium intybus</u> L. (Chicory)	CB	..	FD	..	..	..	
<u>Cirsium discolor</u> (Willdenow) Nuttall	..	..	..	FH	..	..	
<u>Cirsium pumilum</u> (Nuttall) Sprengel	..	..	..	FH	..	..	
* <u>Cirsium vulgare</u> (Savi) Tenore (Thistle)	CB	..	FD	FH	GH	..	
<u>Coreopsis lanceolata</u> L.	..	..	FD	..	..	..	Johnson & Hayden 107
<u>Coreopsis verticillata</u> L. (Tickseed)	..	..	FD	..	..	..	
<u>Eclipta alba</u> (L.) Hasskarl	..	..	..	FH	..	..	
<u>Elephantopus carolinianus</u> Raeusch	CB	..	FD	FH	..	..	
<u>Elephantopus nudatus</u> Gray	CB	CH	..	..	..	..	
<u>Elephantopus tomentosus</u> L. (Elephant's Foot)	CB	CH	..	FH	..	..	
<u>Erechtites hieracifolia</u> (L.) Raf. (Fireweed)	CB	CH	FD	FH	..	WH	

<u>Erigeron annuus</u> (L.) Persoon (Daisy Fleabane)	CB	..	FD	FH	..	..	
<u>Erigeron canadensis</u> L. (Horseweed, Hogweed, Butterweed)	CB	CH	FD	FH	..	WH	
<u>Erigeron strigosus</u> Willdenow (Daisy Fleabane)	CB	..	..	FH	..	..	
<u>Eupatoriadelphus dubius</u> (Poiret) K. & R.	..	CH	..	FH	..	..	
<u>Eupatoriadelphus purpureus</u> (L.) K. & R. (Joe-Pye-Weed)	CB	CH	..	FH	..	WH	
<u>Eupatorium album</u> L.	..	CH	..	..	..	..	
<u>Eupatorium capillifolium</u> (Lam.) Small (Dog Fennel)	CB	CH	..	FH	..	WH	
<u>Eupatorium hyssopifolium</u> L. (Thoroughwort)	CB	CH	FD	FH	GH	..	
<u>Eupatorium perfoliatum</u> L. (Boneset)	CB	..	..	FH	..	..	
<u>Eupatorium rotundifolium</u> L. (Throughwort)	CB	CH	FD	FH	..	..	
<u>Eupatorium sessilifolium</u> L. (Thoroughwort)	CB	..	FD	..	..	..	
<u>Gnaphalium obtusifolium</u> L. (Rabbit Tobacco, Everlasting)	CB	..	..	FH	..	WH	
<u>Gnaphalium purpureum</u> L. (Cudweed)	..	CH	FD	FH	GH	WH	
<u>Heterotheca graminifolia</u> (Michaux) Shinnars	..	CH	..	FH	..	..	
<u>Heterotheca mariana</u> (L.) Shinnars (Golden Aster)	..	CH	FD	FH	..	..	Johnson & Hayden 192
<u>Hieracium gronovii</u> L. (Hawkweed)	CB	CH	FD	FH	..	..	
<u>Hieracium venosum</u> L. (Rattlesnake Weed)	CB	CH	FD	FH	..	..	Hayden 1183
* <u>Hypochaeris radicata</u> L. (Cat's Ear)	CB	CH	FD	FH	GH	WH	
<u>Krigia virginica</u> (L.) Willdenow (Dwarf Dandelion)	CB	..	FD	FH	GH	WH	Hayden 1156
<u>Lactuca canadensis</u> L. (Wild Lettuce)	CB	CH	FD	FH	GH	WH	
* <u>Lactuca serriola</u> L. (Prickly Lettuce)	..	..	..	FH	..	..	
* <u>Matricaria matricarioides</u> (Lessing) Porter (Pineapple Weed)	..	..	FD	..	..	..	
<u>Mikania scandens</u> (L.) Willdenow (Climbing Hempweed)	CB	CH	FD	..	..	..	Johnson & Hayden 163
<u>Parthenium integrifolium</u> L. (Wild Quinine)	..	CH	..	..	..	..	
<u>Prenanthes altissima</u> L. (Rattlesnake-Root)	CB	CH	FD	FH	..	..	
<u>Pyrrhopappus carolinianus</u> (Walter) DC.	..	..	..	..	GH	..	
* <u>Ratibida</u> sp. (Coneflower)	..	..	FD	..	..	..	
<u>Rudbeckia hirta</u> L. (Black-Eyed Susan)	..	..	FD	FH	..	..	
<u>Senecio anonymus</u> Wood	..	CH	FD	..	..	..	

<u>Senecio obovatus</u> Willdenow	..	..	FD	..	..	..	Hayden 1128
<u>Senecio tomentosus</u> Michaux (Groundsel, Ragwort)	..	..	..	FH	..	..	Hayden 1174
<u>Sericocarpus asteroides</u> (L.) BSP. (White-Topped Aster)	..	CH	FD	FH	..	..	
<u>Solidago bicolor</u> L. (Silverrod, White Goldenrod)	..	..	FD	FH	..	..	
<u>Solidago caesia</u> L. (Blue-Stemmed Goldenrod, Wreath Goldenrod)	..	..	FD	FH	..	..	
<u>Solidago canadensis</u> var. <u>scabra</u> T. & G.	..	..	..	FH	..	..	
<u>Solidago erecta</u> Pursh	CB	CH	FD	FH	..	..	
<u>Solidago gigantea</u> Aiton	CB	..	..	..	..	WH	
<u>Solidago graminifolia</u> (L.) Salisbury	CB	..	FD	FH	..	..	
<u>Solidago juncea</u> Aiton	..	..	FD	..	..	..	
<u>Solidago microcephala</u> (Greene) Bush	CB	..	FD	..	..	..	Johnson & Hayden 170
<u>Solidago nemoralis</u> Aiton	..	..	FD	FH	..	..	
<u>Solidago odora</u> Aiton	..	CH	FD	FH	..	..	
<u>Solidago pinetorum</u> Small	..	CH	FD	FH	..	..	
<u>Solidago radula</u> Nuttall	..	..	FD	..	..	..	
<u>Solidago rugosa</u> Miller (Goldenrod)	CB	CH	FD	FH	..	..	Johnson & Hayden 167
* <u>Sonchus asper</u> (L.) Hill (Spiny-Leaved Sow Thistle)	CB	..	..	..	..	..	
* <u>Tagetes</u> sp. (Marigold)	..	CH	..	..	..	..	
* <u>Taraxacum erythrospermum</u> Besser (Red-Seeded Dandelion)	..	..	..	FH	GH	..	
* <u>Taraxacum officinale</u> Wiggers (Dandelion)	CB	CH	FD	FH	GH	WH	
<u>Verbesina alternifolia</u> (L.) Britton (Crownbeard, Wingstem)	CB	..	..	..	..	..	
<u>Vernonia noveboracensis</u> (L.) Michaux (Ironweed)	CB	..	..	FH	..	..	
* <u>Xanthium strumarium</u> L. (Cocklebur)	CB	..	FD	..	..	WH	
BALSAMINACEAE							
<u>Impatiens capensis</u> Meerburg (Spotted Touch-Me-Not)	CB	..	..	..	..	..	
BERBERIDACEAE							
* <u>Berberis julianae</u>	..	..	FD	..	..	..	Cultivated near signs in fort
* <u>Berberis thunbergii</u> DC. (Barberry)	..	..	..	FH	..	..	
<u>Podophyllum peltatum</u> L. (Mayapple, Mandrake)	..	..	FD	..	..	..	
BETULACEAE							
<u>Alnus serrulata</u> (Aiton) Willdenow (Tag Alder)	CB	CH	FD	..	..	WH	
<u>Betula nigra</u> L. (River Birch)	CB	CH	FD	..	..	..	
<u>Carpinus caroliniana</u> Walter (Ironwood)	CB	CH	FD	..	..	WH	
<u>Ostrya virginiana</u> (Miller) K. Koch (Hop Hornbeam)	..	..	..	FH	..	..	Johnson & Hayden 87

BIGNONIACEAE

<u>Anisostichus capreolatus</u> (L.) Bureau	..	..	..	FH	..	..	Hayden 1182
(Cross Vine)							
<u>Campsis radicans</u> (L.) Seeman	CB	CH	FD	FH	..	WH	
(Trumpet Vine, Cow-Itch Vine)							
<u>Catalpa speciosa</u> Engelm.	..	CH	..	..	..	WH	
(Catamba Tree, Indian Cigar Tree)							

BORAGINACEAE

* <u>Lithospermum arvense</u> L.	..	CH	FD	FH	..	..	Hayden 1139, 1181
(Corn Gromwell)							

BRASSICACEAE

* <u>Alliaria officinalis</u> Andr.	..	..	FD	..	..	..	
(Hedge Mustard, Garlic Mustard)							
* <u>Arabis thaliana</u> (L.) Heynhold	..	CH	FD	FH	..	WH	Hayden 1140
(Mouse-Ear Cress)							
<u>Arabis laevigata</u> (Willdenow) Poir.	..	..	FD	..	..	..	Hayden 1121
<u>Arabis lyrata</u> L.	..	..	..	..	WH	..	
(Rock-Cress)							
* <u>Barbarea verna</u> (Miller) Ascherson	..	..	..	FH	..	..	
(Winter-Cress)							
* <u>Capsella bursa-pastoris</u> (L.) Medicus	CB	..	..	FH	..	..	
(Shepherd's Purse)							
* <u>Cardamine hirsuta</u> L.	CB	CH	FD	FH	..	WH	
(Bitter Cress)							
* <u>Coronopus didymus</u> (L.) Smith	CB	..	..	..	..	..	Johnson & Hayden 30
(Wart-Cress)							
<u>Dentaria concatenata</u> (Michaux) Ahles	..	..	FD	..	..	..	Hayden 1129
(Toothwort)							
<u>Lepidium virginicum</u> L.	CB	..	FD	FH	GH	..	
(Poor Man's Pepper, Pepper Grass)							
* <u>Raphanus raphanistrum</u> L.	CB	..	..	..	..	..	
(Wild Radish)							
* <u>Teesdalia nudicaulis</u> (L.) R. Brown	..	..	..	..	GH	..	Johnson & Hayden 16
(Shepherd-Cress)							

BUXACEAE

* <u>Buxus sempervirens</u>	..	..	..	..	GH	..	Cultivated by house
(Boxwood)							

CACTACEAE

<u>Opuntia compressa</u> (Salisbury) Macbr.	..	CH	..	..	..	..	
(Prickly Pear Cactus)							

CALLITRICHACEAE

<u>Callitriche heterophylla</u> Pursh	..	CH	..	..	..	..	Johnson & Hayden 29
(Water Starwort)							

CAMPANULACEAE

<u>Lobelia inflata</u> L.	..	..	FD	FH	..	WH	
(Indian Tobacco)							
<u>Lobelia nuttallii</u> R. & S.	CB	..	..	FH	..	..	
(Lobelia)							
<u>Lobelia siphilitica</u> L.	CB	..	..	..	..	..	
(Great Lobelia)							
<u>Triodanis perfoliata</u> (L.) Nieuwland	CB	..	FD	FH	GH	WH	
(Venus' Looking Glass)							

CAPRIFOLIACEAE

* <u>Lonicera japonica</u> Thunberg (Japanese Honeysuckle)	CB	CH	FD	FH	GH	WH	
<u>Sambucus canadensis</u> L. (Elderberry)	CB	CH	FD	FH	..	WH	
<u>Symphoricarpos orbiculatus</u> Moench (Coral-Berry, Indian Currant)	..	..	FD	..	..	..	
<u>Viburnum acerifolium</u> L. (Arrow-Wood)	CB	..	..	FH	..	WH	Johnson & Hayden 88, 88, Hayden 1184
<u>Viburnum cassinoides</u> L. (Withe-Rod)	CB	CH	..	FH	..	WH	Johnson & Hayden 40
<u>Viburnum dentatum</u> L. (Arrow-Wood)	CB	..	..	FH	..	WH	
<u>Viburnum nudum</u> L. (Possum Haw)	..	..	..	FH	..	..	Hayden 1304
<u>Viburnum prunifolium</u> L. (Black Haw, Nanny-Berry)	..	..	FD	..	..	..	Hayden 1125
CARYOPHYLLACEAE							
* <u>Cerastium glomeratum</u> Thuillier	CB	..	FD	FH	..	WH	
* <u>Cerastium holosteoides</u> var. <u>vulgare</u> (Hartman) Hylander (Mouse-Ear Chickweed)	CB	..	..	FH	GH	WH	Hayden 1186
* <u>Dianthus armeria</u> L. (Deptford Pink)	CB	..	FD	FH	..	..	
* <u>Gypsophila elegans</u> Bieb.	..	..	FD	..	..	..	Johnson & Hayden 108
* <u>Lychnis alba</u> Miller (White Campion)	CB	..	..	..	..	..	
* <u>Scleranthus annuus</u> L. (Knapweel)	CB	CH	FD	FH	GH	WH	Hayden 1132
* <u>Silene armeria</u> L. (Sweet William)	..	..	FD	..	..	..	Hayden 1204
<u>Silene caroliniana</u> Walter (Wild Pink)	..	..	FD	..	..	..	Hayden 1120
* <u>Stellaria media</u> Cyrillo (Chickweed)	CB	CH	FD	FH	GH	WH	
<u>Stellaria pubera</u> Michaux (Giant Chickweed)	CB	..	FD	..	..	..	Hayden 1119
CELASTRACEAE							
* <u>Celastrus orbiculatus</u> Thunberg (Bittersweet)	..	..	..	..	..	WH	Johnson & Hayden 87
<u>Eonymus americanus</u> L. (Strawberry Bush)	CB	..	FD	FH	..	WH	Hayden 1163
CHENOPODIACEAE							
* <u>Chenopodium album</u> L. (Pigweed, Lamb's-Quarters)	CB	..	FD	FH	GH	WH	
* <u>Chenopodium ambrosioides</u> L. (Mexican Tea)	CB	..	..	..	..	..	
CISTACEAE							
<u>Helianthemum canadense</u> (L.) Michaux (Rockrose, Frostweed)	..	CH	..	..	..	..	Johnson & Hayden 147
<u>Lechea minor</u> L.	..	CH	..	FH	..	..	Johnson & Hayden 137, 153
<u>Lechea tenuifolia</u> Michaux (Pinweed)	..	..	..	FH	..	..	Johnson & Hayden 135
CLETHRACEAE							

<u>Clethra alnifolia</u> L. (Sweet Pepperbush, White Alder)	CB	CH	..	FH	..	WH	
CONVOLVULACEAE							
<u>Calystegia sepium</u> (L.) R. Brown (Hedge Bindweed)	..	..	FD	..	..	..	
<u>Cuscuta campestris</u> Yuncker (Field Dodder, Love-Vine)	CB	..	..	..	..	..	Johnson & Hayden 172
<u>Cuscuta compacta</u> Jussieu (Compact Dodder, Love-Vine)	..	CH	..	..	..	..	Johnson & Hayden 202
* <u>Ipomoea hederacea</u> Jacquin	CB	CH	FD	..	GH	WH	
<u>Ipomoea lacunosa</u> L. (Morning Glory)	CB	..	FD	..	..	WH	
<u>Ipomoea pandurata</u> (L.) Meyer (Man-Root)	CB	CH	..	FH	..	..	
CORNACEAE							
<u>Cornus amomum</u> Miller (Red-Willow)	..	..	..	FH	..	..	Johnson & Hayden 76, Hayden 1314
<u>Cornus florida</u> L. (Flowering Dogwood)	CB	CH	FD	FH	..	WH	
CRASSULACEAE							
<u>Sedum ternatum</u> Michaux (Stonecrop)	..	..	FD	..	..	..	Hayden 1127
EBENACEAE							
<u>Diospyros virginiana</u> L. (Persimmon)	CB	CH	FD	FH	..	WH	
ELAEOAGNACEAE							
* <u>Elaeagnus pungens</u> Thunberg (Thorny Elaeagnus)	CB	..	..	..	..	..	Hayden 1380
ERICACEAE							
<u>Chimaphila maculata</u> (L.) Pursh (Spotted Wintergreen)	CB	CH	FD	FH	..	WH	
<u>Chimaphila umbellata</u> (L.) Britton (Pipsissewa)	CB	..	..	..	..	..	Hayden 1135
<u>Epigaea repens</u> L. (Trailing Arbutus)	..	CH	FD	..	..	..	Hayden 1143
<u>Kalmia latifolia</u> L. (Mountain Laurel)	..	..	FD	FH	..	..	Hayden 1151
<u>Leucothoe racemosa</u> (L.) Gray (Fetter-Bush)	CB	CH	FD	FH	..	..	Hayden 1169
<u>Lyonia ligustrina</u> (L.) DC. (Male-Blueberry, Male-Berry)	CB	CH	..	..	..	..	Johnson & Hayden 74
<u>Lyonia mariana</u> (L.) D. Don (Stagger-Bush)	..	CH	..	FH	..	..	
<u>Monotropa uniflora</u> L. (Indian Pipe)	..	CH	..	..	..	WH	
<u>Rhododendron nudiflorum</u> (L.) Torrey (Wild Azalea, Pinkster-Flower)	..	CH	FD	..	..	WH	Hayden 1115
<u>Rhododendron viscosum</u> (L.) Torrey (Swamp Azalea)	..	CH	..	FH	..	..	Hayden 1170, Johnson & Hayden 73
<u>Vaccinium corymbosum</u> L. (Highbush Blueberry)	CB	CH	FD	FH	..	..	
<u>Vaccinium stamineum</u> L. (Squaw-Huckleberry, Gooseberry, Deerberr)	..	CH	FD	FH	..	..	

	..	CH	..	FD	FH	..	..	Hayden 1164
<u>Vaccinium vacillans</u> Torrey	CB	..	FD	FH	..	..	WH	Hayden 1131
(Low Blueberry, Early Sweet Blueberry, Sugar Huckleberry)								
EUPHORBIACEAE								
<u>Acalypha gracilens</u> Gray	CB	CH	FD	FH	..	..		Johnson & Hayden 112, 152, Hayden 1365
<u>Acalypha rhomboidea</u> Raf.	CB	..	FD	FH	GH	WH		
(Three-seeded Mercury)								
<u>Croton glandulosus</u> var. <u>septentrionalis</u>								
Mueller-Ang.	CB	..	..	..	..	..		Hayden 1290, 1368
<u>Euphorbia corollata</u> L.	..	CH	..	FH	..	WH		
(Flowering Spurge)								
<u>Euphorbia maculata</u> L.	CB	CH	FD	FH	..	WH		
(Wartweed)								
<u>Euphorbia obtusata</u> Pursh	..	..	..	FH	..	..		Hayden 1178
(Spurge)								
<u>Euphorbia supina</u> L.	CB	CH	FD	FH	..	..		
(Milk-Purslane)								
<u>Tragia urens</u> L.	..	CH	..	..	..	..		Johnson & Hayden 146
FABACEAE								
* <u>Albizia julibrissin</u> Durazzini	CB	..	FD	FH	..	..		
(Mimosa)								
<u>Amphicarpa bracteata</u> (L.) Fernald	CB	..	..	..	..	..		
(Hog Peanut)								
<u>Apios americana</u> Medicus	CB	CH	..	FH	..	..		Hayden 1305
(Wild Bean, Ground-Nut)								
<u>Baptisia tinctoria</u> (L.) R. Brown	..	CH	..	..	..	..		
(Wild Indigo)								
<u>Cassia fasciculata</u> Michaux	CB	..	FD	..	..	WH		
(Partridge Pea)								
<u>Cassia nictitans</u> L.	CB	CH	..	FH	..	WH		
(Wild Sensitive Plant)								
<u>Cercis canadensis</u> L.	..	..	..	FH	..	WH		
(Redbud, Judas Tree)								
<u>Clitoria mariana</u> L.	..	CH	..	FH	..	..		Johnson & Hayden 203
(Butterfly Pea)								
<u>Desmodium canescens</u> (L.) DC.	..	..	FD	FH	..	..		
<u>Desmodium ciliare</u> (Willdenow) DC.	..	CH	..	FH	..	WH		
<u>Desmodium cuspidatum</u> (Willdenow) Loudon	..	CH	..	..	..	..		
<u>Desmodium glabellum</u> (Michaux) DC.	..	CH	..	..	..	..		
<u>Desmodium laevigatum</u> (Nuttall) DC.	..	..	FD	..	..	..		
<u>Desmodium marilandicum</u> (L.) DC.	..	..	FD	FH	..	..		
<u>Desmodium nudiflorum</u> (L.) DC.	..	CH	..	..	..	WH		
<u>Desmodium nuttallii</u> (Schindler) Schubert	CB	CH	..	..	..	..		
<u>Desmodium paniculatum</u> (L.) DC.	CB	CH	..	..	..	..		
<u>Desmodium perplexum</u> Schubert	CB	..	..	..	..	WH		
<u>Desmodium sessilifolium</u> (Torrey) T. & G.	CB	..	..	..	..	..		
<u>Desmodium strictum</u> (Pursh) DC.	..	..	..	FH	..	..		
<u>Desmodium tenuifolium</u> T. & G.	..	..	FD	..	..	..		Johnson & Hayden 194
(Beggar Lice, Beggar's Ticks)								
<u>Galactia regularis</u> (L.) BSP.	..	CH	..	FH	..	..		Johnson & Hayden 207
<u>Galactia volubilis</u> (L.) Britton	..	..	..	FH	..	..		Johnson & Hayden 217
(Milk Pea)								

* <u>Glycine max</u> (L.) Merrill (Soybean)	CB	..	..	..	..	..	Johnson & Hayden 173
* <u>Lathyrus latifolius</u> L. (Everlasting Pea, Sweet Pea)	..	..	FD	FH	..	..	
* <u>Lespedeza cuneata</u> (Dumont) G. Don	CB	CH	FD	..	..	WH	
<u>Lespedeza intermedia</u> (Watson) Britton	..	..	FD	..	..	..	Johnson & Hayden 168
<u>Lespedeza procumbens</u> Michaux	..	..	FD	FH	..	..	
<u>Lespedeza repens</u> (L.) Barton (Bush Clover)	..	CH	FD	FH	GH	..	
* <u>Lespedeza stipulacea</u> Maxim. (Korean Clover)	CB	..	FD	FH	..	..	
* <u>Lespedeza striata</u> (Thunberg) H. & A. (Japanese Clover)	CB	..	FD	FH	..	WH	
<u>Lespedeza stuevei</u> Nuttall	..	CH	..	..	..	..	
<u>Lespedeza violacea</u> (L.) Persoon	CB	..	..	..	..	..	Hayden 1295
<u>Lespedeza virginica</u> (L.) Britton (Bush Clover)	..	CH	..	FH	..	..	Johnson & Hayden 205
<u>Lupinus perennis</u> L. (Lupine)	..	CH	..	..	..	..	
* <u>Melilotus albus</u> Lam. (White Sweet Clover)	..	..	FD	..	..	..	
* <u>Melilotus officinalis</u> (L.) Lam. (Yellow Sweet Clover)	CB	..	..	..	..	..	
* <u>Pueraria lobata</u> (Willd.) Ohwi (Kudzu-Vine)	..	CH	..	..	..	..	
<u>Rhynchosia tomentosa</u> (L.) H. & A.	..	CH	..	..	..	..	Johnson & Hayden 159
<u>Robinia pseudo-acacia</u> L. (Black Locust)	..	..	FD	FH	GH	WH	
<u>Strophostyles helvola</u> (L.) Elliott (Wild Bean)	CB	..	FD	..	..	..	Hayden 1296
<u>Stylosanthes biflora</u> (L.) BSP. (Pencil-Flower)	CB	CH	FD	FH	..	..	
<u>Tephrosia spicata</u> (Walter) T. & G.	..	CH	..	FH	..	..	
<u>Tephrosia virginiana</u> (L.) Persoon (Goat's Rue)	..	CH	..	FH	..	..	
* <u>Trifolium agrarium</u> L. (Hop Clover)	..	..	..	FH	GH	WH	
* <u>Trifolium arvense</u> L. (Rabbit Foot Clover)	CB	CH	FD	FH	..	WH	
* <u>Trifolium campestre</u> Sturm (Low Hop Clover)	CB	..	..	..	..	..	
* <u>Trifolium dubium</u> Sibthorp (Low Hop Clover)	..	..	..	FH	..	..	Hayden 1156
* <u>Trifolium pratense</u> L. (Red Clover)	CB	CH	..	FH	..	..	
* <u>Trifolium repens</u> L. (White Clover)	CB	CH	..	FH	GH	WH	
* <u>Vicia angustifolia</u> L.	CB	..	..	FH	GH	WH	
* <u>Vicia hirsuta</u> (L.) S. F. Gray (Vetch)	CB	..	..	..	..	..	
FAGACEAE							
<u>Castanea pumila</u> (L.) Miller (Chinquapin)	CB	CH	..	..	..	WH	Johnson & Hayden 21

<u>Fagus grandifolia</u> Ehrhart (Beech)	CB	CH	FD	..	..	WH	
<u>Quercus alba</u> L. (White Oak)	CB	CH	FD	FH	..	WH	Johnson & Hayden 155
<u>Quercus coccinea</u> Muenchn. (Scarlet Oak)	CB	..	FD	..	..	..	Johnson & Hayden 158
<u>Quercus falcata</u> Michaux (Spanish Oak, Southern Red Oak)	CB	CH	FD	FH	..	WH	Johnson & Hayden 157
<u>Quercus marilandica</u> Muenchn. (Black Jack Oak)	..	..	..	FH	..	..	Johnson & Hayden 63
<u>Quercus palustris</u> Muenchn. (Pin Oak)	CB	..	..	FH	..	..	
<u>Quercus phellos</u> L. (Willow Oak)	CB	CH	FD	FH	..	WH	
<u>Quercus prinus</u> L. (Rock Chestnut Oak)	..	..	FD	..	..	WH	Johnson & Hayden 156, 186
<u>Quercus rubra</u> L. (Red Oak)	..	..	FD	..	..	..	Johnson & Hayden 159
<u>Quercus stellata</u> Wang. (Post Oak)	CB	CH	FD	FH	..	..	Johnson & Hayden 64
<u>Quercus velutina</u> Lam. (Black Oak)	CB	CH	FD	FH	..	WH	
GENTIANACEAE							
<u>Baronia virginica</u> (L.) BSP.	CB	..	..	FH	..	..	Johnson & Hayden 121, 220
<u>Gentiana saponaria</u> L. (Gentian)	..	..	..	FH	..	..	
GERANIACEAE							
* <u>Erodium cicutarium</u> (L.) Aiton (Heron's Bill, Stork's Bill)	..	..	..	..	GH	..	
<u>Geranium carolinianum</u> L. (Crane's Bill, Wild Geranium)	CB	CH	FD	FH	GH	WH	
* <u>Geranium molle</u> L. (Dove's Foot, Crane's Bill)	CB	CH	..	..	GH	WH	
HALORAGACEAE							
<u>Proserpinaca palustris</u> L. (Mermaid-Weed)	CB	..	..	..	..	..	
HAMAMELIDACEAE							
<u>Liquidambar styraciflua</u> L. (Sweet-Gum)	CB	CH	FD	FH	..	WH	
HYDROPHYLLACEAE							
<u>Nemophila microcalyx</u> (Nuttall) F. & M.	..	..	..	..	GH	..	
HYPERICACEAE							
<u>Hypericum canadense</u> L.	CB	..	..	FH	..	..	Johnson & Hayden 139
<u>Hypericum gentianoides</u> (L.) BSP. (Pineweed)	..	..	FD	..	..	..	
<u>Hypericum hypericoides</u> (L.) Crantz (St. Andrew's Cross)	CB	CH	FD	FH	..	..	
<u>Hypericum mutilum</u> L.	CB	CH	FD	FH	..	WH	Johnson & Hayden 103
* <u>Hypericum perforatum</u> L. (St. John's Wort)	..	..	FD	..	..	..	
<u>Hypericum punctatum</u> Lam.	..	..	..	FH	..	..	
<u>Hypericum stans</u> (Michaux) Adams & Robson (St. Peter's Wort)	CB	CH	..	FH	..	..	

Plant Name	CB	CH	FD	FH	GH	WH	Notes
<u>Hypericum stragalum</u> Adams & Robson (St. Andrew's Cross)	CB	CH	FD	FH	..	..	
<u>Hypericum walteri</u> Gmelin (Marsh St. John's Wort)	CB	CH	..	..	..	..	
JUGLANDACEAE							
<u>Carya glabra</u> (Miller) Sweet (Pignut Hickory)	..	..	FD	FH	..	..	Hayden 1165
<u>Carya tomentosa</u> Nuttall (Mockernut, White-Heart Hickory)	CB	CH	FD	FH	..	WH	Johnson & Hayden 65, 187
<u>Juglans nigra</u> L. (Black Walnut)	CB	..	FD	FH	GH	WH	Johnson & Hayden 82
LAMIACEAE							
* <u>Glechoma hederacea</u> L. (Ground Ivy)	CB	..	FD	..	..	..	
* <u>Lamium amplexicaule</u> L.	CB	CH	..	FH	GH	WH	
* <u>Lamium purpureum</u> L. (Henbit, Dead Nettle)	CB	CH	..	FH	GH	WH	
<u>Lycopus virginicus</u> L. (Bugle-Weed, Water-Horehound)	CB	CH	FD	FH	..	WH	Johnson & Hayden 150, 181, Hayden 1379
* <u>Perilla frutescens</u> (L.) Britton	CB	..	..	..	..	WH	Hayden 1363
* <u>Prunella vulgaris</u> L. (Self-Heal)	CB	..	..	FH	..	WH	
<u>Pycnanthemum tenuifolium</u> Schrader (Mountain-Mint)	CB	..	FD	FH	..	..	Johnson & Hayden 77, 189
<u>Salvia lyrata</u> L. (Sage)	CB	..	FD	FH	..	..	
* <u>Satureia calamintha</u> var. <u>nepeta</u> (L.) Briquet (Basil-Thyme)	CB	..	..	..	..	..	Johnson & Hayden 111, Hayden 1366
<u>Scutellaria integrifolia</u> L. (Skullcap)	CB	..	..	FH	..	..	Hayden 1371
<u>Trichostema dichotomum</u> L. (Blue Curls)	..	..	FD	..	..	..	
LAURACEAE							
<u>Lindera benzoin</u> (L.) Blume (Spicebush)	CB	..	FD	..	..	WH	
<u>Sassafras albidum</u> (Nuttall) Nees (Sassafras)	CB	CH	FD	FH	..	WH	
LINACEAE							
<u>Linum striatum</u> Walter	CB	..	..	..	..	..	
* <u>Linum usitatissimum</u> L. (Flax)	..	..	FD	..	..	..	Hayden 1282
LOGANIACEAE							
<u>Polypremum procumbens</u> L.	CB	..	FD	FH	GH	WH	
LORANTHACEAE							
<u>Phoradendron serotinum</u> (Raf.) M. C. Johnston (Mistletoe)	..	CH	..	..	..	..	
LYTHRACEAE							
* <u>Lagerstroemia indica</u> L. (Crepe Myrtle)	..	..	..	..	GH	..	
* <u>Lythrum salicaria</u> L. (Loosestrife)	..	..	FD	..	..	..	
MAGNOLIACEAE							

<u>Liriodendron tulipifera</u> L. (Tulip Poplar, Yellow Poplar, Tulip Tree)	CB	CH	FD	FH	..	WH	
* <u>Magnolia grandiflora</u> L. (Bull Bay)	CB	..	..	FH	..	..	Hayden 1372
<u>Magnolia virginiana</u> L. (Sweet Bay)	CB	CH	..	FH	..	WH	Hayden 1364
MALVACEAE							
<u>Hibiscus moscheutos</u> L. (Rose Mallow, Wild Cotton)	..	..	..	FH	..	..	
* <u>Sida spinosa</u> L. (Prickly Mallow)	..	CH	FD	..	..	WH	
MELASTOMATACEAE							
<u>Rhexia mariana</u> L.	CB	..	..	FH	..	WH	
<u>Rhexia virginica</u> L. (Meadow-Beauty)	..	..	..	FH	..	..	Hayden 1387
MENISPERMACEAE							
<u>Menispermum canadense</u> L. (Moonseed)	..	..	FD	FH	..	..	
MORACEAE							
* <u>Broussonetia papyrifera</u> (L.) Vent. (Paper Mulberry)	..	..	..	..	GH	WH	Johnson & Hayden 131
* <u>Morus alba</u> L. (White Mulberry)	CB	..	..	..	..	..	
<u>Morus rubra</u> L. (Red Mulberry)	CB	..	FD	FH	..	WH	
MYRICACEAE							
<u>Myrica cerifera</u> L. (Wax Myrtle)	..	..	..	FH	..	..	
NYMPHAEACEAE							
<u>Nuphar luteum</u> (L.) Sibthorp & Smith (Yellow Water-Lily, Cow-Lily, Spatterdock)	..	CH	..	..	..	..	
NYSSACEAE							
<u>Nyssa sylvatica</u> Marshall (Black Gum)	CB	CH	FD	FH	..	WH	Johnson & Hayden 92
OLEACEAE							
<u>Chionanthus virginicus</u> L. (Fringe-Tree)	..	CH	FD	FH	..	..	
<u>Fraxinus americana</u> L. (American Ash, White Ash)	CB	..	FD	..	..	..	
* <u>Ligustrum sinense</u> Loureiro (Privet)	CB	..	FD	FH	..	..	Hayden 1381
ONAGRACEAE							
<u>Circaea lutetiana</u> ssp. <u>canadensis</u> (L.) A. & M. (Enchanter's Nightshade)	..	..	..	..	..	WH	
<u>Ludwigia alternifolia</u> L.	CB	CH	FD	FH	..	..	
<u>Ludwigia palustris</u> (L.) Elliott	CB	..	FD	FH	..	..	
<u>Oenothera biennis</u> L.	CB	..	..	..	..	..	
<u>Oenothera laciniata</u> Hill.	CB	..	FD	..	GH	WH	Hayden 1155
<u>Oenothera parviflora</u> L. (Evening Primrose)	..	..	FD	..	..	..	Johnson & Hayden 186
OROBANCHACEAE							
<u>Epifagus virginiana</u> (L.) Barton (Beech-Drops)	CB	..	FD	..	..	..	Johnson & Hayden 185

OXALIDACEAE

* <u>Oxalis corniculata</u> L.	..	..	..	..	..	WH
<u>Oxalis dillenii</u> Jacquin	CB	CH	..	FH	..	WH
<u>Oxalis florida</u> Salisbury	CB	..	FD	FH	GH	WH
<u>Oxalis violacea</u> L. (Sorrel)	CB	..	..	..	..	..

PAPAVERACEAE

* <u>Papaver rhoeas</u> L. (Poppy)	..	..	FD	..	..	..	Hayden 1197
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PASSIFLORACEAE

<u>Passiflora incarnata</u> L. (Maypops, Passion Flower)	CB	..	FD	..	..	..	
<u>Passiflora lutea</u> L. (Passion Flower)	..	..	..	FH	..	..	

PHYRMACEAE

<u>Phyrma leptostachya</u> L. (Lop-Seed)	..	..	..	FH	..	WH	
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PHYTOLACCACEAE

<u>Phytolacca americana</u> L. (Poke, Pokeweed, Pigeonberry)	CB	CH	FD	FH	GH	WH	
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PLANTAGINACEAE

<u>Plantago aristata</u> Michaux	CB	..	FD	FH	GH	..	Hayden 1191
* <u>Plantago lanceolata</u> L.	CB	CH	FD	FH	GH	WH	
<u>Plantago rugelii</u> Dcne.	CB	CH	..	FH	GH	WH	
<u>Plantago virginica</u> L. (Plantain)	..	..	FD	FH	GH	WH	

PLATANACEAE

<u>Platanus occidentalis</u> L. (Sycamore)	CB	..	FD	FH	..	WH	
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POLEMONIACEAE

<u>Phlox</u> sp. (Phlox)	..	..	..	..	GH	..	
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POLYGALACEAE

<u>Polygala mariana</u> Miller (Polygala)	CB	..	..	FH	..	..	Johnson & Hayden 138, Hayden 1287
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POLYGONIACEAE

* <u>Polygonum aviculare</u> L.	CB	..	..	FH	GH	WH	
* <u>Polygonum cespitosum</u> Blume	..	..	..	FH	..	WH	Johnson & Hayden 130
<u>Polygonum coccineum</u> Muhl. ex Willd.	CB	..	FD	..	..	..	Johnson & Hayden 100
* <u>Polygonum convolvulus</u> L.	CB	..	..	..	..	..	Johnson & Hayden 47
* <u>Polygonum cuspidatum</u> Siebold & Zucc.	..	..	..	FH	..	..	
<u>Polygonum pensylvanicum</u> L.	CB	..	FD	FH	..	WH	
* <u>Polygonum persicaria</u> L.	CB	CH	FD	FH	..	..	
<u>Polygonum punctatum</u> Elliott	CB	..	FD	FH	..	..	
<u>Polygonum sagittatum</u> L.	CB	CH	..	FH	..	..	
<u>Polygonum scandens</u> L. (Knotweed, Smartweed)	CB	..	..	..	..	..	Johnson & Hayden 171
* <u>Rumex acetosella</u> L. (Sheep Sorrel, Sour Grass)	CB	CH	FD	FH	GH	WH	
* <u>Rumex conglomeratus</u> Murray	CB	..	FD	..	GH	..	
* <u>Rumex crispus</u> L. (Dock)	CB	..	FD	FH	GH	..	
<u>Tovara virginianum</u> (L.) Raf.	CB	..	FD	..	..	WH	

(Jumpseed)						
PORTULACACEAE						
<u>Claytonia virginica</u> L.	..	..	FD	..	..	..
(Spring-Beauty)						
PRIMULACEAE						
* <u>Anagallis arvensis</u> L.	CB	..	..	..	..	WH
(Scarlet Pimpernel)						
* <u>Lysimachia nummularia</u> L.	CB	..	..	..	..	..
(Creeping Charlie, Money-Wort)						
<u>Lysimachia quadrifolia</u> L.	..	..	..	FH	..	..
(Whorled Loosestrife)						
RANUNCULACEAE						
<u>Ranunculus abortivus</u> L.	CB	..	FD	FH	..	..
* <u>Ranunculus bulbosus</u> L.	CB	CH	..	FH	GH	WH
(Buttercup)						
<u>Thalictrum polygamum</u> Muhl.	..	..	FD	..	..	..
(Meadow Rue)						
<u>Xanthorhiza simplicissima</u> Marshall	..	..	FD	..	..	..
(Yellow-Root)						
RHAMNACEAE						
<u>Deanothus americanus</u> L.	..	CH	..	FH	..	..
(New Jersey Tea)						
ROSACEAE						
<u>Agrimonia parviflora</u> Aiton	..	..	..	FH	..	..
(Agrimony, Cocklebur, Harvest Lice)						
* <u>Alchemilla microcarpa</u> Boissier & Reuter	CB	..	..	FH	GH	WH
<u>Amelanchier spicata</u> (Lam.) K. Koch	..	..	..	FH	..	..
(Juneberry, Shadbush, Serviceberry)						
<u>Aronia arbutifolia</u> (L.) Elliott	..	CH	..	FH	..	..
(Chokeberry)						
* <u>Duchesnea indica</u> (Andrz.) Focke	CB	CH	FD	FH	..	..
(Indian Strawberry, Mock Strawberry, Snakeberry)						
<u>Fragaria virginiana</u> Duchesne	CB	..	FD	FH	..	WH
(Wild Strawberry)						
<u>Geum canadense</u> Jacquin	..	..	FD	FH	..	..
(Avens)						
* <u>Malus pumila</u> Miller	..	..	FD	..	..	..
(Common Apple)						
<u>Potentilla canadensis</u> L.	CB	CH	FD	FH	..	..
* <u>Potentilla recta</u> L.	CB	..	..	..	..	WH
(Cinquefoil, Five-Fingers)						
* <u>Prunus persica</u> (L.) Batsch	..	..	..	..	..	WH
(Peach)						
<u>Prunus serotina</u> Ehrhart	CB	CH	FD	FH	GH	WH
(Black Cherry)						
* <u>Pyrus communis</u> L.	CB	..	..	..	..	..
(Pear)						
<u>Rosa carolina</u> L.	CB	CH	FD	FH	..	..
* <u>Rosa multiflora</u> Thunberg	CB	..	FD	FH	..	..
(Wild Rose)						
<u>Rubus argutus</u> Link	CB	..	FD	FH	GH	WH
<u>Rubus flagellaris</u> Willdenow	..	..	..	FH	..	..
<u>Rubus hispida</u> L.	..	CH	..	..	..	..

<u>Rubus occidentalis</u> L.	..	..	FD	..	..	WH	
<u>Rubus</u> spp.	CB	CH	FD	FH	..	WH	
(Blackberry)							
RUBIACEAE							
<u>Cephalanthus occidentalis</u> L.	CB	CH	..	FH	..	..	
(Button Bush)							
<u>Diodia teres</u> Walter	CB	CH	..	..	GH	WH	
<u>Diodia virginiana</u> L.	CB	CH	FD	FH	..	..	Johnson & Hayden 1367
(Buttonweed)							
<u>Galium aparine</u> L.	CB	CH	FD	FH	..	WH	
<u>Galium asprellum</u> Michaux	..	CH	..	..	..	..	Johnson & Hayden 75
<u>Galium circaezans</u> Michaux	CB	CH	FD	..	..	WH	
<u>Galium obtusum</u> Bigelow	CB	..	..	FH	..	..	Johnson & Hayden 119
* <u>Galium parisiense</u> L.	..	..	..	FH	..	..	Johnson & Hayden 79
<u>Galium pilosum</u> Aiton	CB	..	..	FH	..	..	Johnson & Hayden 85, Hayden 1291
(Bedstraw)							
<u>Houstonia caerulea</u> L.	..	CH	FD	FH	..	..	
(Bluets)							
<u>Houstonia longifolia</u> Gaertner	CB	..	..	..	..	..	Hayden 1137
<u>Houstonia purpurea</u> L.	CB	..	FD	..	..	..	
<u>Mitchella repens</u> L.	CB	CH	FD	FH	..	WH	
(Partridge Berry)							
<u>Oldenlandia uniflora</u> L.	..	..	..	FH	..	..	Johnson & Hayden 211
SALICACEAE							
* <u>Populus alba</u> L.	..	..	FD	FH	..	..	
(White Poplar, Silver Poplar)							
<u>Populus deltoides</u> Marshall	CB	..	FD	..	..	..	
(Cottonwood)							
<u>Salix humilis</u> Marshall	..	CH	FD	..	..	..	Johnson & Hayden 82, Hayden 1154
<u>Salix nigra</u> Marshall	CB	..	FD	..	..	..	
(Willow)							
SAURURACEAE							
<u>Saururus cernuus</u> L.	CB	CH	FD	..	..	WH	
(Lizard's Tail)							
SAXIFRAGACEAE							
<u>Heuchera americana</u> L.	CB	..	FD	FH	..	WH	Johnson & Hayden 1188
(Alumroot)							
<u>Hydrangea arborescens</u> L.	..	..	FD	..	..	..	
(Hydrangea)							
<u>Itea virginica</u> L.	CB	..	..	..	..	..	
(Virginia Willow)							
<u>Saxifraga virginiana</u> Michaux	..	..	FD	FH	..	..	Hayden 1126
(Saxifrage)							
SCROPHULARIACEAE							
<u>Aquilaria purpurea</u> (L.) Pennell	..	..	FD	..	..	..	
(Gerardia)							
<u>Aureolaria pectinata</u> (Nuttall) Pennell	..	..	..	FH	..	..	
<u>Aureolaria virginica</u> (L.) Pennell	..	..	FD	..	..	..	
(False Foxglove)							
<u>Chelone glabra</u> L.	..	CH	..	..	..	..	
(Turtlehead)							
<u>Gratiola virginiana</u> L.	CB	CH	..	FH	..	..	Hayden 1134, Johnson & Hayden 197
(Hedge Hyssop)							

<u>Linaria canadensis</u> (L.) Dumont (Toad-Flax)	CB	CH	FD	FH	..	..	
* <u>Linaria maroccana</u> Hook. f.	..	..	FD	..	..	..	Johnson & Hayden 109
* <u>Linaria vulgaris</u> Hill (Butter-and-Eggs)	..	..	FD	..	..	..	
<u>Mimulus ringens</u> L. (Monkey-Flower)	..	CH	..	..	..	..	
* <u>Paulownia tomentosa</u> (Thunberg) Steudel (Princess Tree)	CB	..	..	..	..	..	
<u>Penstemon canescens</u> Britton (Beard-Tongue)	..	..	FD	..	..	..	Johnson & Hayden 102
* <u>Verbascum blattaria</u> L. (Moth-Mullein)	CB	..	..	FH	..	WH	
* <u>Verbascum thapsus</u> L. (Mullein)	CB	..	FD	FH	..	..	
* <u>Veronica agrestis</u> L.	..	..	..	..	GH	..	
* <u>Veronica arvensis</u> L.	..	..	FD	FH	GH	WH	Hayden 1133, 1176
* <u>Veronica hederifolia</u> L.	CB	CH	..	..	..	WH	
<u>Veronica officinalis</u> L. (Speedwell)	CB	..	..	FH	..	..	
SIMARUBACEAE							
* <u>Ailanthus altissima</u> (Miller) Swingle (Tree-of-Heaven)	CB	..	FD	FH	..	WH	
SOLANACEAE							
* <u>Datura stramonium</u> L. (Jimson Weed)	CB	..	..	..	..	WH	Hayden 1360
<u>Physalis angulata</u> L.	..	..	..	..	..	WH	Johnson & Hayden 175
<u>Physalis heterophylla</u> Nees (Ground Cherry)	..	..	..	FH	..	..	
<u>Solanum carolinense</u> L. (Nightshade)	CB	CH	FD	FH	GH	WH	
ULMACEAE							
<u>Celtis occidentalis</u> L. (Hackberry, Sugarberry)	CB	..	..	FH	..	WH	
<u>Ulmus alata</u> Michaux (Winged Elm)	..	..	FD	FH	..	..	
<u>Ulmus americana</u> L. (White Elm, American Elm)	CB	..	FD	FH	..	..	
<u>Ulmus rubra</u> Muhl. (Slippery Elm)	..	..	..	..	..	WH	
URTICACEAE							
<u>Boehmeria cylindrica</u> (L.) Swartz (False Nettle)	CB	CH	FD	FH	..	WH	
<u>Laportea canadensis</u> (L.) Weddell (Wood Nettle)	..	..	FD	..	..	..	Johnson & Hayden 184
<u>Pilea pumila</u> (L.) Gray (Clearweed)	CB	..	FD	..	..	WH	
VALERIANACEAE							
* <u>Valerianella locusta</u> (L.) Betcke (Corn Salad)	..	CH	FD	..	..	..	
VERBENACEAE							
<u>Verbena urticifolia</u> L. (Vervain)	..	..	..	..	..	WH	

VIOLACEAE

<u>Viola blanda</u> Willd. (Sweet White Violet)	CB	..	..	..	..	..	
<u>Viola emarginata</u> (Nuttall) Le Conte (Violet)	..	..	FD	FH	..	..	Johnson & Hayden 84, Hayden 1123
<u>Viola papilionacea</u> Pursh (Common Blue Violet, Meadow Violet)	CB	CH	FD	FH	GH	WH	
<u>Viola pedata</u> L. (Bird-Foot Violet)	CB	..	..	..	..	..	Johnson & Hayden 116
<u>Viola primulifolia</u> L. (Primrose-leaved Violet)	..	CH	FD	..	..	..	Hayden 1124
* <u>Viola rafinesquii</u> Greene (Wild Pansy, Confederate Violet)	CB	CH	FD	FH	GH	WH	
<u>Viola sagittata</u> Aiton (Violet)	..	CH	..	FH	..	..	

VITACEAE

<u>Parthenocissus quinquefolia</u> (L.) Planchon (Virginia Creeper)	CB	CH	FD	FH	GH	WH	
<u>Vitis aestivalis</u> Michaux (Summer Grape)	CB	CH	..	FH	GH	..	
<u>Vitis baileyana</u> Munson (Possum Grape)	CB	..	..	..	GH	..	
<u>Vitis labrusca</u> L. (Fox Grape)	CB	..	..	..	..	..	
<u>Vitis rotundifolia</u> Michaux (Muscadine)	CB	CH	FD	FH	GH	WH	
<u>Vitis vulpina</u> L. (Frost Grape)	..	..	FD	..	..	..	Hayden 1150

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