Vascular Flora of Worcester, Massachusetts

Robert I. Bertin

Special Publication of the New England Botanical Club
Availability of this Publication:

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Additions and Corrections:

Communications concerning mistakes in this flora or potential additions to the species list are welcome. Any substantive modifications will be posted under the author’s name on the Biology Department web page at the Holy Cross web site. The author can be contacted through the Biology Department or at rbertin@holycross.edu.

Cover Illustrations:

Pictured are three species portraying different aspects of the Worcester flora. *Acer platanoides*, or Norway maple, is a non-native species and the most commonly planted street tree in Worcester. It is prominent in many City woodlands, where it competes with native species. The grass *Elymus villosus* is a state threatened species. The Worcester record is the only known occurrence of the species in Worcester County. The orchid *Calopogon tuberosus*, a native bog species, is known in the City only from historical records. Figures reprinted from Holmgren et al. (1998) *Illustrated Companion to Gleason and Cronquist’s Manual*, with the kind permission of the New York Botanical Garden.
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Acknowledgments

I thank the many individuals who have assisted me in this work. David Boufford, C. Barre Hellquist, Thomas Philbrick, Tom Rawinski, Karen Searcy, Paul Somers and Lisa Standley helped with difficult identifications. Tom Rawinski generously shared his knowledge of the flora of central Massachusetts and contributed several species records. Les Mehrhoff of the University of Connecticut herbarium, Ray Angelo, Maureen Kerwin, Tim Whitfield and Emily Wood of the Harvard University Herbaria, Stan Herwitz of the Hadwen Herbarium at Clark University, Karen Searcy of the University of Massachusetts Herbarium, Aaron Ellison of Mount Holyoke College, and Anthony Kirchgessner of the New York Botanical Garden provided information on specimens or assistance in the use of their respective facilities. Edmund Schofield helped track down historical information. Arthur Allen, Jennifer Bravo, George Hoffmann and Karen Searcy kindly reviewed a draft of the manuscript. Anne Barry, Susan Hunt, Lorrie Parent, Ken Scott and Joel Villa assisted with computer software. Hugo Cárdenas kindly made available the GIS facilities of Worcester’s Office of Planning and Community Development where Erin Whitaker expertly drafted the two maps. Special thanks to the NEBC special publication committee, Karen Searcy, Paul Somers and Lisa Standley, for their advice and careful editing of the manuscript. Holy Cross College and the Marshall Fund supported various aspects of this work. Finally, numerous landowners permitted access to their properties in the City, without which this work would not have been possible.

Preface

The southern New England states, including Massachusetts, probably contain a greater density of practicing botanists than any other state or province in the Western Hemisphere. Despite this fact, the botanical landscape is poorly known. New native vascular plant species continue to be added to state totals. The work for this flora in one city uncovered over 80 plant species that had not previously been recorded anywhere in the county. No complete flora of Massachusetts has ever been published (though parts were treated by Ahmadjian 1979), and no generally accepted classification of plant communities of this state has yet been developed. Thus, we have much to learn about our green environment.

Floras for single towns or cities are uncommon. The only Massachusetts town floras from the past half century are Blake’s *The Flora of Stoughton, Massachusetts* (1964), Eaton’s *A Flora of Concord* (1974), and Sorrie and Dunwiddie’s *The Vascular and Non-Vascular Flora of Nantucket, Tuckernut, and Muskeget Islands* (1996). One might argue that the considerable effort required to produce a flora is of limited value when the geographic coverage is so restricted, and that one’s efforts are more profitably directed to a county, state, or region. Several regional floras cover the Worcester area, including Fernald (1950), Seymour (1972), Gleason and Cronquist (1991), Flora of North America Committee (1993-2000) and Magee and Ahles (1999). While floras at these larger scales are immensely valuable, they are necessarily limited in specificity. From a regional flora, for example, it can be difficult to determine the actual frequency with which a species occurs. By working at a more local level, it is possible to give much more detailed information on frequency, abundance, and distribution, and therefore on changes over time and the impact of human activities, as has been observed by Whitney (1994).
A floristic survey of an urban area is also somewhat unusual in that botanists tend to focus on more natural environments. A notable exception is the massive New York Metropolitan Flora project now underway under the auspices of the Brooklyn Botanic Garden. Such surveys of urban areas are helpful in allowing documentation of the loss of native species and the gain of non-native species. New exotic species often are first established in populated areas, and thus an urban flora may presage patterns that will eventually affect other areas.

Introduction

This publication provides a detailed picture of the diversity and abundance of vascular plants growing without cultivation in the City of Worcester, Massachusetts. I have attempted to provide a baseline to which future surveys of the plants of Worcester can be compared. Many scientists believe that we are entering a period of rapid human-induced climatic change and an era of species extinction similar in magnitude to the greatest episodes of extinction in the geological record (Wilson 1992). Without good baseline data, it will be difficult to determine with any precision how changes in land use or climate affect an area’s biota. A second purpose is to compare the current flora of the City with the existing information on the City’s flora in the past. Thirdly, I hope this work is a useful resource for the numerous academic institutions in the City, for land use planners and for amateur botanists.

Any flora of an area the size of Worcester is certainly incomplete because of the impracticality of finding every species. Furthermore, the flora will begin to go out of date even before it is published. It is my hope to keep track of additional finds for the City and to make them available to readers of this flora. I welcome reports of any species not included here, which can be sent to me at the Biology Department, Holy Cross College, Worcester, MA 01610 or by e-mail (rbertin@holycross.edu). I will maintain a list of changes and corrections under my name on the Holy Cross web page.

The Physical Setting

The City of Worcester (Fig. 1) lies in south-central Worcester County, Massachusetts, between latitudes 42º12’36” and 42º20’27” and between longitudes 71º43’55” and 71º53’4”. It covers 97.4 km² (37.6 mi²), equivalent to 9740 ha (24,100 acres). It is bounded to the east by the Town of Shrewsbury and on the other sides (proceeding clockwise) by the Towns of Grafton, Milbury, Auburn, Leicester, Paxton, Holden, and West Boylston.

The City of Worcester falls within the watersheds of two rivers. The vast majority of the City’s water flows south through the Blackstone River to Narragansett Bay. A small area at the northernmost tip of the City drains north to the Wachusett Reservoir and from there to the Nashua and Merrimack Rivers.
Figure 1. Map of Worcester, Massachusetts showing locations of the sampling sites and major roads.
Figure 2. Map of Worcester, Massachusetts showing topography (elevations in feet) and locations of streams, ponds and hills mentioned in the text.
Worcester lies along an indistinct escarpment that runs from Fitchburg south to Douglas. This escarpment separates the highlands of the western part of the county, lying at an elevation of roughly 300 m (1000 ft.), from the lower ground to the east at an elevation of about 100 m (300 ft.).

Running north and south through the eastern part of the city is a rocky ridge (Fig. 2). This ridge is interrupted at several points and is covered by a thin mantle of glacial debris, but shows its rocky core in outcrops and ledges on Millstone Hill, in the cut for the Boston and Maine Railroad near Mountain Street, and on Pakachoag Hill where Auburn abuts the City. The higher elevations along this ridge are mostly 200-230 m (650-750 ft.) above sea level. High ground is also present on the west side of the city, rising above 300 m (1000 ft.), and forming the eastern edge of the highlands to the west.

Between these two highlands is an area of lower but variable topography. Several smooth-sided, gradually sloped prominences are present, which are considered drumlins. This broad central valley lies roughly 60 m (200 ft.) below the eastern ridge and 150 m (500 ft.) below the western ridge. It contains variable depths of glacial deposits, and probably had its origins as a river valley in the preglacial landscape. It is divided into two primary drainages, flowing in a southerly direction to the Middle River (Fig. 2). The westernmost of these is occupied by Tatnuck Brook, draining lands in Holden and Paxton as well as Worcester. The other carries Mill Brook (now buried), which is fed by waters from Weasel Brook and Indian Lake (Perry 1898).

Geology

The bulk of the bedrock in the City consists of highly metamorphosed rocks of sedimentary or igneous origin. They include schist, granofels, quartzite, carbonaceous slate, and phyllite (Zen 1983). The sediments that composed most of the original sedimentary rocks were deposited roughly 460-400 million years ago, during the Silurian (perhaps even the Upper Ordovician) and the Lower Devonian. These rocks appear to have been part of a terrane, or land mass, distinct from North America, but plastered against it by crustal movements at least 400 million years ago (Raymo and Raymo 1989). This hybrid land mass was further crumpled some tens of millions of years later when what is now Europe collided with it, throwing up a huge mountain range and metamorphosing the rocks. Masses of molten material were injected into the overlying rocks during this time of intense crustal activity. During the Cretaceous Period (140-60 million years ago), these mountains were worn down, ultimately forming a relatively flat surface, termed a peneplain. A few areas poked above this peneplain, including Asnebumskit Hill in Paxton and Wachusett Mountain in Princeton and Westminster. The peneplain was tilted down towards the east and south. The remains of this peneplain are evident in the north-south bedrock ridges on either side of the City (Perry 1898). Renewed uplift in the past tens of millions of years caused further cutting by the streams, dissecting the peneplain to produce the current hills and valleys.

This erosion not only shaped Worcester’s topography, but also exposed the intrusive rocks that had been injected into the overlying rocks during the Devonian. In the eastern part of the City, in the area of Millstone Hill, erosion has exposed a plug of granite intruded during the Lower Devonian into rocks of Silurian age. The resistant nature of this rock undoubtedly has
contributed to the high ground at Millstone Hill. It was also the basis of a quarrying industry operated during the 1700s and 1800s, the excavations of which are visible in Green Hill Park. Another small area of granite surfaces at the Worcester airport and undoubtedly contributes to the high relief of that part of the City, which reaches an elevation of 322 m (1056 ft.). A small area of older granite is exposed in the eastern part of the City, south of Millstone Hill.

The only outcrops younger than Devonian age consist of metamorphosed sedimentary rock classified as carbonaceous slate. This formed during the Pennsylvanian Period, roughly 300 million years ago. These are the only rocks in the City from which identifiable fossils have been extracted (Grew et al. 1970), and an enclosed anthracite deposit was the site of a short-lived coal mine in the 1820s.

While bedrock reaches the surface at various locations, it is mostly buried by residues of the glaciers that occupied New England for much of the past three million years. Most of this residue is till, a jumble of mineral matter ranging in size from fine clays to boulders, that was dropped by the melting ice. The till layer is thinner on the ridges and thicker in the valleys. Numerous glacially shaped hills are present, including Newton Hill, Hancock Hill, and Indian Hill. Excavations into some of these drumlins show that they consist of compressed masses of glacial debris rather than bedrock and were apparently formed as glacial ice rode up and over mounds of unconsolidated material. On the east side of the City, at the north end of Lake Quinsigamond, is a small deposit of sand and gravel formed as a delta in a lake at the ice front. South of this along Lake Quinsigamond is a thin band of sand and gravel considered to be a kame terrace. Other patches of sand and gravel thought to represent terminal moraines can be found further south along Lake Quinsigamond and Flint Pond, north of Leesville Pond in the area occupied by Hope Cemetery, along the path of Beaver Brook (now buried), and east of Coes Reservoir. Other sands and gravels believed to have been deposited by glacial streams can be found along the path of Mill Brook and Weasel Brook (now partly buried) and in southernmost Worcester along and west of the Blackstone River (Alden 1924). A strip of land running north from Newton Square and including Peat Meadow, true to its name, is occupied by peat. Although not plotted by Alden in his 1924 publication, similar peaty deposits occur along portions of Broad Meadow Brook. It also appears likely that the north shores of Kettle Brook west of Stafford Street are occupied by sands and gravels originating as glacial outwash.

**Climate**

Central Massachusetts has a temperate continental climate, with warm but rarely hot summers, cold winters, and precipitation that is equitably distributed over the months of the year.

January is the coldest month, with a mean temperature of -5°C (24°F) and a mean daily minimum of -9°C (16°F). July is the warmest month, with a mean of 20°C (68°F) and a mean daily maximum of 25°C (78°F). Average annual precipitation is 119 cm (46. in.), and monthly means range from 8.2 cm (3.2 in.) in February to 11.4 cm (4.5 in.) in November. The average frost-free season is 173 days, reflecting an average last spring frost on April 27 and a first fall frost on October 17. The average yearly snowfall is 169 cm (66.4 in.; National Oceanographic and Atmospheric Administration 1997).
The Worcester climate is influenced by surrounding surface features, including the Atlantic Ocean to the east, Long Island Sound to the south, and the Berkshire Hills to the west. Storm tracks through the region are of several types. Some storms track northeast from Texas and Oklahoma, although most such storms pass up the St. Lawrence Valley and produce little precipitation in the Worcester area. Winter precipitation is derived in part from these easterly moving cyclonic storms and also from coastal storms (nor’easters) that develop off the Carolinas. These latter storms usually pass south and east of Worcester, bringing easterly and northeasterly winds accompanied by rain, snow, or fog. In contrast, summer precipitation derives mainly from showers and thundershowers associated with local updrafts of warm, humid air. Strong hurricanes are infrequent, but can have dramatic effects on forest communities, as in 1938.

Weather records for the City are taken at the Worcester airport which, at 300 m (986 ft.), is located at nearly the highest elevation in the City and 6 km (3.6 mi.) from the commercial center. Thus, the actual climate in the majority of the City differs somewhat from the above description: average temperatures are higher, snowfall is lower, and the frost free period is longer. These climatic differences are very evident during the spring, when flowering of plants in the western highlands may be delayed two weeks relative to that of plants of the same species nearer the City center.

Soils

Because bedrock is largely covered by glacial till and outwash deposits, these unconsolidated materials rather than the bedrock itself serve as the parent material from which the City’s mineral soils develop. In general, Worcester’s soils are acid and, compared to soils in regions of lower rainfall, low in levels of soluble nutrients.

The soil survey for Worcester (United States Department of Agriculture 1985) identifies four major soil units within the city limits. Hinckley-Merrimac-Windsor soils are deep sandy and gravelly soils that are well-drained both in the surface and subsurface layers. They are formed on glacial outwash and occur along the Blackstone River and along the northern and southern thirds of Lake Quinsigamond. Paxton-Woodbridge-Canton soils are deep, fairly well-drained loamy soils formed on till in upland regions, and often possessing a compacted layer of subsoil at a depth of about 70 cm (27 in.). They are found especially in the western half of the city and to a lesser extent along the eastern highlands. The remaining two units are Urban land-Hinckley and Paxton-Urban land. These are deep soils that are well-drained or droughty, the former formed on glacial outwash, the latter on till. They differ from the typical Hinckley and Paxton soils in that they have been highly modified by earth-moving and building activities. They occupy a broad north-south swath through the city, with additional arms extending east along Shrewsbury Street, and west along Chandler Street. Small areas along watercourses are occupied by the Limerick silt loam, which is poorly drained and is derived from alluvial deposits. Other wet areas, including land abutting Broad Meadow Brook, are occupied by Freetown muck, which forms in thick deposits of organic material (United States Department of Agriculture 1985).
The Human Impact

Humans have probably occupied Massachusetts since shortly after the retreat of the last glaciers approximately 14,000 years ago. Over the subsequent several thousand years, the dominant vegetation shifted from tundra to spruce forest to deciduous forest, with different tree species arriving in New England at different times.

Prior to the arrival of European colonists, the major disturbances to vegetation were natural events (including storms, fires, and pathogens) and some disturbances related to the activities of the native peoples. These latter factors included fire and limited clearing for agricultural purposes. Numerous early accounts suggest frequent spring and fall burning by Indians, especially in the drier areas dominated by oak and chestnut (Whitney 1994). In what is currently Worcester, the native peoples were members of the Nipmuck Tribe. The density was low, perhaps 2-4 people per km² (4-10/mi.²) if typical of inland eastern Massachusetts (Whitney 1994). Given Worcester’s area of 97.4 km² (37.6 mi.²), these densities translate to a total population of 150-376, a range similar to Farnsworth and O’Flynn’s (1934) estimate of about 300 in the presettlement era. It has also been recorded that in the 1670s, the Indian church of the Pakachoags, lying between Worcester and Auburn, numbered about 100 individuals (Anonymous 1879), although this certainly would not represent the entire native population of the City, as other villages were present on Wigwam Hill and in the Tatnuck Hills (west of today’s Mill Street). That these Indians had land under cultivation is reflected in a report that in the 1670s colonists found 100 bushels of gathered corn and more in the fields at Pakachoag (Anonymous 1879). The native population declined as a result of disease and hostilities in the late 1600s, and Nutt (1919) reports that by the end of King Philip’s War in 1676 the Indian population of Worcester had been nearly eliminated.

The vegetation that greeted the first European settlers was mostly forest, but open land was also present in some low-lying areas. Observers in 1668 report “a tract of very good chestnut land; a large quantity . . .” and 300 acres of meadow (Anonymous 1879). The first European colonists settled in the vicinity of present day Worcester in the 1670s, although a succession of hostilities with the local Indians delayed permanent settlement until 1713 (Nutt 1919).

The appearance of Europeans in the area started major conversion of forests to agricultural land. If Worcester was typical of other central Massachusetts towns, land clearing occurred slowly during the early 1700s and more rapidly from the late 1700s through the mid 1800s (O’Keefe and Foster 1998). The peak of clearing in Worcester was probably attained close to the time of peak deforestation in the state, around 1860 (O’Keefe and Foster 1998). In his Geology of Massachusetts, Hitchcock (1841) refers to “the high state of agriculture in every part of the valley” in Worcester, presumably referring to the north/south valley running from Weasel Brook and Mill Brook in the north to the Blackstone River in the south (Anonymous 1879).

Not all land was cleared for agriculture at this time. Agriculture would have been impractical on very steep and rocky ground and in the wettest areas. Some sense of this can be gained by examining an 1830 map of the City, which delineates forested areas. Approximately 22% of the City was forested at this time, especially in the southeast between Lake Quinsigamond and Pakachoag Hill, the area east of the city center stretching from what
is now Chandler Hill to Coal Mine Brook, areas west of Tatnuck Brook and around Salisbury
Street, and in the area north and east of Indian Lake (then called North Pond). Among the
forested areas are the slopes associated with Rattlesnake Hill (now God’s Acre), Winter Hill,
Millstone Hill, Tarrarat Hill (now Indian Hill), Pakachoag Hill, and others. The actual tops of
the hills were often cleared. Land along streams was undoubtedly altered by the construction
of mills. The first dam and mill were constructed in 1683 or 1684 along Mill Brook near
present-day Lincoln Square. A tannery was in operation in the early 1700s, a cotton mill in
1780, and a paper mill in 1794.

In the ensuing decades the amount of agricultural land in the City dwindled, reflecting two
factors. Massachusetts agriculture in general declined after the mid-1800s as good
transportation and the opening of fertile lands to the west permitted many agricultural
products to be imported from other parts of the country. This occurred in spite of some
increase in the acreage devoted to hay in and around the larger towns (Black and Westcott
1959). In addition, industrialization proceeded rapidly in the mid-1800s and early 1900s,
causing a conversion of agricultural land to residential, commercial, and industrial uses. This
development was reflected in the opening of the Blackstone Canal linking Providence to
Worcester in 1828 and the arrival of the first railroad seven years later (Anonymous 1879).
During the period between 1830 and 1870, Worcester’s population increased nearly ten-fold,
from 4172 to 41,105, compared to a mere doubling in the preceding 40 years (Nutt 1919).
Wood was not only the most important fuel, but also used for lumber, tanbark, charcoal, and
fencing, likely causing heavy harvesting of the remaining woodlots in the City. As has been
noted by O’Keefe and Foster (1998), many cities in Massachusetts exhausted their own
supplies of fuel and had to import it from nearby towns.

While farmland declined during the later 1800s and early 1900s, it did not disappear.
Census records from the early 1900s reveal the presence of farms and orchards (Black and
Westcott 1959), and a number of agricultural fields are evident around the City’s perimeter in
1938 aerial photographs. A 1951 survey showed 20% of City land still in some form of
agriculture, but this had dwindled to a mere 3% by 1971. By the 1990s, commercial farming
had effectively disappeared from the City. In rural Massachusetts towns, the waning of
agriculture was accompanied by a striking regrowth of forests and especially by an increase in
the acreage of white pine, which thrives in abandoned pastures. Some increase in forests is
evident in Worcester (Table 1). From a low of 18% in 1935 (perhaps lower in the late 1800s,
but I have found no records from this period), forested acreage increased to 28% in 1951.
This percentage held constant in 1971, but the percentage of this forest that was mature
increased from 32% to 79% over this 20-year period (MacConnell and Niedzwiedz 1974).
Although forest regrowth occurred in Worcester, it was less than in nearby rural communities.
Counteracting the trend to more forests from abandonment of farms was the elimination of
forests for residential and commercial purposes. Even though the population of Worcester
decreased during the mid-1900s (203,486 to 176,572 between 1950 and 1970), the amount of
land used for residential and commercial purposes increased over this same period (38% to
49%), and it undoubtedly has increased further in the subsequent decades. As a consequence,
the amount of forested land has decreased once more, from 28% in 1971 to 18% in 1982 and
likely to a smaller percentage today.
Bodies of water in the city have undergone extensive change in the past 200 years. There were apparently only three natural ponds in the city: Lake Quinsigamond, Indian Lake (formerly North Pond), and Bell Pond (formerly Bladder Pond). As noted above, dams for mills were constructed beginning in the 1680s, creating new ponds. Several were recorded on an 1830 map of the City: R. Newton’s Mill Pond just north of Newton Square, a small pond at the confluence of Tatnuck and Beaver Brooks, a second upstream on Tatnuck Brook from Mill Street at the location of Smith Pond, another on Kettle Brook at the location of the current Curtis Pond, and a fourth on Weasel Brook upstream from what is now Salisbury Pond. Indian Lake had also been raised by damming, increasing its area to 89 ha (220 acres) from its original 12-16 ha (30-40 acres).

Table 1. Percentage of Worcester occupied by forest, wetland and water at different times.

<table>
<thead>
<tr>
<th>Year</th>
<th>Forest</th>
<th>Wetland</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>1830</td>
<td>22</td>
<td>5.0</td>
<td>1.2</td>
</tr>
<tr>
<td>1935</td>
<td>18</td>
<td>1.0</td>
<td>3.2</td>
</tr>
<tr>
<td>1951</td>
<td>28</td>
<td>0.9</td>
<td>3.5</td>
</tr>
<tr>
<td>1971</td>
<td>28</td>
<td>0.4</td>
<td>2.8</td>
</tr>
<tr>
<td>1982</td>
<td>18</td>
<td>0.7</td>
<td>1.6</td>
</tr>
</tbody>
</table>

Data based on quantitative estimates from USGS Topographic Maps (1935-1982) and an 1830 hand-drawn City map.

The use of water power in the mid 1800s caused many more dams to be constructed, producing new ponds. By 1892, Cook Pond, Smith Pond, Patch Reservoir, Patch Pond, Williams Mill Pond, and Coes Reservoir had been created along Tatnuck Brook; Salisbury Pond and several smaller ponds upstream had been added along Weasel and Mill Brooks; Jamesville Pond, Leesville Pond, and Curtis Pond appeared on Kettle Brook, along with several ponds along the Blackstone River and Green Hill Pond. The creation of these ponds roughly trebled the percentage of the City occupied by bodies of water (Table 1). In the last several decades, the amount of open water in the City has declined as a result of draining, filling, and sedimentation. Gone are several of the ponds on Weasel Brook and Mill Brook, Smith Pond, and Williams Mill Pond along Tatnuck Brook, Newton’s Mill Pond on Beaver Brook, and Jamesville Pond on Kettle Brook.

While the extent of ponds in the city is clearly greater today than it was 150 years ago, the extent of free-flowing streams and vegetated wetlands has declined. To reduce flooding and allow more intensive development, parts of several streams have been run through underground conduits. These include Beaver Brook in the vicinity of Chandler and Pleasant Streets, and considerable parts of Mill Brook and Weasel Brook. An 1830 map reveals much larger areas of wetland along Beaver Brook, Mill Brook, Pine Meadow Brook, Broad Meadow Brook, and the Middle River than can be found today. These wetlands have been lost in several ways. Some were inundated following the construction of dams. Others were
reduced through stream channelization, as can be seen at Broad Meadow Brook and along the open portions of Beaver Brook. Filling of wetlands and trapping of streams in underground pipes have destroyed additional acres of wetland. Further alterations of wetlands occurred in the mid-1800s from the extraction of peat, both along Broad Meadow Brook and at Peat Meadow near the current Newton Square (Anonymous 1879).

Another important human influence has been the introduction of non-native species. In some cases these organisms are pests or pathogens that attack native species. Conspicuous examples include the gypsy moth and fungi causing chestnut blight, Dutch elm disease, and beech-bark disease. As a result, the American chestnut (Castanea dentata), once an important tree of drier forests in the City, was reduced to a minor subcanopy species. American elms (Ulmus americana) are still present in damp woodland, but large individuals are uncommon. American beech (Fagus grandiflora) has declined due to beech bark disease, spread by the European beech scale (Cryptococcus fagisuga). Recently, the hemlock wooly adelgid (Adelges tsugae) has killed hemlocks (Tsuga canadensis) at several locations in the City.

Non-native plants have been introduced in abundance. Many species were deliberately imported for human and animal food, turf grass, and medicinal and ornamental use. Others came as weeds in crop seeds, in fill or sod, or simply hitch-hiked on people, animals or vehicles. Fully one-third of the current Worcester flora consists of introduced species. Most of these are found only in altered habitats, such as lawns, fields, roadways, and railroad embankments. However, other species thrive in natural habitats and in doing so are likely to reduce populations of native species and alter the functioning of these ecosystems. Examples of such species include Eurasian water milfoil (Myriophyllum spicatum) and water chestnut (Trapa natans) in aquatic habitats; purple loosestrife (Lythrum salicaria) in marshes; and Norway maple (Acer platanoides), Asiatic bittersweet (Celastrus orbiculatus), Morrow’s honeysuckle (Lonicera morrowii), European buckthorn (Rhamnus frangula), and garlic mustard (Alliaria officinalis) in woodlands.

Human-initiated fires are fairly common in the City, although limited in extent. They have been observed in recent years at Perkins Farm, Broad Meadow Brook, Cascades Park, Quinsigamond State Park, Green Hill Park, west of Granite Street, and elsewhere. While such fires leave forest undergrowth in a temporarily charred and unappealing state, they pose little threat to most woodlands, and in fact are likely to benefit certain species that would otherwise be crowded out or shaded out by taller plants. Fires were probably more extensive in precolonial times, being regular events in some of the drier local plant communities (Whitney 1994).

Another human influence on natural communities is pollution, both of the water and of the air. The effects of such influences are difficult to judge. Salt contamination from winter road-salting has observable effects on various plant species, including sugar maples (Acer saccharum) and white pines (Pinus strobus). Human activities have dramatically increased the concentrations of ground-level ozone, a powerful oxidant known to have damaging effects on some plants at concentrations sometimes found in the City (unpublished data from Massachusetts Department of Environmental Protection; Bush 2000). Human activities have also increased the atmospheric content of carbon dioxide by more than 25%, increased the deposition of nitrogen and sulfur, and increased the acidity of rainfall at least 20-fold (Bush
Our understanding of the ecological effects of these changes is rudimentary, and it is not yet possible to determine their overall influences on particular species or natural communities.

Protecting land in public parks and private holdings has a long history in the City. The first purchased park land in Worcester (and indeed in the nation) was 11 ha (27 acres) of Elm Park, acquired by the City for $11,257 in 1854. This swampy land was converted to ponds and lawns beginning in 1876. Other parks established in the 1800s include Institute Park, Lake Park, Dodge Park, and Hadwen Park. The condition of the land varied, some being open fields or woods, and some more highly landscaped and with various ornamental plantings. Acquisition of lands by the City and by private organizations continues to the present. Notable recent events are the acquisition of 6 ha (15 acres) and the management of over 110 contiguous ha (272 acres) at Broad Meadow Brook by the Massachusetts Audubon Society starting in 1990, and the protection of parcels at Parson’s Cider Mill, Kettle Brook, Crow Hill, and near Cascades Park by the Greater Worcester Land Trust. Collectively these parcels contain a substantial proportion of the City’s plant diversity.

Vegetation

The vegetation of an area can be classified at several levels. At the broadest level, the dominant vegetation of Worcester is temperate deciduous forest, that is, forest in which trees are bare of leaves in the cold months (Walter 1985). New England vegetation has been further broken down into six major subdivisions, with Worcester lying near the southern border of the transition hardwoods-white pine-hemlock zone (Westveld et al. 1956). This zone occupies much of central Massachusetts, southern New Hampshire, and southeastern Maine. To the south is the central hardwoods-hemlock-white pine zone, which occupies much of southern and eastern Massachusetts as well as northern Connecticut and Rhode Island. To the north lies the northern hardwoods-hemlock-white pine zone.

Transition hardwoods forest is, as the name implies, transitional between forests of the two adjacent zones. The more southern of these is dominated by oaks (especially black, red, and white; *Quercus velutina*, *Q. rubra*, *Q. alba*), hickories (especially shagbark and bitternut; *Carya ovata*, *C. cordiformis*), and (formerly) American chestnut. In contrast, beech, yellow birch (*Betula alleghaniensis*), red maple (*Acer rubrum*) and sugar maple are the dominant deciduous species of the northern hardwoods. In both zones, white pine and hemlock are often common, the former especially in areas that have grown up from abandoned pastures. The transition hardwoods zone contains a mixture of species from the above two zones, with oaks and hickories of the south overlapping birches, maples, and beech of the north. Black birch (*Betula lenta*), red oak, and white ash (*Fraxinus americana*) tend to be more common in this zone than further north or south (Westveld et al. 1956).

Often the two groups of species are mixed within a particular forest, but some areas exhibit stands more characteristic of one type or the other. Northern hardwoods are most likely to appear on moist, north-facing slopes. Central hardwoods are better developed on hilltops, upper south-facing slopes, and on coarse-textured, well-drained soils.
While the above descriptions apply to forest types on well-drained sites, they are a substantial oversimplification of the range of vegetation types that occur even in such a limited area as Worcester. Topography, aspect (direction of exposure), moisture availability, elevation, soil fertility, and land use history all play a role in determining the type of vegetation present on a particular site. A readable nontechnical introduction to the major plant communities of the region is provided by Jorgensen (1978). A few examples will serve to illustrate the range of conditions.

Extensive areas in the city are occupied by acid oak woodland. Good examples of this type can be found on Millstone Hill in Green Hill Park, at Perkins Farm, and in the high ground along Granite Street in the vicinity of Holy Name High School. Oaks, including black, white, chestnut (Quercus prinus) and scarlet (Q. coccinea), are common, with smaller quantities of red maple, hickories, and chestnut sprouts. Pine ranges from common to virtually absent. Tannic acids from oak leaves and pine needles keep the soil pH low and tend to leach soil nutrients. The shrub layer is dominated by various ericaceous species, including the blueberries Vaccinium angustifolium and V. pallidum, the huckleberry Gaylussacia baccata, and sometimes sheep laurel (Kalmia angustifolia). The diversity of herbaceous plants and subshrubs is low, and these may include Pennsylvanian sedge (Carex pensylvanica), striped wintergreen (Chimaphila maculata), Canada mayflower (Maianthemum canadense), wintergreen (Gaultheria procumbens), starflower (Trientalis borealis), pink lady’s slipper (Cypripedium acaule), and a few others.

In contrast, on more fertile and less acidic sites, a much more diverse plant community can be found. The trees are generally taller and more closely spaced. Red oak may be prominent, but white ash and sugar maple are often common. Basswood (Tilia americana) is less common but is a good indicator of these more mesic sites. The shrub layer is usually taller but less well developed than on drier sites and often includes witch hazel (Hamamelis virginiana), maple-leafed viburnum (Viburnum acerifolium), spicebush (Lindera benzoin, especially on moister sites), and hornbeam (Carpinus caroliniana, also on moister sites). The herbaceous layer usually exhibits higher diversity than in the oak woods and contains less acid-tolerant species such as bloodroot (Sanguinaria canadensis), baneberries (Actaea spp.), Christmas fern (Polystichum acrostichoides), blue cohosh (Caulophyllum thalictroides), Solomon’s seal (Polygonatum pubescens), stemmed yellow violet (Viola pensylvanica), and less commonly maidenhair fern (Adiantum pedatum), bottlebrush grass (Elymus hystrix), wild licorice (Osmorhiza claytonii), mountain ricegrass (Oryzopsis racemosa), and wild leek (Allium tricoccum). These richer communities are much less extensive than the more acidic oak woodland, but good examples can be found at God’s Acre, Cascades Park, and Broad Meadow Brook.

A variety of wetland communities can be found in the City. Most common are red maple swamps. True to their name, these swamps have a tree layer dominated by red maple, with some American elm and yellow birch, and an occasional hemlock or black ash (Fraxinus nigra). The understory often contains such shrubs as winterberry holly (Ilex verticillata), spicebush, and arrowwood (Viburnum dentatum), and an herb layer of skunk cabbage (Symplocarpus foetidus), cinnamon fern (Osmunda cinnamomea), sensitive fern (Onoclea
sensibilis), and several wetland grasses and sedges. Good examples of red maple swamp can be seen at Broad Meadow Brook.

Marsh habitats are relatively uncommon in the City, perhaps because most of them have been channelized or filled. Some of the remaining examples are off Grafton Street east of Trahan Avenue and at Broad Meadow Brook below Dunkirk Avenue. Some of these marshes have been completely taken over by phragmites (Phragmites australis) and others, such as at the south end of Greenwood Street adjacent to the sewage treatment plant, have been overwhelmed by purple loosestrife. Cattails may also be dominant, both the common (Typha latifolia) and, less often, the narrow-leaved (T. angustifolia).

No true bogs are present within the city limits, though acidic wetlands with some bog characteristics can be found. A small seepage wetland at God’s Acre supports much sphagnum moss along with sundews (Drosera spp.) and the gentian Bartonia virginica. A wetland adjacent to the campus of Assumption College likewise supports considerable sphagnum along with bog goldenrod (Solidago uliginosa), wild calla (Calla palustris), and two sedges often found in bogs, Carex atlantica and C. leptalea. Similar areas west of Airport Drive near the Leicester town line support bog goldenrod, wild calla, and spring coralroot (Corallorrhiza trifida). Other characteristic bog species such as pitcher plant (Sarracenia purpurea) and grass pink (Calopogon tuberosus), have been collected in the City in this century, but are apparently no longer present.

In addition to the natural habitats of which the above are a scant sampling, Worcester supports many habitats altered by human activity. These support their own distinctive flora, and because these habitats are very different from most native habitats, it is not surprising that most plants in such areas are not native.

The following description applies to the communities of some of the most altered urban habitats, such as a vacant lot or the unkempt edge of a sidewalk or parking lot. Common trees include box elder (Acer negundo), Norway maple, and tree-of-heaven (Ailanthus altissima). Shrubs might include staghorn sumac (Rhus typhina) and honeysuckle (usually Lonicera morrowii). Typical herbaceous plants include several grasses (Digitaria ischaemum, D. sanguinalis, Setaria glauca, Bromus tectorum, Poa compressa, P. annua, Eragrostis pectinacea, Schizachyrium scoparium), wild peppergrass (Lepidium virginicum), plantains (Plantago major, P. rugelii), dandelion (Taraxacum officinale), fall dandelion (Leontodon autumnalis), chicory (Cichorium intybus), wormwood (Artemisia vulgaris), doorweed (Polygonum aviculare), and pineapple weed (Matricaria matricarioides).

One of the most distinctive urban habitats is the railroad bed. The coarse, well-drained substrates of these areas are unlike any local native habitat. The movement of trains also permits the introduction of seeds from distant locales. Dwarf snapdragon (Chaenorrhinum minus), four o’clock (Mirabilis nyctaginea), and Indian plantain (Plantago psyllium) are fairly common along railroad tracks in Worcester, but rare in other habitats. Two other species (beach bean, Strophostyles helvula, and sand dropseed, Sporobolus cryptandrus) seen along the tracks are primarily coastal, and their inland distribution may have been aided by trains.
Methodology

Field surveys began during 1994, continuing intensively through 1996, and less intensively through 2000. During this time I visited 77 locations within the city. Most of them were observed in several years and at different seasons. The locations of these sites are given in Appendix I. They included all major bodies of water, most city parks and conservation areas, many of the remaining large tracts of undeveloped land, cemeteries, railroad beds, college campuses, power lines rights of way, vegetated wetlands, vacant lots, roadsides, leaf-composting sites, an airport, a capped landfill, and a sewage treatment plant. During these visits I recorded all species observed, together with notes on abundance, habitat affiliation, and reproductive status. These observations, totaling over 10,500 records, were entered into a database and serve as the basis for this flora.

Historical records of the City flora were obtained from several sources. The major one was the collection in the Hadwen Herbarium at Clark University (CUW). These specimens were collected primarily between 1920 and 1955 by a group of botanists active in Worcester County. Records of other specimens were obtained from the herbaria at the University of Massachusetts at Amherst (MASS) and Harvard University in Cambridge (HUH). Additional references to plant records in the City came from Jackson’s (1909) A Catalogue of the Flowering Plants and Ferns of Worcester County, and an addendum published after Jackson’s death (Jackson 1927). Two other early published sources were Tucker’s (1894) Trees of Worcester and Stone’s (1899) Flora of Lake Quinsigamond. Somewhat more recent records were obtained from Potter and Woodward (1935) and Potter et al. (1940).

Explanation of the Species List

Included in the main list are all native species that have been recorded in the City and also introduced species that are currently extant, that were apparently established at one time, or whose status is uncertain. Introduced species represented only by historical records and which appear never to have been established are given in Appendix II.

To provide the most complete record possible, I have included in the species list not only species for which herbarium records have been seen, but also species which are recorded only in written records. While some of these undocumented species records may be in error, many of them are likely to have been correct, and since their number is not large, their exclusion does not alter the general patterns reported here. In all cases I designate the source of the historical records and thus the species can be discounted by readers if they so wish. I have excluded from the list a few species (Appendix III) that are undocumented by specimens and that appear to have been recorded erroneously based on their current range or subsequent corrections of earlier records.

An important historical record of aquatic plants in the City is Stone’s Flora of Lake Quinsigamond. This lake divides Worcester from Shrewsbury to the east, and part lies in each community. Unfortunately, Stone did not indicate in which of these communities each species occurred. I have chosen to include all these species in this flora. This decision reflects the fact that a substantial part of the shoreline lies in Worcester and that my cursory
examination of the Shrewsbury parts of the Lake has not turned up species beyond those found in Worcester.

**Scientific Name**  Gleason and Cronquist (1991) was used as the standard reference for scientific names, with a few corrections of spelling or authority from Kartesz (1994). Varieties are not recorded separately, but are treated in the comments, as are a few species lumped by Gleason and Cronquist but treated separately in other works. Denoted parenthetically after the scientific name are synonyms, emphasizing those used in standard works, such as *Gray’s Manual* (Fernald 1950) and the *Flora of North America* (Flora of North America Committee 1993-2000), as well as those used by Jackson (1909, 1927).

**Common Name**  Because no standardized common names exist for plants, I have employed names from several different sources, including Gleason and Cronquist (1991), *Newcomb’s Wildflower Guide* (Newcomb 1977), *A Field Guide to Trees and Shrubs* (Petrides 1972), and Sorrie and Somers (1999).

**Status**  Most plants are readily distinguished as either native or introduced, and are so designated in standard floras (Fernald 1950; Gleason and Cronquist 1991). A few species are less readily assigned, and are then referred to as “probably native” or “probably introduced.” I have generally followed Sorrie and Somers (1999) regarding the status of uncertain species. Species that are native to Massachusetts but not to the City are considered introduced. An example is the tulip poplar (*Liriodendron tulipifera*), native in southern Worcester County, but introduced and apparently spreading by seed in Elm Park. In those few cases where a species contains a native variety and an introduced variety, I have considered the species as belonging to the more common of these in the statistical summary. The designation “native and introduced” is used for those few species in which both native and introduced stocks are believed to be present.

I have tried to distinguish those introduced species that are established (as indicated by vegetative spread or reproduction from seed) from those that are merely persistent from plantings and those that are growing spontaneously but are not established. Such designations are, however, somewhat arbitrary as there exists a continuum between species that clearly are established and those that clearly are not. Introduced species from historical records for which no information on status is available are noted as having “status uncertain.” In the species totals I have treated these species as not established. Introduced species that are represented only by historical records and that appear never to have been established in the City are listed separately in Appendix II. Many of these arose from seeds in waste derived from imported wool which was formerly used to fertilize gardens. Presumably they were not persistent. Others were spontaneous at dumps or gardens but were apparently not persistent. For introduced species I report the region of origin, based on standard sources (Bailey and Bailey 1976; Fernald 1950; Gleason and Cronquist 1991).

For species not observed in the field during this study, I report the last known date (published record or herbarium specimen) for the species in the City. Where I simply report “no recent records” the historical source gives no specific date.
**Frequency**  The frequency of occurrence of a species is conveyed by the number of sites at which I found that species. Because my search of the city was not exhaustive, most or all species are likely to be present at additional locations. Because I stopped recording a species at additional sites once it had been recorded at 10 sites, the designation reflecting the greatest frequency is 10+ sites. The frequency is followed by abbreviations of several of the sites where the species occurs. I have emphasized sites where the species is most common, as well as parks and conservation areas, as these sites are likely to be most accessible to interested observers. Locations of state-listed species are not given for their protection.

**Abundance**  Species with similar frequencies may nevertheless differ substantially in abundance. I have tried to capture within-site abundance in a four-level classification. Common species are those that are certain to be seen in a casual visit to appropriate habitat at the sites listed. Fairly common species may be missed in casual observations but are likely to be found in any methodical survey. Uncommon species are those occurring at low frequencies in appropriate habitat, such that they may be missed except by a particularly careful survey. Rare species are represented by three or fewer individuals. Of course the abundance of a species may differ substantially among sites and among habitats. My designation attempts to reflect a typical, or median, abundance. For those species that are infrequent (three or fewer sites) but relatively abundant (common or fairly common) at these sites I have used the adjective “locally” to emphasize that these species are not widespread.

**Habitat**  This refers to the habitat types most likely to contain the species in the City.

**Flowering Time**  The dates given are the times during which sexually functional flowers were observed on at least 5% of the plants at a particular site. The 5% rule was used to capture the main time of flowering and to avoid the occasional minor extraseasonal flowering occurring in some plant species. Parenthetic dates before or after the main blooming period indicate dates on which at least one functional flower was observed in a population. Sexual functionality was determined by observing one or more of the following: pollen release, stigmas that were fresh and apparently receptive, or a combination of flower buds and spent flowers on a plant. The data on flowering times are much better for common species than rare species owing to the more numerous records of the former. Data for some species are likely to be biased, as for example in species that are easier to identify in fruit than in flower. In such species (including many sedges), flowering times were often recorded from the later part of the bloom period, when some developing fruits were present and the plants were more readily identified.

**Fruiting Time**  These dates represent the times during which mature fruits were present on plants. Maturity of fruit was sometimes recognized by changes in color or texture, or in the ease with which fruits were detached from the mother plant. In other cases it was based on observations of dispersal (especially in species with wind dispersal, ballistic dispersal, or dispersal by birds). Some dispersal dates extend into the winter or spring, reflecting the tendency of these species to hold their fruits for many months, though I did not attempt systematic observations during these seasons.

**Herbarium Specimens**  I collected specimens of over 700 species, and these will be deposited in the herbarium at the University of Massachusetts at Amherst (MASS). Such
specimens are designated herein with my initials and collection number. Other specimens are from the Hadwen Herbarium at Clark University (CUW), Harvard University Herbaria (HUH), the University of Massachusetts Herbarium and the herbarium of the New York Botanical Garden (NY). The bulk of the CUW specimens were collected between 1920 and 1950, and are uniquely numbered, and this number is given in the entries below. Active collectors included Mary Dodge, Burton Gates, W. H. Hodge, David Potter, George Pride, and Norman Woodward. The HUH specimens belong to both the Gray Herbarium (GH) and New England Botanical Club (NEBC) collections. They were from various collectors, especially Hattie Merrifield collecting in 1879-1880 and K. M. Wiegand, collecting in 1911. The collections of these two individuals are noted as HUH-M and HUH-W, respectively. Other HUH collections were from the late 1800s and early 1900s and are given with the collector’s last name and, where available, the collector’s number. The Ahles specimens, mostly at MASS, were collected in the 1970s.

**Comments** Here are miscellaneous notes of interest, including information on varieties. For those species recorded historically in the City, but not represented by herbarium specimens, I note the source of information on their former occurrence. The status of rare species is also given. The state recognizes three formal categories of rare species. In decreasing order of rarity these are “endangered,” “threatened,” and “special concern.” Species not formally listed but nevertheless monitored by the state are referred to as “watch list” species. Species in the first three categories receive protection under the Massachusetts Endangered Species Act, while watch list species lack formal protection.

**Species Summary**

While the details of any statistical summary of a flora are influenced by the taxonomic scheme one follows, such a summary can nevertheless provide a useful overview of the flora. Overall, 1407 vascular plant species have been identified from the City. Of these, 253 were never clearly established, leaving a total of 1154 species that are or were native to the city or that were introduced and became established at least for a time. A breakdown of species by major taxonomic groups is given in Table 2.

**Table 2. Taxonomic summary of the Worcester flora, based on all native species and those non-native species that are currently or were formerly established.**

<table>
<thead>
<tr>
<th>Taxonomic Group</th>
<th>Total Species</th>
<th>Native Species</th>
<th>Introduced Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ferns and Fern Allies</td>
<td>46</td>
<td>46</td>
<td>0</td>
</tr>
<tr>
<td>Gymnosperms</td>
<td>12</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Dicotyledons</td>
<td>771</td>
<td>474</td>
<td>297</td>
</tr>
<tr>
<td>Monocotyledons</td>
<td>325</td>
<td>255</td>
<td>70</td>
</tr>
<tr>
<td>Total</td>
<td>1154</td>
<td>781</td>
<td>373</td>
</tr>
</tbody>
</table>
Table 3. New Worcester County records.†

<table>
<thead>
<tr>
<th>Family</th>
<th>Species</th>
<th>Family</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taxaceae</td>
<td>Taxus cuspidata</td>
<td>Rosaceae</td>
<td>Chaenomeles speciosa</td>
</tr>
<tr>
<td>Aceraceae</td>
<td>Acer palmatum</td>
<td>Pyrus prunifolia</td>
<td></td>
</tr>
<tr>
<td>Amaranthaceae</td>
<td>Amaranthus caudatus</td>
<td>Pyrus sieboldii</td>
<td></td>
</tr>
<tr>
<td>Apiaceae</td>
<td>Anethum graveolens</td>
<td>Rubiaceae</td>
<td>Galium nigrum</td>
</tr>
<tr>
<td>Araliaceae</td>
<td>Acanthopanax sieboldianus</td>
<td>Scrophulariaceae</td>
<td>Digitalis purpurea</td>
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<tr>
<td>Asclepiadaceae</td>
<td>Vincetoxicum nigrum</td>
<td>Scrophularia nodosa</td>
<td></td>
</tr>
<tr>
<td>Asteraceae</td>
<td>Anthemis arvensis</td>
<td>Solanaceae</td>
<td>Datura wrightii</td>
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<td></td>
<td>Artemisia annua</td>
<td></td>
<td>Petunia x hybrida</td>
</tr>
<tr>
<td></td>
<td>Centaurea cyanus</td>
<td></td>
<td>Physalis ixocarpa</td>
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<tr>
<td></td>
<td>Centaurea jacea</td>
<td>Trapaeeae</td>
<td>Trapa natans</td>
</tr>
<tr>
<td></td>
<td>Coreopsis grandiflora</td>
<td>Cyperaceae</td>
<td>Carex complanata*</td>
</tr>
<tr>
<td></td>
<td>Cosmos bipinnatus</td>
<td>Liliaceae</td>
<td>Allium sativum</td>
</tr>
<tr>
<td></td>
<td>Crepis tectorum</td>
<td></td>
<td>Allium schoenoprasum</td>
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<tr>
<td></td>
<td>Dendranthema morifolium</td>
<td></td>
<td>Chionodoxa lucilae</td>
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<td>Gaillardia pulchella</td>
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<td>Galanthus nivalis</td>
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<td>Helianthus petiolaris</td>
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<td>Hosta lancifolia</td>
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<td>Hieracium pilosella</td>
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<td>Hosta ventricosa</td>
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<td>Hypochaeris radicata</td>
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<td>Musca botryoides</td>
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<tr>
<td></td>
<td>Leontodon taraxacoides</td>
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<td>Musca racemosum</td>
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<td></td>
<td>Tagetes erecta</td>
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<td>Polygonatum biflorum</td>
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<td></td>
<td>Zinnia elegans</td>
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<td>Scilla sibirica</td>
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<td>Boraginaceae</td>
<td>Myosotis arvensis</td>
<td>Poaceae</td>
<td>Agrostis canina</td>
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<td></td>
<td>Myosotis micrantha</td>
<td></td>
<td>Aira caryophyllea</td>
</tr>
<tr>
<td>Brassicaceae</td>
<td>Arabis laevigata*</td>
<td></td>
<td>Aristida basiramea</td>
</tr>
<tr>
<td></td>
<td>Lunaria annua</td>
<td></td>
<td>Elymus villosus*</td>
</tr>
<tr>
<td>Buxaceae</td>
<td>Pachysandra terminalis</td>
<td></td>
<td>Poa bulbosa</td>
</tr>
<tr>
<td>Caesalpiniaeae</td>
<td>Gymnocladus dioicus</td>
<td></td>
<td>Sporobolus cryptandrus</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Vulpia myuros</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Potamogetonaceae</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Potamogeton crispus</td>
</tr>
</tbody>
</table>

† some of these records have been included in Sorrie and Somers (1999)
* native species; all others are introduced
Not surprisingly for an area with such extensive human disturbance, the percentage of introduced species is high. Of the 1154 total native or established species, 32% were introduced, and this percentage is 39% among dicotyledons. If we consider just native and introduced species present today (988), 34% were introduced. While historical records exist for most of these introduced species, others have not previously been recorded in Worcester or even in Worcester County. New additions to the county flora are given in Table 3.

The addition of introduced species has been accompanied by a loss of native species. Of the 781 native species ever recorded in the City, 83% were encountered in this study, corresponding to a loss of 17% of the native flora. Dividing plants by their habitat affiliation, aquatic and bog species show the greatest loss of species. For aquatic species, this change probably reflects degradation of water quality accompanying urbanization and the loss of some aquatic habitats. For the bog species, the loss probably reflects elimination of a specialized habitat that was originally uncommon in the City. From a taxonomic perspective, several aquatic plant families are among those with the greatest species loss: Isoetaceae, Lentibulariaceae, Haloragaceae, and Potamogetonaceae (all over 40% loss). Other families with high species loss include the fern family Ophioglossaceae as well as the Caryophyllaceae, Orchidaceae, and Lamiaceae. A detailed analysis of these species losses will be reported in a separate publication.
Species List

Ferns and Fern Allies

Adiantaceae

*Adiantum pedatum* L.  
maidenhair fern
native; fairly common; mesic woods
*Frequency*: 6 sites - AHM BMB CSP GDA LOF TFL;  *Specimens*: CUW 31
*Comments*: Jackson (1909) lists this species as common; the limited occurrence of the species today may partly reflect the fact that it was "much-sought" in Jackson's time

Aspleniaceae

*Asplenium platyneuron* (L.)BSP.  
ebony spleenwort
native; rare; dry rocky wooded slope;  *Frequency*: 1 site - LOF;  *Specimens*: CUW 75

*Athyrium filix-femina* (L.)Roth  
lady fern
[A. angustum, A. f-f. var. angustum]
native; common; moist woods;  *Frequency*: 10+ sites - BIP BMB CSP GDA NWD PRF QSP
*Spores*: 7/26-10/4;  *Specimens*: HUH-M, RIB 764

*Athyrium thelypterioides* (Michx.)Desv.  
silvery spleenwort
[A. acrostichoides, Deparia acrostichoides]
native; fairly common; moist woods;  *Frequency*: 7 sites - AHM BMB CMB GDA KEB LMT PCM
*Spores*: 10/2;  *Specimens*: CUW 2023, RIB 250

*Cystopteris fragilis* (L.)Bernh.  
fragile fern
[C. tenuis]
native; uncommon; rock outcrops;  *Frequency*: 3 sites - CMB CSP TFL
*Spores*: 6/21-6/26;  *Specimens*: CUW 4437, RIB 548;  *Comments*: our plants are var. mackayi

*Dryopteris carthusiana* (Villars)H.P.Fuchs  
spinulose wood fern
[D. spinulosa]
native; fairly common; woods, usually moist
*Frequency*: 9 sites - BMB CMB LMT LOF NWD PCM PTM TFL WDR
*Spores*: 9/23;  *Specimens*: CUW 667, RIB 587

*Dryopteris cristata* (L.)A.Gray  
crested wood fern
native; fairly common; swamps;  *Frequency*: 8 sites - ASC BMB CSP LMT LOF WBS WDR
*Spores*: 7/18-9/6;  *Specimens*: CUW 26153, RIB1059

*Dryopteris intermedia* (Muhl.)A.Gray  
fancy fern
[D. spinulosa var. intermedia]
native; fairly common; woods, especially moist and rocky
*Frequency*: 10+ sites - BMB CMB HDP KEB LMT PCM TFL
*Spores*: 7/25-9/19;  *Specimens*: CUW 28222, RIB 734

*Dryopteris marginalis* (L.)A.Gray  
marginal wood fern
native; fairly common; rocky, mesic woods
*Frequency*: 10+ sites - AHM BMB CSP GDA GHP LMT TFL;  *Specimens*: CUW 19025

*Polystichum acrostichoides* (Michx.)Schott  
Christmas fern
native; fairly common; moist or mesic woods, said to prefer less acid soils
*Frequency*: 10+ sites - BMB CMB CSP LMT MIR NWD PCM
*Spores*: 7/5-12/6;  *Specimens*: CUW 1914
Thelypteris hexagonoptera (Michx.)Weatherby [Phegopteris h.] 
native; uncommon; mesic woods; Frequency: 5 sites - CSP GDA LOF PCM TFL 
Spores: 8/21-10/11; Specimens: CUW 724

Thelypteris noveboracensis (L.)Nieuwl. [Dryopteris n.]
New York fern
native; common; woods, often moist; Frequency: 10+ sites - BMB CSP ELP GDA HDP PCM PRF 
Spores: 9/15-9/16; Specimens: CUW 12354

Thelypteris palustris Schott [Dryopteris thelypteris] 
marsh fern
native; common; swamps, marshes and pond margins
Frequency: 9 sites - ASC BMB GDA GHP HDP INL PAR PCM 
Spores: 9/4-10/15; Specimens: CUW 1693, RIB 1347

Thelypteris phegopteris (L.)Slosson [Dryopteris p.]
long beech fern
native; uncommon; moist woods; Frequency: 3 sites - AHM PCM WBS; Specimens: CUW 2025, RIB 927

Thelypteris simulata (Davenp.)Nieuwl. [Dryopteris s.]
Massachusetts fern
native, no recent records; Comments: recorded by Jackson (1909)

Woodia obtusa (Sprengel)Torr.
blunt-lobed woodsia
native; rare; dry, rich woods; Frequency: 1 site - BMB; Specimens: CUW 21485, RIB 1735

Blechnaceae

Woodwardia virginica (L.)J.E.Smith
Virginia chain fern
native; uncommon; swampy woods; Frequency: 2 sites - BMB GDA; Specimens: RIB 1337
Comments: no fertile fronds observed

Dennstaedtiaceae

Dennstaedtia punctilobula (Michx.)T.Moore 
hay-scented fern
native; common; woods, especially thinned stands, clearings
Frequency: 10+ sites - BMB CSP CUP GDA HDP KEB PRF 
Spores: 9/15-10/4; Specimens: CUW 16300

Pteridium aquilinum (L.)Kuhn 
bracken
native; common; dry woods, disturbed ground
Frequency: 10+ sites - BMB CSP HDA HDP KEB PRF QSP; Specimens: CUW 16230
Comments: our plants are var. latiusculum

Equisetaceae

Equisetum arvense L.
common horsetail
native; common; wet ground, open or wooded, sometimes disturbed
Frequency: 7 sites - BMB CSP GHP HCC LJS LMT NWD 
Spores: 4/23-5/8; Specimens: CUW 68, RIB 3

Equisetum fluviatile L. [E. limosum] 
water horsetail
native; uncommon; ditches; Frequency: 2 sites - BMB PCM; Specimens: RIB 605
Comments: recorded by Stone (1899) from Lake Quinsigamond

Equisetum hyemale L.
scouring rush
native; uncommon; wet ground; Frequency: 2 sites - TFL WBS; Specimens: CUW 69, RIB 1063
Equisetum sylvaticum L.  
wood horsetail  
native; common; wet woods  
*Frequency:* 7 sites - ASC BMB CMB CSP GDA LDS NWD;  
*Specimens:* HUH-M, RIB 1509

Isoetaceae

Isoetes echinospora Durieu  
[I. muricata]  
spiny quillwort  
native, no records since 1890;  
*Comments:* recorded by Stone (1899) from Lake Quinsigamond

Isoetes lacustris L.  
[I. macrospora]  
lake quillwort  
native, no records since 1890  
*Comments:* recorded by Stone (1899) from Lake Quinsigamond; a state endangered species

Isoetes riparia Engel.  
[I. saccharata]  
riverbank quillwort  
native, no records since 1890;  
*Comments:* recorded by Stone (1899) from Lake Quinsigamond

Lycopodiaceae

Lycopodium annotinum L.  
bristly clubmoss  
native; rare; dry woods  
*Frequency:* 1 site - PCM;  
*Specimens:* CUW 3145

Lycopodium clavatum L.  
staghorn clubmoss  
native; uncommon; dry woods  
*Frequency:* 3 sites - AID KEB PCM;  
*Specimens:* CUW 3121  
*Comments:* the infrequent occurrence of this and several other Lycopodium spp. perhaps reflects past collecting for decorative greenery

Lycopodium digitatum Dill.  
[Diphasiastrum d., L. complanatum var. flabelliforme, L. flabelliforme]  
ground-cedar  
native; uncommon; dry woods  
*Frequency:* 6 sites - BAR CSP KEB LMT LOF PCM;  
*Specimens:* CUW 3143, RIB 1396

Lycopodium lucidulum Michx.  
[Huperzia l.]  
shining clubmoss  
native; uncommon; moist to mesic woods  
*Frequency:* 5 sites - BMB CMB LMT NWD PCM;  
*Specimens:* CUW 32806, RIB 1459

Lycopodium obscurum L.  
[L. dendroideum, L. hickeyi]  
ground-pine  
native; common; woods, more often dry than moist  
*Frequency:* 10+ sites - BMB CSP GDA KEB LOF NWD PCM  
*Spores:* 10/17-11/22;  
*Specimens:* CUW 3148

Lycopodium tristachyum Pursh  
[Diphasiastrum t.]  
slender ground-cedar  
native; uncommon; dry woods and clearings;  
*Frequency:* 2 sites - BMB KEB  
*Specimens:* CUW unnumbered, RIB 1441

Onocleaceae

Matteuccia struthiopteris (L.) Todaro  
[Pteretis pensylvanica]  
ostrich fern  
native; uncommon; wet woods  
*Frequency:* 3 sites - BMB KEB PFB;  
*Specimens:* CUW 21363

Onoclea sensibilis L.  
sensitive fern  
native; common; wet woods and swamps;  
*Frequency:* 10+ sites - BMB CSP GDA NWD PCM PRF  
*Spores:* 10/4-3/31;  
*Specimens:* CUW 32794
Ophioglossaceae

*Botrychium dissectum* Spreng.  
cutleaf grape fern
native; uncommon; moist woods;  
*Frequency*: 3 sites - BMB GDA LMT;  
*Specimens*: CUW 712, RIB 1458

*Botrychium lanceolatum* (S.G.Gmelin)Angstrom  
lanceleaf grape fern
native, no records since 1933;  
*Specimens*: CUW 5083

*Botrychium matricariaefolium* A. Braun  
matricary grape fern
native, no records since 1933;  
*Specimens*: CUW 5082;  
*Comments*: a state watch list species

*Botrychium virginianum* (L.)Swartz  
rattlesnake fern
native, no records since 1933;  
*Specimens*: CUW 3158

*Ophioglossum vulgatum* L.  
adder’s tongue
native, no records since 1933;  
*Specimens*: CUW 1945

*Comments*: our plants were var. *pseudopodum*; a state threatened species

Osmundaceae

*Osmunda cinnamomea* L.  
cinnamon fern
native; common; wet woods, swamps, shores;  
*Frequency*: 10+ sites - BMB CSP GHP HDP PCM PRF

*Spores*: 5/24-6/9;  
*Specimens*: CUW 741

*Osmunda claytoniana* L.  
interrupted fern
native; common; moist woods;  
*Frequency*: 10+ sites - BMB GHP LMT PCM PRF TFL

*Spores*: 5/13-6/2;  
*Specimens*: CUW 16283

*Osmunda regalis* L.  
royal fern
native; common; wet woods, swamps and shores

*Frequency*: 10+ sites - BMB CSP DOP HDP LMT LQU PCM WBS

*Spores*: 6/13-6/23;  
*Specimens*: CUW 197

Polypodiaceae

*Polypodium virginianum* L.  
[P. vulgare]  
common polypody
native; uncommon; on rock outcrops and boulders

*Frequency*: 8 sites - AHM BMB GDA KEB PCM UBW WIH

*Spores*: 9/3;  
*Specimens*: RIB 1126

Schizaeaceae

*Lygodium palmatum* (Bernh.)Swartz  
climbing fern
native, no records since 1879;  
*Specimens*: NY-Estabrooke;  
*Comments*: a species of state special concern

Selaginellaceae

*Selaginella apoda* (L.)Spring  
meadow spikemoss
native; uncommon; moist, gravelly open ground;  
*Frequency*: 1 site - TFL

*Specimens*: CUW 745, RIB 1778
Selaginella rupestris (L.) Spring
native, no recent records since 1958; Specimens: CUW 32678
Comments: CUW specimen from abandoned quarries in Green Hill Park; several searches in that locale have not revealed this state watch list species

Gymnosperms

Cupressaceae

Juniperus communis L.
native; fairly common; woods and fields
Frequency: 10+ sites - AHM BMB CSP LMT NWD PCM PRF TFL
Fruit: 10/8-4/12; Specimens: CUW 32743, RIB 414

Juniperus virginiana L.
native; uncommon; fields, thickets, disturbed ground
Frequency: 7 sites - AHP BIP BLR CRR LDF LEP UBW; Specimens: CUW 32865, RIB 415
Comments: our plants are var. depressa

Pinaceae

Abies balsamea (L.) Miller
introduced, spontaneous but not established; cooler parts of eastern North America; rare; woods
Frequency: 1 site - WBS; Specimens: RIB 1060

Larix decidua Miller
European larch
introduced from Europe, established by seed from planted trees; Europe
uncommon; woods and thickets near plantings
Frequency: 5 sites - BIP ELP HCC HOC PAR; Specimens: CUW 15959 appears to be this species

Picea abies (L.) Karst.
introduced from Europe and established by seed from plantings; Europe
uncommon; woods and thickets near plantings
Frequency: 10+ sites - BMB CMB CSP HCC LMT PCM PTM

Picea glauca (Moench) Voss
white spruce
introduced and apparently sparingly established; northern North America
uncommon; fields and disturbed woods; Frequency: 2 sites - BMB UBW

Pinus resinosa Aiton
red pine
probably not native to the City, established by seed from plantings; uncommon except in plantings; woods
Frequency: 9 sites - BMB CMB ELP GHP HDP HOC PCM
Specimens: CUW 10254 (possibly cultivated); a state watch list species where native

Pinus rigida Miller
pitch pine
native and introduced; uncommon; dry woods; Frequency: 5 sites - AID ELP HDP QSP UBW;
Specimens: CUW 3467; Comments: some individuals perhaps planted; I assume some native stock remains
**Pinus strobus** L.  
*white pine*
native; common; woods, moist to dry;  
*Frequency*: 10+ sites - BMB CMB CSP GDA GHP PCM PRF  
*Fruit*: 10/16;  
*Specimens*: CUW 15941

**Pinus sylvestris** L.  
*Scotch pine*
introduced and established by seed from plantings; Europe  
uncommon; woods, wood edge and disturbed ground, often dry  
*Frequency*: 10+ sites - AID DOP ELP GDA HDP LMT PRF;  
*Specimens*: RIB 1119  
*Comments*: a thriving stand occurs in open ledgy woodland between the former landfill and Greenwood St.

**Tsuga canadensis** (L.)Carriere  
*eastern hemlock*
native; common; woods, especially moist;  
*Frequency*: 10+ sites - BMB CKP CMB CSP GDA HDP PCM  
*Fruit*: 9/26-4/13;  
*Specimens*: CUW unnumbered  
*Comments*: damage by the hemlock wooly adelgid has been reported at several sites in the City

**Taxus canadensis** Marshall  
*American yew*
native; uncommon; swampy woods;  
*Frequency*: 1 site - ASC;  
*Comments*: reported by Jackson (1909)

**Taxus cuspidata** Sieb. & Zucc.  
*Japanese yew*
itroduced and established by seed from plantings; Asia; uncommon; woods  
*Frequency*: 10+ sites - BMB CKP CSP DOP PAR PCM PTM  
*Flowers*: 4/17;  
*Specimens*: RIB 1817  
*Comments*: most specimens are small and vegetative but presumably belong to this species

**Aceraceae**

**Acer ginnala** Maxim.  
*Amur maple*
introduced and established by seed from plantings; Asia; uncommon; fields and thickets  
*Frequency*: 4 sites - BMB BUP DOP HCC  
*Flowers*: 5/28-6/3;  
*Fruit*: 9/14-4/16;  
*Specimens*: RIB 777;  
*Comments*: some individuals are reproductive

**Acer negundo** L.  
*ash-leaved maple, box elder*
presumably native; common; disturbed woods, thickets and wood edges, floodplains, mostly in moist soil  
*Frequency*: 10+ sites - BLR BMB CSP HDP MIR PAR PRF  
*Flowers*: 4/10-4/25  
*Fruit*: 9/26-12/6;  
*Specimens*: CUW 6248, RIB 1488

**Acer palmatum** Thunb.  
*Japanese maple*
introduced and sparingly established; Asia; uncommon; woods and disturbed ground  
*Frequency*: 4 sites - ASC BAT HDA LMT;  
*Specimens*: RIB 571  
*Comments*: seedlings are evident near some planted trees, along with occasional larger, apparently spontaneous, individuals

**Acer pensylvanicum** L.  
*striped maple*
native; fairly common; moist to mesic woods  
*Frequency*: 10+ sites - BMB CKP CSP GDA GHP KEB NWD PCM  
*Flowers*: 5/15-5/23;  
*Specimens*: CUW 27619

**Dicotyledons**
**Acer platanoides L.**  
Norway maple  
introduced and established; Eurasia; common; thickets, wood edges and woods  
*Frequency:* 10+ sites - AHP BMB DOP HCC LOF NWD PTM SJC  
*Flowers:* 4/21-5/12  
*Fruit:* 9/11-11/15;  
*Specimens:* MASS-Ahles 81861  
*Comments:* recorded by Potter and Woodward (1935) from a "dried-up brook bed" and as "spontaneous about the city;” now the most commonly planted street tree and a threat to native woodlands

**Acer pseudoplatanus L.**  
sycamore maple  
introduced and established; Eurasia; uncommon; disturbed woods and thickets  
*Frequency:* 5 sites - CSP HOC NDC PTM SAP  
*Flowers:* 5/23;  
*Specimens:* CUW 32687  
*Comments:* recorded by Potter and Woodward (1935) as "occasionally spontaneous about the city;” var. *purpureum* was noted by Potter et al. (1940)

**Acer rubrum L.**  
red maple  
native; common; wet woods, thickets and swamps, and also drier ground  
*Frequency:* 10+ sites - BLR BMB COR CSP GDA GHP HDP QSP  
*Flowers:* 3/31-4/26  
*Fruit:* 5/28-6/13;  
*Specimens:* CUW 7206

**Acer saccharinum L.**  
silver maple  
native; common; floodplains and margins of ponds and streams  
*Frequency:* 10+ sites - BLR BMB BUP COR HDP INL MIR  
*Flowers:* 3/21-4/14  
*Fruit:* 5/31-6/16;  
*Specimens:* CUW 799

**Acer saccharum Marshall**  
sugar maple  
native; common; woods, especially mesic;  
*Frequency:* 10+ sites - BMB CMB CSP GDA KEB LMT PCM  
*Fruit:* 8/29;  
*Specimens:* CUW 430

**Amaranthaceae**

**Amaranthus albus L.**  
tumbleweed  
[int. *A. graecizans]*  
introduced and established; central North America  
fairly common; disturbed open ground, including waste places, fill, railroad rights of way  
*Frequency:* 5 sites - BLR BMB COR HDP GHP HUS UBW  
*Flowers:* 7/12-9/16  
*Fruit:* 7/21-11/5;  
*Specimens:* CUW 17087, RIB 738

**Amaranthus caudatus L.**  
love-lies-bleeding  
introduced, spontaneous but apparently not established; Tropics  
uncommon; waste ground at municipal leaf composting site  
*Frequency:* 1 site - HOC;  
*Specimens:* RIB 1466

**Amaranthus hybridus L.**  
green amaranth  
introduced and established; Tropics; common; waste places, especially on mounds of soil  
*Frequency:* 7 sites - BLR BMB GHP HCC HDP INL MIR  
*Flowers:* 7/3-10/31  
*Fruit:* 9/4-12/3;  
*Specimens:* CUW 12249, RIB 882

**Amaranthus retroflexus L.**  
redroot  
introduced and established; Neotropics; fairly common; waste places, especially old soil heaps  
*Frequency:* 4 sites - BMB GHP GNS NDC  
*Flowers:* 8/8-8/30  
*Fruit:* 8/24-9/18;  
*Specimens:* CUW 12250, RIB 1302  
*Comments:* much less common than *A. hybridus*

**Amaranthus tuberculatus (Moq.)Sauer**  
water hemp  
[int. *Acnida t.*]  
introduced, status uncertain, no records since 1917; east-central North America;  
*Specimens:* HUH-Woodward  
*Comments:* recorded by Jackson (1927) as "becoming frequent"
**Froelichia gracilis** (Hook.)Moq. slender cottonweed
introduced and established; central North America; locally fairly common; dry open ground
*Frequency: 1 site - GNS; Specimens: MASS-Ahles 82134, RIB 1296*

### Anacardiaceae

**Rhus aromatica** Aiton fragrant sumac
introduced but not established, possibly planted; east-central North America
uncommon; disturbed open ground; *Frequency: 1 site - BUP*

**Rhus copallinum** L. winged sumac
native; common; dry fields and thickets; *Frequency: 10+ sites - BMB CMB HCC KEB PCM PFB QSP*
*Flowers: 7/23-8/29 Fruit: 9/4-3/31; Specimens: CUW 12108*

**Rhus glabra** L. smooth sumac
native; common; thickets and disturbed ground, often dry
*Frequency: 10+ sites - BLR BMB CKF GHP HCC HOC LDS UBW*
*Flowers: 6/30-7/21 Fruit: 9/16-3/25; Specimens: CUW 3480*

**Rhus typhina** L. [R. hirta] staghorn sumac
native; common; fields, thickets, highway verges, waste places
*Frequency: 10+ sites - BMB CMB ELP LEP PCM PFB PRF*
*Flowers: 6/14-7/7 Fruit: 8/26-12/6*

**Toxicodendron radicans** (L.)Kuntze [Rhus r.] poison ivy
native; common; woods, wood edges, stonewalls, thickets
*Frequency: 10+ sites - BMB CKP CMB CSP GDA HGP PRF*
*Flowers: 6/5-7/26 Fruit: 10/10-12/2; Specimens: CUW 10993*

**Toxicodendron vernix** (L.)Kuntze [Rhus v.] poison sumac
native; uncommon; swamps; *Frequency: 6 sites - ASC BMB LDS PCM TFL WBS*
*Flowers: 6/17; Comments: recorded by Tucker (1894) from Worcester*

### Apiaceae

**Aegopodium podagraria** L. goutweed
introduced and established, vigorous vegetatively and producing seed; Eurasia
fairly common; wood edges, disturbed woods, roadsides, dumps
*Frequency: 10+ sites - AHP ASC CMB CSP HDA HDP KEB PTM*
*Flowers: 6/9-6/28 Fruit: 8/14; Specimens: CUW 32691, RIB 184*
*Comments: both green-leaved and variegated-leaved forms are present*

**Anethum graveolens** L. dill
introduced, reproductive but not obviously established; Asia
uncommon; waste ground at municipal leaf-composting site; *Frequency: 1 site - HOC*
*Flowers: 7/8; Specimens: RIB 1136*

**Angelica atropurpurea** L. purplestem angelica
native, no records since 1932; *Specimens: CUW 482*

**Carum carvi** L. caraway
introduced and established; Eurasia; uncommon; roadside; *Frequency: 1 site - DOP*
*Flowers: 8/3; Specimens: RIB 778; Comments: a pink form was recorded from Tatnuck by Jackson (1927)*
**Cicuta bulbifera** L.  
*bulbiferous water hemlock*  
native; fairly common; marshes and pond margins;  
*Frequency:* 6 sites - FLP HDP INL LJS PFB SAP  
*Flowers:* 8/11  
*Fruit:* 9/27;  
*Specimens:* HUH-M

**Cicuta maculata** L.  
*common water hemlock*  
native; fairly common; marshes and marshy margins of ponds and streams  
*Frequency:* 10+ sites - BMB CRH CSP DOP FGS GHP INL PCM  
*Flowers:* 6/22-8/6 (8/22)  
*Fruit:* 9/27-11/6;  
*Specimens:* CUW 27642

**Cryptotaenia canadensis** (L.)DC.  
*honewort*  
native; uncommon; rich alluvial soil of wooded floodplain;  
*Frequency:* 1 site - PAR;  
*Specimens:* RIB 1261  
*Comments:* recorded by Jackson (1909)

**Daucus carota** L.  
*wild carrot, Queen Anne’s lace*  
introduced and established; Eurasia; common; fields, wood edges, roadsides, waste places  
*Frequency:* 10+ sites - AHP BEP BMB FGS PAR PCM PRF  
*Flowers:* 6/28-10/27  
*Fruit:* 9/5-12/6;  
*Specimens:* CUW 488  
*Comments:* Potter et al. (1940) recorded forma roseus

**Eryngium amethystinum** L.  
*blue eryngo*  
introduced and apparently established, no records since 1931; Europe  
*Comments:* recorded by Potter and Woodward (1935) as "escaped in grassland"

**Hydrocotyle americana** L.  
*swamp pennywort*  
native; common; stream margins, wet woods and other moist places  
*Frequency:* 10+ sites - BMB CSP GDA KEB LMT NWD PCM QSP  
*Flowers:* 6/21-10/3  
*Fruit:* 10/3;  
*Specimens:* CUW 9296

**Osmorhiza claytonii** (Michx.)C.B.Clarke  
*sweet cicely*  
native; uncommon; rich mesic woods;  
*Frequency:* 3 sites - BMB GDA LOF  
*Flowers:* 5/24-6/9;  
*Specimens:* CUW 17318

**Osmorhiza longistylis** (Torr.)DC.  
*aniseroot*  
native; uncommon; mesic woods;  
*Frequency:* 1 site - BMB  
*Flowers:* 6/4  
*Fruit:* 8/17;  
*Specimens:* CUW 6624  
*Comments:* perhaps introduced at BMB, but treated here as native

**Pastinaca sativa** L.  
*wild parsnip*  
introduced and established; Eurasia; locally fairly common; woodland edge  
*Frequency:* 1 site - FGS  
*Flowers:* 7/11;  
*Specimens:* CUW 16664

**Sanicula marilandica** L.  
*black snakeroot*  
native; fairly common; moist to mesic woods;  
*Frequency:* 5 sites - AID CSP GDA PCM TFL  
*Flowers:* 5/29-7/12  
*Fruit:* 8/21-10/11;  
*Specimens:* CUW 403, RIB 483

**Sium suave** Walter  
*water parsnip*  
native; locally fairly common; swamps, marshes and water margins;  
*Frequency:* 2 sites - BMB PCM  
*Flowers:* 8/6-8/17  
*Fruit:* 9/27;  
*Specimens:* MASS-Stone  
*Comments:* recorded by Stone (1899) from Lake Quinsigamond

**Zizia aurea** (L.)Koch  
*golden alexanders*  
native; uncommon; open ground, often moist;  
*Frequency:* 4 sites - KEB LOF MIR PFB  
*Flowers:* 5/12-6/9;  
*Specimens:* CUW 481
Apocynaceae

**Amsonia tabernaemontana** Walter
introduced, status uncertain, no records since 1931; southeastern North America;  *Specimens*: CUW 32854

**Apocynum androsaemifolium** L.
native; common; fields and woodland edges;  *Frequency*: 10+ sites - BEP BMB BUP CRH DOP GHP
*Flowers*: 6/12-8/11  *Fruit*: 10/10;  *Specimens*: HUH-W 1062

**Apocynum cannabinum** L.
native; locally fairly common; fields and thickets, often dry;  *Frequency*: 2 sites - BMB DOP
*Flowers*: 7/6-8/3;  *Specimens*: CUW 18303

**Vinca minor** L.
introduced and established, presumably vegetatively; Europe
fairly common; roadsides, disturbed woods and woodland edges
*Frequency*: 10+ sites - BMB CSP GHP LMT LOF NWD WBS WRS
*Flowers*: 4/21-6/3;  *Specimens*: CUW 32852, RIB 1641
*Comments*: a form with maroon flowers was collected from TFL (RIB 1504)

Aquifoliaceae

**Ilex verticillata** (L.)A.Gray
native; common; wet thickets and woods, swamps
*Frequency*: 8 sites - BMB CSP GHP LMT NWD PAR PRF TFL
*Flowers*: 6/20-7/20  *Fruit*: 9/22-3/31;  *Specimens*: CUW 1004, RIB 1110

**Nemopanthus mucronatus** (L.)Loes.
native, no records since 1879;  *Specimens*: HUH-M

Araliaceae

**Acanthopanax sieboldianus** Makino
introduced and sparingly established by vegetative propagation; Asia; uncommon;  *Frequency*: 1 site - MOW
*Specimens*: RIB 1929

**Aralia hispida** Vent.
native; fairly common; dry fields, thickets and disturbed ground
*Frequency*: 10+ sites - AIR BMB ELP GHP GNS HDP HOC
*Flowers*: 6/15-7/17  *Fruit*: 7/24-9/20;  *Specimens*: CUW 16665

**Aralia nudicaulis** L.
native; common; woods, especially mesic
*Frequency*: 10+ sites - BMB CSP DOP GDA GHP HDP PAR PRF
*Flowers*: 5/12-6/3 (6/16)  *Fruit*: 7/3-7/24;  *Specimens*: CUW 16376

**Aralia racemosa** L.
native; uncommon; rich woods and thickets;  *Frequency*: 4 sites - BMB CMB GDA TFL
*Flowers*: 8/2  *Fruit*: 10/11-10/14;  *Specimens*: CUW 6489

**Aralia spinosa** L.
introduced, status uncertain, no recent records; southeastern North America
*Comments*: recorded by Jackson (1927) as a rare escape on waste land
Hedera helix L.  
English ivy
introduced and apparently established vegetatively; Eurasia; uncommon; disturbed woods and woodland edges
*Frequency:* 4 sites - HDA PAR WBS WSC;  *Specimens:* RIB 1818

Panax quinquefolius L.  
American ginseng
native, no recent records;  *Specimens:* CUW 6988;  *Comments:* a species of state special concern

Panax trifolius L.  
dwarf ginseng
native; common; moist woods;  *Frequency:* 10+ sites - BMB CSP GDA HDP LMT PCM PFB
*Flowers:* 4/28-5/22;  *Specimens:* CUW 480, RIB 1505

Aristolochiaceae

Asarum canadense L.  
wild ginger
native, no recent records;  *Comments:* recorded by Jackson (1909) from rich woods

Asclepiadaceae

Asclepias exaltata L.  
*Asclepias exaltata*  
poke milkweed
native; uncommon; woods and fields;  *Frequency:* 3 sites - BMB GDA LMT
*Flowers:* 6/30-7/3;  *Specimens:* CUW 32036

Asclepias incarnata L.  
swamp milkweed
native; common; pond margins, swamps and marshes
*Frequency:* 10+ sites - BMB CKP COR GHP INL PAR PCM
*Flowers:* 7/5-9/6  *Fruit:* 9/21-10/1;  *Specimens:* CUW 533

Asclepias purpurascens L.  
purple milkweed
native, no records since 1879;  *Specimens:* HUH-M;  *Comments:* a state threatened species

Asclepias quadrifolia Jacq.  
fourleaf milkweed
native, no records since 1933;  *Specimens:* CUW 907

Asclepias syriaca L.  
common milkweed
native; common; fields, open roadsides and disturbed open ground
*Frequency:* 10+ sites - BMB BUP FGS PAR PCM TFL
*Flowers:* 6/22-7/18 (7/30)  *Fruit:* 10/15-12/6;  *Specimens:* CUW 16446

Vincetoxicum nigrum (L.)Moench  
*Vincetoxicum nigrum*  
black swallowwort
introduced and established; Europe; common; fields, roadsides and other disturbed open ground
*Frequency:* 6 sites - ASC FGS INL PCM TFL WDR
*Flowers:* 6/3-9/4  *Fruit:* 10/25;  *Specimens:* CUW 26628, RIB 32
*Comments:* an aggressive alien, especially common in the vicinity of Salisbury St. and Assumption College

Asteraceae

Achillea millefolium L.  
yarrow
native; common; fields, woodland edges, roadsides and other disturbed open sites
*Frequency:* 10+ sites - BMB CSP HDP PAR PCM
*Flowers:* 6/2-9/1 (11/11)  *Fruit:* 10/31;  *Specimens:* CUW 16126
*Comments:* our plants are the mostly tetraploid subspecies *lanulosa*; Eurasian hexaploids have also been introduced to North America

Achillea ptarmica L.  
sneezeweed
introduced, status uncertain, no records since 1937; Eurasia;  *Specimens:* CUW 6211
**Ambrosia artemisiifolia** L.  
common ragweed  
native; common; roadsides, vacant lots and other disturbed open ground  
*Frequency:* 10+ sites - BMB CMB CRR GNS HCC PCM PRF  
*Flowers:* 8/8-9/21 (8/3-10/27)  
*Fruit:* 10/29-12/2;  
*Specimens:* CUW 23177, RIB 1717

**Ambrosia trifida** L.  
giant ragweed  
native; rare; disturbed ground;  
*Frequency:* 1 site - SAP  
*Fruit:* 10/26;  
*Specimens:* CUW 15178

**Anaphalis margaritacea** (L.)Benth. & Hook.  
perilly everlasting  
native; uncommon; dry fields, clearings and disturbed ground;  
*Frequency:* 4 sites - BMB GNS KEB QSP  
*Flowers:* 8/7-9/20  
*Fruit:* 9/20-10/2;  
*Specimens:* CUW 607, RIB 1290

**Antennaria neglecta** Greene  
field pussytoes  
native; fairly common; fields and roadsides, often dry;  
*Frequency:* 5 sites - AHM AHP BMB BUS CMB  
*Flowers:* 5/13-5/29  
*Fruit:* 6/22-6/23;  
*Specimens:* CUW 9213, RIB 933  
*Comments:* our most common variety is *neodioica*; var. *neglecta* is also present (CUW 4830, RIB 416 from AHP), and var. *canadensis* is represented by CUW 16552

**Antennaria plantaginifolia** (L.)Richardson  
plantain pussytoes  
native; fairly common; roadsides and open woods;  
*Frequency:* 9 sites - AHM CMB ELP GDA LMT LOF  
*Flowers:* 5/4-5/15  
*Fruit:* 6/12-6/27;  
*Specimens:* CUW 565, RIB 1021  
*Comments:* var. *plantaginifolia* is the most common variety, though var. *ambigens* (CUW 6214) and var. *parlinii* (CUW 904) have also been collected

**Anthemis arvensis** L.  
field chamomile  
introduced and established; Europe; common; disturbed open ground, especially fill and bulldozed ground  
*Frequency:* 5 sites - ASC MIR SCH TFL UBW  
*Flowers:* 5/29-7/18;  
*Specimens:* RIB 616

**Anthemis cotula** L.  
stinking chamomile  
introduced and established; Europe; locally fairly common; disturbed open ground  
*Frequency:* 2 sites - GHP PCM  
*Flowers:* 6/12-7/7;  
*Specimens:* CUW 6461, RIB 1023

**Anthemis tinctoria** L.  
yellow chamomile  
introduced, status uncertain, no records since 1911; Europe;  
*Specimens:* CUW 32697

**Arctium lappa** L.  
great burdock  
introduced and presumably established, no records since 1912; Eurasia;  
*Specimens:* CUW 32694

**Arctium minus** Bernh.  
common burdock  
introduced and established; Eurasia; common; roadsides, waste places, woodland edge  
*Frequency:* 10+ sites - BMB CSP GHP HCC PCM PTM  
*Flowers:* 7/20-9/15  
*Fruit:* 9/25-4/22;  
*Specimens:* CUW 32312

**Artemisia absinthium** L.  
absinthe  
introduced, status uncertain, no records since 1958; Europe;  
*Specimens:* CUW 32718

**Artemisia annua** L.  
annual wormwood  
introduced but apparently not established; Eurasia; rare; on fill for road construction project  
*Frequency:* 1 site - CMB  
*Flowers:* 9/23  
*Specimens:* RIB 1404;  
*Comments:* recorded by Jackson (1927) on wool waste at Mt. Ararat

**Artemisia biennis** Willd.  
biennial wormwood  
introduced, status uncertain, no records since 1946; western North America;  
*Specimens:* CUW 20939
**Artemisia vulgaris** L.  
*mugwort*
introduced and established; Eurasia; common; vacant lots, roadides, waste ground and dumps
*Frequency:* 10+ sites - BLM BMB GHP NDC PAR PRF
*Flowers:* 8/24-9/29  *Fruit:* 9/29-12/3  *Specimens:* CUW 34086

**Aster acuminatus** Michx.  
*whorled aster*
native; common; woods, moist to mesic;  
*Frequency:* 10+ sites - BMB CKP CSP GDA KEB LMT NWD
*Flowers:* 8/25-9/22 (8/24-9/30)  *Fruit:* 10/2-10/24  *Specimens:* CUW 12207

**Aster cordifolius** L.  
*heartleaf aster*
native; fairly common; clearings, woodland edges, roadsides
*Frequency:* 10+ sites - BMB CKP GDA HDP KEB PAR QSP
*Flowers:* 9/3-10/31  *Fruit:* 10/4-11/6  *Specimens:* HUH-M

**Aster divaricatus** (Nutt.)Torr. & A.Gray  
*white wood aster*
native; common; woods and woodland edges
*Frequency:* 10+ sites - BMB CSP GDA HCC NWD PAR PCM PRF
*Flowers:* 7/20-9/22 (10/15)  *Fruit:* 9/30-12/6  *Specimens:* CUW 9203

**Aster ericoides** L.  
*heath aster*  
*A. multiflorus*
native; common; fields and disturbed open ground, usually dry
*Frequency:* 10+ sites - AHP BMB CSP CUP HCC PAR QSP
*Flowers:* 9/6-10/13  *Fruit:* 11/4-11/11  *Specimens:* CUW 5216, RIB 1443
*Comments:* the purple-flowered hybrid with *A. novae-angliae* (*A. x amethystinus*) was collected at MIR (RIB 1447) and earlier (HUH-Bemis)

**Aster laevis** L.  
*smooth aster*
native; fairly common; dry fields, thickets and woodland edge
*Frequency:* 10+ sites - AHP ASC BLR CMB CSP HDP LOF PAR
*Flowers:* 9/4-10/15 (8/24-11/5)  *Fruit:* 11/18  *Specimens:* CUW 12213

**Aster lanceolatus** Willd.  
*tall white aster*  
*A. acutidens, A. paniculatus, A. simplex*
native; common; fields and thickets, especially moist areas
*Frequency:* 10+ sites - BMB COR GHP LEP MIR PAR UBW
*Flowers:* 8/29-11/11  *Fruit:* 10/31  *Specimens:* CUW 6301 RIB 1368
*Comments:* the most common variety is *simplex*, though var. *lanceolatus* was recorded at BAR, GHP and PCM (CUW 6614, RIB 340)

**Aster lateriflorus** (L.)Britton  
*calico aster*
native; common; moist woods and woodland edge
*Frequency:* 10+ sites - BMB HCC HDP LDS PAR QSP TFL
*Flowers:* 8/19-10/15 (11/6)  *Fruit:* 10/11-12/3  *Specimens:* CUW 12218, RIB 869

**Aster linarifolius** L.  
*Ionactis l.*  
*stiff aster*
native; common; dry fields and thickets;  
*Frequency:* 10+ sites - BMB ELP HCC HDP PCM QSP TFL
*Flowers:* 9/3-10/13 (7/25-11/6)  *Fruit:* 10/14-11/18;  *Specimens:* CUW 9124, RIB 1344

**Aster macrophyllus** L.  
*bigleaf aster*
native; fairly common; woods and woodland edge, often dry
*Frequency:* 10+ sites - BMB DOP GDA GHP INH LMT NWD QSP
*Flowers:* 7/22-9/13 (7/21)  *Specimens:* CUW 6626, RIB 1318
Aster novae-angliae L.  
New England aster  
native; common; fields, thickets and disturbed open ground, often moist  
Frequency: 10+ sites - AHP ASC BMB GHP HCC PAR PFB UBW  
Flowers: 9/4-10/23 (8/30-11/11)  
Fruit: 10/31-11/11;  Specimens: CUW 9996  
Comments: both the purple and pink-flowered forms are present, the former several times as common as the latter; see comments under A. ericoides

Aster novi-belgii  
New York aster  
[A. johannensis]  
native; common; moist thickets, swamps, pond margins  
Frequency: 10+ sites - BMB CKP CSP GHP LMT PAR TFL  
Flowers: 8/23-10/24  
Fruit: 9/25  
Specimens: CUW 11726, RIB 1387

Aster patens Aiton  
late purple aster  
native, no records since 1937;  Specimens: CUW 6297

Aster paternus Cronq.  
white-topped aster  
[Sericocarpus asteroides]  
native; fairly common; dry woods;  Frequency: 8 sites - BEH BMB GDA KEB PCM PRF QSP TFL  
Flowers: 7/6-7/26 (8/5);  Specimens: CUW 32964

Aster pilosus Willd.  
awl aster  
native; common; fields, roadsides, disturbed open ground  
Frequency: 10+ sites - BMB GHP HCC KEB MIR PAR TFL  
Flowers: 9/5-11/6 (8/30-11/8)  
Fruit: 10/31-12/2;  Specimens: CUW 6296, RIB 1442  
Comments: our plants vary in their degree of pubescence, which is the character used to separate var. pringlei and var. pilosus; the CUW specimen is designated as var. pringlei

Aster puniceus L.  
swamp aster  
native; common; wet fields and thickets, marshy pond margins  
Frequency: 10+ sites - BMB GHP HCC LMT PAR PCM TFL  
Flowers: 8/26-10/13 (8/22-10/24)  
Fruit: 10/11-12/6;  Specimens: CUW 5218

Aster racemosus Elliott  
small white aster  
[A. fragilis, A. vimineus]  
native; common; fields, roadsides, disturbed open ground  
Frequency: 10+ sites - BMB ELP GHP LIS LMT PAR  
Flowers: 8/26-10/17 (8/22)  
Fruit: 10/11-10/24;  Specimens: CUW 12232, RIB 387

Aster umbellatus Miller  
flattop aster  
native; fairly common; fields, thickets and woodland edge, often moist  
Frequency: 10+ sites - AHP BMB CMB ELP LDS NWD PFB  
Flowers: 8/9-9/29 (8/6-10/14)  
Fruit: 9/19-12/3;  Specimens: CUW 12233

Aster undulatus L.  
wavyleaf aster  
native; fairly common; dry fields and woodland edge, open woods  
Frequency: 8 sites - BIP BMB CMB GDA KEB LDS PCM TFL  
Flowers: 9/22-10/4 (10/25);  Specimens: CUW 11728

Bellis perennis L.  
English daisy  
introduced, status uncertain, no records since 1933; Eurasia  
Comments: recorded by Potter and Woodward (1935) as "spontaneous in lawns, 4 records"

Bidens beckii Torr.  
water-marigold  
native, no records since 1890;  Specimens: HUH-Stone  
Comments: reported by Jackson (1909) from Lake Quinsigamond; the Stone specimen is from the same lake, though the town was not recorded; a state watch list species
**Bidens cernua L.**
nodding bur-marigold
native; fairly common; pond margins, marshes, floodplains
*Frequency:* 10+ sites - CKP COR CUP FLP MIR PAR
*Flowers:* 9/5-10/1  *Fruit:* 10/9-10/31  *Specimens:* HUH-M, RIB 887

**Bidens connata Muhl.**
swamp beggar ticks
native; common; water margins, swamps and marshes
*Frequency:* 10+ sites - BMB COR FLP GDA GHP MIR PAR
*Flowers:* 9/3-10/10  *Fruit:* 10/4-10/15;  *Specimens:* CUW 6298, RIB 1338

**Bidens discoidea (T. & G.)Britton**
small beggar ticks
native; uncommon; pond margin;  *Frequency:* 1 site - CKP
*Flowers:* 9/21  *Specimens:* RIB 1797;  *Comments:* a state watch list species

**Bidens frondosa L.**
beggar ticks
native; common; moist open ground and woodland edge, water margins
*Frequency:* 10+ sites - BMB CSP GHP HCC MIR PAR PCM
*Flowers:* 8/30-10/10 (8/25-10/31)  *Fruit:* 9/29-12/3  *Specimens:* CUW 608

**Bidens vulgata Greene**
tall beggar ticks
native; uncommon; fields, floodplains, waste places, usually moist;  *Frequency:* 3 sites - GHP HOC MIR
*Flowers:* 8/30-9/7  *Specimens:* CUW 5190, RIB 1328

**Boltonia asteroides (L.)L’Hér.**  *B. latisquama*
false aster
introduced, status uncertain, no records since 1925; central North America;  *Specimens:* HUH-Bemis

**Carduus crispus L.**
welted thistle
introduced, status uncertain, no recent records; Eurasia;  *Comments:* recorded by Jackson (1909)

**Centaurea cyanus L.**
bachelor's button
introduced, spontaneous but not established; Mediterranean; rare; municipal leaf-composting site
*Frequency:* 1 site - HOC
*Flowers:* 8/5;  *Specimens:* RIB 1723

**Centaurea jacea L.**
brown knapweed
introduced and established; Europe; locally fairly common; open ground
*Frequency:* 3 sites - BAR GHP KEB
*Flowers:* 7/12-7/25  *Specimens:* RIB 1164

**Centaurea maculosa Lam.**  *[C. biebersteinii]*
spotted knapweed
introduced and established; Europe; common; vacant lots, waste places, roadsides and fields
*Frequency:* 10+ sites - BLR BMB HCC KEB MIR PTM TFL
*Flowers:* 7/9-10/27 (6/14-11/5)  *Fruit:* 9/26-11/5;  *Specimens:* CUW 26653

**Centaurea nigra L.**
black knapweed
introduced and formerly established, no records since 1937; Europe;  *Specimens:* CUW 6631
*Comments:* Jackson (1927) recorded this "pernicious weed" at Hadwen Park and Green Hill

**Chrysanthemum leucanthemum L.**  *[Leucanthemum vulgare]*
ox-eye daisy
introduced and established; Eurasia; common; road sides, fields and waste places
*Frequency:* 10+ sites - BEP BMB CSP HCC KEB PCM PTM
*Flowers:* 5/31-8/25;  *Specimens:* CUW 19990, RIB 1565
Cichorium intybus L.  
introduced and established; Eurasia; common; roadsides, fields and waste places

*Frequency:* 10+ sites - BEP BMB CRH HCC LDS PAR PCM
*Flowers:* 6/15-10/27 (6/14)  *Fruit:* 8/31-10/27;  *Specimens:* CUW 12136
*Comments:* occasional white-flowered plants are seen

Cirsium arvense (L.) Scop.  
introduced and established; Europe; fairly common; fields, waste places and thickets

*Frequency:* 7 sites - ASC BMB CRH FGS GHP SAP UMM
*Flowers:* 6/28-7/31 (10/10)  *Fruit:* 7/18-10/10;  *Specimens:* CUW 12138

Cirsium vulgare (Savi) Tenore  
introduced and established; Eurasia; fairly common; fields and disturbed open sites

*Frequency:* 10+ sites - BMB GNS HCC LDF NDC PCM PTM
*Flowers:* 7/17-11/17  *Fruit:* 8/8-12/2;  *Specimens:* CUW 12140

Conyza canadensis (L.) Cronq.  
native; common; roadsides, waste places, fill

*Frequency:* 10+ sites - BMB CMB GHP HCC MIR NWD PCM SJC
*Flowers:* 7/19-10/31 (6/10)  *Fruit:* 8/19-10/31  *Specimens:* RIB 1455

Coreopsis grandiflora Hogg  
introduced, persistent and apparently established; central North America

*Frequency:* 1 site - AID
*Flowers:* 6/19-8/26;  *Specimens:* RIB 538
*Comments:* perhaps originally sown as part of a "wildflower" mix; recorded by Jackson (1927) from Peat Meadow; the distinction between this species and *C. lanceolata* is obscure

Coreopsis palmata Nutt.  
introduced, status uncertain, no records since 1934; central North America;  *Specimens:* CUW 4120

Cosmos bipinnatus Cav.  
introduced and weakly established; Central America; uncommon; waste ground, gardens

*Frequency:* 3 sites - FGS HOC LEP
*Flowers:* 8/1-10/9  *Specimens:* CUW 6910, RIB 1350
*Comments:* this species self-seeds from garden plants, but rarely spreads far

Cosmos parviflorus (Jacq.) Pers.  
introduced and formerly established, no records since 1945;  *Specimens:* CUW 24005
*Comments:* reported by Jackson (1927) from a garden fertilized with wool waste, where it persisted for at least several years; the CUW specimen is from the former Boston and Albany freight yards

Crepis capillaris (L.) Wallr.  
introduced and established; Europe; locally fairly common; dry lawns;  *Frequency:* 1 site - HOC
*Flowers:* 6/19-8/5  *Fruit:* 7/30;  *Specimens:* CUW 899, RIB 1072

Crepis tectorum L.  
introduced and established; Eurasia; fairly common; waste ground, particularly fill and bulldozed areas

*Frequency:* 9 sites - BAR BEP GDA GHP GNS KEB TFL UBW
*Flowers:* 6/5-8/8  *Fruit:* 6/22-8/8;  *Specimens:* RIB 727

Dendranthema morifolium (Ramat.) Tzevelev  
introduced, perhaps a discard, not established; Asia; uncommon; municipal leaf composting site

*Frequency:* 1 site - GHP
*Flowers:* 10/16;  *Specimens:* RIB 1455
**Erechtites hieraciifolia (L.) Raf.** pilewort
native; common; waste places, old burns and disturbed open ground
Frequency: 10+ sites - BMB CMB GDA GNS HCC HDP PRF
Flowers: 8/8-9/19 Fruit: 8/8-9/29; Specimens: CUW 12149

**Erigeron annuus (L.) Pers.** daisy fleabane
native; common; fields, disturbed open ground
Frequency: 10+ sites - BMB CSP GDA HCC KEB LDS PCM
Flowers: 6/13-10/31 (6/9) Fruit: 7/18-10/31; Specimens: CUW 12150, RIB 481

**Erigeron philadelphicus L.** Philadelphia fleabane
native, no records since 1935; Specimens: CUW 5737

**Erigeron pulchellus Michx.** robin's plantain
native; fairly common; fields, lawns, woodland edge, dumps
Frequency: 10+ sites - BMB CSP GDA GRS HCC HOC PCM
Flowers: 5/20-6/10 (5/13) Fruit: 6/13-6/19; Specimens: CUW 743, RIB 1010

**Erigeron strigosus Muhl.** [E. ramosus] lesser daisy fleabane
native; fairly common; disturbed open ground
Frequency: 10+ sites - BAR BIP CSP CUP HOC LDF LEP LMT
Flowers: 6/19-10/4 (10/24) Fruit: 9/26; Specimens: CUW 27017, RIB 1084

**Eupatorium altissimum L.** tall thoroughwort
introduced and established; eastern North America; locally fairly common; waste ground
Frequency: 3 sites - BLR GNS LDF
Flowers: 9/5-9/20 Fruit: 11/5; Specimens: MASS-Ahles 82355, RIB 1355

**Eupatorium coelestinum L.** mist flower
introduced, status uncertain, no records since 1928; southeastern North America
Comments: recorded by Potter and Woodward (1935) as an "escape into waste land"

**Eupatorium dubium Willd.** Atlantic Joe-pye-weed
native; common; pond margins, marshes, damp fields and thickets
Frequency: 10+ sites - BMB CSP DOP GDA GHP INL PCM
Flowers: 7/26-10/10 Fruit: 9/22-12/6; Specimens: CUW 588, RIB 803

**Eupatorium fistulosum Barratt** trumpetweed
native; uncommon; moist thickets and woods; Frequency: 6 sites - CSP HCC INH PCM PFB PRF
Flowers: 8/10-8/29 Fruit: 9/24; Specimens: RIB 809

**Eupatorium maculatum L.** spotted Joe-pye-weed
native; uncommon; pond margins, thickets and woodland edge, often moist
Frequency: 5 sites - DOP INL PFB PRF TFL
Flowers: 8/3-8/21 Fruit: 9/22-10/11; Specimens: RIB 828
Comments: plants keyed to this species are much less common than *E. dubium*, and some have certain characteristics of the latter species (e.g. small flower number per head); perhaps hybridization occurs or these actually are *E. dubium*

**Eupatorium perfoliatum L.** boneset
native; common; pond margins, marshes, and wet open ground
Frequency: 10+ sites - BMB CRH INH INL MIR NWD PCM
Flowers: 7/26-9/22 (7/21) Fruit: 9/15-12/6; Specimens: CUW 32530
**Eupatorium purpureum** L.  
*sweet Joe-pye weed*  
native; uncommon; fields, thickets and open woods, sometimes dry  
Frequency: 7 sites - BIP BMB GDA GNS KEB PAR TFL  
Flowers: 8/5-8/24  Fruit: 9/5-10/15;  Specimens: RIB 793

**Eupatorium rugosum** Houttyn  
*Ageratina alissima, E. urticaefolium*  
white snakeroot  
native; common; woods, moist or mesic, woodland edge, thickets  
Frequency: 10+ sites - BMB CSP GHP GNS NWD PCM PTM QSP  
Flowers: 7/23-10/6 (10/9)  Fruit: 8/8-11/6;  Specimens: CUW 12156

**Euthamia graminifolia** (L.)Nutt.  
*Solidago g.*  
lance-leaved goldenrod  
native; common; fields, woodland edge, disturbed open ground  
Frequency: 10+ sites - BMB CMB CSP GHP HCC NWD PRF QSP  
Flowers: 7/5-9/29 (10/13)  Fruit: 9/25-12/6;  Specimens: CUW 12309, RIB 1409

**Gaillardia pulchella** Foug.  
rosering gaillardia  
introduced and established for at least several years; southern North America; uncommon; open roadside  
Frequency: 1 site - AID  
Flowers: 7/7-7/17;  Specimens: RIB 1188  
Comments: perhaps a cultivar or hybrid, apparently originating in "wildflower" seed mix sown on roadside, seemingly persistent; recorded by Jackson (1927) from a garden fertilized with wool waste

**Galinsoga quadriradiata** Ruiz & Pavón  
[G. ciliata]  
hairy quickweed  
introduced and established; Neotropics; common; roadsides, gardens and waste ground  
Frequency: 10+ sites - BMB CMB CSP HCC HOC LDS SJC  
Flowers: 7/2-11/15  Fruit: 7/8-9/26;  Specimens: CUW 19989

**Gnaphalium obtusifolium** L.  
sweet everlasting  
native; common; fields, roadsides, waste places and other disturbed open ground  
Frequency: 9 sites - BLR BMB GHP GNS HCC LDF PRF TFL  
Flowers: 8/21-10/16  Fruit: 9/16-11/5;  Specimens: CUW 8102, RIB 883

**Gnaphalium uliginosum** L.  
low cudweed  
introduced and established; Europe; common; barren ground, fill, waste places  
Frequency: 10+ sites - AHP AID ASC CMB CSP GHP HOC UMM  
Flowers: 7/9-9/19  Fruit: 7/10-10/16;  Specimens: CUW 19986, RIB 831

**Grindelia squarrosa** (Pursh)Dunal  
gumweed  
introduced, status uncertain, no recent records; central United States  
Comments: reported by Jackson (1927) from Tatnuck and Summit "in hay field, several plants"

**Helenium flexuosum** Raf.  
[H. nudiflorum]  
purple-headed sneezeweed  
introduced and established; southeastern North America  
locally fairly common; fields and disturbed open ground;  Frequency: 3 sites - AHP LDF QSP  
Flowers: 7/20-8/7;  Specimens: CUW 6628, RIB 1289

**Helianthus annuus** L.  
common sunflower  
introduced and probably established; North America; uncommon; dumps and waste places  
Frequency: 4 sites - CRR GNS HCC HOC  
Flowers: 8/5-9/4  Fruit: 9/5;  Specimens: CUW 5189, RIB 1148  
Comments: Potter et al. (1940) record plants with red-brown rays from Peat Meadow
**Helianthus decapetalus L.** [H. trachelifolius]  
thin-leaved sunflower  
native; uncommon; floodplains, thickets and woodland edge near streams  
*Frequency:* 6 sites - BLR CUP HAS HDP MIR PTM  
*Flowers:* 7/29-9/7;  
*Specimens:* RIB 1361  
*Comments:* the species *H. trachelifolius* Mill. was reported from waste land by Jackson (1927); this western variant has been included within *H. decapetalus* by Gleason and Cronquist (1991)

**Helianthus divaricatus L.**  
woodland sunflower  
native; uncommon; clearing, dry woods  
*Frequency:* 2 sites – BEP, TFL;  
*Specimens:* CUW 1331, RIB 1779

**Helianthus grosseserratus Martens** [H. kellerianii]  
sawtooth sunflower  
introduced, status uncertain, no records since 1939; eastern United States;  
*Specimens:* CUW 12473

**Helianthus maximilianii Schrader**  
Maximilian's sunflower  
introduced, status uncertain, no recent records; eastern North America  
*Comments:* recorded by Jackson (1927) as "persistent" at two sites

**Helianthus mollis Lam.**  
ashy sunflower  
introduced and formerly established, no recent records; eastern North America  
*Comments:* Jackson (1927) records the species as "slowly spreading" on a railway embankment in Jamesville

**Helianthus petiolaris Nutt.**  
prairie sunflower  
introduced and established; central North America; locally fairly common; railroad bed  
*Frequency:* 1 site - CRR  
*Flowers:* 7/9-9/11  
*Fruit:* 9/11;  
*Specimens:* CUW 20519, RIB 1138  
*Comments:* the two specimens were collected at the same site

**Helianthus strumosus L.**  
pale-leaved sunflower  
native, no records since 1940;  
*Specimens:* CUW 13971

**Helianthus tuberosus L.**  
Jerusalem artichoke  
introduced and established; eastern North America  
fairly common; fields, thickets, dumps and disturbed open ground  
*Frequency:* 8 sites - BMB CRH GHP GNS HCC TFL UBW  
*Flowers:* 9/6-10/10  
*Fruit:* 10/16;  
*Specimens:* CUW 6337, RIB 1781

**Helianthus x laetiflorus Pers.**  
showy sunflower  
native, no records since 1938;  
*Specimens:* CUW 9238

**Heliopsis helianthoides (L.)Sweet** [H. scabra]  
oxeye  
introduced and apparently formerly established, no recent records; southeastern North America  
*Comments:* reported by Jackson (1927) from "a single colony, slowly spreading" on Rattlesnake Hill

**Hieracium aurantiacum L.**  
orange hawkweed  
introduced and established; Europe; fairly common; lawns, forest edge and disturbed open ground  
*Frequency:* 10+ sites - AHM AID CMB GNS HCC HOC INL PCM  
*Flowers:* 6/3-7/17  
*Fruit:* 6/24;  
*Specimens:* CUW 3448, RIB 990

**Hieracium caespitosum Dumort.** [H. pratense]  
king devil  
introduced and established; Europe; common; fields, lawns, disturbed ground  
*Frequency:* 10+ sites - BMB CSP ELP GHP HDP PAR PRF  
*Flowers:* 5/28-10/13  
*Fruit:* 6/8-7/10;  
*Specimens:* CUW 22510, RIB 469
**Hieracium flagellare** Willd.  
whip hawkweed  
iroduced and established; Europe; fairly common; lawns, waste places, disturbed open ground  
*Frequency:* 10+ sites - ASC CMB CUP GNS HOC INL UBW  
*Flowers:* 5/18-6/13 (7/18)  
*Fruit:* 6/12-7/18;  
*Specimens:* RIB 1036  
*Comments:* the distinction between this species and *H. pilosella* is not always clear

**Hieracium floribundum** Wimmer & Grab.  
pale hawkweed  
iroduced and established; Europe; locally fairly common; waste places and disturbed open ground  
*Frequency:* 2 sites - BUP PFB  
*Flowers:* 6/8-7/13;  
*Specimens:* RIB 475

**Hieracium kalmii** L.  
Canada hawkweed  
native; fairly common; dry woods, woodland edge and disturbed ground  
*Frequency:* 10+ sites - DOP ELP GHP HCC HDP  
*Flowers:* 8/11-10/31  
*Fruit:* 8/28-10/31;  
*Specimens:* HUH-M, RIB 773  
*Comments:* the distinction between this native species and *H. sabaudum*, an introduced species, is often unclear; many individuals are not readily assigned to either species

**Hieracium murorum** L.  
golden lungwort  
iroduced and presumably established, no records since 1938; Europe;  
*Specimens:* CUW 9302  
*Comments:* said by Jackson (1927) to be spreading locally in lawn

**Hieracium paniculatum** L.  
panicled hawkweed  
native; common; woods and woodland edge, usually dry  
*Frequency:* 10+ sites - BMB CSP GDA HDP NWD PAR PCM  
*Fruit:* 8/21-12/3;  
*Specimens:* CUW 21497, RIB 765

**Hieracium pilosella** L.  
mouse-ear hawkweed  
iroduced and established; Europe; fairly common; lawns and disturbed open ground  
*Frequency:* 9 sites - AID BLR BMB COR LEP SJC UBW  
*Flowers:* 5/30-7/17  
*Fruit:* 6/16-7/17;  
*Specimens:* CUW 13019, RIB 1194  
*Comments:* not all specimens are clearly distinct from *H. flagellare*

**Hieracium piloselloides** Villars [H. florentinum]  
smooth hawkweed  
iroduced and established; Europe; common; lawns, roadsides and disturbed open ground  
*Frequency:* 10+ sites - BMB GDA GNS HDP HOC PCM PRF  
*Flowers:* 5/28-9/23  
*Fruit:* 6/16-8/28;  
*Specimens:* CUW 14935, RIB 1295

**Hieracium sabaudum** L.  
Savoy hawkweed  
iroduced and established; Europe; locally common; railroad gravel and adjacent areas  
*Frequency:* 2 sites - CRR PRF  
*Flowers:* 8/7-9/11  
*Fruit:* 8/7-9/11;  
*Specimens:* RIB 1280  
*Comments:* many individuals appear intermediate between this species and *H. kalmii*

**Hieracium scabrum** Michx.  
rough hawkweed  
native; fairly common; dry woods, woodland edge  
*Frequency:* 10+ sites - BMB CSP ELP HDP KEB PAR PCM  
*Flowers:* 8/6-9/13 (10/11)  
*Fruit:* 8/28-12/3;  
*Specimens:* CUW 6307, RIB 1323

**Hieracium venosum** L.  
rattlesnake weed  
native; fairly common; dry woods and clearings;  
*Frequency:* 4 sites - BIP BMB GDA QSP  
*Flowers:* 6/14-7/13 (7/23)  
*Fruit:* 7/3-7/23;  
*Specimens:* CUW 9300, RIB 495
**Hypochaeris radicata** L.  
**spotted cat's ear**

Introduced and established; Eurasia; fairly common; lawns  
Frequency: 5 sites - CSP DOP HCC UBW UMM  
Flowers: 7/1-11/15 (5/7-11/17)  
Fruit: 7/20-10/27;  
Specimens: RIB 1141

**Inula helenium** L.  
**elecampane**

Introduced, status uncertain, no records since 1933; Asia;  
Specimens: CUW 1001

**Iva xanthifolia** Nutt.  
**burweed marsh-elder**

Introduced, status uncertain, no records since 1946; west-central North America;  
Specimens: CUW 20478

**Krigia virginica** (L.)Willd.  
**dwarf dandelion**

Native; locally fairly common; dry lawn on glacial outwash;  
Frequency: 1 site - HOC  
Flowers: 5/30-7/8  
Specimens: HUH-M, RIB 1135

**Lactuca biennis** (Moench)Fern.  
**blue wild lettuce**

Native; fairly common; woods, woodland edge  
Frequency: 10+ sites - BMB CMB ELP HCC LEP PAR PCM  
Flowers: 8/2-9/11  
Fruit: 8/26-10/31;  
Specimens: CUW 14151

**Lactuca canadensis** L.  
**yellow wild lettuce**

Native; common; fields, thickets, woodland edges, waste places  
Frequency: 10+ sites - BMB CKP CSP HCC HDP PAR PCM  
Flowers: 7/21-9/24 (7/6)  
Fruit: 7/21-11/15;  
Specimens: CUW 32864

**Lactuca serriola** L.  
**prickly lettuce**

Introduced and established; Europe; common; roadsides, dumps, waste places  
Frequency: 10+ sites - BEH DOP GHP HCC NDC PCM SJC UMM  
Flowers: 7/17-9/26 (7/9-10/16)  
Fruit: 7/21-9/24 (7/6);  
Specimens: CUW 18122, RIB 668  
Comments: the common form with lobeless leaves is sometimes distinguished as var. integrata

**Lapsana communis** L.  
**nipplewort**

Introduced and established; Eurasia; uncommon; disturbed woods, woodland edge  
Frequency: 4 sites - CSP KEB LMT PAR  
Flowers: 7/5-10/4  
Fruit: 8/5-10/4;  
Specimens: RIB 570  
Comments: reported by Jackson (1927) as present but eradicated after two years at Peat Meadow

**Leontodon autumnalis** L.  
**fall dandelion**

Introduced and established; Eurasia; common; lawns, fields, roadsides and other disturbed open ground  
Frequency: 10+ sites - BMB CMB GHP HCC HOC PCM SAP  
Flowers: 6/12-12/2  
Fruit: 7/30-12/2;  
Specimens: CUW 994, RIB 1028  
Comments: our plants are var. autumnalis

**Leontodon taraxacoides** (Villars)Mérat  
**little hawkbit**

Introduced and established; Europe; uncommon; lawn;  
Frequency: 1 site - HCC  
Flowers: 9/1  
Fruit: 9/1;  
Specimens: RIB 1650

**Liatris spicata** (L.)Willd.  
**spiked blazing star**

Introduced, status uncertain, no records since 1937; from further west and south;  
Specimens: CUW 6594

**Madia sativa** Molina  
**large-headed coast madia**

Introduced, status uncertain, no records since 1929; western North and South America  
Comments: recorded by Potter and Woodward (1935) (var. congesta)
Matricaria matricarioides (Less.)Porter  [M. suaveolens]  pineapple weed
native;  common;  lawns, waste places, fill;  
Frequency:  10+ sites - BEP BMB CSP GHP HCC NDC PFB
Flowers:  5/23-10/16  Fruit:  7/17-10/16;  Specimens:  CUW 7008, RIB 1031

Mikania scandens (L.)Willd.  climbing hempweed
native,  no records since 1885;  Specimens:  CUW 21473

Parthenium integrifolium L.  wild quine
introduced and formerly established,  no records since 1934;  southeastern United States
Specimens:  HUH-Woodward
Comments:  reported by Jackson (1927) as "well-established and spreading" on a railroad embankment at Jamesville

Prenanthes altissima L.  slender rattlesnake root
native;  fairly common;  rich moist woods;  
Frequency:  8 sites - CKP CMB CSP GDA LMT NWD PAR TFL
Flowers:  9/2 (10/4)  Fruit:  10/3-12/3;  Specimens:  CUW 6308, RIB 1446

Prenanthes trifoliolata (Cass.)Fern.  gall-of-the-earth
native;  common;  woods;  
Frequency:  10+ sites - ASC BMB GDA HCC KEB PCM
Flowers:  8/27-10/3 (7/31)  Fruit:  9/13-12/3;  Specimens:  CUW 590

Rudbeckia hirta L.  [R. serotina]  black-eyed Susan
introduced and established;  west-central United States;  common;  fields, roadsides, disturbed open ground
Frequency:  10+ sites - AHP BMB HCC LDS PCM SJC TFL
Flowers:  6/23-11/15  Fruit:  10/11-12/3;  Specimens:  CUW 600;  Comments:  our plants are var. pulcherrima

Rudbeckia laciniata L.  tall coneflower
native;  uncommon;  wet thicket;  
Frequency:  1 site - CMB
Flowers:  8/14  Fruit:  9/23;  Specimens:  RIB 1405

Rudbeckia triloba L.  thinleaf coneflower
introduced,  status uncertain,  no recent records;  east-central United States
Comments:  recorded by Jackson (1927) at Peat Meadow

Senecio aureus L.  golden ragwort
native;  common;  swamps, wet woods and stream margins
Frequency:  10+ sites - ASC BMB CMB CSP KEB LOF TFL WDR
Flowers:  5/24-6/13 (6/20)  Fruit:  6/21-6/26;  Specimens:  CUW 16128

Senecio vulgaris L.  common groundsel
introduced and established;  Europe;  fairly common;  lawns and dump areas
Frequency:  9 sites - AID ASC BIP GHP HCC HDP NDC UMM
Flowers:  1/17-12/2  Fruit:  7/2-12/2;  Specimens:  CUW 34147, RIB 1919

Solidago arguta Aiton  sharpleaf goldenrod
native;  fairly common;  woods, often dry and open
Frequency:  10+ sites - ASC BMB ELP KEB LOF PAR PCM TFL
Flowers:  8/24-10/9 (10/15)  Fruit:  10/15;  Specimens:  CUW 17007

Solidago bicolor L.  silver-rood
native;  common;  woods, fields and woodland edge, often dry
Frequency:  10+ sites - BMB CMB GHP LMT NWD PAR PCM QSP
Flowers:  8/24-10/10 (8/7)  Fruit:  10/4-12/2;  Specimens:  CUW 14175
**Solidago caesia** L.  
*bluestem goldenrod*

native; common; woods, often mesic;  
*Frequency:* 10+ sites - BMB CMB CSP GDA GHP PAR PCM  
*Flowers:* 8/24-10/15  
*Fruit:* 10/31-12/6;  
*Specimens:* CUW 16669

**Solidago canadensis** L.  
*Canada goldenrod*

native; common; fields, thickets, disturbed open ground  
*Frequency:* 10+ sites - BMB CSP GDA HCC LMT PAR PCM PRF  
*Flowers:* 8/2-9/19 (7/25-9/22)  
*Fruit:* 9/19-12/6;  
*Specimens:* CUW 30267, RIB 1319

**Solidago flexicaulis** L.  
*[S. latifolia]*  
*zigzag goldenrod*

native; common; rich woods, mesic to moist;  
*Frequency:* 5 sites - AHM CMB LMT PFB TFL  
*Flowers:* 9/8-9/24 (8/4)  
*Fruit:* 10/11-12/3;  
*Specimens:* CUW 12311, RIB 1407

**Solidago gigantea** Aiton  
*[S. serotina var. g.]*  
*late goldenrod*

native; common; fields and thickets, usually moist  
*Frequency:* 10+ sites - BMB CMB CRH LDS LMT PCM PTM  
*Flowers:* 8/14-8/28 (7/31-9/16)  
*Fruit:* 9/25-12/6;  
*Specimens:* CUW 16308, RIB 334

**Solidago juncea** Aiton  
*early goldenrod*

native; common; fields, thickets and disturbed ground, often dry  
*Frequency:* 10+ sites - ASC BMB ELP GHP HCC KEB PAR PCM PRF  
*Flowers:* 7/19-9/5 (7/15)  
*Fruit:* 10/14-10/27;  
*Specimens:* CUW 12310, RIB 324

**Solidago nemoralis** Aiton  
*gray goldenrod*

native; common; fields, thickets and disturbed ground, often dry  
*Frequency:* 10+ sites - BMB HCC LDF NWD PCM QSP TFL  
*Flowers:* 8/21-10/11 (10/13)  
*Fruit:* 10/23-12/2;  
*Specimens:* CUW 10432, RIB 1382

**Solidago odora** Aiton  
*sweet goldenrod*

native; common; dry open ground;  
*Frequency:* 4 sites - BMB GNS PRF QSP  
*Flowers:* 8/8-10/4  
*Fruit:* 8/28-10/14;  
*Specimens:* CUW 12316

**Solidago puberula** Nutt.  
*downy goldenrod*

native; common; dry fields, woodland edge and disturbed open ground  
*Frequency:* 10+ sites - BMB ELP HCC INL LOF PAR PRF  
*Flowers:* 8/26-10/15 (10/23)  
*Fruit:* 10/2-12/6;  
*Specimens:* CUW 22687, RIB 1310

**Solidago rugosa** Miller  
*rough-stemmed goldenrod*

native; common; fields, thickets and woodland edge  
*Frequency:* 10+ sites - BMB CSP CUP GHP HCC LDS PAR PTM  
*Flowers:* 8/19-10/10 (7/11-10/31)  
*Fruit:* 9/25-12/6;  
*Specimens:* CUW 10429, RIB 1736

**Solidago speciosa** Nutt.  
*showy goldenrod*

native, no records since 1939;  
*Specimens:* CUW 10508;  
*Comments:* a state watch list species

**Solidago uliginosa** Nutt.  
*[S. neglecta]*  
*swamp goldenrod*

native; fairly common; sphagnous swamps;  
*Frequency:* 5 sites - AID ASC GDA LDS PCM  
*Flowers:* 8/22-9/9 (9/25)  
*Fruit:* 9/25-9/27;  
*Specimens:* CUW 10426, RIB 1343

**Sonchus arvensis** L.  
*field sow-thistle*

introduced and established; Europe; locally fairly common; open roadsides, waste ground  
*Frequency:* 2 sites - CRR PCM  
*Flowers:* 7/18-9/11  
*Fruit:* 8/29;  
*Specimens:* CUW 13254
**Sonchus asper** (L.) Hill  
spiny sow-thistle  
introduced and established; Europe; uncommon; waste places, dumps, disturbed open ground  
*Frequency:* 5 sites - CRR GHP HAS SJC UMM  
*Flowers:* 7/17-10/10 (6/14)  
*Fruit:* 8/7-10/10  
*Specimens:* CUW 24529, RIB 740

**Sonchus oleraceus** L.  
annual sow-thistle  
introduced and established; Europe; fairly common; roadsides, waste places, dumps  
*Frequency:* 6 sites - BIP BLR BMB CRR HCC HOC  
*Flowers:* 7/21-10/9 (11/17)  
*Fruit:* 8/7-12/2  
*Specimens:* CUW 19358, RIB 709

**Tagetes erecta** L.  
African marigold  
introduced, perhaps a discard, not established; Central America; uncommon; roadside  
*Frequency:* 1 site - NDC  
*Flowers:* 9/26  
*Specimens:* RIB 1421

**Tagetes patula** L.  
French marigold  
introduced but not established; Central America; rare; dump;  
*Frequency:* 1 site - AID  
*Flowers:* 8/26

**Tanacetum vulgare** L.  
tansy  
[Chrysanthemum uliginosum]  
introduced and established; Eurasia; common; waste places and disturbed ground  
*Frequency:* 10+ sites - BMB GHP LEP NDC PAR PCM PRF PTM  
*Flowers:* 7/17-11/5 (6/21-11/18)  
*Fruit:* 9/26-12/6  
*Specimens:* CUW 12352, RIB 1472

**Taraxacum laevigatum** (Willd.) DC.  
redseed dandelion  
[T. erythrospermum]  
introduced and apparently formerly established, no records since 1932; Eurasia;  
*Specimens:* CUW 619

**Taraxacum officinale** Weber  
common dandelion  
introduced and established; Eurasia; common; lawns and disturbed ground  
*Frequency:* 10+ sites - BMB CSP GHP HCC LMT PRF SJC  
*Flowers:* 4/7-12/2 (3/21)  
*Fruit:* 4/7-12/2  
*Specimens:* CUW 618

**Tragopogon dubius** Scop.  
thickstem goat's beard  
introduced and established; Europe; common; railway embankments, disturbed open ground  
*Frequency:* 8 sites - BEP BMB CRR CUP GNS PRF  
*Flowers:* 6/5-9/11  
*Fruit:* 6/15-9/11  
*Specimens:* MASS-Ahles 81853, RIB 464

**Tragopogon pratensis** L.  
yellow goat's beard  
introduced and established; Europe; uncommon; open ground, woodland edge;  
*Frequency:* 2 sites - INL SCH  
*Flowers:* 7/13-7/15  
*Fruit:* 7/13-7/15  
*Specimens:* CUW 16532, RIB 644

**Tussilago farfara** L.  
colt's foot  
introduced and established; Europe and Africa; fairly common; disturbed open ground, often moist  
*Frequency:* 9 sites - BAR BMB DOP GRS KEB LQU TFL  
*Flowers:* 4/13-5/29 (3/31)  
*Fruit:* 4/28-5/29  
*Specimens:* CUW 944, RIB 1487

**Xanthium spinosum** L.  
spiny cocklebur  
introduced, status uncertain, no records since 1949; Europe;  
*Specimens:* CUW 24931

**Xanthium strumarium** L.  
spiny cocklebur  
[X. canadense, X. pensylvanicum, X. commune]  
native; fairly common; waste places and disturbed open ground  
*Frequency:* 5 sites - BMB COR GHP GNS UBW  
*Flowers:* 8/8-8/30  
*Fruit:* 10/31  
*Specimens:* CUW 20679, RIB 1303
Zinnia elegans Jacq. [Zinnia violacea] zinnia
introduced but not established, perhaps a garden discard; Central America; rare; waste place
Frequency: 1 site - HOC
Flowers: 9/4; Specimens: RIB 1351

Balsaminaceae

Impatiens capensis Meerb. [I. biflora] jewelweed
native; common; marshes, water margins, moist shady spots
Frequency: 10+ sites - BMB CSP INL PAR
Flowers: 7/5-10/14 (6/21-10/16) Fruit: 7/9-10/23; Specimens: CUW 435

Berberidaceae

Berberis thunbergii DC. Japanese barberry
introduced and established; Asia; common; old pastures and woods
Frequency: 10+ sites - BMB CSP HCC KEB MIR NWD PCM

Berberis vulgaris L. European barberry
introduced and sparingly established; Europe; uncommon; disturbed ground and open woods
Frequency: 4 sites - CMB LOF MIR UBW
Flowers: 5/28-5/30; Specimens: RIB 801

Caulophyllum thalictroides (L.)Michx. blue cohosh
native; fairly common; rich mesic woods; Frequency: 5 sites - AHM CSP GDA KEB TFL
Flowers: 5/15-5/22 (4/28) Fruit: 8/21-12/3; Specimens: CUW 25229

Podophyllum peltatum L. mayapple
introduced and established; eastern North America; fairly common; woods near habitation
Frequency: 4 sites - ASC LOF WDR WRS; Specimens: CUW 26943
Comments: uncertain whether native anywhere in state; a state watch list species if native

Betulaceae

Alnus incana (L.)Moench [A. rugosa] speckled alder
native; common; swamps and usually moist fields and thickets
Frequency: 5 sites - AHP BMB BUP PCM TFL
Flowers: 4/1-4/4; Specimens: CUW 31890

Alnus serrulata (Aiton)Wild. smooth alder
native; common; swamps, water margins; Frequency: 10+ sites - ASC BMB CSP HDP LDS MIR PAR
Flowers: 4/4-4/19 Fruit: 12/6; Specimens: RIB 1039
Comments: separation of this species from A. incana can be problematic

Betula alleghaniensis Britton [B. lutea] yellow birch
native; common; moist to wet woods; Frequency: 10+ sites - ASC BMB CSP GDA KEB LMT PCM PRF
Flowers: 5/9 Fruit: 12/6-4/22; Specimens: CUW 27643

Betula lenta L. black birch, sweet birch
native; common; woods; Frequency: 10+ sites - BLR BMB CSP GDA LEP PCM PRF
Flowers: 5/7-5/10 Fruit: 4/4; Specimens: CUW 27616
<table>
<thead>
<tr>
<th>Scientific Name</th>
<th>Common Name</th>
<th>Native/Introduced</th>
<th>Frequency</th>
<th>Flowers</th>
<th>Fruit</th>
<th>Specimens</th>
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</thead>
<tbody>
<tr>
<td><em>Betula papyrifera</em> Marshall</td>
<td>white birch</td>
<td>native</td>
<td>10+ sites</td>
<td>4/28-11/15</td>
<td></td>
<td>BMB CSP GDA HDP PCM PRF SJC</td>
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<tr>
<td><em>Carpinus caroliniana</em> Walter</td>
<td>ironwood</td>
<td>native</td>
<td>9 sites</td>
<td>3/31-4/15</td>
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<td>BMB CSP KEB NWD PAP PAR PCM TFL</td>
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<tr>
<td><em>Corylus americana</em> Walter</td>
<td>American hazelnut</td>
<td>native</td>
<td>7 sites</td>
<td>3/31-4/15</td>
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<td>BMB CMB LDS LJS LMT PFB</td>
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<tr>
<td><em>Corylus cornuta</em> Marshall</td>
<td>beaked hazelnut</td>
<td>native</td>
<td>7 sites</td>
<td>3/31-4/19</td>
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<td>BMB CSP GDA HDP LMT TFL</td>
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<tr>
<td><em>Ostrya virginiana</em> (Miller)K.Koch</td>
<td>hop hornbeam</td>
<td>native</td>
<td>10+ sites</td>
<td>7/20-3/15</td>
<td></td>
<td>BMB CSP GDA LMT PAR PCM</td>
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<tr>
<td><strong>Bignoniaceae</strong></td>
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<tr>
<td><em>Campsis radicans</em> (L.)Seemann</td>
<td>trumpet creeper</td>
<td>introduced</td>
<td></td>
<td>7/15</td>
<td></td>
<td>MASS-Ahles 82333, RIB 1176</td>
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<tr>
<td><em>Catalpa bignoniioides</em> Walter</td>
<td>southern catalpa</td>
<td>introduced</td>
<td></td>
<td>6/19-7/1</td>
<td></td>
<td>MASS-Ahles 81944, RIB 1090</td>
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<tr>
<td><em>Catalpa speciosa</em> Warder</td>
<td>western catalpa</td>
<td>introduced</td>
<td></td>
<td>6/19-7/1</td>
<td></td>
<td>MASS-Ahles 81944, RIB 1090</td>
</tr>
<tr>
<td><em>Echium vulgare</em> L.</td>
<td>viper's bugloss</td>
<td>introduced</td>
<td></td>
<td>6/13-9/5</td>
<td></td>
<td>CUW 24607, RIB 706</td>
</tr>
<tr>
<td><em>Hackelia virginiana</em> (L.)Johnston</td>
<td>Virginia stickseed</td>
<td>native</td>
<td></td>
<td>7/25</td>
<td></td>
<td>CUW 16426, RIB 1238</td>
</tr>
<tr>
<td><em>Lappula squarrosa</em> (Retz.)Dumort.</td>
<td>stickseed</td>
<td>introduced</td>
<td></td>
<td>7/25</td>
<td></td>
<td>CUW 20682</td>
</tr>
</tbody>
</table>

References:
- **Potter et al. (1940)** recorded *Catalpa bignoniioides* as "fully established"; perhaps confused with *C. speciosa*?
- **C. speciosa** Warder :
  - Introduced and apparently formerly established, no records since 1938; south-central North America
  - Comments: recorded by Potter et al. (1940) as "fully established"; perhaps confused with *C. speciosa*?
Myosotis arvensis (L.)Hill
field scorpiongrass
introduced, spontaneous but presumably not established; Eurasia; uncommon; organic waste dump
*Frequency:* 1 site - SJC
*Flowers:* 5/17;  *Specimens*: RIB 924

Myosotis laxa Lehm.
smaller forget-me-not
native; uncommon; stream margin;  *Frequency:* 1 site - WBS
*Flowers:* 6/22  *Fruits:* 6/22;  *Specimens*: RIB 1866

Myosotis micrantha Pallas  [*M. stricta*]
blue scorpiongrass
introduced and established; Eurasia; uncommon; lawns and soil piles
*Frequency:* 4 sites - BAT HCC HOC SJC
*Flowers:* 5/12-5/31;  *Specimens*: RIB 918

Myosotis scorpioides L.
true forget-me-not
introduced and established; Europe; common; water margins, marshy ground
*Frequency:* 10+ sites - CKP CMB KEB LDS PAR PCM TFL
*Flowers:* 5/29-7/29 (10/17)  *Fruit:* 10/11-10/17;  *Specimens*: CUW 19359, RIB 996

Symphytum officinale L.
comfrey
introduced and sparingly established; Eurasia; uncommon; gardens, near habitation
*Frequency:* 1 site - PAR
*Flowers:* 7/5;  *Specimens*: CUW 5019, RIB 1130

Brassicaceae

Alliaria petiolata (Bieb.)Cavara & Grande  [*A. officinalis*]  garlic mustard
introduced and established; Europe; common; roadsides, woodland edge and woods
*Frequency:* 10+ sites - BMB CSP DOP GHP HCC LEP MIR
*Flowers:* 5/8-6/9 (4/28-7/26)  *Fruit:* 8/3-9/7;  *Specimens*: CUW 32686, RIB 943
*Comments:* invasive in woodland

Arabidopsis thaliana (L.)Heynh.  [*Sisymbrium t.*]  mouse-ear cress
introduced and established; Eurasia; common; lawns and waste places
*Frequency:* 9 sites - BLR LDF LEP NDC PRF PTM SJC UBW
*Flowers:* 4/25-6/7  *Fruit:* 5/31-6/7;  *Specimens*: RIB 406
*Comments:* recorded by Jackson (1927) from "made land" at Chandler Street

Arabis glabra (L.)Bernh.
tower mustard
native; fairly common; waste places, railroad beds and other disturbed open ground
*Frequency:* 8 sites - BLR BMB GNS GRS INH QSP UBW
*Flowers:* 5/31-6/16  *Fruit:* 7/10-11/6;  *Specimens*: CUW 4147, RIB 963

Arabis laevigata (Muhl.)Poiret  smooth rock-cress
native; uncommon; woods, dry to mesic;  *Frequency:* 1 site - (contact state botanist)
*Flowers:* 5/17-7/20 (8/16)  *Fruit:* 8/16-10/3;  *Specimens*: RIB 430
*Comments:* the only Worcester County record of this state threatened species

Armoracia rusticana Gaertn., Meyer & Scherb.  [*A. lapathifolia, Radicula armoracia*]  horseradish
introduced, status uncertain, no records since 1935; Europe;  *Specimens*: CUW 4183

Barbarea verna (Miller)Aschers.
eye wintercress
introduced, status uncertain, no recent records; Europe;  *Comments:* recorded by Jackson (1927) from Tatnuck
**Barbarea vulgaris** R.Br.  [B. stricta]  
*yellow rocket*
introduced and established; Europe; common; water margins, lawns, fields and disturbed ground
*Frequency:* 10+ sites - BMB HCC HDP KEB LEP LMT NWD TFL
*Flowers:* 5/8-6/12 (5/7-6/21)  *Fruit:* 7/15-9/4;  *Specimens:* CUW 4260, RIB 1494

**Berteroa incana** (L.)DC.  
*hoary alyssum*
introduced and established; Europe; common; dumps, waste places and other disturbed ground, often dry
*Frequency:* 10+ sites - BEH BMB CUP GHP GNS UBW UMM
*Flowers:* 6/5-11/11  *Fruit:* 8/3-11/11;  *Specimens:* CUW 25461, RIB 70

**Brassica juncea** (L.)Czernj.  
*Indian mustard*
introduced and presumably formerly established, no records since 1945; Eurasia;  *Specimens:* CUW 4262

**Brassica nigra** (L.)W.D.J.Koch  
*black mustard*
introduced and presumably formerly established, no records since 1945; Eurasia;  *Specimens:* CUW 23174

**Brassica rapa** L.  [B. campestris]  
*rape*
introduced and sparingly established; Europe; uncommon; dumps, waste places, railroad beds
*Frequency:* 3 sites - CRR HCC HOC
*Flowers:* 6/10-9/4;  *Specimens:* CUW 6593, RIB 1048

**Camelina sativa** (L.)Crantz.  
*gold-of-pleasure*
introduced, status uncertain, no records since 1935; Eurasia;  *Specimens:* CUW 4146

**Capsella bursa-pastoris** (L.)Medikus  
*shepherd's purse*
introduced and established; Europe; common; lawns, waste places and other disturbed open ground
*Frequency:* 10+ sites - BLR ELP GHP HCC LEP PCM PFB SJC
*Flowers:* 3/20-6/8 (3/18-12/9)  *Fruit:* 6/4-6/21;  *Specimens:* CUW 842, RIB 921

**Cardamine parviflora** L.  
*small-flowered bittercress*
native; uncommon; disturbed open ground adjacent to dry woods;  *Frequency:* 1 site - PRF
*Flowers:* 5/15;  *Specimens:* RIB 910

**Cardamine pensylvanica** Muhl.  
*Pennsylvania bittercress*
native; common; streams, swamps and marshy ground
*Frequency:* 10+ sites - ASC BMB CSP GDA KEB NWD PCM PRF
*Flowers:* 5/15-7/13 (9/13)  *Fruit:* 6/10-7/20;  *Specimens:* CUW 4158, RIB 1124

**Cardamine pratensis** L.  
*cuckoo flower*
introduced, no records since 1934; Eurasia;  *Specimens:* CUW 4234
*Comments:* our plants were the introduced var. pratensis

**Conringia orientalis** (L.)Andrz.  
*treacle mustard*
introduced, status uncertain, no records since 1945; Eurasia;  *Specimens:* CUW 20853

**Descurainia sophia** (L.)Webb.  [Sisymbrium s.]
*herb sophia*
introduced, status uncertain, no records since 1945; Eurasia;  *Specimens:* CUW 24330

**Draba verna** L.  
*whitlow-grass*
introduced and established; Eurasia; fairly common; lawns
*Frequency:* 7 sites - HCC HDP HOC LEP QSP UBW
*Flowers:* 1/17-5/8 (6/1)  *Fruit:* 5/8;  *Specimens:* CUW 5448, RIB 891

**Erucastrum gallicum** (Willd.)O.E. Schulz  
*dog mustard*
introduced, status uncertain, no records since 1917; Europe;  *Specimens:* HUH-Woodward
Erysimum cheiranthoides L.  
*wormseed mustard* introduced and established; Europe; fairly common; dumps and waste places  
_Frequency:_ 10+ sites - BLR CRR GHP HCC HOC NDC PFB SJC  
_Flowers:_ 6/7-11/18  _Fruit:_ 8/9-11/18;  _Specimens:_ CUW 4181, RIB 96

Hesperis matronalis L.  
*dame's rocket* introduced and established; Europe; common; disturbed ground, wooded or open  
_Frequency:_ 10+ sites - BMB CMB CSP HOC NDC NWD PAR PTM  
_Flowers:_ 5/9-7/6 (9/23)  _Fruit:_ 8/31-9/23;  _Specimens:_ CUW 9303, RIB 945

*Lepidium campestre* (L.) Aiton f.  
*field peppergrass* introduced and established; Europe; common; dumps, waste places  
_Frequency:_ 9 sites - ASC BIP BMB GHP GRS PTM TFL UMM  
_Flowers:_ 5/30-7/17 (8/30)  _Fruit:_ 7/17-8/30;  _Specimens:_ CUW 20852, RIB 443

*Lepidium densiflorum* Schrader  
*L. apetalum*  
*prairie peppergrass* introduced and established; southwestern U.S.; uncommon; waste places  
_Frequency:_ 4 sites - CRR LEP NDC PFB  
_Flowers:_ 6/9-7/17  _Fruit:_ 6/15-7/11;  _Specimens:_ CUW 4161, RIB 1197;  _Comments:_ easily overlooked

*Lepidium perfoliatum* L.  
*clasping peppergrass* introduced, status uncertain, no records since 1945; Europe;  _Specimens:_ CUW 20855

*Lepidium ruderale* L.  
*stinking peppergrass* introduced, status uncertain, no recent records; Europe;  _Comments:_ recorded by Jackson (1909)

*Lepidium virginicum* L.  
*wild peppergrass* native; common; waste places, dumps, roadsides  
_Frequency:_ 10+ sites - BMB GHP GNS MIR PRF SJC UMM  
_Flowers:_ 5/12-11/15  _Fruit:_ 7/10-12/2;  _Specimens:_ CUW 16122, RIB 98

*Lunaria annua* L.  
*honesty* introduced and sparingly established, perhaps not long-persistent; Europe; uncommon; shady or open ground near dumps and waste places  
_Frequency:_ 5 sites - HOC HOS LMT NWD WBS  
_Flowers:_ 5/22-6/20  _Fruit:_ 8/9-10/23;  _Specimens:_ RIB 428

*Raphanus raphanistrum* L.  
*wild radish* introduced and established; Eurasia; fairly common; waste places, dumps and disturbed open ground  
_Frequency:_ 10+ sites - BEP COR HCC LEP NDC SCH  
_Flowers:_ 5/31-11/15;  _Specimens:_ CUW 23830, RIB 1064

*Rorippa amphibia* (L.) Besser  
*water yellowcress* introduced and established; Eurasia; common; marshes, open floodplains, river and pond margins  
_Frequency:_ 9 sites - BEP BLR CUP FLP GNS HDP LQU MIR PFB  
_Flowers:_ 5/28-7/16;  _Specimens:_ RIB 1186;  _Comments:_ a problematic invader of shorelines and marshes

*Rorippa nasturtium-aquaticum* (L.) Hayek  
[Nasturtium officinale, Radicula n-a.]  
*watercress* introduced and sparingly established; Europe; uncommon; seepy areas along streams  
_Frequency:_ 2 sites - LMT PRF;  _Specimens:_ RIB 1015  
_Comments:_ recorded by Stone (1899) from Lake Quinsigamond
**Rorippa palustris** (L.) Besser  [R. islandica]  
marsh yellowcress  
native and introduced; the introduced variety from Eurasia; fairly common; mudflats, bars, waste places, fill  
**Frequency:** 10+ sites - BEP BMB COR DOP GHP HCC KEB UBW  
**Flowers:** 6/22-9/16  
**Fruit:** 7/10-9/16;  Specimens: CUW 18345, RIB 659  
**Comments:** the common variety is the native fernaldiana; a specimen resembling the introduced var. palustris was also collected (RIB 1103), as was var. hispida (CUW 6682)

**Rorippa sylvestris** (L.) Besser  [Radicula s.]  
creeping yellowcress  
introduced and established; Eurasia; uncommon; gardens, dumps and other disturbed open ground  
**Frequency:** 3 sites - ASC HCC NDC  
**Flowers:** 6/3-9/26  
**Fruit:** 9/26;  Specimens: CUW 4184, RIB 465

**Sinapis arvensis** L.  [Brassica a., B. kaber]  
charlock  
introduced and established; Mediterranean; uncommon; disturbed ground  
**Frequency:** 3 sites - BEP ELP LMT  
**Flowers:** 6/4-6/30;  Specimens: CUW 20859, RIB 981

**Sisymbrium altissimum** L.  
tumble mustard  
introduced and established; Eurasia; common; dumps and waste places  
**Frequency:** 10+ sites - BIP BLR GHP GNS NDC SJC UBW  
**Flowers:** 5/23-8/9 (9/16)  
**Fruit:** 8/9-12/2;  Specimens: CUW 20854, RIB 962

**Sisymbrium officinale** (L.) Scop.  
hedge mustard  
introduced and established; Eurasia; fairly common; dumps, clearings, disturbed open ground  
**Frequency:** 10+ sites - BIP BMB GHP HCC LMT QSP UBW UMM  
**Flowers:** 5/30-11/17  
**Fruit:** 8/14;  Specimens: CUW 18105, RIB 988

**Thlaspi arvense** L.  
field pennycress  
introduced and established; Europe; common; lawns, waste places and other disturbed ground  
**Frequency:** 9 sites - GHP HCC HOC LDF LEP NDC PCM UBW  
**Flowers:** 5/5-6/15 (5/2-12/9)  
**Fruit:** 7/24-11/11;  Specimens: CUW 20858, RIB 409

**Buxaceae**

**Pachysandra terminalis** Sieb. & Zucc.  
pachysandra  
introduced and established by vegetative propagation; Asia  
fairly common; woods, usually near edges or former habitations;  **Frequency:** 4 sites - ASC CSP HDA LOF  
**Flowers:** 4/21-5/20

**Cabombaceae**

**Brasenia schreberi** J.F.Gmelin  
water shield  
native; common; ponds;  **Frequency:** 7 sites - CKP CUP FLP GHP HDP LEP PAP  
**Flowers:** 7/8-7/30;  **Comments:** recorded by Stone (1899) from Lake Quinsigamond

**Cabomba caroliniana** A.Gray  
fanwort  
introduced and established; east-central North America; common; ponds  
**Frequency:** 5 sites - CKP CUP FLP LEP LQU  
**Flowers:** 8/1-9/21;  Specimens: RIB 746
Caesalpiniaceae

*Chamaecrista nictitans* (L.) Moench [Cassia n.]

*wild sensitive plant*

native; fairly common; railroad beds and sandy open ground

*Frequency:* 3 sites - COR CUP PRF

*Flowers:* 7/29-8/28 (10/1)   *Fruit:* 10/1-10/31;  *Specimens:* CUW 410, RIB 1322

*Gleditsia triacanthos* L.

*honey locust*

introduced and sparingly established; southeastern United States

fairly common;   lawns, gardens, disturbed woods, near plantings

*Frequency:* 5 sites - CKP CSP GHP GNS HCC

*Fruit:* 11/17;  *Specimens:* CUW 20631, RIB 1707

*Gymnocladus dioicus* (L.) K.Koch

*Kentucky coffee tree*

introduced and sparingly established; east-central United States;   uncommon;   woods and woodland edge

*Frequency:* 2 sites - CMB HDA

Callitrichaceae

*Callitriche heterophylla* Pursh

*variable water starwort*

native;   common;   shady pools;   *Frequency:* 4 sites - BMB CSP ELP GDA

*Flowers:* 6/9;   *Specimens:* HUH-W 1093, RIB 513

*Callitriche palustris* L.  [C. verna]

*spring water starwort*

native;   fairly common;   quiet streams and pond margins;   *Frequency:* 2 sites - ASC COR

*Flowers:* 6/3;   *Specimens:* CUW 18726, RIB 630

Campanulaceae

*Campanula aparinoides* Pursh

*marsh bellflower*

native;   uncommon;   wet meadow;   *Frequency:* 1 site - GTS

*Flowers:* 8/28;   *Specimens:* RIB 1326

*Campanula rapunculoides* L.

*creeping bellflower*

introduced and established; Eurasia;   fairly common;   disturbed woods and woodland edge

*Frequency:* 9 sites - BUP CSP GHP GNS HOC PCM PTM

*Flowers:* 7/10-9/4;   *Specimens:* CUW 32488, RIB 1166

*Campanula rotundifolia* L.

*harebell*

native, no records since 1937;   *Specimens:* CUW 6627

*Lobelia cardinalis* L.

*cardinal flower*

native;   uncommon;   stream margins;   *Frequency:* 3 sites - BMB CKP PCM

*Flowers:* 7/28-10/4;   *Specimens:* CUW 587

*Lobelia dortmanna* L.

*water lobelia*

native, no records since 1890;   *Specimens:* HUH-M

*Comments:* recorded by Stone (1899) from Lake Quinsigamond

*Lobelia inflata* L.

*Indian tobacco*

native;   common;   roadsides, fields, clearings and other disturbed ground

*Frequency:* 10+ sites - BMB CMB CSP GDA GHP HCC KEB

*Flowers:* 7/17-9/19 (10/4)   *Fruit:* 9/19-12/6;   *Specimens:* CUW 6749, RIB 1241
**Lobelia spicata Lam.**
spiked lobelia
native; uncommon; fields and disturbed open ground, often damp; Frequency: 2 sites - AID TFL
Flowers: 7/17-7/22; Specimens: HUH-Sargent, RIB 1191

**Triodanis perfoliata** (L.)Nieuwl.
[Venus's looking-glass]
native; uncommon; roadsides, railroad beds; Frequency: 2 sites - CUP HOC
Flowers: 6/15; Specimens: CUW 31794, RIB 1074

**Cannabaceae**

**Cannabis sativa L.**
hemp, marijuana
introduced, probably formerly established, but not currently; Asia; rare; newly seeded lawn
Frequency: 1 site - HDP; Specimens: CUW 5014, RIB 1464

**Humulus japonicus** Sieb. & Zucc.
Japanese hops
introduced and formerly established, no recent records; Asia
Comments: recorded by Jackson (1927) as locally abundant on waste land

**Humulus lupulus** L.
hops
introduced and established; North America and Europe; fairly common; floodplain thickets
Frequency: 2 sites - BLR LDS Specimens: MASS-Stone

**Capparaceae**

**Cleome hassleriana** Chodat [C. spinosa]
spider flower
introduced, spontaneous but not established; South America; uncommon; dumps
Frequency: 2 sites - GNS HCC
Flowers: 8/8-9/5; Specimens: RIB 1301

**Polanisia dodecandra** (L.)DC. [P. graveolans]
clammyweed
native; uncommon; waste ground; Frequency: 2 sites - BLR GHP
Flowers: 7/18; Specimens: MASS-Ahles 82306, RIB 683

**Caprifoliaceae**

**Diervilla lonicera** Miller
bush honeysuckle
native; fairly common; woods and open ground, often dry
Frequency: 10+ sites - BIP BMB CSP ELP GDA GHP KEB UBW
Flowers: 6/6-7/6; Specimens: CUW 9246

**Kolkwitzia amabilis** Graebn.
beautybush
introduced, probably not established, though not obviously planted; Asia; uncommon; disturbed woods
Frequency: 1 site - LMT
Flowers: 6/14

**Lonicera dioica** L.
glaucous honeysuckle
native, no records since 1930; Specimens: CUW 11349

**Lonicera japonica** Thunb.
Japanese honeysuckle
introduced and presumably established, no recent records; Asia
Comments: reported by Jackson (1927) as established at two locations on Rattlesnake Hill (near God's Acre)
**Lonicera maackii** (Rupr.) Maxim.  
Introduced, apparently spontaneous and sparingly established; Asia; uncommon; waste ground along pond margin; **Frequency**: 1 site - INL.  
*Flowers*: 6/13; *Specimens*: RIB 1034.  
*Comments*: this species currently shows no evidence of the invasive properties that have caused problems elsewhere in the country.

**Lonicera morrowii** A.Gray  
Morrow honeysuckle  
Introduced and established; Asia; common; woods, woodland edge, thickets, disturbed ground; **Frequency**: 10+ sites - ASC BMB CSP DOP GHP MIR PRF.  
*Flowers*: 5/13-6/13; *Fruit*: 7/3-10/23; *Specimens*: CUW 583, RIB 1006; *Comments*: a serious weed.

**Lonicera sempervirens** L.  
Trumpet honeysuckle  
Introduced and formerly established, no recent records; southeastern North America; **Specimens**: CUW 9291.  
*Comments*: reported by Jackson (1927) as "established and spreading".

**Lonicera x bella** Zabel  
Bella honeysuckle  
Introduced and established; of hybrid origin; uncommon; disturbed woods, woodland edge; **Frequency**: 6 sites - BMB CMB CSP DOP HOC PCM.  
*Flowers*: 5/13-6/3; *Specimens*: CUW 26724, RIB 437.  
*Comments*: a hybrid between *L. morrowii* and *L. tatarica*.

**Lonicera xylosteum** L.  
European fly honeysuckle  
Introduced, status uncertain, no records since 1950; Eurasia; **Specimens**: CUW 25620.

**Sambucus canadensis** L.  
Common elderberry  
Native; common; moist thickets, wet woods, swamps; **Frequency**: 10+ sites - BEP BMB CSP DOP GDA INL MIR PCM.  
*Flowers*: 6/18-7/12; *Fruit*: 8/18-9/30; *Specimens*: CUW 13233, RIB 1276.

**Sambucus racemosa** L.  
Red elderberry  
Native; uncommon; rocky woods; **Frequency**: 5 sites - CSP GDA GHP KEB TFL.  
*Flowers*: 4/28-5/22; *Fruit*: 7/3; *Specimens*: CUW 25358.

**Symphoricarpos albus** (L.) S.F.Blake  
Snowberry  
Introduced and established; the introduced variety from western North America; uncommon; thickets, disturbed woods; **Frequency**: 2 sites - GHP HOC.  
*Flowers*: 7/19-8/5; *Fruit*: 10/9-12/3; *Specimens*: MASS-Ahles 81913, RIB 1468.  
*Comments*: our plants are var. *laevigatus*.

**Symphoricarpos orbiculatus** Moench  
Coralberry  
Introduced and formerly established, no recent records; east-central North America; **Comments**: recorded by Jackson (1927) as "escaped and spreading" at Peat Meadow and Park Avenue.

**Triosteum aurantiacum** E.Bickn.  
Wild coffee  
Native, no records since 1950; **Specimens**: CUW 25728.  
*Comments*: although this species is native to Massachusetts, the notation "garden weed" on the CUW specimen suggests that these plants were introduced.

**Viburnum acerifolium** L.  
Maple-leaf viburnum  
Native; common; woods, usually mesic; **Frequency**: 10+ sites - BMB CSP DOP GDA INL MIR PCM TFL.  
*Flowers*: 6/6-6/20 (6/5); *Fruit*: 9/3-10/9; *Specimens*: CUW 3485, RIB 1575.

**Viburnum alnifolium** Marshall  
Hobblebush  
Native; uncommon; moist woods; **Frequency**: 6 sites - ASC CKP KEB PCM TBR WDR.  
*Flowers*: 5/3-5/16; *Specimens*: CUW 32860.
Viburnum dentatum L. [V. recognitum]  
native; common; swamps, pond margins, wet thickets  
*Frequency:* 10+ sites - BMB CSP GHP INL LDS PCM PRF  
*Flowers:* 6/4-6/23 (5/28) *Fruit:* 8/6-9/22; *Specimens:* CUW 15674, RIB 1062  
*Comments:* our plants are var. lucidum

Viburnum dilatatum Thunb.  
introduced and presumably established; Asia; uncommon; disturbed woods; *Frequency:* 2 sites - INL PCM  
*Fruit:* 10/23; *Specimens:* RIB 1456

Viburnum lentago L.  
nannyberry  
native; fairly common; wet thickets; *Frequency:* 9 sites - ASC BMB BUS INL LDS NWD PFB  
*Flowers:* 5/28-6/6 *Fruit:* 9/6-10/23; *Specimens:* CUW 32861, RIB 1367

Viburnum nudum L.  
withe-rod  
native; uncommon; swamps and water margins; *Frequency:* 4 sites - ASC INL PAR PCM  
*Flowers:* 6/13 (6/19) *Fruit:* 9/4; *Specimens:* RIB 1038  
*Comments:* our plants are var. cassinoides

Viburnum opulus L.  
Guelder rose  
introduced and apparently established; Eurasia; uncommon; disturbed woods  
*Frequency:* 10+ sites - BAR BMB DOP FGS GAL MIR PRF PTM  
*Flowers:* 5/30-6/9 *Fruit:* 10/4-10/31; *Specimens:* RIB 447  
*Comments:* our plants belong to the introduced var. opulus, though the native var. americanum can be found in nearby towns

Viburnum sieboldii Miq.  
Siebold's viburnum  
introduced and presumably established; Asia; uncommon; disturbed woods  
*Frequency:* 2 sites - ASC PTM; *Specimens:* RIB 1040

Weigela floribunda (Sieb. & Zucc.)K.Koch  
crimson weigela  
introduced, persistent but not clearly established; Asia; uncommon; vicinity of former dwelling  
*Frequency:* 1 site - WIH  
*Flowers:* 6/12; *Specimens:* RIB 1668

Caryophyllaceae

Agrostemma githago L.  
corn-cockle  
introduced and sparingly established; Mediterranean; uncommon; fill; *Frequency:* 2 sites - SCH UBW  
*Flowers:* 6/7-7/10; *Specimens:* CUW 20836, RIB 612

Arenaria lateriflora L.  
grove sandwort  
native, no records since 1935; *Specimens:* CUW 4244

Arenaria serpyllifolia L.  
thyme-leaved sandwort  
introduced and established; Europe; common; waste places, railroad gravel, disturbed open ground  
*Frequency:* 3 sites - BLR GNS UBW  
*Flowers:* 5/31-7/21 *Fruit:* 6/7-11/5; *Specimens:* HUH-Seymour 19785, RIB 297

Cerastium arvense L.  
field chickweed  
native; uncommon; old soil piles, lawns; *Frequency:* 2 sites - HOC SJC  
*Flowers:* 5/12-6/10; *Specimens:* CUW 299, RIB 410  
*Comments:* considered native, though its habitat suggests otherwise
**Cerastium tomentosum L.**
introduced, status uncertain, no records since 1952; Europe;  
*Specimens*: CUW 28840  
*Comments*: recorded by Potter and Woodward (1935) as "an escape in waste land"

**Cerastium vulgatum L. [C. fontanum]**
introduced and established; Eurasia; common; lawns, gardens, disturbed open ground  
*Frequency*: 10+ sites - BMB ELP GHP HCC HDP PCM PRF  
*Flowers*: 4/28-11/11 (4/5-12/2)  
*Fruit*: 10/27-12/2;  
*Specimens*: CUW 300

**Dianthus armeria L.**
introduced and established; Eurasia; common; fields, clearings, disturbed open ground  
*Frequency*: 10+ sites - AHP BMB CUP GNS MIR PAR PCM PRF  
*Flowers*: 6/7-9/19  
*Fruit*: 7/29-9/24;  
*Specimens*: CUW 4211, RIB 1122

**Dianthus barbatus L.**
introduced and formerly established, no records since 1935; Europe;  
*Specimens*: CUW 4281  
*Comments*: specimen label states “escaped and established”

**Dianthus deltoides L.**
introduced and established; Europe; fairly common; lawns, waste places  
*Frequency*: 4 sites - BAR CUP HOC UBW  
*Flowers*: 6/10-7/18  
*Fruit*: 7/18;  
*Specimens*: CUW 4235, RIB 1011

**Dianthus deltoides L.**
introduced and formerly established, no records since 1935; Europe;  
*Specimens*: CUW 4281  
*Comments*: specimen label states “escaped and established”

**Dianthus deltoides L.**
introduced and sparingly established; Europe; fair; roadside;  
*Frequency*: 1 site - QSP  
*Specimens*: CUW 9288, RIB 1927  
*Comments*: CUW specimen label describes this as a “freely established escape”

**Lysimachia nummularia L.**
introduced and sparingly established; Europe; uncommon; grassy roadside, disturbed woods  
*Frequency*: 2 sites - BMB PFB  
*Flowers*: 6/17;  
*Specimens*: CUW 4283, RIB 1050

**Lychnis coronaria (L.)Desr.**
mullein pink  
*Frequency*: 1 site - QSP  
*Specimens*: CUW 9288, RIB 1927  
*Comments*: CUW specimen label describes this as a “freely established escape”

**Lychnis flos-cuculi L.**
ragged robin  
*Frequency*: 2 sites - BMB PFB  
*Flowers*: 6/17;  
*Specimens*: CUW 4283, RIB 1050

**Paronychia canadensis (L.)A.Wood**  
Anychia c.  
*Forked chickweed*

**Sagina procumbens L.**
matted pearlwort  
*Frequency*: 6 sites - BLR BMB CMB COR CSP TFL  
*Flowers*: 5/22-7/15  
*Fruit*: 7/15-12/3;  
*Specimens*: CUW 3937, RIB 1003

**Saponaria officinalis L.**
soapwort  
*Frequency*: 10+ sites - BLR CSP CUP GNS HOC NDC PAR  
*Flowers*: 7/1-9/26 (11/5)  
*Fruit*: 9/5-11/11;  
*Specimens*: CUW 291
Scleranthus annuus L.  
introduced and established; Eurasia; common; roadsides, lawns, waste places  
Frequency: 10+ sites - ASC BIP COR HCC HOC LEP RUC  
Flowers: 5/13-12/2  Fruit: 7/30-12/2; Specimens: CUW 4217, RIB 91

Silene antirrhina L.  
native; common; waste places, disturbed open ground  
Frequency: 8 sites - BLR CUP GHP GNS HOC LDS NDC UBW  
Flowers: 6/5-6/17  Fruit: 6/21-7/17; Specimens: CUW 4118, RIB 986

Silene armeria L.  
introduced and established; Europe; uncommon; waste places, clearings  
Frequency: 6 sites - BUP CSP GHP GNS LDS NDC  
Flowers: 7/10-9/26  Fruit: 9/26; Specimens: CUW 4201, RIB 1420

Silene caroliniana Walter  
native, no records since 1932; Specimens: CUW 630; Comments: a state watch list species

Silene dichotoma Ehrh.  
introduced, status uncertain, no records since 1933; Eurasia; Specimens: CUW 6011

Silene dioica (L.) Clairv.  
introduced and weakly established by seed; Europe; uncommon; garden weed  
Frequency: 1 site - CSP; Specimens: CUW 16666

Silene latifolia Poiret  
introduced and established; Europe; fields, dumps, waste places  
Frequency: 10+ sites - BEP BMB CSP HCC HOC PAR PTM  
Flowers: 5/28-10/9 (5/18-10/27)  Fruit: 6/30-12/2; Specimens: CUW 20842

Silene noctiflora L.  
introduced, status uncertain, no records since 1933; Europe; Specimens: CUW 6012

Silene vulgaris (Moench) Garcke  
introduced and established; Europe; common; roadsides, waste places, railroad beds  
Frequency: 10+ sites - ELP GHP HCC HOC LEP NDC PAR  
Flowers: 6/6-9/5 (5/31)  Fruit: 7/17-11/5; Specimens: CUW 4229, RIB 1046

Stellaria alsine Grimm  
native; uncommon; seepy areas along wooded brook; Frequency: 1 site - NWD  
Flowers: 6/3; Specimens: RIB 1532

Stellaria graminea L.  
introduced and presumably formerly established, no records since 1953; Europe; Specimens: CUW 29164

Stellaria alpina rubra (L.) J. & K. Presl.  
introduced and established; Europe; common; roadsides and waste places, usually dry  
Frequency: 10+ sites - BLR BUS CRR CUP GNS HDP PCM  
Flowers: 5/21-9/26  Fruit: 7/12-8/30; Specimens: CUW 3936

Stellaria alpina Grimm  
native; uncommon; seepy areas along wooded brook; Frequency: 1 site - NWD  
Flowers: 6/3; Specimens: RIB 1532

Stellaria graminea L.  
introduced and established; east-central North America; common; fields, lawns, disturbed open ground  
Frequency: 10+ sites - BMB BUP GHP HCC HDP LEP NDC  
Flowers: 5/31-7/15 (5/22-8/26)  Fruit: 7/3-8/30; Specimens: CUW 32427
**Stellaria longifolia** Muhl.  
long-leaved stitchwort  
native, no records since 1950;  
Specimens: CUW 25317

**Stellaria media** (L.) Villars  
chickweed  
introduced and established; Europe; common; lawns, gardens, waste places  
Frequency: 10+ sites - BMB CMB ELP HCC LEP NDC PTM SJC  
Flowers: 5/7-12/2 (3/20)  
Fruit: 5/16-12/2;  
Specimens: CUW 301

**Vaccaria hispanica** (Miller) Rauschert  
cowherb  
[Saponaria vaccaria, V. pyramidata]  
introduced, status uncertain, no records since 1945; Europe;  
Specimens: CUW 24277

**Celastraceae**

**Celastrus orbiculatus** Thunb.  
Oriental bittersweet  
introduced and established; Asia; common; thickets, disturbed woods and woodland edge  
Frequency: 10+ sites - BMB HCC LMT PAR PCM PTM TFL  
Flowers: 5/18-6/13  
Fruit: 9/22-4/10;  
Specimens: CUW 27424, RIB 1922  
Comments: Jackson (1909) and Seymour (1969) record native *C. scandens* as the common species; though erroneous identifications may have been involved; many specimens of *C. orbiculatus* are mistakenly identified as *C. scandens* at CUW

**Celastrus scandens** L.  
American bittersweet  
native, no recent records;  
Specimens: CUW 33093  
Comments: the CUW specimen, from St. John’s Cemetery, is leafless but appears to be this species; see comments under *C. orbiculatus*

**Euonymus alata** (Thunb.) Sieb.  
winged burningbush  
introduced and established; Asia; fairly common; woods  
Frequency: 10+ sites - ASC CSP INL LMT PCM PTM WBS  
Flowers: 5/21-6/13 (5/20)  
Fruit: 10/23-12/3

**Euonymus europaea** L.  
wahoo  
introduced and established; Eurasia; uncommon; woods, often disturbed, woodland edge  
Frequency: 6 sites - BAR BAT BMB CKP CSP LOF  
Flowers: 5/18-6/2  
Fruit: 10/17-12/6;  
Specimens: CUW 17244, RIB 1528  
Comments: recorded by Potter and Woodward (1935) as an established escape

**Euonymus fortunei** (Turcz.) Handel-Mazzetti  
climbing euonymus  
introduced and established by vegetative spread; Asia; fairly common; woods, woodland edge  
Frequency: 10+ sites - BMB CMB CSP HDA LMT PAR PTM WBS;  
Specimens: RIB 1484

**Ceratophyllaceae**

**Ceratophyllum demersum** L.  
coontail  
native; common; ponds;  
Frequency: 6 sites - COR CUP HDP HOC LEP PAP;  
Specimens: RIB 628  
Comments: recorded by Stone (1899) from Lake Quinsigamond

**Ceratophyllum echinatum** A. Gray  
forked coontail  
native, no recent records;  
Comments: recorded by Stone (1899) from Lake Quinsigamond

**Chenopodiaceae**

**Atriplex glabrisscula** Edmondston  
prostrate orache  
[A. patula var. glabrisscula]  
introduced, status uncertain, no records since 1958; coastal eastern North America;  
Specimens: CUW 32682  
Comments: a state watch list species where native
Atriplex patula L. orache
introduced and presumably formerly established, no records since 1946; Eurasia; Specimens: CUW 32685

Bassia hyssopifolia (Pallas)Volk. hyssop seablite
introduced and established; Eurasia; locally common; waste ground among railroad sidings
Frequency: 1 site - CRR
Flowers: 9/11; Specimens: CUW 5306, RIB 1284

Chenopodium album L. lamb's quarters
introduced and established; Europe; common; gardens, waste places, roadsides
Frequency: 10+ sites - BIP BMB CMB GHP HCC HOC NDC
Flowers: 7/21-9/25 (6/15-10/6) Fruit: 7/2-12/2; Specimens: CUW 26732

Chenopodium ambrosioides L. Mexican tea
introduced and established; Neotropics; uncommon; dumps, waste places
Frequency: 5 sites - BIP BLR BMB GHP NDC
Flowers: 9/5-9/26 Fruit: 10/16-12/2; Specimens: CUW 32741, RIB 382

Chenopodium botrys L. Jerusalem oak
introduced and established; Eurasia; locally fairly common; waste places, railroad gravel
Frequency: 2 sites - BLR GNS
Flowers: 7/21-8/8 Fruit: 9/5-11/5; Specimens: CUW 16746, RIB 710

Chenopodium gigantospermum Aellen [C. hybridum, C. simplex] mapleleaf goosefoot
considered native, though the specimen is from waste land at Peat Meadow, perhaps introduced, no records since 1929; Specimens: CUW 5305; Comments: a state watch list species

Chenopodium glaucum L. oakleaf goosefoot
introduced and established; Europe; locally common; dumps, waste places
Frequency: 3 sites - GHP HCC UBW
Flowers: 7/1-8/11 Fruit: 8/30; Specimens: CUW 20703, RIB 814

Chenopodium murale L. nettle-leaved goosefoot
introduced, status uncertain, no records since 1939; Europe; Specimens: CUW 12135
Comments: recorded by Jackson (1927) as rare on waste land

Chenopodium punilio R. Br. pygmy goosefoot
introduced and established; Australia; uncommon; waste places, newly seeded ground
Frequency: 5 sites - GHP GNS HOC HDP UBW
Flowers: 8/5-10/31 Fruit: 9/16-10/31; Specimens: RIB 1244

Kochia scoparia (L.)Schrader summer-cypress
introduced, status uncertain, no records since 1945; Eurasia; Specimens: CUW 24212

Salsola kali L. [S. iberica] saltwort
introduced and established; coastal North America and Europe; uncommon; railroad bed
Frequency: 1 site - CRR
Flowers: 8/7; Specimens: CUW 20575, RIB 1285; Comments: our plants are var. tenuifolia

Cistaceae

Helianthemum bicknelli Fern. hoary frostweed
native; common; open ground, dry soil; Frequency: 6 sites - AIR BMB CMB GNS HOC PRF
Flowers: 7/13-7/15 Fruit: 7/30-9/20; Specimens: RIB 1249
**Helianthemum canadense** (L.) Michx.  
**Canadian frostweed**

- Native; fairly common; dry fields and clearings, sandy soil.
- **Frequency:** 9 sites - AHM BMB GNS HOC KEB PCM PRF QSP.
- **Flowers:** 6/5-7/10  **Fruit:** 7/23-9/30;  **Specimens:** HUH-M, RIB 1320.

**Lechea intermedia** Leggett  
**Largepod pinweed**

- Native; fairly common; dry open ground; **Frequency:** 10+ sites - AID BIP BMB GNS KEB LDS QSP WBS.
- **Flowers:** 7/19-8/22 (7/13)  **Fruit:** 9/20-12/2;  **Specimens:** CUW 9293, RIB 1291.

**Lechea maritima** Leggett  
**Beach pinweed**

- Native; uncommon; dry open ground;  **Frequency:** 1 site - AIR.
- **Flower:** 7/25;  **Specimens:** RIB 1636.

**Lechea mucronata** Raf.  **L. villosa**  
**Hairy pinweed**

- Native; fairly common; dry open ground; **Frequency:** 6 sites - BAR BIP BMB PRF QSP WBS.
- **Flowers:** 8/6-8/9  **Fruit:** 9/19-12/2;  **Specimens:** CUW 1330, RIB 1292.

**Clethraceae**

**Clethra alnifolia** L.  
**Sweet pepperbush**

- Native; common; water margins, swamps, wet woods.
- **Frequency:** 10+ sites - BMB CSP CUP HDP LQU PAR.
- **Flowers:** 7/19-8/22 (7/20)  **Fruit:** 10/31-11/22;  **Specimens:** CUW 15975.

**Clusiaceae**

**Hypericum boreale** (Britton) Bickn.  
**Northern St. John'swort**

- Native; locally fairly common; pond margins; **Frequency:** 3 sites - CUP FLP GHP.
- **Flowers:** 8/4-9/1;  **Specimens:** HUH-M, RIB 365.

**Hypericum canadense** L.  
**Canadian St. John'swort**

- Native; common; pond margins, open ground, often moist.
- **Frequency:** 10+ sites - AID BMB CUP FLP PAR PCM PRF TFL.
- **Flowers:** 7/17-8/31  **Fruit:** 9/27-12/3;  **Specimens:** HUH-M, RIB 1189.

**Hypericum ellipticum** Hook.  
**Pale St. John'swort**

- Native; locally fairly common; pond margins; **Frequency:** 3 sites - COR GHP TFL.
- **Flowers:** 7/11-7/22;  **Specimens:** HUH-M, RIB 685.

**Hypericum gentianoides** (L.) BSP.  
**Orange-grass**

- Native; common; sterile soil, often dry; **Frequency:** 10+ sites - BAR BIP BLR BMB MIR PRF TFL.
- **Flowers:** 7/13-9/16 (9/25)  **Fruit:** 10/4-12/3;  **Specimens:** CUW 5444, RIB 821.

**Hypericum majus** (A.Gray) Britton  
**Larger Canadian St. John'swort**

- Native; uncommon; disturbed ground, seasonally wet; **Frequency:** 2 sites - AID PCM.
- **Flowers:** 7/18-8/8;  **Specimens:** RIB 274.

**Hypericum mutilum** L.  
**Dwarf St. John'swort**

- Native; fairly common; water margins, wet open ground.
- **Frequency:** 10+ sites - ASC BMB CMB COR HDP KEB LEP SCH.
- **Flowers:** 7/18-10/1  **Fruit:** 8/25-10/1;  **Specimens:** CUW 34150, RIB 1435.
Hypericum perforatum L.  
common St. John'swort
introduced and established; Europe; common; fields, roadsides, clearings
*Frequency:* 10+ sites - BEP BLR BMB CSP PAR PCM PRF
*Flowers:* 6/14-8/28 (9/5)  *Fruit:* 9/5-12/2;  *Specimens:* CUW 16195, RIB 1583

Hypericum punctatum Lam.  
spotted St. John'swort
native; uncommon; open wet ground, moist thickets;  *Frequency:* 5 sites - AID BMB GDA PFB TFL
*Flowers:* 7/13-8/6;  *Specimens:* CUW 6414, RIB 1195

Triadenum virginicum (L.) Raf.  
marsh St. John'swort
native; fairly common; pond margins;  *Frequency:* 10+ sites - BMB CKP COR CUP FLP INL PAR
*Flowers:* 7/15-9/1  *Fruit:* 10/1-10/31;  *Specimens:* HUH-Winslow

Convolvulaceae

Calystegia hederacea Wallich  
hairy bindweed
[C. pellita, Convolvulus japonicus]
introduced and presumably formerly established, no recent records; Asia
*Comments:* recorded by Jackson (1927) as escaped in Worcester and nearby towns

Calystegia sepium (L.) R.Br.  
hedge bindweed
native; common; fields, thickets, waste places;  *Frequency:* 10+ sites - BEP BLR CRH GHP HCC PTM TFL
*Flowers:* 6/12-9/26;  *Specimens:* CUW 5192, RIB 1724
*Comments:* we apparently have both native and introduced forms here; no effort has been made to distinguish them

Convolvulus arvensis L.  
field bindweed
introduced and established; Eurasia; locally fairly common; fields;  *Frequency:* 1 site - PFB
*Flowers:* 7/1;  *Specimens:* CUW 4096, RIB 1620

Ipomoea purpurea (L.) Roth  
common morning glory
[Int. hirsutula]
introduced and presumably sparingly established; Neotropics; uncommon; dumps and waste places
*Frequency:* 5 sites - AID GHP GNS HOC NDC
*Flowers:* 8/5-10/10  *Fruit:* 10/9;  *Specimens:* CUW 5191, RIB 1298

Cornaceae

Cornus alternifolia L.f.  
alternate-leaved dogwood
native; fairly common; woods;  *Frequency:* 10+ sites - BMB CMB CSP GNS LMT NWD PCM WBS
*Flowers:* 5/29-6/13;  *Specimens:* CUW 3481

Cornus amomum Miller  
silky dogwood
native; common; water margins, moist thickets, swamps
*Frequency:* 10+ sites - BMB CSP CUP FGS INL PAR PCM
*Flowers:* 6/21-7/15  *Fruit:* 8/18-10/17;  *Specimens:* CUW 26834, RIB 1089

Cornus canadensis L.  
bunchberry
native; uncommon; wet woods;  *Frequency:* 1 site - BEH;  *Specimens:* CUW 493, RIB 1234

Cornus florida L.  
flowering dogwood
native; fairly common; woods;  *Frequency:* 8 sites - BIP BMB CSP GDA INH PRF TFL
*Flowers:* 5/20-5/24 (6/2);  *Specimens:* CUW 32739
**Cornus racemosa** Lam.  
[C. foemina ssp. racemosa, C. paniculata]  
gray dogwood  
native; common; thickets, clearings, woodland edge  
Frequency: 10+ sites - AHP ASC BMB CMB CRH CSP GHP LMT  
Flowers: 6/17-6/27 (10/16)  
Fruit: 7/20-11/6;  
Specimens: HUH-W 1103

**Cornus rugosa** Lam.  
[C. circinata]  
round-leaved dogwood  
native; uncommon; mesic woods;  
Frequency: 3 sites - CSP GDA LMT  
Flowers: 6/1

**Cornus sericea** L.  
[C. alba, C. stolonifera]  
red osier dogwood  
native; fairly common; wet thickets, shores;  
Frequency: 6 sites - AHP BMB GHP HCC PFB RUC  
Flowers: 5/30-6/2 (6/9)  
Fruit: 7/21-8/30;  
Specimens: RIB 448

**Nyssa sylvatica** Marshall  
black gum  
native; fairly common; wet woods, swamps and shores  
Frequency: 9 sites - BEH BMB CSP GDA PAR PCM SHT TFL

**Crassulaceae**

**Sedum acre** L.  
mossy stonecrop  
introduced and sparingly established; Eurasia; uncommon; rubble, waste ground  
Frequency: 2 sites - COR UBW  
Flowers: 7/1;  
Specimens: CUW 6223, RIB 1001

**Sedum purpureum** (L.)J.A.Schultes  
[S. telephium var. p.]  
live-forever  
introduced and established; Eurasia; uncommon; roadsides, woodland edge, disturbed woods  
Frequency: 8 sites - BMB CKP DOP HDA HOC LMT NDC

**Sedum spectabile** Bor.  
stonecrop  
introduced and formerly established, no records since 1943; Asia;  
Specimens: CUW 16750  
Comments: the CUW specimen said to be an established escape on dry roadside

**Sedum ternatum** Michx.  
mountain stonecrop  
introduced, status uncertain, no records since 1880; eastern United States;  
Specimens: HUH-M

**Cucurbitaceae**

**Citrullus lanatus** (Thunb.)Matsum. & Nakai  
[C. vulgaris]  
watermelon  
introduced, spontaneous but not established; Africa  
uncommon; waste places, dump for debris from storm drain catch basins;  
Frequency: 2 sites - GNS UBW  
Flowers: 8/8-9/16;  
Specimens: MASS-Ahles 82308;  
Comments: possibly ripe fruit observed at UBW

**Cucumis melo** L.  
muskmelon  
introduced, spontaneous but not established; Africa  
locally fairly common; waste places, dump for debris from storm drain catch basins  
Frequency: 2 sites - GNS UBW  
Flowers: 8/8-9/16;  
Specimens: RIB 1299;  
Comments: nearly ripe fruit seen at UBW

**Cucurbita pepo** L.  
pumpkin  
introduced, spontaneous but not established; North America; uncommon; dumps, waste places, flood plains  
Frequency: 6 sites - AID GHP GNS HOC KEB NDC  
Flowers: 7/19-9/30;  
Specimens: RIB 1884
**Echinocystis lobata** (Michx.) T. & G.  
*Native; fairly common; moist thickets, woodland edge, dumps*  
*Frequency: 10+ sites - BMB LEP NDC PFB PTM SRR WBS*  
*Flowers: 8/1-9/15  Fruit: 9/26-10/23; Specimens: CUW 585*

**Sicyos angulatus** L.  
*Native; uncommon; disturbed woods; Frequency: 1 site - PTM*  
*Flowers: 8/11; Specimens: HUH-M, RIB 1307*

**Cuscutaceae**

**Cuscuta epithymum** L.  
*Introduced, status uncertain, no records since 1916; Europe; Specimens: HUH-Lowe*  
*Comments: recorded by Jackson (1927) as a rare introduction at Mt. Ararat*

**Cuscuta gronovii** Willd.  
*Native; common; shorelines, floodplain thickets, marshes*  
*Frequency: 10+ sites - BMB CMB DOP GDA KEB LEP PAP PCM*  
*Flowers: 8/1-10/6 (10/2)  Fruit: 10/2-11/5; Specimens: CUW 535, RIB 1293*

**Dipsacaceae**

**Dipsacus sylvestris** Hudson  
*[D. fullonum]*  
*Introduced, status uncertain, no recent records; Eurasia*  
*Comments: recorded by Jackson (1909) from south Worcester*

**Droseraceae**

**Drosera intermedia** Hayne  
*[D. longifolia]*  
*Native; uncommon; sandy pond margin; Frequency: 1 site - COR*  
*Fruit: 10/1*

**Drosera rotundifolia** L.  
*Native; uncommon; sphagnous swamp and moist sandy area; Frequency: 2 sites - GDA PCM*  
*Flowers: 7/24  Fruit: 9/3-10/4; Specimens: CUW 4618, RIB 1226*

**Elaeagnaceae**

**Elaeagnus angustifolia** L.  
*Introduced, status uncertain, no records since 1938; Eurasia; Specimens: HUH-Woodward*  
*Comments: this specimen is the only one from New England at HUH*

**Elaeagnus umbellata** Thunb.  
*Introduced and established; Asia; fairly common; woodland edge, thickets, disturbed ground*  
*Frequency: 10+ sites - BMB DOP NDC PCM PRF TFL*  
*Flowers: 5/13-5/30 (6/19)  Fruit: 9/19-12/3; Specimens: RIB 432*

**Ericaceae**

**Chamaedaphne calyculata** (L.) Moench  
*[Cassandra c.]*  
*Native, no records since 1932; Specimens: CUW 32848*
Epigaea repens L.  
trailing arbutus
native; locally fairly common; woods, often dry; Frequency: 3 sites - GDA HDP KEB  
Flowers: 4/22; Specimens: CUW 32750

Eubotrys racemosa (L.)Nutt.  [Leucothoe r.]
leucothoe
native; uncommon; moist woods; Frequency: 1 site - BMB  
Flowers: 6/2; Specimens: RIB 1444

Gaultheria procumbens L.  
wintergreen
native; common; woods, often dry; Frequency: 10+ sites - BMB CSP GDA KEB NWD PTM TFL  
Flowers: 7/15-8/6  Fruit: 12/6-4/5; Specimens: CUW 3477, RIB 1207

Gaylussacia baccata (Wangenh.)K.Koch  
black huckleberry
native; common; woods, usually dry; Frequency: 10+ sites - BMB CSP GHP HDP LMT PFB PRF  
Flowers: 5/13-6/5  Fruit: 7/10-9/19; Specimens: CUW 22285

Gaylussacia frondosa (L.)T. & G.  
dangleberry
native; common; dry woods; Frequency: 6 sites - BAR BEH BMB LMT UBW WDR  
Flowers: 6/7-6/20  Fruit: 7/26-9/19; Specimens: CUW 34177

Kalmia angustifolia L.  
mountain laurel
native; common; woods, woodland edge; Frequency: 10+ sites - BMB CMB LDS LMT PAR PRF QSP TFL  
Flowers: 6/11-6/26 (7/5); Specimens: CUW 16192, RIB 1573

Kalmia latifolia L.  
mountain laurel
native; common; woods; Frequency: 10+ sites - BMB CSP GDA HDP LMT PCM  
Flowers: 6/7-6/28 (7/7)  Fruit: 12/3; Specimens: CUW 27767 RIB 1574

Lyonia ligustrina (L.)DC.  
lyonia
native; common; swamps, shores, woods and thickets, both wet and dry  
Frequency: 9 sites - BMB CKP CSP LDS PAR PCM PRF  
Flowers: 6/14-7/5 (7/12)  Fruit: 12/6-3/31; Specimens: CUW 983

Rhododendron canadense (L.)Torr.  
rhodora
native, no records since 1932; Specimens: CUW 32849

Rhododendron carolinianum Rehd.  
Carolina rhododendron
introduced and established; Blue Ridge Mountains of North Carolina; uncommon; woods  
Frequency: 1 site - CMB  
Flowers: 5/21; Specimens: RIB 931  
Comments: a cultivated rhododendron, apparently a white form of this species, is established at CMB; spontaneous, non-flowering, evergreen rhododendrons were also seen at ASC and LMT

Rhododendron prinophyllum (Small)Millais  [R. roseum, R. canescens]
mountain azalea
native; uncommon; woods; Frequency: 2 sites - GDA LMT  
Flowers: 5/23-5/31; Specimens: CUW 3486, RIB 449

Rhododendron viscosum (L.)Torr.  
clammy azalea
native; fairly common; wooded shorelines, wet woods; Frequency: 6 sites - BEH BMB FLP LQU PAR SHT  
Flowers: 7/5-7/16 (7/19); Specimens: CUW 14179

Vaccinium angustifolium Aiton  
common lowbush blueberry
native; common; woods and clearings, usually dry; Frequency: 10+ sites - BMB CSP GHP HDP KEB PRF  
**Vaccinium corymbosum** L. *V. atrococcum, V. caesariense*  
**highbush blueberry**  
native; common; woods, often moist, swamps;  
*Frequency*: 10+ sites - BMB CSP FLP GHP HDP PCM QSP  
*Flowers*: 4/28-5/29 (6/3)  
*Fruit*: 7/8-8/5;  
*Specimens*: CUW 15923

**Vaccinium macrocarpon** Aiton  
**large cranberry**  
native; locally fairly common; boggy areas;  
*Frequency*: 2 sites - AIR GHP  
*Flowers*: 7/13;  
*Specimens*: RIB 1709

**Vaccinium pallidum** Aiton *V. vacillans*  
**late low blueberry**  
native; common; dry woods and clearings;  
*Frequency*: 10+ sites - BMB CKF CMB GHP LMT MIR PRF  
*Flowers*: 5/12-6/5  
*Fruit*: 7/10-9/20;  
*Specimens*: CUW 6310

**Euphorbiaceae**

**Acalypha gracilens** A.Gray  
**short-stalk copperleaf**  
native; uncommon; waste places;  
*Frequency*: 2 sites - CMB TFL  
*Flowers*: 8/21-8/26;  
*Specimens*: CUW 4205, RIB 888

**Acalypha rhomboidea** Raf. *A. virginica var. r.*  
**three-seeded mercury**  
native; fairly common; moist shady ground;  
*Frequency*: 10+ sites - BMB CMB CSP GHP HCC LDS TFL  
*Flowers*: 7/18-9/13 (10/4)  
*Fruit*: 10/11-10/14;  
*Specimens*: CUW 4204, RIB 766

**Euphorbia cyparissias** L.  
**cypress spurge**  
introduced and established; Europe; common; roadsides, waste places, disturbed ground  
*Frequency*: 10+ sites - BMB CSP GHP HDP KEB NDC PRF  
*Flowers*: 5/4-6/9;  
*Specimens*: CUW 8839, RIB 938

**Euphorbia esula** L.  
**leafy spurge**  
introduced, status uncertain, no recent records; Europe  
*Comments*: reported by Jackson (1909) as rare in Worcester

**Euphorbia glyptosperma** Engelm. *Chamaesyce g.*  
**eyebane**  
introduced, status uncertain, no records since 1966; North America;  
*Specimens*: CUW 34151

**Euphorbia maculata** L. *Chamaesyce m., E. supina*  
**eyebane**  
native; common; roadsides, waste places;  
*Frequency*: 10+ sites - BLR BMB CUP HCC HOC LEP SJC  
*Flowers*: 6/21-9/16;  
*Specimens*: CUW 911

**Euphorbia marginata** Pursh *Dichrophyllum m.*  
**snow-on-the-mountain**  
introduced but seemingly not established; central North America  
uncommon; waste ground near municipal leaf-composting operation  
*Frequency*: 1 site - HOC;  
*Specimens*: CUW 7049, RIB 1469

**Euphorbia nutans** Lagasca *Chamaesyce n., E. preslii*  
**eyebane**  
native; uncommon; railroad gravel;  
*Frequency*: 1 site - BLR  
*Flowers*: 9/5;  
*Specimens*: HUH-Ahles, RIB 1365

**Euphorbia peplus** L.  
**petty spurge**  
introduced, status uncertain, no recent records; Eurasia  
*Comments*: reported by Jackson (1909) from waste ground

**Euphorbia vermiculata** Raf. *Chamaesyce v., E. hirsuta*  
**hairy spurge**  
native, no records since 1946;  
*Specimens*: CUW 19740
**Fabaceae**

*Amorpha fruticosa* L.  
false indigo  
introduced and established; central North America; fairly common; pond margins, wet thickets  
*Frequency*: 3 sites - BMB FLP LQU  
*Flowers*: 6/23; *Specimens*: CUW 6247  
*Comments*: CUW specimen indicates that the species is escaped and established; Jackson (1927) notes it as an established escape in several locations

*Amphicarpaea bracteata* (L.) Fern.  
hog-peanut  
native; common; woods, especially moist, and woodland edge  
*Frequency*: 10+ sites - BAR BMB CSP GDA PCM PRF TFL  
*Flowers*: 8/4-9/4 (9/8)  
*Fruit*: 10/4; *Specimens*: CUW 411

*Apios americana* Medikus  
groundnut  
native; common; thickets, open woods, shorelines  
*Frequency*: 10+ sites - BMB HDP INL KEB LJS MIR PCM  
*Flowers*: 8/6-9/1 (7/25); *Specimens*: CUW 408

*Baptisia tinctoria* (L.)R.Br.  
wild indigo  
native; common; dry fields and clearings; *Frequency*: 10+ sites - BMB GDA HDP PFB PRF QSP  
*Flowers*: 7/13-8/6 (6/22-9/16)  
*Fruit*: 9/3-10/31; *Specimens*: CUW 16235

*Cladrastis lutea* (Michx.f.)K.Koch [C. kentukea]  
yellowwood  
introduced and established; southeastern United States; uncommon; woods near habitation  
*Frequency*: 3 sites - GAL LOF LQU; *Specimens*: RIB 555  
*Comments*: Potter et al. (1940) report "3 young saplings, spontaneous" from Worcester

*Coronilla varia* L.  
crown vetch  
introduced and established; Europe; common; waste places, disturbed open ground  
*Frequency*: 10+ sites - BIP CUP HCC PTM UBW UMM  
*Flowers*: 6/23-10/7 (6/15)  
*Fruit*: 7/29-10/31; *Specimens*: CUW 405, RIB 1085

*Desmodium canadense* (L.)DC.  
showy tick-trefoil  
native; fairly common; thickets, woodland edge and disturbed ground, often on outwash soils  
*Frequency*: 9 sites - CSP CUP KEB LQU MIR PFB PRF QSP  
*Flowers*: 7/16-8/28  
*Fruit*: 8/28-10/3; *Specimens*: CUW 694, RIB 307

*Desmodium glutinosum* (Muhl.)A.Wood [D. grandiflorum]  
pointed-leaved tick-trefoil  
native; fairly common; woods, usually mesic  
*Frequency*: 10+ sites - AHM BAR BIP BMB CSP GDA LMT LOF  
*Flowers*: 7/12-7/24 (7/3-7/25)  
*Fruit*: 8/21-9/6; *Specimens*: CUW 16432

*Desmodium marilandicum* (L.)DC.  
Maryland tick-trefoil  
native; locally fairly common; dry woods and clearings; *Frequency*: 2 sites - PRF QSP  
*Flowers*: 8/7-9/7  
*Fruit*: 8/28-11/6; *Specimens*: RIB 1288

*Desmodium nudiflorum* (L.)DC.  
naked tick-trefoil  
native; fairly common; woods, mesic to dry; *Frequency*: 6 sites - BMB CMB CSP GDA KEB TFL  
*Flowers*: 7/22-8/25  
*Fruit*: 9/3-10/11; *Specimens*: CUW 16435, RIB 1220
**Desmodium paniculatum (L.) DC.**
panicled tick-trefoil
native; common; dry woods and fields; Frequency: 9 sites - AID BMB CRH KEB LDS PRF QSP TFL
Flowers: 8/6-8/30 Fruit: 8/22-9/25; Specimens: CUW 12145, RIB 1287

**Desmodium rotundifolium DC.**
prostrate tick-trefoil
native, no records since 1936; Specimens: CUW 12146

**Genista tinctoria L.**
dyer’s greenweed
introduced and sparingly established; Eurasia; rare; field; Frequency: 1 site - BIP
Flowers: 6/28; Specimens: RIB 179

**Lathyrus latifolius L.**
everlasting pea
introduced, status uncertain, no records since 1934; Europe: Comments: recorded by Potter et al. (1940)

**Lathyrus odoratus L.**
sweet pea
introduced and established; Europe; fairly common; disturbed ground
Frequency: 5 sites - CSP CUP FLP LDS PAR
Flowers: 6/24-8/23 Fruit: 8/23; Specimens: RIB 1086
Comments: observed repeatedly at same locations; presumably self-seeding

**Lespedeza capitata Michx.**
round-headed bush clover
native; common; dry fields and clearings; Frequency: 10+ sites - BMB ELP HCC LEP NDC PRF SJC
Flowers: 8/8-8/30 Fruit: 9/26-12/3; Specimens: CUW 1329

**Lespedeza hirta (L.) Hornem.**
hairy bush clover
native; common; dry fields and thickets; Frequency: 4 sites - BMB CUP PRF QSP
Flowers: 7/29-8/30 (7/26) Fruit: 9/23-10/2; Specimens: CUW 25663, RIB 1243

**Lespedeza intermedia (S.Wats.) Britton [L. frutescens]**
wandlike bush clover
native; fairly common; dry fields and clearings; Frequency: 5 sites – AHM BMB ELP PRF TFL
Flowers: 8/21-8/28 (8/17-8/30) Fruit: 10/2; Specimens: CUW 25722, RIB 827

**Lespedeza x nuttallii Darl.**
native; uncommon; dry open woods; Frequency: 1 site - BMB
Flowers: 8/19; Specimens: HUH-M, RIB 1737; Comments: a hybrid of *L. hirta* and *L. intermedia*

**Lotus corniculatus L.**
birdsfoot trefoil
introduced and established; Eurasia; common; fields, disturbed open ground
Frequency: 10+ sites - ASC BIP BLR CRR GNS KEB PRF UBW
Flowers: 6/7-9/16 Fruit: 7/18-9/16; Comments: recorded by Jackson (1909)

**Medicago lupulina L.**
black medick
introduced and established; Eurasia; common; roadsides, waste places, fill
Frequency: 10+ sites - ASC BIP BLR CRR GNS KEB PRF UBW
Flowers: 6/3-8/7 Fruit: 6/24; Specimens: CUW 18520, RIB 1281

**Medicago sativa L.**
alalfa
introduced and established; Asia; uncommon; fields, fill, disturbed open ground
Frequency: 7 sites - BIP GNS INH KEB SCH SRR TFL
Flowers: 6/5-9/20 Fruit: 8/25-12/2; Specimens: CUW 9282, RIB 180

**Melilotus alba Medikus**
white sweet clover
introduced and established; Eurasia; common; fields, waste places, disturbed open ground
Frequency: 10+ sites - BIP BLR BMB GHP HCC KEB MIR PCM
Melilotus officinalis (L.) Lam. yellow sweet clover
introduced and established; Eurasia; fairly common; waste places, fill, disturbed open ground
Frequency: 10+ sites - AHP BLR CRR GNS TFL UBW UMM
Flowers: 6/7-10/11 (6/5) Fruit: 9/16-10/11; Specimens: CUW 20856, RIB 1041

Robinia hispida L. bristly locust
introduced and established; southeastern United States; locally common; open woods
Frequency: 1 site - ELP
Flowers: 6/4-6/6; Specimens: RIB 980; Comments: spreading from plantings

Robinia pseudoacacia L. black locust
introduced and established; east-central United States; common; woods, thickets and clearings
Frequency: 10+ sites - CSP HDP HOC MIR PCM PFB QSP
Flowers: 5/28-6/16 Fruit: 9/4-5/30; Specimens: HUH-Gates 24496

Strophostyles helvula (L.) Elliott beach bean
introduced (?) and established; eastern North America; uncommon; waste places
Frequency: 3 sites - BLR BMB UBW
Flowers: 8/19-9/5 Fruit: 9/16-10/31; Specimens: RIB 1358
Comments: considered native along the coast, assumed introduced here, perhaps brought east along railroads

Tephrosia virginiana (L.) Pers. goat’s rue
native; uncommon; dry clearing; Frequency: 1 site - PRF

Trifolium arvense L. rabbit-foot clover
introduced and established; Eurasia; common; disturbed open ground, roadsides, sterile ground
Frequency: 10+ sites - BEP BMB HCC KEB LDS PAR PCM
Flowers: 6/22-8/30 (11/4) Fruit: 8/7-12/2; Specimens: CUW 412, RIB 1616

Trifolium aureum Polich [T. agrarium] palmate hop clover
introduced and established; Eurasia; common; fields, waste ground
Frequency: 10+ sites - BMB CSP HCC HDA PAR PCM PFB TFL

Trifolium campestre Schreber [T. prostratum] low hop clover
introduced and presumably formerly established, no records since 1934; Eurasia; Specimens: CUW 3853

Trifolium dubium Sibth. least hop clover
introduced and established; Europe; common; disturbed open ground, lawns
Frequency: 4 sites - BUP GRS PCM UBW
Flowers: 5/31-7/13; Specimens: RIB 593

Trifolium hybridum L. alsike clover
introduced and established; Eurasia; common; fields, roadsides, waste places
Frequency: 10+ sites - BMB GHP HCC LEP PAR PCM PTM
Flowers: 6/7-9/25 (5/30) Specimens: CUW 3450, RIB 1720

Trifolium incarnatum L. crimson clover
introduced, status uncertain, no records since 1930; Europe; Specimens: CUW 4532

Trifolium pratense L. red clover
introduced and established; Europe; common; fields, disturbed open ground
Frequency: 10+ sites - BMB CSP GHP HCC PAR PCM PTM
**Trifolium repens** L.  
white clover  
introduced and established; Eurasia; common; fields, lawns, disturbed open ground  
*Frequency:* 10+ sites - BMB GHP HCC PAR PRF PTM TFL  
*Flowers:* 5/17-9/22 (5/25-11/17); *Specimens:* CUW 3577

**Vicia angustifolia** L.  
narrow-leaved vetch  
introduced, status uncertain, no records since 1939; Europe; *Specimens:* CUW 1180

**Vicia cracca** L.  
cow vetch  
introduced and established; Eurasia; common; fields, roadsides, disturbed open ground  
*Frequency:* 10+ sites - BMB CSP HCC KEB PAR PTM TFL  
*Flowers:* 6/3-9/11  
*Fruit:* 7/10-12/2; *Specimens:* CUW 417  
*Comments:* considered by some to be native in parts of eastern North America

**Vicia tetrasperma** (L.) Schreb.  
slender vetch  
introduced and established; Eurasia; fairly common; clearings, fields and disturbed open ground  
*Frequency:* 10+ sites - AID BAR CSP GHP GNS PCM TFL  
*Flowers:* 6/6-8/4  
*Fruit:* 7/1-10/4; *Specimens:* CUW 16224, RIB 547

**Vicia villosa** Roth  
hairy vetch  
introduced and established; Europe; uncommon; fill, disturbed open ground  
*Frequency:* 5 sites - CMB GHP PFB SCH UBW  
*Flowers:* 6/7-9/16 (6/5)  
*Fruit:* 8/25; *Specimens:* RIB 476

**Fagaceae**

**Castanea dentata** (Marshall) Borkh.  
American chestnut  
native; common; dry woods; *Frequency:* 10+ sites - BAR BMB CSP GDA LMT PAR PCM PRF  
*Flowers:* 7/5; *Specimens:* CUW 3484, RIB 1128  
*Comments:* many sprouts from old stumps; flowers and fruits uncommon

**Fagus grandifolia** Ehrh.  
American beech  
native; fairly common; woods, moist to mesic  
*Frequency:* 10+ sites - BMB CKP CSP GDA KEB PAR PCM PFB  
*Fruit:* 9/4-9/24; *Specimens:* CUW 13976

**Fagus sylvatica** L.  
European beech  
introduced and sparingly established; Europe; uncommon; open woods  
*Frequency:* 2 sites - BAT HDP; *Specimens:* RIB 1655  
*Comments:* some individuals are far enough from planted trees that they appear to have arisen from seed rather than vegetatively

**Quercus alba** L.  
white oak  
native; common; woods, usually dry; *Frequency:* 10+ sites – BMB CSP GDA GHP KEB PCM PRF  
*Flowers:* 5/13  
*Fruit:* 9/25-9/30; *Specimens:* CUW 15608, RIB 1345

**Quercus bicolor** Willd.  
swamp white oak  
native, no records since 1943; *Specimens:* CUW unnumbered  
*Comments:* CUW specimen from former Johnson Farm on Mass. Ave. Parkway; Tucker (1894) records the species at Norcross Park; 1800's City map notes a swamp white oak at the northernmost point of Worcester

**Quercus coccinea** Muenchh.  
scarlet oak  
native; fairly common; dry woods; *Frequency:* 10+ sites - ASC BAR BEP BMB CUP GHP PFB QSP  
*Fruit:* 10/4-10/16; *Specimens:* CUW 15523
**Quercus ilicifolia** Wangenh.  
*bear oak*  
native; common; dry woods and thickets, on thin soils and glacial outwash  
*Frequency:* 10+ sites - BEH BEP BIP BMB GHP GNS PRF QSP  
*Fruit:* 9/25-10/16;  *Specimens:* CUW 15544, RIB 1230

**Quercus palustris** Muenchh.  
*pin oak*  
native; fairly common; wet woods and pond margins;  
*Frequency:* 5 sites - BUP INL LEP LJS NDC  
*Flowers:* 5/23  
*Fruit:* 9/26;  *Specimens:* MASS-Ahles 82315  
*Comments:* some stands appear to be indigenous (e.g. LJS), though others may have become established from planted individuals

**Quercus prinoides** Willd.  
*chinquapin oak*  
native; uncommon; dry woods;  
*Frequency:* 2 sites - QSP SCO;  *Specimens:* CUW 15606, RIB 496

**Quercus prinus** L.  
*chestnut oak*  
native; fairly common; woods, usually dry;  
*Frequency:* 10+ sites - BMB CSP DAR ELP GHP PRF QSP TFL  
*Flowers:* 5/30;  *Specimens:* CUW 27618

**Quercus rubra** L.  
*northern red oak*  
native; common; woods;  
*Frequency:* 10+ sites - BLR BMB BUP CSP GDA HCC PCM  
*Flowers:* 5/18  
*Fruit:* 8/27-10/14;  *Specimens:* CUW 15541

**Quercus velutina** Lam.  
*black oak*  
native; common; woods, usually dry;  
*Frequency:* 10+ sites - BMB GHP HCC NDC PAR PRF TFL  
*Flowers:* 5/13-5/23  
*Fruit:* 9/11-10/7;  *Specimens:* CUW 15543, RIB 1395

**Fumariaceae**

**Adlumia fungosa** (Aiton)Greene  
*climbing fumitory*  
native, no records since 1938;  *Specimens:* CUW 9232;  *Comments:* a state threatened species

**Corydalis sempervirens** (L.)Pers.  
*pink corydalis*  
native; common; dry ledges, dry open woods and clearings  
*Frequency:* 6 sites - AIR BEH BIP BMB GHP GNS  
*Flowers:* 5/13-8/22  
*Fruit:* 7/10-8/22;  *Specimens:* CUW 7222

**Dicentra canadensis** (Goldie)Walp.  
*squirrel corn*  
introduced and formerly established, no records since 1935; eastern North America;  *Specimens:* CUW 4129  
*Comments:* native to Worcester County, but specimen label states “introduced, established over large area”

**Dicentra cucullaria** (L.)Bernh.  
*Dutchman's breeches*  
native, no records since 1935 as a native plant; uncommon; open woods;  
*Frequency:* 1 site - HDA  
*Flowers:* 4/21;  *Specimens:* CUW 32840  
*Comments:* presumed native, though the CUW specimen lacks specifics; the HDA plants are undoubtedly introduced

**Dicentra eximia** (Ker Gawler)Torr.  
*wild bleeding heart*  
introduced, persistent but not considered established; eastern North America  
uncommon; disturbed ground near former dwelling;  
*Frequency:* 1 site - TFL  
*Flowers:* 4/28-7/22;  *Specimens:* RIB 1212

**Fumaria officinalis** L.  
*fumitory*  
introduced, status uncertain, no records since 1936; Europe;  *Specimens:* CUW 5007
Gentianaceae

*Bartonia virginica* (L.)BSP.  
*yellow bartonia*
native; uncommon; sphagnous swamp and dry clearings;  *Frequency*: 3 sites - AIR BMB GDA  
*Flowers*: 9/3

*Gentiana clausa* Raf.  
*bottle gentian*
native; uncommon; woodland edge and thickets, moist ground;  *Frequency*: 4 sites - BMB GDA PCM TFL  
*Flowers*: 9/8-10/4  *Fruit*: 10/4-12/6;  *Specimens*: CUW 10484

*Gentianopsis crinita* (Froelich)Ma  
*fringed gentian*
native, no records since 1939;  *Specimens*: CUW 12170;  *Comments*: a state watch list species

Geraniaceae

*Erodium cicutarium* (L.)L'Hér.  
*alfileria*
introduced, status uncertain, no records since 1938; Mediterranean;  *Specimens*: CUW 7201

*Geranium carolinianum* L.  
*Carolina cranesbill*
introduced, status uncertain; no records since 1943; eastern North America  *Specimens*: CUW 23922  
*Comments*: treated here as introduced because the CUW specimen was a “garden weed”; the specimen is var. *confortiflorum*; a state watch list variety where native

*Geranium maculatum* L.  
*wild geranium*
native; common; woods and clearings, moist to mesic  
*Frequency*: 10+ sites - BMB BUP CSP GHP HCC HDP LMT  
*Flowers*: 5/13-6/16 (7/6)  *Fruit*: 6/22-7/11;  *Specimens*: CUW 16121

*Geranium robertianum* L.  
*herb Robert*
native; locally common; rocky woods;  *Frequency*: 2 sites - GDA HDA  
*Flowers*: 6/9-9/3  *Fruit*: 7/12;  *Specimens*: CUW 4515, RIB 1921;  *Comments*: probably introduced at HDA

*Geranium sanguineum* L.  
*blood-red cranesbill*
introduced, persistent but not clearly established; Eurasia; uncommon; disturbed open ground  
*Frequency*: 1 site - HOC  
*Flowers*: 6/10 (9/4);  *Specimens*: CUW 4134, RIB 1009

Grossulariaceae

*Ribes americanum* Miller  
*wild black currant*
native; fairly common; wet woods, floodplains, stream margins  
*Frequency*: 9 sites - AHM BLR BMB CSP LMT PFB TFL  
*Comments*: a state watch list species, but not uncommon in the City

*Ribes cynosbati* L.  
*prickly gooseberry*
native; uncommon; woods, often wet;  *Frequency*: 6 sites - AID ASC CMB GDA LEP NWD  
*Flowers*: 5/7;  *Specimens*: RIB 899

*Ribes hirtellum* Michx.  
*swamp gooseberry*
native; uncommon; swamps and rocky woods  
*Frequency*: 3 sites - AID ASC LOF;  *Specimens*: CUW 20268, RIB 975
Ribes sativum Syme  [R. rubrum, R. vulgare]  
garden red currant 
introduced and established; Europe; uncommon; woods, often wet, borders of brooks 
Frequency: 10+ sites - BMB CSP DOP KEB NWD WBS WDR 
Flowers: 5/3-5/13  Fruit: 8/3;  Specimens: CUW 4423, RIB 1823 

Haloragaceae

Myriophyllum alterniflorum DC.  
slender water milfoil 
native, no records since 1890;  Specimens: MASS-Stone 
Comments: the specimen was originally identified as Utricularia minor by Stone; a state threatened species 

Myriophyllum heterophyllum Michx.  
variable water milfoil 
introduced and established; eastern United States; common; ponds 
Frequency: 6 sites - BUS CKP CUP LEP LQU PAR 
Flowers: 6/23-6/24;  Specimens: MASS-Ahles 82326, RIB 841 

Myriophyllum humile (Raf.)Morong  
lowly water milfoil 
native; locally common; ponds, muddy shores; Frequency: 3 sites - BEP GHP PCM 
Flowers: 7/18-8/22;  Specimens: MASS-Stone, RIB 682 
Comments: recorded by Jackson (1909) from Lake Quinsigamond in Worcester; the Stone specimen states "probably from Lake Quinsigamond" and was originally misidentified as M. spicatum 

Myriophyllum spicatum L.  
Eurasian water milfoil 
introduced and established; Eurasia; locally common; ponds; Frequency: 3 sites - COR FLP LQU 
Flowers: 8/4  Fruit: 10/7;  Specimens: RIB 655 
Comments: recorded by Stone (1899) from Lake Quinsigamond in Worcester 

Myriophyllum tenellum Bigelow  
leafless water milfoil 
native, no recent records;  Comments: recorded by Jackson (1909) from Lake Quinsigamond in Worcester 

Myriophyllum verticillatum L.  
whorled water milfoil 
native, no records since 1890;  Specimens: MASS-Stone 
Comments: recorded by Stone (1899) from Lake Quinsigamond; the specimen lacks a town designation; a state endangered species 

Proserpinaca palustris L.  
mermaid weed 
native; common; pond margins, marshes; Frequency: 4 sites - BMB BUS GHP LJS 
Flowers: 7/6-7/13;  Specimens: RIB 256;  Comments: recorded by Stone (1899) from Lake Quinsigamond 

Hamamelidaceae

Hamamelis virginiana L.  
witch hazel 
native; common; woods, mesic to moist; Frequency: 10+ sites - BMB CSP GDA KEB LMT PAR PRF 
Flowers: 10/2-11/22;  Specimens: CUW 7315 

Hippocastanaceae

Aesculus hippocastanum L.  
horse-chestnut 
introduced and apparently established; Europe; uncommon; lawn and woodland edge 
Frequency: 1 site - HCC 
Comments: seedlings from the fruits of cultivated individuals are evident and seemingly vigorous, one sapling also observed
**Hydrangeaceae**

*Hydrangea arborescens* L.  
introduced and strongly persistent, but not considered established; southeastern United States  
uncommon; woodland edge; *Frequency*: 1 site - CMB  
*Flowers*: 7/25;  
*Specimens*: RIB 1235

*Hydrangea paniculata* Sieb.  
introduced and seemingly established by vegetative spread; Asia  
uncommon; woodland edge, disturbed woods; *Frequency*: 9 sites - CMB COR GDA HDP LMT PTM SJC  
*Flowers*: 9/4-9/16;  
*Specimens*: RIB 1376  
*Comments*: recorded from waste land by Potter and Woodward (1940)

*Philadelphus coronarius* L.  
introduced and seemingly established; Eurasia; uncommon; disturbed woods, shorelines  
*Frequency*: 5 sites - CKF CSP CUP LEP WBS  
*Flowers*: 6/20-6/24;  
*Specimens*: RIB 1057  
*Comments*: recorded by Potter and Woodward (1935) as "escaped and established"

**Hydrophyllaceae**

*Hydrophyllum canadense* L.  
introduced, status uncertain, no records since 1933; eastern United States  
*Comments*: recorded by Potter and Woodward (1935) without details; if the identification was correct this was probably an introduction as the species in New England is rare and confined to western Massachusetts and Vermont; a state endangered species

**Juglandaceae**

*Carya cordiformis* (Wangenh.)K.Koch  
native; uncommon; woods, moist to mesic; *Frequency*: 6 sites - CSP GDA KEB LOF PAR TFL  
*Fruit*: 10/9;  
*Specimens*: HUH-M

*Carya glabra* (Miller)Sweet  
native; common; woods, usually dry; *Frequency*: 10+ sites - AHM AID BMB CSP GHP HCC LMT LOF  
*Flowers*: 5/30  
*Fruit*: 9/29-10/14;  
*Specimens*: CUW 32049  
*Comments*: the distinction between this species and *C. ovalis* is not always clear

*Carya ovalis* (Wangenh.)Sarg.  
native; fairly common; woods; *Frequency*: 6 sites - BIP LMT PRF QSP TFL WDR  
*Specimens*: CUW 32185, RIB 1462;  
*Comments*: this species and *C. glabra* are not always easily separated

*Carya ovata* (Miller)K.Koch  
native; common; woods, usually mesic; *Frequency*: 10+ sites - BLR BMB CSP GDA GHP NWD PCM  
*Fruit*: 8/25-10/3;  
*Specimens*: CUW 32081, RIB 1330

*Juglans cinerea* L.  
native; uncommon; moist woods; *Frequency*: 7 sites - BMB BUS CMB KEB MOW NWD SAP  
*Flowers*: 5/18  
*Specimens*: HUH-Hunnewell 5981;  
*Comments*: a state watch list species
Juglans nigra L.  
black walnut
introduced and seemingly established; east-central United States
uncommon; disturbed woods and woodland edge;  
Frequency: 3 sites - LMT NWD PAR  
Comments: some individuals are unlikely to have been planted, presumably spread by seed from cultivated specimens; recorded by Potter and Woodward (1935) as "occasional about the city"

Lamiaceae

Ajuga reptans L.  
bugle
introduced and established; Europe; uncommon; disturbed ground
Frequency: 8 sites - ASC BMB CSP LEP PAR SJC WSC  
Flowers: 5/4-6/3;  Specimens: RIB 974;  Comments: recorded by Jackson (1909) from Peat Meadow

Collinsonia canadensis L.  
horse balm
native; uncommon; rich moist woods and thickets;  
Frequency: 2 sites - BMB PCM  
Flowers: 8/6-8/22  Fruit: 10/2;  Specimens: HUH-M

Galeopsis tetrahit L.  
hemp nettle
introduced and established; Eurasia; fairly common; roadsides, dumps, woodland edge, thickets
Frequency: 10+ sites - ASC BAR BLR CSP GHP LMT PAR PFB  
Flowers: 6/14-8/2  Fruit: 7/31-9/19;  Specimens: CUW 542

Glechoma hederacea L.  
gill-over-the-ground
introduced and established; Europe; common; waste places and other disturbed ground
Frequency: 10+ sites - BMB CSP DOP HCC LEP PAR PTM  
Flowers: 4/13-6/15 (4/11-6/20);  Specimens: CUW 2489, RIB 944

Hedeoma hispida Pursh  
rough pennyroyal
introduced (?), status uncertain, no recent records; east-central North America
Comments: recorded by Jackson (1927) from two Worcester locations; a state watch list species

Hedeoma pulegioides (L.)Pers.  
American pennyroyal
native, no recent records;  Specimens: CUW 19871

Lamium amplexicaule L.  
henbit
introduced and established; Eurasia; locally fairly common; weedy lawns and disturbed open ground
Frequency: 2 sites - GHP HOC  
Flowers: 5/17-6/10;  Specimens: CUW 4141, RIB 1008

Lamium maculatum L.  
spotted dead nettle
introduced and sparingly established; Eurasia; uncommon; roadside;  
Frequency: 1 site - WSC  
Flowers: 5/4-6/21;  Specimens: RIB 1822

Lamium purpureum L.  
purple dead nettle
introduced and sparingly established; Eurasia; uncommon; dump;  
Frequency: 1 site - SJC  
Flowers: 5/17  Specimens: RIB 922

Leonurus cardiaca L.  
motherwort
introduced and established; Europe; fairly common; waste places, disturbed woods, woodland edge
Frequency: 8 sites - ASC CSP GHP LMT NDC NWD UBW  
Flowers: 7/5-8/16 (6/20)  Fruit: 8/9-10/16;  Specimens: CUW 543, RIB 573

Lycopterus americanus Muhl.  
American water horehound
native; common; pond margins, marshes
Frequency: 10+ sites - AHP BMB DOP INL KEB LQU PAR SAP  
Flowers: 7/5-8/26  Fruit: 8/18-9/24;  Specimens: CUW 540, RIB 1271
Lycopus uniflorus Michx.  
northern water horehound
native; common; swamps, marshes, shores
Frequency: 10+ sites - BMB CSP GDA INL PAR PCM PRF
Flowers: 7/15-10/1  Fruit: 9/27-10/23;  Specimens: CUW 16449, RIB 1759

Lycopus virginicus L.  
Virginia water horehound
native, no records since 1879;  Specimens: HUH-M

Mentha arvensis L.  [M. canadensis]  
wild mint
native; common; shores, marshes;  Frequency: 8 sites - BMB CKP COR DOP GHP INL KEB SAP
Flowers: 7/13-10/1 (10/16);  Specimens: CUW 12279, RIB 775
Comments: all plants that I have keyed appear to be the native var. canadensis

Mentha longifolia (L.) L.  
horse mint
introduced and sparingly established; Europe; uncommon; old soil heaps;  Frequency: 1 site - WBS
Flowers: 8/9;  Specimens: RIB 1306

Mentha spicata L.  
spearmint
introduced and sparingly established; probably from Europe; uncommon; moist open ground
Frequency: 1 site - BMB
Flowers: 9/19;  Specimens: CUW 3685

Mentha x gentilis L.  [M. cardiaca, M. gracilis]  
spotted whorled mint
introduced and presumably formerly established, no records since 1945; Europe;  Specimens: CUW 24407
Comments: hybrid of M. arvensis and M. spicata

Mentha x piperita L.  
peppermint
introduced and established; Europe; uncommon; open spot in swamp;  Frequency: 1 site - PFB
Flowers: 9/24;  Specimens: CUW 10330
Comments: hybrid of M. aquatica and M. spicata

Monarda didyma L.  
bee balm
introduced and apparently established, no recent records; southeastern United States
Comments: reported by Jackson (1927) as escaped into grassland

Monarda fistulosa L.  
wild bergamot
introduced, status uncertain, no records since 1921; eastern North America
Comments: recorded by Potter and Woodward (1935) from Peat Meadow

Nepeta cataria L.  
catnip
introduced and established; Eurasia; common; waste ground
Frequency: 9 sites - ASC BLM CUP GHP GRS HOC LDF UBW
Flowers: 7/11-9/16 (6/21)  Fruit: 9/4-4/25;  Specimens: CUW 8808, RIB 1722

Ocimum basilicum L.  
basil
introduced, status uncertain, no records since 1937; Paleotropics;  Specimens: CUW 20577

Origanum vulgare L.  
wild marjoram
introduced and apparently established; Eurasia; uncommon; disturbed open ground;  Frequency: 1 site - PTM
Flowers: 8/26;  Specimens: RIB 1309

Physostegia virginiana (L.) Benth.  
obedient plant
introduced, status uncertain, no records since 1938; eastern North America;  Specimens: CUW 10330
Comments: Potter et al. (1940) recorded a white form from Peat Meadow
Prunella vulgaris L.  
self heal  
native and introduced; common; fields, woodland edge, roadsides  
Frequency: 10+ sites - BEP BMB CSP GDA NWD PCM TFL  
Flowers: 6/21-9/24  Fruit: 7/17-12/6;  Specimens: CUW 1098, RIB 1595  
Comments: all my collections are of the native var. lanceolata, though the introduced var. vulgaris is represented by CUW 16197; a white form is represented by CUW 12296

Pycnanthemum muticum (Michx.)Pers.  
short-toothed mountain mint  
native, no records since 1934;  Specimens: CUW 4119

Pycnanthemum tenuifolium Schrader  
narrow-leaved mountain mint  
native; rare; dry field; Frequency: 1 site - HCC  
Flowers: 8/11;  Specimens: CUW 6632, RIB 813

Satureja vulgaris (L.)Fritsch  
wild basil  
introduced and established; Eurasia; locally common; fields; Frequency: 2 sites - AHP TFL  
Flowers: 7/6-7/21 (9/22);  Specimens: RIB 695

Scutellaria galericulata L.  [S. epilobiifolia]  
marsh skullcap  
native; common; pond margins, marshes; Frequency: 6 sites - BMB CRH CUP LJS PFB SAP  
Flowers: 7/10-9/1  Fruit: 9/1;  Specimens: CUW 12124, RIB 860

Scutellaria lateriflora L.  
mad-dog skullcap  
native; fairly common; shores, swamps, marshes; Frequency: 10+ sites - ASC BMB CSP GDA HDP PAR  
Flowers: 7/5-8/25  Fruit: 11/6;  Specimens: CUW 34149

Stachys hispida Pursh  [S. tenuifolia var. h.]  
smooth hedge nettle  
native, no records since 1943;  Specimens: CUW 20749

Stachys palustris L.  
marsh hedge nettle  
native and introduced  
Comments: recorded by Jackson (1909) from wet ground at Tatnuck, without indication as to variety; the native variety pilosa is on the state watch list

Teucrium canadense L.  
American germander  
native, no records since 1934;  Comments: recorded by Potter et al. (1940) from "border of wet woods"

Thymus serpyllum L.  [T. pulegioides]  
wild thyme  
introduced and established; Europe; locally fairly common; lawns, waste places  
Frequency: 2 sites - HOC LEP  
Flowers: 6/19-9/26  Fruit: 9/26;  Specimens: CUW 14174, RIB 677

Trichostema dichotomum L.  
blue curls  
native; common; sandy waste areas and roadsides, gravel railroad beds  
Frequency: 5 sites - BLR BMB CUP KEB UBW  
Flowers: 8/9-9/5  Fruit: 9/23-11/11;  Specimens: CUW 1322, RIB 806

Lauraceae

Lindera benzoin (L.)Blume  
spicebush  
native; common; moist to wet woods; Frequency: 10+ sites - ASC BMB CSP GDA KEB UBW PRF QSP  
Flowers: 3/31-5/3  Fruit: 9/15-10/4;  Specimens: CUW 337
Sassafras albidum (Nutt.) Nees
native; common; dry open woods, woodland edge
Frequency: 10+ sites - BMB CSP GDA LMT MIR PAR PRF
Flowers: 5/12-5/22; Specimens: CUW 338

Lentibulariaceae

Utricularia cornuta Michx.
native, no records since 1890; Comments: recorded by Stone (1899) from Lake Quinsigamond

Utricularia gibba L.
native; uncommon; acid ponds and open swamps; Frequency: 2 sites - BMB PCM
Flowers: 8/19-9/9; Specimens: MASS-Stone, RIB 837

Utricularia intermedia Hayne
native, no records since 1890; Specimens: HUH-Stone

Utricularia purpurea Walter
native, no records since 1889; Specimens: MASS-Stone
Comments: recorded by Jackson (1909) from Lake Quinsigamond

Utricularia radiata Small [U. inflata var. minor]
native, no records since 1890; Specimens: HUH-Stone

Utricularia vulgaris L. [U. macrorhiza]
native; fairly common; ponds; Frequency: 6 sites - AID BEH CKP FLP LEP PAP
Flowers: 7/25-8/8; Specimens: HUH-Stone, RIB 1229

Linaceae

Linum usitatissimum L. [L. humile]
introduced, status uncertain, no records since 1945; Europe; Specimens: CUW 23250

Lythraceae

Decodon verticillatus (L.) Elliott
swamp loosestrife, water willow
native; fairly common; margins of ponds and impounded rivers; Frequency: 3 sites - CUP LEP MIR
Flowers: 7/25-8/1 Fruit: 10/4
Comments: recorded by Jackson (1909) from Lake Quinsigamond; it currently occurs in Flint Pond in Shrewsbury, though I have not seen it in the Worcester portion of either water body

Lythrum salicaria L.
purple loosestrife
introduced and established; Eurasia; common; shorelines, marshes, floodplains, wet thickets
Frequency: 10+ sites - BMB COR CUP LEP MIR PCM SAP
Flowers: 7/8-9/7 (6/24-10/7) Fruit: 8/28-4/25; Specimens: CUW 6776, RIB 1718
Comments: a problematic invader of wetlands
**Magnoliaceae**

*Liriodendron tulipifera* L.  
**tulip tree**  
introduced and sparingly established; southeastern North America; uncommon; woodland edge  
*Frequency:* 1 site - ELP  
*Flowers:* 6/6;  
*Specimens:* MASS-Stone  
*Comments:* the ELP plants are seedlings and saplings established, presumably by seed, from cultivated specimens; the Stone specimen is from a cultivated plant

*Magnolia acuminata* (L.) L.  
**cucumber tree**  
introduced and persistent but not clearly established; eastern United States; rare; woods  
*Frequency:* 1 site - HDA  
*Comments:* this individual was not obviously planted

*Magnolia tripetala* (L.) L.  
**umbrella tree**  
introduced but apparently not established; southeastern United States; rare; woods  
*Frequency:* 1 site - LOF  
*Comments:* a sapling in second growth woods, origin uncertain

**Malvaceae**

*Abutilon theophrasti* Medikus  
**velvetleaf**  
introduced and established; tropical Asia; fairly common; soil heaps, waste ground  
*Frequency:* 7 sites - BIP CMB GHP GNS LEP NDC SJC  
*Flowers:* 8/24-10/14  
*Fruit:* 8/24-4/13;  
*Specimens:* CUW 6908

*Althaea rosea* L.  
**hollyhock**  
introduced, spontaneous but not established; Asia Minor  
uncommon; waste ground at municipal leaf-composting site  
*Frequency:* 1 site - GHP

*Hibiscus trionum* L.  
**flower-of-an-hour**  
introduced, status uncertain, no records since 1937; Paleotropics;  
*Specimens:* CUW 6683

*Malva moschata* L.  
**musk mallow**  
introduced and established; Europe; locally common; fields;  
*Frequency:* 2 sites - HCC PFB  
*Flowers:* 6/10-7/11  
*Fruit:* 7/11  
*Specimens:* CUW 18013, RIB 1617  
*Comments:* widespread at PFB; a white form was recorded by Potter and Woodward (1935)

*Malva neglecta* Wallr.  
**common mallow**  
introduced and established; Eurasia; uncommon; lawns, waste places  
*Frequency:* 5 sites - BIP HCC HDP NDC UMM  
*Flowers:* 7/17-10/31;  
*Specimens:* RIB 666

**Menyanthaceae**

*Menyanthes trifoliata* L.  
**buckbean**  
native, no records since 1935;  
*Specimens:* CUW 4143

*Nymphoides cordata* (Elliott) Fern.  
**[N. lacunosum]**  
native, no records since 1890;  
*Specimens:* UM Stone  
*Comments:* recorded by Jackson (1909) from Lake Quinsigamond; the Stone specimen is from "Henshaw Pond", allegedly in Worcester, though the only local pond currently of that name is in Leicester
Molluginaceae

**Mollugo verticillata** L.  
*M. carpetweed*
introduced and established; Neotropics; common; roadsides, waste places, pavement cracks, gardens
*Frequency: 10+ sites - ASC BLR BMB HOC NDC PTM SJC*

Monotropaceae

**Monotropa hypopithys** L.  
*M. pinesap*
native; uncommon; dry to mesic woods;  
*Frequency: 10+ sites - AHM BMB GDA KEB LMT QSP TFL*
*Flowers: 7/24-7/25 (8/8)  Fruit: 10/11; Specimens: CUW 9827, RIB 1265*

**Monotropa uniflora** L.  
*M. Indian pipe*
native; fairly common; woods;  
*Frequency: 10+ sites - BMB CSP FGS GDA PAR PCM PRF*
*Flowers: 6/21-8/28  Fruit: 12/3; Specimens: CUW 9077*

Moraceae

**Morus alba** L.  
*M. white mulberry*
introduced and established; Asia; fairly common; thickets woodland edge, waste places
*Frequency: 10+ sites - BLR BMB CMB INL MIR SAP UBW*
*Flowers: 5/13-6/2  Fruit: 6/26-7/8; Specimens: CUW 18033*

Myricaceae

**Comptonia peregrina** (L.)J.M.Coulter  
*M. sweetfern*
native; common; dry thickets, fields and sterile ground
*Frequency: 10+ sites - BMB GNS HCC HDP PFB PRF QSP*
*Flowers: 5/8-5/22; Specimens: CUW 2454*

**Myrica gale** L.  
*M. sweet gale*
native; fairly common; pond margins;  
*Frequency: 4 sites - CKP COR FLP PAR*
*Flowers: 4/22; Specimens: HUH-M*

**Myrica pensylvanica** Loisel.  
*M. bayberry*
native; fairly common; disturbed dry ground, pond margins
*Frequency: 10+ sites - CMB COR GDA INL PAR PCM UBW*
*Flowers: 5/23-6/9; Specimens: CUW 3495, RIB 1342*

Nyctaginaceae

**Mirabilis nyctaginea** (Michx.)MacMillan  
*M. four-o'clock*
introduced and established; central North America; uncommon; railroad beds, waste places
*Frequency: 4 sites - BLR CRR NDC UBW*
*Flowers: 6/17-7/1  Fruit: 9/5-9/26; Specimens: RIB 1049*
*Comments: recorded by Jackson (1927) as occasional along railroad tracks*

Nymphaeaceae

**Nuphar variegata** Durand  
[N. advena var. v., N. lutea var. v.]  
*M. spatterdock, yellow water lily*
native; common; ponds and wet marshes;  
*Frequency: 10+ sites - CKP COR CUP FLP INL LEP PAR*
*Flowers: 6/5-9/1; Specimens: CUW 3563*
Nymphaea odorata Aiton, water lily
native; common; ponds and wet marshes; Frequency: 8 sites - BMB CKP CUP FLP LEP LQU PAR
Flowers: 6/24-9/1 (6/15-10/7)
Comments: recorded by Stone (1901) from Lake Quinsigamond; pink-flowered forms, perhaps introduced, occur at LQU and NDC

Oleaceae

Chionanthus virginicus L., fringe tree
introduced and established; southeastern North America; locally fairly common; open woods, woodland edge
Frequency: 1 site - ELP
Flowers: 6/4-6/6

Forsythia suspensa (Thunb.)Vahl, weeping forsythia
introduced and established by vegetative spread; Asia
fairly common; disturbed woods, near former dwellings
Frequency: 6 sites - BMB CSP GDA UBW WIH WSC
Flowers: 3/31-5/4; Specimens: RIB 893
Comments: long-persistent and spreading from former plantings

Forsythia viridissima Lindl., forsythia
introduced and established by vegetative spread; Asia
uncommon; disturbed woods near former dwellings; Frequency: 4 sites - BMB CSP GDA QSP
Flowers: 3/31-4/23; Specimens: RIB 1474
Comments: long-persistent and spreading from plantings; recorded by Jackson (1927) as "doubtfully persistent" from a discarded root

Fraxinus americana L., white ash
native; common; moist to mesic woods; Frequency: 10+ sites - AHP BMB CSP ELP GDA PCM PRF
Flowers: 5/16 Fruit: 8/14-8/28; Specimens: CUW 32021

Fraxinus nigra Marshall, black ash
native; rare; swamps; Frequency: 2 sites - ASC PFB; Specimens: HUH-M, RIB 1053

Fraxinus pensylvanica Marshall, green ash
native; fairly common; moist woods, swamps, shores
Frequency: 8 sites - BLR BMB CRH GDA HDP MIR PAR PTM; Specimens: HUH-M, RIB 702

Ligustrum obtusifolium Sieb. & Zucc., Japanese privet
introduced and established; Asia; common; disturbed woods
Frequency: 6 sites - AHM AID BMB CMB NWD
Flowers: 6/21-7/7 Fruit: 3/6; Specimens: CUW 6435, RIB 1111
Comments: all privets that I have keyed appear to be this species; the CUW specimen is labeled L. vulgare and has the short flowers of that species, but the corolla tube is longer than the corolla lobes, as in L. obtusifolium

Syringa vulgaris L., lilac
introduced, persistent but not established; Europe; uncommon; woods and thickets near former dwellings
Frequency: 6 sites - BMB CSP LJS PAR PCM PRF
Flowers: 5/13-5/29; Specimens: CUW 24573
Comments: long-persistent from former plantings or discards, with scant vegetative spread
Onagraceae

*Circaea lutetiana* L.  
*C. quadrisulcata*  
*enchanter's nightshade*  
native; common; woods, often moist;  
*Frequency:* 10+ sites - ASC BMB CMB CSP GDA GHP LDS PTM  
*Flowers:* 6/27-8/17  
*Fruit:* 7/28-12/6;  
*Specimens:* CUW 26231, RIB 1183  
*Comments:* our plants are var. *canadensis*

*Epilobium angustifolium* L.  
fireweed  
native, no records since 1940;  
*Specimens:* CUW 13759

*Epilobium ciliatum* Raf.  
*Ep. adenocaulon, E. glandulosum var. adenocaulon*  
*American willow herb*  
native, no records since 1966  
*Specimens:* CUW 34141

*Epilobium coloratum* Biehler  
purple-leaved willow herb  
native; common; marshes, shores, wet thickets and woods  
*Frequency:* 10+ sites - BMB HCC NWD PTM QSP TFL UBW  
*Flowers:* 7/17-9/25 (10/11)  
*Fruit:* 9/15-12/2;  
*Specimens:* CUW 469, RIB 805

*Epilobium hirsutum* L.  
hairy willow herb  
introduced and established; Eurasia; uncommon; disturbed wet meadow  
*Frequency:* 2 sites - CRH GTS;  
*Specimens:* MASS-Ahles 81854

*Epilobium leptophyllum* Raf.  
narrow-leaved willow herb  
native; locally fairly common; marshes;  
*Frequency:* 3 sites - CMB GTS NWD  
*Flowers:* 8/28  
*Fruit:* 9/23-10/24;  
*Specimens:* RIB 1325

*Ludwigia palustris* (L.)Elliott  
water purslane  
native; common; shores, pools, wet open ground  
*Frequency:* 10+ sites - BLR BMB CSP CUP LEP MIR PCM  
*Flowers:* 7/17-9/8;  
*Specimens:* CUW 34138

*Oenothera biennis* L.  
common evening primrose  
native; common; fields, roadsides, disturbed open ground  
*Frequency:* 10+ sites - BEP BMB GHP HCC PCM PRF  
*Flowers:* 6/28-11/15  
*Fruit:* 11/15-4/25;  
*Specimens:* CUW 464;  
*Comments:* our plants are var. *biennis*

*Oenothera laciniata* Hill  
cut-leaved evening primrose  
introduced but not clearly established; from further south and west  
rare; waste ground along railroad tracks;  
*Frequency:* 1 site - BLR  
*Flowers:* 7/21;  
*Specimens:* RIB 295

*Oenothera parviflora* L.  
*[O. cruciata]*  
small-flowered evening primrose  
native, no records since 1938;  
*Comments:* recorded by Potter et al. (1940) from Peat Meadow

*Oenothera perennis* L.  
*[O. pumila]*  
little sundrops  
native; uncommon; fields, clearings;  
*Frequency:* 5 sites - AHP AID AIR BMB TFL  
*Flowers:* 6/18-7/25;  
*Specimens:* CUW 466

Orobanchaceae

*Epifagus virginiana* (L.)Barton  
beechdrops  
native; fairly common; beech woods;  
*Frequency:* 5 sites - CKP CSP GDA GHP TFL  
*Flowers:* 9/3;  
*Specimens:* CUW 18845
**Orobanche uniflora L.**

one-flowered cancerroot

native; uncommon; fields, clearings, disturbed open ground

*Frequency:* 7 sites - BLR BMB GHP GRS MIR PCM PRF

*Flowers:* 5/21-6/5 (5/17); *Specimens:* CUW 8754, RIB 951

**Oxalidaceae**

**Oxalis corniculata L.**

creeping wood sorrel

introduced and sparingly established; Europe; uncommon; garden weed; *Frequency:* 1 site - HCC

*Flowers:* 9/12-10/19 *Fruit:* 10/19; *Specimens:* RIB 870

**Oxalis dillenii Jacq.** [O. stricta]

southern yellow wood sorrel

native; common; lawns, dumps, disturbed open ground, often dry

*Frequency:* 10+ sites - BMB ELP GHP HDP HOC PFB RUC

*Flowers:* 5/28-7/17 (5/19) *Fruit:* 7/10-7/17; *Specimens:* CUW unnumbered, RIB 63

**Oxalis stricta L.** [O. europaea]

common yellow wood sorrel

native; common; lawns, disturbed open ground

*Frequency:* 10+ sites - BMB CMB HCC LDS LEP PFB UBW

*Flowers:* 6/1-10/9 *Fruit:* 9/21-10/9; *Specimens:* CUW 23038, RIB 473

**Papaveraceae**

**Argemone mexicana L.**

Mexican poppy

introduced, status uncertain, no records since 1911; Neotropics; *Specimens:* CUW 32706

**Chelidonium majus L.**

celandine

introduced and established; Eurasia; common; woodland edge, roadsides, disturbed ground

*Frequency:* 10+ sites - BLR BMB CKF CSP HDP NW D PCM

*Flowers:* 5/12-8/8 (5/4-10/4) *Fruit:* 6/15-10/4; *Specimens:* CUW 25565

**Eschscholzia californica Cham.**

California poppy

introduced, spontaneous but not established; western United States; uncommon; waste place

*Frequency:* 1 site - HCC

*Flowers:* 6/10

**Papaver rhoeas L.**

corn poppy

introduced, status uncertain, no recent records; Eurasia

*Comments:* recorded by Jackson (1927) as occasional on dumps and waste land in Worcester

**Papaver somniferum L.**

opium poppy

introduced, spontaneous but not clearly established; Eurasia; rare; dump

*Frequency:* 1 site - GHP; *Specimens:* RIB 1163; *Comments:* recorded by Jackson (1927) as occasional

**Sanguinaria canadensis L.**

bloodroot

native; fairly common; rich mesic woods and thickets

*Frequency:* 10+ sites - CMB CSP KEB NW D PAR PCM UBW

*Flowers:* 4/10-4/30; *Specimens:* CUW 25518, RIB 1821
Phytolaccaceae

**Phytolacca americana** L.  
*Pokeweed*  
native; common; clearings, thickets, roadsides, waste ground  
*Frequency*: 10+ sites - BLR BMB CSP GHP HCC HOC NDC  
*Flowers*: 7/1-10/16 (6/24); *Fruit*: 8/24-12/2; *Specimens*: CUW 289

Plantaginaceae

**Plantago aristata** Michx.  
*[P. altissima]*  
introduced and established; central North America; common; waste places, disturbed open ground  
*Frequency*: 8 sites - BEH GNS HOC LDF PCM PFB UBW WBS  
*Flowers*: 7/1-8/3; *Fruit*: 7/24-12/3; *Specimens*: CUW 6252, RIB 715

**Plantago lanceolata** L.  
*English plantain*  
introduced and established; Europe; common; lawns, roadsides, disturbed open ground  
*Frequency*: 10+ sites - BMB GHP HCC KEB MIR PCM  
*Flowers*: 5/20-7/18 (5/19-10/16); *Fruit*: 7/18-12/2; *Specimens*: CUW 20354, RIB 93

**Plantago major** L.  
*Common plantain*  
introduced and established; Eurasia; common; dumps, disturbed open ground  
*Frequency*: 10+ sites - BAR BIP BLR BMB GNS KEB PTM TFL  
*Flowers*: 7/10-9/5; *Fruit*: 7/17-12/2; *Specimens*: CUW 12285

**Plantago media** L.  
*Dwarf plantain*  
in introduced and apparently established, no records since 1933; Eurasia; *Specimens*: CUW 841

**Plantago psyllium** L.  
*[P. indica, P. arenaria]*  
introduced and established; Mediterranean; locally fairly common; railroad beds, waste places  
*Frequency*: 3 sites - BLR CRR GNS  
*Flowers*: 7/9-9/11; *Fruit*: 9/11-11/5; *Specimens*: HUH-Woodward, RIB 1140  
*Comments*: said by Jackson (1927) to be "a recent introduction from the West"

**Plantago rugelii** Decne.  
*Red-stemmed plantain*  
native; common; lawns, paths, waste places; *Frequency*: 10+ sites - BEP BMB CSP NWD PAR PCM UBW  
*Flowers*: 6/22-8/30; *Fruit*: 8/8-12/3; *Specimens*: CUW 4436

Platanaceae

**Platanus occidentalis** L.  
*sycamore*  
native; uncommon; stream margins, wooded floodplains  
*Frequency*: 5 sites - BLR BMB GNS KEB SJC; *Specimens*: CUW 6036

Polemoniaceae

**Phlox paniculata** L.  
*Garden phlox*  
introduced and established; eastern United States; fairly common; thickets, clearings, disturbed woods  
*Frequency*: 4 sites - BMB CSP PCM TFL  
*Flowers*: 7/22-10/14 (7/20); *Specimens*: RIB 1211

**Phlox subulata** L.  
*moss pink*  
in introduced and established; eastern United States; fairly common; lawn; *Frequency*: 1 site - HOC
**Polemonium reptans** L.  
*Jacob's ladder*
introduced and established; eastern United States; locally fairly common; disturbed woods
*Frequency:* 3 sites - ASC CSP WSC
*Flowers:* 5/4-5/22;  *Specimens:* RIB 7

**Polygala paucifolia** Willd.  
*fringed polygala*
native; uncommon; mesic woods; *Frequency:* 4 sites - BMB LMT NWD PCM
*Flowers:* 5/8-5/23;  *Specimens:* CUW 3555;  *Comments:* a white form was recorded by Potter et al. (1940)

**Polygala sanguinea** L.  
*purple milkwort*
native; fairly common; fields, often dry, disturbed open ground
*Frequency:* 9 sites - BMB CRH ELP GNS HCC HDP PCM PFB
*Flowers:* 7/3-10/4  *Fruit:* 8/28-10/4;  *Specimens:* CUW 5165

**Polygala verticillata** L.  
*whorled milkwort*
native; locally fairly common; open sites with gravelly soils; *Frequency:* 2 sites - KEB PCM
*Flowers:* 9/9-10/4  *Fruit:* 9/9-10/4;  *Specimens:* HUH-Woodward, RIB 1431
*Comments:* a state watch list species

**Polygonaceae**

**Fagopyrum esculentum** Moench  
*[F. sagittatum]*  
*buckwheat*
introduced and sparingly established; Asia; uncommon; fill, disturbed open ground
*Frequency:* 1 site - UBW
*Flowers:* 6/7-8/9;  *Specimens:* CUW 9242, RIB 800

**Polygonum amphibium** L.  
*[P. coccineum, P. natans]*  
*water smartweed*
native; common; ponds, pond margins; *Frequency:* 3 sites - CUP INL LEP
*Flowers:* 8/1-9/1;  *Specimens:* CUW 18480

**Polygonum arenastrum** Boreau  
*sand knotweed*
introduced and established; Europe; uncommon; dumps, waste ground; *Frequency:* 1 site - GHP
*Flowers:* 6/12;  *Specimens:* HUH-Woodward, RIB 1027
*Comments:* the distinction between this species and *P. aviculare* is obscure; the HUH specimen, originally identified as *P. aviculare*, was included in an *arenastrum* folder and appears to be that species, although it was not so annotated

**Polygonum arifolium** L.  
*halberd-leaved tearthumb*
native; common; swamps, marshes; *Frequency:* 10+ sites - ASC BMB GDA INL LMT NWD PCM QSP
*Flowers:* 7/23-9/6 (9/13)  *Fruit:* 9/6-9/27;  *Specimens:* RIB 1217

**Polygonum aviculare** L.  
*doorweed*
introduced and established; cosmopolitan; common; lawns, roadides, compacted ground
*Frequency:* 8 sites - BMB BLR GNS HCC HOC LOF UBW
*Flowers:* 6/24-11/18  *Fruit:* 10/4-11/5;  *Specimens:* CUW 19923, RIB 1121

**Polygonum careyi** Olney  
*Carey's knotweed*
native; fairly common; disturbed ground, sometimes wet
*Frequency:* 6 sites - BMB HCC HOC LDF LJS PTM
*Flowers:* 7/24-9/1  *Fruit:* 9/29;  *Specimens:* RIB 718
**Polygonum cespitosum** Blume  
**Chinese smartweed**  
introduced and established; Asia; common; woodland edge, roadsides and other disturbed ground, often moist  
*Frequency: 10+ sites - BLR BMB CSP GDA HCC PAR PCM PRF*  
*Flowers: 7/6-10/14 (6/14)  Fruit: 8/26-10/14; Specimens: CUW 31153, RIB 240*  
*Comments: a recent and successful invader, not listed in Jackson (1909), termed rare by Seymour (1969)*

**Polygonum cilinode** Michx.  
**fringed bindweed**  
native; fairly common; rocky woods and disturbed ground; *Frequency: 3 sites - AIR BAR KEB*  
*Flowers: 6/16-8/24  Fruit: 7/15-9/19; Specimens: CUW 22927, RIB 1391*

**Polygonum convolvulus** L.  
**black bindweed**  
introduced and established; Europe; fairly common; roadsides, waste places, fill  
*Frequency: 5 sites - BEH ELP GHP GNS TFL*  
*Flowers: 6/22-8/28  Fruit: 7/22-8/28; Specimens: CUW 20860, RIB 1145*

**Polygonum cuspidatum** Sieb. & Zucc.  
**Japanese knotweed**  
introduced and established; Asia; common; roadsides, woodland edge, disturbed ground, usually moist  
*Frequency: 10+ sites - BMB COR CRR KEB PAR PRF PTM SJC*  
*Flowers: 8/7-9/11 (10/1)  Fruit: 10/31-12/2; Specimens: CUW 19394*

**Polygonum hydropiper** L.  
**water pepper**  
native (?); locally fairly common; stream margins  
*Frequency: 3 sites - BMB MIR PCM*  
*Flowers: 8/29-9/7  Fruit: 9/7; Specimens: CUW 9266, RIB 1906*

**Polygonum hydropiperoides** Michx.  
**mild water pepper**  
native; uncommon; open floodplains, pond margins; *Frequency: 2 sites - LEP MIR*  
*Flowers: 7/10-9/1  Specimens: RIB 1156*  
*Comments: recorded by Jackson (1927) as locally abundant in Lake Quinsigamond*

**Polygonum lapathifolium** L.  
**nodding smartweed**  
native and introduced; common; roadsides, floodplains, thickets, disturbed open ground  
*Frequency: 10+ sites - BMB DOP GHP HCC MIR PCM UBW*  
*Flowers: 7/10-9/19  Fruit: 7/19-12/3; Specimens: CUW 22913, RIB 332*

**Polygonum pensylvanicum** L.  
**pink knotweed**  
native; common; shores, marshes, open floodplains, disturbed ground  
*Frequency: 10+ sites - BMB GHP HCC HOC LJS PCM PTM*  
*Flowers: 7/24-10/13  Fruit: 8/26-12/2; Specimens: CUW 17352, RIB 1719*

**Polygonum persicaria** L.  
**lady’s thumb**  
[int. *P. minus*]  
introduced and established; Europe; common; dumps, waste places, gardens and other disturbed ground  
*Frequency: 10+ sites - BMB CSP FGS GHP HOC LDS UMM*  
*Flowers: 6/22-8/28 (9/15)  Fruit: 7/10-9/4; Specimens: CUW 9265, RIB 667*

**Polygonum punctatum** Elliott  
**dotted smartweed**  
native; common; water margins, wet meadows and marshes  
*Frequency: 10+ sites - BLR BMB CRH CUP LJS MIR PFB*  
*Flowers: 7/17-9/24  Fruit: 9/1-9/29; Specimens: HUH-M, RIB 717*  
*Comments: our plants include both the typical variety and var. *confertiflorum* (RIB 700)*

**Polygonum sachalinense** F.W.Schmidt  
**giant knotweed**  
introduced, status uncertain, no recent records; Asia;  *Comments: recorded by Seymour (1969) in Worcester*
**Polygonum sagittatum** L.  
*native; common; marshes, wet thickets; Frequency: 10+ sites - BEP BMB CBM FGS MIR NWD SRR TFL  

**Polygonum scandens** L.  
*native; common; wet thickets, clearings, open floodplains  
*Frequency: 10+ sites - BMB CKP HCC HOC MIR PRF SRR  
*Flowers: 7/28-9/23  *Fruit: 9/6-12/3

**Polygonum tenue** Michx.  
*native, no records since 1879;  *Specimens: HUH-M;  *Comments: a state watch list species

**Rumex acetosa** L.  
*introduced, status uncertain, no records since 1941; Eurasia;  *Specimens: CUW 15464

**Rumex acetosella** L.  
*introduced and established; Eurasia; common; lawns, fields and disturbed open ground, often dry  
*Frequency: 10+ sites - BMB CBM ELP GHP HCC HOC KEB PRF  
*Flowers: 5/29-7/25 (5/19-12/2)  *Fruit: 7/12-9/5;  *Specimens: CUW 284, RIB 1541

**Rumex crispus** L.  
*introduced and established; Europe; common; fields, waste places, disturbed ground  
*Frequency: 10+ sites - BMB GNS HCC LMT PAR PCM PFB TFL  
*Flowers: 6/4-7/5  *Fruit: 7/10-12/6;  *Specimens: CUW 12120

**Rumex obtusifolius** L.  
*introduced and established; Europe; common; wet ground  
*Frequency: 9 sites - BMB CSP CKP GDA NWD PFB SJC TFL  
*Flowers: 6/21-7/12  *Fruit: 10/14-12/3;  *Specimens: CUW unnumbered

**Rumex salicifolius** J.A.Weinm.  
*[R. triangulivalvis]*  
*introduced, status uncertain, no records since 1947; North America;  *Specimens: CUW 23176  
*Comments: CUW specimen from the former Boston and Albany railroad freight yards

**Portulacaceae**

**Claytonia caroliniana** Michx.  
*native, no records since 1849;  *Specimens: CUW 24395  
*Comments: CUW specimen from Patch Woods near June St. where there were “spring beauties as far as the eye can see” (Potter 1948)

**Portulaca grandiflora** Hook.  
*introduced but apparently not established; South America; uncommon; dump;  *Frequency: 1 site - SJC  
*Flowers: 7/25;  *Specimens: CUW 7004

**Portulaca oleracea** L.  
*introduced and established; Asia; fairly common; dumps, waste places, gardens  
*Frequency: 9 sites - BAR BIP GHP HCC HOC NDC PTM UMM  
*Flowers: 7/31-9/11  *Fruit: 9/11-9/19;  *Specimens: CUW 12293

**Primulaceae**

**Anagallis arvensis** L.  
*introduced and established; Europe; uncommon; railroad bed;  *Frequency: 1 site - BLR  
*Flowers: 6/21;  *Specimens: CUW 909, RIB 1082
**Lysimachia ciliata** L. *Steironema c.* fringed loosestrife
native; common; swamps, marshes, shores, wet thickets
*Frequency:* 10+ sites - BLR BMB CKP FGS PCM SAP TFL
*Flowers:* 6/26-8/2 (8/30)  *Fruit:* 10/11-10/31;  *Specimens:* CUW 686

**Lysimachia nummularia** L. moneywort
introduced and established; Europe; fairly common; clearings, woodland edge, lawns, usually moist
*Frequency:* 6 sites - ASC BMB CKF KEB LMT
*Flowers:* 6/17-7/7 (6/15-7/21)  *Fruit:* 10/2-10/31;  *Specimens:* HUH-M

**Lysimachia quadrifolia** L. whorled loosestrife
native; common; woods, often dry;  *Frequency:* 10+ sites - BEP BMB CSP HDP KEB PCM PRF
*Flowers:* 6/17-7/7 (6/15-7/21)  *Fruit:* 10/3-10/23;  *Specimens:* CUW 523, RIB 1069

**Lysimachia terrestris** (L.)BSP. swamp candles
native; common; marshes, swamps, shores;  *Frequency:* 10+ sites - BMB CSP DOP GHP INL PCM PFB
*Flowers:* 6/24-7/22 (6/17)  *Fruit:* 10/3-10/23;  *Specimens:* CUW 18026

**Lysimachia vulgaris** L. garden loosestrife
introduced, status uncertain, no records since 1937; Eurasia;  *Specimens:* CUW 6986

**Lysimachia x producta** (A.Gray)Fern. quadrifolia x terrestris
native, no records since 1934;  *Specimens:* HUH-Woodward
*Comments:* a hybrid between *L. quadrifolia* and *L. terrestris*

**Primula japonica** A.Gray Japanese primrose
introduced and apparently established; Asia; uncommon; wet woods along small stream
*Frequency:* 1 site - ASC
*Flowers:* 6/3;  *Specimens:* RIB 977
*Comments:* presumably originally planted in this location, and seemingly naturalized

**Trientalis borealis** Raf. [T. americana] starflower
native; common; woods, often dry;  *Frequency:* 10+ sites - BMB CMB CSP LMT LOF PCM TFL WDR
*Flowers:* 5/13-6/2  *Fruit:* 7/15-9/2;  *Specimens:* CUW 528

**Pyrolaceae**

**Chimaphila maculata** (L.)Pursh spotted wintergreen
native; common; woods, mesic to dry;  *Frequency:* 10+ sites - BMB CSP GDA KEB LOF PAR PRF QSP
*Flowers:* 7/12-7/28  *Fruit:* 4/16;  *Specimens:* CUW 25704

**Chimaphila umbellata** (L.)Barton pipsissewa
native; fairly common; dry woods
*Frequency:* 8 sites - AHM BUP CKP CSP GDA LMT PCM;  *Specimens:* CUW 3590, RIB 1576

**Pyrola elliptica** Nutt. shinleaf
native; fairly common; woods, mesic to dry
*Frequency:* 10+ sites - BMB CSP LMT LOF NWD PCM UBW WBS
*Flowers:* 6/21-6/30;  *Specimens:* CUW 3590, RIB 1576

**Pyrola rotundifolia** L. [P. americana] round-leaved pyrola
native; uncommon; woods;  *Frequency:* 3 sites - LMT PCM PFB
*Flowers:* 7/7;  *Specimens:* RIB 597
Ranunculaceae

**Actaea alba** (L.) Miller [A. pachypoda]

Native; fairly common; rich woods; **Frequency**: 10+ sites - BMB CMB CSP GDA LMT PFB TFL

*Flowers*: 5/15-6/2; *Fruit*: 8/8-10/14; *Specimens*: CUW 31561

**Actaea rubra** (Aiton) Willd.

Native; uncommon; rich mesic woods and thickets; **Frequency**: 2 sites - CMB PFB

*Fruit*: 7/25-7/31; *Specimens*: CUW 313

**Anemone blanda** Schott & Kotschy

Introduced but not established; Eurasia; uncommon; edge of woods, near dump for yard waste

**Frequency**: 1 site - LMT

*Flowers*: 4/26; *Specimens*: RIB 896; *Comments*: presumably persisting from discarded bulbs

**Anemone nemorosa** L.

European wood anemone

Introduced but not established; Eurasia; uncommon; open woods; **Frequency**: 1 site - HDA

*Flowers*: 4/21; *Specimens*: RIB 1639; *Comments*: presumably planted, showing some vegetative spread

**Anemone virginiana** L. [A. riparia]

Native, no records since 1973; *Specimens*: CUW unnumbered

**Aquilegia canadensis** L.

Wild columbine

Native; uncommon; ledges, dry woods; **Frequency**: 8 sites - AID BMB CMB GDA LOF PRF TFL

*Flowers*: 5/17-6/28; *Specimens*: CUW 740

**Caltha palustris** L.

Marsh marigold

Native; common; swamps, water margins; **Frequency**: 9 sites - ASC BMB CKP CSP GDA LMT NWD PCM

*Flowers*: 4/22-5/24; *Fruit*: 6/2-7/5; *Specimens*: CUW 7038, RIB 1498

**Clematis virginiana** L.

Virgin's bower

Native; common; moist thickets; **Frequency**: 9 sites - AHP AID BMB CMB PCM PFB TFL

*Flowers*: 8/4-8/30 (7/31); *Fruit*: 10/11-12/6; *Specimens*: CUW 9592

**Coptis trifolia** (L.) Salisb. [C. groenlandica]

Goldthread

Native; common; wet woods; **Frequency**: 10+ sites - ASC BMB CSP GDA NWD PCM TFL

*Flowers*: 5/3-5/15; *Fruit*: 8/8; *Specimens*: CUW 327, RIB 1501

**Hepatica americana** (DC.) Ker Gawler [H. nobilis, H. triloba]

Round-lobed hepatica

Native; uncommon; mesic woods; **Frequency**: 5 sites - AHM CSP GDA LOF TFL

*Flowers*: 4/19-4/22; *Specimens*: CUW 12478
Ranunculus abortivus L. kidney-leaved crowfoot
native; fairly common; woods, often rocky, waste places
Frequency: 10+ sites - BLR BMB CSP KEB LDS LMT PCM UBW
Flowers: 5/8-6/6 (9/5) Fruit: 5/21-9/5; Specimens: CUW 24910

Ranunculus acris L. tall buttercup
introduced and established; Eurasia; common; fields, thickets, woodland edge
Frequency: 10+ sites - AHP BMB CSP GHP HCC LMT PCM
Flowers: 5/20-7/3 (10/11) Fruit: 7/12-10/11; Specimens: CUW 22310

Ranunculus bulbosus L. bulbous buttercup
introduced and established; Europe; common; lawns, clearings
Frequency: 9 sites - BMB CSP ELP GHP HCC PCM UBW
Flowers: 5/29-6/7 (5/23); Specimens: CUW 3552, RIB 15

Ranunculus flabellaris Raf. yellow water buttercup
native, no records since 1890; Comments: recorded by Stone (1899) from Lake Quinsigamond

Ranunculus hispidus Michx. [R. marilandicus, R. septentrionalis] bristly buttercup
native, no records since 1938; Specimens: CUW 9424

Ranunculus recurvatus Poiret hooked crowfoot
native; fairly common; wet woods, stream margins
Frequency: 8 sites - BMB CMB CSP DAR KEB LMT NWD

Ranunculus repens L. creeping buttercup
introduced and established; Eurasia; common; brooks and shorelines
Frequency: 10+ sites - BMB CKP DOP GDA HCC INL LOF PAR
Flowers: 5/13-6/26 Fruit: 7/12-8/3; Specimens: CUW 26253, RIB 16

Ranunculus scleratus L. cursed crowfoot
native; uncommon; disturbed wet ground; Frequency: 2 sites - GHP GNS
Flowers: 6/6-6/12; Specimens: RIB 998
Comments: recorded by Jackson (1909) from Lake Quinsigamond, no town mentioned; our plants are var. scleratus

Ranunculus trichophyllus Chaix [R. aquatilus var. capillaceus] white water buttercup
native, no records since 1890; Specimens: MASS-Stone
Comments: the Stone specimen is from Lake Quinsigamond

Thalictrum dioicum L. early meadow rue
native; uncommon; moist or rocky woods; Frequency: 6 sites - AHM BMB CSP GDA LOF TFL

Thalictrum pubescens Pursh [T. polygonum] tall meadow rue
native; common; moist woods and fields, marshes, water margins
Frequency: 10+ sites - BMB CSP KEB LDS NWD PAR PCM
Flowers: 6/18-7/22 (6/16-7/26) Fruit: 8/21-10/24; Specimens: CUW 13757

Thalictrum revolutum DC. waxy meadow rue
native, no records since 1933; Specimens: CUW 895
Resedaceae

*Reseda alba* L.  white mignonette
introduced, status uncertain, no recent records; Mediterranean and Asia;  *Specimens*: HUH-NEBC

Rhamnaceae

*Ceanothus americanus* L.  New Jersey tea
native; uncommon; dry hillsides with open woods;  *Frequency*: 2 sites - BEP PRF;  *Specimens*: CUW 16375
*Comments*: CUW specimen from Lake Park

*Rhamnus cathartica* L.  common buckthorn
introduced and established; Eurasia; fairly common; woods, woodland edge, thickets, roadsides
*Frequency*: 10+ sites - BMB CMB CSP GHP HOC PTM UBW
*Flowers*: 5/18-6/3  *Fruit*: 9/6-4/5;  *Specimens*: CUW 16223, RIB 454

*Rhamnus frangula* L.  European buckthorn
introduced and established; Eurasia; common; woodland edge, thickets, shorelines, often wet
*Frequency*: 10+ sites - CKP CRR DOP GHP HOC INL SAP SJC
*Flowers*: 5/28-7/15 (7/19)  *Fruit*: 7/9-12/3;  *Specimens*: CUW 25768

Rosaceae

*Agrimonia gryposepala* Wallr.  common agrimony
native; uncommon; rich woods;  *Frequency*: 5 sites - ASC BMB CRH GDA TFL
*Flowers*: 7/13-8/6 (7/12-8/14)  *Fruit*: 9/6-9/19;  *Specimens*: CUW 1000, RIB 1205

*Amelanchier arborea* (Michx.f.)Fern.  downy shadbush
native, no records since 1925;  *Specimens*: CUW 10116

*Amelanchier canadensis* (L.)Medikus  eastern serviceberry
native; fairly common; swamps, shores, thickets
*Frequency*: 9 sites - ASC BMB CKF CMB DOP LEP UBW WBS
*Flowers*: 5/3-5/13;  *Specimens*: CUW 396, RIB 1116

*Amelanchier laevis* Wieg.  *A. arborea* var. *laevis*
smooth shadbush
native; fairly common; shores, woods, often moist
*Frequency*: 10+ sites - BMB GDA GHP HDL LEP LMT PAR TFL
*Flowers*: 4/21-5/9  *Fruit*: 6/24-7/5;  *Specimens*: HUH-M, RIB 1022

*Amelanchier spicata* (Lam.)K.Koch  *A. stolonifera*
running shadbush
native; uncommon; dry fields and roadsides;  *Frequency*: 3 sites - BMB HDP PFB
*Flowers*: 5/9-5/13;  *Specimens*: CUW 32688, RIB 907

*Aronia arbutifolia* (L.)Pers.  *Pyrus a.*
red chokeberry
native; uncommon; dry thickets and clearings;  *Frequency*: 3 sites - BLR BMB GDA;  *Specimens*: RIB 1740
*Comments*: most *Aronia* plants with pubescent leaves appear to be *A. prunifolia*, but a few have the smaller, red fruits of *arbutifolia*

*Aronia melanocarpa* (Michx.)Elliott  *Pyrus m.*
black chokeberry
native; fairly common; thickets, woods, shores;  *Frequency*: 10+ sites - BMB CRH DOP ELP INL PAR PRF
*Flowers*: 5/12-6/2  *Fruit*: 8/3-10/23;  *Specimens*: CUW 5780
**Aronia x prunifolia (Marshall)** Rehder  
*Pyrus floribunda*  
purple chokeberry  
native; fairly common; swamps, shores, dry thickets  
*Frequency*: 8 sites - AID BEH BMB DOP GDA GHP PRF WBS  
*Flowers*: 5/29-6/3 (6/5)  
*Fruit*: 8/8-10/16;  
*Specimens*: RIB 1061  
*Comments*: a hybrid of *A. melanocarpa* and *A. arbutifolia*

**Chaenomeles speciosa (Sweet)** Nakai  
flowering quince  
introduced and apparently established; Asia; uncommon; disturbed woods;  
*Frequency*: 1 site - BBP  
*Flowers*: 5/5;  
*Specimens*: RIB 1825  
*Comments*: several small plants growing where they are unlikely to have been planted

**Crataegus chrysocarpa Ashe**  
[C. rotundifolia]  
fireberry hawthorn  
native, no records since 1931;  
*Specimens*: CUW 1661

**Crataegus coccinea L.**  
[C. pringlei, C. holmesiana]  
scarlet hawthorn  
native; locally fairly common; woods;  
*Frequency*: 3 sites - BAT CMB LOF  
*Flowers*: 6/2  
*Fruit*: 10/14;  
*Specimens*: RIB 1525

**Crataegus flabellata (Bosc) K.Koch**  
[C. acutiloba, C. macrosperma, C. pastorum, C. propria]  
fanleaf hawthorn  
native; fairly common; woods, thickets;  
*Frequency*: 7 sites - AID BMB CMB LMT NWD PCM TFL  
*Flowers*: 5/20-6/2;  
*Specimens*: CUW 2127, RIB 767

**Crataegus monogyna Jacq.**  
[C. oxycantha]  
English hawthorn  
introduced and apparently formerly established, no recent records; Eurasia  
*Comments*: recorded by Jackson (1927) as established

**Crataegus pruinosa (Wendl.f.) K.Koch**  
[C. rugosa]  
frosted hawthorn  
native; uncommon; moist woods;  
*Frequency*: 1 site - NWD;  
*Specimens*: CUW 1409, RIB 1918

**Crataegus punctata Jacq.**  
dotted hawthorn  
native, no recent records;  
*Comments*: recorded by Jackson (1909)

**Filipendula rubra (Hill) B.L.Robinson**  
queen-of-the-prairie  
introduced, status uncertain, no records since 1937; southeastern United States  
*Comments*: recorded by Potter et al. (1940) from "waste land"

**Fragaria ananassa Duchesne**  
garden strawberry  
introduced but not clearly established; cultigen; uncommon; clearing near habitation  
*Frequency*: 1 site - BMB  
*Flowers*: 5/29

**Fragaria virginiana Duchesne**  
wild strawberry  
native; fairly common; fields, clearings, woodland edge  
*Frequency*: 10+ sites - AHP ASC BMB CSP GHP HDA KEB PCM  
*Flowers*: 5/13-6/9;  
*Specimens*: CUW 398, RIB 912

**Geum canadense Jacq.**  
white avens  
native; common; woods, thickets, often moist  
*Frequency*: 10+ sites - BUP CMB CSP GHP LDS LMT LOF QSP  
*Flowers*: 6/21-7/31  
*Fruit*: 8/7-10/4;  
*Specimens*: HUH-M, RIB 1174

**Geum laciniatum Murray**  
rough avens  
native; common; marshes, wet fields and thickets  
*Frequency*: 10+ sites - ASC BMB GHP LDS NWD PFB UBW  
*Flowers*: 6/7-7/12  
*Fruit*: 7/24-9/16;  
*Specimens*: CUW 6531, RIB 1101
**Geum rivale** L. \textit{water avens}
native; uncommon; wet meadow; \textit{Frequency}: 1 site - TFL
\textit{Flowers}: 5/29; \textit{Specimens}: HUH-M

**Physocarpus opulifolius** (L.)Maxim. \textit{ninebark}
introduced and sparsely established; eastern North America
uncommon; roadsides, woodland edge, disturbed ground; \textit{Frequency}: 5 sites - ELP GAL MIR SAP UBW
\textit{Fruit}: 8/28-11/11; \textit{Specimens}: RIB 311
\textit{Comments}: recorded by Jackson (1909) as escaped in Worcester; some of the current sites undoubtedly represent planted specimens

**Potentilla anserina** L. [\textit{Argentina a.}] \textit{silverweed}
introduced, status uncertain, no recent records; circumboreal
\textit{Comments}: recorded by Jackson (1927) as locally persistent on waste land

**Potentilla argentea** L. \textit{silvery cinquefoil}
introduced and established; common; lawns, disturbed open ground
\textit{Frequency}: 10+ sites - BLR BMB BUP COR CUP ELP HCC PFB
\textit{Flowers}: 6/4-10/11 (5/18-11/5) \textit{Fruit}: 7/18-10/11; \textit{Specimens}: CUW 393, RIB 1473

**Potentilla arguta** Pursh \textit{tall cinquefoil}
native, no recent records; \textit{Comments}: recorded by Jackson (1909) as spreading on roadsides and poor soil

**Potentilla canadensis** L. \textit{dwarf cinquefoil}
native; common; lawns, barren ground; \textit{Frequency}: 10+ sites - BMB CMB GHP HDP KEB LEP PRF SJC
\textit{Flowers}: 5/8-6/9 (4/28); \textit{Specimens}: CUW 397, RIB 1544

**Potentilla intermedia** L. \textit{downy cinquefoil}
introduced and established; uncommon; railroad yards; \textit{Frequency}: 1 site - CRR
\textit{Flowers}: 6/14-6/15; \textit{Specimens}: CUW 29157, RIB 1047

**Potentilla norvegica** L. \textit{P. monspeliensis} \textit{rough cinquefoil}
native; common; disturbed fields, waste places
\textit{Frequency}: 10+ sites - BEH BLR BMB COR PCM TFL UBW
\textit{Flowers}: 6/7-9/16 \textit{Fruit}: 7/25-9/16; \textit{Specimens}: CUW 26254, RIB 1075

**Potentilla recta** L. \textit{rough-fruited cinquefoil}
introduced and established; common; fields, waste places, disturbed open ground
\textit{Frequency}: 10+ sites - BIP BMB CMB GHP PAR PFB PRF
\textit{Flowers}: 6/13-10/9 (6/7-10/16) \textit{Fruit}: 7/25-12/2; \textit{Specimens}: CUW 32967

**Potentilla simplex** Michx. \textit{common cinquefoil}
native; common; fields, clearings, roadsides
\textit{Frequency}: 10+ sites - BEP BMB CSP GDA GHP PAR PCM PRF
\textit{Flowers}: 5/22-6/30 (5/19-7/6); \textit{Specimens}: CUW 25682

**Prunus americana** Marshall \textit{wild plum}
native, no records since 1946; \textit{Specimens}: CUW 24916
\textit{Comments}: CUW specimen from northwest shore of Wilder Pond, its label notes that the site was subsequently obliterated

**Prunus avium** L. \textit{sweet cherry}
introduced and presumably established; Eurasia; uncommon; woods; \textit{Frequency}: 2 sites - TFL WBS
\textit{Flowers}: 4/28-5/9; \textit{Specimens}: RIB 905
\textit{Comments}: the WBS plant was a sapling growing in the woods, unlikely to have been planted; the TFL plant was probably planted
**Prunus nigra** Aiton

-native, no recent records;  *Specimens:* CUW 25747

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**Prunus padus** L.

-European bird cherry

-introduced and formerly established, no recent records; Asia

- *Comments:* recorded by Jackson (1927) as established in a vacant lot on Franklin St

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**Prunus pensylvanica** L.f.

-pin cherry

-native;  common;  woodland edge, thickets, dry fields

- *Frequency:* 10+ sites - BMB BUP HDP KEB PCM PRF TFL

- *Flowers:* 4/23-5/23  *Fruit:* 7/26;  *Specimens:* CUW 807, RIB 422

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**Prunus persica** (L.)Batsch

-peach

-introduced, status uncertain, no records since 1932; Asia;  *Specimens:* CUW 400

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**Prunus pumila** L.  *P. susquehanae*

-sand cherry

-native;  uncommon;  dry sandy clearing;  *Frequency:* 1 site - PRF

- *Flowers:* 5/17;  *Specimens:* CUW 4424, RIB 418;  *Comments:* our plants are var. cuneata

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**Prunus serotina** Ehrh.

-black cherry

-native;  fairly common;  woods, woodland edge, hedgerows, thickets

- *Frequency:* 10+ sites - BMB CSP ELP GDA GHP LMT PRF

- *Flowers:* 5/18-6/9  *Fruit:* 8/6-9/6;  *Specimens:* CUW 9811, RIB 950

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**Prunus virginiana** L.

-choke cherry

-native;  fairly common;  thickets, woodland edge, disturbed woods

- *Frequency:* 10+ sites - BMB DOP GHP LMT INH MIR PCM

- *Flowers:* 5/12-5/28  *Fruit:* 8/9;  *Specimens:* CUW 3468

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**Pyrus baccata** L.  *Malus b.*

-Siberian crabapple

-introduced and established; Asia;  uncommon;  disturbed woods

- *Frequency:* 1 site - PAR;  *Specimens:* RIB 873

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**Pyrus communis** L.

-pear

-introduced but not established; Eurasia;  uncommon;  roadside;  *Frequency:* 1 site - HCC

- *Specimens:* RIB 1865

- *Comments:* along roadside adjacent to larger, presumably planted individuals; perhaps originating by vegetative spread

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**Pyrus malus** L.  *Malus pumila*

-apple

-introduced and established; Eurasia;  fairly common;  disturbed woods

- *Frequency:* 10+ sites - BMB BUP CSP DOP GHP HDP PCM


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**Pyrus prunifolia** Wild.  *Malus p.*

-Chinese crabapple

-introduced and established; Asia;  locally fairly common;  thickets, woodland edge

- *Frequency:* 2 sites - CMB HDP

- *Flowers:* 5/16  *Fruit:* 9/16-9/23;  *Specimens:* RIB 1393

- *Comments:* recorded by Potter and Woodward (1935) from Chadwick Square

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**Pyrus sieboldii** Regel  *Malus s.*

-toringo crabapple

-introduced and established; Asia;  fairly common;  thickets, woodland edge, swamp borders

- *Frequency:* 8 sites - AHP ASC CMB ELP HCC LDS PCM

- *Flowers:* 5/13-5/20;  *Specimens:* RIB 720

- *Comments:* this is the most common identifiable crabapple in the City; many individuals in this genus are not readily assigned to a species
**Rhodotypos scandens** (Thunb.) Makino  
[R. kerrioides]  
white kerria  
introduced, status uncertain; Asia;  
*Specimens*: MASS-Ahles 81857  
*Comments*: recorded by Potter and Woodward (1935) from June Street as an escape

**Rosa carolina** L.  
pasture rose  
native; fairly common; dry woods and thickets;  
*Frequency*: 6 sites - AID BEP BMB CRH LIS QSP  
*Flowers*: 6/28-7/11;  
*Specimens*: CUW 15913, RIB 1112

**Rosa eglanteria** L.  
sweetbriar  
introduced and apparently established; Eurasia; rare; dry woods of overgrown pasture  
*Frequency*: 1 site - LOF  
*Flowers*: 6/27;  
*Specimens*: CUW 15717, RIB 1592

**Rosa multiflora** Thunb.  
multiflora rose  
introduced and established; Asia; common; thickets, woodland edge, disturbed ground  
*Frequency*: 10+ sites - AHP BMB CMB CSP HCC PAR TFL  
*Flowers*: 5/28-6/27  
*Fruit*: 10/13-4/19;  
*Specimens*: RIB 1577

**Rosa palustris** Marshall  
swamp rose  
native; fairly common; marshes, wet meadows, pond margins  
*Frequency*: 8 sites - BMB BUP FLP INL LDS LQU TFL  
*Flowers*: 6/22-7/23 (8/25);  
*Specimens*: CUW 17555, RIB 1209

**Rosa rugosa** Thunb.  
rugosa rose  
introduced, persistent but not clearly established; Asia; uncommon; disturbed fields  
*Frequency*: 1 site - HOC KEB  
*Flowers*: 6/16

**Rosa virginiana** Miller  
Virginia rose  
native; fairly common; fields, often dry;  
*Frequency*: 7 sites - BEP BIP BMB BUS CRH HCC TFL  
*Flowers*: 6/23-7/6;  
*Specimens*: CUW 16472, RIB 1095

**Rubus allegheniensis** T.C.Porter  
common blackberry  
native; common; fields, thickets, disturbed woods;  
*Frequency*: 10+ sites - BMB CSP GDA GHP PAR PRF  
*Flowers*: 5/28-6/30 (7/6)  
*Fruit*: 7/20-9/4;  
*Specimens*: CUW 26951, RIB 1540

**Rubus canadensis** L.  
smooth blackberry  
native; no records since 1932;  
*Specimens*: CUW 387

**Rubus flagellaris** Willd.  
[R. villosus]  
northern dewberry  
native; common; fields, open woods and disturbed ground, often dry  
*Frequency*: 10+ sites - ASC BMB CSP CUP KEB PAR PCM PRF  
*Flowers*: 5/23-7/1  
*Fruit*: 7/23-9/4;  
*Specimens*: CUW 32115, RIB 104

**Rubus hispidus** L.  
swamp dewberry  
native; common; swamps, moist woods and fields  
*Frequency*: 10+ sites - BMB CMB HDP LMT PCM PRF QSP  
*Flowers*: 6/17-7/22  
*Fruit*: 8/21-8/28;  
*Specimens*: CUW 12109, RIB 1210

**Rubus idaeus** L.  
red raspberry  
native; common; thickets, woodland edge, often moist  
*Frequency*: 10+ sites - BMB CSP FGS HCC LOF PAR PFB TFL  
*Flowers*: 5/28-6/26 (8/31)  
*Fruit*: 7/6-8/30;  
*Specimens*: CUW 27606
Rubus laciniatus Willd.  [R. procerus]  evergreen blackberry
introduced, status uncertain, no records since 1945; Europe;  
Specimens: CUW 18175
Comments: CUW specimen from a railroad siding

Rubus occidentalis L.  black raspberry
native;  common;  thickets, woodland edge;  
Frequency: 10+ sites - BMB CSP ELP LDS MIR PAR RUC TFL
Flowers: 5/21-6/8  Fruit: 7/6-8/4;  
Specimens: CUW 3476, RIB 936

Rubus odoratus L.  flowering raspberry
native;  uncommon;  thicket;  
Frequency: 1 site - FGS
Flowers: 7/11;  
Specimens: CUW 12117

Rubus pensilvanicus Poiret  [R. frondosus]  Pennsylvania blackberry
native;  fairly common;  thickets and woods;  
Frequency: 4 sites - AHM FGS GHP KEB
Flowers: 5/30-6/22;  
Specimens: RIB 1020

Rubus pubescens Raf.  [R. triflorus]  dwarf raspberry
native;  fairly common;  swamps, wet woods, streambanks
Frequency: 8 sites - ASC BMB CSP GDA LMT PCM TFL

Rubus setosus Bigel.  [R. semisetosus, R. vermontanus]  bristly blackberry
native;  locally fairly common;  moist thickets, shores;  
Frequency: 2 sites - BMB HDP
Flowers: 7/6;  
Specimens: RIB 589;  Comments: recorded by Jackson (1909) at Peat Meadow

Sorbus aucuparia L.  European mountain ash
introduced and established; Eurasia;  fairly common;  woods, thickets
Frequency: 10+ sites - BMB BUP DOP ELP GHP HDP PCM PRF
Flowers: 5/12-5/30  Fruit: 8/23-9/11;  
Specimens: MASS-Ahles 81932, RIB 1645
Comments: spreading by seed from plantings

Spiraea alba DuRoi  [S. latifolia]  meadowsweet
native;  common;  fields and thickets, often moist;  
Frequency: 10+ sites - BLR BMB GHP PAR PCM SAP
Specimens: CUW 392, RIB 1260
Comments: our plants are var. latifolia

Spiraea thunbergii Sieb.  Thunberg spiraea
introduced, persistent but probably not established; Asia;  uncommon;  roadside
Frequency: 1 site - UBW;  
Specimens: RIB 1477
Comments: recorded by Potter et al (1940) as "established in waste land, persists"

Spiraea tomentosa L.  steeplebush
native;  fairly common;  fields, pond margins, wet (usually) or dry ground
Frequency: 10+ sites - BMB CMB GHP HDP INH LQU MIR SAP
Flowers: 7/13-8/8  Fruit: 12/3;  
Specimens: CUW 25413, RIB 1259

Rubiaceae

Cephalanthus occidentalis L.  buttonbush
native;  common;  pond and river margins, shrub swamps
Frequency: 10+ sites - BEP BMB CKP COR HDP INL PAR SAP
Flowers: 7/11-8/18 (8/25);  
Specimens: CUW 6175
**Diodia teres** Walter [Diodella t.]
 Introduced, status uncertain, no recent records; North and Central America
Comments: recorded by Jackson (1927) from two sites: a railroad dump and waste land

**Galium aparine** L. cleavers
Native; fairly common; waste places and other disturbed ground; *Frequency: 4 sites - BLR GRS HDA TFL*
*Flowers: 5/31-7/25 Fruit: 7/25-8/4; Specimens: RIB 965*

**Galium asprellum** Michx. rough bedstraw
Native; common; wet woods and thickets, swamps; *Frequency: 6 sites - ASC BMB CKP PFB QSP TFL*
*Flowers: 7/13-8/7; Specimens: CUW 8083, RIB 1199*

**Galium boreale** L. northern bedstraw
Native, no recent records
Comments: recorded by Jackson (1927) from north Worcester, locally established on wild land, thus suggesting that it may have been introduced or misidentified; a state endangered species

**Galium circaezans** Michx. wild licorice
Native; fairly common; woods, usually mesic; *Frequency: 4 sites - BAR CMB LMT LOF*
*Flowers: 6/27 Fruit: 9/19; Specimens: HUH-Wiegand, RIB 1236*

**Galium lanceolatum** Torr. lance-leaved wild licorice
Native; locally fairly common; dry to mesic woods; *Frequency: 3 sites - GDA LMT TFL*
*Flowers: 6/10-7/12 Fruit: 9/8; Specimens: CUW 10158, RIB 572*

**Galium mollugo** L. wild madder
Introduced and established; Europe; common; fields, disturbed open ground
*Frequency: 10+ sites - BMB COR HCC KEB NDC PCM TFL*
*Flowers: 6/7-9/25 (5/31-11/4) Fruit: 7/25-12/3; Specimens: CUW 6605, RIB 273*

**Galium odoratum** (L.)Scop. sweet woodruff
Introduced and sparingly established; Eurasia; uncommon; disturbed woods; *Frequency: 1 site - PTM*
*Flowers: 5/22-6/1; Specimens: RIB 453*

**Galium palustre** L. marsh bedstraw
Native; common; marshes, wet woods and thickets
*Frequency: 10+ sites - AHM BMB FGS INL LMT NWD PCM TFL*
*Flowers: 6/13-7/12; Specimens: CUW 574, RIB 603*

**Galium sylvaticum** L. Scotch mist
Introduced, status uncertain, no records since 1936; Europe
Comments: recorded by Potter et al. (1940) as "spontaneous in grassland"

**Galium tinctorium** (L.)Scop. Clayton's bedstraw
Native; common; swamps, marshes, shores; *Frequency: 10+ sites - BMB CRH CSP GHP HDP LDS MIR*
*Flowers: 6/14-8/9 Fruit: 8/9; Specimens: CUW 34139, RIB 1240*

**Galium triflorum** Michx. sweet-scented bedstraw
Native; fairly common; woods, moist to mesic; *Frequency: 10+ sites - BMB CSP GDA KEB LMT PCM*
*Flowers: 6/21-8/5 (6/14) Fruit: 8/5-10/11; Specimens: CUW 16434, RIB 1269*

**Galium verum** L. yellow bedstraw
Introduced, status uncertain, no records since 1966; Eurasia; *Specimens: CUW 34136*
Comments: CUW specimen is a lawn weed
Hedyotis caerulea (L.)Hook.  [Houstonia c.]
bluets
native; common; lawns, fields, paths; Frequency: 10+ sites - BMB CMB GDA HOC KEB LOF PCM TFL
Flowers: 5/1-6/19 (4/23-7/12)  Fruit: 6/26-7/24;  Specimens: CUW 3472

Mitchella repens L.
partridgeberry
native; common; woods; Frequency: 9 sites - AHM BMB CMB CSP LMT NWD PCM
Flowers: 6/18-7/7  Fruit: 12/6-4/26;  Specimens: CUW 566

Rutaceae

Phellodendron japonicum Maxim.
cork tree
introduced and sparingly established; Asia; uncommon; woods; Frequency: 2 sites – GNS HDA

Ptelea trifoliata L.
hoptree
introduced and established; east central North America; uncommon; woodland edge
Frequency: 1 site - CMB;  Specimens: MASS-Ahles 82312, RIB 1402

Salicaceae

Populus alba L.
white poplar
introduced and sparingly established; Eurasia; uncommon; disturbed ground
Frequency: 3 sites - CUP INH LEP;  Specimens: CUW 16835, RIB 1804

Populus deltoides Marshall
cottonwood
introduced? and established; east-central North America; common; pond margins, waste places, floodplains
Frequency: 10+ sites - BLR BMB CUP KEB LEP LQU PRF PTM
Flowers: 4/23  Fruit: 5/8-6/24;  Specimens: CUW 7238
Comments: native in western Massachusetts and introduced in the eastern counties

Populus grandidentata Michx.
big-toothed aspen
native; common; clearings, disturbed woods; Frequency: 10+ sites - BMB CSP GHP NDC PCM PRF SJC

Populus tremuloides Michx.
quaking aspen
native; common; thickets, roadsides, young woods
Frequency: 10+ sites - AHP BMB COR CSP GHP HDPC PCM TFL
Flowers: 3/31-5/12  Fruit: 5/13-5/16;  Specimens: CUW 16241, RIB 890

Salix alba L.
white willow
introduced and established; Eurasia; uncommon; wet woods, along streams
Frequency: 4 sites - HCC LJS MIR PCM;  Specimens: CUW 28251, RIB 1908
Comments: both var. vitellina (RIB 1803) and the typical variety are present

Salix babylonica L.
weeping willow
introduced and established; Asia; uncommon; shores, marshes
Frequency: 6 sites - AHM GHP LEP LQU PAR;  Specimens: RIB 646

Salix bebbiana Sarg.  [S. rostrata]  Bebb willow
native, no records since 1947;  Specimens: CUW 20270

Salix discolor Muhl.
pussy willow
native; common; swamps, marshes, fields, thickets
Frequency: 10+ sites - BLR BMB BUP GHP KEB PCM PRF
**Salix eriocephala** Michx.  
[S. cordata, S. rigida]  
diamond willow  
native, no records since 1947;  
*Specimens*: CUW 20176;  
*Comments*: CUW specimen from Coes Reservoir

**Salix fragilis** L.  
introduced and established; Eurasia;  
locally fairly common;  
shores, floodplains  
*Frequency*: 3 sites - BLR INL MIR  
*Fruit*: 6/13;  
*Specimens*: RIB 704

**Salix humilis** Marshall  
prairie willow  
native;  
uncommon;  
clearings in dry woods;  
*Frequency*: 2 sites - KEB PRF  
*Specimens*: CUW 20099, RIB 1543

**Salix lucida** Muhl.  
shining willow  
native;  
uncommon;  
swampy pond margin;  
*Frequency*: 1 site - CKP;  
*Specimens*: CUW 21041, RIB 1798  
*Comments*: CUW specimen from swamp along May St., adjacent to Worcester State College

**Salix nigra** Marshall  
black willow  
native;  
common;  
shores, marshes;  
*Frequency*: 10+ sites - AHP BMB CRH CUP INL LJS PAR  
*Flowers*: 5/21  
*Fruit*: 5/13-6/24;  
*Specimens*: CUW 14346, RIB 1032

**Salix pentandra** L.  
bayleaf willow  
introduced, status uncertain, no recent records; Europe;  
*Specimens*: CUW 9421

**Salix sericea** Marshall  
silky willow  
native;  
uncommon;  
mot thicket;  
*Frequency*: 2 sites - BMB TFL  
*Fruit*: 5/13-5/29;  
*Specimens*: RIB 959

**Santalaceae**

**Comandra umbellata** (L.)Nutt.  
bastard toadflax  
native;  
fairly common;  
dry fields, clearings and open woods  
*Frequency*: 10+ sites - BEH BMB CKF CRH GNS GHP PRF QSP  
*Flowers*: 5/24-6/14 (5/13);  
*Specimens*: CUW 16248

**Sarraceniaceae**

**Sarracenia purpurea** L.  
pitcher plant  
native, no records since 1932;  
*Specimens*: CUW 4962

**Saxifragaceae**

**Chrysosplenium americanum** Schwein.  
golden saxifrage  
native;  
common;  
swamps, shady stream margins;  
*Frequency*: 8 sites - ASC BMB CMB CSP LMT PCM  
*Flowers*: 4/22-6/3  
*Fruit*: 5/23-7/5;  
*Specimens*: CUW 4127, RIB 1499

**Deutzia scabra** Thunb.  
deutzia  
introduced, long-persistent but not established; Asia;  
uncommon;  
wooded sites of former gardens  
*Frequency*: 2 sites - BMB GDA  
*Flowers*: 6/10;  
*Specimens*: RIB 1667
Parnassia glauca Raf.  
grass-of-Parnassus  
native, no records since 1879;  
Specimens: HUH-M

Penthorum sedoides L.  
ditch stonecrop  
native;  fairly common;  ditches, muddy shores, disturbed wet ground  
Frequency: 6 sites - AID BMB CKP CRH DOP KEB  
Flowers: 7/15-8/14 (8/30)  
Fruit: 9/30-10/17;  
Specimens: CUW 6923, RIB 284

Saxifraga pensylvanica L.  
swamp saxifrage  
native;  common;  swamps;  
Frequency: 5 sites - ASC CSP GDA LMT TFL  
Flowers: 5/22-6/3  
Fruit: 6/20-7/4;  
Specimens: CUW 4331

Saxifraga virginiensis Michx.  
early saxifrage  
native;  uncommon;  outcrops, open rocky woods;  
Frequency: 2 sites - GDA TFL  
Fruit: 5/29;  
Specimens: CUW 4329

Tiarella cordifolia L.  
foamflower  
native, no records since 1932;  
Specimens: CUW 373;  
Comments: CUW specimen from Columbus Park

Scrophulariaceae

Agalinis purperea (L.)Pennell [Gerardia pauperula; G. purpurea parviflora]  
purple gerardia  
native;  common;  shores, wet open ground;  
Frequency: 10+ sites - AHP BMB COR GHP PCM SRR TFL  
Flowers: 8/19-10/11  
Fruit: 9/23-12/3;  
Specimens: CUW 734

Agalinis tenuifolia (M.Vahl)Raf. [Gerardia t.]  
slender gerardia  
native;  uncommon;  dry clearings;  
Frequency: 2 sites - KEB PCM  
Flowers: 8/24-9/9 (9/30)  
Fruit: 9/30;  
Specimens: RIB 1432

Antirrhinum majus L.  
snapdragon  
introduced, persistent but not established; Mediterranean;  
uncommon;  disturbed open ground  
Frequency: 1 site - TFL;  
Specimens: CUW 32699

Aureolaria flava (L.)Farw. [Gerardia f.]  
smooth false foxglove  
native;  common;  dry open woods and clearings;  
Frequency: 5 sites - BMB GDA GNS MIR WIH  
Flowers: 8/8-9/20 (7/23)  
Fruit: 10/2-12/6;  
Specimens: CUW 734

Aureolaria pedicularia (L.)Raf. [Gerardia p.]  
fern-leaved false foxglove  
native;  common;  dry open woods and clearings;  
Frequency: 9 sites - BMB ELP GDA GNS KEB PRF QSP  
Flowers: 8/8-10/14  
Fruit: 9/30-10/31;  
Specimens: CUW 23052, RIB 1924

Aureolaria virginica (L.)Pennell [Gerardia v.]  
downy false foxglove  
native, no records since 1939;  
Specimens: CUW 12173

Castilleja coccinea (L.)Sprengel  
painted cup  
native, no recent records  
Comments: recorded by Potter et al. (1940); historical in eight Massachusetts counties, but no extant records

Chaenorrhinum minus (L.)Lange  
dwarf snapdragon  
introduced and established; Europe;  
locally fairly common;  railroad beds, waste places  
Frequency: 3 sites - BLR BUS CRR  
Flowers: 6/14-9/11  
Fruit: 7/9-9/11;  
Specimens: MASS-Ahles 81949, RIB 1044

Chelone glabra L.  
white turtlehead  
native;  common;  swamps, marshes, shores;  
Frequency: 10+ sites - BMB CSP GDA HDP LDS NWD PCM  
Flowers: 8/23-9/23  
Fruit: 9/25-12/3;  
Specimens: CUW 554, RIB 1366
**Chelone lyonii Pursh**
pink turtlehead
introduced and formerly established, no records since 1937; southeastern United States; *Specimens*: CUW 6611
*Comments*: CUW specimen a probable garden escape; Potter et al. (1940) record "a fine, vigorous colony, spontaneous and spreading"

**Digitalis purpurea L.**
common foxglove
introduced and sparingly established; Europe; uncommon; disturbed open woods; *Frequency*: 1 site - PFB
*Flowers*: 6/17 (7/31); *Specimens*: RIB 1056

**Gratiola aurea Pursh**
golden hedge hyssop
native; locally fairly common; pond margin; *Frequency*: 1 site - COR
*Flowers*: 7/11-9/23; *Specimens*: CUW 16730

**Gratiola neglecta Torr.**
clammy hedge hyssop
native; uncommon; disturbed muddy ground; *Frequency*: 2 sites - BMB SCH
*Flowers*: 7/13-7/15; *Fruit*: 7/15; *Specimens*: RIB 1170

**Linaria angustissima (Loisel.)Borb.** [L. italic] 
Italian toadflax
introduced, status uncertain, no records since 1946; Europe; *Specimens*: CUW 28177
*Comments*: CUW specimen from barren ground at Norton Co.

**Linaria canadensis (L.)Dum.-Cours**
blue toadflax
native; common; dry fields, roadsides, railroad beds and waste places
*Frequency*: 10+ sites - BEP BLR BMB CUP PRF QSP UBW
*Flowers*: 5/28-8/28 (9/26); *Fruit*: 6/21-11/5; *Specimens*: CUW 1002, RIB 1670
*Comments*: our plants are var. *canadensis*

**Linaria vulgaris Miller**
butter-and-eggs
introduced and established; Eurasia; common; fields, roadsides, waste places
*Frequency*: 10+ sites - BMB CMB HCC LEP MIR PRF TFL
*Flowers*: 6/21-10/13 (6/7-10/31); *Fruit*: 9/26-12/2; *Specimens*: CUW 18658

**Lindernia dubia (L.)Pennell** [Ilysanthes d.]
false pimpernel
native; common; muddy shores, ditches, floodplains
*Frequency*: 10+ sites - AID BLR CMB CUP ELP MIR SRR SRR
*Flowers*: 7/10-9/21; *Specimens*: CUW 3545, RIB 1198
*Comments*: the typical variety is more common than var. *anagallidea*, the latter collected at BMB (RIB 1738)

**Melampyrum lineare Desr.**
cow-wheat
native; common; dry woods; *Frequency*: 10+ sites - BMB CKP CSP KEB LMT PAR PCM PRF
*Flowers*: 6/4-8/5 (6/7-9/16); *Specimens*: CUW 9281, RIB 1578
*Comments*: plants keying to both var. *americanum* and var. *latifolium* are present

**Mimulus ringens L.**
monkey flower
native; common; marshes, shores, wet open ground; *Frequency*: 10+ sites - BMB DOP KEB LDS QSP TFL
*Flowers*: 7/13-8/24; *Fruit*: 9/25-12/6; *Specimens*: CUW 6658

**Pedicularis canadensis L.**
wood betony
native; uncommon; woods; *Frequency*: 3 sites - BMB GDA KEB
*Flowers*: 5/15-6/2 (6/9); *Fruit*: 7/12; *Specimens*: CUW 563, RIB 1502

**Penstemon digitalis Nutt.**
white beardtongue
introduced and apparently established; eastern United States; uncommon; open ground under power lines
*Frequency*: 1 site - TFL
*Flowers*: 7/6; *Specimens*: CUW 6599
*Comments*: the TFL site has since been disturbed and no individuals have been seen since
**Penstemon hirsutus** (L.) Willd.  
**hairy beardtongue**
introduced, status uncertain, no records since 1890; eastern United States;  
**Specimens**: MASS-Stone
**Comments**: a state endangered species where native

**Penstemon laevigatus** Aiton  
**smooth beardtongue**
introduced, status uncertain, no records since 1937; southeastern United States;  
**Specimens**: HUH-Dodge

**Scrophularia lanceolata** Pursh  
**hare figwort**
native, no records since 1937;  
**Specimens**: CUW 6598

**Scrophularia nodosa** L.  
**wood figwort**
introduced and established; Europe; uncommon;  
**Frequency**: 1 site - MOW
**Flowers**: (9/29)  
**Fruit**: 9/28-9/29;  
**Specimens**: RIB 1928

**Verbascum blattaria** L.  
**moth mullein**
introduced, status uncertain, no records since 1952; Eurasia;  
**Specimens**: CUW 27927

**Verbascum thapsus** L.  
**common mullein**
introduced and established; Eurasia; common; fields, waste places, roadsides, especially in dry soil  
**Frequency**: 10+ sites - AID BLR BMB HCC NWD PRF UBW
**Flowers**: 6/28-9/30 (6/15)  
**Fruit**: 8/8-4/25;  
**Specimens**: CUW 7205

**Veronica arvensis** L.  
**corn speedwell**
introduced and established; Europe; common; lawns, waste places
**Frequency**: 10+ sites - ASC BMB HCC HDP NDC UBW
**Flowers**: 5/7-7/17  
**Fruit**: 5/31-7/17;  
**Specimens**: CUW 14166, RIB 1816

**Veronica chamaedrys** L.  
**bird’s eye speedwell**
introduced and sparingly established; Europe; uncommon; woods;  
**Frequency**: 1 site - LMT
**Flowers**: 5/23;  
**Specimens**: CUW 3290, RIB 947

**Veronica officinalis** L.  
**common speedwell**
introduced and established; Europe; common; lawns, fields, woods, disturbed ground
**Frequency**: 10+ sites - BMB CSP ELP GHP KEB PAR PRF
**Flowers**: 5/28-6/26 (7/6)  
**Fruit**: 9/19;  
**Specimens**: CUW 564, RIB 1580

**Veronica peregrina** L.  
**purslane speedwell**
native; common; dumps, waste places, damp disturbed ground
**Frequency**: 10+ sites - BMB ELP GHP MIR PRF SJC UBW
**Flowers**: 5/8-6/12  
**Fruit**: 6/6-7/12;  
**Specimens**: CUW 6226, RIB 4

**Veronica scutellata** L.  
**marsh speedwell**
native; uncommon; marshes, swamps;  
**Frequency**: 3 sites - BMB CMB GDA
**Flowers**: 6/5-8/17  
**Fruit**: 7/24;  
**Specimens**: CUW 12510, RIB 1225

**Veronica serpyllifolia** L.  
**thyme-leaved speedwell**
introduced and established; Europe; common; lawns, fields, paths
**Frequency**: 10+ sites - AID ASC BMB CMB CSP HCC LEP NDC
**Flowers**: 5/7-7/17 (8/13)  
**Fruit**: 7/17;  
**Specimens**: CUW 561
Simaroubaceae

_Ailanthus altissima_ (Miller)Swingle

Introduced and established; Asia; common; roadsides, vacant lots, disturbed urban woodlands

*Frequency:* 10+ sites - BMB CRR CSP GHP HCC LEP SJC UBW

*Flowers:* 6/21-7/3 (7/9)  *Fruit:* 9/26-12/6;  *Specimens:* CUW 20241

Solanaceae

_Datura stramonium_ L.  _[D. tatula]_ jimson weed

Introduced and established; North America; locally fairly common; dumps, waste places

*Frequency:* 3 sites - GHP NDC UBW

*Flowers:* 8/9-9/26  *Fruit:* 9/16-4/25;  *Specimens:* CUW 27261

_Datura wrightii_ Regel  _[D. inoxia, D. meteloides]_ Indian apple

Introduced, spontaneous but not established; southwestern North America; uncommon; waste ground at municipal leaf composting site;  *Frequency:* 1 site - AID

*Flowers:* 8/26;  *Specimens:* RIB 1314

_Lycium barbarum_ L.  _matrimony vine_

Introduced, status uncertain, no records since 1938; Mediterranean;  *Specimens:* CUW 8815

*Comments:* an annotation on the CUW specimen states that it is probably _L. chinense_

_Lycopersicon esculentum_ Miller  _tomato_

Introduced, spontaneous but presumably not established; South America; fairly common; dumps, municipal leaf composting sites and piles of debris from storm sewer catch basins

*Frequency:* 5 sites - AID GHP GNS HOC UBW

*Flowers:* 8/5-9/20  *Fruit:* 9/16-9/20

*Comments:* despite the designation of this species as not established, mature fruits with presumably viable seeds were observed at two sites

_Nicandra physalodes_ (L.)Gaertner  _apple-of-Peru_

Introduced, status uncertain, no records since 1942; South America;  *Specimens:* CUW 16431

_Nicotiana rustica_ L.  _wild tobacco_

Introduced, status uncertain, no records since 1934; South America;  *Specimens:* CUW 4212

_Petunia x hybrida_ Vilm.  _[Petunia axillaris]_ petunia

Introduced, persistent but not established; cultigen; uncommon; dumps, waste ground

*Frequency:* 3 sites - HOC NDC SJC

*Flowers:* 7/8-9/26;  *Specimens:* RIB 1137

_Physalis alkekengi_ L.  _Chinese lantern_

Introduced, status uncertain, no records since 1936; Eurasia;  *Specimens:* CUW 5015

_Physalis heterophylla_ Nees  _clammy ground-cherry_

Native; uncommon; dumps, disturbed open ground;  *Frequency:* 5 sites - ASC BMB BLR NDC PTM

*Flowers:* 6/21-9/4;  *Specimens:* RIB 1196

_Physalis longifolia_ Nutt.  _[P. subglabrata]_ smooth ground-cherry

Introduced, status uncertain, no recent records; central North America

*Comments:* recorded by Jackson (1927) from waste land
Physalis philadelphica L.  *P. ixocarpa* tomatillo
introduced, spontaneous but not established; Mexico; uncommon; municipal leaf composting site
Frequency: 1 site - GHP
Flowers: 8/30; Specimens: RIB 1333

Physalis pubescens L.  *P. pruinosa* downy ground-cherry
native, no records since 1933; Specimens: CUW 900; Comments: our plants were the native var. grisea

Solanum carolinense L. horse nettle
introduced and established; east-central United States; uncommon; fields, disturbed open ground
Frequency: 2 sites - LDF UMM
Flowers: 7/17-7/24; Specimens: RIB 721
Comments: recorded by Jackson (1927) as rare in sandy soil at one site in Worcester

Solanum dulcamara L. deadly nightshade
introduced and established; Eurasia; common; fields, thickets, marshes, woodland edge, disturbed ground
Frequency: 10+ sites - BEP BLR BMB GHP HCC PAR PCM
Flowers: 6/16-8/22 (5/30-11/17) Fruit: 7/17-12/2; Specimens: CUW 12304

Solanum nigrum L.  *S. americanum, S. ptychanthum* black nightshade
native; common; dumps, waste places, roadsides
Frequency: 10+ sites - BLR BMB GHP HOC MIR NDC PRF PTM
Flowers: 6/21-10/10 (11/17) Fruit: 8/28-11/5; Specimens: CUW 32495

Solanum rostratum Dunal buffalo bur
introduced, status uncertain, no records since 1944; central United States; Specimens: CUW 20003

Thymelaeaceae

Dirca palustris L. leatherwood, wicopy
native; uncommon; rich, moist woods; Frequency: 2 sites - TFL WDR; Specimens: CUW 23236, RIB 892

Tiliaceae

Tilia americana L. basswood
native; fairly common; rich mesic woods, wooded floodplains
Frequency: 10+ sites - BLR BMB CSP GDA GNS PCM PFB TFL; Specimens: HUH-W 1096, RIB 1054
Comments: ours plants are var. americana

Tilia cordata Miller small-leaved linden
introduced and seemingly established; Europe; uncommon; thickets, disturbed ground
Frequency: 2 sites - GHP MIR; Specimens: RIB 1167

Trapaceae

Trapa natans L. water chestnut
introduced and established; Eurasia and Africa; locally fairly common; pond
Frequency: 1 site - COR; Specimens: RIB 633
Comments: efforts are underway to eliminate this invasive species from Coes Reservoir

Ulmaceae

Celtis occidentalis L. hackberry
native, no records since 1934; Specimens: CUW 4092
**Ulmus americana** L.  
American elm  
native; common; wet woods, water margins  
*Frequency:* 10+ sites - BMB CKP COR CSP GHP INL KEB NDC PCM  
*Flowers:* 3/31-4/22 (3/23-6/1)  
*Fruit:* 5/13-6/13;  
*Specimens:* RIB 940  
*Comments:* despite the ravages of Dutch elm disease, the species is common, though large individuals are rare

**Ulmus procera** Salisb.  
[ *U. minor* ]  
English elm  
introduced, status uncertain, no recent records; Europe;  
*Specimens:* HUH-M

**Ulmus pumila** L.  
Siberian elm  
introduced and established; Asia; fairly common; fields, woodland edge, disturbed ground  
*Frequency:* 8 sites - BLR BUP COR GRS HOC SJC UBW  
*Fruit:* 5/31;  
*Specimens:* MASS-Ahles 81905, RIB 926

**Ulmus rubra** Muhl.  
[ *U. fulva* ]  
slippery elm  
native, no records since 1879;  
*Specimens:* HUH-M

**Urticaceae**

**Boehmaria cylindrica** (L.)Schwartz  
false nettle  
native; common; swamps, marshes, shores  
*Frequency:* 10+ sites - BLR BMB GDA HDP KEB MIR PCM SAP  
*Flowers:* 7/23-8/17 (7/11)  
*Fruit:* 9/23-10/17;  
*Specimens:* CUW 696, RIB 751

**Laportea canadensis** (L.)Wedd.  
wood nettle  
native; fairly common; moist rich woods, stream margins;  
*Frequency:* 5 sites - BMB CSP KEB PAR PCM  
*Flowers:* 7/25-8/2  
*Fruit:* 10/4-10/6;  
*Specimens:* CUW 5592

**Pilea pumila** (L.)A.Gray  
clearweed  
native; common; stream margins, moist shady spots;  
*Frequency:* 7 sites - BMB KEB LDS NWD PTM TFL  
*Flowers:* 7/25-9/13;  
*Specimens:* CUW 6630

**Urtica dioica** L.  
[ *U. d. gracilis, U. gracilis, U. viridis* ]  
stinging nettle  
native; common; thickets, dumps, fields, often moist  
*Frequency:* 10+ sites - BEH BMB CMB GHP HOC KEB LRS NDC QSP  
*Flowers:* 6/26-9/23  
*Fruit:* 10/3-10/31;  
*Specimens:* RIB 1233  
*Comments:* our plants are the native var. procera

**Valerianaceae**

**Valeriana officinalis** L.  
garden heliotrope  
introduced, persistent but apparently not established; Eurasia; rare; roadside;  
*Frequency:* 1 site - TFL  
*Flowers:* 6/18;  
*Specimens:* RIB 1861

**Verbenaceae**

**Verbena bracteata** Lagasca & Rodriguez  
[V. bracteosa]  
prostrate vervain  
introduced, status uncertain, no records since 1936; North America;  
*Specimens:* CUW 5045

**Verbena hastata** L.  
blue vervain  
native; common; moist fields, open floodplains, marshes  
*Frequency:* 10+ sites - AHM BLR BMB CRH GTS MIR PTM UBW  
*Flowers:* 7/13-9/7 (6/30)  
*Fruit:* 9/5;  
*Specimens:* CUW 8188  
*Comments:* a rose-colored form was recorded by Potter and Woodward (1935)
**Verbena urticifolia L.**

white vervain

native; fairly common; woodland edge, dumps, roadsides, thickets

*Frequency:* 10+ sites - AHM AHP ASC BMB FGS MIR SAP UBW

*Flowers:* 7/8-9/4; Specimens: CUW 5199

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**Violaceae**

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**Viola arvensis** Murray

pansy

introduced, status uncertain, no records since 1942; Europe;

*Specimens:* CUW 16531

**Viola blanda** Wild. [V. incognita]

sweet white violet

native; uncommon; moist to mesic woods;

*Frequency:* 2 sites - CMB GDA

*Flowers:* 5/2-5/22; *Specimens:* CUW 4031, RIB 436

**Viola conspersa** Reichenb.

dog violet

native; fairly common; moist woods and clearings;

*Frequency:* 4 sites - BMB LMT PCM TFL

*Flowers:* 5/13-5/29; *Fruit:* 8/6; *Specimens:* CUW 3995, RIB 956

**Viola cucullata** Aiton

marsh blue violet

native; common; wet woods, stream margins, swamps

*Frequency:* 10+ sites - BMB CSP KEB LMT LOF NWD PCM PRF

*Flowers:* 4/28-6/3; *Specimens:* CUW 3939, RIB 908; *Comments:* a white-flowered form is seen occasionally

**Viola lanceolata** L.

lance-leaved violet

native; fairly common; wet open ground, pond margins

*Frequency:* 7 sites - AIR BMB COR CUP GHP HDP TFL

*Flowers:* 5/16-6/5; *Specimens:* CUW 2967

*Comments:* our plants are var. lanceolata; a hybrid between this species and *V. primulifolia* was noted by Potter et al. (1940)

**Viola macloskeyi** F.Lloyd [V. pallens]

northern white violet

native; common; wet woods and fields, swamps

*Frequency:* 8 sites - BMB CMB CSP KEB LMT PCM PRF TFL

*Flowers:* 5/8-6/1; *Specimens:* CUW 454, RIB 1510

**Viola palmata** L. [V. triloba]

palmate violet

native, no recent records;

*Specimens:* CUW 5298

**Viola pedata** L.

birdfoot violet

native; uncommon; dry rocky clearing along railroad tracks;

*Frequency:* 1 site - PRF

*Flowers:* 5/15-5/17; *Specimens:* CUW 4963

**Viola pubescens** Aiton [V. pensylvanica]

downy yellow violet

native; fairly common; rich mesic woods;

*Frequency:* 8 sites - BAR CMB CSP GDA KEB PCM PRF TFL

*Flowers:* 5/13-5/22 (5/2); *Fruit:* 7/12-8/21; *Specimens:* CUW 25632, RIB 911

**Viola rotundifolia** Michx.

round-leaved violet

native; uncommon; moist woods near brook;

*Frequency:* 1 site - GDA

*Flowers:* 5/1; *Specimens:* CUW 25654

**Viola sagittata** Aiton [V. fimbriatula]

arrow-leaved violet

native; common; dry fields, lawns and disturbed grounds

*Frequency:* 10+ sites - BMB CMB HDP KEB PCM PRF UBW

*Flowers:* 4/28-5/22; *Fruit:* 6/19-7/18; *Specimens:* CUW 4067, RIB 1496
**Viola sororia** Willd.  
*V. latiuscula, V. papilionacea*  
common blue violet  
native;  
common;  
open woods, woodland edge, lawns  
Frequency: 10+ sites - BMB BUP CSP DOP HDA LOF PCM  
Flowers: 5/2-6/2 (4/21);  
Specimens: CUW 32193, RIB 898  
Comments: most plants key to *V. papilionacea* in floras that divide *V. sororia*, though var. *latiuscula* is also present

**Viola striata** Aiton  
creamy violet  
introduced, status uncertain, no records since 1929; eastern United States  
Comments: recorded by Potter and Woodward (1935) from Tatnuck; presumably this was an introduction as the species is not listed by Seymour (1969) for New England, and is not listed north of New York by Fernald (1950)

**Viola tricolor** L.  
Johnny-jump-up  
introduced and established; Europe;  
fairly common;  
lawns, gardens, dumps  
Frequency: 4 sites - HOC NDC PRF SJC  
Flowers: 5/5-11/18 (4/11);  
Specimens: CUW 32850

**Viola x wittrockiana** Gams.  
pansy  
introduced, persistent but not established; hybrid cultigen;  
rare;  
woodland edge;  
Frequency: 1 site - HOC  
Flowers: 5/16

**Vitaceae**

**Parthenocissus quinquefolia** (L.)Planchon  
Virginia creeper  
native;  
common;  
woods, clearings, thickets, walls  
Frequency: 10+ sites - BMB GDA GHP HOC KEB PCM PTM TFL  
Flowers: 7/8-7/13  
Fruit: 9/22;  
Specimens: CUW 12099

**Parthenocissus tricuspidata** (Sieb. & Zucc.)Planchon  
Boston ivy  
introduced and seemingly established; Asia;  
fairly common;  
woodland edge, masonry structures  
Frequency: 7 sites - CMB CRR HCC HOC INL PAP SAP;  
Specimens: CUW 15723, RIB 1907

**Vitis aestivalis** Michx.  
summer grape  
native;  
fairly common;  
woods, dry to mesic  
Flowers: 6/22;  
Frequency: 10+ sites - BMB CSP GDA KEB LOF NWD PCM;  
Specimens: CUW 10990

**Vitis labrusca** L.  
fox grape  
native;  
common;  
woods, woodland edge, shores, thickets  
Frequency: 10+ sites - BMB CSP GDA HDP KEB LDS NWD  
Flowers: 6/13-8/1  
Fruit: 9/19-10/14;  
Specimens: CUW 1010, RIB 105
Monocotyledons

Acoraceae

*Acorus calamus* L.  [*A. americanus*]  
**sweetflag**
native and introduced; common; marshes, wet meadows;  
*Frequency*: 6 sites - CMB HDP NWD SAP WBS  
*Flowers*: 6/5  *Fruit*: 9/16;  *Specimens*: CUW 10704  
*Comments*: *A. calamus* may in fact be a non-native, sterile, triploid species distinct from the fertile native diploid *A. americanus*; some local plants appear fertile, and perhaps should be assigned to the latter species; most herbarium specimens do not note this distinction

Agavaceae

*Yucca filamentosa* L.  [*Y. flaccida*]  
**Spanish bayonet**
introduced, status uncertain, no recent records; southeastern United States  
*Comments*: Jackson (1927) reported that three plants were "escaped in dry soil"

Alismataceae

*Alisma subcordatum* Raf.  [*A. plantago-aquatica var. parviflorum*]  
**water plantain**
native; fairly common; marshes, shores;  
*Frequency*: 10+ sites - BMB CRH DOP LJS PCM SAP UBW  
*Flowers*: 7/6-9/7  *Fruit*: 8/14-9/29;  *Specimens*: CUW 18027  
*Comments*: our plants are var. *graminea*

*Alismataceae*

*Sagittaria graminea* Michx.  
**grassleaf arrowhead**
native; locally fairly common; shallow water at pond margin  
*Frequency*: 1 site - FLP;  *Specimens*: HUH-Stone, RIB 1132;  *Comments*: our plants are var. *graminea*

*Alismataceae*

*Sagittaria latifolia* Willd.  
**common arrowhead**
native; fairly common; shores, marshes;  
*Frequency*: 10+ sites - BMB COR GHP HDP LEP LJS MIR PCM  
*Flowers*: 7/10-9/6;  *Specimens*: HUH-M

Araceae

*Arisaema triphyllum* (L.)Schott.  [*A. atrorubens*]  
**Jack-in-the-pulpit**
native; common; moist, rich woods;  
*Frequency*: 10+ sites - BMB CSP GDA HDA KEB LMT PCM PRF  
*Flowers*: 5/9-5/20 (5/2-5/31)  *Fruit*: 8/30-10/4;  *Specimens*: CUW 12540, RIB 937  
*Comments*: I have seen only var. *atrorubens*, though var. *stewardsonii* is represented by CUW 24883

*Calla palustris* L.  
**water arum**
native; common; swamps, marshes;  
*Frequency*: 4 sites - AID ASC BMB PCM  
*Flowers*: 6/26-7/6 (8/17)  *Fruit*: 8/17

*Peltandra virginica* (L.)Schott. & Endl.  
**arrow arum**
native; common; marshes, open floodplains, shallow water along shores  
*Frequency*: 7 sites - BLR BMB CUP FLP LEP LQU MIR  
*Flowers*: 6/23-7/10;  *Specimens*: CUW 12284

*Symplocarpus foetidus* (L.)Nutt.  
**skunk cabbage**
native; common; wet woods, swamps;  
*Frequency*: 10+ sites - BMB DOP HDP LEP LMT PRF QSP WBS  
*Flowers*: 3/16-4/15  *Specimens*: CUW 16228
Commelinaceae

Commelina communis L. Asiatic dayflower
introduced and established; Asia; fairly common; roadsides, shores, waste places
Frequency: 10+ sites - CMB CRR GHP HDP LDS NDC PTM TFL
Flowers: 7/8-10/10   Fruit: 9/26;   Specimens: CUW 194, RIB 1286

Tradescantia virginiana L. spiderwort
introduced and established; southeastern United States; uncommon; dumps, waste places
Frequency: 8 sites - BLR BMB CUP LDS LMT PAR PFB PTM
Flowers: 5/28-7/6 (7/12);   Specimens: CUW 4346, RIB 1557

Cyperaceae

Bulbostylis capillaris (L.)C.B.Clarke [Stenophyllus c.] sand sedge
native; common; dry lawns, sandy open spots, pavement cracks, waste places
Frequency: 10+ sites - BEH BIP BMB CSP CUP ELP FLP HOC
Flowers: 7/15-8/17   Fruit: 8/26-12/2;   Specimens: CUW 153, RIB 1175

Carex albicans Willd. [C. emmonsii, C. varia] Emmon's sedge
native; uncommon; dry sandy woods; Frequency: 2 sites - HOC KEB;   Specimens: RIB 1542
Comments: our plants are var. emmonsii

Carex argyrantha Tuckerman silvery sedge
native; fairly common; dry rocky woods, ledges; Frequency: 9 sites – BEH BMB GDA GHP KEB UBW
Flower: 7/15-10/2;   Specimens: CUW 27891, RIB 1168

Carex atlantica L.Bailey [C. howei, C. incomperta] prickly sedge
native; common; swamps, wet woods, shores; Frequency: 9 sites - ASC BMB CSP GHP LMT PCM PRF
Flowers: 5/17   Fruit: 7/5-8/19;   Specimens: RIB 528
Comments: our plants are var. capillacea

Carex blanda Dewey woodland sedge
native; fairly common; mesic woods; Frequency: 5 sites - BMB PAR PCM TBR WBS
Flower: 6/16;   Specimens: CUW 27790, RIB 48

Carex brevior (Dewey)Mackenzie short fescue sedge
native; common; fields, waste places, roadsides, disturbed open ground
Frequency: 10+ sites - BLR BUS CSP CUP HOC LOF SJC WBS
Flower: 6/24-11/5;   Specimens: RIB 725

Carex bromoides Willd. brome sedge
native; common; swamps, wet woods, shores
Frequency: 10+ sites - ASC BMB CMB CSP HDP LMT NWD TFL

Carex brunnescens (Pers.)Poiret brownish sedge
native; fairly common; sphagnum swamps, wet woods; Frequency: 6 sites - BMB CSP GDA PCM PRF
Flower: 6/19-9/3;   Specimens: HUH-Howe, RIB 811

Carex canescens L. silvery bog sedge
native; fairly common; swamps, woodland pools; Frequency: 4 sites - BMB INL PCM TFL
Flower: 6/13-7/6;   Specimens: HUH-M, RIB 1105

Carex caryophylllea Latour. vernal sedge
introduced, status uncertain, no records since 1930; Eurasia; Specimens: CUW 21576
Carex cephalophora Muhl. oval-headed sedge
native; fairly common; fields, woodland edge, woods, disturbed ground
Frequency: 10+ sites - BMB CMB DOP GNS LDS PTM TFL
Flowers: 6/4 Fruit: 7/25-9/19; Specimens: CUW 18208 RIB 41
Comments: ours plants are var. cephalophora

Carex communis L.Bailey colonial sedge
native; common; woods, usually mesic; Frequency: 10+ sites - AHM CMB CRH CSP GDA KEB PAR

Carex comosa F. Boot bristly sedge
native; fairly common; marshes, shores; Frequency: 9 sites - AID CMB COR INL PFB SAP TFL
Fruit: 7/11-12/3; Specimens: CUW 18422, RIB 642

Carex complanata Torr. & Hook. hirsute sedge
[C. triceps, C. hirsutella] native; uncommon; clearing; Frequency: 1 site - CMB; Specimens: RIB 1681

Carex conoidea Schk. field sedge
native, no records since 1930; Specimens: CUW 6022

Carex crawfordii Fern. Crawford's sedge
native, no records since 1949; Specimens: CUW 26406

Carex crinita Lam. awned sedge
native; common; swamps, marshes, water margins
Frequency: 10+ sites - BMB COR CRH INL LJS NWD PFB SAP
Fruit: 7/1-10/3; Specimens: CUW 19518, RIB 123; Comments: our plants are var. crinita

Carex cristatella Britton [C. cristata] crested sedge
native, no recent records; Comments: recorded by Jackson (1909); a state watch list species

Carex cumulata (L. Bailey)Mackenzie crowded sedge
native; uncommon; damp depression in dry woods; Frequency: 1 site - BEH; Specimens: RIB 1883

Carex debilis Michx. [C. arctata var. rudgei] northern stalked sedge
native; common; woods and occasionally open ground
Frequency: 10+ sites - BMB CSP ELP GHP LMT TFL UBW
Fruit: 6/26-8/2; Specimens: CUW 19518, RIB 27; Comments: our plants are var. rudgei

Carex deweyana Schwein. Dewey's sedge
native; uncommon; rich, rocky woods; Frequency: 1 site - GDA; Specimens: CUW 6519, RIB 1920

Carex diandra Schrank panicled sedge
native, no recent records; Comments: recorded by Jackson (1909); a state watch list species

Carex digitalis Willd. slender-spiked wood sedge
native; uncommon; mesic woods; Frequency: 7 sites - AHM BAR BMB CSP LMT PCM WDR
Flowers: 5/13-6/13 Specimens: RIB 517

Carex echinata Murray [C. angustior, C. cephalantha, C. stellulata] prickly sedge
native; common; swamps, marshes; Frequency: 6 sites - BMB CSP GHPPCM PFB TFL
Fruit: 6/17-7/18; Specimens: RIB 529

Carex festucacea Schk. fescue sedge
native; uncommon; moist fields and thickets; Frequency: 2 sites - AIR BMB
Fruit: 7/15-7/25; Specimens: RIB 1711
Carex flava L. yellow sedge
native; uncommon; swamp; Frequency: 1 site - PFB
Fruit: 9/24; Specimens: RIB 1410; Comments: recorded by Jackson (1909)

Carex foena Willd. [C. aenea, C. siccata] hay sedge
native, no records since 1930; Specimens: HUH-M

Carex folliculata L. long-culmed sedge
native; common; sphagnous swamps, wet woods; Frequency: 5 sites - AID BMB CSP GDA PCM
Fruit: 8/22-3/31 Specimens: CUW 8981, RIB 530

Carex gracillima Schwein. graceful drooping sedge
native; common; moist to mesic woods; Frequency: 10+ sites - BMB GDA KEB LMT LOF PAR PCM TFL
Flowers: 5/16 (5/24) Fruit: 5/22-10/17; Specimens: CUW 6522, RIB 1559

Carex gynandra Schwein. northern awned sedge
native; common; swamps, marshes, shores; Frequency: 8 sites - BMB DOP LDS LMT NWD PCM TFL
Fruit: 7/5-9/27; Specimens: CUW 167, RIB 488

Carex haydenii Dewey Hayden's sedge
native, no records since 1930; Specimens: CUW 31256; Comments: a state watch list species

Carex hirta L. hairy sedge
introduced, status uncertain, no records since 1943; Europe; Specimens: CUW 17402

Carex hystericina Muhl. porcupine sedge
native; uncommon; pond margin; Frequency: 1 site - INL; Specimens: RIB 643

Carex intumescens Rudge bladder sedge
native; fairly common; wet woods, swamps; Frequency: 10+ sites - ASC BMB CSP GDA NWD PCM QSP
Fruit: 8/29-10/17; Specimens: CUW 21579, RIB 1274

Carex lacustris Willd. [C. riparia] marsh sedge
native; locally common; marshes; Frequency: 2 sites - BMB PTM
Flowers: 5/25; Specimens: CUW 5924, RIB 515

Carex lasiocarpa Ehrh. [C. filiformis, C. lanuginosa] slender wooly-fruited sedge
native, no records since 1930; Specimens: CUW 1884

Carex laxiculmis Schwein. spreading woodland sedge
native; fairly common; mesic woods; Frequency: 10+ sites - AID BMB CSP GDA LMT PCF PFB
Fruit: 7/5; Specimens: CUW 26949, RIB 588

Carex laxiculmis Lam. loose-flowered woodland sedge
native; fairly common; mesic woods; Frequency: 10+ sites - BMB CSP GDA KEB LMT LOF PCM TFL
Flowers: 5/8-5/20 Fruit: 6/19-8/4; Specimens: CUW 25813, RIB 86

Carex lenticularis Michx. shore sedge
native, no records since 1933; Specimens: CUW 1005; Comments: a state threatened species

Carex leporina L. hare's foot sedge
introduced and presumably formerly established, no records since 1931; Eurasia; Specimens: CUW 21570

Carex leptalea Wahlenb. delicate sedge
native; locally fairly common; sphagnous swamps
Frequency: 3 sites - ASC BMB PCM; Specimens: CUW 6521, RIB 1067
<table>
<thead>
<tr>
<th>Species</th>
<th>Note</th>
<th>Native Status</th>
<th>Common Status</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Carex leptonervia</em> <strong>(Fern.)Fern.</strong></td>
<td>one-nerved woodland sedge</td>
<td>native;</td>
<td>no records since 1937;</td>
<td>Specimens: CUW 6524</td>
</tr>
<tr>
<td><em>Carex lucorum</em> <strong>Willd.</strong> [C. <em>pensylvanica</em> var. <em>distans</em>]</td>
<td>long-beaked Pennsylvania sedge</td>
<td>native, no records since 1933;</td>
<td>Specimens: HUH-Bemis</td>
<td></td>
</tr>
<tr>
<td><em>Carex lupulina</em> <strong>Muhl.</strong></td>
<td>hop sedge</td>
<td>native;</td>
<td>uncommon; swamps, wet woods</td>
<td>Frequency: 5 sites - BMB CSP GDA LJS TFL; Specimens: HUH-M, RIB 314</td>
</tr>
<tr>
<td><em>Carex lurida</em> <strong>Wahlenb.</strong></td>
<td>sallow sedge</td>
<td>native;</td>
<td>common; wet woods, swamps, marshes, shores</td>
<td>Frequency: 10+ sites - BMB CRH GDA GHP LDS LJS PCM SAP</td>
</tr>
<tr>
<td><em>Carex muhlenbergii</em> <strong>Schk.</strong></td>
<td>Muhlenberg's sedge</td>
<td>native;</td>
<td>uncommon; disturbed, dry open ground;</td>
<td>Frequency: 1 site - GNS</td>
</tr>
<tr>
<td><em>Carex normalis</em> <strong>Mackenzie</strong> [C. <em>mirabilis</em>]</td>
<td>big straw sedge</td>
<td>native;</td>
<td>common; fields, thickets, woods, disturbed ground</td>
<td>Frequency: 10+ sites - AHP BLR BMB CRH LDS LOF NWD TFL</td>
</tr>
<tr>
<td><em>Carex pallescens</em> <strong>L.</strong></td>
<td>shiny green sedge</td>
<td>native;</td>
<td>uncommon; woods and fields;</td>
<td>Frequency: 8 sites - AHM CSP ELP HDA LMT PCM TFL</td>
</tr>
<tr>
<td><em>Carex paupercula</em> <strong>Michx.</strong> [C. <em>magellanica</em>]</td>
<td>bog sedge</td>
<td>native, no records since 1932</td>
<td>Comments: recorded by Potter and Woodward (1935) from Worcester (var. <em>irrigua</em>)</td>
<td></td>
</tr>
<tr>
<td><em>Carex pensylvanica</em> <strong>Lam.</strong></td>
<td>Pennsylvania sedge</td>
<td>native;</td>
<td>common; woods and clearings, usually dry</td>
<td>Frequency: 10+ sites - BMB CSP GDA LMT PCM PRF</td>
</tr>
<tr>
<td><em>Carex platyphylla</em> <strong>Carey</strong></td>
<td>broad-leaved woodland sedge</td>
<td>native;</td>
<td>fairly common; mesic woods;</td>
<td>Frequency: 6 sites - AHM CSP GDA LOF PCM TFL</td>
</tr>
<tr>
<td><em>Carex prasina</em> <strong>Wahlenb.</strong></td>
<td>twisted drooping sedge</td>
<td>native;</td>
<td>fairly common; wet woods, shady stream margins;</td>
<td>Frequency: 6 sites - AHM CSP GDA KEB TFL</td>
</tr>
<tr>
<td><em>Carex projecta</em> <strong>Mackenzie</strong></td>
<td>beaded sedge</td>
<td>native;</td>
<td>locally fairly common; wet woods, pond margins;</td>
<td>Frequency: 3 sites - HOC NWD PCM</td>
</tr>
<tr>
<td><em>Carex pseudocyperus</em> <strong>L.</strong></td>
<td>galangale sedge</td>
<td>native;</td>
<td>uncommon; marshes, swamps;</td>
<td>Frequency: 3 sites - AID ASC TFL</td>
</tr>
</tbody>
</table>

**Fruit**:
- *Carex leptonervia* (Fern.)Fern.: 7/18-12/2; Specimens: CUW 5864, RIB 684
- *Carex lucorum* Willd.: 7/18-12/2; Specimens: CUW 5864, RIB 684
- *Carex lupulina* Muhl.: 7/18-12/2; Specimens: CUW 5864, RIB 684
- *Carex lurida* Wahlenb.: 7/18-12/2; Specimens: CUW 5864, RIB 684
- *Carex mohlenbergii* Schk.: 7/10; Specimens: MASS-Ahles 81852, RIB 1154; Comments: our plants are var. mohlenbergii
- *Carex normalis* Mackenzie [C. *mirabilis*]: 7/10; Specimens: MASS-Ahles 81852, RIB 1154; Comments: our plants are var. mohlenbergii
- *Carex pallescens* L.: 7/10; Specimens: MASS-Ahles 81852, RIB 1154; Comments: our plants are var. mohlenbergii
- *Carex paupercula* Michx. [C. *magellanica*]: 7/10; Specimens: MASS-Ahles 81852, RIB 1154; Comments: our plants are var. mohlenbergii
- *Carex pensylvanica* Lam.: 7/10; Specimens: MASS-Ahles 81852, RIB 1154; Comments: our plants are var. mohlenbergii
- *Carex platyphylla* Carey: 7/10; Specimens: MASS-Ahles 81852, RIB 1154; Comments: our plants are var. mohlenbergii
- *Carex prasina* Wahlenb.: 7/10; Specimens: MASS-Ahles 81852, RIB 1154; Comments: our plants are var. mohlenbergii
- *Carex projecta* Mackenzie: 7/10; Specimens: MASS-Ahles 81852, RIB 1154; Comments: our plants are var. mohlenbergii
- *Carex pseudocyperus* L.: 7/10; Specimens: MASS-Ahles 81852, RIB 1154; Comments: our plants are var. mohlenbergii

**Specimens**:
- CUW 6524
- HUH-Bemis
- CUW 5864
- RIB 314
- CUW 1047
- RIB 1154
- CUW 23102
- RIB 451
- CUW 171
- RIB 983
- CUW 6520
- RIB 525
- RIB 1019
- RIB 1247
- RIB 1200
<table>
<thead>
<tr>
<th>Species Name</th>
<th>Common Name</th>
<th>Origin</th>
<th>Habitats</th>
<th>Frequency Sites</th>
<th>Location Codes</th>
<th>Fruit Dates</th>
<th>Specimens</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carex radiata (Wahlenb.)Small</td>
<td>Star Sedge</td>
<td>Native</td>
<td>Woods, Moist to Mesic</td>
<td>8</td>
<td>BAR BLR BMB GDA PFB WDR</td>
<td>6/26-7/3</td>
<td>CUW 25214, RIB 540</td>
</tr>
<tr>
<td>Carex rosea Schk.</td>
<td>Big Star Sedge</td>
<td>Native</td>
<td>Common</td>
<td>Barren Woods</td>
<td>10+</td>
<td>BAR BMB CSP GDA LMT PCM TFL</td>
<td>7/5-10/11</td>
</tr>
<tr>
<td>Carex scabrata Schwein.</td>
<td>Seep Sedge</td>
<td>Native</td>
<td>Common</td>
<td>Swamps, Shady Stream Margins and Seeps</td>
<td>10+</td>
<td>ASC BMB GDA KEB LMT PCM PFB TFL</td>
<td>Flowers: 6/6, Fruit: 8/5-9/27</td>
</tr>
<tr>
<td>Carex scoparia Schk.</td>
<td>Broom Sedge</td>
<td>Native</td>
<td>Common</td>
<td>Shores, Fields and Thickets, Often Wet</td>
<td>10+</td>
<td>AHP BIP BMB CRH GHP KEB PCM</td>
<td>Fruit: 7/15-12/2</td>
</tr>
<tr>
<td>Carex spicata Hudson [C. contigua]</td>
<td>Star Sedge</td>
<td>Introduced</td>
<td>Uncommon</td>
<td>Lawns, Disturbed Open Ground</td>
<td>2</td>
<td>GHP HOC</td>
<td>Fruit: 7/30</td>
</tr>
<tr>
<td>Carex stricta Lam.</td>
<td>Tussock Sedge</td>
<td>Native</td>
<td>Common</td>
<td>Swamps, Marshes, Shores</td>
<td>10+</td>
<td>BMB CKP CMB GHP HDP MIR PCM</td>
<td>Flowers: 5/8-5/23 (6/16), Fruit: 6/17-9/4</td>
</tr>
<tr>
<td>Carex swanii (Fern.)Mackenzie</td>
<td>Swan's Sedge</td>
<td>Native</td>
<td>Common</td>
<td>Woods, Mesic to Dry</td>
<td>10+</td>
<td>BAR BMB CSP GDA LMT NWD</td>
<td>Flowers: 6/6-6/14, Fruit: 7/15-10/4</td>
</tr>
<tr>
<td>Carex tenera Dewey</td>
<td>Slender Straw Sedge</td>
<td>Native</td>
<td>Uncommon</td>
<td>Mesic Woods</td>
<td>6</td>
<td>AHP BMB BUS CSP PCM</td>
<td>Fruit: 7/6-7/21</td>
</tr>
<tr>
<td>Carex torta F.Boott</td>
<td>Riverside Sedge</td>
<td>Native</td>
<td>No Records since 1935</td>
<td></td>
<td></td>
<td></td>
<td>Specimens: CUW 5438</td>
</tr>
<tr>
<td>Carex tribuloides Wahlenb.</td>
<td>Blunt Broom Sedge</td>
<td>Native</td>
<td>Fairly Common</td>
<td>Wet Meadows, Shores, Marshes</td>
<td>9</td>
<td>AHP AID BMB CMB INH LJS PCM TFL</td>
<td>Fruit: 7/21-9/6</td>
</tr>
<tr>
<td>Carex trisperma Dewey</td>
<td>Three-Seeded Bog Sedge</td>
<td>Native</td>
<td>Locally Fairly Common</td>
<td>Sphagnous Swamps</td>
<td>3</td>
<td>GDA TFL WDR</td>
<td>Fruit: 7/22-7/24</td>
</tr>
</tbody>
</table>
Carex umbellata Schk.  
[C. abdita, C. rugosperma, C. tonsa]  
short-beaked sand sedge  
native; uncommon; dry woods and clearings;  
Frequency: 6 sites - BAR BEP BMB CKF KEB TFL  
Flowers: 4/9;  Specimens: CUW 24116, RIB 1643  

Carex utriculata F. Boott  
[C. rostrata var. u.]  
beaked sedge  
native; locally common; marshes;  
Frequency: 2 sites - BMB LDS;  Specimens: CUW 5865, RIB 242  

Carex vesicaria L.  
inflated sedge  
native, no records since 1933;  Specimens: CUW 1006  

Carex vestita Willd.  
velvet-fruited sedge  
native; fairly common; woods and clearings, often dry  
Frequency: 9 sites - BMB GDA HDP LDS PCM PRF QSP  
Fruit: 7/25-8/22;  Specimens: CUW 946, RIB 206  

Carex villescens Muhl.  
ribbed sedge  
native; fairly common; dry to mesic woods;  
Frequency: 7 sites - AHM GDA KEB LOF PCM TFL WDR  
Fruit: 9/23-10/11;  Specimens: CUW 26820, RIB 1666  

Carex vulpinoidea Michx.  
[C. annectens, C. setacea]  
fox sedge  
native; fairly common; shores, marshes, disturbed open ground  
Frequency: 10+ sites - BMB BLR BMB COR CUP LDS SAP  
Fruit: 7/11-7/21;  Specimens: CUW 185 RIB 624  
Comments: both the typical variety and var. ambiguа (RIB 613) are present, the latter in drier habitat  

Cyperus bipartitus Torr.  
[C. rivularis]  
shining flatsedge  
native; common; sandy shores;  
Frequency: 2 sites - BEP COR  
Flowers: 9/21;  Specimens: CUW 22861, RIB 1799  

Cyperus diandrus Torr.  
strand flatsedge  
native; fairly common; pond margins;  
Frequency: 6 sites - BEP CUP ELP FLP PAR UNP  
Flowers: 8/23-9/21  Fruit: 9/8-10/7;  Specimens: RIB 1800  

Cyperus erythrorhizos Muhl.  
redroot flatsedge  
native; fairly common; mucky shores, ditches;  
Frequency: 10+ sites - BIP BLR BMB CUP MIR PAR SRR  
Flowers: 9/5-9/23  Fruit: 9/7-10/2;  Specimens: RIB 874  

Cyperus esculentus L.  
yellow nutsedge  
native; common; waste places, roadsides, shores;  
Frequency: 10+ sites - GHP LMT PCM PRF SJC UMM  
Flowers: 7/17-9/8  Fruit: 9/25-11/18;  Specimens: CUW 24745, RIB 663  

Cyperus lupulinus (Sprengel) Marcks  
[C. filiculmis var. macilentus]  
sand flatsedge  
native; fairly common; dry fields and lawns, waste places, railroad beds  
Frequency: 9 sites - BLR BMB CRR CUP HOC PFB WBS  
Flowers: 8/6-9/11  Fruit: 8/9-9/5;  Specimens: CUW 10413, RIB 1370  

Cyperus strigosus L.  
big straw-colored flatsedge  
native; fairly common; marshes, shores, disturbed open ground  
Frequency: 10+ sites - BLR BMB FLP HDP KEB PCM PTM  
Flowers: 7/31-8/26  Fruit: 9/7-12/3;  Specimens: CUW 18157, RIB 707  

Dulichium arundinaceum (L.) Britton  
three-way sedge  
native; fairly common; marshes, pond margins;  
Frequency: 7 sites - BMB CKP CUP HDP INL LJS  
Flowers: 7/6-7/25  Fruit: 10/2-10/31;  Specimens: CUW 17917
Eleocharis acicularis (L.) Roemer & Schultes  
-native; fairly common; muddy shores;  
*Frequency:* 7 sites - BEP BMB CKP CUP MIR PCM SRR  
*Flowers:* 7/17-9/21;  
*Specimens:* CUW 19803, RIB 865

Eleocharis flavescens (Poiret) Urban  
-[E. olivacea]  
-native; fairly common; mucky pond shore;  
*Frequency:* 1 site - COR  
*Flowers:* 9/23  
*Fruit:* 9/23;  
*Specimens:* RIB 1803

Eleocharis ovata (Roth) Roemer & Schultes  
-[E. obtusa]  
-native; common; muddy shores, floodplains, wet open ground  
*Frequency:* 10+ sites - BMB CKP GHP HDP KEB LEP MIR PCM  
*Flowers:* 7/1-9/21  
*Fruit:* 7/7-10/24;  
*Specimens:* CUW 682, RIB 255

Eleocharis palustris (L.) Roemer & Schultes  
-[E. smallii]  
-native; common; pond margins, wet meadows, often in shallow water  
*Frequency:* 6 sites - AHP COR CRH CUP LDF SRR  
*Flowers:* 7/3  
*Fruit:* 7/24-10/1;  
*Specimens:* RIB 290

Eleocharis robbinsii Oakes  
Robbins' spike-rush  
-native, no recent records;  
*Comments:* recorded by Stone (1899) from Lake Quinsigamond

Eleocharis tenuis (Willd.) Schultes  
-[E. elliptica]  
-native; locally fairly common; swamps, disturbed wet ground;  
*Frequency:* 3 sites - AID AIR PCM  
*Flower:* 7/15-7/17;  
*Fruit:* 9/6-12/3;  
*Specimens:* CUW 14872, RIB 1246

Eriophorum vaginatum L.  
-[E. callitrix, E. spissum]  
-native, no recent records;  
*Comments:* recorded by Jackson (1909)

Eriophorum viridicarinatum (Engelm.) Fern.  
-fen cotton-grass  
-native, no records since 1937;  
*Specimens:* CUW 14872

Fimbristylis autumnalis (L.) Roemer & Schultes  
-autumn fimbry  
-native; locally fairly common; shores, disturbed wet ground;  
*Frequency:* 3 sites - COR CUP GHP  
*Flowers:* 8/30  
*Fruit:* 9/23;  
*Specimens:* RIB 1246

Rhynchospora capitellata (Michx.) Vahl  
-brown beak-rush  
-native; fairly common; fields, shores, gravelly wet open ground  
*Frequency:* 7 sites - AID COR GHP HAS PCM PFB TFL  
*Flowers:* 7/18  
*Fruit:* 9/6-12/3;  
*Specimens:* MASS-Stone, RIB 1439

Scirpus atrovirens Willd.  
-dark green bulrush  
-native; common; paths, fields, wet open ground;  
*Frequency:* 10+ sites - BEP BMB KEB LDS PCM PFB  
*Flowers:* 6/17-6/30 (9/19)  
*Fruit:* 7/3-12/3;  
*Specimens:* RIB 156

Scirpus cyperinus (L.) Kunth  
-[S. atrocinctus, S. pedicellatus]  
-wool-grass  
-native; common; marshes, shores and other wet ground  
*Frequency:* 10+ sites - AHP BMB GHP HDP LDF PCM PTM  
*Flowers:* 7/21-7/25  
*Fruit:* 7/12-12/6;  
*Specimens:* CUW 32821, RIB 341

Scirpus expansus Fern.  
-[S. sylvaticus var. bissellii]  
-spreading bulrush  
-native; fairly common; marshes, streambanks;  
*Frequency:* 5 sites - MIR NWD PCM PFB TFL  
*Flowers:* 6/15-6/19  
*Fruit:* 9/22-12/3;  
*Specimens:* HUH-M, RIB 1254

Scirpus microcarpus J. & K. Presl  
-[S. rubrotinctus]  
-barberpole bulrush  
-native; fairly common; marshes, wet meadows, shores;  
*Frequency:* 5 sites - BIP CMB INL LDF TFL  
*Flowers:* 5/29-6/5  
*Fruit:* 7/13;  
*Specimens:* CUW 3341, RIB 992
**Scirpus polyphyllus** Vahl  
Appalachian bulrush  
native, no recent records;  *Comments*: recorded by Jackson (1909); a state watch list species

**Scirpus subterminalis** Torr.  
water bulrush  
native, no records since 1890;  *Comments*: recorded by Stone (1899) from Lake Quinsigamond

**Scirpus torreyi** Olney  
Torrey's bulrush  
native, no records since 1890  
*Comments*: recorded by Jackson (1909) from Lake Quinsigamond; a state watch list species

**Scirpus validus** Vahl  
softstem bulrush  
native; common; marshes, shallow water of ponds  
*Frequency*: 10+ sites - BMB CRH CUP DOP GHP HDP INL PCM  
*Flowers*: 6/13-7/21 (7/26)  
*Fruit*: 7/18-10/10;  *Specimens*: RIB 817

**Scirpus verecundus** Fern.  
woodland bulrush  
native, no records since 1933;  *Specimens*: CUW 1009

**Eriocaulaceae**

**Eriocaulon aquaticum** (Hill)Druce  
[E. septangulare]  
[**S. tabernaemontani**]  
pipewort  
native, no records since 1890;  *Specimens*: HUH-M;  *Comments*: the specimen is from Lake Quinsigamond

**Hydrocharitaceae**

**Elodea canadensis** Michx.  
[**Anacharis c.**]  
broadleaf waterweed  
native; locally fairly common; ponds and slow streams;  *Frequency*: 3 sites - BMB HDP LEP  
*Comments*: much less widespread than *E. nuttallii*; recorded by Stone (1899) from Lake Quinsigamond

**Elodea nuttallii** (Planchon)St. John  
[Nuttall's waterweed]  
[**Anacharis occidentalis**]  
native; common; shallow water of ponds and slow streams  
*Frequency*: 10+ sites - CUP FLP LEP LQU MIR PAR PCM PAP  
*Flowers*: 6/24-7/11;  *Specimens*: CUW 17916, RIB 627

**Vallisneria americana** L.  
tapegrass  
native; common; ponds  
*Frequency*: 5 sites - CKP CUP FLP LQU PCM  
*Flowers*: 7/16-8/7;  *Specimens*: RIB 654;  *Comments*: recorded by Jackson (1909) from Lake Quinsigamond

**Iridaceae**

**Crocus vernus** (L.)Hill  
crocus  
introduced, persistent but not clearly established; Europe; uncommon; disturbed open woods  
*Frequency*: 2 sites - BBP PAR  
*Flowers*: 4/10;  *Specimens*: RIB 1819

**Iris pseudacorus** L.  
yellow iris  
introduced and established; Europe; common; marshes, shores  
*Frequency*: 10+ sites - BMB BUS COR CUP GNS HDP MIR PFB  
*Flowers*: 5/28-6/23  
*Fruit*: 9/23;  *Specimens*: RIB 1558

**Iris variegata** L.  
garden iris  
introduced and formerly established, no records since 1923; Europe  
*Comments*: recorded by Potter and Woodward (1935) as "an escape, now established near Chadwick Square"
Iris versicolor L. blue flag
native; common; swamps, floodplains, water margins
Frequency: 10+ sites - BLR BMB COR GHP INL LDS MIR PCM
Flowers: 5/28-6/17  Fruit: 9/6-10/23;  Specimens: CUW 10706

Sisyrinchium angustifolium Miller stout blue-eyed grass
native; uncommon; damp field; Frequency: 1 site - TFL;  Specimens: CUW 32327, RIB 1859

Sisyrinchium atlanticum E.Bickn. eastern blue-eyed grass
native; uncommon; fields; Frequency: 3 sites - BMB GHP TFL
Flowers: 6/3-6/26;  Specimens: CUW 773, RIB 1860

Sisyrinchium montanum Greene meadow blue-eyed grass
native; uncommon; fields, disturbed open ground; Frequency: 9 sites - ASC BMB COR ELP HCC PCM
Flowers: 5/31-6/10  Fruit: 8/26;  Specimens: CUW 9420 RIB 970

Juncaceae

Juncus acuminatus Michx. sharp-fruited rush
native; common; marshes, wet ground; Frequency: 5 sites - BIP CMB LDF LMT TFL
Flowers: 9/23  Fruit: 9/23-12/3;  Specimens: UM Stone, RIB 1406

Juncus articulatus L. jointed rush
native; common; marshes, wet meadows, shores; Frequency: 10+ sites - CMB COR FLP INL PCM PFB
Flowers: 7/2-7/15  Fruit: 7/7-10/23;  Specimens: CUW 5862, RIB 1448

Juncus brevicaudatus (Engelm.)Fern. short-tailed rush
native; common; shores, wet ground; Frequency: 10+ sites - BIP BMB COR CUP GHP LDF LMT
Flowers: 7/21-8/6  Fruit: 8/25-12/2;  Specimens: RIB 851

Juncus bufonius L. toad rush
native; fairly common; wet open ground, often disturbed
Frequency: 10+ sites - AHP GDA GHP PCM SCH TFL UMM
Flowers: 7/17-7/17  Fruit: 7/10-8/4;  Specimens: CUW 20740, RIB 675

Juncus canadensis Gay marsh rush
native; common; shores, ditches, wet meadows; Frequency: 6 sites - AID CUP GHP LJS PCM SRR
Flowers: 7/18  Fruit: 9/6-10/3;  Specimens: RIB 839

Juncus effusus L. soft rush
native; common; shores, marshes, disturbed wet ground
Frequency: 10+ sites - BEP BMB GHP NWD PCM SRR TFL
Flowers: 6/20-6/28  Fruit: 7/20-12/2  Specimens: CUW 200, RIB 218;  Comments: our plants are var. solutus

Juncus filiformis L. thread rush
native, no recent records
Comments: recorded by Jackson (1927) as rare, from a south Worcester bog subsequently filled in; a state endangered species

Juncus greenei Oakes & Tuckerman Greene's rush
native; fairly common; dry open ground; Frequency: 4 sites - AIR BEP LDF PFB
Fruit: 7/24;  Specimens: CUW 31212, RIB 714

Juncus marginatus Rostk. grass rush
native; fairly common; wet open ground, shores; Frequency: 6 sites - BMB HAS LMT PCM PFB TFL
Flowers: 8/29  Fruit: 7/22-12/3;  Specimens: MASS-Stone, RIB 349
**Juncus militaris Bigelow**  
*Bayonet rush*  
native, no records since 1890;  *Comments:* recorded by Stone (1899) from Lake Quinsigamond

**Juncus pelocarpus E.Meyer**  
*Pondshore rush*  
native; locally fairly common; shallow water of pond;  *Frequency:* 1 site - COR  
*Specimens:* CUW 18062, RIB 1437;  *Comments:* our plants are var. pelocarpus

**Juncus secundus P.Beauv.**  
*Secund rush*  
native; uncommon; railroad bed;  *Frequency:* 1 site - BLR;  *Specimens:* RIB 1081

**Juncus tenuis Willd.**  
*Path rush*  
native; common; paths, disturbed ground, shores  
*Frequency:* 10+ sites - AHM BMB CMB GNS PAR PCM QSP  
*Flowers:* 6/15-8/6  
*Fruit:* 7/17-3/31;  
*Specimens:* CUW 199, RIB 673;  *Comments:* our plants are var. tenuis

**Luzula multiflora (Retz.)Lej.**  
*Common woodrush*  
native; common; woods, fields, paths;  *Frequency:* 10+ sites - BMB CSP GHP INH KEB LEP PCM  
*Flowers:* 5/7-6/4  
*Fruit:* 6/19-7/12;  
*Specimens:* CUW 967, RIB 64

*Lemnaceae*

**Lemma minor L.**  
*Duckweed*  
native; common; ponds, slow streams, pools  
*Frequency:* 10+ sites - BMB COR CUP HDP LQU PAR PCM SAP

**Spirodela polyrhiza (L.)Schleiden**  
*Big duckweed*  
native; common; ponds, slow streams;  *Frequency:* 7 sites - BMB CKP CUP HDP LEP MIR NDC  
*Comments:* recorded by Stone (1899) from Lake Quinsigamond

**Wolffia columbiana Karsten**  
*Globose water meal*  
native; common; ponds, slow streams;  *Frequency:* 9 sites - BMB CRH CUP FLP HDP INL LEP NDC

*Liliaceae*

**Allium sativum L.**  
*Garlic*  
introduced but presumably not established; Asia; uncommon; partly shaded floodplain  
*Frequency:* 1 site - MIR;  
*Specimens:* RIB 1157

**Allium schoenoprasum L.**  
*Chives*  
introduced and established; circumboreal; uncommon; clearings, disturbed ground  
*Frequency:* 5 sites - BMB LOF PAR PFB TFL  
*Flowers:* 6/17;  
*Specimens:* RIB 1213;  *Comments:* our plants are var. schoenoprasum

**Allium tricoccum Aiton**  
*Wild leek*  
native; locally fairly common; rich woods;  *Frequency:* 1 site - CSP;  
*Specimens:* CUW 28193

**Allium vineale L.**  
*Field garlic*  
introduced and established; Europe; uncommon; fields, disturbed ground, near former dwellings  
*Frequency:* 3 sites - CSP GRS NWD  
*Flowers:* 6/25;  
*Specimens:* CUW 9881, RIB 1097

**Asparagus officinalis L.**  
*Asparagus*  
introduced and sparingly established; Eurasia; uncommon; disturbed open ground  
*Frequency:* 6 sites - BMB CSP CUP FGS PCM UBW  
*Flowers:* 6/5;  
*Specimens:* CUW 10705
Chionodoxa luciliae Boiss.  
**glory-of-the-snow**
introduced and sparingly established; Asia; uncommon; disturbed ground
*Frequency*: 3 sites - BBP BMB PAR
*Flowers*: 4/13;  *Specimens*: RIB 894

Clintonia borealis (Aiton) Raf.  
**bluebead lily**
native; fairly common; woods, often moist;  *Frequency*: 4 sites - BMB GDA PCM WDR
*Flowers*: 5/23 (5/20)  *Fruit*: 7/24;  *Specimens*: CUW 3490

Convallaria majalis L.  
**lily-of-the-valley**
introduced and established; Europe; fairly common; disturbed woods, roadsides
*Frequency*: 10+ sites - BMB CKF DOP HDP NDC PCM UBW
*Flowers*: 5/12-5/29 (5/9);  *Specimens*: CUW 3197
*Comments*: a pink-flowered form was recorded by Potter et al. 1940

Erythronium americanum Ker Gawler  
**trout lily**
native; common; moist woods, floodplains;  *Frequency*: 8 sites - AHM CKP CSP LOF PAR SJC UBW WSC
*Flowers*: 4/23-4/30;  *Specimens*: CUW 230, RIB 1493

Galanthus nivalis L.  
**snowdrop**
introduced and sparingly established; Europe; locally fairly common; disturbed woods
*Frequency*: 1 site - CSP
*Flowers*: 3/9-4/16 (3/6);  *Specimens*: RIB 1481

Hemerocallis fulva (L.) L.  
**orange day-lily**
introduced and established; Eurasia; fairly common; roadsides, thickets, dumps, woodland edge
*Frequency*: 10+ sites - BMB CKF CSP GHP HDA LDS PRF QSP
*Flowers*: 7/12-7/18 (6/23)

Hosta lancifolia Engl.  
*H. japonica*
*narrow-leaved hosta*
introduced, persistent but not established; Asia; uncommon; woodland edge
*Frequency*: 1 site - HOC;  *Specimens*: RIB 1070
*Comments*: plants probably originated as garden discards; slight evidence of vegetative spread

Hosta ventricosa (Salisb.) Stearn  
**blue hosta**
introduced, persistent but not established; Asia; uncommon; woodland edge;  *Frequency*: 1 site - PRF
*Flowers*: 7/13;  *Specimens*: RIB 807

Hypoxis hirsuta (L.) Cov.  
**yellow stargrass**
native; fairly common; clearings and woods, usually dry
*Frequency*: 10+ sites - BMB BUP CMB DOP GHP HDP KEB PRF
*Flowers*: 5/13-8/3 (10/2)  *Fruit*: 10/2;  *Specimens*: CUW 16231

Lilium bulbiferum L.  
**Canada lily**
introduced, persistent but seemingly not established; Europe; rare; clearing;  *Frequency*: 1 site - PRF
*Flowers*: 6/23

Lilium canadense L.  
**Canada lily**
native; fairly common; moist woods, swamps, floodplains
*Frequency*: 6 sites - BMB CKP GDA HDP LDS LMT
*Flowers*: 7/11-7/18 (7/24);  *Specimens*: HUH-M

Lilium lancifolium Thunb.  
*L. tigrinum*
**tiger lily**
introduced and sparingly established; Asia; uncommon; disturbed woods;  *Frequency*: 1 site - GNS
*Flowers*: 8/8
Lilium philadelphicum L.  
wood lily  
native; locally fairly common; dry fields; *Frequency:* 2 sites - BMB TFL  
*Flowers:* 7/6-7/22  
*Fruit:* 10/2;  
*Specimens:* CUW 13240;  
*Comments:* our plants are var. philadelphicum

Maianthemum canadense Desf.  
Canada mayflower  
native; common; woods; *Frequency:* 10+ sites - BMB CKF CSP DOP GDA GHP KEB PRF  
*Flowers:* 5/12-6/13  
*Fruit:* 10/3-12/6;  
*Specimens:* CUW 16232, RIB 957  
*Comments:* our plants are var. canadense

Medeola virginiana L.  
Indian cucumber-root  
native; fairly common; woods; *Frequency:* 10+ sites - ASC BMB CSP GDA LMT PCM PRF TFL  
*Flowers:* 6/3-6/21  
*Fruit:* 8/30-10/2;  
*Specimens:* CUW 14188

Muscari botryoides (L.)Miller  
grape hyacinth  
introduced and sparingly established; Europe; uncommon; disturbed ground in vicinity of former dwelling  
*Frequency:* 1 site - TFL  
*Flowers:* 4/28;  
*Specimens:* RIB 1642

Muscari racemosum (L.)Miller  
grape hyacinth  
[ M. neglectum]  
introduced and sparingly established; Asia; uncommon; dumps; *Frequency:* 2 sites - HOC SJC  
*Flowers:* 5/16-5/17;  
*Specimens:* RIB 914;  
*Comments:* slight vegetative spread

Narcissus poeticus L.  
poet's narcissus  
introduced, persistent but not established; Europe; uncommon; woods; *Frequency:* 1 site - LMT  
*Flowers:* 5/23;  
*Specimens:* RIB 946  
*Comments:* recorded as an escape at Peat Meadow by Potter and Woodward (1935)

Narcissus pseudonarcissus L.  
daffodil  
introduced, persistent but not established; Europe; uncommon; woods, dumps  
*Frequency:* 6 sites - AHM BMB KEB LMT NWD UBW  
*Flowers:* 4/23-5/4  
*Comments:* reported as an escape in open woods in Worcester by Potter and Woodward (1935)

Ornithogalum umbellatum L.  
star-of-Bethlehem  
introduced and apparently established; Europe; uncommon; disturbed woods, dumps  
*Frequency:* 3 sites - CSP PAR NDC  
*Flowers:* 5/23-6/1;  
*Specimens:* RIB 948

Polygonatum biflorum (Walter)Elliott  
giant Solomon's seal  
[P. canaliculatum, P. commutatum]  
introduced and seemingly established; east-central North America; uncommon; disturbed moist woods  
*Frequency:* 1 site - PCM  
*Flowers:* 5/20-5/23

Polygonatum pubescens (Willd.)Pursh  
Solomon's seal  
native; fairly common; woods, often mesic; *Frequency:* 10+ sites - BMB CSP DOP INL KEB PAR PCM  
*Flowers:* 5/16-6/2  
*Fruit:* 10/4-10/23;  
*Specimens:* CUW 3458

Scilla hispanica Mill.  
Spanish bluebell  
introduced, persistent but not clearly established; western Mediterranean; uncommon; disturbed woods  
*Frequency:* 1 site - SAP;  
*Specimens:* RIB 1654

Scilla sibirica Haw.  
Siberian squill  
introduced and established; Eurasia; uncommon; disturbed woods  
*Frequency:* 8 sites - BBP BMB CKP CSP HDA LMT NWD PAR  
*Flowers:* 4/10-4/26;  
*Specimens:* RIB 895  
*Comments:* persistent from plantings and discards, with some vegetative spread
**Smilacina racemosa** (L.) Desf.  
**[Maianthemum r.]** false Solomon's seal  
native; common; woods;  
Frequency: 10+ sites - BMB CSP GDA GHP PAR PCM QSP  
Fruit: 8/30-10/9;  
Specimens: CUW 16233

**Streptopus roseus** Michx.  
rose twisted-stalk  
native; rare; moist woods;  
Frequency: 1 site - CSP  
Flowers: 5/20  
Comments: a single flowering individual was seen in 1994 but not since; our plants are var. perspectus

**Tricytis hirta** Hook.  
toad lily  
introduced, status uncertain, no records since 1936; Asia  
Comments: Potter et al. (1940) note "a stand of about thirty plants growing in open woods"

**Trillium cernuum** L.  
nodding trillium  
native; fairly common; moist woods;  
Frequency: 3 sites - BMB LMT NWD  
Flowers: 5/22-5/31 (5/13);  
Specimens: CUW 216

**Trillium erectum** L.  
red trillium  
native; fairly common; moist woods;  
Frequency: 8 sites - AHM CSP GDA KEB LOF PCM TFL WDR  
Flowers: 4/26-5/4 (5/20)  
Fruit: 8/25-9/3;  
Specimens: CUW 25702, RIB 1507  
Comments: a white-flowered form occurs at CSP; Potter and Woodward (1935) also noted a white-flowered form in the Tatnuck area

**Trillium undulatum** Willd.  
painted trillium  
native; rare; wet woods;  
Frequency: 1 site - PCM  
Flowers: 5/20;  
Specimens: CUW 3568

**Tulipa gesneriana** L.  
garden tulip  
introduced but not established; Asia; uncommon; dumps, abandoned gardens;  
Frequency: 2 sites - BBP SJC

**Uvularia perfoliata** L.  
perfoliate bellwort  
native; fairly common; woods, often dry;  
Frequency: 4 sites - BMB GDA LMT TFL  
Flowers: 5/19-5/24;  
Specimens: CUW 2259

**Uvularia sessilifolia** L.  
wild oats  
native; common; woods;  
Frequency: 10+ sites - BMB CSP GDA GHP HDP INL KEB PRF  
Flowers: 5/4-5/17 (4/28-5/19)  
Fruit: 10/23;  
Specimens: CUW 3482, RIB 1511

**Veratrum viride** Aiton  
false hellebore  
native; common; wet woods, shady bottomlands;  
Frequency: 10+ sites - BMB CSP NWD PCM QSP TFL  
Flowers: 5/21-6/14  
Fruit: 8/4;  
Specimens: CUW 7413

**Najadaceae**

**Najas flexilis** (Willd.) Rostk. & Schmidt  
common naiad  
native; locally common; ponds;  
Frequency: 2 sites - CUP LQU;  
Specimens: RIB 855  
Comments: recorded by Jackson (1909) from Lake Quinsigamond

**Najas gracillima** (A.Braun) Magnus  
slender naiad  
native; locally common; ponds;  
Frequency: 1 site - PCM  
Flowers: 8/22;  
Specimens: RIB 838  
Comments: recorded by Jackson (1909) from Lake Quinsigamond
Orchidaceae

**Arctheusa bulbosa** L.  
*dragon’s mouth*  
native, no records since 1893;  *Specimens:* Mount Holyoke;  *Comments:* a state threatened species

**Calopogon tuberosus** (L.)BSP.  
*C. pulchellus*  
*grass pink*  
native, no records since 1939;  *Specimens:* CUW 13087

**Corallorhiza maculata** (Raf.)Raf.  
*spotted coralroot*  
native;  rare;  rich, moist woods;  *Frequency:* 1 site - PAP  
*Flowers:* 7/30;  *Specimens:* CUW 4941

**Corallorhiza trifida** Chatel.  
*early coralroot*  
native;  uncommon;  sphagnous swamp;  *Frequency:* 1 site - PCM  
*Flowers:* 5/20;  *Specimens:* HUH-M, RIB 928

**Cypripedium acaule** Aiton  
*pink lady's slipper*  
native;  uncommon;  woods, usually dry;  *Frequency:* 10+ sites - BMB CSP GDA GHP KEB LMT PRF  
*Flowers:* 5/13-6/9;  *Specimens:* CUW 3488  
*Comments:* a white form was recorded by Potter and Woodward (1935) from Rattlesnake Hill

**Epipactis helleborine** (L.)Crantz  
*helleborine*  
introduced and established;  Eurasia;  uncommon;  woods  
*Frequency:* 9 sites - AHM GDA HOC NWD PFB PAP TFL UBW  
*Flowers:* 7/12-8/4;  *Specimens:* RIB 1262

**Goodyera pubescens** (Willd.)R.Br.  
*downy rattlesnake-plantain*  
native;  uncommon;  mesic to dry woods;  *Frequency:* 4 sites - AHM GDA KEB TFL  
*Flowers:* 8/4-8/5  
*Fruit:* 10/11;  *Specimens:* MASS-Stone

**Goodyera tesselata** Lodd.  
*checkered rattlesnake-plantain*  
native, no records since 1879;  *Specimens:* HUH-M  
*Comments:* recorded by Jackson (1927) as infrequent in pine woods in Worcester

**Habenaria clavellata** (Michx.)Sprengel  
*clubspur orchid*  
native;  uncommon;  swampy woods;  *Frequency:* 2 sites - BMB GDA  
*Flowers:* 7/24-8/6  
*Fruit:* 10/2;  *Specimens:* MASS-Stone

**Habenaria flava** (L.)R.Br.  
*pale green orchid*  
native, no records since 1939;  *Specimens:* CUW 12821;  *Comments:* a state threatened species

**Habenaria hyperborea** (L.)R.Br.  
*northern green orchid*  
native, no recent records;  *Comments:* recorded by Jackson (1927) as rare

**Habenaria lacera** (Michx.)Lodd.  
*ragged fringed orchid*  
native;  uncommon;  wet fields and swampy woods;  *Frequency:* 2 sites - AIR WDR  
*Flowers:* 7/15-7/28;  *Specimens:* CUW 4940

**Habenaria psycodes** (L.)Sprengel  
*purple fringed orchid*  
native;  uncommon;  wet woods;  *Frequency:* 2 sites - BMB TFL;  *Flowers:* 6/16-6/26;  *Specimens:* HUH-M  
*Comments:* our plants are var. grandiflora, though var. psycodes occurs in nearby towns

**Isotria verticillata** (Willd.)Raf.  
*large whorled pogonia*  
native;  uncommon;  woods, usually dry;  *Frequency:* 3 sites - BAR BMB WDR  
*Flowers:* 5/24;  *Specimens:* CUW 4355;  *Comments:* a state watch list species
**Malaxis unifolia** Michx.  
*Microstylis u.*  
green adder's mouth  
native, no recent records  
*Comments:* Potter et al. (1940) report this species from "former stations" in Worcester; a state watch list species

**Orchis spectabilis** L.  
*Galearis s.*  
showy orchid  
native, no records since 1934;  
Specimens: CUW 3683

**Pogonia ophioglossoides** (L.) Ker Gawler  
rose pogonia  
native, no records since 1934;  
Specimens: CUW 4222

**Spiranthes cernua** (L.) Rich.  
nodding ladies' tresses  
native; uncommon; fields and grassy banks, often moist;  
Frequency: 6 sites - BMB HDP PCM PFB TFL  
Flowers: 9/8-9/27;  
Specimens: CUW 720

**Poaceae**

**Agrostis canina** L.  
thelvetica bentgrass  
introduced and established; Europe; locally common; barren ground;  
Frequency: 2 sites - GNS HOC  
Flowers: 7/10  
Fruit: 8/8;  
Specimens: RIB 790

**Agrostis capillaris** L.  
[A. tenuis]  
Rhode Island bentgrass  
introduced and established; Europe and perhaps eastern Canada; common; lawns, paths, fields  
Frequency: 10+ sites - BMB CRH GHP HOC PAR PCM PRF  
Flowers: 6/22-7/18  
Fruit: 8/10;  
Specimens: CUW 17034, RIB 217

**Agrostis gigantea** Roth  
[A. alba, A. stolonifera var. major]  
redtop  
introduced and established; Europe; common; marshes, shores, fields, disturbed ground  
Frequency: 10+ sites - BEP BMB CRH DOP INL LDF TFL  
Flowers: 6/30-7/16 (6/24)  
Fruit: 8/3-12/3;  
Specimens: RIB 285  
Comments: recorded by Potter and Woodward (1935) from Worcester

**Agrostis hyemalis** (Walter) BSP.  
ticklegrass  
native; common; dry fields, waste ground, railroad tracks  
Frequency: 10+ sites - BLR BMB BUS DOP GNS KEB MIR PRF  
Flowers: 6/5-7/25  
Fruit: 6/23-11/11;  
Specimens: HUH-Woodward, RIB 1083  
Comments: we have both the typical native variety, flowering in June; and the introduced var. scabra (CUW 5529, RIB 1708), flowering in July

**Agrostis perennans** (Walter) Tuckerman  
upland bentgrass  
native; common; open woods, woodland edge, paths  
Frequency: 10+ sites - BMB CMB CSP GNS LMT PCM PRF  
Flowers: 6/30-10/2  
Fruit: 10/15-11/6;  
Specimens: CUW 19245, RIB 759

**Agrostis stolonifera** L.  
[A. palustris]  
creeping bentgrass  
native; common; damp fields, shores;  
Frequency: 10+ sites - BLR BMB COR CRH GHP PAR PCM  
Flowers: 7/3-7/18 (7/20)  
Fruit: 8/8;  
Specimens: CUW 31165, RIB 607  
Comments: our plants are var. palustris

**Aira caryophyllea** L.  
silvery hairgrass  
introduced and established; Europe; locally fairly common; open sandy ground;  
Frequency: 1 site - COR  
Specimens: RIB 1004;  
Comments: apparently the only Worcester County site for the species

**Alopecurus aequalis** Sobol.  
short-awned foxtail  
native; fairly common; disturbed wet ground;  
Frequency: 1 site - GNS  
Flowers: 6/6-7/10;  
Specimens: RIB 1143
**Alopecurus geniculatus** L.  
Water foxtail
introduced and established; Eurasia, perhaps circumboreal
locally fairly common; muddy shores, shallow water, disturbed wet ground
*Frequency:* 3 sites - AID CUP SCH
*Flowers:* 7/15-7/17  *Fruit:* 7/15-7/17;  *Specimens:* RIB 94

**Alopecurus pratensis** L.  
Meadow foxtail
introduced and established; Eurasia; fairly common; fields, roadsides
*Frequency:* 10+ sites - DOP ELP GHP NWD PAR PCM TFL
*Flowers:* 5/10-6/6 (6/9)  *Fruit:* 7/6;  *Specimens:* CUW 4546, RIB 429

**Andropogon gerardii** Vitman  
Big bluestem
native; fairly common; dry fields, roadsides;  *Frequency:* 9 sites - CUP DOP HAS HCC HDP KEB LJS PCM
*Flowers:* 7/29-8/31  *Fruit:* 9/16-10/31;  *Specimens:* CUW 105, RIB 771

**Anthoxanthum odoratum** L.  
Sweet vernal grass
introduced and established; Eurasia; common; fields, lawns, paths, disturbed ground
*Frequency:* 10+ sites - BEP BMB CSP GHP HCC MIR QSP
*Flowers:* 5/8-6/14  *Fruit:* 6/30-7/25;  *Specimens:* CUW 4237 RIB 6

**Apera spica-venti** (L.)P.Beauv.  
Silky bentgrass
introduced and sparingly established; Europe; uncommon; disturbed wet ground;  *Frequency:* 1 site - SCH
*Flowers:* 7/15;  *Specimens:* RIB 1172

**Arrhenatherum elatius** (L.)J. & K.Presl.  
Tall oatgrass
introduced and established; Europe; fairly common; fields
*Frequency:* 10+ sites - BMB GHP GRS HCC INL LOF PAR SCH
*Flowers:* 6/13-6/24  *Fruit:* 6/24-7/15;  *Specimens:* CUW 19249, RIB 62

**Avena fatua** L.  
Wild oats
introduced, status uncertain, no records since 1946; Eurasia;
*Specimens:* CUW 23118

**Avena sativa** L.  
Oats
introduced and presumably established, no records since 1938; Mediterranean;
*Specimens:* CUW 8835
*Comments:* Potter and Woodward (1935) list this species as "common about dumps and new home sites"

**Brachyelytrum erectum** (Schreber)P.Beauv.  
Awned woodgrass
native; common; woods, usually moist;  *Frequency:* 10+ sites - BMB CMB CSP LOF PCM PRF QSP
*Flowers:* 6/21-7/5 (6/23)  *Fruit:* 7/15-10/11;  *Specimens:* CUW 26917, RIB 134
*Comments:* our plants are var. glabratum

**Briza media** L.  
Quaking grass
introduced, status uncertain, no records since 1928; Europe;
*Specimens:* CUW 32815
**Bromus ciliatus L.**  
fringed brome  
native; locally fairly common; fields, woodland edge; *Frequency*: 2 sites - LDS UMM  
*Flowers*: 7/11;  
*Specimens*: CUW 31180, RIB 669

**Bromus commutatus Schrad.**  
hairy chess  
introduced and established; Europe; locally common; fields, woodland edge, disturbed open ground  
*Frequency*: 6/28;  
*Specimens*: CUW 26985, RIB 1094

**Bromus hordeaceus L.**  
soft chess  
[introduced, status uncertain, no records since 1932; Europe;  
*Specimens*: CUW 5531]

**Bromus inermis Leysser**  
smooth brome grass  
introduced and established; Europe; common; fields, roadsides, disturbed open ground  
*Frequency*: 10+ sites - AHP BIP BMB GHP GNS KEB LDF  
*Flowers*: 6/17-6/22 (7/6)  
*Fruit*: 7/12-12/2;  
*Specimens*: CUW 22717, RIB 178

**Bromus japonicus Thunb.**  
Japanese chess  
introduced and established; Eurasia; fairly common; barren ground, clearings, fields  
*Frequency*: 4 sites - GDA GNS MIR PFB  
*Fruit*: 7/10;  
*Specimens*: CUW 20499, RIB 1051

**Bromus secalinus L.**  
chess  
introduced and sparingly established; Europe; uncommon; waste place; *Frequency*: 1 site - SCH  
*Flowers*: 7/10;  
*Specimens*: CUW 20499, RIB 1051

**Bromus tectorum L.**  
cheat grass, drooping brome  
introduced and established; common; roadsides, railroad tracks, waste places  
*Frequency*: 10+ sites - BLR BMB CRR GHP HDP MIR  
*Flowers*: 6/15-7/17  
*Fruit*: 6/14-9/11;  
*Specimens*: CUW 31184, RIB 176

**Calamagrostis canadensis (Michx.)P.Beauv.**  
Canada bluejoint  
native; common; marshes, meadows, swamps, shores  
*Frequency*: 8 sites - ASC BEP BMB HDP INL LDS LJS NWD  
*Flowers*: 6/13-6/28  
*Fruit*: 8/2-9/27;  
*Specimens*: CUW 26768, RIB 174

**Cenchrus longispinus (Hackel)Fern.**  
sandspur  
native, no recent records;  
*Specimens*: CUW 23388  
*Comments*: an unnumbered CUW specimen was identified as *C. pauciflorus* Benth., but an annotation states that it appears to be *C. longespinus*

**Cinna arundinacea L.**  
common woodreed  
native; common; wet ground, wooded or open  
*Frequency*: 10+ sites - BMB CMB CSP HDP NWD PAR PRF  
*Flowers*: 8/10-8/30  
*Fruit*: 9/16-12/6;  
*Specimens*: CUW 100, RIB 1425

**Cinna latifolia (Trevir.)Griseb.**  
drooping woodreed  
native, no records since 1930;  
*Specimens*: CUW 5532

**Cynosurus cristatus L.**  
dog's tail grass  
introduced, status uncertain, no records since 1941; Europe;  
*Specimens*: CUW 15096

**Dactylis glomerata L.**  
orchard grass  
introduced and established; Europe; common; fields, roadsides, disturbed ground  
*Frequency*: 10+ sites - BMB CSP DOP ELI HDP HCC KEB SAP  
*Flowers*: 5/28-7/6 (10/27)  
*Fruit*: 7/18-12/2;  
*Specimens*: CUW 699
**Danthonia compressa** Austin  [D. allenii]  
woodland oatgrass  
native;  common;  woods, paths, clearings, usually in dry soil  
**Frequency:** 9 sites - BMB CMB CSP GHP KEB NWD PAR QSP  
**Fruit:** 7/12-8/5  

**Danthonia spicata** (L.)F.Beauv.  
poverty grass  
native;  common;  dry fields, woods and disturbed ground  
**Frequency:** 10+ sites - BMB GHP GNS KEB LDF PCM PRF TFL  
**Flowers:** 6/12-6/23  
**Fruit:** 6/21-10/11;  **Specimens:** CUW 14512, RIB 153

**Deschampsia cespitosa** (L.)Beauv.  
tufted hairgrass  
introduced and established;  Europe or circumboreal;  uncommon;  roadside;  **Frequency:** 1 site - CSP  
**Specimens:** CUW 12464, RIB 1925  
**Comments:** the CUW specimen was from Olean St. in 1943 where the plant had escaped from cultivation and grown “for sixty or more years”; my specimen was from the same roadside at 267 Olean St.

**Digitaria ischaemum** (Schreber)Muhl.  
smooth crabgrass  
introduced and established;  Eurasia;  common;  roadsides, lawns, pavement cracks, waste ground  
**Frequency:** 10+ sites - BMB HCC HDP HOC PCM PRF UBW  
**Flowers:** 8/28-9/16 (7/7)  
**Fruit:** 9/24-12/3;  **Specimens:** CUW 16479, RIB 343

**Digitaria sanguinalis** (L.)Scop.  
tall crabgrass  
introduced and established;  Europe;  common;  roadsides, dumps and other disturbed open ground  
**Frequency:** 10+ sites - BEH BMB CMB ELP GHP HDP PCM PTM  
**Flowers:** 7/17-9/8  
**Fruit:** 7/17-9/8;  **Specimens:** CUW 1342, RIB 221

**Echinochloa crusgalli** (L.)P.Beauv.  
barnyard grass  
introduced and established;  Eurasia;  fairly common;  disturbed open ground  
**Frequency:** 4 sites - BMB ELP KEB UMM  
**Flowers:** 7/17-9/8;  **Specimens:** CUW 31208, RIB 664

**Echinochloa muricata** (P.Beauv.)Fern.  
cockspur grass  
introduced and established;  Paleotropics;  locally fairly common;  waste ground among railroad sidings  
**Frequency:** 1 site - CRR  
**Flowers:** 8/7;  **Specimens:** CUW 25524, RIB 1283

**Eleusine indica** (L.)Gaertn.  
goosegrass  
introduced and established;  Paleotropics;  locally fairly common;  waste ground among railroad sidings  
**Frequency:** 1 site - CRR  
**Flowers:** 8/7;  **Specimens:** CUW 25524, RIB 1283

**Elymus canadensis** L.  
Canada wild rye  
native, no records since 1939;  **Specimens:** CUW 15157

**Elymus hystrix** L.  
bottlebrush grass  
native;  uncommon;  rich woods;  **Frequency:** 2 sites - BMB CMB  
**Fruit:** 8/19-9/23;  **Specimens:** CUW 32814, RIB 1408

**Elymus riparius** Wieg.  
riverbank wild rye  
native;  uncommon;  rich woods;  **Frequency:** 1 site - PFB;  **Specimens:** RIB 1253

**Elymus villosus** Muhl.  
hairy wild rye  
native;  uncommon;  dry woods;  **Frequency:** 1 site - (contact state botanist)  
**Fruit:** 8/4-12/3;  **Specimens:** RIB 1266  
**Comments:** the only county record of this state threatened species
Elymus virginicus L.  
**Virginia wild rye**  
native; uncommon; moist woods, stream margins;  
**Frequency:** 3 sites - GDA KEB NWD  
**Fruit:** 9/2-10/3;  
**Specimens:** RIB 819

Elytrigia repens (L.)Desv.  
**quackgrass**  
introduced and established; Eurasia; common; fields, waste places  
**Frequency:** 10+ sites - BMB GDA HCC HOC KEB LMT NWD  
**Flowers:** 6/23-7/8  
**Fruit:** 8/28-12/2;  
**Specimens:** CUW 31247, RIB 556

Eragrostis capillaris (L.)Nees  
**lacegrass**  
native; uncommon; dry fields, waste places;  
**Frequency:** 2 sites - BLR BMB  
**Specimens:** CUW 20976, RIB 792;  
**Comments:** a state watch list species

Eragrostis ciliarisens (All.)Janchen  
**stinkgrass**  
introduced and established; Europe; fairly common; dumps, waste places  
**Frequency:** 4 sites - LEP PTM SJC UBW  
**Flowers:** 7/31  
**Fruit:** 9/16-11/18;  
**Specimens:** CUW 19795, RIB 1419

Eragrostis minor Host  
**little lovegrass**  
introduced and established; Europe; common; railroad beds, waste places  
**Frequency:** 6 sites - BLR CRR GNS NDC UBW  
**Flowers:** 7/9-8/24  
**Fruit:** 8/8-9/4;  
**Specimens:** CUW 1586, RIB 292

Eragrostis pectinacea (Michx.)Nees  
**tufted lovegrass**  
native; common; roadsides, waste places, pavement cracks  
**Frequency:** 10+ sites - CRR ELP GNS HCC LEP MIR PTM  
**Flowers:** 7/15-9/7 (6/7)  
**Fruit:** 8/1-9/9;  
**Specimens:** CUW 99, RIB 791

Eragrostis pilosa (L.)P.Beauv.  
**India lovegrass**  
introduced, status uncertain, no records since 1936; Tropics;  
**Specimens:** CUW 5859  
**Comments:** the distinction between this species and E. pectinacea is not always clear as some specimens have traits attributed to both species in the keys; all such specimens have here been assigned to E. pectinacea

Eragrostis spectabilis (Pursh)Steudel  
**purple lovegrass**  
native; common; roadsides, waste places, disturbed ground, often dry  
**Frequency:** 10+ sites - BLR COR HDP HOC GNS MIR QSP SJC  
**Flowers:** 8/11-8/20  
**Fruit:** 9/23-12/3;  
**Specimens:** CUW 25446

Festuca elatior L.  
**tall fescue**  
introduced and established; Europe; common; fields, waste places  
**Frequency:** 10+ sites - BMB CRH ELP HCC INL KEB NWD QSP  
**Flowers:** 6/13-6/27 (6/4-8/26)  
**Fruit:** 7/3-8/14;  
**Specimens:** CUW 32813, RIB 470

Festuca filiformis Pourret  
**hair fescue**  
introduced and established; Europe; common; dry clearings, open woods and roadsides  
**Frequency:** 8 sites - BMB ELP GHP GNS HOC PCM QSP  
**Flowers:** 6/4-6/23  
**Fruit:** 7/7-8/28;  
**Specimens:** CUW 1391, RIB 69

Festuca pratensis Hudson  
**meadow fescue**  
introduced and established; Europe; common; fields, disturbed open ground  
**Frequency:** 4 sites - AHP BEP GHP GNS  
**Flowers:** 6/5-6/28 (7/20)  
**Fruit:** 7/20;  
**Specimens:** HUH-M, RIB 287
**Festuca rubra** L.  
red fescue  
native; common; fields, roadsides, open woods, disturbed ground, often dry  
Frequency: 10+ sites - BMB COR CSP LDF PCM TFL WDR  
Flowers: 6/7-6/20  Fruit: 7/10-9/25; Specimens: CUW 28940, RIB 471

**Festuca subverticillata** (Pers.)E.Alexeev  
[F. obtusa]  
nodding fescue  
native; locally fairly common; rich woods;  
Frequency: 2 sites - CSP GDA  
Flowers: 6/10  Fruit: 7/12; Specimens: RIB 478

**Festuca trachyphylla** (Hackel)Krajina  
[F. duriuscula]  
hard fescue  
introduced and established; Europe; common; fields, lawns, roadsides  
Frequency: 7 sites - CSP CMB ELP HDP HOC QSP UBW  
Flowers: 6/4-6/10  Fruit: 8/9; Specimens: CUW 97, RIB 979

**Glyceria acutiflora** Torr.  
sharpscale mannagrass  
native; fairly common; shallow pools in woods and swamps  
Frequency: 7 sites - BMB CSP GDA GHP PRF SHT TFL  
Flowers: 5/30-6/9  Fruit: 6/21-7/12; Specimens: HUH-M, RIB 442

**Glyceria borealis** (Nash)Batchelder  
northern mannagrass  
native; uncommon; shallow water of pond margins;  
Frequency: 1 site - INL  
Flowers: 6/13; Specimens: CUW 31216, RIB 194

**Glyceria canadensis** (Michx.)Trin.  
rattlesnake mannagrass  
native; common; swamps, marshes;  
Frequency: 9 sites - BMB CRH FGS GHP GTS LJS PCM TFL  
Fruit: 7/13-3/31; Specimens: CUW 5536, RIB 1037

**Glyceria grandis** S.Wats.  
tall mannagrass  
native; fairly common; marshes, swamps, ditches;  
Frequency: 6 sites - AHM BMB CMB GNS NWD PFB  
Flowers: 7/10 (9/6)  Fruit: 7/12-9/6; Specimens: CUW 31218, RIB 638

**Glyceria melicaria** (Michx.)Hubbard  
slender mannagrass  
native; fairly common; wet woods, swamps, shaded seeps  
Frequency: 6 sites - BMB CKP GDA KEB NWD PFB  
Fruit: 7/20-10/17; Specimens: CUW 27051, RIB 1223

**Glyceria septentrionalis** A. Hitchc.  
eastern mannagrass  
native; fairly common; muddy pools in disturbed ground;  
Frequency: 5 sites - AID DOP GHP PCM SCH  
Flowers: 6/12-7/18  Fruit: 7/15-8/5; Specimens: RIB 434

**Glyceria striata** (L.am.)A.Hitchc.  
fowl mannagrass  
native; common; wet woods, swamps;  
Frequency: 10+ sites - BMB CSP DOP GDA HDP LMT PCM  
Flowers: 6/9-6/19 (6/21)  Fruit: 7/5-9/3; Specimens: CUW 26910, RIB 122

**Holcus lanatus** L.  
velvet grass  
introduced and established; Europe; fairly common; fields, shores, thickets, often moist  
Frequency: 10+ sites - AHP BMB DOP GHP INL NWD PFB SCH TFL  
Flowers: 7/15-7/19  Fruit: 7/13-7/21; Specimens: CUW 16427, RIB 1159

**Hordeum jubatum** L.  
foxtail barley  
introduced(?) and sparingly established; North America; uncommon; disturbed open ground  
Frequency: 2 sites - AIR UMM  
Fruit: 7/15; Specimens: CUW 5537, RIB 177
Leersia oryzoides (L.) Swartz  
*rice cut grass*

native; common; shores, marshes;  
*Frequency:* 10+ sites - BMB CRH INL MIR NWD PAR PCM PFB  
*Flowers:* 8/9-9/15  *Fruit:* 9/5-10/9;  *Specimens:* CUW 19145, RIB 802

Leersia virginica Wild.  
*white grass*

native; fairly common; moist woods and fields, shores;  
*Frequency:* 9 sites - CSP GDA PAR PCM QSP TFL  
*Flowers:* 7/25-8/29 (7/18)  *Fruit:* 9/22-10/4;  *Specimens:* RIB 280

Lolium perenne L.  
*[L. multiflorum]*  
*perennial ryegrass*

introduced and established; Europe; common; lawns, waste places, roadsides  
*Frequency:* 10+ sites - BEP BLR BMB CMB GHP HCC HOC  
*Flowers:* 6/7-9/5 (10/27)  *Fruit:* 7/10-9/16;  *Specimens:* CUW 23673, RIB 615

Molinia caerulea (L.) Moench  
*purple moorgrass*

introduced, status uncertain, no records since 1942; Europe;  *Specimens:* CUW 24310

Muhlenbergia frondosa (Poiret) Fern.  
*[M. mexicana]*  
*wirestem muhly*

native; fairly common; fields, thickets, roadsides, woodland edge, often moist  
*Frequency:* 10+ sites - BLR BMB CSP GDA HCC HOC  
*Flowers:* 8/21-9/24  *Fruit:* 10/16-12/3;  *Specimens:* CUW 21269, RIB 1413

Muhlenbergia glomerata (Wild.) Trin.  
*marsh muhly*

native; uncommon;  
*Frequency:* 1 site - BMB  
*Flowers:* 8/30;  *Specimens:* MASS-Stone, RIB 357

Muhlenbergia mexicana (L.) Trin.  
*satingrass*

native; locally fairly common; clearings, waste places;  
*Frequency:* 3 sites - BLR BMB PTM  
*Flowers:* 8/19-9/5  *Fruit:* 10/2-11/5;  *Specimens:* CUW 31231, RIB 1440

Muhlenbergia schreberi J.F. Gmelin  
*nimblewill*

native; fairly common; lawns, paths, disturbed open ground  
*Frequency:* 10+ sites - ASC BMB ELP GNS LMT PCM PTM UBW  
*Flowers:* 8/8-10/4  *Fruit:* 9/24-11/22;  *Specimens:* CUW 18096, RIB 1377

Oryzopsis asperifolia Michx.  
*spreading ricegrass*

native; uncommon; woods;  
*Frequency:* 2 sites - PCM WBS  
*Flower:* 6/17-6/19;  *Specimens:* CUW 31172

Oryzopsis pungens (Torr.) A. Hitchcock  
*slender ricegrass*

native, no records since 1929;  *Specimens:* CUW 31169

Oryzopsis racemosa (Smith) Ricker  
*black mountain ricegrass*

native; uncommon; rich woods;  
*Frequency:* 2 sites - CMB TFL  
*Flowers:* 8/4  *Fruit:* 10/11-12/3;  *Specimens:* RIB 763

Panicum boreale Nash  
*[Dichanthelium b., P. bicknellii]*  
*northern panic-grass*

native, no records since 1930;  *Specimens:* CUW 24369

Panicum capillare L.  
*witch grass*

native; fairly common; disturbed open ground;  
*Frequency:* 10+ sites - AID BMB GHP MIR NDC UBW  
*Flowers:* 7/22-10/10  *Fruit:* 9/11-10/31;  *Specimens:* CUW 20984, RIB 795

Panicum clandestinum L.  
*[Dichanthelium c.]*  
*deer tongue*

native; common; fields, shores, thickets, waste places  
*Frequency:* 10+ sites - BMB CSP GHP KEB LDS NWD QSP SJ  
*Flowers:* 6/18-7/3 (7/26)  *Fruit:* 7/16-8/5;  *Specimens:* CUW 24256, RIB 312
Panicum columbianum Scribn.  
[Dichanthelium c.]  
downy panic-grass  
native; fairly common; dry woods; 
Frequency: 5 sites - BAR BMB HOC PCM QSP  
Flowers: 6/15-6/19  Fruit: 7/13-7/18;  Specimens: CUW 17297, RIB 510

Panicum depauperatum Muhl.  
[Dichanthelium d.]  
depauperate panic-grass  
native; fairly common; dry woods, railroad beds, waste places  
Frequency: 10+ sites - CUP HOC KEB LDF LDS PCM TFL  
Flowers: 6/5-7/9  Fruit: 7/24;  Specimens: CUW 18164, RIB 535

Panicum dichotomiflorum Michx.  
fall panic-grass  
native; common; shores, waste places, disturbed ground  
Frequency: 10+ sites - BEP BMB CRR MIR PRF PTM UBW  
Flowers: 8/7-9/21 (9/29)  Fruit: 9/7-9/21;  Specimens: CUW 22407, RIB 384

Panicum dichotomum L.  
[Dichanthelium d.]  
forked panic-grass  
native; fairly common; dry woods; 
Frequency: 10+ sites - BIP BMB BUS CMB GDA NWD QSP TFL  
Flowers: 6/12-6/23  Fruit: 7/20-7/22;  Specimens: CUW 26968, RIB 693

Panicum lanuginosum Elliott  
[Dichanthelium acuminatum var. fasciculatum, P. implicatum]  
fascicled panic-grass  
native; common; fields, roadsides, disturbed open ground  
Frequency: 10+ sites - BMB CSP HCC LDS PCM TFL  
Comments: var. implicatum is the most common form, though other varieties have been collected: var. lindheimeri (CUW 25975, RIB 200), var. fasciculatum (CUW 4372), var. septentrionale (CUW 26121), var. tennesseense (RIB 560)

Panicum latifolium L.  
[Dichanthelium l.]  
broadleaf panic-grass  
native; fairly common; dry woods; 
Frequency: 5 sites - BMB GDA KEB LDS TFL  
Flowers: 6/14-8/19  Fruit: 7/22;  Specimens: CUW 6744, RIB 489

Panicum leucothrix Nash  
[Dichanthelium meridionale, P. meridionale]  
pondshore panic-grass  
native; locally common; dry open woods; 
Frequency: 2 sites - BEH GNS  
Flowers: 7/10  Fruit: 7/10-7/19;  Specimens: RIB 1882

Panicum linearifolium Scribn.  
[Dichanthelium l.]  
linearleaf panic-grass  
native; locally fairly common; open ground, ledges; 
Frequency: 2 sites - GNS TFL  
Flowers: 6/15  Fruit: 7/10;  Specimens: CUW 4672, RIB 507

Panicum miliaceum L.  
proso millet  
introduced, status uncertain, no records since 1930; Asia;  
Specimens: CUW 2206

Panicum oligosanthes Schultes  
Scribner's panic-grass  
native; locally common; dry open ground on glacial outwash; 
Frequency: 1 site - PFB  
Flowers: 6/8-6/17;  Specimens: RIB 474

Panicum rigidulum Nees  
[P. agrostoides]  
flatstem panic-grass  
native; common; shores, moist fields, roadsides; 
Frequency: 8 sites - BEP COR GHP HAS HCC INL TFL  

Panicum sphaerocarpon Elliott  
[Dichanthelium s.]  
round-fruit panic-grass  
native; locally fairly common; dry open woods and clearings; 
Frequency: 3 sites - BMB GNS KEB  
Flowers: 7/10  Fruit: 8/24;  Specimens: HUH-W 1118, RIB 1268
<table>
<thead>
<tr>
<th>Taxon</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Panicum virgatum</em> L.</td>
<td>switchgrass native; uncommon; roadsides, disturbed open ground; <em>Frequency:</em> 3 sites - AID BUS SRR <em>Fruit:</em> 10/7; <em>Specimens:</em> RIB 1273; <em>Comments:</em> a weedy species, perhaps introduced in the City</td>
</tr>
<tr>
<td><em>Paspalum setaceum</em> Michx.</td>
<td>Muhlenberg's paspalum native; locally fairly common; lawn on glacial outwash soil <em>Frequency:</em> 1 site – HOC; <em>Specimens:</em> CUW 5273, RIB 1134; <em>Comments:</em> our plants are var. <em>muhlenbergii</em></td>
</tr>
<tr>
<td><em>Phalaris arundinacea</em> L.</td>
<td>reed canary grass native; common; shores, marshes, disturbed wet ground <em>Frequency:</em> 10+ sites - BEP BMB FGS MIR PRF SAP TFL <em>Flowers:</em> 6/8-7/2 (6/3-7/11) <em>Fruit:</em> 7/6-12/2; <em>Specimens:</em> CUW 22923, RIB 999</td>
</tr>
<tr>
<td><em>Phalaris canariensis</em> L.</td>
<td>canary grass introduced, status uncertain, no records since 1936; Mediterranean; <em>Specimens:</em> CUW 5054</td>
</tr>
<tr>
<td><em>Phleum pratense</em> L.</td>
<td>timothy introduced and established; Eurasia; common; fields, waste places <em>Frequency:</em> 10+ sites - ASC BMB CRH GNS PAR PCM PTM <em>Flowers:</em> 6/21-7/31 (9/4) <em>Fruit:</em> 8/3-11/18; <em>Specimens:</em> CUW 31244, RIB 742</td>
</tr>
<tr>
<td><em>Phragmites australis</em> (Cav.)Trin.</td>
<td>common reed native (?); cosmopolitan; common; marshes, swamps, shores <em>Frequency:</em> 10+ sites - BMB INL PCM PTM SAP UBW WBS <em>Flowers:</em> 9/5-9/9 <em>Fruit:</em> 10/31-12/6; <em>Specimens:</em> CUW 27534, RIB 1304 <em>Comments:</em> native in coastal New England, but most or all City populations may be introduced</td>
</tr>
<tr>
<td><em>Poa alsodes</em> A.Gray</td>
<td>floodplain speargrass native, no records since 1930; <em>Comments:</em> recorded by Potter and Woodward (1935)</td>
</tr>
<tr>
<td><em>Poa annua</em> L.</td>
<td>annual bluegrass introduced and established; Europe; common; lawns, paths, waste places <em>Frequency:</em> 10+ sites - BMB CSP HCC HDP NWD PAR PCM <em>Flowers:</em> 4/21-12/2 <em>Fruit:</em> 6/9-12/2; <em>Specimens:</em> CUW 31232, RIB 919</td>
</tr>
<tr>
<td><em>Poa bulbosa</em> L.</td>
<td>bulbous bluegrass introduced and established; Eurasia; uncommon; waste places <em>Frequency:</em> 3 sites - LEP LQU SJC <em>Specimens:</em> RIB 900</td>
</tr>
<tr>
<td><em>Poa compressa</em> L.</td>
<td>Canada bluegrass introduced and established; Eurasia; common; dry woods, fields and waste places, rocky ground <em>Frequency:</em> 10+ sites - BMB CSP DOP INL KEB PAR PCM PRF <em>Flowers:</em> 6/14-8/28 (9/11) <em>Fruit:</em> 7/22-11/5; <em>Specimens:</em> CUW 5539, RIB 621</td>
</tr>
<tr>
<td><em>Poa nemoralis</em> L.</td>
<td>wood bluegrass introduced and established; Eurasia; common; woods, woodland edge, roadsides <em>Frequency:</em> 10+ sites - BMB CRH GHP LMT NWD PAR TFL <em>Flowers:</em> 6/10-6/16 <em>Fruit:</em> 7/13-11/1; <em>Specimens:</em> CUW 32112, RIB 1263</td>
</tr>
<tr>
<td><em>Poa palustris</em> L.</td>
<td>fowl meadow grass native; common; marshes, wet fields and thickets <em>Frequency:</em> 10+ sites - BMB DOP FGS LDS NWD PAR PTM TFL <em>Flowers:</em> 6/17-7/31 <em>Fruit:</em> 7/15-12/2; <em>Specimens:</em> CUW 8493, RIB 580</td>
</tr>
</tbody>
</table>
Poa pratensis L. Kentucky bluegrass
introduced and established; Eurasia; common; lawns, fields, roadssides, disturbed ground
*Frequency:* 10+ sites - BLR BMB CSP GHP HCC KE LEP PAR
*Flowers:* 5/28-6/24  *Fruit:* 6/24-11/5;  *Specimens:* CUW 23178, RIB 17

Poa trivialis L. rough bluegrass
introduced and established; Eurasia; common; wet woods, shady streambanks
*Frequency:* 8 sites - BLR BMB CSP LDS NWD PFB QSP
*Flowers:* 6/5-6/7 (6/21);  *Specimens:* HUH-W 1106, RIB 472

Puccinellia pallida (Torr.) R.T.Clausen [Glyceria p., Torreyochloa p.] pale mannagrass
native; locally common; swamps and pools; *Frequency:* 3 sites - CSP PCM TFL
*Flowers:* 6/15-7/22  *Fruit:* 8/25;  *Specimens:* HUH-M, RIB 545

Schizachyrium scoparium (Michx.) Nash [Andropogon s.] little bluestem
native; common; dry fields and clearings, disturbed open ground
*Frequency:* 10+ sites - BLR BMB CSP CUP GNS HCC PCM PRF
*Flowers:* 7/29-9/8 (9/15)  *Fruit:* 8/8-12/2;  *Specimens:* CUW 12202

Secale cereale L. rye
introduced and at least briefly established; Asia; common; roadssides, fill, seeded ground
*Frequency:* 4 sites - DOP GNS SCH UBW
*Flowers:* 6/5-6/7  *Fruit:* 7/19-8/25

Setaria faberi R.Herrm. giant foxtail
introduced and established; Asia; fairly common; dumps, railroad beds, waste places
*Frequency:* 9 sites - BLR BMB CMB CSP GHP HDP SJC TFL UBW
*Flowers:* 7/25-8/28  *Fruit:* 8/30-12/3;  *Specimens:* CUW 19264, RIB 1252

Setaria glauca (L.) P.Beauv. yellow foxtail
introduced and established; Europe; common; roadssides, waste places
*Frequency:* 10+ sites - BLR BMB CMB CSP GHP HDP SJC
*Flowers:* 7/9-9/5  *Fruit:* 7/22-10/4;  *Specimens:* CUW 10090, RIB 335

Setaria italica (L.) P.Beauv. foxtail millet
introduced, status uncertain, no records since 1936; Eurasia;  *Specimens:* CUW 14926

Setaria viridis (L.) P.Beauv. green foxtail
introduced and established; Eurasia; fairly common; dumps, waste places, railroad beds
*Frequency:* 10+ sites - BLR GHP GNS HDP HOC PRF SJC
*Flowers:* 7/10-9/4  *Fruit:* 9/16-11/18;  *Specimens:* CUW 5053, RIB 293

Sorghastrum nutans (L.) Nash Indian grass
native; uncommon; clearing in dry woods; *Frequency:* 1 site - CKF;
*Flowers:* 9/7;  *Specimens:* CUW 1863, RIB 1926

Sorghum bicolor (L.) Moench [Holcus sorghum] sorghum
introduced, status uncertain, no records since 1936; Africa;  *Specimens:* CUW 5697

Spartina pectinata Link freshwater cordgrass
native; rare; pond margin; *Frequency:* 1 site - INL;  *Specimens:* CUW 5589, RIB 645
*Comments:* the CUW specimen is also from Indian Lake
**Sporobolus cryptandrus** (Torr.) A. Gray  
**sand dropseed**  
introduced (?) and established; mostly western and central North America, but also coastal New England  
uncommon; eroding sandy bank adjacent to railroad;  
*Frequency*: 1 site - BLR;  
*Specimens*: RIB 1356  
*Comments*: a state watch list species where native, perhaps brought inland by railroad

**Sporobolus neglectus** Nash  
**small dropseed**  
introduced, status uncertain, no records since 1932; North America  
*Comments*: recorded by Potter and Woodward (1935); a state endangered species where native

**Sporobolus vaginiflorus** (Torr.) Wood  
**poverty grass**  
native; common; lawns, fill;  
*Frequency*: 4 sites - AID ELP HOC UBW  
*Flowers*: 8/26-9/16;  
*Specimens*: CUW 18318, RIB 1352

**Tridens flavus** (L.) A. Hitchc.  
**purpletop**  
introduced and established; uncommon; weedy ground adjacent to ball field;  
*Frequency*: 1 site - QSP  
*Fruit*: 11/6;  
*Specimens*: CUW 5542, RIB 1476

**Triticum aestivum** L.  
**wheat**  
introduced and at least briefly established; Eurasian cultigen; uncommon; roadsides, fill, waste ground  
*Frequency*: 5 sites - BLR BUS GHP SCH UBW  
*Flowers*: 6/23  
*Fruit*: 11/5;  
*Specimens*: RIB 1114

**Vulpia myuros** (L.) K. C. Gmelin  
[Festuca m., V. megalura]  
**rat-tail fescue**  
introduced and established; Europe; uncommon; dry roadside and weedy lawn  
*Frequency*: 2 sites - BUS HCC  
*Fruit*: 6/30;  
*Specimens*: RIB 1581

**Vulpia octoflora** (Walter) Rydb.  
**slender fescue**  
native; fairly common; open roadside;  
*Frequency*: 1 site - UBW  
*Fruit*: 7/1;  
*Specimens*: RIB 1115

**Zizania aquatica** L.  
**wild rice**  
native, no recent records  
*Comments*: recorded by Stone (1899); Jackson (1909) refers to *Zizania palustris* in the Stone publication, though it is unclear whether this is a mistake or a correction of a misidentification by Stone

**Pontederiaceae**

**Pontederia cordata** L.  
**pickerelweed**  
native; common; shallow pond margins;  
*Frequency*: 10+ sites - BLR CKP COR FLP LEP MIR PAR SAP  
*Flowers*: 7/5-9/7 (6/24);  
*Specimens*: CUW 195

**Potamogetonaceae**

**Potamogeton amplifolius** Tuckerman  
**bigleaf pondweed**  
native; common; ponds;  
*Frequency*: 8 sites - CKP COR CUP FLP LEP LQU PAR PAP  
*Flowers*: 7/5-8/23;  
*Specimens*: RIB 264;  
*Comments*: recorded by Stone (1899) from Lake Quinsigamond

**Potamogeton crispus** L.  
**curly pondweed**  
introduced and established; Europe; locally fairly common; ponds  
*Frequency*: 2 sites - FLP LQU  
*Specimens*: RIB 648

**Potamogeton diversifolius** Raf.  
[P. bicuspidatus, P. hybridus]  
**common snailseed pondweed**  
native; fairly common; ponds;  
*Frequency*: 5 sites - GHP INL LQU PAR PCM  
*Specimens*: HUH-Morong, RIB 596
**Potamogeton epihydrus** Raf. ribbonleaf pondweed
native; common; ponds, slow streams; *Frequency*: 8 sites - ASC CKP CUP LEP LQU MIR PCM PAP
*Flowers*: 7/14-9/1; Specimens: CUW 18756, RIB 649

**Potamogeton foliosus** Raf. leafy pondweed
native, no records since 1890; *Comments*: recorded by Jackson (1909) from Lake Quinsigamond

**Potamogeton gramineus** L. [*P. heterophyllus*] grassleaf pondweed
native, no records since 1880; *Specimens*: HUH-Faxon; *Comments*: the specimen is from Lake Quinsigamond

**Potamogeton natans** L. floating pondweed
native; fairly common; ponds, ditches; *Frequency*: 6 sites - AID BEH BMB HDP LEP PCM
*Fruit*: 8/1; *Specimens*: RIB 737; *Comments*: recorded by Stone (1899) from Lake Quinsigamond

**Potamogeton nodosus** Poiret [P. americanus] long-leaved pondweed
native, no recent records; *Comments*: recorded by Jackson (1909)

**Potamogeton oakesianus** Robbins Oakes' pondweed
native, no records since 1890; *Specimens*: MASS-Stone
*Comments*: recorded by Stone (1899) from Lake Quinsigamond

**Potamogeton obtusifolius** Mert. & Koch bluntleaf pondweed
native, no records since 1877; *Specimens*: HUH-Sargent
*Comments*: this specimen and several others at HUH were collected from Beaver Brook

**Potamogeton perfoliatus** L. clasping pondweed
native; fairly common; ponds, streams; *Frequency*: 1 site - COR MIR
*Flowers*: 7/11; *Specimens*: RIB 631; *Comments*: recorded by Stone (1899) from Lake Quinsigamond

**Potamogeton pulcher** Tuckerman spotted pondweed
native, no records since 1890; *Comments*: recorded by Stone (1899) from Lake Quinsigamond

**Potamogeton pusillus** L. [P. berchtoldii. P. gemmiparus, P. tenuissimus] tiny pondweed
native; common; ponds, streams; *Frequency*: 5 sites - ASC BMB BUP LEP PCM
*Flowers*: 6/24-8/22 Specimens: HUH-Faxon, RIB 1091
*Comments*: my collections fall into var. *tenuissimus*, a taxon not formally recognized by Gleason and Cronquist (1991); var. *gemmiparus* was also recorded by Stone (1899) from Lake Quinsigamond

**Potamogeton robbinsii** Oakes Robbin's pondweed
native; locally common; ponds; *Frequency*: 2 sites - FLP LQU Specimens: HUH-Robbins, RIB 650
*Comments*: recorded by Jackson (1909) from Lake Quinsigamond

**Potamogeton spirillus** Tuckerman [P. dimorphus] spiral pondweed
native; locally common; ponds; *Frequency*: 3 sites - COR CUP LQU Specimens: HUH-Faxon, RIB 856
*Comments*: recorded by Stone (1899) from Lake Quinsigamond

**Potamogeton vaseyi** Robbins Vasey's pondweed
native; uncommon; pond at depths of 1.0-1.5 m; *Frequency*: 1 site - (contact state botanist)
*Specimens*: CUW 34008, RIB 1133
*Comments*: several specimens at HUH were also collected from Worcester; this is one of only three current locations for the species in Massachusetts; a watch list species and candidate for formal state listing
Smilacaceae

**Smilax herbacea** L.  
carrion flower  
native; fairly common; woods, thickets, fields;  
*Frequency*: 10+ sites - BMB CMB GHP HDP LMT PRF  
*Flowers*: 6/3-6/20  
*Fruit*: 9/6-12/6;  
*Specimens*: CUW 4621

**Smilax rotundifolia** L.  
catbrier  
native; common; floodplains, thickets, shores;  
*Frequency*: 7 sites - BLR BMB MIR NDC NWD PCM SJC  
*Flowers*: 5/28-6/5;  
*Specimens*: CUW 27342

Sparganiaceae

**Sparganium americanum** Nutt.  
common bur-reed  
native; common; swamps, marshes, shores;  
*Frequency*: 10+ sites - BMB CSP COR GDA GHP LEP PCM  
*Flowers*: 7/6-9/3  
*Fruit*: 10/10;  
*Specimens*: CUW 95, RIB 345

**Sparganium chlorocarpum** Rydb.  
[S. erectum]  
green bur-reed  
native; locally fairly common; marshes, shores;  
*Frequency*: 3 sites - BMB CUP HDP  
*Flowers*: 7/25-8/17  
*Fruit*: 9/1;  
*Specimens*: RIB 733

**Sparganium eurycarpum** Engelm.  
giant bur-reed  
native; locally fairly common; marsh;  
*Frequency*: 1 site - SRR  
*Flowers*: 7/17  
*Fruit*: 9/15;  
*Specimens*: RIB 670  
*Comments*: recorded by Stone (1899) from Lake Quinsigamond

**Sparganium minimum** (Hartman) Fries  
[S. natans]  
small bur-reed  
native, no records since 1890  
*Comments*: recorded by Stone (1899) from Lake Quinsigamond; a state endangered species

Typhaceae

**Typha angustifolia** L.  
narrow-leaved cattail  
native; common; marshes, ditches, pond margins, usually eutrophic waters  
*Frequency*: 10+ sites - BEP BMB CRR CUP GTS INL LEP SAP  
*Flowers*: 6/24-7/11  
*Fruit*: 10/4-10/18;  
*Specimens*: HUH-Woodward, RIB 1930  
*Comments*: our plants are more robust than typical *T. angustifolia*, and are better designated as *T. x glauca*, a hybrid between *angustifolia* and *latifolia*

**Typha latifolia** L.  
cattail  
native; common; marshes, muddy pond margins  
*Frequency*: 10+ sites - BMB CMB CUP GHP INL LJS PCM SAP  
*Flowers*: 7/3-7/25 (6/23)  
*Fruit*: 9/1-12/6;  
*Specimens*: CUW 13756
### Appendix I - Sampling Sites

<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHM</td>
<td>Airport Hill/Mill Street</td>
<td>S of Pleasant St., W of Mill St., N and E of Airport Drive</td>
</tr>
<tr>
<td>AHP</td>
<td>Airport Hill/Prouty Lane</td>
<td>N of airport runways, E of Leicester town line, S of Prouty Ln., W of Airport Dr.</td>
</tr>
<tr>
<td>AID</td>
<td>Airport Drive</td>
<td>S of airport runways, W of Goddard Memorial Dr., N of an E-W line 300 m S of the intersection of Coppage Dr. and Goddard Memorial Dr., E of Leicester town line</td>
</tr>
<tr>
<td>AIR</td>
<td>Airport</td>
<td>within 100 m of airport runways</td>
</tr>
<tr>
<td>ASC</td>
<td>Assumption College</td>
<td>campus of Assumption College and surrounding land, NE of Salisbury Street, E of Old English Rd., S of Phoebe Way W of Willowbrook Ln, Romola Rd., Hapgood Rd., and associated streets</td>
</tr>
<tr>
<td>BAR</td>
<td>Barry Road</td>
<td>N of Barry Rd. and Toronita Ave., NE of Salisbury St., SE of Holden town line, SW of Chester St.</td>
</tr>
<tr>
<td>BAT</td>
<td>Bancroft Tower</td>
<td>E of Beechmont St., S of Drury Ln., W of Massachusetts Ave., N of end of Mount Hope Ter.</td>
</tr>
<tr>
<td>BBP</td>
<td>Beaver Brook Parkway</td>
<td>W of Park Ave., E of Beaver Brook Parkway, S of Chandler St.</td>
</tr>
<tr>
<td>BEH</td>
<td>Belmont Home</td>
<td>E of Skyline Dr., S of Green Hill Park, W of mental health hospital, N of Belmont St.</td>
</tr>
<tr>
<td>BLP</td>
<td>Bell Pond/Chandler Hill Park</td>
<td>S of Belmont St., W of Elliot St., N of Shrewsbury St. and Chilmart St., E of Merrifield St.</td>
</tr>
<tr>
<td>BIP</td>
<td>Biotechnology Park</td>
<td>W of Plantation St., N of Belmont St., E of Green Hill Park</td>
</tr>
<tr>
<td>BLR</td>
<td>Blackstone River</td>
<td>S of Millbury St. river crossing, W of Milbury St., N of Milbury town line, E of railroad tracks</td>
</tr>
<tr>
<td>BMB</td>
<td>Broad Meadow Brook</td>
<td>NW of Route 20, E of Granite St., S of Hampton St., W of Massasoit Rd.</td>
</tr>
<tr>
<td>BUP</td>
<td>Burncoat Park</td>
<td>W of North Parkway, N of Interstate 290, E of Burncoat St. and associated streets, S of Davidson Rd.</td>
</tr>
<tr>
<td>BUS</td>
<td>Burncoat Street</td>
<td>E of Burncoat St., NE of Mountain St., W of West Boylston town line</td>
</tr>
<tr>
<td>CKF</td>
<td>Cookson Field</td>
<td>E of Clay St., S of Boyden St., W of College St., N of Auburn town line</td>
</tr>
<tr>
<td>CKP</td>
<td>Cook Pond</td>
<td>Cook Pond and surrounding land, E of Olean St., S of Dawson Rd. and North Bend Rd., W of Tory Fort Ln., N of Mower St.</td>
</tr>
<tr>
<td>CMB</td>
<td>Coal Mine Brook</td>
<td>E of Trinity Ave. and Wellesley Ave., S of Interstate 290, W of Plantation St., N of Biotechnology Park</td>
</tr>
<tr>
<td>COR</td>
<td>Coes Reservoir</td>
<td>Coes Reservoir and surrounding land, E of Mill St., S of June St., W of Botany Bay Rd. and Circuit Ave. W., and N of Mill St. and Coes St.</td>
</tr>
<tr>
<td>CRH</td>
<td>Crow Hill</td>
<td>W of Harrington Way, N of Hamilton St. and associated streets, E of Whitehall Ave., Robin Rd. and Plantation St., S of Amanola Ave. and Raphael St.</td>
</tr>
<tr>
<td>CRR</td>
<td>Conrail Railroad Yards</td>
<td>E of Interstate 290, S of Shrewsbury St., E Worcester St. and Albany St., W of Putnam Ln., N of Franklin St.</td>
</tr>
<tr>
<td>CSP</td>
<td>Cascades Park</td>
<td>Cascades Park and adjacent land, N of Tashota Rd. and Mower St. E of Wedgewood Rd., S of Holden town line, E of Cataract St. and Olean St.</td>
</tr>
<tr>
<td>CUP</td>
<td>Curtis Pond</td>
<td>Curtis Pond and adjacent land, SE of Stafford St., S of Curtis St., W of Webster St., NW of Webster Place, E of Heard St.</td>
</tr>
<tr>
<td>DAR</td>
<td>Dawson Road</td>
<td>NE of Olean St., SE of Holden town line, NW of Dawson Rd.</td>
</tr>
<tr>
<td>DOP</td>
<td>Dodge Park</td>
<td>S of Randolph St. and its side streets, W of Burncoat St., N of Clearview Ave., E of Interstate 190</td>
</tr>
<tr>
<td>ELP</td>
<td>Elm Park</td>
<td>S of Highland St., W of Russell St., N of Elm St., NE of Pleasant St.</td>
</tr>
<tr>
<td>FGS</td>
<td>Forest Grove School</td>
<td>S of Grove St., W of Aspinwall Rd. and Monadnock Rd., N of Wheeler Ave., E of Forest St.</td>
</tr>
</tbody>
</table>
FLP  *Flint Pond*  Worcester portion of Flint Pond and surrounding land, S of Shrewsbury town line, NE of Pineland Ave., NW of Grafton town line

GAL  *Gates Lane*  S and E of Gates Lane, W of Montague St., N of Main St. and Catalpa St.

GDA  *God’s Acre*  E of Goddard Memorial Dr., S (approximately) of a line between Coppage Dr. and Farm St., W of Paris Ave., N of Ledgercrest Dr.

GHP  *Green Hill Park*  W of Skyline Dr., S of Interstate 290, E of Channing St. and Denmark St., N of Hermitage Ln. and Belmont St.

GNS  *Granite Street*  W of Granite St., N of St. Anthony St., E of Ballard St. and Providence St., S of Taunton St. and Koping St.

GRS  *Greenwood Street*  E of Greenwood St., S of Weden Ln., W of sewage treatment plant, N of intersection of Arnold St. and Greenwood St.

GTS  *Grafton Street*  N of Grafton St., E of Trahan Ave., S of Cohasset St., W of Ernest Ave.

HAS  *Havana Street*  SE of Stafford St., SW of Kettle Brook, W of railroad tracks, N of Auburn town line, E of Leicester town line

HCC  *Holy Cross College*  E of College St., S and W of McKeon Rd., N of Epworth St. and Whipple St.

HDA  *Hadwen Arboretum*  SW of May St., NW of Lovell St., NE of Minthorne St. and Knowles Rd., SE of Fairlawn Dr.

HDP  *Hadwen Park*  N and E of Knox St., S of railroad tracks, SW of Kettle Brook, NW of Stebbins St.

HOC  *Hope Cemetery*  N of Hope Ave., E of Webster St., S and W of St. John’s Cemetery

HOS  *Holden Street*  E of Holden St., S of Ararat St., W of Indian Hill Rd., N of Shore Dr.

INH  *Indian Hill*  N and E of Indian Hill Rd., S of Ararat St. and associated streets, W of Interstate 190

INL  *Indian Lake*  E of Grove St. and Holden St., S of Shore Dr., W of Interstate 190, Proctor St. and Indian Lake Parkway, N of Grove St.

KEB  *Kettle Brook*  S of Main St., W of Ludlow St., NW of Stafford St., NE of Leicester town line

LDF  *Landfill*  N of sewage treatment plant, E of Greenwood St. and associated side streets, S of Wiser Ave., W of railroad tracks

LDS  *Locust and Dallas Streets*  N of Touraine St., E of railroad tracks, S of Wigwam Ave., W of Coburn Ave.

LEP  *Leesville Pond*  S of Hope Ave., E of Webster St. and Island Rd., N of Interstate 290

LIS  *Lincoln Street*  N of Lincoln St., E. of Goldtwaiate Ave. and Viele Ave., S of Hilda St., W of Country Club Blvd.

LJS  *Laurier and James Streets*  E of James St. and S. Ludlow St., S of Genesee St., W of Pineview Ave., N of Laurier St.

LMT  *Laurel Mountain*  N of Ararat St., E of Claridge Rd. and Stoneleigh Rd., SE of Holden town line, S of W Mountain St. and associated streets, W of Interstate 190

LOF  *Logan Field*  W of Mill St., N (approximately) of a line between Coppage Dr. and Farm St., SE of Goddard Memorial Dr., and Airport Dr.

LQU  *Lake Quinsigamond*  waters and shoreline of Lake Quinsigamond

MIR  *Middle River*  SE of Interstate 290, SW of Millbury St., N and E of McKeon Rd.

MOW  *Mower Street*  N of Pleasant St., S of Mower St. in the vicinity of Cataract St., W of Benjamin Rd.

NDC  *Notre Dame Cemetery*  W of Webster St., N and E of Kettle Brook, S of Lyman St.

NWD  *Nick’s Woods*  SE of Holden town line, S of RR tracks, W of Holden St., N of Drummond Ave., NE of Grove St.

PAP  *Patch Pond*  E of June St. Ter., S of Ada St., W of Glendale St., N of June St.
<table>
<thead>
<tr>
<th>Code</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAR</td>
<td>Patch Reservoir</td>
<td>E of Mill St., S of Mill Pond Rd. and Graybert Ln., W of Glendale St., N of Ada St.</td>
</tr>
<tr>
<td>PCM</td>
<td>Parson’s Cider Mill</td>
<td>N of Apricot St., E of Leicester town line, S of an E-W line 300 m S of the intersection of Coppage Dr. and Goddard Memorial Dr., W of Goddard Memorial Dr.</td>
</tr>
<tr>
<td>PFB</td>
<td>Poor Farm Brook</td>
<td>E of Garrison Ave. and Tacoma St., SW of E Mountain St., W of Northeast Cutoff</td>
</tr>
<tr>
<td>PRF</td>
<td>Perkins Farm</td>
<td>NE of Grafton St., S of Orton Ave., W of railroad, N of Pine Hill Rd.</td>
</tr>
<tr>
<td>PTM</td>
<td>Peat Meadow</td>
<td>E of Chalmers Rd. and Mabelle St., S of Valley Hill Ln., W of Haviland St., N of Highland St.</td>
</tr>
<tr>
<td>QSP</td>
<td>Quinsigamond State Park</td>
<td>N and E of Coburn Ave., S of Nonquit St. and W of Lake Quinsigamond</td>
</tr>
<tr>
<td>RUC</td>
<td>Rural Cemetery</td>
<td>E of Grove St., S of North St., W of Prescott St., N of Lexington St.</td>
</tr>
<tr>
<td>SAP</td>
<td>Salisbury Pond</td>
<td>NE of Salisbury St., E of Park Ave., S of Sagamore Rd., W of Grove St. and Humboldt Ave.</td>
</tr>
<tr>
<td>SCH</td>
<td>Scenic Heights</td>
<td>E of Leicester town line, S of Paxton town line, W of Scenic Dr., N of Bailey St.</td>
</tr>
<tr>
<td>SCO</td>
<td>Southwest Cutoff</td>
<td>SE of Southwest Cutoff, SW of Westborough St., NW of Auburn town line, NE of railroad tracks</td>
</tr>
<tr>
<td>SHT</td>
<td>Sherer Trail</td>
<td>E of Sherer Trail and Forkey Ave., S of First St., W of Delewanda Dr., N of Monticello Dr.</td>
</tr>
<tr>
<td>SJC</td>
<td>Saint John’s Cemetery</td>
<td>E of St. John’s Rd. and Sutton Ln., S of Cambridge St., W of Interstate railroad tracks and Interstate 290, N of Hope Cemetery</td>
</tr>
<tr>
<td>SRR</td>
<td>Sunderland Road/Route 20</td>
<td>S of Sunderland Rd., NW of Southwest Cutoff, E of railroad tracks</td>
</tr>
<tr>
<td>TFL</td>
<td>Tory Fort Lane</td>
<td>E of Tory Fort Ln., S of Brigham Rd., W of Moreland St., N of Briarcliff St.</td>
</tr>
<tr>
<td>UBW</td>
<td>Upper Blackstone Water Pollution Abatement District</td>
<td>N of Millbury town line, E of Greenwood St., S of landfill, W of railroad tracks</td>
</tr>
<tr>
<td>UMM</td>
<td>University of Massachusetts Medical Center</td>
<td>E of Plantation St., S of Mohican Rd., W of Lake Ave., N of Belmont St.</td>
</tr>
<tr>
<td>UNP</td>
<td>University Park</td>
<td>SE of Main St., SW of Gates St., NW of Illinois St., NE of Crystal St.</td>
</tr>
<tr>
<td>WBS</td>
<td>West Boylston Street Dump</td>
<td>E of West Boylston St., S of Tyson Ter., W of West Boylston town line, N of Tyson Rd.</td>
</tr>
<tr>
<td>WDR</td>
<td>Whisper Drive</td>
<td>N of Whisper Dr. and Carter Rd., E of Holden town line and Barrows Rd., SW of Salisbury St.</td>
</tr>
<tr>
<td>WIH</td>
<td>Wigwam Hill</td>
<td>E of Plantation St., W of N Lake Ave., N of Belcourt Rd.</td>
</tr>
<tr>
<td>WSC</td>
<td>Worcester State College</td>
<td>E of Chicopee St., S of Chandler St., W of May St., N of Zenith Dr.</td>
</tr>
</tbody>
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<th>Source</th>
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</thead>
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</tr>
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<td></td>
</tr>
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</tr>
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<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Pimpinella anisum</em> L.</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Pimpinella saxifraga</em> L.</td>
<td>Jackson (1927)</td>
</tr>
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<td></td>
</tr>
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<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Artemisia dracunculus</em> L.</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Artemisia frigida</em> Willd.</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Artemisia ludoviciana</em> Nutt.</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Bidens bipinnata</em> L.</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Bidens leucantha</em> (L.)Willd.</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Bidens tenuisecta</em> A. Gray</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Calotis cuneifolia</em> R. Br.</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Centaurea melitensis</em> L.</td>
<td>Jackson (1927)</td>
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<tr>
<td><em>Centaurea solstitialis</em> L.</td>
<td>Jackson (1927)</td>
</tr>
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<td><em>Coryza bonariensis</em> (L.)Cronq.</td>
<td>Jackson (1927)</td>
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<td><em>Cosmos sulphureus</em> Cav.</td>
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<td><em>Dyssodia papposa</em> (Vent.)A.Hitchk.</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Gymnolomia multifida</em> (Nutt.)Benth. &amp; Hook.</td>
<td>Jackson (1927)</td>
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<td><em>Heterosperma pinnatum</em> Cav.</td>
<td>Jackson (1927)</td>
</tr>
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<td><em>Hypochaeris glabra</em> L.</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Lactuca ludoviciana</em> (Nutt.)Riddell</td>
<td>Jackson (1909)</td>
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<tr>
<td><em>Lactuca pulchella</em> (Pursh)DC.</td>
<td>HUH-Woodward</td>
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<td><em>Onopordum acanthium</em> L.</td>
<td>Jackson (1927)</td>
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<td><em>Parthenium hysterophorus</em> L.</td>
<td>Jackson (1927)</td>
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<td>Jackson (1927)</td>
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<td><em>Pluchea camphorata</em> (L.)DC.</td>
<td>Jackson (1927)</td>
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<td><em>Senecio multicapitulata</em> Greenm.</td>
<td>Jackson (1927)</td>
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<td><em>Tagetes minuta</em> L.</td>
<td>Jackson (1927)</td>
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<tr>
<td><em>Verbena angelioides</em> (Cav.)Benth. &amp; Hook. f.</td>
<td>Jackson (1927)</td>
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<td><em>Xanthium ambrosoides</em> Hook. &amp; Arn.</td>
<td>Jackson (1927)</td>
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<td><strong>Boraginaceae</strong></td>
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<td><em>Hackelia deflexa</em> (Wahlenb.)Opiz</td>
<td>Jackson (1927)</td>
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<tr>
<td><em>Heliotropium europaeum</em> L.</td>
<td>Potter et al. (1940)</td>
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<tr>
<td><em>Lappula redowskii</em> (Hornem.)Greene</td>
<td>Jackson (1927)</td>
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<td><strong>Brassicaceae</strong></td>
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<td><em>Arabidopsis holboellii</em> Hornem.</td>
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<tr>
<td><em>Camelina microcarpa</em> Andr.</td>
<td>Jackson (1927)</td>
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<tr>
<td><em>Erysimum hieraciifolium</em> Hort.</td>
<td>Potter and Woodward (1935)</td>
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<td><strong>Campanulaceae</strong></td>
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<td><em>Platycodon grandiflorum</em> (Jacq.)A. DC.</td>
<td>Jackson (1927)</td>
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<tr>
<td><strong>Caryophyllaceae</strong></td>
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<tr>
<td><em>Dianthus caryophyllus</em> L.</td>
<td>Potter and Woodward (1935)</td>
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<td>Genera</td>
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<tr>
<td>Chenopodiaceae</td>
<td><em>Petrorhagia saxifraga</em> (L.)Link</td>
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<td></td>
<td><em>Polycarpon tetraphyllum</em> (L.) L.</td>
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<tr>
<td></td>
<td><em>Chenopodium berlandieri</em> Moq.</td>
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<tr>
<td></td>
<td><em>Chenopodium carinatum</em> R.Br.</td>
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<td></td>
<td><em>Chenopodium graveolens</em> Willd.</td>
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<tr>
<td></td>
<td><em>Chenopodium incanum</em> (S.Wats.)Heller</td>
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<tr>
<td></td>
<td><em>Chenopodium multifidum</em> L.</td>
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<td></td>
<td><em>Chenopodium rubrum</em> L.</td>
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<tr>
<td></td>
<td><em>Monolepis nuttalliana</em> (J.A.Schultes)Greene</td>
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<tr>
<td>Chenopodiaceae</td>
<td><em>Chenopodium rosea</em> L.</td>
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<td><em>Chenopodium berlandieri</em> Moq.</td>
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<td><em>Chenopodium carinatum</em> R.Br.</td>
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<td><em>Chenopodium graveolens</em> Willd.</td>
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<td></td>
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<tr>
<td></td>
<td><em>Chenopodium multifidum</em> L.</td>
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<tr>
<td></td>
<td><em>Chenopodium rubrum</em> L.</td>
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<td></td>
<td><em>Monolepis nuttalliana</em> (J.A.Schultes)Greene</td>
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<tr>
<td>Convolvulaceae</td>
<td><em>Ipomoea coccinea</em> L.</td>
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<tr>
<td></td>
<td><em>Ipomoea hederacea</em> Jacq.</td>
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<td>Cucurbitaceae</td>
<td><em>Cucumis anguria</em> L.</td>
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<td></td>
<td><em>Lagenaria siceraria</em> (Molina)Standl.</td>
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<td>Fabaceae</td>
<td><em>Cicer arietinum</em> L.</td>
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<td><em>Phaseolus coccineus</em> L.</td>
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<tr>
<td></td>
<td><em>Robinia viscosa</em> Vent.</td>
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<td>Fabaceae</td>
<td><em>Quercus imbricaria</em> Michx.</td>
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<td>Geraniaceae</td>
<td><em>Centaurea erythraea</em> Raf.</td>
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<tr>
<td>Geraniaceae</td>
<td><em>Erodium botrys</em> (Cav.)Bertol.</td>
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<td></td>
<td><em>Geranium pratense</em> L.</td>
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<tr>
<td>Hydrophyllaceae</td>
<td><em>Phacelia linearis</em> (Pursh)Holz.</td>
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<tr>
<td>Lamiaeace</td>
<td><em>Agastache scrophulariafolia</em> (Willd.)Kuntze</td>
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<td></td>
<td><em>Marrubium vulgare</em> L.</td>
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<tr>
<td></td>
<td><em>Mentha pulegium</em> L.</td>
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<tr>
<td>Malvaceae</td>
<td><em>Hibiscus syriacus</em> L.</td>
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<tr>
<td></td>
<td><em>Malva alcea</em> L.</td>
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<td></td>
<td><em>Malva rotundifolia</em> L.</td>
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<td></td>
<td><em>Sida spinosa</em> L.</td>
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<td></td>
<td><em>Sphaeralcea coccinea</em> (Nutt.)Rydb.</td>
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<tr>
<td>Nyctaginaceae</td>
<td><em>Boerhavia erecta</em> L.</td>
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<tr>
<td></td>
<td><em>Mirabilis jalapa</em> L.</td>
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<tr>
<td>Onagraceae</td>
<td><em>Gayophytum diffusum</em> Torr. &amp; Gray</td>
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<tr>
<td>Polygonaceae</td>
<td><em>Rumex maritimus</em> L.</td>
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<tr>
<td>Ranunculaceae</td>
<td><em>Delphinium ambiguum</em> L.</td>
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<tr>
<td></td>
<td><em>Delphinium grandiflorum</em> L.</td>
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</tbody>
</table>

...continued...
Resedaceae  
   *Reseda odorata* L  
   Jackson (1927)

Rhamnaceae  
   *Rhamnus davurica* Pallas  
   CUW 25769

Rosaceae  
   *Cydonia oblonga* Mill.  
   Jackson (1927)  
   *Rosa arkansana* T.C.Porter  
   CUW 793  
   *Rosa setigera* Michx.  
   Potter and Woodward (1935)  
   *Sanguisorba annua* (Nutt.)Torr. & Gray  
   Potter and Woodward (1935)  
   *Sorbaria sorbifolia* (L.)A. Braun  
   Jackson (1927)

   *Spiraea japonica* L. f.  
   Potter and Woodward (1935)  
   *Spiraea x vanhouttei* (Briot)Carr.  
   Potter et al. (1940)

Solanaceae  
   *Petunia violacea* Lindl.  
   CUW 6906

Thymelaeaceae  
   *Daphne mezereum* L.  
   CUW unnumbered

Urticaceae  
   *Urtica urens* L.  
   Jackson (1927)

Violaceae  
   *Viola rafinesquii* Greene  
   Potter and Woodward (1935)

Monocotyledons

Areaceae  
   *Phoenix dactylifera* L.  
   HUH-Woodward

Poaceae  
   *Chloris virgata* Sw.  
   Jackson (1927)  
   *Dactyloctenium aegyptium* (L.)Willd.  
   Jackson (1927)  
   *Lolium tementulum* L.  
   Jackson (1927)

**Appendix III.** Species whose presence in Worcester appears to have been recorded erroneously.

<table>
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<tr>
<th>Species</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Agalinis obtusifolia</em>** Raf.*</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Carex trichocarpa</em>** Muhl.*</td>
<td>Jackson (1909)</td>
</tr>
<tr>
<td><em>Carex wildenovii</em>** Schkuhr</td>
<td>Jackson (1909)</td>
</tr>
<tr>
<td><em>Chenopodium leptophyllum</em>** (Moq.)Nutt.*</td>
<td>Potter and Woodward (1935)</td>
</tr>
<tr>
<td><em>Elatine triandra</em>** Schkuhr</td>
<td>Stone (1899)</td>
</tr>
<tr>
<td><em>Eupatorium rotundifolium</em>** L.*</td>
<td>Jackson (1909)</td>
</tr>
<tr>
<td><em>Gratiola virginiana</em>** L.*</td>
<td>Jackson (1909)</td>
</tr>
<tr>
<td><em>Iris prismatica</em>** Pursh</td>
<td>Jackson (1927)</td>
</tr>
<tr>
<td><em>Spartina cynosuroides</em>** (L.)Roth</td>
<td>Stone (1899)</td>
</tr>
<tr>
<td><em>Utricularia minor</em> L.*</td>
<td>Stone (1899)</td>
</tr>
</tbody>
</table>

*These species are undocumented by specimens and were either misidentified (*) or are not known to have occurred in Worcester County (**) according to Sorrie and Somers (1999).
Literature Cited


Index

Family names are in bold capital letters. Genera corresponding to the standard names used in this publication and Gleason and Cronquist (1991) are in bold italics. Specific epithets for these genera are given alphabetically in the body of this publication and are not repeated here. Genus-level synonyms are listed in non-bold italics. Species-level synonyms are listed for any genus that covers two or more pages in the main body of this publication. Common names are given without either bold or italics, and in some cases are shortened by dropping modifying adjectives. Where a single name serves as both a common name and scientific name, it is given in italics.

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