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## The Vascular Flora of the Potomac River Watershed of King George County, Virginia

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### ABSTRACT

The results of two floristic studies of King George County, Virginia, are combined into an annotated checklist. Field work was initiated in 1983-84 with a study of Caledon Natural Area, a 2,500-acre tract with 3.5 miles of frontage on the Potomac River. Collecting resumed in 1991 and 1992 to include other portions of the county drained by the Potomac River. The study area contains a wide variety of habitats including dry upland woods, mesic ravines, low elevation river flats, beaches, swamps, marshes, and creeks; creeks and marshes include both brackish and freshwater environments. The Potomac River watershed of King George County harbors a diverse assemblage of plants; the checklist includes documentation for 918 species of vascular plants classified in 466 genera and 130 families. This total includes 418 species that at the time of collection were the first records of occurrence in King George County.

### INTRODUCTION

King George County is the northernmost county located entirely within the Coastal Plain of Virginia (Figure 1). It is situated on the northwestern (basal) portion of the Northern Neck, a five-county peninsula bounded by the Potomac and Rappahannock Rivers and their confluence with the Chesapeake Bay. King George County is bounded by the Potomac River to the north, Stafford County to the west, the Rappahannock River to the south, and Westmoreland County to the east.

King George is a rural county with a total area of 113,920 acres (Isgrig and Strobel 1974), about half of which is drained by the Potomac River. According to a recent pamphlet produced by the Virginia Department of Forestry, approximately 63 percent of the county, or 73,029 acres, is wooded; the dominant forest type is oak-hickory covering 53,529 acres. Much of the nonforested area of the county is devoted to human enterprises, including agriculture, homesites, commerce, and the Dahlgren Division of the Naval Surface Warfare Center. There is one large region of protected land along the Potomac River, the Caledon Natural Area.

The Caledon Natural Area is a tract of 2,500 acres along 3.5 miles of river frontage that has been reserved to protect nesting habitat of the Bald Eagle

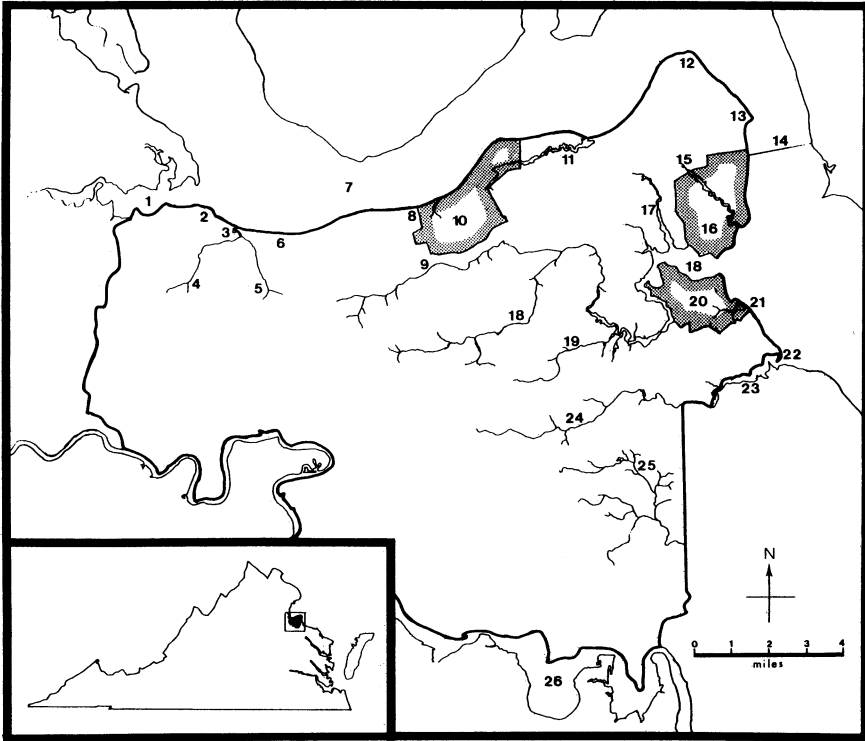


Figure 1. Map of Potomac River watershed of King George County, Virginia. Localities mentioned in text: 1. Potomac Creek; 2. Bull Bluff; 3. Belvedere Beach; 4. Passapatanzy Creek; 5. Dirt Bridge Run; 6. Fairview Beach; 7. Potomac River; 8. Somerset Beach; 9. Pepper Mill Creek; 10. Caledon Natural Area; 11. Chotank Creek; 12. Mathias Point; 13. Persimmon Point; 14. Potomac River Bridge (US Route 301); 15. Gambo Creek; 16. US Naval Surface Warfare Center (Dahlgren Division); 17. Williams Creek; 18. Upper Machodoc Creek; 19. Poplar Neck Creek; 20. US Naval Surface Weapons Center Annex (Tetotum Flats); 21. Black Marsh; 22. King George Point; 23. Rosier Creek; 24. Pine Hill Creek; 25. Mattox Creek; 26. Rappahannock River.

(*Haliaeetus leucocephalus*). This area contains many of the same land forms and habitats found throughout the portion of King George County drained by the Potomac River. Much of the Caledon Natural Area is wooded, and, judging by the diameters of the trees, portions of this area contain some of the oldest woodlands in the Coastal Plain of Virginia (S. Ware, pers. comm.). Ware (1984) gives detailed descriptions of specific sites and habitats within the Caledon reserve.

This study documents the flora that occurs in the Potomac River watershed of King George County and contributes to knowledge of the Virginia flora. The checklist of species documented in the study area should also provide baseline

data for informed management of natural resources of the county in general and of the Caledon Natural Area in particular.

## GEOLOGY

The Coastal Plain of Virginia is underlain by a thick wedge of sediments deposited upon eroded igneous and metamorphosed rocks of Paleozoic and Precambrian age and sedimentary rocks of Triassic age. The surface of the basement rocks and overlying sedimentary strata dip gently eastward from the Fall Zone towards the Atlantic Ocean. Coastal Plain sediments of Cretaceous to Holocene age can be found as outcrops or surface deposits; older strata are not exposed in the region. The age of sediments exposed at any given site in the Coastal Plain depends largely on the distance from the Fall Zone and the extent that stream erosion has cut vertically into the sedimentary strata. Within King George County, Mesozoic and early Paleocene deposits are not exposed at the surface; surface geology thus consists of sediments ranging from late Paleocene to Holocene (Powars 1988). Tertiary formations found in King George County are, in ascending stratigraphic order, the Paleocene Aquia, early Eocene Marlboro Clay, Eocene Nanjemoy, Miocene Calvert and Choptank, late Miocene Eastover, and Pliocene Yorktown. The Aquia, Marlboro, and Nanjemoy deposits consist of glauconitic sands and clays, fossil shell beds, and some denser limestones (Teifke 1973) that accumulated in a shallow oceanic shelf environment (Powars 1988). The Calvert, Choptank, and Yorktown Formations consist of fossiliferous clays and silty clays (Teifke 1973), and probably formed along a marine margin as fluvial deltaic or estuarine deposits (Powars 1988). Plant fragments, fish scales, and bones and teeth of fish and marine mammals can be found locally throughout these sediments (Powars 1988). Plio-Pleistocene formations underlie terraces along the Potomac and Rappahannock Rivers, and their major tributaries. These formations are composed of basal sands and gravels that grade upwards into various admixtures of silt, clay, and sand that were deposited under fluvial-estuarine conditions during interglacial stages (G. Johnson, pers. comm.).

## TOPOGRAPHY, SOILS, and PLANT HABITATS

Agents of erosion have carved through the sedimentary layers of King George County, transforming its surface into a complex topography of uplands, terraces, steep ravines, escarpments, and flat lowlands. Recent erosion and sedimentation have also produced a variety of shoreline features including beaches, spits, and marshes. Because sea level has not been constant during the erosional history of the Coastal Plain, stream gradients and their erosional capacity have varied through time. Likewise, erosion by wave action and other shore-line processes have occurred at various elevations both higher and lower than present sea-level. The result is highly varied topography supporting a wide range of habitats and diverse plant species.

Uplands in the county are highly dissected and take the form of irregular, rolling-hilly ridges mostly 100–200 feet above sea level and less than one quarter mile wide. Several major roads in the county follow these ridges. Upland areas consist of sediments of the Calvert Formation, often overlain with thin and highly

eroded clays, sands, and gravels of late Miocene to Pleistocene age (Powars 1988). Upland regions are relatively xeric and develop deep, well-drained soils with sandy to heavy clay loam subsoils (Isgrig and Strobel 1974). Undisturbed, uplands support an oak-hickory forest; however, large portions of this region have been cleared for agriculture, homesites, and commercial enterprises. Some characteristic species of upland woods include a variety of oaks, such as *Quercus alba*, *Q. velutina*, *Q. coccinea*, *Q. falcata*, *Q. rubra*, *Q. marilandica*, and *Q. stellata*, plus *Liriodendron tulipifera*, *Fagus grandifolia*, *Carya tomentosa*, and *C. glabra*. Shrubs such as *Kalmia latifolia*, *Gaylussacia frondosa* and *Vaccinium pallidum* are common elements of the understory.

Depending on the erosional history of a given area, flanks of uplands may be highly dissected with steep-sided ravines, skirted with descending stairstep-like terraces, or abruptly cut by steeply-sloped river bluffs or escarpments. Ravines form by headward erosion of streams and are abundant in all but the low-lying easternmost portion of the county. Ravine formation was enhanced when periods of low sea level resulted in stream gradients steeper than those present now. Ravines have cut through as much as 150 feet of sediments, sometimes leaving extremely steep side walls. Vegetation in some ravines includes extremely large, old trees that, presumably, were protected from timbering by the steepness of the terrain. Ravines tend to have relatively rich, mesic soils and support a diverse array of plants. Some notable species include ferns and fern allies such as *Adiantum pedatum*, *Deparia acrostichoides*, *Diplazium pycnocarpon*, *Dryopteris carthusiana*, and *Huperzia lucidula*, and spring-blooming wildflowers and ephemerals such as *Asarum canadense*, *Dicentra cucullaria*, *Dentaria heterophylla*, *Orchis spectabilis*, and *Stellaria pubera*. Composition of the herb layer of ravine slopes can vary considerably depending on orientation and exposure to the sun. Some typical woody plants of ravine bottoms include *Asimina triloba*, *Lindera benzoin*, *Nyssa sylvatica*, and *Viburnum nudum*.

The formation of modern river bluffs on the Potomac River is graphically displayed along the western shore of Mathias Point Neck and at Bull Bluff, near the mouth of Potomac Creek (Figure 1). Here, steep banks up to 100 feet in elevation form by wave action which erodes the loosely consolidated sedimentary layers at the base of the bluff, thus undercutting the bank. Erosion by wave action and deposition of sediments also produces a broad, shallow, and relatively flat river bottom near the shore. Locally, narrow beaches form at bases of bluffs; at Bull Bluff these are littered with eroded fossils, mostly gastropod shells (or their casts) and shark teeth. River bluffs provide diverse habitats ranging from completely bare areas recently exposed by mass movement of sediments, to slumped overburden with toppled trees and regenerating vegetation, or stable areas well-covered by vegetation. Bluff faces may be dry, or moist from seepage. Woody plants of river bluffs include *Cornus ammomum*, *Kalmia latifolia*, *Hydrangea arborescens*, and *Viburnum acerifolium*; herbs include *Bidens cernua*, *Heuchera americana*, and *Solidago bicolor*. At Bull Bluff, *Equisetum arvense* and *Aster cordifolius* are prominent colonizers of slumped bluff faces.

Escarpments and terraces in the study area formed by the same processes described above for river bluffs, but under past conditions of elevated sea levels (relative to present conditions) and different currents. As sea level fell, broad

depositional surfaces emerged as terraces flanking the former bluff. Falling sea levels during the Pleistocene produced three such terraces along the Potomac River in King George County (Powars 1988). The upper two terraces are geographically restricted and, in terms of vegetation, they essentially form a continuation of upland habitat.

In contrast, the lowest wave-cut platforms, the river flats, are extensive, including much of Mathias Point Neck and Tetotum Flats in the eastern part of the county (Figure 1). This lowland area abuts an impressive 7-mile long, concave, east-facing escarpment—a former river bluff. Additional smaller “flats” occur along the Potomac River, for example, the Chotank Creek area, and three narrow strips of lowland at Belvedere, Fairview, and Somerset Beaches (Figure 1). These platforms are elevated about 10–25 feet above sea-level. From Potomac Creek (the northwestern boundary of the county) to approximately Somerset Beach, the lowlands include outcrops of Mattaponi Formation sediments; to the east and south, lowlands along Chotank Creek, Mathias Point Neck, and Tetotum Flats reveal Nanjemoy Formation sediments (Teifke 1973). Pleistocene cover is common in lowland regions. Subsoils in lowland areas are broadly similar to those of uplands, but as a result of the low elevation, minimal relief, and high clay levels, drainage at the surface ranges from moderate to poor (Isgrig and Strobel 1974). Undisturbed river flat areas thus support swamps or mesic forest habitats. The “White Oak Swamp” located near the headwaters of Chotank Creek (Caledon Natural Area) is a good example. This area has not been timbered for many years. The forest is dominated by large specimens of *Quercus alba*, with *Nyssa sylvatica* and *Quercus falcata* in appreciable numbers. *Ilex opaca* is the primary understory species. In addition to assorted ericaceous shrubs, this community is characterized by such species as *Chasmanthium laxum*, *Claytonia virginica*, and several species of *Carex*.

Elsewhere, portions of the river flats are devoted to agriculture, but much of this low elevation area is forested and subject to timbering, primarily for Loblolly Pine (*Pinus taeda*) and oaks (*Quercus* spp.). In one recently timbered area with somewhat hydric soils an extensive community of ericaceous plants has developed; this early successional ericad thicket includes *Gaylussaccia* spp., *Kalmia latifolia*, *Vaccinium* spp. and *Chimaphila maculata*, plus non-ericads such as *Erianthus alopecuroides*, *Hypericum hypericoides*, several sedges (most notably *Carex glaucescens*) and *Juncus secundus*. The community of Dahlgren and the adjacent Naval Surface Warfare Center occupies the river flats at the mouth of Upper Machodoc Creek (Figure 1).

Because of its size and proximity, the Potomac River exerts great influence on creeks, swamps, marshes, and beaches found along the periphery of lowland river “flats.” Freshwater release of the Potomac River varies with precipitation, and this factor, along with tides and winds, affects the transition zone between fresh and brackish water. This transition zone shifts from the Route 301 Bridge (below Mathias Point) in King George County to a region upriver near Quantico, Virginia (Miller 1985). Thus, within the study area, river water at the surface may be fresh or brackish to Mathias Point but is usually brackish downriver from there (Miller 1985). The river consists of an often narrow channel bordered by wide, shallow shoals, and has an average depth of six meters; however, an

extreme depth of 36.5 meters occurs in the channel near Mathias Point (Figure 1) (Carter et al. 1983). Extensive river shoals provide habitat for a number of submersed aquatic plants, including *Ceratophyllum demersum*, *Elodea nuttallii*, *Myriophyllum spicatum*, *Potamogeton perfoliatus* var. *bupleuroides*, and *Valisneria americana*, which were collected as wash-ups along the shore. Records of additional aquatic species (*Potamogeton pectinatus*, *P. pusillus*, and *Zanichellia palustris*) from the King George County shoreline of the Potomac River were obtained by dredging and reported by Carter et al. (1983), but we have seen no herbarium vouchers from their study, so these additional species are not included in the checklist.

Marshes, often in the form of point bars in the lower reaches of creeks, formed during the Holocene by flooding, stream flow, and meandering of the creek channel (Onuschak 1973). Brackish marshes generally develop towards the mouths of creeks, especially in the eastern portion of the county. Notable are the brackish marshes of Chotank, Gambo, Williams, Upper Machodoc, and Rosier Creeks (Figure 1). However, one large brackish marsh, at Persimmon Point (Figure 1) on the east side of Mathias Point Neck, is not associated with an obvious creek mouth; its dendritic interior margin suggests that this marsh was formed by flooding of the headwaters of a former creek system. Characteristic plants of brackish marshes in the study area include *Amaranthus cannabinus*, *Aster subulatus*, *A. tenuifolius*, *Baccharis halimifolia*, *Iva frutescens*, *Kosteletskya virginica*, *Pluchea purpurascens*, *Scirpus robustus*, *S. validus*, and *Spartina* spp.

Freshwater marshes intergrade with swamps upstream from the brackish marshes of the same tributaries mentioned above plus Mattox Creek (the brackish downstream portions of which occur in adjacent Westmoreland County). Freshwater marshes are also present along most of the lower reaches of Dirt Bridge Run and Passapatanzy Creek in the western portion of the county (Figure 1). Herbaceous vegetation of freshwater marshes includes *Alisma subcordatum*, *Galium obtusum*, *Leersia oryzoides*, *L. virginica*, *Limnobium spongia*, *Ludwigia palustris*, *Lysimachia terrestris*, *Peltandra virginica*, *Pontederia cordata*, *Saururus cernuus*, and *Typha latifolia*; woody plants at the periphery of marshes include *Acer rubrum*, *Cephalanthus occidentalis*, *Hibiscus moscheutos*, *Nyssa sylvatica*, and *Salix* spp. Maple-gum (*Acer rubrum*/*Nyssa sylvatica*) swamps are present along the upper reaches of some of the larger streams, most notably on Upper Machodoc and Peppermill Creeks (Figure 1).

Within Caledon Natural Area (Figure 1), swamps on the tributary draining the western portion of the reserve are dominated by *Acer rubrum* and *Fraxinus pennsylvanica*. In contrast, the slightly brackish upper marshes of Chotank Creek give way to a swamp dominated by lowland oaks, *Acer rubrum*, and *Nyssa sylvatica*. The oak species include *Quercus phellos*, *Q. palustris*, *Q. pagoda* and *Q. lyrata*. This swamp was the only site in the study area where the state-rare grass *Glyceria pallida* was found; *Isoetes engelmannii* was also present in the channels of the intermittent streams.

Along the Potomac River, beaches vary in extent from narrow to virtually nonexistent along Bull Bluff to broad expanses 30 feet or more wide along the eastern shore of Mathias Point Neck, near the US Route 301 Bridge (Figure 1). *Amorpha fruticosa* is a characteristic shoreline plant over much of the study

area. *Ammophila breviligulata*, *Cakile edentula*, *Cyperus odoratus*, *Euphorbia polygonifolia*, *Equisetum hyemale*, *Salsola kali*, and *Xanthium strumarium* are important elements of the broad sandy beach located near the US Route 301 Bridge. At the water's edge large stands of *Iva frutescens*, and scattered clumps of *Justicia americana*, and *Lilaeopsis chinensis* can be found.

On the western-most portion of the Potomac River shore at Caledon Natural Area, floristically interesting linear swales have formed between the base of the bluff and the beach. The most shaded of these are dominated by *Iris pseudacorus*, but others support a diverse flora including *Peltandra virginica*, *Saururus cernuus*, *Carex comosa*, *Polygonum densiflorum*, *Eryngium aquaticum*, and *Cladium mariscoides*.

While ruderal habitats abound in all physiographic regions of the county, one human-impacted habitat in the study area is particularly interesting. An extensive midden-mound of oyster shells, a result of foraging by Algonquin-heritage native peoples of the Powhatan Confederacy (Metcalf 1982) exists at Stony Point, a prominence near the mouth of Rosier Creek (Figure 1). Presently, the vicinity of the midden has two residences, some outbuildings, and a large regularly mowed lawn. Two remarkable waifs persist within the lawn and along its edges. The first of these, *Ajuga chamaepitys*, a species from the Mediterranean, had been recorded previously in only three Virginia Counties (Gloucester, Westmoreland, and York) (Harvill et al. 1992). The other is *Gaura parviflora*, a species normally found much further south, from Georgia to Mississippi; our collections constitute a state record for this plant. Given the setting, it is likely that human enterprise is responsible for the presence of these waifs at Stony Point and, further, their persistence may be related to the unusual midden-mound substrate. The shell midden area also yielded collections of *Chondrilla juncea*, *Echium vulgare*, *Euphorbia dentata*, *Geranium molle*, and *Opuntia humifusa* which were uncommon or unknown elsewhere in the study area.

Notable exotic species found in the study area include two cultivated vines, *Akebia quinata* and *Cocculus carolinus*, that have naturalized in the vicinity of building sites at the Caledon Natural Area. *Paulownia tomentosa* can be found throughout the area, sometimes reaching marketable dimensions. *Euphorbia marginata* was found along a stretch of railroad tracks at the Dahlgren Division of the Naval Surface Warfare Center.

## CLIMATE

Climatological data for the county are not available; however, the climate is similar to or, perhaps, slightly more temperate than that of Fredericksburg located in Spotsylvania County to the west. In Fredericksburg average annual precipitation is 40.09 inches, average maximum temperatures range from 45.8 (degrees Fahrenheit) in January to 89.1 in July, and the growing season lasts 178 days (Virginia Cooperative Extension Service 1984).

## METHODS

The checklist is a combination of the results of two originally separate studies. Ware (1984) produced a checklist of 625 species of vascular plants from the Caledon Natural Area based on collections made from March to November,



1983 with some additional collections from April, 1984; this was one of several baseline studies of the biota of the reserve funded by the Virginia Division of Parks and Recreation. Simmons collected in the Mathias Point Neck and Upper Machodoc Creek areas from March to December, 1991, and all three authors collected at various sites throughout the Potomac River watershed of King George County from March to October, 1992. Voucher specimens from Caledon Natural Area are deposited in the herbarium of the College of William and Mary (WILLI) with duplicates at Caledon Natural Area. Most other collections are deposited in the herbarium of the University of Richmond (URV), with some duplicates at (WILLI). The checklist also includes some records from the George Mason University herbarium (GMUF); these supplemental records are restricted to those taxa collected within the study area but not found by the present authors.

Specimens were identified from Bailey (1949), Fernald (1950), Gleason (1952), Gleason & Cronquist (1991), Hitchcock (1951), Radford et al. (1968), and Steyermark (1963). Origins of non-native species were determined according to Bailey (1949) and Gleason (1952).

All taxa at the division and class levels follow *Flora North America* (Flora North America Editorial Committee 1993), which was also followed for nomenclature and family circumscription of ferns and fern allies. Names and taxonomy for Coniferophyta and Magnoliophyta follow Harvill et al. (1992) with the following exceptions: *Carex annectens* is distinguished from *C. vulpinoidea*; *Chasmanthium* is distinguished from *Uniola*; *Penthorum* is placed in Penthoraceae as per Haskins and Hayden (1987); *Quercus pagoda* is distinguished from *Q. falcata*; and species grouped into *Viola palmata* are distinguished as per Gleason and Cronquist (1991).

## RESULTS OF FLORISTIC STUDY

The vascular plant collections from the study area total 918 species, included within 466 genera and 130 families. In the course of this project, approximately 418 species or 45.5 percent of the total in the checklist were documented for the first time to occur in King George County. There were 279 county records from Caledon Natural Area collections made in 1983–84, including 85 not previously reported at that time for any county in the Northern Neck; these records were incorporated into Harvill et al. (1986). An additional 139 new county records, including 30 for the Northern Neck, resulted from the 1991–92 collections, and many of these were incorporated into Harvill et al. (1992). One state record, *Gaura parviflora*, is included in the checklist. Introduced species number 199 which represents 21.7 percent of the total. Ferns and fern allies comprise 3.5 percent (32) of the species, Coniferophyta 0.4 percent (4), Liliopsida 29 percent (267) and Magnoliopsida 67 percent (616). Families of large size include Poaceae with 107 species, Asteraceae with 100, and Cyperaceae with 74.

Despite the large number of species encountered in the study, few are sufficiently rare to have elicited concern for their conservation. *Panax quinquefolium* is state listed as threatened, a designation that limits its commercial harvest. Six species found at Caledon Natural Area are on the “Watch List” of the Virginia Department of Natural Heritage (Ludwig 1994) as “rare to uncom-

mon in Virginia." *Carex canescens*, *Glyceria pallida* (listed as *Torreyochloa pallida*), *Limnobium spongia*, *Ludwigia leptocarpa*, *Panax quinquefolium*, and *Polygonum densiflorum*. Two of these, *Limnobium spongia* and *Ludwigia leptocarpa*, were also found at the Dahlgren Division of the Naval Surface Warfare Center. A seventh plant on the "Watch List," *Potamogeton perfoliatus* var. *bupleuroides*, was found in the Potomac River near the Rt 301 Bridge, also at the Dahlgren proving grounds. Finally, an additional site for *Panax quinquefolium* was found at Bull Bluff.

Each entry in the checklist includes taxon name, author, habitat(s), an indication of abundance or frequency, and one or more collection numbers of voucher specimens; where pertinent, synonyms or place of origin of non-native taxa are provided within brackets. Based on subjective field observations, the following categories of relative abundance are used: "R" for rarely encountered, "U" for uncommonly encountered, "O" for occasionally encountered, and "C" for commonly encountered. Collectors are abbreviated as follows: "S" = Simmons, "W" = Ware, "H" = Hayden. Other collector's names are written out in full; their collections are vouchered at GMUF.

## ANNOTATED CHECKLIST

**Bold** indicates non-native species; C = species in Caledon Natural Area; \* = record for King George County; \*\* = record for Northern Neck peninsula; \*\*\* = record for Virginia.

### LYCOPODIOPHYTA

#### ISOETACEAE

*Isoetes engelmannii* A. Braun. Intermittent streams; R; S527, W8253.—C

#### LYCOPODIACEAE

*Diphasiastrum digitatum* (A. Braun.) Holub. [*Lycopodium flabelliforme*] Mixed woods; C; S10, W8534.—C

*Huperzia lucidula* (Michx.) Trevisan. [*Lycopodium lucidulum*] Mesic ravine slopes; O; S12, W7982.—C

*Lycopodiella appressa* (Chapman) Cranfill. [*Lycopodium appressum*] Seep; R; S1289.

*Lycopodium obscurum* L. Mixed woods; O; S11, W8537.—C

#### SELAGINELLACEAE

*Selaginella apoda* (L.) Spring. Roadside, stream bank; R; W8243.—C

### EQUISETOPHYTA

#### EQUISETACEAE

*Equisetum arvense* L. Beach berms; R; S55, W8338.—C

*Equisetum hyemale* L. Beach berms; R; SWH1402, SH1428, SH1512.

### POLYPODIOPHYTA

#### ASPLENIACEAE

*Asplenium platyneuron* (L.) BSP. Mesic ravine slopes, roadsides; C; S568, W8244.—C

#### BLECHNACEAE

*Woodwardia areolata* (L.) T. Moore. Ravine bottoms, swamps; O; S1276, W8497.—C

*Woodwardia virginica* (L.) Smith. Freshwater marsh and pond margins; R; W8524.—C

#### DENNSTAEDTIACEAE

*Dennstaedtia punctilobula* (Michx.) T. Moore. Embankments, ravine slopes; O; W8357.—C

*Pteridium aquilinum* (L.) Kuhn. var. *latiusculum* (Desv.) L. Underw. ex Heller. Dry ridges; R; S241, W8536.—C

#### DRYOPTERIDACEAE

*Athyrium filix-femina* (L.) Mertens subsp. *asplenioides* (Michx.) Farwell. [*A. asplenioides*] Mixed woods; C; S637, S1059, W8413.—C

*Deparia acrostichoides* (Swartz) M. Kato. [*Athyrium thelypteroides*] Ravine slopes; O; S944, S1032, W8675, W8792.—C

*Diplazium pycnocarpon* (Sprengel) M. Broun.  
[*Athyrium pycnocarpon*] Ravine slope;  
R; W8841.—C

*Dryopteris carthusiana* (Villars) H. P. Fuchs.  
[*D. spinulosa*] Ravine slopes and bot-  
toms; R; S636, W8500.—C

*Dryopteris celsa* (W. Palmer) Knowlton. Ravine  
bottom; R; SWH1455.

*Dryopteris cristata* (L.) Gray. Swamp margin;  
R; W7986, W8585.—C

*Dryopteris intermedia* (Willd.) Gray. Mesic ra-  
vine slopes, embankments; R; S1034,  
W7983, W8109.—C

*Onoclea sensibilis* L. Ravine bottoms, low road-  
sides; O; W8633.—C

*Polystichum acrostichoides* (Michx.) Schott.  
Ravine slopes; C; S368, W8287.—C

#### OPHIOGLOSSACEAE

*Botrychium dissectum* Sprengel. Mesic ravine  
slopes; C; S1004, S1228, W8673,  
W8725.—C

*Botrychium virginianum* (L.) Swartz. Mixed  
woods; O; S119, W8072.—C

*Ophioglossum vulgatum* L. Mesic ravine slopes;  
O; S370, S571, W8075.—C

#### OSMUNDACEAE

*Osmunda cinnamomea* L. Beach swales, mixed  
woods; O; S283, W8410, W8953.—C

*Osmunda regalis* L. var. *spectabilis* (Willd.) Gray.  
Beach swales, upper tidal marshes; U;  
S133, W8373.—C

#### POLYPODIACEAE

*Polypodium virginianum* L. River bluff sum-  
mits; R; SWH1440, W8946.—C

#### PTERIDACEAE

*Adiantum pedatum* L. Mesic ravine slopes; U;  
S1029, W8790.—C

#### THELYPTERIDACEAE

*Phegopteris hexagonoptera* (Michx.) Fee. [*The-  
lypteris hexagonoptera*] Mixed woods;  
C; S1030, W8674.—C

*Thelypteris noveboracensis* (L.) Nieuwland.  
Mesic ravine slopes, roadsides; C; S1060,  
W8356.—C

*Thelypteris palustris* Schott. var. *pubescens*  
(Laws.) Fern. Beach swales, brackish  
marshes; O; S1109, S1128, W8513.—C

#### CONIFEROPHYTA

##### CUPRESSACEAE

*Juniperus virginiana* L. Beach margins, former

homesites, mixed woods; C; S14,  
W8000.—C

#### PINACEAE

*Pinus echinata* Mill. Roadsides; R; W8910.—C

*Pinus taeda* L. Mixed woods; O; S325, W8897,  
W8917.—C

*Pinus virginiana* Mill. Beach berms, disturbed  
upland sites, low woods, river bluffs; C;  
S71, W8350.—C

#### MAGNOLIOPHYTA

##### MAGNOLIOPSIDA

##### ACANTHACEAE

*Justicia americana* (L.) Vahl. Beach; R; SH1525.

*Ruellia caroliniensis* (Walt.) Steud. Lawn marg-  
ins, road median; U; S635, SH1586,  
W8914.—C

##### ACERACEAE

*Acer negundo* L. Beach berms, river bluffs; O;  
S60, SH1426, W8133.—C

*Acer rubrum* L. Mixed woods; C; S5, S258,  
W8001.—C

*Acer saccharinum* L. Beach margin; R; W8810.—  
C

##### AIZOACEAE

*Mollugo verticillata* L. [Tropical America]  
Beach, waste areas; U; S633, S1138,  
W8381.—C

##### AMARANTHACEAE

*Amaranthus cannabinus* (L.) J. D. Sauer.  
Brackish marshes; O; S955, W8737.—C

*Amaranthus hybridus* L. Bradley 15010.

##### ANACARDIACEAE

*Rhus aromatica* Ait. Roadsides; R; SWH1415\*\*  
*Rhus copallina* L. Beach margin, field; U;  
SH1605, SH1715, W8608.—C

*Rhus glabra* L. River bluffs, roadsides; U; S585,  
W8814.—C

*Rhus radicans* L. Mixed woodlands, roadsides,  
thickets; C; W8135.—C

*Rhus typhina* L. Bradley 8249.

##### ANNONACEAE

*Asimina triloba* (L.) Dunal. Mesic ravine slopes  
and bottoms; C; S77, W8063.—C

##### APIACEAE

*Chaerophyllum tainturieri* Hooker. Roadside;  
R; S1463\*

*Cicuta maculata* L. Seep, swamp margins; U; S590, S1645, W8371, W8691.—C  
*Cryptotaenia canadensis* (L.) DC. Mesic ravine slopes; R; S481a, W8492.—C  
*Daucus carota* L. [Eurasia] Fields; U; S477, W8323.—C  
*Eryngium aquaticum* L. Beach swale; R; W8771.—C  
*Foeniculum vulgare* Mill. [S. Europe] Roadside; R; S1655.  
*Hydrocotyle ranunculoides* L.f. Beach swales, marshes and ponds; U; S624, S923, W8627a.—C  
*Hydrocotyle sibthorpioides* Lam. [Africa, Asia] Lawn margin; R; W10222.\*\*—C  
*Hydrocotyle verticillata* Thunb. Slightly brackish marsh and pond margins; C; S473, S545, SH1723, W8342, W8638.—C  
*Lilaeopsis chinensis* (L.) Kuntze. Beaches; R; S277, S534.  
*Osmorhiza claytonii* (Michx.) Clarke. Mesic ravine slopes and bottoms; O; S78, W8155.—C  
*Osmorhiza longistylis* (Torrey) DC. Roadside; R; W8193.—C  
*Oxypolis rigidior* (L.) Raf. Swamp margin; R; S1490, SH1679.  
*Ptilimnium capillaceum* (Michx.) Raf. Freshwater pond margin; R; SH1741.\*  
*Sanicula canadensis* L. Ravine slopes, roadsides; O; S311, S457, S592, W8394.—C  
*Sium suave* Walt. Brackish marsh margins; O; S1107, W8736.—C

#### APOCYNACEAE

*Apocynum cannabinum* L. Fields, roadsides; C; S647, W8349.—C  
*Vinca major* L. [Europe] Former homesites; R; W7992.—C  
*Vinca minor* L. [Europe] Former homesites; O; W7993.—C

#### AQUIFOLIACEAE

*Ilex opaca* Ait. Mixed woodlands; C; S216, W7999.—C  
*Ilex verticillata* (L.) Gray. Marsh and swamp margins; O; S354, S435, S570, W8250.—C

#### ARALIACEAE

*Aralia spinosa* L. Beach berms, roadsides; O; S717, W8590.—C  
*Hedera helix* L. [Europe] Former homesites; R; SH1594, W8843.—C  
*Panax quinquefolium* L. Ravine slope; R; W8944 [photo].—C

#### ARISTOLOCHIACEAE

*Aristolochia serpentaria* L. Mesic ravine slopes; R; W8724, W8888.—C  
*Asarum canadense* L. Mesic ravine slopes; R; S385, W8073.—C  
*Hexastylis virginica* (L.) Small. Ravine slopes; R; S391, W8901.—C

#### ASCLEPIADACEAE

*Asclepias amplexicaulis* Smith. Roadsides; R; S399, SH1607.  
*Asclepias incarnata* L. Moist field, brackish marshes; U; S654, W8738a.—C  
*Asclepias syriaca* L. Fields, roadside; C; SH1520, W8278.—C  
*Asclepias tuberosa* L. Roadside; R; S591.  
*Cyananthus laevis* (Michx.) Pers. [Ampelamus albidus] Beach berm; R; S1652.  
*Matelea carolinensis* (Jacq.) Woodson. Embankments, roadside; C; SW1560, W8417.—C

#### ASTERACEAE

*Achillea millefolium* L. [Europe] Beach margins, fields, roadsides; O; S217, W8203.—C  
*Ageratina altissima* (L.) King & Robinson. [Eupatorium rugosum] Fields, river bluff, roadsides; O; S1213, S1295, S1654, W8831.—C  
*Ambrosia artemisiifolia* L. Roadsides; O; S1053.  
*Ambrosia trifida* L. Roadsides; R; S1263, W8730.—C  
*Antennaria plantaginifolia* (L.) Richardson. Fields, ridges, roadsides; O; S66, S285, SWH1403, W8076.—C  
*Anthemis arvensis* L. Fields; O; S252, S474.  
*Arctium minus* Schkuhr. [Eurasia] Former homesites; R; W8643.—C  
*Arnica acaulis* (Walt.) BSP. Field; R; S275.  
*Artemisia vulgaris* L. [Europe] Fields, river bluffs; U; S1242, W8617.—C  
*Aster cordifolius* L. River bluff face; R; SWH1764.\*\*  
*Aster divaricatus* L. Mesic ravine slopes; O; S1313, S1663, W8793.—C  
*Aster dumosus* L. Clearing, swamp margin; R; S1256, SH1682.\*  
*Aster lateriflorus* (L.) Britton. Roadside; R; W8881.—C  
*Aster pilosus* Willd. Clearings, fields; C; S1231, S1315, W8826, W8860.—C  
*Aster puniceus* L. Woodland margin; R; S1357.\*  
*Aster simplex* Willd. Low woods, roadsides; C; S1334, S1347, S1356, W8867, W8920.—C

- Aster subulatus* Michx. Brackish marshes; O; S1338, SH1717, W8731.—C
- Aster tenuifolius* L. Brackish marshes; U; S1300, S1366.
- Aster vimineus* Lam. Fields, roadsides; C; S706, S1311, S1329.\*\*
- Baccharis halimifolia* L. Brackish marsh margins; U; S1247, W8822.—C
- Bidens aristosa* (Michx.) Britton. Swales in fields; U; W8653, W8750.—C
- Bidens bipinnata* L. Ditches, fields; U; S1255, W8587.—C
- Bidens cernua* L. River bluffs; R; W8811.—C
- Bidens coronata* (L.) Britton. Brackish marsh margins; O; S1188, W8742.—C
- Bidens discoides* (T. & G.) Britton. Freshwater marsh margins; U; S1204, S1330.
- Bidens frondosa* L. Moist waste areas; O; W8801.—C
- Bidens laevis* (L.) BSP. Beach swale; R; W8760.—C
- Bidens polylepis* Blake. Ditches, fields, upper tidal marshes; U; S1116, S1202, W8813.—C
- Bidens tripartita* L. [Europe] Slightly brackish pond marsh margins; R; S1240, W8718.—C
- Centaurea maculosa* Lam. [Europe] Beach margins, lawn margin; R; SH1608, S1656.
- Chondrilla juncea* L. [Eurasia] Beach margins; R; S1299, SH1689, W8559.—C
- Chrysanthemum leucanthemum* L. [Europe, Asia] Clearings, fields; R; S357, W8236.—C
- Cichorium intybus* L. [Eurasia] Roadsides; U; S476.
- Cirsium discolor* (Willd.) Nutt. Field, former homesite, over-grown waste area; O; S1220, S1224, SH1722, W8751.—C
- Cirsium vulgare* (Savi) Tenore. [*C. lanceolatum*; Eurasia] Fields, roadsides; O; S1100, SH1696, W8548.—C
- Conoclinium coelestinum* (L.) DC. [*Eupatorium coelestinum*] Fields, pond margin; U; S659, S1126, W8552.—C
- Crepis pulchra* L. [Europe] Beach berm; R; SH1523.
- Eclipta alba* (L.) Hasskarl. Pond margins, roadside; C; S1142, W8621.—C
- Elephantopus carolinianus* Raeusch. Roadsides; O; S975, W8592.—C
- Elephantopus tomentosus* L. Roadsides; U; S1156.
- Erechtites hieracifolia* (L.) Raf. Pond margin, roadsides, waste areas; U; S1274, W8714.—C
- Erigeron annuus* (L.) Pers. Roadsides; O; S281, S360, S443, W8405.—C
- Erigeron canadensis* L. Roadsides; O; S1052, W8827.—C
- Erigeron philadelphicus* L. Field, ravine bottom; R; S207, SWH1453.
- Erigeron strigosus* Willd. Roadsides; U; S442, SH1504, W8310.—C
- Eupatoriadelphus fistulosus* (Barratt) K. & R. [*Eupatorium fistulosum*] Fields, roadsides; U; S981, S1022.
- Eupatorium album* L. Field; U; S987, S1118.
- Eupatorium capillifolium* (Lam.) Small. Field; R; W8869.—C
- Eupatorium hyssopifolium* L. var. *hyssopifolium*. Fields, roadsides; O; S1222, W8927.—C
- Eupatorium hyssopifolium* L. var. *laciniatum* Gray. Fields, roadsides; O; S1190, S1230, W8748, W8749.—C
- Eupatorium mohrii* Greene. Clear-cut; R; W8931b.—C
- Eupatorium perfoliatum* L. Ditch, swamp margin; R; S1235, W8740.—C
- Eupatorium pilosum* Walt. On berm of old dam; R; W8872.
- Eupatorium rotundifolium* L. ssp. *ovatum* (Bigelow) M. & F. Fields, roadsides; U; S683, S1102, W8648.—C
- Eupatorium serotinum* Michx. Fields, marsh, mesic ravine slopes, pond margins, roadside; C; S1187, S1203, S1389, SH1695, W8747.—C
- Galinsoga quadriradiata* Ruiz & Pavon. [*G. cilidata*; Central & South America] Lawn margin, roadside; O; S644, W8397.—C
- Gnaphalium obtusifolium* L. Roadsides, waste areas; U; S1103, S1196, W8564.—C
- Gnaphalium purpureum* L. Fields, waste areas; U; S215, W8245.—C
- Helenium flexuosum* Raf. Fields; R; S653, W8348.—C
- Helianthus decapetalus* L. Bradley 21109.
- Heterotheca aspera* (Small) Shinnars. Bradley 24001b, Strong 86-024.
- Heterotheca mariana* (L.) Shinnars. Fields, stream banks, roadside; U; S1172, W8782.—C
- Hieracium gronovii* L. Roadsides; U; S1003, SH1730, W8560.—C
- Hieracium venosum* L. Lawn margins, ravine slopes, roadsides; U; S189, W8153.—C
- Hypochoeris radicata* L. [Eurasia] Fields, roadsides, waste areas; O; S284, S452, S692.
- Iva frutescens* L. Beach and brackish marsh margins; U; S1086, W8818.—C

*Krigia dandelion* (L.) Nutt. Mesic woods; R; W8122.—C  
*Krigia virginica* (L.) Willd. Lawn margins, roadside; U; S264, SWH1460, W8115.—C  
*Lactuca canadensis* L. Roadsides; C; S703, S1002, S1672, W8404, W8586.—C  
*Lactuca floridana* (L.) Gaertner. Roadside; R; S1113.  
*Liatis graminifolia* (Walt.) Willd. Clearing, roadside; R; SH1683, SH1731.  
*Liatis spicata* (L.) Willd. Roadside; R; S1266.  
*Mikania scandens* (L.) Willd. Brackish marsh and pond margins; C; S711, W8580.—C  
*Pluchea purpurascens* (Swartz) DC. Brackish marsh and pond margins; C; S1005, S1148, S1169, S1350, W8640.—C  
*Polymnia uvedalia* (L.) L. Beach margins, lawn margin, roadside; O; S1098, W8607.—C  
*Prenanthes serpentaria* Pursh. Bradley 23978.  
*Pyrrhopappus carolinianus* (Walt.) DC. Roadside; R; S540.  
*Rudbeckia hirta* L. Field, roadsides; U; S475, W8309.—C  
*Senecio anonymus* Wood. [*S. smallii*] Fields, roadside; U; S267, W8208.—C  
*Senecio aureus* L. Roadside; R; Ware, no voucher.—C  
*Sericocarpus asteroides* (L.) BSP. [*Aster paternus*] Lawn margins, roadsides; U; S481h, S511, W8503.—C  
*Sericocarpus linifolius* (L.) BSP. [*Aster solidagineus*] Roadside; R; SH579.\*  
*Solidago altissima* L. Fields, river bluffs; C; S1324, W8752.—C  
*Solidago bicolor* L. River bluffs, roadsides; U; S1115, W8762.—C  
*Solidago caesia* L. Ravine slopes, roadsides; U; S1307, S1361, SWH1770, W8851.—C  
*Solidago canadensis* L. [*S. altissima*] Fields, river bluffs; C; S1324, W8752.—C  
*Solidago erecta* Pursh. Roadside; R; W8794.—C  
*Solidago gigantea* Ait. Fields; U; S655, S1078.\*\*  
*Solidago graminifolia* (L.) Salisbury. Fields, roadsides; C; S1234, S1275, W8745, W8783.—C  
*Solidago juncea* Ait. Fields, roadsides; C; W8546.—C  
*Solidago nemoralis* Ait. Fields, roadsides; U; S1292, S1323, S1339, W8795, W8866.—C  
*Solidago odora* Ait. Dry open woodland; R; W8950.—C  
*Solidago rugosa* Mill. Fields, low woods, roadsides; O; S1200, W8645.—C  
*Solidago semperivirens* L. Brackish marsh margin; R; S1245, SH1720.

*Sonchus asper* (L.) Hill. [Europe] Roadsides; O; S432, S745.  
*Taraxacum officinale* Wiggers. [Europe, Asia] Fields, roadsides; O; S69, W8939.—C  
*Tussilago farfara* L. [Europe] Beach berm, river bluff face, roadside; U; S86, S126, W8002.—C  
*Verbesina alternifolia* (L.) Britton. Beach margin, lawn margin, roadside; R; S1236, W8602.—C  
*Verbesina occidentalis* (L.) Walt. Clearings, roadsides; C; S666, W8538.—C  
*Vernonia noveboracensis* (L.) Michx. Marsh margins, swamp, roadsides; O; S694, S756, SH1675, W8739.—C  
*Xanthium strumarium* L. [Europe] Beach margins, ditch; U; S1293, S1304, W8754.—C

#### BALSAMINACEAE

*Impatiens capensis* Meerb. Ravine bottoms, seeps; O; S621, W8677.—C

#### BERBERIDACEAE

*Podophyllum peltatum* L. Ravine slopes; O; S151, W8943.—C

#### BETULACEAE

*Alnus serrulata* (Ait.) Willd. Ditches, marsh and swamp margins, ravine bottoms; C; S1, SH1674, W8063.—C  
*Betula nigra* L. Ravine bottoms, swamps; O; S387, W8921.—C  
*Carpinus caroliniana* Walt. Mesic ravine slopes and bottoms, swamp margins; C; S81, S362, W8040.—C

#### BIGNONIACEAE

*Campsis radicans* (L.) Seemann. Beach thickets, mixed woods, swamp margins; C; S427, W8301.—C  
*Catalpa speciosa* Engelm. Embankments; R; S603, W8329.—C

#### BORAGINACEAE

*Cynoglossum virginianum* L. Mixed woods; O; S223, W8060.—C  
*Echium vulgare* L. [S. Europe] Shell midden; R; SW1570.\*  
*Hackelia virginiana* (L.) Johnston. Disturbed ravine slope and bottom; R; W8839.—C  
*Myosotis discolor* Pers. [Europe, W. Asia] Lawn; R; SH1514.  
*Myosotis macrosperma* Engelm. Former homesites, ravine bottoms, swamp margins; O; S169, S178, W8068.—C

## BRASSICACEAE

- Arabidopsis thaliana* (L.) Heynold. [Europe] Beach margins, roadsides, waste areas; U; S120, W8043.—C
- Arabis laevigata* (Willd.) Poir. Beach berms, ravine slope; R; S85, S202, W8142.—C
- Arabis lyrata* L. Roadside; R; W8951.—C
- Barbarea verna* (Mill.) Ascherson. [Europe] Roadsides; O; S84, W8118.—C
- Cakile edentula* (Bigelow) Hooker. Beach berm; R; SH1726.
- Cardamine bulbosa* (Schreber) BSP. Seeps, swamps; O; S227, W8059.—C
- Cardamine hirsuta* L. [Europe] Clearings, roadsides; O; S7, W7990.—C
- Cardamine pennsylvanica* Willd. Intermittent streams, swamps; O; S80, S218, SWH1435, W8062.—C
- Dentaria heterophylla* Nutt. Mesic ravine slopes and bottoms; C; S161, W7987.—C
- Dentaria laciniata* Willd. Mesic ravine slopes; O; S18, W7997.—C
- Descurainia sophia* (L.) Prantl. [Eurasia] Field; R; S176.
- Draba verna* L. [*Erophila verna*; Europe] Waste area; R; SWH1399.
- Lepidium campestre* (L.) R. Brown. [Europe] Field, roadside; U; S231, SWH1398.
- Lepidium virginicum* L. Beach margins, roadside, waste area; U; S235, S503, S560, W8232.—C
- Lunaria annua* L. [Eurasia] Former homesites; R; S159, SWH1446.
- Rorippa palustris* (L.) Besser. [*R. islandica*] Beach and pond margins; R; W8565.—C
- Sisymbrium officinale* (L.) Scopoli. [Europe] Lawn margin; R; SH1591.\*
- Teesdalia nudicaulis* (L.) R. Brown. [Europe] Roadside; R; S1433.

## CACTACEAE

- Opuntia humifusa* (Raf.) Raf. Beach margins, dry mixed woods, shell midden; U; SWH1407, W8252.—C

## CALLITRICHACEAE

- Callitriche heterophylla* Pursh. Freshwater ponds and swamps; U; S1070, W8672.—C

## CAMPANULACEAE

- Lobelia cardinalis* L. Swamps; O; S1021, W8665.—C
- Lobelia inflata* L. Roadsides; U; S710, W8501, W8694, W8784.—C

- Lobelia puberula* Michx. Field, roadside; R; S1162, S1316, SH1694.
- Lobelia siphilitica* L. Freshwater marsh; R; S1664.\*
- Triodanis perfoliata* (L.) Nieuwland. var. *biflora* (R. & P.) Bradley. Field; R; W8116.—C
- Triodanis perfoliata* (L.) Nieuwland. var. *perfoliata*. [*Specularia perfoliata*] Lawn margins, roadsides; R; S373, W8941.—C

## CAPRIFOLIACEAE

- Lonicera japonica* Thunb. [Asia] Disturbed woodlands and woodland margins, wet areas; C; S261, W8211.—C
- Lonicera morrowi* Gray. [Japan] Shell midden; R; SW1571.\*\*
- Lonicera sempervirens* L. Roadside; R; S238.
- Lonicera xylosteum* L. [Eurasia] Beach berm; R; S29.
- Sambucus canadensis* L. Low roadsides; U; S396, W8280.—C
- Symphoricarpos orbiculatus* Moench. Woodland margins, disturbed ravine; U; S1166, W8172, W8883.—C
- Viburnum acerifolium* L. Ravine slopes, river bluffs; O; S257, W8220.—C
- Viburnum dentatum* L. Swamp/marsh ecotones; O; S365, W8345.—C
- Viburnum nudum* L. Mesic ravine slopes and bottoms; U; S135, W8251.—C
- Viburnum prunifolium* L. Flat woods, river bluffs, thickets; O; S94, S424, W8113.—C

## CARYOPHYLLACEAE

- Arenaria serpyllifolia* L. [Europe] Lawn, sandy roadside; R; SH1513, W8052.—C
- Cerastium glomeratum* Thuiller. [Europe] Fields, roadside; U; S67, SWH1450, SH1534, W8052.—C
- Cerastium semidecandrum* L. [Europe] Lawn margins; U; S268.
- Cerastium vulgatum* L. [Europe] Field, roadside; R; W8108, W8326a.—C
- Dianthus armeria* L. [Europe] Clearings, roadsides; U; S324, W8205.—C
- Holosteum umbellatum* L. [Eurasia] Waste area; U; S40.
- Lychnis alba* Mill. [*Silene pratensis*; Europe] Roadside; R; SW1565.
- Paronychia canadensis* (L.) Wood. Mixed woods; U; S1033, W8528.—C
- Sagina decumbens* (Ell.) T. & G. Lawn margin; R; S270.
- Saponaria officinalis* L. [Europe] Lawn and beach margins; O; S616, W8304.—C
- Scleranthus annuus* L. [Europe] Roadside, waste area; R; SWH1447, W8094.—C

*Silene antirrhina* L. Roadsides; R; S461, SH1532.  
*Silene vulgaris* (Moench) Garcke. [*S. cucubalus*; Europe] Roadside; R; SW1564.  
*Stellaria media* (L.) Villars. [Europe] Clearings, ravine slopes, roadsides; O; S31, W8008.—C  
*Stellaria pubera* Michx. Mesic ravine slopes; R; S61, W8037.—C

#### CELASTRACEAE

*Celastrus orbiculatus* Thunb. [Asia] Beach berm; R; W8272.—C  
*Celastrus scandens* L. Overgrown waste area, ravine bottom; R; SWH1457, SH1718.\*  
*Euonymus americanus* L. Mesic woods; O; S366, S1160, S1752, W8521.—C

#### CERATOPHYLLACEAE

*Ceratophyllum demersum* L. Freshwater marshes, river; C; SWH1421, SWH1771, W8305, W8375, W8574.—C

#### CHENOPODIACEAE

*Atriplex patula* L. Beach margins, brackish marshes; U; S1097, S1363, SH1690, W8934.—C  
*Chenopodium album* L. [Europe] Beach swale; R; W8765.—C  
*Chenopodium ambrosioides* L. [Tropical America] Beach margins, lawn margin; U; S1081, SH1600, W8667.—C  
*Salsola kali* L. Beach margin; R; S1651.

#### CISTACEAE

*Lechea pulchella* Raf. [*L. legettii*] Roadside; R; S564.  
*Lechea racemulosa* Michx. Roadsides, waste areas; O; S1381, SH1643, W8684.—C  
*Lechea tenuifolia* Michx. Roadside; R; S1333.

#### CLETHRACEAE

*Clethra alnifolia* L. Brackish marsh margins; U; S915.

#### CONVOLVULACEAE

*Calystegia sepium* (L.) R. Brown. Beach and marsh margins; O; S612, S729, S1646, W8229.—C  
*Cuscuta campestris* Yuncker. Brackish marsh margins; U; S974, S1085.  
*Cuscuta compacta* Jussieu. Ravine bottoms; U; S1066, W8681.—C  
*Cuscuta gronovii* R. & S. Freshwater marsh margin, swamps, old building site; O; SH1719, W8779, W8835, W8849.—C  
*Ipomoea coccinea* L. [Tropical America] Roadsides; U; S1239.

*Ipomoea hederacea* Jacq. [Tropical America] Roadsides; U; S1223.

*Ipomoea lacunosa* L. Marsh margin, roadsides; U; S1259, S1667, W8829.—C

*Ipomoea pandurata* (L.) Meyer. Roadside; R; S598.

*Ipomoea purpurea* (L.) Roth. [Tropical America] Lawn margin; R; S1147, S1390.

#### CORNACEAE

*Cornus amomum* Mill. Freshwater marsh margins, river bluffs; U; S431, W8616, W8850.—C

*Cornus florida* L. Mesic woods; C; S109, W8067.—C

#### EBENACEAE

*Diospyros virginiana* L. Beach berms, former homesites, swamps; C; S406, S615, W8210.—C

#### ELAEAGNACEAE

*Elaeagnus pungens* Thunb. [China, Japan] Field; R; W8863.—C

*Elaeagnus umbellata* Thunb. [China, Japan] Woodland margins; R; S393, SH1506.\*

#### ERICACEAE

*Chimaphila maculata* (L.) Pursh. Mixed woods, ridges; O; S255, W8379.—C

*Epigaea repens* L. Embankment; R; SH1578.\*  
*Gaylussacia baccata* (Wang.) K. Koch. Ericad thicket, flat woods, river bluffs; C; S149, S552, S991, W8082.—C

*Gaylussacia frondosa* (L.) T. & G. Clearings, ericad thicket, flat woods, ridges; C; S328, S555, W8124.—C

*Kalmia latifolia* L. Ericad thicket, river bluffs, woodland margins; C; S239, W8140, W8212.—C

*Leucothoe racemosa* (L.) Gray. Ericad thicket, flat woods, marsh, swamp margins; O; S237, S576, S1491, W8123.—C

*Lyonia ligustrina* (L.) DC. Ericad thicket, woodland margins; O; S296, S497, S938.

*Lyonia mariana* (L.) D. Don. Roadside; R; SW1558.

*Monotropa hypopithys* L. Mesic site in flat woods; R; W8378.—C

*Monotropa uniflora* L. Ravine slopes and ridges; O; W8199.—C

*Rhododendron periclymenoides* (Michx.) Shinners. [*R. nudiflorum*] Ravine slopes, woodland margins; U; S148, W8085.—C

*Rhododendron serrulatum* (Small) Mallais. Pineland pond; R; SW1556.

*Vaccinium corymbosum* L. Ericad thicket, swamp



- margins, woodland margins; C; S498, S551, W8005.—C  
*Vaccinium fuscatum* Ait. [V. *atrocoecum*] Ericad thicket, swamp/marsh ecotone; U; S53, S553, W8007.—C  
*Vaccinium pallidum* Ait. [V. *vacillans*] Ericad thicket, upland woods, woodland margins; O; S123, S150, S499, W8222.—C  
*Vaccinium stamineum* L. Ericad thicket, ravine slopes, woodland margins; O; S103, S155, W8130.—C

#### EUPHORBIACEAE

- Acalypha gracilens* Gray. Fields; U; S1317, SH1692.  
*Acalypha rhomboidea* Raf. Roadside; R; S1141.  
*Croton glandulosus* L. var. *septentrionalis* Muell.-Arg. Roadside; R; S984.  
*Euphorbia corollata* L. Beach and freshwater marsh margin, fields; O; S698, S986, SH1673, SH1693, W8605, W8661.—C  
*Euphorbia cyparissias* L. [Europe] Beach berm, roadside; R; S1492, SH1518, SH1519.  
*Euphorbia dentata* Michx. Shell midden; R; SH1688.\*\*  
*Euphorbia maculata* L. [E. *supina*] Waste areas; U; S1000.  
*Euphorbia marginata* Pursh. [U.S. prairies and plains] Gravel in railroad bed; R; SH1732.\*\*  
*Euphorbia nutans* Lagasca. [E. *maculata*] Lawn margins, roadsides; O; S1145, SH1710, W8728.—C  
*Euphorbia polygonifolia* L. Beaches; U; S1650, W8692.—C  
*Phyllanthus carolinensis* Walt. Woodland margin; R; S1153.
- FABACEAE
- Albizia julibrissin* Durazzini. [Africa, Asia] Woodland margins, embankment; U; S494, W8830.—C  
*Amorpha fruticosa* L. Beach margins; C; S377, W8214.—C  
*Amphicarpa bracteata* (L.) Fern. Ravine bottom; R; S941.  
*Apios americana* Medicus. Marsh, pond, and swamp margins, beach swales; O; S919, W8803.—C  
*Baptisia tinctoria* (L.) R. Brown. Roadsides; R; S513, W8291.—C  
*Cassia chamaecrista* L. [C. *fasciculata*] Fields, roadsides; O; S930.  
*Cassia marilandica* L. Roadside; R; S976, W8631.—C  
*Cassia nititans* L. Field, waste area; R; S931, W8664.—C  
*Cercis canadensis* L. Former homesites, ravine slopes, roadsides; U; S59, W8010.—C  
*Clitoria mariana* L. Dry open woodland, roadside; R; W8529.—C  
*Desmodium canescens* (L.) DC. Clearing; R; S1660.\*  
*Desmodium ciliare* (Willd.) DC. Clearing; R; S1658.\*  
*Desmodium glabellum* (Michx.) DC. Roadsides; O; S1165, S1336, W8778.—C  
*Desmodium marilandicum* (L.) DC. Clearing, roadside; R; SH1684, W8798.—C  
*Desmodium nudiflorum* (L.) DC. Roadside embankments; U; W8396.—C  
*Desmodium nuttallii* (Schindler) Schubert. Roadsides; R; S1164, S1229.\*\*  
*Desmodium obtusum* (Willd.) DC. [D. *rigidum*] Roadside; R; S1327.  
*Desmodium paniculatum* (L.) DC. [D. *dillenii*, D. *perplexum*] Roadsides; C; S1163, S1189, S1216, S1314, S1325, S1659, W8777.—C  
*Desmodium viridiflorum/nuttallii* complex (immature). Ditch; R; W8727.—C  
*Galactia regularis* (L.) BSP. [G. *volubilis*] Ravine slope; R; W8383.—C  
*Gleditsia triacanthos* L. Former homesites; R; SH1601, W8726.—C  
*Glycine max* (L.) Merrill. [China, Japan] Marsh margin; R; S1666.  
*Lathyrus hirsutus* L. [S. Europe] Field margin; R; SH1596.  
*Lathyrus latifolius* L. [Europe] Roadside; R; S458.  
*Lespedeza bicolor* Turcz. [Japan, N. China] Clearing; R; SH1698.\*\*  
*Lespedeza cuneata* (Dumont) G. Don. [E. Asia] Fields, roadsides; U; S1125, S1211.  
*Lespedeza procumbens* Michx. Bradley 16244.  
*Lespedeza repens* (L.) Barton. Roadsides; O; S1073, W8295, W8799.—C  
*Lespedeza stipulacea* Maxim. [E. Asia] Roadsides; O; S1250.  
*Lespedeza stuevei* Nutt. Bradley 17771.  
*Lespedeza striata* (Thunb.) H. & A. [E. Asia] Fields, waste area; O; S1131, W8657.—C  
*Lespedeza virginica* (L.) Britton. Fields, roadsides; U; S1074, W8926.—C  
*Medicago lupulina* L. [Europe] Fields, shell midden; U; SW1573, SH1740, W8325.—C  
*Melilotus alba* Medicus. [Eurasia] Roadside; U; S561.  
*Melilotus officinalis* (L.) Pallas. [Eurasia] Roadsides; O; S276.

*Pueraria lobata* (Willd.) Ohwi. [Japan] Roadsides, waste area; U; SH1602.  
*Robinia hispida* L. [*R. kelseyi*] Roadsides; R; S266.  
*Robinia psuedo-acacia* L. Beach berms, former homesites, roadsides; C; S195, W8089.—C  
*Strophostyles helvola* (L.) Ell. Beach margins, marsh; U; S1082, S1665, W8764a.—C  
*Strophostyles umbellata* (Willd.) Britton. Brackish marsh margins, roadsides; O; S656, S950, W8743.—C  
*Stylosanthes biflora* (L.) BSP. Roadsides; R; S685.  
*Tephrosia virginiana* (L.) Pers. Roadsides; R; SW1559.  
*Trifolium arvense* L. [Europe] Roadsides, waste area; O; S382, W8597.—C  
*Trifolium aureum* Pollich. [*T. agrarium*; Eurasia] Roadsides, waste area; U; S240.  
*Trifolium campestre* Schreber. [*T. procumbens*] [Europe, Asia, Africa] Waste areas; R; W8231.—C  
*Trifolium pratense* L. [Europe] Roadsides, waste area; C; S280.  
*Trifolium repens* L. [Eurasia] Roadsides, waste area; C; S287.  
*Vicia angustifolia* L. [Europe] Clearings, roadsides; C; S147, SWH1448, S1481, W8088.—C  
*Wisteria sinensis* (Sims) Sweet. [China] Lawn margin; R; S137.

#### FAGACEAE

*Castanea dentata* (Marshall) Borkh. Mixed woods; U; SW1576, SH1709, W8386 [saplings].—C  
*Castanea pumila* (L.) Mill. Flat woods; R; SH1708.  
*Fagus grandifolia* Ehrhart. Beach berms, mixed woods; C; S63, W8823, W8886.—C  
*Quercus alba* L. Mixed woods; C; S160, W8874.—C  
*Quercus ×bushii* Sargent [*Q. marilandica* × *Q. velutina*] Beach berm; R; W8269.—C  
*Quercus coccinea* Muenchh. Upland woods; U; S1305, W8918.—C  
*Quercus falcata* Michx. var. *falcata* Upland woods; C; S1243, S1386, W8547.—C  
*Quercus lyrata* Walt. Swamp, upper tidal marsh margin; R; W8364.—C  
*Quercus marilandica* Muenchh. Beach berms, ravine slope, roadside; U; SH1580, W8226.—C  
*Quercus michauxii* Nutt. Low woods; U; S124, S1371, W8370.—C  
*Quercus muhlenbergii* Engelm. Ravine slope; R; W8890.—C

*Quercus palustris* Muenchh. Swamps, roadside; C; S1384, W8636, W8819.—C  
*Quercus pagoda* Raf. Low mixed woods, beach berm; C; S1387, W8273.—C  
*Quercus phellos* L. Low mixed woods, river bluffs; C; S1372, W8262, W8853.—C  
*Quercus prinus* L. River bluffs; C; S1098, W8817.—C  
*Quercus rubra* L. Upland woods; O; S1182, W8773.—C  
*Quercus stellata* Wang. Beach berms; C; S1184, S1385, W8131.—C  
*Quercus velutina* Lam. Mixed woods; O; S1183, S1391, W8880, W8889, W8932.—C

#### FUMARIACEAE

*Corydalis flavula* (Raf.) DC. Former homesites, ravine bottoms; O; SWH1422, W7989.—C  
*Dicentra cucullaria* (L.) Bernh. Ravine slope; R; S19.  
*Fumaria officinalis* L. [Old World] Beach margin; R; SH1508.

#### GENTIANACEAE

*Sabatia angularis* (L.) Pursh. Roadsides; U; S704.

#### GERANIACEAE

*Erodium cicutarium* (L.) Ait. [Europe] Roadside, shell midden; R; SW1572, W8042.—C  
*Geranium carolinianum* L. Roadsides, waste areas; U; S229, W8119.—C  
*Geranium maculatum* L. Mesic ravine slope; R; SWH1765.  
*Geranium molle* L. [Europe, W. Asia] Shell midden; R; SW1574.

#### HALORAGACEAE

*Myriophyllum aquaticum* (Vell.) Verdc. [*M. brasiliense*; S. America] River; C; S610.  
*Myriophyllum spicatum* L. [*M. exalbescens*] Brackish marsh channel, river; R; SWH1759, W8313.—C  
*Proserpinaca palustris* L. Beach swales, pond margin; O; SH1735, W8514.—C  
*Proserpinaca pectinata* Lam. Freshwater pond; R; W8670.—C

#### HAMAMELIDACEAE

*Hamamelis virginiana* L. Beach berm; R; SWH1418, SWH1757.  
*Liquidambar styraciflua* L. Mixed woods; C; S64, W8292.—C

#### HYDROPHYLLACEAE

- Hydrophyllum virginianum* L. Ravine slope; R; S88, S201.  
*Nemophila aphylla* (L.) Brummitt. [*N. microcalyx*] Ravine bottom; R; SWH1424.\*\*

#### HYPERICACEAE

- Hypericum canadense* L. Clearing; R; SWH1762.\*  
*Hypericum gentianoides* (L.) BSP. River bluff face, roadsides, waste areas; O; S986, W8763.—C  
*Hypericum gymnanthum* Engelm. & Gray. Roadsides, waste areas; C; S691, S988.  
*Hypericum hypericoides* (L.) Crantz. [*H. stragalum*] Roadsides, field; O; S318, S937, S999, W8504, W8925.—C  
*Hypericum mutilum* L. Field, ravine bottom, waste area; U; S640, W8539.—C  
*Hypericum perforatum* L. [Europe] Fields; O; W8279.—C  
*Hypericum prolificum* L. Woodland margin; R; S754.  
*Hypericum punctatum* Lam. Fields, roadsides; C; S627, SH1582, W8549.—C  
*Hypericum virginicum* L. Slightly brackish marsh and pond margins, beach swales; U; S966, S1192, W8687.—C  
*Hypericum walteri* Gmelin. Marsh margin; R; W8685.—C

#### JUGLANDACEAE

- Carya cordiformis* (Wang.) K. Koch. Beach berms, mesic ravine slopes; O; S733, S1099, S1342, W8884, W8892.—C  
*Carya glabra* (Mill.) Sweet. Beach berms, mixed woods; C; S95, S1383, W8787.—C  
*Carya ovalis* (Wang.) Sargent. Beach berms, mixed woods; O; S549, W8788, W8885.—C  
*Carya ovata* (Mill.) K. Koch. Woodland margin; R; S1378.  
*Carya pallida* (Ashe) Engler & Graebner. Beach berm; R; S732.\*  
*Carya tomentosa* (Poiret) Nutt. Beach berms, mixed woods; C; S96, S203, S731, S1157, S1341, W8786.—C  
*Juglans nigra* L. Former homesites, ravine slopes; O; S1376, W8820.—C

#### LAMIACEAE

- Agastache nepetoides* (L.) Kuntze. Woodland margin; R; S1154.  
*Ajuga chamaepitys* (L.) Schreber. [Mediterranean] Shell midden; R; SW1575.\*

- Collinsonia canadensis* L. Ravine bottoms, woodland margin; R; S1152, W8791.—C  
*Cunila origanoides* (L.) Britton. River bluff summit; R; W8774.—C  
*Hedeoma pulegioides* (L.) Pers. Fields, waste area; O; S1111, W8753a.—C  
*Lamium amplexicaule* L. [Eurasia, N. Africa] Beach margin, clearings; U; S128, W8016.—C  
*Lamium purpureum* L. [Eurasia] Beach margin, clearing; R; S100, W8015.—C  
*Leonurus cardiaca* L. [Asia] Roadside; R; W8316.—C  
*Lycopus americanus* Barton. Pond margin, river bluffs; R; SH1734, W8812.—C  
*Lycopus virginicus* L. Ravine bottoms, swamps; C; S1124, S1280, S1669, W8780.—C  
*Mentha arvensis* L. Beach margin, roadside; R; W8339.—C  
*Mentha cardiaca* Baker. [Europe] Beach margin; R; S1087.  
*Mentha spicata* L. [Europe] Bradley 8262.  
*Nepeta cataria* L. [Europe, Orient] Shell midden; R; SW1567, SH1588.\*\*  
*Perilla frutescens* (L.) Britton. [India] Roadsides; O; S1214, W8800.—C  
*Prunella vulgaris* L. [Europe] Fields, roadsides; O; S989, W8522.—C  
*Pycnanthemum tenuifolium* Schrader. Fields, roadsides; O; S446, W8317.—C  
*Salvia lyrata* L. Lawn margins, roadsides; O; S272, W8081.—C  
*Satureja nepeta* (L.) Scheele. [Europe] Shell midden; R; SH1590.  
*Satureja vulgaris* (L.) Fritsch. Fields; U; S639, W8321.—C  
*Scutellaria elliptica* Muhl. Ravine slopes, ridges; O; W8924.—C  
*Scutellaria integrifolia* L. Fields, low woods, roadsides; O; S465, S589, W8257.—C  
*Scutellaria lateriflora* L. Intermittent stream, ravine bottom; U; S1018, S1123, W8676.—C  
*Teucrium canadense* L. Beach, lawn, and pond margins, roadsides; U; S721, W8315, W8541.—C  
*Trichostema dichotomum* L. Woodland margin; R; S1232.

#### LARDIZABALACEAE

- Akebia quinata* (Houttuyn) Dene. [China, Japan] Large stand spreading from cultivation at woodland margin; R; W8895.—C

#### LAURACEAE

- Lindera benzoin* (L.) Blume. Former homesites,

ravine slopes and bottoms, swamps; C; S13, S1037, W7984.—C  
*Sassafras albidum* (Nutt.) Nees. Roadsides, woodland margins; O; S75, W8009.—C

#### LENTIBULARIACEAE

*Utricularia gibba* L. Upper tidal marsh; R; SH1699, SH1751.

#### LINACEAE

*Linum medium* (Planchon) Britton var. *texanum* (Planchon) Fern. Roadside, waste area; R; S587, W8385.—C  
*Linum striatum* Walt. Embankment, swamp; U; SH1577, S1642, W8508.—C

#### LOGANIACEAE

*Polypremum procumbens* L. Roadside; R; S713.

#### LORANTHACEAE

*Phoradendron serotinum* (Raf.) M.C. Johnston. Freshwater marsh margin; R; SWH1400.\*

#### LYTHRACEAE

*Decodon verticillatus* (L.) Ell. Marshes, ponds; C; S927, S1110, SH1507, W8579.—C  
*Lythrum lineare* L. Brackish marsh; R; S1006.\*  
*Rotala ramosior* (L.) Koehne. Brackish marsh; R; S1362.\*\*

#### MAGNOLIACEAE

*Liriodendron tulipifera* L. Mixed woods; C; S288, W8331.—C  
*Magnolia tripetala* (L.) L. Ravine slope; R (one seedling); W8110.—C  
*Magnolia virginiana* L. Marsh and swamp margins; O; S251, SH1680, W8264.—C

#### MALVACEAE

*Abutilon theophrastii* Medicus. [S. Asia] Former homesite; R; S972.  
*Hibiscus moscheutos* L. Beach swales, marshes and ponds; C; S723, S920, S1756, W8505.—C  
*Hibiscus syriacus* L. [Asia] Former building site, lawn margin; R; S1095, W8834.—C  
*Malva neglecta* Wallroth. [Eurasia, N. Africa] Lawn margin; R; SH1595.\*  
*Kosteletskya virginica* (L.) Gray. Brackish marshes; O; S1011, W8738b.—C  
*Sida spinosa* L. [Tropics] Roadside; R; W8591.—C

#### MELASTOMATACEAE

*Rhexia mariana* L. Lawn margin, roadside; U; S643, S1318, W8382.—C

*Rhexia virginica* L. Upper tidal marsh margin, swales in fields; U; S1198, W8527.—C

#### MENISPERMACEAE

*Cocculus carolinus* (L.) DC. Spreading from cultivation at former building site; R; W8833.—C

*Menispermum canadense* L. Beach berms, woodland margins; C; S426, W8328.—C

#### MORACEAE

*Broussonetia papyrifera* (L.) Vent. [Asia] Roadside, shell midden; R; SH1593, W8407.—C

*Maclura pomifera* (Raf.) Schneider. [Arkansas, Oklahoma, Texas] Former homesite; R; SH1603.

*Morus alba* L. [E. Asia] Beach berm, woodland margins; U; S459, SWH1438, S1482, W8271.—C

*Morus rubra* L. Low woods, roadsides; U; S714, W8649.—C

#### MYRICACEAE

*Myrica cerifera* L. Beach berms, brackish marsh margins; C; S28, W8511.—C

*Myrica heterophylla* Raf. *Strong 86-019.*

#### NYMPHAEACEAE

*Nuphar luteum* (L.) Sibthorp & Smith. Freshwater pond and marsh; R; S1019, W8686.—C

#### NYSSACEAE

*Nyssa sylvatica* Marshall. Beach berms, mesic ravine slopes, river bluffs; C; S175, S197, S699, W8138, W8824.—C

#### OLEACEAE

*Chionanthus virginicus* L. Escarpment slopes, river bluff; U; S519, W8242.—C

*Fraxinus americana* L. Beach margins, ravine slopes and bottoms; U; S429, S719, W8690.—C

*Fraxinus pennsylvanica* Marsh. Beach margins, swamps; C; W8215.—C

*Fraxinus profunda* (Bush) Bush. [*F. tomentosa*] Beach margin; R; W8689.—C

*Ligustrum sinense* Lour. [China] Former homesites; U; S404, W8235.—C

#### ONAGRACEAE

*Circaea lutetiana* L. ssp. *canadensis* (L.) Ascherson & Magnus. Ravine bottoms; O; S481b, S594, W8289.—C

*Epilobium coloratum* Biehler. Freshwater marshes; R; S1668, SWH1766.

*Gaura parviflora* Douglas. [Praries] Shell mid-  
den; R; SH1691.\*\*\*

*Ludwigia alternifolia* L. Roadsides, swale, upper  
tidal marsh margin; U; S917, W8655,  
W8764b.—C

*Ludwigia decurrens* Walt. Swamp; R; S1254.

*Ludwigia leptocarpa* (Nutt.) Hara. River bluff  
face, marsh margins; U; SWH1404,  
SH1705, W8715, W8759.—C

*Ludwigia palustris* (L.) Ell. Freshwater ponds,  
swamps, upper tidal marsh; O; S1068,  
W8577.—C

*Ludwigia peploides* (HBK) Raven subsp. *pe-  
ploides*. [Tropics] Brackish pond mar-  
gin; R; W8716, W8758.—C

*Oenothera biennis* L. Beach and brackish marsh  
margins, fields; U; S1007, W8861.—C

*Oenothera fruticosa* L. Field, woodland margin;  
R; S487, SH1583.

#### OROBANCHACEAE

*Epifagus virginiana* (L.) Barton. Ravine slopes,  
ridges; O; S712, W8842.—C

#### OXALIDACEAE

*Oxalis dillenbergii* Jacq. Clearings, lawn margins; U;  
S167, W8120.—C

*Oxalis stricta* L. Roadsides; U; W8398.—C

*Oxalis violacea* L. Mesic ravine slopes, roadside;  
U; S221, W8078.—C

#### PAPAVERACEAE

*Sanguinaria canadensis* L. Ravine slopes; O; S25,  
W7998.—C

#### PASSIFLORACEAE

*Passiflora lutea* L. Woodland margins; R; S667,  
W8550.—C

#### PENTHORACEAE

*Penthorum sedoides* L. Swamp; U; S1064.

#### PHRYMACEAE

*Phryma leptostachya* L. Ravine slopes, road-  
sides; U; S716, W8395.—C

#### PHYTOLACCACEAE

*Phytolacca americana* L. Beach berms, road-  
sides, waste areas; U; S450, W8270.—C

#### PLANTAGINACEAE

*Plantago aristata* Michx. Roadsides; U; SH1497,  
W8658.—C

*Plantago lanceolata* L. [Europe] Fields, road-  
sides; O; S408, W8858.—C

*Plantago rugelii* Dcne. Roadsides; U; S1328,  
W8403.—C

*Plantago virginica* L. Roadsides; R; S208,  
W8114.—C

#### PLATANACEAE

*Platanus occidentalis* L. Beach margins, ravine  
bottoms, swamps; O; S97, W8825.—C

#### POLEMONIACEAE

*Phlox paniculata* L. Lawn margin; R; S949.

#### POLYGALACEAE

*Polygala curtisii* Gray. Clearing, roadsides; U;  
S1117, SH1581, SH1681.

*Polygala lutea* L. Strong 86-025.

*Polygala mariana* Mill. Roadside, waste area; R;  
S1354, W8361.—C

#### POLYGONACEAE

*Polygonum arifolium* L. Freshwater ponds and  
marshes; O; S541, S1264, W8680.—C

*Polygonum aviculare* L. [Old World] Waste ar-  
eas; U; S1309.

*Polygonum cespitosum* Blume. [SE Asia] Road-  
sides, waste areas; O; S1218, S1270,  
W8588, W8870.—C

*Polygonum cuspidatum* Siebold & Zucc. [E. Asia]  
River bluffs; R; W8609.—C

*Polygonum densiflorum* Meissner. Beach swales,  
freshwater ponds and marshes; U; W8772,  
W8808.—C

*Polygonum hydropiper* L. Upper tidal marsh;  
R; S918.

*Polygonum hydropiperoides* Michx. Freshwater  
ponds and marshes; O; S726, W8630.—  
C

*Polygonum pensylvanicum* L. Beach swale,  
marshes; U; S1260, W8761.—C

*Polygonum persicaria* L. [Europe] Brackish  
marsh margin; R; S1248.

*Polygonum punctatum* Ell. Beach swales,  
marshes, roadside; C; S1122, W8573,  
W8637, W8915.—C

*Polygonum sagittatum* L. Upper tidal marsh  
margins; U; S1199, W8775.—C

*Polygonum scandens* L. Beach berm, roadside,  
woodland margins; U; S1257, SH1725,  
W8729.—C

*Polygonum setaceum* Ell. Swamp; R; S1641.\*\*

*Polygonum virginianum* L. Former homesites,  
ravines, roadsides; O; S1014, W8490.—  
C

*Rumex acetosella* L. [Europe] Fields, roadsides;  
U; S171, W8093.—C

*Rumex conglomeratus* Murray. [Europe] Beach  
berm; R; W8302.—C

- Rumex crispus* L. [Europe] Lawn margin, marsh margin, roadsides; U; S271, W8294.—C  
*Rumex obtusifolius* L. [Europe] Embankment; R; W8415.—C  
*Rumex pulcher* L. [Europe] Shell midden; R; SH1587.  
*Rumex verticillatus* L. Beach berms, brackish marshes; O; S1170, S1298, W8293.—C

PORTULACACEAE

- Claytonia virginica* L. Ravines, swamps; C; S6, W7988.—C

PRIMULACEAE

- Anagallis arvensis* L. [Europe] Field, lawn margin; R; SH1589, W8209.—C  
*Lysimachia ciliata* L. Field; R; S945.  
*Lysimachia quadrifolia* L. Roadside, waste area; R; S407, W8533.—C  
*Lysimachia terrestris* (L.) BSP. Freshwater marsh; R; SH1599.\*  
*Samolus parviflorus* Raf. Brackish marsh margins; U; S262, W8260.—C

RANUNCULACEAE

- Aquilegia canadensis* L. Beach berm; R; S98.  
*Cimicifuga racemosa* (L.) Nutt. Ravine slopes; O; S546, SWH1769, W8391, W8840.—C  
*Clematis terniflora* DC. [*C. dioscoreifolia*; Japan] Beach thickets; R; S1088, W8693.—C  
*Clematis virginiana* L. Marsh, ravine bottom; R; SWH1456, S1661.\*  
*Consolida ambigua* (L.) Ball & Heywood. [*Delphinium ajacis*; Europe] Roadside; R; SW1563.\*  
*Hepatica americana* (DC.) Ker. Ridge slopes; R; W8179.—C  
*Ranunculus abortivus* L. Intermittent streams, old homesites; O; S76, W8039.—C  
*Ranunculus bulbosus* L. [Europe] Fields, lawns; C; S173, W8092.—C  
*Ranunculus micranthus* (Gray) T. & G. Disturbed ravine slope; R; SWH1437.\*\*  
*Ranunculus recurvatus* Poir. Ravine bottoms and slopes; O; S153, W8143.—C  
*Ranunculus sceleratus* L. Pond margin; R; SWH1454.\*  
*Thalictrum pubescens* Pursh. [*T. polygamum*] Field, roadside; R; S697, S1550.  
*Thalictrum thalictroides* (L.) Eames & Boivin. [*Anemone thalictroides*] Ravine slopes, roadside; R; W8107.

ROSACEAE

- Agrimonia gryposepala* Wallroth. Roadside; R; S1155.

- Agrimonia parviflora* Ait. Marsh margin; R; S1662.\*\*  
*Agrimonia rostellata* Wallroth. Roadsides; O; W8523, W8913.—C  
*Alchemilla microcarpa* Boiss. & Reuter. [S. Europe] Lawn margin; R; W10223.—C  
*Amelanchier arborea* (Michx. f.) Fern. River bluffs, roadsides; U; S54, S510, W8134.—C  
*Amelanchier canadensis* (L.) Medicus. River bluffs; U; S58.  
*Aronia arbutifolia* (L.) Ell. Woodland margins; U; S134, S934, S1380, W8525.—C  
*Crataegus viridis* L. Woodland margin; R; S139, S617.  
*Duchesnia indica* (Andrz.) Focke. [Asia] Lawn margins, disturbed ravine bottoms, roadsides; C; S72, W8074.—C  
*Fragaria virginiana* Duchesne. Clearings, river bluff faces, roadsides; U; SWH1451, W8767, W8087.—C  
*Geum canadense* Jacq. Mesic woods, roadsides; C; S595, W8318.—C  
*Kerria japonica* DC. var. *plenifolia* Witte. [Japan, cult.] Former homesite; R; S129.  
*Malus pumila* Mill. [Europe, cult.] Former homesite; R; S146.  
*Potentilla canadensis* L. Fields, roadsides; C; S68, W8080.—C  
*Potentilla norvegica* L. Fields, roadside; U; S478, S705.  
*Potentilla simplex* Michx. Roadside; U; S250.  
*Prunus americana* Marshall. Disturbed woods, former homesite; R; W8033, W8054.—C  
*Prunus avium* L. [Eurasia] Beach berm, former homesites, roadsides; O; S108, W8612.—C  
*Prunus persica* (L.) Batsch. [Asia] Former homesite, ravine slope; R; SWH1449, W8011.—C  
*Prunus serotina* Ehrhart. Beach berms, former homesites, woodland margins; C; S198, W8104.—C  
*Pyrus communis* L. [Eurasia, cult.] Beach berms, former homesites; O; S200, S609, W8050, W8946.—C  
*Rosa canina* L. [Europe] Roadside; R; S454.  
*Rosa carolina* L. Roadside; R; S418.  
*Rosa micrantha* Smith. [Europe] Beach; R; SH1522.\*\*  
*Rosa multiflora* Thunb. [E. Asia] Beach berms, woodland margins; O; S242, W8217.—C  
*Rosa palustris* Marshall. Marshes and ponds; O; S491, W8237.—C  
*Rubus argutus* Link. Fields; C; S181.  
*Rubus bifrons* Vest. [Europe] Lawn margin,

- overgrown waste area; R; SW1562, SH1711.\*\*
- Rubus cuneifolius* Pursh. Marsh thicket; R; SH1604.\*
- Rubus flagellaris* Willd. Fields, river bluff, roadsides; U; S753, W8157, W8234, W8660.—C
- Rubus hispidus* L. Roadside; R; S332.
- Rubus occidentalis* L. Former homesite, roadside; R; S194, W8837.—C
- Rubus pensilvanicus* Poir. Beach berms, field, marsh margins, roadsides; O; W8507.—C
- Rubus phoenicolasius* Maxim. [E. Asia] Former homesites, roadsides; O; S213, S601, W8393.—C
- Rubus procerus* P. J. Mueller. [Europe] Beach berm; R; W8268.—C
- Rubus trivialis* Michx. Mesic ravine slopes; R; S573.

#### RUBIACEAE

- Cephalanthus occidentalis* L. Freshwater ponds and marshes; C; S486, W8341.—C
- Diodia teres* Walt. Beach, waste areas; C; S657, S1112, S1139, W8620, W8635, W8663.—C
- Diodia virginiana* L. Beach margin; R; S727.
- Galium aparine* L. Disturbed ravine slopes; O; W8066.—C
- Galium circaezans* Michx. Mesic woods and ravine slopes; C; S292, W8184.—C
- Galium obtusum* Bigelow. Freshwater marshes; U; S575.
- Galium pedemontanum* (Bellardi) All. [Europe] Lawns; R; SH1509, SH1598.
- Galium pilosum* Ait. Clearing, shell midden; R; S1649, W8355, W8532.—C
- Galium tinctorium* L. Beach margins, freshwater ponds and marsh margins; O; W8223.—C
- Galium triflorum* Michx. Mesic ravine slopes, ravines, roadsides, waste area; O; S572, SH1516, W8399.—C
- Houstonia caerulea* L. Lawn margins, ravine slopes, roadsides; C; S56, W8038.—C
- Houstonia purpurea* L. Ravine slopes, river bluffs; U; S381, W8182, W8335.—C
- Mitchella repens* L. Mesic flat woods, ravine slopes; C; S409, S1346, W8138.—C
- Sherardia arvensis* L. [Europe] Lawns; R; SH1511.

#### RUTACEAE

- Poncirus trifoliata* (L.) Raf. [China] Former homesite; R; W8949.—C

#### SALICACEAE

- Populus alba* L. [Europe] River bluff face, roadside; R; S127, W8408.—C
- Populus deltoides* Marshall. Woodland margin; R; SH1429, SH1479.
- Populus grandidentata* Michx. Former homesite, river bluff; U; S358, W8233.—C
- Populus nigra* L. var. *italica* DuRoi. [Europe] Beach margin; R; SH1515.
- Salix alba* L. [Old World] Margin of freshwater marsh, intermittent stream; R; S259, S402, S675.
- Salix babylonica* L. [China] Former homesite; R; SH1427.\*\*
- Salix nigra* Marshall. Beach swales, marshes; C; S132, W8079.—C

#### SANTALACEAE

- Comandra umbellata* (L.) Nutt. Woodland margin; R; S254.

#### SAURURACEAE

- Saururus cernuus* L. Beach swales, freshwater ponds and marshes, swamps; C; S482, W8288.—C

#### SAXIFRAGACEAE

- Chrysosplenium americanum* Schweinitz. Ravine bottom, seeps; R; SH1529, W8384.—C
- Heuchera americana* L. River bluffs; U; S260, W8332.—C
- Hydrangea arborescens* L. Ravine slopes, river bluff; U; S481f, W8177.—C
- Itea virginica* L. Freshwater pond and marshes, swamps; U; S363, W8218.—C
- Saxifraga virginicensis* Michx. Ravine slopes, river bluff; U; S117.

#### SCROPHULARIACEAE

- Agalinis purpurea* (L.) Pennell. Fields, swamp/marsh ecotones; O; S1227, W8746.—C
- Aureolaria virginica* (L.) Pennell. Roadside; R; S671.
- Chelone* sp. probably *C. glabra* L. Swamp margin; R; W8848.—C
- Gratiola pilosa* Michx. Field; R; S650.
- Gratiola virginiana* L. Swamps; U; S439, SH1528.
- Linaria canadensis* (L.) Dumont. Beach margins, waste areas; U; S265, W8121.—C
- Lindernia anagallidea* (Michx.) Pennell. Bradley 23998.
- Lindernia dubia* (L.) Pennell. Freshwater ponds, swamps; O; S1255, SH1737, W8576, W8868.—C

*Mimulus alatus* Ait. Ravine bottoms, swamps; U; S1016, W8583.—C

*Mimulus ringens* L. Field; R; S648, S1320.

*Paulownia tomentosa* (Thunb.) Steud. [E. Asia] Former homesites, woodland margins; U; S42, W8055.—C

*Penstemon laevigatus* Ait. Field, disturbed ravine slope; R; SWH1767, W8553.—C

*Scrophularia lanceolata* L. Beach margin; R; W8267.—C

*Scrophularia marilandica* L. Ravine slopes; R; SWH1761, W8838.—C

*Verbascum blattaria* L. [Europe] Roadsides; R; S472, W8558.—C

*Verbascum thapsus* L. [Europe] Roadsides; R; S529, W8662.—C

*Veronica agrestis* L. [Europe] Lawn; R; W8031.—C

*Veronica arvensis* L. [Europe] Lawn margins, roadsides; C; S138, S196, SWH1408, W8051.—C

*Veronica hederaefolia* L. [Europe] Mesic ravines; R; S30, W8938.—C

*Veronica officinalis* L. [Europe] Lawn margin; R; S374.

*Veronica peregrina* L. Freshwater marsh; R; SH1496.

*Veronica serpyllifolia* L. [Europe] Lawn margins; U; S174.

#### SIMAROUBACEAE

*Ailanthus altissima* (Mill.) Swingle. [E. Asia] Beach and woodland margins, former homesites, roadsides; O; S606, W8216.—C

#### SOLANACEAE

*Datura stramonium* L. [unknown origin] Roadsides; U; S668.

*Physalis heterophylla* Nees. Overgrown waste area; R; SH1521.\*\*

*Solanum carolinense* L. Fields, lawn margins; U; S597, W8324.—C

*Solanum ptycanthum* DC. [S. americanum] Beach margins; R; SH1713, W8598.—C

#### TILIACEAE

*Tilia americana* L. [*T. heterophylla*] Beach berms, river bluff bases; O; S199, W8330.—C

#### ULMACEAE

*Celtis laevigata* Willd. Beach berms; O; S101, S425, S608.

*Celtis occidentalis* L. Beach berms, low woods, roadsides, shell midden; O; SW1568, W8139, W8642.—C

*Ulmus americana* L. Ravines, river bluffs, swamps; O; S82, W8611.—C

*Ulmus parviflora* Jacq. Bradley 8239, 15019a.

*Ulmus rubra* Muhl. River bluff, woodland margins; U; S441, SWH1417, W8610, W8893.—C

#### URTICACEAE

*Boehmeria cylindrica* (L.) Swartz. Marsh margins, ravine bottoms, swamps; C; S689, W8320.—C

*Laportea canadensis* (L.) Weddell. Mesic ravines; O; S942, S1303, W8494.—C

*Pilea fontana* (Lunell) Rydberg. Marsh; R; SWH1763A.\*\*

*Pilea pumila* (L.) Gray. Mesic ravines, former homesite; U; S1302, W8832.—C

#### VALERIANACEAE

*Valerianella locusta* (L.) Latterade. [Europe] Roadsides; R; SWH1416, W8090.—C

*Valerianella radiata* (L.) Dufur. f. *fernaldii* (Dyal) Eggers. Field, roadside; R; S179, W8141b.—C

#### VERBENACEAE

*Lippia lanceolata* Michx. Brackish marshes; U; S1388, S1644.

*Verbena simplex* Lehman. Roadside, shell midden; R; SW1566, SW1569.\*

*Verbena urticifolia* L. Field, roadsides; U; S645, W8416, W8418.—C

#### VIOLACEAE

*Viola blanda* Willd. Roadside; R; S131.\*\*

*Viola cucullata* Ait. Floodplains; C; S33, W8064.—C

*Viola fimbriatula* Smith. Clearing; R; SWH1420.

*Viola primulifolia* L. Roadsides, stream banks; O; S1483, W8111a.—C

*Viola pubescens* Ait. [*V. pennsylvanica*] Ravine slope; R; SWH1412.\*\*

*Viola rafinesquii* Greene; Fields, roadsides; C; S73, W8012.—C

*Viola sagittata* Ait. Roadside; R; S1432.

*Viola sororia* Willd. Fields; O; W8013.—C

*Viola striata* Ait. Ravine bottom; R; SWH1458.

*Viola triloba* Schwenitz. Roadsides; U; W8105, W8154.—C

#### VITACEAE

*Parthenocissus quinquefolia* (L.) Planchon. Beach margins, ravines, roadsides, woodland margins; O; S548, W8227.—C

*Vitis aestivalis* Michx. Beach and pond margins, roadsides, thickets; O; S423, S1083, W8225, W8406.—C



*Vitis baileyana* Munson. Roadside; R; S436.  
*Vitis labrusca* L. Pond and swamp margins, roadsides; C; S397, S400, S419, S700, S738, W8346, W8682.—C  
*Vitis riparia* Michx. Beach margin; R; W8613.—C  
*Vitis rotundifolia* Michx. Woodland margins; U; S1551.  
*Vitis vulpina* L. Pond and clearing margins, beach berms, roadsides; C; S420, S421, S422, S728, S747, W8327, W8542.—C

#### LILIOPSIDA

##### ALISMATACEAE

*Alisma subcordatum* Raf. Freshwater marsh and ponds; U; S916, W8626.—C  
*Sagittaria* sp. with sagittate leaves. Brackish pond margin; R; W8900.—C  
*Sagittaria falcata* Pursh. Upper tidal marsh margins; R; S1168, W8769.—C  
*Sagittaria latifolia* Willd. Bradley 23981.  
*Sagittaria longirostra* (Micheli) J. G. Smith. Strong 838.

##### AMARYLLIDACEAE

*Hypoxis hirsuta* (L.) Coville. Roadsides; R; S346, W8372.—C  
*Leucojum aestivum* L. [Europe] Former homesite; R; S168.  
*Narcissus × medioluteus* Mill. [Mediterranean] Former homesite; R; W8952.  
*Narcissus poeticus* L. [Europe] Former homesite; R; S154.  
*Narcissus pseudo-narcissus* L. [Europe] Former homesites; C; W7991.—C  
*Narcissus tazetta* × *poeticus* [Europe] Bradley 14151.

##### ARACEAE

*Acorus calamus* L. Tidal pond margin; R; W8669.—C  
*Arisaema dracontium* (L.) Schott. Ravine slope; R; SWH1434.\*\*  
*Arisaema triphyllum* (L.) Schott. Ravine slopes and bottoms; C; S48, S212, W8065.—C  
*Peltandra virginica* (L.) Schott & Endlicher. Upper tidal and freshwater marshes and ponds, swamps; C; S1331, W8502.—C  
*Symplocarpus foetidus* (L.) Nutt. Seeps; R; S1552, W8004, W8409.—C

##### COMMELINACEAE

*Commelina communis* L. [Asia] Ravine bottom, roadside; R; S481c, W8595.—C

*Commelina virginica* L. Marsh and swamp margins; R; S1670, W8923.—C  
*Murdannia keisak* (Hasskarl) Hand.-Mazz. [*Aneilema keisak*; E. Asia] Stream; R; SH1678.  
*Tradescantia virginiana* L. Former homesite; R; SWH1445.\*\*

##### CYPERACEAE

*Bulbostylis capillaris* (L.) Clarke. Waste area; R; S1136.  
*Carex abscondita* Mackenzie. Ravine slopes, swamp; O; W8241, W8351.—C  
*Carex alata* Torrey. Freshwater marsh margins; R; S925, W8230.—C  
*Carex albolutescens* Schweinitz. Beach berm, river bluff face; C; W8334, W8723c.—C  
*Carex amphibola* Steud. Roadside; R; W8136.—C  
*Carex annectens* (Bicknell) Bicknell. Low woods, roadsides; C; S1503, W8137, W8248, W8360.—C  
*Carex atlantica* Bailey. [*C. incomperta*] Swamp; R; S1494.\*  
*Carex blanda* Dewey. Ravine slope; R; S1476, S1478, S1480.\*\*  
*Carex canescens* L. Freshwater marsh; R; W8150.—C  
*Carex caroliniana* Schweinitz. Ericad thicket, swamp margin; R; S505, W8259.—C  
*Carex cephalophora* Willd. Roadsides; U; S1524, W8171, W8247.—C  
*Carex communis* Bailey. Ravine slope, river bluff summit; R; S111, SWH1443, S1473.  
*Carex comosa* Boott. Beach swales, freshwater marsh margin; O; S750, W8688.—C  
*Carex complanata* Torrey & Hooker. Well-drained bottomland; R; W8238.—C  
*Carex crinita* Lam. Beach berms, ravine bottoms, swamps; C; S225, S299, W8187.—C  
*Carex debilis* Michx. Ravine slopes, swamps; U; S253, S1485, W8132.—C  
*Carex digitalis* Willd. Roadside; R; S1471, S1477, W8158.—C  
*Carex festucacea* Willd. Streambanks, ericad thicket, swamp; O; S320, W8126, W8194.—C  
*Carex flaccosperma* Dewey. Swamp; R; W8125, W8353.—C  
*Carex folliculata* L. Swamp; R; S1495.  
*Carex frankii* Kunth. Stream bank, roadside; R; W8307, W8319.—C  
*Carex grayi* Carey. Beach berm; R; W8274.—C  
*Carex intumescens* Rudge. Pond and swamp margins; O; S233, S484, W8197, W8344.—C

- Carex jamesii* Schweinitz. Ravine slopes; R; SWH1439, SWH1459.\*\*
- Carex jorii* Bailey. Ericad thicket; R; S1134.
- Carex laevivaginata* (Kukenthal) Mackenzie. Beach swale, freshwater marsh margin; R; SH1526, W8148.—C
- Carex laxiculmis* Schweinitz. Ravine slopes; R; S183, S1467.\*
- Carex laxiflora* Lam. Ravine slopes; U; W8181.—C
- Carex leavenworthii* Dewey. Waste area; R; SH1510.\*\*
- Carex lupulina* Willd. Swamps; C; S434, S749, W8255, W8363.—C
- Carex lurida* Wahlenberg. Marsh margins, ravine bottoms; C; S309, S483, S583, S649, W8178, W8188, W8365.—C
- Carex muhlenbergii* Willd. Beach margin, roadsides; O; S333, S479, S550, W8246.—C
- Carex pennsylvanica* Lam. Beach berm; R; SWH1442.\*\*
- Carex platyphylla* Carey. Ravine slopes; R; S1474.\*
- Carex rosea* Willd. Marsh margin, ravine slopes, swamp; C; S274, S1465, S1470, W8174.—C
- Carex seorsa* Howe. Marsh margins; R; S1527, W8151.—C
- Carex squarrosa* L. Swamp margin; R; W8258.—C
- Carex stipata* Willd. Marsh margin; R; S214.
- Carex stricta* Lam. Swamp; R; S1493.\*
- Carex swanii* (Fern.) Mackenzie. Embankments, stream banks, ravine slopes and bottoms; O; S492, S1484, W8175.—C
- Carex tribuloides* Wahlenberg. Swamps, pond margin; R; S569, W8254, W8809.—C
- Carex virescens* Willd. Embankment; R; W8186, W8520.—C
- Carex willdenowii* Schkuhr. Embankment; R; W8402.—C
- Cladium mariscoides* (Muhl.) Torrey. Beach swale; R; W8757, W8805.—C
- Cyperus echinatus* (L.) Wood. [*C. ovalaris*] Beach swales; C; SH1686, SH1702, SH1724, SH1743, W8567.—C
- Cyperus erythrorhizos* Muhl. Brackish marsh margin, pond margin; R; SH1742, SH1744, W8722, W8898.—C
- Cyperus esculentus* L. Waste area; R; S1272.
- Cyperus filicinus* Vahl. Beach berm; R; SH1727.
- Cyperus iria* L. [Eurasia] Waste areas; U; S1137.
- Cyperus lancastricensis* Gray. Brackish marsh margin, fields, roadsides; U; S531, W8322, W8856.—C
- Cyperus lupulinus* (Spreng.) Marcks. [*C. filiculmis*] Roadsides, waste areas; R; S543, W8297.—C
- Cyperus ovalaris* (Michx.) Torrey. Beach margins, fields, waste areas; O; S532, S1269, W8544, W8666.—C
- Cyperus pseudovegetus* Steud. Ditches, roadsides; R; S994, W8650.—C
- Cyperus retrorsus* Chapman. Beach; R; W8510.—C
- Cyperus strigosus* L. Marsh margins, swales in fields; O; S963, S1283, S1319, W8578.—C
- Cyperus tenuifolius* (Steud.) Dandy. Lawn margin; R; S1308.
- Dulichium arundinaceum* (L.) Britton. Beach swale, upper tidal marsh; R; S625, W8755.—C
- Eleocharis engelmannii* Steud. Swales in fields; R; S468b, SH1738b.
- Eleocharis erythropoda* Steud. Brackish marsh margins; U; S967, S1487, W8261.—C
- Eleocharis fallax* Weatherby. Brackish marshes; O; W8625, W8732.—C
- Eleocharis obtusa* (Willd.) Schultes. Wet areas; C; S1195, S1208, SH1505, SH1738c.
- Eleocharis parvula* (R. & S.) Link. Brackish marshes; R; SH1746.
- Eleocharis tenuis* (Willd.) Schultes. Ericad thicket, swamp margins, swales in fields; O; S321, SH1500, W8249, W8656, W8806.—C
- Fimbristylis autumnalis* (L.) R. & S. Pond margin; R; SH1739.
- Rhynchospora capitellata* (Michx.) Vahl. Ditches, roadsides; U; S935, W8519, W8651, W8652.—C
- Rhynchospora corniculata* (Lam.) Gray. Intermittent stream; R; S672.
- Rhynchospora gracilentata* Gray. Ericad thicket, waste area; U; S995, S1221, S1286.
- Rhynchospora microcephala* Small. *Strong* 86-021.
- Scirpus atrovirens* Willd. Ditches, pond margin; O; S331, S413, W8359.—C
- Scirpus cyperinus* (L.) Kunth. Beach swales, roadsides, waste areas; O; S662, W8770.—C
- Scirpus polyphyllus* Vahl. Ravine bottoms, roadsides, swamps; U; S751, W8412, W8498, W8515.—C
- Scirpus pungens* Vahl. [*S. americanus*] Beach swales, brackish marshes; O; S533, W8517, W8641.—C
- Scirpus robustus* Pursh. Brackish marshes; U; S604, S1176.
- Scirpus validus* Vahl. Brackish marshes; U; S605, S958, W8535.—C

DIOSCOREACEAE

- Dioscorea batatas* Dcne. [Asia] Roadside; R; W8392.—C  
*Dioscorea villosa* L. Ravine slopes, swamp margin; O; S384, SH1584, W8844.—C

HYDROCHARITACEAE

- Elodea nuttallii* (Planchon) St. John. Brackish marsh, river; C; S1377, SH1749, SWH1760, W8312.—C  
*Limnobium spongia* (Bosc) Steud. Freshwater pond and marsh; R; SH1530, SH1701, W8265.—C  
*Vallisneria americana* Michx. River; O; S1379, W8930.—C

IRIDACEAE

- Iris pseudacorus* L. [Europe] Beach swales, pond margins; O; S205, W8112.—C  
*Iris versicolor* L. Pond margin; R; SH1498, W9051.—C  
*Iris virginica* L. Ditches, pond margin, swamp; O; S410, S440, S1488, SH1499.  
*Sisyrinchium angustifolium* Mill. Clearings, pond margin, roadsides; O; SH1502, W8152.—C  
*Sisyrinchium mucronatum* Michx. Fields; U; S209.

JUNCACEAE

- Juncus acuminatus* Michx. Wet areas; O; S480, S1194, W8366, W8628.—C  
*Juncus canadensis* La Harpe. Beach swales, pond margin; U; SH1733, W8723a, W8756, W8933.—C  
*Juncus coriaceus* Mackenzie. Ericad thicket, pond margin, waste areas; O; S523, S693, W8509.—C  
*Juncus debilis* Gray. Bradley 23994.  
*Juncus dichotomus* Ell. Belden 190.  
*Juncus effusus* L. Wet areas; C; S539, W8308.—C  
*Juncus marginatus* Rostk. [*J. biflorus*] Wet areas in fields; R; S651, W8554.—C  
*Juncus platyphyllus* (Wiegand) Fern. Fields, roadsides, waste area; O; S243, W8277, W8570.—C  
*Juncus roemerianus* Scheele. Beach; R; S537.  
*Juncus scirpoides* Lam. Roadsides, waste areas; O; S679.  
*Juncus secundus* Poiret. Beach, ericad thicket, field, river bluff face; O; S504, SH1597, W8333, W8556, W8569.—C  
*Juncus tenuis* Willd. Fields, roadsides; O; S466, W8281, W8290.—C  
*Luzula bulbosa* (Wood) Rydberg. Ravine slopes, roadside; R; W8097.—C

- Luzula echinata* (Small) Hermann. Ravine slopes, roadsides; U; S34, SWH1452, W8077.—C

LEMNACEAE

- Lemna valdiviana* Philippi. Brackish marsh; R; SH1747.  
*Spirodela punctata* (G. F. W. Meyer) Thompson. [*S. oligorrhiza*; Tropical America] Freshwater marshes and ponds; U; S757, S1393, W8129.—C  
*Spirodela polyrhiza* (L.) Schleiden. Freshwater marshes and ponds; U; S758, S1392, SH1700, W8128.—C  
*Wolffia brasiliensis* Weddell. [*W. papulifera*] Freshwater marshes and ponds; R; S1395, W8127.—C  
*Wolffia columbiana* Karsten. Freshwater pond; R; S759.

LILIACEAE

- Allium vineale* L. [Europe] Fields, former homesites, waste areas; C; S388, S502, W8275.—C  
*Asparagus officinalis* L. [Europe] Beach berms, roadsides, lawn margin; U; S702, S1084, W8224.—C  
*Erythronium americanum* Ker. Ravine slope; R; SWH1418.\*  
*Hemerocallis fulva* L. Beach berm, former homesite, roadside; U; S481g, W8276.—C  
*Hosta* sp. [E. Asia] Former homesite; R; W8836, W8948.—C  
*Hyacinthus orientalis* L. [Eurasia] Former homesite; R; W7994.—C  
*Lilium superbum* L. Swamp; R; S1489.  
*Medeola virginiana* L. Ravine slopes; O; S394, W8352.—C  
*Muscari atlanticum* Boiss. & Reuter [*M. racemosum*; Mediterranean, W. Asia] Former homesite; R; SH1425.  
*Ornithogalum umbellatum* L. [Europe] Former homesites; U; S206, W8091.—C  
*Polygonatum biflorum* (Walt.) Ell. Ravine slopes; O; W8387.—C  
*Scilla non-scripta* (L.) Hoffm. & Link. [Europe] Former homesite; R; SWH1444.  
*Smilacina racemosa* (L.) Desf. Ravine slopes, roadside; U; S286, W8845.—C  
*Smilax glauca* Walt. Ravine slopes, woodland margins; O; S246, S535, S1301, W8678.—C  
*Smilax herbacea* L. var. *pulverulenta* (Michx.) Gray. Ravine slopes; U; SWH1436, SH1585, W8156.—C

*Smilax pseudo-china* L. Swamp margin; R; SH1677.\*  
*Smilax rotundifolia* L. Beach berms, roadsides, woodland margins; C; S164, W8228.—C  
*Uvularia perfoliata* L. Ravine slopes; U; W8070.—C  
*Uvularia sessilifolia* L. Ravine slopes, "White Oak Swamp;" O; W8239.—C  
*Yucca filamentosa* L. Roadside; R; SWH1414.

#### ORCHIDACEAE

*Aplectrum hyemale* (Willd.) Torrey. Ravine slopes; U; SWH1411, W8041.—C  
*Cypripedium acaule* Ait. Mixed woods; U; S282, W8079 [photo].—C  
*Goodyera pubescens* (Willd.) R. Brown. Flat woods, ravine slopes; U; S748, S1753, W8911.—C  
*Habenaria* sp., presumably *H. clavellata* (Michx.) Sprengel. Bank above pond; R; Ware, no voucher.—C  
*Liparis lilifolia* (L.) Lindley. Mixed woods; R; S289.  
*Orchis spectabilis* L. Ravine slopes and bottoms; O; S177, W8071.—C  
*Tipularia discolor* (Pursh) Nutt. Flat woods, ravine slopes; O; S1020, S1754, W8491.—C

#### POACEAE

*Agrostis hyemalis* (Walt.) BSP. River bluff; R; SH1535.  
*Agrostis gigantea* Roth. [*A. stolonifera*; Europe] Fields, ponds, swamps; O; S489, S619, W8296, W8615.—C  
*Agrostis perennans* (Walt.) Tuckerman. Fields, pond margins, roadsides; C; S1197, W8540, W8624, W8807.—C  
*Aira caryophyllea* L. [Europe] Roadsides, waste areas; U; S244, W8202.—C  
*Aira praecox* L. [Europe] Waste area; R; W8201.—C  
*Ammophila breviligulata* Fern. Beaches; O; S1092, W8601.—C  
*Andropogon glomeratus* (Walt.) BSP. Roadside; R; S1345.  
*Andropogon scoparius* Michx. Roadside; R; SH1729.  
*Andropogon ternarius* Michx. Roadside; R; W8896.—C  
*Andropogon virginicus* L. Fields, clearings, roadsides; C; SWH1401, SH1707, W8937.—C  
*Anthoxanthum odoratum* L. [Europe] Clearings, roadsides; C; S172, S182, W8096.—C

*Aristida curtisii* (Gray) Nash. Bradley 15053, 16255.  
*Aristida dichotoma* Michx. Woodland path; R; SH1706.  
*Aristida oligantha* Michx. Beach margin, roadside; R; SH1736, W8857.—C  
*Arthraxon hispidus* (Thunb.) Makino. [Japan] Lawn margin, roadsides; U; S1296, SH1721, W8776.—C  
*Brachyelytrum erectum* (Roth) Beauvois. Ravine slopes; U; W8390.—C  
*Bromus japonicus* Thunb. [Old World] Clearing, marsh thicket; R; S515, SH1606.  
*Bromus racemosus* L. [Europe] Clearings, roadsides; O; S359, S460, W8207.—C  
*Bromus tectorum* L. [S. Europe] Field; R; S389.  
*Cenchrus tribuloides* L. Beaches; O; S1089, W8571.—C  
*Chasmanthium laxum* (L.) Yates. [*Uniola laxa*] Escarpment slopes, river flats; O; S992, S1133, S1343, W8526.—C  
*Cinna arundinacea* L. Marshes, ravine bottoms, swamps; C; S1179, W8632, W8734, W8781.—C  
*Cynodon dactylon* (L.) Pers. [Europe] Beach margins, fields, lawn margin; C; S1375, SH1592, S1657, W8543.—C  
*Dactylis glomerata* L. [Europe] Fields, lawn margins; O; S143, W8646.—C  
*Danthonia spicata* (L.) R. & S. Field, river bluffs; C; S433, SH1531, W8195.—C  
*Deschampsia flexuosa* (L.) Trinius. Clearing, river bluffs; O; S188, SWH1441, W8084, W8213, W8929.—C  
*Dichanthelium aciculare* (Poiret) G. & C. Dry ridges; O; W8530.—C  
*Dichanthelium boscii* (Poiret) G. & C. Lawn margins, ravine slope; O; S263, S1069, SWH1768, W8185, W8388.—C  
*Dichanthelium clandestinum* (L.) Gould. Roadsides, swamp margins; C; W8190, W8286.—C  
*Dichanthelium commutatum* (Schultes) Gould. Marsh berm; R; S279.  
*Dichanthelium depauperatum* (Muhl.) Gould. Roadside; R; SW1557.\*  
*Dichanthelium dichotomum* (L.) Gould. [*D. tenue*] Fields, stream banks, waste areas; C; S419a, S1553, W8368, W8531, W8619.—C  
*Dichanthelium lanuginosum* (Ell.) Gould var. *lanuginosum*. Pond margins, river bluffs, roadside; O; W8298, W8614, W8623.—C  
*Dichanthelium lanuginosum* (Ell.) Gould var. *lindheimeri* (Nash) Harvill. Beach berm; R; W8623, W8723d.—C

- Dichanthelium laxiflorum* (Lam.) Gould. Waste area; R; S247.\*\*
- Dichanthelium scoparium* (Lam.) Gould. [*D. scabriusculum*] Roadside, waste areas; R; S623, W8555.—C
- Dichanthelium sphaerocarpon* (Ell.) Gould. [*D. polyanthes*] Ericad thicket, waste areas; U; S481, S520, S582, W8354, W8599, W8912.—C
- Digitaria ischaemum* (Schreber) Muhl. [Europe] Waste area; R; S1351.
- Digitaria sanguinalis* (L.) Scopoli. [Europe] Beach margins, roadsides; U; S658, W8572.—C
- Distichlis spicata* (L.) Greene. Brackish marshes; R; S1358.
- Echinochloa crusgalli* (L.) Beauvois. [Europe] Beach margins, roadside; O; S1056, W8568.—C
- Echinochloa walteri* (Pursh) Heller. Beach swales, brackish marshes; C; S1173, W8629.—C
- Eleusine indica* (L.) Gaertner. [Old World] Roadside; R; W8594.—C
- Elymus villosus* Willd. Lawn margin, roadside; O; S481i, W8285.—C
- Elymus virginicus* L. Beach berms, field; R; S607, W8306.—C
- Eragrostis capillaris* (L.) Nees. Lawn margin, roadside; U; S1055, S1246.
- Eragrostis cilianensis* (All.) Mosher. [Europe] Lawn margin; R; SH1687.\*
- Eragrostis hirsuta* (Michx.) Nees. Waste area; R; W8563.—C
- Eragrostis pilosa* (L.) Beauvois. [Europe] Roadsides; U; S1063, W8593.—C
- Eragrostis spectabilis* (Pursh) Steud. Beach margins, fields; U; W8545, W8561.—C
- Erianthus alopecuroides* (L.) Ell. Ericad thicket; R; S1291.
- Erianthus contortus* Ell. Ditches; O; S1344.
- Festuca elatior* L. [*F. arundinacea*; Europe] Clearings, fields; O; S144, W8311.—C
- Festuca myuros* L. [Europe] Roadsides; U; SH1501, SH1533, W8206.—C
- Festuca obtusa* Biehler. Ericad thicket, ravine bottoms; U; S557, W8173, W8389.—C
- Festuca octoflora* Walt. Roadsides; R; W8282.—C
- Glyceria obtusa* (Muhl.) Trinius. Swamp; R; SH1676.\*
- Glyceria pallida* (Torrey) Trinius. Chotank Swamp floodplain; R; W8362.—C
- Glyceria septentrionalis* Hitchcock. Freshwater pond margins; R; W8340.—C
- Glyceria striata* (Lam.) Hitchcock. Freshwater marshes, roadsides, swamps; C; S348, S353, W8189.—C
- Holcus lanatus* L. [Europe] Roadsides; U; S343, S411, S414.
- Hordeum pusillum* Nutt. Ericad thicket, lawn; R; S316, SH1517.
- Hystrix patula* Moench. Roadside; R; S481e.
- Leersia oryzoides* (L.) Swartz. Freshwater ponds and marshes; C; S1349, W8922.—C
- Leersia virginica* Willd. Ravine bottoms, swamps; C; W8493.—C
- Leptochloa fascicularis* (Lam.) Gray. Waste area; R; SH1728.
- Lolium perenne* L. [*L. multiflorum*; Europe] Field; R; S390.
- Miscanthus sinensis* Andersson. [China] *Bradley* 15040, 15050.
- Muhlenbergia schreberi* J. F. Gmelin. Clearing, roadside; R; SWH1758, W8821.—C
- Muhlenbergia sobolifera* (Willd.) Trinius. Freshwater marsh margin; R; W8789.—C
- Panicum amarum* Ell. Beach; O; W8604.—C
- Panicum anceps* Michx. Beach margins, clearings, roadsides; O; S936, W8518.—C
- Panicum dichotomiflorum* Michx. Brackish pond margin, waste areas; U; S1352, W8720.—C
- Panicum rigidulum* Nees. Brackish marsh berms, pond margin; R; W8721.—C
- Panicum verrucosum* Muhl. Ericad thicket, pond and swamp margins; C; S1130, SH1703, SH1704, W8582, W8634.—C
- Panicum virgatum* L. Beach swales, brackish marsh margins; O; S1009, S1010, S1364, SH1697, W8512.—C
- Paspalum dilatatum* Poir. [S. America] Roadside; R; SH1712.
- Paspalum floridanum* Michx. Clearing; R; W8854.—C
- Paspalum laeve* Michx. Clearings, roadsides; U; S660, W8855.—C
- Paspalum setaceum* Michx. *Bradley* 21159.
- Phleum pratense* L. [Europe] Field, roadside; R; S737, W8380.—C
- Phragmites australis* (Cav.) Steud. Beach margins, wet areas; O; S1099, S1120, S1374, W8899.—C
- Phyllostachys aurea* Riv. [China, Japan] Lawn margin, roadside; R; SW1561, S1671.
- Poa annua* L. [Europe] Lawn margins, roadsides; U; S125, S145, W8086.—C
- Poa autumnalis* Ell. Roadsides, stream banks; U; W8106, W8198.—C
- Poa bulbosa* L. [Europe] Lawn; R; SWH1405.\*\*

*Poa compressa* L. [Europe] Clearing, roadsides; O; W8191.—C  
*Poa cuspidata* Nutt. Beach berm, field; R; S50, S62, SWH1423.  
*Poa pratensis* L. Beach margin, clearing, ravine slopes; U; S180, S190, S273, W8204.—C  
*Poa sylvestris* Gray. Ravine slopes; U; S186, S369, W8145, W8176.—C  
*Setaria faberi* W. Herrmann. [E. Asia] Beach slough, field; R; W8566.—C  
*Setaria geniculata* (Lam.) Beauvois. Roadsides; U; W8377.—C  
*Setaria glauca* (L.) Beauvois. [Europe] Roadside; R; S1067.  
*Setaria magna* Grisebach. Beach berms; R; W8713.—C  
*Setaria viridis* (L.) Beauvois. [Eurasia] Beach berm, former homesite; R; S665, W8723b2.—C  
*Sorghastrum nutans* (L.) Nash. Ditch; R; S1185, S1186.\*\*  
*Sorgum halepense* (L.) Pers. [Mediterranean] Beach, field, roadside; U; S530, SH1714, W8744.—C  
*Spartina alterniflora* Loisel. Brackish marshes; O; S1360, S1369, W8735.—C  
*Spartina cynosuroides* (L.) Roth. Beach swales, brackish marshes; O; S1181, W8516.—C  
*Spartina patens* (Ait.) Muhl. Beach margins, brackish marshes; C; S1091, S1096, S1297, W8603.—C  
*Sphenopholis nitida* (Biehler) Scribner. Embankment face; R; W8149.—C  
*Sphenopholis obtusata* (Michx.) Scribner. Roadside; R; W8200.—C  
*Sporobolus vaginiflorus* (Torrey) Wood. Bradley 15111.  
*Tridens flavus* (L.) Hitchcock. Beach margins, fields, roadsides; O; S735, W8562.—C  
*Triplasis purpurea* (Walt.) Chapman. Beaches; O; SH1685, SH1716.  
*Tripsacum dactyloides* L. Beach margins; O; S611, W8303.—C

*Zizania aquatica* L. Upper tidal marshes; O; S1151, W8506.—C

#### PONTEDERIACEAE

*Heteranthera reniformis* R. & P. Margins of freshwater ponds and marshes; R; S1253, W8343.—C  
*Pontederia cordata* L. Freshwater ponds and marshes; O; S1167, W8627b.—C

#### POTAMOGETONACEAE

*Potamogeton crispus* L. [Europe] Channels and flooded basin of slightly brackish marsh; C; W8374.—C  
*Potamogeton epihydrus* Raf. Stream; R; S1555.\*  
*Potamogeton foliosus* Raf. Freshwater marsh channel; R; W8575.—C  
*Potamogeton pectinatus* L. Brackish marsh basin; C; W8733.—C  
*Potamogeton perfoliatus* L. var. *bupleuroides* (Fern.) Farwell. River; R; SH1748.

#### RUPPIACEAE

*Ruppia maritima* L. Brackish marsh; R; SH1745.

#### SPARGANIACEAE

*Sparganium americanum* Nutt. Upper tidal marshes, stream; R; S626, W8584.—C

#### TYPHACEAE

*Typha angustifolia* L. Brackish marshes; C; W8263.—C  
*Typha* ×*glauca* Godron; Brackish marsh margin; R; W8376.—C  
*Typha latifolia* L. Beach swales, freshwater marsh and pond margins; O; S471, S962, S1396, W8899b.—C

#### XYRIDACEAE

*Xyris torta* Smith. Moist clearing; R; S680.

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## Book Review

Katz, Cathie. 1995. The Nature of Florida's Beaches from Melbourne Beach to Canaveral National Seashore. Cathie Katz, PO Box 510366, Melbourne Beach, FL 32951. 56 p. Fully illustrated. \$7.00 soft cover includes domestic handling and mailing charges. No ISBN number at this time.

Cathie's motto is "The more you look, the more you see." Her scientifically-accurate drawings and her crisp text reflect that she really sees and records very clearly the beach biota. Her book is divided into four parts: Sea Wrack, Beach, Shore, and Dunes. Each part is introduced by a pictorial overview, and on the ensuing pages, the individual animals, plants, or parts thereof are illustrated and discussed. The beach wrack part contains *Sargassum* along with the skeletons and egg cases of marine life, pumice, and tropical drift seeds and fruits. There is even a page devoted to sea-bean polishing. The beach part covers shells, birds, and turtles, and the shore part is devoted mainly to birds and fish. The dunes part covers the dunes flora. Most plates contain an active stick figure, who "is Little Larry and she's a creative spirit just like her namesake Larry McGrath . . ." This is the first of four volumes.—CHARLES R. GUNN, 120 WHITE SQUIRREL LANE, BREVARD, NORTH CAROLINA 28712.