

## THE VASCULAR PLANTS OF FORT DEVENS, MASSACHUSETTS

DAVID M. HUNT, KAREN B. SEARCY,<sup>1</sup> ROBERT E. ZAREMBA, AND  
C. ROBERTA LOMBARDI

### ABSTRACT

As part of the process of closing Fort Devens in north central Massachusetts, an intensive two year survey of vascular plants growing in the undeveloped area (6700 acres) of the fort was completed. A total of 857 naturally occurring taxa in 394 genera and 121 families were identified, including 18 rare taxa and 29 county records. The unusual diversity of taxa for the area is due to several factors which include land use history and the physical setting, as well as management practices and military activity which created or maintained early and mid-successional habitats.

Key Words: Fort Devens, Massachusetts, vascular flora, rare plants

### INTRODUCTION

Fort Devens, the only army post in New England, had its main installation about 30 miles northwest of Boston in the towns of Ayer and Shirley, Middlesex County, and Harvard and Lancaster, Worcester County (Figure 1). It was founded in 1917 to train soldiers for World War I. Additional land, south of Route 2, was acquired between 1941 and 1943 and became the South Post. In the mid 1970's, about 700 acres of wetlands along the east side of the Nashua River on the South Post, were transferred to the U.S. Fish and Wildlife Service and now form the Oxbow National Wildlife Refuge. The post was recommended for realignment and closing in 1988 and closed in March, 1996. The approximately 6700-acre, undeveloped area of Fort Devens was reportedly the largest single area of natural land under uniform management in north central Massachusetts (U.S. Army Corps Engineers, 1989). As part of the procedures associated with closing the fort, a number of biological surveys were made. The objective of this study was to assemble as complete a collection as possible of the vascular plants that occurred naturally on Fort Devens, emphasizing fed-

---

<sup>1</sup> Author for correspondence.

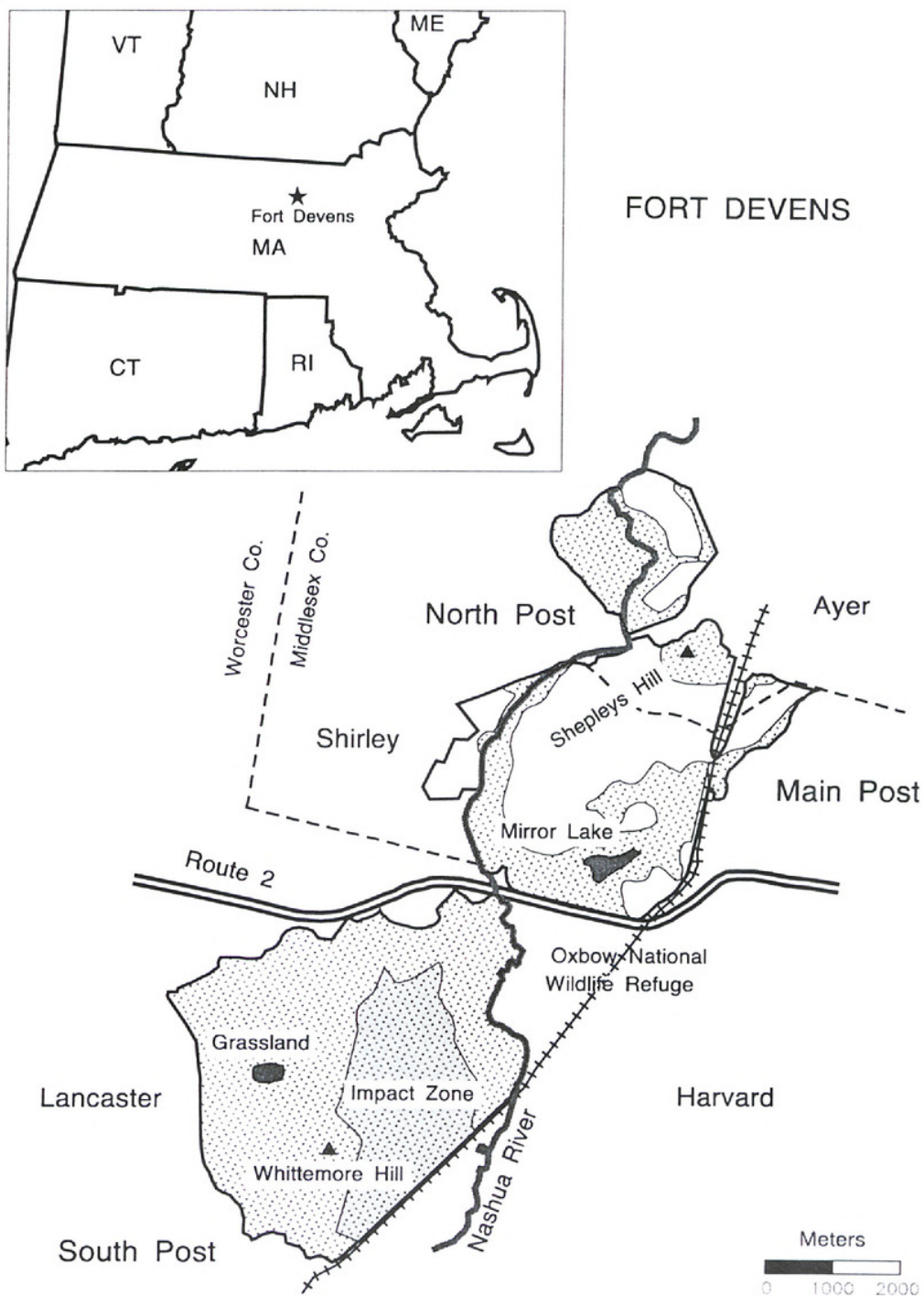


Figure 1. Map showing the location of Fort Devens in Massachusetts, and an enlargement of the Post. The boundaries of Fort Devens are indicated by a solid line. The dashed lines indicate the boundary between Worcester and Middlesex Counties. This boundary follows the Nashua River on the Main Post. The approximately 6700-acre undeveloped area of Fort Devens, which was sampled, is indicated by stippling; the developed area, which was not sampled, is left blank. The location of the maintained grassland on the South Post is indicated by a black oval. The triangles indicate the position of Shepleys and Whittemore Hills.

eral and state rare taxa. In addition to helping with decisions on future land use, this survey provides a baseline from which to monitor future changes.

The approximately 9240-acre Fort Devens was divided into three areas: the South Post (4830 acres), south of Route 2; the Main Post (3550 acres); and the North Post (860 acres), the last two north of Route 2 (Figure 1). Most of the buildings and other facilities were in the latter two areas while the South Post, used primarily for training, remained relatively undeveloped, and has been retained by the army as the Devens Reserve Forces Training Area. Approximately 800 acres in the floodplain and on adjacent slopes of the Nashua River on the former Main and North Posts were transferred to the U.S. Fish and Wildlife Service and have been added to the Oxbow National Wildlife Refuge. With the exception of a few natural areas, such as those near Mirror Lake, most of the remainder of the North and Main Posts is scheduled for development (T. Poole, pers. comm.).

Much of Fort Devens is within the glacial landform of Lake Nashua (Koteff, 1980) and is characterized by broad, flat terraces of sandy, well drained deltaic sediments. Areas of stratified clay deposits support wetlands (Mott and O'Brian, 1981). Other glacial features include esker-like ridges around some ponds on the South Post and along the west bank of the Nashua River on the North Post. In addition, there are steep sand and gravel ridges around Mirror Lake on the Main Post. Other important features include the Nashua River floodplain which extends for 8 miles through the fort. Elevations range from 61 m in the floodplain of the Nashua River to about 140 m on Whittemore Hill on the South Post. Exposed bedrock is uncommon, and is found at Shepleys Hill on the North Post and in a few scattered outcrops.

The area occupied by Fort Devens was originally forested, but by the time the military post was established, most of the land had been cleared and farmed. There was also some small scale industrial activity along the river and streams (Fitch and Glover, 1989). Farming continued on the South Post into the 1940's. About the time the post was closed, forested areas occupied 62 percent of the South Post, and 36 percent of the Main and North Posts (U.S. Fish and Wildlife Service, 1992). The South Post also included a 250-acre grassland, kept open by burning and mowing, which was used for parachute drops.

## METHODS

An intensive, systematic survey of the flora on the approximately 6700 acres of undeveloped land on the post, including the "Impact Zone" (Figure 1) was conducted over two growing seasons. Most of the collection was done during 1991 by D. Hunt and R. Zaremba, focusing principally on the South Post (Hunt, 1991). Additional collections were made during 1993 by D. Hunt, C. R. Lombardi, and K. Searcy focusing on natural areas on the Main and North Post (Lombardi, 1994). Finally, a few additional species were added as the result of other types of vegetation studies conducted in 1994 and 1995.

Sampling was designed using topographic maps and a grid overlay to insure that some part of every 400 m<sup>2</sup> was observed. In addition, habitats from localities representing the full range of elevation, slope, and substrate types (U.S.D.A. Soil Conservation Service, 1985, 1989) were examined. All community types based on New York State's Natural Heritage Program Community Classification (Reschke, 1990) and all forest cover types (based on 1980 aerial photographs) were also examined. When necessary, aquatic vegetation was sampled from a canoe.

Collections were made about every two weeks from early May to October. All native, naturalized and escaped taxa, including those that were probably introduced but had become part of a successional plant community, were collected. Every reasonable effort was made to collect specimens with reproductive material. Information recorded included latitude and longitude using UTM coordinates (to 100 m); elevation; substrate type; topography; associated taxa; and relative abundance, assessed as a combination of the size of the population and number of occurrences; as well as the specific collection locality, habitat or natural community, and date. Whenever a federally- or state-listed rare taxon was found, population boundaries were determined and population size was estimated. Potential county records were checked against a list prepared by Sorrie (1991). For the most part, nomenclature follows *The Flora of North America* (Flora of North America Editorial Committee, 1993) for pteridophytes and gymnosperms and the *Manual of Vascular Plants of North Eastern United States and Adjacent Canada* (Gleason and Cronquist, 1991) for angiosperms. *Hortus Third* (Bailey and Bailey, 1976) was used

for names of naturalized plants not included in Gleason and Cronquist. Where names for rare taxa found at Fort Devens differed between Gleason and Cronquist and the Massachusetts rare plant list (Division of Fisheries and Wildlife, 1992), the latter were retained, and the synonyms indicated in Appendix 1. A complete set of voucher specimens has been deposited at the University of Massachusetts (MASS).

#### RESULTS AND DISCUSSION

The flora includes 857 taxa in 394 genera and 121 families (Appendix 1). The distribution of taxa among groups is as follows: 11 (1.3%) fern allies, 22 (2.6%) ferns, 13 (1.5%) gymnosperms, 247 (28.8%) monocots, and 564 (65.8%) dicots. Approximately 80 percent of the taxa are native, a figure similar to that reported for central and eastern United States and adjacent Canada (Fernald, 1950). While additional taxa are likely to be found, the plants collected to date are undoubtedly a sizable fraction of those on the post. Intensive collections in 1993 added 102 new taxa (12%). The 1994 and 1995 studies of oxbow ponds and surrounding marshes, among the most species-rich areas on the post, added only seven new taxa (<1%).

The undeveloped portion of Fort Devens supports an unusually high diversity of plants for an area its size in north central Massachusetts. One factor contributing to species diversity on the post is historic land use. Much of the fort was farmland in the not-too-distant past. As a result, a great deal of the vegetation is currently in various stages of succession, providing habitats ranging from successional old fields to second-growth forests. The relatively recent agricultural influence is seen in the persistence of species such as *Asparagus officinalis* and *Triticum aestivum*. Other weedy species were undoubtedly introduced along the roads and railroads. Past habitation is also reflected by artificial lakes which provide habitats for aquatic species and by abandoned home sites, the source for naturalized and escaped species such as *Convallaria majalis*, *Phlox paniculata*, *Syringa vulgaris* and *Vinca minor*.

A second group of factors affecting species diversity are land management practices and military activity on the post. Land management practices included mowing, controlled burning, and clear and selective cutting. Military activity associated with training and the use of heavy equipment, like tanks, created open areas

of various sizes for colonization by early successional species. In addition, one unusual habitat disturbance at Fort Devens is the occurrence of annual fires resulting from flares and ammunition detonation in the "Impact Zone" on the South Post. The fires have produced an area of fire-tolerant upland species (U.S. Fish and Wildlife Service, 1992). These types of activities contributed to species diversity by creating and maintaining a mosaic of early and mid-successional habitats within various communities. Other habitats associated with military occupation at the post include landfills, rubble dumps, gravel mines, hydrological impoundments and sewage processing beds. At the time of the survey, deliberately created or maintained successional habitats supported almost one third (27%) of the species, and close to half (44.4%) of the state listed rare species. Successional habitats appear to be important for many rare species. Indeed, Sorrie (1989) has pointed out that the loss of early successional habitats appears to account for about 65% of the species extirpated from Massachusetts.

Finally, a major factor contributing to species diversity is the physical setting. The post has a varied topography ranging from flat terraces to steep slopes such as those found at the edge of the Nashua River floodplain, on eskers, and on the South Post plateau. Stream drainages provide relief on a smaller scale. In addition, the post has markedly contrasting soil types ranging from drought prone Windsor and Hinkley soils, common in the deltaic deposits, to poorly drained soils such as Limerick, Swansea and Freetown soils of the Nashua River floodplain and scattered wetlands.

This combination of slopes and soil types supports a wide array of plant communities. Fort Devens has widespread plant communities such as the Appalachian oak-pine forest (AOPF), hemlock-northern hardwood forest (HNHF) and red maple hardwood swamp (RMHS). In addition, there are also a number of communities which are listed as uncommon or restricted in Massachusetts (Swain, 1993). One of these, the pitch pine-scrub oak barrens (PPSOB), found on drought prone soils, is uncommon at inland locations. A number of wetland communities on the post are also of restricted distribution or are uncommon in the state (Swain, 1993). These include the southern New England floodplain forest (FF), dominated by silver maple, occurring as a relatively narrow, intermittent strip along the Nashua River; several dwarf shrub bogs (DSB) and forested peatlands such as the black

spruce-tamarck bog (BSTB), supporting plants of a more northern distribution; seep communities within the RMHS dominated by black ash; sandy bottom kettlehole ponds, with fluctuating water levels, providing exposed, inland, non-calcareous, lake shore habitats (INCLS) with species more characteristic of the coastal plain; and a small, medium fen (MF). Collectively these and the other wetland communities account for 36% of the species, but only about 14% of the total area of the post.

Rare Species

Eighteen taxa found growing naturally at Fort Devens are listed as either federally or state endangered, threatened (Division of Fisheries and Wildlife, 1992), or are on the state watch list (Sorrie, 1990) (Table 1). Populations of *Pinus resinosa*, *Podophyllum peltatum* and *Populus balsamifera*, which are on the state watch list, were obviously planted or were escapes, and were not included in the tally.

Six species, *Bidens discoidea*, *Eleocharis obtusa* var. *ovata* (*E. ovata*), *Panicum philadelphicum*, *Sparganium minimum*, *Utricularia minor*, and *Wolffia brasiliensis*, were associated with oxbow

Table 1. Rare taxa from Fort Devens, Massachusetts. E = Endangered, T = Threatened, SC = Special Concern, W = Watchlist.

| Taxon                                      | Mass. Status | Approx. No. of Individuals |
|--------------------------------------------|--------------|----------------------------|
| <i>Arabis drummondii</i>                   | W            | 20                         |
| <i>Aster radula</i>                        | W            | 200                        |
| <i>Bidens discoidea</i>                    | W            | 200                        |
| <i>Carex typhina</i>                       | T            | 250                        |
| <i>Cassia hebecarpa</i>                    | E            | 80                         |
| <i>Cyperus houghtonii</i>                  | E            | 1000                       |
| <i>Eleocharis obtusa</i> var. <i>ovata</i> | E            | 2000                       |
| <i>Eragrostis capillaris</i>               | W            | 100                        |
| <i>Geranium bicknellii</i>                 | W            | 100                        |
| <i>Leptoloma cognatum</i>                  | W            | 200                        |
| <i>Liatris borealis</i>                    | SC           | 5–10                       |
| <i>Lupinus perennis</i>                    | W            | 3000                       |
| <i>Panicum philadelphicum</i>              | SC           | 100                        |
| <i>Smilacina trifolia</i>                  | W            | 500                        |
| <i>Sparganium minimum</i>                  | E            | 1000+                      |
| <i>Stellaria borealis</i>                  | W            | 100                        |
| <i>Utricularia minor</i>                   | W            | 100                        |
| <i>Wolffia brasiliensis</i>                | W            | large                      |

ponds in the Nashua River floodplain. *Bidens discoidea* was found growing as an epiphyte on the tangled lower stems of buttonbush, *Cephalanthus occidentalis*. *Eleocharis obtusa* var. *ovata*, a taxon whose status appears unclear, was found in sedge meadows which had been scoured two years before (T. Poole, pers. comm.). The annual, *Panicum philadelphicum*, was observed in mud flats left exposed by drying oxbow lakes during the unusually dry summer of 1995. *Sparganium minimum* had a large population in the shallow water of an oxbow lake. Although it is a species more common in northern New England (Crow and Hellquist, 1981), two populations have been reported from adjacent Middlesex County (Crow and Hellquist, 1981). It was previously reported from Lake Quinsigamond, Worcester Co. (Jackson, 1909), but no herbarium specimens were found (Sorrie, 1987). *Utricularia minor* and *Wolffia brasiliensis* both have large populations in one or two oxbow lakes and also occur in widely scattered localities in Massachusetts (Hellquist and Crow, 1982; Crow and Hellquist, 1985). It is suggested that at least the former species may be overlooked in the state (Sorrie, 1990).

In addition to oxbow ponds, several other wetland areas on the post supported rare species. *Carex typhina* was found in a mixed oak forest along the sandy banks of a small stream. This apparently relatively dry habitat contrasts with the silver maple-green ash floodplain forest reported for other populations of the species in the state (Sorrie, 1987). *Aster radula* occurred in an open, recently-burned peaty meadow. *Smilacina trifolia*, another species with northern affinities, was abundant in a black spruce-tamarack swamp, and a small population of *Stellaria borealis* was found under powerlines along a small stream in a rich, fen-like area.

Another group of rare species was found in the dry, sandy glacial outwash plains associated with the pitch pine-scrub oak barrens. These included *Cyperus houghtonii*, *Eragrostis capillaris*, *Lepidoloma cognatum*, *Liatris borealis* (*Liatris scariosa* var. *novae-angliae*), and *Lupinus perennis*. Many of these are successional species dependent on disturbance or fire. *Cyperus houghtonii*, with no other current stations in the state, was found on a disturbed, gravelly esker slope in one of the rifle ranges. The population size of this species showed large fluctuations between 1991 and 1993. The relatively few individuals of *Liatris borealis*, found in mowed roadsides and along a railroad track, were part of a much larger population under powerlines on adjacent property. *Liatris bo-*

Table 2. County Records from Fort Devens, Massachusetts.

| County                                                              | Collectors and Number              |
|---------------------------------------------------------------------|------------------------------------|
| <b>MIDDLESEX COUNTY</b>                                             |                                    |
| Native                                                              |                                    |
| <i>Callitriche stagnalis</i>                                        | Hunt and Zaremba 1597              |
| <i>Scirpus xpeckii</i>                                              | Hunt and Zaremba 2543              |
| Introduced                                                          |                                    |
| <i>Malus floribunda</i>                                             | Hunt and Zaremba 2008              |
| <b>WORCESTER COUNTY</b>                                             |                                    |
| Native                                                              |                                    |
| <i>Bidens aristosa</i>                                              | Hunt and Zaremba 2386              |
| <i>Carex bebbii</i>                                                 | Hunt and Zaremba 415               |
| <i>Carex hystericina</i>                                            | Hunt and Zaremba 766               |
| <i>Carex laevivaginata</i>                                          | Hunt and Zaremba 324               |
| <i>Carex typhina</i>                                                | Hunt and Zaremba 1480              |
| <i>Eleocharis obtusa</i> var. <i>ovata</i> <sup>1</sup>             | Hunt and Zaremba 1068              |
| <i>Elodea canadensis</i> <sup>1</sup>                               | Hunt and Zaremba 1306              |
| <i>Epilobium palustre</i>                                           | Hunt and Zaremba 1888              |
| <i>Galium aparine</i>                                               | Hunt and Zaremba 2575              |
| <i>Galium trifidum</i> <sup>1</sup>                                 | Hunt and Zaremba 2574              |
| <i>Geranium bicknellii</i> <sup>1</sup>                             | Hunt and Zaremba 2467              |
| <i>Potamogeton zosteriformis</i>                                    | Enz, Lindwall, Hickler, Searcy 179 |
| <i>Scirpus georgianus</i>                                           | Hunt MA-687                        |
| <i>Sparganium minimum</i> <sup>1</sup>                              | Enz, Lindwall, Hickler, Searcy 129 |
| Introduced                                                          |                                    |
| <i>Catalpa bignonioides</i>                                         | Hunt and Zaremba 1304              |
| <i>Cerastium semidecandrum</i>                                      | Hunt and Zaremba 248               |
| <i>Convallaria majalis</i>                                          | Hunt and Zaremba 242               |
| <i>Draba verna</i>                                                  | Lombardi and Searcy 164            |
| <i>Elaeagnus umbellata</i>                                          | Hunt and Zaremba 77                |
| <i>Epipactis helleborine</i>                                        | Hunt and Zaremba 2489              |
| <i>Euonymus alatus</i>                                              | Hunt and Zaremba 2496              |
| <i>Larix decidua</i>                                                | Hunt and Zaremba 1259              |
| <i>Malus baccata</i>                                                | Hunt and Zaremba 152               |
| <i>Physocarpus opulifolius</i> var. <i>opulifolius</i> <sup>1</sup> | Hunt and Zaremba 1184              |
| <i>Trifolium dubium</i>                                             | Hunt MA-554                        |
| <i>Urtica dioica</i> var. <i>dioica</i>                             | Hunt and Zaremba 943               |

<sup>1</sup> Reported from Worcester County (Jackson, 1909) but no herbarium specimens have been found (Sorrie, 1991).

*realis* is declining in Massachusetts and is now found primarily in the southeastern part of the state. *Lupinus perennis* is another species declining in Massachusetts. Like *Liatris borealis*, populations of *Lupinus perennis* were found in disturbed areas along

roads. However, it also occurred in the “Impact Zone” where fires were frequent.

Finally, several rare species occurred in other obviously disturbed habitats. These included *Arabis drummondii* which was found in a mowed strip beside a road, *Cassia hebecarpa* (*Senna hebecarpa*) found in alluvial thickets along a powerline, and *Geranium bicknellii* found in a wet area along powerlines. The latter species is apparently adventive in eastern Massachusetts and it is uncertain whether the Fort Devens populations are native. Populations of *G. bicknellii* declined drastically between 1991 and 1993 probably due to the cessation of mowing of the powerlines where they occurred.

### County Records

Based on a checklist of county records (Sorrie, 1991), twenty nine species collected at Fort Devens were herbarium county records for either Middlesex or Worcester County (Table 2). A number of those listed were previously reported for Worcester County (Jackson, 1909) but appear to be undocumented (Sorrie, 1991). County records include two state endangered, *Eleocharis obtusa* var. *ovata* and *Sparganium minimum*; one state threatened, *Carex typhina*; and one watch list species, *Geranium bicknellii*. Almost half are introduced species of disturbed or successional habitats. Many are relatively common elsewhere and are known from adjacent counties in the eastern part of the state. In contrast, *Scirpus xpeckii*, a sterile hybrid between *S. atrovirens* and *S. cyperinus* (Tucker, 1992) found on a steep slope of a narrow ravine in mixed hardwood forest, has previously been reported from only the western part of the state (Sorrie, 1991; Tucker, 1992).

### ACKNOWLEDGMENTS

We thank T. Poole, Natural Resources Officer, Fort Devens and P. Somers, State Botanist, for help, encouragement, and support. B. Sorrie supplied information on species suspected or known to occur at the site. Assistance with various aspects of the project was also provided by T. Enz, M. Hickler, L. Hunt, B. Lindwall, S. Patton, and M. Taras. B. Hellquist, C. Sheviak, N. Miller, and G. Tucker helped with identification. We also thank NYS for

making its facilities available to us. This study was funded in part by the U.S. Army and the Massachusetts Natural Heritage and Endangered Species Program.

#### LITERATURE CITED

- BAILEY, L. H. AND E. Z. BAILEY. 1976. *Hortus Third, A Concise Dictionary of Plants Cultivated in the United States and Canada*. Revised and Expanded by the Staff of the Liberty Hyde Bailey Hortum. MacMillan Publishing Co., New York, NY.
- CROW, G. E. AND C. B. HELLQUIST. 1981. Aquatic vascular plants of New England: Part 2. Typhaceae and Sparganiaceae. *New Hampshire Agric. Exp. Sta. Bull.* 517.
- AND ———. 1985. Aquatic vascular plants of New England: Part 8. Lentibulariaceae. *New Hampshire Agric. Exp. Sta. Bull.* 528.
- DIVISION OF FISHERIES AND WILDLIFE. 1992. *Massachusetts List of Endangered, Threatened and Special Concern Species*. Commonwealth of Massachusetts, Division of Fisheries and Wildlife. Boston, MA.
- FERNALD, M. L. 1950. *Gray's Manual of Botany*, Eighth Revised Edition. Van Nostrand Reinhold Co., New York.
- FITCH, V. A. AND S. GLOVER. 1989. Historic and prehistoric reconnaissance survey, Fort Devens (Main Post, North Post, South Post) Massachusetts. Appendix C. *In: U.S. Army Corps of Engineers, Fort Devens supplemental environmental information for Fort Devens realignment. Appendix 2.*
- FLORA OF NORTH AMERICA EDITORIAL COMMITTEE, EDS. 1993. *The Flora of North America North of Mexico*, Volume 2. Oxford University Press, New York, NY.
- GLEASON, H. A. AND A. CRONQUIST. 1991. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada*, 2nd ed. New York Botanical Garden, Bronx, NY.
- HELLQUIST, C. B. AND G. E. CROW. 1982. Aquatic vascular plants of New England: Part 5. Araceae, Lemnaceae, Xyridaceae, Eriocaulaceae, and Pontederiaceae. *New Hampshire Agric. Exp. Sta. Bull.* 523.
- HUNT, D. M. 1991. Floristic survey, with emphasis on rare species, of Fort Devens, Massachusetts. U.S. Army Corps of Engineers Construction Engineering Research Laboratory, Environmental Division. Unpublished report.
- JACKSON, J. 1909. *A Catalogue of the Flowering Plants and Ferns of Worcester County, Massachusetts*, 3rd ed. Worcester Natural History Society. Stanhope Press. Boston, MA.
- KOTEFF, C. 1980. Deglacial history of glacial Lake Nashua, east-central Massachusetts. *In: Larson, G. L. and B. D. Stone, eds. Late Wisconsinan Glaciation of New England*. Kendall/Hunt Publishing Co. Dubuque, IA.
- LOMBARDI, C. R. 1994. Floristic survey, with emphasis on rare plants, of Fort Devens, Massachusetts, 1993. (Massachusetts Natural Heritage and Endangered Species Program, unpublished report)
- MOTT, W. W. AND A. L. O'BRIAN. 1981. *Geology and hydrology of wetlands in Massachusetts*. Water Resources Research Center. University of Massachusetts, Amherst. Publication 123.

- RESCHKE, C. 1990. Ecological Communities of New York State. New York Natural Heritage Program, New York State Department of Environmental Conservation. Latham, NY.
- SORRIE, B. A. 1987. Notes on the rare flora of Massachusetts. *Rhodora* 89: 113–196.
- . 1989. Massachusetts flora: A review of current distribution and conservation of rare species. *Rhodora* 91: 116–120.
- . 1990. “Watch List” Uncommon or Rare Massachusetts Plants. Commonwealth of Massachusetts, Division of Fisheries and Wildlife. Boston, MA.
- . 1991. County Checklist of Massachusetts Vascular Plants. Unpublished draft document prepared for Massachusetts Natural Heritage and Endangered Species Program, Division of Fisheries and Wildlife. Boston, MA.
- SWAIN, P. C. 1993. Priority natural community-types for protection in Massachusetts. Division of Fisheries and Wildlife. Boston, MA.
- TUCKER, G. C. 1992. *Scirpus* (Cyperaceae) in Connecticut. *Newslett. of the Connecticut Bot. Soc.* 20: 3–9.
- U. S. ARMY CORPS OF ENGINEERS, NEW ENGLAND DIVISION. 1989. Appendix 2. Fort Devens supplemental environmental information for Fort Devens realignment.
- U. S. D. A. SOIL CONSERVATION SERVICE. 1985. Soil Survey of Worcester County, Massachusetts, Northwestern Part.
- . 1989. Middlesex County Soil Survey, A Resource Planner’s Guide, Middlesex Conservation District, Acton, MA.
- U. S. FISH AND WILDLIFE SERVICE. 1992. Survey and evaluation of wetlands and wildlife habitat, Fort Devens, Massachusetts. Unpublished report.

D. M. H.

NEW YORK NATURAL HERITAGE PROGRAM

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL  
CONSERVATION

700 TROY-SCHENECTADY RD.

LATHAM, NY 12110-2400

K. B. S. & C. R. L.

BIOLOGY DEPARTMENT

UNIVERSITY OF MASSACHUSETTS

AMHERST, MA 01003

R. E. Z.

THE NATURE CONSERVANCY

91 BROADWAY

ALBANY, NY 12204

APPENDIX 1: ANNOTATED LIST OF THE  
VASCULAR PLANTS OF FORT DEVENS,  
MASSACHUSETTS

The appendix lists the taxa, abundance, and community type in which the taxon was collected. Some taxa also occurred in communities other than the one in which the specimen was collected; and, for a few, the community in which a specimen was collected was not typical for the taxon on the post. Where a taxon was observed at only one site, the general location (North, Main or South Post) is also given.

Abundance estimates are for the entire post and were based on the population size and number of communities in which a taxon was observed. Taxa were classed as rare, small population at one site; infrequent, large numbers at one site, or low numbers in one or two communities; occasional, large numbers in one or two communities or low numbers in several communities; common, several communities in large numbers or low numbers in most communities; abundant, in most communities in large numbers.

Abbreviations for the community types in Reschke (1990) are as follows: AOPF = Appalachian Oak-Pine Forest, BCL = Brushy Cleared Land, BMMF = Beech Maple Mesic Forest, BSTB = Black Spruce Tamarack Bog, COF = Chestnut Oak Forest, DEM = Deep Emergent Marsh, DSB = Dwarf Shrub Bog, EP = Eutrophic Pond, FF = Floodplain Forest, GM = Gravel Mine, HHS = Hemlock-Hardwood Swamp, HNHF = Hemlock-Northern Hardwood Forest, INCLS = Inland Non-Calcareous Lake Shore, LD = Landfill/Dump, MCS = Main Channel Stream, MF = Medium Fen, ML = Mowed Land, MS = Midreach Stream, OL = Oxbow Lake, PNHF = Pine-Northern Hardwood Forest, PPOF = Pitch Pine-Oak Forest, PPSOB = Pitch Pine-Scrub Oak Barrens, RMHS = Red Maple-Hardwood Swamp, RSGB = Riverside Sand/Gravel Bar, SA.M = Sand Mine, SEM = Shallow Emergent Marsh, SH = Successional Hardwoods, SM = Sedge Meadow, SNSG = Successional Northern Sandplain Grassland, SOF = Successional Old Field, SS = Shrub Swamp, SU.S = Successional Shrubland.

**LYCOPODIOPHYTA (Clubmosses)**

**LYCOPODIACEAE**

- Diphasiastrum digitatum* (Dillenius ex A. Braun) Holub occasional; PNHF  
*Diphasiastrum tristachyum* (Pursh) Holub occasional; PPSOB  
*Huperzia lucidula* (Michx.) Trev. infrequent; PNHF  
*Lycopodiella inundata* (L.) Holub rare; SEM—South Post  
*Lycopodium clavatum* L. infrequent; PPSOB  
*Lycopodium obscurum* L. common; PNHF

**SELAGINELLACEAE**

- Selaginella apoda* (L.) Spring rare; SH—Main Post

**EQUISETOPHYTA (Horsetails)**

**EQUISETACEAE**

- Equisetum arvense* L. occasional; RMHS

*Equisetum fluviatile* L. infrequent; SEM

*Equisetum hyemale* L. subsp. *affine* (Engelmann) Calder & R. L. Taylor infrequent; BCL

*Equisetum sylvaticum* L. infrequent; RMHS

### POLYPODIOPHYTA (Ferns)

#### ASPLENACEAE

*Asplenium platyneuron* (L.) BSP. rare; BMMF—Main Post

#### BLECHNACEAE

*Woodwardia virginica* (L.) J.E. Smith infrequent; DSB

#### DENNSTAEDTIACEAE

*Dennstaedtia punctilobula* (Michx.) T. Moore occasional; SH

*Pteridium aquilinum* (L.) Kuhn var. *latiusculum* (Desv.) Underw. ex A. Heller abundant; SNSG

#### DRYOPTERIDACEAE

*Athyrium filix-femina* (L.) Roth ex Mertens var. *angustum* (Willd.) G. Lawson occasional; FF

*Deparia acrostichoides* (Swartz) M. Kato rare; BMMF—Main Post

*Dryopteris cristata* (L.) A. Gray occasional; PNHF

*Dryopteris intermedia* (Muhlenberg ex Willd.) A. Gray common; PNHF

*Dryopteris marginalis* (L.) A. Gray infrequent; PNHF

*Onoclea sensibilis* L. common; RMHS

*Polystichum acrostichoides* (Michx.) Schott infrequent; AOPF

#### OPHIOGLOSSACEAE

*Botrychium dissectum* Sprengel rare; PNHF—South Post

*Botrychium virginianum* (L.) Swartz rare; BMMF—Main Post

#### OSMUNDACEAE

*Osmunda cinnamomea* L. common; RMHS

*Osmunda claytoniana* L. infrequent; PNHF

*Osmunda regalis* L. var. *spectabilis* (Willd.) A. Gray occasional; SEM

#### POLYPODIACEAE

*Polypodium virginianum* L. infrequent; AOPF

#### PTERIDACEAE

*Adiantum pedatum* L. rare; HNHF—Main Post

#### THELYPTERIDACEAE

*Phegopteris connectilis* (Michx.) Watt rare; BMMF—Main Post

*Thelypteris noveboracensis* (L.) Nieuwl. occasional; PNHF

*Thelypteris palustris* Schott occasional; MF

*Thelypteris simulata* (Davenp.) Nieuwl. infrequent; RMHS

### PINOPHYTA (Gymnosperms)

#### CUPRESSACEAE

*Juniperus communis* L. infrequent; SU.S

*Juniperus virginiana* L. rare; SU.S—South Post

#### PINACEAE

*Larix decidua* Miller rare; SH—South Post

*Larix laricina* (DuRoi) K. Koch infrequent; BSTB

*Picea abies* (L.) Karst rare; SH—South Post

*Picea glauca* (Moench) Voss rare; RMHS—South Post

*Picea mariana* (Miller) BSP. infrequent; BSTB

*Pinus resinosa* Aiton infrequent; SU.S

*Pinus rigida* Miller abundant; PPOF

*Pinus strobus* L. abundant; SOF

*Pinus sylvestris* L. rare; SH—Main Post

*Tsuga canadensis* (L.) Carrière occasional; HHS

#### TAXACEAE

*Taxus baccata* L. rare; SU.S—South Post

### MAGNOLIOPHYTA (Flowering Plants)

#### MAGNOLIOPSIDA (Dicots)

#### ACERACEAE

*Acer negundo* L. var. *negundo* rare; SH—Main Post

*Acer pensylvanicum* L. rare; AOPF—South Post

*Acer platanoides* L. rare; SH—South Post

*Acer rubrum* L. abundant; RMHS

*Acer saccharinum* L. occasional; FF

*Acer saccharum* Marshall var. *saccharum* common; SH

#### AMARANTHACEAE

*Amaranthus hybridus* L. rare; LD—Main Post

*Amaranthus palmeri* S. Wats. rare; BCL—North Post

*Froelichia gracilis* (Hook.) Moq. rare; ML—North Post

#### ANACARDIACEAE

*Cotinus coggygria* Scop. rare; BCL—Main Post

*Rhus copallinum* L. infrequent; FF

*Rhus glabra* L. infrequent; BCL

*Rhus typhina* L. occasional; BCL

*Toxicodendron radicans* (L.) Kuntze occasional; BCL

*Toxicodendron vernix* (L.) Kuntze infrequent; RMHS

## APIACEAE (UMBELLIFERAE)

- Aethusa cynapium* L. rare; BCL—South Post  
*Cicuta bulbifera* L. occasional; SM  
*Cicuta maculata* L. infrequent; SEM  
*Daucus carota* L. occasional; BCL  
*Hydrocotyle americana* L. occasional; HHS  
*Sanicula marilandica* L. infrequent; SH  
*Sium suave* Walter infrequent; SEM  
*Zizia aurea* (L.) W. Koch rare; SH—Main Post

## APOCYNACEAE

- Apocynum androsaemifolium* L. rare; BCL—South Post  
*Vinca minor* L. rare; SH—South Post

## AQUIFOLIACEAE

- Ilex laevigata* (Pursh) A. Gray infrequent; SS  
*Ilex verticillata* (L.) A. Gray common; RMHS  
*Nemopanthus mucronatus* (L.) Trel. occasional; SS

## ARALIACEAE

- Aralia hispida* Vent. infrequent; BCL  
*Aralia nudicaulis* L. common; RMHS  
*Panax trifolium* L. occasional; PNHF

## ASCLEPIADACEAE

- Asclepias amplexicaulis* J.E. Smith infrequent; PPSOB  
*Asclepias exaltata* L. rare; BCL—South Post  
*Asclepias incarnata* L. var. *pulchra* (Ehrh.) Pers. infrequent; SM  
*Asclepias syriaca* L. occasional; SOF

## ASTERACEAE (COMPOSITAE)

- Achillea millefolium* L. infrequent; BCL  
*Ambrosia artemisiifolia* L. infrequent; SOF  
*Anaphalis margaritacea* (L.) Benth. & Hook. rare; AOPF—North Post  
*Antennaria neglecta* Greene var. *canadensis* (Greene) Cronq. infrequent; SOF  
*Antennaria neglecta* Greene var. *neodioica* (Greene) Cronq. infrequent; SNSG  
*Anthemis arvensis* L. infrequent; SA.M  
*Arctium minus* Schk. infrequent; BCL  
*Artemisia vulgaris* L. occasional; BCL  
*Aster acuminatus* Michx. occasional; PNHF  
*Aster cordifolius* L. occasional; SH  
*Aster divaricatus* L. common; AOPF  
*Aster dumosus* L. rare; SH—South Post  
*Aster ericoides* L. rare; ML—Main Post  
*Aster lanceolatus* Willd. var. *simplex* (Willd.) A.G. Jones infrequent; SH  
*Aster lateriflorus* (L.) Britton infrequent; BMMF  
*Aster linariifolius* L. infrequent; AOPF

- Aster macrophyllus* L. infrequent; AOPF  
*Aster novae-angliae* L. infrequent; SH  
*Aster novi-belgii* L. infrequent; MF  
*Aster patens* Aiton var. *patens* infrequent; AOPF  
*Aster paternus* Cronq. infrequent; PPOF  
*Aster puniceus* L. infrequent; RMHS  
*Aster radula* Aiton rare; SEM—South Post  
*Aster umbellatus* Miller infrequent; MF  
*Aster undulatus* L. infrequent; SU.S  
*Bidens aristosa* (Michx.) Britton rare; RMHS—South Post  
*Bidens cernua* L. infrequent; SEM  
*Bidens connata* Muhl. infrequent; SS  
*Bidens discoidea* (T. & G.) Britton infrequent; SS  
*Bidens frondosa* L. infrequent; BCL  
*Centaurea maculosa* Lam. occasional; PPSOB  
*Chrysanthemum leucanthemum* L. infrequent; BCL  
*Cichorium intybus* L. rare; SU.S—South Post  
*Cirsium arvense* (L.) Scop. var. *horridum* Wimmer & Graebner rare; MF—  
 South Post  
*Cirsium muticum* Michx. rare; HHS—South Post  
*Cirsium pumilum* (Nutt.) Sprengel rare; SOF—North Post  
*Cirsium vulgare* (Savi) Tenore infrequent; BCL  
*Conyza canadensis* (L.) Cronq. var. *canadensis* occasional; BCL  
*Coreopsis lanceolata* L. rare; BCL—North Post  
*Crepis tectorum* L. rare; SA.M—Main Post  
*Erechtites hieracifolia* (L.) Raf. var. *hieracifolia* infrequent; SEM  
*Erigeron annuus* (L.) Pers. infrequent; SH  
*Erigeron pulchellus* Michx. var. *pulchellus* infrequent; SH  
*Erigeron strigosus* Muhl. var. *strigosus* occasional; BCL  
*Eupatorium fistulosum* Barratt occasional; SH  
*Eupatorium perfoliatum* L. var. *perfoliatum* infrequent; SM  
*Eupatorium pilosum* Walter rare; AOPF—South Post  
*Eupatorium purpureum* L. infrequent; SEM  
*Eupatorium rugosum* Houttuyn infrequent; SH  
*Euthamia graminifolia* (L.) Nutt. var. *nuttallii* (Greene) W. Stone occasional;  
 BCL  
*Euthamia tenuifolia* (Pursh) Nutt. rare; INCLS—South Post  
*Galinsoga parviflora* Cav. rare; BCL—Main Post  
*Gnaphalium obtusifolium* L. var. *obtusifolium* infrequent; BCL  
*Gnaphalium uliginosum* L. infrequent; RMHS  
*Helenium flexuosum* Raf. rare; SOF—North Post  
*Helianthus divaricatus* L. rare; AOPF—South Post  
*Hieracium aurantiacum* L. infrequent; SOF  
*Hieracium caespitosum* Dumort infrequent; BCL  
*Hieracium flagellare* Willd. infrequent; BCL  
*Hieracium floribundum* Wimmer & Grab. infrequent; BCL  
*Hieracium paniculatum* L. infrequent; AOPF  
*Hieracium pilosella* L. infrequent; BCL  
*Hieracium scabrum* Michx. infrequent; BCL

*Hieracium venosum* L. infrequent; AOPF  
*Krigia virginica* (L.) Willd. infrequent; SNSG  
*Lactuca biennis* (Moench) Fern. rare; HNHF—Main Post  
*Lactuca canadensis* L. infrequent; BCL  
*Leontodon autumnalis* L. var. *autumnalis* infrequent; BCL  
*Liatris borealis* Nutt. (*Liatris scariosa* (L.) Willd. var. *novae-angliae* Lunell) rare; PPSOB—North Post  
*Matricaria matricarioides* (Less.) Porter rare; BCL—South Post  
*Prenanthes altissima* L. var. *altissima* rare; RMHS—South Post  
*Prenanthes trifoliolata* (Cass.) Fern. infrequent; HNHF  
*Rudbeckia hirta* L. var. *pulcherrima* Farw. infrequent; BCL  
*Rudbeckia laciniata* L. var. *laciniata* rare; SH—Main Post  
*Senecio aureus* L. infrequent; MF  
*Solidago bicolor* L. occasional; AOPF  
*Solidago caesia* L. occasional; AOPF  
*Solidago canadensis* L. var. *canadensis* occasional; SEM  
*Solidago gigantea* Aiton infrequent; BCL  
*Solidago juncea* Aiton common; SEM  
*Solidago nemoralis* Aiton var. *nemoralis* common; SNSG  
*Solidago odora* Aiton var. *odora* occasional; SU.S  
*Solidago puberula* Nutt. var. *puberula* occasional; AOPF  
*Solidago rugosa* Miller subsp. *rugosa* var. *rugosa* common; BCL  
*Solidago rugosa* Miller subsp. *rugosa* var. *villosa* (Pursh) Fern. rare; AOPF—South Post  
*Solidago uliginosa* Nutt. rare; RMHS—South Post  
*Tanacetum vulgare* L. rare; BCL—South Post  
*Taraxacum officinale* Weber infrequent; BCL  
*Tragopogon dubius* Scop. rare; BMMF—North Post  
*Tussilago farfara* L. rare; BCL—Main Post

**BALSAMINACEAE**

*Impatiens capensis* Meerb. occasional; SS

**BERBERIDACEAE**

*Berberis thunbergii* DC. infrequent; FF  
*Berberis vulgaris* L. infrequent; SH  
*Podophyllum peltatum* L. rare; PNHF—South Post

**BETULACEAE**

*Alnus incana* (L.) Moench. common; RMHS  
*Alnus serrulata* (Aiton) Willd. infrequent; SS  
*Betula alleghaniensis* Britton occasional; SS  
*Betula lenta* L. occasional; HNHF  
*Betula papyrifera* Marshall var. *cordifolia* (Regel) Fern. infrequent; HNHF  
*Betula papyrifera* Marshall var. *papyrifera* occasional; FF  
*Betula populifolia* Marshall common; BCL  
*Carpinus caroliniana* Walter occasional; RMHS

- Corylus americana* Walter common; BCL  
*Corylus cornuta* Marshall infrequent; PNHF  
*Ostrya virginiana* (Miller) K. Koch infrequent; AOPF

## BIGNONIACEAE

- Catalpa bignonioides* Walter infrequent; FF

## BORAGINACEAE

- Echium vulgare* L. infrequent; BCL  
*Myosotis laxa* Lehm. occasional; SEM  
*Myosotis scorpioides* L. infrequent; SEM

## BRASSICACEAE (CRUCIFERAE)

- Alliaria petiolata* (Bieb.) Cavara & Grande infrequent; FF  
*Arabis drummondii* A. Gray rare; BCL—North Post  
*Arabis glabra* (L.) Bernh. infrequent; BCL  
*Barbarea vulgaris* R. Br. occasional; SM  
*Berteroa incana* (L.) DC. rare; GM—Main Post  
*Brassica rapa* L. rare; BCL—North Post  
*Capsella bursa-pastoris* (L.) Medikus infrequent; BCL  
*Cardamine pensylvanica* Muhl. occasional; RMHS  
*Draba verna* L. rare; ML—Main Post  
*Erysimum cheiranthoides* L. rare; PPOF—North Post  
*Hesperis matronalis* L. rare; PPOF—North Post  
*Lepidium campestre* (L.) R. Br. occasional; SNSG  
*Lepidium densiflorum* Schrader infrequent; BCL  
*Lepidium virginicum* L. var. *virginicum* occasional; BCL  
*Raphanus raphanistrum* L. rare; PPOF—North Post  
*Rorippa palustris* (L.) Besser var. *hispida* (Desv.) Rydb. rare; SEM—Main Post  
*Rorippa palustris* (L.) Besser var. *palustris* infrequent; FF  
*Sisymbrium altissimum* L. rare; BCL—North Post  
*Thlaspi arvense* L. rare; BCL—Main Post

## CABOMBACEAE

- Brasenia schreberi* J. F. Gmelin infrequent; EP  
*Cabomba caroliniana* A. Gray infrequent; EP

## CAESALPINIACEAE

- Cassia hebecarpa* Fern. (*Senna hebecarpa* (Fern.) Irwin & Barneby) rare; BCL—Main Post  
*Chamaecrista fasciculata* (Michx.) Greene infrequent; SOF  
*Chamaecrista nictitans* (L.) Moench rare; ML—Main Post  
*Gleditsia triacanthos* L. rare; LD—Main Post

## CALLITRICHACEAE

- Callitriche heterophylla* Pursh infrequent; SEM  
*Callitriche stagnalis* Scop. infrequent; MCS

## CAMPANULACEAE

- Campanula aparinoides* Pursh infrequent; SEM  
*Lobelia cardinalis* L. var. *cardinalis* infrequent; RMHS  
*Lobelia inflata* L. occasional; SOF  
*Lobelia spicata* Lam. var. *spicata* infrequent; SNSG

## CANNABACEAE

- Humulus japonicus* Siebold & Zucc. rare; BCL—North Post

## CAPRIFOLIACEAE

- Diervilla lonicera* Miller occasional; BCL  
*Lonicera canadensis* Marshall infrequent; MF  
*Lonicera morrowii* A. Gray occasional; BCL  
*Lonicera sempervirens* L. var. *sempervirens* infrequent; SH  
*Lonicera tatarica* L. infrequent; BCL  
*Sambucus canadensis* L. var. *canadensis* occasional; SS  
*Viburnum acerifolium* L. occasional; SH  
*Viburnum alnifolium* Marshall rare; PNHF—Main Post  
*Viburnum dentatum* L. var. *lucidum* Aiton common; RMHS  
*Viburnum nudum* L. var. *cassinoides* (L.) T. & G. occasional; PNHF  
*Viburnum lentago* L. infrequent; SH  
*Viburnum opulus* L. var. *americanum* Aiton rare; RMHS—North Post

## CARYOPHYLLACEAE

- Arenaria lateriflora* L. occasional; SH  
*Cerastium semidecandrum* L. infrequent; BCL  
*Cerastium vulgatum* L. infrequent; BCL  
*Dianthus armeria* L. infrequent; SH  
*Gypsophila muralis* L. infrequent; SNSG  
*Saponaria officinalis* L. infrequent; SOF  
*Scleranthus annuus* L. infrequent; BCL  
*Silene antirrhina* L. infrequent; SNSG  
*Silene latifolia* Poiret infrequent; BCL  
*Silene vulgaris* (Moench) Garcke occasional; SNSG  
*Spergularia rubra* (L.) J. & C. Presl infrequent; BCL  
*Stellaria borealis* Bigelow rare; MF—South Post  
*Stellaria graminea* L. infrequent; BCL  
*Stellaria media* (L.) Villars rare; ML—North Post

## CELASTRACEAE

- Celastrus orbiculatus* Thunb. infrequent; SH  
*Euonymus alatus* (Thunb.) Siebold rare; BMMF—Main Post

## CERATOPHYLLACEAE

- Ceratophyllum demersum* L. infrequent; EP  
*Ceratophyllum echinatum* A. Gray infrequent; EP

## CHENOPODIACEAE

- Chenopodium album* L. infrequent; SNSG  
*Chenopodium pumilio* R. Br. rare; BCL—Main Post

## CISTACEAE

- Helianthemum bicknellii* Fern. infrequent; SNSG  
*Helianthemum canadense* (L.) Michx. occasional; PPOF  
*Lechea intermedia* Leggett occasional; AOPF  
*Lechea maritima* Leggett occasional; BCL  
*Lechea mucronata* Raf. infrequent; AOPF

## CLETHRACEAE

- Clethra alnifolia* L. occasional; SM

## CLUSIACEAE (GUTTIFERAE)

- Hypericum boreale* (Britton) E. Bickn. infrequent; SM  
*Hypericum canadense* L. occasional; INCLS  
*Hypericum ellipticum* Hook. rare; SM—South Post  
*Hypericum gentianoides* (L.) BSP. occasional; BCL  
*Hypericum majus* (A. Gray) Britton infrequent; SEM  
*Hypericum mutilum* L. infrequent; SM  
*Hypericum perforatum* L. occasional; BCL  
*Hypericum prolificum* L. rare; PNHF—South Post  
*Hypericum punctatum* Lam. infrequent; SH  
*Triadenum fraseri* (Spach) Gleason rare; SEM—South Post  
*Triadenum virginicum* (L.) Raf. occasional; SM

## CONVOLVULACEAE

- Calystegia sepium* (L.) R. Br. occasional; BCL

## CORNACEAE (includes NYSSACEAE)

- Cornus alternifolia* L.f. infrequent; PNHF  
*Cornus amomum* Miller var. *amomum* occasional; FF  
*Cornus canadensis* L. infrequent; RMHS  
*Cornus florida* L. occasional; AOPF  
*Cornus racemosa* Lam. common; BCL  
*Cornus rugosa* Lam. infrequent; BMMF  
*Nyssa sylvatica* Marshall var. *sylvatica* infrequent; AOPF

## CRASSULACEAE

- Sedum purpureum* (L.) J.A. Schultes rare; BCL—North Post

## CUCURBITACEAE

- Echinocystis lobata* (Michx.) T. & G. rare; FF—South Post

## CUSCUTACEAE

*Cuscuta gronovii* Willd. infrequent; BMMF

## DROSERACEAE

*Drosera intermedia* Hayne infrequent; DSB

*Drosera rotundifolia* L. rare; INCLS—South Post

## ELAEAGNACEAE

*Elaeagnus umbellata* Thunb. infrequent; SU.S

## ERICACEAE

*Andromeda glaucophylla* Link rare; DSB—South Post

*Arctostaphylos uva-ursi* (L.) Sprengel infrequent; PPOF

*Chamaedaphne calyculata* (L.) Moench occasional; DSB

*Epigaea repens* L. occasional; BCL

*Eubotrys racemosa* (L.) Nutt. infrequent; INCLS

*Gaultheria procumbens* L. common; AOPF

*Gaylussacia baccata* (Wangenh.) K. Koch common; DSB

*Gaylussacia frondosa* (L.) T. & G. occasional; AOPF

*Kalmia angustifolia* L. occasional; SEM

*Kalmia latifolia* L. occasional; AOPF

*Kalmia polifolia* Wangenh. rare; DSB—South Post

*Ledum groenlandicum* Oeder infrequent; BSTB

*Lyonia ligustrina* (L.) DC. infrequent; MF

*Rhododendron canadense* (L.) Torr. infrequent; BSTB

*Rhododendron prinophyllum* (Small) Millais rare; HNHF—Main Post

*Rhododendron viscosum* (L.) Torr. infrequent; HNHF

*Vaccinium angustifolium* Aiton abundant; PNHF

*Vaccinium corymbosum* L. common; INCLS

*Vaccinium macrocarpon* Aiton infrequent; INCLS

*Vaccinium oxycoccos* L. rare; DSB—South Post

*Vaccinium pallidum* Aiton common; COF

## EUPHORBIACEAE

*Acalypha gracilens* A. Gray var. *gracilens* rare; BCL—Main Post

*Acalypha rhomboidea* Raf. infrequent; BCL

*Euphorbia cyparissias* L. infrequent; SOF

*Euphorbia esula* L. rare; FF—North Post

*Euphorbia maculata* L. occasional; SU.S

*Euphorbia nutans* Lagasca rare; SU.S—Main Post

## FABACEAE

*Amphicarpaea bracteata* (L.) Fern. occasional; RMHS

*Apios americana* Medikus infrequent; BCL

*Baptisia tinctoria* (L.) R. Br. infrequent; SNSG

*Coronilla varia* L. rare; BCL—Main Post

- Desmodium canadense* (L.) DC. infrequent; BCL  
*Desmodium glutinosum* (Muhl.) A. Wood rare; BMMF—North Post  
*Desmodium marilandicum* (L.) DC. infrequent; AOPF  
*Desmodium nudiflorum* (L.) DC. rare; AOPF—Main Post  
*Desmodium rotundifolium* DC. rare; AOPF—Main Post  
*Lespedeza capitata* Michx. occasional; BCL  
*Lespedeza hirta* (L.) Hornem. subsp. *hirta* infrequent; AOPF  
*Lespedeza intermedia* (S. Wats.) Britton occasional; AOPF  
*Lespedeza virginica* (L.) Britton rare; AOPF—Main Post  
*Lotus corniculatus* L. infrequent; SOF  
*Lupinus perennis* L. infrequent; SNSG  
*Medicago lupulina* L. infrequent; BCL  
*Medicago sativa* L. infrequent; SOF  
*Melilotus alba* Medikus infrequent; BCL  
*Melilotus officinalis* (L.) Pallas. infrequent; BCL  
*Robinia hispida* L. rare; SOF—South Post  
*Robinia pseudoacacia* L. infrequent; SH  
*Trifolium arvense* L. occasional; BCL  
*Trifolium aureum* Pollich infrequent; BCL  
*Trifolium campestre* Schreber rare; BCL—Main Post  
*Trifolium dubium* Sibth. rare; BCL—Main Post  
*Trifolium hybridum* L. infrequent; BCL  
*Trifolium pratense* L. infrequent; BCL  
*Trifolium repens* L. infrequent; BCL  
*Vicia cracca* L. infrequent; BCL  
*Vicia tetrasperma* (L.) Moench rare; BCL—South Post  
*Wisteria sinensis* (Sims) Sweet rare; AOPF—Main Post

## FAGACEAE

- Castanea dentata* (Marshall) Borkh. infrequent; SU.S  
*Fagus grandifolia* Ehrh. occasional; BMMF  
*Quercus alba* L. common; SU.S  
*Quercus bicolor* Willd. occasional; SEM  
*Quercus coccinea* Muenchh. occasional; SU.S  
*Quercus ilicifolia* Wangenh. common; AOPF  
*Quercus prinoides* Willd. occasional; PPSOB  
*Quercus prinus* L. infrequent; COF  
*Quercus rubra* L. common; SU.S  
*Quercus velutina* Lam. abundant; AOPF

## FUMARIACEAE

- Corydalis sempervirens* (L.) Pers. rare; AOPF—Main Post

## GENTIANACEAE

- Bartonia virginica* (L.) BSP. rare; SEM—South Post  
*Gentiana clausa* Raf. infrequent; RMHS

## GERANIACEAE

- Erodium cicutarium* (L.) L'Her. rare; BCL—North Post  
*Geranium bicknellii* Britton infrequent; BCL  
*Geranium maculatum* L. occasional; SH

## GROSSULARIACEAE

- Ribes americanum* Miller rare; BMMF—Main Post  
*Ribes hirtellum* Michx. infrequent; RMHS  
*Ribes sativum* Syme rare; SH—Main Post

## HALORAGACEAE

- Myriophyllum heterophyllum* Michx. infrequent; EP  
*Myriophyllum humile* (Raf.) Morong rare; INCLS—South Post  
*Proserpinaca palustris* L. var. *crebra* Fern. & Griscom infrequent; INCLS

## HAMAMELIDACEAE

- Hamamelis virginiana* L. common; AOPF

## JUGLANDACEAE

- Carya cordiformis* (Wangenh.) K. Koch infrequent; BMMF  
*Carya glabra* (Miller) Sweet common; SU.S  
*Carya ovata* (Miller) K. Koch occasional; SH  
*Juglans cinerea* L. rare; BMMF—Main Post  
*Juglans nigra* L. rare; SH—Main Post

## LAMIACEAE (LABIATAE)

- Galeopsis tetrahit* L. var. *bifida* (Boenn.) Lej. & Courtois infrequent; FF  
*Glechoma hederacea* L. rare; SH—South Post  
*Hedeoma pulegioides* (L.) Pers. rare; BCL—Main Post  
*Leonurus cardiaca* L. rare; BCL—South Post  
*Lycopus americanus* Muhl. infrequent; SEM  
*Lycopus uniflorus* Michx. occasional; SEM  
*Lycopus virginicus* L. infrequent; INCLS  
*Mentha arvensis* L. var. *canadensis* (L.) Kuntze infrequent; MF  
*Nepeta cataria* L. rare; BCL  
*Physostegia virginiana* (L.) Benth. var. *virginiana* rare; BCL—South Post  
*Prunella vulgaris* L. var. *lanceolata* (Barton) Fern. occasional; BCL  
*Pycnanthemum tenuifolium* Schrader rare; SH—South Post  
*Scutellaria galericulata* L. infrequent; SM  
*Scutellaria lateriflora* L. rare; RMHS—South Post  
*Trichostema dichotomum* L. occasional; BCL

## LAURACEAE

- Lindera benzoin* (L.) Blume common; HHS  
*Sassafras albidum* (Nutt.) Nees occasional; AOPF

## LENTIBULARIACEAE

- Utricularia gibba* L. infrequent; SM  
*Utricularia minor* L. rare; OL—South Post  
*Utricularia purpurea* Walter infrequent; EP  
*Utricularia radiata* Small infrequent; EP  
*Utricularia vulgaris* L. infrequent; EP

## LYTHRACEAE

- Decodon verticillatus* (L.) Elliott infrequent; DSB  
*Lythrum salicaria* L. infrequent; FF

## MELASTOMATACEAE

- Rhexia virginica* L. infrequent; AOPF

## MOLLUGINACEAE

- Mollugo verticillata* L. infrequent; BCL

## MONOTROPACEAE

- Monotropa hypopithys* L. infrequent; AOPF  
*Monotropa uniflora* L. infrequent; AOPF

## MYRICACEAE

- Comptonia peregrina* (L.) J.M. Coulter occasional; BCL  
*Myrica gale* L. infrequent; SS  
*Myrica pensylvanica* Mirbel. rare; PNHF—Main Post

## NYCTAGINACEAE

- Mirabilis nyctaginea* (Michx.) MacMillan infrequent; BCL

## NYMPHAEACEAE

- Nuphar variegata* Durand infrequent; MCS  
*Nymphaea odorata* Aiton var. *odorata* occasional; MCS

## OLEACEAE

- Fraxinus americana* L. occasional; SH  
*Fraxinus nigra* Marshall infrequent; RMHS  
*Ligustrum vulgare* L. rare; SH—Main Post  
*Syringa vulgaris* L. rare; SH—South Post

## ONAGRACEAE

- Circaea alpina* L. var. *alpina* infrequent; RMHS  
*Circaea lutetiana* L. var. *canadensis* L. occasional; RMHS  
*Epilobium angustifolium* L. var. *angustifolium* infrequent; PPSOB  
*Epilobium glandulosum* Lehm. occasional; MF

*Epilobium leptophyllum* Raf. rare; SEM—Main Post  
*Epilobium palustre* L. rare; DSB—South Post  
*Ludwigia palustris* (L.) Elliott infrequent; MS  
*Oenothera biennis* L. occasional; BCL  
*Oenothera parviflora* L. rare; PPSOB—North Post  
*Oenothera perennis* L. occasional; BCL  
*Oenothera tetragona* Roth rare; BCL—Main Post

**OROBANCHACEAE**

*Orobanche uniflora* L. var. *uniflora* rare; BCL

**OXALIDACEAE**

*Oxalis stricta* L. infrequent; BCL

**PAPAVERACEAE**

*Chelidonium majus* L. infrequent; BCL  
*Sanguinaria canadensis* L. rare; BMMF—Main Post

**PHYTOLACCACEAE**

*Phytolacca americana* L. infrequent; PPSOB

**PLANTAGINACEAE**

*Plantago aristata* Michx. infrequent; SNSG  
*Plantago lanceolata* L. occasional; BCL  
*Plantago major* L. infrequent; BCL  
*Plantago rugelii* Decne. infrequent; SOF

**PLATANACEAE**

*Platanus occidentalis* L. infrequent; SH

**POLEMONIACEAE**

*Phlox paniculata* L. rare; SH—South Post

**POLYGALACEAE**

*Polygala paucifolia* Willd. infrequent; AOPF  
*Polygala polygama* Walter var. *obtusata* Chodat infrequent; SNSG  
*Polygala sanguinea* L. occasional; MF

**POLYGONACEAE**

*Polygonella articulata* (L.) Meissner occasional; BCL  
*Polygonum amphibium* L. var. *emersum* Michx. infrequent; FF  
*Polygonum arifolium* L. infrequent; RMHS  
*Polygonum aviculare* L. occasional; BCL  
*Polygonum careyi* Olney rare; INCLS—South Post

- Polygonum cilinode* Michx. infrequent; RMHS  
*Polygonum cuspidatum* Sieb. & Zucc. infrequent; SH  
*Polygonum hydropiper* L. infrequent; RMHS  
*Polygonum hydropiperoides* Michx. occasional; FF  
*Polygonum lapathifolium* L. infrequent; FF  
*Polygonum pensylvanicum* L. occasional; BCL  
*Polygonum persicaria* L. infrequent; FF  
*Polygonum punctatum* Elliott var. *confertiflorum* (Meissner) Fassett infrequent;  
 SEM  
*Polygonum sagittatum* L. occasional; SEM  
*Polygonum scandens* L. var. *scandens* occasional; BCL  
*Rumex acetosella* L. occasional; BCL  
*Rumex crispus* L. infrequent; BCL  
*Rumex obtusifolius* L. occasional; LD  
*Rumex orbiculatus* A. Gray rare; MF—South Post  
*Rumex salicifolius* J.A. Weinm. var. *triangulivalvis* (Danser) Hickman rare;  
 MS—Main Post

## PORTULACACEAE

- Portulaca oleracea* L. rare; BCL—South Post

## PRIMULACEAE

- Lysimachia ciliata* L. infrequent; BCL  
*Lysimachia quadrifolia* L. occasional; BCL  
*Lysimachia terrestris* (L.) BSP. common; INCLS  
*Trientalis borealis* Raf. common; RMHS

## PYROLACEAE

- Chimaphila maculata* (L.) Pursh var. *maculata* infrequent; AOPF  
*Chimaphila umbellata* (L.) Barton var. *cisatlantica* S. F. Blake infrequent; AOPF  
*Pyrola chlorantha* Swartz rare; AOPF—South Post  
*Pyrola elliptica* Nutt. infrequent; FF  
*Pyrola rotundifolia* L. var. *americana* (Sweet) Fern. infrequent; AOPF

## RANUNCULACEAE

- Actaea alba* (L.) Miller infrequent; HNHF  
*Actaea rubra* (Aiton) Willd. infrequent; BMMF  
*Anemone quinquefolia* L. occasional; RMHS  
*Anemonella thalictroides* (L.) Spach rare; BMMF—North Post  
*Aquilegia canadensis* L. infrequent; BCL  
*Caltha palustris* L. infrequent; RMHS  
*Clematis virginiana* L. occasional; SS  
*Coptis trifolia* (L.) Salisb. occasional; PNHF  
*Hepatica americana* (DC.) Ker Gawler rare; BMMF—North Post  
*Ranunculus abortivus* L. var. *abortivus* infrequent; FF  
*Ranunculus acris* L. infrequent; BCL  
*Ranunculus bulbosus* L. infrequent; BCL

*Ranunculus flabellaris* Raf. rare; SEM—Main Post  
*Ranunculus recurvatus* Poirét infrequent; SH  
*Ranunculus repens* L. infrequent; PNHF  
*Ranunculus sceleratus* L. var. *sceleratus* rare; EP—North Post  
*Thalictrum pubescens* Pursh occasional; SS

## RHAMNACEAE

*Ceanothus americanus* L. var. *americanus* infrequent; BCL  
*Rhamnus cathartica* L. infrequent; BCL  
*Rhamnus frangula* L. occasional; MF

## ROSACEAE

*Agrimonia gryposepala* Wallr. infrequent; BMMF  
*Amelanchier arborea* (Michx. f.) Fern. occasional; AOPF  
*Amelanchier canadensis* (L.) Medikus infrequent; SS  
*Amelanchier spicata* (Lam.) K. Koch rare; PPSOB—North Post  
*Aronia arbutifolia* (L.) Elliott infrequent; AOPF  
*Aronia melanocarpa* (Michx.) Elliott occasional; FF  
*Aronia prunifolia* (Marshall) Rehder infrequent; AOPF  
*Crataegus chrysocarpa* Ashe rare; PNHF—South Post  
*Crataegus coccinea* L. rare; PNHF—South Post  
*Crataegus flabellata* (Bosc) K. Koch infrequent; SH  
*Crataegus intricata* Lange infrequent; SH  
*Crataegus pruinosa* (Wendl.) K. Koch infrequent; PNHF  
*Crataegus succulenta* Schrader rare; PNHF—Main Post  
*Fragaria virginiana* Duchesne occasional; SH  
*Geum canadense* Jacq. rare; FF  
*Geum laciniatum* Murray infrequent; SH  
*Geum rivale* L. rare; MF—South Post  
*Malus baccata* (L.) Borkh. rare; SH—South Post  
*Malus floribunda* Siebold ex Van Houtte rare; PPSOB—North Post  
*Malus pumilla* Mill. infrequent; SU.S  
*Malus sieboldii* (Regel) Rehd. rare; BCL—North Post  
*Physocarpus opulifolius* (L.) Maxim. var. *opulifolius* rare; BMMF—Main Post  
*Potentilla argentea* L. infrequent; BCL  
*Potentilla canadensis* L. occasional; SU.S  
*Potentilla norvegica* L. occasional; BCL  
*Potentilla recta* L. infrequent; BCL  
*Potentilla simplex* Michx. common; BCL  
*Prunus americana* Marshall rare; PPSOB—Main Post  
*Prunus pensylvanica* L. f. occasional; SNSG  
*Prunus pumila* L. var. *cuneata* (Raf.) L.H. Bailey infrequent; SNSG  
*Prunus serotina* Ehrh. common; SNSG  
*Prunus virginiana* L. occasional; SOF  
*Rosa carolina* L. infrequent; PPSOB  
*Rosa multiflora* Thunb. infrequent; BCL  
*Rosa palustris* Marshall occasional; RMHS  
*Rosa virginiana* Miller infrequent; AOPF

- Rubus allegheniensis* T.C. Porter occasional; BCL  
*Rubus flagellaris* Willd. common; BCL  
*Rubus hispidus* L. occasional; PPSOB  
*Rubus idaeus* L. var. *strigosus* (Michx.) Maxim. occasional; RMHS  
*Rubus occidentalis* L. infrequent; BCL  
*Rubus pubescens* Raf. occasional; RMHS  
*Sorbus aucuparia* L. rare; RMHS—Main Post  
*Spiraea alba* Duroi var. *latifolia* (Aiton) Dippel common; AOPF  
*Spiraea nipponica* Maxim. rare; S.U.S  
*Spiraea tomentosa* L. var. *tomentosa* infrequent; SM

## RUBIACEAE

- Cephalanthus occidentalis* L. occasional; SS  
*Diodia teres* Walter infrequent; BCL  
*Galium aparine* L. infrequent; RMHS  
*Galium circaezans* Michx. var. *hypomalacum* Fern. infrequent; PNHF  
*Galium mollugo* L. rare; BCL—South Post  
*Galium obtusum* Bigelow var. *obtusum* rare; FF—North Post  
*Galium palustre* L. occasional; FF  
*Galium tinctorium* L. var. *tinctorium* infrequent; SEM  
*Galium trifidum* L. var. *trifidum* infrequent; SS  
*Galium triflorum* Michx. occasional; PNHF  
*Hedyotis caerulea* (L.) Hook. occasional; BCL  
*Mitchella repens* L. occasional; PNHF

## SALICACEAE

- Populus balsamifera* L. rare; LD—Main Post  
*Populus deltoides* Marshall var. *deltoides* infrequent; AOPF  
*Populus grandidentata* Michx. occasional; BCL  
*Populus nigra* L. rare; SH—Main Post  
*Populus tremuloides* Michx. occasional; SNSG  
*Populus xjackii* Sarg. infrequent; LD  
*Salix babylonica* L. rare; SS—South Post  
*Salix bebbiana* Sarg. occasional; BCL  
*Salix discolor* Muhl. rare; S.U.S—South Post  
*Salix eriocephala* Michx. infrequent; BCL  
*Salix humilis* Marshall infrequent; PPSOB  
*Salix nigra* Marshall occasional; SS  
*Salix petiolaris* J. E. Smith rare; BCL—North Post  
*Salix sericea* Marshall occasional; SM

## SANTALACEAE

- Comandra umbellata* (L.) Nutt. var. *umbellata* infrequent; AOPF

## SARRACENIACEAE

- Sarracenia purpurea* L. var. *purpurea* infrequent; DSB

## SAXIFRAGACEAE

- Chrysosplenium americanum* Schwein. occasional; RMHS  
*Penthorum sedoides* L. infrequent; SEM  
*Philadelphus coronarius* L. rare; SU.S—South Post  
*Saxifraga pensylvanica* L. infrequent; MF  
*Tiarella cordifolia* L. var. *cordifolia* infrequent; HHS

## SCROPHULARIACEAE

- Agalinis purpurea* (L.) Pennell var. *parviflora* (Benth.) B. Boivin occasional;  
BCL  
*Aureolaria pedicularia* (L.) Raf. var. *pedicularia* occasional; AOPF  
*Aureolaria virginica* (L.) Pennell rare; AOPF—Main Post  
*Chaenorrhinum minus* (L.) Lange rare; BCL—North Post  
*Chelone glabra* L. infrequent; MF  
*Gratiola aurea* Pursh infrequent; INCLS  
*Linaria canadensis* (L.) Dum.-Cours. infrequent; BCL  
*Linaria vulgaris* Miller infrequent; PPSOB  
*Lindernia dubia* (L.) Pennell var. *dubia* infrequent; FF  
*Melampyrum lineare* Desr. var. *americanum* (Michx.) Beauverd occasional;  
COF  
*Mimulus ringens* L. var. *ringens* infrequent; SM  
*Scrophularia lanceolata* Pursh rare; PPSOB—Main Post  
*Scrophularia marilandica* L. rare; SH—Main Post  
*Verbascum thapsus* L. infrequent; BCL  
*Veronica arvensis* L. rare; ML—North Post  
*Veronica chamaedrys* L. rare; SH—South Post  
*Veronica officinalis* L. rare; SOF—South Post  
*Veronica peregrina* L. var. *peregrina* infrequent; BCL  
*Veronica peregrina* L. var. *xalapensis* (HBK.) St. John & Warren rare; BCL—  
South Post  
*Veronica scutellata* L. infrequent; SEM  
*Veronica serpyllifolia* L. var. *serpyllifolia* infrequent; BCL

## SOLANACEAE

- Physalis heterophylla* Nees var. *ambigua* (A. Gray) Rydb. rare; SOF—North  
Post  
*Solanum carolinense* L. var. *carolinense* rare; BCL—South Post  
*Solanum dulcamara* L. infrequent; SEM  
*Solanum nigrum* L. var. *virginicum* L. infrequent; BCL

## TILIACEAE

- Tilia americana* L. infrequent; SH

## ULMACEAE

- Ulmus americana* L. occasional; SH  
*Ulmus parvifolia* Jacq. rare; SU.S—Main Post  
*Ulmus pumila* L. rare; SA.M—Main Post

## URTICACEAE

- Boehmeria cylindrica* (L.) Swartz occasional; SEM  
*Pilea pumila* (L.) A. Gray occasional; PNHF  
*Urtica dioica* L. var. *dioica* occasional; FF

## VERBENACEAE

- Verbena bracteata* Lagasca & Rodriguez infrequent; PPSOB  
*Verbena hastata* L. infrequent; RSGB  
*Verbena urticifolia* L. var. *urticifolia* rare; SH—South Post

## VIOLACEAE

- Viola conspersa* Reichenb. infrequent; BCL  
*Viola cucullata* Aiton occasional; RMHS  
*Viola lanceolata* L. var. *lanceolata* occasional; INCLS  
*Viola macloskeyi* F. Lloyd var. *pallens* (Banks) C. L. Hitchc. occasional; RMHS  
*Viola pedata* L. rare; PPOF—North Post  
*Viola sagittata* Aiton occasional; SNSG  
*Viola sororia* Willd. occasional; PNHF

## VITACEAE

- Parthenocissus quinquefolia* (L.) Planchon occasional; SH  
*Parthenocissus vitacea* (Knerr) A. Hitchc. common; SH  
*Vitis aestivalis* Michx. var. *argentifolia* (Munson) Fern. infrequent; SH  
*Vitis labrusca* L. occasional; PNHF  
*Vitis riparia* Michx. infrequent; SH

## LILIOPSIDA (Monocots)

## ACORACEAE

- Acorus calamus* L. infrequent; DEM

## AGAVACEAE

- Yucca filamentosa* L. rare; SH—South Post

## ALISMATACEAE

- Alisma triviale* Pursh infrequent; RMHS  
*Sagittaria engelmanniana* J. G. Smith infrequent; SEM  
*Sagittaria latifolia* Willd. var. *latifolia* infrequent; RMHS

## ARACEAE

- Arisaema triphyllum* (L.) Schott occasional; RMHS  
*Calla palustris* L. infrequent; RMHS  
*Peltandra virginica* (L.) Schott & Endl. infrequent; OL  
*Symplocarpus foetidus* (L.) Nutt. occasional; RMHS

## COMMELINACEAE

- Commelina communis* L. rare; SH—Main Post  
*Tradescantia ohiensis* Raf. rare; SOF—South Post  
*Tradescantia virginiana* L. rare; SOF—South Post

## CYPERACEAE

- Bulbostylis capillaris* (L.) C. B. Clarke occasional; BCL  
*Carex albicans* Willd. var. *emmonsii* (Dewey) Rettig infrequent; PPSOB  
*Carex albolutescens* Schwein. infrequent; AOPF  
*Carex argyrantha* Tuckerman infrequent; AOPF  
*Carex atlantica* L. Bailey var. *atlantica* occasional; DSB  
*Carex atlantica* L. Bailey var. *capillacea* (L. Bailey) Cronq. occasional; BSTB  
*Carex bebbii* (L.H. Bailey) Fern. infrequent; BCL  
*Carex blanda* Dewey infrequent; SH  
*Carex brevior* (Dewey) Mackenzie infrequent; SOF  
*Carex bromoides* Willd. infrequent; RMHS  
*Carex brunnescens* (Pers.) Poirét infrequent; MF  
*Carex bullata* Schk. occasional; SEM  
*Carex canescens* L. infrequent; SS  
*Carex cephalophora* Muhl. var. *cephalophora* rare; BMMF—Main Post  
*Carex cephalophora* Muhl. var. *mesochorea* (Mackenzie) Gleason rare; SNSG—  
 South Post  
*Carex comosa* F. Boott infrequent; SEM  
*Carex crinita* Lam. infrequent; SM  
*Carex debilis* Michx. var. *rudgei* L. Bailey occasional; BCL  
*Carex digitalis* Willd. infrequent; PNHF  
*Carex echinata* Murray var. *echinata* infrequent; SM  
*Carex foenea* Willd. rare; RMHS—South Post  
*Carex folliculata* L. occasional; RMHS  
*Carex gracillima* Schwein. infrequent; SH  
*Carex gynandra* Schwein. occasional; RMHS  
*Carex hystericina* Muhl. rare; SM—South Post  
*Carex intumescens* Rudge occasional; RMHS  
*Carex lacustris* Willd. occasional; BSTB  
*Carex laevivaginata* (Kük.) Mackenzie occasional; RMHS  
*Carex lasiocarpa* Ehrh. var. *americana* Fern. infrequent; SS  
*Carex laxiculmis* Schwein. rare; SH—South Post  
*Carex laxiflora* Lam. infrequent; AOPF  
*Carex leptalea* Wahlenb. rare; MF—South Post  
*Carex leptonervia* (Fern.) Fern. infrequent; PNHF  
*Carex lupulina* Muhl. infrequent; RMHS  
*Carex lurida* Wahlenb. occasional; SM  
*Carex muhlenbergii* Schk. var. *muhlenbergii* infrequent; AOPF  
*Carex normalis* Mackenzie infrequent; RMHS  
*Carex pensylvanica* Lam. abundant; AOPF  
*Carex prasina* Wahlenb. infrequent; RMHS  
*Carex projecta* Mackenzie infrequent; FF  
*Carex radiata* (Wahlenb.) Small occasional; SEM

- Carex rostrata* J. Stokes infrequent; SEM  
*Carex scabrata* Schwein. infrequent; BMMF  
*Carex scoparia* Schk. common; BCL  
*Carex stipata* Muhl. var. *stipata* infrequent; SEM  
*Carex stricta* Lam. occasional; SM  
*Carex swanii* (Fern.) Mackenzie common; BCL  
*Carex tenera* Dewey infrequent; PNHF  
*Carex tribuloides* Wahlenb. infrequent; FF  
*Carex trisperma* Dewey occasional; BSTB  
*Carex typhina* Michx. rare; PNHF—South Post  
*Carex umbellata* Schk. infrequent; PPSOB  
*Carex vesicaria* L. rare; FF—South Post  
*Carex vestita* Willd. occasional; SNSG  
*Carex vulpinoidea* Michx. infrequent; BCL  
*Cyperus bipartitus* Torr. infrequent; SEM  
*Cyperus dentatus* Torr. occasional; SU.S  
*Cyperus erythrorhizos* Muhl. infrequent; SM  
*Cyperus esculentus* L. infrequent; LD  
*Cyperus filiculmis* Vahl occasional; AOPF  
*Cyperus houghtonii* Torr. infrequent; SNSG  
*Cyperus strigosus* L. occasional; SM  
*Dulichium arundinaceum* (L.) Britton occasional; SM  
*Eleocharis acicularis* (L.) Roemer & Schultes infrequent; SM  
*Eleocharis obtusa* (Willd.) J.A. Schultes var. *ovata* (Roth) Drapalik & Mohlenbrock (*E. ovata* (Roth) Roemer & Schultes, in part) occasional; SM  
*Eleocharis ovata* (Roth) Roemer & Schultes, sensu stricto infrequent; SM  
*Eleocharis smallii* Britton rare; FF—South Post  
*Eleocharis tenuis* (Willd.) Schultes var. *borealis* (Svenson) Gleason infrequent; SM  
*Eriophorum virginicum* L. infrequent; SEM  
*Rhynchospora alba* (L.) Vahl infrequent; DSB  
*Rhynchospora capitellata* (Michx.) Vahl occasional; SEM  
*Scirpus cyperinus* (L.) Kunth occasional; SM  
*Scirpus expansus* Fern. infrequent; SEM  
*Scirpus georgianus* R. M. Harper infrequent; SH  
*Scirpus hattorianus* Makino infrequent; RMHS  
*Scirpus xpeckii* Britton rare; SH—Main Post  
*Scirpus validus* Vahl infrequent; DEM

#### ERIOCAULACEAE

- Eriocaulon aquaticum* (Hill) Druce infrequent; INCLS

#### HYDROCHARITACEAE

- Elodea canadensis* Michx. infrequent; SEM  
*Elodea nuttallii* (Planchon) St. John infrequent; MS

#### IRIDACEAE

- Iris pseudacorus* L. rare; SEM—South Post

- Iris versicolor* L. occasional; SM  
*Sisyrinchium angustifolium* Miller rare; BCL—Main Post  
*Sisyrinchium atlanticum* E. Bickn. infrequent; SU.S  
*Sisyrinchium montanum* Greene infrequent; SOF

## JUNCACEAE

- Juncus acuminatus* Michx. infrequent; SEM  
*Juncus bufonius* L. var. *bufonius* rare; BCL—Main Post  
*Juncus canadensis* J. Gay infrequent; SM  
*Juncus effusus* L. var. *solutus* Fern. & Weigand occasional; MF  
*Juncus greenii* Oakes & Tuckerman occasional; SNSG  
*Juncus marginatus* Rostk. infrequent; RMHS  
*Juncus pelocarpus* E. Meyer infrequent; INCLS  
*Juncus tenuis* Willd. var. *dichotomus* (Elliott) A. Wood infrequent; BCL  
*Juncus tenuis* Willd. var. *tenuis* occasional; AOPF  
*Luzula multiflora* (Retz.) Lej. occasional; BCL

## LEMNACEAE

- Lemna minor* L. infrequent; OL  
*Spirodela polyrhiza* (L.) Schleiden infrequent; MS  
*Wolffia brasiliensis* Weddell (*W. papulifera* C. Thompson) infrequent; OL  
*Wolffia columbiana* Karsten infrequent; EP

## LILIACEAE

- Allium canadense* L. var. *canadense* infrequent; BCL  
*Asparagus officinalis* L. rare; SOF—South Post  
*Clintonia borealis* (Aiton) Raf. occasional; MF  
*Convallaria majalis* L. rare; SH—South Post  
*Erythronium americanum* Ker Gawler rare; FF—South Post  
*Hemerocallis fulva* (L.) L. rare; SOF—South Post  
*Hemerocallis lilioasphodelus* L. rare; SU.S—South Post  
*Hypoxis hirsuta* (L.) Cov. rare; BCL—Main Post  
*Lilium canadense* L. infrequent; FF  
*Lilium philadelphicum* L. var. *philadelphicum* infrequent; SU.S  
*Maianthemum canadense* Desf. var. *canadense* abundant; SNSG  
*Medeola virginiana* L. occasional; PNHF  
*Polygonatum pubescens* (Willd.) Pursh infrequent; BMMF  
*Smilacina racemosa* (L.) Desf. occasional; AOPF  
*Smilacina stellata* (L.) Desf. var. *stellata* rare; FF—North Post  
*Smilacina trifolia* (L.) Desf. rare; BSTB—South Post  
*Trillium cernuum* L. infrequent; PNHF  
*Trillium undulatum* Willd. infrequent; BSTB  
*Uvularia perfoliata* L. rare; HNHF—Main Post  
*Uvularia sessilifolia* L. occasional; RMHS  
*Veratrum viride* Aiton infrequent; RMHS

## NAJADACEAE

- Najas flexilis* (Willd.) Rostkov & Schmidt infrequent; EP

## ORCHIDACEAE

- Cypripedium acaule* Aiton occasional; AOPF  
*Epipactis helleborine* (L.) Crantz rare; BMMF—Main Post  
*Goodyera pubescens* (Willd.) R. Br. infrequent; AOPF  
*Habenaria clavellata* (Michx.) Sprengel infrequent; HHS  
*Habenaria psycodes* (L.) Sprengel var. *grandiflora* (Bigelow) A. Gray infrequent; MF  
*Habenaria psycodes* (L.) Sprengel var. *psycodes* infrequent; RMHS  
*Spiranthes cernua* (L.) Rich infrequent; INCLS  
*Spiranthes lacera* (Raf.) Raf. var. *gracilis* (Bigelow) Luer rare; PPSOB—South Post

## POACEAE (GRAMINEAE)

- Agrostis capillaris* L. infrequent; AOPF  
*Agrostis hyemalis* (Walter) BSP. var. *hyemalis* infrequent; SA.M  
*Agrostis hyemalis* (Walter) BSP. var. *scabra* (Willd.) Blomq. occasional; INCLS  
*Agrostis perennans* (Walter) Tuckerman var. *perennans* abundant; AOPF  
*Agrostis stolonifera* L. var. *palustris* (Huds.) Farw. infrequent; FF  
*Alopecurus pratensis* L. rare; SOF—Main Post  
*Andropogon gerardii* Vitman infrequent; SOF  
*Andropogon virginicus* L. var. *virginicus* infrequent; INCLS  
*Anthoxanthum odoratum* L. occasional; BCL  
*Aristida dichotoma* Michx. occasional; SNSG  
*Aristida oligantha* Michx. infrequent; SU.S  
*Brachyeletrum erectum* (Schreber) P. Beauv. var. *glabratum* (Vasey) T. Koyama & Kawano occasional; PNHF  
*Bromus ciliatus* L. infrequent; BCL  
*Bromus inermis* Leysser infrequent; SOF  
*Bromus japonicus* Thunb. rare; SOF—South Post  
*Bromus tectorum* L. infrequent; SOF  
*Calamagrostis canadensis* (Michx.) P. Beauv. occasional; SEM  
*Calamagrostis cinnoides* (Muhl.) Barton infrequent; BCL  
*Cenchrus longispinus* (Hackel) Fern. infrequent; BCL  
*Cinna arundinacea* L. occasional; SH  
*Cinna latifolia* (Trevir.) Griseb. infrequent; RMHS  
*Dactylis glomerata* L. occasional; BCL  
*Danthonia compressa* Austin infrequent; BCL  
*Danthonia spicata* (L.) P. Beauv. occasional; SOF  
*Deschampsia flexuosa* (L.) Trin. occasional; AOPF  
*Digitaria ischaemum* (Schreber) Muhl. infrequent; MF  
*Digitaria sanguinalis* (L.) Scop. occasional; ML  
*Echinochloa muricata* (P. Beauv.) Fern. var. *muricata* occasional; FF  
*Elymus virginicus* L. infrequent; FF  
*Elytrigia repens* (L.) Nevski infrequent; BCL  
*Eragrostis capillaris* (L.) Nees rare; SU.S—Main Post  
*Eragrostis cilianensis* (All.) Janchen rare; BCL—South Post  
*Eragrostis minor* Host rare; ML—North Post  
*Eragrostis pectinacea* (Michx.) Nees occasional; ML  
*Eragrostis spectabilis* (Pursh) Steudel occasional; SNSG

- Festuca elatior* L. rare; BCL—North Post  
*Festuca filiformis* Pourret infrequent; BCL  
*Festuca ovina* L. occasional; BCL  
*Festuca rubra* L. occasional; BCL  
*Festuca subverticillata* (Pers.) E. Alexeev. infrequent; FF  
*Glyceria acutiflora* Torr. rare; INCLS—South Post  
*Glyceria borealis* (Nash) Batchelder rare; SS—Main Post  
*Glyceria canadensis* (Michx.) Trin. infrequent; MF  
*Glyceria grandis* S. Wats. infrequent; SS  
*Glyceria melicaria* (Michx.) C. E. Hubbard infrequent; RMHS  
*Glyceria striata* (Lam.) A. Hitchc. var. *striata* occasional; RMHS  
*Leersia oryzoides* (L.) Swartz infrequent; SM  
*Leersia virginica* Willd. occasional; RMHS  
*Leptoloma cognatum* (Schultes) Chase infrequent; BCL  
*Lolium perenne* L. var. *aristatum* Willd. infrequent; BCL  
*Lolium perenne* L. var. *perenne* infrequent; BCL  
*Muhlenbergia frondosa* (Poir.) Fern. infrequent; SH  
*Muhlenbergia glomerata* (Willd.) Trin. var. *glomerata* infrequent; SU.S  
*Muhlenbergia mexicana* (L.) Trin. infrequent; SH  
*Muhlenbergia uniflora* (Muhl.) Fern. infrequent; BCL  
*Oryzopsis asperifolia* Michx. infrequent; PNHF  
*Oryzopsis pungens* (Torr.) A. Hitchc. rare; HNHF—Main Post  
*Panicum boreale* Nash infrequent; AOPF  
*Panicum capillare* L. infrequent; ML  
*Panicum clandestinum* L. occasional; SNSG  
*Panicum columbianum* Scribn. occasional; BCL  
*Panicum depauperatum* Muhl. infrequent; PPSOB  
*Panicum dichotomiflorum* Michx. infrequent; SNSG  
*Panicum dichotomum* L. infrequent; AOPF  
*Panicum lanuginosum* Elliott var. *implicatum* (Scribn.) Fern. occasional; BCL  
*Panicum lanuginosum* Elliott var. *lindheimeri* (Nash) Fern. rare; COF—South Post  
*Panicum lanuginosum* Elliot var. *tennesseense* (Ashe) Gleason occasional; AOPF  
*Panicum linearifolium* Scribn. rare; BCL—Main Post  
*Panicum oligosanthos* Schultes occasional; SNGS  
*Panicum philadelphicum* Bernh. rare; SM—South Post  
*Panicum rigidulum* Nees infrequent; INCLS  
*Panicum virgatum* L. rare; RSGB—South Post  
*Paspalum setaceum* Michx. var. *muhlenbergii* (Nash) D. Banks infrequent; ML  
*Phalaris arundinacea* L. occasional; BCL  
*Phleum pratense* L. occasional; BCL  
*Phragmites australis* (Cav.) Trin. rare; PNHF—South Post  
*Poa alsodes* A. Gray infrequent; SH  
*Poa annua* L. infrequent; BCL  
*Poa compressa* L. occasional; BCL  
*Poa palustris* L. infrequent; FF  
*Poa pratensis* L. common; BCL  
*Puccinellia fernaldii* (A. Hitchc.) E. G. Voss rare; FF—South Post  
*Puccinellia pallida* (Torr.) R. T. Clausen infrequent; SS

- Schizachyrium scoparium* (Michx.) Nash var. *scoparium* abundant; AOPF  
*Secale cereale* L. rare; BCL—South Post  
*Setaria faberi* R. Herrm. rare; LD—Main Post  
*Setaria glauca* (L.) P. Beauv. infrequent; ML  
*Setaria viridis* (L.) P. Beauv. infrequent; ML  
*Sporobolus vaginiflorus* (Torr.) A. Wood infrequent; LD  
*Triticum aestivum* L. rare; BCL—Main Post

## PONTEDERIACEAE

- Pontederia cordata* L. occasional; DEM

## POTAMOGETONACEAE

- Potamogeton crispus* L. rare; MS—Main Post  
*Potamogeton diversifolius* Raf. infrequent; SEM  
*Potamogeton epihydrus* Raf. infrequent; SEM  
*Potamogeton gramineus* L. infrequent; EP  
*Potamogeton natans* L. infrequent; SEM  
*Potamogeton pusillus* L. rare; EP—Main Post  
*Potamogeton spirillus* Tuckerman infrequent; MS  
*Potamogeton zosteriformis* Fern. infrequent; OL

## SMILACACEAE

- Smilax herbacea* L. infrequent; FF  
*Smilax rotundifolia* L. infrequent; RMHS

## SPARGANIACEAE

- Sparganium americanum* Nutt. infrequent; DEM  
*Sparganium chlorocarpum* Rydb. infrequent; SEM  
*Sparganium eurycarpum* Engelm. infrequent; SM  
*Sparganium minimum* (Hartm.) Fr. rare; SEM—Main Post

## TYPHACEAE

- Typha latifolia* L. occasional; SEM



Hunt, D M et al. 1995. "The vascular plants of Fort Devens, Massachusetts." *Rhodora* 97, 208–244.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/102739>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/123318>

**Holding Institution**

Missouri Botanical Garden, Peter H. Raven Library

**Sponsored by**

Missouri Botanical Garden

**Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.